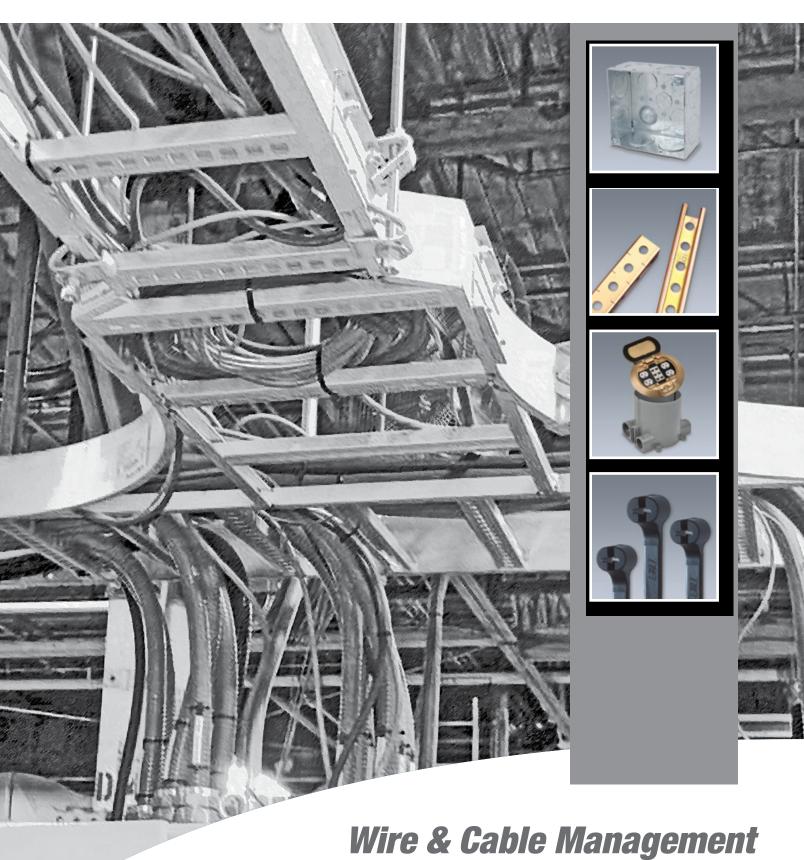
A Global Leader in Innovative...

Wire & Cable Management • Cable Protection Systems Power Connection & Control • Safety Technology











Wire & Cable Management

Access the Full Range of Thomas & Betts Electrical Solutions.

Other Thomas & Betts Catalogs...



Cable Protection Systems — CAT2

- Industrial Conduit & Fittings
- Flexible Conduit & Fittings
- PVC-Coated Conduit & Fittings
- · Commercial Conduit & Fittings



Power Connection & Control — CAT3

- · Connectors & Grounding
- Wire Termination
- Power & High Voltage
- Power Quality



Safety Technology — CAT4

- Hazardous Location Lighting
- Emergency Lighting
- Surge Protection

Contents

Vertical Market Solutions	ii–vi
T&B Services, Online Support & Online Tools	
New Products	
Boxes & Covers	
Steel City® Metallic Boxes & Covers	A-1–A-66
Carlon® Non-Metallic Boxes	A-67–A-120
Steel City® Floor Boxes	A-121–A-196
Carlon® Floor Boxes	
Red • Dot® Weatherproof Boxes & Covers	A-211–A-264
Carlon® Enclosures & Junction Boxes	A-265–A-326
Carlon® Electrical Non-Metallic	
Tubing (ENT) System	A-327–A-354
Metal Framing & Cable Tray	
Kindorf® Modular Metal Framing System	B-1-B-104
Superstrut® Metal Framing System	
Steel City® Hangers, Clamps & Fasteners	
T&B® Cable Tray	
Fastening Systems	
Ty-Rap® High-Performance Cable Ties,	
Tools & Accessories	C-1–C-60
Catamount® General-Purpose	
Ties & Accessories	C-61–C-66
Wiring Duct & Wiring Trough	C-67–C-92
Identification & Supplies	
EZCODE® Identification Products	D-1-D-40
Catamount® Electrician's Supplies	
Index	IDX-1-IDX-92











Thomas & Betts

T&B Services

Customer Service

1-800-816-7809

Immediate, Knowledgeable Assistance

Every Thomas & Betts Customer Service Representative is right where the action is — surrounded by all the support and information they need to answer your questions and fill your orders faster than ever. Your calls and faxes are automatically routed to Customer Service Specialists who personally serve your account and can answer questions about products, order status, price and availability, and other service-related inquiries.

Phone: 1-800-816-7809 **Fax:** 1-800-816-7810

Email: generalcustomerserviceteam@tnb.com



Technical Services

1-888-862-3289

Over 170 Years of Industry Experience

Meeting and exceeding our customers' expectations is a fundamental goal of Thomas & Betts. Call our Technical Services Department and talk LIVE to an expert who'll answer questions and concerns regarding all aspects of our products and services. Our experienced and knowledgeable staff is second to none in the industry!



Tool Services

1-800-284-T00L

Quality You Can Trust

Trust T&B's dedicated Tool Services Department to answer all questions regarding tool applications, repair, warranties, sales/lease/rental and technical information. Ask about our specialized services, including customer/sales training, demos and calibration/certification of tools.







Technical Services Tel: 888.862.3289







T&B Online Support

T&B Access®

www.tnb.com

T&B Access® is a global sales tool for our distributor partners, offering:

- Quote Requests
- Stock Checks
- Pricing Inquiries
- Cross Reference
- Order Entry
- Order Resolution
- Shipping Status
- Document Look-Up
- Automatic Order Receiving
- · Item History Search

- Multiple-Location User Search
- Context-Sensitive Help
- Shipping Confirmations
- Tracking Data
- Expediting
- Returns Processing
- Quality Issues
- Customer Report Cards
- Web Catalog Look-Up



All of these tools and more are available online 24 hours a day -7 days a week, without having to make a single phone call. Multi-lingual options are available in English, French and Spanish. T&B Access® now serves over 10,000 satisfied customer users at over 3,500 locations every month.

Web Catalog

www.tnb.com/webcatalog

Thousands of Products at Your Fingertips

U.S. contractors and specifiers have made our web catalog their number one stop. Users can search for technical information by catalog number, UPC code, competitor number, keyword search, product category and/or brand. Having found the item(s) they are searching for, they can then use our *Where To Buy* function to locate a T&B local distributor and/or other support services.





Thomas@Betts

T&B Online Tools

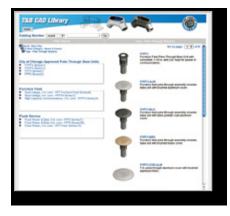
Web CAD Library

www.tnb.com/CADLibrary

Over 4,000 2D and 3D CAD Models Available FREE!

The T&B CAD Library is an on-line source of 2D and 3D CAD models, available FREE to customers who register. Users can download these files to their desktops for import into their working drawings. Drawings are offered in 90 of the most popular native file formats. This is a valuable tool for CAD designers, OEMs and engineering firms, as it will allow them to quickly locate and download T&B drawings into their projects. Over 4,000 drawings of T&B® Fittings, PMA® Cable Protection, Kindorf®, Red•Dot® and Superstrut® products and Steel City® and Carlon® Floor Boxes are currently available.









Fax: 901.252.1354

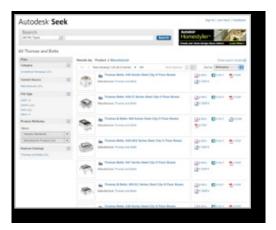


T&B Online Tools

BIM Library

Now available to you through Autodesk® Seek (**seek.autodesk.com**), our BIM (Building Information Modeling) objects can easily be imported to your Revit® models. These BIM objects are fully standards compliant, Revit® Certified and completely configurable.

Autodesk and Revit are registered trademarks of Autodesk, Inc.



Floor Box Selector Guide

www.tnb.com/floorboxselect

In-Floor Solutions at Your Fingertips

The Floor Box Selector makes it easy to identify the appropriate in-floor solution for power and communications services in any floor application. To begin the selection process, the user selects the basic floor type from four options. Then, with just a few clicks to identify the preferred configuration, the Selector will provide a complete bill of materials that includes all the necessary components for the installation. From the bill of materials, links are available to the T&B Web Catalog to download detailed product information such as cut sheets, product brochures, sales drawings, CAD files and product specifications.



United States

Tel: 901.252.8000

Fax: 901.252.1354

800.816.7809

Thomas & Betts

T&B Online Tools

PreFabricator

http://productconfigurator.tnb.com

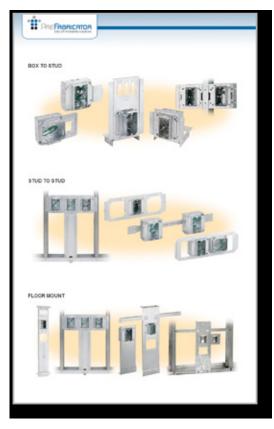
Build Your Own Pre-Fab Products

The Steel City® Prefabricator provides an electrical contractor an easy, intuitive and fast way to create made-to-order electrical rough-in assemblies. Several distinct advantages help assure a construction job will be completed accurately, on-time, within your budgeted cost with a minimum effort.

- Our design module allows the user to fully configure a pre-fab assembly using genuine Steel City® components complete with Bill of Materials, Customer Drawings, 3D Viewer/Images and AutoCAD® DXF file
- Our Shopping Cart allows you to select a distributor partner and obtain a quotation for your job electronically without having to make any phone calls
- Our Collaboration Module allows you to share your configuration with others for feedback, for quotation purposes, etc.
- The ORDER button creates the final T&B catalog number, the Bill of Materials, the drawings and the quotation from the distributor partner you selected and T&B

AutoCAD is a registered trademark of Autodesk, Inc.









Fax: 901.252.1354

Technical Services
Tel: 888.862.3289



New Products Spotlight

Our New Products Save You Time and Money!

Thomas & Betts has been on the leading edge of engineering and design for more than a century, and new product development continues to keep us at the forefront of the electrical industry today.

T&B engineers and product managers continually study the latest code and technology changes and talk to customers to identify specific needs and opportunities for new product ideas.

But simply being new isn't enough to qualify for development under one of the high-quality Thomas & Betts family of brand names.

A T&B new product must achieve one or more of the following benefits for our customers:

- Lower installed costs
- Improved labor efficiencies
- · Compliance with code requirements
- Solves specific application challenges

The following pages highlight new products that meet these criteria within our Wire & Cable Management products.







Contents

Steel City® Pre-Fab Assemblies and Boxes	
Pre-Fab Adjustable Floor Bracket	NP-2
Pre-Fab Dual Box-Mounting Bracket	NP-2
Pre-Fab T Bracket	NP-2
Cable Support Bracket	NP-3
Adjustable Mud Rings	NP-3
Adjust-A-Box®	NP-3
Red•Dot® Weatherproof Boxes and Covers	
Code Keeper® Universal While-In-Use Covers	NP-4
Universal Flip-Lid Weatherproof Covers	NP-4
Code Keeper® Universal Recessed Box and Cover	NP-4
Steel City® Floor Boxes	
Metallic Floor Box Covers	NP-5
665-AV2 Floor Box	NP-5
68-HP Floor Box	NP-5
FPT4 Series Poke Through System	NP-6
Carlon® Floor Boxes	
Retractable Work Surface Receptacle	NP-6
Recessed Pop-Up Receptacle	NP-6
Kindorf® Modular Metal Framing System	
Trap-Eze™ Connector	NP-7
Trapnut® Strut Fastener	NP-7
Fast Set Beam Clamp	NP-7
Loc-King [™] Cobra [®] Cable and Pipe Clamp	NP-8
Solar-Panel Hold-Down Clamps and Washer	
T&B® Cable Tray	
Cable Tray Closure End Plate	NP-8





NEW Products

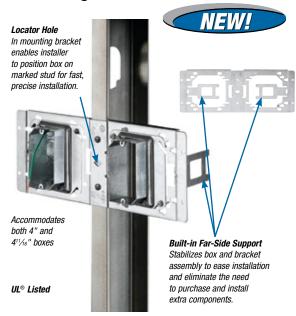
Steel City® Pre-Fab

Steel City® Pre-Fab Adjustable Floor Bracket

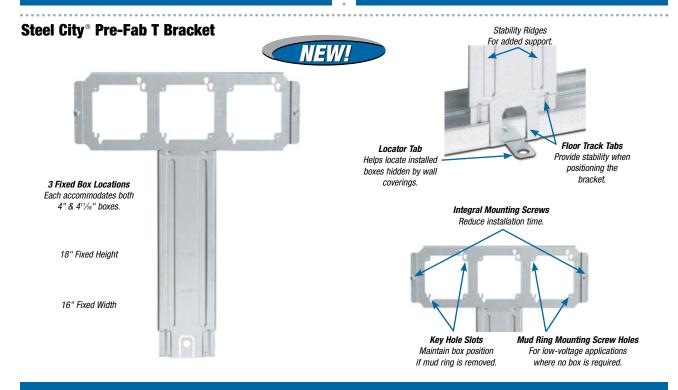


For more information, see page A-15.

Steel City® Pre-Fab Dual Box-Mounting Bracket



For more information, see page A-15.



For more information, see page A-13.



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 Technical Services
Tel: 888.862.3289



Steel City® Metallic Boxes and Covers

Steel City® Cable Support Bracket

- Provides a simple means of complying with NEC® 330.30 requirements for securing and supporting MC cable
- · Quick and easy locking tab snaps through slot to secure cable
- Ribs maintain separation of cables
- Durable steel construction retains integrity
- Versatile design use with Romex or MC cable
- UL® Listed

NEC and National Electrical Code are registered trademarks of the National Fire Protection Association, Inc.





For more information, see page A-16.

Steel City® Adjustable Mud Rings

- Inner ring adjusts from 1/2" to 11/2" depth
- Marked with a measured rule and equipped with two adjustment screws
- Inner ring can be easily adjusted after drywall installation



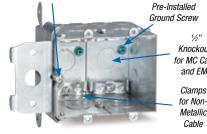


For more information, see page A-45.

Steel City® Adjust-A-Box®

- Unique design allows for adjustment of depth after the wall covering has been installed
- Mounts square and secure every time
- Removes easily to enable inner-wall access
- · Accommodates high- and low-voltage applications
- Pre-installed ground screw

Adjustable Screw Allows adjustment to any wall-covering thickness.





Cable

Adjust box in or out to any wall thickness

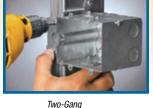


Installation:

Screw bracket to stud



Single-Gang





Single-Gang

Two-Gang

For more information, see page A-18.



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354

Technical Services Tel: 888.862.3289



Red • Dot * Weatherproof Boxes and Covers

Red • Dot ® Code Keeper® Non-Metallic **Universal While-In-Use Covers**



- Robust new hinge provides a sturdy cover attachment that is great for high-traffic areas
- Available in single- or two-gang configurations and standard or deep styles
- Keyhole mounts make it fast and easy to install just loosen the existing device screws and slide the cover over

For more information, see page A-227.

Red • Dot ® Universal Flip-Lid **Weatherproof Covers**



- enable easy installation on an existing outlet
- Durable, die-cast zinc-alloy construction
- Suitable for use in wet locations with cover closed

For more information, see page A-217.

Red • Dot

Code Keeper **Metallic Universal** While-In-Use Covers



- Complies with NEC® Section 406.9(B)(1) and 590.4(D)(4) for "Extra-Duty" outlet box hoods - now required for any installation other than one- or two-family dwellings
- Wide range of cover depths and receptacle configurations accommodates almost every common plug and cord size
- Key-hole mounts on back make installation fast and efficient
- Durable latching covers prevent accidental equipment disconnects, reduce tampering and deter theft

NEC and National Electrical Code are registered trademarks of the National Fire Protection Association, Inc.

For more information, see pages A-213-A-216.

Red • Dot ® Code Keeper® Non-Metallic **Universal Recessed Box and Cover**





"Extra-Duty"

er NEC® Section

406.9(B)(1

- Universal design mounts either horizontally or vertically
- Included adapter plates allow one box and cover to fit 12 different installation configurations
- Installs on virtually any exterior surface in both new and old work applications including siding, brick or stucco

For more information, see page A-221.



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354

Technical Services

Tel: 888.862.3289



Steel City® Floor Boxes



- Solid brass and aluminum covers with a brushed finish no plating or paint that can easily be scratched or chipped away by normal floor traffic and cleaning
- Hingeless cover design with no flip-up lids nothing sticks up above floor level while in use
- Simple slide latch provides tool-less access to power and communications outlets

Steel City® 665-AV2 Floor Box



- 2" KOs allow pre-terminated AV cables and connectors to be pulled directly through the conduit
- Accepts standard 665 Series covers and device plates for power, voice, data and audio-visual connections
- Rectangular adapters allow voice, data and AV connectors to be mounted in a standard GFCI device plate

For more information, see pages A-131.

For more information, see page A-134.

Steel City® 68-HP Floor Box

- 6" diameter round non-metallic floor box — the largest in the industry
- · Large inline hubs for power and data wiring: 1" for power, 11/2" for data
- Accepts standard devices from any manufacturer, including duplex, GFCI, locking, hospital-grade or isolated ground receptacles
- Accommodates a wide variety of multimedia devices through the use of rectangular adapters





For more information, see pages A-143-A-146.

www.tnb.com

United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354

Technical Services Tel: 888.862.3289

Thomas@Betts

Steel City® and Carlon® Floor Boxes

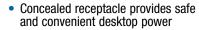
Steel City® FPT4 Series Poke Through System



- Convenient slide latch provides tool-less access to devices
- New hinge design allows lid to lie flat while in use to minimize obstructions above floor level
- Solid brass and aluminum for superior durability



Carlon® Retractable Work **Surface Receptacle**



- · Provides easy access to a power outlet - simply pull up the receptacle to plug in a device
- . 6-ft. cord plugs into an existing floor or wall outlet
- Receptacle remains hidden below work surface when not in use
- Hole saw included for fast, easy installation in most surfaces
- Compact design occupies minimal space both when recessed and while in use
- Rotated receptacle orientation accommodates oversized power adapters



For more information, see page A-210.

For more information, see pages A-174-A-177.

Carlon® Recessed Pop-Up Receptacle

- Provides a duplex GFCI outlet in a kitchen island or peninsula counter for easy access to power for small appliances
- Eliminates the potential safety hazard of power cords hanging over the edge of counters to reach side-mounted outlets
- Meets new UL® and NEC® requirements for receptacles mounted in kitchen counters

NEC and National Electrical Code are registered trademarks of the National Fire Protection Association, Inc.





For more information, see page A-209.





Kindorf[®] Modular Framing System

Kindorf® Trap-Eze™ Connector



- Connectors can be reused upon disassembly of a trapeze
- Designed for use with the innovative Trapnut[®] Strut Fastener, which can take up to 43% less time than standard nuts and washers on retro-fit trapeze applications

Kindorf® Trapnut® Strut Fastener



- No need to thread Trapnut® fastener from either end of the rod — saving valuable time
- Perfect for retrofit applications where the rod ends are not accessible
- Precision threads trap the threaded rod for a sturdy hold that can be adjusted up or down for fine-tune positioning
- Functions as a hex nut, square washer and flat washer combined

For more information, see page B-75.

For more information, see page B-75.

Kindorf® Fast Set Beam Clamp

- Toolless attachment to the I-beam
- · Eliminates the need to tighten a set screw while holding a traditional beam clamp in place
- Threaded rod secures the clamp, eliminating an entire step in the process





Standard Beam Clamp

- The clamp must be held in place while tightening the set screw
- The set screw is difficult to access within the I-beam web

For more information, see page B-44.

www.tnb.com

United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354

Technical Services Tel: 888.862.3289

Thomas & Betts

Kindorf[®] Modular Framing System and T&B[®] Cable Tray

Kindorf® LOC-KING™ Cobra® One-Piece Cable and Pipe Clamp

- Power-tool compatible for fast and efficient installation
- Pre-set torque mechanism takes the guesswork out of installation, delivering optimum torque even when using power tools, and prevents over-tightening and excess pressure on delicate cables
- Anti-vibration nut ensures permanent installation, even in high-vibration environments
- Superior design load capabilities for heavy-duty applications: 350 lbs. for ½"-2½" trade sizes; 450 lbs. for 3"-4" trade sizes





For more information, see page B-32.

Kindorf® Solar Panel Washer



- Slotted for quicker installation — no need to disassemble clamp assembly
- Bent tab ensures washer stays in place during installation
- Can be used with both 1½" Kindorf® channel and 1½" strut systems
- Made from tin-plated, case-hardened steel
- Can be used on carbon steel or aluminum strut channel
- Complies with UL® 467
- Designed for use with ¼" bolt installed with minimum torque value of 100 lbs.-in.

For more information, see page B-24.

Kindorf® Solar Panel Hold-Down Clamps

Rugged, Corrosion-Resistant Materials

- Body and channel nut made from high-strength extruded aluminum alloy 6061-T6 with clear anodized finish
- ¼-20 x 3" bolt, lock washer and flat washer made from Type 304 stainless steel



Labor-Saving Features

- Hardware is pre-assembled to clamp to save time and labor for the installer
- Self-oriented channel nut is staked to bolt to ensure fast, easy installation

Versatile Design

 Can be used with both 1½" Kindorf® channel and 1½" strut systems

For more information, see page B-24.

T&B[®] Cable Tray Closure End Plate

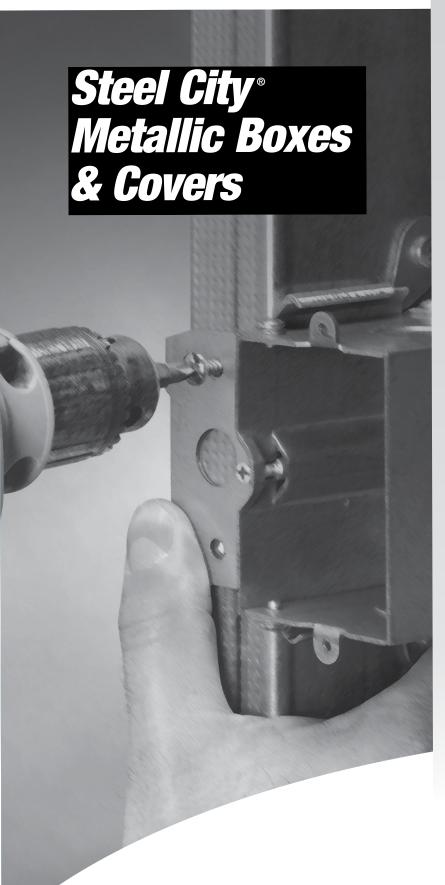


- · Provides closure for any tray end
- Hardware included
- Available in aluminum, hot-dip galvanized, pre-galvanized and 316 stainless steel

For more information, see pages B-305, B-330 and B-354,







In this section...



Steel City® Metallic Boxes & Covers

Overview	A-2–A-5
Pre-Fab Components and Assemblies	A-6–A-16
Switch Boxes and Accessories	A-17–A-28
Round/Octagon Boxes and Accessories	A-29–A-33
Ceiling Fan Boxes and Accessories	A-34–A-35
Square Boxes and Accessories	A-36–A-49
Utility Boxes and Accessories	A-50–A-51
Handy Boxes and Accessories	A-51–A-52
Gang Boxes and Accessories	A-52–A-55
Concrete/Masonry Boxes and Accessories	A-56–A-58
Box Hangers and Supports	A-59–A-61
Stud Wall and Drywall Accessories	A-62–A-66





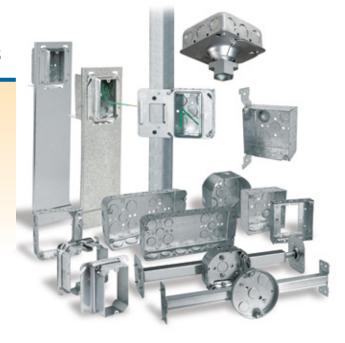
Overview

Steel City® Metallic Boxes and Covers

Steel City® is the industry-leading product line of metallic switch and outlet boxes used in electrical construction. Since 1904, Steel City® products have symbolized the highest quality standards in manufacturing and innovative design, with one of the most complete offerings available.

Steel City® products are known for their simple improvements, such as being the first box offering to standardize combination slotted/phillips screws on all boxes. Thomas & Betts is also recognized as a leader in design innovation, as in our new metal stud bracket.

Thomas & Betts continues to listen to contractors and responds to their ever-changing needs. Contact a T&B distributor nearest you to select the right Steel City® product for your requirements.



Advantages of Steel City® Boxes and Covers

Notched Ears on Switch Boxes

 Steel City® Switch Boxes feature a longer ear and a special notch. This provides clearance for the screws that are used to attach wall plates to GFCI or rocker-type light switches



MS Bracket Boxes

- · Mounts without the use of screws
- Mounts to the open or closed side of the stud
- Works on stud depths up to 4"

Eccentric Knockouts on Square Boxes

- Provide better contact with conduit fitting and locknut to the box, improve grounding path, stronger than 3/4" knockout
- Available in all four standard-size square boxes
- Improved ¾" knockout position on square boxes
- Less labor required to install ¾" conduit to box

Raised Ground Screw Bump in 4" Square, 411/16" and Utility Boxes

- Quicker surface mounting by eliminating the need to remove the portion of the screw that threads through the back of the box
- Allows for improved repositioning of grounding conductor
- Ground bump standard in 2½" boxes
- Ground bump optional in 1½" boxes



Pre-Installed Screws are Packaged in Raised Position

 Eliminates extra step of having to back out the screw during cover installation

Steel City® switch and outlet boxes are protected from rust and corrosion by zinc-galvanizing. All clamps and other component parts are electrogalvanized separately, before assembly in the box, to ensure corrosion protection of every surface. Steel City® galvanized finish meets the requirements of Underwriters Laboratories, Inc. and Federal Specifications.



United States
Tel: 901.252.8000

800.816.7809 Fax: 901.252.1354



Tel: 888.862.3289







Overview

Guide to Steel City® Knockouts, Pryouts, Ears, Brackets and Clamps

Knockouts and Pryouts

Steel City® conduit KOs have standard trade size dimensions. KOs are uniform and true for attachment of cable or conduit connectors. Pryouts for cable entrance are slotted — a twist with a screwdriver removes them. KOs and Pryouts are precision stamped to permit easy removal, but remain sufficiently strong and sturdy when not removed.

Outlet Box Ears

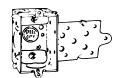
Mounting ears support the box independent of the electrical system attachments. Switch boxes have a fixed ear for old work installations.

Ears for plaster are set 1/16" forward of the box face in position for old work (modernization), except where specifically noted.

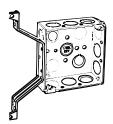
Tapped Holes for Grounding

All Steel City® boxes have a 10-32 tapped hole in the bottom of the box for attaching separate ground wire.

Brackets



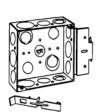
S or B Type Mounts to face of stud. Used on switch, handy or square boxes, 2' long x 21/8" wide



DV Type Mounts box offset from stud 11/2". 613/16" long x 1" wide x 11/2" offset



T Type Positions handy box against the face and side of stud. 51/2" long x 7/8" wide



MS Type (For Metal Studs) Mounts to any depth of metal stud, open or closed side. 21/2" long x 111/16" wide x 3/8" offset; Far side support to 4" only



SV Type Mounts box to side of stud with positioning spikes. 7%" long x 1" wide x %" offset



Knockouts

3/4" Conduit KO

½" Conduit KO

Eccentric Knockouts

Combination 1/2"

& ¾" Knockout

CV Type (Outlet Boxes) Mounts to flat side of metal studs or wood studs. 7%" long x 1" wide x 3/8" offset

1" Conduit KO

Prvouts

Cable Pryouts Always in Pairs



L Type Used to mount octagon boxes. 25/8" long x 35/8" wide x 1/4" offset

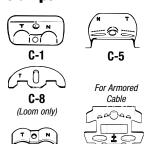


Mounts to flat side of stud. 7%" long x 1" wide x %" offset

.370-.580

Clamps

C-10



For Non-Metallic Sheathed Cable and Non-Metallic Tubing (Loom)

UNDERWRITERS LABORATORIES INC. and CANADIAN STANDARDS ASSOCIATION file numbers for individual items available upon request.

Listing Information for Armored Cable Clamp — Type C-3

Armored Cable (BX) — Steel	Sizes 14-2 through 10-3
Armored Cable (BX) — Aluminum	Sizes 14-2 through 10-3
MC Interlocked (MCI) — Steel	.449570 Diameter
MC Interlocked (MCI) — Aluminum	.476606 Diameter
MC Corrugated (MCC) — Aluminum	.375515 Diameter

Flex Metal Conduit — Steel	1/4" Trade Size
Flex Metal Conduit — Aluminum	%" Trade Size
C-3 Clamp Acceptable for Grounding	
	_

^{*} MCAP™ is a trademark of Southwire Company

"Products listed in this catalog are subject to alteration or discontinuation without prior notice."



C-3

United States



MCAP™— Aluminum*



Overview

NEC® Reference

Article 314 of the National Electrical Code® covers the installation and use of boxes. The article includes table references that guide the electrician in the selection of the proper box size necessary to safely accommodate electrical service requirements. The box capacity table shown (**page A-5**) is reproduced in part from the NEC® as a quick reference and guide. The NEC® should be consulted for complete details.

Article 314 — Boxes and Fittings

314.16 Number of Conductors in Outlet, Device, and Junction Boxes, and Conduit Bodies.

Boxes and conduit bodies shall be of sufficient size to provide free space for all enclosed conductors. In no case shall the volume of the box, as calculated in 314.16(A), be less than the fill calculation as calculated in 314.16(B). The minimum volume for conduit bodies shall be as calculated in 314.16(C).

The provisions of this section shall not apply to terminal housings supplied with motors or generators. Informational Note: For volume requirements of motor or generator terminal housings, see Article 430.12. Boxes and conduit bodies enclosing conductors #4 AWG or larger shall also comply with the provisions of 314.28.

(A) Box Volume Calculations.

The volume of a wiring enclosure (box) shall be the total volume of the assembled sections and, where used, the space provided by plaster rings, domed covers, extension rings and so forth, that are marked with their volume or are made from boxes the dimensions of which are listed in Table 314.16(A).

- (1) Standard Boxes. The volumes of standard boxes that are not marked with their volume shall be as given in Table 314.16(A).
- (2) Other Boxes. Boxes 1650 cm³ (100 in.³) or less, other than those described in Table 314.16(A), and nonmetallic boxes shall be durably and legibly marked by the manufacturer with their volume. Boxes described in Table 314.16(A) that have a volume larger than is designated in the table shall be permitted to have their volume marked as required by this section.

(B) Box Fill Calculations.

The volumes in paragraphs 314.16(B)(l) through (B)(5), as applicable, shall be added together. No allowance shall be required for small fittings such as locknuts and bushings.

(1) Conductor Fill. Each conductor that originates outside the box and terminates or is spliced within the box shall be counted once, and each conductor that passes through the box without splice or termination shall be counted once. Each loop or coil of unbroken conductor not less than twice the minimum length required for free conductors in 300.14 shall be counted twice. The conductor fill shall be calculated using Table 314.16(B). A conductor, no part of which leaves the box, shall not be counted.

Exception: An equipment grounding conductor or conductors not over four fixture wires smaller than #14 AWG, or both, shall be permitted to be omitted from the calculations where they enter a box from a domed luminaire or similar canopy and terminate within that box.

(2) Clamp Fill. Where one or more internal cable clamps, whether factory or field supplied, are present in the box, a single volume allowance in accordance with Table 314.16(B) shall be made based on the largest conductor present in the box. No allowance shall be required for a cable connector with its clamping mechanism outside the box.



- (3) Support Fittings Fill. Where one or more luminaire studs or hickeys are present in the box, a single volume allowance in accordance with Table 314.16(B) shall be made for each type of fitting based on the largest conductor present in the box.
- (4) Device or Equipment Fill. For each yoke or strap containing one or more devices or equipment, a double volume allowance in accordance with Table 314.16(B) shall be made for each yoke or strap based on the largest conductor connected to a device(s) or equipment supported by that yoke or strap. A device or utilization equipment wider than a single 50mm (2 in.) device box as described in Table 314.16(A) shall have double volume allowances provided for each gang required for mounting.
- (5) Equipment Grounding Conductor Fill. Where one or more equipment grounding conductors or equipment bonding jumpers enter a box, a single volume allowance in accordance with Table 314.16(B) shall be made based on the largest equipment grounding conductor or equipment bonding jumper present in the box. Where an additional set of equipment grounding conductors, as permitted by 250.146(D), is present in the box, an additional volume allowance shall be made based on the largest equipment grounding conductor in the additional set.

(C) Conduit Bodies.

- (1) General. Conduit bodies enclosing #6 AWG conductors or smaller, other than short-radius conduit bodies as described in 314.16(C)(2), shall have a cross-sectional area not less than twice the cross-sectional area ofthe largest conduit or tubing to which they can be attached. The maximum number of conductors permitted shall be the maximum number permitted by Table 1 of Chapter 9 for the conduit or tubing to which it is attached.
- (2) With Splices, Taps or Devices. Only those conduit bodies that are durably and legibly marked by the manufacturer with their volume shall be permitted to contain splices, taps or devices. The maximum number of conductors shall be calculated in accordance with 314.16(B). Conduit bodies shall be supported in a rigid and secure manner.
- (3) Short-Radius Conduit Bodies. Conduit bodies such as capped elbows and service-entrance elbows that enclose conductors #6 AWG or smaller, and are only intended to enable the installation of the raceway and the contained conductors, shall not contain splices, taps or devices and shall be of sufficient size to provide free space for all conductors enclosed in the conduit body.







Overview

Article 314 — Boxes and Fittings (continued)

Table 314.16(A) **Metal Boxes**

	BOX TRADE SIZE			IMUM .UME					NUN		
MM	(IN.)		СМЗ	IN.3	1				10		6
100 x 32	(4 x 1½)	Round/Octagonal	205	12.5	8	7	6	5	5	5	2
100 x 38	(4 x 1½)	Round/Octagonal	254	15.5	10	8	7	6	6	5	3
100 x 54	(4 x 2½)	Round/Octagonal	353	21.5	14	12	10	9	8	7	4
100 x 32	(4 x 1½)	Square	295	18.0	12	10	9	8	7	6	3
100 x 38	(4 x 1½)	Square	344	21.0	14	12	10	9	8	7	4
100 x 54	(4 x 2½)	Square	497	30.3	20	17	15	13	12	10	6
120 x 32	(4L x 11/4)	Square	418	25.5	17	14	12	11	10	8	5
120 x 38	(4L x 1½)	Square	484	29.5	19	16	14	13	11	9	5
120 x 54	(4L x 21/8)	Square	689	42.0	28	24	21	18	16	14	8
75 x 50 x 38	(3 x 2 x 1½)	Device	123	7.5	5	4	3	3	3	2	1
75 x 50 x 50	(3 x 2 x 2)	Device	164	10.0	6	5	5	4	4	3	2
75 x 50 x 57	(3 x 2 x 2½)	Device	172	10.5	7	6	5	4	4	3	2
75 x 50 x 65	(3 x 2 x 2½)	Device	205	12.5	8	7	6	5	5	4	2
75 x 50 x 70	(3 x 2 x 2 ³ / ₄)	Device	230	14.0	9	8	7	6	5	4	2
75 x 50 x 90	(3 x 2 x 3½)	Device	295	18.0	12	10	9	8	7	6	3
100 x 54 x 38	(4 x 21/8 x 11/2)	Device	169	10.3	6	5	5	4	4	3	2
100 x 54 x 48	(4 x 21/8 x 17/8)	Device	213	13.0	8	7	6	5	5	4	2
100 x 54 x 54	(4 x 21/8 x 21/8)	Device	238	14.5	9	8	7	6	5	4	2
95 x 50 x 65	(3¾ x 2 x 2½)	Masonry Box/Gang	230	14.0	9	8	7	6	5	4	2
95 x 50 x 90	(3¾ x 2 x 3½)	Masonry Box/Gang	344	21.0	14	12	10	9	8	7	4
Min. 44.5 depth	FS - Single-Co	ver/Gang (1¾)	221	13.5	9	7	6	6	5	4	2
Min. 60.3 depth	FD - Single-Co	ver/Gang (2%)	295	18.0	12	10	9	8	7	6	3
Min. 44.5 depth	FS - Multiple-0	Cover/Gang (1¾)	295	18.0	12	10	9	8	7	6	3
Min. 60.3 depth	FD - Multiple-0	Cover/Gang (2%)	395	24.0	16	13	12	10	9	8	4

*Where no volume allowances are required by 314.16(B)(2) through 314.16(B)(5).

Underwriters Laboratories Inc. File Number: E2969 (U.L. 514A) Canadian Standards Association File Number: LR 12798

Federal Manufacture Number: 56501 (Cage Code)

Products designed to meet Federal Specification Number: W-J-800

Verification of file numbers and compliance with federal specifications for individual items available upon request.

Box and cover material and plating specification; .062" minimum thickness, hot rolled, pre-galvanized steel, minimum spangle.

ASTM G-60-U, AISI C-1008

Bracket material: All brackets except MS style; 16 gauge (.060") hot rolled, pregalvanized steel AISI C-1008, G-90-U. MS style bracket; 20 gauge (.036") cold rolled spring steel AISI C-1055, heat treated to R. 35 zinc plated .0005 thick.

Table 314.16(B) Volume Allowance Required per Conductor

SIZE OF	FREE SPACE WITHIN BOX FOR EACH CONDUCTOR					
CONDUCTOR (AWG)	CM ³	IN. ³				
No. 18	24.6	1.50				
No. 16	28.7	1.75				
No. 14	32.8	2.00				
No. 12	36.9	2.25				
No. 10	41.0	2.50				
No. 8	49.2	3.00				
No. 6	81.9	5.00				

Reprinted with permission from National Fire Protection Association NFPA70-2011. National Electrical Code, Copyright@ 2010, National Fire Protection Association, Quincy, MA 02269. This reprinted material is not the complete and official position of the NFPA on the referenced subject which is represented only by the standard in its entirety. NEC® is a registered trademark of the National Fire Protection Association. Inc... Quincy, MA 02269.

Underwriters Laboratories Inc. File Number: E2969 (U.L. 514A) Canadian Standards Association File Number: LR 12798

Federal Manufacture Number: 56501

Products designed to meet Federal Specification Number: A-A5924 (formerly W-J-800). Verification of file numbers and compliance with federal specifications for individual items available upon request.

Box and cover material and plating specification; .062" minimum thickness, hot-rolled, pre-galvanized steel, minimum spangle.

ASTM G-60-U, AISI C-1008

Bracket material: All brackets except MS style; 16 gauge (.060") hot rolled, pregalvanized steel AISI C-1008, G-60-U. MS Style bracket; 20 gauge (.036") cold rolled spring steel AISI C-1055, heat treated to R. 35 zinc plated .0005 thick.

Metallic Boxes — Fire Resistance Rating

Wall Penetrations

Listed single- and double-gang metallic outlet and switch boxes and octagon ceiling boxes with metallic or non-metallic cover plates may be used in bearing and non-bearing wood stud and steel stud walls with ratings not exceeding 2 hours. These walls shall have gypsum wallboard facings similar to those shown in Design Nos. U301, U411, and U425. 4 in. square boxes may be used in 2 hr. fire rated ceilings.

The surface area of individual metallic outlet or switch boxes shall not exceed 16 sq. in. The aggregate surface area of the boxes shall not exceed 100 sq. inches per 100 sq. ft. of wall. Boxes located on opposite sides of walls or partitions shall be separated by a horizontal distance of 24 inches.

The metallic outlet or switch boxes shall be securely fastened to the studs and the opening in the wallboard facing shall be cut so that the clearance between the box and the wallboard does not exceed 1/8 in.



Fax: 901.252.1354

Tel: 888.862.3289



Pre-Fab Components and Assemblies

Faster Installation for Increased Profit Margin!

Pre-Assemblies

Paying to assemble outlet boxes, grounding pigtails, device covers and mounting brackets on the job site can quickly become an expensive proposition. Instead, choose Steel City® Pre-Assemblies and realize significant labor savings. This UL Listed product line includes over 75 combinations of popular boxes, brackets and covers that speed installation because the time-consuming assembly work is already done for you.

Steel City® Pre-Assemblies include:

- Outlet box with pre-installed grounding pigtail
- Your choice of cover options, including singleand double-device covers, raised ½", 5%" or 3/4"
- Your choice of bracket options to allow mounting to steel and wood stud or floor track, including Steel City[®] Box Support Covers, which combine a bracket and cover in one component
- All UL Listed components



Box with Pre-Installed 10½" Pigtail

- Popular 4" square boxes and switch boxes
- Pre-installed 10½" insulated grounding pigtails
- Save on labor costs by eliminating multiple installation steps

Pre-Assembled Installation



Standard Installation

- Install box in desired location — DONE!
- 1. Purchase pre-stripped pigtail
- 2. Install pigtail and ground screw in box
- 3. Install box in desired location





CAT. NO.	BOX TYPE INCLUDED	KNOCKOUTS	PRE-INSTALLED PIGTAIL	STD. CTN.
521511234EWP	52151234EW — 4"-sq. x 1½" D Welded Box	Eccentric	10½"	50
521511234P	521511234 — 4"-sq. x 1½" D Drawn Box	1/2" & 3/4"	10½"	50
521711234EP	521711234E — 4"-sq. x 21/4" D Welded Box	½" & ¾" Eccentric	10½"	50
52151XP	52151X — 4"-sq. x 1½" D Welded Box	1/2" & 3/4" Eccentric	10½"	50
52151CVNP	52151CVN — 4"-sq. x 1½" D Welded Box	1/2" & 3/4" Eccentric	10½"	25
LXWOWP	LXWOW-25 — 3"H x 2"W x 21/2" D Gangable Switch Box	1/2"	10½"	25
LXVP	LXV-25 — 3"H x 2"W x 21/2" D Gangable Switch Box	1/2"	10½"	25
CXWOWP	CXWOW — 3"H x 2"W x 31/2" D Gangable Switch Box	1/2" & 3/4"	10½"	25
CXWVP	CXWV — 3"H x 2"W x 31/2" D Gangable Switch Box	1/2" & 3/4"	10½"	25
CXP	CX — 3"H x 2"W x 3½" D Gangable Switch Box	1/2" & 3/4"	10½"	25



United States Tel: 901.252.8000

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 Technical Services
Tel: 888.862.3289







Pre-Fab Components and Assemblies

Box with Pre-Installed 101/2" Pigtail and Box Support Cover

- 52CM and 52CMD box support covers
- 101/2" insulated pigtail
- · One- and two-device covers
- Raised ½", ¾" and ¾"
- 1½" and 21/8" box depths



52171-CM14-5/8

	BOX TYPE	BOX DEPTH	PIGTAIL TYPE	BOX SUPPORT COVER	RAISED	NO. OF	STD.
CAT. NO.	INCLUDED	(IN.)	INCLUDED	INCLUDED	(IN.)	DEVICES	CTN.
52151-CM13	521511234EW	1½	GSC12	52CM13	1/2	1	25
52151-CM14-5/8	521511234EW	1½	GSC12	52CM14-5/8	5/8	1	25
52151-CM14	521511234EW	1½	GSC12	52CM14	3/4	1	25
52151-CMD17	521511234EW	11/2	GSC12	52CMD17	1/2	2	25
52151-CMD18-5/8	521511234EW	11/2	GSC12	52CMD18-5/8	5/8	2	25
52151-CMD18	521511234EW	1½	GSC12	52CMD18	3/4	2	25
52171-CM13	521711234E	21/8	GSC12	52CM13	1/2	1	25
52171-CM14-5/8	521711234E	21/8	GSC12	52CM14-5/8	5/8	1	25
52171-CM14	521711234E	21/8	GSC12	52CM14	3/4	1	25
52171-CMD17	521711234E	21/8	GSC12	52CMD17	1/2	2	25
52171-CMD18-5/8	521711234E	21/8	GSC12	52CMD18-5/8	5/8	2	25
52171-CMD18	521711234E	21/8	GSC12	52CMD18	3/4	2	25



Box with Pre-Installed 101/2" Pigtail, **Raised Cover and Box-to-Stud Bracket**

- SSF-SH2346 bracket
- 101/2" insulated pigtail
- · One- and two-device covers
- Raised 1/2", 5/8" and 3/4"
- 11/2" and 21/8" box depths



CAT. NO.	BOX Type Included	BOX Depth (In.)	PIGTAIL TYPE INCLUDED	BRACKET TYPE INCLUDED	COVER TYPE INCLUDED	RAISED (IN.)	NO. OF DEVICES	STD. CTN.
151-SH2346-13	521511234EW	1½	GSC12	SSF-SH2346	52-C-13	1/2	1	10
151-SH2346-1458	521511234EW	11/2	GSC12	SSF-SH2346	52-C-14-5/8	5/8	1	10
151-SH2346-14	521511234EW	11/2	GSC12	SSF-SH2346	52-C-14	3/4	1	10
151-SH2346-17	521511234EW	1½	GSC12	SSF-SH2346	52-C-17-25	1/2	2	10
151-SH2346-1858	521511234EW	11/2	GSC12	SSF-SH2346	52-C-18-5/8-25	5/8	2	10
151-SH2346-18	521511234EW	11/2	GSC12	SSF-SH2346	52-C-18	3/4	2	10
171-SH2346-13	521711234E	21/8	GSC12	SSF-SH2346	52-C-13	1/2	1	10
171-SH2346-1458	521711234E	21/8	GSC12	SSF-SH2346	52-C-14-5/8	5/8	1	10
171-SH2346-14	521711234E	21/8	GSC12	SSF-SH2346	52-C-14	3/4	1	10
171-SH2346-17	521711234E	21/8	GSC12	SSF-SH2346	52-C-17-25	1/2	2	10
171-SH2346-1858	521711234E	21/8	GSC12	SSF-SH2346	52-C-18-5/8-25	5/8	2	10
171-SH2346-18	521711234E	21//8	GSC12	SSF-SH2346	52-C-18	3/4	2	10





United States Tel: 901.252.8000

800.816.7809 Fax: 901.252.1354



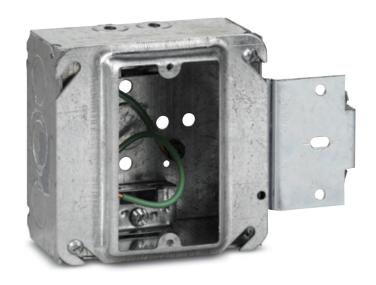




Pre-Fab Components and Assemblies

MS Series Pre-Assemblies

- 4" square and 411/16" square boxes
- 11/2" deep or 21/8" deep
- Pre-installed 10½" insulated grounding pigtail
- Available with conduit KOs or clamps for flexible/ armored/MC cable
- · Save on labor costs by eliminating multiple installation steps



Pre-Assembled Installation

VS.

Standard Installation

1. Snap box — DONE!

- 1. Purchase pre-stripped pigtail
- 2. Install pigtail and ground screw in box
- 3. Mount box support cover to box
- 4. Mount assembly to stud



CAT. NO.	BOX TYPE Included	BOX Depth (in.)	PIGTAIL Included (In.)	BOX COVER Included	RAISED (IN.)	NO. OF DEVICES	STD. CTN.
51-MS-13	52151-MS-1/2 3/4	1½	10½	52-C-13	1/2	1	25
151-MS-14	52151-MS-1/2 3/4	1½	10½	52-C-14	3/4	1	25
51-MS-1458	52151-MS-1/2 3/4	11/2	10½	52-C-14-5/8	5/8	1	25
71MS13	52171-MS-1/2 3/4	21/8	10½	52-C-13	1/2	1	25
71-MS-14	52171-MS-1/2 3/4	21/8	10½	52-C-14	3/4	1	25
71-MS-1458	52171-MS-1/2 3/4	21/8	10½	52-C-14-5/8	5/8	1	25
171MS18	52171-MS-1/2 3/4	21/8	10½	52-C-18	3/4	2	25
171-MS-18 5/8	52171-MS-1/2 3/4	21/8	10½	52-C-18-5/8-25	5/8	2	25
71MSX13	52171-MSX	21/8	10½	52-C-13	1/2	1	25
171-MSX-14	52171-MSX	21/8	10½	52-C-14	3/4	1	25
71-MSX-1458	52171-MSX	21/8	10½	52-C-14-5/8	5/8	1	25
71MSX18	52171-MSX	21/8	10½	52-C-18	3/4	2	25
71-MSX-18 5/8	52171-MSX	21/8	10½	52-C-18-5/8-25	5/8	2	25
/2171MS14	72171-MS-1/2 3/4	21/8	10½	72-C-14	3/4	1	25
72171-MS-1458	72171-MS-1/2 3/4	21/8	10½	72-C-14-5/8	5/8	1	25
72171MS18	72171-MS-1/2 3/4	21/8	10½	72-C-18	3/4	2	25
72171-MS-18 5/8	72171-MS-1/2 3/4	21/8	10½	72-C-18-5/8	5/8	2	25
2171MSX14	72171-MS-1/2 3/4	21/8	10½	72-C-14	3/4	1	25
2171-MSX-1458	72171-MSX	21/8	10½	72-C-14-5/8	5/8	1	25
72171MSX18	72171-MS-1/2 3/4	21/8	10½	72-C-18	3/4	2	25
72171-MSX-1858	72171-MS-1/2 3/4	21/8	10½	72-C-18-5/8	5/8	2	25



Fax: 901.252.1354

Tel: 888.862.3289







Pre-Fab Components and Assemblies

Box with Pre-Installed 10½" Pigtail, Raised Cover and Vertical Mounting Bracket

- 12" (SSF-SV12) or 18" (SSF-SV18) vertical mounting bracket
- 10½" insulated pigtail
- · One- and two-device covers
- Raised 1/2", 5/8" and 3/4"
- 11/2" and 21/8" box depths

Pre-Assembled Installation

VS.

Standard Installation

- 1. Mount assembly to floor stud DONE!
- 1. Purchase pre-stripped pigtail
- 2. Install pigtail and ground screw in box
- 3. Insert box into vertical bracket
- 4. Insert device cover to vertical bracket
- 5. Mount assembly to floor stud



151-SV18-13

151-SV12-13



								<u> </u>
CAT. NO.	BOX Type Included	BOX Depth (In.)	PIGTAIL Type Included	BRACKET Type Included	COVER Type Included	RAISED (IN.)	NO. OF Devices	STD. CTN.
151-SV12-13	521511234EW	1½	GSC12	SSF-SV12	52-C-13	1/2	1	10
151-SV12-1458	521511234EW	11/2	GSC12	SSF-SV12	52-C-14-5/8	5/8	1	10
151-SV12-14	521511234EW	11/2	GSC12	SSF-SV12	52-C-14	3/4	1	10
151-SV12-17	521511234EW	1½	GSC12	SSF-SV12	52-C-17-25	1/2	2	10
151-SV12-1858	521511234EW	11/2	GSC12	SSF-SV12	52-C-18-5/8-25	5/8	2	10
151-SV12-18	521511234EW	11/2	GSC12	SSF-SV12	52-C-18	3/4	2	10
171-SV12-13	521711234E	21/8	GSC12	SSF-SV12	52-C-13	1/2	1	10
171-SV12-1458	521711234E	21/8	GSC12	SSF-SV12	52-C-14-5/8	5/8	1	10
171-SV12-14	521711234E	21/8	GSC12	SSF-SV12	52-C-14	3/4	1	10
171-SV12-17	521711234E	21/8	GSC12	SSF-SV12	52-C-17-25	1/2	2	10
171-SV12-1858	521711234E	21/8	GSC12	SSF-SV12	52-C-18-5/8-25	5/8	2	10
171-SV12-18	521711234E	21/8	GSC12	SSF-SV12	52-C-18	3/4	2	10
151-SV18-13	521511234EW	1½	GSC12	SSF-SV18	52-C-13	1/2	1	10
151-SV18-1458	521511234EW	1½	GSC12	SSF-SV18	52-C-14-5/8	5/8	1	10
151-SV18-14	521511234EW	1½	GSC12	SSF-SV18	52-C-14	3/4	1	10
151-SV18-17	521511234EW	1½	GSC12	SSF-SV18	52-C-17-25	1/2	2	10
151-SV18-1858	521511234EW	1½	GSC12	SSF-SV18	52-C-18-5/8-25	5/8	2	10
151-SV18-18	521511234EW	1½	GSC12	SSF-SV18	52-C-18	3/4	2	10
171-SV18-13	521711234E	21/8	GSC12	SSF-SV18	52-C-13	1/2	1	10
171-SV18-1458	521711234E	21/8	GSC12	SSF-SV18	52-C-14-5/8	5/8	1	10
171-SV18-14	521711234E	21/8	GSC12	SSF-SV18	52-C-14	3/4	1	10
171-SV18-17	521711234E	21/8	GSC12	SSF-SV18	52-C-17-25	1/2	2	10
171-SV18-1858	521711234E	21/8	GSC12	SSF-SV18	52-C-18-5/8-25	5/8	2	10
171-SV18-18	521711234E	21/8	GSC12	SSF-SV18	52-C-18	3/4	2	10



United States Tel: 901.252.8000

800.816.7809 Fax: 901.252.1354 **Technical Services**

Tel: 888.862.3289





Pre-Fab Components and Assemblies

UL° Listed Adjustable Mud Ring now available in both single-and two-gang.

Adjustable Mud Rings

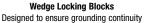
Mud Rings feature an inner ring that adjusts from $\frac{1}{2}$ " to $\frac{1}{2}$ " in depth to accommodate various drywall thicknesses. Marked with a measured rule and equipped with two adjustment screws, the inner ring can be set to the anticipated depth prior to installation and then easily adjusted after drywall installation to accommodate any variation in depth ($\frac{1}{2}$ " to $\frac{1}{2}$ ").













Adjustable Mud Ring Installation/Adjustment Steps:



Loosen...

The two adjustment screws located on opposing corners of the mud ring.



Adjust...

Inner ring to be flush with wall surface.



Re-tighten...Adjustment screws

CAT. NO.	DESCRIPTION	STD. CTN.
52-C-ADJ	Single-Gang Adjustable Mud Ring, 1/2" to 11/2"	25
52-C-ADJ2	Two-Gang Adjustable Mud Ring, 1/2" to 11/2"	20



Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354





www.tnb.com

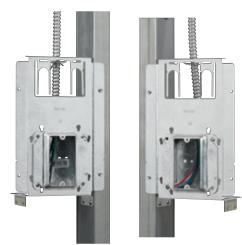
Pre-Fab Components and Assemblies

Three Products in One!

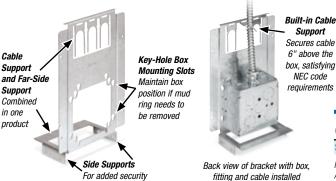
Pre-Fab Box Bracket with Far-Side and Cable Support

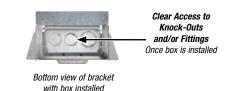
The savings can add up, particularly on a large job, when a box bracket, far-side support and cable support are combined in one product to reduce your labor and inventory costs. It is designed for maximum flexibility with flanges for either left or right stud mount, and compatibility with either 4" and 411/16" boxes.

- Box bracket, far-side support and cable support combined in one product to reduce your labor and inventory costs
- Built-in cable support secures cable 6" above the box, satisfying NEC® code requirements
- Flexible design accommodates both 4" and 411/16" boxes
- · Key-hole box mounting slots maintain box position if mud ring needs to be removed
- Provides clear access to knock-outs once the box is installed for installation of fittings
- Mounts to either side of the stud



Can be mounted either left or right of the stud





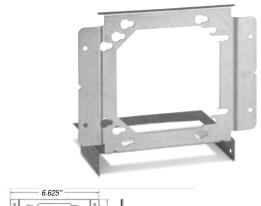
CAT. NO.	DESCRIPTION	STD. PKG. QTY.
SSF-SH2346-CS	Pre-Fab Box Bracket with Far-Side and Cable Support	50

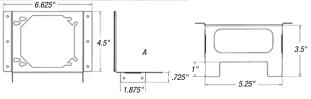
NEC and National Electrical Code are registered trademarks of the National Fire Protection Association, Inc.

Mounting Bracket

- Attaches 4" and 4¹/₁₆" electrical boxes to metal stud
- Support leg can be attached to stud to eliminate movement of box in wall
- Attaches to metal or wood stud using self-tapping screws and screw gun or nails
- One part mounts boxes for 1½", 2½", 3½", 4" and 6" stud which means less inventory

CAT. NO.	DESCRIPTION	STD. CTN.
SSF-SH2346	4" & 411/16" outlet boxes to 21/2", 31/2", 4" & 6" metal studs	100







Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354







Pre-Fab Components and Assemblies

Box Mounting Brackets for Between Studs

- Supports electrical boxes, plaster rings or low-voltage devices from one bracket
- Accommodates 4" or 4¹¹/₁₆" boxes
- · Bendable leg serves as a bracket stabilizer
- SB brackets allow box mounting in all four 90° orientations

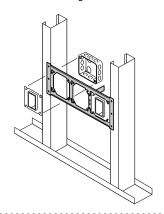




Fig. 1



Fig. 2

CAT. NO.	FIG. No.	DESCRIPTION	STD. CTN.
SSF-SB16	1	Box mounting bracket for between studs, 16" stud spacing	25
SSF-SB24	2	Box mounting bracket for between studs, 24" stud spacing	25

Screw-Gun Box Bracket

- Self-tapping screws are aligned with the dimples so that the box is straight
- · Enables mounting of multiple boxes
- Depth set for 1½"- or 2½"-deep electrical box
- Installs easily with a screw gun
- SGA brackets have adjustable tabs for 1½"- or 2½"-deep boxes
- SGA brackets adjustable for non-standard stud spacing





CAT. NO.	FIG. NO.	DESCRIPTION	STUD Spacing	BOX Depth	STD. CTN.
SSF-SG16A	1	Adjustable box bracket	11"–18"	1½" or 21/8"	50
SSF-SG24A	1	Adjustable box bracket	17"-26"	1½" or 21/8"	50

Fig. 1

Extension-Plate Bracket

- Improved bracket with bendable stabilizer leg for use on 2½" and 3½" metal studs
- Mounts outlet boxes 12" or 18" offset from either a metal stud track or a stud
- When mounted, drywall ring is brought to within 1/6" of drywall every time and will not bulge or break out drywall
- Mounts 4" or 4¹/₁₆" outlet boxes, 1½" or 2½" deep
- SV18 provides compliance with Americans with Disabilities Act (ADA) requirements



Fig. 1

CAT. NO.	FIG. NO.	DESCRIPTION	STD. CTN.
SSF-SV12	1	Extension plate bracket, 12" height	50
SSF-SV18	1	Extension plate bracket, 18" height	50



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services**

Tel: 888.862.3289





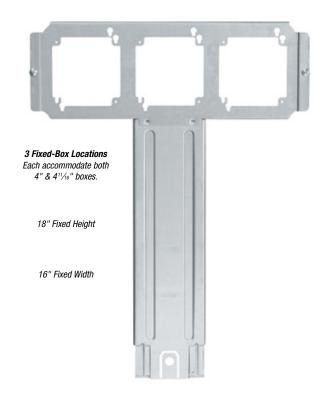


Pre-Fab Components and Assemblies

Consistent Box Locations and Box Height...Every Time!

Pre-Fab T Bracket

Consistency results in efficiency and labor savings on the job. With three fixed-box locations and a fixed height of 18", the new Steel City® Pre-Fab T Bracket provides a consistent installation every time. For added efficiency, the bracket includes integral mounting screws that help reduce installation time. A handy locator tab at the base of the bracket saves you the time of looking for installed boxes that have been hidden by wall coverings. The base also features unique floor track tabs. The inner tab slides in front of the floor track and the two outer tabs slide behind the floor track to provide stability when positioning the bracket.

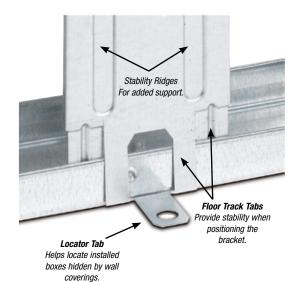


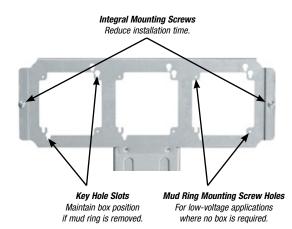
Pre-Fab Box Bracket with Far-Side and Cable Support

CAT. NO.	DESCRIPTION	STD. CTN.
H16V18S	Pre-Fab T Bracket	10











Pre-Fab Components and Assemblies

Easily Pre-Assembled Off Site for Faster Installation On Site!

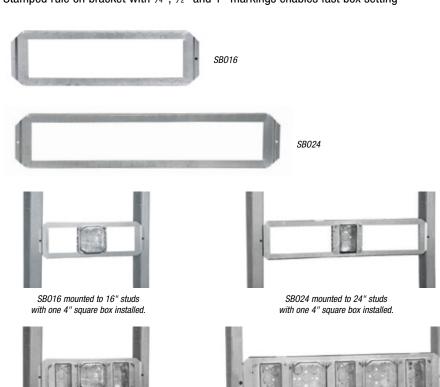
Pre-Fabricated Components

Rather than assembling box mounting brackets and device covers on site, keep an eye on profit and use Steel City® **Pre-Fab Components** to set up jobs off site for a quick and easy installation on site. They accommodate a wide variety of Steel City covers and they're readily available for fast-track projects.

- Ideal for use in hotels, casinos, hospitals, large office buildings and any other commercial or institutional application where rough-in products can be pre-fabricated to match floor plans for quicker on-site installation
- · Items readily available for fast-track projects no special lead time required
- All products are UL approved and meet applicable building codes

SB016 and SB024 Stud-to-Stud Horizontal Mounting Brackets

- Constructed of 24-gauge steel
- Pre-measured on center for 16" (SB016) or 24" (SB024) stud spacing
- SB016 accepts three 4" square or two 4¹½6" boxes (deep or shallow)
- SB024 accepts five 4" square or four 4¹¹/₁₆" boxes (deep or shallow)
- Can be mounted at any height to meet individual project requirements
- Versatile, open design enables mounting of box in any location across horizontal plane between studs
- Device cover (mud ring) mounts to front of bracket to set box in desired location
- Stamped rule on bracket with ¼", ½" and 1" markings enables fast box setting





SB016 mounted to 16" studs with three 4" square boxes (full capacity) installed.



SB024 mounted to 24" studs with five 4" square boxes (full capacity) installed.



CAT. NO.	DESCRIPTION	STD. CTN.
SB016	16" stud-to-stud horizontal mounting bracket	25
SB024	24" stud-to-stud horizontal mounting bracket	25



Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354

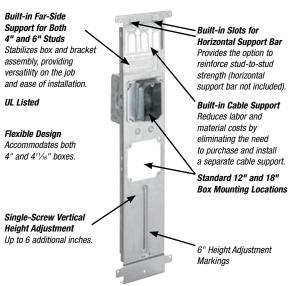




www.tnb.com

Pre-Fab Components and Assemblies

VAFB Vertically Adjustable Floor Brackets



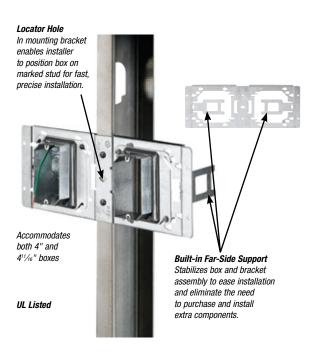






CAT. NO.	DESCRIPTION	STD. CTN.
VAFB	Pre-Fab Vertically Adjustable Floor Bracket	10

DBB1 Dual-Box Mounting Bracket







Power on Both Sides of the Stud



Low Voltage on Both Sides of the Stud



Power Left of Stud and Low Voltage Right of the Stud



Power and Low Voltage on the Same Side of the Stud

CAT. NO.	DESCRIPTION	STD. CTN.
DBBI	Pre-Fab Dual-Box Bracket	50



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services** Tel: 888.862.3289







Pre-Fab Components and Assemblies

Meet Code Requirements for Supporting and Securing Installed MC Cable.

Cable Support Bracket

- Provides a simple means of complying with NEC[®] 330.30 requirements for securing and supporting MC cable
- · Quick and easy locking tab snaps through slot to secure cable
- · Ribs maintain separation of cables
- Durable steel construction retains integrity
- Versatile design use with Romex or MC cable
- UL Listed



		9
CAT. NO.	DESCRIPTION	STD. CTN.
CSB1	Cable Support Bracket	100

NEC and National Electrical Code are registered trademarks of the National Fire Protection Association, Inc.





1-800-453-1692

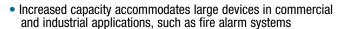




Fax: 901.252.1354

Switch Boxes and Accessories

Steel City® Super Deep 4" Square Wall Boxes



 Red-painted version available for quick and easy identification of life safety electrical systems

 Available with or without integrally mounted support bracket







521911234



CAT. NO.	DESCRIPTION	EARS	BRACKETS	EACH SIDE KO	EACH END KO	воттом ко	CU. IN. CAPACITY	STD. CTN.
521911234RD	3½"-Deep, 4"-Square Red Box	_		(4) ½" & ¾" Combo	(2) ½" & ¾" Combo	(4) ½" & ¾" Combo	46	24
521911234CVRD	3½"-Deep, 4"-Square Red Box with Side Mounting Bracket	_	CV	(4) ½" & ¾" Combo	(2) ½" & ¾" Combo	(4) ½" & ¾" Combo	46	10
521911234	3½"-Deep, 4"-Square Box	_	_	(4) 1/2" & 3/4" Combo	(2) 1/2" & 3/4" Combo	(4) 1/2" & 3/4" Combo	46	24
521911234CV	3½"-Deep, 4"-Square Box with Side Mounting Bracket	_	CV	(4) ½" & ¾" Combo	(2) ½" & ¾" Combo	(4) ½" & ¾" Combo	46	10





1-800-453-1692

Switch Boxes and Accessories

Easy Depth Adjustment After Wall Covering Installation.

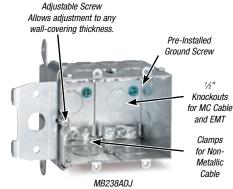
Adjust-A-Box®

The Adjust-A-Box System adapts to a variety of wall coverings. Its unique design enables the installer to adjust the box to various depths with the turn of a screw.

- · Unique design allows for adjustment of depth after the wall covering has been installed
- Adjusts to any wall covering
- Mounts square and secure every time
- Removes easily to enable inner-wall access
- Accommodates high- and low-voltage applications
- Pre-installed ground screw
- · Accommodates non-metallic cable, flexible metal cable and EMT







Installation:

Screw bracket to stud





Two-Gana

Adjust box in or out to any wall thickness





Single-Gang Two-Gana

(ÅL)	
STD. WT.	
(LDC)	

CAT. NO.	VOLUME (Cu. In.)	DESCRIPTION	KNOCKOUTS	SIZE (IN.)	STD. CTN.	STD. WT. (LBS.)
MB120ADJ	20	One-Gang Adjustable Wall Box	1/2" (5)	2.20W x 3.28H x 3.52D	18	19.25
MB238ADJ	38	Two-Gang Adjustable Wall Box	1/2" (8)	4.01W x 3.28H x 3.52D	12	17.60

3¾" x 2" Switch Boxes

CAT. NO.	DEPTH (IN.)	CU. IN. CAPACITY	CLAMPS	EARS	BRKTS.	KNOCKOUTS	STD. CTN.
Non-Gang	` '						
SSV	1	6.5	_	_	Flat	2 pry-outs one end	25
SSQV Not UI iste	1	6.5	Yes	_	Flat	2 pry-outs one end with non-metallic cable clamps	25







United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services** Tel: 888.862.3289



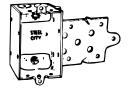


Switch Boxes and Accessories

3" x 2" Switch Boxes



SWB-25 Ears flush for old work



811-SW-25 S bracket recessed 5%"



LXMWOW-25 Ears flush for old work



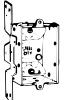
LCOW-25 Ears flush old work



LCOWC Adapts to any wall thickness up to 3/4"



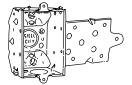
LCLE-25



LCV-25 CV bracket recessed 3/4"



LCNOW-25 Ears flush for old work



802-S S bracket recessed 5%"



A12-25



A12E-25 Ears flush



A16-25 With nails



LXWOW-25 Ears flush for old work

* Beveled corners.



LXWOWP



LXWLE-25



LXWOWC-25 Adapts to any wall thickness up to 3/4"



LXWSV SV bracket recessed 7/16"



CV bracket recessed 1/8"

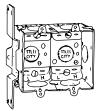
With Non-Metallic Sheathed Cable Clamps

							KNOCKOUTS (IN.)					
CAT. NO.	DEPTH (IN.)	GANGABLE	CU. IN. Capacity	CLAMPS	EARS	BRKTS.	EA. END CONDUIT	EA. END Cable	CABLE	BOTTOM CABLE	BOTTOM CONDUIT	STD. CTN.
SWB-25	1½	_	7.5	C-5	Yes			2		2		25
811 SW-25	1½	_	7.5	C-5	_	S	_	2	_	2	_	50
LXMW0W-25	2	Yes	10.5	C-5	Yes	_	_	2	_	_	1-1/2	25
LCOW-25*	21/4	Yes	10.5	C-1	Yes	_	1–½	_	2	_	1-1/2	25
LCOWC*	21/4	Yes	10.5	C-1	Yes	_	1-1/2	_	2	_	1-1/2	25
LCLE-25*	21/4	Yes	10.5	C-1	_	_	1–½	_	2	_	1-1/2	25
LCV-25*	21/4	Yes	10.5	C-1	_	CV	1–½	_	2	_	1-1/2	25
LCNOW-25*	21/4	Yes	10.5	C-1	Yes	_	1-1/2	_	2	_	1-1/2	25
802 S*	21/4	Yes	10.5	C-1	_	S	1–½	_	2	_	1-1/2	25
A12-25	21/4	_	10.5	C-1	_	_	1-½	_	2	_	1-1/2	25
A12E-25	21/4	_	10.5	C-1	Yes	_	1-1/2	_	2	_	1-1/2	25
A16-25	21/4	_	10.5	C-1	_	_	1-1/2	_	2	_	1-1/2	25
LXW0W-25	2½	Yes	12.5	C-5	Yes	_	1–½	_	2	_	1-1/2	25
LXWOWP	2½	Yes	12.5	C-5	Yes	_	1-1/2	_	2	_	1-1/2	25
LXWLE-25	2½	Yes	12.5	C-5	_	_	1-1½	1-1/2	2	_	1-1/2	25
LXWOWC-25	2½	Yes	12.5	C-5	Yes	_	1–½	_	2	_	1-½	25
LXWSV	2½	Yes	12.5	C-5	_	SV	1–½	1–½	2	_	1-1/2	25
LXWV-25	2½	Yes	12.5	C-5	_	CV	1–½	1-1½	2	_	1-½	25



Switch Boxes and Accessories

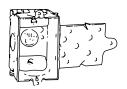
3" x 2" Switch Boxes (continued)



LXWV 2G 2-gang with CV bracket recessed 1/8"



806 SW S bracket recessed 5%"



806 SW 1/4 S bracket recessed 1/4"



A254-25



A257-25 With nails slanted for easy drive-in



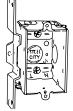
A-258 Without nails



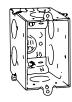
CWN-25 Ears flush



CWNLE



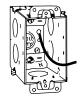
CWNV-25 CV bracket recessed 1/8"



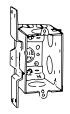
CXWLE



CXWOW Ears flush for old work



CXWOWP



CXWV CV bracket recessed 7/8"



With Non-Metallic Sheathed Cable Clamps (continued)

							KNOCKOUTS (IN.)					
CAT. NO.	DEPTH (IN.)	GANGABLE	CU. IN. Capacity	CLAMPS	EARS	BRKTS.	EA. END CONDUIT	EA. END Cable	CABLE	BOTTOM CABLE	BOTTOM CONDUIT	STD. CTN.
LXWV 2G	2½	Yes	12.5	C-5		CV	1–½	2-½	4		2–½	25
806 SW	2½	Yes	12.5	C-5	_	S	1-½	1-1/2	2	_	1-1/2	25
806 SW 1/4	2½	Yes	12.5	C-5	_	S	1-½	1-1½	2	_	1-1/2	25
A254-25	2½	_	12.5	C-5	_	_	_	1-1/2	2	_	1-1/2	25
A257-25	2½	_	12.5	C-5	_	_	_	1-1/2	2	_	1-1/2	25
A-258	2½	_	12.5	C-5	_	_	_	1-1/2	2	_	1-1/2	25
CWN-25	2¾	Yes	14.0	C-5	Yes	_	1-1/2	_	2	_	1-1/2	25
CWNLE	2¾	Yes	14.0	C-5	_	_	1-½	_	2	_	1-1/2	25
CWNV-25	2¾	Yes	14.0	C-5	_	CV	1-½	_	2	_	1-1/2	25
CXWLE	3½	Yes	18.0	C-5	_	_	2-1/2	1-1/2	2	_	1-1/2	25
CXWOW	3½	Yes	18.0	C-5	Yes	_	2-1/2	1-1/2	2	_	1-1/2	25
CXWOWP	3½	Yes	18.0	C-5	Yes	_	2-1/2	1-1/2	2	_	1-1/2	25
CXWV	3½	Yes	18.0	C-5	_	CV	2-1½	1-½	2	_	1-½	25
CXWVP	3½	Yes	18.0	C-5	_	CV	2-1/2	1-½	2	_	1-1½	25

800.816.7809 Fax: 901.252.1354 Tel: 888.862.3289







Switch Boxes and Accessories

3" x 2" Switch Boxes (continued)



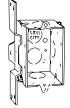
CDOW Ears flush



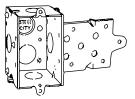
CDOWTG-25 Ears flush



CDLE-25



CDV-25 CV bracket recessed 7/8"



804 S S bracket recessed 5/8"



CW 1/2 Ears flush



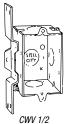
CW3/4-25 Ears flush



CWLE1/2-25



CWLE 3/4



CV bracket recessed 7/8"



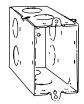
CY 1/2 Ears flush



CY 3/4 Ears flush



CYLE 1/2



CYLE 3/4

With Conduit KOs

	'					KNOCKOUTS (IN.)			
CAT. NO.	DEPTH (IN.)	GANGABLE	CU. IN. Capacity	EARS	BRKTS.	EA. END CONDUIT	EA. END Cable	BOTTOM CONDUIT	STD. CTN.
CDOW	2½	Yes	12.5	Yes	_	1½	1½	2½	50
CDOWTG-25	2½	Yes	12.5	Yes	_	1½	1½	2½	25
CDLE-25	2½	Yes	12.5	_	_	1½	1½	2½	25
CDV-25	2½	Yes	12.5	_	CV	1½	1½	2½	25
804 S	2½	Yes	12.5	_	S	1½	1½	2½	25
CW 1/2	2¾	Yes	14.0	Yes	_	1-1/2	1-1/2	1-1/2	50
CW3/4-25	2¾	Yes	14.0	Yes	_	1-3/4	1-3/4	1-3/4	25
CWLE1/2-25	2¾	Yes	14.0	_	_	1-1/2	1-1/2	1-1/2	25
CWLE 3/4	2¾	Yes	14.0	_	_	1-3/4	1-3/4	1-3/4	25
CWV 1/2	2¾	Yes	14.0	_	CV	1-1/2	1-1/2	1-1/2	25
CY 1/2	3½	Yes	18.0	Yes	_	2-1/2	2-1/2	1-½	25
CY 3/4	3½	Yes	18.0	Yes	_	2-3/4	2-3/4	1-½	25
CYLE 1/2	3½	Yes	18.0	_	_	2-1/2	2-1/2	1-½	25
CYLE 3/4	3½	Yes	18.0	_	_	2-3/4	2-3/4	1-1/2	25

1-800-453-1692

Switch Boxes and Accessories

3" x 2" Switch Boxes (continued)



LXMOW-25 Ears flush for old work



LXOW-25 Ears flush for old work



LXOWC-25 Adapts to 3/4" wall thickness



LXLE



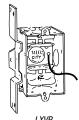
CV bracket recessed 7/8"



CWX-25 Ears flush



CV bracket recessed 1/2"



806 S S bracket recessed 5%"



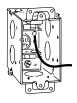
for easy drive-in



CX Ears flush



CXI F-SSX For metal stud





CV bracket

With Armored Cable/Metal Clad Clamps

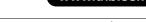
					KNOCKOUTS (IN.)						
CAT. NO.	DEPTH (IN.)	GANGABLE	CU. IN. Capacity	CLAMPS	EARS	BRKTS.	EA. END CONDUIT	EA. END Cable	CABLE	BOTTOM CONDUIT	STD. CTN.
LXM0W-25	2	Yes	10.5	C-3	Yes			2		1-1/2	25
LXOW-25	21/2	Yes	12.5	C-3	Yes	_	1-1/2	_	2	1-1/2	25
LXOWC-25	21/2	Yes	12.5	C-3	Yes	_	1-1/2	_	2	1-1/2	25
LXLE	21/2	Yes	12.5	C-3	_	_	1-1/2	1-1/2	2	1-1/2	25
LXV-25	21/2	Yes	12.5	C-3	_	CV	1-1/2	1-1/2	2	1-1/2	25
LXVP	21/2	Yes	12.5	C-3	_	CV	1-1/2	1-1/2	2	1-1/2	25
806 S	21/2	Yes	12.5	C-3	_	S	1-1/2	1-1/2	2	1-1/2	25
A-256	21/2	_	12.5	C-3	_	_	_	1-1/2	2	1-1/2	25
CWX-25	23/4	Yes	14.0	C-3	Yes	_	1-1/2	_	2	1-1/2	25
CWXV-25	23/4	Yes	14.0	C-3	_	CV	1-1/2	_	2	1-1/2	25
CX	31/2	Yes	18.0	C-3	Yes	_	2-1/2	1-1/2	2	1-1/2	25
CXLE-SSX	31/2	Yes	18.0	C-3	No	SSX	2-1/2	1-1/2	2	1-1/2	25
CXP	31/2	Yes	18.0	C-3	Yes	_	2-1/2	1-1/2	2	1-1/2	25
CXV	31/2	Yes	18.0	C-3	_	CV	2-1/2	1-1/2	2	1-1/2	25

Thomas@Betts

United States Tel: 901.252.8000

800.816.7809 Fax: 901.252.1354 **Technical Services**



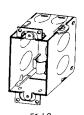


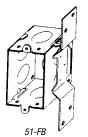
Switch Boxes and Accessories

Gangable Switch Boxes — 2" Deep





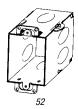


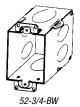


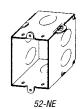
CU. IN. Capacity	DESCRIPTION	STD. CTN.
10.0	2" deep x 3" long x 2" wide	50
	Two ½" KOs in each of two sides, one ½" KO in each end and two ½" KOs in bottom. Two nail holes in sides. Furnished with plaster ears*	
10.0	2" deep x 3" long x 2" wide	50
	Two ½" KOs in each of two sides, one ½" KO in each end and two ½" KOs in bottom. Two nail holes in sides*	
10.0	For Non-Metallic Cable, 2" deep x 3" long x 2" wide	50
	Two ½" KOs in each of two sides, two Loom KOs in each end and one ½" KO in bottom. Furnished with plaster ears. One Loom clamp for use on non-metallic sheathed cable with 10/32 deep-slotted screw assembled. Two nail holes in sides*	
10.0	2" deep x 3" long x 2" wide	50
	Two $\frac{1}{2}$ " KOs in one side, flat bracket on other side, one $\frac{1}{2}$ " KO in each end and two $\frac{1}{2}$ " KOs in bottom. Bracket offset $\frac{4}{5}$ " from face*	
	10.0 10.0 10.0	CAPACITY DESCRIPTION 2" deep x 3" long x 2" wide Two ½" KOs in each of two sides, one ½" KO in each end and two ½" KOs in bottom. Two nail holes in sides. Furnished with plaster ears*

*Uses Steel City® 100 series covers.

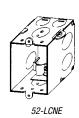
Gangable Switch Boxes — 2½" Deep



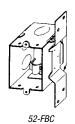












CAT. NO.	CU. IN. Capacity	DESCRIPTION	STD. CTN.
52	12.5	2½" deep x 3" long x 2" wide	50
		Two ½" KOs in each of two sides, one ½" KO in each end and two ½" KOs in bottom.Furnished with plaster ears. Four nail holes in sides*	
52-3/4-BW	12.5	2½" deep x 3" long x 2" wide	50
		Two ½" KOs in each of two sides, one ¾" KO in each end and two ½" KOs in bottom. Furnished with plaster ears. Four nail holes in sides*	
52-NE	12.5	2½" deep x 3" long x 2" wide	50
		Two ½" KOs in each of two sides, one ½" KO in each end and two ½" KOs in bottom. Four nail holes in sides*	
52-NE-3/4	12.5	2½" deep x 3" long x 2" wide	50
		Two ½" KOs in each of two sides, one ¾" KO in each end and two ½" KOs in bottom. Four nail holes in sides*	
52-LCNE	12.5	For Non-Metallic Cable, 2½" deep x 3" long x 2" wide	50
		Two ½" KOs in each side, two Loom KOs and one ½" KO in each end. One ½" KO in bottom. One Loom clamp for use on non-metallic sheathed cable with 10/32 deep-slotted screw assembled. Four nail holes in sides*	
52-FB-3/4	12.5	2½" deep x 3" long x 2" wide	50
		Two ½" KOs in one side, flat bracket on other side, one KO in each end and two ¾" KOs in bottom. Flat bracket offset ½" from face*	
52-FBC	12.5	For Non-Metallic Cable, 2½" deep x 3" long x 2" wide	50
		Two ½" KOs in one side, flat bracket on other side, two Loom KOs and one ½" KO in each end and one ½" KO in bottom. One Loom clamp for use on non-metallic sheathed cable with 10/32 deep-slotted screw assembled. Flat bracket offset %" from face*	

*Uses Steel City® 100 series covers.

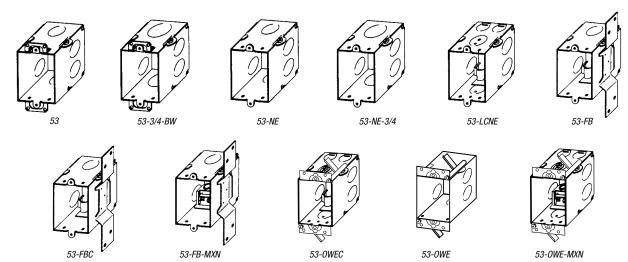






Switch Boxes and Accessories

Gangable Switch Boxes — 2¾" Deep



CAT. NO.	CU. IN. Capacity	DESCRIPTION	STD. CTN.
53	14.0	2¾" deep x 3" long x 2" wide Two ½" KOs in each side, one ½" KO in each end and two ½" KOs in bottom. Furnished with plaster ears. Four nail holes in sides*	50
53-3/4-BW	14.0	2%" deep x 3" long x 2" wide Two ½" KOs in each side, one ¾" KO in each end and two ½" KOs in bottom. Furnished with plaster ears. Four nail holes in sides*	50
53-NE	14.0	2%" deep x 3" long x 2" wide Two ½" KOs in each side, one ½" KO in each end and two ½" KOs in bottom. Four nail holes in sides*	50
53-NE-3/4	14.0	2%" deep x 3" long x 2" wide Two ½" KOs in each side, one ¾" KO in each end and two ½" KOs in bottom. Four nail holes in sides*	50
53-LCNE	14.0	For Non-Metallic Cable, 2¾" deep x 3" long x 2" wide Two ½" KOs in each side, two Loom KOs and one ½" KO in each end and one ½" KO in bottom. One Loom clamp for use on non-metallic sheathed cable with 10/32 deep-slotted screw assembled. Four nail holes in sides*	50
53-FB	14.0	2%" deep x 3" long x 2" wide Two ½" KOs in one side, flat bracket on other side, one ½" KO in each end and two ½" KOs in bottom. Flat bracket offset %;" from face*	50
53-FBC	14.0	For Non-Metallic Cable, 2%" deep x 3" long x 2" wide Two ½" KOs in one side, flat bracket on other side, two Loom KOs and one ½" KO in each end and one ½" KO in bottom. Flat offset %=" from face. One Loom clamp for use on non-metallic sheathed cable with 10/32 deep-slotted screw assembled*	50
53-FB-MXN	14.0	For Metal Clad Cable, 2%" deep x 3" long x 2" wide Two ½" KOs in one side, flat bracket on other side, two Loom KOs and one ½" KO in each end, and one ½" KO in bottom. One MXN clamp for MC, AC/BX, and non-metallic sheathed cable (NM) included with 10/32 deep-slotted screw. Clamp is UL Listed for use with cable sizes 14/2 through 10/3 with ground*	50
53-0WEC	14.0	For Non-Metallic Cable, 2¾" deep x 3" long x 2" wide Two ½" KOs in each side, two Loom KOs and one ½" KO in each end and one ½" KO in bottom. Furnished with plaster ears. One Loom clamp for use on non-metallic sheathed cable with 10/32 deep-slotted screw assembled. With old-work swing brackets*	50
53-0WE	14.0	2%" deep x 3" long x 2" wide Two ½" KOs in each side, one ½" KO in each end and two ½" KOs in bottom. Furnished with plaster ears. With old-work swing brackets*	50
53-OWE-MXN	14.0	For Metal-Clad Cable, 2½" deep x 3" long x 2" wide Two ½" KOs in each side. Two Loom KOs and one ½" KO in each end and one ½" KO in bottom. One MXN clamp for MC, AC/BX and non-metallic sheathed cable (NM) included with 10/32 deep-slotted screw. Clamp is UL Listed for use with cable sizes 14/2 through 10/3 with ground. Furnished with plaster ears. With old-work swing brackets*	50

*Uses Steel City® 100 series covers.





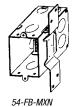


Switch Boxes and Accessories

Gangable Switch Boxes — 3½" Deep



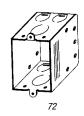


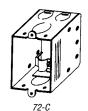


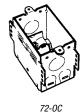
CAT. NO.	CU. IN. Capacity	DESCRIPTION	STD. CTN.
54-LC	18.0	For Non-Metallic Cable 3½" deep x 3" long x 2" wide Two ½" KOs in each side, two Loom KOs and one ½" KO in each end and one ½" KO in bottom. Two Loom clamps for use on non-metallic sheathed cable with 10/32 deep-slotted screws assembled. Furnished with plaster ears. Four nails holes in sides*	50
54-FBC	18.0	For Non-Metallic Cable 3½" deep x 3" long x 2" wide Two ½" KOs in one side, flat bracket and two ½" KOs in other side, two Loom KOs and one ½" KO in each end and one ½" KO in bottom. Two Loom clamps for use on non-metallic sheathed cable with 10/32 deep-slotted screws assembled. Flat bracket offset ½" from face*	50
54-FB-MXN	18.0	For Metal Cable, 3½" deep x 3" long x 2" wide Two ½" KOs in one side, flat bracket and two ½" KOs in other side, two Loom KOs and one ½" KO in each end and one ½" KO in bottom. Two MXN clamps for MC, AC/BX, and non-metallic sheathed cable (NM) included with 10/32 deep- slotted screws. Clamps are UL Listed for use with cable sizes 14/2 through 10/3 with ground. Flat bracket offset ½" from face*	50

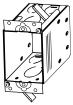
^{*}Uses Steel City® 100 series covers.

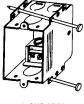
Welded Non-Gangable Switch Boxes - 2½" Deep

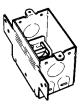












72	?-OWE	72-ONS-MXN 72-FB-M	IXN
CAT. NO.	CU. IN. Capacity	DESCRIPTION	STD. CTN.
72	12.5	2½" deep x 3" long x 2" wide Two Loom KOs and one ½" KO in each end and one ½" KO in bottom. Four nail holes included*	50
72-C	12.5	For Non-Metallic Cable 2½" deep x 3" long x 2" wide Two Loom KOs and one ½" KO in each end and one ½" KO in bottom. Four nail holes included. One Loom clamp for use on non-metallic sheathed cable with 10/32 deep-slotted screw assembled*	50
72-0C	12.5	For Non-Metallic Cable 2½" deep x 3" long x 2" wide Two Loom KOs and one ½" KO in each end and one ½" KO in bottom. One Loom clamp for use on non-metallic sheathed cable with 10/32 deep-slotted screw assembled. Four nail holes included. Provisions for external nails included*	50
72-0WE	12.5	2½" deep x 3" long x 2" wide Two Loom KOs and one ½" KO in each end and one ½" KO in bottom. With old-work swing brackets*	50
72-ONS-MX	N 12.5	For Metal-Clad Cable	50

½" KO in bottom. One MXN clamp for MC, AC/BX and nonmetallic sheathed cable (NM) included with 10/32 deep-slotted screw. Clamp is UL Listed for use with cable sizes 14/2 through 10/3 with ground. Four nail holes included. Two 16-penny nails swaged at an angle in box* 72-FB-MXN

12.5 For Metal-Clad Cable 2½" deep x 3" long x 2" wide

Two Loom KOs and one ½" KO in each end, one ½" KO in bottom and flat bracket on one side offset %6"from face. Two MXN clamps for MC, AC/BX and nonmetallic sheathed cable (NM) included with 10/32 deep-slotted screws. Clamps are UL Listed for use with cable sizes 14/2 through 10/3 with ground. Four nail holes included*

*Uses Steel City® 100 series covers.



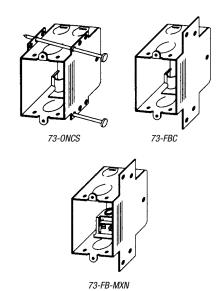




Switch Boxes and Accessories

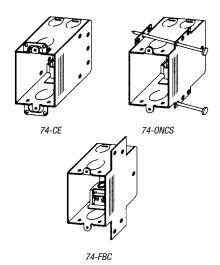
Welded Non-Gangable Switch Boxes — 213/1611 Deep

CAT. NO.	CU. IN. Capacity	DESCRIPTION	STD. CTN.
73-0NCS	15.8	For Non-metallic Cable, 2 ¹³ /16 ¹¹ deep x 3" long x 2 ⁹ /164" wide Two Loom KOs and one 1/2" KO in each end and one 1/2" KO in bottom. One Loom clamp for use on non-metallic sheathed cable with 10/32 deep-slotted screw assembled. Two 16-penny nails swaged at an angle in box*	50
73-FBC	15.8	For Non-metallic Cable, 2'3/16" deep x 3" long x 29/64" wide Two Loom KOs and one ½" KO in each end, one ½" KO in bottom and flat bracket on one side offset 9/16" from face. One Loom clamp for use on non-metallic sheathed cable with 10/32 deep-slotted screw assembled. Four nail holes included*	50
73-FB-MXN	15.8	For Metal-Clad Cable, 2 ¹³ /1s" deep x 3" long x 2 ⁹ /5s" wide Two Loom KOs and one ½" KO in each end, one ½" KO in bottom and flat bracket on one side offset ½s" from face. One MXN clamp for MC, AC/BX and non-metallic sheathed cable (NM) included with 10/32 deep-slotted screw. Clamp is UL Listed for use with cable sizes 14/2 through 10/3 with ground. Four nail holes included*	50



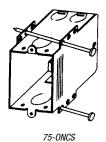
Welded Non-Gangable Switch Boxes — 3" Deep

CAT. NO.	CU. IN. Capacity	DESCRIPTION	STD. CTN.
74-CE	18	For Non-metallic Cable, 3½" deep x 3" long x 2½" wide Two Loom KOs and one ½" KO in each end and one ½" KO in bottom. One Loom clamp for use on non-metallic sheathed cable with 10/32 deep-slotted screw assembled. Furnished with ears. Four nail holes included*	50
74-ONCS	18	For Non-metallic Cable, 3½" deep x 3" long x 2½" wide Two Loom KOs and one ½" KO in each end and one ½" KO in bottom. One Loom clamp for use on non-metallic sheathed cable with 10/32 deep-slotted screw assembled. Two 16-penny nails swaged at an angle in box*	50
74-FBC	18	For Non-metallic Cable, 3%" deep x 3" long x 2%" wide Two Loom KOs and one ½" KO in each end, one ½" KO in bottom and flat bracket on one side offset %6" from face. One Loom clamp for use on non-metallic sheathed cable with 10/32 deep-slotted screw assembled. Four nail holes included*	50



Welded Non-Gangable Switch Box — 313/3211 Deep

CAT. NO.	CU. IN. Capacity	DESCRIPTION	STD. CTN.
75-ONCS	20.0	For Non-metallic Cable, 313/32" deep x 3" long x 21/4" wide	50
		Two Loom KOs and one ½" KO in each end and one ½" KO in bottom. Two Loom	
		clamp for use on non-metallic sheathed cable with 10/32 deep-slotted screw assembled.	
		Four nail holes included. Two 16-penny nails swaged at angle in box*.	





United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354

Technical Services Tel: 888.862.3289





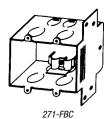


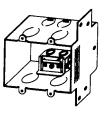
Switch Boxes and Accessories

Welded Multi-Gangable Switch Boxes — 21/211 Deep

CAT. NO.	CAPACITY	DESCRIPTION	STD. CTN.
271-FBC	25.0	A Two-Gang Box — For Non-Metallic Cable, 21/2" deep x 3" long x 4" wide Two Loom KOs and two 1/2" KOs in each end, flat bracket on one side and one 1/2" KO in bottom. Two Loom clamps for use on non-metallic sheathed cable with 10/32 deep-slotted screws assembled. Flat bracket offset 9/16" from face*	25
271-FB-MXN	25.0	A Two-Gang Box — For Metal-Clad Cable, 2¹/2" deep x 3" long x 4" wide Two Loom KOs and two ¹/2" KOs in each end, flat bracket on one side and one ¹/2" KO in bottom.Two MXN clamps for MC, AC/BX and non-metallic sheathed cable (NM) included with 10/32 deep-slotted screws. Clamps are UL Listed for use with cable sizes 14/2 through 10/3 with ground. Flat bracket offset ⁴/16" from face*	25







271-FB-MXN

4" x 21/16" Thru-Wall Box

CAT. NO.	CU. IN. Capacity	DESCRIPTION	BOX DEPTH (IN.)	STD. CTN.
With Condu	it KOs for Plaste	r or Dry Wall		
CTDW	32.0	Drywall, partition type; one $^{1}/_{2}$ " and one $^{3}/_{4}$ " KO both ends; one $^{1}/_{2}$ " KO on one side, V bracket other side	45/16	25



Switch Box Extension

CAT. NO.	DESCRIPTION	STD. CTN.
SBEX	Cubic content 3.5 inches; fits snugly inside of all single-gang switch boxes; maximum adjustable depth $\frac{7}{8}$ "; furnished with $\frac{1}{4}$ "-long screws for mounting	50

UL Listing not applicable — subject to approval by local inspector.





United States Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354

Technical Services Tel: 888.862.3289



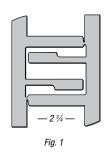


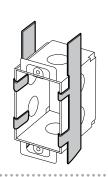
Switch Boxes and Accessories

Old-Work Box Support

- Quickly attaches box through finished drywall
- For up to 1½" thick drywall
- New 820D shipped in onepiece break-apart design
- · Easy to install

CAT. NO.	FIG. No.	DESCRIPTION	STD. CTN.
820D	1	Old-work switch box steel-mounting holder	500 sets



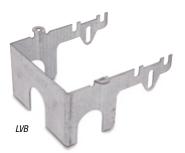


Steel Low-Voltage Bracket

- Fixes to the switch box easily with the screws provided
- Works with any Steel City® switch box, regardless of depth
- · Single-screw fixing as well as two-screw fixing
- Low-voltage cable support is provided by fitting location tabs
- · UL Listed for low-voltage support



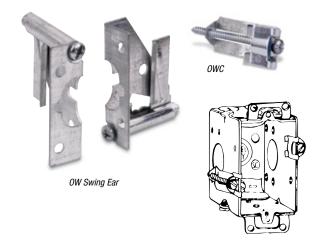
CAT. NO.	DESCRIPTION	BOX DEPTH (IN.)	STD. CTN.
LVB	Bracketed to T&B boxes; provides	11//8	25
	means of installing a low-voltage device		
	alongside a regular switch or outlet		



Old-Work Box Support Clips

Adapts to any wall thickness up to ³/₄"

CAT. NO.	DESCRIPTION	STD. CTN.
OWC	Clips lock old-work steel switch boxes tightly to wall plaster, drywall, concrete block, brick or concrete. 2 required per box, (1 set)	250 sets
OW SWING EAR	Swing ears only (for field installations) with self-threading screws	50 (25 pair)





United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services** Tel: 888.862.3289





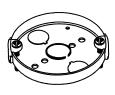


Round/Octagon Boxes and Accessories

4" Round Boxes

				KNOCKOUTS (IN.)	
CAT. NO.	DEPTH (IN.)	CU. IN. Capacity	DESCRIPTION	CONDUIT BOTTOM	STD. CTN.
With Conduit K	(Os				
56111	1/2	6.0	Steel outlet box	4-1/2	50
56111-CFB*	1/2	6.0	Ceiling fan box with plastic Romex connector included. NC501-SC	2-1/2	10





56111

56111-CFB

*Meets NEC® 314.27(c) up to 35 lb. fan.

56111-CFB is shipped with plastic cover and all hardware.

50 lb. maximum loading for fixtures.

NEC and National Electrical Code are registered trademarks of the National Fire Protection Association, Inc.

4" Pancake Boxes

CAT. NO.	CU. IN. Capacity	DESCRIPTION	STD. CTN.
410-LC	5.8	For Non-Metallic Sheathed Cable, 4" diameter — ½" deep Three ½" KOs in a line and four Loom KOs at opposite ends in bottom. Furnished with two Loom clamps for non-metallic cable with 10/32 deep-slotted screws and two 8/32 x ½" screws in ears*	50

*Uses Steel City® 500 series covers.

50 lb. maximum loading for fixtures.



410-LC

3½" Round Boxes

				KNOCKOL		
CAT. NO.	DEPTH (IN.)	CU. IN. Capacity	CLAMPS	BOTTOM CONDUIT	CABLE	STD. CTN.
With Non-Me	etallic Shea	thed Cable Cla	amps			
36115 C30	1/2	4.0	C-8	1-1/2	4	30
36125 D	3/4	4.0	C-10	1-1/2	4	25
50 lb. maximu	ım loading fo	r fixtures.				



36115 C30 Cover screws supplied



36125 D Cover screws supplied

31/411 Pancake Boxes

CAT. NO.	CU. IN. Capacity	DESCRIPTION	STD. CTN.
210-L	4.0	For Non-Metallic Sheathed Cable, $3\frac{1}{4}$ " diameter — $\frac{1}{2}$ " deep. Three $\frac{1}{2}$ " KOs in a line with four Loom KOs at opposite ends in bottom. Furnished with two $\frac{8}{32}$ x $\frac{1}{2}$ " screws*	100

*Uses Steel City® 300 series covers. 50 lb. maximum loading for fixtures.



210-L

Covers for 31/211 Round and Octagon Boxes

CAT. NO.	DESCRIPTION	STD. CTN.
24C1-25	Flat, blank	100
24-C-6	Flat with ½" KO	25



24-C-6

Thomas@Betts



United States Tel: 901.252.8000

800.816.7809 Fax: 901.252.1354

Technical Services Tel: 888.862.3289





A-29

Round/Octagon Boxes and Accessories

3½" Octagon Boxes

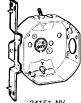
					KNOCKOUTS (IN.)				
CAT. NO.	DEPTH (IN.)	CU. IN. Capacity	CLAMPS	EA. SIDE CLAMPS	EA. SIDE Conduit	EA. END Conduit	EA. END Cable	BOTTOM CONDUIT	STD. CTN.
With Conduit KOs									
241511/2-25	11/2	11.8	_	_	1-1/2	1-1/2	_	1-1/2	50
25151 1/2	1½	11.8	_	_	1-1/2	1-1/2	_	_	50
With Non-Meta	allic Shea	thed Cable C	amps						
24151N-25	11/2	11.8	C-5	_	1-1/2	_	2	1-1/2	50
24151-NV	11/2	11.8	C-5	_	1-1/2	_	2	1-1/2	50
50 lb. maximum	loading for	r fixtures.							





241511/2-25





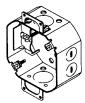
24151N-25

24151-NV V bracket recessed ½"

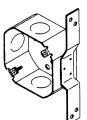
31/211 Octagon Boxes



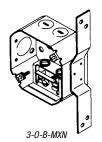


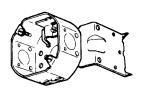


3-0-LCE



3-0-B-1/2





3-0-LCH

CAT. NO.	DEPTH (IN.)	CU. IN. Capacity	DESCRIPTION	CONSTRUCTION Type	STD. CTN.
3-0-SPL	1½	11.8	One ½" KO in each of two opposite sides, one ¾" KO in other two sides and one ½" KO in bottom*	Drawn	50
3-0-LCE	1½	11.8	For Non-Metallic Sheathed Cable Two Loom KOs in each of two opposite sides, two ½" KOs in other two sides and one ½" KO in bottom. Two ears, one on each of two opposite sides. Two Loom clamps for use on non-metallic sheathed cable with 10/32 deep-slotted screws assembled*	Drawn	50
3-0-B-1/2	1½	11.8	One $\frac{1}{2}$ " KO in each of three sides, flat bracket on fourth side, with one $\frac{1}{2}$ " KO in bottom. Flat bracket offset $\frac{1}{2}$ " from face*	_	50
3-0-B-MXN	1½	11.8	For Metal-Clad Cable Two Loom KOs in each of two opposite sides, one ½" KO in side opposite bracket and one ½" KO in bottom. Two MXN clamps for MC, AC/BX and non-metallic sheathed cable (NM) included with 10/32 deep-slotted screws. Clamps are UL Listed for use with cable sizes 14/2 through 10/3 with ground. Flat bracket offset ½" from face*	Drawn	50
3-0-LCH	1½	11.8	For Non-Metallic Sheathed Cable Two Loom KOs in each of two opposite sides, one ½" KO in other two sides and one ½" KO in bottom. Two Loom champs for use on non-metallic sheathed cable with 10/32 deep-slotted screws assembled. Hanger bracket for overhead work*	Drawn	50

^{*}Uses Steel City® 31/2" octagonal extension rings and 300 series rings and covers.

50 lb. maximum loading for fixtures.





Round/Octagon Boxes and Accessories

4" Octagon Boxes



54151 N



54151 NE Adjustable ears recessed 5%"



54151 NL L bracket flush mounted



54151 NV V bracket recessed 1/2"



54171N-25



54171 NL L bracket mounted flush



54171NV-25 V bracket recessed 1/2"



54151 1/2



54151 3/4

DEPTH



54151 1/2 & 3/4

CU. IN.



54151 V 1/2 V bracket recessed 1/2"

EA. SIDE

KNOCKOUTS (IN.)

EA. END

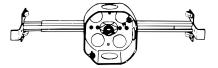
EA. END



54151 L 1/2 L bracket flush mounted

BOTTOM

STD.



54151 J 1/2 — Mounted on 6010-DW bar adjustable $10\frac{1}{2}$ " to $18\frac{1}{2}$ ". Offset for $\frac{1}{2}$ ", $\frac{3}{4}$ " or $\frac{7}{8}$ " plaster. Maximum horizontal positioning. 3/8" fixture stud.



541711/2-25



54171 3/4



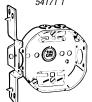
54171 1/2 3/4



54171 1



54151 A



54151AV-25 V bracket recessed 1/2"

CAT. NO.	(IN.)	CAPACITY	CLAMPS	BRKTS.	CONDUIT	CONDUIT	CABLE	CONDUIT	CTN.
With Non-Metallic	Sheathe	d Cable Cla	mps						
54151 N	11/2	15.8	C-5	_	1-1/2	_	2	1-1/2	50
54151 NE	11/2	15.8	C-5	_	1-1/2	_	2	1-1/2	50
54151 NL	11/2	15.8	C-5	L	1-1/2	_	2	1-1/2	50
54151 NV	11/2	15.8	C-5	V	1-1/2	_	2	1-1/2	50
54171N-25	21/8	22.5	C-5	_	1-1/2	_	2	1-1/2	50
54171 NL	21/8	22.5	C-5	L	1-1/2	_	2	1-1/2	50
54171NV-25	21/8	22.5	C-5	V	1-1/2	_	2	1-1/2	25
With Conduit KOs									
54151 1/2	11/2	15.8	_	_	1-1/2	1-1/2	_	5-1/2	50
54151 3/4	11/2	15.8	_	_	1-3/4	1-3/4	_	3-1/2	50
								2-3/4	
54151 1/2 & 3/4	11/2	15.8	_	_	1-1/2	1-3/4	_	3-1/2	50
								2-3/4	
54151 V 1/2	11/2	15.8	_	V	1-1/2	1-1/2	_	5-1/2	25
54151 L 1/2	11/2	15.8	_	L	1-1/2	1-1/2	_	5–½	25
54151 J 1/2	11/2	15.8	_	With bar	1-1/2	1-1/2	_	4-1/2	25
				hanger					
541711/2-25	21/8	22.5	_	1-1/2"	1-1/2	_	5-1/2	50	_
54171 3/4	21/8	22.5	_	1-3/4"	1-3/4	_	3-1/2	25	_
								2-3/4	_
54171 1/2 3/4	21/8	22.5	_	1-1/2"	1-3/4	_	3-1/2	25	_
								2-3/4	_
54171 1	21/8	22.5	_	_	1–1	1–1	_	3-1/2	25
								2-3/4	
With Armored Cal									
54151 A	11/2	15.8	C-3	_	1-1/2	_	2	1-1/2	25

50 lb. maximum loading for fixtures.

54151AV-25

54151 AL



54151 AL L bracket mounted flush

11/2

1½

15.8

15.8

C-3



1-1/2

Thomas@Betts

50

25

1-1/2

Round/Octagon Boxes and Accessories

4" Octagon Boxes (continued)

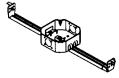
CAT. NO.	DEPTH (IN.)	CU. IN. Capacity	BAR HANGER NUMBER	BAR LGTH. (IN.)	OFFSET FOR	STUD (IN.)	STD. CTN.				
For Non-Metallic	For Non-Metallic Sheathed Cable										
54151 NF	1½	15.8	6010-DW	101/2-181/2	_	3/8	25				
54151 NO	1½	15.8	6010-ADW	141/2-261/2	_	3/8	25				
54151 NG	1½	15.8	6011-DW	101/2-181/2	_	Fastener	25				
54151 NP	1½	15.8	6011-ADW	14½-26½	_	Fastener	25				
For Armored Cal	ble/Metal Clad										
54151 AF	1½	15.8	6010-DW	10½-18½	Drywall	3/8	25				
50 lb. maximum la	oading for fixtures	3.									





4" Octagon Boxes













4-OW-LC-BHC	4-O-ULC	4-0D-L

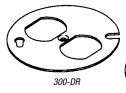
FB-MXN 4-OD-U-MXN

CAT. NO.	DEPTH (IN.)	CU. IN. Capacity	DESCRIPTION	CONSTRUCTION Type	STD. CTN.
4-OW-MXN	1½	15.5	For Metal-Clad Cable Two Loom KOs in each of two opposite sides, one ½" KO in other two sides and one ½" KO in bottom. Two MXN clamps for MC, AC/BX and non-metallic sheathed cable (NM) included with 10/32 deep-slotted screws. Clamps are UL Listed for use with cable sizes 14/2 through 10/3 with ground*	Welded	50
4-0W-LC-BHC	1½	15.5	For Non-Metallic Sheathed Cable Two Loom KOs in each of two opposite sides, one ½" KO in other two sides. Box mounted with clip to adjustable hanger. Two Loom clamps for use on non-metallic sheathed cable with 10/32 deep-slotted screws assembled*	Welded	25
4-0-ULC	1½	15.5	For Non-Metallic Sheathed Cable Two Loom KOs in each of two opposite sides, $\frac{1}{2}$ " KOs in other two sides and one $\frac{1}{2}$ " KO in bottom. Two Loom clamps for use on non-metallic sheathed cable with 10/32 deep-slotted screws assembled. U bracket for overhead work*	Drawn	50
4-OD-LCB	21/8	21.5	For Non-Metallic Sheathed Cable Two Loom KOs in each of two opposite sides, one ½" KO in side opposite bracket and one ½" KO in bottom. Two Loom clamps for use on non-metallic sheathed cable with 10/32 deep-slotted screws assembled. Flat bracket offset ½" from face*	Drawn	25
4-OD-FB-MXN	21/8	21.5	For Metal-Clad Cable Two Loom KOs in each of two opposite sides, one ½" KO in side opposite bracket and one ½" KO in bottom. Two MXN clamps for MC, AC/BX and non-metallic sheathed cable (NM) included with 10/32 deep-slotted screws. Clamps are UL Listed for use with cable sizes 14/2 through 10/3 with ground. Flat bracket offset ½" from face*	Drawn	25
4-OD-U-MXN	21/8	21.5	For Metal-Clad Cable Two Loom KOs in each of two opposite sides, one ½" KO in other two sides and one ½" KO in bottom. Two MXN clamps for MC, AC/BX and non-metallic sheathed cable (NM) included with 10/32 deep-slotted screws. Clamps are UL Listed for use with cable sizes 14/2 through 10/3 with ground. U bracket for overhead work*	Drawn	25

^{*}Uses Steel City® 4" octagonal extension rings and 500 series rings and covers. 50 lb. maximum loading for fixtures.

3" Octagon Box Covers

CAT. NO.	DESCRIPTION	STD. CTN.
300-DR	Flat — 3½" diameter	25
	For duplex receptacle in center. Screw-hole countersunk*	
300-SR	Flat — 3½" diameter	25
	For single receptacle in center. Opening 1.4" in diameter. Screw-holes countersunk*	
*Fits any Sta	eel City® 3" octagonal outlet box or extension ring.	









United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services** Tel: 888.862.3289





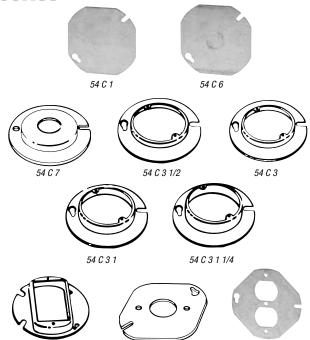


Round/Octagon Boxes and Accessories

4" Round and Octagon Box Covers

CAT. NO.	RAISED (IN.)	DESCRIPTION	CU. IN. Cap.	STD. CTN.
54 C 1		Flat, blank		50
54 C 6	_	Flat, with ½" KO	_	50
54 C 7	5/8	With ½" KO	3.5	25
54 C 3 1/2	1/2	Center blanked with tapped ears on 23/4" centers	3.0	25
54 C 3	5/8	Center blanked with tapped ears on 23/4" centers	3.5	25
54 C 3 1	1	Center blanked with tapped ears 223/32" centers	5.8	25
54 C 3 1 1/4	11/4	Center blanked with tapped ears on 2 ²³ / ₃₂ " centers	7.3	25
54 C 14	5/8	For single device	3.5	25
5401-LR	_	Flat, center blanked for single receptacle — 113/32" dia. hole	-	25
5402 LR	_	Flat, center blanked for duplex receptacle	_	25

For swivel covers, see accessories section on page A-46.



4" Octagon Box **Extension Rings**





55151 1/2 3/4 551511/2-25

		KNOCKOUTS (IN.)				
CAT. NO.	DEPTH (IN.)	CU. IN. Capacity	EA. SIDE CONDUIT	EA. END Conduit	STD. CTN.	
With Conduit KOs						
551511/2-25	11/2	15.8	1-1/2	1-1/2	50	
55151 1/2 3/4	1½	15.8	1-1/2	1-3/4	25	

4" Octagon Box **Extension Rings**



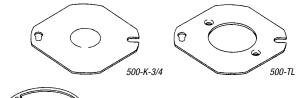


4-0D-EXT-1/2 4-0D-EXT-SPL

CAT. NO.	DEPTH (IN.)	CU. IN. Capacity	DESCRIPTION	CONSTRUCTION Type	STD. CTN.
4-0D-EXT-1/2	21//8	21.5	Extension Ring One ½" KO in each of four sides*	Drawn	25
4-OD-EXT-SPL	21/8	21.5	Extension Ring One ½" KO in each of two opposite sides and one ¾" KO in other two sides*	Drawn	25

*Uses Steel City® 4" octagonal outlet boxes and 500 series rings and covers.

4" Octagon Box Rings and Covers



5401-LR





5402 LR

CAT. NO.	CU. IN. Capacity	DESCRIPTION	STD. CTN.
500-K-3/4	_	Flat — 4" octagonal One ¾" KO in center*	50
500-TL	_	Flat — 4" octagonal Four-wire twistlock in center. Screw holes countersunk. Opening 1.594" diameter*	25
501-CA	4.5	%" raised — 4" diameter Open plaster ring with ears. Ears tapped %2=2232" on centers. Special screw-lock feature in slots*	25
501-CS	1.5	%" raised — 4" diameter Open plaster ring with ears. Ears tapped %=-2232" on centers. Special screw-lock feature in slots*	25

*Fits any Steel City® 4" octagonal outlet box or extension ring.



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354







Ceiling Fan Boxes and Accessories

Fan and Fixture Support

Steel and Non-Metallic Boxes and Bar Hangers for Fan and **Fixture Installation**

Exhaustive research and development has resulted in an innovative line of Ceiling Fan Support Boxes that give Thomas & Betts the competitive advantage. Ceiling fan and fixture installation is faster, easier and safer with Steel City® Ceiling Fan Support Boxes.

- Gold finish on ears/screws easily identifies boxes as meeting UL and NEC® requirements for fan support
- UL Listed up to 50 lbs. for fixture and 35 lbs. for fan
- Each box comes complete with instructions and installation hardware

Ceiling Fan and Light Fixture Bar Hanger

- Square end plates keep the bar parallel with sheetrock
- Square section tube is easy to grip, allowing high torque for safe installation
- UL Listed up to 50 lbs. for fixture and 35 lbs. for fan
- Expandable for joists spaced from 16 to 24 inches

CAPACITY

CU. IN.



Max. rec. loads 35 lbs. fan and 50 lbs. fixture.

CAT. NO.

54151CFB-BHL-OW





Intended for retrofit installations, the unique design of the Old-Work Bar Hanger ensures a trouble-free installation that surpasses the competition.

NEC and National Electrical Code are registered trademarks of the National Fire Protection Association, Inc.

Ceiling Fan Support Boxes

	CAPACITY		DIMENSI	IONS (IN.)	NEW/OLD	STD.
CAT. NO.	CU. IN.	DESCRIPTION	DIA.	DEPTH	WORK	CTN.
56111-CFB	6.0	Pan type ceiling fan box with 3 x $1\!\!/\!\!2^{\text{\tiny II}}$ KOs and non-metallic sheathed cable connector	4	1/2	Both	10
54151-CFB	15.8	1 % deep ceiling fan box with 3 x $%$ KOs and clamps for non-metallic sheathed cable	4	1½	New	10
54151-1/2-CFB-BP	15.8	1½" deep ceiling fan box with 5 x ½" KOs. Bulk pack	4	1½	New	50
54171-CFB	22.0	$2 \mbox{\ensuremath{\%}}''$ deep ceiling fan box with 3 x $\mbox{\ensuremath{\%}}''$ KOs and clamps for non-metallic sheathed cable	4	21/8	New	10
54171-F-CFB*	22.0	As 54171-CFB, but with "F" style mounting bracket	4	21/8	New	10
54171-1/2-F-CFB-BP	22.0	$2 \mbox{\ensuremath{\%}}\mbox$	4	21/8	New	50

				KNOCKOUTS (IN.)				
CAT. NO.	CLAMPS	EARS	BRKTS.	EA. SIDE Conduit	EA. END Conduit	EA. END Cable	BOTTOM CONDUIT	STD. CTN.
54541-CFB	2½" DP	_	Concrete ring	1/2-3/4	_	_	_	50
54551-CFB	3" DP	_	Concrete ring	1/2-3/4	_	_	_	50

Max. loads 35 lbs. fan and 50 lbs. fixture.

Cover — CBP or CBP-3/8. 35# fan rating, 50# fixture rated.



(ĥ)

56111-CFB



54151-CFB



54171-CFB





54551-CFB



54541-CFB



United States Tel: 901.252.8000

800.816.7809 Fax: 901.252.1354

Technical Services Tel: 888.862.3289





www.tnb.com



^{*} Maximum load for 54171-F-CFB is 70 lbs. fan and 200 lbs. fixture.

Ceiling Fan Boxes and Accessories

Extra Heavy-Duty New-Work Bar Hangers

Ceiling Fan and Light Fixture Bar Hangers

This innovative extruded-aluminum bar hanger was designed for strength. It is UL Listed for up to 70 lbs. for fan support and an industry-leading 200 lbs. for fixture support

- Gold end plates easily identify the hanger as meeting UL and NEC® requirements for fan support
- Screwed-on end plates are consistently strong and avoid unsightly welds
- End plates feature temporary fixing spikes for hands-free installation
- Expandable for joists spaced from 16 to 24 inches





56111CFB-BHL



4070CFB-BHL



54151CFB-BHL



CFB-BHL



	CAPACITY			AX. Load	. NEW/OLD	
CAT. NO.	CU. IN.	DESCRIPTION	FAN	FIXTURE	WORK	STD. CTN.
56111CFB-BHL	6.0	New-work bar hanger with $1/2$ " pan-type ceiling fan box with 3 x $1/2$ " KOs and non-metallic sheathed cable connector	70 lbs.	200 lbs.	New	10
54151CFB-BHL	15.8	New-work bar hanger with 1½" deep ceiling fan box with 3 x ½" KOs and clamps for non-metallic sheathed cable	70 lbs.	200 lbs.	New	10
4070CFB-BHL	21.5	New-work bar hanger with non-metallic ceiling fan box with clamps for non-metallic sheathed cable	35 lbs.	50 lbs.	New	10
CFB-BHL	*	New-work bar hanger without outlet box. Mounting bracket for outlet box included	_	*	New	10

^{*} Dependent on box used.

NEC and National Electrical Code are registered trademarks of the National Fire Protection Association, Inc.





Square Boxes and Accessories

Easy to identify and install!

Fire Alarm Boxes and Fittings

Steel City® Fire Alarm Boxes and Fittings can meet all of your visual identification requirements for fire alarm systems and make installation and upgrades faster and easier than ever before! Available in a variety of sizes to accommodate new or old work configurations, these boxes are simple to install with high-quality Thomas & Betts fittings. Plus, the bright red finish eliminates time-consuming painting of existing fixtures and provides long-lasting identification in even the harshest environments.











52171-1234RD

52151-1234RD

72171-1234RD



52171-CV-1234RD

52171-EXTRD



52-C-1RD



53171-1234RD

Fire Alarm Boxes



CAT. NO.	DESCRIPTION	EARS	BRACKETS	EACH SIDE Conduit	EACH END CONDUIT	BOTTOM Conduit	CU. IN. Capacity	
52171-1234RD	21/8"-deep 4"-square red box		_	2½", 1½" & ¾"E	2½", 1½" & ¾"E	3½", 2½" & ¾"E	30.3	50
52151-1234RD	1½"-deep 4"-square drawn red box	_	_	21/2", 13/4"	21/2", 13/4"	31/2", 23/4"	21.0	50
72171-1234RD	21/8"-deep 411/16" red box	_	_	31/2" & 3/4"E	31/2" & 3/4"E	3½", 2½" & ¾"E	42.0	20
52171-CV-1234RD	21/8"-deep 4"-square red box with CV bracket	_	CV	2½", 1½" & ¾"E	2½", 1½" & ¾"E	3½", 2½" & ¾"E	30.3	50
52171-EXTRD	21/8"-deep 4"-square red box with ext. ring	_	_	4½", 2½" & ¾"E	4½", 2½" & ¾"E	3½", 2½" & ¾"E	60.6	25
52171-EXTOWRD	$2 \ensuremath{\mbox{\sc 1}}\xspace^{-1}\xspace^{-1}$ -square red box with ext. ring and old work ears	Yes	_	4½", 2½" & ¾"E	4½", 2½" & ¾"E	3½", 2½" & ¾"E	60.6	25
52 C 1RD	Flat 4"-square red cover	_	_	_	_	_	_	100
53171-1234RD	21/8"-deep 4"-square red extension ring	_	_	2½", 1½" & ¾"E	2½", 1½" & ¾"E	_	30.3	25
521911234RD	3½"-deep 4"-square red box	_	_	4 x ½" & ¾" Combo	2 x $\frac{1}{2}$ " & $\frac{3}{4}$ " Combo	4 x ½" & ¾" Combo	46	24
521911234CVRD	3½"-deep 4"-square red box w/side mounting bracket	_	CV	4 x 1/2" & 3/4" Combo	2 x 1/2" & 3/4" Combo	4 x 1/2" & 3/4" Combo	46	10

Fire Alarm Fittings



I II C Alai III	i itungs	
CAT. NO.	DESCRIPTION	STD. CTN.
TC121A-FA	½" Red Steel EMT Set Screw Connector	50
TC122A-FA	3/4" Red Steel EMT Set Screw Connector	50
TC123A-FA	1" Red Steel EMT Set Screw Connector	25
TC721A-FA	½" Red Insulated Steel EMT Set Screw Connector	50
TC722A-FA	3/4" Red Insulated Steel EMT Set Screw Connector	50
TC723A-FA	1" Red Insulated Steel EMT Set Screw Connector	25
TK121A-FA	½" Red Steel EMT Set Screw Coupling	50
TK122A-FA	3/4" Red Steel EMT Set Screw Coupling	50
TK123A-FA	1" Red Steel EMT Set Screw Coupling	25



TK122A-FA

TC122A-FA



TK121A-FA



TC121A-FA



United States Tel: 901.252.8000

800.816.7809 Fax: 901.252.1354

Technical Services Tel: 888.862.3289







Square Boxes and Accessories

4" Square Old-Work Box with Swing Ears

CAT. NO.	DESCRIPTION	STD. CTN.
52171-0W	Metallic 4"-Sq. x 21/8"D	25
	Old-Work Box with factory-mounted swing ears	
OW SWING EAR	Swing Ears only (for field installation) with self-threading screws	50 (25 pair)

4" Square Boxes

					KNO	CKOUTS (IN.)	_
CAT. NO.	DEPTH (IN.)	CU. IN. Capacity	CLAMPS	BRKTS.			BOTTOM CONDUIT	
With Non-Metallic	Sheath	ed Cable	Clamps					
52151 N	1½	21.0	C-5	-	2-1/2, 1-1/2, 3/4E	2	1-1/2	50
52151 MS N*	1½	21.0	C-5	MS	2-½, 1-½, ¾E	2	1-1/2	25
52151 BN*	1½	21.0	C-5	В	2–½, 1–½, ¾E	2	1-1/2	25
52151 VN*	1½	21.0	C-5	SV	2–½, 1–½, ¾E	2	1-1/2	25
52151 CVN*	1½	21.0	C-5	CV	2–½, 1–½, ¾E	2	1-1/2	25
52151CVNP*	1½	21.0	C-5	CV	2–½, 1–½, ¾E	2	1-1/2	25
52171 N	21/8	30.3	C-5	-	2-½, /4E 1-½, ¾E	2	1-1/2	25
52171-VN*	21//8	30.3	C-5	SV	2-½, /4E 1-½, ¾E	2	1-1/2	25
With Conduit KOs					1 /2, /4L			
52141-1/2	11/4	18.0	_	_	2-1/2	3-1/2	5-1/2	50
52151 1/2	11/2	21.0	_	_	3-1/2	3-1/2	5-1/2	50
52151-3/4	1½	21.0	_	-	2-3/4	2-3/4	$3-\frac{1}{2}$, $2-\frac{3}{4}$	50
52151 1/2 3/4	1½	21.0	_	_	$2-\frac{1}{2}$, $1-\frac{3}{4}$	$2-\frac{1}{2}$, $1-\frac{3}{4}$	$3-\frac{1}{2}$, $2-\frac{3}{4}$	50
521511234P	1½	21.0	_	_	$2-\frac{1}{2}$, $1-\frac{3}{4}$	$2-\frac{1}{2}$, $1-\frac{3}{4}$	$3-\frac{1}{2}$, $2-\frac{3}{4}$	50
52151-3/4-W	1½	21.0	_	_	2-3/4	2-3/4	$3-\frac{1}{2}$, $2-\frac{3}{4}$	50
52151B1234*	1½	21.0	_	В	2–½, 1–½, ³4E	2–½, 1–¾, ¾E	3–½, 2–½, 3/4E	25
52151-1/2 & 3/4-EW	1½	21.0	-	_	2–½, 1–½, ¾E	2–½, 1–½, ¾E	3–½, 2–½, ¾E	50
521511234EWGB (Ground bump)	1½	21.0	_	_	2-½, 1-½, 3/4E	2–½, 1–½, 34E	2–½, 2–½, 34E	50
521511234EWGBP (Ground bump with 10½" ground wire)	1½	21.0	_	_	2-½, 1-½, 34E	2-½, 1-½, ³ / ₄ E	2–½, 2–½, 3/4E	50

^{*} All Bracketed boxes come complete with eccentric knockouts.

Per UL 514A, suitable for use without a bonding jumper in circuits above or below 250 volts. Pigtail wire is #12 AWG insulated, 10¹/₂" long.









52171-0W OW Swing Ears



52151 N





52151 MS N* MS bracket for 15/8", 21/2", 35/8", 4"

52151 BN* B bracket mounted flush









52151 VN* SV bracket mounted flush



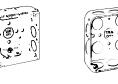
52171 N



52151 CVN*

CV bracket

mounted flush





52141-1/2





SV bracket mounted flush



52151-3/4

52151 1/2 3/4



52151 1/2





52151-3/4-W

52151B1234 B Bracket mounted flush



52151-1/2 & 3/4-EW

521511234EWGB

521511234EWGBP

1-800-453-1692



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services** Tel: 888.862.3289





Square Boxes and Accessories

4" Square Boxes (continued)

					KNO	OCKOUTS (IN.)	
CAT. NO.	DEPTH (IN.)	CU. IN. Capacity	CLAMPS	BRKTS.	EA. SIDE CONDUIT	EA. END Conduit		
With Conduit KOs (c	ontinue	ed)						
521511234EWP*	1½	21.0	_	_	2–½, 1–½, ³4E	2–½, 1–½, ¾E	3–½, 2–½, ³4E	50
52151 MS 1/2 & 3/4*	1½	21.0	_	MS	2-½, 1-½, ¾E	2-½, 1-¾, ¾E	3–½, 2–½, ³4E	25
52151-V-1/2 & 3/4*	1½	21.0	_	SV	2-1/2, 1-1/2, 3/4E	2-1/2, 1-3/4, 3/4E	3–½, 2–½, ¾E	25
52151 CV 3/4*	1½	21.0	_	CV	2-3/4	2-3/4	3-1/2	25
52151 CV 1/2 3/4*	1½	21.0	_	CV	2–½, 1–½, ¾E	2–½, 1–¾, ¾E	3–½, 2–½, ³4E	25
52151DV12*	1½	21.0	_	DV	2–½, ¾E	3–½, ¾E	3–½, ¾E	25
521711234E	21//8	30.3	-	-	2-1/2, 1-1/2, 3/4E	2-1/2, 1-1/2, ³ / ₄ E	3–½, 2–½, ³4E	50
521711234EP (With 10½" ground wire)	21//8	30.3	_	_	2–½, 1–½, ³4E	2–½, 1–½, ³4E	2–½, 2–½, ³4E	50
52171 MS 1/2 3/4*	21/8	30.3	-	MS	2–½, 1–½, ¾E	2–½, 1–½, ¾E	3–½, 2–½, ¾E	25
52171MSP* (With 10½" ground wire)	21/8	30.3	_	MS	2–½, 1–½, ¾E	2–½, 1–½, ¾E	3–½, 2–½, ¾E	25
52171 3/4	21/8	30.03	_	_	2-3/4	2-3/4	3–½, 2–¾	50
52171 1	21/8	30.03	_	_	2–1	2–1	3–½, 2–¾	50
52171 V 1/2 & 3/4*	21//8	30.03	_	SV	2-1/2, 1-1/2, 3/4E	2-1/2, 1-1/2, ³ / ₄ E	3–½, 2–½, ³4E	25
52171-CV-1/2 & 3/4*	21//8	30.03	_	CV	2–½, 1–½, ¾E	2–½, 1–½, ¾E	3–½, 2–½, ¾E	25
52171-EW-SSX*	21//8	30.03	_	SSX	_	_	_	_
521711234EP*	21//8	30.03	_	V	2–½, 1–½, ¾E	2–½, 1–½, ¾E	3–½, 2–½, ³4E	25
52171-B-1/2 & 3/4	21/8	30.03	-	_	2-½, 1-½, ³4E	2-½, 1-½, ³4E	3–½, 2–½, ³ / ₄ E	25

^{*} All bracketed boxes come complete with eccentric knockouts. Per UL514A, suitable for use without a bonding jumper in circuits above or below 250 volts. Pigtail wire is #12 AWG insulated, 10½" long.



521511234EWP



52151 MS 1/2 & 3/4 For use on 15/4", 21/2", 35/4", 4" studs



52151-V-1/2 & 3/4 SV Bracket mounted flush



52151 CV 3/4 CV Bracket mounted flush



52151 CV 1/2 3/4 CV Bracket mounted flush



52151DV1/2 DV Bracket provides offset



521711234E



521711234EP



52171 MS 1/2 3/4* MS bracket for 11%", 2½", 3%", 4", 6" metal studs



52171MSP



52171 3/4



52171 1



52171 V 1/2 & 3/4 SV bracket mounted flush



52171-CV-1/2 & 3/4 CV bracket mounted flush



521711234EP

CAT. NO.	DESCRIPTION	EARS	BRACKETS	EACH SIDE Ko	EACH END KO	BOTTOM KO	CU. IN. Capacity	STD. CTN.
521911234	3½"-deep 4"-square red box		_	4 x ½" & ¾" Combo	2 x 1/2" & 3/4" Combo	4 x 1/2" & 3/4" Combo	46	24
521911234CV	31/2"-deep 4"-square red box w/side mounting bracket	_	CV	4 x ½" & ¾" Combo	2 x ½" & ¾" Combo	4 x ½" & ¾" Combo	46	10







A-38

Square Boxes and Accessories

4" Square Boxes (continued)

					V.N.	OCKOUTS	(INL)	
							<u> </u>	
CAT. NO.	DEPTH (IN.)	CU. IN. Capacity	CLAMPS	BRKTS.			BOTTOM CONDUIT	
With Armored Cable	/Metal	-Clad Clai	mps					
52151 X	11/4	21.0	C-3	-	2-1/2, 1-1/2, 3/4E	2	1-1/2	50
52151XP	11/4	21.0	C-3	_	2–½, 1–½, ³4E	2	1-1/2	50
52151 BX*	11/4	21.0	C-3	В	2–½, 1–½, ³4E	2	1-1/2	25
52151 VX*	11/4	21.0	C-3	SV	2–½, 1–½, ³4E	2	1-1/2	25
52151 CVX*	11/4	21.0	C-3	CV	2–½, 1–½, ¾E	2	1-1/2	25
52151 MS X*	11/4	21.0	C-3	MS	2–½, 1–½, ¾E	2	1-1/2	25
For Armored Cable				mps				
52171 X*	21/8	30.3	C-3	_	2–½, 1–½, ¾E	2	1-1/2	25
52171 MSX*	21//8	30.3	C-3	MS	2–½, 1–½, ³4E	2	1-1/2	25
52171MSXP (With 10½" ground wire)	21/8	30.3	C-3	MS	2-½, 1-½, ¾E	2	1-1/2	25
52171-CVX*	21/8	30.3	C-3	CV-2	1/2 -3/4	_	_	25

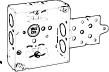
^{*} All bracketed boxes come complete with eccentric knockouts. Per UL514A, suitable for use without a bonding jumper in circuits above or below 250 volts. Pigtail wire is #12 AWG insulated, 10½" long. All 52171 series boxes have a raised ground bump.



52151 X



52151XP



52151 BX* B bracket mounted flush



52151 VX* SV bracket mounted flush



52151 CVX* CV bracket mounted flush



52151 MS X* MS bracket for 15%", 21/2", 35%", 4" metal studs



52171 X



52171 MSX* MS bracket for 15%", 21/2", 35/8", 4" metal studs



52171MSXP*

CAT. NO.	DESCRIPTION	CLAMPS	EACH SIDE Conduit	EACH END Conduit	BOTTOM Conduit	CU. IN. Capacity	STD. Pack.
52171-EW-SSX	21/8"-deep with conduit KOs	_	1½", 1½" & ¾"E	2½", 1½" & ¾"E	2½", 2½" & ¾"E	30	20
52151-EF-SSX	1½"-deep with conduit KOs	_	1½", 1½" & ¾"E	2½", 1½" & ¾"E	2½", 2½" & ¾"E	21	20
52171-X-SSX	21/8"-deep with armored cable clamps	C3	1½", 1½" & ¾"E	2 Cable	1½"	30	20
52151-X-SSX	1½"-deep with armored cable clamps	C3	1½", 1½" & ¾"E	2 Cable	1½"	21	20
CXLESSX	3½"-deep with armored cable clamps	C3	2½"	11/2" & 2 Cable	1½"	15	20

Vapor Tite Boxes

- All K.O.'s pressed flush but still easy to remove
- · No holes anywhere
- . Top edge of boxes are flush at ears so gasket seals out all air

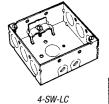
CAT NO	DECODIDATION	DEDTU	STD.
CAT. NO.	DESCRIPTION	DEPTH	PKG.
52151-SVT	4" Sq. Box, 1/2" and 3/4" K.O. Side and Bottom	1½"	50
52C1-VT	4" Sq. Blank Cover with Gasket	Flat	50
52171-SVT	4" Sq. Box, 1/2" and 3/4" K.O. Side and Bottom	21/8"	25
72C1-VT	411/16" Sq. Blank Cover with Gasket	Flat	50
72171-SVT	$4^{1}/_{16}$ " Sq. Box, $1/_{2}$ " and $3/_{4}$ " K.O. Side and Bottom	21/8"	25
54151-VT	4" Sq. Box, 1/2" K.O. Side and Bottom	1½"	50
54C1-VT	4" Oct. and Round Box Blank Cover	Flat	50

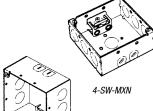


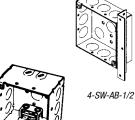
Thomas@Betts

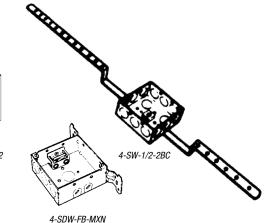
Square Boxes and Accessories

4" Square Boxes









4-SDW-LC 4-SDW-MXN

CAT. NO.	DEPTH (IN.)	CU. IN. Capacity	DESCRIPTION	CONSTRUCTION Type	STD. CTN.
4-SW-LC	1½	21.0	For Non-Metallic Sheathed Cable Two Loom KOs in each of two opposite sides, three ½" KOs in other two sides and one ½" KO in bottom. Two Loom clamps for use on non-metallic sheathed cable with 10/32 deep-slotted screws assembled*	Welded	50
4-SW-MXN	1½	21.0	For Metal-Clad Cable Two Loom KOs in each of two opposite sides, three ½" KOs in other two sides and one ½" KO in bottom. Two MXN clamps for MC, AC/BX and non-metallic sheathed cable (NM) included with 10/32 deep-slotted screws. Clamps are UL Listed for use with cable sizes 14/2 through 10/3 with ground*		50
4-SW-AB-1/2	1½	21.0	Three KOs in each of three sides, angle bracket on other side, and five $\frac{1}{2}$ " KOs in bottom. Angle bracket offset $\frac{1}{2}$ " from top of box*	Welded	50
4-SW-1/2-2BC	1½	21.0	Three ½" KOs in each side and four ½" KOs in bottom. Mounted with clip on 2-BC bar hanger. Hanger is offset correct depth to set box flush with ceiling joist*	Welded	25
4-SDW-LC	21/8	30.3	For Non-Metallic Sheathed Cable Two Loom KOs in each of two opposite sides, three ½" KOs in other two sides and one ½" KO in bottom. Two Loom clamps for use on non-metallic sheathed cable with 10/32 deep-slotted screws assembled*	Welded	25
4-SDW-MXN	21//8	30.3	For Metal-Clad Cable Two Loom KOs in each of two opposite sides, three ½" KOs in other two sides and one ½" KO in bottom. Two MXN clamps for MC, AC/BX and non-metallic sheathed cable (NM) included with 10/32 deep-slotted screws. Clamps are UL Listed for use with cable sizes 14/2 through 10/3 with ground*	Welded	25
4-SDW-FB-MXN	21/8	30.3	For Metal-Clad Cable Two Loom KOs in each of two opposite sides, three ½" KOs in side opposite flat bracket and one ½" KO in bottom. Two MXN clamps for MC, AC/BX and non-metallic sheathed cable (NM) included with 10/32 deep-slotted screws. Clamps are UL Listed for use with cable sizes 14/2 through 10/3 with ground*	Welded	25

^{*}Uses Steel City® 4" square extension rings and 400 series rings and covers.

4" Square Thru-Wall Box



KNOCKOUT (IN.) EA. SIDE EA. END

CU. IN. CAPACITY DEPTH CAT. NO. CONDUIT CONDUIT CTN. With Conduit KOs X1-1/2 & 3/4 21.0 11/8 2-1/2, 1-3/4 2-1/2, 1-3/4 25

4" Square Two-Device **Boxes**





2G4D 1/2 & 3/4



2G4DV 1/2 & 3/4 CV bracket recessed 7/8"

				KNO			
CAT. NO.	DEPTH (IN.)	CU. IN. Capacity	BRACKETS		EA. END Conduit	BOTTOM CONDUIT	
With Conduit K	0s						
2G4D 1/2 & 3/4	21/8	30.3	_	2-½, 1-¾	2-½, 1-¾	3–½, 2–¾	25
2G4DV 1/2 & 3/4	21/8	30.3	CV	2-½, 1-¾	2-½, 1-¾	3–½, 2–¾	25



Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354

Technical Services

Tel: 888.862.3289







Square Boxes and Accessories

4" Square Box Partitions



		STD.
CAT. NO.	DESCRIPTION	CTN.
For 1½" Deep E	ox with Square-Cut Tile Wall Two-Device Co	vers
52 PS 1	For 1/2", 3/4" and 1" raised covers	25
52 PS 2	For 11/4", 11/2" and 2" raised covers	25
For 21/8" Deep B	ox with Square-Cut Tile Wall Two-Device Co	overs
52 PD 1	For 1/2", 3/4" and 1" raised covers	25
52 PD 2	For $1\frac{1}{4}$ ", $1\frac{1}{2}$ " and 2" raised covers	25

4" Square Wall Rings



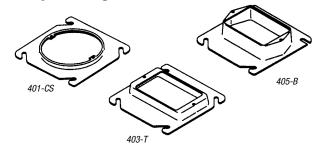


CAT. NO.	DEPTH (IN.)	CU. IN. Capacity	DESCRIPTION	CONSTRUCTION Type	STD. CTN.
4-S-WR-1/2	1½	21.0	Wall Ring Three ½" KOs in each side. Four 8/32 screws furnished (two in top and two in bottom)*	Drawn	50
4-SS-WR-1/2	1½	18.0	Wall Ring Three ½" KOs in each of two opposite sides, two ½" KOs in other two sides. Four 8/32 screws furnished (two in top and two in bottom)**	Drawn	50

*For use with two Steel City® 403-0 rings for back to back devices in 2" partitions.

**For use with two Steel City® 403-0 rings for back to back devices in 1¾" partitions.

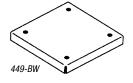
4" Square Rings and Covers



CAT. NO.	CU. IN. Capacity	DESCRIPTION	STD. CTN.
401-CS	1.0	%" raised — 4" square Open plaster ring with ears. Ears tapped 8/32–2 ²³ / ₃₂ " on centers. Special screw lock feature in slots*	25
403-T	3.5	Tile Ring, ½" raised — 4" square For single switch or receptacle. Ears tapped 8/32– 22\(^{22}\)\(^{22}\) on centers*	50
405-B	5.0	%" raised — 4" square For single switch or receptacle*	25

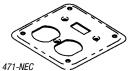
*Fits any Steel City® 4" square outlet box or extension ring.

4" Square Industrial Device Covers











CAT. NO.	DESCRIPTION	STD. CTN.
449-BW	½" raised — 4" square	25
	Surface blank. Each cover individually packaged with the necessary screws for mounting*	
469	%" raised — 4" square Surface blank. Each cover individually packaged with the necessary mounting screws*	25
470-BW	%" raised — 4" square For one toggle switch and one single receptacle. Opening 1.4" diameter. Each cover individually packaged with the necessary mounting screws*	25
471-NEC	%" raised — 4" square For one toggle switch and one duplex receptacle. Each cover individually packaged with the necessary mounting screws*	25
472-NEC	1/s" raised — 4" square For two duplex receptacles. Each cover individually packaged with the necessary mounting screws*	25
*Fite any Steel I	City® 4" square outlet hoy or extension ring	

www.tnb.com

United States Tel: 901.252.8000

800.816.7809 Fax: 901.252.1354 **Technical Services** Tel: 888.862.3289



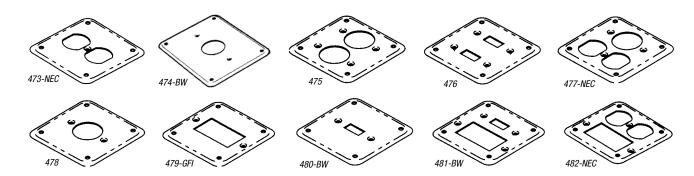




1-800-453-1692

Square Boxes and Accessories

4" Square Industrial Device Covers (continued)



CAT. NO.	DESCRIPTION	STD. CTN.
473-NEC	%" raised — 4" square	25
	For one duplex receptacle in center. Each cover individually packaged with the necessary mounting screws*	
474-BW	%" raised — 4" square For one single recorded in center, Opening 1.4" diameter, Food cover individually prologged with the processory may tipe execute.*	25
475	For one single receptacle in center. Opening 1.4" diameter. Each cover individually packaged with the necessary mounting screws*	25
475	%" raised — 4" square For two single receptacles. Openings 1.4" diameter. Each cover individually packaged with the necessary mounting screws*	20
476	%" raised — 4" square For two toggle switches. Each cover individually packaged with the necessary mounting screws*	25
477-NEC	%" raised — 4" square For one duplex and one single receptacle. Opening 1.4" diameter. Each cover individually packaged with the necessary mounting screws*	25
478	%" raised — 4" square For one four-wire twist lock receptacle in center. Opening 1.594" diameter. Each cover individually packaged with the necessary mounting screws*	25
479-GFI	%" raised — 4" square For one GFI receptacle in center. Each cover individually packaged with the necessary mounting screws*	25
480-BW	%" raised — 4" square For one toggle switch in center. Each cover individually packaged with the necessary mounting screws*	25
481-BW	%" raised — 4" square For one GFI receptacle and one toggle switch. Each cover individually packaged with the necessary mounting screws*	25
482-NEC	1/4" raised — 4" square For one GFI and one duplex receptacle. Each cover individually packaged with the necessary mounting screws*	25

^{*}Fits any Steel City® 4" square outlet box or extension ring.

4" Square Extension Rings



	KNOCKOUTS (IN.)					
CAT. NO.	EA. SIDE CONDUIT	EA. END Conduit	STD. CTN.			
1½" Deep — with	Conduit KOs — 21.0 Cub	oic Inch Capacity				
53151 1/2	3-1/2	3-1/2	50			
53151 3/4	2-3/4	2-3/4	25			
53151 1/2 3/4	2-1/2, 1-3/4	2-1/2, 1-3/4	50			
531511234UB**	2-1/2, 1-1/2, 3/4E	2-1/2	50			
21/8" Deep — with	Conduit KOs — 30.3 Cub	bic Inch Capacity				
531711234*	2-1/2, 1-1/2, 3/4E	2-1/2, 1-3/4	25			
53171 1	2–1	2-1	25			
* Per UL 514-A, suitable for use without a bonding jumper in circuits above or below 250 volts.						

^{*} Per UL 514-A, suitable for use without a bonding jumper in circuits above or below 250 vol ** ECC, KOs on sides.





Technical Services Tel: 888.862.3289





Square Boxes and Accessories

4" Square-Cut Tile Wall Covers



52 C 49 1/2





52C5011/2-25

52 C 52 1/2

CAT. NO.	RAISED (IN.)	DESCRIPTION	CU. IN. Cap.	STD. CTN.
For Single Device —	Steel			
52 C 49 1/2*	1/2	_	3.5	50
52-C-49-3/4*	3/4	_	5.3	50
52-C-49-1*	1	_	7.0	10
52-C-49-1-1/4	11/4	_	9.3	10
52C5011/2-25	11/2	_	11.0	25
52C512-25	2	_	14.8	25
For Two Devices — :	Steel	,		
52 C 52 1/2	1/2		6.0	10
52-C-52-3/4	1/4		9.0	10
52-C-52-1	1	Square corners	12.5	10
52-C-52-1-1/4	13/4	facilitate tile installation	15.5	10
52 C 53 1 1/2	11/2		19.0	10
52 C 54 2	235/64		25.5	10
* Drawn style				

4" Square Covers







52 C 1

52 C 6

(ÎI)

CAT. NO.	RAISED (IN.)	DESCRIPTION	CU. IN. Cap.	STD. CTN.
52 C 1	_	Flat, blank	_	100
52-C-3-25	5/8	Center blanked with tapped	4.3	25
52-C-3-1/2-25	1/2	ears on 2¾" centers	3.5	25
52-C-3-3/4	3/4	Center blanked with	4.3	25
52 C 3 1	1	tapped ears on	5.8	25
52-C-3-1-1/4	11/8	2 ²³ / ₃₂ " centers	7.3	25
52 C 6	_	Flat, with ½" KO	_	100

4" Square Device Covers





















CAT. NO.	RAISED (IN.)	DESCRIPTION	CU. IN. Cap.	STD. CTN.
For Single Device — Steel				
52 C O	_	Flat	_	25
52 C 62	1/4	Keyed for plaster	1.5	25
52 C 10	1/4	Offset, keyed for plaster	1.0	25
52 C 13	1/2	_	3.0	50
52 C 14	3/4	_	5.0	50
52 C 14 5/8	5/8	_	4.0	50
52 C 15	1	_	7.0	25
52 C 16	11/4	_	8.3	25
52-C-36	1/4	For drywall construction	1.0	25
For Two Device	es			
52 C 00	_	Flat	_	25
52C20-25	1/4	_	2.3	25
52-C-17-25	1/2	_	6.3	25
52 C 18	3/4	_	9.0	25
52-C-18-5/8-25	5/8	For drywall construction	7.3	25
52 C 19	1	_	12.0	25
52 C 21	11/4	_	15.0	25
52 C 37	1/8	_	2.3	25

www.tnb.com

United States Tel: 901.252.8000

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services** Tel: 888.862.3289







Square Boxes and Accessories

Box Support Covers

Steel City® Box Support Covers combine a box-to-stud mounting bracket with a device cover in one, easy-to-use product. Designed for use with 4" square boxes, Steel City® Box Support Covers can be used with both steel and wood studs.

- Combines cover and bracket in one component
- · Available in one- and two-device versions
- ½", ¾" and ¾" raised covers
- Speeds installation time

DEPTH

(IN.)

1/2

1/2

1/2

1/2

1/2

1/2

1/2

1/2

1/2

1/2

1/2

1/2

1/2

1/2

1/2

CAT. NO.

RS 1

RS 2*

RS 3*

RS 4

RS₅

RS 8*

RS 9

RS 10

RS 11

RS 12*

RS 13

RS 14

RS 15

RS-16-CC

RS-17-CC

RS-18-CC

RS-19-CC*

- Needs no far side support
- Can be used with both steel and wood stud
- · Can be used without a box as a low voltage device support
- UL and CSA Listed (UL File #E2969, CSA File #LR5043)





52CM13

52CMD17



CAT. NO.	RAISED (IN.)	# OF DEVICES	CU. IN. Capacity	STD. CTN.
52CM13	1/2	1	3.0	25
52CM14-5/8	5/8	1	4.0	25
52CM14	3/4	1	5.0	25
52CMD17	1/2	2	6.3	25
52CMD18-5/8	5/8	2	7.3	25
52CMD18	3/4	2	9.0	25

4" Square Surface Covers

CU. IN.

CAPACITY

5.0

5.0

5.0

5.0

5.0

5.0

5.0

5.0

5.0

5.0

5.0

5.0

5.0

5.0

5.0

5.0

5.0



DIA.

HOLE

(IN.)

113/32



one duplex flush receptacle

For one 4-wire twist-lock single

For two duplex, flush receptacles

For two single, flush receptacles

For one single, flush receptacle

For one duplex, flush receptacle

For #3330-30A 250 V twist-lock

For one ground fault receptacle

For two ground fault receptacles

For one ground fault receptacle

For one ground fault receptacle

and one duplex receptacle

and one toggle switch

For one 30 or 50 amp. dryer

113/32 For one single and one duplex

For two toggle switches

For one toggle switch

or range receptacle

receptacle

flush receptacle

receptacle

RS 1







DESCRIPTION	STD. CTN.	
For one toggle switch and	50	
one single flush receptacle		
For one toggle switch and	50	

50

50

50

50

50

50

50

50

50

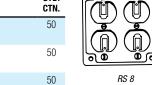
50

25

25

25

25







RS 8

RS 11



RS 10

RS 12

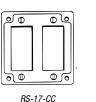
RS 13







RS-16-CC



⊕ 🖸

RS-18-CC

RS 15

o o

RS-19-CC

Remove portion of G.F.I. receptacle ear to mount receptacle to cover. Screws captivated.

25/32

215/32

13/4

Thomas & Betts

United States Tel: 901.252.8000

800.816.7809 Fax: 901.252.1354

Technical Services Tel: 888.862.3289







Square Boxes and Accessories

UL° Listed Adjustable Mud Ring now available in both single-and two-gang.

Adjustable Mud Rings

Mud Rings feature an inner ring that adjusts from $\frac{1}{2}$ " to $\frac{1}{2}$ " in depth to accommodate various drywall thicknesses. Marked with a measured rule and equipped with two adjustment screws, the inner ring can be set to the anticipated depth prior to installation and then easily adjusted after drywall installation to accommodate any variation in depth ($\frac{1}{2}$ " to $\frac{1}{2}$ ").



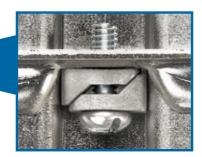








Wedge Locking Blocks
Designed to ensure grounding continuity



Adjustable Mud Ring Installation/Adjustment Steps:





The two adjustment screws located on opposing corners of the mud ring.



Adjust...

Inner ring to be flush with wall surface.



Re-tighten...Adjustment screws.



CAT. NO.	DESCRIPTION	STD. CTN.
52-C-ADJ	Single-Gang Adjustable Mud Ring, ½" to 1½"	25
52-C-ADJ2	Two-Gang Adjustable Mud Ring, ½" to 1½"	20







oveboardelectronics.com

Square Boxes and Accessories

Steel City® Hands-Free Swivel Hanger

The new Steel City® Hands-Free Swivel Hanger allows you to quickly install high- and low-bay lighting fixtures without the need for an extra set of hands. The hanger design enables the fixture to be set in place, giving users access to the conductors while wiring is being completed. The Hands-Free Swivel Hanger can support a fixture up to 50 pounds and is ideal for gyms or other commercial sites.

- Fits standard 3½" or 4" octagon (SHHFR1234)
- Fits 4" square (SHHF1234) boxes
- A single installer can complete the installation saving time, labor and cost
- · Fixtures can be set in place before wiring is completed
- Design enables users to access the conductors after the fixture has been mounted onto the box
- Accommodates ½" or ¾" threaded fixture pipes
- Permits 20° swing from vertical
- Ideal for gyms or other commercial sites

Material: Zinc-plated sheet-metal hanger and malleable iron swivel connector.

Listing: UL and CSA Listed.

		(Ņ
CAT. NO.	DESCRIPTION	STD. CTN.
SHHF 1/2 3/4	Hands-free Swivel Hanger	25

Hands-free Swivel Hanger (round)





Swivel Hangers

SHHFR 1/2 3/4



CAT. NO.	DESCRIPTION	STD. CTN.
SHR 1/2 & 3/4	Swivel hanger for 4" octagonal boxes	25
UL Listed for 50 lb.	fixture support.	



CAT. NO.	DESCRIPTION	STD. CTN.		
SH 1/2 & 3/4	Swivel hanger for 4" square boxes	25		
UL Listed for 50 lb. fixture support.				



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354









Square Boxes and Accessories

411/1611 Square Boxes

CAT. NO.	DEPTH (IN.)	CU. IN. Capcaity	EA. SIDE Conduit	EA. END Conduit	BOTTOM Conduit	STD. CTN.
With Conduit KOs						
72151-1/2 & 3/4-E*	1½	29.5	3-1/2", 3/4-33/64"	2-1/2", 3/4-33/64"	2-1/2", 3/4"-E, 4-1/2"	20
72171-1/2 & 3/4-E*	21/8	42.0	3–½" & ¾"-E	3-1/2" & 3/4"-E	2-1/2", 3/4"-E, 3-1/2"	20
72171 1	21/8	42.0	*2-1"	2-1"	3-1/2", 2-3/4"	20
72171 3/4 1*	21/8	42.0	1–¾", 1–1"	1–¾", 1–1"	3-1/2", 3-3/4", 2-1"	20
72171 1 1/4*	21/8	42.0	2-11/4"	1-11/4"	3-1/2", 2-3/4"	20
72171CV 1/2 3/4*	21/8	42.0	2-1/2", 1-3/4"	2-1/2", 1-3/4"	3-1/2", 2-3/4"	25
72151 MS 1/2 3/4*	21/8	42.0	3-1/2", 3/4-33/64"	3-1/2", 3/4-33/64"	2-1/2", 3/4-33/64", 3-1/2"	20
72151 MS 1/2 3/4	21/8	42.0	3-1/2", 3/4-33/64"	2-1/2", 3/4-33/64"	2-½", 2-¾- ¾, 4-½"	25
72171 MS 1/2 3/4*	21/8	42.0	3-1/2", 3/4-33/64"	3-1/2", 3/4-33/64"	2-1/2", 3/4-33/64", 3-1/2"	25
72151MSX	21/8	42.0	3-1/2", 3/4-33/64"	2-1/2", 3/4-33/64"	2-1/2", 2-3/4-33/64", 4-1/2"	25
72151MSXP	21/8	42.0	3-1/2", 3/4-33/64"	2-1/2", 3/4-33/64"	2-½", 2-¾-33/64", 4-½"	25
72151MSP	21/8	42.0	3-1/2", 3/4-33/64"	3-1/2", 3/4-33/64"	3-1/2", 2-1/2", 3/4-33/64"	25
72171MSX	21/8	42.0	3-1/2", 3/4-33/64"	3-1/2", 3/4-33/64"	3-1/2", 2-1/2", 3/4-33/64"	25
72171MSXP	21/8	42.0	3-1/2", 3/4-33/64"	3-1/2", 3/4-33/64"	3-1/2", 2-1/2", 3/4-33/64"	25



72171 MS ½ & ¾ MS bracket for 15%", 2½", 35%", 4" metal studs







72151-1/2 & 3/4-E

72171-1/2 & 3/4-E

72171 1





^{*} Per UL 514-A, suitable for use without a bonding jumper in circuits above or below 250 volts.

411/1611 Square Boxes

CAT. NO.	DEPTH (IN.)	CU. IN. Capacity	DESCRIPTION	CONSTRUCTION Type	STD. CTN.
5-SDW-FB-1	21//8	42.0	Two 1" KOs in each of three sides, flat bracket on other side and three ½" KOs in	Welded	25
			a line in bottom with two ¾" KOs at opposite ends in bottom. Four tapped ears*		



411/1611 Square Box Extension Rings

		KNOCK	OUT (IN.)	
DEPTH (IN.)	CU. IN. Capacity	EA. SIDE Conduit	EA. END Conduit	STD. CTN.
1½	29.5	2-½ 1¼	2-½ 1¼	20
21/8	42.0	2–½ 1¾	2-½ 1¼	20
21/8	42.0	2–1	2–1	20
	1½ 2½	(IN.) CAPACITY 1½ 29.5 2½ 42.0	DEPTH (IN.) CU. IN. CAPACITY EA. SIDE CONDUIT 1½ 29.5 2-½ 1¼ 1¼ 2½ 42.0 2-½ 1¾ 1¾	(IN.) CAPACITY CONDUIT CONDUIT 1½ 29.5 2-½ 2-½ 1¼ 1¼ 1¼ 2½ 42.0 2-½ 2-½ 1¾ 1¼ 1¾ 1¼





73151 1/2 & 3/4

73171 1/2 & 3/4

73171 1

411/1611 Square Covers

	_			
CAT. NO.	CU. IN. Capacity	RAISED (IN.)	DESCRIPTION	STD. CTN.
72 C 1			Flat blank	50
72 C 6	_	_	Flat with ½" KO	25
72 C 3	3.5	5/8	0	10
72-C-3-1/2	3.0	1/2	Center blanked	25
72-C-3-3/4	4.3	3/4	with tapped ears on 2 ²³ / ₃₂ " centers	10
72-C-3-1	5.8	1	011 Z /32 CEITETS	25

www.tnb.com





72 C 3

United States Tel: 901.252.8000

800.816.7809 Fax: 901.252.1354

Technical Services Tel: 888.862.3289

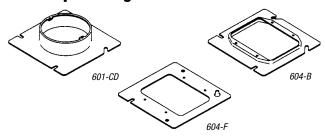


1-800-453-1692 # ₩ ⊙

Thomas@Betts

Square Boxes and Accessories

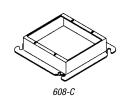
411/16" Square Rings and Covers



CAT. NO.	CU. IN. Capacity	DESCRIPTION	STD. CTN.
601-CD	8.8	11/4" raised — 411/6" square Open plaster ring with ears. Ears tapped 8/32–2 ²² / ₃₂ " on centers. Special screw lock feature in slots*	25
604-F	_	Flat — 411/16" square For two switches or receptacles*	25
604-B	2.8	1/4" raised — 411/16" square For two switches or receptacles*	25

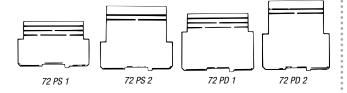
^{*}Fits any Steel City® 411/16" square outlet box or extension ring.

411/16" Square Tile Rings



CAT. NO.	CU. IN. Capacity	DESCRIPTION	STD. CTN.
608-C	12.5	1" raised — 411/16" square	10
		For two switches or receptacles*	
*Fits any Ste	el City® 411/16" s	quare outlet box or extension ring.	

411/1611 Square Box Partitions



CAT. NO.	DESCRIPTION	STD. CTN.
	p Box with Square-Cut Tile Wall — Two-	
72 PS 1	For ½", ¾" and 1" raised covers	25
72 PS 2	For 11/4", 11/2" and 2" raised covers	25
For 21/8" Dee	p Box with Square-Cut Tile Wall — Two-	Device Covers
72 PD 1	For ½", ¾" and 1" raised covers	25
72 PD 2	For 11/4", 11/2" and 2" raised covers	25

411/1611 Square Surface Covers































RSL 17

DIA.

RSL 18

CAT. NO.	DEPTH (IN.)	CU. IN. CAPACITY	HOLE (IN.)	DESCRIPTION	STD. CTN.
RSL 2	1/2	7.5	_	For one toggle switch and one duplex flush receptacle	10
RSL 4	1/2	7.5	111/32	For one 4-wire twist-lock single receptacle	10
RSL 5	1/2	7.5	_	For two toggle switches	10
RSL 8	1/2	7.5	_	For two duplex, flush receptacles	10
RSL 9	1/2	7.5	15/32	For one toggle switch	10
RSL 11	1/2	7.5	155/64	For one single, flush receptacle	10
RSL 12	1/2	7.5	_	For one duplex, flush receptacle	10
RSL 13	1/2	7.5	25/32	For one 30A to 50A dryer or range receptacle	10
RSL 14	1/2	7.5	$2^{15}/_{32}$	_	10
RSL 15	1/2	7.5	1¾	For #3330–30A 250 V twist-lock receptacle	10
RSL 16	1/2	7.5	_	For one ground fault receptacle	10
RSL 17	1/2	7.5	_	For two ground fault receptacles	10
RSL 18	1/2	7.5	_	For one ground fault receptacle and one toggle switch	10
RSL 19	1/2	7.5	_	For one ground fault receptacle	10



800.816.7809 Fax: 901.252.1354





www.tnb.com



and one duplex receptacle

Square Boxes and Accessories



CAT. NO.	RAISED (IN.)	CU. IN. Capacity	STD. CTN.
For Single Device			
72 C 62	1/4	1.0	25
72 C 13	1/2	3.0	25
72 C 14	3/4	5.0	25
72 C 14 5/8	5/8	4.0	25
72 C 15	1	7.0	10
72 C 16	11/4	8.3	10
For Two Devices			
72 C 17	1/2	6.3	25
72 C 18	3/4	9.0	25
72 C 18 5/8	5/8	7.5	25
72 C 19	1	12.0	25
72 C 21	11/4	15.0	25

411/1611 Square-Cut Tile Wall Covers







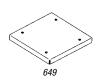


72 C 50 1 1/2

72 C 53 1 1/2

	RAISED	CU. IN.	STD.
CAT. NO.	(IN.)	CAPACITY	CTN.
For Single Device — Steel			
72-C-49-1/2	1/2	3.5	10
72 C 49 3/4	3/4	5.3	10
72-C-49-1	1	7.0	10
72-C-49-1-1/4	11/4	7.0	10
72 C 50 1 1/2	1½	9.0	10
72 C 51 2	2	14.5	20
For Two Devices — Steel			
72-C-52-1/2	1/2	6.0	10
72 C 52 3/4	3/4	9.0	10
72-C-52-1	1	12.5	25
72-C-52-1-1/4	11/4	15.5	25
72 C 53 1 1/2	1½	19.0	10
72 C 54 2	2	25.5	10

411/1611 Square Industrial Device Covers













CAT. NO.	CU. IN. Capacity	DESCRIPTION	STD. CTN.
649	7.5	½" raised — 4½" square	10
		Surface blank. Each cover individually packaged with the necessary screws for mounting*	
650-BW	7.5	½" raised — 4¹1/₁₀" square	10
		For one toggle switch and one single receptacle. Opening 1.4" diameter. Each cover individually packaged with the necessary screws for mounting*	
655	7.5	½" raised — 4 ¹ ½s" square	10
		For two single receptacles. Opening 1.4" diameter. Each cover individually packaged with the necessary screws for mounting*	
657-NEC	7.5	½" raised — 4¹½₅" square	10
		For one duplex and one single receptacle. Opening 1.4" diameter. Each cover individually packaged with the necessary screws for mounting*	
663-BW	7.5	½" raised — 4 ¹ ½s" square	10
		For two three-wire twist lock receptacles, 11/16" spacing between 1.4" diameter openings.	
		Each cover individually packaged with the necessary screws for mounting*	
665-BW	7.5	½" raised — 4¹½s" square	10
		Opening to accommodate Hubbell 3330 receptacle in center.	
		Opening 1.75" diameter. Each cover individually packaged with the necessary screws for mounting*	

*Fits any Steel City® 411/16" square outlet box or extension ring.



Utility Boxes and Accessories

4" x 21/8" Utility Boxes







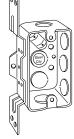
58351 B 1/4 B bracket recessed 1/4"



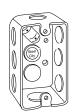
58361 1/2*



58361 3/4



58361 V 1/2* CV bracket recessed 1/2"



58371 1/2*



58371 3/4



58371 T 1/2 T bracket recessed 5%"



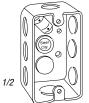
58371V1/2-25* CV bracket recessed 1/2"

				KNOCKOUTS (IN.)					
CAT. NO.	DEPTH (IN.)	CU. IN. Capacity	BRKTS.	EA. SIDE Conduit	EA. END Conduit	BOTTOM CONDUIT	STD CTN.		
With Conduit KOs									
58351 1/2*	11/2	10.3	_	3-1/2	1-1/2	2-1/2	50		
58351 B 1/4	11/2	10.3	В	3-1/2	1-1/2	2-1/2	25		
58361 1/2*	1%	13.0	_	3-1/2	1-1/2	2-1/2	50		
58361 3/4	1%	13.0	_	2-3/4	1-3/4	2-3/4	50		
58361 V 1/2*	1%	13.0	CV	3-1/2	1-1/2	2-1/2	50		
58371 1/2*	21/8	14.5	_	3-1/2	1-1/2	2-1/2	50		
58371 3/4	21/8	14.5	_	2-3/4	1-3/4	2-3/4	50		
58371 T 1/2*	21/8	14.5	T	3-1/2	1-1/2	2-1/2	25		
58371V1/2-25*	21/8	14.5	CV	3-1/2	1-1/2	2-1/2	25		
* Factory-provided	d raised g	ground-screw	location.						

41/8" x 21/2" Utility Boxes



68371 1/2



			KI	KNOCKOUTS (IN.)					
CAT. NO.	DEPTH (IN.)	CU. IN. Capacity	EA. SIDE Conduit	EA. END CONDUIT	BOTTOM CONDUIT	STD. CTN.			
With Conduit KOs									
68361 1/2*	1 15/16	17.0	3-1/2	1-1/2	2-1/2	25			
68371 1/2*	23/16	18.8	3-1/2	1-11/2	2-1/2	50			
* Factory-provided raised ground-screw location.									

4" x 21/8" Utility Box Covers







58 C 1

58 C 4

58 C 5

58 C 6

58 C 7



58 C 11



58 C 16



58 C 30

CAT. NO.	DIA. HOL (IN.)	E Description	STD. CTN.
Raised 1/4"			
58 C 1	_	Blank	100
58 C 4	119/32	For 4-wire twist-lock single flush receptacle	25
58 C 5	113/32	For single receptacle	25
58 C 6	_	With 1/2" KO	25
58 C 7	_	For duplex flush receptacle	100
58 C 11	_	With 15/32" bushed hole	25
58 C 16	_	For single GFCI receptacle	25
58 C 30	_	For one toggle switch	100

Includes captivated Phillips head screws.



Tel: 888.862.3289



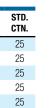
Utility/Handy Boxes and Accessories

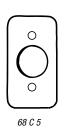
41/8" x 21/2" Utility Box Covers Raised 3/1611

Includes captivated Phillips head screws.

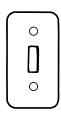


CAT. NO.	DIA. HOLE (IN.)	DESCRIPTION	STD. CTN.
68 C 1		Blank	25
68 C 5	113/32	For single receptacle	25
68 C 6	_	With ½" KO	25
68 C 7	_	For duplex flush receptacle	25
68 C 30	_	For one toggle switch	25









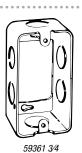
68 C 7

68 C 30

4" x 21/8" Utility Box Extension Rings

			KNOCKO	UTS(IN.)	
CAT. NO.	DEPTH (IN.)	CU. IN. Capacity	EA. SIDE Conduit	EA. END Conduit	STD. CTN.
With Conduit	K0s				
59361 1/2	11//8	13.0	3-1/2	1-1/2	50
59361 3/4	1%	13.0	2-3/4	1-3/4	25





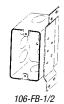
Handy Boxes

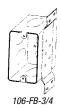












102-W-LB-1/4

103-W-AB

104-W-FB-3/4

106-3/4

DEPTH CU. IN. CONSTRUCTION STD. CAT. NO. CAPACITY DESCRIPTION (IN.) TYPE CTN. 102-W-LB-1/4 11/2" deep x 4" long x 21/8" wide Welded 50 Three ½" KOs in one side, lateral bracket on other side, one ½" KO in each end and three ½" KOs in bottom. Furnished with four mounting holes in bottom. Bracket offset 1/4" from face* 103-W-AB 11//8 13.0 1%" deep x 4" long x 21%" wide Welded 50 Three ½" KOs in one side, angle bracket on other side, one ½" KO in each end and three ½" KOs in bottom. Bracket offset %6" from face* 104-W-FB-3/4 21/8" deep x 4" long x 21/8" wide Welded 21/8 14.5 50 Two ¾" KOs in one side, flat bracket on other side, one ¾" KO in each end and two ¾" KOs in bottom. Flat bracket offset %6" from face* 106-3/4 23/16 18.0 23/16" deep x 41/8" long x 23/8" wide Drawn 50 Two 3/4" KOs in each side, one 3/4" KO in each end and three 1/2" KOs in bottom. Two mounting holes in bottom 106-FB-1/2 23/16 18.0 23/16" deep x 41/8" long x 23/8" wide Drawn 50 Three ½" KOs in one side, flat bracket on other side, one ½" KO in each end and three ½" KOs in bottom. Flat bracket offset %16" from face 106-FB-3/4 23/16 23/16" deep x 41/8" long x 23/8" wide Drawn 50

Two ¾" KOs in each side, flat bracket on other side, one ¾" KO in each end and three ½" KOs in bottom.

*Uses Steel City® 100 series covers.



Flat bracket offset %16" from face

United States Tel: 901.252.8000

800.816.7809 Fax: 901.252.1354





Handy/Gang Boxes and Accessories

Multi-Gang Handy Boxes













1/2	132-W-FBC	134-BW
-----	-----------	--------

CAT. NO.	DEPTH (IN.)	CU. IN. Capacity	DESCRIPTION	STD. CTN.
132-W-1/2	21//8	30.3	A Two-Gang Box, 2½" deep — 4" square Three ½" KOs in each of four sides and three ½" KOs in a line in bottom with two ¾" KOs at opposite ends in bottom*	25
132-W-FB-1/2	21/8	30.3	A Two-Gang Box, 2%" deep — 4" square Three ½" KOs in each of three sides, flat bracket on fourth side and five ½" KOs in bottom. Flat bracket offset %e" from face*	25
132-W-FB-3/4	21/8	30.3	A Two-Gang Box, 2%" deep — 4" square Two ¾" KOs in each of three sides, flat bracket on fourth side and three ½" KOs in a line with two ¾" KOs at opposite ends in bottom. Flat bracket offset ¾6" from face*	25
132-W-AB-1/2	21/8	30.3	A Two-Gang Box, 2½" deep — 4" square Three ½" KOs in each of three sides, angle bracket on fourth side and five ½" KOs in bottom. Bracket offset %e" from face*	25
132-W-FBC	21/8	30.3	For Non-Metallic Cable — A Two-Gang Box, 2%" deep — 4" square Two Loom KOs in each of two opposite sides, two ½" KOs in side opposite flat bracket and one ½" KO in bottom. Two Loom clamps for use on non-metallic sheathed cable with 10/32 deep-slotted screws assembled. Flat bracket offset %6" from face*	25
134-BW	21/8	58.0	A Four-Gang Box Four '%" KOs in each side, two '%" KOs in each end and ten '%" KOs in bottom. Uses Steel City SB-4 cover.	20

*Uses Steel City® SB-2 covers.

Drawn-Style Gang Boxes

					KNO	CKOUTS ((IN.)	
CAT. NO.	DEPTH (IN.)	CU. IN. Capacity	HEIGHT (IN.)	LGTH. (IN.)			BOTTOM CONDUIT	
With Condu	iit KOs							
2G 1/2 3/4	15/8	45.0	41/2	613/16	$2-\frac{1}{2}$ $2-\frac{3}{4}$	$1-\frac{1}{2}$ $1-\frac{3}{4}$	$3-\frac{1}{2}$ $2-\frac{3}{4}$	5
3G 1/2 3/4	15/8	58.0	41/2	85/8	3-1/ ₂ 2-3/ ₄	1-1/ ₂ 1-3/ ₄	6-1/ ₂ 4-3/ ₄	5
4G 1/2 3/4	15/8	70.0	41/2	107/16	$3-\frac{1}{2}$ $3-\frac{3}{4}$	$1-\frac{1}{2}$ $1-\frac{3}{4}$	6-1/ ₂ 4-3/ ₄	5
5G 1/2 3/4	15/8	85.0	41/2	121/4	4-1/ ₂ 3-3/ ₄	1-1/2 1-3/4	6-1/2 4-3/4	1
6G 1/2 3/4	15/8	95.0	41/2	141/16	4-1/ ₂ 4-3/ ₄	1-1/ ₂ 1-3/ ₄	6-1/ ₂ 4-3/ ₄	1
H2BD 3/4 1	21/2	71.0	41/2	613/16	2-3/ ₄ 1-1	1-3/ ₄ 1-1	3-1/ ₂ 2-3/ ₄	10
H3BD 3/4 1	21/2	90.0	41/2	85/8	4-3/ ₄ 1-1	1-3/ ₄ 1-1	6-1/ ₂ 4-3/ ₄	10
H4BD 3/4 1	21/2	110.0	41/2	107/16	2-3/ ₄ 2-1	1- ³ / ₄ 1-1	6-1/2 4-3/4	5
H5BD 3/4 1	21/2	132.0	41/2	121/4	3-3/4 2-1	1- ³ / ₄ 1-1	6-1/2 4-3/4	5
H6BD 3/4 1	21/2	150.0	41/2	141/16	3-3/ ₄ 3-1	1-3/ ₄ 1-1	$6-\frac{1}{2}$ $4-\frac{3}{4}$	5

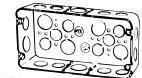




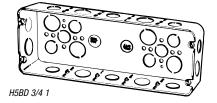
2G 1/2 & 3/4



5G 1/2 & 3/4



H3BD 3/4 1





United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354





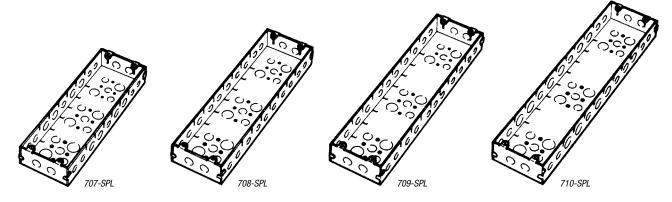






Gang Boxes and Accessories

Multi-Gang Boxes

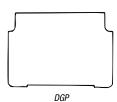


CAT. NO.	CU. IN. Capacity	DESCRIPTION	STD. CTN.
707-SPL	126.5	Seven-Gang Box, 1 ¹ % ₆ " deep x 4% ₆ " long x 15 ¹ % ₆ " wide Five ½" KOs and four ¾" KOs in each side, two ½" KOs in each end and nine ½" KOs with six ¾" KOs in bottom. Furnished with four 8/32 screws. For use with either Steel City® 807 and SB-7, 808 and SB-8, or just GB-7 rings and covers	1
708-SPL	141.3	Eight-Gang Box, 1'%" deep x 4%" long x 17%" wide Six ½" KOs and four ¾" KOs in each side, two ½" KOs in each end and nine ½" KOs with six ¾" KOs in bottom. Furnished with four 8/32 screws. For use with either Steel City® 808 and SB-8, 809 and SB-9, or just GB-8 rings and covers	1
709-SPL	155.8	Nine-Gang Box, 11%, "deep x 4%, "long x 19% "wide Six ½" and five ¾" KOs in each side and two ½" KOs in each end and nine ½" KOs with six ¾" KOs in bottom. Furnished with four 8/32 screws. For use with either Steel City® 809 and SB-9, 810 and SB-10, or just GB-9 rings and covers	1
710-SPL	170.5	Ten-Gang Box, 1 ¹ %e" deep x 4%e" long x 21%" wide Six ½" KOs and six ¾" KOs in each side, two ½" KOs in each end and nine ½" KOs with six ¾" KOs in bottom. Furnished with four 8/32 screws. For use with either Steel City® 810 and SB-10, or just GB-10 rings and covers	1

Gang Box Partitions

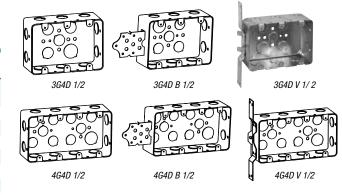
CAT. NO.	DESCRIPTION	STD. CTN.
SGP	Hi/low-voltage partition for 1%"-deep box	25
DGP	Hi/low-voltage partition for 21/2"-deep box	50





2-, 3- and 4-Gang Drawn-Style Device Boxes

CAT. NO.	GANG	DEPTH (IN.)	CU. IN. Capacity	BRACKETS	EA. SIDE Conduit	EA. END CONDUIT	STD. CTN.
2G4DV 1/2 3/4	2	21/8	30.3	CV	2 –½", 1–¾"	2-½", 1-¾"	25
3G4D 1/2	3	21/8	44.3	_	3-1/2"	2-1/2"	20
3G4D B 1/2	3	21/8	44.3	В	3-1/2"	2-1/2"	20
3G4D V 1/2	3	21/8	44.3	CV	3-1/2"	2-1/2"	20
4G4D 1/2	4	21/8	58.0	_	4-1/2"	2-1/2"	20
4G4D B 1/2	4	21/8	58.0	В	4-1/2"	2-1/2"	20
4G4D V 1/2	4	21/8	58.0	CV	4-1/2"	2-1/2"	20



www.tnb.com

United States Tel: 901.252.8000

800.816.7809 Fax: 901.252.1354



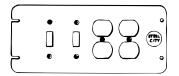




Gang Boxes and Accessories

Gang Box Covers

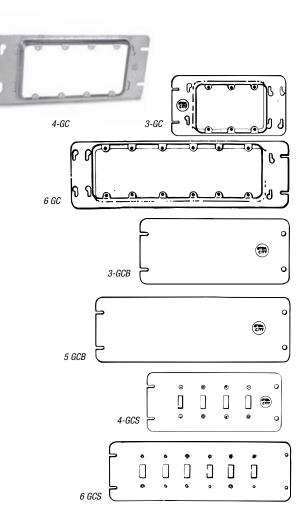
When covers are required to accommodate various combinations of devices, use the following catalog numbers plus the suffix "SPECIAL," and then indicate the combinations desired. When necessary, also indicate the sequence of devices.



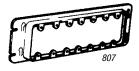
EXAMPLE: 4-GCS Special

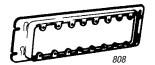
 As illustrated (above), this is a 4-GCS Special for two toggle switches on left side and two duplex receptacles on right side

CAT. NO.	LGTH. (IN.)	CU. IN. Capacity	DESCRIPTION	STD. CTN.					
411/16" Wide-Raised 13/16" for Plaster									
2-GC	7	8.5	Holes between gangs are spaced on	5					
3-GC	813/16	13.5	13/16" centers; tapped holes in ears;	5					
4-GC	10%	18.3	spaced on 31/32" centers to accommodate	5					
5 GC	127/16	23.0	all standard receptacles and switches;	5					
6 GC	141/4	28.3	furnished with extra plugged screw holes; if these screw holes are used, the cover will fit the next smaller size box	5					
411/16" Wid	e — Flat, E	Blank							
2-GCB	7	_	_	25					
3-GCB	813/16	_	_	25					
4-GCB	10%	_	_	25					
5 GCB	121/16	_	_	25					
6 GCB	141/4	_	_	25					
411/16" Wid	e — Flat fo	or Toggle S	witches						
2-GCS	7	_	For 2 toggle switches	25					
3-GCS	813/16	_	For 3 toggle switches	25					
4-GCS	10%	_	For 4 toggle switches	25					
5 GCS	121/16	_	For 5 toggle switches	25					
6 GCS	141/4	_	For 6 toggle switches	25					
411/16" wide -	— special cov	ers — flat to l	accommodate combinations of devices.						

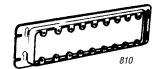


Multi-Gang Rings









CAT. NO.	CU. IN. Capacity	DESCRIPTION	STD. CTN.
807	36.3	A seven-gang switch ring, %" raised x 4% _e " long x 15 ¹ % _e " wide Fits Steel City® 706 or 707 outlet boxes and uses GB-7 covers	1
808	41.0	An eight-gang switch ring, %" raised x 4%" long x 17%" wide Fits Steel City® 707 or 708 outlet boxes and uses GB-8 covers	1
809	46.5	A nine-gang switch ring, ¾" raised x 4%•" long x 19%•" wide Fits Steel City® 708 or 709 outlet boxes and uses GB-9 covers	1
810	51.5	A ten-gang switch ring, %" raised x 4% " long x 21%" wide Fits Steel City® 709 or 710 outlet boxes and uses GB-10 covers	1





www.tnb.com

Gang Boxes and Accessories

Multi-Gang Covers — SB Series

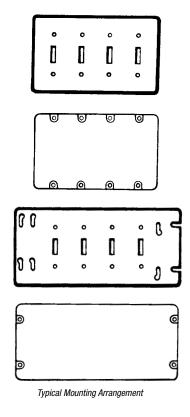
CAT. NO.	DESCRIPTION	STD. CTN.
SB-2	2-gang cover	1
SB-3	3-gang cover	1
SB-4	4-gang cover	1
SB-5	5-gang cover	1
SB-6	6-gang cover	1
SB-7	7-gang cover	1
SB-8	8-gang cover	1
SB-9	9-gang cover	1
SB-10	10-gang cover	1

Fits Steel City $^{\otimes}$ 132, 133 and 134 series handy boxes (both welded and drawn) and 800 series multi-gang rings.

Multi-Gang Covers — GB Series

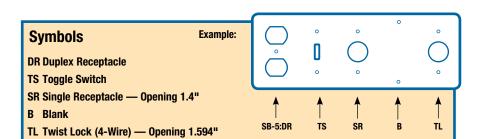
CAT. NO.	DESCRIPTION	STD. CTN.
GB-2	2-gang cover	1
GB-3	3-gang cover	1
GB-4	4-gang cover	1
GB-5	5-gang cover	1
GB-6	6-gang cover	1
GB-7	7-gang cover	1
GB-8	8-gang cover	1
GB-9	9-gang cover	1
GB-10	10-gang cover	1

Fits Steel City® 700 series multi-gang boxes.



How To Order.

- 1. Indicate style of cover "GB" or "SB"
- 2. Use symbols for each opening
- 3. Separate each symbol with a dash (-)
- 4. Allow 4 to 6 weeks for shipment





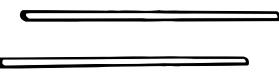
800.816.7809 Fax: 901.252.1354



Concrete/Masonry Boxes and Accessories

Bars for Hanging Ceiling Boxes

CAT. NO.	LENGTH (IN.)	STD. CTN.
HBB 18	18	40
HBB-24	24	40
HBB-30	30	40



Two bars required for each box.

Concrete Box Covers

CAT. NO.	DESCRIPTION	STD. CTN.
911	Flat — 4" octagon	25
	Two 1/2" KOs and two 3/4" KOs with 3/8" fixture stud*	

Fits any Steel City® concrete box.



Concrete Box Cover Plate

Thread size: %–18 NPS





Concrete	DUX	Auapter



CAT. NO.	DESCRIPTION	STD. CTN.
CBA	For quick mounting and alignment of 4" octagon	25
	extension ring on concrete box or hung ceiling box	

CAT. NO.	DESCRIPTION	STD. CTN.
CBP	No Stud; 3½" and 2¾" KOs	25
CBP 3/8	With $\%$ " fixture stud; $2\frac{1}{2}$ " and $\%$ " KOs	25

4" Octagon Concrete Boxes

CAT. NO.	DEPTH (IN.)	CU. IN. Capacity	KNOCKOUTS	STD. CTN.
With Conduit KOs				
54531 1/2 3/4	2	23.0	1/2" & 3/4" single row	25
54541 1/2 3/4	21/2	29.0	1/2" & 3/4" single row	25
54551 1/2 & 3/4	3	35.0	1/2" & 3/4" single row	20
54551-3/4 & 1	3	35.0	3/4" & 1" single row	20
54561 1/2	31/2	41.0	1/2" double row	20
54561-1/2 & 3/4	31/2	41.0	1/2" & 3/4" double row	20
54561-3/4 & 1	31/2	41.0	3/4" & 1" double row	20
54571 1/2 3/4	4	47.0	1/2" & 3/4" double row	10
54571-3/4 & 1	4	47.0	3/4" & 1" double row	10
54581 1/2 & 3/4	5	58.0	1/2" & 3/4" double row	10
54591 1/2 & 3/4	6	70.0	1/2" & 3/4" three rows	10





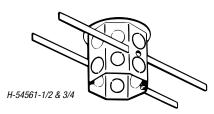






4" Octagon Hanging Ceiling Boxes

CAT. NO.	DEPTH (IN.)	CU. IN. Capacity	KNOCKOUTS	STD. CTN.
With Conduit KOs				
H-54561-1/2 & 3/4	31/2	41.0	1/2" & 3/4" double row	20
H-54561-3/4	31/2	41.0	3/4" double row	20





United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354

Technical Services Tel: 888.862.3289





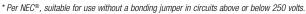


Concrete/Masonry Boxes and Accessories

Gangable Masonry Boxes

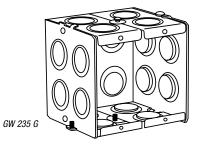


					ECCENT	TRIC KNO 1/2" & 3/4	OCKOUTS "	
CAT. NO.	DEPTH (IN.)	HEIGHT (IN.)	LENGTH (IN.)	CU. IN. Capacity	EA. Side	EA. END	воттом	STD. CTN.
With Eccer	itric Co	nduit K()s					
GW 125 G*	21/2	3¾	1 ¹⁵ / ₁₆	15.0	2	2	2	20
GW 225 G*	21/2	3¾	3¾	31.6	2	4	4	10
GW 325 G*	21/2	3¾	5%16	47.4	2	6	6	5
GW 425 G	21/2	3¾	7%	64.0	2	8	8	5
GW 525 G	21/2	33/4	93/16	79.0	2	10	10	5
GW-625-G*	21/2	3¾	11	94.8	2	12	12	1
GW 135 G*	31/2	3¾	1 ¹⁵ / ₁₆	22.0	4	2	2	20
GW 235 G*	3½	3¾	3¾	46.9	4	4	4	10
GW 335 G	31/2	3¾	5%16	71.0	4	6	6	10
GW 435 G*	3½	3¾	†73/8	93.5	4	8	8	5
GW-535-G	31/2	3¾	†93/16	111.7	4	10	10	5
GW-635-G	3½	3¾	*†11	134.0	4	12	12	1



^{† 4-, 5-} and 6-gang supplied with partitions.





Masonry Box Partitions



CAT. NO.	DESCRIPTION	STD. CTN.
PGW-25-G	Non-metallic partition for 2½"-deep steel tile wall boxes	25
PGW-35-G	Non-metallic partition for 3½"-deep steel tile wall boxes	25



Shallow Masonry Boxes



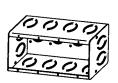
1-MBS



2-MBS



3-MBS



4-MBS



CAT. NO.	DEPTH (IN.)	CU. IN. Capacity	DESCRIPTION	STD CTN.
1-MBS	21/2	16.5	A one-gang masonry box, 2½" deep x 3¾" long x 1¾" wide Six ½" and two ¾" concentric KOs. Two in each side and one in each end. Uses Steel City® 100 cover	10
2-MBS	21/2	33.0	A two-gang masonry box, 2½" deep x 3¾" long x 3¾" wide Eight ½" and two ¾" concentric KOs. Two in each side and two in each end. Uses Steel City® SB-2 cover	10
3-MBS	21/2	49.0	A three-gang masonry box, 2½" deep x 3¾" long x 5½" wide Ten ½" and ¾" concentric KOs. Three in each side and two in each end. Uses Steel City® SB-3 cover	5
4-MBS	21/2	67.0	A four-gang masonry box, 2½" deep x 3¾" long x 7¾" wide Twelve ½" and ¾" concentric KOs Four in each side and two in each end. Uses Steel City® SB-4 cover	5
MBPS	2½	_	Masonry Box Partition, 2½" deep x 3¾" wide A low-voltage partition drilled and tapped for mounting. Furnished with two 8/32 screws. For use with 2-MBS, 3-MBS or 4-MBS boxes	50

Thomas@Betts

Steel City®

Concrete/Masonry Boxes and Accessories

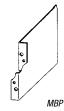
Deep Masonry Boxes











CAT. NO.	DEPTH (IN.)	CU. IN. Capacity	DESCRIPTION	STD. CTN.
1-MB	3½	23.3	One-Gang Masonry Box, 3½" deep x 3¾" long x 1½" wide Eight ½" and ¾" concentric KOs. Two in each side and two in each end. Uses Steel City® 100 series covers	10
2-MB	3½	46.8	Two-Gang Masonry Box, 3½" deep x 3½" long x 3¾" wide Twelve ½" and ¾" concentric KOs. Four in each of two sides and two in each end. Uses Steel City® SB-2 cover	10
3-MB	3½	69.5	Three-Gang Box, 3½" deep x 3¾" long x 5½" wide Sixteen ½" and ¾" concentric KOs. Six in each of two sides and two in each end. Uses Steel City® SB-3 cover	5
4-MB	3½	92.0	Four-Gang Masonry Box, 3½" deep x 3¾" long x 7¾" wide Twenty ½" and ¾" concentric KOs. Eight in each of two sides and two in each end. Uses Steel City® SB-4 cover	5
MBP	3½	_	Masonry Box Partition, 3½" deep x 3¾" wide A low-voltage partition drilled and tapped for mounting. Furnished with two 8/32 screws. For use with 2-MB, 3-MB or 4-MB boxes	50

1" KO Masonry Box

			1" KNOCKOUTS			
CAT. NO.	LENGTH (IN.)	CU. IN. Capacity	EA. Side	EA. END	воттом	STD. CTN.
Non-Gangable	e Single Sa	ang				
GW 135 NG-1	11//8	22	2	1	2	10

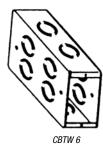


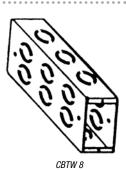
GW 135 NG-1

Thru-Wall Boxes for Concrete Block

					KNOCKOUTS (IN.)		
CAT. NO.	WIDTH (IN.)	HEIGHT (IN.)	DEPTH (IN.)	CU. IN. Capacity	EA. SIDE Conduit	EA. END Conduit	STD. CTN.
With Cond	centric (Conduit	K0s				
CBTW 4	21/8	311/16	31/2	24.0	(2) 1/2-3/4	(1) 1/2-3/4	10
CBTW 6	21/8	311/16	$5\frac{1}{2}$	38.0	(4) 1/2-3/4	(2) 1/2-3/4	10
CBTW 8	21/8	311/16	71/2	52.3	(6) 1/2-3/4	(3) 1/2-3/4	10



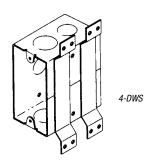




Welded Thru Boxes

CAT. NO.	CU. IN. Capacity	DESCRIPTION	STD. CTN.
4-DWS	25.5	35/16" deep x 4" long x 21/8" wide	25
		One $1\!\!/\!\!2$ " KO and one $3\!\!/\!\!4$ " KO both on top, one $1\!\!/\!\!2$ " KO bottom	
		side and one ½" KO on side opposite two flat brackets*	

*Uses Steel City® and 100 series covers.





United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354

Technical Services Tel: 888.862.3289



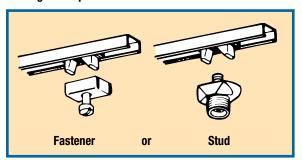




Box Hangers and Supports

Adjustable Bar Hangers for Plaster and Drywall

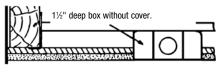
Packaged complete with either...

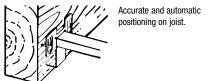


Ease of Installation:

Claws provide temporary support for proper positioning until permanently installed.

1/2", 3/4", 7/8" Lath and Plaster

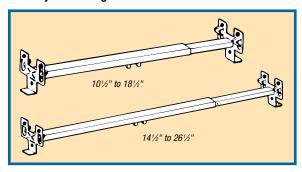




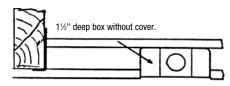


Endplate locator tab is scored and marked for lath and plaster drywall applications with standard and deep boxes.

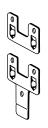
Two adjustable lengths:



3/8", 1/2", 5/8" Drywall Board



Foot straightened gauges for 11/2"-deep box with cover or 21/8"-deep box without cover. With foot broken off gauges for shallow pan box.



CAT. NO.	DEPTH OF END PLATE (IN.)	BR LENGTH (IN.)	STUD or fastener	STD. CTN.
For 3%", 1/2" and 5%" Wall L	Board and Plaster — 50 lb. Max. Load	Rating		
6010DW-25	13/16	10½–18½	Stud	25
6010ADW-25	13/16	14½-26½	Stud	25
6011DW-25	13/16	10½–18½	Fastener	25
6011ADW-25	13/16	14½-26½	Fastener	25

*Score marks for drywall and plaster depths.





1-800-453-1692

Fax: 901.252.1354

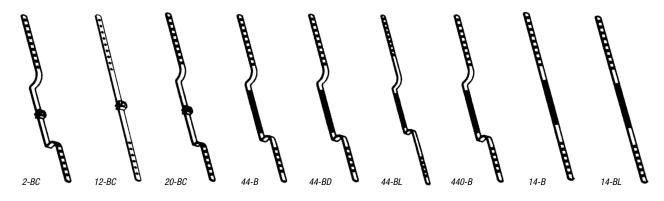
Technical Services Tel: 888.862.3289



Steel City®

Box Hangers and Supports

Bar Hangers



CAT. NO.	DESCRIPTION	STD.CTN.
2-BC	21" LONG Deep offset bar hanger. Offset 1½" for mounting boxes with plaster ring. Furnished with clip	50
12-BC	20" LONG Straight bar hanger for mounting pancake boxes. Furnished with clip	50
20-BC	22" LONG Shallow offset bar hanger. Offset 1" for mounting 1½"-deep boxes without rings. Furnished with clips	50
44-B	22" LONG Deep offset bar hanger. Offset 1½" for mounting 1½"-deep boxes with plaster ring to bring cover flush with plaster. Furnished with stovebolt	50
44-BD	22" LONG Extra deep offset bar hanger. Offset 21/6" for mounting 21/6"-deep box. Furnished with stovebolt	50
44-BL	26" LONG Deep offset bar hanger. Offset 1½" for mounting 1½"-deep boxes with plaster ring to bring cover flush with plaster. Furnished with stovebolt	50
440-B	21" LONG Shallow offset bar hanger. Offset 1" for mounting 1½"-deep boxes without rings. Furnished with stovebolt	50
14-B	20" LONG Straight bar hanger for mounting ceiling boxes. Furnished with stovebolt	50
14-BL	24" LONG Straight bar hanger for mounting ceiling boxes. Furnished with stovebolt	50

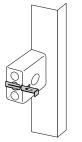
Far-Side Box Support

- Provides side support for electrical boxes
- Works with most electrical boxes for $2\frac{1}{2}$ ", $3\frac{1}{2}$ " and 4" metal stud depths

217.112	FIG.		STD.
CAT. NO.	NO.	DESCRIPTION	CTN.
SS1-TB	1	Far-side box support	100
50-SC	2	Box brace for 4" square or octagonal box	100











United States Tel: 901.252.8000

800.816.7809 Fax: 901.252.1354







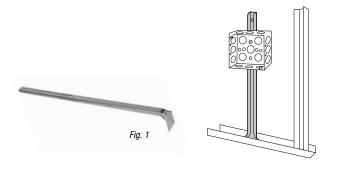


Box Hangers and Supports

Floor-Mounted Box Supports

- · Mounts on metal or wood studding
- Used as conduit rack or spacer for rigid conduit, IMC or EMT
- Ideal for schools, hospitals, industrial and commercial jobs
- · Galvanized steel

CAT. NO.	FIG. No.	DESCRIPTION	STD. CTN.
7502	1	Footed box supports, 20" height	25
7503-SC	1	Footed box supports, 30" height	50



Pipe Nailers

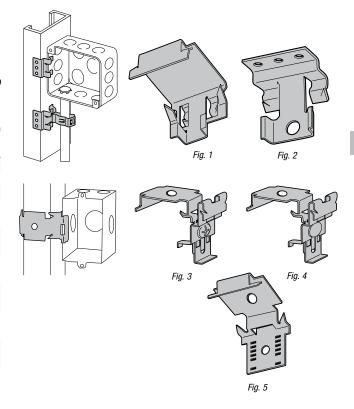
		STD.
CAT. NO.	DESCRIPTION	CTN.
PN-3-1	1"	1,000



Snap-On Box Clip

- · Fits most electrical boxes requiring plaster rings
- · Fits most metal stud sizes
- · Will not move on stud
- Wider part for more secure fastening
- · No screws required
- Support leg braces box against stud
- · Installs easily with a hammer
- · Adjustable offset enables box to protrude through drywall sizes: 1/4", 3%", 1/2", 5%" or 3/4"

CAT. NO.	FIG. No.	DESCRIPTION	STD. CTN.
SSF-SMX	1	Snap-on box support for mounting to stud	100
SSF-SK	2	Screw to stud, box support	100
SF-SFA	3	Snap-on box support for mounting to stud, adjustable	25
SSF-SF0	4	Snap-on box support for mounting to stud, riveted for flush to stud face	25
SSF-SF1/4	4	Snap-on box support for mounting to stud, riveted for 1/4" drywall	25
SSF-SF3/8	4	Snap-on box support for mounting to stud, riveted for \%" drywall	25
SSF-SF1/2	4	Snap-on box support for mounting to stud, riveted for $\frac{1}{2}$ " drywall	25
SSF-SF5/8	4	Snap-on box support for mounting to stud, riveted for 1/8" drywall	25
SSF-SF3/4	4	Snap-on box support for mounting to stud, riveted for ¾" drywall	25
SSF-SFT	5	Snap-on box support for mounting to stud with 1/4"–20 thread impression	25





Thomas@Betts

Steel City®

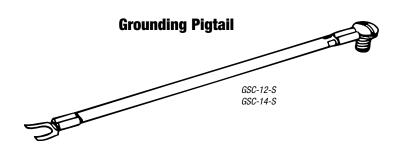
Stud Wall and Drywall Accessories

Grounding Devices



Grounding Clip

- For grounding switch and outlet boxes using nonmetallic sheathed cables with ground wire
- Grounds #12 and #14 copper and #12 aluminum conductors



Grounding Screw and Wire

 A prelooped 6"-long bare or insulated copper ground wire attached to a 10-32 x ¾" hexagon-head washer-face screw, colored green



GSC 12

GSC 14

GSB 12

GSB 14



Grounding Screw

CAT. NO.	DESCRIPTION	STD. CTN.	UNIT PKG.
Grounding Clip			- 1101
GEE	Zinc-plated, spring-steel, colored green accommodates #12 and #14 copper and #12 aluminum solid conductors in non-metallic sheathed cable. Also approved for connecting bonding jumper from receptacle to grounded metal device box. 50 per unit package	1,000	-
Grounding Screws and Pigtails			
GSC 12	10-32 x $\%$ " slotted hexagon-head washer-face ground screw with green dye finish and a six-inch solid copper #12 AWG insulated wire	1,000	100
GSC-12-S*	#12 AWG insulated eight-inch stranded pigtail with a captive 10-32 x %" round head screw on one end and a fork-tongue terminal on the other end	1,000	100
GSC-12-10 1/2	10-32 x %" slotted hexagon-head washer-face ground screw with green dye finish and a 10½ inch solid-copper #12 AWG insulated wire	1,000	100
GSC 14	10-32 x %" slotted hexagon-head washer-face ground screw with green dye finish and a six-inch solid-copper #14 AWG insulated wire	1,000	100
GSC 14 S*	#14 AWG insulated eight-inch stranded pigtail with a captive 10-32 x %" round head screw on one end and a fork-tongue terminal on the other end	1,000	100
GSB 12	10-32 x %" slotted hexagon-head washer-face ground screw with green dye finish and a six-inch solid-copper #12 AWG bare wire	1,000	100
GSB 14	10-32 x %" slotted hexagon-head washer-face ground screw with green dye finish and a six-inch solid-copper #14 AWG bare wire	1,000	100
GS 1-SC	10-32 x $\%$ " slotted hexagon-head washer-face screw with green dye finish. Provides positive ground continuity in boxes with a #10-32 tapped hole	1,000	100

^{*} Eight-inch stranded pigtail is also available with a captive 10-32 x 3/4" round-head screw on one end and a fork-tongue terminal on the other end.



800.816.7809 Fax: 901.252.1354



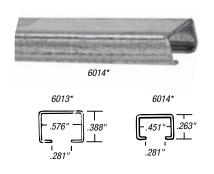


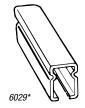


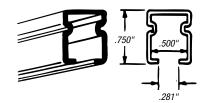


Stud Wall and Drywall Accessories

Channel Bar



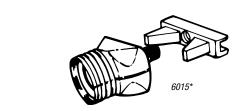


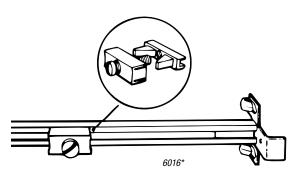


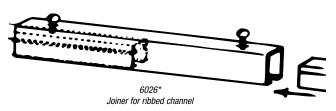


CAT. NO.	DESCRIPTION	MIN. ORDER (FT.)	STD. CTN.
Mounts Fixtures, E	Boxes and Conduits in Suspended Ceilings		
6013*	20 ga. single channel bar	100	100
6014*	18 ga. single channel bar	100	100
6029*	16 ga. (.060") ribbed	100	100
6029 H*	16 ga. (.060") ribbed — with holes for #12 sheet-metal screw and $\frac{1}{4}$ " threaded rod	100	100
*10-ft. lenaths.			

Box and Channel Fasteners







CAT. NO.	DESCRIPTION	MIN. ORDER (FT.)	STD. CTN.
6015*	Stud and carrier %-18 NPS treading	100	100
6016*	Fastener and carrier	100	100
6026*	Joiner for 6029 channel	100	100

^{*} Minimum order 100 pieces.

Thomas@Betts

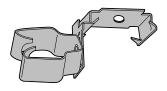
Steel City®

Stud Wall and Drywall Accessories

Conduit-to-Metal Stud

- · Attaches securely to most metal stud sizes
- · Riveted to accommodate your drywall requirements

	FIG.		STD.
CAT. NO.	NO.	DESCRIPTION	CTN.
SSF-SF-S1/2	1	Snap on stud, push-in conduit clip, ½" conduit	25
SSF-SF-S3/4	1	Snap on stud, push-in conduit clip, ¾" conduit	25
SSF-SF-S1	1	Snap on stud, push-in conduit clip, 1" conduit	25
SSF-SF-C3/8	2	Snap on stud, conduit support clip, $\ensuremath{\%^{\!\!\!\!/}}$ conduit or MC/AC cable	25
SSF-SF-C1/2 3/4	2	Snap on stud, conduit support clip, ½"-¾" conduit	25
SSF-SF-C1	2	Snap on stud, conduit support clip, 1" conduit	25
SSF-SK-C1/2 3/4	3	½"-¾" finger close conduit clip	25
SSF-SK-C1	3	1" finger close conduit clip	25
SSF-SK-S1/2	4	½" snap-in conduit clip	25
SSF-SK-S3/4	4	3/4" snap-in conduit clip	25
SSF-SK-S1	4	1" snap-in conduit clip	25



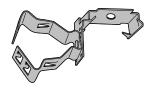
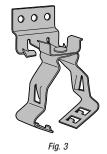


Fig. 1

Fig. 2



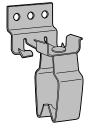
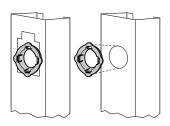


Fig. 4

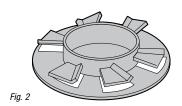
Easy-Snap Grommet

- · Fits any size or shape metal stud hole
- Provides complete 360° protection for cable



CAT. NO.	FIG. NO.	DESCRIPTION	STD. CTN.
1300	1	Plastic bushing for metal stud 1" trade size opening (111/32")	100
1216-EN	2	Twisted universal bushing for metal stud	50



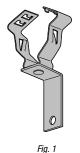


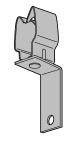
Stud Wall and Drywall Accessories

Through-Stud Cable Conduit Support

- A quick means of support for horizontal runs of conduits or MC/AC through metal stud
- Installs easily with a screw gun
- SSF-SPI enables ENT conduit and MC/AC cable to be easily pulled through metal stud

CAT. NO.	FIG. NO.	DESCRIPTION	STD. CTN.
SSF-SAB-C1/2 3/4	1	½" or ¾" finger close conduit clip	25
SSF-SAB-C3/8	1	Finger-close conduit clip 14-2 thru 12-3 MC/AC cable and %" conduit	25
SSF-SAB-S1/2	2	Snap-in conduit clip — ½" conduit	25
SSF-SAB-S3/4	2	Snap-in conduit clip — ¾" conduit	25
SSF-SP1	3	Supports up to 1" conduit	100









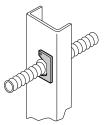
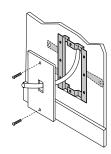


Fig. 3

Low-Voltage Mounting Brackets -Screw-On Support

- Eliminates the need for an electrical box when installing low-voltage Class 2 wiring
- · For old work or new work



CAT. NO.	FIG. NO.	DESCRIPTION	STD. CTN.
SSF-SLV	1	Old-work or new work low-voltage bracket	100
VN1	2	Non-metallic single-gang new-work low-voltage bracket	50
VN2	_	Non-metallic two-gang new-work low-voltage bracket	50
VW1	3	Non-metallic single-gang old-work low-voltage bracket	50
VW2	_	Non-metallic two-gang old-work low-voltage bracket	50
WBF-1	4	Low-voltage mounting bracket with screws	100









Fig. 3

Fig. 4



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354

Technical Services Tel: 888.862.3289





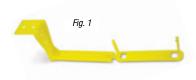
Thomas@Betts

Steel City®

Stud Wall and Drywall Accessories

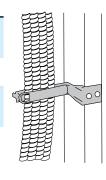
Cable Support

 Supports up to four runs of MC and AC cable and up to six runs of non-metallic sheathed cable



- Installs with nails or staples or sheet-metal screws
- Complies with NEC® 300-4d for all wood and metal studs
- Made with high-strength plastic

CABLE Type	CABLE Size	MAX. QTY./ FASTENER
Non-Metallic Sheathed Cable	#14-2, #12-2, #10-2, #14-3, #12-3 and #10-3 with Ground	6
Non-Metallic	#8-2 and #6-2 with Ground	4
Metallic Clad (MC) Cable and #10-4 with Ground	#14-2, #12-2, #10-2, #14-3, #12-3, #10-3, #14-4, #12-4	4
Armored Cable (AC)	#14-4, #12-2, #10-2, #8-2, #14-3, #12-3, #10-3, #14-4, #12-4 and #10-4 with Ground	4
Flexible Conduit (BX)	5/16, 3/8	4

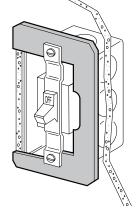


CAT. NO.	FIG. NO.	DESCRIPTION	STD. CTN.
SSF-SC6	1	Non-Metallic Sheathed MC/AC Cable to Stud Clip	100

Device Leveler and Retainer

- · Use for oversized drywall openings
- Prevents broken cover plates
- Stops device from being pushed back in wall
- · Makes floating device rigid



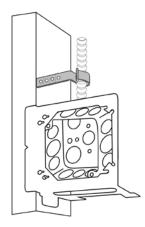


CAT. NO.	FIG. NO.	DESCRIPTION	STD. CTN.
SSF-SR	1	Single-Gang Device Leveler and Retainer	100

NEC and National Electrical Code are registered trademarks of the National Fire Protection Association, Inc.

Screw-On Conduit Support

- Supports ½" and ¾" EMT conduit and MC/AC cable
- Works with wood or metal stud
- Preset bend provides alignment with knockouts for 1½"-deep boxes or 2½"-deep boxes



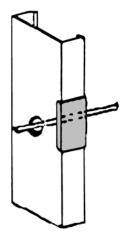


CAT. NO.	FIG. NO.	DESCRIPTION	STD. CTN.
SSF-SS1/2 3/4	1	½" and ¾" EMT Conduit and MC/AC to Metal or Wood Stud. For 1½"-Deep Box	100
SSF-SS1/2 3/4D	1	½" and ¾" EMT Conduit Metal or Wood Stud. For 2½"-Deep Box	100

Protector Plates

- Protects cable(s) from damage when installing drywall or paneling
- No nails or screws required
- Fits all stud sizes
- Both products meet requirements for NEC® 300-4
- ST66 legs are crimped with pliers to stud to provide secure fit





CAT. NO.	FIG. NO.	DESCRIPTION	STD. CTN.
SSF-ST66	1	Protector Plate for Metal Stud	100
66EP	2	Protector Plate for Wood Stud	100



Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354

Tel: 888.862.3289

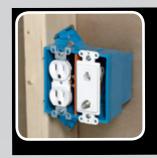








In this section...



Carlon® Non-Metallic Boxes

Overview	A-68–A-69
Carlon® Blue™ PVC Boxes	A-70–A-76
Carlon® SuperBlue® Boxes	A-77–A-79
Polycarbonate Boxes	A-80–A-91
Phenolic Boxes	A-92–A-104
Non-Metallic Covers and Accessories	A-105–A-106
Low-Voltage Structured Cable Management System	A-107–A-120





Carlon®

Overview

Recognized as the Industry Standard in Non-Metallic Boxes.

Carlon® Blue® PVC Boxes

Carlon® non-metallic boxes feature PVC construction for easier installation, greater performance and lower installation cost. Designed and listed for use with non-metallic sheathed cable in accordance with Article 314 of the National Electrical Code®, they make fast work of any residential or light commercial application. Look for the trademarked color blue to be sure it is a quality Thomas & Betts PVC Box.





Carlon® Super Blue® provides all of the desired features of a PVC box with the strength and durability of the heavy wall boxes. Rigid enough not to flex when nailed to a stud and strong enough to withstand a hammer blow in cold temperatures.







Carlon

PC Carlon® Black Polycarbonate Boxes

Carlon® non-metallic boxes feature a rugged polycarbonate construction to withstand extreme temperatures. The boxes will not distort or soften in heat and they won't become brittle in the cold.







Carlon

PH Carlon® Brown Phenolic Boxes

New Fire Rating! Carlon® phenolic boxes can be installed in the same stud cavity of a shared two-hour wall. They may also face opposite directions with only a 3" horizontal separation — ideal for multi-family construction!







NEC and National Electrical Code are registered trademarks of the National Fire Protection Association, Inc.





Carlon

Overview

Bottom Nailed



Most widely accepted for universal use

SB, #5, #7 Offset **Brackets**



For face mount on wood or steel studs

"N" Bracket



Easily positioned for maximum use of box depth

Nails or Screws



Through bottom

#3 Bracket



Easily positioned for maximum use of box depth

Compound **Angled Nails**



For easy installation and positioning in limited space

Ears, #8 Bracket



Snap-in bracket secures box to wall

#2 Bracket



Sturdy side-mounting bracket, support wire adds rigidity

Screw Mount



Flange with flash ring

High Clamp Feature



For easy cable entry

Reverse Angled Side Nails



For use when installed from backside of drywall

Ears, #4 Bracket



Swing bracket swings into place, secures box to wall

"R" Bracket



Reverse angled nails for use with narrow stud spacing

Compound **Angled Side Nails**



For easy installation and positioning in limited space

Fast Set Feature



For fast device mounting

Recessed **Angle Nails**



For quick positioning on narrow stud spacing

#738 Offset **Bracket**



With %" offset for face mount : on wood or steel studs

Side Bracket Stabilizer Bar



Bar extends for rigid installation between studs

Screws, #9 **Snap-in Bracket**



Snap-in bracket secures box to wall

Angled Screws



For fast mounting on steel stud

Angled Side Nails



For quick positioning on narrow stud spacing

Ears



For screw mounting direct to paneling

#1 Raised **Face Bracket**



For wood or steel studs, allows for 1/2" mud ring, ½" drywall

#94, #95 Bar Hangers (16" and 24")



For easy installation, exact centering of ceiling boxes

Non-Metallic Clamp



For easy cable entry



Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354

Technical Services Tel: 888.862.3289



Carlon®

Carlon® Blue™ PVC Boxes

Carlon® Blue™ PVC Boxes

Carlon® non-metallic boxes feature PVC construction for easier installation, greater performance and lower installation cost.

Designed and listed for use with non-metallic sheathed cable in accordance with Article 314 of the National Electrical Code®, they make fast work of any residential or light commercial application.

- All PVC boxes are listed to UL514C
- · All PVC boxes are listed for masonry walls

- All PVC boxes are UL Classified for two-hour fire wall and/or fire ceiling
- All PVC boxes meet NEMA OS-2
- All PVC boxes are permissible for use with 90° C conductors
- UL File E11461 and R9140

One-Gang Adjustable — For New Work

- Design enables adjustment from 0" to 1¾" after installation
- Ideal for new work or retrofit upgrade applications
- Backless low-voltage bracket and floor box designs available
- · Ideal for various drywall thicknesses and wall finishes

One-Gang Adjustable 21.0 Cu. In.



CAT. NO.	SIZE Cu. In.	MOUNTING MEANS	DESCRIPTION	DIMENSIONS (IN.)	STD. CTN.
B121ADJ	21.0	Adjustable	Adjusts 0"-13/4"	3.65 L x 2.25 W	24
		Bracket		x 3.32 D	

NEC and National Electrical Code are registered trademarks of the National Fire Protection Association, Inc.

Carlon Exclusive

B121ADJ

One-Gang Nail-On — For New Work

One-Gang Nail-On 18.0-20.5 Cu. In.



ono dang	,	OII 1010 2010	ou		_
CAT. NO.	SIZE Cu. in.	MOUNTING MEANS	DESCRIPTION	DIMENSIONS (IN.)	STD. CTN.
B118A	18.0	Captive Nails		3¾ L x 2¼ W x 2½ D	100
N1-710-M	18.0	Reverse Angled Side Nails	7/32" Offset Wallboard Tabs	3¾ L x 2¼ W x 211/16 D	100
RN-18-FS	18.0	Recessed Angled Nails	Fast-Set	3 ²¹ / ₃₂ L x 2 ⁵ / ₁₆ W x 3 D	100
SNO-18	18.0	Angled Side Nails	Hinge Closure	41/16 L x 25/16 opening 39/16 overall W x 13/4 D	100
SNO-18-M	18.0	Angled Side Nails	Locating Tab Hinge Closure 3/16" Offset Wall Board Tabs	4½6 L x 25/6 opening 3%6 overall W x 1¾ D	100
B120A-UPC	20.0	Captive Nails	_	31/8 L x 21/4 W x 31/4 D	100
RN-21-FS	20.5	Recessed Angled Nails	Fast-Set	$3^{21}/_{32}$ L x $2^{5}/_{16}$ W x $3^{3}/_{8}$ D	100



B118A



RN-18-FS





N1-710-M



SNO-18



RN-21-FS



United States Tel: 901.252.8000

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354









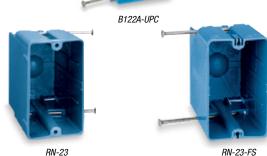
Carlon® Blue™ PVC Boxes

One-Gang Nail-On — For New Work

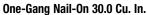
One-Gang Nail-On 22.0-22.5 Cu. In.



CAT. NO.	SIZE Cu. in.	MOUNTING MEANS	DESCRIPTION	DIMENSIONS (IN.)	STD. CTN.
B122A-UPC	22.0	Captive Nails	_	3¾ L x 2¼ W x 3½ D	100
RN-23	22.5	Recessed Angled Nails	_	$3^{21}/_{32}$ L x $2^{5}/_{16}$ W x $3^{3}/_{8}$ D	100
RN-23-FS	22.5	Recessed Angled Nails	Fast-Set	3 ²¹ / ₃₂ L x 2 ⁵ / ₁₆ W x 3 ³ / ₈ D	100









CAT. NO.	SIZE Cu. in.	MOUNTING MEANS	DESCRIPTION	DIMENSIONS (IN.)	STD. CTN.
RD-30	30.0	Recessed Angled Nails	Large KO for #6 or #8 Cable	311/16 L x 25/16 opening 37/8 overall W x 35/8 D	50



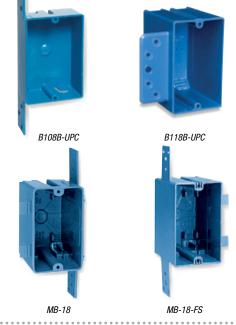
RD-30

One-Gang Brackets — For New Work

One-Gang Brackets 8 0-18 0 Cu. In



une-dang	DIACK	er2 0.0-10.0 ca.	. 111.		9
CAT. NO.	SIZE Cu. In.	MOUNTING MEANS	DESCRIPTION	DIMENSIONS (IN.)	STD. CTN.
B108B-UPC	8.0	Bracket	_	35% L x 23% W x 11/4 D	25
B118B-UPC	18.0	Bracket for 3/8" to 5/8" Wallboard – Steel and Wood Stud Mounting	_	3¾ L x 2¼ W x 215/16 D	5
MB-18 •	18.0	Molded Side Bracket for Wood/Steel Studs		3 ²¹ / ₃₂ L x 2 ⁵ / ₁₆ W x 2 ¹⁵ / ₁₆ D	100
MB-18-FS •	18.0	Molded Side Bracket for Wood/Steel Studs	Fast-Set	$3^{21}/_{32}$ L x $2^{5}/_{16}$ W x $2^{15}/_{16}$ D	100
 Manufacture 	d housin	g — MB-18 and MB-1	8-FS.		





United States Tel: 901.252.8000

800.816.7809 Fax: 901.252.1354 **Technical Services** Tel: 888.862.3289







A-71

oveboardelectronics.com

Carlon

Carlon® Blue™ PVC Boxes

Two-Gang Adjustable — For New Work

- Design enables adjustment from 0" to 1¾" after installation
- · Ideal for new work or retrofit upgrade applications
- · Backless low-voltage bracket and floor box designs available
- · Ideal for various drywall thicknesses and wall finishes

Two-Gang Adjustable 34.0 Cu. In.

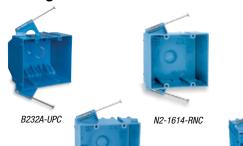


CAT. NO.	SIZE Cu. in.	MOUNTING MEANS	DESCRIPTION	DIMENSIONS (IN.)	STD. CTN.
B234ADJ	34.0	Adjustable Bracket	Adjusts 0"-1¾"	4 W x 3% H x 3 D	16
B234ADJC	34.0	Adjustable Bracket	Large 220V Knockout	5% W x 3% H x 3 D	16



B234ADJ

Two-Gang Nail-On — For New Work





SN-236







N2-1614-MNC

SN-241-FS SN-236-FS

Two-Gang Nail-On 32.0-41.0 Cu. In.



CAT. NO.	SIZE Cu. in.	MOUNTING MEANS	DESCRIPTION	DIMENSIONS (IN.)	STD. CTN.
B232A-UPC	32.0	Captive Nails	_	3¾ L x 4 W x 3 D	50
N2-1614-MNC	32.0	Angled Side Nails	7⁄32" Offset Wallboard Tabs Cable-Lok™ Clamps Bulk Packed	$4\frac{1}{16}$ L x $3\frac{5}{8}$ W x $2\frac{3}{4}$ D	50
N2-1614-RNC	32.0	Angled Side Nails	No Wallboard Tabs Cable-Lok™ Clamps Bulk Packed	$4\frac{1}{16}$ L x $3\frac{5}{8}$ W x $2\frac{3}{4}$ D	50
SN-236	36.0	Compound Angled Nails	%" Offset Wallboard Tabs Molded Fast Clamp	4 L x 3% W x 3% D	50
SN-236-FS	36.0	Compound Angled Nails	3/8" Offset Wallboard Tabs Molded Fast Clamp/Fast Set	4 L x 3% W x 3% D	50
SN-236-V	36.0	Compound Angled Nails	%" Offset Wallboard Tabs Molded V-Clamp	4 L x 3% W x 3% D	50
SN-241	41.0	Compound Angled Nails	%" Offset Wallboard Tabs Molded Fast Clamp	4 L x 3% W x 3% D	50
SN-241-FS	41.0	Compound Angled Nails	3/8" Offset Wallboard Tabs Molded Fast Clamp/Fast Set	4 L x 3% W x 3% D	50

Two-Gang Bracket — For New Work

Two-Gang Bracket 32.0-36.0 Cu. In.



THO duling	Diuok	ot oblo out in			_
CAT. NO.	SIZE Cu. in.	MOUNTING MEANS	DESCRIPTION	DIMENSIONS (IN.)	STD. CTN.
B232B-UPC	32.0	Bracket for %" to %" Wallboard — Steel or Wood Stud Mounting	_	3¾ L x 4 W x 3 D	50
SB2-236-FS	36.0	Two %" Offset Wallboard Tabs; Molded Fact Clamps/Fact Set	%" Offset	3%6 L x 4 W x 3%6 D	20





B232B-UPC

SB2-236-FS



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services** Tel: 888.862.3289





www.tnb.com





Carlon® Blue™ PVC Boxes

Three-Gang Adjustable — For New Work

- Design enables adjustment from 0" to 1¾" after installation
- · Ideal for new work or retrofit upgrade applications
- · Backless low-voltage bracket and floor box designs available
- Ideal for various drywall thicknesses and wall finishes



Three-Gang Adjustable 49.0 Cu. In.

CAT. NO.	SIZE Cu. In.	MOUNTING Means	DESCRIPTION	DIMENSIONS (IN.)	STD. CTN.
B349ADJ	49.0	Adjustable Bracket	Adjusts 0"-13/4"	5 ¹³ / ₁₆ L x 3 ⁵ / ₈ W x 3 D	16



B349ADJ

Three-Gang Nail-On — For New Work



(Îľ)

Three-Gang Nail-On 44.0-56.5 Cu. In.

CAT. NO.	SIZE Cu. in.	MOUNTING MEANS	DESCRIPTION	DIMENSIONS (IN.)	STD. CTN.
B344AB	44.0	Captive Nails and Bracket Support	_	5% L x 3¾ W x 211/16 D	30
SN-357	56.5	Compound Angled Nails	%" Offset Wallboard Tabs Molded Fast Clamp	$5^{13}/_{16}$ L x $35/_{8}$ W x $37/_{16}$ D	20
SN-357-FS	56.5	Compound Angled Nails	%" Offset Wallboard Tabs Molded Fast Clamps/Fast Set	5 ¹³ / ₁₆ L x 3 ⁵ / ₈ W x 3 ⁷ / ₁₆ D	20



SN-357-FS SS-357

Three-Gang Bracket — For New Work

Wood/Steel Studs

Three-Gang Bracket 56.5 Cu. In.

	9		=		_
CAT. NO.	SIZE Cu. in.	MOUNTING MEANS	DESCRIPTION	DIMENSIONS (IN.)	STD. CTN.
SB-357	56.5	One %" Offset Bracket for Wood/Steel Studs	3/8" Wallboard Tabs Molded Fast Clamps/Fast Set	35% L x 513/16 W x 37/16 D	30
SB2-357-FS	56.5	Two %" Offset Brackets for	%" Wallboard Tabs Molded Fast	35% L x 513/16 W x 37/16 D	20

Clamps/Fast Set





SB-357

SB2-357-FS

Thomas@Betts



United States Tel: 901.252.8000

(ĥ)

800.816.7809 Fax: 901.252.1354





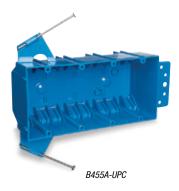




Carlon

Carlon® Blue™ PVC Boxes

Four-Gang Nail-On — For New Work





B455AH

(ÎI)

Four-Gang Nail-On 55 Cu. In.

CAT. NO.	SIZE Cu. in.	MOUNTING MEANS	DESCRIPTION	DIMENSIONS (IN.)	STD. CTN.
B455AH	55.0	Captive Nails, Bracket Support and Hanger Bar	_	7% L x 3™ W x 2½ D	25
B455A-UPC	55.0	Captive Nails and Bracket Support	_	73/5 L x 37/10 W x 21/2 D	25

4" Square — For New Work







4S-812C

B432A-UPC

4" Square 18.0-32.0 Cu. In.

	6175				
CAT. NO.	SIZE Cu. in.	MOUNTING MEANS	DESCRIPTION	DIMENSIONS (IN.)	STD. CTN.
4S-812C	18.0	Angled Side Nails	_	17/16 D x 4 W x 4 L	100
B418A-UPC	18.0	Captive Nails	_	1% D x 4 W x 4 L	75
DA22A_HDC	22.0	Captivo Naile		25/ D v 4 W v 4 I	50

Fax: 901.252.1354







www.tnb.com

Carlon® Blue™ PVC Boxes

One-Gang — For Old Work







B108R-UPC



B117RSW

One-Gang 8.0-17.0 Cu. In.

	SIZE				
CAT. NO.	CU. IN.	MOUNTING MEANS	DESCRIPTION	DIMENSIONS (IN.)	STD. CTN.
B108R-UPC •	8.0	Mounting Ears	_	35% L x 23% W x 11/4 D	25
B114R-UPC •	14.0	Mounting Ears and Swing Clamps	_	41/8 L x 21/4 W x 23/4 D	50
B117RSW •	17.0	Mounting Ears and Swing Clamps	Access Panel	3.64 L x 4.07 W x 2.00 D (2.20 opening)	30

Not UL Classified for Fire Resistance.



E-16-8



E18-4



B120R

One-Gang 16.0-20.0 Cu. In.

CAT. NO.	SIZE Cu. In.	MOUNTING MEANS	DESCRIPTION	DIMENSIONS (IN.)	STD.CTN.
E-16-8	16.0	Thermoplastic Molded Ears #4 Snap-In	Molded Fast Clamps	3½ L x 2¼ W x 211/16 D	50
E-18-4	18.0	Thermoplastic Molded Ears #4 Swing Brackets	Integral Molded V-Clamp	3^{25} /32 L x 2^{7} /32 W x 2^{1} /4 D	100
B120R •	20.0	Mounting Ears and Swing Bracket	_	41/8 L x 25/16 W x 35/8 D	50

[•] Not UL Classified for Fire Resistance.



Fax: 901.252.1354



Thomas@Betts

Carlon® Blue™ PVC Boxes

Two-Gang — For Old Work

Two-Gang 25.0 Cu. In.



CAT. NO.	SIZE Cu. In.	MOUNTING MEANS	DESCRIPTION	DIMENSIONS (IN.)	STD. CTN.
B225R-UPC •	25.0	Mounting Ears and Two Swing Clamps	_	315/16 L x 31/4 W x 23/4 D	30

• Not UL Classified for Fire Resistance.



B225R-UPC

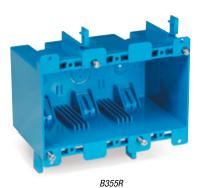
Three-Gang — For Old Work

Three-Gang 55.0 Cu. In.



		· • · · · · · · · · · · · · · · · · · ·			_
CAT. NO.	SIZE Cu. in.	MOUNTING MEANS	DESCRIPTION	DIMENSIONS (IN.)	STD. CTN.
B355R •	55.0	Mounting Ears and Two	_	5.72 L x 2.79 W	6
		Swing Clamps		x 3.69 D	

Not UL Classified for Fire Resistance.



Dooon

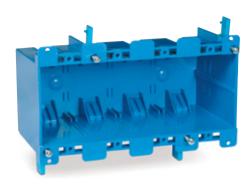
Four-Gang — For Old Work

Four-Gang 68.0 Cu. In.



Tour dun	9 0010 01	41 1111			_
CAT. NO.	SIZE Cu. in.	MOUNTING MEANS	DESCRIPTION	DIMENSIONS (IN.)	STD. CTN.
B468R •	68.0	Mounting Ears and Two	_	7.57 L x 2.89 W	6
		Swing Clamps		x 3.56 D	

Not UL Classified for Fire Resistance.



B468R



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services**

Tel: 888.862.3289









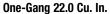
Carlon[®] SuperBlue[®] Boxes

Carlon[®] SuperBlue[®] Boxes

Combine the features of the hard-shell thermoset box and the thermoplastic PVC-style box to create a "new" rigid non-metallic wiring box. Molded out of specially formulated thermoplastic material, Carlon® SuperBlue® boxes are so strong they won't crack or break in extreme environments. So rigid that they resist flexing and hold their shape even in the most challenging applications. The boxes are designed to nest inside each other to take up less space on the shelf or in the truck, while still providing the largest wirefill capacity in their class.

- All PVC boxes are listed to UL514C
- All PVC boxes are listed for masonry walls
- All PVC boxes are UL[®] Classified for two-hour fire wall and/or fire ceiling
- All PVC boxes meet NEMA OS-2
- All PVC boxes are permissible for use with 90° C conductors
- UL File E11461 and R9140

One-Gang — For New Work



	SIZE				STD.
CAT. NO.	CU. IN.	MOUNTING MEANS	DESCRIPTION	DIMENSIONS (IN.)	CTN.
BH122A-UPC	22.0	Nails	One-Gang	3.55 L x 2.11 W	100
				x 3.63 D	
BH122S	22.0	Screws	One-Gang	3.55 L x 2.11 W	100
				x 3.63 D	



BH122A-UPC

Two-Gang — For New Work

Two-Gang 35.0 Cu. In.

	J				
CAT. NO.	SIZE Cu. in.	MOUNTING MEANS	DESCRIPTION	DIMENSIONS (IN.)	STD. CTN.
BH235A	35.0	Nails	Two-Gang	3.55 L x 2.11 W x 3.50 D	48
BH235S	35.0	Screws	Two-Gang	3.55 L x 2.11 W x 3.50 D	48









Carlon[®] SuperBlue[®] Boxes

Three-Gang — For New Work

Three-Gang 53 Cu. In.



CAT. NO.	SIZE Cu. in.	MOUNTING MEANS	DESCRIPTION	DIMENSIONS (IN.)	STD. CTN.
BH353A	53.0	Nails	Three-Gang	3.53 L x 5.66 W x 3.50 D	24
BH353S	53.0	Screws	Three-Gang	3.53 L x 5.66 W x 3.50 D	24



Four-Gang — For New Work

Four-Gang 64 Cu. In.



i oui-uaii	g 0 -1 0u. i	11.			$\overline{}$
CAT. NO.	SIZE Cu. in.	MOUNTING MEANS	DESCRIPTION	DIMENSIONS (IN.)	STD. CTN.
BH464A	64.0	Nails	Four-Gang	3.53 L x 7.46 W x 3.18 D	36
BH464S	64.0	Screws	Four-Gang	3.53 L x 7.46 W x 3.18 D	36



BH464A

One-Gang — For Old Work

One-Gang 18.0 Cu. In



one dung	10.0 00.				$\overline{}$
CAT. NO.	SIZE Cu. in.	MOUNTING MEANS	DESCRIPTION	DIMENSIONS (IN.)	STD. CTN.
BH118R •	18.0	Mounting Ears &	One-Gang	4.30 L x 2.56 W	36
		Swing Clamps		x 3.64 D	

• Not UL Classified for Fire Resistance.



BH118R

Two-Gang — For Old Work

Two-Gang 34 0 Cu In



i wo-dang	34.0 Gu.	111	i wo-dang 34.0 Gu. III			
CAT. NO.	SIZE Cu. in.	MOUNTING MEANS	DESCRIPTION	DIMENSIONS (IN.)	STD. CTN.	
BH234R •	34.0	Mounting Ears & Swing Clamps	Two-Gang	4.30 L x 4.36 W x 3.59 D	18	

• Not UL Classified for Fire Resistance.



BH234R



United States Tel: 901.252.8000

800.816.7809 Fax: 901.252.1354

Technical Services Tel: 888.862.3289







Carlon[®] SuperBlue[®] Boxes

Ceiling Boxes

3/0-4/0 Combination 25.0 Cu. In.



CAT. NO.	SIZE Cu. in.	MOUNTING MEANS	DESCRIPTION	DIMENSIONS (IN.)	STD. CTN.
BH525A-UPC •	25.0	Nails	Ceiling Box	4 Dia. x 3.00 D	48
BH525P •	25.0	Nails and Grounding Lug	Ceiling Box	4 Dia. x 3.00 D	24

• Listed for fixture support up to 50 lbs.



BH525A-UPC



Fan Box 25.0 Cu. In.



CAT. NO.	SIZE Cu. In.	MOUNTING MEANS	DESCRIPTION	DIMENSIONS (IN.)	STD. CTN.
BH525L •	25.0	Nails	Ceiling Fan Box	4 Dia. x 3.06 D	24
BH525LP •	25.0	Grounding Lug with Nails	Ceiling Fan Box	4 Dia. x 3.00 D	24

• Listed for fan support up to 35 lbs. and fixture support up to 50 lbs.



Ceiling Box with Hanger Bar 25.0 Cu. In.



CAT. NO.	SIZE Cu. in.	MOUNTING MEANS	DESCRIPTION	DIMENSIONS (IN.)	STD. CTN.
BH525H •	25.0	Hanger Bar 11½"–18½"	Ceiling Box	4 Dia. x 2.95 D	20
BH525HP •	25.0	Hanger Bar 11½"–	Ceiling Box	4 Dia. x 2.95 D	20

• Listed for fixture support up to 50 lbs.



3½" 14.5 Cu. In.



U/2 1 11U U					
CAT. NO.	SIZE Cu. in.	MOUNTING MEANS	DESCRIPTION	DIMENSIONS (IN.)	STD. CTN.
BH614R • †	14.5	Base, Ears & Snap-In Bracket	Round Old/ New Work Box	3½ Dia.	24
BH614RP • †	14.5	Base, Ears & Snap-In Bracket	Round Old/New Work Box w/ Ground Lug	3½ Dia.	24

• Listed for wall fixture support up to 10 lbs.

† Tighten screws to 10 in.-lbs.



BH614R



United States Tel: 901.252.8000

800.816.7809 Fax: 901.252.1354



Tel: 888.862.3289







Polycarbonate Boxes

Carlon® Black Polycarbonate Boxes

Carlon® non-metallic boxes feature a rugged polycarbonate construction to withstand extreme temperatures. The boxes will not distort or soften in heat and they won't become brittle in the cold.

- All Polycarbonate boxes are listed to UL514C
- All Polycarbonate boxes are listed for masonry walls
- All Polycarbonate boxes are UL[®] Classified for 2-hr. fire wall and/or fire ceiling
- All Polycarbonate boxes meet NEMA OS-2
- All Polycarbonate boxes are permissible for use with 90° C conductors
- UL® File E11461 and R9140

(ŶL)

Grip-On GO Box® Single-Gang Outlet Box

- Instead of nails or other fasteners, unique clamps are used to hold the box securely in place. Simply push onto the stud and go
- The GO Box® outlet box is removable for easy repositioning
- "Fast-Set" mounting holes enable quick installation of devices
- Perfectly aligned every time
- · Perfect for drywall depth
- A locator hole in the mounting bracket helps position the box on marked studs for accurate installation

- The GO Box® design is UL® Listed
- 23.0 cu. in. capacity accommodates large devices and enables easy installation of wiring

It's a whole new ball game for high-volume residential products. That's because the Carlon® GO Box® product line is one of the most revolutionary laborsaving products ever designed. The GO stands for "Grip-On" and that's exactly how it works. Just push the box onto a stud and the specially designed clamps hold it in place. No tools or fasteners are required, reducing installation time, which means you can move on to the next job. When it comes to lower installed costs, this changes everything!



One-Gang 23.0 Cu. In.

CAT. NO.	SIZE Cu. In.	MOUNTING MEANS	DESCRIPTION	DIMENSIONS (IN.)	STD. CTN.
GO-23	23.0	Grip-On Bracket	_	3¾ L x 2¾ W x 2½ D	30
G0-23-FS	23.0	Grip-On Bracket	Fast-Set	33/4 L x 21/4 W x 211/16 D	30

One-Gang Nail-On 18.0-22.5 Cu. In.











(ŷL)

					STD.
CAT. NO.	SIZE CU. IN.	MOUNTING MEANS	DESCRIPTION	DIMENSIONS (IN.)	CTN.
118-N	18.0	Angled Side Nails	_	3¾ L x 2¼ W x 2⅓ D	100
120-N	20.3	Angled Side Nails	_	3¾ L x 2¼ W x 3¾ D	100
120-N-FS	20.3	Angled Side Nails	Fast-Set	3¾ L x 2¼ W x 3¾ D	100
122-N	22.5	Angled Side Nails	_	3¾ L x 2¼ W x 3¾6 D	100
122-N-FS	22.5	Angled Side Nails	Fast-Set	3¾ L x 2¼ W x 3¾ ₆ D	100



United States Tel: 901.252.8000

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services** Tel: 888.862.3289





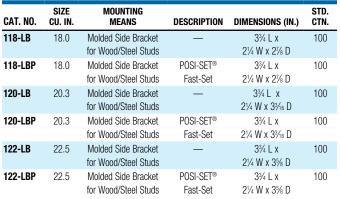


A-80

Polycarbonate Boxes

New Work Boxes

One-Gang Brackets 18.0-22.5 Cu. In.





118-LB



(ÎL

(ĥr)

(ĥr)

120-LB







118-LBP



120-LBP



122-LBP

Two-Gang Nail-On 34.0 Cu. In.

CAT. NO.	SIZE Cu. in.	MOUNTING MEANS	DESCRIPTION	DIMENSIONS (IN.)	STD. CTN.
234-N	34.0	Angled Side Rails	POSI-WEDGE® Cable Clamps	3¾ L x 4 W x 3½ D	50
234-NP	34.0	Angled Side Rails	POSI-WEDGE® POSI-SET®	3¾ L x 4 W x 3¾2 D	50



234-N



234-NP

Two-Gang Bracket 34.0 Cu. In.

CAT. NO.	SIZE Cu. in.	MOUNTING MEANS	DESCRIPTION	DIMENSIONS (IN.)	STD. CTN.
234-LB	34.0	Steel Side Bracket	POSI-WEDGE®	3¾ L x	50
		for Wood/Steel Studs	Cable Clamps	4 W x 33/32 D	



234-LB



United States Tel: 901.252.8000

800.816.7809 Fax: 901.252.1354









A-81

Polycarbonate Boxes

New Work Boxes

Three-Gang Nail-On 45.0 Cu. In.



	_				
CAT. NO.	SIZE Cu. in.	MOUNTING MEANS	DESCRIPTION	DIMENSIONS (IN.)	STD. CTN.
345-N	45.0	Angled Side Nails & Steel Side Brackets	POSI-WEDGE® Cable Clamps	3¾ L x 51¾ 6 W x 2¾ D	20



Three-Gang Bracket 45 Cu. In.



CAT. No.	SIZE Cu. in.	MOUNTING MEANS	DESCRIPTION	DIMENSIONS (IN.)	STD. CTN.
345-LB	45.0	Steel Side Bracket for	POSI-WEDGE® Cable	3¾ L x	25
		Wood/Steel Studs	Clamps	$5^{13}/_{16} \text{ W x } 2^{3}/_{4} \text{ D}$	



345-LB

Four-Gang Nail-On 60 Cu. In.



CAT. NO.	SIZE Cu. in.	MOUNTING MEANS	DESCRIPTION	DIMENSIONS (IN.)	STD. CTN.
460-SB	60.0	Angled Side Nails & Back Bracket	POSI-WEDGE® Cable Clamps	3¾ L x 7% W x 2¾ D	10
460-SB-24 •*	60.0	Angled Side Nails & Back Bracket	POSI-WEDGE® Cable Clamps	3¾ L x 7% W x 2¾ D	10

^{• 24&}quot; adjustable bracket.



Four-Gang Bracket 60 Cu. In.



i oui -uu	ing Drac	KUL OU OU. III.	•		
CAT. NO.	SIZE Cu. in.	MOUNTING MEANS	DESCRIPTION	DIMENSIONS (IN.)	STD. CTN.
460-LB	60.0	Steel Side	POSI-WEDGE®	3¾ L x	8
		Brackets	Cable Clamps	7% ₁₆ W x 2% ₄ D	

^{*} Not UL Classified for fire wall and/or fire ceiling



460-LB



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354



Tel: 888.862.3289







^{*} Not UL Classified for fire wall and/or fire ceiling

Polycarbonate Boxes

New Work Box

4" Square Boxes 32.0 Cu. In.



CAT. NO.	SIZE Cu. in.	MOUNTING MEANS	DESCRIPTION	DIMENSIONS (IN.)	STD. CTN.
4S-32-N	32.0	Angled Side Nails	POSI-WEDGE® Cable Clamps	4 L x 4 W x 3¾6 D	50



4S-32-N

Old Work Boxes

One-Gang 14.0 Cu. In.



CAT. NO.	SIZE Cu. in.	MOUNTING MEANS	DESCRIPTION	DIMENSIONS (IN.)	STD. CTN.
114-0W	14.0	Swing-Ear Brackets		3¾ L x 2¼ W x 3 D	50



Two-Gang 32.0 Cu. In.



	J				
CAT. NO.	SIZE Cu. In.	MOUNTING MEANS	DESCRIPTION	DIMENSIONS (IN.)	STD. CTN.
232-0W	32.0	Swing-Ear Brackets	POSI-WEDGE® Cable Clamps	35/8 L x 41/16 W x 33/16 D	50





Thomas@Betts

Polycarbonate Boxes

Energy-Efficient Vapor Barrier Boxes

Vapor-barrier boxes are designed to meet the energy-efficiency requirements of modern homes. They feature a drywall flange covered with a foam gasket and additional gaskets over the cable entry points. These gaskets provide a vapor-tight seal, preventing the free flow of air through the box. This helps control heating costs in the winter and cooling costs in the summer.

- High-strength polycarbonate construction — will not shatter when cold or distort in heat
- V-clamps provide selfclamping cable entry (multigang and fan/fixture box)
- ½" offset flange to ensure a flush fit in ½" drywall
- Angled side nails for rapid installation
- Pre-drilled flanges for additional mounting options

7½ x 2¾ D

(ĥ)

(År)

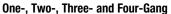
(ůľ)





FN-23

FN-236-V



Onc-, rwc	, , ,	and rour-daily			$\overline{}$
CAT. NO.	SIZE Cu. in.	MOUNTING MEANS	DESCRIPTION	DIMENSIONS (IN.)	STD. CTN.
FN-23	22.5	Angled Side Nails	Vapor Barrier	35% L x 21/4 W x 35/8 D	50
FN-236-V	36.0	Angled Side Nails	Vapor Barrier	3½ x 4 x 3¼ D	50
FN-354-V	54.0	Angled Side Nails	Vapor Barrier	3½ x 5% x 3¼ D	20
FN-460-V*	60.0	Angled Side Nails	Vapor Barrier	3½ x	10

^{*}Not UL Classified for fire wall and/or fire ceiling.





FN-354-V

FN-460-V



FN-426-C-V



FN-CFB

Ceiling Fixture Box 26.0 Cu. In.

CAT. NO.	SIZE Cu. in.	MOUNTING MEANS	DESCRIPTION	DIMENSIONS (IN.)	STD. CTN.
FN-426-C-V	26.0	Angled Side Nails		4 L x 4 W x 2¾ D	50

Listed for fixture support up to 50 lbs.

Ceiling Fan/Fixture 26.0 Cu. In.

coming :	,,				
CAT. NO.	SIZE Cu. in.	MOUNTING MEANS	DESCRIPTION	DIMENSIONS (IN.)	STD. CTN.
FN-CFB	26.0	#3 Bracket		4 L x 4 W x 2¾ D	50

Listed for fan support up to 35 lbs. and fixture support up to 50 lbs.

Voltage Partition

CAT. NO.	DESCRIPTION	STD. CTN.
FNP	Voltage Partition for NG & FN Series Multi-Gang Boxes	50



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 Technical Services
Tel: 888.862.3289







Polycarbonate Boxes

Saddle-Type Fan/Fixture 16.0 Cu. In.



CAT. NO.	SIZE Cu. In.	MOUNTING MEANS	DESCRIPTION	DIMENSIONS (IN.)	STD. CTN.
CFB-16-F	16.0	Center Screw	Ceiling Fan/Fixture	4 L x 4 W x 35/16 D	50

Listed for fan support up to 70 lbs. and fixture support up to 70 lbs.



CFB-16-F

Universal Flanged Nail-On Boxes





NG-236-V NG-354-V

Two-, Three- and Four-Gang

		J			
CAT. NO.	SIZE Cu. in.	MOUNTING MEANS	DESCRIPTION	DIMENSIONS (IN.)	STD. CTN.
NG-236-V •	36.0	Angled Side Nails	2-Gang Wall	3½ L x 4 W x 3¼ D	50
NG-354-V •	54.0	Angled Side Nails	3-Gang Wall	3½ L x 5¾ W x 3¼ D	20
NG-460-V •*	60.0	Angled Side Mails	A-Gang Wall	31/4 L v 71/4 W v 23/4 D	10

[•] NG Boxes have 1/2" offset wallboard flange and V-type cable entry.



Voltage Partition



CAT. NO.	DESCRIPTION	STD. CTN.
END	Voltage Partition for N.C. & FN Series Multi-Cana Royas	50





1-800-453-1692 www.aboveboardelectronics.con



^{*} Not UL Classified for fire wall and/or fire ceiling.

Polycarbonate Boxes

Ceiling Boxes

All ceiling boxes are produced from a high heat-resistant material developed specifically for fixture support applications.

- Meets NEMA 0S-2
- UL Listed to UL 514C





N-321-GC

N-321-C

3½" 20.5 Cu. In.

CAT. NO.	SIZE Cu. in.	MOUNTING MEANS	DESCRIPTION	DIMENSIONS (IN.)	STD. CTN.
N-321-C •	20.5	Angled Side Nails	Molded Fast Clamps	3½ Dia. x 3½ D	50
N-321-GC •	20.5	Angled Side Nails	Molded Fast Clamps, Ground Strap Installed	3½ Dia. x 3½ D	50

• Listed for fixture support up to 50 lbs.

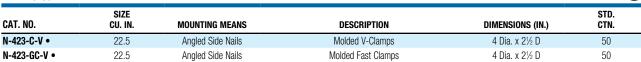


N-423-C-V



N-423-GC-V

4" 22.5 Cu. In.



• Listed for fixture support up to 50 lbs.





1-800-453-1692



Fax: 901.252.1354



Carlon

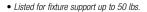
Polycarbonate Boxes



B518P-UPC

3/0 18 Cu. In.

CAT. NO.	SIZE Cu. In.	MOUNTING MEANS	DESCRIPTION	DIMENSIONS (IN.)	STD. CTN.
B518A-UPC •	18.0	Captive Nails	_	3 Dia. x 2¾ D	75
R518P-UPC ●	18.0	Cantive Nails	Ground Lug and Screw Attached	3 Dia x 2% D	75





B520A-UPC



B620L-UPC

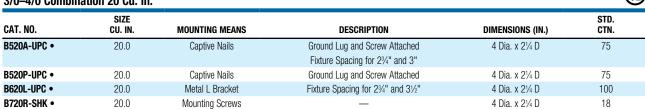


B520P-UPC



B720R-SHK 35 lbs. maximum fan weight

3/0-4/0 Combination 20 Cu. In.





• Listed for fixture support up to 50 lbs.



1-800-453-1692





Carlon®

Polycarbonate Boxes

Ceiling Boxes with Bar Hanger

Meets NEMA OS-2



N-321-C-94





N-321-GC-94



N-321-C-95



N-321-GC-95

3½" 20.5 Cu. In.



(ĥľ)

	SIZE				STD.
CAT. NO.	CU. IN.	MOUNTING MEANS	DESCRIPTION	DIMENSIONS (IN.)	CTN.
N-321-C-94 •	20.5	16" Bar Hanger, 121/4" Min19" Max.	Molded Fast Clamps	3½ Dia. x 3½ D	50
N-321-GC-94 •	20.5	16" Bar Hanger, 121/4" Min19" Max.	Molded Fast Clamps, Ground Strap Installed	3½ Dia. x 3½ D	50
N-321-C-95 •	20.5	24" Bar Hanger, 161/2" Min27" Max.	Molded Fast Clamps	3½ Dia. x 3½ D	50
N-321-GC-95 •	20.5	24" Bar Hanger, 161/2" Min27" Max.	Molded Fast Clamps, Ground Strap Installed	31/2 Dia. x 31/8 D	50

• Listed for fixture support up to 50 lbs.



N-423-C-94-V



N-423-C-95-V



N-423-GC-94-V



N-423-GC-95-V

4" 22.5 Cu. In.

T LLIO GUI IIII					
CAT. NO.	SIZE Cu. In.	MOUNTING MEANS	DESCRIPTION	DIMENSIONS (IN.)	STD. CTN.
N-423-C-94-V •	22.5	16" Bar Hanger, 121/4" Min19" Max.	Molded Fast Clamps	4 Dia. x 2½ D	50
N-423-GC-94-V •	22.5	16" Bar Hanger, 121/4" Min19" Max.	Molded Fast Clamps, Ground Strap Installed	4 Dia. x 2½ D	50
N-423-C-95-V •	22.5	24" Bar Hanger, 16½" Min.–27" Max.	Molded Fast Clamps	4 Dia. x 2½ D	50
N-423-GC-95-V •	22.5	24" Bar Hanger, 16½" Min.–27" Max.	Molded Fast Clamps, Ground Strap Installed	4 Dia. x 21/2 D	50



• Listed for fixture support up to 50 lbs.

United States
Tel: 901.252.8000
800.816.7809
Fax: 901.252.1354

Technical Services

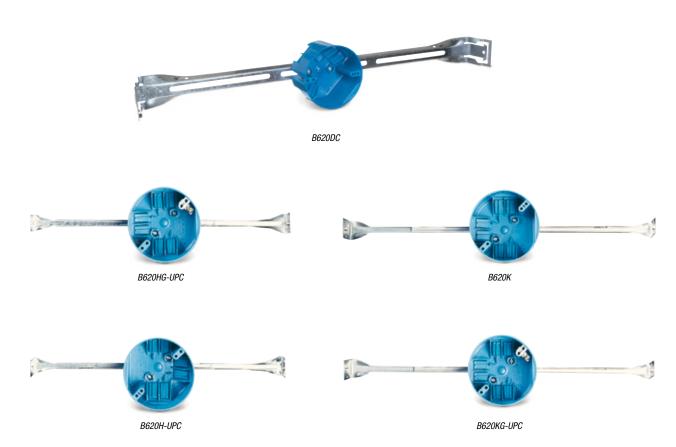
Tel: 888.862.3289







Polycarbonate Boxes



3/0-4/0 Combination 20.0 Cu. In.



	SIZE				STD.
CAT. NO.	CU. IN.	MOUNTING MEANS	DESCRIPTION	DIMENSIONS (IN.)	CTN.
B620DC •	20.0	24" T-Grid Bar Hanger	Ceiling Box Fixture Spacing for 2¾" and 3½"	4 Dia. x 21/4 D	18
B620HG-UPC •	20.0	11.50"-14.50" Adjustable Bar Hanger Ground Lug and Screw Attached	Ceiling Box Fixture Spacing for 2¾" and 3½"	4 Dia. x 21/4 D	75
B620H-UPC •	20.0	11.50"-14.50" Adjustable Bar Hanger	Ceiling Box Fixture Spacing for 2¾" and 3½"	4 Dia. x 21/4 D	75
B620K •	20.0	14.38"-22.50" Adjustable Bar Hanger	Ceiling Box Fixture Spacing for 2¾" and 3½"	4 Dia. x 21/4 D	75
B620KG-UPC •	20.0	14.38"-22.50" Adjustable Bar Hanger Ground Lug and Screw Attached	Ceiling Box Fixture Spacing for 23/4" and 31/2"	4 Dia. x 21/4 D	75

• Listed for fixture support up to 50 lbs.





1-800-453-1692



Fax: 901.252.1354

Carlon

Polycarbonate Boxes

Ceiling Boxes





3R-16-NGP

3½" Nail-On 16.0 Cu. In.

CAT. NO.	SIZE Cu. In.	MOUNTING MEANS	DESCRIPTION	DIMENSIONS (IN.)	STD. CTN.
3R-16-N •	16.0	Angled Nails	POSI-WEDGE® Cable Clamps	21/4	50
3R-16-NGP •	16.0	Angled Nails	POSI-WEDGE® Cable Clamps	21/4	50

• Listed for fixture support up to 50 lbs.



31/2" Ceiling Box with Bar Hanger 16.0 Cu. In.

(ÎL	
	,

CAT. NO.	SIZE Cu. in.	MOUNTING MEANS	DESCRIPTION	DIMENSIONS (IN.)	STD. CTN.
3R-16-BH •	16.0	Adjustable 16"-24" Bar Hanger	POSI-WEDGE® Cable Clamps	21/4	25
3R-16-BHGP •	16.0	Adjustable 16"-24" Bar Hanger	POSI-WEDGE® Cable Clamps	21/4	25

• Listed for fixture support up to 50 lbs.



3½" Fire Alarm Nail-On 16.0 Cu. In.

CAT. NO.	SIZE Cu. In.	MOUNTING MEANS	DESCRIPTION	DIMENSIONS (IN.)	STD. CTN.
3R-16-N-RED •	16.0	Angled Nails	POSI-WEDGE® Cable Clamps	21/4	50

• Red ceiling box for fire alarm applications.

• Listed for fixture support up to 50 lbs.



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services** Tel: 888.862.3289







Carlon

Polycarbonate Boxes

Saddle-Type Ceiling Fan Boxes



CFB-12



Easy press-fit onto the joist. Integrally molded ribs grip the joist and stop the box from falling.



Just one hand is required to mount the box using the pre-located mounting screw.



CFB-16

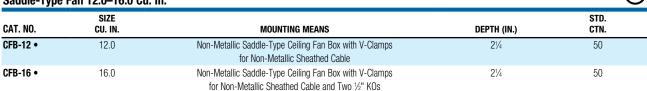


Integrally molded cable V-clamps provide easy and secure clamping for non-metallic cables.



CFB-16 features 1/2" KOs in addition to V-clamps.

Saddle-Type Fan 12.0-16.0 Cu. In.



(ĥľ)

• Listed for fan support up to 70 lbs. and fixture support up to 70 lbs.

Old Work

4" Round 18.0 Cu. In

T Hound Tol	o our iiii				_
CAT. NO.	SIZE Cu. in.	MOUNTING MEANS	DESCRIPTION	DIMENSIONS (IN.)	STD. CTN.
B618R-UPC •	18.0	Swing Clamps	_	41/4 Dia.	100
B618RP-UPC •	18.0	Swing Clamps	Ground Lug	4¼ Dia.	100

· Not UL Classified for Fire Resistance or used for fixture support in the ceiling.



B618R-UPC



United States Tel: 901.252.8000

800.816.7809 Fax: 901.252.1354







Thomas@Betts

Phenolic Boxes

Carlon® Brown Phenolic Boxes

New Fire Rating! Carlon® phenolic boxes can be installed in the same stud cavity of a shared two-hour wall. They may also face opposite directions with only a 3" horizontal separation — ideal for multi-family construction!

- All Phenolic boxes are listed to UL514C
- All Phenolic boxes are listed for masonry walls
- All Phenolic boxes are UL[®] Classified for 2-hr. fire wall and/or fire ceiling
- All Phenolic boxes meet NEMA OS-2
- All Phenolic boxes are permissible for use with 90° C conductors
- UL[®] File E11461 and R9140

One-Gang Nail-On 9.0-18.0 Cu. In.





2070



2030





1240



1040

2000



CAT. NO.	SIZE CU. IN.	MOUNTING MEANS	DESCRIPTION	DIMENSIONS (IN.)	STD. CTN.
2050-UB	9.0	Bottom Nails	_	3%6 L x 21/4 W x 113/16 D	100
2070	14.0	Bottom Nails	_	3% ₁₆ L x 2½ W x 25/ ₈ D	100
2030	16.0	Bottom Nails	_	3%16 L x 215/32 W x 213/16 D	100
1040	18.0	Compound Angled Nails	_	3%16 L x 21/8 W x 31/8 D	100
1240	18.0	Recessed Angled Nails	_	311/16 L x 21/4 W x 35/16 D	100
2000	18.0	Bottom Nails	"Classic"	$3^{11/16}$ L x $2^{1/4}$ W x $3^{1/8}$ D	100

One-Gang Nail-On 20.3-22.5 Cu. In.





1250-UB-S







1050-UB

1260 1260-S



CAT. NO.	SIZE CU. In.	MOUNTING MEANS	DESCRIPTION	DIMENSIONS (IN.)	STD. CTN.
1250-UB	20.3	Recessed Angled Nails	_	37/8 L x 23/8 W x 33/8 D	100
1250-UB-S	20.3	Recessed Angled Nails	_	3% L x 2% W x 3% D	100
1050-UB	21.0	Compound Angled Nails	_	35/8 L x 25/16 W x 31/2 D	50
1260	22.5	Recessed Angled Nails	_	31/8 L x 23/8 W x 321/32 D	50
1260-S	22.5	Recessed Angled Nails	_	3% L x 2% W x 3 ²¹ / ₃₂ D	50



United States
Tel: 901.252.80

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services** Tel: 888.862.3289







Phenolic Boxes

One-Gang Brackets 16.0-20.3 Cu. In.









2030-502

2030-702

2000-738

1250-112

_	`
П	. 1
u	. ,
٥	-/
	_

CAT. NO.	SIZE CU. IN.	MOUNTING MEANS	DESCRIPTION	DIMENSIONS (IN.)	STD. CTN.
2030-502	16.0	½" Offset Bracket for Wood/Steel Studs	_	35/8 L x 21/4 W x 23/4 D	100
2030-702	16.0	1/4" Offset Bracket for Wood/Steel Studs	_	35/8 L x 21/4 W x 23/4 D	100
2000-738	18.0	%" Offset Bracket for Wood/Steel Studs	_	35% L x 21/4 W x 23/4 D	100
1250-112	20.3	½" Offset Bracket for Wood/Steel Studs	_	$3\frac{5}{8}$ L x $2\frac{1}{4}$ W x $2\frac{3}{4}$ D	50

Two-Gang Nail-On 27.5-40.5 Cu. In.







1032-UB



1052-C



1052-C-SQ







1052-UB



1072



1072-C



CAT. NO.	SIZE CU. IN.	MOUNTING MEANS	DESCRIPTION	DIMENSIONS (IN.)	STD. CTN.
1032-C	27.5	Compound Angled Nails	High Clamps	35/8 L x 41/16 W x 211/16 D	50
1032-UB	27.5	Compound Angled Nails	#36 Clamps, Bulk Packed	$3\frac{5}{8}$ L x $4\frac{1}{16}$ W x $2\frac{11}{16}$ D	50
1052-C	32.5	Compound Angled Nails	High Clamps	$3\frac{5}{8}$ L x $4\frac{1}{16}$ W x $2\frac{11}{16}$ D	50
1052-C-SQ	32.5	Angled Screws	High Clamps	$3\frac{5}{8}$ L x $4\frac{1}{16}$ W x $2^{11}/_{16}$ DD	50
1052-PC	32.5	Compound Angled Nails	Non-Metallic Clamps	$3\frac{5}{8}$ L x $4\frac{1}{16}$ W x $2\frac{11}{16}$ D	50
1052-UB	32.5	Compound Angled Nails	#36 Clamps, Bulk Packed	$3\frac{5}{8}$ L x $4\frac{1}{16}$ W x $2\frac{11}{16}$ D	50
1072	40.5	Compound Angled Nails	#36 Clamps, Bulk Packed	$3\frac{5}{8}$ L x $4\frac{1}{16}$ W x $2\frac{11}{16}$ D	50
1072-C	40.5	Compound Angled Nails	High Clamps	$3\frac{5}{8}$ L x $4\frac{1}{16}$ W x $2\frac{11}{16}$ D	50
1072-C-SQ	40.5	Angled Screws	High Clamps	35/8 L x 41/16 W x 211/16 D	50
1072-PC	40.5	Compound Angled Nails	Non-Metallic Clamps	35/8 L x 41/16 W x 211/16 D	50

www.tnb.com

United States
Tel: 901.252.8000
800.816.7809
Fax: 901.252.1354

Technical Services Tel: 888.862.3289





Thomas@Betts

Phenolic Boxes

Two-Gang Brackets 24.0-34.0 Cu. In.













7072-202

7072-N02

6062-402

6062-4-UB











7002-2

7002-202

2002-738

2002-738-C

2002-R-C



CAT. NO.	SIZE CU. IN.	MOUNTING MEANS	DESCRIPTION	DIMENSIONS (IN.)	STD. CTN.
7072-2	24.0	#2 Bottom Bracket and Wire Support	High Clamps	35/16 L x 4 W x 23/4 D	50
7072-202	24.0	#2 Bottom Bracket and Wire Support	#36 Clamps, Bulk Packed	35/16 L x 4 W x 23/4 D	50
7072-N02	24.0	"N" Bracket	#36 Clamps	35/16 L x 4 W x 23/4 D	50
6062-402	25.0	Ears, #4 Swing Bracket	#36 Clamps, Bulk Packed	3% L x 41/16 W x 21/2 D	50
6062-4-UB	25.0	Ears, #4 Swing Bracket	High Clamps	3% L x 41/16 W x 21/2 D	50
6062-4-UB-SQ	25.0	Angled Screws	High Clamps	3% L x 41/16 W x 21/2 D	50
7002-2	32.5	#2 Bottom Bracket and Wire Support	High Clamps	31/4 L x 4 W x 35/8 D	50
7002-202	32.5	#2 Bottom Bracket and Wire Support	#36 Clamps, Bulk Packed	31/4 L x 4 W x 35/8 D	50
2002-738	34.0	3/8" Offset Brackets for Wood/Steel Studs & #36 Clamps, Bulk Packet	3/8" Offset Wallboard Tabs	311/16 L x 43/16 W x 31/4 D	50
2002-738-C	34.0	3/8" Offset Brackets for Wood/Steel Studs Tabs & High Clamps	3/8" Offset Wallboard	311/16 L x 43/16 W x 31/4 D	50
2002-R-C	34.0	"R" Bracket	High Clamps	35% L x 43/32 W x 31/4 D	50





1-800-453-1692







Phenolic Boxes

Three-Gang Nail-On 42.9-58.5 Cu. In.



1043



1043-C



1043-C-SQ







1063

1063-C 1063-C-SQ



CAT. NO.	SIZE CU. IN.	MOUNTING MEANS	DESCRIPTION	DIMENSIONS (IN.)	STD. CTN.
1043	42.9	Compound Angled Nails	#36 Clamps, Bulk Packed	3% L x 5% W x 2¾ D	20
1043-C	42.9	Compound Angled Nails	High Clamps	3% L x 5% W x 2¾ D	20
1043-C-SQ	42.9	Angled Screws	High Clamps	3% L x 5% W x 2¾ D	20
1063	58.5	Compound Angled Nails	#36 Clamps, Bulk Packed	$3^{21}/_{32}$ L x $5^{15}/_{16}$ W x $3^{21}/_{32}$ D	20
1063-C	58.5	Compound Angled Nails	High Clamps	$3^{21}/_{32}$ L x $5^{15}/_{16}$ W x $3^{21}/_{32}$ D	20
1063-C-SQ	58.5	Compound Angled Screws	High Clamps	$3^{21}/_{32}$ L x $5^{15}/_{16}$ W x $3^{21}/_{32}$ D	20

Three-Gang Brackets 35.5–37.0 Cu. In.



7073-2



7073-202







6063-4

6063-402



					STD.
CAT. NO.	SIZE CU. IN.	MOUNTING MEANS	DESCRIPTION	DIMENSIONS (IN.)	CTN.
7073-2	35.5	#2 Bottom Bracket and Wire Support	High Clamps	33/16 L x 513/16 W x 25/8 D	100
7073-202	35.5	#2 Bottom Bracket and Wire Support	#36 Clamps, Bulk Packed	$3\frac{3}{16}$ L x $5\frac{13}{16}$ W x $2\frac{5}{8}$ D	100
7073-238-02	35.5	Two %" Offset Brackets for Wood/Steel Studs	#36 Clamps, Bulk Packed	33/16 L x 513/16 W x 25/8 D	100
6063-4	37.0	Ears, #4 Swing Bracket	High Clamps	$3\% L \times 5\% W \times 2\% D$	100
6063-402	37.0	Ears, #4 Swing Bracket	#36 Clamps, Bulk Packed	33/8 L x 513/16 W x 21/2 D	50





1-800-453-1692



Fax: 901.252.1354

Technical Services



Phenolic Boxes

Four-Gang Brackets 48.0-60.0 Cu. In.











2004-02-BH



7074-02-BH





2004-238



2004-238-02



					STD.
CAT. NO.	SIZE CU. IN.	MOUNTING MEANS	DESCRIPTION	DIMENSIONS (IN.)	CTN.
7074-02 BH	48.0	Side Bracket & Stabilizing Bar	#36 Clamps, Bulk Packed	35/16 L x 75/8 W x 25/8 D	10
7074 BH	48.0	Side Bracket & Stabilizing Bar	High Clamps	35/16 L x 75/8 W x 25/8 D	10
2004-02-BH	60.0	Side Bracket & Stabilizing Bar	#36 Clamps, Bulk Packed	35/8 L x 7 ²³ / ₃₂ W x 3 ¹ / ₁₆ D	10
2004-BH	60.0	Side Bracket & Stabilizing Bar	High Clamps	35/8 L x 7 ²³ / ₃₂ W x 3 ¹ / ₁₆ D	10
2004-238	60.0	Two 3/8" Offset Brackets for Wood/Steel Studs	High Clamps	35/8 L x 7 ²³ / ₃₂ W x 3 ¹ / ₁₆ D	20
2004-238-02	60.0	Two %" Offset Brackets for Wood/Steel Studs	#36 Clamps, Bulk Packed	35/8 L x 7 ²³ / ₃₂ W x 3 ¹ / ₁₆ D	20





1-800-453-1692





Phenolic Boxes

4" Square Boxes Nail-On Brackets 16.0-30.0 Cu. In.







4020-1-02



4000-02







4000-N



4000-N02



					STD.
CAT. NO.	SIZE CU. IN.	MOUNTING MEANS	DESCRIPTION	DIMENSIONS (IN.)	CTN.
4020-1	16.0	1/2" Raised Face Bracket for Wood/Steel Studs	High Clamps	45/16 L x 45/16 W x 11/4 D	50
4020-1-02	16.0	1/2" Raised Face Bracket for Wood/Steel Studs	#36 Clamps, Bulk Packed	45/16 L x 45/16 W x 11/4 D	50
4000-02	30.0	Nails or Screws, Bulk Packed	#36 Clamps, Bulk Packed	41/4 L x 41/4 W x 23/8 D	50
4000-1-UB	30.0	1/2" Raised Face Bracket for Wood/Steel Studs	High Clamps	41/4 L x 41/4 W x 23/8 D	50
4000-N	30.0	"N" Bracket	High Clamps	41/4 L x 41/4 W x 23/8 D	50
4000-N02	30.0	"N" Bracket with Nails	#36 Clamps, Bulk Packed	41/4 L x 41/4 W x 23/8 D	50

Plaster Rings and Covers for 4" Square Boxes



4041



4042-12



4043



4022-12



CAT. NO.	SIZE Cu. in.	DESCRIPTION	DIMENSIONS (IN.)	STD. CTN.
4041		4" Square Flat Back	41/4 L x 41/4 W x 41/4 D	100
4042-12	4.0	4" Square Single-Gang Plaster Ring, 1/2" Offset	41/4 L x 41/4 W x 41/4 D	100
4043	4.5	4" Square Plaster Ring for 31/4" Fixture, 1/2" Offset	43/16 L x 43/16 W x 43/16 D	100
4022-12	7.0	4" Square Two-Gang Plaster Ring, 1/2" Offset	43/16 L x 43/16 W x 43/16 D	50



Thomas@Betts

Phenolic Boxes

One-Gang Brackets















2 6010-402 6010-4-PC 6010-4-UB 6060-02

16.0-18.0 Cu. In.

_	_
(Ų	և
10	_

CAT. NO.	SIZE CU. IN.	MOUNTING MEANS	DESCRIPTION	DIMENSIONS (IN.)	STD. CTN.
6000-402 •	16.0	Ears, #8 Swing Brackets	No Clamp Blocks	2% L x 2% W x 216 D	50
6010-402	16.0	Ears, #4 Swing Brackets	Bulk PK Clamps	3% L x 21/32 opening; 411/16 overall x 21/8 D	100
6010-4-PC	16.0	Ears, #4 Swing Brackets	Non-Metallic Clamps	3% L x 2% W x 2% D	100
6010-4-UB	16.0	Ears, #4 Swing Brackets	High Clamps	3% L x 2% W x 2% D	100
6060-02	16.0	Ears	_	31/4 L x 23/16 W x 211/16 D	100
6060-402	16.0	Ears, #4 Swing Brackets	No Clamp Blocks	3% L x 2% W x 216 D	100
6070-402	18.0	Ears, #4 Swing Brackets	#36 Clamps, Bulk Packed	3% L x 2% W x 31/4 D	50
6070-4-UB	18.0	Ears, #4 Swing Brackets	High Clamps	3% L x 2% W x 31/4 D	50

[•] Not UL Listed, UL Recognized component.







7060



h 7









6090-402

7.5-14.0 Cu. In.



CAT. NO.	SIZE CU. IN.	MOUNTING MEANS	DESCRIPTION	DIMENSIONS (IN.)	STD. CTN.
7090	7.5	Ears	_	3½ L x 2½ W x 1½6 D	100
6020-402	8.0	Ears, #4 Swing Brackets	Ears	3½ L x 2¼ W x 1¾ D	100
7060	9.0	Ears	Ears	3½ L x 2¼ W x 1¾ D	100
7020-8	10.0	Ears, #8 Swing Brackets	High Clamps	31/4 L x 23/16 W x 21/4 D	50
6050-4-UB	10.5	Ears, #4 Swing Brackets	High Clamps	3½ L x 2¼ W x 2½ D	100
7010	12.5	Ears Clamps	High	$3\frac{1}{4}$ L x $2\frac{3}{16}$ W x $2^{11}/_{16}$ D	100
7010-8	12.5	Ears, #8 Snap-In Bracket	High Clamps	31/4 L x 23/16 W x 21/16 D	50
6090-402	14.0	Ears, #4 Swing Brackets	No Clamp Blocks	3% L x 2% W x 2½ D	100



Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services** Tel: 888.862.3289





Phenolic Boxes

Nail-On



3060



3090-N







3190





3190-C 3190-PC

3½" Nail-On 13.5-22.8 Cu. In.

((Ů	1)
	`	~

CAT. NO.	SIZE CU. IN.	MOUNTING MEANS	DESCRIPTION	DIMENSIONS (IN.)	STD. CTN.
3060 [†]	3.5	Nails or Screw Mount, 37/16" O.D.	See NEC-725-2, 725-51, 725-52, Class 2	3½ Dia. x % D	100
3090-N •	13.5	"N" Bracket	High Clamps	3½ Dia. x 2½ D	50
3090-N-40 •	13.5	"N" Bracket	High Clamps & #40 Ground Strap	3½ Dia. x 2½ D	50
3090-N-S •	13.5	"N" Bracket with Screws	High Clamps & #36 Clamps, Bulk Packed	3½ Dia. x 2% D	50
3190 •	22.8	Compound Angled Nails	#36 Clamps, Bulk Packed	3½ Dia. x 3¼ D	50
3190-C •	22.8	Compound Angled Nails	High Clamps	3½ Dia. x 3¼ D	50
3190-PC •	22.8	Compound Angled Nails	Non-Metallic Clamps	3½ Dia. x 3¼ D	50

[•] Listed for fixture support up to 50 lbs.

Flanged



3030-02-40







3030-02



3030PC



3000





3000-PC 3000-02

3½" Flanged for Manufactured Housing 11.5–20.5 Cu. In.

3030



CAT. NO.	SIZE CU. IN.	MOUNTING MEANS	DESCRIPTION	DIMENSIONS (IN.)	STD. CTN.
3030-02-40 •	11.5		#36 Clamps, Bulk Packed & #40 Ground Strap	3½ Dia. x 1¾ D	100
3030 •	14.0	O M	High Clamps	3½ Dia. x 1¾ D	100
3030-02 •	14.0	Screw Mount (4%" O.D. Flange or Flash Ring)	#36 Clamps, Bulk Packed	3½ Dia. x 1¾ D	100
3030PC •	14.0	(478 O.D. Flange of Flash hing) Box O.D. 3½"	Non-Metallic Clamps	3½ Dia. x 1¾ D	100
3000 •	20.5	DOX 0.D. 3/2	High Clamps	3½ Dia. x 2% D	50
3000-02 •	20.5		#36 Clamps, Bulk Packed	3½ Dia. x 2% D	50
3000-PC •	20.5		Non-Metallic Clamps	3½ Dia. x 2% D	50

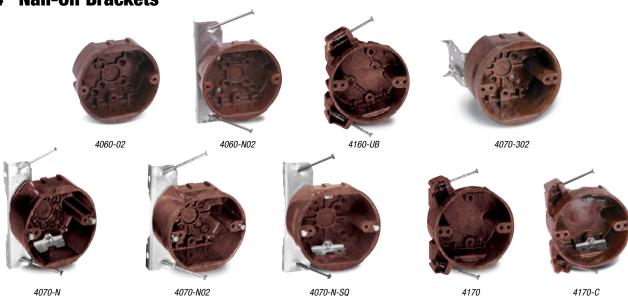
• Listed for fixture support up to 50 lbs.

Thomas@Betts

[†] Not UL Listed.

Phenolic Boxes

4" Nail-On Brackets



13.5-21.5 Cu. In



(U)

4" Round Outlet Box



21.5 Gu. IN.				<u> </u>
CAT. NO.	SIZE Cu. In.	MOUNTING MEANS	DIMENSIONS (IN.)	STD. CTN.
4170-CFB •	21.5	_	41/16 Dia.	10
4170-CFB-S •	21.5	Steel Stud Screws	41/16 Dia.	10
4170-3-CFB •	21.5	3" Bracket	41/16 Dia.	10

• UL Listed for support of light fixtures of up to 50 lbs. or ceiling fans up to 35 lbs.



4170-CFB





4170-CFB-S

4170-3-CFB



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services** Tel: 888.862.3289







(ĥ)

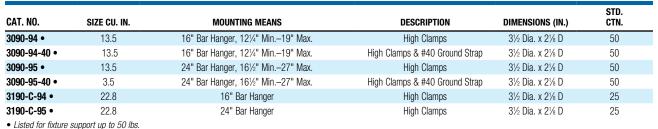
Carlon

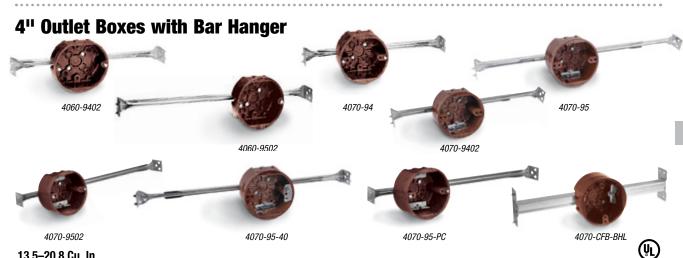
Phenolic Boxes



3090-95-40 3190-C-94 3190-C-95

13.5-22.8 Cu. In.





13.5-20.8 Cu. In.

CAT. NO.	SIZE CU. IN.	MOUNTING MEANS	DESCRIPTION	DIMENSIONS (IN.)	STD. CTN.
4060-9402 •	13.5	16" Bar Hanger	#36 Clamps, Bulk Packed	4 Dia. x 1% D	50
4060-9502 •	13.5	24" Bar Hanger	#36 Clamps, Bulk Packed	4 Dia. x 1% D	50
4070-94 •	20.8	16" Bar Hanger, 121/4" Min19" Max.	High Clamps	4 Dia. x 2% D	50
4070-9402 •	20.8	16" Bar Hanger, 121/4" Min19" Max.	#36 Clamps, Bulk Packed	4 Dia. x 2% D	50
4070-95 •	20.8	24" Bar Hanger, 161/2" Min27" Max.	High Clamps	4 Dia. x 2% D	50
4070-9502 •	20.8	24" Bar Hanger, 161/2" Min27" Max.	#36 Strap, Bulk Packed	4 Dia. x 2% D	50
4070-95-40 •	20.8	24" Bar Hanger, 161/2" Min27" Max.	Ground Strap	4 Dia. x 2% D	50
4070-95-PC •	20.8	24" Bar Hanger, 161/2" Min27" Max.	Non-Metallic Clamps	4 Dia. x 2% D	50
4070-CFB-BHL †	20.8	24" Bar Hanger, 12" to 24" Maximum Center	_	41/16 Dia. x 23/8 D	10

[•] Listed for fixture support up to 50 lbs.

[†] UL Listed for support of light fixtures of up to 50 lbs. or ceiling fans up to 35 lbs.



Technical Services Tel: 888.862.3289





Phenolic Boxes

Plaster Rings and Covers for 4" Outlet Boxes





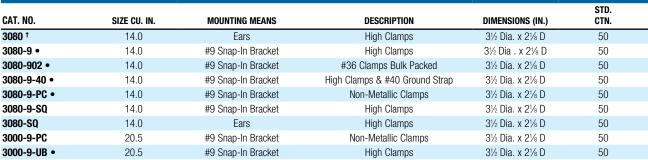
(ĥ)

CAT. NO.	SIZE CU. IN.	DESCRIPTION	DIMENSIONS (IN.)	STD. CTN.
3051	_	Round Flat Blank, Fits #3000, #3020 & #3030 Boxes Only	31/4 Dia.	100
4051	_	Round Blank or Pendant, 25/64" Diameter Knockout	31/4-4 Dia.	100
4052 BROWN	_	Round Flat Blank with 4" O.D.	31/4-4 Dia.	100
4052 IVORY	_	Round Flat Blank with 4" O.D.	31/4-4 Dia.	100
4052 WHITE	_	Round Flat Blank with 4" O.D.	31/4-4 Dia.	100
4061	4.5	Round Plaster Ring, 1/2" Offset for 31/4 Mounting	4 Dia.	100
4062 BROWN	_	Round Flat Blank with 4½" O.D.	4 Dia.	100
4062 IVORY	_	Round Flat Blank with 4½" O.D.	4 Dia.	100
4062 WHITE	_	Round Flat Blank with 4½" O.D.	4 Dia.	100

Ceiling Boxes — Old Work



3½" Brackets 14.0-20.5 Cu. In.



[·] Listed for fixture support up to 15 lb. in walls only.

[†] Listed for fixture support up to 50 lbs.



Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354

Technical Services

Tel: 888.862.3289







Phenolic Boxes

One-Gang

9.8-14.0 Cu. In.

CAT. NO.	SIZE Cu. in.	MOUNTING MEANS	DIMENSIONS (IN.)	STD. CTN.
5060 BROWN •	9.8	Screws	4½ L x 2¾ W x 1½ D	100
5060 IVORY	9.8	Screws	4½ L x 2¾ W x 1½ D	100
5060 WHITE	9.8	Screws	4½ L x 2¾ W x 1½ D	100
5070 BROWN •	14.0	Screws	4½ L x 2¾ W x 1½ D	100
5070 IVORY	14.0	Screws	4½ L x 2¾ W x 1½ D	100
5070 WHITE	14.0	Screws	4½ L x 2¾ W x 1½ D	100

[•] Note: Only the "Brown" is Phenolic — the White and Ivory are a urea material.



5060 BROWN



5060 IVORY



5060 WHITE



5070 BROWN



5070 IVORY



5070 WHITE

Two-Gang

23 8 Cu In

20.0 Ou. III.				
CAT. NO.	SIZE Cu. In.	MOUNTING MEANS	DIMENSIONS (IN.)	STD. CTN.
5072 BROWN •	23.8	Screws	4% L x 4½ W x 1% D	50
5072 IVORY	23.8	Screws	4% L x 4½ W x 1% D	50
5072 WHITE	23.8	Scrowe	194° I × 116 M × 156 D	50

[•] Note: Only the "Brown" is Phenolic — the White and Ivory are a urea material.





5072 IVORY

5072 BROWN



5072 WHITE

61/2" Outside Diameter

3.8 Cu. In.

olo our iiii				
CAT. NO.	SIZE Cu. In.	MOUNTING MEANS	DIMENSIONS (IN.)	STD. CTN.
5080 BROWN •	3.8	Screws, Box O.D.	61/4 L x 31/8 W x 3/4 D	50
5080 IVORY	3.8	Screws, Box O.D.	61/4 L x 31/8 W x 3/4 D	50
5080 WHITE	3.8	Screws, Box O.D.	61/4 L x 31/8 W x 3/4 D	50

[•] Note: Only the "Brown" is Phenolic — the White and Ivory are a urea material.



5080 IVORY



5080 BROWN



5080 WHITE

Thomas@Betts



United States Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354

Technical Services Tel: 888.862.3289



A-103

Phenolic Boxes

AO Round Conduit Boxes and Covers



A04-12



CAT. NO.	SIZE Cu. In.	MOUNTING MEANS	DESCRIPTION	DIMENSIONS (IN.)	STD. CTN.
A04-12 •	12.0	Four 1/2" Threaded KOs	Round Box	41/8 Dia. x 17/8 D	10
A04-34 •	12.0	Four 3/4" Threaded KOs	Round Box	41/8 Dia. x 11/8 D	10
A0-51 •	_	Stainless Steel Screws	Black Cover with Gaskets	_	10
 Not UL Lis 	ted.				

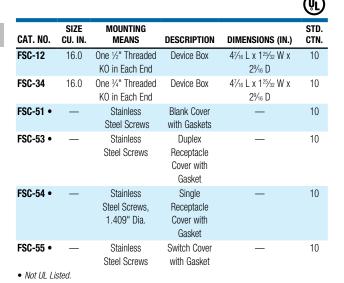




A04-34

A0-51

Weatherproof Device Boxes and Covers





FSC-12





FSC-51



FSC-53



FSC-54



FSC-55







Non-Metallic Covers and Accessories

One-Gang



CAT. NO.	SIZE CU. IN.	DESCRIPTION	STD. CTN.
A410 •	3.5	½" Rise	100
A411 •	4.2	%" Rise	50
A412 •	5.0	3/4" Rise	50
A413 •	6.6	1" Rise	40
A414 •	8.1	11/4" Rise	30

[•] UL Listed E11461.



Two-Gang



		CTD
SIZE CU. IN.	DESCRIPTION	STD. CTN.
	Blank	100
6.1	½" Rise	75
7.4	%" Rise	50
8.8	¾" Rise	50
	— 6.1 7.4	Blank 6.1 ½" Rise 7.4 %" Rise

• UL Listed E11461.



A400



Round Plaster Ring



CAT. NO.	SIZE CU. IN.	DESCRIPTION	STD. CTN.
A471 •	3.2	5/8" Rise	100
A472 •	4.0	½" Rise	100

• UL Listed E11461.

Listed for fixture support up to 50 lbs.



A471

Round Blank Cover



CAT. NO.	SIZE CU. IN.	COLOR	DESCRIPTION	STD. CTN.
A470D •		Blue	Blank with ½" KO	100
E460R-CAR •	_	Blue	Blank	35
CPC4WH •	_	White	Ceiling Box Cover	12

• UL Listed E11461.

Listed for fixture support up to 50 lbs.





United States Tel: 901.252.8000

800.816.7809 Fax: 901.252.1354







Thomas@Betts

Non-Metallic Covers and Accessories

Box Extender

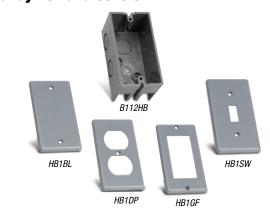






CAT. NO.	SIZE Cu. in.	MOUNTING MEANS	DESCRIPTION	STD. CTN.
B1EXTB		Screws	31/4 L x 21/4 W	25
UL Listed E11461.				

Handy Box and Covers



CAT. NO.	SIZE Cu. In.	DESCRIPTION	STD. CTN.QTY.
B112HB	1% x 4 x 21/8	Handy Box – One-Gang	50
HB1BL	.25 x 4.30 x 2.38	Blank Cover	25
HB1DP	.25 x 4.30 x 2.38	Duplex Receptacle Cover	25
HB1GF	.25 x 4.30 x 2.38	GFCI Cover	25
HB1SW	.25 x 4.30 x 2.38	Toggle Switch Cover	25

(ĥľ)

Accessory Clamps and Ground Strap

		CTD
CAT. NO.	DESCRIPTION	STD. CTN.
36	Metal Stamped Clamp and Screw, Unassembled	50
36-PFC	Non-Metallic Clamp	50
NCC1-50	Non-Metallic Cable Lock Clamp for Strain Relief	500
	of Non-Metallic Cable	(10 bags of 50)
40-UB	Ground Strap for Phenolic Boxes	50



NEC® Box Requirements* Cubic Inches for 1–40 Conductors

WIRE							C	UBIC-INC	CH CAPA	CITY BY	NUMBER	OF CON	DUCTOR	S						
SIZE (AWG)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
#18	1.50	3.00	4.50	6.00	7.50	9.00	10.50	12.00	13.50	15.00	16.50	18.00	19.50	21.00	22.50	24.00	25.50	27.00	28.50	30.00
#16	1.75	3.50	5.25	7.00	8.75	10.50	12.25	14.00	15.75	17.50	19.25	21.00	22.75	24.50	26.25	28.00	29.75	31.50	33.25	36.00
#14	2.00	4.00	6.00	8.00	10.00	12.00	14.00	16.00	18.00	20.00	22.00	24.00	26.00	28.00	30.00	32.00	34.00	36.00	38.00	40.00
#12	2.25	4.50	6.75	9.00	11.25	13.50	15.75	18.00	20.25	22.50	24.75	27.00	29.25	31.50	33.75	36.00	38.25	40.50	42.75	45.00
#10	2.50	5.00	7.50	10.00	12.50	15.00	17.50	20.00	22.50	25.00	27.50	30.00	32.50	35.00	37.50	40.00	42.50	45.00	47.50	50.00
	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
#18	31.50	33.00	34.50	36.00	37.50	39.00	40.50	42.00	43.50	45.00	46.50	48.00	49.50	51.00	52.50	54.00	55.50	57.00	58.50	60.00
#16	36.75	38.50	40.25	42.00	43.75	45.50	47.25	49.00	50.75	52.50	54.25	56.00	57.75	59.50	61.25	63.00	64.75	66.50	68.25	70.00
#14	42.00	44.00	46.00	48.00	50.00	52.00	54.00	56.00	58.00	60.00	62.00	64.00	66.00	68.00	70.00	72.00	74.00	76.00	78.00	80.00
#12	47.25	49.50	51.75	54.00	56.25	58.50	60.75	63.00	65.25	67.50	69.75	72.00	74.25	76.50	78.75	81.00	83.25	85.50	87.75	90.00
#10	52.50	55.00	57.50	60.00	62.50	65.00	67.50	70.00	72.50	75.00	77.50	80.00	82.50	85.00	87.50	90.00	92.50	95.00	97.50	100.00

^{*} Make allowance of two additional conductors for each device, one for clamps if required and one for one or more grounding conductors entering the box. See NEC® 314.16(B).



Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354

Technical Services

Tel: 888.862.3289



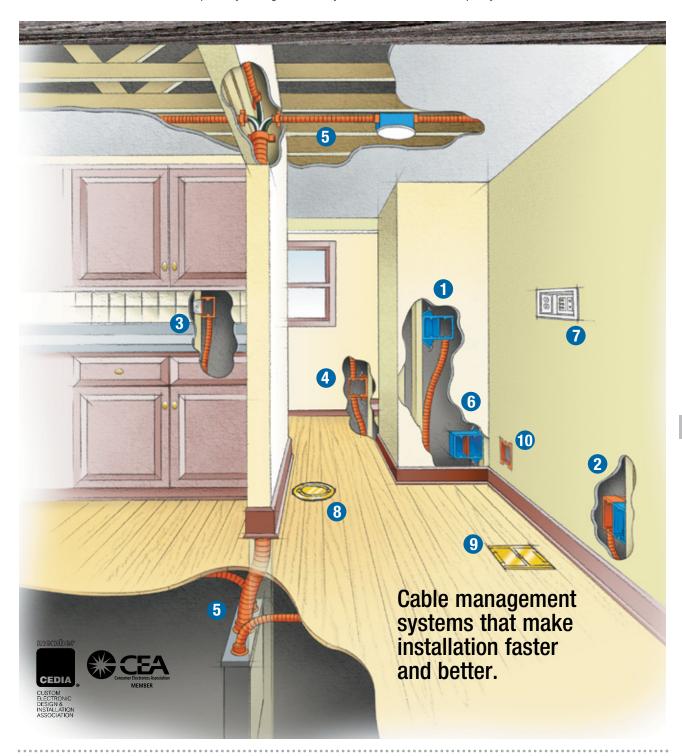




Low-Voltage Structured Cable Management System

Carlon® Orange Structured Cable Management System

Carlon® Structured Cable Management System (SCMS) is designed for general-purpose low-voltage residential wire and cable management. This series of boxes and brackets are accompanied by a corrugated conduit system and accessories to future-proof your home.



Fax: 901.252.1354

800.816.7809

Low-Voltage Structured Cable Management System



Dual-Voltage Box/Bracket

Here's a smart alternative for where you would normally use separate high- and low-voltage boxes. Designed to fit a standard two-gang faceplate, this component combines an electrical box and low-voltage bracket into a single

unit for fast, easy installation. No alignment tools are required and easy nail-on mounting provides precise placement and a professionally finished appearance. Resi-Rings accept ¾" Resi-Gard® fittings only...SC200DV







Why waste time mounting, then trying to line up separate high-voltage and low-voltage boxes, and still end up with something not quite right? Our Dual-Voltage Box/Bracket lets you do it all in one fast, easy step with perfect alignment every time.





Low-Voltage Add-On Bracket

This low-voltage bracket provides a low-voltage outlet next to a previously installed high-voltage outlet. Great for both new construction and rework, it attaches easily to most electrical

boxes and is designed to fit a standard two-gang faceplate. Resi-Rings accept 3/4" Resi-Gard® fittings only...SC100SC









Attaching the Add-On Bracket is a "snap." You just remove the back of the double-sided tape (1), clip the bracket in place (2) and press on the bracket to secure it against the box (3). Enables the installation of most rectangular yoke plates.





Low-Voltage Adjustable Brackets

Our Low-Voltage Adjustable Brackets are the perfect solution for tile, paneling or stucco. A bracket enables quick, easy stud mounting and a turn of the screw adjusts to any wall thickness. It's

great for retrofit/installation upgrades. Replace the single-gang bracket with a two-gang bracket or switch services to a high-voltage Adjust-A-Box™ device... SC100ADJC (shown) and SC200ADJC







Our Low-Voltage Adjustable Brackets simplify installation with tile, paneling or stucco to save you time and effort. Just use the quick-mount bracket to clip it to the stud (1), add a screw for extra support if you want it (2), then use the adjustment screw to accommodate wall thickness (3). Also available in a two-gang version.





Low-Voltage Brackets

Here's the fast installation choice when only low voltage is required. Designed to fit a standard one-, two- or three-gang faceplate, these low-voltage brackets feature an easy nail-on mounting or screw-in bracket, while a hard

shell provides increased durability and no racking. Resi-Rings accept χ''' , 1" and $1\chi'''$ Resi-Gard® fittings (one- and two-gang versions only)... SC100A, SC200A (shown) and SC300A







Our Low-Voltage Brackets are open-backed to easily accommodate the bend radiuses required for low-voltage cabling and deep devices such as volume controls, while molded-in ports make it easy to connect flexible raceway for future-proofing. Or, you can use them to tie off cable to the bracket. They can also be attached to wood or steel studs.





Low-Voltage Structured Cable Management System





Resi-Gard® Flexible Raceway and Fittings

Available in five sizes from 3/4" to 2", with factory-installed pull tape in sizes 1" to 2", our Resi-Gard® Flexible Raceway provides a main chase from the main distribution panel to a secondary hub in the

attic or basement. Ideal for easy access to add cable or service upgrades or leave empty for future expansion.









Our complete line of quick-connect couplings, adapters, cable clips, conduit clamps and solvent cement make for quick, easy professional installation of Resi-Gard® Flexible Raceway.





Dual-Voltage Box/Bracket

For applications where a combined high- and low-voltage closed-back box is needed, such as placement in a fire-rated wall, we offer our Carlon® SuperBlue® two-, threeand four-gang wiring boxes with a slip-in-place divider to give

you the split box you need for the low-voltage outlet... SCDIV







What could be easier than converting one of our Carlon® SuperBlue® boxes for both high- and low-voltage use? Just slip the divider into place and you're ready to go. Great for situations requiring a dual-voltage fire-rated box.





Recessed Dual-Voltage 3-Gang Old Work Plate

The New Carlon® RDV 3-Gang Old Work Plate has been developed to simplify today's in-home entertainment/networking needs. The box is designed to accommodate the wires, cables

and cords used with flat-panel display installations. It features a two-gang low-voltage opening and a onegang opening for an outlet/switch box (boxes, devices and plates not included)... SC300PRB and SC300PRR









The high-gloss, recessed design eliminates unsightly wires, cables and cords and blends with any décor. The RDV Old Work Plate makes installing flat panel displays faster and easier!

8



Drop-In Floor Box

The Carlon® Drop-In Floor Box with Brass Cover combines many of the same features of our existing floor box line with the strength, durability and style necessary to accommodate today's residential electrical/

telecommunication needs. The Carlon® Drop-In Floor Box is the fastest, easiest way for contractors to put a floor socket anywhere they need it! It's designed to accommodate line voltage and low-voltage applications... E971FBDI-2 and E971FBDIB-2









Turn off electricity before starting. Drill hole in floor using hole saw. Pull romex through floor. Connect receptacle wires to romex. Brass cover snaps into place. Use a small screwdriver to pry open brass cover to plug in appliance.

For more information about this floor box, refer to www.tnb.com or the Thomas & Betts Residential catalog.





Low-Voltage Structured Cable Management System





Adjust-A-Box[®] Floor Box

Carlon® Adjust-A-Box® Floor Boxes make installing floor outlets fast and easy by providing maximum installation flexibility. The box features an adjustment screw designed to adjust the box from 0" to 1¾" by simply turning

the screw clockwise or counterclockwise, providing a flush mount every time... B234BFBB (brass cover) and B234BFSS (stainless steel)







Install clip over subfloor. Screw in to adjust to height of flooring or carpet. Beautiful flush fit every time!

For more information about this floor box, refer to **www.tnb.com** or the Thomas & Betts Residential catalog.





Old Work Bracket

Carlon® Low-Voltage Old Work Brackets are specifically designed for the installation of low-voltage devices such as cable television, data communications or telephone jacks in an existing wall. The backless feature

provides the space needed for the bend radius requirements of coaxial or data/communication cables. It also eliminates the need for metal plates, lags or screws... SC100RR (shown) and SC200RR





- 1. Use the holes in the corners to mark the opening.
- 2. Cut out the drywall.
- 3. Place box in wall.
- 4. Secure box to wall.

Low-Voltage Structured Cable Management System

Dual-Voltage Box/Bracket

- Dual-voltage capability
- · Accepts a two-gang faceplate
- ¾" Resi-Rings®
- Backless design accommodates large/deep low-voltage devices
- · Eliminates cutting the backs off electrical boxes
- Accommodates bend-radius requirements for low-voltage cabling
- Provides ample space for installation



CAT. NO.	SIZE CU. In.	MOUNTING MEANS	DIMENSIONS (IN.)	STD. CTN. QTY.
E-18-4-DV•	18.0	Dual Voltage	3¾ L x 4 W x 3 D	50
SB-21-DV•	20.5	Molded Bracket for Wood/Steel Studs	35% L x 4 W x 37/16 D	50
SC200DV•	20.5	Angled Side Nails	3.69 L x 4.04 W x 3.67 D	16
SN-21-DV•	20.5	Angled Side Nails	35/8 L x 4 W x 31/16 D	50

• UL Listed E11461.

Permissible for use with 90° C insulated conductors.

80° C heat-rated material.



SC200DV

SN-21-DV

SC200A

Low-Voltage Brackets

- Backless design accommodates large/deep low-voltage devices
- Eliminates cutting the backs off electrical boxes
- Accommodates bend-radius requirements for low-voltage cabling
- Provides ample space for installation
- . Mount Flange for steel stud application

One- and two-gang versions only:

- Resi-Rings[®] with concentric knockouts
- Accepts ¾", 1" and 1¼" Resi-Gard®
- Horizontal mounting bracket (one-gang only)
- Breakaway drywall support flange provides easy alignment for ½" drywall
- Screw-mount option
- Breakaway vertical mounting flange
- Breakaway feature enables the use of the Low-Voltage Add-On Bracket



CAT. NO.	SIZE CU. In.	MOUNTING MEANS	DESCRIPTION	DIMENSIONS (IN.)	STD. CTN.
SC100A•	N/A	Captive Nails	3/4", 1", 11/4" Resi-Rings®	3.73 L x 2.32 W x 3.15 D	24
SC200A•	N/A	Captive Angled Nails	3/4", 1", 11/4" Resi-Rings®	3.77 L x 4.07 W x 3.15 D	24
SC300A•▶	44	Captive Angled Nails	_	3.69 L x 5.81 W x 1.50 D	5
UL Listed I	E216492.				



Technical Services

Tel: 888.862.3289

SC100A



SC300A



Low-Voltage Structured Cable Management System

Low-Voltage Add-On Bracket

- Dual-voltage capability accommodates highand low-voltage devices in the same box
- Attaches to virtually any non-metallic electrical box as long as there's a side for the tape to stick to
- Accepts a two-gang faceplate
- ¾" Resi-Rings®

• UL Listed E216492.

 Enables the installation of most rectangular voke plates

					(P)
CAT. NO.	SIZE Cu. in.	MOUNTING MEANS	DESCRIPTION	DIMENSIONS (IN.)	STD. CTN.
SC100SC•	N/A	Tape	1-Gang	3.68 L x 2.36 W x 3.10 D	24





Low-Voltage Adjustable Brackets

- Accommodates varying finished-wall thicknesses ideal for wood paneling, tile or stucco walls
- With the turn of a screw, adjust to any wall thickness
- Steel mounting bracket provides a secure mount
- Backless design accommodates large/deep low-voltage devices
- Eliminates cutting the backs off electrical boxes
- · Accommodates bend-radius requirements for low-voltage cabling
- Provides ample space for installation
- Removable bracket and interchangeable mounting bracket - upgrade from a one-gang to a two-gang anytime

(III)

CAT. NO.	SIZE Cu. in.	MOUNTING MEANS	DESCRIPTION	DIMENSIONS (IN.)	STD. CTN.
SC100ADJC•	21	Adjustable Bracket	1-Gang	3.56 L x 3.88 W x 1.69 D	24
SC200ADJC•	34	Adjustable Bracket	2-Gang	3.56 L x 5.63 W x 1.69 D	20

UL Listed E216492.



SC100ADJC



United States Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354

Technical Services Tel: 888.862.3289







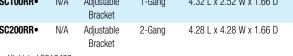


Low-Voltage Structured Cable Management System

Old Work Brackets

- · Rectangular flange for faster/easier installation
- · Shallow bracket less material, easier to work with
- Marking hole for wall opening
- · Thinner flange for less protrusion on the wall
- SINGLE-GANG ONLY clamps stop at center point to prevent the bracket from twisting or bending out of the wall

					(II)
CAT. NO.	SIZE Cu. in.	MOUNTING MEANS	DESCRIPTION	DIMENSIONS (IN.)	STD. CTN.
SC100RR•	N/A	Adjustable Bracket	1-Gang	4.32 L x 2.52 W x 1.66 D	12
SC200RR•	N/A	Adjustable Bracket	2-Gang	4.28 L x 4.28 W x 1.66 D	6







Low-Voltage Divider Plate

	R
CAT. NO.	STD. CTN.
SCDIV•	50

• For use with Carlon® SuperBlue™ boxes only.



Mud Ring (4" Square 1/2" Raised Cover)

		(fr)
CAT. NO.	DESCRIPTION	STD. CTN.
SCA410•	1-Gang	20

• Note: Classified for two-hour fire-resistive wall assemblies when used with Two-Gang Quick-Connect Outlet and Switch Boxes.

UL Listed E11461.







800.816.7809

Fax: 901.252.1354



<u>Carlon</u>

Low-Voltage Structured Cable Management System

Low-Voltage Adjustable Floor Bracket with Cover

The Carlon® Low-Voltage Adjustable Floor Bracket is specifically designed for the low-voltage, structured cabling market...the floor bracket is industry-standard orange to identify low-voltage applications, the open design provides the space needed for low-voltage bend radius requirements and the Leviton QuickPort® Quad 106® Insert provides up to four low-voltage outlet ports. The Carlon® Low-Voltage Adjustable Floor Bracket is ideal for any residential or commercial low-voltage application.

The floor bracket also features a unique screw design, enabling it to be adjusted to most finished-floor heights by simply turning the screw clockwise or counterclockwise and adjusting flush to the floor.

The floor bracket kit comes complete with a non-metallic (white or ivory) or brass cover, a Leviton QuickPort® Quad 106® Insert, new work and old work metal mounting brackets and mounting screws.

Carlon® Structured Cable Management Systems...Your Total Systems Solution!

- · White, ivory or brass cover
- Orange identifies low-voltage installations
- Open-design floor bracket accommodates low-voltage bend radius requirements
- Adjustable screw bracket adjusts to most finished-floor depths
- Leviton® QuickPort® Quad 106® Insert install up to four low-voltage inserts
- Two-door design
- cUL-US Listed

QuickPort® and Quad 106® are registered trademarks of Leviton Manufacturing Co., Inc.

One-Gang Adjustable

CAT. NO.	SIZE CU. IN.	MOUNTING MEANS	DESCRIPTION	DIMENSIONS (IN.)	STD. CTN.
SC100FBWC•	N/A	Adjustable Bracket	Non-Metallic — White	2.80 L x 4.36 W x 1.72 D	8
SC100FBVC•	N/A	Adjustable Bracket	Non-Metallic — Ivory	2.80 L x 4.36 W x 1.72 D	8
SC100FBBC•	N/A	Adjustable Bracket	Brass	2.80 L x 4.36 W x 1.72 D	8

UL Listed E216492.

Installation:



Install clip over subfloor



Screw in to adjust to height of flooring or carpet.



Beautiful flush fit every time!



United States Tel: 901.252.8000

800.816.7809 Fax: 901.252.1354







Carlon Exclusive



www.tnb.com



Low-Voltage Structured Cable Management System

Recessed Dual-Voltage 3-Gang Old Work Plate





800.816.7809

Fax: 901.252.1354

Low-Voltage Structured Cable Management System

Recessed Dual-Voltage 3-Gang Old Work Plate (continued)

Features:

- 3-gang dual-service capability: accommodates one line voltage and two low-voltage services using one plate (boxes, devices and plates not included)
- Recessed low-profile design: eliminates unsightly wires and plug heads
- Universal 1-gang outlet/switch opening: select the size box you need
- Pre-assembled box and frame: reduces labor time and saves money

- Shallow design: provides ample room behind the drywall and between the studs and accommodates cable bend requirements
- Four swing-out clamps: locks the plate securely to the wall
 — horizontal or vertical mount
- Superior hi-gloss, paintable finish: professional appearance and blends with any décor
- Non-metallic, ABS material: lightweight and easy to handle

Installation:

Please read these instructions completely before attempting installation.

IMPORTANT! Before attempting installation, be sure power is off by removing the fuse or switching the circuit breaker to "off."

Make sure the Recessed Dual-Voltage Plate is installed in accordance with the National Electrical Code® (NEC®) and local codes.

NEC and National Electrical Code are registered trademarks of the National Fire Protection Association, Inc.



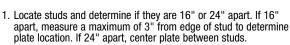












Note: High-voltage side must be 3" from stud.

- Place SC300PRB or SC300PRR face down against the wall. Using a hammer, tap around the edge of the plate to mark area to be cut out (Fig. 1). Remove plate from wall, a line should be visible on the drywall. Cutout should be approximately 6.25" x 9.25".
- 3. Carefully cut out area of drywall with a utility knife or drywall saw.
- 4. Place SC300PRB or SC300PRR in wall and secure by tightening down all four Zip-Mount retainers (Fig. 2).



- Select device and outlet/switch box, CAT. NO. B114R (14 cu. in.) or B120R (20 cu. in.), based on wire fill needs (Fig. 3).
- Insert wires through boxes (B114R or B120R and SC300PRB or SC300PRR). Make sure high- and low-voltage wires do not come in contact with one another.
- 7. Install Carlon® Old Work Zip Box®, model B114R or B120R (Fig. 4).
- 8. Install receptacle and faceplate per manufacturer's instructions (Fig. 5).
- Install low-voltage devices and faceplate per manufacturer's instructions (Fig. 6 and Fig. 7).

Note: When preparing for later installation of low-voltage devices, use a 2-gang blank plate to cover wall opening for a clean finished look.



Tel: 888.862.3289



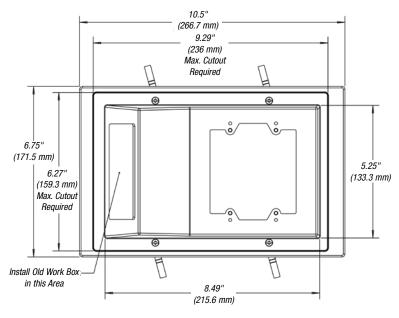
Low-Voltage Structured Cable Management System

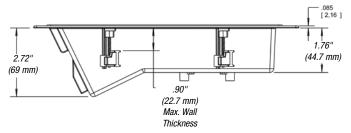
Installed:





Top view showing ample room between drywall and studs





CAT. NO.	SIZE Cu. in.	MOUNTING MEANS	DESCRIPTION	DIMENSIONS (IN.)	STD. CTN.
SC300PRB	N/A	Zip-Mount Retainers	RDV 3-Gang Old Work Plate	6.75 L x 10.5 W x 2.72 D	20
SC300PRR	N/A	Zip-Mount Retainers	RDV 3-Gang Old Work Plate with Outlet Box (B114R)	6.75 L x 10.5 W x 2.72 D	3





1-800-453-1692 ww.aboveboardelectronics.com

Low-Voltage Structured Cable Management System

Resi-Gard® Flexible Raceway

Ideal for providing a main chase from the main distribution panel to a secondary hub in the attic or basement, Resi-Gard® non-metallic flexible raceway is available in ¾" to 2" diameter sizes with factory-installed pull tape in sizes 1" to 2". The raceway is hand bendable, lightweight and easily cut to length to reduce scrap. Bright orange color clearly signifies a low-voltage installation.



Standard-Length Coils



Cumuum zongun come				
CAT. NO.	SIZE (IN.)	PULL TAPE	DESCRIPTION	REEL LENGTH (FT.)
SCE4X1-100•	3/4	Empty*	Flexible Raceway	100
SCF4X1C-100•	1	900 lbs.	Flexible Raceway	100
SCG4X1C-100•	111/4	900 lbs.	Flexible Raceway	100
SCH4X1C-50•	1½	900 lbs.	Flexible Raceway	50
SCJ4X1C-100•	2	900 lbs.	Flexible Raceway	50

[•] UL Listed E151168.

FT-1 Rated

Standard-Length Reels*



CAT. NO.	SIZE (IN.)	PULL TAPE	DESCRIPTION	REEL LENGTH (FT.)
SCE4X1-1000•	3/4	Empty	Flexible Raceway	1000
SCF4X1C-1500•	1	900 lbs.	Flexible Raceway	1500
SCJ4X1C-500•	2	900 lbs.	Flexible Raceway	500

^{*} Made to order

• UL Listed E151168.

FT-1 Rated





1-800-453-1692



Fax: 901.252.1354



^{*} If installing own tape, a lubricated polyester is recommended.



Low-Voltage Structured Cable Management System

Resi-Gard® Fittings

Quick-Connect Coupling



CAT. NO.	SIZE (IN.)	STD. CTN.
SCA240E•	3/4	25
SCA240F●	1	20

• UL Listed E86720

Male Terminal Adapter*



	SIZE (IN.)	STD.
CAT. NO.		CTN.
SCE943G•	11⁄4	50
SCE943H•	1½	25
SCE943J•	2	50

[•] UL Listed E23018.

Quick-Connect Threaded Adapter



CAT. NO.	SIZE (IN.)	STD. CTN.
SCA243E•	3/4	25
SCA243F•	1	20

• UL Listed E86720

Standard Couplings*



(ŷĽ

CAT. NO.	SIZE (IN.)	STD. CTN.
SCE940G•	11/4	30
SCE940H•	1½	25
SCE940J•	2	30

UL Listed E23018

Quick-Connect Snap-In-Adapter



CAT. NO.	SIZE (IN.)	STD. CTN.
SCA253E•	3/4	25
SCA253F•	1	20

• UL Listed E86720

PVC Lock Nut



		74
CAT. NO.	SIZE (IN.)	STD. CTN.
LT9E•	3/4	700
LT9F•	1	600

• UL Recognized.







^{*} Must be cemented to Resi-Gard® Flexible Raceway using ONLY Resi-Gard® Solvent Cement.

^{*} Must be cemented to Resi-Gard® Flexible Raceway using ONLY Resi-Gard® Solvent Cement.

Low-Voltage Structured Cable Management System

Cable Clips

Pre-installed nails provide fast and easy installation for either a single cable, two to three cables or one bundled cable.



CAT. NO.	SIZE (IN.)	STANDARD BAG QUANTITY	STD. CTN.
SC14CC	1/4	1 Ea. (Equals One Bag of 100 Clips)	10 Bags of 100
SC12CC	1/2	1 Ea. (Equals One Bag of 25 Clips)	310 Bags of 25
SC34CC	3/4	1 Ea. (Equals One Bag of 10 Clips)	20 Bags of 10

Conduit Clamps

Designed to secure Resi-Gard® raceway or bundled cable.



CAT. NO.	SIZE (IN.)	STANDARD BAG QUANTITY	STD. CTN.
SCE977EC	3/4	1 Ea. (Equals One Bag of Five Clamps)	20 Bags of 5
SCE977FC	1	1 Ea. (Equals One Bag of Five Clamps)	12 Bags of 5
SCE977GC	11/4	1 Ea. (Equals One Bag of Five Clamps)	8 Bags of 5
SCE977HC	11/2	1 Ea. (Equals One Bag of Five Clamps)	6 Bags of 5
SCE977JC	2	1 Ea. (Equals One Bag of Five Clamps)	6 Bags of 5

Note: Each clamp requires two screws, two nuts and/or two bolts.

Resi-Gard® Solvent Cement

RECOMMENDED PIPE Application and Sizes	SET-UP TIME (EVAPORATION RATE)	RECOMMENDED INSTALLATION TEMP.	LAP SHEAR @ 73° F	VISCOSITY AT 75° F AS MANUFACTURED
For use with Resi-Gard®, Riser-Gard®,	10°-30° F Use extra caution	40°-100° F	2 hrs. 350 psi	500-900 cps
P&C Flex™ and Carlon PVC fittings.	30°-50° F 5-6 minutes		16 hrs. 800 psi	
Up through 6" diameter.	50°-70° F 3-4 minutes		72 hrs. 1500 psi	
	70°-90° F 1-2 minutes			

CAT. NO.	SIZE (IN.)	APPLICATOR	DESCRIPTION	STD. CTN.
VC9963SC	Pint	Brush	Resi-Gard® Solvent Cement Clear	24
Meets ASTM D-2564.				



Cutters

Ideal for fast, smooth field cuts for up to 1" diameter Resi-Gard® non-metallic flexible raceway. The large PVC Cutter is ideal for cuts up to 2" diameter non-metallic rigid and flexible raceway.

Small Cutter

For fast, smooth field cuts of ½" through 1" innerduct.



CAT. NO.	SIZE (IN.)	STD. CTN.
CC120B	8	10

Medium Cutter

For fast square, smooth, field cuts on conduit ½" through 1¼".



CAT. NO.	SIZE (IN.)	STD. CTN.
CC125	9	1

Large Cutter

For clean cuts of conduit ½" through 2".



CAT. NO.	SIZE (IN.)	STD. CTN.		
CC122	17½	1		



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 Technical Services
Tel: 888.862.3289









In this section...



Steel City® Floor Boxes

Overview	A-122–A-128
Recessed Service Floor Boxes	A-129–A-142
Flush Service Floor Boxes	A-143–A-169
Above-Floor Service Fittings	A-170
Replacement Parts and Accessories	A-171–A-172
Poke Through Systems	A-173–A-185
Access Floor Modules	A-186–A-196





Overview

Recessed Service Floor Boxes

The aesthetic and technical needs of today's buildings are as diverse as the equipment that fills them. Small wonder, then, that floor boxes can continue to solve the needs of today and the future as they did in the early 1900s when they were invented. They are still a contemporary, capable and cost-effective wire-management system. Steel City®, a pioneer in both the design and applications of floor boxes since 1904, invites you to discover or rediscover the possibilities.

Visit **www.tnb.com/floorboxselect** to use our online floor box selection tool to quickly and easily identify an appropriate in-floor solution for your needs.



Technical Services

Tel: 888.862.3289



Overview

Recessed Service Floor Boxes — Outlets Below Floor Level

663-SC (2-Gang)

- · Material: Stamped Steel
- · Covers: P62 and P60 Series



See page A-129.

664-SC/664-S (2-Gang)

- · Material: Stamped Steel
- Covers: MopTite® 664-CST SW Series



See page A-130.

664-CI (2-Gang)

- · Material: Cast Iron
- Covers: MopTite® 664-CST-SW Series



See page A-130.

665-SC/665-CI/ 665-AV2 (4-Gang)

- Material: Stamped Steel/Cast Iron
- Covers: MopTite[®] 665-CST-SW Series



See pages A-132-A-135.

668-S (4-Gang)

- · Material: Stamped Steel
- Covers: MopTite® 668-CST



See pages A-136-A-137.

667-SC (8-Gang)

- Material: Stamped Steel
- Covers: MopTite® 667-CST-SW Series



See pages A-138-A-139.

Access Floor Modules

- Material: Stamped Steel
- Covers: MopTite® covers, assembled



See pages A-186-A-195.

Poke-Through **Systems**



(**VL)** File No. E2969



Flush Service See pages A-174-A-179.









United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354









Overview

Flush-Service Floor Boxes — Outlets at Floor Level

68-HP Series

- Material: Non-Metallic
- Covers: 68-HP Series



See pages A-143-A-146.

68 Series

- Material: Stamped Steel
- Covers: MopTite® P60 Series



See pages A-147-A-149.

600 Series

- Material: Cast Iron
- Covers: MopTite® P60 Series



See pages A-147-A-149.

68P Series

- Material: Non-Metallic
- Covers: MopTite® P60 & P68 Series



See pages A-150-A-153.

78 Series

- · Material: Cast Iron
- Covers: MopTite® P90 Series



See pages A-154-A-155.

88 Series

- · Material: Stamped Steel
- Covers: MopTite® P90 Series



See pages A-154-A-155.

640 Series (1-, 2-, 3- & 4-Gang) 840 Series (1-, 2- & 3-Gang)

- · Material: Cast Iron
- Covers: MopTite® P64 Series



See pages A-158-A-161.



640P Series (1-, 2- & 3-Gang)

- Material: Non-Metallic
- Covers: 640P Series Activations with MopTite® P64 Series Covers



Material: Stamped Steel

 Covers: 640P Series Activations with MopTite[®] P64 Series Covers

740 Series (1-, 2- & 3-Gang)



File No. E2969



File No. L12798

See pages A-164-A-167.



See pages A-162-A-163.

United States Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services** Tel: 888.862.3289



Overview

Floor Box Selection Guide

	SERVICE CAPABILITIES			FLOOR BOX BODY Material				!	MINIMUN	/ DEPTH	OF POUF	1					
OAT NO		RECEPTACLES		MULTIPLE SERVICE	CAST	STAMPED	NON-							WOOD		ADJUSTABILITY	
CAT. NO.	SINGLE	DUPLEX	GFCI	CAPABILITIES	IRON	STEEL	METALLIC	2"	2½"	3"	3½"	4"	41/2"	FLOOR	FULLY-	SEMI-	NC
GAB-4, GAB-6		•	•	•									•				
SFH-40 SERIES	•	•		Duplex													
SFH-50 SERIES	•	•		2 duplexes or low voltage													
SFL-10 SERIES				Com./data only													
600	•	•	•							•							
601	•	•	•							•							
602	•	•	•						•								
603	٠	•	•						•								
604	•	•			•									•			
61-W		•	•			•								•	13/16	' adjustr	men
62-W			•	2 duplexes, 2 com./data or 1 duplex with com./data		•								•		r installa	
641	•	•	•	1-gang; 1 service per gang	•							•			•		
641P	•	•	•	1-gang; 1 service per gang	•		•								•		
642	•	•	•	2-gang; 1 service per gang	•							•			•		
642P	•	•	•	2-gang; 1 service per gang	•		•								•		
643	•	•	•	3-gang; 1 service per gang	•							•			•		
643P	•	•	•	3-gang; 1 service per gang	•		•								•		
644	•	•	•	4-gang; 1 service per gang	•								•		•		
663-SC		•				•						•			•		
664-CI		•	•	Two duplexes, two	•							•			•		
664-S		•		communications/data or one		•				•					•		
664-SC		•	•	duplex with com./data		•						•			•		
665		•	•	Up to 4 devices or any combination of pwr. com./		•					•				•		
665-CI		•	•	Up to 4 devices or any combination of power/data	•							•			•		
667-SC		•	•	Up to 8 devices or any combination of pwr. com./		•							•		•		
668-S		•	•	Up to 4 devices or any combination of power/data		•			•						•		
671-SC	•			•						•			•			•	
672	•			•						•			•			•	
68-D	•	•	•		•					•							
68-P	•	•		1 duplex, up to 8 data jacks			•								•		
68-S	•	•	•	,	•				•								
'1-W		•	•			•								•			
'8-S	•			•					•						•		
'8-SC	•			•					•						•		
41-SC	•	•	•	1-gang; 1 service per gang	•			•								•	
42-SC	•	•	•	2-gang; 1 service per gang	•			•								•	
43-SC	•	•	•	3-gang; 1 service per gang	•			•								•	
343-30 38-D	•	,	_	o gaing, i sorvice per garry	•										•	-	
38-S	•				•				•						•		
GAB-8-S	•	•	•	•										6"		•	





Thomas@Betts

Overview

Floor Box Cover Selection Guide

FLOOR BOX				CARPET ACTIVATIONS			TILE ACTIVATION	
CAT. NO.	DESCRIPTION	COVER PLATES	BRASS	ALUMINUM	NON-METALLIC	BRASS	ALUMINUM	NON-METALLIC
663-SC	Concealed Service — Steel	P60 Series	P60-CP	P60-CPL	P62-CP	P62-TAR	SP-P62-TAR-A	N/A
664-SC	Concealed Service — Steel	664-CST-Series	N/A	N/A	664-CST-Series	N/A	N/A	N/A
664-S	Shallow Concealed Service — Steel	664-CST-Series	N/A	N/A	664-CST-Series	N/A	N/A	N/A
664-CI	Concealed Service — Cast Iron	664-CST-Series	N/A	N/A	664-CST-Series	N/A	N/A	N/A
68-S	Flush Service — Steel	P60 Series	P60-CP	P60-CPAL	P60-LCP	*	**	_
			P60-CACP	P60-CACPAL				
68-D	Flush Service — Steel	P60 Series	P60-CP P60-CACP	P60-CPAL P60-CACPAL	P60-LCP	*	**	_
68-P	Flush Service — Non-Metallic	P60 Series	P60-CP P60-CACP	P60-CPAL P60-CACPAL	P68-SRC Color P68-DRC-Color P68-ECC-Color	68-PAR-W/ 600-4-FL	68-PAR-W/ 600-4-FL-AL	_
600-SC SERIES	Flush Service — Cast Iron	P60 Series	P60-CP P60-CACP	C60-CPAL P60-CACPAL	N/A	*	**	_
601-SC SERIES	Flush Service — Cast Iron	P60 Series	P60-CP P60-CACP	C60-CPAL P60-CACPAL	N/A	*	**	-
602-SC SERIES	Flush Service — Cast Iron	P60 Series	P60-CP P60-CACP	C60-CPAL P60-CACPAL	N/A	*	**	_
603-SC SERIES	Flush Service — Cast Iron	P60 Series	P60-CP P60-CACP	C60-CPAL P60-CACPAL	N/A	*	**	_
604-SC SERIES	Flush Service — Cast Iron	P60 Series	P60-CP P60-CACP	C60-CPAL P60-CACPAL	N/A	*	**	_
641	Flush Service — Cast Iron	P64 Series	P64-CP	P64-CPAL	P64-CP Series P-64-LCP	*	**	N/A
641P	Flush Service — Non-Metallic	P64 Series P64P Series	641P-CACB	641P-CACA	641P-CAC Series	641P-TACB	641P-TACA	641P-TAC-Series
642	Flush Service — Cast Iron	P64 Series	P64-2GCP	P64-2GCPAL	P64P-2GCP Series P64-2LCP	*	**	N/A
642P	Flush Service — Non-Metallic	P64 Series P64P Series	642P-CACB	642P-CACA	642P-CAC Series	642P-TACB	642P-TACA	642P-TAC Series
643	Flush Service — Cast Iron	P64 Series	P64-3GCP	P64-3GCPAL	P64P-3GCP Series P64-3LCP	*	**	N/A
643P	Flush Service — Non-Metallic	P64 Series P64P Series	643P-CACB	643P-CACA	643P-CAC Series	633P-TACB	643P-TACA	643P-TAC Series
644	Flush Service — Cast Iron	P64 Series	P64-4GCP	P64-4GCPAL	N/A	*	**	N/A
841-SC	Shallow Flush Service — Cast Iron	P64 Series	P64-CP	P64CPAL	P64P-CP Series P64-LCP	*	**	N/A
842-SC	Shallow Flush Service — Cast Iron	P64 Series	P64-2GCP	P64-2GCPAL	P64P-2GCP Series P64-2LCP	*	**	_
843-SC	Shallow Flush Service — Cast Iron	P64 Series	P64-3GCP	P64-3GCPA	P64-3GCP Series P64-3LCP	*	**	N/A
78-SC	Flush Service — Cast Iron	P90 Series	P90-CP	P90-CPAL	N/A	*	**	N/A
78S	Flush Service — Cast Iron	P90 Series	P90-CP	P90-CPAL	N/A	*	**	N/A
671	Flush Service — Cast Iron	P67 Series	P90-CP	P90-CPAL	N/A	_	**	N/A
672	Flush Service — Cast Iron	P67 Series	P90-CP	P90-CPAL	N/A	*	**	N/A
88D	Flush Service — Steel	P90 Series	P90-CP	P90-CPAL	N/A	*	**	N/A
88DA	Flush Service — Steel	P90 Series	P90-CP	P90-CPAL	N/A	*	**	N/A
88S	Flush Service — Steel	P90 Series	P90-CP	P90-CPAL	N/A	*	**	N/A
98	Flush Service	P90 Series	P90-CP	P90-CPAL	N/A	*	**	N/A
665-SC	Concealed Service	665-CST Series	N/A	N/A	665-CST Series	_	_	_
667	Concealed Service	665-CST Series	N/A	N/A	665-CST Series	_	_	_
61W	Flush Service — Steel	P64 Series	P64-CP	P64-CPAL	P64-CP Series	N/A	N/A	N/A
62W	Flush Service — Steel	P64 Series	P64-2GCP	P64-2GCPAL	P64-2GCP Series	N/A	N/A	N/A

N/A Not Available.



Fax: 901.252.1354

Technical Services Tel: 888.862.3289



^{*} Supplied standard with box.

** Supplied standard with -AL suffix box.

Overview

Floor Box Cover Selection Guide

COVER SERIES	COVER CAT. NO.	DESCRIPTION	STANDARD FINISH
	P-60-1/2	½" N.P.S. Plug	Brushed Brass
	P-60-1/2-AL	½" N.P.S. Plug	Brushed Aluminum
	P-60-3/4	¾" N.P.S. Plug	Brushed Brass
	P-60-3/4-AL	¾" N.P.S. Plug	Brushed Aluminun
	P-60-1	1" N.P.S. Plug	Brushed Brass
	P-60-1-AL	1" N.P.S. Plug	Brushed Aluminun
	P-60-1 1/4	1¼" N.P.S. Plug	Brushed Brass
	P-60-1 1/4-AL	1¼" N.P.S. Plug	Brushed Aluminun
	P-60-2	2" Dia. Plug	Brushed Brass
	P-60-2-AL	2" Dia. Plug	Brushed Aluminun
Do.	P-60-2 5/8	25/8" Dia. Plug	Brushed Brass
P60 4" Dia.	P-60-2 5/8-AL	25/8" Dia. Plug	Brushed Aluminun
4 Dia.	P-60-1/2-2	½" N.P.S. & 2" Dia. Plugs	Brushed Brass
	P-60-1/2-2-AL	½" N.P.S. & 2" Dia. Plugs	Brushed Aluminun
	P-60-3/4-2	¾" N.P.S. & 2" Dia. Plugs	Brushed Brass
	P-60-3/4-2-AL	3/4" N.P.S. & 2" Dia. Plugs	Brushed Aluminun
	P-60-DU	Two 11/16" Dia. Plugs	Brushed Brass
	P-60-DU-AL	Two 11/16" Dia. Plugs	Brushed Aluminun
	P-60-DS	Two Hinged Lift Lids	Brushed Brass
	P-60-DS-AL	Two Hinged Lift Lids	Brushed Aluminun
	P-60-DR	Single Hinged Lift Lid	Brushed Brass
	P-60-DR-AL	Single Hinged Lift Lid	Brushed Aluminun
	P-60-GFCI	GFCI Hinged Lift Lid	Brushed Brass
	P-60-CACP	One-Piece Carpet Plate with Two	
		Hinged Lift Lids for Duplex	Brushed Brass
P60-	P-60-CACP-AL	One-Piece Carpet Plate with Two Hinged Lift Lids for Duplex	Brushed Aluminun
CACP One-	P-60-CACP-GFCI	One-Piece Carpet Plate with Two GFCI Hinged Lift Lids	Brushed Brass
Piece 5¾" Dia.	P-60-3/4-2-CACP	One-Piece Carpet Plate with 3½ ½" N.P.S. & 2" Dia. Plug	Brushed Brass
	P-60-3/4-2-CACP-AL	One-Piece Carpet Plate with 3/4" & 2" N.P.S. Plugs	_
	P-67-1/2	½" N.P.S. Plug	Brushed Brass
	P-67-3/4	¾" N.P.S. Plug	Brushed Brass
	P-67-3/4-AL	¾" N.P.S. Plug	Brushed Aluminun
	P-67-1	1" N.P.S. Plug	Brushed Brass
	P-67-1AL	1" N.P.S. Plug	Brushed Aluminun
P67	P-67-1 1/4	1¼" N.P.S. Plug	Brushed Brass
3½" Dia.	P-67-2	2" Dia. Plug	Brushed Brass
	P-67-2AL	2" Dia. Plug	Brushed Aluminun
	P-67-1/2-2	½" N.P.S. & 2" Dia. Plugs	Brushed Brass
	P-67-3/4-2	3/" N.P.S. & Dia. Plugs	Brushed Brass

COVER SERIES	COVER CAT. NO.	DESCRIPTION	STANDARD Finish
	P-64-1/2	½" N.P.S. Plug	Polished Brass
	P-64-1/2AL	½" N.P.S. Plug	Brushed Aluminum
	P-64-3/4	¾" N.P.S. Plug	Polished Brass
	P-64-3/4AL	¾" N.P.S. Plug	Brushed Aluminum
	P-64-1	1" N.P.S. Plug	Polished Brass
	P-64-1AL	1" N.P.S. Plug	Brushed Aluminum
	P-64-1 1/4	1¼" N.P.S. Plug	Polished Brass
	P-64-1 1/4AL	1¼" N.P.S. Plug	Brushed Aluminum
P64	2" N.P.S. PLUG	2" N.P.S. Plug	Polished Brass
3" x 4 ½"	2" N.P.S. PLUG	2" N.P.S. Plug	Brushed Aluminum
Rectangular	P-64-1/2-2	½" & 2" N.P.S. Plug	Polished Brass
J	P-64-1/2-2AL	½" & 2" N.P.S. Plug	Brushed Aluminum
	P-64-3/4-2	¾" & 2" N.P.S. Plug	Polished Brass
	P-64-3/4-2AL	¾" & 2" N.P.S. Plug	Brushed Aluminum
	P-64-2-5/8	25/8" N.P.S. Plug	Polished Brass
	P-64-2-5/8AL	2%" N.P.S. Plug	Brushed Aluminum
	P-64-DU	Two 17/6" Dia. Plugs	Polished Brass
	P-64-DUAL	Two 17/6" Dia. Plugs	Brushed Aluminum
	P-64-D8	Two Hinged Lift Lids	Polished Brass
	P-64-GFCI	GFCI Hinged Lift Lid	Polished Brass
P64P	P-64P-BP	Blank Plate	Non-Metallic
Г 0 4 Г	P-64P-URC	Universal Cover	Non-Metallic
	P-90-1/2	½" N.P.S. Plug	Polished Brass
	P-90-1/2 P-90-1/2AL	½" N.P.S. Plug	Brushed Aluminum
	P-90-3/4	¾" N.P.S. Plug	Polished Brass Brushed Aluminum
	P-90-3/4AL	¾" N.P.S. Plug	
	P-90-1	1" N.P.S. Plug	Polished Brass
DOO	P-90-1AL	1" N.P.S. Plug	Brushed Aluminum
P90	P-90-1 1/4	1½" N.P.S. Plug	Polished Brass
2¾" Dia.	P-90-1 1/4AL	1½" N.P.S. Plug	Brushed Aluminum
	P-90-2	2" Dia. Plug	Polished Brass
	P-90-2AL	2" Dia. Plug	Brushed Aluminum
	P-90-1/2-2	½" N.P.S. & 2" Dia. Plugs	Polished Brass
	P-90-1/2-2AL	½" N.P.S. & 2" Dia. Plugs	Brushed Aluminum
	P-90-3/4-2	3/4" N.P.S. & 2" Dia. Plugs	Polished Brass
	P-90-3/4-2AL	3/4" N.P.S. & 2" Dia. Plugs	Brushed Aluminum
	P-68-SRC-GRY	Carpet & Cover Plate for Single Receptacle	Non-Metallic Gray
	P-68-SRC-BRN	Carpet & Cover Plate for Single Receptacle	Non-Metallic Brown
	P-68-SRC-BGE	Carpet & Cover Plate for Single Receptacle	Non-Metallic Beige
	P-68-FSC-GRY	Carpet & Cover Plate with 1" N.P.S. Plug	Non-Metallic Gray
P68 6" Dia.	P-68-FSC-BRN	Carpet & Cover Plate with 1" N.P.S. Plug	Non-Metallic Brown
	P-68-FSC-BGE	Carpet & Cover Plate with 1" N.P.S. Plug	Non-Metallic Beige
	P-68-DRC-GRY	Carpet & Cover Plate for Duplex Receptacle	Non-Metallic Gray
	P-68-DRC-BRN	Carpet & Cover Plate for Duplex Receptacle	Non-Metallic Brown
	P-68-DRC-BGE	Carpet & Cover Plate for Duplex Receptacle	Non-Metallic Beige

Fax: 901.252.1354

Overview

Standard Specification — Flush Floor Boxes

Cast Iron Formed Steel

Considerations when writing specifications:

Floor boxes are manufactured in various sizes, configurations and materials, The specifier should determine the most suitable product for his application. Refer to the T&B floor box catalog and select the appropriate paragraphs listed below. Plans should supply wiring capacity, conduit sizes, adjustability and floor finish. Construction Specifications Institute (CSI) references sections: 16132 Floor Boxes; 16141 Wiring Devices; Part 2-206 Floor Mounted Service Fittings; and 16741 Telephone Raceway Systems, Part 2-201 G Floor Boxes. Section 16132 Floor Boxes is preferable.

PART 2: PRODUCTS

2.01 ACCEPTABLE MANUFACTURERS — FLOOR BOXES

A. Shall be as manufactured by Thomas & Betts, Memphis, TN

2.02 MATERIALS — FLOOR BOXES 2.02.1

A. Shall be cast iron, painted inside and out with weatherproof paint intended for use on metal as indicated on the plans.

2.02.1

B. Shall be formed steel with a zinc plating at least .0005 in. thick on the outside and .00015 in. thick on the inside as indicated on the plans.

2 02 2

A. Construction shall be as required by UL 514A.

2.02.2

B. Carpet or tile frame shall be (brass, aluminum, polycarbonate, nylon).

2.02.2

C. Cover assembly shall protect against the ingress of water or foreign material with a gasket and shall be UL Listed as moptight.

2.03 GENERAL DESIGN — FLOOR BOXES

- A. Shall deliver electric power from receptacles installed at the surface of the floor or from service fittings (Reference 16141 as shown on the plans).
- 640/840 Series shall deliver power and telephone/data cable without interference from electric power delivery (see Section 16741).
- C. Cubic inch capacity shall be as shown on the plans.
- D. Boxes shall accept conduit sizes as required on the plans.
- E. Shall be listed by Underwriters Laboratories.

PART 3: EXECUTION 3.01 GENERAL

A. Locate position for floor boxes and runs of conduit as shown on the plans.

3.01 INSTALLATION

- A. Position floor boxes and conduit runs.
- After concrete pour, pull wires and install devices according to manufacturers recommendations.
- C. Activate in accordance with the National Electrical Code®.
- D. Coordinate with floor covering contractor to complete installation.

Standard Specification — Concealed Service

Service Floor Outlet Multiple Service, Power and Communications

Considerations when writing specifications:

The 664 Concealed Service Floor Box provides both electric power and telephone (data) services from the same device for economy of space and cost, as well as affording a flush delivery (no above floor service fitting). For these reasons, your specification may reference this product in three sections: Floor Boxes, Wiring Devices and Telephone Raceway Systems. Construction Specifications Institute (CSI) references them in: 16132 Floor Boxes; 16141 Wiring Devices; Part 2 — 2.06 Floor Mounted Service Fittings; and 16741 Telephone Raceway Systems, Part 2 — 2.01 G Floor Boxes. Section 16132 Floor Boxes is preferable. For clarification include a reference in 16141, Part 2, 2.06 Floor Mounted Service Fittings as follows: Surface type service fittings are not acceptable.

PART 2: PRODUCTS

2.01 ACCEPTABLE MANUFACTURERS — FLOOR BOXES, MULTIPLE SERVICE

A. Shall be series 664 concealed service floor box as manufactured by Thomas & Betts

2.02 MATERIALS — FLOOR BOXES, MULTIPLE SERVICE.

- A. Shall be electrogalvanized, 14 gauge sheet steel. (Alternate A shall be cast iron).
- B. Construction shall be as required by UL 514A.
- C. Carpet frame shall be nylon UL Recognized Component QMFZ2.
- D. Hinged outer cover shall be reinforced with a ½" steel plate.

2.03 GENERAL DESIGN — FLOOR BOXES, MULTIPLE SERVICE.

- A. Shall deliver electric power from one or two duplex receptacles installed below the surface of the floor
- B. Shall deliver telephone or data cable without interference from the electric power delivery.
- C. Shall protect delivery of both services by a hinged cover with a retractable opening and foam plastomer dust seal.
- D. Hinged cover shall accept carpet or tile to match floor covering and be 180 degrees reversible.
- E. Shall have 90 cubic inch total capacity with 24 cubic inch power chambers.
- F. Shall accept conduit sizes up to 11/4 inches.
- G. Shall afford 18 square inches of access with cover open.
- H. Box shall be listed by Underwriters Laboratories
- When hinged cover is closed and no services in place, device shall have no obstructions above surface of floor.

PART 3: EXECUTION 3.01 GENERAL

A. Locate position for floor boxes and runs of conduit as shown on the plans.

3 02 INSTALLATION

- A. Position floor boxes and conduit runs.
- B. After concrete pour pull wires and install devices according to manufacturer's recommendations.
- C. Activate in accordance with the National Electrical Code®.
- D. Coordinate with floor covering contractor to complete installation.

Standard Specification — Above-Floor Service

Service Floor Outlet Multiple Service, Power and Communications

Considerations when writing specifications: The 664 Concealed Service Floor Box provides both electric power and telephone (data) services from the same device for economy of space and cost, as well as affording a flush delivery (no above floor service fitting). For these reasons, your specification may reference this product in three sections: Floor Boxes, Wiring Devices and Telephone Raceway Systems. Construction Specifications Institute (CSI) references them in: 16132 Floor Boxes; 16141 Wiring Devices; Part 2 — 2.06 Floor Mounted Service Fittings; and 16741 Telephone Raceway Systems, Part 2 — 2.01 G Floor Boxes. Section 16132 Floor Boxes is preferable. For clarification include a reference in 16141, Part 2, 2.06 Floor Mounted Service Fittings as follows: Surface type service fittings are not acceptable.

PART 2: PRODUCTS

2.01 ACCEPTABLE MANUFACTURERS — FLOOR BOXES, MULTIPLE SERVICE

A. Shall be series 664 concealed service floor box as manufactured by Thomas & Betts.

2.02 MATERIALS — FLOOR BOXES, MULTIPLE SERVICE.

- A. Shall be electrogalvanized, 14 gauge sheet steel. (Alternate A shall be cast iron).
- B. Construction shall be as required by UL 514A
- C. Carpet frame shall be nylon UL Recognized Component QMFZ2.
- D. Hinged outer cover shall be reinforced with a % " steel plate

2.03 GENERAL DESIGN — FLOOR BOXES, MULTIPLE SERVICE.

- A. Shall deliver electric power from one or two duplex receptacles installed below the surface of the floor.
- B. Shall deliver telephone or data cable without interference from the electric power delivery.
- Shall protect delivery of both services by a hinged cover with a retractable opening and foam plastomer dust seal.
- D. Hinged cover shall accept carpet or tile to match floor covering and be 180 degrees reversible
- E. Shall have 90 cubic inch total capacity with 24 cubic inch power chambers.
- F. Shall accept conduit sizes up to 11/4 inches
- G. Shall afford 18 square inches of access with cover open.
- H. Box shall be listed by Underwriters Laboratories.
- When hinged cover is closed and no services in place, device shall have no obstructions above surface of floor.

PART 3: EXECUTION 3.01 GENERAL

A. Locate position for floor boxes and runs of conduit as shown on the plans.

3.02 INSTALLATION

- A. Position floor boxes and conduit runs.
- B. After concrete pour pull wires and install devices according to manufacturer's recommendations.
- C. Activate in accordance with the National Electrical Code®
- D. Coordinate with floor covering contractor to complete installation.

NEC and National Electrical Code are registered trademarks of the National Fire Protection Association, Inc.



Tel: 888.862.3289



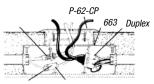
Recessed Service Floor Boxes

663-SC Floor Box

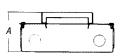
- Multiple service floor box that delivers power, communications and data from standard conduit with no exposed service fittings
- Result: Open office planning flexibility
- Ideal for workstations that require power, communications and data service
- Stamped steel, concrete-tight, semi-adjustable

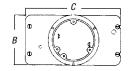
- Electro-galvanized body and hardware
- Shipped complete with expendable cap to prevent ingress of concrete
- Blank- and duplex-face plates can be mounted at either end of the box
- · Does not include duplex faceplate; faceplate is included with P-62-CP and P-60-3B cover plates
- Uses P-62 and P-60 Series covers*





Communications Connector





Engineering Data for 663 Series Floor Box

	DIMENSIONS (IN.)		BEFORE POUR	AFTER POUR	MAXIMUM CAPACITY	CONDU	IT KOS	
CAT. NO.	Α				ADJ.	(CU. IN.)	SIDES	воттом
663-SC	35/8	411/16	813/16	None	3/4"	25 per gang	(2) 1-11/4"	None
						90 Total	(4) 3/4"	



*P-62-TAR is required when using P-60 series covers.

Caution: To abandon 663 you must use a P-60 series brass cover plate.

P-60* Series

Covers, Carpet Plates and Adjusting Rings for 663 Series

P-60-3B

- · Polished brass finish with non-metallic bronze insert
- Plastic insert has one ¾" cutout and two 1/2" cutouts
- · Furnished complete with sealing gasket, 8-32 x 1/16" brass screws and one P-60-Q device plate
- Split cover sections have access notch for screwdriver lift



P-60-3B

P-60-CP

- Polished-brass finish
- P-62-TAR is required when used on 663 floor box



P-60-CP

(ĥľ

P-62-	·CP
-------	-----

- · High-strength polycarbonate
- Furnished with one %" cutout and two 1/2" cutouts and P-60-Q device plate
- 5½" outside diameter



P-62-TAR

- Gives ¾" adjustment when mounted on 663 Floor Box
- Accepts P-60-3B,P-60-CP and all P-60 Series cover plates



P-62-TAR

• 511/16" outside diameter

CAT. NO.	DESCRIPTION	STD. CTN.
P-60-3B*1	Brass Cover Plate — Includes 1 P60Q	4
P-62-CP-AS*2	Polycarbonate Cover and Carpet Plate (charcoal) — Includes 1 P60Q	4
P-62-CP-BRN*	Polycarbonate Cover and Carpet Plate (brown) — Includes 1 P60Q	4
P-62-CP-G*2	Polycarbonate Cover and Carpet Plate (gold) — Includes 1 P60Q	4
P-60-CP	Carpet Plate (polished brass)	4
P-60-CP-AL	Carpet Plate (aluminum)	4
P-62-TAR	Flange and Adjusting Ring for 663 Box (brass)	4
P-62-TAR-AL	Flange and Adjusting Ring for 663 Box (aluminum)	4
P-60-Q	Duplex Receptacle Plate for 663 Floor Box	4
P-60-QB	Blank Plate for 663 Floor Box	4
P-60-Q-GFCI	GFCI Plate for 663 Floor Box	4

- * For use as cover only when box is in service.
- 1 When not in use, replace P-60-3B Grommet with 697 Plug
- When not in use, the P-62-CP Series Cover should be replaced by P-60-CP, P-60 and P-62 TAR Series Covers.

Caution: These covers are not to be used in high traffic areas

For communications accessories, see page A-140.



Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354





Thomas@Betts



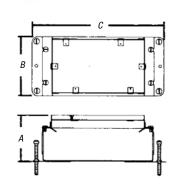
Recessed Service Floor Boxes

Multiple-Service Floor Boxes for Power, Communications and Data: 664 Series

Multiple-service floor boxes deliver power, communications and data from standard conduit with no exposed service fittings. Result: Open office planning flexibility. Ideal for the modern office with workstations that have power, communications and data equipment. Power receptacles and low-voltage connections can be enclosed underfloor in either steel or cast-iron bodies. Galvanized 14-gauge steel boxes are provided with knockouts from %" to 1½" (see engineering data). Cast-iron bodies have threaded openings for ¾" and 1" conduit.

- Two-compartment box is available in three configurations: stamped steel (664-SC), shallow (664-S) and cast iron (664-Cl)
- Durable non-metallic covers include a steel reinforcement plate for added strength
- NEW! Metallic covers in solid brass and aluminum provide aesthetics and durability
- Four leveling screws enable quick leveling to desired concrete depth
- Cover flange self-levels with the finished floor for easy installation







664-SC Stamped-Steel Box which Accepts Two Plates, One Duplex Plate Provided	1
Two Flates, One Duplex Flate Florided	4
664-CI Cast-Iron Box which Accepts Two Plates, One Duplex Plate Provided	1
664-S Shallow Stamped-Steel Box which Accepts Two Plates, One Duplex Plate Provided	4

Note: When ordering a 664 Series box, the cover must be ordered separately. See **page A-131**.

For communications accessories, see page A-140.

Engineering Data for 664 Series



	DI	MENSION	S (IN.)	BEFORE POUR	AFTER POUR	MAXIMUM CAPACITY		CONDU	IIT KOS	
CAT. NO.	A	В	С	ADJ. (IN.)	ADJ. (IN.)	(CU. IN.)	CONDUIT HUBS	SIDES	воттом	COVERS
664-SC	3¾	411/16	101/4	21/2	3/4	24 per gang, 90 total	_	(4) 1"-1½" (4) ¾"	None	664-CST Series
664-CI	3¾	53/32	915/16	21/2	3/4	24 per gang, 90 total	(4) ¾" (4) 1"	_	_	664-CST Series
664-S	21//8	411/16	101/4	1½	3/4	16.5 per gang, 70 total	_	(6) 3/4"	None	664-CST Series

CAUTION: When using the center side KOs, Cat. No. 664-RP must be assembled to the box prior to installing the conduit.



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services**

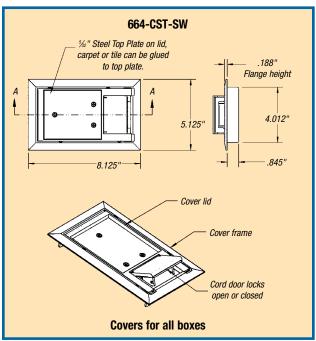






Recessed Service Floor Boxes

Non-Metallic Covers for 664 Series Floor Boxes

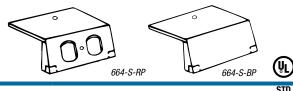


MopTite® covers meet UL scrubwater exclusion requirements for carpet, tile and wood.



			STD.
CAT. NO.	DESCRIPTION	LOAD RATING	CTN.
664-CST-SW-GRY	Gray Cover	1,500 lbs.	1
664-CST-SW-BRN	Brown Cover	1,500 lbs.	1
664-CST-SW-BGE	Beige Cover	1,500 lbs.	1
664-CST-SW-BLK	Black Cover	1,500 lbs.	1
Material: Polycarbonate with	h 5/32" steel plate.		

Device Plates — 664-S



CAT. NO.	DESCRIPTION	STD. CTN.
664-S-RP	Blank Plate for Use with 664-S Floor Box	4
664-S-BP	Blank Plate for Use with 664-S Floor Box	4

Wire Tunnel for 664 Series

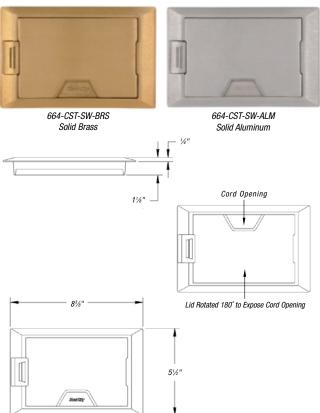
664-S-WT

 Wire tunnel for protecting electrical connections between the two duplex receptacles when the box is used for power/power application





Metallic Covers for 664 Series Floor Boxes



MopTite® covers meet UL scrubwater exclusion requirements for carpet, tile and wood.

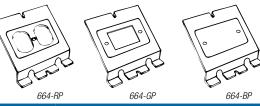


(ÅF)

CAT. NO.	DESCRIPTION	LOAD Rating	STD . CTN.
664-CST-SW-BRS	Solid Brass Cover for 664 Series Floor Boxes	2,250 lbs.	1
664-CST-SW-ALM	Solid Aluminum Cover for 664 Series Floor Boxes	2,250 lbs.	1

Device Plates — 664-SC & 664-Cl

- Duplex receptacle face plate for 664 Series floor box for additional power service
- Does not include duplex receptacle. Can be placed at either end of floor box



		STD.
CAT. NO.	DESCRIPTION	CTN.
664-RP	For Use with 664 and 664-CI Floor Boxes	4
664-BP	Blank Plate for Use with 664 & 664-CI Floor Boxes	4
664-GP	GFCI Receptacle Plate	4
CAUTION: Who	en using the center side KOs, all 664 plates must be assembled	to the box
prior to inetalling	na tha canduit	



For Use with 664-S Floor Box

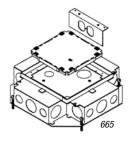


www.aboveboardelectronics.com

Recessed Service Floor Boxes

665 Series Floor Boxes: 665-SC





- Four (4) device compartments can accommodate any combination of devices. For example: (3) duplex power devices and (1) duplex telephone device, or (2) voice and data connectors and (1) GFCI device and (1) blank, etc.
- Overall height of 3½" allows for shallow pours when needed
- High-strength polycarbonate cover with a ⁵/₃₂" steel plate assures structural integrity
- Metallic Covers also available in solid brass and aluminum
- Four-side feed-through allows installer to feed through power or data/comm service from any orientation
- Non-metallic wire tunnels aesthetically clean. Fullwidth tunnel provides maximum feed-through capacity; non-metallic material prevents conductor damage
- Total access area of 126 cu. in. allows for friendly installation of workstation cables
- Contains 28 knockouts (16–1½" and 12¾" KOs) that provide increased flexibility when installed
- The 665 line is an extension of the industry-leading 664 Series; our concealed service line now allows the customer to install up to four device panels in one box
- Through the use of a unique non-metallic wire tunnel, the installer can easily partition the power, voice/data requirements
- This UL Listed, stamped-steel floor box can be installed with Thomas & Betts voice and data connector products
- Four 2½" levelling screws provided with all boxes
- Device panels ordered separately



DEVICE COMPARTMENTS (IN.) CAT. NO. DESCRIPTION LENGTH WIDTH HEIGHT AREA ARFA 665-SC Stamped Steel Box $2^{3}/_{4}$ 2½ 40 cu. in. 126 cu. in.

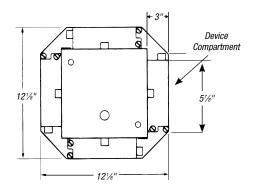
665-SC floor box does not include device plates or covers. Order separately (see page A-135).

Material: Pre-Galvanized Steel.

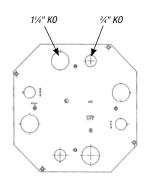
A-132

For communication accessories, see page A-140.

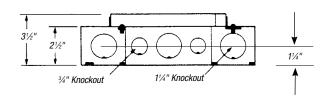




Top View



Bottom Plate





United States

Tel: 901.252.8000 800.816.7809

Technical Services Tel: 888.862.3289





www.tnb.com



Recessed Service Floor Boxes

Cast Iron for Slab-On-Grade Applications

665 Series Floor Boxes: 665-Cl

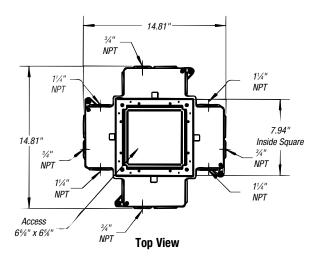
The new Steel City® 665 Cast Iron Floor Box provides a high-capacity power and data solution for ground-floor installations. This 4-gang recessed-service floor box is ideal for slab-on-grade applications. Removable voltage dividers enable users to customize wiring configurations by feeding two or more adjacent compartments with a single conduit. Aesthetic covers feature a recess to accept floor covering to match the surrounding floor.

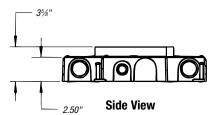
- 4-gang, recessed service for a high-capacity aesthetic floor-box solution
- Removable voltage dividers between compartments enable a single conduit to feed two or more adjacent compartments
- Heavy-duty, non-metallic covers with steel-reinforcement plates are available in a wide variety of colors to match any decor (black, gray, brown and beige)
- Metallic Covers
- Separate cord door in the cover latches firmly in the open position to prevent damage to cables
- MopTite® covers meet UL scrubwater exclusion requirements for carpet, tile and wood
- Largest cubic-inch capacity of any cast iron recessed 4-gang floor box
- Inline 1½" hubs allow high-capacity straight runs for communicator wiring

...... Specifications

- Material: Box Cast Iron
 Cast Iron
 - Cover Polycarbonate with steel reinforcement plate
- Listing: UL and CSA Listed











	DEVICE COMPARTMENTS (IN.)			- DEVICE ACCESS	STD.		
CAT. NO.	DESCRIPTION	LENGTH	WIDTH	HEIGHT	AREA	AREA	CTN.
665-CI	Cast Iron Box	53/4	31/2	21/4	45 cu in	126 cu in	1

665-Cl floor box does not include device plates or cover. Order separately. (See **page A-135**) Material: Pre-Galvanized Steel.

For communications accessories, see page A-140.







Thomas@Betts

Recessed Service Floor Boxes

2" KOs for Audio Visual Applications

665 Series Floor Boxes: 665-AV2

- 2" KOs enable pre-terminated AV cables and connectors to be pulled directly through the conduit
- Accepts standard 665 Series covers and device plates for power, voice, data and audio visual connections
- NEW! Rectangular adapters allow voice, data and AV connectors to be mounted in a standard GFCI device plate
- NEW! Keystone style voice, data and AV connectors meet a wide range of low-voltage applications. All connectors are recessed for flush mounting in floor box applications
- NEW! Device plates are available that accept Extron® MAAP plates to accommodate any AV requirements (Extron® MAAP plates purchased from an authorized Extron distributor)
- NEW! Metallic covers provide a durable, aesthetic installation, including industry-exclusive solid brass covers (not painted or plated), aluminum also available



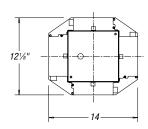
Rectangular adapters and Keystone Inserts for GFCI Device Plates (see page A-140)

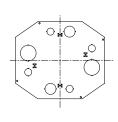
CAT. NO. DESCRIPTION STD. CTN.

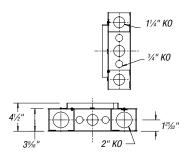
665-AV2 4-Compartment Recessed Service Floor Box with 2" KOs for AV Applications 1

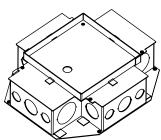
665-AV2 floor box does not include device plates or cover. Order separately. (See **page A-135**) Extron® is a registered trademark of RGB Systems, Inc. For communication accessories, see **page A-140**

Engineering Information









665-AV2 Floor Box Engineering Data

	BEFORE POUR	AFTER POUR	LENGTH _	COMPARTME	NT SIZE & CAPACITY	(QTY = 4)	CONDUIT I	(OS (IN.)
CAT. NO.	ADJ. (IN.)	ADJ. (IN.)	(IN.)	WIDTH (IN.)	HEIGHT (IN.)	VOLUME	SIDES	воттом
665-AV2	2½	3/4	(2) 53/4	3¾	3%	72 cu. in.	(4) 2	(2) 2
			(2) 5¾	2¾	3%	52 cu. in.	(8) 11/4	(2) 11/4
							(8) 3/4	(4) 3/4



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services** Tel: 888.862.3289



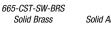




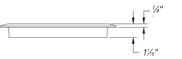
Recessed Service Floor Boxes

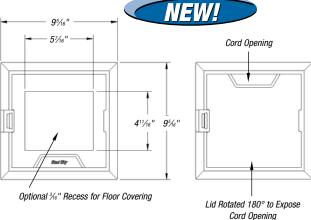
Metallic Covers for 665 Series Floor Boxes





665-CST-SWR-ALM Solid Aluminum with Recess for Floor Covering



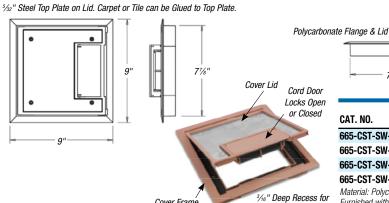


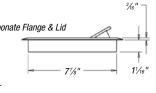
180°	Ю	EXP	ose	
0pen	ing	1		

(ÅF)
STD.	
CTN	

CAT. NO.	DESCRIPTION	LOAD Rating (LBS.)	STD. CTN.
665-CST-SW-BRS	Solid Brass Cover for 665 Series Floor Boxes	1,500	1
665-CST-SWR-BRS	Solid Brass Cover with Recess for Floor Covering, 665 Series	1,500	1
665-CST-SW-ALM	Solid Aluminum Cover for 665 Series Floor Boxes	1,500	1
665-CST-SWR-ALM	Solid Aluminum Cover with Recess for Floor Covering, 665 Series	1,500	1

Non-Metallic Covers for 665 Series Floor Boxes







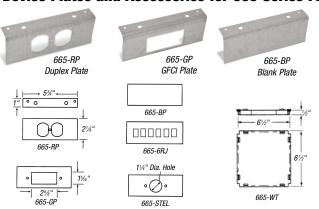
665-CST-SW-BLK Black Non-Metallic Cover



CAT. NO.	DESCRIPTION		LOAD Rating	STD. CTN.
665-CST-SW-BLK	Non-Metallic Cover for 665 Series Floor	Boxes, Black	750 lbs.	1
665-CST-SW-GRY	Non-Metallic Cover for 665 Series Floor	Boxes, Gray	750 lbs.	1
665-CST-SW-BGE	Non-Metallic Cover for 665 Series Floor	Boxes, Beige	750 lbs.	1
	Non-Metallic Cover for 665 Series Floor	Boxes, Brown	750 lbs.	1
	nte with 5⁄32" steel plate. -32 x 5⁄4" mounting screws.			

665-WT

Device Plates and Accessories for 665 Series Floor Boxes





Wire Tunnel feeds multiple compartments from a single conduit (one included with each 665-AV2 and 665-SC) Keystone Jacks

Contact T&B Technical Service for Color Chip samples.

	-	
9		3
7	10 700	

CAT. NO.	DESCRIPTION	STD. CTN.
665-RP	Duplex Plate for 665 Series Floor Boxes	4
665-GP	GFCI Plate for 665 Series Floor Boxes	4
665-BP	Blank Plate for 665 Series Floor Boxes	4
665-6RJ	Data Plate for 665 Series Floor Boxes, Accepts 6 Keystone Jacks	4
665-STEL	Telephone Data Plate for 665 Series Floor Boxes	4
665-WT Each box requires	Replacement Wire Tunnel for 665-SC & 665-AV2 Floor Boxes (4) device plates. Material: Pre-galvanized steel.	4



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354

Technical Services Tel: 888.862.3289





Recessed Service Floor Boxes

668-S Ultra-Shallow Floor Box

The new 668-S Ultra-Shallow Floor Box from Thomas & Betts provides a high-capacity power and data solution for shallow concrete floors. The low-profile 4-gang box is constructed of galvanized stamped steel. Removable voltage dividers enable users to customize wiring configurations by feeding two or more adjacent compartments with a single conduit. Metallic covers with durable powder-coat finish are designed to match any decor, while optional trim rings enable covers to be mounted completely flush with the floor in tile or wood floor applications.

- Low profile (2½" height) for shallow concrete pours
- 4-gang, recessed service for a high-capacity, aesthetic floor box solution
- Stamped-steel box construction
- Removable voltage dividers between compartments enable a single conduit to feed two or more adjacent compartments
- Metallic covers feature durable powder-coat paint to match any decor (black, gray, brown and beige)
- Heavy-duty cord door in the cover latches firmly in the open position to prevent damage to cables
- Optional tile trim enables flush mounting for tile and wood floor applications
- MopTite® covers meet UL scrubwater exclusion requirements for carpet, tile and wood
- Largest cubic-inch capacity of any shallow, recessed 4-gang floor box
- Additional KOs (up to 2") on the bottom of the box enable installation flexibility
- Custom device panels are available contact technical service about these offerings

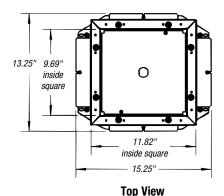
..... Specifications

- Material: Box Galvanized Steel; Cover Die-Cast Zinc
- · Listing: UL and CSA Listed

		(ÅF)
CAT. NO.	DESCRIPTION	STD. CTN.
668-S	Shallow, Concealed Service Floor Box	1

For covers and device plates, see **page A-137**.
For communications accessories, see **page A-140**

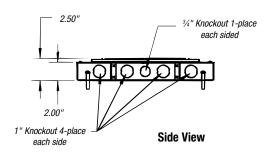




55 cu. in. compartment 2-places 41 cu. in. compartment 2-places Ground screw in each compartment Removable voltage divider 4-places 2 to 11/2" 1" Knockout 3/4" Knockout Knockout 2-places on bottom 4-places 2-places on bottom on bottom

Top View — Compartment Layout

Note: Shown with Top Plate Removed





United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354









(ÎL)

Recessed Service Floor Boxes

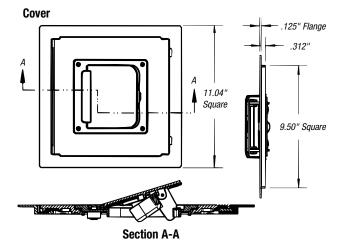
Covers and Tile Trims for 668-S Floor Box



Standard mounting configuration: Flange on cover overlaps carpet, tile or wood floors.



Flush mounting configuration: Optional trim ring allows cover to be mounted flush



	11.63" Square
Trim Rings	

		9
CAT. NO.	DESCRIPTION	STD. CTN.
668-CST-ALM	668-S Metal Cover — Aluminum Powder Coat	1
668-CST-BRS	668-S Metal Cover — Brass Powder Coat	1
668-CST-BLK	668-S Metal Cover — Black Powder Coat	1
668-CST-BRN	668-S Metal Cover — Brown Powder Coat	1
668- CST-BGE	668-S Metal Cover — Beige Powder Coat	1
668-TRIM-ALM	668-S Trim Ring — Aluminum Powder Coat	4
668-TRIM-BRS	668-S Trim Ring — Brass Powder Coat	4
668-TRIM-BLK	668-S Trim Ring — Black Powder Coat	4
668-TRIM-BRN	668-S Trim Ring — Brown Powder Coat	4
668-TRIM-BGE	668-S Trim Ring — Beige Powder Coat	4

Contact Technical Service for color samples.

Device Plates for 668-S Floor Box

		OTD
CAT. NO.	DESCRIPTION	STD. CTN.
668-S-1RP	668-S Single-Gang Duplex Plate	1
668-S-1G	668-S Single-Gang GFCI Plate	1
668-S-BP	668-S Blank Plate	1

CAT. NO.	DESCRIPTION	STD. CTN.
668-S-6RJ	668-S Data Plate — 6 Keystone Jacks	1
668-S-6PAN	668-S Data Plate — 6 Panduit® Jacks	1
668-S-60RT	668-S Data Plate — 6 Ortonics® Jacks	4
668-S-6AVA	668-S Data Plate — 6 Avaya® Jacks	4



United States Tel: 901.252.8000

800.816.7809 Fax: 901.252.1354









Recessed Service Floor Boxes

667-SC Floor Box

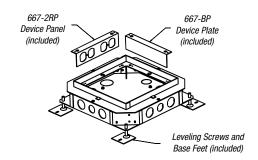
- Largest capacity concealed-service floor box on the market
 - Four "double-gangs" allow for two duplex receptacles per gang, for a total of eight receptacles per box
 - Each gang has 40 cu. in. of capacity
 - Box interior has 128 cu. in. of capacity
- Standard box configuration is for up to eight power and/or low-voltage devices
 - Box design allows for feed-through cabling for power and low-voltage conductors
- Shallow design
 - 3" overall height is ideal for renovations and upper level floor installations
- · Full line of low-profile covers
 - Utilizes same quality cover as AFM-8 Access Floor Module
 - High-strength polycarbonate
 - Steel reinforced for added durability
 - Two retractable cable exit ports
 - 64 sq. in. opening provides easy access to device panels
 - 1/4" recess for carpet/tile insert
 - Available in gray, black, brown and beige
- Box is manufactured with (1) ¾", (3) 1" and (1) 1¼" KOs per gang
 - This includes a 1" and 11/4" KO located in the bottom
- Full complement of device panels
 - Device panels available with one or two duplex openings, one or two GFI openings, six standard "keystone" with Omni 110 bezels and blanks
- Provided with leveling legs and base feet
 - Base feet can be attached to form preventing box movement during concrete pour
 - Leveling legs provide up to 1½" pre-pour adjustment
- Manufactured from 14-gauge pre-galvanized steel
 - Quality construction provides added durability and rust protection
- MopTite® covers meet UL® scrubwater exclusion requirements for carpet, tile and wood

		_
		STD.
CAT. NO.	DESCRIPTION	CTN.
667-SC	Four-Gang Recessed Floor Box	1

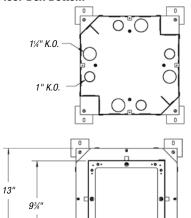
Supplied with (1) 667-2RP for 2 duplex receptacles and (1) 667-BP Blank Plate. For covers and other device plates, see page A-139.

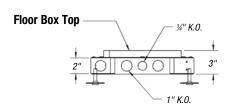
For communications accessories, see page A-140.





Floor Box Bottom







United States Tel: 901.252.8000

800.816.7809 Fax: 901.252.1354



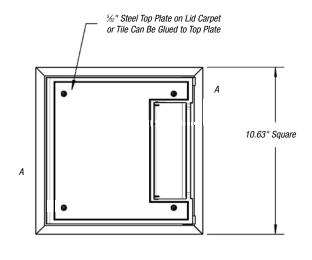


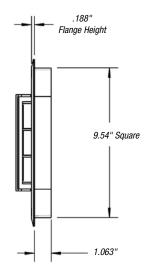




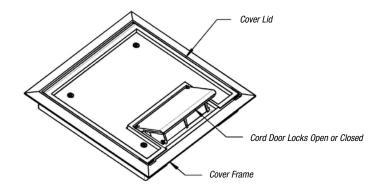
Recessed Service Floor Boxes

Covers and Device Plates for 667-SC

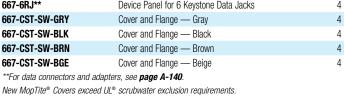


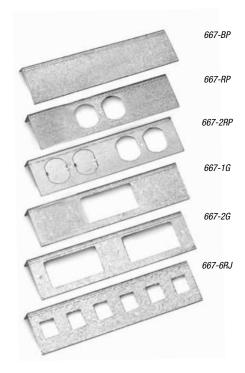


667-CST-SW-XXX



		(h)
CAT. NO.	DESCRIPTION	STD. CTN.
667-BP*	Blank Device Panel	4
667-RP	Single Duplex Receptacle Plate	4
667-2RP*	Device Panel for 2 Duplex Receptacles with Duplex KOs	4
667-1G	Device Panel for 1 GFCI Receptacle	4
667-2G	Device Panel for 2 GFCI Receptacles	4
667-6RJ**	Device Panel for 6 Keystone Data Jacks	4
667-CST-SW-GRY	Cover and Flange — Gray	4
667-CST-SW-BLK	Cover and Flange — Black	4
667-CST-SW-BRN	Cover and Flange — Brown	4
667-CST-SW-BGE	Cover and Flange — Beige	4
**For data connectors and ada	pters, see page A-140 .	





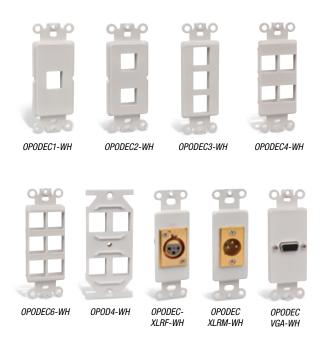




Recessed Service Floor Boxes

Communication Accessories

Rectangular/Duplex Adapters



Rectangular/Duplex Adapters for Use with Standard Floor Box Device Plates

CAT. NO.	DESCRIPTION	STD. CTN.
OPODEC1-WH	Rectangular Adapters for GFCI Device Plate, 1-Port, Keystone, White	5
OPODEC2-WH	Rectangular Adapters for GFCI Device Plate, 2-Port, Keystone, White	5
OPODEC3-WH	Rectangular Adapters for GFCI Device Plate, 3-Port, Keystone, White	5
OPODEC4-WH	Rectangular Adapters for GFCI Device Plate, 4-Port, Keystone, White	5
OPODEC6-WH	Rectangular Adapters for GFCI Device Plate, 6-Port, Keystone, White	5
OPOD4-WH	Duplex Adapter, 4-Port, Keystone, White	10
OPODEC- XLRF-WH	Rectangular Adapters, Female XLR Microphone Jack, Solder Leads, White	5
OPODEC- XLRM-WH	Rectangular Adapters, Male XLR Microphone Jack, Solder Leads, White	5
OPODEC- VGA-WH	Rectangular Adapters, VGA Connector, Female-to-Female, White	5

Keystone Inserts



Keystone Inserts for Data, Voice and Audio Visual Applications

CAT. NO.	DESCRIPTION	STD. CTN.
OPJDU5EL-WH	CAT5e Data Jack, Keystone, White	5
OPJDU6L-WH	CAT6 Data Jack, Keystone, White	5
OPJV6CL-WH	Phone Jack, 6-Conductor, Keystone, White	5
OPA35-WH*	3.5mm Stereo Connector, Recessed, Keystone, Female-to-Female, White	5
OPARCAW*	RCA Connector — White, Recessed, Keystone, Female-to-Female	5
OPARCAR*	RCA Connector — Red, Recessed, Keystone, Female-to-Female	5
OPARCAY*	RCA Connector — Yellow, Recessed, Keystone, Female-to-Female	5
OPAFR*	F-Connector, Recessed, Keystone, 1 GHz, Female-to-Female, Red	5
OPAS-WH	S-Video Connector, 4-Pin, Recessed, Keystone, Female-to-Female, White	5
OPAHDMI-WH	HDMI Connector, Recessed, Keystone, Female-to-Female, White	5
OPAB-WH	Blank Insert, Keystone, White	25

*Special Installation Note: When using these AV connectors with OPODEC4-WH & OPODEC6-WH Rectangular Adapters, only a Blank Insert (OPABL-WH) can be used in the same horizontal row.

Trim the ears off one side of the Blank Insert and install prior to installing the AV connector in the row.



Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354







Recessed Service Floor Boxes

68R Recessed Covers

Plug in power and communication cords, and then close the lid to hide unsightly plugs and receptacles below the floor!

- Unique cover provides aesthetic recessed service with cost-effective box options for concrete, wood sub-floor and raised-floor applications
- Lid can be rotated to expose a small opening for cords, enabling the lid to close flush with the floor while in use
- Cover accepts one duplex or GFCI receptacle
 no special device plates required (receptacle
 purchased separately)
- Cover accepts up to two communications jacks includes one 2-port keystone data plate and one blank data plate for custom cut-outs or power-only applications (communications jacks purchased separately)
- Non-metallic covers are available in black, gray, beige and brown. Black covers are available with an optional brass or aluminum flange
- Two set screws lock the cover in place no gluing required



Use a Steel City® Round PVC Floor Box, catalog number 68-P (purchased separately) See page A-150



Use an appropriate Steel City®
3" x 2" Metal Switch Box
with mounting ears
(purchased separately).
See pages A-19–22





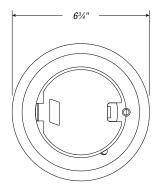
Concrete applications

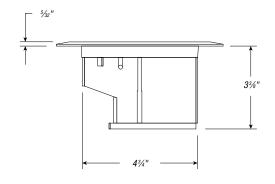


Wood sub-floor/raised floor applications



Lid closes flush with the floor, even with cords plugged in.







Recessed Service Floor Boxes

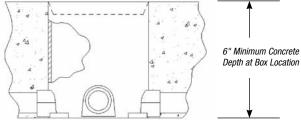
68R Recessed Covers (continued)

Cover kit includes:

- Cover assembly
- · Receptacle mounting plate
- Duplex receptacle insert
- 2-port keystone data plate
- · Blank data plate
- · Voltage divider



Technical Information



Important Application Note:

When using the 68R Recessed Cover with the 68-P floor box for concrete applications, the entire box depth (6") is required. Prior to concrete pour, level the top of the box with the screed line of the concrete.

CAT. NO.	DESCRIPTION	STD. CTN.
68R-CST-BLK		
00H-091-DLK	Non-Metallic Recessed Floor Box Cover Kit, Black	4
68R-CST-GRY	Non-Metallic Recessed Floor Box Cover Kit, Gray	4
68R-CST-BGE	Non-Metallic Recessed Floor Box Cover Kit, Beige	4
68R-CST-BRN	Non-Metallic Recessed Floor Box Cover Kit, Brown	4
68R-CST-BRS	Non-Metallic Recessed Floor Box Cover Kit, Black with Brass Flange	4
68R-CST-ALM	Non-Metallic Recessed Floor Box Cover Kit, Black with Aluminum Flange	4
68-P	Round PVC Floor Box for Concrete Applications	8
CXWOW	3" x 2" Metal Switch Box, 31/2" Deep, for Non-Metallic Sheathed Cable, Wood Subfloors	25
CY 1/2	3" x 2" Metal Switch Box, 3½" Deep, ½" KOs	25



Power and Communications



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services**







Innovative 3-Gang Round Floor Box for Power, Data and AV.

Round Floor Boxes for Power and Communications:

68-HP Series



Unmatched Flexibility to configure any combination of power and communications devices

- Accepts standard devices from any manufacturer, including duplex, GFCI, locking, hospital grade or isolated ground receptacles
- Accommodates a wide variety of multi-media devices through the use of rectangular adapters

Combines the Capacity of a 3-gang box with the Affordability of a round non-metallic floor box

- 6" diameter round non-metallic floor box — the largest in the industry
- Large inline hubs for power and data wiring: 1" for power, 1½" for data













No leveling, gluing or aligning for an **Easy Installation**

- No wasted time leveling the box before the concrete is poured — simply cut the box at the appropriate height after the pour
- No gluing stainless steel retention barbs secure the mounting frame to the box
- Round design no need to align the box with walls during installation



Stainless Steel Barbs

Easy-to-Use Covers Made of **Durable** solid brass and aluminum

 Stands up to heavy carts, cleaning equipment, and general floor traffic

 Convenient slide latch provides tool-less access to devices

 Lid lies flat while in use to minimize obstructions above floor level



Furniture-Feed and Cast Iron options for a Comprehensive floor box solution

- Dual-voltage furniture-feed covers transition power and communications wiring from the floor into modular furniture
- Cast iron box with a non-metallic collar for slab-on-grade or metallic conduit applications









Slide Latch for Tool-less Access

Flush Service Floor Boxes

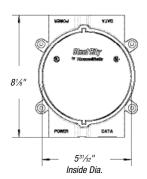
68-HP Floor Boxes (continued)

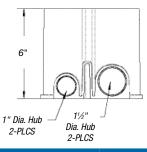


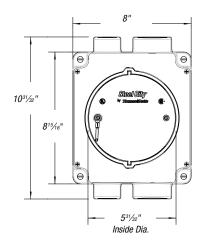
68-HP 6" Round Non-Metallic Floor Box

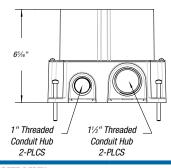












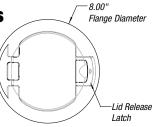




	_	MINIMUM C	_	
CAT. NO.	DESCRIPTION	FLUSH	FURNITURE FEED	STANDARD PACK QTY.
68-HP	6" Round Non-Metallic Floor Box	4"	3½"	4
68-HP-CI	Cast Iron Floor Box with 6" Round Non-Metallic Collar	41/2"	4"	1

Flush Covers for 68-HP Series

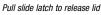
- · Slide latch for tool-less access to devices
- · Lid lies flat when box is in use
- Requires Flush Mounting Kit (Cat. No. 68-HP-FMK) to mount cover (see page A-145)



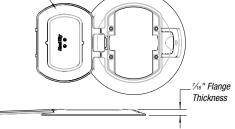


68-HP-FC-ALM Solid brass cover with brushed finish











CAT. NO.	DESCRIPTION	STD. PACK QTY.
68-HP-FC-ALM	Flush Cover — Solid Aluminum with Brushed Finish, 1,000 lb. Load Rating	4
68-HP-FC-BRS	Flush Cover — Solid Brass with Brushed Finish, 1,500 lb. Load Rating	4
68-HP-FC-BLK	Flush Cover — Solid Aluminum with Black Powder-Coated Finish, 1,000 lb. Load Rating	4

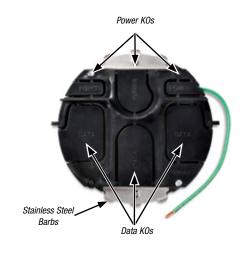


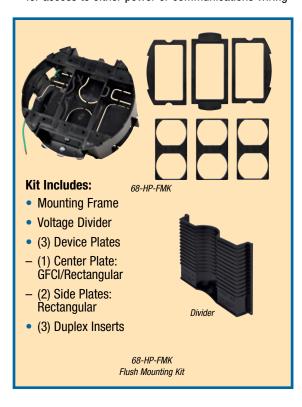


www.tnb.com

Flush Mounting Kit and Accessories for 68-HP Series

- Flush Mounting Kit required in order to mount devices and covers to the 68-HP Series floor box
- Stainless steel barbs no gluing required
- Includes (3) compartments for standard devices
- Voltage dividers allow any combination of power and communications devices
- · Each compartment includes (1) knockout for power and (1) knockout for data for access to either power or communications wiring





Optional Accessories

Device Plates





68-HP-DPC-R



68-HP-DPC-2MAAP



Regular Inserts

68-HP-DPS-DEC



68-HP-BI

68-HP-DPC-GFCI

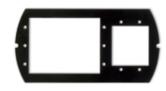


68-HP-DI



OPODEC6-WH**

Extron® AV Plate



68-HP-DPAV-EXT (Low Voltage Only)



CAT. NO.	DESCRIPTION	STD. PACK QTY.
		31D. 1 AUR Q11.
68-HP-FMK	Mounting Kit for Flush Covers	4
68-HP-DPC-GFCI	Center Device Plate — GFCI/Rectangular Receptacle	10
68-HP-DPS-DEC	Side Device Plate — Rectangular Receptacle	10
68-HP-DPC-R	Center Device Plate — Single Round Receptacle, 15/8" Opening	10
68-HP-DPC-2MAAP	Center Device Plate — 2 Extron® MAAP Plates*	10
68-HP-DPS-2MAAP	Side Device Plate — 2 Extron® MAAP Plates*	10
68-HP-BI	Rectangular Insert — Blank (for unused compartments)	10
68-HP-DI	Rectangular Insert — Duplex Receptacle	10
OPODEC6-WH	Rectangular Adapter for GFCI/Rectangular Device Plate — 6-Port Data, Keystone, White**	5
68-HP-DPAV-EXT	Extron® AV Plate — 3 AAP Plates, 2 MAAP Plates*	1

^{*} Extron® MAAP Plates purchased from an authorized Extron® distributor. Extron® is a registered trademark of RGB Systems, Incorporated.

^{**} Additional rectangular adapters available for low voltage applications — see Communications Accessories on page A-140.







Flush Service Floor Boxes

Furniture Feed Covers and Mounting Kit for 68-HP Series

- · Dual-voltage covers for feeding power and communications wiring to modular furniture
- Furniture Feed Mounting Kit required to mount covers to 68-HP Series floor box



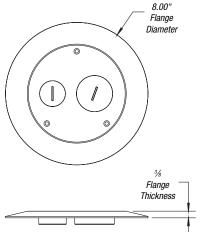
68-HP-FFC-ALM Solid brass cover with brushed finish

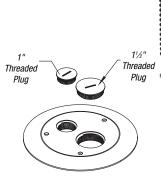


68-HP-FFC-BRS Aluminum cover with brushed finish



68-HP-FFC-BLK Aluminum cover with powder-coated black finish









68-HP-FFMK Furniture Feed Mounting Kit





CAT. NO.	DESCRIPTION	STANDARD PACK QTY.
68-HP-FFC-ALM	Furniture Feed Cover — Solid Aluminum with Brushed Finish	4
68-HP-FFC-BRS	Furniture Feed Cover — Solid Brass with Brushed Finish	4
68-HP-FFC-BLK	Furniture Feed Cover — Solid Aluminum with Black Powder-Coated Finish	4
68-HP-FFMK	Mounting Kit for Furniture Feed Covers	4





Round Floor Boxes for Power or Communications: 68 and 600 Series

68 and 600 Series Floor Boxes provide flush service for power or communications/data. 68 and 600 Series Floor Boxes can be used for carpet or tile applications.





Features — 68 Series

- Stamped steel, concretetight, fully adjustable
- Electro-galvanized body and hardware
- Interior and exterior leveling screws permit adjustment to meet finished floor
- Shipped complete with expendable cap to prevent ingress of concrete during pour ½", ¾" and 1" knockouts — all bottom knockouts are accessible
- Uses P60 Series MopTite® covers and carpet plate
- · For brushed aluminum, add AL after catalog number

		STD.
CAT. NO.	DESCRIPTION	CTN.
68-D	Stamped-Steel Floor Box, Deep	4
68-D-AL	Stamped-Steel with Aluminum Trim Ring, Deep	4
68-S	Stamped-Steel Floor Box, Shallow	4
68-S-AL	Stamped-Steel with Aluminum Trim Ring, Shallow	4

Features — 600 Series

- Cast iron, watertight body, fully adjustable
- Painted silver enamel inside and out for additional corrosion resistance
- Interior and exterior leveling screws permit adjustment to meet finished floor
- Shipped complete with expendable cap to prevent ingress of concrete during pour
- ¾" threaded conduit openings are standard
- Uses P60 Series MopTite® covers and carpet plate
- · For brushed aluminum, add AL after catalog number

CAT. NO.	DESCRIPTION	STD. CTN.
600-SC	Cast-Iron Floor Box ¾" Conduit Tapping	4
600-AL-SC	Cast-Iron Floor Box ¾" Conduit Tapping with Aluminum Trim Ring	4
600-1-SC	Cast-Iron Floor Box 1" Conduit Tapping	4
600-2-SC	Cast-Iron Floor Box 2" Conduit Tapping	4
601-1/2-SC	Cast-Iron Floor Box 1/2" Conduit Tapping	4
601-AL-SC	Cast-Iron Floor Box ¾" Conduit Tapping with Aluminum Trim Ring	4
601-SC	Cast-Iron Floor Box 3/4" Conduit Tapping	4
601-1	Cast-Iron Floor Box 1" Conduit Tapping	4
601-1-1/4	Cast-Iron Floor Box 11/4" Conduit Tapping	4
602-SC	Cast-Iron Floor Box 3/4" Conduit Tapping	4
602-AL-SC	Cast-Iron Floor Box ¾" Conduit Tapping with Aluminum Trim Ring	4
602-1	Cast-Iron Floor Box 1" Conduit Tapping	4
603-SC	Cast-Iron Floor Box 3/4" Conduit Tapping	4
603-AL-SC	Cast-Iron Floor Box ¾" Conduit Tapping with Aluminum Trim Ring	4
604-SC	Cast-Iron Floor Box 3/4" Conduit Tapping	4
604-AL-SC	Cast-Iron Floor Box ¾" Conduit Tapping with Aluminum Trim Ring	4

P-60 Covers sold separately.









aboveboardelectronics.com



United States Tel: 901.252.8000

800.816.7809 Fax: 901.252.1354







Flush Service Floor Boxes

Engineering Data — 68 and 600 Series



	DIMENSIONS (IN.)		BEFORE AFTER POUR POUR		MAXIMUM CAPACITY		CONDUIT KOS (IN.)		
CAT. NO.	A	В	C	ADJ. (IN.)	ADJ. (IN.)	KOS (Cu. In.)	CONDUIT HUBS	SIDES	воттом
68-D	41/4	35/8	411/16	21/2	1/2	60	_	(4) ³ / ₄ (4) 1	(2) ½ (2) ¾
68-S	$4\frac{1}{4}$	23/4	$4^{11}\!/_{16}$	11/2	1/2	47	_	(4) 3/4	(2) 3/4
600-SC	41/4	41/4	51//8	21/2	¹⁵ / ₁₆	64	3/4	_	_
600-1-SC	41/4	41/4	51//8	21/2	¹⁵ / ₁₆	64	1	_	_
600-11/4	41/4	41/4	51/8	21/2	15/16	64	11/4	_	_
600-2-SC	41/4	41/4	51//8	21/2	¹⁵ / ₁₆	64	2	_	_
601-SC	41/4	3%16	51//8	21/2	¹⁵ / ₁₆	56	3/4	_	_
601-1	41/4	3%16	51//8	21/2	¹⁵ / ₁₆	56	1	_	_
601-11/4	41/4	3%16	51//8	21/2	¹⁵ / ₁₆	56	11/4	_	_
602-SC	41/4	31/32	4	21/2	¹⁵ / ₁₆	36	3/4	_	_
602-1	41/4	31/32	4	21/2	¹⁵ / ₁₆	36	3/4	_	_
603-SC	41/4	21/2	4	21/2	11/16	27	3/4	_	_
604-SC	41/4	2	4	1½	_	15	3/4	_	_

Use P60 Series covers and carpet plates.

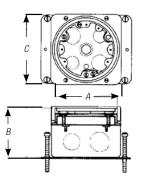
Wiring Device: Duplex, single or voice/data plates.



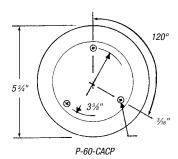








MopTite® Carpet Plates for 68 and 600 Series



(ŷL)

CAT. NO.	DESCRIPTION	STD. CTN.
P-60-CP	Brass Carpet Plate, 511/16" Diameter	4
P-60-CPAL	Aluminum Carpet Plate	4
P-60-LCP	Polycarbonate Carpet Plate, 5%" Diameter	4
P-60-CACP	Brass One-Piece Carpet Cover Plate	4
P-60-CACP-AL	Aluminum One-Piece Carpet	4
P-60-3/4-2-CACP	Brass One-Piece Carpet Plate with 3/4"-2" Plugs	4
P60-3/4-2-CACP-AL	Aluminum One-Piece Carpet Plate with 3/4"-2" Plugs	4
P60-CACP-GFCI	Brass One-Piece Carpet Plate for GFCI Devices	4
P60-CACP-GFCI-AL	Aluminum One-Piece Carpet Plate for GFCI Devices	4



P-60-3/4-2-CACP

- Polished brass finish
- Integrated carpet plate and ¾"-2" floor plate in one unit
- Furnished complete with sealing gasket and 8-32 x 1" brass screws
- 5¾" outside diameter



P-60-CP

- Polished brass finish
- Furnished complete with 8-32 x 1" brass screws
- For brushed aluminum, add AL after catalog number



P-60-LCP

- Translucent polycarbonate
- Textured finish



P-60-CACP

- Polished-brass finish
- Integrated carpet plate and duplex floor plate in one unit



P-60-CACP-GFCI

- Furnished complete with sealing gasket and 8-32 x 1" brass screws
- 5¾" outside diameter



New MopTite® Covers exceed UL® scrubwater exclusion requirements.

United States Tel: 901.252.8000

800.816.7809 Fax: 901.252.1354







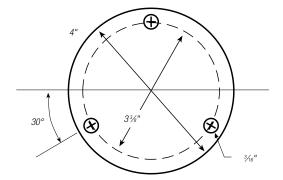


MopTite® Cover Plates for 68 and 600 Series

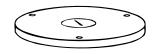
- Polished finish
- · Furnished complete with sealing gasket and 8-32 x 7/16" brass screws
- 4" outside diameter
- · For brushed aluminum, add AL after catalog number



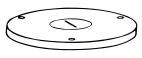




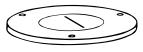
* Also includes steel seating plate for receptacles.



P-60-1 1" N.P.S. Plug Size



P-60-1-1/4 11/4" N.P.S. Plug Size



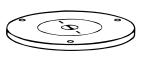
P-60-2* 2" dia. Plug Size



P-60-2-5/8* 25/8" dia. Plug Size



CAT. NO.	DESCRIPTION	STD. CTN.
P-60-1/2	Brass Cover Plate 1/2" NPS Plug Size	4
P-60-1/2-AL	Aluminum Cover Plate 1/2" NPS Plug Size	4
P-60-3/4	Brass Cover Plate 3/4" NPS Plug Size	4
P-60-3/4-AL	Aluminum Cover Plate 3/4" NPS Plug Size	4
P-60-1	Brass Cover Plate 1" NPS Plug Size	4
P-60-1-AL	Aluminum Cover Plate 1" NPS Plug Size	4
P-60-1-1/4	Brass Cover Plate 11/4" NPS Plug Size	4
P-60-1-1/4-AL	Aluminum Cover Plate 11/4" NPS Plug Size	4
P-60-2	Brass Cover Plate 2" Diameter Plug Size	4
P-60-2-AL	Aluminum Cover Plate 2" Diameter Plug Size	4
P-60-2-5/8	Brass Cover Plate 25/8" Diameter Plug Size	4
P-60-2-5/8-AL	Aluminum Cover Plate 25/8" Diameter Plug Size	4
P-60-1/2-2	Brass Cover Plate 1/2"-2" Diameter Plug Size	4
P-60-1/2-2-AL	Aluminum Cover Plate 1/2"-2" Diameter Plug Size	4
P-60-3/4-2	Brass Cover Plate 3/4"-2" Diameter Plug Size	4
P-60-3/4-2-AL	Aluminum Cover Plate 3/4"-2" Diameter Plug Size	4
P-60-DR	Brass Cover with Duplex Lift Lid	4
P-60-DR-AL	Aluminum Cover with Duplex Lift Lid	4
P-60-DS	Brass Cover for Duplex with Individual Lift Lids	4
P-60-DS-AL	Aluminum Cover for Duplex with Individual Lift Lids	4
P-60-DU	Brass Cover Plate with Two 11/16" Plugs for Duplex	4
P-60-DU-AL	Aluminum cover with Two 17/16" Plugs for Duplex	4
P-60-GFCI	Brass Cover Plate for GFCI Devices	4
P-60-GFCI-AL	Aluminum Cover Plate for GFCI Devices	4
68P-FL or 68P-FL	-AL required to attach cover plates to 68-P floor box.	



P-60-1/2-2* 1/2" & 2" dia. Plug Size



P-60-3/4-2* 1/2" & 2" dia. Plug Size



P-60-DR* Duplex Lift Lid



P-60-DU* Duplex 17/16" Plugs



P-60-DS* Hinged Lift Lids



P-60-GFCI*



New MopTite® Covers exceed UL® watertight requirements for 514A, 514C.

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354



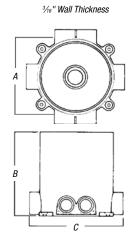


Flush Service Floor Boxes

68-P Round Non-Metallic Floor Box

The 68-P floor box provides flush service for power or communications and data. The non-metallic floor box is used in concrete floors and is suitable for carpet, tile or wood applications.

- · High-strength rigid PVC construction, non-corrosive
- Easy installation with no leveling required just cut the box level with the concrete after the pour
- Compatible with standard-schedule PVC conduit $(1'', \frac{3}{4}'')$ and $\frac{1}{2}''$, reducers included)
- Pre-packaged with concrete cap and six hub plugs









STD. CTN

	DIMENSIONS (IN.)		AFTER	MAXIMUM	STANDARD	COVERS AND	WIDING	CTD	
CAT. NO.	Α	В	C	POUR ADJ.	CAPACITY (CU. IN.)	CONDUIT TAPPING	CARPET PLATES	WIRING Device	STD. CTN.
68-P	55/32	6	6%	None	100	(4) 3/4"	P60	Single	8
						(2) 1"	P68	duplex or	
							series	data/voice	

Minimum pour 3 inches.

Cubic in. capacity is 17 cubic inches per inch of box height.

Note: Must use 68-PAR to attach cover plates to 68-P floor box.



Adjusting Ring for 68-P Floor Box

Non-metallic adjusting ring includes pigtail and clips

CAT. NO.	DESCRIPTION	
68-PAR	Non-Metallic Adjusting Ring	

Required to mount P60 and P68 Series covers to 68P floor box (not needed for dual-voltage kits).



Metallic Tile Trims for 68-P Floor Box

 Tile trim rings are available in brass or aluminum for flush installation of metallic plates in linoleum, wood or carpeted floors. Must be used to mount P60 series plates. (Not required for P-68 covers, P60-CACP or P60-3/4-2-CACP) (III)

		<u> </u>
CAT. NO.	DESCRIPTION	STD. CTN.
68P-FL	Tile Trim Ring, Brass	4
68P-FL-AL	Tile Trim Ring, Aluminum	4
Required to attach F	P60 Series cover plates to 68-P floor box.	



68P-FL/68P-FL-AL



United States Tel: 901.252.8000

800.816.7809 Fax: 901.252.1354









A-150

Dual-Voltage Kits for 68-P Non-Metallic Series

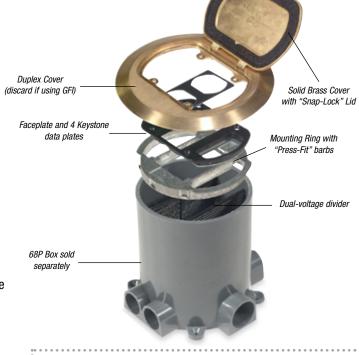


- Voltage divider has easy-cut score lines to accommodate concrete depths of 3 to 6 inches
- Faceplate has removable data plates and can accommodate GFCI or standard duplex receptacles
- Kit comes equipped with 4 standard keystone-size openings in the data plates. Other styles available include openings sized for Ortronics, Avaya, Panduit and Hubbell
- MopTite® cover uses a "snap-lock" to close the lid.
 No screws to turn...just push down the lid and it snaps in place. The cover uses a factory-installed gasket and exceeds all UL scrubwater exclusion requirements for carpet, wood and tile floors
- MopTite® cover available in solid brass or aluminum
- Includes everything required for a standard installation (68P floor box, data jacks and receptacles not included)

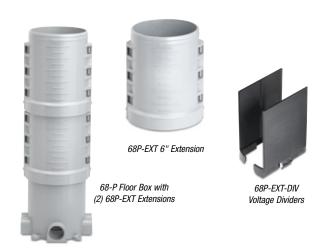
(hr

CAT. NO.	DESCRIPTION	STD. CTN.
68P-DV-KIT-BRS	Dual-Voltage Divider Kit with MopTite® Brass Cover	1
68P-DV-KIT-AL	Dual-Voltage Divider Kit with MopTite Aluminum Cover	1
68P-DV-DP-ORT	Ortronics Data Plate to Accommodate 2 Jacks	10
68P-DV-DP-AVA	Avaya Data Plate to Accommodate 4 Jacks	10
68P-DV-DP-PAN	PANDUIT Data Plate to Accommodate 2 Jacks	10
68P-DV-DP	Standard Data Plate to Accommodate 4 Keystone Jacks	10
68P-EXT	6" Extension for 68P Floor Box *	4
68P-EXT-DIV	Voltage Dividers for 68P-EXT *	4

*Keystone data plates come standard with the kit. Other style data plates are available from T&B and can be ordered separately.



6-Inch Extension for 68-P Floor Box



CAT. NO.	DESCRIPTION	STD. CTN.
68P-EXT	6" Extension for 68-P Floor Box *	4
68P-EXT-DIV	Voltage Dividers for 68P-EXT *	4
68-P	Round PVC Floor Box for Concrete Applications	8
* For you with Ctoo	City® round DVC floor hav only catalog number 69 D	



Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354







Flush Service Floor Boxes

MopTite® Metallic Carpet Plates for 68-P Series

- Polished brass finish
- Furnished complete with 8-32 x 1" brass screws
- · For brushed aluminum, add AL after catalog number



P60-CACP One-piece solid-brass duplex plate with screw-lock lids. 53/4" O.D. Mounting holes on a 33/8" dia.



P60-3/4-2-CACP One-piece solid-brass communications carpet plate. 5¾" O.D. Mounting holes on a 3¾" dia.



P60-CACP-GFCI



P60-CP



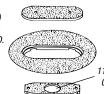
CAT. NO.	DESCRIPTION	FINISH	STD. CTN.
P60-CACP	One-Piece Duplex Cover and Carpet Flange Brass	_	4
P60-CACP-AL	One-Piece Duplex Cover and Carpet Flange Aluminum	_	4
P60-3/4-2-CACP	One-Piece Cover & Carpet Flange with ¾" and 2" Plugs	Brass	4
P60-3/4-2-CACP-AL	One-Piece Cover & Carpet Flange with 3/4" and 2" Plugs	Aluminum	4
P60-CACP-GFCI*	One-Piece GFCI Cover and Carpet Flange	Brass	4
P60-CACP-GFCI-AL*	One-Piece GFCI Cover and Carpet Flange	Aluminum	4
P60-CP*	Carpet Flange	Brass	4
P60-CP-AL*	Carpet Flange	Aluminum	4

*Requires 68P-FL or 68P-FL-AL to attach covers to 68-P Floor Box.

New MopTite® Covers exceed UL watertight requirements for 514A, 514C.

MopTite® Non-Metallic Carpet Plates for 68-P Series

Non-metallic, single receptacle plate (SRC) with matching carpet plate and cover. 6" O.D.



Non-metallic floor service cover (FSC) with 1" NPS screw plug accommodates most above-floor service fittings with matching carpet plate. 6" O.D.

113/2" Dia **Opening**





Non-metallic, duplex/voice data receptacle plates (DRC) with matching carpet plate and cover. 6" O.D.







OAT NO	001.00	DEGODIDATION	STD.
CAT. NO.	COLOR	DESCRIPTION	CTN.
P-68-SRC-GRY	Gray	Non-Metallic Carpet Plate and Cover for Single Receptacle	4
P-68-SRC-BRN	Brown	Non-Metallic Carpet Plate and Cover for Single Receptacle	4
P-68-SRC-BGE	Beige	Non-Metallic Carpet Plate and Cover for Single Receptacle	4
P-68-SRC-BLK	Black	Non-Metallic Carpet Plate and Cover for Single Receptacle	4
P-68-FSC-GRY	Gray	Non-Metallic Carpet Plate and Cover with 1" NPS Screw Plug	4
P-68-FSC-BRN	Brown	Non-Metallic Carpet Plate and Cover with 1" NPS Screw Plug	4
New MopTite® Cove	ers exceed UL w	ratertight requirements for 514A, 514C.	

			STD.
CAT. NO.	COLOR	DESCRIPTION	CTN.
P-68-FSC-BGE	Beige	Non-Metallic Carpet Plate and Cover with 1" NPS Screw Plug	4
P-68-FSC-BLK	Black	Non-Metallic Carpet Plate and Cover with 1" NPS Screw Plug	4
P-68-DRC-GRY	Gray	Non-Metallic Carpet Plate and Cover for Duplex Receptacle	4
P-68-DRC-BRN	Brown	Non-Metallic Carpet Plate and Cover for Duplex Receptacle	4
P-68-DRC-BGE	Beige	Non-Metallic Carpet Plate and Cover for Duplex Receptacle	4
P-68-DRC-BLK	Black	Non-Metallic Carpet Plate and Cover for Duplex Receptacle	4
New MopTite® Covers	exceed UL wa	atertight requirements for 514A, 514C.	

Thomas@Betts

United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services**

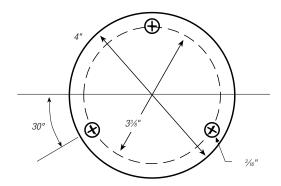






MopTite® Metallic Cover Plates for 68-P Series

- Polished finish
- Furnished complete with sealing gasket and 8-32 x 7/16 brass screws
- 4" outside diameter
- · For brushed aluminum, add AL after catalog number



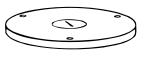
* Also includes steel seating plate for receptacles.



P-60-1/2 1/2" N.P.S. Plug Size



P-60-3/4 3/4" N.P.S. Plug Size



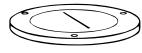
P-60-1 1" N.P.S. Plug Size



P-60-1-1/4 11/4" N.P.S. Plug Size

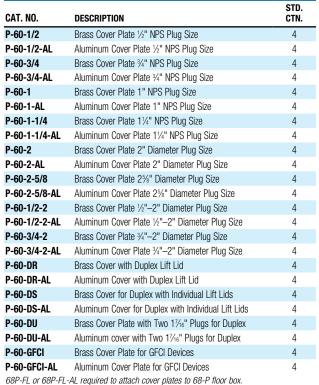


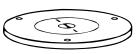
P-60-2* 2" dia. Plug Size



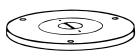
P-60-2-5/8* 2%" dia. Plug Size







P-60-1/2-2* 1/2" & 2" dia. Plug Size



P-60-3/4-2* 1/2" & 2" dia. Plug Size



P-60-DR* Duplex Lift Lid



P-60-DS* Hinged Lift Lids



P-60-DU*



P-60-GFCI*



New MopTite® Covers exceed UL watertight requirements for 514A, 514C.

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354







Flush Service Floor Boxes

Floor Boxes for Single Short-Strap Receptacles or Communications

Service Fitting Application

78 and 88 Series Floor Boxes provide flush service for power or communications and data. They can be used for either carpet or tile applications.

78 Series



- · Cast iron, watertight body, semi-adjustable
- Painted silver enamel inside and out for additional corrosion resistance
- Exterior leveling screws and threaded vertical adjusting ring permit adjustment to meet finish floor
- Shipped complete with expandable cap to prevent ingress of concrete during pour
- 3/4" threaded conduit openings
- Uses P90 Series MopTite® covers

88 Series

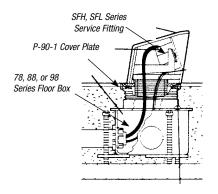


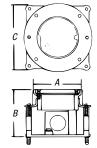
- Stamped steel, concrete-tight, semi-adjustable
- Electro-galvanized body and hardware
- Exterior leveling screws and threaded vertical adjusting ring permit adjustment to meet finish floor
- · Shipped complete with expandable cap to prevent ingress of concrete during pour
- ½" and ¾" knockouts all bottom knockouts accessible
- Uses P90 Series MopTite® covers





CAT. NO.	DESCRIPTION	STD. CTN.
78SC	Cast-Iron Single-Gang Floor Box with 3/4" Conduit Tapping	4
78-S	Cast-Iron Single-Gang Floor Box (shallow)	4
88-D	Stamped-Steel Single-Gang Floor Box with $1/2$ " and $3/4$ " Conduit Tapping	4
88-S	Shallow Version Stamped Steel	4





Engineering Data

	DIMENSIONS (IN.)		BEFORE POUR	AFTER POUR	MAXIMUM CAPACITY	STANDARD CONDUIT	
CAT. NO.	A	В	C	ADJ. (IN.)	ADJ. (IN.)	CU. IN.	TAPPING (IN.)
78SC	3	213/16	31//8	21/2	3/4	24	3/4
78-S	3	25/8	31//8	1½	3/4	20	3/4
88-D	3	31/4	5¾	21/2	3/4	29	_
00 C	2	937	F3/.	11/	3/.	22	



United States Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354

Technical Services







Flush Service Floor Boxes

Engineering Data (continued)



	MAXIMUM CONI	IAXIMUM CONDUIT TAPPING (IN.)		CONDUIT KOS (IN.) COVERS AND WIRIN		WIRING
CAT. NO.	W/BUSHING	W/O BUSHING	SIDES	воттом	CARPET PLATES	DEVICE
78SC	3/4	1	_	_	P90 series	Sing. short, Strap rec.
78-S	3/4	1	_	_	P90 series	Sing. short, Strap rec.
88-D	_	_	(2) ½	(3) ½	P90 series	Sing. short
			(2) 3/4	(2) 3/4		Strap rec.
88-S	_	_	(2) ½	(3) ½	P90 series	Sing. short
			(2) 3/4	(2) 3/4		Strap rec.

MopTite® Cover Plates for 78 and 88 Series

- · Polished-brass finish
- Furnished complete with sealing gasket and 6-32 x ½' brass screws
- 213/16" outside diameter
- For brushed aluminum, add AL after catalog number









P-90-1 1" N.P.S. plug

(I)

11/4" N.P.S. plug

P-90-2* 2" dia. plug

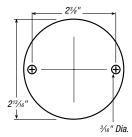
P-90-1/2-2* 1/2" & 2" dia. plugs



P-90-3/4-2* 3/4" & 2" dia. plugs

CAT. NO.	DESCRIPTION	FINISH	STD. CTN.
P-90-1/2	Cover Plate 1/2" NPS Plug	Brass	4
P-90-3/4	Cover Plate 3/4" NPS Plug	Brass	4
P-90-3/4-AL	Cover Plate 3/4" NPS Plug	Aluminum	4
P-90-1	Cover Plate 1" NPS Plug	Brass	4
P-90-1-AL	Cover Plate 1" NPS Plug	Aluminum	4
P-90-1-1/4	Cover Plate 11/4" NPS Plug	Brass	Δ

			STD.
CAT. NO.	DESCRIPTION	FINISH	CTN.
P-90-1-1/4-AL	Cover Plate 11/4" NPS Plug	Aluminum	4
P-90-2	Cover Plate 2" UN Plug	Brass	4
P-90-2-AL	Cover Plate 2" UN Plug	Aluminum	4
P-90-1/2-2	Cover Plate 1/2" & 2" Plug	Brass	4
P-90-3/4-2	Cover Plate 3/4" & 2" Plug	Brass	4
P-90-3/4-2-AL	Cover Plate 3/4" & 2" Plug	Aluminum	4



New MopTite® Covers exceed UL watertight requirements for 514A, 514C.

For above-floor service fittings for 78, 88 and 98 series floor boxes, see page A-170

Accessories for 78 and 88 Series Floor Boxes

- · Extends vertical adjusting ring 11/8"
- · Seven cubic inch capacity
- 15-Amp, 125-Volt, NEMA grounding type
- Mounted on steel seating plate
- · For use with 2" diameteropening floor plate





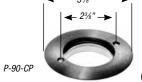


STD. CAT. NO. DESCRIPTION CTN. 8805-E Extension Adjusting Ring 4 478-G-12 15-Amp 125-Volt NEMA Grounding Receptacle 4

Carpet Plate for 78 and 88 Series Floor Boxes

- Polished-brass finish
- Furnished complete with 6-32 x 1" brass flathead screws and gasket
- Threaded 2-20UN-2B to accept 694 plug
- 3¾" 0.D. with ¾" flange
- For brushed aluminum, add AL after catalog number

__ 23/2" __



	378	
	← 23/8" →	
P-90-CP		_
		(

CAT. NO.	DESCRIPTION	FINISH	STD. CTN.
P-90-CP	Carpet Plate	Brass	4
P-90-CP-AL	Carpet Plate	Aluminum	4
Will not accept P90) covers. Will accept 694 threade	ed plua.	

www.tnb.com

United States

(ĥľ

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services**



^{*}Also includes steel seating plates for receptacles.

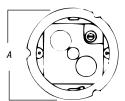
Flush Service Floor Boxes

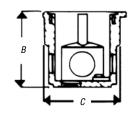
Floor Boxes for Single Short-Strap Receptacles or Communications

671 and 672 Series Floor Boxes provide flush service for power or communications and data. They can be used in either wood or concrete floors and are suitable for carpet, tile or wood applications.









671 and 672 Floor Boxes

- · Cast iron, watertight, non-adjustable
- Painted silver enamel inside and out for additional corrosion resistance
- For use in wood or concrete floors
- 1/2" and 3/4" threaded conduit openings; uses P67 Series covers
- Cat. No. 672 is the 671 floor box with factorymounted 15-ampere, 125-volt, NEMA grounding receptacle and P67-2 MopTite® cover plate





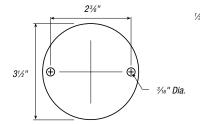
	DIME	NSION	S (IN.)	MAXIMUM	STANDARD CONDUIT	MAXIMUM CONDUIT TAPPING (IN.)	
CAT. NO.	Α	В	С	(CU. IN.)	TAPPING	W/BUSHING	W/O BUSHING
671SC	3½	3	231/32	13	(2)-3/4"	3/4	3/4
672	3½	31/16	$2^{31}/_{32}$	13	(4)-1/2"	3/4	3/4
CONDUIT K			OS (IN.)	COVERS/			

	CONDUIT KOS (IN.)		COVERS/		
CAT. NO.	SIDES	воттом	CARPET PLATES	WIRING DEVICE	STD. CTN.
671SC	(2) 1/2	(2) 1/2	P67	Sing. short	4
	(2) 3/4	_	series	Strap rec.	
672	(2) 1/2	(2) 1/2	P67	Sing. short	4
	(2) 3/4	_	series	Strap rec.	

New MopTite® Covers exceed UL watertight requirements for 514A, 514C.

MopTite® Plates for 671 and 672 Series

- Polished brass finish
- Furnished complete with sealing gasket and 6-32 x 1/2" brass screws
- 3½" outside diameter









P-67-1/2 1/2" N.P.S. plug

P-67-3/4 3/4" N.P.S. plug

P-67-1 1" N.P.S. plug







P-67-1/2-2* 1/2" & 2" dia. plugs

P-67-3/4-2* 3/4" & 2" dia. plugs

*Also includes seating plate for receptacle.



CAT. NO.	DESCRIPTION	FINISH	STD. CTN.
P-67-1/2	Cover Plate with 1/2" NPS Plug	Brass	4
P-67-3/4	Cover Plate with 3/4" NPS Plug	Brass	4
P-67-3/4-AL	Cover Plate with 3/4" NPS Plug	Aluminum	4
P-67-1	Cover Plate with 1" NPS Plug	Brass	4
P-67-1-AL	Cover Plate with 1" NPS Plug	Aluminum	4
P-67-1-1/4	Cover Plate with 11/4" NPS Plug	Brass	4
P-67-2	Cover Plate with 2" UN Thread Plug	Brass	4
P-67-2-AL	Cover Plate with 2" UN Thread Plug	Aluminum	4
P-67-1/2-2	Cover Plate with 1/2" & 2" Plug	Brass	4
P-67-3/4-2	Cover Plate with 3/4" & 2" Plug	Brass	4

New MopTite® Covers exceed UL scrubwater exclusion requirements

Thomas@Betts

United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354

Technical Services Tel: 888.862.3289







Carpet Plates for 671 and 672 Floor Boxes

- Polished-brass finish
- Furnished complete with 6-32 x 1"-long brass flathead screws and gasket
- For brushed aluminum, add AL after catalog number
- 3¾" outside diameter

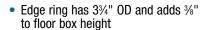


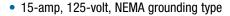


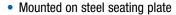


Accessories for 671 and 672 Floor Boxes

· Use brass edge ring for neat appearance when non-adjustable floor box is installed in concrete







P-67-F

478-G-12

· For use with 2" diameter opening floor plate





478-G-12 Short Strap Receptacle



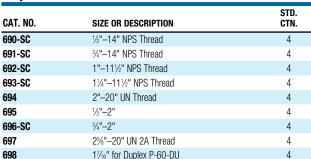
, , , , , , , , , , , , , , , , , , ,		(AL)
CAT. NO.	DESCRIPTION	STD. CTN.

15-Amp, 125-Volt NEMA Grounding Receptacle

Brass Edge Ring for Concrete

STD. DESCRIPTION CAT. NO. CTN. P-90-CP Carpet Plate — Brass 4 P-90-CP-AL Carpet Plate — Aluminum 4

Floor Plate Plug Inserts for 78, 88, 671 or 672 Series



For standard plug inserts 1/2" through 2", see page A-155

Catalog numbers are for brass.

For aluminum, add AL after catalog number.

Floor Box Body Parts





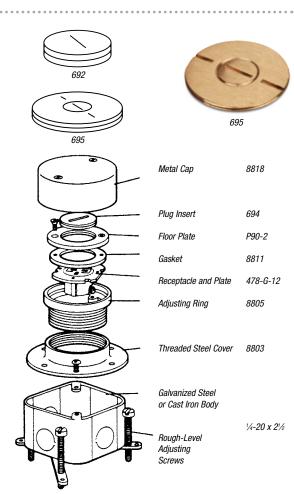






(ŮĽ

		STD.
CAT. NO.	DESCRIPTION	CTN.
8805	Brass Adjusting Ring	4
8803	Threaded Steel Body Cover of 78 and 88 Series	4
8818	Metal Protective Cap	4
9803	Threaded Steel Body Cover for 98 Series	4
25%-20 UN 2A Thread.		



Floor Box Assembly with Floor Plate



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354

Technical Services Tel: 888.862.3289

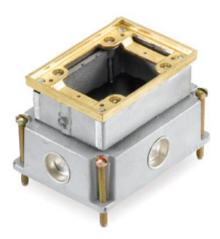




Flush Service Floor Boxes

Multiple-Gang Floor Boxes for Power and Communications

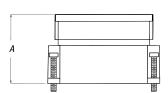
640 and 840 Series Floor Boxes provide flush service for power, communications and data. Multiple-gang boxes enable the user to place high- and low-voltage in a single floor box. Floor boxes up to four-gangs are available. 640 and 840 Series boxes can be used for either carpet or tile applications.

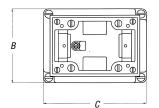






842-SC





640 Series

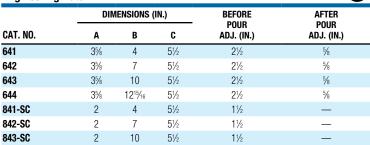
- Cast iron, watertight body, fully adjustable
- Painted silver enamel inside and out for additional corrosion resistance
- Interior and exterior leveling screws permit adjustment to finished floor
- Removable partitions for large capacity requirements on 2-, 3- and 4-gang

840SC Series (Shallow)

- Cast iron, watertight body, semi-adjustable
- Painted silver enamel inside and out for additional corrosion resistance
- Exterior leveling screws for adjustment to finished floor
- Removable partitions for large capacity requirements on 2- and 3-gang

- Shipped complete with expendable cap to prevent ingress of concrete during pour
- ¾" threaded conduit openings are standard
- Uses P64 Series MopTite® covers (one cover per gang)
- For brushed aluminum, add AL after catalog number
- Shipped complete with expendable cap to prevent ingress of concrete during pour
- ¾" threaded conduit openings are standard
- Uses P64 Series MopTite® covers (one cover per gang)
- For brushed aluminum, add AL after catalog number

Engineering Data



	NUMBER OF	MAXIMUM Capacity	
CAT. NO.	GANGS	(CU. IN.)	CONDUIT HUBS (IN.)
641	1	35	3/4
642	2	37 per gang	3/4
643	3	37 per gang	3/4
644	4	37 per gang	3/4
841-SC	1	15	3/4
842-SC	2	16.5 per gang	3/4
843-SC	3	16.5 per gang	3/4

Use P64 Series covers and carpet plates.

Wiring Device: Duplex, single or voice/data plates.

*Additional hub sizes available — see next page.



United States
Tel: 901.252.8000

800.816.7809 Fax: 901.252.1354







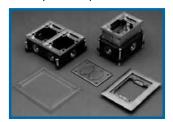


640 and 840 Series Floor Boxes

Hold-Down

Screws

- Polished brass finish
- Furnished complete with sealing gasket and 8-32 x 7/16" brass screws
- 3" x 4½" outside dimension
- For brushed aluminum. add AL after catalog number
- All covers meet MopTite® requirements





Floor Plate w/

Removable

Plug Insert

Gasket

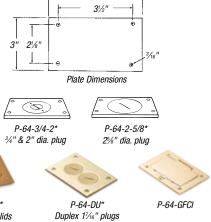
Receptacle Seating Plate

Floor Box

Edge Ring

CAT. NO.	DESCRIPTION	STD. CTN.
641	Cast-Iron Single-Gang Floor Box with ¾" Conduit Hubs	4
641-AL	Cast-Iron Single-Gang Floor Box with $\ensuremath{^{3}\!\!\!/^{\!$	4
641-1	Cast-Iron Single-Gang Floor Box with 1" Conduit Hubs	4
SP-641-1-AL	Cast-Iron Single-Gang Floor Box with 1" Conduit Hubs & Aluminum Trim	4
642	Cast-Iron Two-Gang Floor Box with 3/4" Conduit Hubs	2
642-AL	Cast-Iron Two-Gang Floor Box with $\ensuremath{3\!/\!4}\xspace$ Conduit Hubs & Aluminum Trim	2
642-1	Cast-Iron Two-Gang Floor Box with 1" Conduit Hubs	2
SP-642-1-AL	Cast-Iron Two-Gang Floor Box with 1" Conduit Hubs & Aluminum Trim	2
643	Cast-Iron Three-Gang Floor Box with 3/4" Conduit Hubs	1
643-AL	Cast-Iron Three-Gang Floor Box with ¾" Conduit Hubs & Aluminum Trim	1
SP-643-1	Cast-Iron Three-Gang Floor Box with 1" Conduit Hubs	1
SP-643-1-AL	Cast-Iron Three-Gang Floor Box with 1" Conduit Hubs & Aluminum Trim	1
644	Cast-Iron Four-Gang Floor Box with 3/4" Conduit Hubs	1
SP-644-AL	Cast-Iron Four-Gang Floor Box with ¾" Conduit Hubs & Aluminum Trim	1
841-SC	Shallow Cast-Iron Single-Gang Floor Box with 3/4" Conduit Hubs	4
841-AL	Shallow Cast Iron Single-Gang Floor Box with $\mbox{\it 34"}$ Conduit Hubs & Aluminum Trim	4
842-SC	Shallow Cast-Iron Two-Gang Floor Box with ¾" Conduit Hubs	2
842-AL-SC	Shallow Cast-Iron Two-Gang Floor Box with ¾" Conduit Hubs & Aluminum Trim	2
843-SC	Shallow Cast-Iron Three-Gang Floor Box with 3/4" Conduit Hubs	1
843-AL-SC	Shallow Cast-Iron Three-Gang Floor Box with 3/4" Conduit Hubs & Aluminum Trim	1

MopTite® Cover Plates for 640 and **840** Series



P-64-DS*

Duplex Lift lids





P-64-1/2 ½" N.P.S. plug











P-64-1-1/4 11/4" N.P.S. plug

P-64-2* 2" dia. plug

P-64-1/2-2* 1/2" & 2" dia. plug

*Also includes seating plate for receptacle like others.



CAT. NO.	DESCRIPTION	FINISH	STD. CTN.
P-64-1/2	Cover Plate 1/2" NPS Plug	Brass	4
P-64-1/2-AL	Cover Plate 1/2" NPS Plug	Aluminum	4
P-64-3/4	Cover Plate 3/4" NPS Plug	Brass	4
P-64-3/4-AL	Cover Plate 3/4" NPS Plug	Aluminum	4
P-64-1	Cover Plate 1" NPS Plug	Brass	4
P-64-1-AL	Cover Plate 1" NPS Plug	Aluminum	4
P-64-1-1/4	Cover Plate 11/4" NPS Plug	Brass	4
P-64-1-1/4-AL	Cover Plate 11/4" NPS Plug	Aluminum	4
P-64-2	Cover Plate 2" UN Plug	Brass	4
P-64-2-AL	Cover Plate 2" UN Plug	Aluminum	4
P-64-1/2-2	Cover Plate 1/2" & 2" UN Plug	Brass	4
P-64-1/2-2-AL	Cover Plate 1/2" & 2" UN Plug	Aluminum	4
P-64-3/4-2	Cover Plate 1/4" & 2" UN Plug	Brass	4
P-64-3/4-2-AL	Cover Plate 3/4" & 2" UN Plug	Aluminum	4
P-64-DS	Cover Plate Duplex Lift Lids	Brass	4
P-64-DS-AL	Cover Plate Duplex Lift Lids	Aluminum	4
P-64-2-5/8	Cover Plate 25/8" UN Plug	Brass	4
P-64-2-5/8-AL	Cover Plate 25/8" UN Plug	Aluminum	4
P-64-DU	Cover Plate Duplex 17/16" Plugs	Brass	4
P-64-DU-AL	Cover Plate Duplex 17/16" Plugs	Aluminum	4
P-64-GFCI	Cover Plate GFCI Flip Lid	Brass)	4
P-64-GFCI-AL	Cover Plate GFCI Flip Lid	Aluminum	4
New MopTite® Covers	exceed UL® scrubwater exclusion requirer	ments for 514A, 5	14C.

www.tnb.com

Boxes supplied with brass tile trim unless otherwise specified.

800.816.7809 Fax: 901.252.1354



₩ ⊙



Flush Service Floor Boxes

Metallic Carpet Plates for 640 and 840 Series



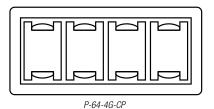




P-64-3G-CP

P-64-2G-CP

CAT. NO.	NUMBER Of Gangs	OUTSIDE DIMENSION (IN.)	MATERIAL	STD. CTN.
P64-CP	1	4% x 6%	Brass	4
P64-CP-AL	1	4% x 6%	Aluminum	4
P64-2G-CP	2	7% x 6%	Brass	4
P64-2G-CP-AL	2	7% x 6%	Aluminum	4
P64-3G-CP	3	10% x 61/8	Brass	4
P64-3G-CP-AL	3	10% x 61/8	Aluminum	4
P64-4G-CP	4	13% x 61/8	Brass	4
P64-4G-CP-AL	4	13% x 61/8	Aluminum	4



Non-Metallic Carpet Plates for 640 and 840 Series

- Polycarbonate material
- Textured finish

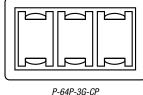
CAT. NO.	NUMBER OF GANGS	DESCRIPTION	FINISH	STD. CTN.
P64P-CP-BLK	1	Single-Gang Carpet Plate	Black	4
P64P-CP-GRY	1	Single-Gang Carpet Plate	Gray	4
P64P-CP-BGE	1	Single-Gang Carpet Plate	Beige	4
P64P-2G-CP-BLK	2	Two-Gang Carpet Plate	Black	4
P64P-2G-CP-GRY	2	Single-Gang Carpet Plate	Gray	4
P64P-2G-CP-BGE	2	Two-Gang Carpet Plate	Beige	4
P64P-3G-CP-BLK	3	Three-Gang Carpet Plate	Black	4
P64P-3G-CP-GRY	3	Three-Gang Carpet Plate	Gray	4
P64P-3G-CP-BGE	3	Three-Gang Carpet Plate	Beige	4





P-64P-CP Series

P-64P-2G-CP Series

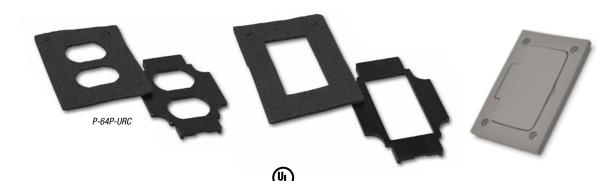


Series





MopTite® Non-Metallic Covers for 640 and 840 Series



CAT. NO.	DESCRIPTION	COLOR	STD. CTN.
P64P-URC-BLK	Universal Cover	Black	4
P64P-URC-GRY	Universal Cover	Gray	4
P64P-URC-BGE	Universal Cover	Beige	4
P64P-BP-BLK	Blank Cover	Black	4
P64P-BP-GRY	Blank Cover	Gray	4
P64P-BP-BGE	Blank Cover	Beige	4

New MopTite® Covers exceed UL® scrubwater exclusion requirements.

Floor Plate Plug Inserts



CAT. NO.	SIZE OR DESCRIPTION	STD. CTN.
690-SC	½"-14 NPS Thread	4
691-SC	3/4"-14 NPS Thread	4
692-SC	1"-11½" NPS Thread	4
693-SC	11/4"-111/2" NPS Tthread	4
694	2"-20 UN Thread	4
695	1/2"-2"	4
696-SC	³ / ₄ "-2"	4
697	25/8"-20 UN 2A Thread	4
698	17/6" for Duplex P-60-DU	4
F	alica lacarda 1/II dhaasaab Oll aan maara A AFF Cadalaa a	

For standard plug inserts $\frac{1}{2}$ " through 2", see **page A-155**. Catalog numbers are for brass. For aluminum, add AL after catalog number.





Gaskets for Floor Plate Assemblies



CAT. NO.	FOR USE WITH	STD. CTN
SP650	P-64 Series Floor Plate Assemblies	4
SP651	P-64-DU Floor Plate Assemblies	10
SP-P64-DS-P2	P-64-DS Floor Plate Assembly	4





800.816.7809 Fax: 901.252.1354









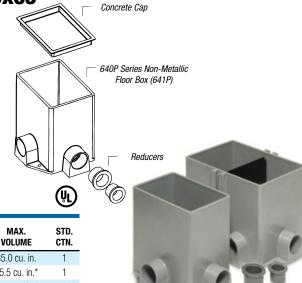
Flush Service Floor Boxes

Multiple-Gang Floor Boxes for Power and Communications.

640P Series Non-Metallic Floor Boxes

- Significant savings over metal boxes
- Die-cast adjusting ring with unique "snap-on" feature which eliminates gluing
- Reduced installation time; no leveling required
- Compatibility with standardschedule PVC conduit; 1", ¾" and ½"
- Removable adjusting ring accepts wide variety of service accessories
- · One-piece housing unit with

- premolded conduit holes
- Molded from a high-grade polymer material which is fully compatible with standardschedule PVC conduit
- 640P Series Floor Boxes utilize both plastic and brass carpet (P64 series) plates and covers
- Available in one-, two- and three-gang versions. Two- and three-gang boxes provided with partitions in corresponding activation kits
- Min. concrete pour 2½"



(li)

 \bigcirc

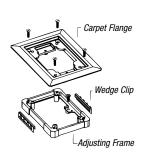
		DIMENSIONS (IN.)			_ MAX.	STD.
CAT. NO.	DESCRIPTION	LENGTH	WIDTH	HEIGHT	VOLUME	CTN.
641P	One-Gang Box	4	5%	6	85.0 cu. in.	1
642P	Two-Gang Box	7	5%	6	85.5 cu. in.*	1
643P	Three-Gang Box	10%	5¾	6	85.5 cu. in.*	1

^{*} Per gang.

Carpet Activations for 640P Series

			9
CAT. NO.	DESCRIPTION	FINISH	STD. CTN.
Carpet Activat	tions for 640 Series		
641P-CACA	One-Gang Carpet Trim	Aluminum	4
641P-CACB	One-Gang Carpet Trim	Brass	4
641P-CAC-BGE	One-Gang Carpet Trim	Non-Metallic Beige	4
641P-CAC-BLK	One-Gang Carpet Trim	Non-Metallic Black	4
641P-CAC-GRY	One-Gang Carpet Trim	Non-Metallic Gray	4
642P-CACA	Two-Gang Carpet Trim	Aluminum	4
642P-CACB	Two-Gang Carpet Trim	Brass	4
642P-CAC-BGE	Two-Gang Carpet Trim	Non-Metallic Beige	4

CAT. NO.	DESCRIPTION	FINISH	STD. CTN.
Carpet Activat	ions for 640 Series		
642P-CAC-BLK	Two-Gang Carpet Trim	Non-Metallic Black	4
642P-CAC-GRY	Two-Gang Carpet Trim	Non-Metallic Gray	4
643P-CACA	Three-Gang Carpet Trim	Aluminum	4
643P-CACB	Three-Gang Carpet Trim	Brass	4
643P-CAC-BGE	Three-Gang Carpet Trim	Non-Metallic Beige	4
643P-CAC-BLK	Three-Gang Carpet Trim	Non-Metallic Black	4
643P-CAC-GRY	Three-Gang Carpet Trim	Non-Metallic Gray	4

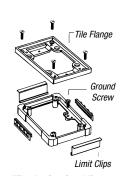


Carpet Activation Kit

Tile Activations for 640P Series

			6 5
CAT. NO.	DESCRIPTION	FINISH	STD. CTN.
Tile Activation	s for 640 Series		
641P-TACA	One-Gang Tile Trim	Aluminum	4
641P-TACB	One-Gang Tile Trim	Brass	4
641P-TAC-BGE	Non-Metallic	Beige	4
641P-TAC-BLK	Non-Metallic	Black	4
641P-TAC-GRY	Non-Metallic	Gray	4
642P-TACA	Two-Gang Tile Trim	Aluminum	4
642P-TACB	Two-Gang Tile Trim	Brass	4
642P-TAC-BGE	Non-Metallic	Beige	4

			(II)
CAT. NO.	DESCRIPTION	FINISH	STD. CTN.
Tile Activation	s for 640 Series		
642P-TAC-BLK	Non-Metallic	Black	4
642P-TAC-GRY	Non-Metallic	Gray	4
643P-TACA	Three-Gang Tile Trim	Aluminum	4
643P-TACB	Three-Gang Tile Trim	Brass	4
643P-TAC-BGE	Non-Metallic	Beige	4
643P-TAC-BLK	Non-Metallic	Black	4
643P-TAC-GRY	Non-Metallic	Gray	4



Tile Activation Kit



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354



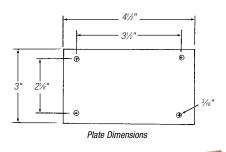






MopTite® Cover Plates for 640 Series

101 040	001100		<u>.</u>
CAT. NO.	DESCRIPTION	FINISH	STD. CTN.
P-64-1/2	Cover Plate 1/2" NPS Plug	Brass	4
P-64-1/2-AL	Cover Plate 1/2" NPS Plug	Aluminum	4
P-64-3/4	Cover Plate 3/4" NPS Plug	Brass	4
P-64-3/4-AL	Cover Plate 3/4" NPS Plug	Aluminum	4
P-64-1	Cover Plate 1" NPS Plug	Brass	4
P-64-1-AL	Cover Plate 1" NPS Plug	Aluminum	4
P-64-1-1/4	Cover Plate 11/4" NPS Plug	Brass	4
P-64-1-1/4-AL	Cover Plate 11/4" NPS Plug	Aluminum	4
P-64-2	Cover Plate 2" UN Plug	Brass	4
P-64-2-AL	Cover Plate 2" UN Plug	Aluminum	4
P-64-1/2-2	Cover Plate 1/2" & 2" UN Plug	Brass	4
P-64-1/2-2-AL	Cover Plate 1/2" & 2" UN Plug	Aluminum	4
P-64-3/4-2	Cover Plate 3/4" & 2" UN Plug	Brass	4
P-64-3/4-2-AL	Cover Plate 3/4" & 2" UN Plug	Aluminum	4
P-64-2-5/8	Cover Plate 25/8" UN Plug	Brass	4
P-64-2-5/8-AL	Cover Plate 2%" UN Plug	Aluminum	4
P-64-DU	Cover Plate Duplex 17/16" Plugs	Brass	4
P-64-DU-AL	Cover Plate Duplex 17/16" Plugs	Aluminum	4
P-64-DS	Cover Plate Duplex Lift Lids	Brass	4
P-64-DS-AL	Cover Plate Duplex Lift Lids	Aluminum	4





P-64-2-5/8* 25/8" dia. plug

P-64-DS* Duplex Lift lids



(III)

P-64-GFCI

P-64-1/2 1/2" N.P.S. plug

P-64-3/4

3/4" N.P.S. plug



Duplex 17/16" plugs







*Also includes seating plate for receptacle like others.

MopTite® Non-Metallic Covers for 640P Series

Brass

Aluminum

4

· Polished-brass finish

P-64-GFCI

P-64-GFCI-AL

- Furnished complete with sealing gasket and 8-32 x 1/16" brass screws
- 3" x 41/2" outside dimension
- For brushed aluminum, add AL after catalog number
- All covers meet MopTite® requirements

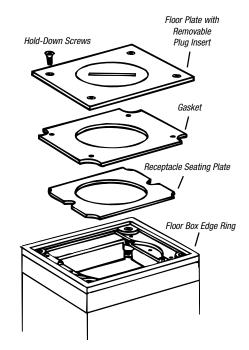
Cover Plate GFCI Flip Lid

Cover Plate GFCI Flip Lid

New MopTite® Covers exceed UL® Scrubwater exclusion requirements.



CAT. NO.	DESCRIPTION	COLOR	STD. CTN.			
P64P-URC-BLK	Universal Cover	Black	4			
P64P-URC-GRY	Universal Cover	Gray	4			
P64P-URC-BGE	Universal Cover	Beige	4			
P64P-BP-BLK	Blank Cover	Black	4			
P64P-BP-GRY	Blank Cover	Gray	4			
P64P-BP-BGE	Blank Cover	Beige	4			
New MopTite® Covers	New MopTite® Covers exceed UL® scrubwater exclusion requirements.					





United States Tel: 901.252.8000

800.816.7809 Fax: 901.252.1354 **Technical Services** Tel: 888.862.3289





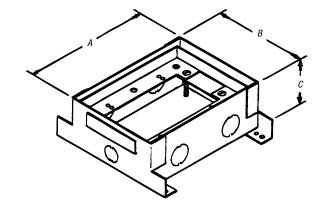
Flush Service Floor Boxes

Multiple-Gang Floor Boxes for Power and Communications: 740 Series

The new 740 Series line of stamped-steel floor boxes are an extension of T&B's industry-leading 640 and 840 series cast-iron floor boxes. The new boxes provide flush service for power, communications and data. Multiplegang boxes allow the user to place high- and low-voltage in a single floor box. The 740 series can be used for carpet or tile applications.

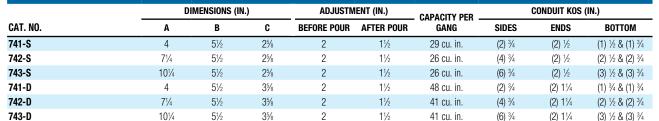
- Available in shallow (2%") and deep (3%") versions
- UL Listed and CSA certified
- Available in one-, two- and three-gang versions
- Two- and three-gang boxes are supplied with customer-installed dividers
- 16 ga. pre-galvanized steel construction
- Adjustable with four exterior leveling legs capable of 2" pre-pour adjustment and an interior leveling ring capable of 1¼" after-pour adjustment
- Made with a variety of KOs ranging from ½" to 1¼"
- Boxes utilize the 640P series metallic and non-metallic floor box accessories with the unique one-step installation method
- Shipped with expendable steel cap to prevent ingress of concrete at installation





CAT. NO.	DESCRIPTION	STD. CTN.
741-S	Shallow One-Gang Steel Floor Box for Concrete Construction	4
742-S	Shallow Two-Gang Steel Floor Box for Concrete Construction	1
743-S	Shallow Three-Gang Steel Floor Box for Concrete Construction	1
741-D	Deep One-Gang Steel Floor Box for Concrete Construction	4
742-D	Deep Two-Gang Steel Floor Box for Concrete Construction	1
743-D	Deep Three-Gang Steel Floor Box for Concrete Construction	1

Engineering Data for 740 Series



(III)



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services**

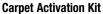


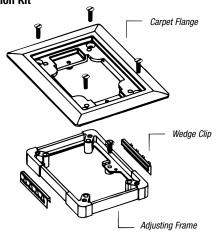


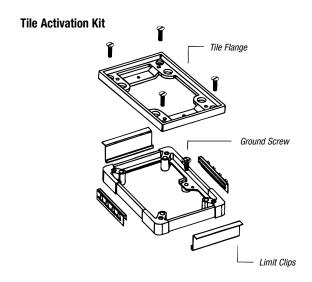


Carpet and Tile Activations for 740 Series











CAT. NO.	DESCRIPTION	FINISH	STD. CTN.	
Carpet Activations for 740 Series				
641P-CACA	One-Gang Carpet Trim	Aluminum	4	
641P-CACB	One-Gang Carpet Trim	Brass	4	
641P-CAC-BGE	One-Gang Carpet Trim	Non-Metallic Beige	4	
641P-CAC-BLK	One-Gang Carpet Trim	Non-Metallic Black	4	
641P-CAC-GRY	One-Gang Carpet Trim	Non-Metallic Gray	4	
642P-CACA	Two-Gang Carpet Trim	Aluminum	4	
642P-CACB	Two-Gang Carpet Trim	Brass	4	
642P-CAC-BGE	Two-Gang Carpet Trim	Non-Metallic Beige	4	
642P-CAC-BLK	Two-Gang Carpet Trim	Non-Metallic Black	4	
642P-CAC-GRY	Two-Gang Carpet Trim	Non-Metallic Gray	4	
643P-CACA	Three-Gang Carpet Trim	Aluminum	4	
643P-CACB	Three-Gang Carpet Trim	Brass	4	
643P-CAC-BGE	Three-Gang Carpet Trim	Non-Metallic Beige	4	
643P-CAC-BLK	Three-Gang Carpet Trim	Non-Metallic Black	4	
643P-CAC-GRY	Three-Gang Carpet Trim	Non-Metallic Gray	4	

CAT. NO.	DESCRIPTION	FINISH	STD. CTN.
Tile Activations fo	r 740 Series		
641P-TACA	One-Gang Tile Trim	Aluminum	4
641P-TACB	One-Gang Tile Trim	Brass	4
641P-TAC-BGE	Non-Metallic	Beige	4
641P-TAC-BLK	Non-Metallic	Black	4
641P-TAC-GRY	Non-Metallic	Gray	4
642P-TACA	Two-Gang Tile Trim	Aluminum	4
642P-TACB	Two-Gang Tile Trim	Brass	4
642P-TAC-BGE	Non-Metallic	Beige	4
642P-TAC-BLK	Non-Metallic	Black	4
642P-TAC-GRY	Non-Metallic	Gray	4
643P-TACA	Three-Gang Tile Trim	Aluminum	4
643P-TACB	Three-Gang Tile Trim	Brass	4
643P-TAC-BGE	Non-Metallic	Beige	4
643P-TAC-BLK	Non-Metallic	Black	4
643P-TAC-GRY	Non-Metallic	Gray	4

www.tnb.com

United States Tel: 901.252.8000

800.816.7809 Fax: 901.252.1354 **Technical Services** Tel: 888.862.3289

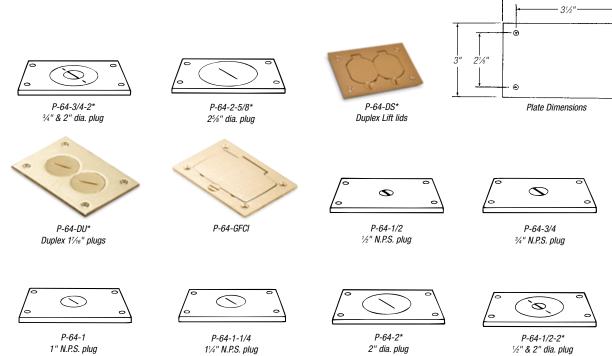






Flush Service Floor Boxes

MopTite® Cover Plates for 740 Series



*Also includes seating plate for receptacle like others.



3/16"

CAT. NO.	DESCRIPTION	FINISH	STD. CTN.
P-64-1/2	Cover Plate 1/2" NPS Plug	Brass	4
P-64-1/2-AL	Cover Plate 1/2" NPS Plug	Aluminum	4
P-64-3/4	Cover Plate 3/4" NPS Plug	Brass	4
P-64-3/4-AL	Cover Plate 3/4" NPS Plug	Aluminum	4
P-64-1	Cover Plate 1" NPS Plug	Brass	4
P-64-1-AL	Cover Plate 1" NPS Plug	Aluminum	4
P-64-1-1/4	Cover Plate 11/4" NPS Plug	Brass	4
P-64-1-1/4-AL	Cover Plate 11/4" NPS Plug	Aluminum	4
P-64-2	Cover Plate 2" UN Plug	Brass	4
P-64-2-AL	Cover Plate 2" UN Plug	Aluminum	4
P-64-1/2-2	Cover Plate 1/2" & 2" UN Plug	Brass	4
P-64-1/2-2-AL	Cover Plate 1/2" & 2" UN Plug	Aluminum	4
P-64-3/4-2	Cover Plate 3/4" & 2" UN Plug	Brass	4
P-64-3/4-2-AL	Cover Plate 3/4" & 2" UN Plug	Aluminum	4
P-64-2-5/8	Cover Plate 25/8" UN Plug	Brass	4
P-64-2-5/8-AL	Cover Plate 25/8" UN Plug	Aluminum	4
P-64-DU	Cover Plate Duplex 17/16" Plugs	Brass	4
P-64-DU-AL	Cover Plate Duplex 17/16" Plugs	Aluminum	4
P-64-DS	Cover Plate Duplex Lift Lids	Brass	4
P-64-DS-AL	Cover Plate Duplex Lift Lids	Aluminum	4
P-64-GFCI	Cover Plate GFCI Flip Lid	Brass	4
P-64-GFCI-AL	Cover Plate GFCI Flip Lid	Aluminum	4
Vew MopTite® Covers exceed	UL® scrubwater exclusion requirements.		

Thomas@Betts

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 Tel: 888.862.3289

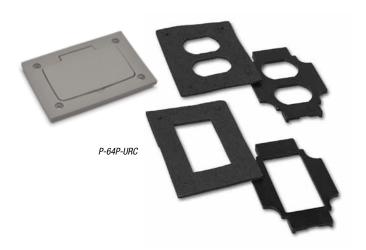


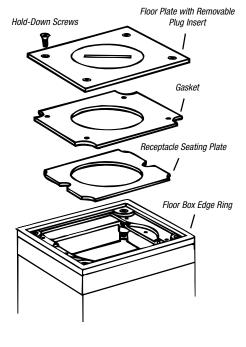


Flush Service Floor Boxes

MopTite® Non-Metallic Cover Plates for 740 Series

- · Polished-brass finish
- Furnished complete with sealing gasket and 8-32 x 1/16" brass screws
- 3" x 4½" outside dimension
- For brushed aluminum, add AL after catalog number
- All covers meet MopTite® requirements







			STD.
CAT. NO.	DESCRIPTION	FINISH	CTN.
P64P-URC-BLK	Universal Cover	Black	4
P64P-URC-GRY	Universal Cover	Gray	4
P64P-URC-BGE	Universal Cover	Beige	4
P64P-BP-BLK	Blank Cover	Black	4
P64P-BP-GRY	Blank Cover	Gray	4
P64P-BP-BGE	Blank Cover	Beige	4

New MopTite® Covers exceed UL® scrubwater exclusion requirements.





1-800-453-1692



Flush Service Floor Boxes

Single-Gang Residential Floor Box Kit for Wood Floors.

Steel City® Single-Gang Residential Floor Box Kit

Tired of tripping over extension cords? Look no further than the Steel City® Single-Gang Residential Floor Box Kit from Thomas & Betts. This affordable and conveniently packaged kit for the residential market provides power right where you need it most.

- · Kit includes switch box, cover, flange and receptacle
- Durable metallic covers and flanges are available in aesthetic brass or nickel finishes
- Available with duplex or GFCI receptacle
- MopTite® covers meet UL® scrubwater requirements for wood, tile and carpet
- 3" x 2" Switch Box is $3\frac{1}{2}$ " deep with 18 cu. in. capacity
- Box includes integral non-metallic sheathed cable clamps







Material: Box — Galvanized Steel Cover — Brass or Nickel plated

Aluminum Flange — Die-cast Zinc with Brass or Nickel finish

· Listing: UL® and CSA Listed



CAT. NO.	DESCRIPTION	STD. CTN.
71W-DS	1-Gang Residential Floor Box — Duplex Recp., Brass Finish	4
71W-DS-N	1-Gang Residential Floor Box — Duplex Recp., Nickel Finish	4
71W-GFCI	1-Gang Residential Floor Box — GFCI Recp., Brass Finish	4
71W-GFCI-N	1-Gang Residential Floor Box — GFCI Recp., Nickel Finish	4





Brass finish with duplex receptacle.



Nickel finish with GFCI receptacle.



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services** Tel: 888.862.3289







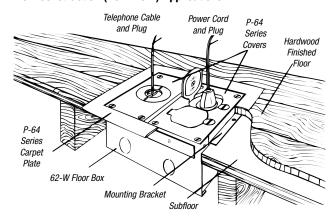
Flush Service Floor Boxes

For Wood Subfloors! **60W Series Floor Boxes**

Steel City® 60W Series Floor Boxes provide single- and multi-gang solutions for wood subfloor applications.

- NEW! Three-gang configuration for high-capacity, multi-service installations
- NEW! Larger KOs (¾" and 1") have been added to each gang for application flexibility
- Adjustable mounting brackets allow for various finished floor-material heights (hardwoods, tile or carpet)
- Ideal for open-layout residential applications, school auditoriums or commercial office space
- · Voltage dividers are included with multi-gang boxes to accommodate power, voice and data services in the same floor box
- Full range of metallic and non-metallic cover and flange options

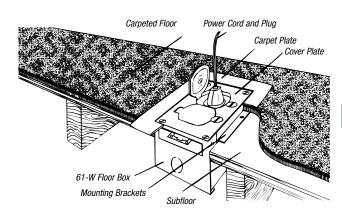
New Construction (New Work) Applications

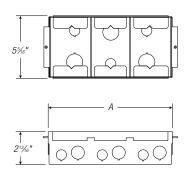


CAT. NO.		DIMENSION	A (IN.)	CAPACITY	STD. CTN.
61W		1-Gang Floor Box for Wood Subfloors $3^1\%$ Ends: (2) ½", (2) ¾" Bottom: (1) ½", (1) 1"	311/16	31 cu. in.	1
62W		2-Gang Floor Box for Wood Subfloors $7\%^{\rm H}$ Ends: (4) $1/2^{\rm H}$, (4) $3\%^{\rm H}$ Bottom: (2) $1\%^{\rm H}$, (2) $1\%^{\rm H}$	71/16	60 cu. in.	1
63W	NEW!	3-Gang Floor Box for Wood Subfloors 10½" Ends: (6) ½", (6) ½" Bottom: (3) ½", (3) 1"	101/4	90 cu in.	1



Retrofit Construction (Old Work) Application











Above-Floor Service Fittings

Steel City® Service Fittings Provide Above-Floor Service for Power, Communications and Data.

Service Fittings for Power

SFH-40 Series

Brushed-aluminum finish

- Low-profile design
- Furnished with 1" conduit nipple



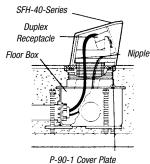
- Brushed-aluminum finish
- Interchangeable face plates
- Furnished with 1" conduit nipple for direct screwthreading into a floor box plate with 1" cover opening















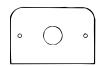
SFH-51-COVFR Single Receptacle Plate, 2.16" Hole



SFH-50-DUPCOV Duplex Receptacle Plate



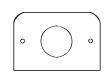
SFH-50-BLCOV Blank Plate



SFH-50-TELECOV Telephone Plate, 1" Hole



SFH-50-CVW11332 Single Receptacle Plate, 1.39" Hole



SFH-50-CVW11932 Single Receptacle Plate, 1.60" Hole

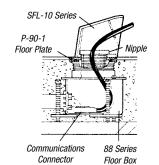
Service Fittings for Communications and Data

- Brushed-aluminum finish
- · Low-profile design
- Furnished with 1" conduit nipple



			DIMENSIONS (IN.)		STD.	
CAT. NO.	DESCRIPTION	FINISH	w	D	H	CTN.
SFL-10	3/4" x 11/8" Bushed Opening	Brushed	43//8	31/8	25/8	4
	for Telephone or Computer	Aluminum				

Sample Application





SFL-10



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354

Technical Services Tel: 888.862.3289





www.tnb.com





A-170

Replacement Parts and Accessories

68, 600, 640, 740 and 840 Series — 1-, 2-, 3-Gang

(ÎI)

(ĥ)

Floor Plate Plug Inserts





2			

CAT. NO.	SIZE OR DESCRIPTION	STD. CTN.
690-SC	½"-14" NPS Thread	4
691-SC	3/4"-14" NPS Thread	4
692-SC	1"-11½" NPS Thread	4
693-SC	11/4"-111/2" NPS Thread	4
694	2"-20" UN Thread	4
695	1/2"-2"	4
696-SC	3/4"-2"	4
697	25/8"-20" UN 2A Thread	4
698	17/16" for Duplex P-60-DU	4

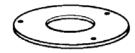
For standard plug inserts 1/2" through 2", see page A-155.

Catalog numbers are for brass.

For aluminum, add AL after catalog number.

25/8"-20" UN 2A thread.

Gaskets for Floor Plate Assemblies



		_
CAT. NO.	DESCRIPTION FOR USE WITH:	STD. CTN.
630-SC	P-60 Series Floor Plate Assemblies	4
631	(except duplex) P-60-DR, P-60-DU, P-60-DC-AL Floor Plate Assemblies	4
SP-60-DS-P3	P-60-DS Floor Plate Assembly	1

Seating Plates for Receptacles — Steel



CAT. NO.	DESCRIPTION FOR USE WITH:	STD. CTN.
SP-620-MA	P-60-2, P-60-1/2-2, P-60-3/4-2 Floor Plate Assemblies	1
SP-621	P-60-DR, P-60-DU, P-60-DC-AL and P-60-DS	1

Tile Trims

CAT. NO.

600-4-FL

600-4-FL-AL



	ψ
DESCRIPTION	STD. CTN.
Aluminum	4

Gaskets for Floor Plate Assemblies



STD. CTN.
4
10

侕

CAT. NO.	DESCRIPTION FOR USE WITH:	STD. CTN.
SP650	P-64 Series Floor Plate Assemblies	4
SP651	P-64-DU Floor Plate Assemblies	10
SPP-64-DS-P2	P-64-DS Floor Plate Assemblies	4

Seating Plates for Receptacles — Steel





CAT. NO.	DESCRIPTION FOR USE WITH:	STD. CTN.
640	P-64-2, P-64-1/2-2, P-64-3/4-2	
	Floor Plate Assemblies	4
639	P-64-2-5/8 Floor Plate Assemblies	1
638	P-64-DS and P-64-DU Floor Plate Assemblies	25/8-20
		UN 2A Thread

Floor Plate Plug Inserts







CAT. NO.	DESCRIPTION FOR USE WITH:	STD. CTN.
697	25%"	4
698	17/16" for Duplex P-64-DU	4

For standard plug inserts 1/2" through 2", see page A-155. Catalog numbers are for brass. For aluminum, add AL after catalog number.



United States

(ľ)

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354





www.aboveboardelectronics.com

Replacement Parts and Accessories

For 78, 88 and 98, 671 or 672 Series Floor Box Body Parts









			-
		- 4	.
			41

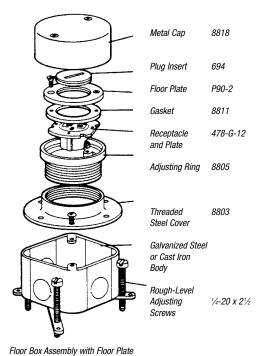
CAT. NO.	DESCRIPTION	STD. CTN.
8805	Brass Adjusting Ring	4
8803	Threaded Steel Body Cover of 78 and 88 Series	4
8818	Metal Protective Cap	4
9803	Threaded Steel Body Cover for 98 Series	4
25/8"-20" UN 2A	A Thread.	

Gasket for Floor Plate Assembly





CAT. NO.	FOR USE WITH:	STD. CTN.
8811	P-90 Series Floor Plates	4



TIOUI DOX ASSEMBLY WITH TIO

Plate for Short Strap Receptacle



		STD.
CAT. NO.	FOR USE WITH:	CTN.
889	Series 78, 88, 98, 671, 672 Boxes	4



Extension Collar



		<u> </u>
CAT. NO.	FOR USE WITH:	STD. CTN.
8805-E	Provides an Extension of Floor Box Throat Upwards 11/8"; for Extreme Depths (7 cu. in.) 25/8–20 UN 2A Thread	4

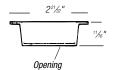


Microphone Adapter for Floor Boxes



CAT. NO.	FOR USE WITH:	STD. CTN.
489-MA	27-ga. Galvanized Steel with 11/4" Dia. Opening for Standard	4
	Microphone Jacks: for Steel City® Floor Box Series 78, 88,	
	98 and 671	





489-MA 1¼" dia.



United States Tel: 901.252.8000

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354



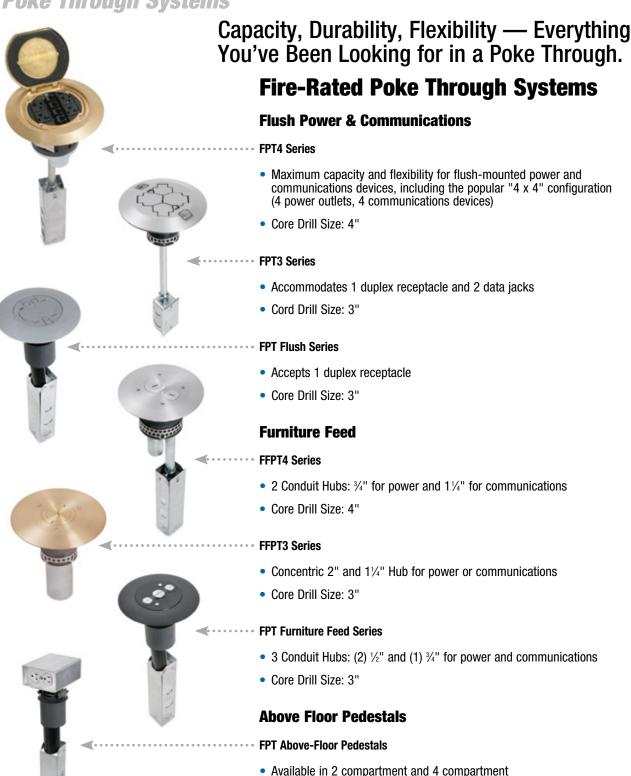








Poke Through Systems



www.tnb.com

United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354

Core Drill Size: 3"

for power and communications

Technical Services Tel: 888.862.3289

Thomas@Betts

Poke Through Systems

FPT4 Series

The FPT4 Series provides everything you look for in a flush Poke Through capacity, durability, flexibility, accessibility and aesthetics.

Capacity:

- Four standard configurations:
 - 4 power receptacles + 4 communications devices (4 x 4)
 - 2 power receptacles + 6 communications devices
 - 8 communications devices
 - 1 locking receptacle + 2 communications devices
- Core Drill Size: 4"

Durability:

- Solid brass or aluminum covers protect devices from damage and debris when not in use — no exposed plastic components
- Unique latching lid eliminates easily damaged, hard-to-use locking screws

Accessibility:

- Full access to communications compartment through the cover without exposing power compartments even after it's installed in the floor
- "Straight-through" wiring of communications cabling for easy installation and changes

Flexibility:

- Configurable design to meet any project requirements:
 - 4 standard configurations for power and communications devices
 - 20A receptacles can be wired as isolated ground (orange labels provided)
 - Communications plates available to accommodate data jacks from many manufacturers
- Accepts Extron MAAP plates for A/V components
- · Threaded conduit hubs enable all communications cabling to be enclosed in a single conduit
 - Integral 1" hub on the 4 x 4 no extra parts needed
 - Optional hubs available for other configurations
- Junction box features (5) ½" and (5) ¾" knockouts (27 cubic inch capacity)

Aesthetics:

- The only 4" core poke through for power and communications with the entire cover made of solid brass — features an aesthetic brushed finish
- Solid aluminum covers also available with brushed finish or powder-coated finishes in black, gray, brown and beige to match any décor — the most colors in the industry



8 Communications page A-176.



1 Locking Recentacle + 2 Communications, page A-176.



4 Power + 4 Communications, page A-175.



2 Power + 6 Communications, page A-175.



United States Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354

Technical Services Tel: 888.862.3289



Poke Through Systems

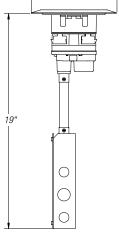
Poke Through: 4 Power and 4 Communications

- Four 20A Receptacles, two circuits, six 12 AWG wires, prewired, pigtail ends in junction box (can be wired as isolated ground, labels provided)
- Keystone Communications Device Plate with four Keystone Category 5e
 Data Jacks see page A-177 for optional Communications Device
 Plates for Compartment A
- Integral 1" threaded conduit hub for communication wiring (cast iron)

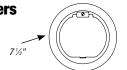
		(I)
CAT. NO.	DESCRIPTION	STD. CTN.
FPT4-4P-4C-TBRS	Poke-Through Assembly: Base with Brass Cover	1
FPT4-4P-4C-TALM	Poke-Through Assembly: Base with Aluminum Cover	1
FPT4-4P-4C-TBLK	Poke-Through Assembly: Base with Black Cover	1
FPT4-4P-4C	Poke-Through Base (Cover Purchased Separately)	1

Device Layout Compartment A Cable Entry 19"

1/2" Threaded Hub for Power



Poke Through Covers



		$\overline{}$
CAT. NO.	DESCRIPTION	STD. CTN.
FPT4-CVR-TBRS	Cover, FPT4 Series Poke Through — Brushed Brass	4
FPT4-CVR-TALM	Cover, FPT4 Series Poke Through — Brushed Aluminum	4
FPT4-CVR-TBLK	Cover, FPT4 Series Poke Through — Aluminum with Black Powder Coat Finish	4
FPT4-CVR-TBGE	Cover, FPT4 Series Poke Through — Aluminum with Beige Powder Coat Finish	4
FPT4-CVR-TBRN	Cover, FPT4 Series Poke Through — Aluminum with Brown Powder Coat Finish	4

Forged solid brass and aluminum covers.

Latching lid closes easily without the need for locking screws.







Poke Through: 2 Power and 6 Communications

ions

FPT4-CCH-6C
Communications Conduit Hub
(optional)

1" Threaded Hub

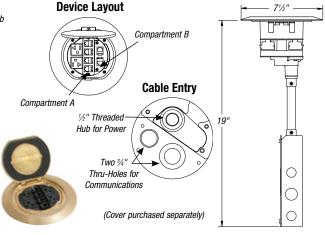
(III)

1" Threaded / Hub for Communications

CAT. NO.	DESCRIPTION	STD. CTN.
FPT4-2P-6C	Poke-Through Base Unit only (cover purchased separately)	1
FPT4-CCH-6C	Optional 1" Threaded Conduit Hub for Communications Wiring (cast iron)	1

Two 20A Receptacles, one circuit, three 12 AWG wires, prewired, pigtail ends in junction box (can be wired as isolated ground, labels provided).

Includes Keystone Communications Device Plates with six Keystone Category 5e Data Jacks — see **page A-177** for optional Communications Device Plates for Compartment A and Compartment B.





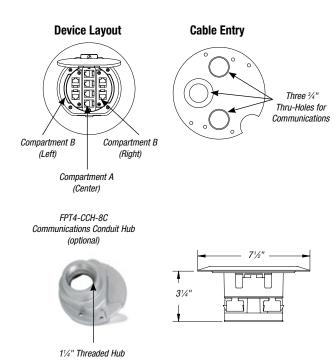
United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 Technical Services
Tel: 888.862.3289





Poke Through Systems



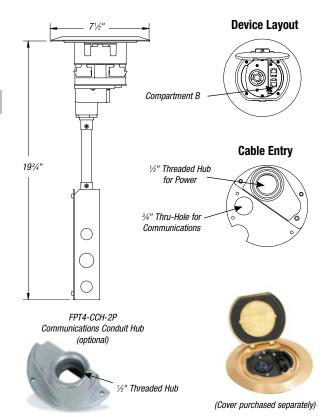
FPT4 Series (continued)

Poke Through: 8 Communications

- Keystone Communications Device Plates with eight Keystone Category 5e Data Jacks — see page A-177 for optional Communications Device Plates for Compartment A and Compartment B
- No junction box



CAT. NO.	DESCRIPTION	STD. CTN.
FPT4-8C	Poke-Through Base (Cover Purchased Separately)	1
FPT4-CCH-8C	Optional 11/4" Threaded Conduit Hub for Communications Wiring (Cast Iron)	4



Poke Through: 1 Locking Receptacle & 2 Communications

- 20A Receptacle: pre-wired, three 12 AWG wires, pigtail ends in junction box
- 30A Receptacle: pre-wired, three 10 AWG wires, pigtail ends in junction box
- · Cover purchased separately
- Includes Keystone Communications Device Plates with two Keystone Category 5e Data Jacks — see page A-177 for optional Communications Device Plates for Compartment B

	9
DESCRIPTION	STD. CTN.
Poke-Through Base, NEMA L5-20R, 20A/125V Locking Receptacle, 2 Communications Receptacles	1
Poke-Through Base, NEMA L6-20R, 20A/250V Locking Receptacle, 2 Communications Receptacles	1
Poke-Through Base, NEMA L5-30R, 30A/125V Locking Receptacle, 2 Communications Receptacles	1
Poke-Through Base, NEMA L6-30R, 30A/250V Locking Receptacle, 2 Communications Receptacles	1
Optional ½" Threaded Conduit Hub for Communications Wiring (Cast Iron)	4
	Poke-Through Base, NEMA L5-20R, 20A/125V Locking Receptacle, 2 Communications Receptacles Poke-Through Base, NEMA L6-20R, 20A/250V Locking Receptacle, 2 Communications Receptacles Poke-Through Base, NEMA L5-30R, 30A/125V Locking Receptacle, 2 Communications Receptacles Poke-Through Base, NEMA L6-30R, 30A/250V Locking Receptacle, 2 Communications Receptacles Optional ½" Threaded Conduit Hub



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services**

Tel: 888.862.3289





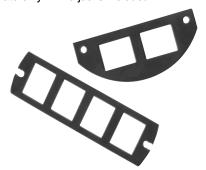


(M)

Poke Through Systems

Optional Communications Device Plates

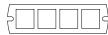
Device Plate only — no jacks included



		_
CAT. NO.	DESCRIPTION	STD. CTN.
FPT4-CPA-4KEY	For 4 Keystone Jacks — Compartment A*	4
FPT4-CPA-4SYS	For 4 Systemax® Jacks — Compartment A	4
FPT4-CPA-3PAN	For 3 Panduit Jacks — Compartment A**	4
FPT4-CPA-1MAAP	For Extron® MAAP Plate, Single Space — Compartment A	4
FPT4-CPA-40RT	For 4 Ortronics® Jacks — Compartment A	4
FPT4-CPA-BLANK	Blank — Compartment A	4
FPT4-CPB-2KEY	For 4 Keystone Jacks — Compartment B*	4
FPT4-CPB-2SYS	For 4 Systemax® Jacks — Compartment B	4
FPT4-CPB-2PAN	For 2 Panduit Jacks — Compartment B**	4
FPT4-CPB-1MAAP	For Extron® MAAP Plate, Single Space — Compartment B	4
FPT4-CPB-20RT	For 4 Ortronics® Jacks — Compartment B	4
FPT4-CPB-BLANK	Blank — Compartment B	4
FPT4-CPAB-2MAAP	For Extron® MAAP Plate, Double Space — Compartment A-B	4

^{*} Keystone plates also accept Leviton® and Hubbell® devices.

Compartment A . Plates



FPT4-CPA-4SYS



FPT4-CPA-3PAN**

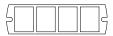


FPT4-CPA-4KEY

(ĥ)



FPT4-CPA-1MAAP



FPT4-CPA-40RT



Compartment B . Plates



FPT4-CPB-2SYS





FPT4-CPB-2KEY



FPT4-CPB-1MAAP

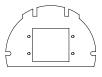


FPT4-CPB-20RT



FPT4-CPB-BLANK





FPT4-CPAB-2MAAP

Replacement Power Insert — 2 Receptacles

 For use with FPT4-4P-4C and FPT4-2P-6C Series Poke-Through Systems

		(AL)
CAT. NO.	DESCRIPTION	STD. CTN.
FPT4-2P-RPL	Replacement Power Insert with 18" Wire Whip — Two 20A Receptacles	4



Thomas@Betts

^{**} Requires CMNZABL-X adapter from Panduit® to mount Panduit® MiniCom jacks.

^{***} For use with FTP4-2P-6C and FPT4-8C Series only; replaces one Compartment A plate and one Compartment B plate.

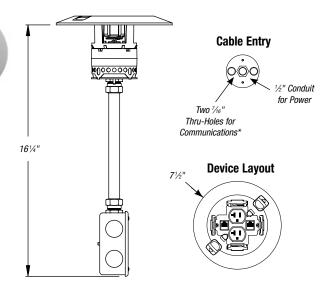
Poke Through Systems



Poke Through: 2 Power and 2 Communications

This aesthetic, easy-to-use poke through provides an ideal power and data solution — great for new construction or upgrading existing 3" core installations.

- Capacity: 1 duplex receptacle and 2 data jacks (included)
- · Core drill Size: 3"
- Durable solid brass or aluminum covers protect devices from damage and debris when not in use — no exposed plastic components
- Powder-coated aluminum covers are available in black, gray, brown and beige to match any décor — the most colors in the industry
- Brushed brass and aluminum finishes provide superior aesthetics
- Slide latches enable tool-less access to individual receptacles — eliminates the need for hard-to-use locking screws
- Accepts Keystone, Leviton® or Hubbell® data jacks
- Junction box features (3) ½" and (4) ¾" knockouts (13 cubic inch capacity)
- Includes (1) 20A duplex receptacle, pre-wired, pigtail ends in junction box
- Includes (2) Leviton® CAT5e data jacks



* If 1/2" EMT conduit stubs are required for communications cabling, use "City of Chicago" base unit, catalog # FPT3-2P-2C-C (see page A-184).



CAT. NO.	DESCRIPTION	STD. CTN.
FPT3-2P-2C-BRS	FPT3 Series Poke-Through Assembly: Base Unit with Brushed-Brass Cover	1
FPT3-2P-2C-ALM	FPT3 Series Poke-Through Assembly: Base Unit with Brushed-Aluminum Cover	1
FPT3-2P-2C-BLK	FPT3 Series Poke-Through Assembly: Base Unit with Black Powder-Coat Cover	1
FPT3-2P-2C	FPT3 Series Poke-Through Base Unit Only: Cover Purchased Separately (see below)	1

Poke Through Covers



CAT. NO.	DESCRIPTION	STD. CTN.
FPT3-CVR-BRS	Cover, FPT3 Series Poke Through — Solid Brass, Brushed Finish	4
FPT3-CVR-ALM	Cover, FPT3 Series Poke Through — Solid Aluminum, Brushed Finish	4
FPT3-CVR-BLK	Cover, FPT3 Series Poke Through — Aluminum with Black Powder-Coat Finish	4
FPT3-CVR-GRY	Cover, FPT3 Series Poke Through — Aluminum with Gray Powder-Coat Finish	4
FPT3-CVR-BGE	Cover, FPT3 Series Poke Through — Aluminum with Beige Powder-Coat Finish	4
FPT3-CVR-BRN	Cover, FPT3 Series Poke Through — Aluminum with Brown Powder-Coat Finish	4

See page A-179 to view typical brushed metal and powder coat finishes.



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354



Tel: 888.862.3289







Poke Through Systems

FPT Flush Series

The Steel City® FPT Poke Through Series provides an economical solution for installing a duplex receptacle in an existing floor — right where you need it.

- Capacity: 1 duplex receptacle
- · Core drill size: 3"
- · Brushed brass and aluminum covers provide superior aesthetics and durability
- · Non-metallic covers are available in black, gray, beige and brown
- Non-metallic covers include openings for 3 communications cables
- Integral junction box features (5) 1/2" and (5) 3/4" knockouts (27 cubic inch capacity)
- · Assembled units include (1) 20A duplex receptacle, pre-wired with pigtail ends in junction box

(ĥľ

Device Layout Non-Metallic 16" Removable KO for Communications Cable (Qty. = 3)**Cable Entry** Opening for Power Opening for Communication (Equivalent to One 1/2" Conduit) (Equivalent to Two

Poke Through: 2 Power

1 OKO TIII OUGII. 2 T OWOI		_
CAT. NO.	DESCRIPTION	STD. CTN.
FPT-449	FPT Flush Poke-Through Assembly: Base Unit with Solid-Brass Cover	1
FPT-450	FPT Flush Poke-Through Assembly: Base Unit with Solid-Aluminum Cover	1
FPT-445-SW-BLK	FPT Flush Poke-Through Assembly: Base Unit with Black Non-Metallic Cover	1
FPT-445-SW-GRY	FPT Flush Poke-Through Assembly: Base Unit with Gray Non-Metallic Cover	
FPT-445-SW-BGE	FPT Flush Poke-Through Assembly: Base Unit with Beige Non-Metallic Cover	1
FPT-445-SW-BRN	FPT Flush Poke-Through Assembly: Base Unit with Brown Non-Metallic Cover	1
FPT-400B	FPT Poke-Through Base Unit Only (no duplex): Cover Purchased Separately	1

Poke-Through Covers

 Non-metallic covers feature 3 openings for communications cables

		(II)
CAT. NO.	DESCRIPTION	STD. CTN.
FPT-CACP	Solid Brass, Brushed Finish, 5¾" Diameter	10
FPT-CACP-AL	Solid Aluminum, Brushed Finish, 53/4" Diameter	10
FPT-441-SW-BLK	Black, Non-Metallic, 7" Diameter	10
FPT-441-SW-GRY	Gray, Non-Metallic, 7" Diameter	10
FPT-441-SW-BGE	Beige, Non-Metallic, 7" Diameter	10
FPT-441-SW-BRN	Brown, Non-Metallic, 7" Diameter	10

Brushed Metal Finishes

3/4" Conduits)



FPT-CACP



Non-Metallic Colors and Finishes







FPT-441-SW-RGF

FPT-CACP-AL

FPT-441-SW-BRN



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354





Thomas@Betts

Poke Through Systems

FFPT4 Series Poke Through

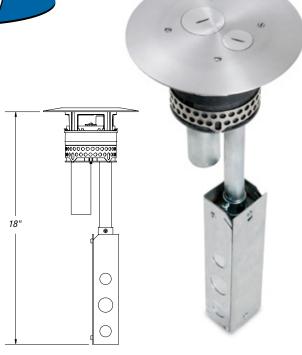


(III)

With limitations on the number of holes that can be drilled in a floor, it is important to maximize the capacity of each location. The FFPT4 Series provides high capacity for both power wiring and communications cabling when feeding modular furniture — in a single-core drill location!

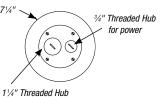
- Capacity: ¾" hub for power wiring and 1¼" hub for communications cabling (plugs included)
- Core drill size: 4"
- Solid brass and aluminum finishes provide superior aesthetics and durability
- Powder-coated aluminum covers are available in black, gray, brown and beige to match any décor — the most colors in the industry
- Integral junction box features (5) ½" and (5) ¾" knockouts (27 cubic inch capacity)

		(II)
CAT. NO.	DESCRIPTION	STD. CTN.
FFPT4-BRS	FFPT4 Series Poke-Through Assembly: Base Unit with Brushed-Brass Cover	1
FFPT4-ALM	FFPT4 Series Poke-Through Assembly: Base Unit with Brushed-Aluminum Cover	1
FFPT4-BLK	FFPT4 Series Poke-Through Assembly: Base Unit with Black Powder-Coat Cover	1
FFPT4	FFPT4 Series Poke-Through Base Unit Only: Cover Purchased Separately (see page A-179)	1



Hub Layout — Cover

for Communications





3/4" Conduit for power 11/4" Conduit for Communications

Poke-Through Covers

		GD
CAT. NO.	DESCRIPTION	STD. CTN.
FFPT4-CVR-BRS	Solid Brass, Brushed Finish	4
FFPT4-CVR-ALM	Solid Aluminum, Brushed Finish	4
FFPT4-CVR-BLK	Aluminum with Black Powder-Coat Finish	4
FFPT4-CVR-GRY	Aluminum with Gray Powder-Coat Finish	4
FFPT4-CVR-BGE	Aluminum with Beige Powder-Coat Finish	4
FFPT4-CVR-BRN	Aluminum with Brown Powder-Coat Finish	4
See page A-179 to view	typical brushed metal and powder coat colors and finishes.	





Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354





Poke Through Systems

FFPT3 Series Poke Through

When feeding large bundles of communications cables through a fire-rated floor, the FFPT3 Series provides a high-capacity, straight-through wiring solution. It can also be used for power wiring.

- Capacity: Concentric 1¼" and 2" hub for power or communications wiring (plugs included)
- · Core Drill Size: 3"
- Solid brass and aluminum finishes provide superior aesthetics and durability
- Powder-coated aluminum covers are available in black, gray, brown and beige to match any décor — the most colors in the industry
- Junction box not included

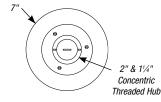


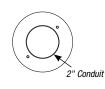
CAT. NO.	DESCRIPTION	STD. CTN.
FFPT3-BRS	FFPT3 Series Poke-Through Assembly: Base Unit with Brushed-Brass Cover	1
FFPT3-ALM	FFPT3 Series Poke-Through Assembly: Base Unit with Brushed-Aluminum Cover	1
FFPT3-BLK	FFPT3 Series Poke-Through Assembly: Base Unit with Black Powder-Coat Cover	1
FFPT3	FFPT3 Series Poke-Through Base Unit Only: Cover Purchased Separately (see Below)	1



Hub Layout — Cover

Cable Entry





Poke-Through Covers

		(ĥ
CAT. NO.	DESCRIPTION	STD. CTN.
FFPT3-CVR-BRS	Solid Brass, Brushed Finish	4
FFPT3-CVR-ALM	Solid Aluminum, Brushed Finish	4
FFPT3-CVR-BLK	Aluminum with Black Powder-Coat Finish	4
FFPT3-CVR-GRY	Aluminum with Gray Powder-Coat Finish	4
FFPT3-CVR-BGE	Aluminum with Beige Powder-Coat Finish	4
FFPT3-CVR-BRN	Aluminum with Brown Powder-Coat Finish	4
See nage A-179 to vi	ew typical brushed metal and powder coat colors and finishes	









1-800-453-1692

Poke Through Systems

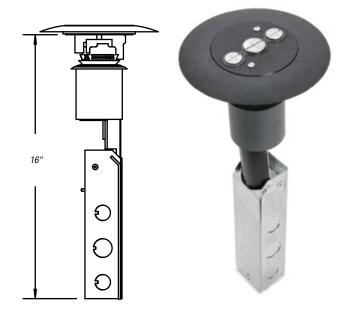
FPT Furniture Feed Series

With three conduit hubs for power and communications and an integral junction box, the FPT Series provides a flexible, cost-effective furniture feed solution.

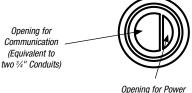
- Capacity: (2) ½" hubs and (1) ¾" hub for power and data (plugs included)
- · Core drill size: 3"
- Non-metallic covers are available in black, gray, beige and brown
- Provided with Steel City® die cast fittings for flexible metal conduit: (2) 1/2" and (1) 3/4"
- Integral junction box features (5) ½" and

(5) ¾" Knockouts (27 cubic inch capacity)		
Poke Through		(Jr
CAT. NO.	DESCRIPTION	STD. CTN.
FPT-448-SW-BLK	FPT Furniture Feed Poke-Through Assembly: Base Unit with Black Non-Metallic Cover	1
FPT-448-SW-GRY	FPT Furniture Feed Poke-Through Assembly: Base Unit with Gray Non-Metallic Cover	1
FPT-448-SW-BGE	FPT Furniture Feed Poke-Through Assembly: Base Unit with Beige Non-Metallic Cover	1
FPT-448-SW-BRN	FPT Furniture Feed Poke-Through Assembly: Base Unit with Brown Non-Metallic Cover	1
FPT-400B	FPT Poke-Through Base Unit Only:	1

Cover Purchased Separately (see Below)





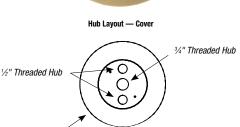


Opening for Power (Equivalent to one 1/2" Conduit)

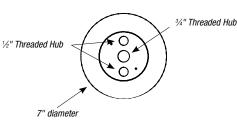
Poke-Through Covers

		&
CAT. NO.	DESCRIPTION	STD. CTN.
FPT-442-SW-BLK	Black, Non-Metallic, 7" Diameter	10
FPT-442-SW-GRY	Gray, Non-Metallic, 7" Diameter	10
FPT-442-SW-BGE	Beige, Non-Metallic, 7" Diameter	10
FPT-442-SW-BRN	Brown, Non-Metallic, 7" Diameter	10

See page A-179 to view typical non-metallic cover colors and finishes.









United States Tel: 901.252.8000

800.816.7809 Fax: 901.252.1354



(III)





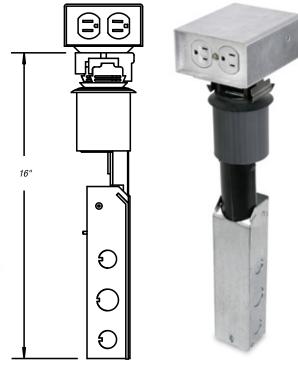
Poke Through Systems

FPT Pedestal Series

By mounting all outlets above floor level and at a 90° angle to the floor, the FPT Pedestal Series protects power receptacles and communications devices from dirt and debris. An overhanging housing provides additional protection for the outlets.

- Pedestals available in 2 compartment and 4 compartment for power and communications applications
- · Core drill size: 3"
- Housings and device plates feature a brushed-aluminum finish
- Integral junction box features (5) ½" and (5) 3/4" knockouts (27 cubic inch capacity)





Cable Entry

Opening for Communication (Equivalent to Two 3/4" Conduits)



Opening for Power (Equivalent to one 1/2" Conduit)

Poke Thro	ugh	Ŵ
CAT. NO.	DESCRIPTION	STD. CTN.
FPT-401A	FPT Pedestal, Accepts 2 Device Plates, Poke-Through Base Unit Purchased Separately (2%" high x 4" wide x 4%" deep)	10
FPT-421	FPT Pedestal, Accepts 4 Device Plates, Poke-Through Base Unit Purchased Separately, (2%" high x 4" wide x 4%" deep)	5
FPT-400B	FPT Poke-Through Base Unit Only	1

Device Plates & Accessories		(f)
CAT. NO.	DESCRIPTION	STD. CTN.
FPT-424	Duplex Device Plate, Aluminum with Anodized Finish	50
FPT-425	Blank Device Plate, Aluminum with Anodized Finish	50
OPOD4-WH	4-Port "106" Duplex Adapter for Keystone Jacks (for use with FPT-424 plate)	100
FPT-408A	Voltage Divider for FPT-401A Pedestal	10
FPT-422A	Voltage Divider for FPT-421 Pedestal	10
FPT-416	Adapter for Conduit Stub Ups	50





United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354







Poke Through Systems

City of Chicago Approved Base Units

FPT4 Poke Through

- Covers purchased separately, see page A-179
- All base units include appropriate communications conduit hub
- All base units include appropriate Keystone Communications Device Plate and Category 5e Keystone Data Jacks, see page A-140 for additional device plates
- Power junction box not included use City of Chicago approved box
- See page A-174 for additional details on FPT4 Series





		(Cover purchased separately)	(ji
T. NO.	DESCRIPTION		STD. CTN.

CAT. NO.	DESCRIPTION	STD. CTN.
FPT4-4P-4C-C	FPT4 Poke-Through Base Unit Only, (4) 20A Power Receptacles, (4) Communications Devices	1
FPT4-2P-6C-C	FPT4 Poke-Through Base Unit Only, (2) 20A Power Receptacles, (6) Communications Devices	1
FPT4-8C-C	FPT4 Poke-Through Base Unit Only, (8) Communications Devices	1
FPT4-1TL21-2C-C	FPT4 Poke-Through Base Unit Only, 20A/125V Twist Lock Receptacle, NEMA L5-20R (2) Communications Devices	1
FPT4-1TL22-2C-C	FPT4 Poke-Through Base Unit Only, 20A/250V Twist Lock Receptacle, NEMA L6-20R (2) Communications Devices	1
FPT4-1TL31-2C-C	FPT4 Poke-Through Base Unit Only, 30A/125V Twist Lock Receptacle, NEMA L5-30R (2) Communications Devices	1
FPT4-1TL32-2C-C	FPT4 Poke-Through Base Unit Only, 30A/250V Twist Lock Receptacle, NEMA L6-30R (2) Communications Devices	1

FPT3 Poke Through

- Covers purchased separately, see page A-179
- Includes (1) 20A duplex receptacle, pre-wired
- Includes (2) CAT5e data jacks
- Power junction box not included use City of Chicago approved box
- See page A-178 for additional details on FPT3 Series



CAT. NO.	DESCRIPTION	STD. CTN.
FPT3-2P-2C-C	FPT3 Poke-Through Base Unit Only, (1) 20A Duplex	1
	Receptacle, (2) Communications Devices	

FFPT4 Poke Through

- Covers purchased separately, see page A-180
- Power junction box not included use City of Chicago approved box
- See page A-180 for additional details on FFPT4 Series



CAT. NO.	DESCRIPTION	STD. CTN.
FFPT4-C	FFPT4 Poke-Through Base Unit Only	1

FFPT3 Poke Through

- Covers purchased separately, see page A-181
- Power junction box not included use City of Chicago approved box
- See page A-181 for additional details on FFPT3 Series



(M)

		9
CAT. NO.	PECODIDATION	STD.
GAT. NU.	DESCRIPTION	CTN.
FFPT3	FFPT3 Poke-Through Base Unit Only	1



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services**

Tel: 888.862.3289





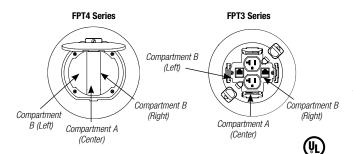


Poke Through Systems

Flush Power and Communications Poke Through Systems

Fire Rating and Concrete Thickness Min./Max. (All Series)

- For use in 1-, 1½- and 2-hour rated floors
- 1-hour rated floor
 - 21/4" minimum concrete over steel decking
 - 3" minimum concrete for reinforced slab
 - 7½" maximum concrete thickness
- 2-hour rated floor
 - 31/4" minimum concrete over steel decking
 - 4" minimum concrete for reinforced slab
 - 7½" maximum concrete thickness



MAXIMUM ALLOWABLE COPPER CROSS-SECTIONAL AREA FOR COMMUNICATIONS CABLING

POKE-THROUGH SERIES	COMPARTMENT B (LEFT)	COMPARTMENT A (CENTER)	COMPARTMENT B (RIGHT)
FPT4-4P-4C	Power	.01630 sq. in	Power
FPT4-2P-6C	Power	.01630 sq. in.	.01536 sq. in.
FPT4-8C	.01536 sq. in.	.01630 sq. in.	.01536 sq. in.
FPT4-1TL-2C	Power	Power	.01536 sq. in.
FPT3-2P-2C	.00321 sq. in.	Power	.00321 sq. in.

CROSS-SECTIONAL AREA FOR COMMON COPPER CONDUCTORS		
24 AWG	.00032 sq.in.	
22 AWG	.00050 sq. in.	
14 AWG	.00323 sq. in.	
12 AWG	.00512 sq. in.	
10 AWG	.00615 sq. in.	
8 AWG	.01296 sq. in.	
Solid or stranded wires.		

RPT Series

The RPT Series has been superceded by the FPT4 Series:

RPT SERIES	FPT4 SERIES
RPT-4P-2RJ	FPT4-4P-4C
RPT-2P-4RJ	FPT4-2P-6C
RPT-6RJ	FPT4-8C

Maximum Allowable Copper Cross-Sectional Area for Communications Cabling — Furniture Feed Poke-Through Systems.

- FFPT4 Series:
 - $-\frac{3}{4}$ " Hub for Power: .08192 sq. in.
 - 11/4" Hub for Communications: .07168 sq. in.
- FFPT3 Series:
 - 2" Hub for Power or Communications: .1024 sq. in.

Materials:

- FPT4 Series:
 - Covers: Solid brass or aluminum
 - Conduit Hubs: Cast iron
 - Base: Die-cast zinc, galvanized steel & intumescent fire-stop material
 - Junction box: Galvanized steel
- FPT3 Series:
 - Covers: Solid brass or aluminum
 - Base: Die-cast zinc, galvanized steel & intumescent fire-stop material
 - Junction box: Galvanized steel
- FPT Flush/Furniture Feed/Pedestal Series:
 - Covers: Solid brass or aluminum, non-metallic — polycarbonate
 - Base: Phenolic, galvanized steel & intumescent fire-stop material
 - Junction box: Galvanized steel
- FFPT4 Series:
 - Covers: Solid brass or aluminum
 - Base: Die-cast zinc, galvanized steel & intumescent fire-stop material
 - Junction box: Galvanized steel
- FFPT3 Series:
 - Covers: Solid brass or aluminum
 - Base: Die-cast zinc, galvanized steel & intumescent fire-stop material

Installation Spacing:

- Minimum of 2-ft, on center
- · Not more than one poke through per 65 sq. ft. of floor area in each span







aboveboardelectronics.com

Access Floor Modules



Steel City® Access Floor Modules from Thomas & Betts eliminate the clutter of power, voice and data lines by keeping everything out of sight but conveniently close at hand. Our easy-to-install Access Floor Modules are designed to blend with any decor, while providing the durability and versatility you need to meet the growing demands of today's high-tech offices.

You can use our Access Floor Modules with virtually any type of raised floor. Our system is designed to provide a simple, strong and adaptable solution to even the most demanding wire-management needs.

Range of Box Sizes Designed to Meet the Needs of any Application. Now and Later.

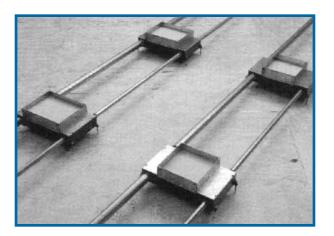
With five sizes to choose from, our Access Floor Modules handle a broad range of wiring needs, from single power lines to complex data and voice systems. In fact, our largest unit offers 325 cu. in. of space, making it the roomiest in the industry. And, because our modules are easy to install and relocate, you can easily change box sizes or reposition modules as office configurations change.

New, Low-Profile Box Fits Right In with Shallower Raised Floors.

For installations where shallower raised floors are needed, Thomas & Betts has developed a low-profile Access Floor Module to provide the same accessibility and convenience where space is at a premium. Just 2½-inches deep, it can still accommodate a variety of power, voice and data connections.

Wide Variety of Interchangeable Power and Data Panels Adapt to Changing Demands.

Our extensive line of panels and connection devices maximizes the versatility of our Access Floor Modules. All our panels are designed to be easy to connect, disconnect and rearrange to reduce on-site installation time. And Thomas & Betts is continually developing new configurations to meet the requirements of virtually any installation, especially for the fast-growing needs of voice and data communication.



Durable, Solid Steel Covers Support Heavy Loads to Protect Important Connections.

We've reinforced the resilient nylon covers of our modules with a $\frac{5}{2}$ " steel plate to prevent buckling under heavy furniture and equipment. The beveled sides enable quick and unobstructed installation in the raised floor.



In addition, our retractable exit not only helps prevent tripping, but protects cable connections by sealing out dust and debris. And, as with all Thomas & Betts products, our Access Floor Modules are constructed to meet your high standards for durability, safety and reliability.

Steel City® Access Floor Modules Provide Outstanding Performance Without Standing Out.

The hinged service top on our modules sits flush with the floor and provides complete access to the connections within. The nylon frame comes in gray, brown, beige and black.

Our Access Floor Modules keep wire connections close at hand but not under foot. The widest variety of box sizes, panels and devices in the industry provides exceptional versatility for changing office needs.

Look below the surface and see how Steel City® Access Floor Modules can manage all your power, voice and data connections — today and tomorrow.



Technical Services
Tel: 888.862.3289



Access Floor Modules

AFM-2 Series Access Floor Module — Non-Metallic Covers



AFM PANELS	POWER	
AFM-2-BLK GRY BRN BGE	AFP-2A* Single Duplex	AFP-2B Blank
DATA PANEL	ACCESSORIES	
AFD-2 3RJ 3 T&B Omnijacks or Keystone-Style Jacks	AFT-2 Power Tunnel AFR-2** Mounting Flange	

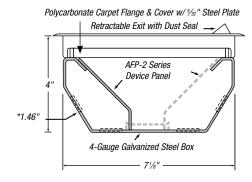
^{* (1)} supplied with box.

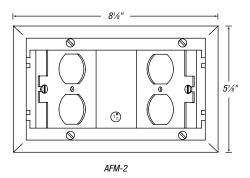
ACCESS FLOOR MODULE SIZE	AFM-2
AFM depth	4"
Access floor cut-out	71/8" x 41/8"
AFM cover size	6¾" x 3½"
AFM cover access area	17 sq. in.
Box volume (less panels)	75 cu in.
Device compartment volume — 45° Power	16.2 cu in.
Base opening	_
Power panel included**	AFP-2A
Closure panel included	_
Cover/carpet flange material	Polycarbonate
Body material	14-ga. galvanized steel
Prewiring available	Yes*
Max. no. of device panels	2

^{*} Special panels available — consult factory.

Available with black (-BLK), brown (-BRN), beige (-BGE) or gray (-GRY) cover flange.

Replacement covers: see 664 series covers on page A-131.





Shown with supplied power panel and optional panel (sold separately).





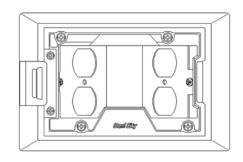
^{**} Used to correct opening in floor. Not required for all installations.

^{**} Devices not included.

Access Floor Modules

AFM-2 Series Access Floor Module — Metallic Covers



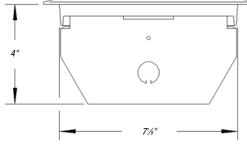


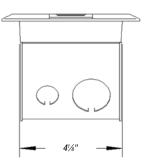
AFM-2 Access Floor Module ACCESS FLOOR MODULE SIZE AFM-2 AFM-4 AFM-4

711 111 - 7100000 110	<u> </u>
ACCESS FLOOR MODULE SIZE	AFM-2
AFM depth	4"
Access floor cut-out	71/8" x 41/8"
AFM cover size	6¾" x 3%"
AFM cover access area	17 sq. in.
Box volume (less panels)	75 cu in.
Device	
compartment	16.2 cu in.
volume	
Base opening	_
Power panel included**	AFP-2A
Closure panel included	_
Cover/carpet flange material	Brass, Aluminum
Body material	14-ga. galvanized steel
Prewiring available	Yes*
Max. no. of device panels	2

^{*} Special panels available — consult factory.

Replacement covers: see 664 Series covers on page A-131.





AFM-2 Series Raised Floor Boxes

CAT. NO.	DESCRIPTION	STD. CTN.
AFM-2-BRS	AFM-2 Raised Floor Box, 2 Compartment, Solid Brass Cover	1
AFM-2-ALM	AFM-2 Raised Floor Box, 2 Compartment, Solid Aluminum Cover	1

For additional device plate options see previous page.



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services** Tel: 888.862.3289



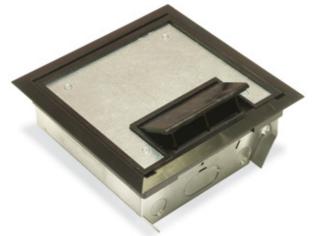


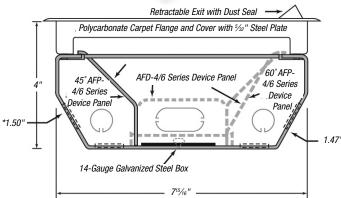


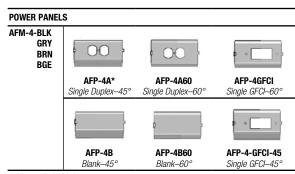
^{**} See **previous page** for device plates and accessories.

Access Floor Modules

AFM-4 Series Access Floor Module — Non-Metallic Covers







^{* (1)} supplied with box.

^{**} Used to correct opening in floor. Not required for all installations.

DATA PANELS		ACCESSORIES	
00	5		
AFD-4A	AFD-4B	AFT-46	AFT-4
Single Duplex Data	Blank	Power Tunnel	Mounting Flange
			.,
	AFD-4 4RJ	AFC-N	
	Keystone	Grommeted	AFM-4EX
	Style Jacks	Closure Panel	Extension Collar

^{* (1)} supplied with box.



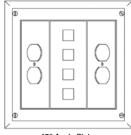
		9
ACCESS FLOOR MODULE SIZE		AFM-4
AFM Depth		4"
Access floor cut-out		7 ¹⁵ / ₁₆ " x 7 ¹⁵ / ₁₆ "
AFM cover size		7%" x 7%"
AFM cover access area		39 sq. in.
Box volume (less panels)		150 cu in.
Device	45° power	27.3 cu in.
compartment	60° power	25.2 cu in.
volume	Center data	20.6 cu in.
Base opening		2" x 2 ⁷ / ₈ "
Power panel included**		AFP-4A
Closure panel included		AFC-C
Cover/carpet flange material		Polycarbonate
Body material		14-ga. galvanized steel
Prewiring available		Yes*
Max. no. of device panels		3

^{*} Special panels available — consult factory.

Available with black (-BLK), brown (-BRN), beige (-BGE) or gray (-GRY) cover flange.

Replacement covers: see 665 Series covers on page A-135.





45° Angle Plates



60° Angle Plates







^{**} Used to correct opening in floor. Not required for all installations.

^{**} Devices not included.

Access Floor Modules

AFM-4 Series Access Floor Module — Metallic Covers



AFM-4
4"
7 ¹⁵ / ₁₆ " x 7 ¹⁵ / ₁₆ "
7%" x 7%"
39 sq. in.
150 cu in.
27.3 cu in.
25.2 cu in.
20.6 cu in.
2" x 27/8"
AFP-4A
AFC-C
Brass, Aluminum
14-ga. galvanized steel
Yes*
3



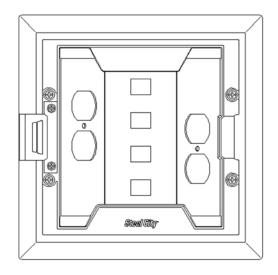
^{**} Devices not included.

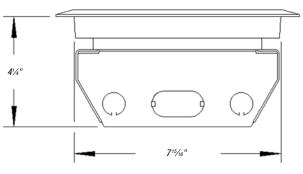
See previous page for device plates and accessories.

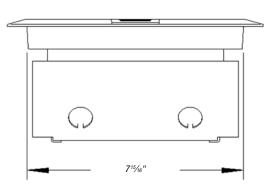
Replacement covers: see 665 Series covers on page A-135.

AFM-4 Series Raised Floor Boxes

CAT. NO.	DESCRIPTION	STD. CTN.
AFM-4-BRS	AFM-4 Raised Floor Box, 3 Compartment, Solid Brass Cover	1
AFM-4-BRS-R	AFM-4 Raised Floor Box, 3 Compartment, Solid Brass Cover with Recess	1
AFM-4-ALM	AFM-4 Raised Floor Box, 3 Compartment, Solid Aluminum Cover	1
AFM-4-ALM-R	AFM-4 Raised Floor Box, 3 Compartment, Solid Aluminum Cover with Recess	1









United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services** Tel: 888.862.3289







Access Floor Modules

AFM-6 Series Access Floor Module

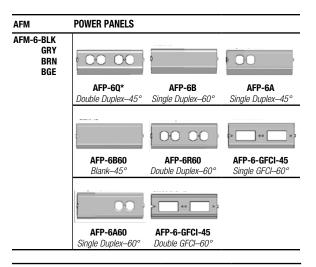


ACCESS FLOOR MODULE SIZE		AFM-6
AFM Depth		4
Access floor cut-out		7 ¹⁵ / ₁₆ " x 10"
AFM cover size		75/8" x 93/4"
AFM cover access area		60 sq. in.
Box volume (less panels)		225 cu. in.
Device compartment volume	45° power	41.5 cu. in.
	60° power	38.3 cu. in.
	Center data	31.3 cu. in.
Base opening		2" x 21/8"
Power panel included**		AFP-6Q
Closure panel included		AFC-C
Cover/carpet flange material		Polycarbonate
Body material		14-ga. galvanized steel
Prewiring available		Yes*
Max. no. of device panels		3

^{*} Special panels available — consult factory.

Available with black (-BLK), brown (-BRN), beige (-BGE) or gray (-GRY) cover flange. Replacement cover: AFM-6-CST-SW black (-BLK), brown (-BRN), beige (-BGE) or gray (-GRY) cover flange.

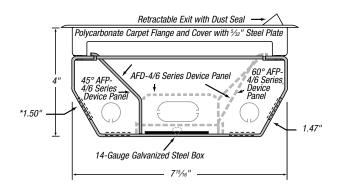


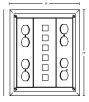


DATA PANELS		ACCESSORIES	
00 00	}		
AFD-4A	AFD-6B	AFT-46	AFR-6
Double Duplex Data	Blank	Power Tunnel	Mounting Flange
AFD-6 4RJ		AFC-N	
T&B Omni jacks or	AFD-6A	Grommeted	AFM-6EX
Keystone style jacks	Single Duplex	Closure Panel	Extension Collar

^{* (1)} supplied with box.

^{**} Used to correct opening in floor. Not required for all installations.





60° Angle Plates Shown with Optional 60° Panels (sold separately).





800.816.7809

Fax: 901.252.1354

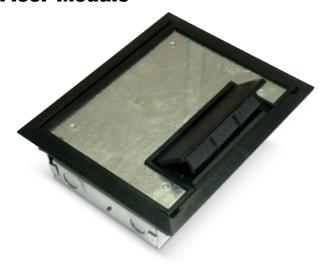


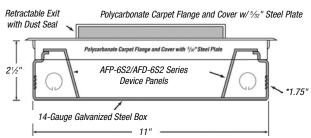
United States Technical Services Tel: 901.252.8000 Tel: 888.862.3289

^{*} Devices not included.

Access Floor Modules

AFM-6S2 Series Access Floor Module







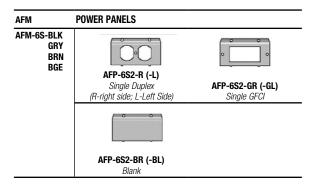
ACCESS FLOOR MODULE SIZE		AFM-6S
AFM depth		21/2"
Access floor cut-out		7 ¹⁵ / ₁₆ " x 10"
AFM cover size		7%" x 9¾"
AFM cover access area		60 sq. in.
Box volume (less panels)		172 cu. in.
Device compartment volume	Power	13.1 cu. in.
	Data	6.6 cu. in.
Base opening		
Power panel included**		AFP-6S2-L, AFP-6S2-R
Wire tunnel included		_
Cover/carpet flange material		Polycarbonate
Body material		14-ga. galvanized steel
Prewiring available		Yes*
Max. no. of device panels		4

^{*} Special panels available — consult factory.

Available with black (-BLK), brown (-BRN), beige (-BGE) or gray (-GRY) cover flange. Replacement cover: AFM-6-CST-SW black (-BLK), brown (-BRN), beige (-BGE) or gray (-GRY) cover flange.



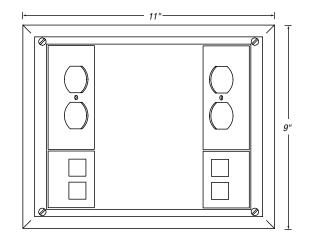




DATA PANELS	ACCESSORIES
AFD-6S2-2RJ T&B Omni jacks or Keystone style jacks AFD-6S2-B Blank	AFR-6** Mounting Flange

^{* (1)} AFP-6S2-R & (1) AFP-6S2-L supplied with box.

Replacement cover: AFM-6-CST-SW black (-BLK), brown (-BRN), beige (-BGE) or gray (-GRY) cover flange.



AFM-6S2 Shown with supplied power panels and optional data panels (sold separately).



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services**

Tel: 888.862.3289





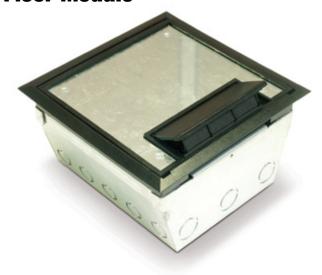


^{**} Devices not included.

^{**} Used to correct opening in floor. Not required for all installations.

Access Floor Modules

AFM-8 Series Access Floor Module



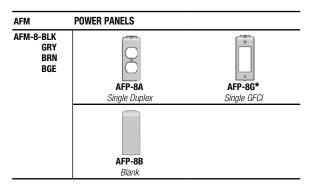


		U U
ACCESS FLOOR MODULE SIZE	E	AFM-6
AFM Depth		55%"
Access floor cut-out		95/8" x 95/8"
AFM cover size		9¾" x 9¾"
AFM cover access area		74 sq. in.
Box volume (less panels)		325 cu in.
Device compartment volume	45° power 60° power	
	Power or Data	15.75 cu in.
Base opening		_
Power panel included**		_
Closure panel included		_
Cover/carpet flange material		Polycarbonate
Body material		14-ga. galvanized steel
Prewiring available		Yes*
Max. no. of device panels		10
* Coopiel papala queilable	agult faataru	

^{*} Special panels available — consult factory.

Available with black (-BLK), brown (-BRN), beige (-BGE) or gray (-GRY) cover flange. Replacement covers: see 667 Series covers on page A-139.

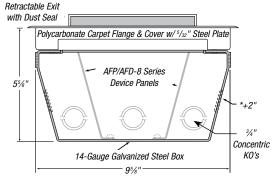


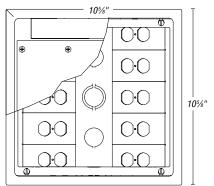


DATA PANELS	ACCESSORIES
AFD-8-3RJ Keystone	AFR-8** Mounting Flange

^{*} Power panels include a voltage partition for use between power and data panels.

^{**} Used to correct opening in floor. Not required for all installations.





AFM-8 Shown with Optional Power Panels (sold separately).

Accepts 10 device panels.

Each compartment can accept voltage dividers for any combination of power and data (included with device panels).







Access Floor Modules

Because a Square Peg Doesn't Fit in a Round Hole!

AFM-4R Series Access Floor Module

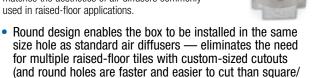
In response to industry demand for a more symmetrical approach to raised-floor power and data access, Thomas & Betts introduces the latest addition to the Steel City® Access Floor Module (AFM) line. The AFM-4R features a round construction that matches the aesthetics of air diffusers commonly used in raised-floor applications.

rectangular ones)











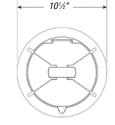
- Durable black polycarbonate cover features two cable-entry lids that lock in the open position to prevent cable damage
- Optional power tunnel links outside power compartments to feed both compartments with a single conduit — while still allowing for communications wiring in the center
- Two thumbscrews secure AFM-4R firmly in place, but remove easily for reconfiguration
- Fits into holes ranging from 81/4" to 83/4" in diameter
- Outside compartments: 21 cu. in. capacity, $^3\!4"$ KO on side, $^1\!\!2"$ KO on each end, $^1\!\!2"$ KO and $^3\!\!4"$ KO on bottom
- Center compartment: 40 cu. in. capacity, 1½" KO on each end, two removable access plates with 3/4" KO on bottom

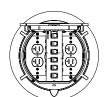


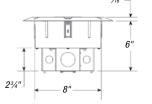




AFM-4R-BI K Air Diffuser











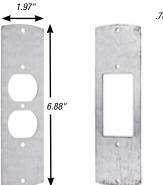


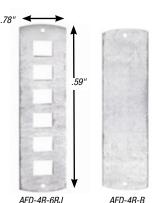
AFP-4R-GFCI



AFP-4R-B

		0					
CAT. NO.	DESCRIPTION	STD. CTN.					
Access Floor Mo	dule						
AFM-4R-BLK	Three Compartment Round Access Floor Module with Black Cover, (1) AFP-4R-A Duplex Panel	1					
Panels for Outsid	Panels for Outside Compartments						
AFP-4R-A	Duplex Panel for Outside Compartment	1					
AFP-4R-GFCI	GFCI Panel for Outside Compartment	1					
AFP-4R-B	Blank Panel for Outside Compartment	1					
Panels for Center Compartment							
AFD-4R-A	Duplex Panel for Center Compartment	1					
AFD-4R-GFCI	GFCI Panel for Center Compartment	1					
AFD-4R-6RJ	Data Panel for 6 Keystone Jacks for Center Compartment	1					
AFD-4R-B	Blank Panel for Center Compartment	1					
Accessories/Rep	lacement Parts						
AFT-2	Optional Power Tunnel to Link Outside Compartments	1					
AFM-4R-CST-BLK	Replacement Cover and Mounting Ring, Black	1					





Thomas@Betts

United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354

Technical Services Tel: 888.862.3289

AFD-4R-A



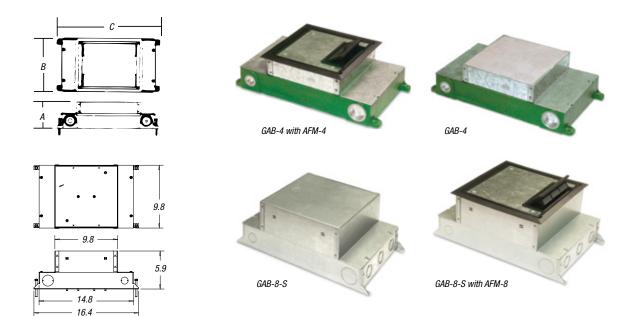




AFD-4R-GFCI

Access Floor Modules

Concrete Inserts





	DI	MENSIONS (II	N.)	- MAXIMUM CAPACITY	STANDARD CONDUIT	MAXIMUM CONDUIT	AFM	STD.
CAT. NO.	Α	В	C	(CU. IN.)	TAPPING	TAPPING	INSERT	CTN.
GAB-4	41/4	9	16	150	2-3/4" 2-11/4"	1½"	AFM-4	1
GAB-6	41/4	9	16	225	2-3/4" 2-11/4"	1½"	AFM-6	1
GAB-8-S	51//8	9¾	16%	325	2-3/4" 2-11/4"	-	AFM-8	1

*Required for installation in concrete pours only.

For use with the AFM insert. The GAB cast Pre-Set includes center collar and styrene insert to prevent concrete ingress. Standard conduit hubs are 3/4" and 11/4". Specify either -4 or -6.





1-800-453-1692



Fax: 901.252.1354

Access Floor Modules

Standard Specification — GAB Series Access Floor Box Pre-Set Insert

Considerations when writing specification:

The installation of access floor box pre-set inserts must be in compliance with the National Electrical Code®. These specifications may be used in three sections of the Construction Specification Institute (C.S.I.) format: 16132 Floor Boxes; 16141 Wiring Devices; and 16741 Telephone Raceway Systems. For accuracy, 16132 is preferred.

Part 2: Products

2.01 Pre-Set Insert

- A. Shall be GAB Multiple Service Floor Outlet Assembly as manufactured by Thomas & Betts, Memphis, TN, (trade name, Steel City) consisting of:
 - 1. Pre-set insert, Series GAB.
 - 2. Activating unit, Series AFM-4 and AFM-6.
- B. Call for approved suppliers of power and cable systems.

2.02 Materials

- Cast-iron components to be gray iron per ASTM Specification A48, Class 20A.
- Cast-iron components shall be protected with a painted coating as specified in UL 514A.
- C. Steel components to be fabricated from cold rolled steel, .070 inch minimum thickness, conforming to ASTM A366.
- D. Steel components to have an electrogalvanized zinc finish conforming to ASTM A386. Sheet metal steel fabrications shall be made of UL approved component G-90-U material.
- E. Non-metallic components shall be glass-filled polymide nylon, UL recognized component QMFZ2.

2.03 General Design Gab Series

A. The GAB series shall consist of pre-set insert, activation unit and cover for the distribution of electrical power and data/communication signal systems.

2.03.1 Pre-Set Insert

- A. Following sizes as shown on the drawings:
 - 1. 8" x 8" nominal concrete opening (Ref.: Steel City GAB-4).
 - 2. 8" x 10" nominal concrete opening (Ref.: Steel City GAB-6).
- B. Overall size: 8" x 14" x 43/16" high.
- C. Shall be installed with conduit sizes as shown on the drawings.

(**Note**: Standard ¾" conduit thread on power side, in and out. Standard 1½" conduit thread on data side, in and out. Special drilling and tapping up to 1½" conduit size. Reducing bushings may be used to downsize conduit.)

- D. Conduits for power shall enter and leave in-line and on same side so as to maintain separation of services.
- E. Foam blocks shall exclude concrete from the interior.
 - Foam blocks shall permit a minimum of 1½" of concrete over opening prior to activation.
 - 2. Foam blocks shall be manufactured for the intended purpose.

2.03.2 Activation Unit

- A. Following sizes shall match pre-set insert opening as shown on drawings:
 - 1. 8" x 8" nominal size steel box (Ref.: Steel City AFM-4).

 Provides a minimum interior capacity of 150 cubic inches.
 - 2. 8" x 10" nominal size steel box (Ref.: Steel City AFM-6). Provides a minimum interior capacity of 225 cubic inches.
- B. Device panels may be data or telephone as shown on drawings.
- C. If two duplex power receptacles are required on a single panel, the pre-set insert and activation unit shall be Steel City GAB-6 and AFM-6 respectively.
- D. Data panels shall be designed to mount the data connectors and telephone connectors as shown on the drawings.
- E. Cover shall be (gray, brown, black or beige) as specified on the drawings.
 - 1. Shall accept floor covering material as required.
 - 2. Shall be self-leveling when installed.
- F. Cover, when closed, shall protect exiting cables and cords from abuse and abrasion by retractable cable exits. Cover shall install flush with floor and be 180° reversible.
- G. Carpet edge shall be protected from fraying by a carpet trim ring of a matching color.

Part 3: Execution

3.01 General

- A. All pre-set inserts shown on the drawings shall be installed with the specified runs of conduit.
- B. Wire-pulling cords shall be in place in the conduit prior to pouring concrete.
- C. Activate only the pre-set inserts as directed by the supervising engineer or owner.
- Install and activate the assembly as directed by the manufacturer's installation instructions.

NEC and National Electrical Code are registered trademarks of the National Fire Protection Association, Inc.



Fax: 901.252.1354



Carlon[®]

Carlon® Floor Boxes

In this section...



Carlon® Floor Boxes

Residential Floor Boxes — Adjust-A-Box®	A-198–A-199
Residential Floor Boxes — Drop In	A-200–A-202
Rectangular Floor Boxes	A-203–A-205
Round Floor Boxes	A-206–A-208
Recessed Pop-Up Receptacle	A-209
Retractable Work Surface Receptacle	A-210





Carlon

Residential Floor Boxes — Adjust-A-Box®

Adjust-A-Box[®] **1- and 2-Gang Adjustable Residential Floor Boxes**

Carlon® Adjust-A-Box® Floor Boxes make installing floor outlets fast and easy by providing maximum installation flexibility. The box features an adjustment screw designed to adjust the box from 0" to 134" by simply turning the screw clockwise or counterclockwise, providing a flushmount every time.

Covers are available in three types: non-metallic, brass and stainless steel. They feature two hinged doors to protect unused devices and to keep out dust and scrubwater. Because the doors are attached, they won't get lost or misplaced while the outlet is in use.

The Adjust-A-Box® is available in two sizes, single-gang and double-gang. The single-gang box has a 20 cubic inch capacity and includes a duplex receptacle, and the double-gang box has a 34 cubic inch capacity, and comes with a divider for dual-voltage capabilities.

Carlon® Adjust-A-Box® Residential Floor Boxes are ideal for residential and home office applications and provide a clean, aesthetically pleasing floor outlet anywhere you need it.



- Listed floor boxes in accordance to section 314.27(B) of the NEC[®]
- Adjustment screw adjusts depth (from 0" to 1¾")
- Cover options include: non-metallic, brass and stainless-steel covers
- · Covers have two (non-removable) hinged doors
- Solid brushed-brass and stainless-steel covers with a light lacquer finish for extra protection
- Non-metallic covers are available in white and ivory (single-gang box only)
- Two-gang version features dual-service capabilities (requires use of dual-service divider)
- Integral cable clamps
- Ideal for new work and retrofit applications
- UL® Listed
- UL[®] scrubwater tested

NEC and National Electrical Code are registered trademarks of the National Fire Protection Association, Inc.





Carlon[®]

Residential Floor Boxes — Adjust-A-Box®

Adjust-A-Box® Installation

1- and 2-Gang



Install clip over subfloor.



2 Screw in to adjust to height of flooring or carpet.



Beautiful flush fit every time!

Kits include:

Single-Gang

Ivory/White Cover:

- Two (2) 6-32 x 1 flat head machine screws
- Four (4) #6 11/4 self-tapping flat head screws
- Two (2) #6 1% drywall screws
- One (1) cover plug
- One (1) New Work Bracket
- · One (1) Old Work Bracket
- . One (1) 20 cubic in. UL Listed Floor Box
- One (1) UL Listed Floor Cover
- · One (1) short shank receptacle (tamper proof)
- One (1) tube Dow Corning #4 sealant
- Installation instructions

Brass & Stainless Steel Covers:

- Two (2) 6-32 x 1 plated flat head machine screws
- Four (4) #6 11/4 self-tapping flat head screws
- Two (2) #6 1% drywall screws
- One (1) New Work Bracket
- · One (1) Old Work Bracket
- One (1) 20 cubic in. UL Listed Floor Box
- . One (1) UL Listed Floor Cover
- One (1) short shank receptacle
- · Green ground wire
- Installation instructions

Double-Gang

- One (1) New Work Bracket
- · One (1) Old Work Bracket
- One (1) 34 cubic in. UL Listed Floor Box
- · One (1) Dual-Voltage Divider
- One (1) UL Listed Floor Cover
- Four (4) #6-32 x 1" flat head machine screws
- Four (4) #6 x 1½" flat head self-tapping screws
- Two (2) #6 x 1%" square drive trim head screws
- Green ground wire
- Installation instructions



*Devices not included



					E11461
CAT. NO.	SIZE	COVER	CUBIC IN.	STD. CTN.	STD. WT. (LBS.)
Non-Metallic					
B121BFRW	One-Gang	White	20	8	7.1
B121BFBR	One-Gang	lvory	20	8	6.9
Brass					
B121BFBB	One-Gang	Brass	20	8	15.0
B234BFBB	Two-Gang	Brass	34	4	10.7
Stainless Steel	,				
B121BFSS	One-Gang	Stainless Steel	20	8	13.7
B234BFSS	Two-Gang	Stainless Steel	34	4	9.8



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354

Technical Services

Tel: 888.862.3289



Thomas@Betts

Carlon

Residential Floor Boxes — Drop In

Carlon® Structured Cable Management Systems... Your Total Systems Solution!

Low-Voltage Adjustable Floor Bracket with Cover

The Carlon® Low-Voltage Adjustable Floor Bracket is specifically designed for the low-voltage, structured cabling market...the floor bracket is industry-standard orange to identify low-voltage applications, the open design provides the space needed for low-voltage bend-radius requirements and the Leviton QuickPort® Quad 106® Insert provides up to four low-voltage outlet ports. The Carlon® Low-Voltage Adjustable Floor Bracket is ideal for any residential or commercial low-voltage application.

The floor bracket also features a unique screw design, enabling it to be adjusted to most finished floor heights by simply turning the screw clockwise or counterclockwise and adjusting flush to the floor.

The floor bracket kit comes complete with a non-metallic (white or ivory) or brass cover, a Leviton QuickPort® Quad 106® Insert, new work and old work metal mounting brackets and mounting screws.

- White, ivory or brass cover
- Orange identifies low-voltage installations
- Open design floor bracket accommodates low-voltage bend-radius requirements
- Adjustable screw bracket adjusts to most finished floor depths
- Leviton QuickPort® Quad 106® insert install up to 4 low-voltage inserts
- Two-door design
- cUL-US Listed

Installation



Install clip over subfloor.



Screw in to adjust to height of flooring or carpet.



Beautiful flush fit every time!



CAT. NO.	COVER	STD. CTN.	STD. WT. (LBS.)
SC100FBWC	Non-Metallic — White	8	5.62
SC100FBVC	Non-Metallic — Ivory	8	5.62
SC100FBBC	Brass	8	13.78



Technical Services Tel: 888.862.3289





Residential Floor Boxes — Drop In

Drop-In Floor Box

The Carlon® Drop-In Floor Box with Brass Cover combines many of the same features of our existing Floor Box line with the strength, durability and style necessary to accommodate today's residential electrical/telecommunication needs.

The Carlon® Drop-In Floor Box is the fastest, easiest way for contractors to put a floor socket anywhere they need it! It's designed to accommodate high- and low-voltage applications and comes complete with everything needed for installation — floor box, brass cover, hole saw, wired receptacle, two-hole low-voltage plate, blank plate, mounting screws and wire nuts.

Note: The Drop-In Floor Box is available with or without a hole saw.



Features:

- Single hole installation
- · Fast, easy installation
- Cover options include: Brass and Aluminum
- Accommodates high- and low-voltage applications
- Includes single-gang grounded receptacle, low-voltage telephone/cable plate (data jacks not included) and blank plate for custom installations
- Tamper-resistant receptacle
- Available with or without a hole saw
- 11.8 inch cubic capacity

- For wood floor installations
- Ideal for residential and home offices
- Eliminates the need for extension cords
- Superior aesthetics ideal for home offices and entertainment rooms
- cUL-US Listed floor box in accordance with section 314.27(B) of the NEC®
- 2.25" installation hole diameter

NEC and National Electrical Code are registered trademarks of the National Fire Protection Association, Inc.

800.816.7809

Fax: 901.252.1354

Carlon

Residential Floor Boxes — Drop In

Drop-In Floor Box Installation:

NOTE: TURN POWER OFF BEFORE INSTALLATION.



Cut 2%" hole through carpeting before using hole saw.



Connect receptacle wires to romex. Be sure to match wire color(s).



Align the three latches on the low-voltage plate with the three latch holes in the round floor box tube.



2 Drill hole in floor using hole saw.



Secure wire clamp on bottom of tube.



Remove receptacle by pressing three tabs located on side of tube. Remove receptacle by pressing three tabs located on side of tube.



3 Pull romex through floor.



6 Brass cover snaps into place. Use a small screwdriver to pry open brass cover to plug in appliance.

Installed:







CAT. NO.	COVER	DESCRIPTION	STD. CTN.	STD. WT. (LBS.)
E971FBDI-2	Brass	Drop-In Floor Box with Hole Saw	5	6.5
E971FBDIB-2	Brass	Drop-In Floor Box without Hole Saw	20	17.6
E971FADI-2	Aluminum	Drop-In Floor Box with Hole Saw	5	5.1
E971FADIB-2	Aluminum	Drop-In Floor Box without Hole Saw	20	12.0







Rectangular Floor Boxes

1-, 2- and 3-Gang **Rectangular Floor Box**

Carlon® Rectangular Floor Box Systems — three-way power, data and communications plus easy double- or triple-ganging, too.

Compared to metal boxes, Carlon® rectangular floor boxes cost less and install faster to save you money on every job. Three-in-one power, data and communications capability cuts installation time and cost even more, while simple two- and three-gang modularity gives you the flexibility, installation ease and cost-savings no other non-metallic boxes can match. The covers attach without the use of fasteners, providing a professional, clean installation as well as preserving the aesthetic life of the product. Take a closer look at all that our rectangular floor box systems offer you.



Features:

- Covers require no adjusting collar two screws ensure a flush, secure installation
- Non-metallic PVC construction, watertight gasket and corrosion-resistant hardware ensure long life and reliable performance, even in harsh and/or corrosive environments
- One consistent box depth simplifies ordering time and reduces inventory
- Saves time and money on installations with simple saw cut to floor level
- Concrete tight and suitable for any on-grade/ below-grade application; concrete or wood subfloor construction approved

- Convenient cubic inch capacity markings on inside enable easy inspection
- PVC-molded ports and reducer plugs included
- Accepts ½", ¾" and 1" conduit, tubing or raceway
- Rectangular sides are drillable
- For tile and carpet applications
- Cover options include solid brass, stainless steel and non-metallic (brown, slate and caramel)
- UL[®] scrubwater tested, approved for all types of finish flooring

800.816.7809

Fax: 901.252.1354

Tel: 888.862.3289

Carlon

Rectangular Floor Boxes

Gangable Rectangular Floor Box

Installation:

With our rectangular boxes, one SKU is all you ever need. Simply remove appropriate sides and slide boxes together to create two- or three-gang boxes for on-the-job flexibility no competitor offers.



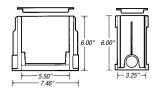








CAT. NO.	MATERIAL	SIZE	INTERNAL VOLUME (CU. IN.)	MIN. Concrete Depth	HUBS (IN.)	REDUCER Plugs (In.)	STD. CTN.	STD. WT. (LBS.)
E976RFB	PVC	1-Gang	97.4	3½	(2) 1	(2) 1 x ³ / ₄	3	6.92
			(16.8 per inch			(2) ³ / ₄ x ¹ / ₂		
			of depth)					



Activation Kit

Activation kit provides components to accommodate all standard power, data and communications devices, plus a divider to separate power from data and communications — all in a single SKU. Device yokes can be adjusted to store excess cord in the box.

CAT. NO.	MATERIAL	STD. CTN.	STD. WT. (LBS.)
E976AK2	PVC	3	2.47





United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services** Tel: 888.862.3289







Rectangular Floor Boxes

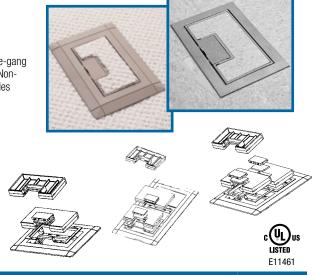
1-, 2- and 3-Gang Non-Metallic Floor Box Covers

On-the-job flexibility extends to our rectangular box covers. Each one-, two- or three-gang cover is suitable for any wiring application and can be used with any floor surface. Non-metallic covers are even field-reversible for tile or carpet. Double-door feature enables easy access to the device and helps keep stray cords organized.

Carlon® Rectangular Floor Box Covers do not require a separate carpet flange. The carpet flange is part of the cover and may be removed for tile application.



- High-impact resistant thermoplastic
- · Field reversible for tile or carpet
- Gasketed for a watertight seal
- Double-door design
- · For tile and carpet applications
- UL scrubwater tested



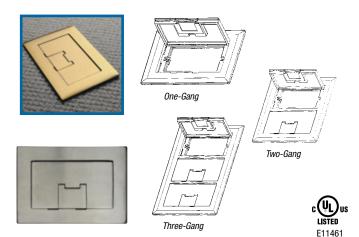
CAT. NO.	SIZE	COLOR	CARPET FLANGE	DIMENSIONS (W X L) (IN.)	STD. CTN.	STD. WT. (LBS.)
E9761B	One-Gang	Brown	Included	7.13 x 5.00	3	1.7
E9762B	Two-Gang	Brown	Included	7.13 x 8.25	9	8.5
E9763B	Three-Gang	Brown	Included	7.13 x 11.50	6	7.5
E9761C	One-Gang	Caramel	Included	7.13 x 5.00	3	1.7
E9762C	Two-Gang	Caramel	Included	7.13 x 8.25	9	8.5
E9763C	Three-Gang	Caramel	Included	7.13 x 11.50	6	7.5
E9761S	One-Gang	Slate	Included	7.13 x 5.00	3	1.7
E9762S	Two-Gang	Slate	Included	7.13 x 8.25	9	8.5
E9763S	Three-Gang	Slate	Included	7.13 x 11.50	6	7.5

1-, 2- and 3-Gang Solid Brass and Stainless Steel Floor Box Covers

Carlon® Brass and Stainless Steel Rectangular Floor Box Covers add a classic touch to all floor box installations, and are particularly suited for use in high-traffic areas because of the resistance to wear. The gasket gives a watertight seal, and the light lacquer finish provides extra protection.

Features:

- Rugged construction
- Coated with a light lacquer finish for extra protection
- Covers include a cord door
- Gasketed for watertight applications
- Accepts single, duplex, GFCI and low-voltage receptacles
- For tile and carpet applications
- UL scrubwater tested



				=::::::
CAT. NO.	SIZE	COLOR	STD. CTN.	STD. WT. (LBS.)
E9761BR	One-Gang	Brass	3	6.8
E9762BR	Two-Gang	Brass	3	9.9
E9763BR	Three-Gang	Brass	3	12.1
E9761SS	One-Gang	Stainless Steel	3	7.4
E9762SS	Two-Gang	Stainless Steel	3	11.6
E9763SS	Three-Gang	Stainless Steel	3	17.2
Rectangular Floor Box Activati	on Kit	<u> </u>		_
E976AK2	_	_	3	1.3









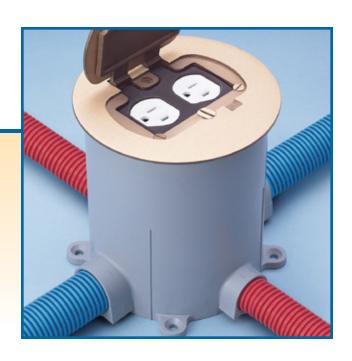
<u>Carlon</u>

Round Floor Boxes

Three-way versatility for power, data and communications.

Carlon® Round Floor **Box Systems**

Carlon® round floor boxes give you the same cost-saving advantages over metal boxes as our rectangular boxes. By combining power, data and communications in the same box, you can dramatically reduce your installation time and cost compared to other non-metallic boxes. In addition, multi-use covers mean fewer SKUs to deal with and greater jobsite flexibility to increase your savings further. Take a closer look at all their advantages.



Features:

- Non-metallic PVC construction, watertight gasket and corrosion-resistant hardware ensure long life and reliable performance, even in harsh and/or corrosive environments
- Covers are available for a variety of applications
- The same box depth simplifies ordering and reduces inventory
- For tile and carpet applications
- Cover options include: Brass, Stainless Steel and Non-Metallic (Ivory, Caramel, Taupe, Slate and Brown)

- Concrete tight and suitable for any on-grade/below-grade application; concrete or wood floor construction approved
- Y-connector (E972Y) enables you to feed parallel runs of 34" conduit or to feed in/out from the same side for increased wiring flexibility and faster installation
- · PVC-molded ports and reducer plugs included
- Accepts ½", ¾" and 1" conduit, tubing or raceway
- UL scrubwater tested, approved for all types of finish flooring

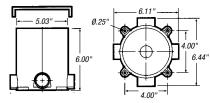
Round Floor Box

Carlon® Round Floor Boxes enable various thicknesses of concrete pours. Trim out is easy — just use a handsaw to cut off box at desired height to accommodate carpet, tile or other flooring. Carlon® leveling ring guarantees a level top every time, even if the box is tipped slightly during the pouring process.





CAT. NO.	INTERNAL VOLUME (CU. IN.)	MIN. Concrete Depth (In.)	HUBS (IN.)	REDUCER PLUGS (IN.)	STD. CTN.	STD. WT. (LBS.)
E971FB	90.0 (15.5 per inch of depth)	3½	(2) 1 and (2) 3/4	(2) 1 x ¾ and (2) ¾ x ½	10	15.6





United States Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354

Technical Services Tel: 888.862.3289







Carlon[®]

Round Floor Boxes

Accessories

Multi-Service Divider Kit

The Multi-Service Divider Kit for separate power, data and communications compartments provides unbeatable flexibility and money-saving installation

For use with non-metallic boxes only.





(A)	
LISTED	
E11461	

CAT. NO.	STD. CTN.	STD. WT. (LBS.)
E973K	10	3

¾" Y Fitting

The 3/4" Y Fitting provides for in-andout service from a single 1" port, and provides two 3/4" parallel conduit runs to adapt into a single-conduit body port.







		211.10
CAT. NO.	STD. CTN.	STD. WT. (LBS.)
E972Y	10	2.1

Reducer Plugs





CAT. NO.	SIZE (IN.)	STD. CTN.	STD. WT. (LBS.)
E971C	3/4 X 1/2	100	2.1
E971D	1 x ¾	100	3.2

Non-Metallic Covers for Round Floor Boxes

Features:

- · High impact-resistant thermoplastic
- Compatible with standard NEMA Duplex and 1¼" NPS receptacles
- Drill points (¾") provided for low-voltage cable pass throughs
- 1½" NPS plugs may be modified to accept smaller fittings (%", ½" and ¾")
- · For tile and carpet applications
- UL scrubwater tested, approved for all types of finish flooring



Duplex Covers

Duplox of	31010			
CAT. NO.	COLOR	DESCRIPTION	STD. CTN.	STD. WT. (LBS.)
E97DSI	lvory	Duplex Cover	10	5.2
E97DSC	Caramel	Dulpex Cover	10	5.7
E97DST	Taupe	Duplex Cover	10	5.7
E97DSS	Slate	Duplex Cover	10	5.6
E97DSB	Brown	Duplex Cover	10	5.8

11/4" NPS Covers

CAT. NO.	COLOR	DESCRIPTION	STD. CTN.	STD. WT. (LBS.)
E97SSRB	Brown	NPS Cover	10	3.8
E97SSRC	Caramel	NPS Cover	10	3.8
E97SSRS	Slate	NPS Cover	10	3.8

Clear Cover Carpet Ring

CAT. NO.	COLOR	STD. CTN.	STD. WT. (LBS.)
E97CCR	Clear	10	1.2



Tel: 888.862.3289





<u>Carlon</u>

Round Floor Boxes

Brass and Stainless Steel Covers for Round Floor Boxes



Features:

- Screws concealed under doors
- Rugged construction
- Coated with a light lacquer finish for extra protection
- · Resistance to wear suited for high-traffic areas
- Gasketed for watertight applications
- Available in four styles Single Door, Two Door, NPS Opening and Two-Door Dual Service
- For tile and carpet applications
- UL scrubwater tested









Two-Door Dual Service (Divider Kit included)

CAT. NO.	COVER	DEVICES	STD. CTN.	STD. WT. (LBS.)
E97BR2D	Brass	Duplex and Two Data Ports	5	9.2
E97SS2D	Stainless Steel	Duplex and Two Data Ports	5	9.1







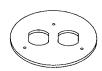




Two Door

CAT. NO.	COVER	DEVICES	STD. CTN.	STD. WT. (LBS.)
E97BR2	Brass	Duplex	5	7
E97SS2	Stainless Steel	Duplex	5	7.7

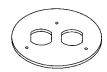


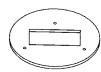


Single Door

CAT. NO.	COVER	DEVICES	STD. CTN.	STD. WT. (LBS.)
E97BR	Brass	GFCI and Duplex	5	7
E97SS	Stainless Steel	GFCI and Duplex	5	7.9







NPS Opening

CAT. NO.	COVER	DEVICES	STD. CTN.	STD. WT. (LBS.)
E97BRG	Brass	11/4" Outlet and Single Receptacle	5	7.5
E97SSG	Stainless Steel	11/4" Outlet and Single Receptacle	5	8.1





Metal Cover Adapter Ring

CAT. NO.	DEVICES	STD. CTN.	STD. WT. (LBS.)
E97ABR2	One-Piece Metal Cover Adapter	5	9.2
Note: Carlon® metal co	over adapter ring (E97ABR2) is required with these cove	rs (sold se	eperately).





United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354











Recessed Pop-Up Receptacle

Concealed receptacle provides a safe and aesthetic solution for countertop power.

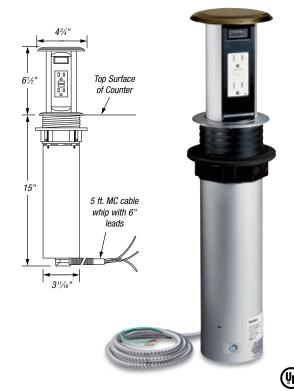
Recessed Pop-Up Receptacle

Now you can provide power for small appliances on kitchen island counter tops safely and conveniently with the new Carlon® Recessed Pop-Up Receptacle. When not in use, the receptacle remains concealed beneath the counter, showing only a stylish nickel, bronze or brass cover. Simply press down slightly on the cover to release the latch, and the Recessed Pop-Up Receptacle rises, revealing a duplex GFCI outlet. The Pop-Up Receptacle can also be mounted in bath counters or other work surfaces.

In addition to promoting safety by eliminating hanging power cords and providing a tamper-resistant GFCI receptacle, the Recessed Pop-Up Receptacle also includes gaskets under the flange and around the main body to prevent spilled liquids from entering the electrical enclosure, regardless of whether the receptacle is open or closed. The Recessed Pop-Up Receptacle is the first device to pass the new UL® Spill Test developed specifically for receptacles of this type.



- · Provides a duplex GFCI outlet in a kitchen island or peninsula counter for easy access to power for small appliances
- Eliminates the potential safety hazard of power cords hanging over the edge of counters to reach side-mounted outlets
- Meets new UL[®] and NEC[®] requirements for receptacles mounted in kitchen counters
- Receptacle remains recessed below counter when not in use
- To access outlet, simply press down on cover and the receptacle pops up
- Cover available in three finishes to match any kitchen décor - nickel, oil-rubbed bronze or brass
- Ideal countertop power solution for kitchens, baths and other work surfaces



CAT. NO.	DESCRIPTION	STD. PKG. QTY.
KPR-15G-NKL	Recessed Pop-Up Receptacle with Duplex GFCI and Nickel Finish Cover	1
KPR-15G-BRZ	Recessed Pop-Up Receptacle with Duplex GFCl and Oil-Rubbed Bronze Finish Cover	1
KPR-15G-BRS	Recessed Pop-Up Receptacle with Duplex GFCl and Brass Finish Cover	1

......Specifications

Cover Size: 4¾" diameter Mounting Hole: 3¾" Diameter Outlet: (1) duplex tamper-resistant GFCI receptacle — 15A, 125VAC, 60Hz, 20A Feed-Through MC Cable Whip: 12/2 with ground wire, 5' long with 6" leads

Listings/Compliances:

- UL® 943

- CSA C22.2 No. 144.1

- NEC® Article 210.52(C)(5)

- NEC® Article 406.5(E)

NEC is a registered trademark of the National Fire Protection Association, Inc.



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354

Technical Services Tel: 888.862.3289







<u>Carlon</u>

Retractable Work Surface Receptacle

Concealed receptacle provides safe and convenient desktop power.

Retractable Work Surface Receptacle

With the variety of electronics and powered devices today, convenient power outlets in the home and office are critical. While phone chargers, laptops, appliances and other devices are typically located on work surfaces, outlets are often located underneath the work surface, along the wall or on the floor. Repeatedly accessing these outlets is an inconvenience and poses safety hazards.

The new Carlon® Retractable Work Surface Receptacle provides a convenient outlet right where you need it. A hole saw is included that attaches to your power drill to quickly mount the receptacle in a counter, desk or similar work surface. A 6-ft. cord connects to an existing wall or floor outlet, so no wiring is required. Simply pull up the receptacle's cover to raise the unit above the work surface and plug in a device. When not in use, push the cover down to store the receptacle below the work surface. The non-metallic cover is black to complement most home or office decor.

- Provides easy access to a power outlet simply pull up the receptacle to plug in a device
- 6-ft. cord plugs into an existing floor or wall outlet
- · Receptacle remains hidden below work surface when not in use
- Compact design occupies minimal space both when recessed and while in use
- Rotated receptacle orientation accommodates oversized power adapters
- Hole saw included
- cULus Listed, File Number E340129 (per UL® 962A, Furniture Power Distribution Units)







CAT. NO. DESCRIPTION STD. PKG. QTY. Recessed Pull-Up Receptacle, Black, 6 ft. cord with three-prong plug

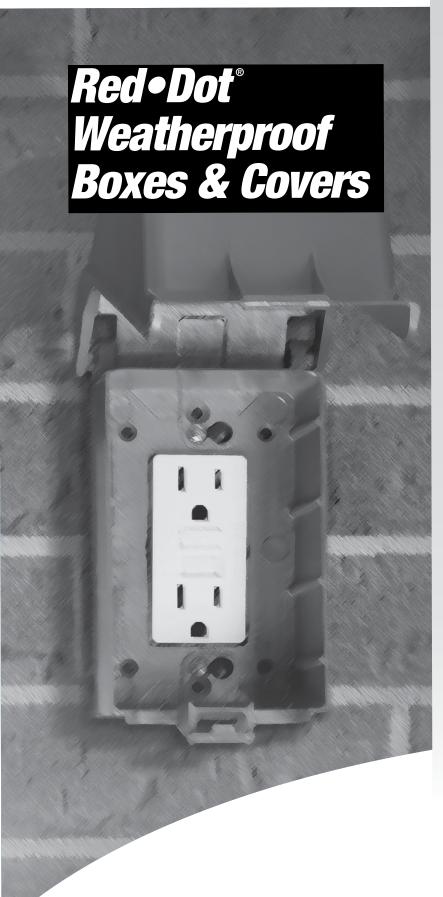


Tel: 888.862.3289









In this section...



Red • Dot® Weatherproof Boxes & Covers

Overview	A-212
Weatherproof Metallic Covers	A-213–A-220
Weatherproof Non-Metallic Covers	A-221–A-229
Weatherproof Metallic Boxes	A-230–A-235
Weatherproof Non-Metallic Fixtures and Boxes	A-235–A-237
Weatherproof Metallic Lampholders	A-238–A-242
Weatherproof Non-Metallic Lampholders	A-243–A-244
Outdoor Lighting	A-245–A-258
Vaportight Lighting	A-259–A-263
Swimming Pool and Spa Products	A-264





rededot.

Overview

Weatherproof Boxes, Covers and Lighting Products

The industry's preferred choice for more than 50 years — Red•Dot® Weatherproof Boxes and Covers withstand the harshest elements and ensure trouble-free installation and performance.



Boxes

Red•Dot® boxes are made from durable die-cast aluminum and available in single-and double-gang rectangular as well as round configurations — with a variety of hub sizes to meet all needs.



Lighting

Red • Dot® has a complete lighting package for both general purpose outdoor lighting as well as decorative garden lights. All lighting products run off line voltage, providing more flexibility and brighter lighting than low-voltage or solar-powered sets, plus no additional transformers are required.



While-in-Use

Red•Dot® offers a wide variety of both metallic and non-metallic while-in-use covers. All of these covers help ensure that you meet the requirements of the National Electrical Code®.



D-PAK®

With a descriptive, easy-to-read label and display-ready packaging, the display packs make it quick and easy to put Red•Dot® out for customers to see.



Covers

Red • Dot® die-cast flip-lid weatherproof covers protect any outdoor receptacle from the elements. Constructed from rugged die-cast zinc, these covers will last a lifetime. A full line of non-metallic covers is also available.



Merchandisers

With your choice of various stock displays or a customized display to fit your needs, Red•Dot® makes it easy to increase your counter sales.



NEC and National Electrical Code are registered trademarks of the National Fire Protection Association, Inc.



Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services** Tel: 888.862.3289





Wet or Dry, All Outlets Can Go Undercover with Code Keeper®

Code Keeper® Weatherproof Covers

Code Keeper® While-In-Use Applications

Weatherproof Covers are required by the National Electrical Code® anyplace where water may come in contact with electrical outlets when a plug is in use. Code Keeper® covers are also ideal anywhere to prevent accidental disconnects, reduce tampering and to provide a lockable cover that meets OSHA requirements.

Suggested Applications:



Residential — holiday and landscape lighting, wells and sump pumps, sprinkler systems, plug-in timers, garages, patios.

Commercial — vending machines, car washes, outdoor signs, restaurant kitchens, greenhouses and nurseries, marinas, garages, lumberyards.





Recreational — pools and spas, parks, playgrounds, zoos, RV connections, athletic fields, ball parks, stadiums, outdoor stages, amphitheaters, golf courses.



National Electrical Code® Section 406.9(B):

(1) 15- and 20-Ampere, 125- and 250-Volt receptacles installed outdoors in a wet location shall have an enclosure that is weatherproof whether or not the attachment plug cap is inserted.





The electrical code is the reason you need a wet-location cover, but the reasons to buy Code Keeper® covers are simple: aluminum construction, easy installation with instructions in English, Spanish and French and a lifetime warranty from a manufacturer that has defined reliability in electrical construction materials for more than half of a century.

Cover the code with protection that lasts a lifetime with Code Keeper® covers.

The National Electrical Code® requires you to cover outdoor or other wet-location receptacles any time they are in use to ensure the safety of anyone who may come in contact with them.

Code Keeper® covers are corrosion-resistant, aluminum wet-location covers that meet the requirements of the National Electrical Code® and are backed by a lifetime warranty.

Red•Dot® Code Keeper® wet-location cover is NEMA 3R Rated, UL Listed and CSA Certified and meets all the requirements of NEC® Section 406.9(B). Code Keeper® covers are rugged, corrosion-resistant metal construction that provide long-lasting durability and are not subject to cracking or breaking. Made with the same Red•Dot® quality that contractors know and trust, Code Keeper® covers offer a lifetime of use and safety.

NEC and National Electrical Code are registered trademarks of the National Fire Protection Association, Inc.







Code Keeper® Metallic While-In-Use Covers

Applications:

- Protects receptacles, switches and plugs for single-gang and two-gang configurations in dry and wet locations
- Provides a lockable cover that complies with OSHA lockout/ tagout requirements
- Prevents accidental equipment disconnects, reduces tampering and deters theft and equipment removal

Features/Benefits:

- Alloy A360 copper-free* aluminum provides increased corrosion resistance
- Die-cast, metal construction provides long-lasting durability
- NEMA 3R Rating ensures protection against falling rain, sleet and external ice formation when used with appropriate device boxes
- Clear UL® and CSA markings speed approval by inspectors
- Wide range of cover depths and receptacle configurations accommodate almost every common plug and cord size when combined with included adapter plates
- Combination box or device mounting design provides flexibility in installation
- Trilingual instructions help to make installation easy for everyone

Standard Materials:

- Covers and Plates: Die-cast aluminum alloy A360 with less than .004 copper content (copper-free)
- · Gaskets: Closed-cell foam

Standard Finish:

Powder-coated finish

Compliances:

- NEC® Section 406.9(B)
- UL[®] Listed
- CSA Certified

NEC and National Electrical Code are registered trademarks of the National Fire Protection Association, Inc.



Single-Gang Medium Horizontal



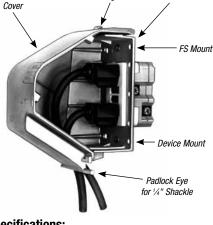
Single-Gang Small Vertical



Single-Gang Medium Vertical



Single-Gang Large Vertical



Hinae

Plate

Sample Specifications:

 Code Keeper® covers shall comply with NEC® Section 406.9(B) and be die-cast copper-free* aluminum alloy A360. Covers shall be finished powder-coated paint.

Red • Dot® Catalog No.

*Less than .004 copper content.

All 15- and 20-Ampere, 125- and 250-Volt receptacles installed outdoors in a wet location must have an enclosure that is weatherproof whether or not the attachment plug is inserted.

Code-Keeper® is required by the National Electrical Code® Section 406.9(B) for unattended in-use plugs in wet locations.

- Die-cast A360 aluminum alloy (less than .004% copper content)
- NEMA 3R Rating
- Clear UL[®] and CSA markings
- Wide range of cover depths and receptacle configurations
- Sturdy lockable cover tab complies with OSHA lockout/tagout requirements
- Combination box- or device-mount design (for most styles)
- Powder-coated finish
- "Extra-Duty" per NEC® Section 406.9(B)(1)



Two-Gand



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 Technical Services
Tel: 888.862.3289





Extra-Duty" per NEC®

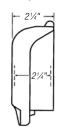
Section 406.9(B)(1)

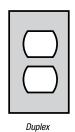
Weatherproof Metallic Covers

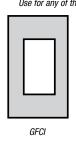
Code Keeper® Metallic While-**In-Use Covers — Single-Gang**

CKSUV — Small Vertical Cover, 21/411 Internal Depth

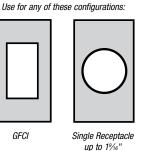


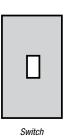






Use for any of these configurations:

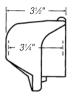


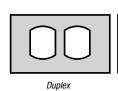


Note: Covers packed with gasket and screws.

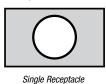
CKMU — Medium Horizontal Cover, 31/411 Internal Depth



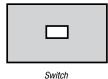




GFCI



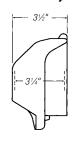
up to 11/16"

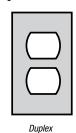


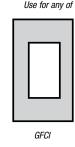
Note: Covers packed with gasket and screws.

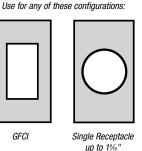
CKMUV — Medium Vertical Cover, 3½" Internal Depth

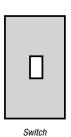










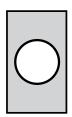


Note: Covers packed with gasket and screws.

CKLSVU — Large Vertical Cover, 4¾" Internal Depth







Single Receptacle up to 2.125"

Note: Covers packed with gasket and screws. NEC and National Electrical Code are registered trademarks of the National Fire Protection Association, Inc.

www.tnb.com

United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354

Technical Services Tel: 888.862.3289







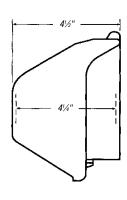
A-215

rededot.

Weatherproof Metallic Covers

Code Keeper® Metallic While-In-Use Covers — Two-Gang

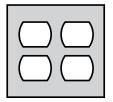
2CKU — Regular Cover, 4¼" Internal Depth



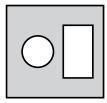


Note: Dry-tite® covers packed with gasket and screws.

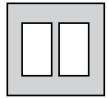
Use for any of these configurations:



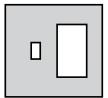
Two-duplex receptacle cover



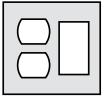
Single up to 13/8" and GFCI receptacle cover



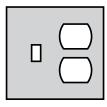
Two-GFCI receptacle cover



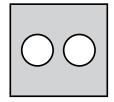
Toggle and GFCI receptacle cover



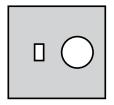
Duplex and GFCI receptacle cover



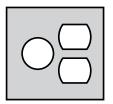
Toggle and duplex receptacle cover



Two-single up to 13/8" receptacle cover



Toggle and single up to 13/8" receptacle cover



Single up to 13/8" and duplex receptacle cover



NEC and National Electrical Code are registered trademarks of the National Fire Protection Association, Inc.





^{*} Can be used to cover one receptacle with an oversized wall opening.

Universal Design Installs in Both Horizontal and Vertical Applications.

Universal Flip-Lid Weatherproof Cover

New Red • Dot ® Universal Flip-Lid Weatherproof Covers save you time and money by reducing the number of items you have to inventory to complete a job. Capable of mounting either vertically or horizontally, the covers provide added versatility with innovative adapter plates to support all of the most common installation configurations — 12 with the single-gang cover and 25 with the 2-gang cover. Choose from silver, bronze or white covers.

Features:

- Included adapter plates offer 12 installation options with single-gang cover and 25 installation options
- · Keyhole openings on back enable easy installation on an existing outlet
- Durable, die-cast zinc-alloy construction
- · Suitable for use in wet locations with cover closed
- · Available in silver, bronze and white
- · Lockable for security when not in use
- Easy access to outlet with 130° opening
- Preconfigured for GFCI the industry's most common outdoor application



Accommodates Multiple Outlet Configurations (receptacles not included)



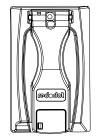


CAT. NO.	DESCRIPTION	STD. CTN.
CCU	Single-Gang Cover (installs vertically or horizontally) — Silver	50
DCCU	D-PAK® — Single-Gang Cover, Silver	25
DCCU-BR	D-PAK® — Single-Gang Cover, Bronze	25
DCCU-WH	D-PAK® — Single-Gang Cover, White	25
2CCU	2-Gang Cover — Silver	10
2CCU-BR	2-Gang Cover — Bronze	10
2CCU-WH	2-Gang Cover — White	10



Includes Two Adapter Plates, Single Receptacle up to 19/16







United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354













CAT. NO. COLOR

Single-Gang Device Covers

DESCRIPTION

Device Mount

Device Mount with Lock Option

Device Mount

Device Mount

Device Mount

Device Mount

Box Mount

Device Mount

Device Mount

Device Mount

Device Mount

Device Mount with Lock Option

Device Mount

Device Mount

Device Mount



Duplex Receptacle Cover, Horizontal		
CCD	Silver	Device Mount
CCD-L	Silver	Device Mount with Lock Option
CCD-FS	Silver	Box Mount
WR81-CN	Natural	Cover, Stay-Open Lid
WRH80-C	Gray	Cover, Self-Closing Lids
D-PAK®		
DCCD-P	Silver	Non-Metallic Device Mount
DCCD	Silver	Device Mount
DCCD-BR	Bronze	Device Mount
DCCD-WH	White	Device Mount
DCCDS0	Silver	Device Mount, Stay Open
DCCDSO-BR	Bronze	Device Mount, Stay Open
DCCDSO-WH	White	Device Mount, Stay Open
Duplex Receptacle Cover, Vertical		

CCDV

CCDV-L

D-PAK **DCCDV**

DCCDV-BR

DCCDV-WH

CCG

CCG-FS

D-PAK® DCCG

DCCG-BR

DCCG-WH

CCGV

CCGV-L

D-PAK® **DCCGV**

DCCGV-BR

DCCGV-WH

Silver

Silver

Silver

Bronze

White

Silver

Silver

Silver

Bronze

White

GFCI Receptacle Cover, Vertical

Silver

Silver

Silver

Bronze

White

GFCI Receptacle Cover, Horizontal

CCSV-TL	
.0	



CCSV

CAT. NO.

COLOR

DESCRIPTION

CCMB



CCT-1

U	•	Cover, Horizontal —
1.485" Dian	neter U Silver	Device Mount
		Cover, Vertical —
		eter Opening
CCSV	Silver	Device Mount
CCSV-L	Silver	Device Mount with Lock Option
CCP0	Silver	Power Outlet Cover with 2.156"
		Diameter Opening, Box Mount
CCPO-L	Silver	Box Mount with Lock Option
	•	Cover, Vertical — 1.59" Opening
CCSV-TL	Silver	Device Mount Integral Locking Hasp
		nd Cover, Horizontal
CCMB	Silver	Device Mount 15A, 125V
		Motor Base Plug
Switch Cov		
CCT	Silver	Device Mount Switch Cover Only,
Switch Cov		Packed with Spacers and Screws
CCT-1	Silver	Single-Pole 15A, 125V
CCT-1-20	Silver	Single-Pole 20A, 120-277V
CCT-3	Silver	3-Way Switch 15A, 125V
••••	0	ed with appropriate Red•Dot® boxes.
SW1	Silver	One-Gang Cover with 10A, 125V Single-Pole Switch
SW2	Silver	One-Gang Cover with 10A, 125V Double-Pole Switch
SW20-1/710	Silver	One-Gang Cover with 20A, 102/277V Single-Pole Switch (special oil- and gas-resistant gasket)
SW20-2	Silver	One-Gang Cover with 20A, 102/277V Double-Pole Switch

UL Listed E-18407. CSA Certified LR-18685.

SW20-2/710 Silver



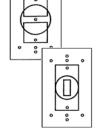


CCGV

Note: All covers packed with gasket and screws.

Single-Gang Gaskets

5.59	0.0.011010
COLOR	DESCRIPTION
Black	Neoprene
Black	Neoprene
	Black



Thomas@Betts

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354





www.tnb.com

One-Gang Cover with 20A,

102/277V Double-Pole Switch

(special oil- and gas-resistant

gasket)



Two-Gang Device Covers

	CAT. NO.	DESCRIPTION
wo-Duplex Recepta	cle Cover	
-	2CCD	Device Mount
60	2CCD-L	Device Mount with Lock Option
	WR281-CBR	Cover, Self-Closing Lids
	WR281-C-WH	Cover, Self-Closing Lids
wo-GFCI Receptacie	Cover	
	2CCG	Device Mount

One Duplex and One GFCI Receptacle Cover

2CCDG Device Mount



Two-Single Receptacle Cover — 1.485" Diameter Opening 2CCS Device Mount

All and a second	2CCS	Device Mount
3	2CCS-L	Device Mount with Lock Option

One Single Receptacle and One Duplex Receptacle Cover — 1.485" Diameter Opening



2CCSD Device Mount

Single Receptacle and One GFCI Receptacle Cover — 1.485" Diameter Opening



2CCSG Device Mount
2CCSG-L Device Mount
with Lock Option
WR74-81-C Cover, Self-Closing Lids,
Opening Diameter

Double Switch Cover



2CCT	Cover Only, Packed
	with Spacers
2CCT-1	Cover with Two
	Single-Pole 15A, 125V
	Switches and Spacers

ABDE Above Board Electronics, Inc.

Request Info

1-800-453-1692 www.aboveboardelectronics.com

CAT. NO. DESCRIPTION Switch and One Duplex Receptacle Cover 2CCTD Cover Only, Packed with Spacers 2CCTD-1 Cover with One Switch Single-Pole 15A, 125V and One Duplex Receptacle and Spacers

Switch and One GFCI Receptacle Cover



2CCTG Device Mount Cover Only with Spacers

Note: Raintight when used with appropriate Red•Dot® boxes.

All covers packed with gasket and screws.

Blank Covers

Didiii O	71010		
	CAT. NO.	COLOR	DESCRIPTION
Single-Gang			
	CCB	Silver	Device Mount
	CCB-FS	Silver	Box Mount
	D-PAK®		
	DCCB	Silver	Device Mount
0	DCCB-BR	Bronze	Device Mount
	DCCB-WH	White	Device Mount
Two-Gang			
	2CCB	Silver	Device Mount
	2CCB-FS	Silver	Box Mount
	D-PAK®		
	D2CCB	Silver	Device Mount
Three-Gang			
0	3CCB	Silver	Box Mount
2			



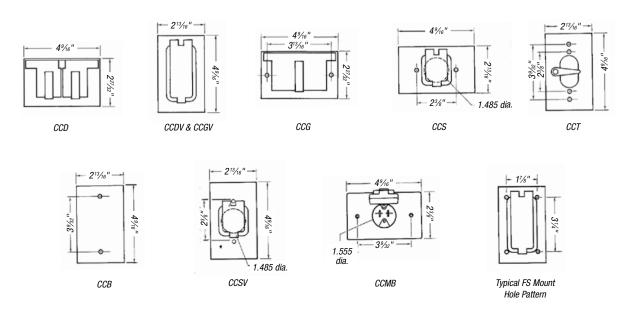
Note: Raintight when used with appropriate Red•Dot® boxes.

All covers packed with gasket and screws.

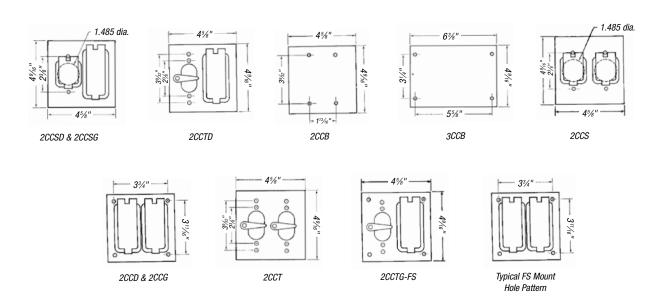




Single-Gang Covers



Two- and Three-Gang Covers







Code Keeper® Universal Non-Metallic Recessed Box and Cover

The Code Keeper® Universal Recessed Box and Cover finally solves the problem of needing a while-in-use cover, but not wanting to have a bulky cover on the outside of your home or building. The universal design means that the cover will accommodate a GFCI, duplex, switch or single receptacle up to %6", making it the perfect choice for all outdoor outlets.



- Horizontal or vertical orientation
- Easily install in new work and old work applications
- Meets NEC® 406.9(B) code requirements
- Lockable cover design for added security using external locking device*
- · Accommodates GFCI, duplex, toggle switch and single receptacles up to \(^9\)16" when combined with included inserts**
- High-impact UV-resistant polycarbonate cover
- All installation screws included



CAT. NO.	DESCRIPTION	STD. CTN.
CKRU-G8	Gray Box with a Gray Cover, Bulk Packaging	8
CKRU-WH8	White Box with a White Cover, Bulk Packaging	8
CKRU-8	Gray Box with a Clear Cover, Bulk Packing	8

UL Listed, File No. E11461.

CSA Certified

NEC and National Electrical Code are registered trademarks of the National Fire Protection Association, Inc.





1-800-453-1692



800.816.7809

Fax: 901.252.1354

^{*} External locking device (such as a padlock) not supplied.

^{**} Cover fits GFCI, the industry's most commonly used receptacle, without the use of inserts.

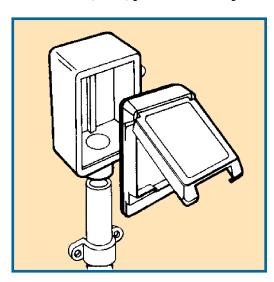


Red • Dot® Non-Metallic Weatherproof Covers



Installation

Includes base, cover, gasket and mounting screws



Box Mounting:

- 1. TURN OFF POWER.
- 2. Place gasket on top of outlet box.
- 3. Attach the device to the box.
- 4. Fasten cover to outlet box.

Note: These covers must be mounted in accordance with all local and NEC®/CEC requirements.

Device Mounting:

- 1. TURN OFF POWER.
- 2. Place gasket on top of outlet box.
- 3. Fasten cover to outlet box.
- 4. To ensure a weatherproof seal, use a 1/4" minimum bead of RTV-type silicone, neoprene, urethane or polyurethane caulking between gasket and mounting surface.

Note: These covers must be mounted in accordance with all local and NEC®/CEC requirements. NEC and National Electrical Code are registered trademarks of the National Fire Protection Association Inc.



Tel: 888.862.3289





Single-Gang — Vertical Mount

- · For use in wet/damp locations
- Mounts to a box or device





- Non-metallic won't rust or fade
- Paintable
- · Easy to install
- Made in the U.S.A.

Duplex Receptacle



CAT. NO.	COLOR	STD. CTN.	STD. WT. (LBS.)
E98GDRN-CAR	Gray	10	2

GFCI Receptacle

Device opening dimensions: 2.63" H x 1.31" W



CAT. NO.	COLOR	STD. CTN.	STD. WT. (LBS.)
E98GFCN-CAR	Gray	10	2

15-Amp Receptacle

• For 15-Amp or other single receptacles under 1.375" diameter



CAT. NO.	COLOR	STD. CTN.	STD. WT. (LBS.)
E98SRCN-CAR	Gray	10	2.1

20-Amp Receptacle

• For 20-Amp or other single receptacles under 1.625" diameter



CAT. NO.	COLOR	STD. CTN.	STD. WT. (LBS.)
E98G20N	Gray	20	4.1

30-Amp Receptacle

• For 30-Amp or other single receptacles under 1.750" diameter



OAT NO	201.00	STD.	STD. WT.
CAT. NO.	COLOR	CTN.	(LBS.)
E98G30N-CAR	Gray	10	2.1

Single Switch



CAT. NO.	COLOR	STD. CTN.	STD. WT. (LBS.)
E98SSCN-CAR	Gray	10	2.1

Toggle Switch



CAT. NO.	COLOR	STD. CTN.	STD. WT. (LBS.)
E98TSCN-CAR	Gray	5	1.1

Blank

· Supplied with stainless steel mounting screws and gasket



CAT. NO.	COLOR	STD. CTN.	STD. WT. (LBS.)
E980CN-CAR	Gray	12	1.60
E980CM-CAR	White	12	1.60

50-Amp Receptacle

• For 50-Amp or other single receptacles under 2.250" diameter



CAT. NO.	COLOR	STD. CTN.	STD. WT. (LBS.)
E98G5FN-CAR	Gray	10	2



Thomas@Betts



Single-Gang — Horizontal Mount

Duplex Receptacle



CAT. NO.	COLOR	STD. CTN.	STD. WT. (LBS.)
E98DHGN-CAR	Gray	10	3.9

GFCI Receptacle



CAT. NO.	COLOR	STD. CTN.	STD. WT. (LBS.)
E98GHGN-CAR	Gray	10	1.9
Device opening dimensions:			

Double-Gang

- · For use in wet/damp locations
- Mounts to a box or device
- · Non-metallic won't rust or fade
- Paintable
- Easy to install
- Made in the U.S.A.

Two-Gang Blank

· Supplied with stainless steel mounting screws and gasket



CAT. NO.	COLOR	STD. CTN.	STD. WT. (LBS.)
E9802CN-CAR	Gray	10	2.17

Double Duplex



CAT. NO.	COLOR	STD. CTN.	STD. WT. (LBS.)
E9G2DDN-CAR	Gray	10	2.3

Combination Toggle/GFI



CAT. NO.	COLOR	STD. CTN.	STD. WT. (LBS.)
E9G2GTN-CAR	Gray	5	1.3

Double Toggle



CAT. NO.	COLOR	STD. CTN.	STD. WT. (LBS.)
E9G2SSN	Gray	6	3.2

Combination Toggle/Duplex Receptacle



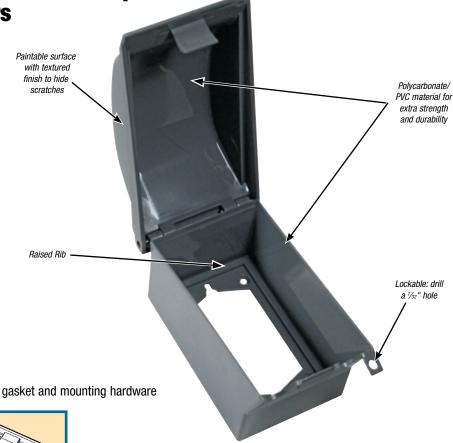
CAT. NO.	COLOR	STD. CTN.	STD. WT. (LBS.)
E9G2DSN-CAR	Gray	10	1.3

www.tnb.com



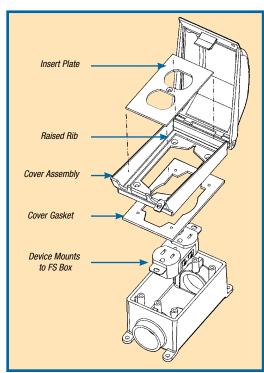
Red • Dot® Non-Metallic Weatherproof **While-In-Use Covers**

- NEMA Type 3R Rated
- Meets NEC® Section 406.9(B) and CEC Subrule 26-702
- UV resistant suitable for outdoor use
- · Fits all standard receptacles
- Non-metallic/noncorrosive
- UL[®] Listed
- CSA Certified



Installation

Includes base, cover, device plates, gasket and mounting hardware



Box Mounting:

- 1. TURN OFF POWER.
- 2. Mount electrical device to outlet box.
- 3. Place gasket on top of outlet box.
- 4. Fasten cover to outlet box.
- 5. Secure insert plate to cover.
- 6. Lockable feature drill a 1/32" hole in cover starting point provided.

Note: These covers must be mounted in accordance with all local and NEC®/CEC requirements. NEC and National Electrical Code are registered trademarks of the National Fire Protection



Association, Inc.



Single-Gang While-In-Use Covers

- · For use in wet/damp locations
 - ocations
- Weatherproof while in use
- Mounts to a box or device
- · Non-metallic won't rust or fade
- Paintable
- · Easy to install
- · Made in the U.S.A.









Horizontal Mount

Standard Covers — 2.53" Depth

CAT. NO.	COLOR	STD. CTN.	STD. WT. (LBS.)
E9UHGRN2	Gray	4	2.3
E9UHWRN2	White	4	2.3
E9UHCRN2	Clear	4	2.3



Inserts:





Vertical Mount

Inserts:







Vertical Mount

Standard Covers — 2.64" Depth

CAT. NO.	COLOR	STD. CTN.	STD. WT. (LBS.)
E9UVGRN2	Gray	12	7.2
E9UVWRN2	White	12	7.2
E9UVCRN2	Clear	12	7.2

Deep Covers — 4.14" Depth

	'	STD.	STD. WT.
CAT. NO.	COLOR	CTN.	(LBS.)
E9UDVGRN2	Gray	8	5.9
E9UDVWRN2	White	8	5.9
E9UDVCRN2	Clear	8	5.9

Double-Gang While-In-Use Covers

- · For use in wet/damp locations
- · Weatherproof while in use
- · Mounts to a box or device
- Non-metallic won't rust or fade
- Paintable
- Easy to install
- · Made in the U.S.A.



Inserts:









Standard Covers — 2.64" Depth

CAT. NO.	COLOR	STD. CTN.	STD. WT. (LBS.)
E9U2GRN2	Gray	6	5.7
E9U2WRN2	White	6	5.7
E9U2CRN2	Clear	6	5.7



Fax: 901.252.1354











Reinforced Design Withstands Abuse!



Code Keeper[®] Universal Non-Metallic Weatherproof While-In-Use Covers

Weatherproof covers are subjected to bumps and impacts through everyday use, but the Red•Dot® Code Keeper® Universal Non-Metallic While-In-Use Cover can handle it. Its reinforced design withstands abuse. The robust new hinge provides a sturdy cover attachment that is great for high-traffic areas.

Available in single- or two-gang configurations and standard or deep styles, the Code Keeper® Non-Metallic While-In-Use Cover easily adapts to different outlet configurations. Keyhole mounts make it fast and easy to install since there is no need to remove and replace the receptacle screws — just loosen the existing device screws and slide the cover over. Hinge pin design allows for vertical or horizontal mounting on the single gang.

- Robust new hinge provides a sturdy cover attachment that is great for high-traffic areas
- Available in single- or two-gang configurations and standard or deep styles
- Keyhole mounts make it fast and easy to install just loosen the existing device screws and slide the cover over
- Covers come with adapter plates and pre-adhered gaskets
- Unique wasp guard included to keep out unwanted pests
- · Lockable for security when not in use

CAT. NO.	DESCRIPTION	STD. PKG. QTY.
CKNM-NG*	Single-Gang Non-Metallic While-In-Use Cover, Clear	12
CKNMG-NG*	Single-Gang Non-Metallic While-In-Use Cover, Grey	12
CKNMW-NG*	Single-Gang Non-Metallic While-In-Use Cover, White	12
CKNM-NGD**	Single-Gang Deep Non-Metallic While-In-Use Cover, Clear	4
2CKNM-NG*	Two-Gang Non-Metallic While-In-Use Cover, Clear	4
2CKNM-NGD**	Two-Gang Deep Non-Metallic While-In-Use Cover, Clear	4

^{*} Standard covers: 21/8" overall depth.











^{**} Deep covers: 43/4" overall depth.



Fast and Easy Installation.

Code Keeper® Universal Non-Metallic Weatherproof While-In-Use Covers

The Code Keeper® Universal While-In-Use covers keep out moisture and take the hassle and cost out of installation. Single- or two-gang kits accommodate up to eight configurations each, and every cover is designed with a method to secure using an external locking device.* Perfect for all outdoor outlets including landscape lighting, lawn equipment, pool/hot tub pumps and holiday lighting.

- Saves you time no inserts to slow you down, no labor-intensive cutouts
- Horizontal or vertical orientation
- Meets NEC® Section 406.9(B) code requirements
- Lockable cover design for added security using external locking device
- High-impact UV-resistant polycarbonate base construction
- Weatherproof, thermoplastic cover with transparent finish
- Accommodates GFCI, single and duplex receptacles, toggle switches and single receptacles up to 1.59" diameter
- Mounts to a box or the device all installation screws included
- Choose your base plate and secure to the device. then, snap on the lid and you're done!
- Great for retrofit applications: Device holes are keyed, so just back out the existing device screws and slip the cover over previously installed screws



Universal Non-Metallic While-In-Use Covers*





CAT. NO. DESCRIPTION CKNM Single-Gang Duplex/GFCI/Switch/Single 1.59 —	STD. CTN.
	6
Horizontal or Vertical — Pad Lockable, 21/8" Deep	
2CKNM Two-Gang Duplex/GFCI/Switch/Single 1.59 — Horizontal or Vertical — Pad Lockable, 2½" Deep	4
CKNMD Deep Single-Gang Duplex/GFCI/Switch/Single 1.59 — Horizontal or Vertical — Pad Lockable, 4¾" Deep	4
2CKNMD Deep Two-Gang Duplex/GFCI/Switch/Single 1.59 — Horizontal or Vertical — Pad Lockable, 4¾" Deep	4

CSA Certified.

Cover ships as a vertical GFCI, the industry's most commonly used version.

* External locking device (such as a padlock) not supplied.

NEC and National Electrical Code are registered trademarks of the National Fire Protection Association, Inc.



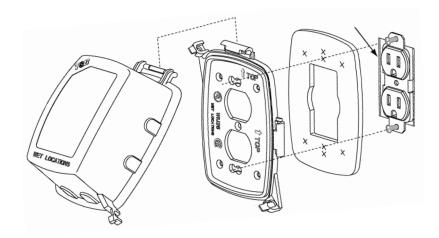


1-800-453-1692

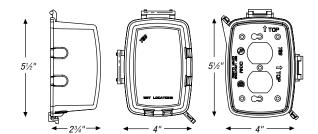




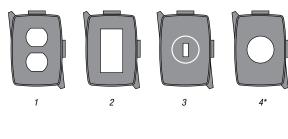


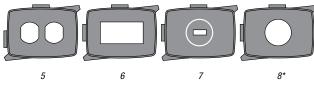


Single-Gang (CKNM) — Dimensions



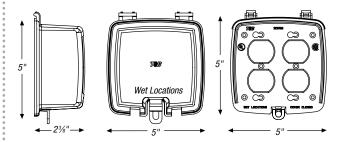
Single-Gang Base Options



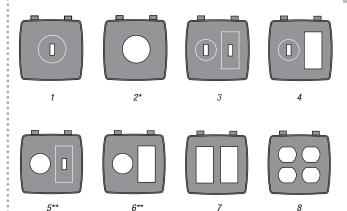


^{* 1.59&}quot; diameter fits up to 30-Amp twist-lock receptacle.

Two-Gang (2CKNM) — Dimensions



Two-Gang Base Options



^{* 2.125&}quot; Diameter ** 1.59" Diameter





Thomas@Betts



Universal Boxes and Covers

Applications:

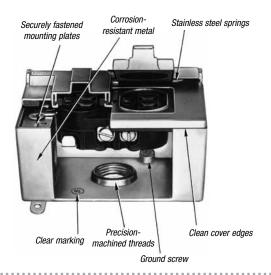
- Dry-tite[™] boxes and covers protect wiring devices. switches, electronic components and terminal blocks in dry, damp and wet locations
- Accessible wiring chamber provides a convenient location to maintain or change a system, pull conductors and make splices
- Junction box for branch conduits

Features/Benefits:

- Alloy A380 aluminum, certified zinc alloy and stainless steel springs provide increased corrosion resistance
- Die-cast construction and industrial design combine to produce a rugged protective enclosure for devices on many applications
- Clean cover edges provide good gasket sealing
- Precision-cast and machined surfaces permit safer wire pulling
- Clear UL and cubic content markings speed approval by inspectors
- Convenient mounting lugs for a variety of mounting methods
- Securely fastened mounting plates reduce costly call backs

Standard Materials:

- Boxes: Die-cast aluminum alloy A380
- Cover Plates: Stamped aluminum alloy or certified die-cast zinc alloy ZAMAK 3
- Cover Lids: Certified die-cast zinc alloy ZAMAK 3



Standard Finish:

Powder-coated finish

Compliances:

- UL[®] Listed (UL File No. E-2969)
- Boxes: CSA Certified with factory installed ground screw**
- Covers: CSA Certified
- Covers suitable for use in wet locations with covers closed
- CCB and CCT series covers suitable for use in wet locations
- Federal Spec. W-C-586
- NEMA 3R Rated

Sample Specifications:

 Universal device boxes and covers shall be of aluminum alloy A380 and certified zinc alloy. All conduit stops shall be free of rough edges. Covers shall have stainless steel springs. Covers shall be finished with powder-coated paint. Universal device boxes and covers shall be Red • Dot® Catalog No.



Accessible wiring chamber provides a convenient location to pull conductors and make splices in dry, damp or wet locations.

- Maximum cubic capacity
- Securely fastened mounting plates
- Corrosion-resistant materials
- Powder-coated finish
- Ground screw included
- Precision-machined threads
- Clear UL and cubic volume marking



IH3-1-LM



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354

Technical Services

www.tnb.com Tel: 888.862.3289



Single-Gang

	CAT. NO.	HUB SIZE (IN.)	COLOR	OUTLETS	S
Three Outlets					
	IH3-1	1/2	Silver	Тор	1
	IH3-2	3/4	Silver	Bottom	1
^	IH3-1-LM●	1/2	Silver	Back	1
A Para	H3-2-LM•	3/4	Silver	TOTAL	3
	D-PAK®			•	
9	DIH3-1-LM•	1/2	Silver		
	DIH3-1-LM-BR•	1/2	Bronze		
	DIH3-1-LM-WH•	1/2	White		
	DIH3-2-LM•	3/4	Silver		
	DIH3-3-LM	1	Silver		

Four Outlets

	1114-1	/2	Ollvei	100	_
	IH4-2	3/4	Silver	Bottom	1
	IH4-1-LM•	1/2	Silver	Back	1
DO W	IH4-2-LM•	3/4	Silver	TOTAL	4
10	D-PAK®				
0 -1	DIH4-1-LM•	1/2	Silver		
	DIH4-1-LM-BR•	1/2	Bronze		
	DIH4-1-LM-WH•	1/2	White		
	DIH4-2-LM•	3/4	Silver		

Five Outlets



IIH5-1	1/2	Silver	Top	2
IH5-2	3/4	Silver	Bottom	2
IH5-1-LM●	1/2	Silver	Back	1
IH5-2-LM•	3/4	Silver	TOTAL	5
D-PAK®				
DIH5-1-LM●	1/2	Silver		
DIH5-2-LM•	3/4	Silver		

Five Outlets (2-Side)



			TOTAL	5
			Back	1
			Side	1
			Side	1
IH5S2-2•	3/4	Silver	Bottom	1
IH5S2-1•	1/2	Silver	Тор	1

Six Outlets (3-Side)



			ΤΩΤΔΙ	6
			Back	1
			Side	1
			Side	2
IH6S2-2•	3/4	Silver	Bottom	1
IH6S2-1•	1/2	Silver	Top	1

Note: Raintight when used with appropriate Red Dot® covers. Boxes supplied with 2 closure plugs and ground screw.

• With mounting lugs

Two-Gang

HUB SIZE (IN.)	OUTLET	S
1/2	Тор	1
3/4	Bottom	1
	Back	1
	TOTAL	3
,	_	
1/2		
	½ ¾	½ Top ¾ Bottom Back TOTAL

Four Outlets



		TOTAL	4
		Back	1
2IH4-2•	3/4	Bottom	1
2IH4-1•	1/2	Тор	2

Five Outlets



Back	\L 5
Dool	< 1
2IH5-2• 3⁄4 Botto	m 2
2IH5-1•	2

Five Outlets (2-Side)



			TOTAL	5
			Back	1
,			Side	1
9			Side	1
9	2IH5S2-2•	3/4	Bottom	1
	2IH5S2-1•	1/2	Тор	1

Seven Outlets



7		TOTAL	7
•		Back	1
2IH7-2•	3/4	Bottom	3
2IH7-1•	1/2	Тор	3

Seven Outlets (2-Side)



		ΤΩΤΔΙ	7
		Back	1
		Side	1
		Side	1
2IH7S2-2•	3/4	Bottom	2
2IH7S2-1•	1/2	Тор	2

Note: Raintight when used with appropriate Red • Dot® covers. Boxes supplied with 2 closure plugs and ground screw.

• With mounting lugs



Tel: 888.862.3289







.aboveboardelectronics.com



Deep Boxes — Single- and Multi-Gang

	CAT. NO.	HUB SIZE (IN.)	OUTLETS	3
Three Outlets				
	IHD3-1•	1/2	Top	1
Die	IHD3-2•	3/4	Bottom	1
ALC: Y	IHD3-3•	1	Back	1
			TOTAL	3

Extensions — Single-Gang

	CAT. NO.	HUB SIZE (IN.)	OUTLETS	DESCRIPTION
No Outlets —	1" Deep			,
	IHE	N/A	0	Extension Ring for One-Gang Box with Gasket and Screws





		TOTAL	4
		Back	1
IHD4-2•	3/4	Bottom	1
IHD4-1•	1/2	Тор	2

Four Outlets — 13/8" Deep



	4 10	-	_	4111 51 1
IHE4-1	1/2	Тор	2	4-Hole Extension
		Bottom	2	Ring for One-Gang
		TOTAL	4	Box with 4 Plugs,
				Gasket and Screws

Two-Gang Five Outlets



		TOTAL	
		Back	1
2IHD5-3•	1	Bottom	2
2IHD5-2•	3/4	Тор	2
2IHD5-1•	1/2		

Two Outlets, Flanged — 11/8" Deep



IHEF2-1	1/2	Top	1	2-Hole Flanged Box
IHEF2-2	3/4	Bottom	1	Extension Adapter
		TOTAL	2	with 1 Plug Gasket
				and Screws

Three-Gang Se

e	ven Uutlets				
	3IHD7-2•	3/4	Тор	3	
	3IHD7-3•	1	Bottom	3	
			Back	1	
			TOTAL	7	

Six Outlets, I	Flanged — 1	7∕8" Deep	Add-	0n	
	IHEF6S2-1	1/2	Top	2	6-Hole Flanged Box
TOP	IHEF6S2-2	3/4	Bottom	2	Extension Adapter
			Side	1	with 4 Plugs,
			Side	1	Gasket and Screws
-			TOTAL	6	_

Close-Up Plugs — Zinc

CAT. NO.	COLOR	HUB SIZE (IN.)
PLG-1-RD	Silver	1/2
PLG-2-RD	Silver	3/4
PLG-3-RD	Silver	1

Extensions — Two-Gang



CAT. NO.	HUB SIZE (IN.)	OUTLETS	DESCRIPTION
Deep			
2IHE	N/A	0	Extension Ring for Two-Gang Boxes with
			Gasket and Screws

D-PAK®

CAT. NO.	COLOR	HUB SIZE (IN.)
DPLG-1	Silver	1/2
DPLG-1-BR	Bronze	1/2
DPLG-1-WH	White	1/2
DPLG-2	Silver	3/4

Extensions — Round



	GAT. NU.	HUB SIZE (IN.)	OUTLETS	DESCRIPTION
Outlets	— 1%" Dee	p		
10	SE-47	1/2	4	Round Extension with
-	SE-48	3/4	4	Gasket and Screws

Mounting Lugs



	CAT. NO.	DESCRIPTION
83		2 Mounting Lugs with Self-Tapping Screws,
9 4		for LM Boxes Only



United States Tel: 901.252.8000

800.816.7809 Fax: 901.252.1354 **Technical Services** Tel: 888.862.3289

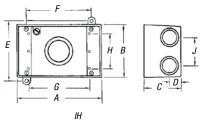






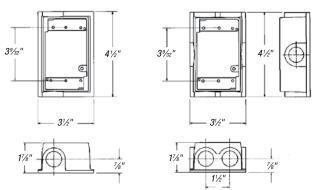
Single-Gang Boxes

Single-Gang Boxes

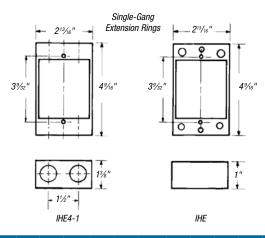


Two-Hole Flanged Box Extension Adapter

Six-Hole Flanged Box Extension Adapter

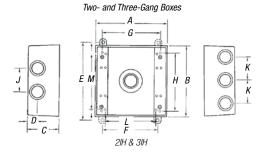


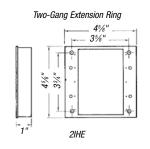
IHEF2 (Add-On) IHEF6S2 (Add-On)



	HUB		DIMENSIONS (IN.)								
CAT. NO.	SIZE	Α	В	С	D	E	F	G	Н	J	CI
IH-1	1/2	4%16	213/16	2	5/8	_	_	31/4	1%	1½	17.3
IH-2	3/4	41/16	213/16	2	5/8	_	_	31/4	11//8	11/2	17.0
IH-LM-1	1/2	41/16	213/16	2	5/8	313/16	3½	31/4	11//8	11/2	17.3
IH-LM-2	3/4	41/16	213/16	2	5/8	313/16	3½	31/4	11//8	11/2	17.0
IH-S-1	1/2	41/16	213/16	2	5/8	313/16	3½	31/4	11//8	11/2	17.0
IH-S-2	3/4	4%16	213/16	2	5/8	313/16	3½	31/4	11//8	11/2	17.0
IHD-1	1/2	49/16	213/16	25/8	5/8	313/16	3½	31/4	11//8	11/2	24.8
IHD-2	3/4	4%16	213/16	25/8	5/8	313/16	3½	31/4	11//8	1½	24.8
IHD-3	1	4%16	213/16	25/8	3/4	313/16	3½	31/4	11//8	11/2	23.5

Two- and Three-Gang Boxes





						DIM	ENSION	NS (IN	.)				
CAT. NO.	Α	В	С	D	E	F	G	Н	J	K	L	М	CI
2IH3	4%16	45/8	21/16	5/8	5	3½	317/32	3¾	_	_	31/4	3%16	31.8
2IH4	$4\frac{9}{16}$	45/8	21/16	5/8	5	3½	$3^{17}/_{32}$	3¾	1½	_	31/4	3%16	31.8
2IH5	$4\frac{9}{16}$	45/8	21/16	5/8	5	$3\frac{1}{2}$	$3^{17}/_{32}$	33/4	11/2	_	31/4	3%16	31.8
2IH5S2	$4\frac{9}{16}$	45/8	21/16	5/8	5	$3\frac{1}{2}$	$3^{17}/_{32}$	3¾	_	_	31/4	3%16	31.8
2IH7	$4\%_{16}$	45/8	21/16	5/8	5	$3\frac{1}{2}$	$3^{17}/_{32}$	3¾	_	11/2	31/4	31/16	30.3
2IH7S2	$4\%_{16}$	45/8	21/16	5/8	5	$3\frac{1}{2}$	$3^{17}/_{32}$	3¾	11/2	_	31/4	31/16	32.0
2IHD5	4%16	45/8	$2^{17}/_{32}$	3/4	5	3½	$3^{17}/_{32}$	33/4	¹³ / ₁₆	_	31/4	3%16	40.3
3IHD7	4%16	67/16	217/32	13/16	613/16	31/2	31/4	55/8	_	13/16	31/4	3%16	54.8



Thomas@Betts



Round Boxes, Extensions and Covers

Applications:

- Junction for branch conduits
- Spacious, accessible wiring chamber provides a convenient location to maintain or change a system, pull conductors and make splices

Features/Benefits:

- Copper-free* aluminum provides increased corrosion resistance
- Precision-cast and machined surfaces permit safer wire pulling
- Clean cover edges provide good gasket sealing
- Precision NPT threads enable trouble-free field installation for rigid, IMC or EMT conduit
- Deep-slotted stainless steel cover screws for faster installation
- Clear UL® and cubic content markings speed approval by inspectors

Standard Materials:

- S Boxes: Die-cast aluminum alloy A380
- SS-B Cover: Stamped aluminum
- · Gaskets: Composition

Standard Finish:

Powder-coated finish

Compliances:

- UL[®] Listed
- Federal Spec. W-C-586B

Sample Specifications:

 Outlet boxes and covers shall be die-cast copper-free* aluminum alloy A380 ("S"). Outlet boxes and covers shall be finished with powder-coated paint.

Outlet boxes and covers shall be Red • Dot®
Catalog No
* Less than .004% copper content.
** S Boxes — Die-cast aluminum allov A38





Boxes

CAT. NO.	COLOR	HUB SIZE (IN.)	DESCRIPTION
Five Outlets,	41/8" Diameter		
S-47	Silver	1/2	5 Outlets, Cast
S-47-CFB	Silver	1/2	Ceiling Fan Box and Cover Rated for 50 lb. Fixture or 35 lb. Fan
S-48	Silver	3/4	Mounting Lugs, 4 Closure Plugs
S-48-CFB	Silver	3/4	Ceiling Fan Box and Cover Rated for 50 lb. Fixture or 35 lb. Fan
D-PAK®			
DS-47	Silver	1/2	5 Outlets
DS-47-BR	Bronze	1/2	5 Outlets
DS-47-WH	White	1/2	5 Outlets
DS-48	Silver	3/4	5 Outlets
DS-48-BR	Bronze	3/4	5 Outlets
DS-48-WH	White	3/4	5 Outlets
DS-47-B	Silver	1/2	With Blank Cover
DS-48-B	Silver	3/4	With Blank Cover



41/211 Round Extensions

CAT. NO.	COLOR	HUB SIZE (IN.)	DESCRIPTION
Four Outle	ts, 41%" Diameter	, 1%" Deep	
SE-47	Silver	1/2	4 Outlets
SE-48	Silver	3/4	4 Closure Plugs, Gasket and Screws

Note: Boxes are Raintight when used with appropriate Red•Dot® boxes

All covers packed with gasket and screws.



Fax: 901.252.1354

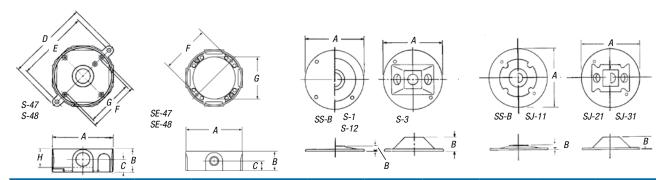








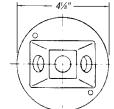
Outlet Boxes, Extensions



					DIMENSIONS (I	N.)				
CAT. NO.	HUB SIZE	Α	В	С	D	E	F	G	Н	CI
S-47	1/2	41//8	1%	3/4	5%16	415/16	3½	31//8	11/4	17.0
SE-47	1/2	41/8	1%	13/16	_	_	31/2	31/16	_	18.3
S-71	1/2	41/8	1%	3/4	5%16	415/16	31/2	31/8	11/4	16.3
S-48	3/4	41/8	1%	7/8	5%16	415/16	31/2	31/8	11/4	17.0
SE-48	3/4	41/8	1%	13/16	_	_	31/2	31/16	_	18.3
SS-B	_	41/8	3/64	_	_	_	_	_	_	_
S-1	1/2	41/8	1⅓	_	_	_	_	_	_	_
S-12	3/4	41/8	3/8	_	_	_	_	_	_	_
S-3	1/2	41/8	11/16	_	_	_	_	_	_	_
SS-B	_	41/2	3/8	_	_	_	_	_	_	_
SJ-11	1/2	41/2	3/8	_	_	_	_	_	_	_
SJ-21	1/2	41/2	1	_	_	_	_	_	_	_
SJ-31	1/2	41/2	1	_	_	_	_	_	_	_

Round Lampholder Covers

- · Heavy-duty die-cast construction
- · Powder-coat finish in silver gray, bronze or white
- Three-hole cover is supplied with a 1/2" closure plug
- · Supplied with sealing gasket and cover screw



4/8	

CAT. NO.	NO. OF OUTLET HOLES	FINISH	STD. CTN.
S-1-RD	1	Silver Gray	25
DSS-1-BR	1	Bronze	25
DSS-1-WH	1	White	25
Y2-PL	2	Silver Gray	25
S-3-RD	3	Silver Gray	25
DSS-3-BR	3	Bronze	25

UL Listed E-51763. CSA Certified LR-18685.

DSS-3-WH



Round Blank Covers







COLOR	DESCRIPTION		
Silver	Weatherproof Cover with Gasket and Screws		
White	Mounting Holes 2¾" on Center (not raintight)		
White	Mounting Holes 31/2" on Center (not raintight)		
White	_		
	Silver White White		

Note: Boxes are raintight when used with appropriate Red•Dot® boxes.

All covers packed with gasket and screws.



White

25





Thomas@Betts



Weatherproof Non-Metallic Fixtures and Boxes

Red • Dot Non-Metallic Weatherproof Fixtures

- · Designed for indoor or outdoor use
- One-piece design with 20.25 cu. in. capacity
- Approved for dwelling
- Acceptable for barn applications
- Junction box approved
- Rated for 60° C field wiring with 150W bulb and tempered glass globe
- Approved for through branch wiring accommodates eight #12 AWG through branch circuit conductors
- UL® and cUL Listed
- UL[®] Marine Listed





Installation

Includes gasket, four lug nuts and two mounting screws

Installation Instructions

- 1. Turn off electricity before starting.
- 2. Disassemble fixture from base.
- 3. Make wire terminations according to the NEC® or local electrical codes.
- 4. Fold fixture wire into fixture base.
- 5. Twist on socket assembly.
- 6. Fixture assembly is ready for lamp and globe installation.

NOTE:

- Plastic globes mounted in a VERTICAL POSITION (globe pointing down) can only use a maximum lamp size of 60 watts
- Glass globes mounted in a VERTICAL POSITION can only use a maximum lamp size of 100 watts
- HORIZONTAL mountings have a maximum lamp size of 60 watts
- It is NOT RECOMMENDED to mount plastic globes horizontally for incandescent applications
- Weatherproof Fixture Bases and Globes are SOLD SEPARATELY

NEC and National Electrical Code are registered trademarks of the National Fire Protection Association, Inc.







Weatherproof Non-Metallic Fixtures and Boxes

Weatherproof Fixture

- · Suitable for use in wet/damp locations
- · Designed for indoor or outdoor use
- · 20.25 cu. in. capacity
- Easy to install
- · Non-metallic won't rust or fade
- · One-piece design
- · Approved for through-branch wiring







			LISTED
CAT. NO.	HUB SIZE (IN.)	STD. CTN.	STD. WT. (LBS.)
E962E	3/4	6	4.5

Weatherproof Lighting Globes



Clear Glass

CAT. NO.	STD. CTN.	STD. WT. (LBS.)
E960GLB (Clear Glass)	6	6.6



Base

Clear Polycarbonate

CAT. NO.	STD. CTN.	STD. WT. (LBS.)
E960PGL (Clear Plastic)	6	6.6

Weatherproof T Boxes

- Red•Dot® Weatherproof T Boxes are for use with non-metallic wiring systems only

Single-Gang T Box

- With three ½" threaded holes
- · Mounting feet included



Double-Gang T Box

- With three 1/2" and four 3/4" threaded holes
- · Mounting feet included

COLOR

Grav

White

CAT. NO.

E382DE

E382DEW



STD.

CTN.

6

STD. WT.

(LBS.)

3.6

3.6

CAT. NO.	COLOR	SIZE (IN.)	STD. CTN.	STD. WT. (LBS.)
E381D-CAR	Gray	1/2	10	2.3
F381DW-CAR	White	1/2	6	3.6

Round T Box

- With five 1/2" threaded holes
- Mounting feet included



United States

800.816.7809

Fax: 901.252.1354

CAT. NO.	COLOR	SIZE (IN.)	STD. CTN.	STD. WT. (LBS.)
E365D-CAR	Gray	1/2	10	1.2
E365D-CAR	White	1/2	10	1.2







SIZE

(IN.)

1/2







Lampholders, Garden Lights and Accessories

Applications:

- Security and general outdoor lighting fixture for residential and commercial applications
- · Accent lighting fixture for highlighting outdoor signs and architectural details
- Compact outdoor lighting fixture which can be mounted easily in most places and can be aimed in any direction

Features/Benefits:

- Clean lines and precision manufacturing result in a fixture which will enhance any application
- High-quality replaceable porcelain socket with hightemperature leads enables easy field maintenance
- · Positive-locking mounting arm keeps fixture in aimed position to reduce costly call-backs
- · Ground screw boss in arm

Standard Materials:

- Fixture: Certified die-cast zinc alloy ZAMAK 3
- Gasket: Heat-resistant composition or high-temperature silicone
- · Socket: Center contact, porcelain, medium base

Standard Finish:

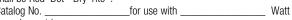
- Powder-coated finish
- Chrome-plated zinc

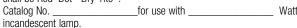
Compliances:

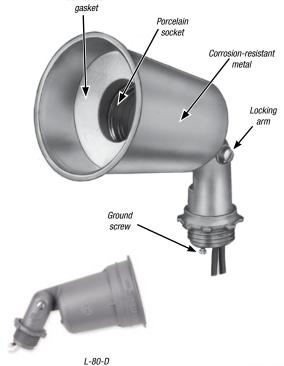
- UL[®] Listed
- · Suitable for use in wet locations

Sample Specifications:

Lampholders shall be certified die-cast zinc alloy ZAMAK 3. Lampholder will have positive-locking mounting arm and replaceable socket. Fixture shall be Red • Dot® Dry-Tite®.







Heat-resistant









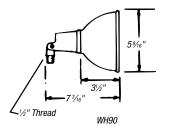


Use with Medium-Base PAR Lamps to 150 Watts.

Lampholders and Assemblies

Hooded Lampholders





- · Heavy-duty die-cast zinc lampholder
- Corrosion-resistant aluminum hood
- · Factory provided with a 3-wire, 8" pre-stripped lead

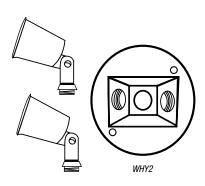
CAT. NO.	DESCRIPTION	STD. CTN.
WH90	Silver Gray, 5½" Diameter Hood	6

Universal Lampholders

- · Heavy-duty die-cast zinc construction
- · Supplied with captive lamp sealing gasket
- Current-carrying components are copper or copper-alloy materials and sockets are porcelain
- · Factory provided with a 2-wire, 8" prestripped lead
- · Swivel arm has grounding boss
- · Ground screw supplied

CAT. NO.	DESCRIPTION	COLOR	STD. CTN.
WHG-1	Weathershed Series with	Silver gray	36
	Heat-Resistant Sealing Gasket		
WHUP-1	Inside Gasket and Ground Screw	"Natural" color	36
UL Listed E-	-42680.		

Lampholder Assemblies



- · Heavy-duty die-cast zinc construction
- · Powder-coat finish in silver gray
- Completely factory assembled and factory prewired
- Surface mount to any 3" or 4" round outdoor box or flush mount to existing box

CAT. NO.	DESCRIPTION	STD. CTN.
WHY2	Two Silver Lamps, Silver-Gray Cover	5
UL Listed E-	42680.	

Gasket



CAT. NO.	DESCRIPTION	STD. CTN.
G1	Heat-Resistant Sealing Gasket	100

Adapters

- · Heavy-duty die cast construction
- Natural cast finish



CAT. NO.	DESCRIPTION	STD. CTN.
AD11-2	"Y" Adapter — Converts One Outlet to Two — ½" Threads	10
III Listed F	E1700	



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354











Round Lampholder Covers

Standard Covers



CAT. NO.	COLOR	HUB SIZE (IN.)	DESCRIPTION
Gasket and Screws	s, 41/8" Diameter		
S-1-RD	Silver	1/2	One Tapped Hole
S-12	Silver	3/4	One Tapped Hole
S-3-RD	Silver	1/2	Three Tapped Holes
D-PAK®			
DSS-1	Silver	1/2	One Tapped Hole
DSS-1-BR	Bronze	1/2	One Tapped Hole
DSS-1-WH	White	1/2	One Tapped Hole
DSS-3	Silver	1/2	Three Tapped Holes
DSS-3-BR	Bronze	1/2	Three Tapped Holes
DSS-3-WH	White	1/2	Three Tapped Holes
S621E	_	_	Universal Gasket

Jumbo Covers



CAT. NO.	COLOR	HUB SIZE (IN.)	DESCRIPTION
Gasket and Screws, 4	/2" Diameter		
SJ-11	Silver	1/2	One Tapped Hole
SJ-21	Silver	1/2	Two Tapped Holes
SJ-31	Silver	1/2	Three Tapped Holes

Note: Boxes are raintight when used with appropriate Red●Dot® boxes.

All covers packed with gasket and screws.

Single-Gang Lampholder Covers







LC-21

LC-31

CAT. NO.	CAT. NO.	COLOR	SIZE (IN.)	DESCRIPTION
STANDARD (2 ¹³ / ₁₆ " X 4½")	JUMBO (31/8" X 51/8")			
LC-11	LF11	_	1/2	One-Hole Device Mount
LC-21	_	_	1/2	Two-Hole Device Mount
LC-31	LF31	_	1/2	Three-Hole Device Mount
D-PAK®				
DLC-31	_	Silver	1/2	Three-Hole Device Mount
DLC-31-BR	_	Bronze	1/2	Three-Hole Device Mount
DLC-31-WH	_	White	1/2	Three-Hole Device Mount











Lampholders, Die-Cast Zinc Zamak 3



CAT. NO.	COLOR	LAMP MAX.	DESCRIPTION
Standard			
L-80	Silver	150W • PAR 38 or R40	Inside Gasket and Ground Screw
WHUP-1	Natural	150W● PAR 38 or R40	Inside Gasket and Ground Screw
D-PAK®			,
DL-80	Silver	_	_
DL-80-BR	Bronze	_	_
DL-80-WH	White	_	_
Gasketed			,
L-80-D	Silver	150W● PAR 38 or R40	Heavy-Duty Slip-On Gasket
			and Ground Screw
Deep-Shield	led		
L-800	_	150W • PAR 38 or R40	Inside Gasket and Ground Screw
Wireguard			
LG-80	_	_	Mounts to L-80 Series Lampholder

Decorative Floodlight



CAT. NO.	COLOR	LAMP MAX.	DESCRIPTION
2L80D2	White	150W• PAR 38	Two Lampholders Round Cover, or R40 Inside Ground Screws
D-PAK®			
D2L80S3	Silver	_	_

Spike Lights

Portable Mount

For use with 150-Watt Lamp

- · Lampholders are heavy-duty die-cast construction
- · Lampholders have powder-coat green finish
- Current-carrying components are copper or copper alloy and sockets are porcelain
- Factory wired

CAT. NO.	DESCRIPTION	STD. CTN.
B660GR	Spike Light with 6' Cord	16
UL Listed E-42680.		

Portable Spotlights





CAT. NO.	COLOR	LAMP MAX.	DESCRIPTION
K702	Silver	150W• PAR 38 or R40	Standard Lampholder, Ground Spike, Wall Bracket, Gasket and Screws
K780	Silver	150W• PAR 38 or R40	Deep-Shielded Lampholder, Ground Spike, Wall Bracket, Gasket and Screws
K780BR	Bronze	150W• PAR 38 or R40	Standard Lampholder, Ground Spike, Wall Bracket, Gasket and Screws



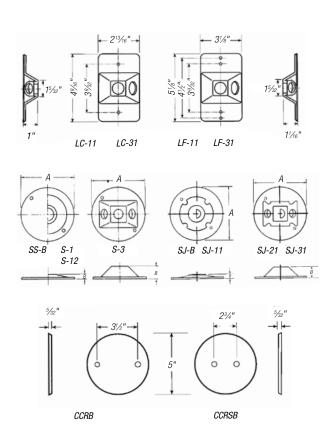


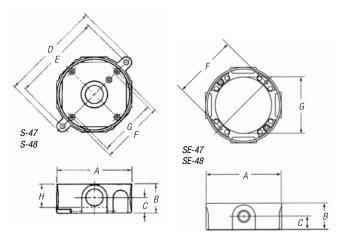
Thomas@Betts

rededot.

Weatherproof Metallic Lampholders

Dimensions in Inches

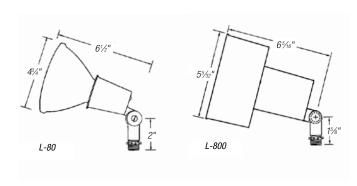


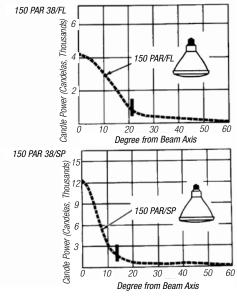


			DIMENSIONS (IN.)							
CAT. NO.	HUB SIZE	A	В	С	D	E	F	G	Н	CI
S-47	1/2	41//8	1%	3/4	5%16	415/16	3½	31/8	11/4	16.0
SE-47	1/2	41/8	1%	1	_	_	3½	31/16	_	18.3
S-48	3/4	41/8	1%	7/8	5%16	$4^{15}/_{16}$	31/2	31/8	11/4	16.0
SE-48	3/4	41/8	1%	1 3/16	_	_	31/2	31/16	_	18.3
SS-B	_	41/8	3/64	_	_	_	_	_	_	_
S-1	1/2	41/8	3/8	_	_	_	_	_	_	_
S-12	3/4	41/8	3/8	_	_	_	_	_	_	_
S-3	1/2	41/8	1	_	_	_	_	_	_	_
SJ-B	_	41/2	3/8	_	_	_	_	_	_	_
SJ-11	1/2	41/2	3/8	_	_	_	_	_	_	_
SJ-21	1/2	41/2	1	_	_	_	_	_	_	_
SJ-31	1/2	41/2	1	_	_	_	_	_	_	_

Photometrics

Photometrics are strictly a function of the lamp used.







United States
Tel: 901.252.800

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354



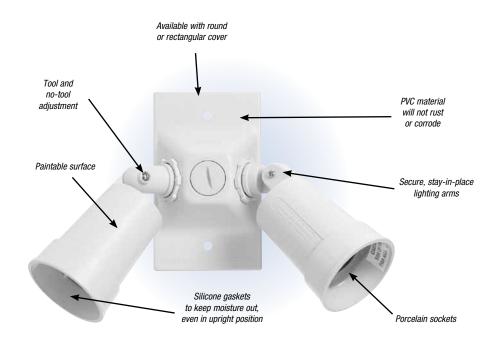






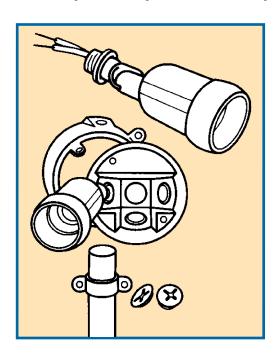
Red•Dot® Non-Metallic Weatherproof Lampholders

- UV resistant suitable for outdoor use
- Accepts 150-watt bulb max (incandescent only)
- Non-metallic/ noncorrosive
- UL® and cUL Listed
- Approved for upward use in wet locations



Installation

Includes gasket, four lug nuts and two mounting screws



Installation Instructions:

- 1. Turn off electricity before starting.
- 2. Bring power leads into the outlet box and connect using proper wire nuts or insulation materials.
- 3. Use drill or nail to knock out holes on lampholder cover that align with outlet box. When completed, be sure visual perimeter of weatherproof gasket is even to ensure proper seal.
- 4. Floodlight lampholders can be positioned using two different adjustments. Loosen locknut to turn lampholder assembly to desired position. Tighten locknut. Then depress pushbutton to adjust lampholder to final position.

800.816.7809

Fax: 901.252.1354

rededot.

Weatherproof Non-Metallic Lampholders

Lampholders

- · For use in wet/damp locations
- Ideal for residential or commercial applications security/landscape
- Mounts to a device box
- · Non-metallic won't rust or fade
- Paintable
- · Easy to install
- · Stay-in-place lighting arms



No-Tool Lampholder with Round Cover

CAT. NO.	COLOR	STD. CTN.	STD. WT. (LBS.)
P8060W-CAR	White	6	5.8



Except where noted by

Lampholder with Round Cover

CAT. NO.	COLOR	STD. CTN.	STD. WT. (LBS.)
P8010W-CAR	White	6	3.9

Lampholder with Rectangular Cover

CAT. NO.	COLOR	STD. CTN.	STD. WT. (LBS.)
P8005W-CAR	White	6	3.8

Covers





Rectangular

CAT. NO.	COLOR	STD. CTN.	STD. WT. (LBS.)
P7901W-CAR	White	12	.9

Round

CAT. NO.	COLOR	STD. CTN.	STD. WT. (LBS.)
P7801W-CAR	White	16	1.6

Accessories





No-Tool Lampholder with Gasket

CAT. NO.	COLOR	STD. CTN.	STD. WT. (LBS.)
P8001W-CAR	White	24	5.5

Closure Plugs

CAT. NO.	COLOR	STD. CTN.	STD. WT. (LBS.)
► P7701W-CAR	White	30	1.3





Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354



Tel: 888.862.3289

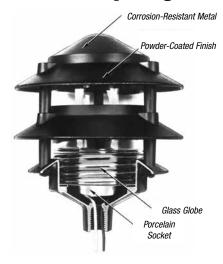








SiteLight® Landscape Lights



Applications:

- Lighting for walkways, paths or driveways
- Accent lighting for garden and terrace areas
- Ground-level security lighting

Features/Benefits:

- Certified zinc alloy provides increased corrosion resistance
- High-quality replaceable porcelain socket with hightemperature leads enables easy field maintenance

Standard Materials:

- Fixture: Die-cast zinc alloy ZAMAK 3
- Globe: Lime crystal glass
- Socket: Center contact, porcelain, medium base

Standard Finish:

- Green powder-coated finish
- · Bronze powder-coated finish

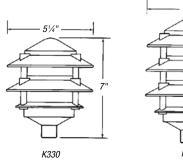
Compliances:

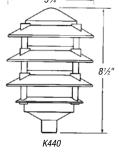
- UL[®] Listed
- Suitable for use in wet locations

Sample Specifications:

 Fixture shall be certified die-cast zinc alloy ZAMAK 3; socket shall be porcelain, center contact and replaceable; socket shall have extended leads for easy wiring: fixture shall be Red • Dot® Dry-Tite®

Catalog No.



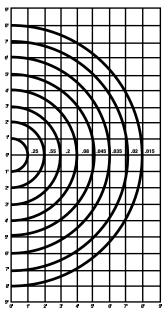


Photometrics:

Based on lamp center 24" above ground

Based on 100-Watt A-19 inside-frosted 1750-lumen lamp. For other wattage see table below.

WATTAGE	MULTIPLIER
100	1.0
75	.68
60	.44
50	.27
40	.26
25	.13
	Iso Foot Candles



Three Tier



CAT. NO.	COLOR	LAMP MAX.	DESCRIPTION
K330	Green	75W∙	12" Extended
K330BR	Bronze		Leads, Gasket
VGL-075			and Ground
			Screw Globe

Four Tier



CAT. NO.	COLOR	LAMP MAX.	DESCRIPTION
K440	Green	100W•	12" Extended
K440BR	Bronze		Leads, Gasket
VGL-01			and Ground
Note: Lamp r	ot included		Screw Globe



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354







Step Up to SiteLight® Line Voltage Outdoor Lighting.

Planning your Outdoor Lighting

On graph paper, outline your home and grounds. Indicate key features you wish to highlight such as stairways, statuary, shrubbery or flowering plants. SiteLight **Spot Lights** and **Swivel Lights** provide focused illumination to showcase these areas.

The diagrams below show how you can achieve three special lighting effects with SiteLight® Spot Lights and Swivel Lights.



Grazing from side or bottom to show texture



Uplighting from below makes details stand out



Silhouetting from behind provides drama

For decks, Post Sconce Lights mounted on deck posts provide glare-free perimeter lighting and mid-stair lighting. Post Top Lights are ideal for lighting stairs and rails.

Use SiteLight® Path Lights and Swivel Lights for pathways, driveways and general garden lighting. The chart below will help you determine fixture spacing.

BRIGHT & EVEN	MEDIUM DAPPLED	SOFT MOOD
8'-10'	12'-18'	Over 20'
8'-10'	12'-18'	Over 20°

SiteLights® are permanent, all-metal fixtures guaranteed for a lifetime.

SiteLight® Line Voltage Outdoor Lighting

For outdoor lighting, nothing compares to the full power (120V) and beauty of SiteLight®. SiteLight® uses regular household voltage and standard bulbs that are readily available. There are no expensive transformers to purchase or replace. With SiteLight®, you can add fixtures when and where you want them and still enjoy lighting that is up to five times brighter than low-voltage.

Use SiteLight® to highlight gardens, statuary, shrubbery and to effectively light decks, stairs, pathways, pools and driveways. SiteLight® meets every outdoor lighting need... from soft, indirect deck lighting, to brilliant, focused spot lighting. Use SiteLight® to beautify your property while enhancing safety and security.

Step up to SiteLight® line voltage outdoor lighting and add permanent value to your home.



Compare SiteLight® to Low-Voltage Sets

- SiteLight® is up to five times brighter than low-voltage more light with fewer fixtures than with low-voltage sets
- SiteLight® gives you flexibility in spacing, the number of fixtures and the length-of-run. Light where you need it — low-voltage sets have a fixed limit on length-of-run and the number of fixtures
- SiteLight[®] uses regular household current no expensive low-voltage transformer to purchase or replace
- SiteLight® uses readily available, standard bulbs low-voltage bulbs are often found only where sets are sold
- SiteLight® lets you add on fixtures by tapping into run — low-voltage sets will generate even less light if transformers are at capacity

SiteLight® Meets Every Outdoor Lighting Need

- From soft, indirect deck lighting to brilliant, focused spot lighting, use SiteLight® to beautify any property while enhancing safety and security
- Lighting for walkways, pathways and driveways
- Stairway, perimeter and task lighting for decks
- Accent and ambient lighting for pool/patio and garden areas
- Highlighting to emphasize landscape details or specific objects
- Ground-level safety/security lighting to illuminate dark areas



Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 Tel: 888.862.3289





We've Made Installation Easy.

Everything you need is included in the SiteLight® Kit, except a bulb, supply cable and tools (screwdriver, wire strippers, etc.). Only three connections are required to wire each fixture to the supply cable. With the SiteLight® PVC in-ground mounting tube, there is no need to pour concrete to secure the fixtures. Just position the tube and pack dirt around it. Attach your SiteLight® to the mounting tube and your installation is complete.

SiteLight® is designed for a lifetime of trouble-free use. SiteLight® is high-quality, permanent lighting built to add value and beauty to your home.



- Lighting for walkways, pathways and driveways
- Stairway, perimeter and task lighting for decks
- Accent and ambient lighting for pool/patio and garden areas
- · Highlighting to emphasize landscape details or specific objects
- Ground-level safety/security lighting to illuminate dark areas

Features/Benefits:

- Copper-free* aluminum construction provides increased corrosion resistance
- Sturdy die-cast aluminum construction provides durability
- Architectural bronze color blends into landscape and deck areas
- High-quality, replaceable porcelain socket with brass screw shell (except K851BR, K852BR)
- Aluminum mounting tube cap houses and protects wire connection (ground-installed fixtures)
- PVC ground tube provides an innovative installation method saving costly labor and traditional installation materials (ground-installed fixtures)
- Wire connectors and ground wire enable safe, easy power connections
- Tempered glass lens and silicon gaskets keep socket dry (K831BR, CS841BR, K861BR)
- Positive locking arm can be adjusted to the desired position (K831BR, CS841BR, K861BR)
- Fixtures use regular household voltage (120V)

Standard Materials:

- Fixture: Die-cast aluminum alloy A360 with less than .004% copper content (copper free*)
- Lens: Tempered glass (K831BR, CS841BR, K861BR)
- Lens: Polycarbonate (K811BR, K812BR, K821BR, K822BR, K851BR)
- Socket: Porcelain, center contact, brass screw shell, medium base (K811BR, K812BR, K821BR, K822BR, K831BR, CS841BR, K861BR), molded plastic socket with candelabra base (K851BR and K852BR)
- Mounting Tube: Gray PVC, schedule 40 (ground-installed fixtures)

Standard Finish:

· Bronze powder-coated finish

Compliances:

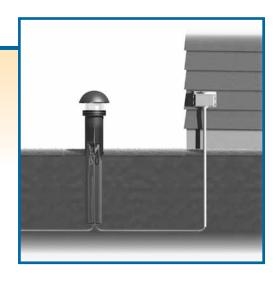
- UL® Listed
- Suitable for use in wet locations
- Ground mounting (suitable for use 4' or less above grade level) except K852BR and K861BŘ

Sample Specifications:

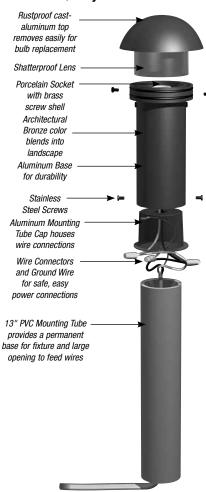
Fixture shall be die-cast copper-free* aluminum alloy A360, with bronze powdercoated finish. Sockets shall be porcelain, center contact, brass screw shell-medium base for K811BR, K812BR, K821BR, K822BR, K831BR, K841BR and K861BR fixtures. Sockets shall be molded plastic with candelabra screw base for K851BR and K852BR fixtures. All sockets shall have extended leads for easy wiring.

Easy to Install:

- Only three wire connections per fixture are required
- No need to pour concrete
- All connections are made above ground



Quality Construction





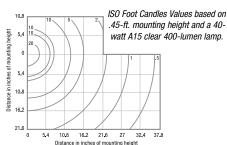
^{*} Less than .004% copper content

rededot.

Outdoor Lighting



K812BR, 7.5" Height Option





10" Height Option

ISO Foot Candles Values based on .67-ft. mounting height and a 40watt A15 clear 400-lumen lamp. 16.08 24.12 32.16 40.2

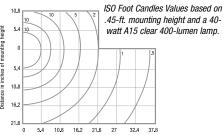
7.5"/10" Path Light

See pages A-250-A-251 for specifications

CAT. NO.	DESCRIPTION	LAMP REQUIRED	SPACING
K812BR	7.5"/10" Path Light with 13" x 2" Schedule 40 PVC Mounting Tube	A15 40W (max.)/ 120V medium base	8'-10' apart: bright and even, 12'-18' apart: medium dappled, 20' or more: soft mood

Fixture can be configured for either height - extension sleeve included.

K822BR, 7.5" Height Option





10.8 16.2 21.6 27 32.4 Distance in inches of mounting height ISO Foot Candles Values based on

.67-ft. mounting height and a 40watt A15 clear 400-lumen lamp. 16.08 24.12 32.16 40.2

7.5"/10" Path Light

See pages A-252-A-253 for specifications

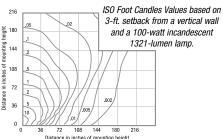
CAT. NO.	DESCRIPTION	LAMP REQUIRED	SPACING
K822BR	7.5"/10" Path Light with	A15 40W (max.)/	8'-10' apart: bright and
	13" x 2" Schedule 40 PVC Mounting Tube	120V medium base	even, 12'–18' apart: medium dappled,
	· ·		20' or more: soft mood

Fixture can be configured for either height – extension sleeve included.



K822BR,

CS841BR



Ground Spot Light

See page A-254 for specifications

CAT. NO.	DESCRIPTION	LAMP REQUIRED	SPACING
CS841BR	Ground Spot Light with 13" x 2" Schedule 40 PVC Mounting Tube	R20 100W (max.)/ 120V medium base	One to two for each object to be highlighted or as required for special lighting effects



Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354









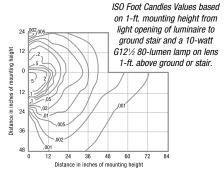
17.5" Swivel Light

See page A-255 for specifications

CAT. NO.	DESCRIPTION	LAMP REQUIRED	SPACING
K831BR	17.5" Swivel Light with 13" x 2" Schedule 40 PVC Mounting Tube	General lighting: A15 60W (max.)/ 120V medium base spot lighting: R16 60W (max.)/ 120V medium base	General lighting: 8'-10' apart: bright and even, 12'-18'apart: medium dappled, 20' or more: soft mood, spot lighting: one to two for each object to be highlighted







ISO Foot Candles Values based

ISO Foot Candles Values based on 1-ft. mounting height and a 60-watt A15 incandescent 740-lumen lamp tilted 45° degrees.

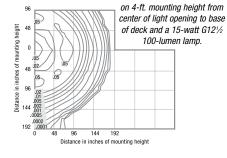
Post Sconce Light

See page A-256 for specifications

CAT. NO.	DESCRIPTION	LAMP REQUIRED	SPACING
K851BR	Post Sconce Light with Metal Back Plate and Mounting Hardware	G12½ 10W (max.)/ 120V candelabra base	On each post or every other post depending on desired brightness, mounts to standard 4 x 4 post



K852BR



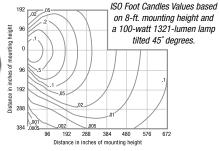
Post Top Light

See page A-257 for specifications

CAT. NO.	DESCRIPTION	LAMP REQUIRED	SPACING
K852BR	Post Top Light with Metal Back Plate and Mounting Hardware	G12½ 10W (max.)/ 120V candelabra base	On each post or every other post depending on desired brightness, mounts to standard 4 x 4 post



K861BR



Wall Spot

See page A-258 for specifications

CAT. NO.	DESCRIPTION	LAMP REQUIRED	SPACING
K861BR	Wall Spot with Cover (box not included)	R20 100W (max.)/ 120V medium base	One to two on most average size decks or exterior walls



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354





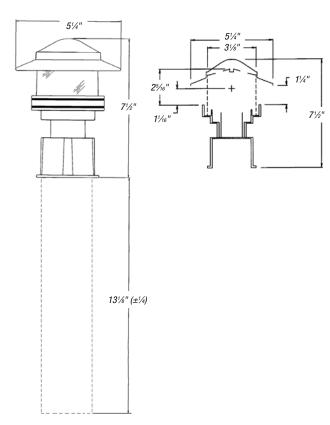




K812BR Specifications

Dimensions

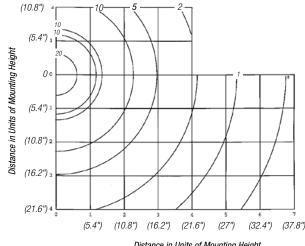
• 7.5" height option



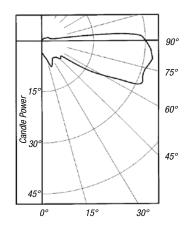
See following page for 10" height.

ISO Foot Candles

Values based on .45 (5.4") foot mounting height and a 40-watt A15 clear 400-lumen lamp.



Distance in Units of Mounting Height



Zonal Lumen Summary

		% OF LAMP OUTPUT BASED ON 400	% OF TOTAL
ZONE DEG.	LUMENS	LUMENS	OUTPUT
0–30	5	1.4	3.6
0-40	9	2.3	6.2
0-60	26	6.4	17.1
0-90	121	30.2	80.7
90-120	26	6.5	17.4
90-130	27	6.8	18.3
90-150	29	7.2	19.3
90-180	29	7.2	19.3
0-180	150	37.4	100.0
Total Luminaire Efficie	mcv = 37.4%		

DEG	CANDELA	LUMENS
0	4	_
5	4	0
15	6	2
25	7	3
35	6	4
45	7	5
55	11	11
65	30	28
75	31	33
85	32	34

DEG	CANDELA	LUMENS
90	30	_
95	24	21
105	3	3
115	2	2
125	2	1
135	1	1
145	1	1
155	0	0
165	0	0
175	0	0
180	0	_



United States Tel: 901.252.8000

800.816.7809 Fax: 901.252.1354

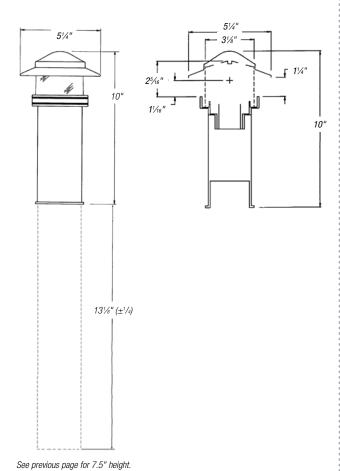




K812BR Specifications

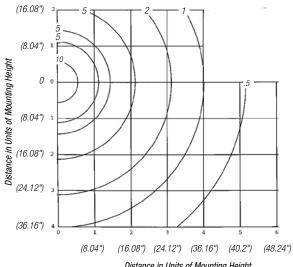
Dimensions

• 10" height option

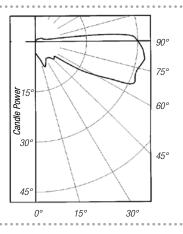


ISO Foot Candles

Values based on .67 (8.04") foot mounting height and a 40-watt A15 clear 400-lumen lamp.



Distance in Units of Mounting Height



Zonal Lumen Summary

ZONE DEG.	LUMENS	% OF LAMP OUTPUT BASED ON 400 LUMENS	% OF TOTAL OUTPUT
0–30	5	1.4	3.6
0–40	9	2.3	6.2
0–60	26	6.4	17.1
0-90	121	30.2	80.7
90-120	26	6.5	17.4
90-130	27	6.8	18.3
90-150	29	7.2	19.3
90-180	29	7.2	19.3
0-180	150	37.4	100.0
Total Luminaire Efficie	encv = 37.4%		

DEG	CANDELA	LUMENS
0	4	
5	4	0
15	6	2
25	7	3
35	6	4
45	7	5
55	11	11
65	30	28
75	31	33
85	32	34

DEG	CANDELA	LUMENS
90	30	_
95	24	21
105	3	3
115	2	2
125	2	1
135	1	1
145	1	1
155	0	0
165	0	0
175	0	0
180	0	_

www.tnb.com

United States Tel: 901.252.8000

800.816.7809 Fax: 901.252.1354



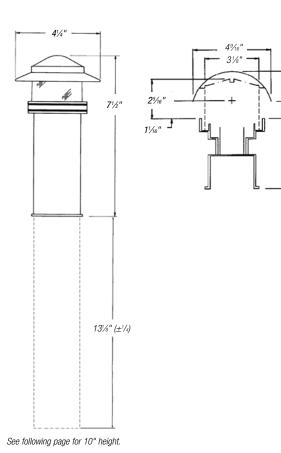
rededot.

Outdoor Lighting

K822BR Specifications

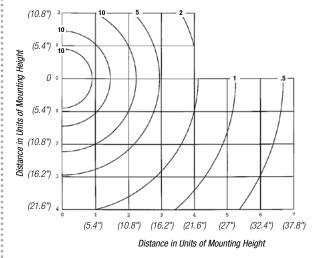
Dimensions

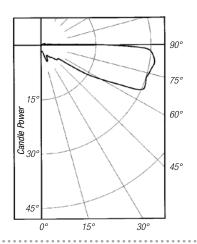
• 7.5" height option



ISO Foot Candles

Values based on .45 (5.4") foot mounting height and a 40-watt A15 clear 400-lumen lamp.





Zonal Lumen Summary

		% OF LAMP OUTPUT BASED ON 400	% OF TOTAL
ZONE DEG.	LUMENS	LUMENS	OUTPUT
0–30	3	0.7	2.4
0-40	5	1.3	4.5
0–60	19	4.8	16.3
0-90	111	27.8	94.6
90-120	6	1.5	5.2
90-130	6	1.6	5.4
90-150	6	1.6	5.4
90-180	6	1.6	5.4
0-180	118	29.4	100.0
Total Luminaira Efficia	ncv - 20.4%		

DEG	CANDELA	LUMENS
0	2	
5	2	0
15	3	1
25	4	2
35	4	2
45	6	4
55	10	10
65	29	27
75	31	32
85	31	33

DEG	CANDELA	LUMENS
90	22	
95	3	4
105	1	1
115	1	0
125	0	0
135	0	0
145	0	0
155	0	0
165	0	0
175	0	0
180	0	_



United States Tel: 901.252.8000

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354

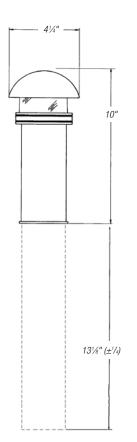


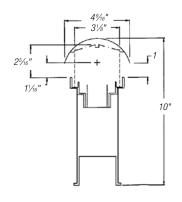


K822BR Specifications

Dimensions

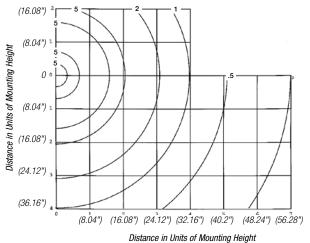
• 10" height option

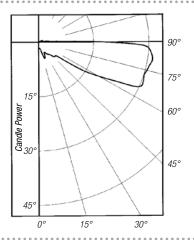




ISO Foot Candles

Values based on .67 (8.04") foot mounting height and a 40-watt A15 clear 400-lumen lamp.





Zonal Lumen Summary

See previous page for 7.5" height.

70UF DE0	LUMENO	% OF LAMP OUTPUT BASED ON 400	% OF TOTAL
ZONE DEG.	LUMENS	LUMENS	OUTPUT
0-30	3	0.7	2.4
0-40	5	1.3	4.5
0–60	19	4.8	16.3
0-90	111	27.8	94.6
90-120	6	1.5	5.2
90-130	6	1.6	5.4
90-150	6	1.6	5.4
90-180	6	1.6	5.4
0-180	118	29.4	100.0
otal I uminaire Efficie	ncv = 29.4%		

DEG	CANDELA	LUMENS
0	2	_
5	2	0
15	3	1
25	4	2
35	4	2
45	6	4
55	10	10
65	29	27
75	31	32
85	31	33

DEG	CANDELA	LUMENS
90	22	_
95	3	4
105	1	1
115	1	1
125	0	0
135	0	0
145	0	0
155	0	0
165	0	0
175	0	0
180	0	_

www.tnb.com

United States Tel: 901.252.8000

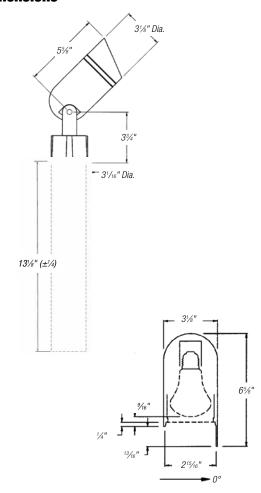
800.816.7809 Fax: 901.252.1354





CS841BR Specifications

Dimensions

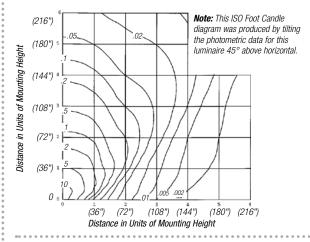


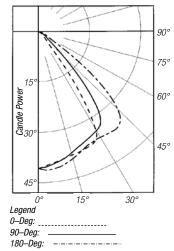
Zonal Lumen Summary

		O/ OF LAMP OUTPUT	
ZONE DEG.	LUMENS	% OF LAMP OUTPUT BASED ON 400 LUMENS	% OF TOTAL OUTPUT
0–30	104	7.9	47.7
0-40	165	12.5	75.3
0-60	214	16.2	97.7
0-90	219	16.6	100.0
90-120	0	0.0	0.0
90-130	0	0.0	0.0
90-150	0	0.0	0.0
90-180	0	0.0	0.0
0-180	219	16.6	100.0
Total I uminaire Efficie	encv = 16.6%		

ISO Foot Candles

Values based on 3 (36") foot setback from a vertical wall and a 100-watt incandescent 1321-lumen lamp.





1		CANDELA	A DISTRIBU	TION HORI	ZONTAL D	EGREES	
		0.0	45.0	90.0	135.0	180.0	FLUX
	0	136	136	136	136	136	_
	5	132	132	133	136	138	13
ĕ	15	127	124	125	128	131	36
Vertical Degrees	25	124	121	117	126	122	56
믍	35	58	77	106	125	122	61
Ę	45	9	12	35	93	109	37
Ne.	55	5	6	9	14	31	11
	65	0	1	4	6	8	4
	75	0	0	0	2	3	1
	85	0	0	0	0	1	0
	90	0	0	0	0	1	_



United States Tel: 901.252.8000

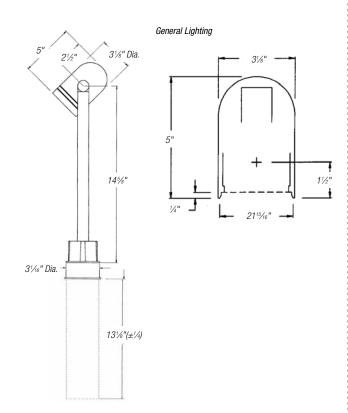
800.816.7809 Fax: 901.252.1354





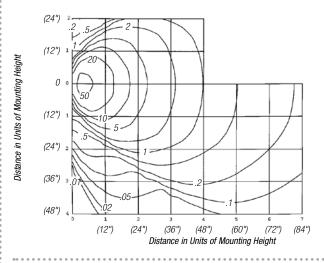
K831BR Specifications

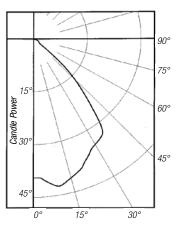
Dimensions



ISO Foot Candles

Values based on 1 (12") foot mounting height and a 60-watt A15 incandescent 740 lumen lamp tilted 45°.





Zonal Lumen Summary

		% OF LAMP OUTPUT BASED ON 400	% OF TOTAL
ZONE DEG.	LUMENS	LUMENS	OUTPUT
0–30	65	8.7	47.2
0-40	105	14.2	77.0
0-60	134	18.1	97.7
0-90	137	18.5	100.0
90-180	0	0.0	0.0
0-180	137	18.5	100.0
Total Luminaire Efficie	ncy = 18.5%		

DEG	CANDELA	LUMENS
0	79	_
5	81	8
15	82	23
25	73	34
35	67	41
45	33	25
55	4	3
65	3	3
75	0	0
85	0	0
90	0	_

www.tnb.com

United States Tel: 901.252.8000

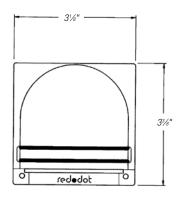
800.816.7809 Fax: 901.252.1354

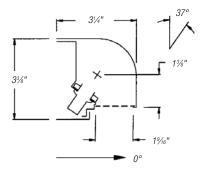




K851BR Specifications

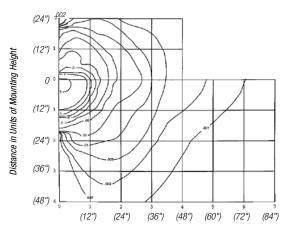
Dimensions



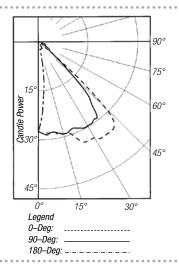


ISO Foot Candles

Values based on 1 (12") foot mounting height from light opening of luminaire to ground stair and a 10-watt $G12\frac{1}{2}$ 80-lumen lamp on lens 1-ft. above ground or stair.



Distance in Units of Mounting Height



Zonal Lumen Summary

Total Luminaire Efficiency = 11.6%.

ZONE DEG.	LUMENS	% OF LAMP OUTPUT Based on 400 Lumens	% OF TOTAL OUTPUT
0–30	4	4.5	38.7
0-40	6	7.7	66.3
0-60	9	11.0	94.3
0–90	9	11.6	100.0
90-180	0	0.0	0.0
0-180	9	11.6	100.0

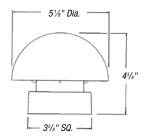
)	
'	

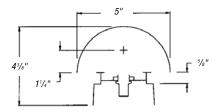
		CANDEL	A DISTRIBU	TION HORI	ZONTAL D	EGREES	
		0.0	45.0	90.0	135.0	180.0	FLUX
Ī	0	5	5	5	5	5	_
	5	6	6	6	5	3	0
	15	6	6	6	2	0	1
•	25	7	7	6	1	0	2
	35	7	7	6	1	0	3
	45	6	5	3	1	0	2
	55	0	1	1	1	0	1
	65	0	0	0	0	0	0
	75	0	0	0	0	0	0
	85	0	0	0	0	0	0
	90	0	0	0	0	0	_



K852BR Specifications

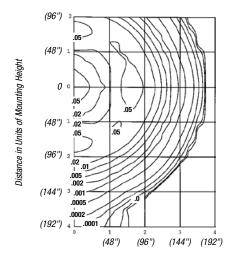
Dimensions



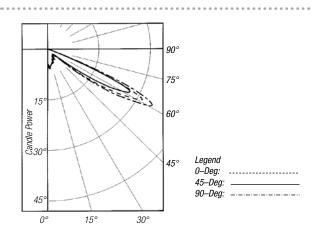


ISO Foot Candles

Values based on 4 (48") foot mounting height from center of light opening to base of deck and a 15-watt $G16^{1/2}$ 100-lumen lamp.



Distance in Units of Mounting Height



Zonal Lumen Summary

ZONE DEG.	LUMENS	% OF LAMP OUTPUT BASED ON 400 LUMENS	% OF TOTAL OUTPUT
0-30	1	0.9	8.7
0-40	1	1.3	12.8
0-60	5	5.5	52.7
0-90	10	10.4	100.0
90-180	0	0.0	0.0
0-180	10	10.4	100.0

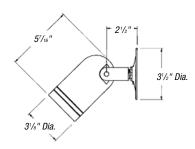
	CANDEL					
	0.0	45.0	90.0	135.0	180.0	FLUX
0	1	1	1	1	1	
5	2	1	1	1	1	0
15	1	1	1	1	1	0
25	1	1	1	1	1	0
35	1	1	1	1	1	0
45	1	1	1	1	1	1
55	5	3	3	4	6	4
65	6	5	5	5	7	5
75	0	0	0	0	0	0
85	0	0	0	0	0	0
90	0	0	0	0	0	_
	5 15 25 35 45 55 65 75 85	0.0 0 1 5 2 15 1 25 1 35 1 45 1 55 5 65 6 75 0 85 0	0.0 45.0 0 1 1 5 2 1 15 1 1 25 1 1 35 1 1 45 1 1 55 5 3 65 6 5 75 0 0 85 0 0	0.0 45.0 90.0 0 1 1 1 5 2 1 1 15 1 1 1 25 1 1 1 35 1 1 1 45 1 1 1 55 5 3 3 65 6 5 5 75 0 0 0 85 0 0 0	0.0 45.0 90.0 135.0 0 1 1 1 1 5 2 1 1 1 15 1 1 1 1 25 1 1 1 1 35 1 1 1 1 45 1 1 1 1 55 5 3 3 4 65 6 5 5 5 75 0 0 0 0 85 0 0 0 0	0 1 1 1 1 1 5 2 1 1 1 1 15 1 1 1 1 1 15 1 1 1 1 1 25 1 1 1 1 1 35 1 1 1 1 1 45 1 1 1 1 1 55 5 3 3 4 6 65 6 5 5 5 7 75 0 0 0 0 0 85 0 0 0 0 0

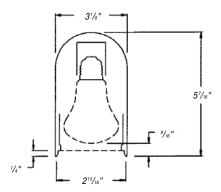
rededot.

Outdoor Lighting

K861BR Specifications

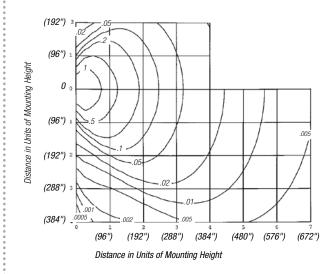
Dimensions

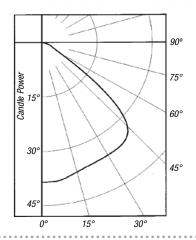




ISO Foot Candles

Values based on 8 (96") foot mounting height and a 100-watt 1321-lumen lamp tilted 45°.





Zonal Lumen Summary

ZONE DEG.	LUMENS	% OF LAMP OUTPUT BASED ON 400 LUMENS	% OF TOTAL OUTPUT
0–30	103	7.8	32.4
0-40	177	13.4	56.0
0-60	301	22.8	94.9
0-90	317	24.0	100.0
90-180	0	0.0	0.0
0-180	317	24.0	100.0

Total Luminaire Efficiency = 24.0%.

DEG.	CANDELA	LUMENS
0	128	_
5	128	12
15	123	35
25	120	56
35	119	75
45	109	83
55	44	41
65	11	11
75	5	5
85	0	0
90	0	_

Fax: 901.252.1354





Vaportight Lighting

Industrial Vaportight Lighting

Applications:

- Low-maintenance indoor/outdoor lighting where moisture, dirt, dust, corrosion and rough service are problems
- Low-profile fixture design for where low ceiling height presents a lighting problem
- To light cold storage facilities, walkways, bridges, tunnels and security locations
- Used with colored globes as warning, caution or directional lights; for 100- or 200-watt medium-base incandescent lamps

Features/Benefits:

- Copper-free* aluminum and stainless steel screws provide increased corrosion resistance
- Precision-cast and machined surfaces permit safer wire pulling
- Fully threaded glass globes prevent cross threading, ensuring a tight seal
- High-quality replaceable porcelain socket with high-temperature leads result in a long-lasting fixture
- Five mounting configurations packaged three different ways to suit all customer requirements
- Colored, heat-resistant and shatterproof LEXAN® globes available

Standard Materials:

- Fixture and guards: Die-cast aluminum alloy A360 with less than .004% copper content (copper-free), and stainless steel screw
- Globe: Lime crystal glass
- Socket: Center contact, porcelain, medium base

Standard Finish:

· Powder-coated finish

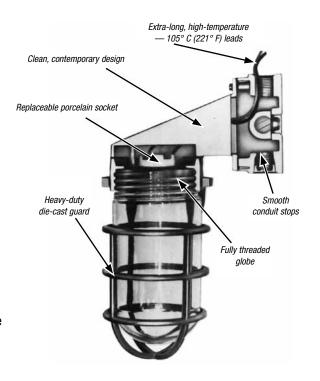
Compliances:

- UL[®] Listed
- Suitable for use in wet locations only when oriented as shown (mounted with lamp base up and guard/globe down)

Sample Specifications

Fixture shall be die-cast copper-free* aluminum alloy A360.
 All conduit stops shall be coined and free of rough edges.
 LEXAN® globes shall have full threads. Sockets shall be porcelain. Fixtures shall be finished with powder-coated paint.
 Fixtures shall be Red•Dot® Catalog No.

LEXAN® is a registered trademark of SABIC Innovative Plastics Company.















VXWG-C



^{*} Less than .004% copper content.

rededot.

Vaportight Lighting

Low-Maintenance Indoor/Outdoor Lighting where Moisture, Dirt, Dust, Corrosion and Rough Service are a Problem.

- Compatible with incandescent and most self-ballasted compact fluorescent bulbs
- For indoor or outdoor use
- Fixture and guard die-cast copper-free aluminum, less than .004% copper content
- Available in components or complete fixture
- · Low-silhouette incandescent vaportight
- · Variety of mounting configurations
- UL[®] Listed



Pendant Mount







VKG-11

CAT. NO.	HUB SIZE (IN.)	MAX. WATT	DESCRIPTION	
VK-11	1/2	100	Dandant Can with Cooket Covery	
VK-21	3/4	100	Pendant Cap with Socket Screw Terminals. Gasket and Screws	
VK-12	1/2	200	Terminais, dasket and Sciews	
VK-22	3/4	200		
VKG-11	1/2	100	Dandant Can with Caaket Carous	
VKG-21	3/4	100	Pendant Cap with Socket Screw Terminals, Gasket Screws and Globe	
VKG-12	1/2	200	Terminals, dasket screws and diobe	
VKG-22	3/4	200		
VKG-11-C	1/2	100	2	
VKG-21-C	3/4	100	Pendant Cap with Socket Screw Terminals, Gasket Screws, Globe	
VKG-12-C	1/2	200	and Cast Guard	
VKG-22-C	3/4	200	and odde ddard	

Ceiling Mount with Adapter Plate







VAG-01 VAG-0

CAT. NO.	HUB SIZE (IN.)	MAX. WATT	DESCRIPTION
VA-01		100	Ceiling Outlet Box Cap with Socket with
VA-02	_	200	Leads, Gasket and Screws
VAG-01	_	100	Ceiling Outlet Box Cap with Socket with
VAG-02	_	200	Leads, Gasket, Screws and Globe
VAG-01-C	_	100	Ceiling Outlet Box Cap with Socket
VAG-02-C	_	200	with Leads, Gasket, Screws, Globe and Cast Guard

Ceiling Mount Cross Feed (5 Tapped Holes)







VXG-11-C

CAT. NO.	HUB SIZE (IN.)	MAX. WATT	DESCRIPTION
VX-11	1/2	100	Oriting Ones Fred Devicits Order
VX-21	3/4	100	Ceiling-Cross Feed Box with Gaskets,
VX-12	1/2	200	Socket with Leads, Screws, 4 Closure Plugs and Cast Mounting Lugs
VX-22	3/4	200	Trugs and Cast Mounting Edgs
VXG-11	1/2	100	Ceiling-Cross Feed Box with Gaskets,
VXG-21	3/4	100	Socket with Leads, Screws, 4 Closure
VXG-12	1/2	200	Plugs and Cast Mounting Lugs and
VXG-22	3/4	200	Globe
VXG-11-C	1/2	100	Ceiling-Cross Feed Box with Gaskets,
VXG-21-C	3/4	100	Socket with Leads, Screws, 4 Closure
VXG-12-C	1/2	200	Plugs, Cast Mounting Lugs, Globe and
VXG-22-C	3/4	200	Cast Guard



United States
Tel: 901.252.8000
800.816.7809
Fax: 901.252.1354









Vaportight Lighting

Wall Mount with Adapter Plate







CAT. NO.	MAX. WATT	DESCRIPTION
VW-01	100	Wall Mount Unit with Socket with Leads,
VW-02	200	Gaskets and Screws
VWG-01	100	Wall Mount Unit with Socket with Leads,
VWG-02	200	Gaskets and Screws and Globe
VWG-01-C	100	Wall Mount Unit with Socket with Leads,
VWG-02-C	200	Gaskets, Globe, Screws and Cast Guard

Wall Mount Cross Feed (5 Tapped Holes)







CAT. NO.	HUB SIZE (IN.)	MAX. WATT	DESCRIPTION
VXW-11	1/2	100	Wall Mount Cross Feed with Socket
VXW-21	3/4	100	with Leads, Gaskets, Screws, 4
VXW-12	1/2	200	Closure Plugs and Cast
VXW-22	3/4	200	Mounting Lugs
VXWG-11	1/2	100	Mall Manuel Organ Fand with Carlot
VXWG-21	3/4	100	Wall Mount Cross Feed with Socket
VXWG-12	1/2	200	with Leads, Gaskets, Screws, 4 Closure Lugs and Globe
VXWG-22	3/4	200	Closure Lugs and Globe
VXWG-11-C	1/2	100	Wall Mount Cross Feed with Socket
VXWG-21-C	3/4	100	with Leads, Gaskets, Screws, 4
VXWG-12-C	1/2	200	Closure Plugs, Cast Mounting Lugs,
VXWG-22-C	3/4	200	Globe and Cast Guard

Globes

CAT. NO.	MAX. WATT	DESCRIPTION
Glass		
VGL-01	100	Clear
VGLA-01	100	Amber
VGLB-01	100	Blue
VGLG-01	100	Green
VGLR-01	100	Red
VGLH-01	150	Clear, Heat Resistant
VGL-02	200	Clear
VGLR-02	200	Red
VGLH-02	300	Clear, Heat Resistant
LEXAN®		
VGLL-01	75	Clear Prismatic
VGLL-02	150	Clear Prismatic
VGLA-A1	75	Amber
VGLA-R1	75	Red
Nat for	U	



Not for use with guards.

Note: For upright mounting only. Caution: In ordering LEXAN® Globe, wattage is rated 75% of standard globe size (i.e. VGLL-02 is for use on 200-watt fixtures, but only rated for 150-watt lamps.)

Guards





CAT. NO.	MAX. WATT	DESCRIPTION
Wire		-
VGW-01	100	Clamp-On Plated Steel Guards
VGW-02	200	
Die Cast	'	
VGD-01	100	Die-Cast Aluminum Guards with Positive
VGD-02	200	Locking Screws

Vaportight Boxes and Covers





CAT. NO.	MAX. WATT	DESCRIPTION
Boxes		Box, 31/2" Diameter, 15/8" Deep, 5 Tapped
LVX-1	1/2	Holes, 12.08 Cu. In. 4 Closure Plugs with
LVX-2	3/4	Cast Mounting Lugs
Cover	,	
V-B	None	Blank Cover 31/2" Diameter







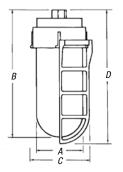
1-800-453-1692

rededot.

Vaportight Lighting

VKG

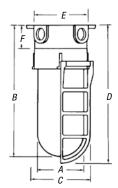
CAT. NO.	A (IN.)	B (IN.)
VKG-11	3%	83/16
VKG-21	3¾	83/16
VKG-12	43//8	101//8
VKG-22	43/8	101//8
CAT. NO.	C (IN.)	D (IN.)
CAT. NO. VKG-11-C	C (IN.)	D (IN.)
	· · ·	
VKG-11-C	4½16	8¾



Pendant Mount (VKG)

VXG

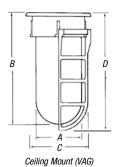
CAT. NO.	A (IN.)	B (IN.)	E (IN.)	F (IN.)
VXG-11	3¾	813/16	3½	1%
VXG-21	3¾	813/16	31/2	1%
VXG-12	43/8	10¾	31/2	1%
VXG-22	43/8	10¾	31/2	1%
CAT. NO.	C (IN.)	D (IN.)		
CAT. NO. VXG-11-C	C (IN.)	D (IN.) 95/16		
VXG-11-C	41/16	95/16		



Ceiling Mount Cross Feed (VXG)

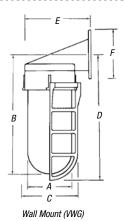
VAG

CAT. NO.	A (IN.)	B (IN.)
VAG-01	3%	71/16
VAG-02	4¾	9¾
CAT. NO.	C (IN.)	D (IN.)
CAT. NO. VAG-01-C	C (IN.) 4½16	D (IN.) 7 ¹⁵ / ₁₆



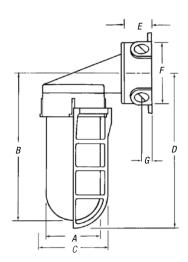
VWG

CAT. NO.	A (IN.)	B (IN.)	E (IN.)	F (IN.)
VWG-01	3%	87/16	43/4	3½
VWG-02	4%	10%	53/4	31/2
CAT. NO.	C (IN.)	D (IN.)		
CAT. NO. VWG-01-C	C (IN.)	D (IN.) 8 ¹⁵ / ₁₆		



VXWG

				DIN	/ENCI	ONS (II	u v				
OAT NO							<u> </u>				
CAT. NO.	_A	В	C	D	E	F	G	Н	I	J	CI
VXWG-11	3%	87/16	_	_	1%	31/2	_	_	_	_	_
VXWG-21	3%	81/16	_	_	15/8	$3\frac{1}{2}$	_	_	_	_	_
VXWG-12	43/8	10%	_	_	15/8	31/2	_	_	_	_	_
VXWG-22	43/8	10%	_	_	11/8	31/2	_	_	_	_	_
VXWG-11-C	3%	87/16	41/16	815/16	15/8	31/2	_	_	_	_	_
VXWG-21-C	3%	87/16	41/16	815/16	15/8	31/2	_	_	_	_	_
VXWG-12-C	43/8	103/8	53/16	1013/16	15/8	31/2	_	_	_	_	_
VXWG-22-C	43/8	103/8	53/16	1013/16	1 1 1/8	31/2	_	_	_	_	_
LVX-1	_	_	_	_	15/8	31/2	5/8	5	47/16	213/16	10.3
LVX-2	_	_	_	_	15/8	31/2	5/8	5	47/16	213/16	10.3



Wall Mount Cross Feed (VXWG)



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354

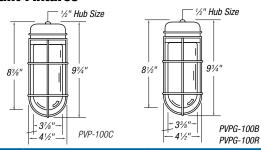






Vaportight Lighting

Pendant Fixtures

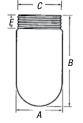


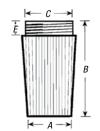
P	Ά	C	K	4	GI	N	(
•	•••	_		•	۰	•••	٦

CAT. NO.	DESCRIPTION	MAX. WATTS	вох	STD. CTN.
PVP-100C	Fixture and Clear LEXAN® Globe	100	1	12
PVPG-100B	Fixture, Blue LEXAN® Globe, Guard	100	1	12
PVPG-100R	Fixture, Red LEXAN® Globe, Guard	100	1	12

UL Listed. CSA Certified LR-95792.

VGL



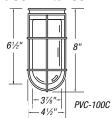


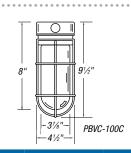
Threaded Glass Globe (VGL)

Threaded Glass Plastic Globe (VGL, VGLL)

A (IN.)	B (IN.)	C (IN.)	D (IN.)	E (IN.)	I.D (IN.)
3%	617/32	35/16	1		211/16
43/8	83/8	45/16	1	_	313/16
$3^{17}/_{32}$	$5^{15}/_{16}$	3%	_	7/8	21//8
$4^{17}/_{32}$	81/4	43/8	_	7/8	31//8
317/32	515/16	3¾	_	7/8	27/8
$3^{17}/_{32}$	$5^{15}/_{16}$	3¾	_	7/8	21/8
	33/8 43/8 317/32 417/32 317/32	33/8 61 ⁷ /32 43/8 83/8 31 ⁷ /32 51 ⁵ /16 41 ⁷ /32 81/4 31 ⁷ /32 51 ⁵ /16	3% 61%2 35%6 43% 83% 45%6 31%2 515%6 33% 41%2 81% 43% 31%2 515%6 3%	3\% 61\%2 3\% 1 4\% 8\% 4\% 1 31\%2 51\%6 3\% — 41\%2 81\% 4\% — 31\%2 51\%6 3\% —	3\% 6\\dagger \frac{1\%2}{2} 3\\dagger \frac{5}{6} 1 \\ 4\\dagger \frac{8\%}{6} 8\\dagger \frac{4\%}{6} 1 \\ 3\\dagger \frac{5\\dagger \frac{1}{6}}{6} 3\\dagger \frac{3\%}{6} \\ 4\\dagger \frac{5\\dagger \frac{1}{6}}{6} 3\\dagger \frac{4\%}{6} \\ 3\\dagger \frac{1}{6} \\dagger \frac{3\%}{6} \\ 3\dagger \frac{1}{6} \\dagger

Surface Fixtures

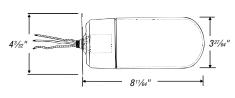




			PACKAGING	
CAT. NO.	DESCRIPTION	MAX. WATTS	вох	STD. CTN.
Fits all 3" ar	nd 4" Round or Octagon Boxes			
PVC-100C	Fixture and Clear LEXAN® Globe	100	1	12
PBVC-100C	Fixture, Box and Clear LEXAN® Globe	100	1	12
UL Listed E-773	360. CSA Certified LR-95792.			

LEXAN® is a registered trademark of SABIC Innovative Plastics Company.

Universal Economy Fixture



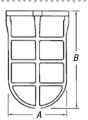


CAT. NO.	DESCRIPTION	MAX. WATTS	STD. CTN.
BL-100	Fixture and Glass Globe	75	10

Replacement Parts

		PACK	AGING	
CAT. NO.	DESCRIPTION	вох	STD. CTN.	
Sockets	,			
R122	Socket for All Vapor-Proof Fixtures			

VGD, VGW



Guards (VGD, VGW)

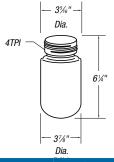
CAT. NO.	A (IN.)	B (IN.)
VGD-01	41/16	7
VGD-02	55/16	85/8
VGW-01	41/16	641/64
VGW-02	55/16	837/64

Vaporproof Fixture Globes and Guards Replacements



PVG-1A





			PACKAGING			
CAT. NO.	DESCRIPTION	вох	STD. CTN.			
PVG-1A*	Amber LEXAN® Globe for 100-Watt Fixtures	1	12			
PVG-1C*	Clear LEXAN® Globe for 100-Watt Fixtures	1	12			
PVG-1R*	Red LEXAN® Globe for 100-Watt Fixtures	1	12			
PVG-1W*	White LEXAN® Globe for 100-Watt Fixtures	1	12			
VG-3	Guard for 100-Watt Fixtures	1	12			
VG-4	Guard for 200-Watt Fixtures	1	6			

* UL Listed E-77360.







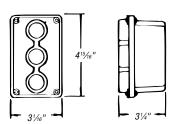


Swimming Pool and Spa Products

Used for Making Wiring Connections to Underwater Pool Lighting, Line or Low-Voltage.

Swimming Pool Junction Boxes

- Black LEXAN® cover, die-cast solid brass base
- Supplied with brass closure plugs, four ground screws, sealing gasket and mounting hardware
- 31/16" x 43/16" x 31/4" deep
- Listed in accordance to NEC® Section 680.24









conductor from feed wire (Adjustable for use on Hub "A" or "B") В C Α Use Hub "C" for entry of feed wiring **Q** Use Hub "A" or "B" for Compression Grounding entry of flexible cord Post for bonding wire Inside View from pool light (if required)

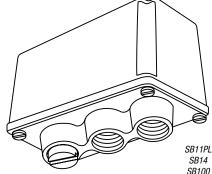
Grounding Posts for flexible cord ground wire

囱

0

0

Grounding Post for attaching grounding



SPJ Series

	NO. OF		STD.
CAT. NO.	PLUGS	HUB SIZE	CTN.
SPJ-3	3	(2) ½" and (1) 1"	24
SPJ-5	5	(1) 1/2", (2) 3/4" and (2) 1"	24
SPJ-MB	_	Mounting Brackets	24
SD I-SB	_	Rod	2/

SB Series

Strain-Relief Clamp

CURIC	NO OF .			-	PACKAGING			
IN.	PLUGS	Α	В	C	вох	STD. CTN.		
22.0	1	1/2	1/2	1/2	1	10		
22.0	1	3/4	3/4	3/4	1	10		
22.0	1	3/4	1	3/4	1	10		
	22.0 22.0	IN. PLUGS 22.0 1 22.0 1	CUBIC IN. NO. OF PLUGS CONDU 22.0 1 ½ 22.0 1 ¾	CUBIC IN. NO. OF PLUGS CONDUIT HUB SIZE 22.0 1 ½ ½ 22.0 1 ½ ½ 22.0 1 ¾ ¾	IN. PLUGS A B C 22.0 1 ½ ½ ½ 22.0 1 ¾ ¾ ¾	CUBIC IN. NO. OF PLUGS CONDUIT HUB SIZE (IN.) PAC 22.0 1 ½ ½ ½ 1 22.0 1 ¾ ¾ ¾ ¾ 1		

UL Listed E-63648.

Weatherproof.

LEXAN® is a registered trademark of SABIC Innovative Plastics Company.

NEC and National Electrical Code are registered trademarks of the National Fire Protection Association, Inc.



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354



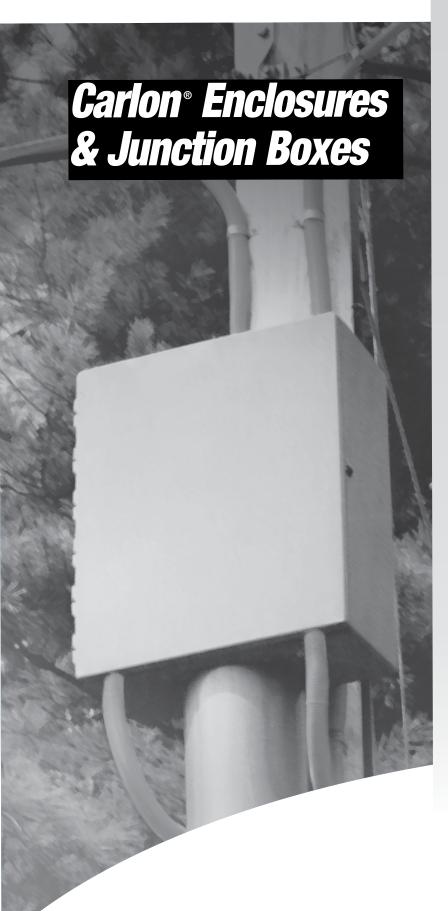
Tel: 888.862.3289







Carlon[®]



In this section...



Carlon® Enclosures & Junction Boxes

Carlon® Non-Metallic Junction Boxes	A-266–A-274
Circuit Safe® NEMA Enclosures	A-275–A-283
Circuit Safe® JIC Enclosures	A-284–A-288
Circuit Safe® Pushbutton Enclosures	A-289–A-292
Circuit Safe® Enclosure Accessories	A-293–A-298
Himeline® Enclosures	A-299–A-315
Slack and Splice Enclosures	A-316–A-317
Technical Information	A-318–A-326





Carlon[®]

Carlon® Non-Metallic Junction Boxes

To give you a better way to install parking lot lights, we started at the bottom.

Curved Lid J-Box

Anyone who's worked with parking lot light poles knows the problem. Those tiny, integral hand holes for electrical wiring can really slow a project down. But now, there's a better answer for shopping centers, car dealerships, sports arenas, office complexes or anywhere you need pole lighting for large parking lot areas — the Carlon® non-metallic curved lid J-Boxes.

Carlon® curved lid J-Boxes are listed in accordance with UL 50 specifications for Electrical Enclosures as well as NEMA 1, 2, 3, 3R, 3S, 4, 4X, 12 and 13 ratings. They are available in sizes 8" x 8" or 12" x 12". Both the base and lid are made from PVC to eliminate rust and corrosion, and both are supplied with tamper-resistant screws.

Designed specifically for use with 24" diameter concrete piers, J-Boxes are installed, along with all necessary conduit and fittings, when piers are poured. This gives installers a giant junction box at the base of every pole to ease wiring, facilitate circuit management and provide easy post-installation maintenance. Just take a closer look, and you'll see why our non-metallic J-Boxes are a better choice for you.



Install Carlon® Weatherproof Covers

Features

- NEMA 1, 2, 3, 3R, 3S, 4, 4X, 12, 13
- UL[®] Listed and CSA Certified
- Paintable lid
- Dividers available to separate high and low voltage, and can be retrofitted into existing applications
- Lids provide locations to mount weatherproof covers:

8" x 8" — One location

12" x 12" — Three locations

- Nonconductive and noncorrosive
- · Designed for a 24" diameter concrete pier

Note: The J-Box can also be installed in concrete piers from 18" to 36" in diameter. Contact your Thomas & Betts representative for installation details.







Carlon® Non-Metallic Junction Boxes

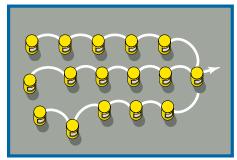
Faster, easier wiring for greater productivity.



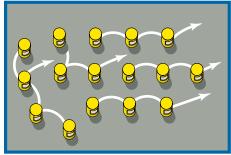
Once your J-Boxes are installed, you can speed projects along by pre-wiring before poles arrive. Or, you can install poles first and use them to mount cable-pulling equipment — a particular advantage for long, difficult wire pulls. Of course, all the extra hand room our J-Boxes offer makes splicing much easier and faster than working through cramped pole-access holes.

More flexibility, fewer home runs and easier maintenance, too.

Extra room also gives you splicing space for options like zone lighting or to reduce the number of home runs, which can lower trenching and associated materials costs by up to 30%. In addition, the box lids provide locations to mount receptacles and weatherproof covers for even more flexibility. For easy maintenance, fixture protection can be placed at the base, and if need be, poles can even be removed and replaced in the middle of the circuit without affecting overall lighting.



Site Lighting Plan with J-BOX



Site Lighting Plan without J-BOX

Easy to Install



J-Box, with all conduit and fittings placed as desired, is temporarily attached to the concrete form - base



Remove form after concrete has been poured and allowed to cure.



Pop off the J-Box lid, leaving an 8" x 8" x 4" or 12" x 12" x 4" access area, depending on the J-Box selected.



After wiring is completed, the lid is replaced to complete the installation.



Carlon

Carlon® Non-Metallic Junction Boxes

J-Box Assemblies

CAT. NO.	SIZE (IN.)	STD. CTN.	STD. WT. (LBS.)
E88C24	8 x 8 x 4	6	28.3
E1212C24	12 x 12 x 4	2	9.7



Accessories

Replacement Lids



CAT. NO.	SIZE (IN.)	STD. CTN.	STD. WT. (LBS.)
E88L24	8 x 8	1	2.1
E1212L24	12 x 12	1	2.3

Dividers

The **National Electrical Code® (NEC®)** allows electrical conductors to share an outlet box when the conductors and communication cables are separated by a barrier within the box.



J-Box Dividers are used to separate high- and low-voltage devices and solvent cement into place.

CAT. NO.	STD. CTN.	STD. WT. (LBS.)
◆ E88DIV	6	2.1
(For use with CAT. NO. E88C24)		
◆ E1212DIV	2	2.3
(For use with CAT, NO. E1212C24)		

NEC and National Electrical Code are registered trademarks of the National Fire Protection Association, Inc.







Carlon® Non-Metallic Junction Boxes

Molded Non-Metallic Junction Boxes — 6P Rated

Non-metallic junction boxes are UL® Listed with a NEMA 6P rating per Section 314.28 of the National Electrical Code® and CSA Certified per Section 12 of the Canadian Electrical Code. Manufactured from PVC or PPO thermoplastic molding compound and featuring foam-in-place gasketed lids attached with stainless steel screws, these rugged enclosures offer all the corrosion resistance and physical properties you need for direct burial applications.

Type 6P enclosures are intended for indoor or outdoor use, primarily to provide a degree of protection against contact with enclosed equipment, falling dirt, hose-directed water, entry of water during prolonged submersion at a limited depth and external ice formation.

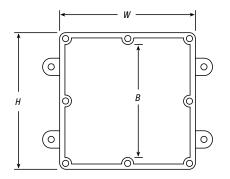
- All Carlon® Junction Boxes are UL® Listed/CSA Certified and maintain a minimum of a NEMA Type 4/4x Rating
- Part numbers with an asterisk (*) are UL[®] Listed and maintain a NEMA Type 6P Rating and Type 4/4X Rating

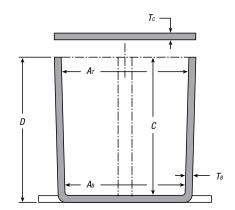












				DIMENSIONS (IN.)			MA	_			
CAT. NO.	SIZE (IN.) H x W x D	STD. CTN.	MIN A _T	MIN A _B	MIN B	MIN C	Тв	Tc	PVC	THERMO- PLASTIC	STD. WT. (LBS.)
E989NNJ*	4 x 4 x 2	10	311/16	35/8	N/A	2	.160	.155	Х	'	3
E987N*	4 x 4 x 4	10	311/16	3½	N/A	4	.160	.155	Χ		4
E989NNR* †	4 x 4 x 6	10	311/16	3¾	N/A	6	.160	.200	Χ		5
E989PPJ*	5 x 5 x 2	10	411/16	41/2	N/A	2	.110	.150		Χ	3
E987R-CAR*	6 x 6 x 4	2	6	5%	N/A	4	.190	.190		Χ	3
E989RRR-UPC*	6 x 6 x 6	8	55/8	5%	N/A	6	.160	.150		Χ	14
E989N-CAR	8 x 8 x 4	1	8	8	N/A	4	.185	.190		Χ	2
E989SSX-UPC	8 x 8 x 7	2	$7^{21}/_{32}$	75/16	N/A	7	.160	.150		Χ	6
E989UUN	12 x 12 x 4	3	11%	11½	111//8	4	.160	.150		Χ	12
E989R-UPC	12 x 12 x 6	2	11 ¹⁵ ⁄ ₁₆	111//8	111/16	6	.265	.185		Χ	10

* UL Listed

† Not CSA Certified

NEC and National Electrical Code are registered trademarks of the National Fire Protection Association, Inc.







Carlon

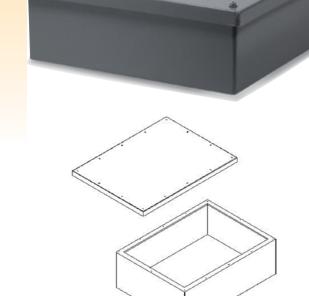
Carlon® Non-Metallic Junction Boxes

Large PVC Junction Boxes — NEMA 4X

Large PVC Junction Boxes are fabricated from Type II PVC sheet. Reduce the use of steel boxes and keep your wiring connections clean, safe and dry using these high-quality, fully gasketed junction boxes.

Features and Benefits:

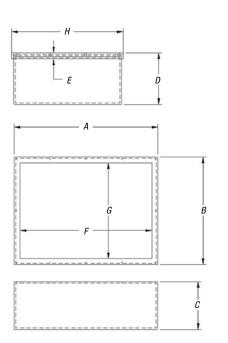
- PVC Type II material with "Uni-Body" construction and penetration welding providing a very strong, durable enclosure
- UL94V-0 flame rating
- Suitable for exposure of up to 90° C
- PVC material enables the use of standard solvent cements for fitting attachment
- Junction boxes are available with or without mounting flanges
- Individual mounting feet are available and provided in kits of four
- Custom features such as windows or panel mounts are available
- Custom sizes are also available upon request
- Made in the USA



DIMENSIONS (IN.)								
A	В	C	D	E	F	G	Н	WT. (LBS.)
12	12	8	8.25	1.00	10.5	10.5	12.75	11
18	18	12	12.25	1.00	16	16	18.75	21
20	18	8	8.25	1.00	18	16	18.75	20
20	20	8	8.25	1.00	18	18	20.75	22
24	18	8	8.25	1.00	22	16	18.75	24
24	20	8	8.25	1.00	21.5	17.5	20.75	25
24	24	8	8.25	1.00	21.5	21.5	24.75	29
30	24	8	8.25	1.00	27.5	21.5	24.75	34
36	24	8	8.25	1.00	33.5	21.5	24.75	39
	12 18 20 20 24 24 24 24 30	12 12 18 18 20 18 20 20 24 18 24 20 24 24 30 24	A B C 12 12 8 18 18 12 20 18 8 20 20 8 24 18 8 24 20 8 24 24 8 30 24 8	A B C D 12 12 8 8.25 18 18 12 12.25 20 18 8 8.25 20 20 8 8.25 24 18 8 8.25 24 20 8 8.25 24 24 8 8.25 30 24 8 8.25	A B C D E 12 12 8 8.25 1.00 18 18 12 12.25 1.00 20 18 8 8.25 1.00 20 20 8 8.25 1.00 24 18 8 8.25 1.00 24 20 8 8.25 1.00 24 24 8 8.25 1.00 30 24 8 8.25 1.00	A B C D E F 12 12 8 8.25 1.00 10.5 18 18 12 12.25 1.00 16 20 18 8 8.25 1.00 18 20 20 8 8.25 1.00 18 24 18 8 8.25 1.00 22 24 20 8 8.25 1.00 21.5 24 24 8 8.25 1.00 21.5 30 24 8 8.25 1.00 27.5	A B C D E F G 12 12 8 8.25 1.00 10.5 10.5 18 18 12 12.25 1.00 16 16 20 18 8 8.25 1.00 18 16 20 20 8 8.25 1.00 18 18 24 18 8 8.25 1.00 22 16 24 20 8 8.25 1.00 21.5 17.5 24 24 8 8.25 1.00 21.5 21.5 30 24 8 8.25 1.00 27.5 21.5	A B C D E F G H 12 12 8 8.25 1.00 10.5 10.5 12.75 18 18 12 12.25 1.00 16 16 18.75 20 18 8 8.25 1.00 18 16 18.75 20 20 8 8.25 1.00 18 18 20.75 24 18 8 8.25 1.00 22 16 18.75 24 20 8 8.25 1.00 21.5 17.5 20.75 24 24 8 8.25 1.00 21.5 21.5 24.75 30 24 8 8.25 1.00 27.5 21.5 24.75

Accessories

CAT. NO.	DESCRIPTION	STD. WT. (LBS.)
ESMFK-1	"CleverMount" Mounting Feet (4 Feet and Fasteners)	5











LISTED

E11461

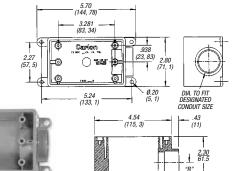
LR31146

Where

Carlon® Non-Metallic Junction Boxes

Single-Gang FS Device Boxes



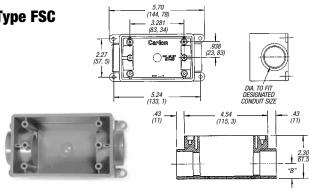


- For dead-end terminations
- All sizes take standard covers and accessories or devices
- Integral mounting feet provide easy mounting

CAT. NO.	SIZE (IN.)	VOL. CU. IN.	STD. CTN.
E980DFN	1/2	19	10
C980DFN-CTN	1/2	18	12
E980EFN	3/4	19	10
C980EFN-CTN	3/4	18	12
E980FFN	1	19	18
C980FFN-CTN	1	18	8
E980FFN-CAR	1	19	10
*			

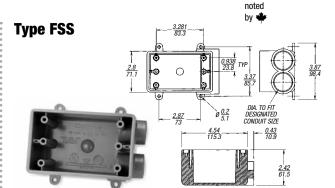
* Canada Only





- For through terminations
- All sizes take standard covers and accessories or devices
- · Detachable mounting feet provide easy mounting

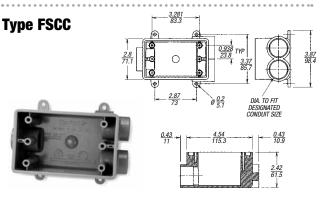
CAT. NO.	SIZE (IN.)	VOL. CU. IN.	STD. CTN.
E981DFN	1/2	19	15
C981DFN-CTN	1/2	18	12
E981EFN	3/4	19	15
C981EFN-CTN	3/4	18	12
E981FFN	1	19	18
E981FFN-CAR	1	19	10
C981FFN-CTN	1	18	8
Canada Only			



- For multiple dead-end circuit terminations or where additional support is required in stub-up applications
- All sizes take standard covers and accessories or devices
- Detachable mounting feet provide easy mounting

CAT. NO.	SIZE (IN.)	VOL. CU. IN.	STD. CTN.
E982DFN	1/2	19	10
C982DFN-CTN	1/2	18	12
E982EFN	3/4	19	10
C982EFN-CTN	3/4	18	12
E982FFN	1	19	10
C982FFN-CTN	1	18	8

Canada Only



- For multiple through-circuit terminations or where additional support is required in stub-up applications
- All sizes take standard covers and accessories or devices
- Detachable mounting feet provide easy mounting

CAT. NO.	SIZE (IN.)	VOL. CU. IN.	STD. CTN.
E979DFN-CAR	1/2	19	10
★ C979DFN	1/2	18	15
E979EFN-CAR	3/4	19	10
★ C979EFN	3/4	18	15
E979FFN	1	19	15
₩ C979FFN	1	18	15
🜞 Canada Only			

www.tnb.com

United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354

Technical Services

Tel: 888.862.3289







Carlon[®]

Carlon® Non-Metallic Junction Boxes

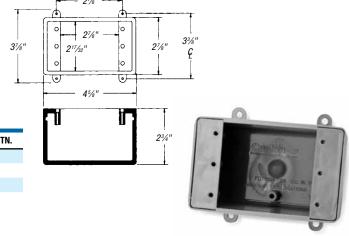
Single-Gang FD Deep Device Boxes

Type FD

- · For terminations where hub requirements vary according to application — hubs easily made with flared wood bit or hole saw
- All sizes take standard covers and accessories
- Integral mounting feet provide easy mounting

CAT. NO.	SIZE (IN.)	VOL. CU. IN.	STD. CTN.
E9801	N/A	25	10
₩ CE9801-CTN	N/A	25	10
♥ C9801-347	N/A	25	10

* Canada Only

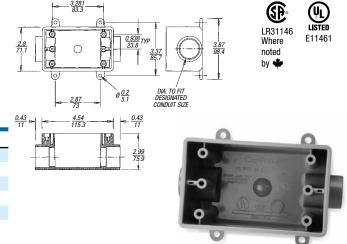


Type FDC

- For through terminations where large devices or additional wiring capacityis required
- All sizes take standard covers and accessories or devices
- · Integral mounting feet provide easy mounting

CAT. NO.	SIZE (IN.)	VOL. CU. IN.	STD. CTN.
E9811DN	1/2	25	10
₩ C9811DN	1/2	25	10
E9811EN	3/4	25	10
₩ C9811EN	3/4	25	10
E9811FN	1	25	10
★ C9811FN	1	25	10

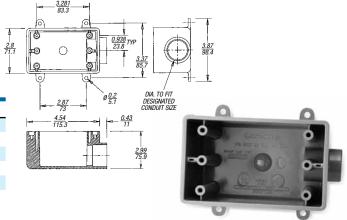
🌞 Canada Only



Type FDE

- For dead-end terminations where large devices or additional wiring capacity is required
- All sizes take standard covers and accessories or devices
- Integral mounting feet provide easy mounting

CAT. NO.	SIZE (IN.)	VOL. CU. IN.	STD. CTN.
E9801DN	1/2	25	10
₩ C9801DN	1/2	25	10
E9801EN	3/4	25	10
₩ C9801EN	3/4	25	10
E9801FN	1	25	10
₩ C9801FN	1	25	10
* Canada Only			





United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354



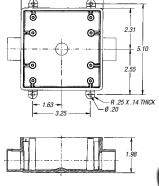
Carlon®

Carlon® Non-Metallic Junction Boxes

Two-Gang FS Device Boxes Type 2FSC

- For through terminations where two devices or additional wiring capacity is required
- · All sizes take standard covers and accessories or devices
- · Integral mounting feet provide easy mounting

CAT. NO.	SIZE (IN.)	VOL. CU. IN.	STD. CTN.
E9812D	1/2	32	10
★ CE9812D-CTN	1/2	32	10
E9812E	3/4	32	10
★ CE9812E-CTN	3/4	32	10
E9812F	1	32	10
♥ C9812F	1	32	10
🌞 Canada Only			



4 62 SO



Type FS

- · For terminations where hub requirements vary according to application — hubs easily made with flared wood bit or hole saw
- · All sizes take standard covers and accessories or devices
- Integral mounting feet provide easy mounting

CAT. NO.	SIZE (IN.)	VOL. CU. IN.	STD. CTN.
E9802	N/A	32	10
★ CE9802	N/A	32	10

Canada Only

4.620 (117.35)

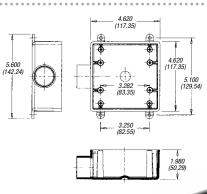


Type 2FSE

- For dead-end terminations where two devices or additional wiring capacity is required
- · All sizes take standard covers and accessories or devices
- Integral mounting feet provide easy mounting

CAT. NO.	SIZE (IN.)	VOL. CU. IN.	STD. CTN.
E9802D	1/2	32	10
CE9802D-CTN	1/2	32	10
E9802E	3/4	32	10
CE9802E-CTN	3/4	32	10
E9802F	1	32	10
₩ C9802F	1	32	1

Canada Only









Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354



₩ ⊙



Carlon

Carlon® Non-Metallic Junction Boxes

Blank Covers for Device Boxes

Single-Gang

- Fits Carlon® single-gang FS boxes
- · Supplied with stainless steel mounting screws and gasket

CAT. NO.	COLOR	STD. CTN.	STD. WT. (LBS.)
E980CN-CAR	Gray	12	1.60
E980CM-CAR	White	12	1.60



Two-Gang

- Fits Carlon® two-gang FS boxes, other non-metallic and metallic FS boxes
- Supplied with stainless steel mounting screws and gasket

CAT. NO.	COLOR	STD. CTN.	STD. WT. (LBS.)
E9802CN-CAR	Gray	10	2.17







1-800-453-1692



Fax: 901.252.1354

Circuit Safe® NEMA Enclosures

Circuit Safe® NEMA Enclosures

Circuit Safe® NEMA Enclosures are the flagship product of the Carlon® Enclosure offering. Molded in tough, durable polycarbonate resin, these enclosures lead the market in terms of design, durability, aesthetics and economy of use.

Ranging in size from 6" x 4" x 4" to 16" x 14" x 6", all Circuit Safe® NEMA products are UL 50 Listed and meet Types 4X, 12 and 13. These enclosures utilize recognized materials that carry an ultraviolet rating of F1, ensuring a very long, stable service life when installed outdoors. In addition, the use of polycarbonate material means that these enclosures enjoy an extremely high impact-resistance rating...almost three times more impact resistant than traditional fiberglass enclosures.

Installation of components is made easy, too, with the Panel Adjuster Kits and Swing-Out Panel Kits. Subpanels can be stacked or suspended at any depth within the enclosure, maximizing the space available for component mounting. Machining polycarbonate is also safe and easy. There are no splintering problems or airborne fibers as is typical when machining traditional fiberglass products.

Lighter, stronger, easier, safer to use and better looking. Check out Carlon's Circuit Safe® NEMA line today.





Features and Benefits:

- 100% non-metallic construction, including hinges
- Sturdy SS latches install without penetration of the enclosure base
- · Clear covers are available, which eliminate the need for window kits
- All cover screws are captive
- Panel suspension system enables the installation of panels at any depth, including stacking of multiple panels
- Swing panels are also available
- Available in junction boxes, external hinge and hidden hinge versions
- · Subpanels are available in steel or PVC
- · Non-metallic mounting rails for easy installation
- Less than half the weight of metal enclosures, 25% lighter than fiberglass, easier to handle and less expensive to ship
- Full modification services are available

Applications:

- Any outdoor applications, especially where sunlight resistance is an issue
- Applications where water is present
- Applications where damage during shipment, installation or use is an issue

- Any applications where it is necessary to view internal components through a clear cover
- Applications where weight is an issue
- Applications where the ability to pass wireless signals is needed
- Applications where rust and corrosion are an issue

Examples:

- Septic and pump controls
- Wireless system component protection
- Marina and sea-side installations
- Controls that require though-cover viewing of readouts and dials
- Machine controls/process controls
- · Food and beverage process controls
- · Security system controls

Standards

- . Meets or exceeds NEMA Types 4X, 12 and 13
- Listed per UL 50 as Types 4X, 12 and 13

NEMA Enclosure Styles

Circuit Safe® NEMA Enclosures are available in three different cover options and a wide range of sizes. From our screw-cover style enclosures to our hidden-hinge cover style enclosures to our external-hinge cover style enclosures, Carlon® has a Circuit Safe® NEMA enclosure to meet your application-specific needs.

Styles

- Screw Cover
- External Hinge
- · Hidden Hinge

Cover Color Options

- Opaque
- Clear

Material

 Polycarbonate (Bases and Lids)



Screw Cover



External-Hinge Cover



Hidden-Hinge Cover



United States
Tel: 901 252 8000

800.816.7809 Fax: 901.252.1354 Technical Services
Tel: 888.862.3289



Circuit Safe® NEMA Enclosures

Meets NEMA 1, 2, 3, 3S, 3X, 3SX, 4, 4X, 12.

Screw-On Covers



Enclosure Kits

OPAQUE COVER*	CLEAR COVER*		BACK P	ANELS**	- STD.	STD. WT. (LBS.)
CAT. NO.	CAT. NO.	SIZE (IN.)	STEEL	PVC	CTN.	OPAQUE/CLEAR
NS644	NV644	6 x 4 x 4	JP64	JP64P	1	Opa 1.8/Clr 1.9
NS664	NV664	6 x 6 x 4	JP66	JP66P	1	Opa 2.4/Clr 2.4
NS864	NV864	8 x 6 x 4	JP86	JP86P	1	Opa 2.9/Clr 2.8
NS884	NV884	8 x 8 x 4	JP88	JP88P	1	Opa 3.2/Clr 3.3
NS1084	NV1084	10 x 8 x 4	JP108	JP108P	1	Opa 4.0/Clr 3.9
NS1086	NV1086	10 x 8 x 6	JP108	JP108P	1	Opa 4.6/Clr 4.5
NS10106	NV10106	10 x 10 x 6	JP1010	JP1010P	1	Opa 5.3/Clr 4.9
NS12106	NV12106	12 x 10 x 6	JP1210	JP1210P	1	Opa 6.1/Clr 5.2
NS12126	NV12126	12 x 12 x 6	JP1212	JP1212P	1	Opa 6.8/Clr 6.1
NS14126	NV14126	14 x 12 x 6	JP1412	JP1412P	1	Opa 7.4/Clr 7.0
NS16146	NV16146	16 x 14 x 6	JP1614	JP1614P	1	Opa 9.2/Clr 8.1

^{*} Include body, lid and mounting rail kit.



Opaque Cover



Clear Cover

Individual Components

	ENCLOSURE	BASE*			ENCLO	SURE LIDS	3		BAG	CK PANELS**	
CAT. NO.	ENCLOSURE SIZE (IN.)	STD. CTN.	STD. WT. (LBS.)	OPAQUE LIDS	CLEAR LIDS	STD. CTN.	STD. WT. (LBS.)	·	STEEL CAT. NO.	PVC CAT. NO.	STD. CTN.
NP644B	6 x 4 x 4	18	21	NS64L	NV64L	16	Opa 6.4/Clr 5.7		JP64	JP64P	1
NP664B	6 x 6 x 4	12	17	NS66L	NV66L	12	Opa 6.2/Clr 5.7		JP66	JP66P	1
NP864B	8 x 6 x 4	12	18	NS86L	NV86L	9	Opa 6/Clr 4.4		JP86	JP86P	1
NP884B	8 x 8 x 4	14	28	NS88L	NV88L	18	Opa 14/Clr 11.2		JP88	JP88P	1
NP1084B	10 x 8 x 4	12	26	NS108L	NV108L	12	Opa 13/Clr 11		JP108	JP108P	1
NP1086B	10 x 8 x 6	8	23	NS108L	NV108L	12	Opa 13/Clr 11		JP108	JP108P	1
NP1010B	10 x 10 x 6	6	20	NS1010L	NV1010L	11	Opa 14/Clr 12		JP1010	JP1010P	1
NP1210B	12 x 10 x 6	6	23	NS1210L	NV1210L	12	Opa 15/Clr 15		JP1210	JP1210P	1
NP1212B	12 x 12 x 6	5	22	NS1212L	NV1212L	10	Opa 15/Clr 14		JP1212	JP1212P	1
NP1412B	14 x 12 x 6	5	24	NS1412L	NV1412L	5	Opa 9/Clr 9		JP1412	JP1412P	1
NP1614B	16 x 14 x 6	4	31	NS1614L	NV1614L	5	Opa 11/Clr 11		JP1614	JP1614P	1

^{*} Mounting rails are not included. See "Mounting Rails" on page A-307.

^{**} Order back panels separately.



Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354

Technical Services

Tel: 888.862.3289

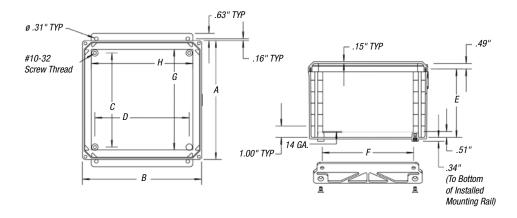


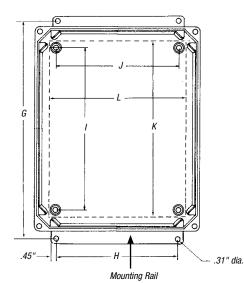


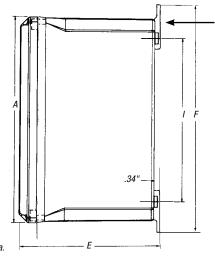


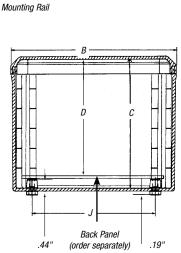
^{**} Order back panels separately.

Circuit Safe® NEMA Enclosures









Individual Components (continued)

		-													
ENCLOS CLEAR LID	OPAQUE LID		EN	CLOSUR	E SIZE (IN.)			OSURE NG HOLE CING	MOUNTI	NEL Ng Hole Cing		PANEL Ze		PANEL** . No.
CAT. NO.*	CAT. NO.*	Α	В	С	D	E	F	G	Н	ı	J	K	L	STEEL	PVC
NV644	NS644	6.40	4.40	4.49	3.98	5.13	7.69	6.75	2.00	4.29	2.28	4.88	2.88	JP64	JP64P
NV664	NS664	6.40	6.40	4.49	3.98	5.13	7.69	6.75	4.00	4.28	4.28	4.88	4.88	JP66	JP66P
NV864	NS864	8.40	6.40	4.49	3.98	5.13	9.69	8.75	4.00	6.27	4.26	6.75	4.88	JP86	JP86P
NV884	NS884	8.40	8.40	4.49	3.98	5.13	9.69	8.75	6.00	6.30	6.30	6.75	6.88	JP88	JP88P
NV1084	NS1084	10.40	8.40	4.49	3.98	5.13	11.69	10.75	6.00	8.34	6.30	8.75	6.88	JP108	JP108P
NV1086	NS1086	10.40	8.40	6.49	5.98	7.13	11.69	10.75	6.00	8.34	6.30	8.75	6.88	JP108	JP108P
NV10106	NS10106	10.40	10.40	6.49	5.98	7.13	11.69	10.75	8.00	8.29	8.29	8.75	8.88	JP1010	JP1010P
NV12106	NS12106	12.40	10.40	6.49	5.98	7.13	13.69	12.75	8.00	10.30	8.28	10.75	8.88	JP1210	JP1210P
NV12126	NS12126	12.40	12.40	6.49	5.98	7.13	13.69	12.75	10.00	10.24	10.24	10.75	10.88	JP1212	JP1212P
NV14126	NS14126	14.40	12.40	6.49	5.98	7.13	15.69	14.75	10.00	12.26	10.24	12.75	10.88	JP1412	JP1412P
NV16146	NS16146	16.40	14.40	6.49	5.98	7.13	17.69	16.75	12.00	14.26	12.26	14.75	12.88	JP1614	JP1612P

^{*} Include body, lid and mounting rail kit.

^{**} Order back panels separately (10/32 -3% Back Panel screws not supplied).



Fax: 901.252.1354





₩ ⊙

Circuit Safe® NEMA Enclosures

Meets NEMA 1, 2, 3, 3S, 3X, 3SX, 4, 4X, 12.

Hidden-Hinge Covers

Enclosure Kits

OPAQUE COVER*	CLEAR COVER*		BACK P	ANELS**	STD.	STD. WT. (LBS.)
CAT. NO.	CAT. NO.	SIZE (IN.)	STEEL	PVC	CTN.	OPAQUE/CLEAR
NH644	NI644	6 x 4 x 5 [†]	JP64	JP64P	1	Opa 2.2/Clr 2.8
NH664	NI664	6 x 6 x 5	JP66	JP66P	1	Opa 2.7/Clr 3.2
NH864	NI864	8 x 6 x 5	JP86	JP86P	1	Opa 3.3/Clr 3.8
NH884	NI884	8 x 8 x 5	JP88	JP88P	1	Opa 3.8/Clr 3.8
NH1084	NI1084	10 x 8 x 5	JP108	JP108P	1	Opa 4.0/Clr 4.5
NH1086	NI1086	10 x 8 x 7	JP108	JP108P	1	Opa 5.2/Clr 5.1
NH10106	NI10106	10 x 10 x 7	JP1010	JP1010P	1	Opa 5.7/Clr 5.8
NH12106	NI12106	12 x 10 x 7	JP1210	JP1210P	1	Opa 6.9/Clr 6.1
NH12126	NI12126	12 x 12 x 7	JP1212	JP1212P	1	Opa 7.7/Clr 7.2
NH14126	NI14126	14 x 12 x 7	JP1412	JP1412P	1	Opa 8.3/Clr 7.9
NH16146	NI16146	16 x 14 x 7	JP1614	JP1614P	1	Opa 10.1/Clr 9.6

^{*} Include body, cover assembly and mounting rail kit.



Opaque Cover



Clear Cover

Individual Components

	ENCLOSURE B	ASE*			ENCLOS	URE L	IDS	CC	LLARS		BAC	CK PANELS*	*		LATCHES	
CAT. NO.	ENCLOSURE SIZE (IN.)	STD. CTN.	STD. WT. (LBS.)	OPAQUE LIDS CAT. NO.	CLEAR LIDS CAT. NO.	STD. CTN.	STD. WT. (LBS.)	CAT. NO.	STD. CTN.	STD. WT. (LBS.)	STEEL CAT. NO.	PVC CAT. NO.	STD. CTN.	STEEL LATCH CAT. NO.	NON- METALLIC LATCH CAT. NO.	STD. CTN.
NP644B	6 x 4 x 5 [†]	18	21	NH64L	NI64L	16	Opa 6.8/Clr 6.3	NH64C	16	6	JP64	JP64P	1	SSLS	NPLIS	25
NP664B	6 x 4 x 5	12	17	NH66L	NI66L	12	Opa 6.8/Clr 6.3	NH66C	12	5	JP66	JP66P	1	SSLS	NPLIS	25
NP864B	8 x 6 x 5	12	18	NH86L	NI86L	9	Opa 6.3/Clr 5.7	NH86C	9	4	JP86	JP86P	1	SSLS	NPLIS	25
NP884B	8 x 8 x 5	14	28	NH88L	NI88L	18	Opa 16/Clr 15	NH88C	9	3.6	JP88	JP88P	1	SSLS	NPLIS	25
NP1084B	10 x 8 x 5	12	26	NH108L	NI108L	12	Opa 13/Clr 12	NH108C	12	7.8	JP108	JP108P	1	SSLS	NPLIS	25
NP1086B	10 x 8 x 7	8	23	NH108L	NI108L	12	Opa 13/Clr 12	NH108C	12	7.8	JP108	JP108P	1	SSLS	NPLIS	25
NP1010B	10 x 10 x 7	6	20	NH1010L	NI1010L	11	Opa 14/Clr 13	NH1010C	11	7.5	JP1010	JP1010P	1	SSLS	NPLIS	25
NP1210B	12 x 10 x 7 ‡	6	23	NH1210L	NI1210L	12	Opa 17/Clr 6	NH1210C	12	8	JP1210	JP1210P	1	SSLS	NPLIS	25
NP1212B	12 x 12 x 7 ‡	5	22	NH1212L	NI1212L	10	Opa 17/Clr 16	NH1212C	12	7.7	JP1212	JP1212P	1	SSLS	NPLIS	25
NP1412B	14 x 12 x 7 ‡	5	24	NH1412L	NI1412L	5	Opa 10/Clr 10	NH1412C	5	4.7	JP1412	JP1412P	1	SSLS	NPLIS	25
NP1614B	16 x 14 x 7 ‡	4	31	NH1614L	NI1614L	5	Opa 13/Clr 12	NH1614C	5	5.6	JP1614	JP1614P	1	SSLS	NPLIS	25

^{*} Mounting rails are not included. See "Mounting Rails" listed on page A-307.

[‡] Sizes 12 x 10 and larger require two (2) latches per enclosure.



800.816.7809

Fax: 901.252.1354



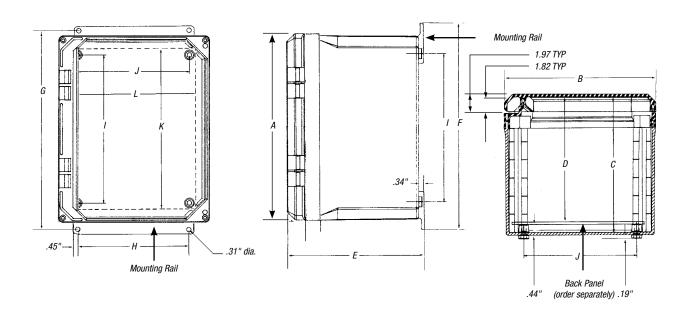
www.tnb.com

^{**} Order back panels separately.

^{† 6} x 4 x 5 size not available with quick-release latches.

^{**} Order back panels separately.

^{† 6} x 4 x 5 enclosures are not available with quick-release latches.



Individual Components (continued)

ENCLOSU			ENC	CLOSUR	E SIZE ((IN.)		MOUI	OSURE NTING PACING	PAI Moun Hole S		ВАС	K PAI	NEL SIZE		PANEL** Г. NO.
OPAQUE LID CAT. NO.*	CLEAR LID CAT. NO.*	A	В	С	D	E	F	G	Н	ı	J	. <u>— </u>		L	STEEL	PVC
NH644	NI644	6.40	4.40	5.30	4.79	5.94	7.69	6.75	2.00	4.29	2.28	4.8	38	2.88	JP64	JP64P
NH664	NI664	6.40	6.40	5.30	4.79	5.94	7.69	6.75	4.00	4.28	4.28	4.8	38	4.88	JP66	JP66P
NH864	NI864	8.40	6.40	5.30	4.79	5.94	9.69	8.75	4.00	6.27	4.26	6.7	75	4.88	JP86	JP86P
NH884	NI884	8.40	8.40	5.30	4.79	5.94	9.69	8.75	6.00	6.30	6.30	6.7	' 5	6.88	JP88	JP88P
NH1084	NI1084	10.40	8.40	5.30	4.79	5.94	11.69	10.75	6.00	8.34	6.30	8.7	75	6.88	JP108	JP108P
NH1086	NI1086	10.40	8.40	7.30	6.79	7.94	11.69	10.75	6.00	8.34	6.30	8.7	' 5	6.88	JP108	JP108P
NH10106	NI10106	10.40	10.40	7.30	6.79	7.94	11.59	10.75	8.00	8.29	8.29	8.7	'5	8.88	JP1010	JP1010P
NH12106	NI12106	12.40	10.40	7.30	6.79	7.94	13.69	12.75	8.00	10.30	8.28	10.	75	8.88	JP1210	JP1210P
NH12126	NI12126	12.40	12.40	7.30	6.79	7.94	13.69	12.75	10.00	10.24	10.24	10.	75	10.88	JP1212	JP1212P
NH14126	NI14126	14.40	12.40	7.30	6.79	7.94	15.69	14.75	10.00	12.26	10.24	12.	75	10.88	JP1412	JP1412P
NH16146	NI16146	16.40	14.40	7.30	6.79	7.94	17.69	16.75	12.00	14.26	12.26	14.	75	12.88	JP1614	JP1612P

^{*} Include body, lid and mounting rail kit.

^{**} Order back panels separately (10/32 - 3/8 Back Panel screws not supplied).





Fax: 901.252.1354

A-279

Circuit Safe® NEMA Enclosures

Meets NEMA 1, 2, 3, 3S, 3X, 3SX, 4, 4X, 12.

CUL US LISTED F88685

External-Hinge Covers

Enclosu	re Kits					
OPAQUE COVER* CAT. NO.	CLEAR COVER* CAT. NO.	BACK Panels** Steel	BACK Panels** PVC	SIZE (IN.)	STD. CTN.	STD. Wt. (LBS.) Opaque/Clear
NJ664	NC664	JP66	JP66P	6 x 6 x 4	1	Opa 2.4/Clr 2.4
NJ864	NC864	JP86	JP86P	8 x 6 x 4	1	Opa 2.9/Clr 2.9
NJ884	NC884	JP88	JP88P	8 x 8 x 4	1	Opa 3.3/Clr 3.3
NJ1084	NC1084	JP108	JP108P	10 x 8 x 4	1	Opa 4/Clr 4
NJ1086	NC1086	JP108	JP108P	10 x 8 x 6	1	Opa 4.6/Clr 4.7
NJ10106	NC10106	JP1010	JP1010P	10 x 10 x 6	1	Opa 5.6/Clr 5.3
NJ12106	NC12106	JP1210	JP1210P	12 x 10 x 6	1	Opa 6.3/Clr 5.8
NJ12126	NC12126	JP1212	JP1212P	12 x 12 x 6	1	Opa 6.9/Clr 6.6
NJ14126	NC14126	JP1412	JP1412P	14 x 12 x 6	1	Opa 7.7/Clr 7
NJ16146	NC16146	JP1614	JP1614P	16 x 14 x 6	1	Opa 8.2/Clr 8

^{*} Include body, lid and mounting rail kit.



Opaque Cover



Clear Cover

Individual Components

	ENCLOSURE BA	\SE*			ENCLOSU	RE LID	S	BAC	(PANELS**	t		LATCHES	
CAT. NO.	ENCLOSURE SIZE (IN.)	STD. CTN.	STD. WT. (LBS.)	OPAQUE LIDS CAT. NO.	CLEAR LIDS CAT. NO.	STD. CTN.	STD. WT. (LBS.)	STEEL CAT. NO.	PVC Cat. No.	STD. CTN.	STEEL LATCH CAT. NO.	NON-METALLIC LATCH CAT. NO.	STD. CTN.
NL664B	6 x 6 x 4	12	18	NJ66L	NC66L	12	Opa 5.0/Clr 5.9	JP66	JP66P	1	SSLS	NPLIS	25
NL864B	8 x 6 x 4	8	14	NJ86L	NC86L	9	Opa 6/Clr 5.3	JP86	JP86P	1	SSLS	NPLIS	25
NL884B	8 x 8 x 4	14	28	NJ88L	NC88L	18	Opa 15/Clr 13.5	JP88	JP88P	1	SSLS	NPLIS	25
NL1084B	10 x 8 x 4	12	32	NJ108L	NC108L	12	Opa 13/Clr 11.7	JP108	JP108P	1	SSLS	NPLIS	25
NL1086B	10 x 8 x 6	8	15	NJ108L	NC108L	12	Opa 13/Clr 11.7	JP108	JP108P	1	SSLS	NPLIS	25
NL1010B	10 x 10 x 6	6	20	NJ1010L	NC1010L	11	Opa 14/Clr 13	JP1010	JP1010P	1	SSLS	NPLIS	25
NL1210B	12 x 10 x 6 ‡	6	24	NJ1210L	NC1210L	12	Opa 14/Clr 15	JP1210	JP1210P	1	SSLS	NPLIS	25
NL1212B	12 x 12 x 6 ‡	5	21.8	NJ1212L	NC1212L	10	Opa 16/Clr 14	JP1212	JP1212P	1	SSLS	NPLIS	25
NL1412B	14 x 12 x 6 ‡	4	19	NJ1412L	NC1412L	5	Opa 10/Clr 9	JP1412	JP1412P	1	SSLS	NPLIS	25
NL1614B	16 x 14 x 6 ‡	4	31	NJ1614L	NC1614L	5	Opa 13.5/Clr 12	JP1614	JP1614P	1	SSLS	NPLIS	25

^{*} Mounting rails are not included. See Mounting Rails on page A-307.

[‡] Sizes 12 x 10 and larger require two (2) latches per enclosure.





1-800-453-1692

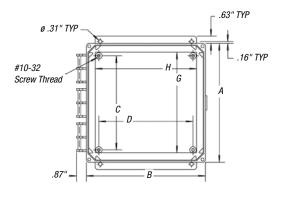


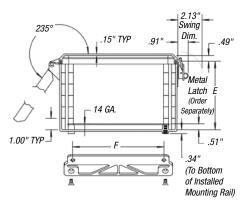


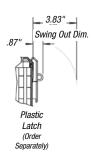
^{**} Order back panels separately.

^{**} Order back panels separately.









Individual Components (continued)

ENCLO	SURE WITH		EM	CLOSURI	: CI7E /I	M \		ENCL(PAI Mour Hole S	ITING		PANEL Ze		PANEL** [. NO.
CLEAR LID CAT. NO.*	OPAQUE LID Cat. No.*		В	C	<u>`</u>	N.) E			H					STEEL	PVC
		A			D			G			J	К			
NC644	NJ644	6.40	4.40	4.49	3.98	5.13	7.69	6.75	2.00	4.29	2.28	4.88	2.88	JP64	JP64P
NC664	NJ664	6.40	6.40	4.49	3.98	5.13	7.69	6.75	4.00	4.28	4.28	4.88	4.88	JP66	JP66P
NC864	NJ864	8.40	6.40	4.49	3.98	5.13	9.69	8.75	4.00	6.27	4.26	6.75	4.88	JP86	JP86P
NC884	NJ884	8.40	8.40	4.49	3.98	5.13	9.69	8.75	6.00	6.30	6.30	6.75	6.88	JP88	JP88P
NC1084	NJ1084	10.40	8.40	4.49	3.98	5.13	11.69	10.75	6.00	8.34	6.30	8.75	6.88	JP108	JP108P
NC1086	NJ1086	10.40	8.40	6.49	5.98	7.13	11.69	10.75	6.00	8.34	6.30	8.75	6.88	JP108	JP108P
NC10106	NJ10106	10.40	10.40	6.49	5.98	7.13	11.69	10.75	8.00	8.29	8.29	8.75	8.88	JP1010	JP1010P
NC12106	NJ12106	12.40	10.40	6.49	5.98	7.13	13.69	12.75	8.00	10.30	8.28	10.75	8.88	JP1210	JP1210P
NC12126	NJ12126	12.40	12.40	6.49	5.98	7.13	13.69	12.75	10.00	10.24	10.24	10.75	10.88	JP1212	JP1212P
NC14126	NJ14126	14.40	12.40	6.49	5.98	7.13	15.69	14.75	10.00	12.26	10.24	12.75	10.88	JP1412	JP1412P
NC16146	NJ16146	16.40	14.40	6.49	5.98	7.13	17.69	16.75	12.00	14.26	12.26	14.75	12.88	JP1614	JP1614P

^{*} Include body, lid and mounting rail kit.

^{**} Order back panels separately (10/32 - 3 % Back Panel screws not supplied).





1-800-453-1692





Quick Reference

Screw-On Cover Styles

ENCLOSU (NO PANEL O				INDIVIDUAL	COMPONENTS		
(NO I ANLE O	in ExtonEs,	-			_	BACK	PANELS
OPAQUE LID	CLEAR LID	BODY	LID	COLLAR	MTG. RAILS	STEEL	PVC
NS644		NP644B	NS64L	N/A	NMK4V	JP64	JP64P
	NV644	NP644B	NV64L	N/A	NMK4V	JP64	JP64P
NS664		NP664B	NS66L	N/A	NMK6V	JP66	JP66P
	NV664	NP664B	NV66L	N/A	NMK6V	JP66	JP66P
NS864		NP864B	NS86L	N/A	NMK6V	JP86	JP86P
	NV864	NP864B	NV86L	N/A	NMK6V	JP86	JP86P
NS884		NP884B	NS88L	N/A	NMK8V	JP88	JP88P
	NV884	NP884B	NV88L	N/A	NMK8V	JP88	JP88P
NS1084		NP1084B	NS108L	N/A	NMK8V	JP108	JP108P
	NV1084	NP1084B	NV108L	N/A	NMK8V	JP108	JP108P
NS1086		NP1086B	NS108L	N/A	NMK8V	JP108	JP108P
	NV1086	NP1086B	NV108L	N/A	NMK8V	JP108	JP108P
NS10106		NP1010B	NS1010L	N/A	NMK10V	JP1010	JP1010P
	NV10106	NP1010B	NV1010L	N/A	NMK10V	JP1010	JP1010P
NS12106		NP1210B	NS1210L	N/A	NMK10V	JP1210	JP1210P
	NV12106	NP1210B	NV1210L	N/A	NMK10V	JP1210	JP1210P
NS12126		NP1212B	NS1212L	N/A	NMK12V	JP1212	JP1212P
	NV12126	NP1212B	NV1212L	N/A	NMK12V	JP1212	JP1212P
NS14126		NP1412B	NS1412L	N/A	NMK12V	JP1412	JP1412P
	NV14126	NP1412B	NV1412L	N/A	NMK12V	JP1412	JP1412P
NS16146		NP1614B	NS1614L	N/A	NMK14V	JP1614	JP1614P
	NV16146	NP1614B	NV1614L	N/A	NMK14V	JP1614	JP1614P

External-Hinge Cover Styles

ENCLOSU	RE KITS				INDIV	IDUAL COMPON	ENTS		
(NO PANEL O	R LATCHES)					BACI	(PANELS	LATCHES (QTY. NEEDED)
OPAQUE LID	CLEAR LID	BODY	LID	COLLAR	MTG. RAILS	STEEL	PVC	STEEL	NON-METALLIC
NJ644		NL644B	NJ64L	N/A	NMK4V	JP64	JP64P	SSLS (1)	NPL1S (1)
	NC644	NL644B	NC64L	N/A	NMK4V	JP64	JP64P	SSLS (1)	NPL1S (1)
NJ664		NL664B	NJ66L	N/A	NMK6V	JP66	JP66P	SSLS (1)	NPL1S (1)
	NC664	NL664B	NC66L	N/A	NMK6V	JP66	JP66P	SSLS (1)	NPL1S (1)
NJ864		NL864B	NJ86L	N/A	NMK6V	JP86	JP86P	SSLS (1)	NPL1S (1)
	NC864	NL864B	NC86L	N/A	NMK6V	JP86	JP86P	SSLS (1)	NPL1S (1)
NJ884		NL884B	NJ88L	N/A	NMK8V	JP88	JP88P	SSLS (1)	NPL1S (1)
	NC884	NL884B	NC88L	N/A	NMK8V	JP88	JP88P	SSLS (1)	NPL1S (1)
NJ1084		NL1084B	NJ108L	N/A	NMK8V	JP108	JP108P	SSLS (1)	NPL1S (1)
	NC1084	NL1084B	NC108L	N/A	NMK8V	JP108	JP108P	SSLS (1)	NPL1S (1)
NJ1086		NL1086B	NJ108L	N/A	NMK8V	JP108	JP108P	SSLS (1)	NPL1S (1)
	NC1086	NL1086B	NC108L	N/A	NMK8V	JP108	JP108P	SSLS (1)	NPL1S (1)
NJ10106		NL1010B	NJ1010L	N/A	NMK10V	JP1010	JP1010P	SSLS (1)	NPL1S (1)
	NC10106	NL1010B	NC1010L	N/A	NMK10V	JP1010	JP1010P	SSLS (1)	NPL1S (1)
NJ12106		NL1210B	NJ1210L	N/A	NMK10V	JP1210	JP1210P	SSLS (2)	NPL1S (2)
	NC12106	NL1210B	NC1210L	N/A	NMK10V	JP1210	JP1210P	SSLS (2)	NPL1S (2)
NJ12126		NL1212B	NJ1212L	N/A	NMK12V	JP1212	JP1212P	SSLS (2)	NPL1S (2)
	NC12126	NL1212B	NC1212L	N/A	NMK12V	JP1212	JP1212P	SSLS (2)	NPL1S (2)
NJ14126		NL1412B	NJ1412L	N/A	NMK12V	JP1412	JP1412P	SSLS (2)	NPL1S (2)
	NC14126	NL1412B	NC1412L	N/A	NMK12V	JP1412	JP1412P	SSLS (2)	NPL1S (2)
NJ16146		NL1614B	NJ1614L	N/A	NMK14V	JP1614	JP1614P	SSLS (2)	NPL1S (2)
	NC16146	NL1614B	NC1614L	N/A	NMK14V	JP1614	JP1614P	SSLS (2)	NPL1S (2)





800.816.7809 Fax: 901.252.1354



Tel: 888.862.3289







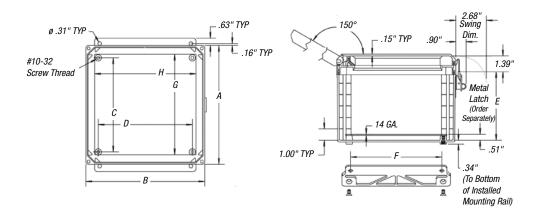
Hidden-Hinge Cover Styles

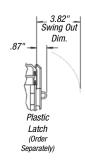
ENCLOSU	IDE VITO				INDIVI	DUAL COMPON	ENTS		
(NO PANEL O					_	BACI	K PANELS	LATCHES (Q	TY. NEEDED)
OPAQUE LID	CLEAR LID	BODY	LID	COLLAR	MTG. RAILS	STEEL	PVC	STEEL	NON- METALLIC
NH644		NP644B	NH64L	NH64C	NMK4V	JP64	JP64P	SSLL (1)	NPL1L (1)
	NI644	NP644B	NI64L	NH64C	NMK4V	JP64	JP64P	SSLL (1)	NPL1L (1)
NH664		NP664B	NH66L	NH66C	NMK6V	JP66	JP66P	SSLL (1)	NPL1L (1)
	NI664	NP664B	NI66L	NH66C	NMK6V	JP66	JP66P	SSLL (1)	NPL1L (1)
NH864		NP864B	NH86L	NH86C	NMK6V	JP86	JP86P	SSLL (1)	NPL1L (1)
	NI864	NP864B	NI86L	NH86C	NMK6V	JP86	JP86P	SSLL (1)	NPL1L (1)
NH884		NP884B	NH88L	NH88C	NMK8V	JP88	JP88P	SSLL (1)	NPL1L (1)
	NI884	NP884B	NI88L	NH88C	NMK8V	JP88	JP88P	SSLL (1)	NPL1L (1)
NH1084		NP1084B	NH108L	NH108C	NMK8V	JP108	JP108P	SSLL (1)	NPL1L (1)
	NI1084	NP1084B	NI108L	NH108C	NMK8V	JP108	JP108P	SSLL (1)	NPL1L (1)
NH1086		NP1086B	NH108L	NH108C	NMK8V	JP108	JP108P	SSLL (1)	NPL1L (1)
	NI1086	NP1086B	NI108L	NH108C	NMK8V	JP108	JP108P	SSLL (1)	NPL1L (1)
NH10106		NP1010B	NH1010L	NH1010C	NMK10V	JP1010	JP1010P	SSLL (1)	NPL1L (1)
	NI10106	NP1010B	NI1010L	NH1010C	NMK10V	JP1010	JP1010P	SSLL (1)	NPL1L (1)
NH12106		NP1210B	NH1210L	NH1210C	NMK10V	JP1210	JP1210P	SSLL (2)	NPL1L (2)
	NI12106	NP1210B	NI1210L	NH1210C	NMK10V	JP1210	JP1210P	SSLL (2)	NPL1L (2)
NH12126		NP1212B	NH1212L	NH1212C	NMK12V	JP1212	JP1212P	SSLL (2)	NPL1L (2)
	NI12126	NP1212B	NI1212L	NH1212C	NMK12V	JP1212	JP1212P	SSLL (2)	NPL1L (2)
NH14126		NP1412B	NH1412L	NH1412C	NMK12V	JP1412	JP1412P	SSLL (2)	NPL1L (2)
	NI14126	NP1412B	NI1412L	NH1412C	NMK12V	JP1412	JP1412P	SSLL (2)	NPL1L (2)
NH16146		NP1614B	NH1614L	NH1614C	NMK14V	JP1614	JP1614P	SSLL (2)	NPL1L (2)
	NI16146	NP1614B	NI1614L	NH1614C	NMK14V	JP1614	JP1614P	SSLL (2)	NPL1L (2)





1-800-453-1692







Fax: 901.252.1354

Circuit Safe® JIC Enclosures

Circuit Safe® JIC Enclosures

Manufactured from structural foam thermoplastic, Carlon® Circuit Safe® JIC enclosures provide high-impact strength to eliminate dents and deformations along with high dielectric strength, excellent weathering capabilities and excellent resistance to a wide range of corrosive agents, acids, alkalines and salts. These UL Approved and CSA Recognized enclosures also withstand wet and dirty environments, while their thick-wall construction make them a particularly good choice wherever condensation is a concern. Rated for use in Type 1, 3, 3S, 3X, 3SX, 4, 4X, 12 and 13 environments, Carlon® Circuit Safe® JIC enclosures are suited for virtually all indoor/outdoor industrial, MRO and OEM applications. They are available in 10 sizes from 6 x 6 x 5 through 30 x 24 x 12 with a choice of screw or hinged design, opaque covers or clear polycarbonate covers that protect devices from hostile environments while enabling monitoring of instrumentation and/or electrical functions.



Features:

- · Hinge caps make covers captive
- Non-metallic molded-in hinges on hinged models
- No rough corners, sharp edges or burrs
- Non-conductive eliminates danger of electrical shock
- · Lid design provides greater usable internal volume
- · Ample interior space for ease of wiring
- Fully gasketed
- · Ultraviolet stabilized for outdoor use

Applications:

- Instrument case
- Junction and terminal boxes
- Control and switching enclosures
- Splice and pull boxes
- Starter, pushbutton and transformer housings
- · Meter and transformer cabinets

Standards:

- Meets NEMA Types 1, 3, 3S, 3X, 3SX, 4, 4X, 12, 13 as indicated
- UL[®] Listed per UL 50, enclosures for electrical equipment
- CSA Certified
- JIC compliance





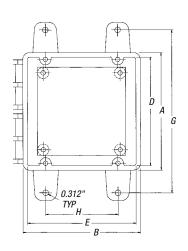
Circuit Safe® JIC Enclosures

Meets NEMA 1, 3, 3S, 3X, 3SX, 4, 4X, 12, 13.

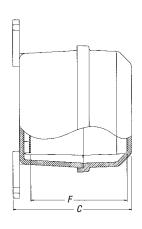
Hinged Covers

Features:

- Non-metallic mounting feet and all mounting hardware included
- White-painted 14-gauge steel or 1/4" PVC back panel (order separately)
- 304 (18-8) stainless steel screws (10-32/11/8")
- · Lid design provides greater usable internal volume
- · Completely non-metallic hinges
- · Brass screw inserts
- Temperature range: -30° to 230° F
- Material: polycarbonate molded base and cover











LISTED E108856 LR31146

Factory Assembled

		DIMENSIONS (IN.)				PANEL*								
OPAQUE COVER	CLEAR COVER	E	XTERNA	L	II	NTERNA	L	MOUI	NTING	STD. WT. (LBS.)	CAT	. NO.	PANEL	STD. WT. (LBS.)
CAT. NO.	CAT. NO.	Α	В	С	D	E	F	G	Н	OPAQUE/CLEAR	STEEL	PVC	SIZE (IN.)	STEEL/PVC
CJ665	CC665	6.50	6.50	6.69	6.00	6.00	5.45	9.00	4.00	1 (Opa 3.5)/1 (Clr 3.1)	JP66	JP66P	4.88 x 4.88	1 (1.0)/1 (0.3)
CJ863	CC863	8.50	6.50	4.49	8.00	6.00	3.25	11.00	4.00	1 (Opa 2.8)/1 (Clr 3.1)	JP86	JP86P	6.75 x 4.88	1 (1.0)/1 (0.78)
CJ1085	CC1085	10.50	8.50	6.69	10.00	8.00	5.45	13.00	6.00	1 (Opa 5.2)/1 (Clr 5.2)	JP108	JP108P	8.75 x 6.88	1 (1.5)/1 (0.7)
CJ12106	CC12106	12.50	10.50	7.69	12.00	10.00	6.45	15.00	8.00	1 (Opa 7.1)/1 (Clr 8.4)	JP1210	JP1210P	10.75 x 8.88	1 (2.0)/1 (1.2)
CJ14126	CC14126	14.50	12.50	7.72	14.00	12.00	6.48	17.00	10.00	1 (Opa 9.0)/1 (Clr 8.6)	JP1412	JP1412P	12.75 x 10.88	1 (3.2)/1 (1.7)
CJ16147	CC16147	16.50	14.50	8.46	16.00	14.00	7.22	19.00	12.00	1 (Opa 10.6)/1 (Clr 11.9)	JP1614	JP1614P	14.75 x 12.88	1 (4.7)/1 (2.3)

*Order back panels separately.

Enclosures shipped with mounting feet, hinge caps and screws.

For factory-installed pad-lockable latch (part no. CJTL), consult Customer Service for price and delivery.



Fax: 901.252.1354



Thomas@Betts

Circuit Safe® JIC Enclosures

Meets NEMA 1, 3, 3S, 3X, 3SX, 4, 4X, 12, 13.



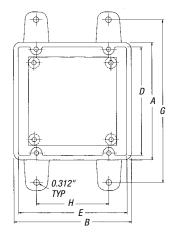


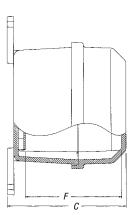
Screw-On Covers

Features:

- Non-metallic mounting feet and all mounting hardware included
- 304 (18-8) stainless steel screws (10-32/11/8")
- · Brass screw inserts
- Clear polycarbonate cover available
- White-painted 14-gauge steel or ¼" PVC back panel (order separately)
- · Lid design provides greater usable internal volume
- Temperature range: -30° to 230° F
- Material: polycarbonate molded base and cover







Factory Assembled

				D	IMENSI	ONS (IN.	.)					PANEL*		
OPAQUE COVER	CLEAR COVER	E	XTERNA	L	II	NTERNA	L	MOU	NTING	STD. WT. (LBS.)	CA	T. NO.	PANEL	STD. WT. (LBS.)
CAT. NO.	CAT. NO.	A	В	С	D	E	F	G	Н	OPAQUE/CLEAR	STEEL	PVC	SIZE (IN.)	STEEL/PVC
CS665	CV665	6.50	6.50	6.69	6.00	6.00	5.45	9.00	4.00	1 (Opa 2.7)/1 (Clr 2.9)	JP66	JP66P	4.88 x 4.88	1 (1.0)/1 (0.3)
CS863	CV863	8.50	6.50	4.49	8.00	6.00	3.25	11.00	4.00	1 (Opa 2.9)/1 (Clr 2.9)	JP86	JP86P	6.75 x 4.88	1 (1.0)/1 (0.4)
CS1085	CV1085	10.50	8.50	6.69	10.00	8.00	5.45	13.00	6.00	1 (Opa 5.0)/1 (Clr 5.0)	JP108	JP108P	8.75 x 6.88	1 (1.5)/1 (0.7)
CS12106	CV12106	12.50	10.50	7.69	12.00	10.00	6.45	15.00	8.00	1 (Opa 6.5)/1 (Clr 7.2)	JP1210	JP1210P	10.75 x 8.88	1 (2.0)/1 (1.2)
CS14126	CV14126	14.50	12.50	7.72	14.00	12.00	6.48	17.00	10.00	1 (Opa 8.0)/1 (Clr 8.8)	JP1412	JP1412P	12.75 x 10.88	1 (3.2)/1 (1.7)
CS16147	CV16147	16.50	14.50	8.46	16.00	14.00	7.22	19.00	12.00	1 (Opa 11.5)/1 (Clr 10.8)	JP1614	JP1614P	14.75 x 12.88	1 (4.7)/1 (2.3)

*Order back panels separately.

Enclosures shipped with mounting feet and panel mounting hardware



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services**

Tel: 888.862.3289







Circuit Safe® JIC Enclosures

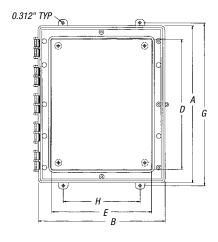
Meets NEMA 1, 3, 3S, 3X, 3SX, 4, 4X, 12, 13.

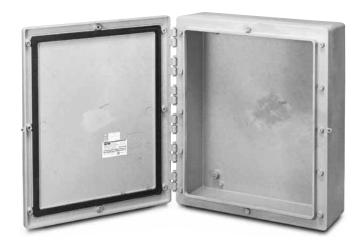


Medium Hinged Covers

Features:

- · Non-metallic mounting feet and all mounting hardware included
- White-painted 14-gauge steel or ¼" PVC back panel (order separately)
- 304 (18-8) stainless steel screws (10-32/11/8")
- · Completely non-metallic hinges
- · Brass screw inserts
- Temperature range: -40° to 185° F
- · Material: NORYL base and cover







Factory Assembled

				DIMENSIO	NS (IN.)					BACK	PANEL*		
		EXTERNAL			INTERNAL		MOUN	ITING		CAT	. NO.	PANEL	STD. WT. (LBS.)
CAT. NO.	Α	В	С	D	E	F	G	Н	STD. WT. (LBS.)	STEEL	PVC	SIZE (IN.)	STEEL/PVC
C2016A4	20.50	16.50	8.36	17.25	13.25	6.28	21.26	10.00	1 (15.1)	NP2016	NP2016P	17 x 13.25	1 (7.0)/1 (6.1)
C2016B4	20.50	16.50	10.36	17.25	13.25	8.28	21.26	10.00	1 (17.2)	NP2016	NP2016P	17 x 13.25	1 (7.0)/1 (6.1)
C2016C4	20.50	16.50	12.36	17.25	13.25	10.28	21.26	10.00	1 (19.7)	NP2016	NP2016P	17 x 13.25	1 (7.0)/1 (6.1)
C2420A4	24.50	20.50	8.36	21.25	17.25	6.28	25.26	14.00	1 (21.5)	NP2420	NP2420P	21 x 17	1 (10.4)/1 (4.7)
C2420B4	24.50	20.50	10.36	21.25	17.25	8.28	25.26	14.00	1 (24)	NP2420	NP2420P	21 x 17	1 (10.4)/1 (4.7)
C2420C4	24.50	20.50	12.36	21.25	17.25	10.28	25.26	14.00	1 (24.9)	NP2420	NP2420P	21 x 17	1 (10.4)/1 (4.7)
C3024A4	30.50	24.50	8.36	27.25	21.25	6.28	31.26	18.00	1 (28.4)	NP3024	NP3024P	27 x 21	1 (18.0)/1 (9.8)
C3024B4	30.50	24.50	10.36	27.25	21.25	8.28	31.26	18.00	1 (31.4)	NP3024	NP3024P	27 x 21	1 (18.0)/1 (9.8)
C3024C4	30.50	24.50	12.36	27.25	21.25	10.28	31.26	18.00	1 (33.8)	NP3024	NP3024P	27 x 21	1 (18.0)/1 (9.8)

*Order back panels separately.

*Enclosure only available with opaque hinged cover.

Enclosures shipped with mounting feet, hinge caps and screws.

For factory-installed pad-lockable latch (part no. CJTL), consult Customer Service for price and delivery.







Circuit Safe® JIC Enclosures

Meets NEMA 1, 3, 3S, 3X, 3SX, 4, 4X, 12, 13.





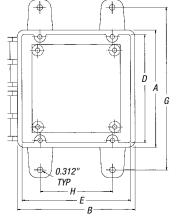
Hinged Window Cover

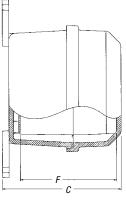
Features:

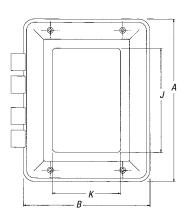
- Non-metallic mounting feet and all mounting hardware included
- 304 (18-8) stainless steel screws (10-32/1½")
- White-painted 14-gauge steel or ½" PVC back panel (order separately)
- Completely non-metallic hinges
- · Lid design provides greater usable internal volume
- · Brass screw inserts
- Material: polycarbonate molded base and cover

Note: Window material 1/8" thick, clear polycarbonate is permanently bonded to the cover.









Factory Assembled

		DIMENSIONS (IN.)													
	EXTERNAL			INTERNAL		MOUNTING		STD. WT. CAT. NO		. NO.	PANEL SIZE	STD. WT. (LBS.)STEEL/			
CAT. NO.	Α	В	С	D	E	F	G	Н	J	K	(LBS.)	STEEL	PVC	(IN.)	PVC
J665W	6.50	6.50	6.69	6.00	6.00	5.45	9.00	4.00	3.75	3.75	1 (3.1)	JP66	JP66P	4.88 x 4.88	1 (1.0)/1 (0.3)
J863W	8.50	6.50	4.49	8.00	6.00	3.25	11.00	4.00	3.75	3.75	1 (3.2)	JP86	JP86P	6.75 x 4.88	1 (1.0)/1 (0.78)
J1085W	10.50	8.50	6.69	10.00	8.00	5.45	13.00	6.00	7.75	5.75	1 (5.6)	JP108	JP108P	8.75 x 6.88	1 (1.5)/1 (0.7)
J12106W	12.50	10.50	7.69	12.00	10.00	6.45	15.00	8.00	9.75	7.75	1 (7.4)	JP1210	JP1210P	10.75 x 8.88	1 (2.0)/1 (1.2)

Enclosures shipped with mounting feet, hinge caps and screws.

*Order back panels separately.

For factory-installed pad-lockable quick-release latch (part no. CJTL), consult Customer Service for price and delivery.



Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 Tel: 888.862.3289







Circuit Safe® Pushbutton Enclosures

Circuit Safe® Pushbutton Enclosures

Circuit Safe® Non-Metallic Pushbutton Enclosures are molded from engineered thermoplastic material that is resistant to most corrosive agents. Whether predrilled 1-2-3 hole enclosures, blank cover enclosures or enclosures with multiple hole openings, Carlon's pushbutton enclosure series offers high-impact strength, chemical resistance, high dielectric strength and excellent durability for the correct application.

Features:

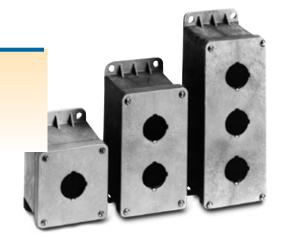
- Engineered thermoplastic base and cover
- 304 stainless steel screws
- Brass screw inserts
- · High-impact strength
- Temperature range: -40° to 185° F
- UL94-V2

Applications:

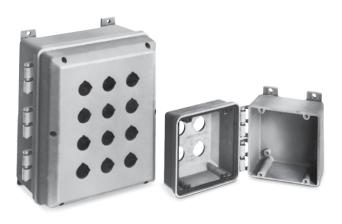
- Standard oil-tight pushbuttons, switches and pilot lights
- Conduit entries
- Junction boxes
- MRO and OEM applications

Standards:

- Standards vary by product
- Screw cover pushbutton enclosures with 1-2-3 hole openings are listed per UL 50 for industrial controls
- Narrow-profile blank-screw cover enclosures are listed per UL 50 for industrial controls and meet NEMA Type 1, 3, 3S, 3X, 3SX, 4, 4X, 12 and 13
- · Non-metallic hinged cover enclosures with multiple hole openings are UL Listed







800.816.7809

Fax: 901.252.1354

Carlon

Circuit Safe® Pushbutton Enclosures

UL° Listed per UL 50 for Industrial Controls.



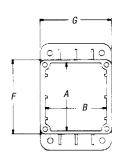


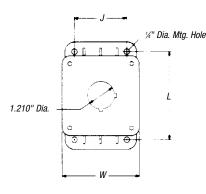
Screw Cover Enclosures with 1-2-3 Hole Openings

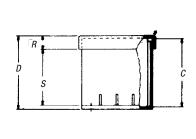
Wallmount pushbutton enclosures are molded from gray, engineered thermoplastic material that is resistant to most corrosive agents. Universal pushbutton holes are designed to accommodate all standard oil-tight pushbuttons, switches and pilot lights. A grounding plate is included on the cover. Auxiliary devices must be rated for appropriate NEMA applications.

Features:

- 30.5mm keyed pushbutton holes*
- Material: nylon base and cover
- Integrally molded mounting flange
- · Brass screw inserts
- 304 (18-8) stainless screws (8-32/%")
- Temperature range: -40° to 185°F
- UL94-V2







30.5mm Pushbutton Enclosures †

CAT. NO.	STYLE	INSIDE BOX SIZE A X B X C	MOUNTING L X J	OVERALL OUTSIDE INCLUDING MOUNTING BRACKET H X W X D	F	G	R	s	STD. CTN.	STD. WT. (LBS.)
CP100N	One Opening	3.13 x 2.81 x 3	4 x 2.38	4.88 x 3.50 x 3.38	3.38	3.25	.63	2.5	12	9
CP200N	Two Openings	5.38 x 2.81 x 3	6.25 x 2.38	7.13 x 3.50 x 3.38	5.63	3.25	.63	2.5	8	8
CP300N	Three Openings	7.38 x 2.81 x 3	8.50 x 2.38	9.38 x 3.50 x 3.38	7.88	3.25	.63	2.5	6	7.60

22mm Pushbutton Enclosures *†

				OVERALL OUTSIDE						STD.
CAT. NO.	STYLE	INSIDE BOX SIZE A X B X C	MOUNTING L X J	INCLUDING MOUNTING BRACKET H X W X D	F	G	R	s	STD. CTN.	WT. (LBS.)
PX0010	One Opening	3.13 x 2.81 x 3	4 x 2.38	4.88 x 3.50 x 3.38	3.38	3.25	.63	2.5	10	8.26
PX0007	Two Openings	5.38 x 2.81 x 3	6.25 x 2.38	7.13 x 3.50 x 3.38	5.63	3.25	.63	2.5	1	1.31
PX0011	Three Openings	7.38 x 2.81 x 3	8.50 x 2.38	9.38 x 3.50 x 3.38	7.88	3.25	.63	2.5	6	9.43
PX0008	Four Openings	7.38 x 2.81 x 3	8.50 x 2.38	9.38 x 3.50 x 3.38	7.88	3.25	.63	2.5	1	1.60

^{*} All Circuit Safe pushbutton enclosures are furnished with standard hole dimensions: 11/22" diameter with keyways at 12 o'clock and 3 o'clock

[†] Dimensions are in inches unless marked otherwise. Operators not included.



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services**

Tel: 888.862.3289







Circuit Safe® Pushbutton Enclosures

UL° Listed per UL 50 for Industrial Controls. Meets NEMA 1, 3, 3S, 3X, 3SX, 4, 4X, 12, 13.





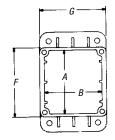
Narrow-Profile Blank Screw Cover Enclosures for Small Instrumentation and Control Applications

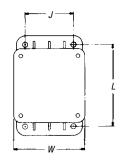
Blank cover enclosures can be easily drilled with a standard hole saw for conduit entries and pushbuttons. Wallmount enclosures are molded from gray, engineered thermoplastic material and are resistant to most corrosive agents.

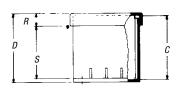
Features:

- Brass screw inserts
- · Material: nylon base and cover
- · Integrally molded mounting flange
- 304 (18-8) stainless screws (10-32/3/8")
- Temperature range: -40° to 185° F









Blank Screw Cover Enclosures *1

CAT. NO.	STYLE	INSIDE BOX SIZE A X B X C	MOUNTING L X J	OVERALL OUTSIDE INCLUDING MOUNTING BRACKET H X W X D	F	G	R	s	STD. CTN.	STD. WT. (LBS.)
CP100NB	Blank Cover	3.13 x 2.81 x 3	4 x 2.38	4.88 x 3.50 x 3.38	3.38	3.25	.63	2.5	12	9.60
CP200NB	Blank Cover	5.38 x 2.81 x 3	6.25 x 2.38	7.13 x 3.50 x 3.38	5.63	3.25	.63	2.5	8	8.8
CP300NB	Blank Cover	7.38 x 2.81 x 3	8.50 x 2.38	9.38 x 3.50 x 3.38	7.88	3.25	.63	2.5	6	8.20

^{*} All Circuit Safe pushbutton enclosures are furnished with standard hole dimensions: 11/2" diameter with keyways at 12 o'clock and 3 o'clock

[†] Dimensions are in inches unless marked otherwise.







Carlon

Circuit Safe® Pushbutton Enclosures

Hinged Cover Enclosures with Multiple Hole Openings

Made from engineered thermoplastic material, these enclosures are ideal for applications that require high-impact strength, chemical resistance, high dielectric strength and excellent weathering capabilities, including indoor/outdoor industrial, MRO and OEM applications. Non-metallic hinges are an integral part of the mold. Removable cover enables easy field adjustment. Auxiliary devices must be rated for appropriate NEMA applications.

Features:

- Non-metallic mounting feet and all mounting hardware included
- White-painted 14-gauge steel or 1½" PVC back panel (order separately)
- Material: engineered thermoplastic base and cover
- 304 stainless steel screws
- Brass screw inserts
- · Lid design provides greater usable volume
- Completely non-metallic hinges
- Temperature range: -40° to 185° F



Screw Cover Pushbutton Enclosures with Multiple 30.5mm Openings*

CAT. NO.	OPENINGS	INSIDE BOX SIZE (IN.)	WEIGHT (LBS.)	STD. CTN.	PANEL CAT. NO.	SIZE (IN.) Steel/PVC
J665P	4	6 x 6 x 5.88	2.42	1	JP66 / JP66P	4.88 x 4.88
J863P	6	8 x 6 x 3.63	1.86	1	JP86 / JP86P	6.75 x 4.88
J1085P	9	10 x 8 x 5.88	3.59	1	JP108 / JP108P	8.75 x 6.88
J12106P	12	12 x 10 x 6.88	4.29	1	JP1210 / JP1210P	10.75 x 8.88
J14126P	20	14 x 12 x 6.88	7.19	1	JP1412 / JP1412P	12.75 x 10.88
J16147P	25	16 x 14 x 7.63	11.20	1	JP1614 / JP1614P	14.75 x 12.88

For enclosures larger than 25 position, please call Customer Service.

* All Circuit Safe pushbutton enclosures are furnished with standard hole dimensions:

17/32" diameter with keyways at 12 o'clock and 3 o'clock.

Special openings or positionings available on request.





1-800-453-1692







Circuit Safe® Enclosure Accessories

Circuit Safe® NEMA Accessories

Gasketed Pushbutton Hole Plug



CAT. NO.	SIZE	STD. CTN.	STD. WT. (LBS.)
CP900	Standard PB Hole	100	2.0

Mounting Rail Kits



	SIZE	STD.	STD.
CAT. NO.	(IN.)	CTN.	WT. (LBS.)
NMK4V	4	25	5
NMK6V	6	24	7.7
NMK8V	8	24	10.25
NMK10V	10	20	13.26
NMK12V	12	20	11.4
NMK14V	14	25	17.76

^{*}Mounting Rails include two rails and four stainless steel screws.

Size mounting flange to side of the enclosure to which the flange will be attached.

Panel Adjuster Kits





180° Swing-Out Panel Kit (NBPSWG)



Swing-Out Panel Adjuster Kit (NBPSWG2)

CAT. NO.	PRODUCT	DESCRIPTION	STD. CTN.	STD. WT. (LBS.)
NBPADJ2	Panel Adjuster Kit	(4) Panel Adjusters (4) #10-32 Screws to Mount Panel	10 Kits	2.07
NBPSWG	180° Swing-Out Panel Kit	(4) Panel Adjusters(2) Hinges(2) #10-32 Screws to Mount Panel	10 Kits	2.68
NBPSWG2	Swing-Out Panel Adjuster Kit	(2) Hinged Adjusters (2) Panel Adjusters (4) #10-32 Screws	10 Kits	1.80



800.816.7809 Fax: 901.252.1354





Thomas@Betts

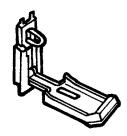
Mounting Rails can be mounted on long or short side of enclosure.

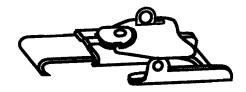
Carlon

Circuit Safe® Enclosure Accessories

Circuit Safe® NEMA Accessories

• For NEMA hinged enclosures.





Latch Kits

CAT. NO.	PRODUCT	DESCRIPTION	STD. CTN.	STD. WT. (LBS.)
NPL1L	Non-Metallic Quick-Release Latch Kit	Quick-Release Latch Kit for Use with Hidden Hinge Enclosure for NH & NI Series	25	2.00
NPL1S	Non-Metallic Quick-Release Latch Kit	Quick-Release Latch Kit for Use with External Hinge Enclosure for NJ & NC Series	25	2.00
SSLL	304 Stainless Steel Quick-Release Latch Kit	Quick-Release Latch Kit for Use with Hidden Hinge Enclosure for NH & NI Series	25	4.27
SSLS	304 Stainless Steel Quick-Release Latch Kit	Quick-Release Latch Kit for Use with External Hinge Enclosure for NJ & NC Series	25	3.41





1-800-453-1692

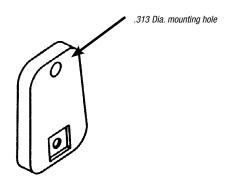


Circuit Safe® Enclosure Accessories

Circuit Safe® JIC Accessories

For Circuit Safe® Enclosures — Type CC, CJ, CS, CV, J

Mounting Feet



CAT. NO.	STD. CTN.	STD. WT. (LBS.)
CJB159*	As required	.04

*CJB159 non-metallic mounting feet provide 1/4" standoff and may be used to mount enclosures in horizontal or vertical mode. They are shipped with all Circuit Safe® JIC enclosures. No screws are provided when mounting feet are ordered separately.

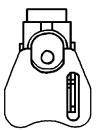
JIC Installation Kit

CAT. NO.	STD. CTN.	STD. WT. (LBS.)
CH208*	1 Kit	.25

*Installation kit is included as standard equipment with all JIC enclosures. Information listed here for purposes of additional purchase only. Kit includes four mounting feet, eight hinge caps and eight screws.

JIC Latch Kit





CAT. NO.	STD. CTN.	STD. WT. (LBS.)
CJTL*	As required	.04

Stainless steel. Kit includes latch and keeper.



800.816.7809

Fax: 901.252.1354

1-800-453-1692



^{*} Factory installed. Consult Customer Service for price and delivery. Not UL Listed.

Carlon

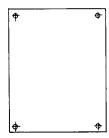
Circuit Safe® Enclosure Accessories

Circuit Safe® JIC Accessories

Steel back panels are white-painted 14-gauge steel.

Steel Back Panels*

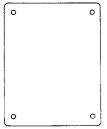
CAT. NO.	THICKNESS	SIZE (IN.)	STD. CTN.	STD. Wt. (LBS.)
JP64	14 gauge	4.88 x 2.88	1	.6
JP66	14 gauge	4.88 x 4.88	1	1.0
JP86	14 gauge	6.75 x 4.88	1	1.0
JP88	14 gauge	6.75 x 6.88	1	1.2
JP108	14 gauge	8.75 x 6.88	1	1.5
JP1010	14 gauge	8.75 x 8.88	1	2.3
JP1210	14 gauge	10.75 x 8.88	1	2.7
JP1212	14 gauge	10.75 x 10.88	1	3.5
JP1412	14 gauge	12.75 x 10.88	1	3.8
JP1614	14 gauge	14.75 x 12.88	1	4.7



PVC back panels are made from $\frac{1}{2}$ " PVC and meet UL94V-0.

PVC Back Panels*

	SIZE		STD. WT.
CAT. NO.	(IN.)	STD. CTN.	(LBS.)
JP64P	4 % x 2 %	1	.3
JP66P	4 % x 4 %	1	.3
JP86P	6 ¾ x 4 ¾	1	.4
JP88P	6 ¾ x 6 ¾	1	.5
JP108P	8 ¾ x 6 ¾	1	.7
JP1010P	8 ¾ x 8 ¾	1	.9
JP1210P	10 ¾ x 8 ¾	1	1.2
JP1212P	10 ¾ x 10 ¾	1	1.5
JP1412P	12 ¾ x 10 ¾	1	1.7
JP1614P	14 ¾ x 12 ¾	1	2.3



Medium NEMA Back Panels*

CAT. NO.	SIZE (IN.)	STD. CTN.	STD. WT. (LBS.)
NP2016 / NP2016P	17 x 13	1	7.0/6.125
NP2420 / NP2420P	21 x 17	1	10.4/4.71
NP3024 / NP3024P	27 x 21	1	18.0/9.781

*Circuit Safe NEMA enclosures are not shipped with back panels, which must be ordered separately.

All accessories can be factory installed. Consult Customer Service for price and delivery.







United States Tel: 901.252.8000

Fax: 901.252.1354

Technical Services Tel: 888.862.3289





www.tnb.com





Circuit Safe® Enclosure Accessories

Circuit Safe® NEMA and JIC Accessories

For 3R Rating and condensation buildup.

Draining Device*

CAT. NO.	STD. CTN.
HPVEA9	30





NEMA 1 Rated only.

Air Vents*

CAT. NO.	STYLE	STD. CTN.
HPVM25	For Fitting Outside of All Enclosures	30
HPVM35	For Fitting Inside of All Enclosures	30

^{*}Factory installation available.

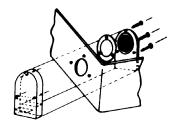


Enables any size enclosure to breathe, yet remain watertight.

Enclosure Ventilator*

CAT. NO.	STD. CTN.
HVM27	15

*Factory installation available.







1-800-453-1692 www.aboveboardelectronics.com

Carlon

Circuit Safe® Enclosure Accessories

Window Kits

Carlon® hinged window kits are used to create a NEMA 4X environment on electronic control panels. Polycarbonate construction and double gaskets ensure environmental integrity.

Features:

- · High-impact strength
- High dielectric strength
- · Suitable for indoor and outdoor use
- · Fully gasketed

Standards:

 UL Listed and meets NEMA Type 4X with the exception of NI1614W; all sizes are NEMA Type 1 and 12 rated

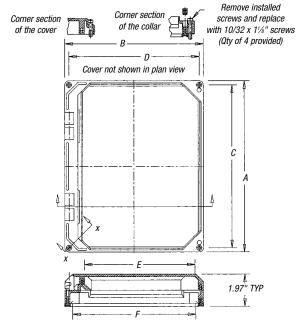
Applications:

- Instrument case
- Junction and terminal boxes
- Control and switching enclosures
- Meter and transformer cabinets
- Small device enclosures
- Surface-mounted instruments

CAT. NO.*	SIZE (IN.)	STD. CTN.	STD. WT. (LBS.)
NI64W	6 x 4	1	.8
NI66W	6 x 6	1	.9
NI86W	8 x 6	1	1.17
NI88W	8 x 8	1	1.4
NI108W	10 x 8	1	1.5
NI1010W	10 x 10	1	1.82
NI1210W	12 x 10	1	2.12
NI1212W	12 x 12	1	2.65
NI1412W	14 x 12	1	2.67
NI1614W	16 x 14	1	3.10

All window kits can be factory installed to Carlon® enclosures. Consult factory for price and delivery.





		DIMENSIONS (IN.)							
SIZE	Α	В	С	D	E	F			
NI64W	6.42	4.41	5.92	3.94	2.72	3.80			
	(163.1)	(112.0)	(150.4)	(100.0)	(69.1)	(96.5)			
NI66W	6.42	6.42	5.94	5.94	4.72	5.80			
	(163.1)	(163.1)	(150.9)	(150.9)	(119.9)	(147.3)			
NI86W	8.44	6.42	7.92	5.94	4.72	5.80			
	(214.4)	(163.1)	(201.2)	(150.9)	(119.9)	(147.3)			
NI88W	8.44	8.43	7.95	7.95	6.72	7.80			
	(214.4)	(214.1)	(201.9)	(201.9)	(170.7)	(198.1)			
NI108W	10.46	8.45	9.95	7.96	6.72	7.80			
	(265.7)	(214.6)	(253.5)	(202.2)	(170.7)	(198.1)			
NI1010W	10.45	10.45	9.97	9.97	8.72	9.80			
	(265.4)	(265.4)	(253.2)	(253.2)	(221.5)	(248.9)			
NI1210W	12.46	10.45	11.99	9.97	8.72	9.80			
	(316.5)	(265.4)	(304.5)	(253.2)	(221.5)	(248.9)			
NI1212W	12.50	12.50	12.00	12.00	10.72	11.80			
	(317.5)	(317.5)	(304.8)	(304.8)	(272.3)	(299.7)			
NI1412W	14.50	12.50	14.01	12.00	10.72	11.80			
	(368.3)	(317.5)	(355.9)	(304.8)	(272.3)	(299.7)			
NI1614W	16.52	14.48	16.03	14.02	12.72	13.80			
	(419.6)	(367.8)	(407.2)	(356.1)	(323.1)	(350.5)			

Note: Chart dimensions read in (mm)



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354



Tel: 888.862.3289







^{*} Non-stock factory order only — consult Customer Service. NI1614W is not NEMA Type 4X Rated

Himeline® Enclosures

Himeline® Enclosures HS, HP, HLA/HLS Series

Carlon® Himeline® enclosures are the ideal alternative to expensive stainless steel enclosures. They have excellent corrosion-resistant properties and are impervious to sunlight, dirt and moisture. Available in four series (HS, HP and HLA/HLS), with sizes ranging from 11 x 7 x 7 through 50 x 40 x 17, these enclosures offer choices that include double doors, clear or opaque covers, hinged and screw versions, single- or three-point closure mechanisms, 4X windows, DIN rail mounting and an adjustable depth door-in-door option that enables you to customize your enclosures by separating power from communications.



Features:

- · High-impact strength
- · High dielectric strength
- · Suitable for indoor and outdoor use
- · Fully gasketed
- Lightweight

Applications:

- Instrument case
- Junction and terminal boxes
- · Control and switching enclosures
- · Meter and transformer cabinets
- Small device enclosures

Standards:

- Meets NEMA and IP standards as indicated in appropriate section
- UL[®] Listed as indicated

800.816.7809 Fax: 901.252.1354



Himeline[®] Enclosures

HS Series Screw-On Fastened and Hinged Cover Enclosures

- Meets NEMA 1, 3, 3S, 4, 4X, 12, 13
- Meets IP 65

Himeline® HS Series enclosures are designed for use as junction boxes, terminal wiring boxes, instrument and control housings and small device enclosure applications. Molded under high pressure, Himeline® HS Series enclosures provide high-impact strength, chemical resistance, high dielectric strength and excellent weathering capabilities.



Features:

- Standard slotted locking screw
- High-impact strength
- Chemical resistance
- · High dielectric strength
- Excellent weathering capabilities
- Sealing gasket on all models
- Sunlight resistant

Applications:

- Junction boxes
- Terminal wiring boxes
- · Instrument and control housings
- Small device enclosure applications
- Indoor or outdoor use

Material:

- Opaque/Clear Lid Polycarbonate
- Base Fiberglass Reinforced Polyester

Standards:

- Meets NEMA Type 1, 3, 3S, 4, 4X, 12, 13 ratings
- UL Listed per UL 50, enclosures for electrical equipment
- Meets IP 65
- UL[®] Listed (E108856)





Himeline® Enclosures

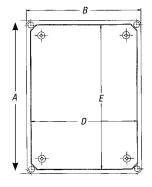
HS Series Screw-On Fastened and Hinged Cover Enclosures

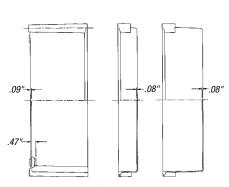
Features:

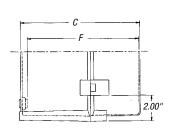
- Molded under high pressure
- · High-impact strength
- · Chemical resistance
- · High dielectric strength
- Excellent weathering capabilities
- · Clear cover available











OPAQUE	CLEAR	OPAQUE	CLEAR		DIMENSIO		ONS (II	V.)		OPAQUE WT.	CLEAR WT.						
SCREW-ON	SCREW-ON	HINGED	HINGED	E)	KTERNA	\L	- II	NTERNA	\L	(LBS.) EACH	(LBS.) EACH	_	BACK		THICK-	STD.	
COVER CAT. NO.	COVER CAT. NO.	COVER CAT. NO.	COVER CAT. NO.	Α	В	С		E	F	SCREW/ HINGED	SCREW/ HINGED	STD. CTN.	PANEL Cat. No.	DIMENSIONS (IN.) H X W	NESS (IN.)		STD. CTN.
HS7A7	HS7A7C	HH7A7	HH7A7C	10.63	7.09	7.09	6.26	9.80	6.54	10.7/7	10.9/6.2	4	HS7ABP	5.51 x 9.05	.08	1.1	1
HS11A7	HS11A7C	HH11A7	HH11A7C	10.63	10.63	7.09	9.80	9.80	6.54	15.2/8.5	14/8	4	HS11ABP	9.05 x 9.05	.08	1.7	1
HS11B7	HS11B7C	HH11B7	HH11B7C	14.17	10.63	7.09	9.80	13.35	6.54	17/4	18/4	4	HS11BBP	9.05 x 12.60	.08	2.4	1
HS11C7	HS11C7C	HH11C7	HH11C7C	21.26	10.63	7.09	9.80	20.43	6.54	13/13	12.5/13	2	HS11CBP	9.05 x 19.68	.08	3.9	1
HS15C7	HS15C7C	HH15C7	HH15C7C	21.26	14.17	7.09	13.35	20.43	6.54	17.7/11	18/11	2	HS15CBP	12.60 x 19.68	.08	6.6	1
HS21C7	HS21C7C	HH21C7	HH21C7C	21.26	21.26	7.09	20.43	20.43	6.54	12.5/13	12/13	1	HS21CBP	19.68 x 19.68	.08	8.8	1
HS11A9	HS11A9C	HH11A9	HH11A9C	10.63	10.63	9.06	9.80	9.80	8.47	15/4	16.6/5	4	HS11ABP	9.05 x 9.05	.08	1.7	1
HS11B9	HS11B9C	HH11B9	HH11B9C	14.17	10.63	9.06	9.80	13.35	8.47	20/6	19/6	4	HS11BBP	9.05 x 12.60	.08	2.5	1
HS11C9	HS11C9C	HH11C9	HH11C9C	21.26	10.63	9.06	9.80	20.43	8.47	14/9	14/9	2	HS11CBP	9.05 x 19.68	.08	3.9	1
HS15C9	HS15C9C	HH15C9	HH15C9C	21.26	14.17	9.06	13.35	20.43	8.47	18.5/11	19/11	2	HS15CBP	12.60 x 19.68	.08	6.6	1
HS21C9	HS21C9C	HH21C9	HH21C9C	21.26	21.26	9.06	20.43	20.43	8.47	13/14	14/14	1	HS21CBP	19.68 x 19.68	.08	8.8	1
HS15D9	HS15D9C	HH15D9	HH15D9C	28.35	14.17	9.06	13.35	27.52	8.47	13/13	13/13	1	HS15DBP	12.60 x 26.77	.10	9.5	1
HS21D9	HS21D9C	HH21D9	HH21D9C	28.35	21.26	9.06	20.43	27.52	8.47	18/18	17/18	1	HS21DBP	19.68 x 26.77	.10	15.5	1

Back panels and mounting feet must be ordered separately.

Consult Customer Service for availability and delivery.



United States Tel: 901.252.8000

800.816.7809 Fax: 901.252.1354 **Technical Services**









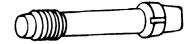
Himeline® Enclosures

HS Series Accessories

For Himeline® HS Enclosures.

Thumb Screws

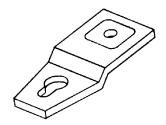
CAT. NO.	STD. CTN.	STD. WT. (LBS.)
HSTS4	25	0.1
HSTS6	25	0.15



For Himeline® HS Enclosures.

Mounting Feet

CAT. NO.	DESCRIPTION	STD. CTN.	STD. Wt. (LBS.)
HSMFZ	Zinc Dichromated Steel	25	0.2
HSMFSS	304 Stainless Steel	25	0.2

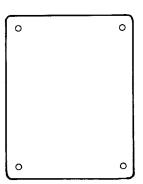


For Himeline® HS Enclosures, metal back panels are white-painted 14-gauge steel.

Back Panels*

CAT. NO.	SIZE (IN.)	STD. CTN.	STD. WT. (LBS.)
HS7ABP	5.51 x 9.05	1	1.2
HS11ABP	9.05 x 9.05	1	2.0
HS11BBP	9.05 x 12.06	1	2.7
HS11CBP	9.05 x 19.68	1	4.3
HS15CBP	12.60 x 19.68	1	7.1
HS21CBP	19.68 x 19.68	1	9.6
HS15DBP	12.60 x 26.77	1	10.2
HS21DBP	19.68 x 26.77	1	16.6

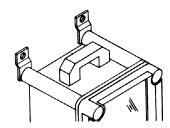
*Himeline HS enclosures are not shipped with back panels. Order separately. PVC back panels available upon request. Consult Customer Service.



Converts enclosures to portable units for meters and portable power.

Non-Metallic Carrying Handle

CAT. NO.	STD. CTN.	STD. WT. (LBS.)
HSCH	10	0.2













Himeline® Enclosures

HS Series Accessories

For 3R Rating and condensation buildup.

Draining Device*

CAT. NO.	STD. CTN.
HPVEA9	30

^{*}Factory installation available.



NEMA 1 Rated only.

Air Vents*

CAT. NO.	STYLE	STD. CTN.
HPVM25	For Fitting Outside of All Enclosures	25
HPVM35	For Fitting Inside of All Enclosures	30

^{*}Factory installation available.

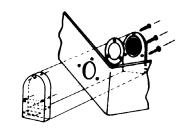


Enables any size enclosure to breathe, yet remain watertight.

Enclosure Ventilator*

CAT. NO.	STD. CTN.
HVM27	15

^{*}Factory installation available.











Fax: 901.252.1354

Himeline® Enclosures

HP Series Enclosures with Hinged Quick-Release Cover

- Meets NEMA 1, 3, 3S, 4, 4X, 12, 13
- Meets IP 66

Himeline® HP Series enclosures for medium-sized devices and equipment provide superior performance as junction and terminal wiring boxes and instrument and control housing applications.

For indoor/outdoor industrial, MRO and OEM applications. HP Series enclosures are resistant to corrosion, sunlight, chemicals, dirt and moisture. Temperature range from -58° F to 320° F.



Features:

- Projections for affixing cover mounted panel
- Door-locking mechanism convertible to key lock
- M8x18 studs for back panel mounting (included)
- Hidden hinges open 185° for easy access
- Multi-positional DIN rail fixing components
- Removable stainless steel hinge pins
- Single-piece construction
- · Opaque or tempered glass window option
- Steel, non-metallic and slotted back panels available
- External and internal venting available
- Hinged, variable-height inner panel option
- Quick-locking ¼-turn entry
- Underside grid pattern on inner door panel
- Self-positioning panel depth adjusters
- · Pole mounting kit
- Pedestal mounting capability
- Sunlight resistant

Applications:

- Junction boxes
- Terminal wiring boxes
- Instrument and control housing
- Indoor or outdoor use

Standards:

- NEMA Type 1, 3, 3S, 4, 4X, 12, 13
- UL® Listed per UL 50, enclosures for electrical equipment
- Meets IP 66

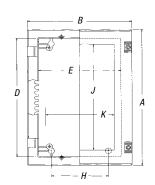
Material:

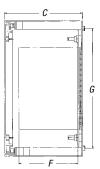
Lids/Bases — Fiberglass-reinforced polyester



Himeline® Enclosures

HP Series Enclosures with Hinged Quick-Release Cover







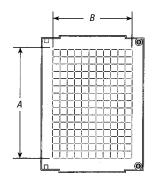
ENCLOSURE DIMENSIONS (IN.)															
WITH OPAQUE COVER	STD. WT.	ENCLOSURE WITH CLEAR	STD. WT.	WINDOW DIMENSIONS	E	XTERNA	L	ll ll	NTERNA	L	MOU	ITING	WIN	DOW	STD.
CAT. NO.	(LBS.)	WINDOW*	(LBS.)	(H X W) (IN.)	Α	В	C	D	E	F	G	Н	J	K	CTN.
HP1612B	11.04	HC1612B	12.5	11 x 7.87	16.93	12.99	7.87	14.96	10.24	6.61	14.76	5.91	11.02	7.87	1
HP2016B	16.80	HC2016B	17.2	14.96 x 11.81	20.87	16.93	7.87	18.90	14.17	6.61	18.70	9.84	14.96	11.81	1
HP2416C	21.13	HC2416C	24.12	18.89 x 11.81	25.47	17.17	9.84	22.83	14.17	8.35	22.64	9.84	18.90	11.81	1
HP3020D	32.28	HC3020**	36.02	22.83 x 15.74	29.41	21.10	11.81	26.77	18.11	10.28	26.57	13.78	22.83	15.75	1
HP3325D	39.00	HC3325D**	43.12	26.77 x 19.68	33.35	25.04	11.81	30.71	22.05	10.28	30.51	17.72	26.77	19.69	1

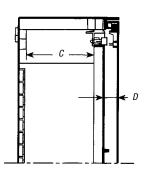
^{*} HC Enclosures are IP 65 Rated. Clear window is glass.

Consult Customer Service for availability and delivery.

Hinged Internal Door

- Internal fiberglass-reinforced polyester door assembly
- Grid pattern on the inside for quicker positioning of equipment
- Quick-locking 1/4-turn entry





	Α		В			C		D		STD.
CAT. NO.	IN.	(MM)	IN.	(MM)	IN.	(MM)	IN.	(MM)	STD. CTN.	
PID1612	12.40	(315)	18.07	(205)	5.98	(152)	1.02	(26)	1	2.05
PID2016B	16.34	(415)	12.00	(305)	5.98	(152)	1.02	(26)	1	3.15
PID2416C	20.28	(515)	12.00	(305)	7.64	(194)	1.26	(32)	1	4.50
PID3020D	24.21	(615)	15.94	(405)	9.61	(244)	1.26	(32)	1	6.50
PID3325D	28.15	(715)	19.88	(505)	9.61	(244)	1.26	(32)	1	8.45



800.816.7809 Fax: 901.252.1354





Thomas@Betts

 $^{^{\}star\star}$ This series of enclosures comes standard with body, lid and mounting rail kit.

Carlon®

Himeline® Enclosures

A complete range of plates — directly fix to the enclosure supports or to the adjustable depth supports.

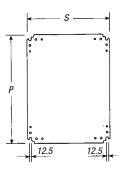
HP Series Back Panels

Steel back panels are white-painted 14-gauge steel.

Steel Back Panels

	TO FIT -	THICKNESS		WEI	WEIGHT		s
CAT. NO.	ENCLOSURES	IN.	(MM)	LBS.	(KG)	. P (IN.)	(IN.)
PMM1612	HP1612B	.079	(2)	3.10	(1.6)	14.37	9.84
PMM2016	HP2016B	.079	(2)	6.15	(2.5)	18.30	13.78
PMM2416	HP2416C	.079	(2)	8.0	(3.1)	22.24	13.78
PMM3020	HP3020D	.079	(2)	12.04	(4.6)	26.18	17.72
PMM3325	HP3325D	.118	(3)	20.0	(9.9)	30.11	21.65

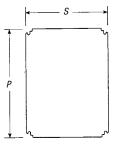
Refer to the Enclosure Accessories section for back panel accessories.



PVC back panels are made from ¼" PVC and meet UL94V-0.

PVC Insulating Back Panels

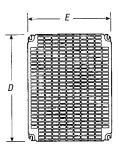
TO FIT		WEI	GHT	F)	9	3
CAT. NO.	ENCLOSURES	LBS.	(KG)	IN.	(MM)	IN.	(MM)
PMB1612	HP1612B	1.10	(0.5)	14.37	(365)	9.84	(250)
PMB2016	HP2016B	2.65	(1.2)	18.30	(465)	13.78	(350)
PMB2416	HP2416C	3.09	(1.4)	22.24	(565)	13.78	(350)
PMB3020	HP3020D	4.63	(2.1)	26.18	(665)	17.72	(450)
PMB3325	HP3325D	6.62	(3.0)	30.11	(765)	21.65	(550)



Zinc, dichromated, coated-steel plates perforated for addition of electrical circuitry.

PVC Insulating Back Panels

	TO FIT	WEI	GHT)		i
CAT. NO.	ENCLOSURES	LBS.	(KG)	IN.	(MM)	IN.	(MM)
PMR1612	HP1612B	1.54	(0.7)	13.74	(349)	9.8	(251)
PMR2016	HP2016B	2.87	(1.3)	17.72	(450)	13.82	(351)
PMR2416	HP2416C	3.53	(1.6)	21.85	(555)	13.82	(351)
PMR3020	HP3020D	5.07	(2.3)	25.39	(645)	17.76	(451)
PMR3325	HP3325D	7.06	(3.2)	29.53	(750)	21.69	(551)





United States
Tel: 901.252.8000
800.816.7809

Fax: 901.252.1354

Technical Services
Tel: 888.862.3289







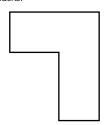


Himeline® **Enclosures**

HP Series Accessories

Blanking Grommet

To close off openings on enclosure backs.



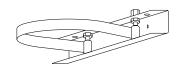
CAT. NO.	FITS Enclosure Sizes	DESCRIPTION	STD. CTN.	STD. WT. (LBS.)
HPBNGB	16 x 12 and 20 x 16	Blanking Grommet	10	1.00
HPBNGC	24 x 16, 30 x 20 and 33 x 25	Blanking Grommet	20	1.00

35mm Symmetrical DIN Rail



CAT. NO.	TO FIT Enclosures	WIDTH (IN.)	STD. CTN.
HPC0300	HP1612B	11.02	25
HPC0400	HP2016B, HP2416C	14.96	2
HPC0500	HP3020D	18.90	50

Pole Mounting Set



CAT. NO.	TO FIT Enclosures	STD. CTN.
HPPF300	HP1612B	1
HPPF400	HP2016B, HP2416C	1
HPPF500	HP3020D	1
HPPF600	HP3325D	1

Wall Mounting Set



CAT. NO.	STD. CTN.	STD. WT. (LBS.)
HPWMF	10	.1
Includes brass inserts and installation tools		

Rail Mounting Insert



CAT. NO.	FEATURES	STD. CTN.
HPRFK	Fits All Enclosures	10









800.816.7809 Fax: 901.252.1354

Carlon

Himeline® Enclosures

HP Series Accessories

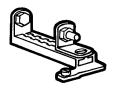
Fixing Accessories for Slotted Plates



FIXING NUT			FIXIN	G BOLT WITH	WASHER
CAT. NO.	TYPE OF THREAD	STD. CTN.	CAT. NO.	LENGTH (IN.)	STD. CTN.
HPFA4	M4	8	HPFB104	.39	1000
HPFA4	M4	8	HPFB164	.63	1000
HPFA5	M5	8	HPFB125	.47	1000
HPFA5	M5	8	HPFB185	.71	1000
HPFA6	M6	8	HPFB126	.47	1000
HPFA6	M6	8	HPFB186	.71	1000

Back Panel Depth Adjustable Supports

Supports designed to fit 7.87" (200mm), 9.84" (250mm), 11.81" (300mm) and 13.78" (350mm) deep enclosures. Self-positioning slots enable adjustment every .49" (12.5mm). Made of zinc dichromated coated steel.



CAT. NO.	TO FIT ENCLOSURES	A IN./MM	B IN./MM	STD. CTN.
HPLM200	HP1612B & HP2016B	5.98/152	3.90/99	8
HPLM250	HP2416C	8.07/205	4.13/105	15
HPLM300	HP3020D & HP3325D	10.04/255	8.07/205	10

Pedestal Mount



	TO FIT	STD.
CAT. NO.	ENCLOSURES	CTN.
HPSFS1	HP2016B	1
	HP2416C	

For 3R Rating and condensation buildup. **Draining Device***



CAT. NO.	STD. CTN.
HPVEA9	30
*Factory installation available.	





1-800-453-1692



Himeline® Enclosures

HP Series Accessories

NEMA 1 Rated only.

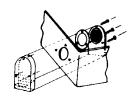
Air Vents*



CAT. NO.	STYLE	STD. CTN.
HPVM25	For Fitting Outside of All Enclosures	30
HPVM35	For Fitting Inside of All Enclosures	30
*Factory installation	ü	00

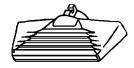
Enables any size enclosure to breathe, yet remain watertight.

Enclosure Ventilator*



CAT. NO.	STD. CTN.
HVM27	15
*Factory installation available.	

Replacement Standard Handle



CAT. NO.	STD. CTN.	STD. Wt. (LBS.)
HPRSH	1	.05

For Himeline HP Enclosures HP3020D and HP3325D.

Coupling Frame

CAT. NO.	STD. CTN.
HPBU	1

For Himeline® HP Enclosures.

Locks

Replacement Door Lock

CAT. NO.	STD. CTN.
HPRLA	15

For replacement handle, order HPRSH.



Padlocking Service

CAT. NO.	STD. CTN.
HPPLH	20



Cylinder Key Lock (Keyed Alike)

CAT. NO.	STD. CTN.
HPTPLM	15
For replacement key, order HPRKO.	







800.816.7809 Fax: 901.252.1354

Technical Services Tel: 888.862.3289



Carlon®

Himeline® Enclosures

HLA/HLS Series Enclosures

Carlon® Himeline® HLA/HLS Series Enclosures are large fiber-reinforced polyester cabinets ranging in sizes 20 x 20 x 17 to 50 x 40 x 17 and 20 x 20 x 12 to 50 x 40 x 12, respectively. They have operating temperatures of -50° to 150° C and can accommodate large devices and equipment for a wide range of applications, including junction and terminal wiring boxes, instruments and control housings. They are ideal for indoor/outdoor industrial, MRO and OEM applications, and offer superior strength and high resistance to corrosion, moisture, dust, oil and UV light, enabling them to withstand the harshest of environments.

The HLA/HLS Series Enclosures are fitted with a watertight gasket and are available in one- and two-door configurations. These cabinets have a closed top and bottom and the two-door version includes a central upright to maintain rigidity.

To maintain the watertight seal, the locking mechanism is positioned outside the gasketed area. A wide variety of accessories are available such as steel and non-metallic back panels, self-positioning panel depth adjusters and ventilator kits.

Carlon® Enclosures...the ideal alternative to expensive stainless steel enclosures.



Features:

- Fiber-reinforced polyester
- Temperature range of -58° to 302° F (-50° to 150° C)
- Indoor/outdoor applications
- Superior strength
- · High resistance to harsh environments
- · Watertight gasket seal
- One- and two-door configurations
- Locking mechanism and hinge are outside gasketed area
- · Floor or wall mounted

Applications:

- Contain large devices and equipment
- Junction and terminal wiring boxes
- Instrument and control housings

Standards:

- IP 65 Rating (single-door versions only)
- 4/4X Rated (single-door versions only)
- UL[®] Listed

800.816.7809 Fax: 901.252.1354





Himeline® Enclosures

HLA/HLS Series Single- and Double-Hinged Cover Enclosures with Latches*



One-Door NEMA Types 1, 2, 3, 3R, 4, 4X, 5, 12, 13

HLA One Door (17" Deep)

	DII	VIENSIONS (I	N.)		STD. WT.
CAT. NO.	Н	w	D	STD. CTN.	(LBS.)
HLA2020	20	20	17	1	38.3
HLA2030	20	30	17	1	53.9
HLA3020	30	20	17	1	53.9
HLA3030	30	30	17	1	60.7
HLA4020	40	20	17	1	63.1
HLA4030	40	30	17	1	81.0
HLA5020	50	20	17	1	78.7
HLA5030	50	30	17	1	96.7

^{*} Consult Customer Service for availability and delivery.

HLS One Door (12" Deep)

	DII	MENSIONS (I	N.)		STD. WT.
CAT. NO.	Н	W	D	STD. CTN.	(LBS.)
HLS2020	20	20	12	1	29.8
HLS2030	20	30	12	1	40.59
HLS3020	30	20	12	1	49.5
HLS3030	30	30	12	1	55.1
HLS4020	40	20	12	1	56.81
HLS4030	40	30	12	1	61.7
HLS5020	50	20	12	1	67.56
HLS5030	50	30	12	1	76.83

^{*} Consult Customer Service for availability and delivery.



Two-Door NEMA Types 1, 2, 12, 13

HLA Two Door (17" Deep)

DIMENSIONS (IN.)					STD. WT.
CAT. NO.	Н	w	D	STD. CTN.	(LBS.)
HLA30402	30	40	17	1	81.0
HLA40402	40	40	17	1	114.7
HLA40502	40	50	17	1	135.0
HLA50402	50	40	17	1	135.0

HLS Two Door (12" Deep)

	DII	DIMENSIONS (IN.)			STD. WT.
CAT. NO.	Н	w	D	STD. CTN.	(LBS.)
HLS30402	30	40	12	1	62.57
HLS40402	40	40	12	1	87.59
HLS40502	40	50	12	1	104.28
HLS50402	50	40	12	1	104.28









Himeline® **Enclosures**

HLA/HLS Series Accessories

Non-Metallic Thermosetting Plastic (Bakelite)

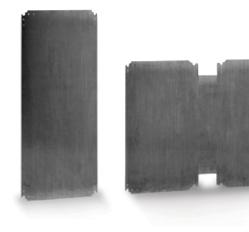
One Door

	DIMENSIONS (IN.)		_	STD. WT.
CAT. NO.	Н	W	STD. CTN.	(LBS.)
LP2020BP	15.4	14.8	1	2.1
LP3020BP*	25.2	14.8	1	3.0
LP3030BP	25.2	24.6	1	6.3
LP4020BP	35.0	14.8	1	5.2
LP4030BP	35.0	24.6	1	8.8
LP5020BP	44.3	14.8	1	6.7
LP5030BP	44.3	24.6	1	11.2

^{*} Use Back Panel LP3020BP for Enclosures HLA2030, HLA3020, HLS2030 and HLS3020

Two Door

	DIMENS	DIMENSIONS (IN.)		
CAT. NO.	Н	w	STD. CTN.	STD. WT. (LBS.)
P30402BP	25.2	34.4	1	8.8
LP40402BP	35.0	34.4	1	12.3
LP40502BP	35.0	44.3	1	16.1
LP50402BP	44.3	34.4	1	16.1



Metal — Galvanized Steel

One Door

	DIMENS	IONS (IN.)		STD. WT.
CAT. NO.	Н	W	STD. CTN.	(LBS.)
LA2020BP	15.4	14.8	1	5.6
LA3020BP*	25.2	14.8	1	8.6
LA3030BP	25.2	24.6	1	17.6
LA4020BP	35.0	14.8	1	14.6
LA4030BP	35.0	24.6	1	24.3
LA5020BP	44.3	14.8	1	19.4
LA5030BP	44.3	24.6	1	31.9

^{*} Use Back Panel LA3020BP for Enclosures HLA2030, HLA3020, HLS2030 and HLS3020

Two Door

	DIMENS	DIMENSIONS (IN.)		STD. WT.
CAT. NO.	Н	W	STD. CTN.	(LBS.)
LA30402BP	25.2	34.4	1	24.1
LA40402BP	35.0	34.4	1	33.8
LA40502BP	35.0	44.3	1	43.4
LA50402BP	44.3	34.4	1	43.7





1-800-453-1692









Himeline® Enclosures

Mounting Feet



CAT. NO.	STD. CTN.	STD. WT. (LBS.)
HLAMFSS	1 each (set of 4)	.6

Panel Adjuster Kit



CAT. NO.	STD. CTN.	STD. WT. (LBS.)
HLABPA4	1 each (set of 4)	.31

Padlock Device



CAT. NO.	STD. CTN.	STD. WT. (LBS.)
HLAPAD	8	.61

Draining Device*



CAT. NO.	STD. CTN.
HDVEAQ	30

For 3R Rating and condensation buildup.

*Factory installation available.

Replacement Handle with Cylinder Key Lock



CAT. NO.	STD. CTN.	STD. WT. (LBS.)
HLATEL	8	.41

Standard Replacement Bar Lock with Key



CAT. NO.	STD. CTN.	STD. Wt. (LBS.)
HLATD	30	.21

Replacement Handle with Pushbutton

CAT. NO.	STD. CTN.	STD. Wt. (LBS.)
HLAHAN	8	.40

Air Vents*

CAT. NO.	STYLE	STD. WT. (LBS.)
HPVM25	For Fitting Outside of All Enclosures	1
HPVM35	For Fitting Inside of All Enclosures	1

NEMA 1 Rated only. *Factory installation available.

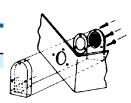


Enclosure Ventilator*

CAT. NO.	STD. CTN.
HVM27	15
Enables any size enclosure to breathe.	

yet remain watertight.

*Factory installation available.







Thomas@Betts

Himeline® Enclosures

HLP Series Enclosure and Pedestal

Himeline® HLP Enclosures and Pedestals are designed to accommodate all types of electrical equipment for electrical distribution applications. The enclosure may be directly installed on the ground or on top of a pedestal, and the pedestal is approved for direct-burial applications. Both are manufactured using fiber-reinforced polyester to provide highimpact resistance and enable effortless modifications. And, each has an IP43 Self-Ventilated and IP54 Watertight rating and a temperature range of -58° F to 302° F.

Enclosure Features:

- High impact resistance
- · Non-conductive and non-corrosive
- Fits all type of electrical equipment
- IP43 self-ventilated
- IP54 watertight
- One- and two-door configurations
- Install directly on the ground or on a pedestal
- Removable inner hinges for great access
- Doors open 180°

Pedestal Features:

- Can be direct buried
- · Non-conductive and non-corrosive
- Detachable upper front for easy access
- High impact resistance
- Auxiliary outlet on the side
- IP43 self-ventilated
- IP54 watertight
- Floor- or wall-mountable

Material:

· Fiberglass-reinforced polyester

Applications:















Thomas@Betts

United States Tel: 901.252.8000

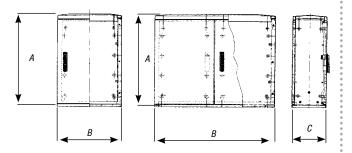
800.816.7809 Fax: 901.252.1354

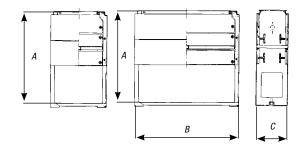
Technical Services Tel: 888.862.3289



A-314

Himeline® Enclosures





Enclosures

			DIN	MENSIONS (IN.)	_	
CAT. NO.		NO. OF LOCKS	A HEIGHT	B WIDTH	C Depth	STD. CTN.	STD. WT. (LBS.)
HLP3318	1	1	33.46	18.31	12.60	1	40.79
HLP3323	1	1	33.46	23.23	12.60	1	48.50
HLP3331	1	1	33.46	30.91	12.60	1	55.12
HLP33442	2	1	33.46	43.90	12.60	1	77.16
HLP33442L	2	2	33.46	43.90	12.60	1	77.16

Consult Customer Service for availability and delivery.

Pedestals

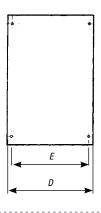
	DIM	ENSIONS (STD.	STD. WT.	
CAT. NO.	н	W	D	CTN.	(LBS.)
HLPED3318	35.43	18.31	12.20	1	33.10
HLPED3323	35.43	23.23	12.20	1	37.48
HLPED3331	35.43	30.91	12.20	1	44.10
HLPED33442	35.43	43.90	12.20	1	55.12
HLPED33442L	35.43	43.90	12.20	1	55.12

Consult Customer Service for availability and delivery.

Mounting Plates

	ENCLOSURE	PEDESTAL	# OF PLATES -	DIMENSI	ONS (IN.)	- THICKNESS	STD.	STD. WT.
CAT. NO.	CAT. NO.	CAT. NO.	PER ENCL.	D	E	(IN.)	CTN.	(LBS.)
LA1412BP	HLP3318	HLPED3318	1	14.02	11.97	.20	1	4.41
LA1816BP	HLP33442L	HLPED33442L	2	17.64	15.59	.20	1	11.02
LA1916BP	HLP3323	HLPED3323	1	18.94	16.89	.20	1	6.00
LA2725BP	HLP3331	HLPED3331	1	26.61	24.57	.20	1	8.38

Consult Customer Service for availability and delivery.



HLP Series Accessories

Consult Customer Service for availability and delivery.

Gasket

uasket			
CAT. NO.	SIZE (IN.) H x W x D	STD. CTN.	STD. WT. (LBS.)
HLP3318G	33 x 18 x 12	1	2.2
HLP3323G	33 x 23 x 12	1	2.2
HLP3331G	33 x 31 x 12	1	2.2
HLP3344G	33 x 44 x 12	1	2.2









United States Tel: 901.252.8000

800.816.7809 Fax: 901.252.1354 **Technical Services** Tel: 888.862.3289



Slack and Splice Enclosures

Slack and Splice Enclosures

Carlon's® state-of-the-art modification capabilities enable design of Slack and Splice Enclosures to meet specific application requirements.

Features:

- Slack and Splice Enclosures provide maximum protection of slack fiber and splice unit assemblies
- · Eliminates need for difficult aerial and vault splicing
- Stores adequate slack fiber to facilitate splicing at ground level work station
- Enclosure sized to maintain minimum required radius of fiber optic cable
- Splice tube to accommodate industry-standard splice and tray assemblies (splice enclosure only)



Fax: 901.252.1354

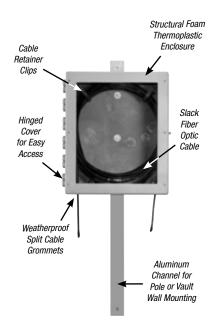
Tel: 888.862.3289

Technical Services



Slack and Splice Enclosures

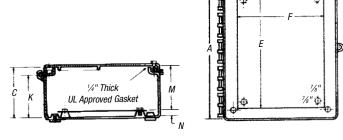
Slack Enclosures





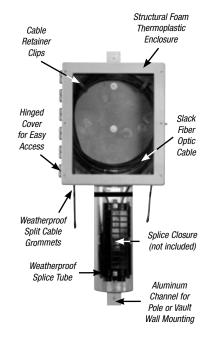
В

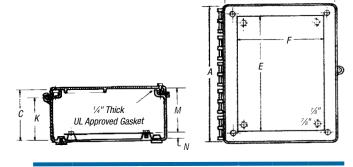




	INSIDE BOX SIZE (IN.)	BOX Opening (In.)	DIM	N.)	
CAT. NO.	AxBxC	ExF	K	M	N
SLK11	30 x 24 x 11½	271/4 x 211/4	101/4	10½	1
SLK12	30 x 24 x 9½	271/4 x 211/4	81/4	81/2	1
SLK21	24 x 20 x 11½	211/4 x 171/4	101/4	10½	1
SLK22	24 x 20 x 91/2	211/4 x 171/4	81/4	81/2	1
SLK31	20 x 16 x 11½	171/4 x 131/4	101/4	10½	1
SLK32	20 x 16 x 9½	171/4 x 131/4	101/4	10½	1

Splice Enclosures





INSIDE BOX SIZE (IN.)				DIMENSIONS (IN.)			
CAT. NO.	AxBxC	SIZE	ExF	K	M	N	
SPL111	30 x 24 x 11½	10	271/4 x 211/4	101/4	10½	1	
SPL122	30 x 24 x 9½	8	271/4 x 211/4	81/4	81/2	1	
SPL211	24 x 20 x 11½	10	211/4 x 171/4	101/4	10½	1	
SPL222	24 x 20 x 9½	8	211/4 x 171/4	81/4	81/2	1	



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services** Tel: 888.862.3289



1-800-453-1692





Carlon®

Technical Information

Factory Modifications for All Enclosures.

Color-Molded Enclosures

All Circuit Safe® enclosures can be molded in a variety of colors. Minimum quantities for single shipment or releases against blanket orders are required.

Painted/Silkscreened Enclosures

All enclosures can be painted, interior and exterior, or by special request. Enclosure covers can also be silkscreened on request.

EMI/RFI Protection

For applications where Radio Frequency Interference is a factor, the interior can be coated with an acrylic base paint with a nickel filler. Windows can be covered with fine copper mesh.

Other Modifications Available

Our factory is capable of modifying any of our enclosures to a customer's specifications. Factory's capabilities include:

- Precision milling of button holes, windows and pockets for keypad installations
- Hole tapping
- Ventilators
- Mounting bosses
- Access windows
- Hinged windows
- Mounted in-use weatherproof covers
- Handles for portable units
- Latches
- Enclosure coolers
- · Cylinder locking systems
- And more...



Painted JIC enclosure with painted back panel. Installed clear cover with handle and quick-release latch.



Color-molded JIC unit with addition of window and pushbuttons.



Molded junction box painted with addition of mounted weatherproof cover.



Painted JIC enclosure with pocket installed in cover for control pad.



United States
Tel: 901.252.8000
800.816.7809
Fax: 901.252.1354

Technical Services
Tel: 888.862.3289





NEMA Types — Definitions Pertaining to Non-Hazardous Locations.

Enclosures for Electrical Equipment

An enclosure is a surrounding case constructed to provide protection from accidental contact with the enclosed equipment and to provide protection to the enclosed equipment from specified environmental conditions. A brief description of the more common types of enclosures used by the electrical industry follows. For more information, see Table 110.28 of the National Electrical Code®.

Type 1 Enclosure:

Intended for indoor use, primarily to provide protection against contact with enclosed equipment and a degree of protection against falling dirt.

Type 2 Enclosure:

Intended for indoor use, primarily to provide a degree of protection against limited amounts of falling water and dirt.

Type 3 Enclosure:

Intended for outdoor use, primarily to provide a degree of protection against wind-blown dust, rain, sleet and external ice formation.

Type 3R Enclosure:

Intended for outdoor use, primarily to provide a degree of protection against falling rain, sleet and external ice formation.

Type 3S Enclosure:

Intended for outdoor use, primarily to provide a degree of protection against wind-blown dust, rain and sleet, and to provide for operation of external mechanism when ice laden.

Type 3X Enclosure:

Intended for outdoor use, primarily to provide a degree of protection against wind-blown dust, rain, sleet, external ice formation and corrosion.

Type 3SX Enclosure:

Intended for outdoor use, primarily to provide a degree of protection against wind-blown dust, rain, sleet and corrosion, and to provide for operation of external mechanism when ice laden.

Type 4 Enclosure:

Intended for indoor or outdoor use, primarily to provide a degree of protection against wind-blown dust and rain, splashing water and hose-directed water.

Type 4X Enclosure:

Intended for indoor or outdoor use, primarily to provide a degree of protection against corrosion, wind-blown dust and rain, splashing water and hose-directed water.

Type 6 Enclosure:

Intended for indoor or outdoor use, primarily to avoid a degree of protection against contact with enclosed equipment, falling dirt, hose-directed water, entry of water during occasional temporary submersion at a limited depth and external ice formation.

Type 6P Enclosure:

Intended for indoor or outdoor use, primarily to provide a degree of protection against contact with enclosed equipment, falling dirt, hose-directed water, entry of water during prolonged submersion at a limited depth and external ice formation.

Type 12 Enclosure:

Intended for indoor use, primarily to provide a degree of protection against dust, falling dirt and dripping non-corrosive liquids.

Type 13 Enclosure:

Intended for indoor use, primarily to provide a degree of protection against dust, spraying of water, oil and non-corrosive coolant.

NEC and National Electrical Code are registered trademarks of the National Fire Protection Association, Inc.



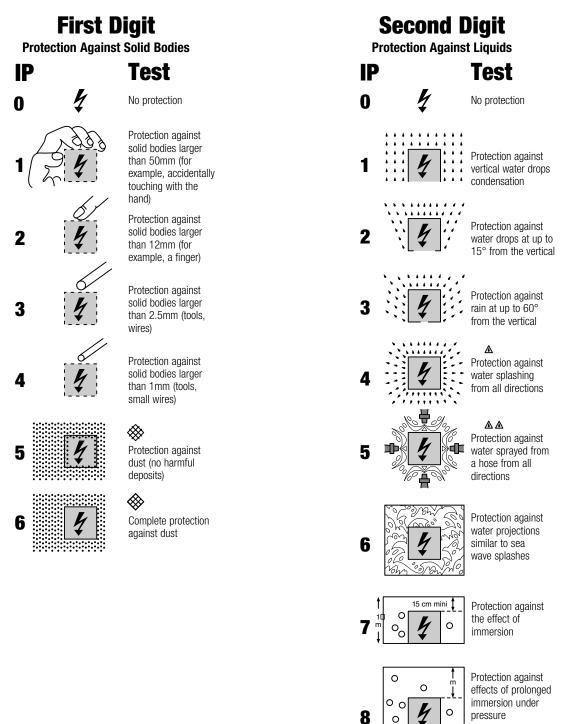
United States

Carlon®

Technical Information

International Standards IP Protection Classification Data.

The letters IP, followed by three characteristic numbers, symbolize the degree of protection.





Fax: 901.252.1354





Engineering Properties of Enclosures

	TEST	OPAQUE POLYCARBONATE	CLEAR POLYCARBONATE		
PROPERTY	METHOD	COVERS & BOXES	COVER	FRP	NORYL
Thermal And Mechanical					
Temperature Range (°F)	_	-30° to 230°	-30° to 230°	-58° to 320°	-40° to 185°
Specific Gravity (oz.in ³)	ASTM D792	1.20	1.20	1.79	.85
Thermal Conductivity (BTU•in/hr•ft²•°F)	ASTM D177	1.35	1.35	1.68	.86
Heat Deflection Temperature @ 264 PSI (°F)	ASTM D648	265	260	392	180
Tensile Strength (PSI)	ASTM D638	8,800	9,000	13,000	3,400
Flexural Strength (PSI)	ASTM D790	13,500	14,000	19,000	6,800
Compressive Strength @ 10% Deformation (PSI)	ASTM D695	12,500	12,500	24,000	5,200
Impact Strength IZOD Notched (ft.lbs./in.)	ASTM D256	12	12	12	_
Water Absorption – 24 hrs. @ 73° F (%)	ASTM D570	.15	.15	.17	.06
UV Rating	UL 746C	F1	F1	F2	_
Electrical					.,
Dielectric Strength (VOLTS/MIL.)	ASTM D149	380	380	467	192
Dielectric Constant	ASTM D150				
60 Hz			3.0	3.0	_
100 Hz			_	_	_
106 Hz			2.96	2.96	_
Volume Resistivity @ 73° F (OHM-CM)	ASTM D257	>1016	>1016	2.0 x 10 ¹⁵	1.0 x 10 ¹⁶
Arc Resistance (SEC)	ASTM D495	120	120	200+	67

Clearance Holes for Carflex® Fittings or PVC Male Terminal Adapters

CARFLEX FITTINGS & PVC MALE TERMINAL ADAPTERS TRADE SIZES	NOMINAL SIZE (IN.)	ACTUAL SIZE (IN.)	ACTUAL SIZE (MM)
1/2	.875	.879	22.4
3/4	1.093	1.107	28.2
1	1.344	1.357	34.6
11⁄4	1.813	1.699	43.2
1½	1.938	1.949	49.6
2	2.375	2.413	61.5
2½	2.875	2.914	74.0
3	3.5	3.539	89.8
3½	4	4.044	102.7
4	4.5	4.544	115.4
5	5.625	5.675	143.7





1-800-453-1692



800.816.7809 Fax: 901.252.1354

Tel: 888.862.3289





Environmental Resistance Table: E-Excellent, G-Good, L-Limited, U-Unsatisfactory

IMPORTANT: These environmental resistance ratings are based upon tests where the specimens were placed in complete submergence in the reagent listed. Ratings listed in this chart apply to a 48-hour exposure period. (The information in this chart is to be used ONLY as a guide in selecting equipment for appropriate chemical compatibility. Before permanent installation, test the equipment with the chemicals and under the specific conditions of your application.)

			FRP	
CHEMICAL	PVC Himeline HE Opaque Cover w/ Base	POLYCARBONATE Circuit Safe NEMA Circuit Safe JIC Himeline HE Clear Cover w/Base Himeline HS Opaque w/ Clear Lids	(Fiberglass Reinforced Polyester) Himeline HS — Bases Himeline HP Himeline HLA/HLS Himeline HLP	NORYL Circuit Safe Medium JIC
Acetaldehyde	U	L	_	_
Acetamide	U	U	_	_
Acetate Solvent	U	_	_	U
Acetic Acid	U	G	Е	Е
Acetic Acid 20%	Ü	E	E	E
Acetic Acid 80%	L	G	E	E
Acetic Acid, Glacial	Ü	G	E	E
Acetic Anhydride	U	Ü	E	U
Acetone	U	Ü	Ü	U
Acetyl Bromide	U	_	_	_
Acetyl Chloride (dry)	L	U	_	U
Acetylene	E	Ü	_	_
Acrylonitrile	G	Ü	_	
Adipic Acid	E	_	_	_
Alcohols:Amyl	E	G	_	L
Alcohols:Benzyl	U	u 		U
Alcohols:Butyl	E	E		E
Alcohols:Diacetone	G	L	_	E
Alcohols:Ethyl	L	G G	_	E
,	E	G	_	E
Alcohols:Hexyl	E	_	_	
Alcohols:Isobutyl	_	_	_	E
Alcohols:Isopropyl	E	E		E
Alcohols:Methyl	Е	G	_	E
Alcohols:Octyl	_	_	_	E
Alcohols:Propyl	E	_	_	E
Aluminum Chloride	E	E	E	E
Aluminum Chloride 20%	E	E	_	E
Aluminum Fluoride	E	_	_	E
Aluminum Hydroxide	E	G	_	Е
Aluminum Nitrate	G	E	_	_
Aluminum Potassium Sulfate 10%	E	E	_	E
Aluminum Potassium Sulfate 100%	E	E	_	E
Aluminum Sulfate	E	E	Е	E
Amines	U	U	_	U
Ammonia 10%	G	U	_	E
Ammonia Nitrate	G	_	_	E
Ammonia, anhydrous	Е	U	_	G
Ammonia, liquid	Е	U	L	_
Ammonium Acetate	E	_	_	_
Ammonium Bifluoride	E	_	_	Е
Ammonium Carbonate	E	_	L	Е
Ammonium Caseinate	_	_	_	Е
Ammonium Chloride	E	E	Е	Е
Ammonium Hydroxide	E	U	L	E
Ammonium Nitrate	Е	_	L	Е
Ammonium Oxalate	Е	E	_	_
Ammonium Persulfate	Е	_	_	Е
Ammonium Phosphate, Dibasic	E	E	–	E

CHEMICAL	PVC Himeline HE Opaque Cover w/Base	POLYCARBONATE Circuit Safe NEMA Circuit Safe JIC Himeline HE Clear Cover w/Base Himeline HS Opaque w/Clear Lids	FRP (Fiberglass Reinforced Polyester) Himeline HS — Bases Himeline HP Himeline HLA/HLS Himeline HLP	NORYL Circuit Safe Medium JIC
Ammonium Phosphate, Monobasic	Е	_	_	Е
Ammonium Phosphate, Tribasic	Е	_	_	Е
Ammonium Sulfate	Е	E	E	Е
Ammonium Sulfite	Е	_	Е	Е
Amyl Acetate	U	U	L	U
Amyl Alcohol	Е	G	L	L
Amyl Chloride	U	_	U	U
Aniline	L	U	U	U
Aniline Hydrochloride	G	U	_	_
Antifreeze	Е	_	_	Ε
Antimony Trichloride	Е	E	Е	Е
Aqua Regia (80% HCl, 20% HNO ₃)	L	U	_	U
Aromatic Hydrocarbons	U	_	_	U
Arsenic Acid	Е	Е	_	Ε
Arsenic Salts	Е	_	_	_
Asphalt	Е	U	_	_
Barium Carbonate	Е	E	E	Е
Barium Chloride	Е	Е	Е	Ε
Barium Cyanide	U	_	_	_
Barium Hydroxide	Е	U	U	Е
Barium Nitrate	Е	U	_	Е
Barium Sulfate	G	U	Е	Е
Barium Sulfide	Е	_	Е	Е
Beer	Е	Е	_	Ε
Beet Sugar Liquids	Е	_	_	Е
Benzaldehyde	U	U	U	G
Benzene	L	U	L	U
Benzene Sulfonic Acid	Е	U	Е	Ε
Benzoic Acid	Е	G	_	G
Benzol	_	U	_	G
Benzonitrile	_	E	_	_
Benzyl Chloride	_	_	_	U
Bleaching Liquors	Е	_	_	_
Borax (Sodium Borate)	Е	_	_	Ε
Boric Acid	Е	_	E	Ε
Bromine	L	L	_	Ε
Butadiene	L	U	_	U
Butane	L	U	_	U
Butanol (Butyl Alcohol)	L	G	_	Е
Butyl Amine	U	U	_	U
Butyl Ether	Е	_	_	U
Butyl Phthalate	_	U	_	Е
Butylacetate	U	U	U	G
Butylene	E	U	_	_
Butyric Acid	G	U	_	U
Calcium Bisulfate	_	U	_	_
Calcium Bisulfide	Е	_	_	Е
Calcium Bisulfite	G	U	_	Е

Fax: 901.252.1354



Environmental Resistance Table: E-Excellent, G-Good, L-Limited, U-Unsatisfactory

IMPORTANT: These environmental resistance ratings are based upon tests where the specimens were placed in complete submergence in the reagent listed. Ratings listed in this chart apply to a 48-hour exposure period. (The information in this chart is to be used ONLY as a guide in selecting equipment for appropriate chemical compatibility. Before permanent installation, test the equipment with the chemicals and under the specific conditions of your application.)

CHEMICAL	PVC Himeline HE Opaque Cover w/ Base	POLYCARBONATE Circuit Safe NEMA Circuit Safe JIC Himeline HE Clear Cover w/Base Himeline HS Opaque w/Clear Lids	FRP (Fiberglass Reinforced Polyester) Himeline HS — Bases Himeline HP Himeline HLA/HLS Himeline HLP	NORYI Circuit Safe Mediun JIC
Calcium Carbonate	Е	L	E	Е
Calcium Chlorate	G	_	E	_
Calcium Chloride	L	_	E	Е
Calcium Hydroxide	G	U	Ü	E
Calcium Hypochlorite	G	Ü	L	E
Calcium Nitrate	E	E	E	E
Calcium Oxide	G	_	_	E
Calcium Sulfate	G	Е	Е	E
Calgon	_	_	_	E
Cane Juice	Е	_	_	_
Carbolic Acid (Phenol)	Ü	U	_	U
Carbon Bisulfide	U	_	L	_
Carbon Dioxide (dry)	E	_	,	Е
Carbon Dioxide (wet)	E	_	_	E
Carbon Disulfide	U	U	_	U
Carbon Monoxide	E	_	_	E
Carbon Tetrachloride	U	U	Е	U
Carbon Tetrachloride (dry)	_	_	_	U
Carbon Tetrachloride (wet)			_	U
Carbon Disulfide	U	U	_	U
Carbon Monoxide	E	U	_	E
Carbon Tetrachloride	U	U	<u>—</u> Е	U
Carbon Tetrachloride (dry)	—	U	С	U
Carbon Tetrachloride (wet)		_	_	U
Carbonated Water	E		_	E
Carbonic Acid	E	E	_	E
	E	_	_	E
Catsup Chlorio Aoid	E	_	_	U
Chloric Acid	U	_	_	G
Chlorine (dry)	E	_	<u>—</u> Е	
Chlorine Water	U	_ L	Е	L
Chlorine, Anhydrous	U	L	_	G
Liquid	_	- 11		
Chloroacetic Acid	G U	U	 U	
Chlorobenzene (Mono)	-	U	U	U
Chlorobromomethane	U		_	
Chloroform	U	U	_	U
Chlorosulfonic Acid	U	L	_	U
Chocolate Syrup	_	E	_	E
Chromic Acid 10%	E	G	E	E
Chromic Acid 30%	E	L		U
Chromic Acid 5%	E	G	_	E
Chromic Acid 50%	U	U	_	U
Chromium Salts	E	_	_	_
Citric Acid	G	E	Е	E
Citric Oils	_	_	_	E
Clorox® (Bleach)	E	_	_	Е
Copper Chloride	Е	_	_	E
Copper Cyanide	E	U	_	E
Copper Fluoborate	E	_	_	I —

CHEMICAL	PVC Himeline HE Opaque Cover w/Base	POLYCARBONATE Circuit Safe NEMA Circuit Safe JIC Himeline HE Clear Cover w/Base Himeline HS Opaque w/Clear Lids	FRP (Fiberglass Reinforced Polyester) Himeline HS — Bases Himeline HP Himeline HLA'HLS Himeline HLP	NORYL Circuit Safe Medium JIC
	E	U	TIIITOIITIO TIEI	E
Copper Nitrate		-	_	
Copper Sulfate >5%	E	E	_	E
Copper Sulfate 5%	E	E		E
Cresols	U	U	U	U
Cresylic Acid	U	U	_	_
Cupric Acid	E	E	_	E
Cyclohexane	U	G	_	U
Cyclohexanone	U	U	_	U
Detergents	Е	E	_	E
Diacetone Alcohol	U	U	_	_
Dichlorobenzene	U	U	_	_
Dichloroethane	U	U	_	E
Diesel Fuel	E	E	_	U
Diethyl Ether	U	U	_	_
Diethylamine	U	U	_	_
Diethylene Glycol	L	G	_	E
Dimethyl Aniline	U	U	U	U
Dimethyl Formamide	U	U	_	U
Diphenyl Oxide	U	_	_	_
Dyes	G	_	_	E
Epsom Salts (Magnesium Sulfate)	E	E	_	E
Ethane	Е	_	_	_
Ethanol	L	G	_	Е
Ethanolamine	U	_	_	Е
Ether	U	_	L	U
Ethyl Acetate	U	U	L	Е
Ethyl Benzoate	U	U	_	Е
Ethyl Chloride	U	U	L	U
Ethyl Ether	U	_	U	U
Ethylene Bromide	U	U	_	_
Ethylene Chloride	U	U	_	U
Ethylene Chlorohydrin	U	U	Е	_
Ethylene Diamine	U	Е	_	U
Ethylene Dichloride	U	U	U	U
Ethylene Glycol	E	G	E	E
Ethylene Oxide	U	L	_	E
Fatty Acids	E	G	_	E
Ferric Chloride	E	Ē	Е	E
Ferric Nitrate	E	E	E	E
Ferric Sulfate	E	E	E	E
Ferrous Chloride	E	U	E	E
Ferrous Sulfate	E	E	E	E
Fluoboric Acid	E	_	_	E
Fluorine	U	L	_	_
Fluosilicic Acid	U	E		E
Formaldehyde 100%	E	E	_	E
Formaldehyde 40%	E	E	E E	E
Formic Acid	E	E	L	E

Fax: 901.252.1354



Environmental Resistance Table: E-Excellent, G-Good, L-Limited, U-Unsatisfactory

IMPORTANT: These environmental resistance ratings are based upon tests where the specimens were placed in complete submergence in the reagent listed. Ratings listed in this chart apply to a 48-hour exposure period. (The information in this chart is to be used ONLY as a guide in selecting equipment for appropriate chemical compatibility. Before permanent installation, test the equipment with the chemicals and under the specific conditions of your application.)

CHEMICAL	PVC Himeline HE Opaque Cover w/ Base	POLYCARBONATE Circuit Safe NEMA Circuit Safe JIC Himeline HE Clear Cover w/Base Himeline HS Opaque w/Clear Lids	FRP (Fiberglass Reinforced Polyester) Himeline HS — Bases Himeline HP Himeline HLA/HLS Himeline HLP	NORYL Circuit Safe Medium JIC
Freon 113	G	G		U
Freon 12	E	_	_	U
Freon 22	E	_	_	G
Freon TF	G	_	_	_
Freon® 11	E	_	_	G
Fuel Oils	E	G	_	G
Furan Resin	E	_	_	_
Furfural	Ū	U	L	U
Gallic Acid	G	_	_	E
Gasoline (high-aromatic)	E	Е	_	G
Gasoline, leaded, ref.	G	E	Е	G
Gasoline, unleaded	L	E	_	U
Gelatin	G	_	_	E
Glucose	E	Е	Е	E
Glue, P.V.A.	L	_	_	_
Glycerin	E	Е	Е	Е
Glycolic Acid	G	_	_	_
Grease	E	_	_	_
Heptane	L	G	Е	G
Hexane	G	U	U	G
Hydraulic Oil (Petro)	E	_	_	—
Hydraulic Oil (Synthetic)	E	_	_	_
Hydrazine	_	U	_	_
Hydrobromic Acid 100%	Е	_	_	G
Hydrobromic Acid 20%	G	_	_	G
Hydrochloric Acid 100%	U	U	_	E
Hydrochloric Acid 20%	E	G	Е	E
Hydrochloric Acid 37%	G	U	Ĺ	Ē
Hydrochloric Acid, Dry Gas	E	_	_	Ē
Hydrocyanic Acid	G	_	_	E
Hydrocyanic Acid (Gas 10%)	E	G	_	L
Hydrofluoric Acid 100%	L	Ü	_	Ū
Hydrofluoric Acid 20%	G	Ü	_	L
Hydrofluoric Acid 50%	G	Ü	_	Ū
Hydrofluoric Acid 75%	Ĺ	Ü	_	Ü
Hydrofluosilicic Acid 100%	G	_	_	G
Hydrofluosilicic Acid 20%	E	_	_	G
Hydrogen Gas	E	Е	_	E
Hydrogen Peroxide 10%	E	E	_	E
Hydrogen Peroxide 100%	E	E	_	E
Hydrogen Peroxide 30%	E	E	Е	E
Hydrogen Peroxide 50%	E	Ē	Ē	_
Hydrogen Sulfide (aqua)	G	E	_	Е
Hydrogen Sulfide (dry)	E	_	_	_
Hydroguinone	G	_	_	_
Hydroxyacetic Acid 70%	U	_	_	_
Ink	L	_	_	_
lodine	E	_	_	L
•				

CHEMICAL	PVC Himeline HE Opaque Cover w/Base	POLYCARBONATE Circuit Safe NEMA Circuit Safe JIC Himeline HE Clear Cover w/Base Himeline HS Opaque w/Clear Lids	(Fiberglass Reinforced Polyester) Himeline HS — Bases Himeline HP Himeline HLA/HLS Himeline HLP	NORYL Circuit Safe Medium JIC
lodine (in alcohol)	Е	_	_	_
lodoform	Е	_	_	_
Isooctane	E	G	_	U
Isopropyl Acetate	U	U	_	_
Isopropyl Ether	G	U	_	_
Isotane	E	_	_	_
Jet Fuel (JP3, JP4, JP5)	L	Е	_	U
Kerosene	E	Ū	_	U
Ketones	U	U	_	U
Lacquer Thinners	U	G	_	U
Lacquers	Ü	Ü	_	Ü
Lactic Acid	G	G	Е	E
Lard	Ē	Ë	_	Ē
Lead Acetate	G	_	_	Е
Lead Nitrate	E	_	_	E
Lead Sulfamate	G	Е	_	_
Lime	G	_	_	_
Linoleic Acid	E	_	_	_
Lithium Chloride	Ū	G	_	_
Lithium Hydroxide	_	Ü	_	_
Lubricants	G	Ē	_	L
Lye: Ca(OH), Calcium Hydroxide	G	Ū	_	Ē
Lye: KOH Potassium Hydroxide	G	Ü	_	E
Lye: NaOH Sodium Hydroxide	E	Ü	_	Ē
Epsom Salts (Magnesium Sulfate)	E	Ē	_	E
Magnesium Bisulfate	E	E	_	_
Magnesium Carbonate	G	Ē	Е	Е
Magnesium Chloride	G	Е	Е	Е
Magnesium Hydroxide	E	Е	G	Е
Magnesium Nitrate	Е	Е	_	Е
Magnesium Oxide	_	_	_	_
Magnesium Sulfate (Epsom Salts)	Е	Е	Е	Е
Maleic Acid	Е	_	_	Е
Malic Acid	Е	_	_	_
Manganese Sulfate	L	Е	_	Е
Mayonnaise	U	_	_	_
Melamine	U	_	_	_
Mercuric Chloride (dilute)	Е	Е	_	Е
Mercuric Cyanide	Е	_	_	_
Mercurous Nitrate	Е	Е	_	Е
Mercury	E	Ū	_	E
Methane	G	_	_	_
Methanol (Methyl Alcohol)	E	G	L	Е
Methyl Acetate	U	Ü	_	_
Methyl Acetone	Ü	_	_	_
Methyl Alcohol 10%	E	G	_	Е
Methyl Bromide	U	_	_	_
Mathed Detail Katana	г	- 11		



United States Tel: 901.252.8000

800.816.7809 Fax: 901.252.1354 **Technical Services** Tel: 888.862.3289

Methyl Butyl Ketone





Environmental Resistance Table: E-Excellent, G-Good, L-Limited, U-Unsatisfactory

IMPORTANT: These environmental resistance ratings are based upon tests where the specimens were placed in complete submergence in the reagent listed. Ratings listed in this chart apply to a 48-hour exposure period. (The information in this chart is to be used ONLY as a guide in selecting equipment for appropriate chemical compatibility. Before permanent installation, test the equipment with the chemicals and under the specific conditions of your application.)

	PVC Himeline HE Opaque Cover	POLYCARBONATE Circuit Safe NEMA Circuit Safe JIC Himeline HE Clear Cover w/Base Himeline HS	FRP (Fiberglass Reinforced Polyester) Himeline HS Bases Himeline HP Himeline HLA/HLS	NORYL Circuit Safe Medium
CHEMICAL	w/Base	Opaque w/Clear Lids	Himeline HLP	JIC
Methyl Cellosolve	U	U	_	_
Methyl Chloride	U	U	_	U
Methyl Dichloride	E	_	_	_
Methyl Ethyl Ketone	U	U	Е	U
Methyl Isobutyl Ketone	U	U	_	U
Methyl Isopropyl Ketone	U	U	_	U
Methyl Methacrylate	E	_	_	—
Methylamine	U	_	_	_
Methylene Chloride	U	U	U	U
Mineral Spirits	E	L	_	E
Monochloroacetic acid	_	U	_	_
Monoethanolamine	U	_	_	E
Morpholine	_	U	_	U
Motor oil	G	E	_	E
Naphtha	E	G	Е	U
Naphthalene	U	_	_	U
Natural Gas	E	_	_	_
Nickel Chloride	E	E	_	E
Nickel Nitrate	Е	U	_	E
Nickel Sulfate	E	E	_	E
Nitrating Acid (<15% HNO ₃)	U	_	_	_
Nitrating Acid (>15% H ₂ SO ₄)	U	_	_	_
Nitrating Acid (_1% Acid)	U	_	_	_
Nitrating Acid (_15% H ₂ SO ₄)	U	_	_	_
Nitric Acid (20%)	Е	G	G	G
Nitric Acid (50%)	G	G	_	G
Nitric Acid (50%)	G	G	_	G
Nitric Acid (5-10%)	Е	Е	_	Е
Nitric Acid (Concentrated)	G	L	_	G
Nitrobenzene	U	U	L	U
Nitromethane	G	U	_	U
Nitrous Acid	E	_	_	_
Nitrous Oxide	E	_	_	_
Oil: Aniline	U	_	_	U
Oil: Citric	G	E	_	Е
Oil: Creosote	L	_	_	U
Oil: Diesel Fuel (20, 30, 40, 50)	G	_	_	U
Oil: Diesel Fuel (20, 30, 40, 50)	G	_	_	U
Oil: Hydraulic Oil (Petro)	Е	_	_	_
Oil: Hydraulic Oil (Synthetic)	Е	_	_	_
Oil: Mineral	G	G	_	Е
Oil: Olive	L	Е	_	Е
Oil: Orange	L	L	_	_
Oil: Pine	U	Е	_	_
Oil: Rosin	L	_	_	_
Oil: Silicone	Е	_	_	Е
Oil: Transformer	G	_	_	_
Oil: Turbine	Е	_	_	_

			FRP	
		POLYCARBONATE		
		Circuit Safe NEMA	Reinforced	
	PVC	Circuit Safe JIC	Polyester)	
	Himeline		Himeline HS —	NORYL
	HE Opaque	Clear Cover w/Base	Bases Himeline HP	Circuit Safe
	Cover	Himeline HS	Himeline HLA/HLS	Medium
CHEMICAL	w/Base	Opaque w/Clear Lids	Himeline HLP	JIC
Oleic Acid	L	_	Е	Е
Oleum 100%	U	_	_	Ε
Oleum 25%	U	_	_	_
Oxalic Acid (cold)	G	_	Е	E
Ozone	G	E	_	_
Palmitic Acid	G	_	_	_
Paraffin	G	E	_	Е
Pentane	E	E	_	_
Perchloric Acid	L		_	<u> </u>
Perchloroethylene	L	U	_	U
Petrolatum	G	_	_	<u> </u>
Petroleum	_	_	_	U
Phenol (10%)	L	G	L	U
Phenol (Carbolic Acid)	U	U	_	U
Phosphoric Acid (>40%)	G	E	_	E
Phosphoric Acid (crude)	G	E	_	Е
Phosphoric Acid (molten)	U	_	_	_
Phosphoric Acid (_40%)	G 	E	_	Е
Phosphoric Acid Anhydride		U	_	
Phosphorus Triphlarida	E	_	_	_
Phosphorus Trichloride	U	L	_	_
Photographic Developer	E E	E E	_	E
Photographic Solutions Phthalic Anhydride	U	E	_	
Picric Acid	U	U	_	
Potash (Potassium Carbonate)	E		L	E
Potassium Bicarbonate	E		_	E
Potassium Bromide	E	E		E
Potassium Chlorate	E	E	_	E
Potassium Chloride	E	E	Е	E
Potassium Chromate	E	_	E	E
Potassium Cyanide Solutions	E	_	_	E
Potassium Dichromate	E	Е	_	E
Potassium Ferricvanide	Ē	_	Е	E
Potassium Ferrocyanide	E	_	Ē	Ē
Potassium Hydroxide (Caustic Potash)	E	U	Ĺ	E
Potassium Hypochlorite	G	_	_	_
Potassium lodide	E	_	_	_
Potassium Nitrate	Е	Е	Е	Е
Potassium Oxalate	_	_	_	_
Potassium Permanganate	Е	Е	Е	Е
Potassium Sulfate	Е	Е	Е	Е
Potassium Sulfide	E	_	_	E
Propane (liquefied)	Е	L	_	Е
Propylene	G	_	_	_
Propylene Glycol	L	G	_	_
Pyridine	U	U	_	G
Pyrogallic Acid	Е	_	_	_

Fax: 901.252.1354



Environmental Resistance Table: E-Excellent, G-Good, L-Limited, U-Unsatisfactory

IMPORTANT: These environmental resistance ratings are based upon tests where the specimens were placed in complete submergence in the reagent listed. Ratings listed in this chart apply to a 48-hour exposure period. (The information in this chart is to be used ONLY as a guide in selecting equipment for appropriate chemical compatibility. Before permanent installation, test the equipment with the chemicals and under the specific conditions of your application.)

CHEMICAL	PVC Himeline HE Opaque Cover w/Base	POLYCARBONATE Circuit Safe NEMA Circuit Safe JIC Himeline HE Clear Cover w/Base Himeline HS Opaque w/Clear Lids	FRP (Fiberglass Reinforced Polyester) Himeline HS — Bases Himeline HP Himeline HLA/HLS Himeline HLP	NORYL Circuit Safe Medium JIC
Resorcinal	L	G	_	_
Rosins	L	_	_	_
Salicylic Acid	G	Е	_	_
Salt Brine (NaCl saturated)	E	E	_	Е
Sea Water	E	E	_	E
Silicone	Ē	Ē	_	E
Silver Bromide	_	_	_	E
Silver Nitrate	Е	Е	_	E
Soap Solutions	E	E	_	E
Soda Ash (see Sodium Carbonate)	E	E	_	E
Sodium Acetate	G	E	Е	E
Sodium Aluminate	<u>u</u>	_	_	E
Sodium Benzoate	G	Е	_	_
Sodium Bicarbonate	E	E	Е	Е
Sodium Bisulfate	E	E	_	E
Sodium Bisulfite	E	Ē	_	E
Sodium Borate (Borax)	E	E	_	E
Sodium Bromide	G	_	E	Ē
Sodium Carbonate	E	Е	_	E
Sodium Chlorate	Ē	Ē	Е	E
Sodium Chloride	E	E	E	E
Sodium Chromate	_	Ē	_	E
Sodium Cyanide	Е	_	_	E
Sodium Ferrocyanide	Ē	_	Е	E
Sodium Fluoride	E	_	_	E
Sodium Hydrosulfite	L	_	_	_
Sodium Hydroxide (20%)	E	Е	U	Е
Sodium Hydroxide (50%)	E	U	Ü	E
Sodium Hydroxide (80%)	E	U	Ü	Е
Sodium Hypochlorite (<20%)	E	Ĺ	Ĺ	E
Sodium Hypochlorite (100%)	G	_	_	Е
Sodium Metaphosphate	E	_	_	_
Sodium Metasilicate	Е	_	_	_
Sodium Nitrate	Е	_	U	Е
Sodium Perborate	Е	_	_	Е
Sodium Peroxide	G	Е	_	_
Sodium Polyphosphate	Е	_	_	Е
Sodium Silicate	Е	_	_	Е
Sodium Sulfate	Е	Е	Е	Е
Sodium Sulfide	Е	U	U	Е
Sodium Sulfite	Е	_	Е	Е
Sodium Tetraborate	Е	_	_	Е
Sodium Thiosulfate (hypo)	Е	U	_	Е
Stannic Chloride	E	Е	_	Е
Stannic Fluoborate	_	_	_	Е
Stannous Chloride	E	_	_	Е
Stearic Acid	G	E	_	Е
Stoddard Solvent	L	Е	_	U
Styrene	U	U	_	Е

CHEMICAL	PVC Himeline HE Opaque Cover w/Base	POLYCARBONATE Circuit Safe NEMA Circuit Safe JIC Himeline HE Clear Cover w/Base Himeline HS Opaque w/Clear Lids	FRP (Fiberglass Reinforced Polyester) Himeline HS — Bases Himeline HP Himeline HLA'HLS Himeline HLP	NORYL Circuit Safe Medium JIC
Sulfate (Liquors)	G			
Sulfur Chloride	Ľ	_	_	Е
Sulfur Dioxide	Ē	_	_	E
Sulfur Dioxide (drv)	E	Е	_	E
Sulfur Hexafluoride	G	_	_	_
Sulfur Trioxide	E	_	_	U
Sulfur Trioxide (dry)	E	_	_	U
Sulfuric Acid (<10%)	E	Е	E	E
Sulfuric Acid (10–75%)	E	G	U	E
Sulfuric Acid (75–100%)	U	U		E
Sulfuric Acid (cold concentrated)	U	_	_	E
Sulfuric Acid (hot concentrated)	U	U	_	U
Sulfurous Acid	E	—		E
Tallow	_			E
Tannic Acid	E	_	_	E
	E	L	_	E
Tanning Liquors Tartaric Acid	E	_	E E	E
Tetrachloroethane	L	_	Е	U
	l U	 U	_	U
Tetrachloroethylene	-	-		
Tetrahydrofuran	U E	U	L	U
Tin Salts	_		_	_
Toluene (Toluol) Trichloroacetic Acid	U G	U		U —
		-	_	
Trichloroethane	L	U —	 U	U
Trichloroethylene	U	_	U	U
Trichloropropane	U U	_	_	E
Tricresylphosphate	G	_	_	G
Triethylamine Trisodium Phosphate	E	_	_	E
	U	U	E E	U
Turpentine	U	U	E L	E
Urea Uric Acid	E	U	L	Е
	U	_	_	U
Varnish	G	E E	E E	E
Vinegar	l U	Е	Е	_
Vinyl Acetate	-	_	_	
Vinyl Chloride	U	_	_	_
Water, Acid, Mine	G	G	_	_
Water, Deionized	E E	_	_	E
Water, Distilled		Е	_	E
Beet Sugar Liquids	E	_	_	E
Water, Fresh	G	E	_	E
Water, Salt	G	E	_	E
Whiskey & Wines	E	E	_	E
White Liquor (Pulp Mill)	E	_	_	E
White Water (Paper Mill)	E	_	_	U
Xylene Zina Oldanida	U	U	E	G
Zinc Chloride	G	E	E	E
Zinc Hydrosulfite	_	_	_	E



United States
Tel: 901.252.8000
800.816.7809

Fax: 901.252.1354

Technical Services Tel: 888.862.3289

Zinc Sulfate





In this section...



Carlon® Electrical Non-Metallic Tubing (ENT) System

Electrical Non-Metallic Tubing	A-328
Boxes and Accessories	A-329–A-338
Flexible Raceway Systems	A-339–A-347
Flexible Raceway System Accessories	A-348–A-352
Technical Information	A-353–A-354





<u>Carlon</u>

Electrical Non-Metallic Tubing

Flex-Plus® ENT

Flex-Plus® ENT is a non-metallic flexible raceway for use in walls, floors and non-plenum ceilings. It's lightweight, hand-bendable and free from sharp edges, which reduces installation time and saves money.

Options:

- Sizes ½" through 2"
- Colors can designate different voltages. Examples:
 - Yellow color for communication circuits and signaling cable
 - Red color for fire alarm circuits
- Blue color for power circuits
- · Packaging: coils or reels







LR83580 FT-4 Rated where noted by *

Standard Stock — Reels

CAT. NO.	SIZE (IN.)	COLOR	NOM. I.D. (IN.)	NOM. O.D. (IN.)	PILL TAPE	MIN. BEND RADIUS (IN.)	REEL SIZE (IN.) (F X W)	REEL TYPE (W=WOOD)	REEL LENGTH	REEL WT. (LBS.)	WT. PER 100 FT. (LBS.)
12005AK-001	1/2	Blue	.56	.84	Empty	6	36 x 24	W	1500	40	10
1205AKY-001	1/2	Yellow	.56	.84	Empty	6	36 x 24	W	1500	40	10
1205AKR-001	1/2	Red	.56	.84	Empty	6	36 x 24	W	1500	40	10
* 12005AKC-001	1/2	Blue	.56	.84	Empty	6	36 x 24	W	1500	40	10
12007AA-001	3/4	Blue	.76	1.05	Empty	6	36 x 24	W	1000	40	14
1207AAY-001	3/4	Yellow	.76	1.05	Empty	6	36 x 24	W	1000	40	14
1207AAR-001	3/4	Red	.76	1.05	Empty	6	36 x 24	W	1000	40	14
* 1207AAC-001	3/4	Blue	.76	1.05	Empty	6	36 x 24	W	1000	40	14
12008-750	1	Blue	1.00	1.315	Empty	6	36 x 24	W	750	40	20
12008Y-750	1	Yellow	1.00	1.315	Empty	6	36 x 24	W	750	40	20
12008R-750	1	Red	1.00	1.315	Empty	6	36 x 24	W	750	40	20
* 12008C-750	1	Blue	1.00	1.315	Empty	6	36 x 24	W	750	40	20
12009-750	11/4	Blue	1.402	1.66	Empty	7	48 x 32	W	750	90	19
12010-750	11/2	Blue	1.554	1.90	Empty	81/4	48 x 32	W	750	90	39
12010Y-750	1½	Yellow	1.554	1.90	Empty	81/4	48 x 32	W	750	90	39
12011-500	2	Blue	2.030	2.375	Empty	9½	48 x 32	W	500	90	32
12011R-500	2	Red	2.030	2.375	Empty	9½	48 x 32	W	500	90	32
12011Y-500	2	Yellow	2.030	2.375	Empty	9½	48 x 32	W	500	90	32

^{* 11/4&}quot;-2" available in yellow & red, made to order; consult factory.

Standard Stock — Coils

CAT. NO.	SIZE (IN.)	COLOR	NOM. I.D. (IN.)	NOM. O.D. (IN.)	PILL Tape	MIN. BEND Radius (In.)	COIL Length (Ft.)	WT. PER 100 FT. (LBS.)
12005-200	1/2	Blue	.56	.84	Empty	6	200	10
12005Y-200	1/2	Yellow	.56	.84	Empty	6	200	10
12005R-200	1/2	Red	.56	.84	Empty	6	200	10
* 12005C-370	1/2	Blue	.56	.84	Empty	6	200	10
12007-100	3/4	Blue	.76	1.05	Empty	6	100	14
12007Y-100	3/4	Yellow	.76	1.05	Empty	6	100	14
12007R-100	3/4	Red	.76	1.05	Empty	6	100	14
* 12007C-240	3/4	Blue	.76	1.05	Empty	6	100	14
12008-100	1	Blue	1.00	1.315	Empty	6	100	22
12008Y-100	1	Yellow	1.00	1.315	Empty	6	100	22
12008R-100	1	Red	1.00	1.315	Empty	6	100	22
★ 12008C-160 ★ Canada Only	1	Blue	1.00	1.315	Empty	6	100	22

10-ft. Lengths

CAT. NO.	SIZE (IN.)	COLOR	NOM. I.D. (IN.)	NOM. O.D. (IN.)	STD. CTN.	STD. WT. (LBS.)
12005-UPC	1/2	Blue	.56	.84	10 ft.	1.02
12007-UPC	3/4	Blue	.76	1.05	10 ft.	1.46
12008-010	1	Blue	1.00	1.315	10 ft.	2.93

Note: The solid blue color of ENT conduit is a registered trademark of Carlon®. ENT may show color deterioration in direct sunlight when stored outdoors over an extended period of time. It is suggested that all ENT products not be stored outside. Section 362.12(8) of the NEC® prohibits ENT to be used in areas exposed to direct sunlight.

NEC and National Electrical Code are registered trademarks of the National Fire Protection Association, Inc.



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services**

Tel: 888.862.3289







Canada Only

Boxes and Accessories

Stub Downs

Vertical Stub Down

Carlon® Vertical Stub Downs are designed to provide a quick, easy connection to a wood deck or transition from slab-to-slab using Carlon's® "Quick Connect" snap-in design... simply snap the ENT in place. The integral snaps provide a secure mount — preventing the ENT from pulling out while enabling easy removal of the fitting once the deck is removed. All in a concrete-tight application. The underside of this fitting provides ample room to attach a Carlon® coupling to the ENT to continue the run. Carlon® Vertical Stub Downs are manufactured out of a highly engineered thermoplastic material to provide extra strength and durability and are available in sizes ½", ¾" and 1".



CAT. NO.	SIZE	STD. CTN.	STD. WT. (LBS.)
A210D	1/2	50	3.8
A210E	3/4	50	3.7
A210F	1	50	4.8

Vertical Stub Down Transition Adapter

Carlon® Non-Metallic Exclusive...Carlon® Vertical Stub Down Transition Adapters. like our Vertical Stub Downs, provide a means to transition from ENT to another wire-management product where code requires other wire-management means. The integral snaps provide a secure mount - preventing the ENT from slipping or pulling out, while the deck-mount flange has a threaded port, enabling connection to other conduit system using a terminal adapter. Carlon® Vertical Stub Down Transition Adapters are manufactured out of polycarbonate material to provide extra strength and durability. They're concrete tight and available in sizes ½", ¾" and 1".







CAT. NO.	SIZE	STD. CTN.	STD. WT. (LBS.)
A200D	½" Female ENT to NPSC (Female)	50	2.3
A200E	3/4" Female ENT to NPSC (Female)	50	2.8
A200F	1" Female ENT to NPSC (Female)	50	3.9

45° Stub Down

Carlon® 45° Stub Downs are designed to provide a smooth transition from crossdeck ENT runs to vertical applications. The integral snaps provide a secure mount - preventing the ENT from slipping or pulling out — but also enable the stub to easily be removed. The underside of this fitting provides ample room to attach a Carlon® coupling to the ENT to continue the run. Carlon® 45° Stub Downs are manufactured out of a highly engineered thermoplastic material to provide extra strength and durability. They're concrete tight and available in sizes ½", ¾" and 1".



CAT. NO.	SIZE	STD. CTN.	STD. WT. (LBS.)
A220D	1/2	25	1.8
A220E	3/4	25	2.0
A220F	1	25	2.6
A220G	11/4	25	2.8
A220H	1½	25	3.3
A220J	2	25	4.1

90° Stub Down Transition Adapter

Carlon® Non-Metallic Exclusive...Carlon® 90° Stub Downs are designed to provide a smooth transition from cross-deck ENT runs to vertical applications where code requires other wire-management means. The integral snaps provide a secure mount - preventing the ENT from slipping or pulling out, while the deck-mount flange has a threaded port, enabling connection to any conduit system using a terminal adapter. Carlon® 90° Stub Downs are manufactured out of polycarbonate material to provide extra strength and durability. They're concrete tight and

available in sizes ½", ¾" and 1".







CAT. NO.	SIZE	STD. CTN.	STD. WT. (LBS.)
A230D	½" Female ENT to NPSC (Female)	25	2.0
A230E	3/4" Female ENT to NPSC (Female)	25	2.4
A230F	1" Female ENT to NPSC (Female)	25	3.3







Thomas@Betts

<u>Carlon</u>

Boxes and Accessories

Mud Box Assemblies

Carlon® Mud Box Assemblies are available in five unique styles...blank, ceiling ring, one-gang, twogang and 4-inch square. All Mud Box Assemblies are manufactured out of polycarbonate material to provide extra strength and durability, are concrete tight and have twelve integral connectors...two 1", six ¾" and four ½". Using our new ENT Reducers, this product will meet ANY jobsite application.





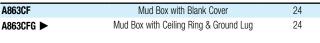
Mud Box Base with Blank Cover

CAT. NO.	SIZE	STD. CTN.	STD. WT. (LBS.)
A863BC ►	Mud Box with Blank Cover	24	12.3

Mud Box with Ceiling Ring

- Threaded brass inserts for fan (#10-32 screws) and fixture (#8-32 screws) mountings
- · Listed for fixture support up to 50 lbs.
- · Listed for ceiling fans up to 35 lbs.

CAT. NO.	SIZE	STD. CTN.	STD. WT. (LBS.)
A863CF	Mud Box with Blank Cover	24	15.5
A863CFG ►	Mud Box with Ceiling Ring & Ground Lug	24	16.1



Mud Box with One-Gang Ring

CAT. NO.	SIZE	STD. CTN.	STD. WT. (LBS.)
A863S	Mud Box with One-Gang Ring	24	16.8
A863SG ►	Mud Box with One-Gang	24	16.2
	Ring & Ground Lug		



CAT. NO.	SIZE	STD. CTN.	STD. WT. (LBS.)
A863D	Mud Box with Two-Gang Ring	24	15.8
A863DG ►	Mud Box with Two-Gang Ring	24	16.6
	& Ground Lug		

Mud Box with 4" Square Ring

4" Square Ring not for luminaire

CAT. NO.	SIZE	STD. CTN.	STD. WT. (LBS.)
A863-4SQ ►	Mud Box with 4-Inch Square Ring	24	15.2

Mud Box Assemblies with Mounting Feet

Carlon® Mud Box Assemblies with Mounting Feet are specifically engineered and designed for use in Tunnel Form applications. The mounting feet are located on all four corners and enable the box to attach directly to the wall of the form using pop rivets. The pop rivets help keep the box in position during the pour and provide a safe, secure and rust-resistant mount.

CAT. NO.	SIZE	STD. CTN.	STD. WT. (LBS.)
A863-4SQF	4-Square Ring	24	17.15
A863CFF	Ceiling Ring	24	16.61
A863CFGF	Ceiling Ring and Ground Lug	24	17.46
A863DF	Double-Gang	24	17.42
A863DGF	Double-Gang and Ground Lug	24	17.99
A863SF	Single-Gang	24	17.15
A863SGF	Single-Gang and Ground Lug	24	17.44

















Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354

Technical Services Tel: 888.862.3289







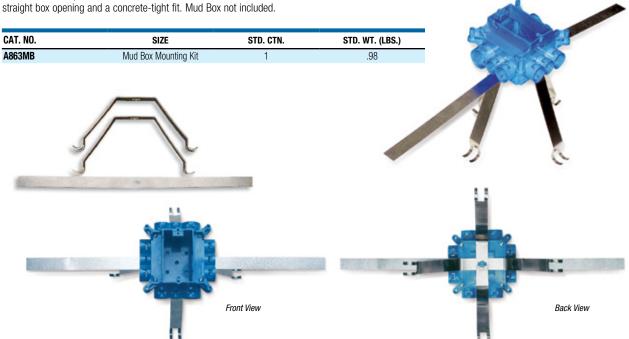


Carlon

Boxes and Accessories



CARLON® EXCLUSIVE...The Carlon® ENT Mounting Bracket is specifically designed for use with Carlon® ENT Mud Box Assemblies in vertical concrete walls where one- or two-gang boxes are needed. The stainless steel spring-loaded mechanism provides a secure outlet box between concrete forms while the soft-steel strap enables the outlet box to be secured to rebar. The bracket combination ensures a



ENT Bridge

CARLON® EXCLUSIVE...The Carlon® ENT Bridge is designed to support long ENT runs in concrete pour applications. This makes pulling wire/cable a snap. Installation is easy...simply mount the ENT bridge, using nails or screws, to the wood deck mounting and snap the ENT into place. The bridge is designed to hold the conduit in place while minimizing dips in the conduit over long runs. The Carlon® ENT Bridge is manufactured out of a highly engineered thermoplastic material to provide extra strength and durability and can accommodate ENT sizes ½", ¾" and 1". (The Carlon® ENT bridge can be used with rigid non-metallic conduit too.)

CAT. NO.	SIZE	STD. CTN.	STD. WT. (LBS.)
A293DEF	ENT Bridge	50	9.0









Thomas@Betts

Carlon®

Boxes and Accessories

Transition Adapters

Male ENT to Schedule 40 and 80 PVC Conduit

CARLON® EXCLUSIVE...Carlon® Male ENT to Schedule 40 & 80 PVC Conduit Transition Adapters are designed to connect Schedule 40 conduit to Carlon® Flex-Plus® Blue™ ENT boxes and fittings. Simply solvent cement the PVC adapter to the Schedule 40 conduit and snap the adapter into Carlon's® "Quick Connect" snap-in connector on the box or fitting. Carlon® Male ENT to Schedule 40 & 80 Adapters are concrete tight and available in sizes ½", ¾" and 1".

CAT. NO.	SIZE	STD. CTN.	STD. WT. (LBS.)
A263D	½" ENT to ½" Sch. 40 or Sch. 80	100	2.4
A263E	3/4" ENT to 3/4" Sch. 40 or Sch. 80	100	3.2
A263F	1" ENT to 1" Sch. 40 or Sch. 80	100	4.5
A263F	1" ENT to 1" Sch. 40 or Sch. 80	100	4



Carlon Exclusive





ENT to EMT

Carlon® ENT to EMT Transition Adapters are designed to easily transition from Carlon® Flex-Plus® Blue™ ENT to EMT using Carlon's® "Quick Connect" snap-in design. The EMT is held securely in place using the small screw (provided). This helps prevent the EMT from slipping/shifting out of the adapter. All ENT to EMT adapters are manufactured out of polycarbonate material to provide extra strength and durability. They're concrete tight and available in sizes ½", ¾" and 1".

		STD.	STD. WT.
CAT. NO.	SIZE	CTN.	(LBS.)
A245D	½" ENT to ½" EMT	100	3.4
A245E	3/4" ENT to 3/4" EMT	100	4.1
A245F	1" ENT to 1" EMT	100	5.4





Reducers

CARLON® EXCLUSIVE...Carlon® ENT Reducers are designed to provide an easy transition from 1" Carlon® ENT to ¾" ENT or from ¾" Carlon® ENT to ½" ENT. They're concrete tight and manufactured out of polycarbonate material to provide extra strength and durability. Carlon® ENT Reducers provide flexibility while on the jobsite by minimizing the need to carry size-specific boxes and fittings. Carlon® ENT Reducers provide the versatility to convert Carlon® fittings and boxes to many different sizes and configurations.

CAT. NO.	SIZE	STD. CTN.	STD. WT. (LBS.)
A273DE	3/4"—1/2"	100	3.2
A273EF	1"-3/4"	100	2.4









United StatesTel: 901.252.8000
800.816.7809

Fax: 901.252.1354

Technical Services
Tel: 888.862.3289









Boxes and Accessories

Outlet and Switch Boxes — Eccentric Knockouts

CARLON® EXCLUSIVE...Carlon® ENT Outlet and Switch Boxes with Eccentric Knockouts are designed to enable selective ENT openings — $\frac{1}{2}$ ", $\frac{3}{4}$ " and 1" — based on application needs. They provide the largest capacity available on the market today — 22 cu. in. Single-Gang, and 38 cu. in. Double-Gang — and can be mounted to wood or steel studs. Carlon® ENT Outlet and Switch Boxes with Eccentric Knockouts are manufactured out of a highly engineered thermoplastic material to provide extra strength and durability and are available in single-gang and double-gang styles.



Note: The double-gang version is also a 4-in. square box.

Single-Gang — 22 Cu. In.

CAT. NO.	SIZE	CAPACITY Cu. In.	STD. CTN.	STD. WT. (LBS.)
A122	Single-Gang	22	25	6.8

UL Classified for 2-hour-or-less fire-resistant fire wall assemblies



Combination Two-Gang/Four-Inch Square Box — 38 Cu. In.

CAT. NO.	SIZE	CAPACITY Cu. in.	STD. CTN.	STD. WT. (LBS.)
A238	Two-Gang	38	25	8.9

UL Classified for 2-hour-or-less fire-resistant fire wall assemblies



Outlet Box Divider

Carlon® ENT Outlet Box Divider is specifically designed for applications where a combined high- and low-voltage closed-back box is needed, such as for placement in a fire-rated wall. Just slip the divider into place to get the split box you need. The Carlon® ENT Outlet Box Divider is UL® Recognized for use with the Carlon® A238 Box only.



CAT. NO.	SIZE	STD. CTN.	STD. WT. (LBS.)
A238DIV		50	1.87







1-800-453-1692 www.aboveboardelectronics.com





Carlon

Boxes and Accessories

Quick-Connect Adapters and Couplings

- Carlon® one-piece ENT Quick-Connect Couplings, Threaded Adapters and Snap-In Terminator Adapters are suitable for damp
- · Quick-Connect Couplings and Threaded Adapters are concrete-tight when used with Carlon® ENT
- · All sizes of rigid non-metallic conduit fittings are compatible with ENT when using ENT cement
- · Rigid non-metallic conduit fittings are recommended for use with Carlon® 1¹/4" -2" Flex-Plus® Blue™ ENT
- Use of ENT Blue™ Quick-Set Cement is required. See page A-338 for details

When One-Piece Quick-Connect Snap-In Terminator Adapters are installed in a concrete application, Carlon® flat sealing washers must be used on the box connection ends





LR92248

CAT. NO.	SIZE (IN.)	STD. CTN.	STD. WT. (LBS.)
A240D	1/2	150	2.90
A240E	3/4	100	3.00
A240F	1	50	2.30

Threaded Adapters

Couplings

CAT. NO.	SIZE (IN.)	STD. CTN.	STD. WT. (LBS.)
A243D	1/2	150	2.55
A243E	3/4	100	2.30
A243F	1	50	2.00

Snap-In Adapters

CAT. NO.	SIZE (IN.)	STD. CTN.	STD. WT. (LBS.)
A253D	1/2	150	2.70
A253E	3/4	100	2.90
A253F	1	50	2.30





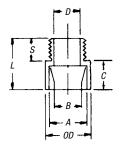


Rigid Non-Metallic Conduit Adapters and Couplings

Male Terminal Adapters

For adapting non-metallic conduits to boxes, threaded fittings, metallic systems. Male threads on one end, socket end on other.





		STD.	TYP	ICAL	- MIN.	MAX.	TY	/PICA	L	STD. WT.
CAT. NO.	SIZE	CTN.	Α	В	D	OD	С	S	L	(LBS.)
E943D	1/2	150	.852	.836	.597	11//8	5/8	% ₁₆	1 ½16	2.8
E943E	3/4	125	1.064	1.046	.800	111/32	3/4	9/16	13/8	3.5
E943F	1	50	1.330	1.310	1.018	1%	1	11/16	1 ²⁵ / ₃₂	3
E943G	11/4	50	1.677	1.655	1.332	21/32	1	3/4	1 15/16	4
E943H	1½	25	1.918	1.894	1.566	25/32	13/16	3/4	21/16	2.5
E943J	2	50	2.393	2.369	2.000	$2^{21}/_{32}$	13/16	3/4	21/8	7

*All measurements in inches, unless otherwise noted.

Standard Couplings

All socket fittings should be attached using ENT Blue™ Quick-Set Cement (page A-338). Using Carlon® fittings with Carlon® non-metallic conduit ensures system integrity



Socket type for joining non-metallic conduit.

<i>j</i> .		-0.D.
		→ A →
	Ĉ	/- B -\
L 	<u>. </u>	I.D.
¥_		

(F)

LR31146

		STD.	TYP	ICAL	- MIN.	MAX.	TYP	CAL	STD. WT.
CAT. NO.	SIZE	CTN.	Α	В	D	OD	С	L	(LBS.)
E940D	1/2	150	.852	.836	.728	17/64	11/16	1½	2.8
E940E	3/4	100	1.064	1.046	.840	15/16	3/4	1%	3.5
E940F	1	50	1.330	1.310	1.210	1%	¹⁵ / ₁₆	2	3
E940G	11/4	30	1.677	1.655	1.535	163/64	1	21/8	4
E940H	11/2	25	1.918	1.894	1.755	$2^{15}/_{64}$	11//8	23/8	2.5
E940J	2	30	2.393	2.369	2.190	$2^{47}/_{64}$	13/16	2½	7

*All measurements in inches, unless otherwise noted.



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354

Technical Services Tel: 888.862.3289











Boxes and Accessories

21/211 and 411 Mud Boxes and Covers

• UL Classified for 2-hour-or-less fire-resistant floor/ceiling assemblies

Base Rings

Listed for use with ceiling fans up to 35 lbs. and for fixture support up to 50 lbs.





42728	LR3114

CAT. NO.	SIZE	STD. CTN.	STD. WT. (LBS.)
A861	Without Ground Lug	10	2.5
C861G	With Ground Lug	10	2.0



Covers

CAT. NO.	SIZE (IN.)	STD. CTN.	STD. WT. (LBS.)
A862D	21/2 Deep (1/2" KOs)	10	2.5
A862E	21/2 Deep (3/4" KOs)	10	2.1
A864D	4 Deep (1/2" KOs)	10	2.9
A864E	4 Deep (¾" KOs)	10	2.9
A864F	4 Deep (1" KOs)	10	3.0



Quick-Connect Outlet and Switch Boxes

- · Suitable for masonry walls
- Meets NEMA OS-2
- UL Classified for 2-hour-or-less fire-resistant wall assemblies



Single-Gang — 16 Cu. In.

CAT. NO.	SIZE (IN.)	STD. CTN.	STD. WT. (LBS.)
A58381D	3 x 21/4 x 3 (1/2" KOs)	25	4.6
A58381E	3 x 21/4 x 3 (3/4" KOs)	25	4.6



4" Square — 20 Cu. In.

T Oquaic	20 Ou. III.		
CAT. NO.	SIZE (IN.)	STD. CTN.	STD. WT. (LBS.)
A52151D	4 x 4 x 1½ (½" KOs)	100	22.6
A52151E	4 x 4 x 1½ (¾" KOs)	100	22.6
Δ521DF	1 v 1 v 11/2 (1/2" & 3/4" K()e)	100	22.6



4" Square — 30.3 Cu. In.

CAT. NO.	SIZE (IN.)	STD. CTN.	STD. WT. (LBS.)
A52171D	4 x 4 x 23/8 (1/2" KOs)	25	7.6
A52171E	4 x 4 x 23/8 (3/4" KOs)	25	7.6
A5217DE	4 x 4 x 23/8 (1/2" & 3/4" KOs)	25	7.6





United States Tel: 901.252.8000

800.816.7809 Fax: 901.252.1354







Carlon

Boxes and Accessories

ENT Box with Adapters

· UL Classified for 2-hour-or-less fire-resistant wall assemblies

4" Square — 24.75 Cu. In. ENT Box with Adapters

(ŋ	

. equal	2 1110 041 1111 2111 2011 1111111	ш.р.с. с	
CAT. NO.	SIZE (IN.)	STD. CTN.	STD. WT. (LBS.)
A5329DE	4 x 4 x 1¾ (½" & ¾" KOs)	50	14.8

UL Listed E42728



Box Back Wall Support

CAT. NO.	SIZE	STD. CTN.	STD. WT. (LBS.)
A540DS	For use with ½" Knockout	100	2.1



ENT Box Extenders

· UL Classified for 2-hour-or-less fire-resistant wall assemblies



Single-Gang

CAT. NO.	RISE (IN.)	CU. IN.	STD. CTN.	STD. WT. (LBS.)
A410	1/2	3.5	100	7.7
A411	5/8	4.2	50	4.6
A412	3/4	5.0	50	5.1
A413	1	6.6	40	5
A414	11/4	8.1	30	4.4



Two-Gang

1 WO dulig				
CAT. NO.	RISE (IN.)	CU. IN.	STD. CTN.	STD. WT. (LBS.)
A400	Blank	_	100	7.7
A420	1/2	6.1	75	5.0
A421	5/8	7.4	50	4.2
A422	3/4	8.8	50	4.8







1-800-453-1692







Boxes and Accessories

Round Covers for Octagon Ceiling Boxes

Round Plaster Rings

- · Listed for fixture support up to 50 lbs.
- · UL Classified for 2-hour-or-less fire-resistant assemblies





CAT. NO.	RISE (IN.)	CU. IN.	STD. CTN.	STD. WT. (LBS.)
A471	1/2	3.2	100	3.3
A472	3/4	4.0	100	3.7



Round Blank Covers

CAT. NO.	RISE	CU. IN.	STD. CTN.	STD. WT. (LBS.)
E460R-CAR	Blank	_	35	2.2
A470D	Blank with 1/2" KO	_	100	4.7

Quick Connect 4" Octagon Ceiling Boxes

- Carlon® ceiling boxes and round plaster rings are produced from a special high heat-resistant engineered plastic material developed specifically for fixture support
- Listed for fixture support up to 50 lbs.
- UL Classified for 2-hour-or-less fire resistant floor/ceiling assemblies



Ceiling Box — 20.5 Cu. In.

CAT. NO.	SIZE (IN.)	STD. CTN.	STD. WT. (LBS.)
A615D	(4) 21/8 Deep (1/2" KOs)	50	6.4
A615E	(4) 21/8 Deep (3/4" KOs)	50	6.4
A615DE	(4) 21/8 Deep (1/2" & 3/4" KOs)	50	6.4



CAT. NO.	SIZE (IN.)	STD. CTN.	STD. WT. (LBS.)
A615DJ	(4) 21/8 Deep (1/2" KOs)	50	18.7



o coming a com			
CAT. NO.	SIZE (IN.)	STD. CTN.	STD. WT. (LBS.)
A615DL	(4) 21/8 Deep (1/2" KOs)	50	6.4



Ceiling Box with Adjustable Hanger Bar — 20.5 Cu. In.

CAT. NO.	SIZE (IN.)	STD. CTN.	STD. WT. (LBS.)
A615DH	(4) 21/8 Deep (1/2" KOs)	25	13.6







United States Tel: 901.252.8000

800.816.7809 Fax: 901.252.1354









www.aboveboardelectronics.com

1-800-453-1692

Carlon®

Boxes and Accessories

PVC Conduit Cutters

Small Cutter

For fast, smooth field cuts of $\frac{1}{2}$ " through 1" Flex-Plus® Blue[™] ENT.



CAT. NO.	SIZE (IN.)	STD. CTN.
CC120B	8	10

Medium Cutter

Handheld cutter makes fast, square, smooth field cuts on conduit from $\frac{1}{2}$ " through $\frac{1}{4}$ ". Produces burr-free cut with no shavings. Fits into pocket or pouch.



CAT. NO.	SIZE (IN.)	STD. CTN.
CC125	9	12

Large Cutter

For clean cuts of conduit 1/2" through 2".



CAT. NO.	SIZE (IN.)	STD. CTN.
CC122	17½	1

Concrete Sleeves

Non-metallic concrete sleeve forms are the easy way to form holes in concrete. They install in seconds with nails, screws or staples and are easily removed. Concrete will not adhere to them. Concrete sleeves are adjustable to any slab thickness.



CAT. NO.	MIN. O.D. A (IN.)	B (IN.)	STD. CTN.	STD. WT. (LBS.)
E92CSH	1½	1¾	20	3
E92CSJ	2	213/32	25	6
E92CSL	3	313/32	25	8
E92CSN	4	413/32	18	8
E92CSP	5	513/32	15	8
E92CSR	6	$6^{13}/_{32}$	12	8

Tape

Prelubricated, woven polyester tape made from low-friction, high abrasion-resistant yarns, providing a low coefficient of friction. Tape is printed with sequential footage markings for accurate measurements.



CAT. NO.	SIZE (IN.)	TENSILE Strength (LBS.)	REEL Lengths (Ft.)
TL14505	1/2	1250	5000
TL14510	1/2	1250	10000
TL38203	5/8	1800	3000
TL38265	5/8	1800	6500
TL38210	5/8	1800	10000

Other tapes are available. Consult your sales service location for additional information.

Carlon® Low VOC Cement

(MSDS sheets available at www.carlon.com)

All Weather — ENT Blue

RECOMMENDED PIPE APPLICATION AND SIZES	SET-UP TIME (EVAPORATION RATE)		RECOMMENDED INSTALLATION TEMP.		SHEAR 73° F	VISCOSITY AT 75° F AS MANUFACTURED
Required for use with Flex-Plus® ENT	-5°–10° F	6–8 Minutes	-5° to 100° F	2 Hrs.	350 PSI	400-700 CPS
(Electrical Non-Metallic Tubing),	10°-30° F	4-5 Minutes		16 Hrs.	800 PSI	
Riser-Gard®, P&C Flex™ and Carlon®	30°-50° F	3-4 Minutes		72 Hrs.	1500 PSI	
PVC fittings.	50°-70° F	1-2 Minutes				
Up through 6" diameter.	70°-90° F	1/2-11/2 Minutes				



ENT cement required for use with ENT and Rigid Non-Metallic Conduit Fittings.

CAT. NO.	SIZE	APPLICATOR	DESCRIPTION	STD. CTN.	STD. WT. (LBS.)
VC9992	Quart	Dauber	All-Weather "Quick-Set" Blue	12	29.0

Meets ASTM D-2564.



United States Tel: 901.252.8000

800.816.7809 Fax: 901.252.1354 **Technical Services** Tel: 888.862.3289







Carlon®

Flexible Raceway Systems

Carlon® Plenum-Gard® Raceway

Plenum-Gard® is a UL® Listed non-metallic corrugated flexible conduit for use in plenum, riser and general purpose applications. Plenum-Gard® is manufactured from PVDF resin, which is extremely durable and resistant to abrasion and mechanical damage before/after cable installation.

Plenum-Gard® is listed to UL® 2024 in accordance with the National Electrical Code® for plenum, riser, general purpose and other cabling/optical fiber/telecommunication applications as defined in Articles 725, 770, 800 and 820.

Important: Installed cables must be plenum rated and the UL® Listing must be printed on the product. Abandoned cables MUST be removed (reference NEC®).

Technical Info

UL STANDARD 2024	VALUE
Maximum Flame Propagation	5 ft.
Max. Peak Optical Smoke Density	0.5
Max. Average Optical Smoke Density	0.15

Storage: -4° to 158° F

Handling: -4° to 104° F

• No UV protection (not suitable for outdoor use)

Do not store outside



Applications: Plenum, Riser and General Purpose

NEC and National Electrical Code are registered trademarks of the National Fire Protection Association, Inc.



Standard Stock — Reels

Standard Stock	TICCIS							
CAT. NO.	SIZE (IN.)	COLOR	PULL TAPE	REEL SIZE (F X W) (IN.)	REEL TYPE	REEL Length (Ft.)	REEL WT.(LBS.)	REEL WT. PER 100 FT. (LBS.)
CD4X1C-1500	1/2	Orange	200 lb.	34 x 23	Wood	1,500	30	7
CE4X1-1000		Orange	Empty	34 x 23	Wood	1,000	30	8
CE4X1-1000S	3/4	Orange	Empty/Split	34 x 23	Wood	1,000	30	8
CE4X1C-1000		Orange	900 lb.	34 x 23	Wood	1,000	30	8
CF4X1C-500		Orange	900 lb.	34 x 23	Wood	500	30	10
CF4X1C-1000		Orange	900 lb.	48 x 28	Wood	1,000	79	10
CF4X1C-1500	1	Orange	900 lb.	48 x 28	Wood	1,500	79	10
CF4X1C-5200		Orange	900 lb.	66 x 41	Wood	5,200	250	10
CF4X1C-6500		Orange	900 lb.	72 x 41	Wood	6,500	310	10
CF4X1C-8000		Orange	900 lb.	82 x 41	Wood	8,000	365	10
CG4X1C-500		Orange	900 lb.	48 x 28	Wood	500	79	14
CG4X1-500S		Orange	Empty/Split	48 x 28	Wood	500	79	10
CG4X1C-900		Orange	900 lb.	48 x 45	Wood	900	96	14
CG4X1C-1600	11/4	Orange	900 lb.	48 x 45	Wood	1,600	96	14
CG4X1C-3200		Orange	900 lb.	66 x 41	Wood	3,200	250	14
CG4X1C-6500		Orange	900 lb.	96 x 41	Wood	6,500	700	14
CG4X1-900S		Orange	Empty/Split	48 x 28	Wood	900	79	14
CH4X1C-350		Orange	900 lb.	48 x 28	Wood	350	79	16
CH4X1C-1200	1½	Orange	900 lb.	48 x 45	Wood	1,200	96	16
CH4X1C-4000		Orange	900 lb.	82 x 41	Wood	4,000	365	16
CJ4X1-200S		Orange	Empty/Split	48 x 28	Wood	200	79	21
CJ4X1C-225		Orange	900 lb.	48 x 28	Wood	225	79	21
CJ4X1C-700	2	Orange	900 lb.	48 x 45	Wood	700	96	21
CJ4X1C-1400		Orange	900 lb.	82 x 41	Wood	1,400	365	21
CJ4X1C-2000		Orange	900 lb.	82 x 41	Wood	2,000	365	21
CJ4X1C-2800		Orange	900 lb.	82 x 41	Wood	2,800	365	21
CL4X1C-150	3	Orange	900 lb.	48 x 45	Wood	150	96	41

www.tnb.com

United States
Tel: 901.252.8000
800.816.7809
Fax: 901.252.1354

Technical Services
Tel: 888.862.3289







Carlon® Plenum-Gard® Raceway (continued)

- For use in plenum areas per NEC® Articles 725, 770, 800 and 820
- Sizes ½" through 3"
- Pre-installed pull tape available in sizes ½" through 3"
- · Outside diameters meet IPS dimensions
- UL® Listed raceway meeting UL 2024
- · Footage sequentially marked
- · Single-peak design

Standard Stock — Coils

CAT. NO.	SIZE (IN.)	COLOR	PULL TAPE	COIL LENGTH (FT.)	PRODUCT WT. PER 100 FT.(LBS.)
CD4X1C-500	1/2	Orange	900 lb.	500	7
CE4X1-350*	3/4	Orange	Empty	350	8
CE4X1-350S		Orange	Empty/Split	350	8
CF4X1C-100*		Orange	900 lb.	100	10
CF4X1-100S*		Orange	Empty/Split	100	10
CF4X1C-250*	1	Orange	900 lb.	250	10
CF4X1-250		Orange	Empty	250	10
CF4X1-250S*		Orange	Empty/Split	250	10
CG4X1C-200*	11/4	Orange	900 lb.	200	14
CG4X1-200S		Orange	Empty/Split	200	14
CH4X1C-150*	1½	Orange	900 lb.	150	16
CH4X1-150S		Orange	Empty/Split	150	16
CJ4X1C-100*	2	Orange	900 lb.	100	21
CJ4X1-100S		Orange	Empty/Split	100	21

^{*} Overnight Shippable

Specifications

••••				
SIZE (IN.)	I.D. MIN. REF. (IN.)	MIN. O.D. (IN.)	MAX. O.D. (IN.)	MIN. BEND RADIUS (IN.)
½	.60	.815	.835	2
3/4	.74	1.025	1.045	2
1	1.00	1.292	1.312	3
1¼	1.35	1.630	1.650	3
1½	1.50	1.868	1.888	4
2	2.00	2.329	2.439	4
3	3.00	3.422	3.452	4

Custom Orders — How to Build a Part Number:

Gustoili Giucis — I	iow to build a i ai	t Nulliber.				
POSITION 1 Product	POSITION 2 Size (IN.)	POSITION 3 Type	POSITION 4 Wall	POSITION 5 COLOR	POSITION 6 Pull line	POSITION 7 Length
C = Plenum-Gard	D = ½	4 = Corrugated	X = Standard	1 = Orange	C = 900 LB. Tape	Example
	E = ¾			2 = Black		-1000 = Feet
	F = 1			3 = Gray		-1000S = 1000 Feet Split
	G = 11/4			4 = White		
	H = 1½			5 = Blue		
	J = 2			7 = Yellow		
	L = 3			8 = Red		

- Custom orders are not returnable
- Custom lengths are available in minimum order quantities of 1,000 ft.
- Custom color runs are available in minimum order quantities of 10,000 ft.

- Options: Color: Black, Blue, Gray, Red, White and Yellow
 - · Two-, three- or four-way parallel
 - Split duct
 - · Custom print line



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354



Tel: 888.862.3289









Carlon® Riser-Gard® Raceway

Riser-Gard® is a non-metallic flexible raceway for use in riser and general purpose applications. Riser-Gard® is UL® Listed and is available with tape pre-installed. Riser-Gard is listed to UL® 2024 Standard for riser applications or optical fiber/communications raceways.

Riser-Gard® is listed to UL® 2024 in accordance with the National Electrical Code® per Articles 725, 770, 800 and 820 for riser, general purpose and other cabling/optical fiber/telecommunication applications. Riser-Gard® is suitable for use in vertical runs in a shaft or between floors, as well as areas other than the plenum.

Important: Installed cables must be of suitable rating for the application.

Technical Info

UL LISTED TO 2024	TEST METHOD	MAXIMUM VALUE
Maximum Flame Propagation	UL 2024	6.0 ft.
Maximum Air Temperature at 12 ft.	UL 2024	372° F

- Storage: -4° to 158° F
- Handling: -4° to 104° F
- No UV protection (not suitable for outdoor use)
- Do not store outside



Applications: Riser and General Purpose

NEC and National Electrical Code are registered trademarks of the National Fire Protection Association, Inc.



Standard Stock — Reels

CAT. NO.	SIZE (IN.)	COLOR	PULL TAPE	REEL SIZE (F X W) (IN.)	REEL TYPE	REEL Length (Ft.)	REEL WT.(LBS.)	REEL WT. PER 100 FT. (LBS.)
DE4X1-1000	3/4	Orange	Empty	34 x 23	W	1,000	30	12
DF4X1C-500R		Orange	900 lb.	43 x 23	W	500	56	15
DF4X1C-1000		Orange	900 lb.	48 x 28	W	1,000	79	15
DF4X1C-1500		Orange	900 lb.	48 x 28	W	1,500	79	15
DF4X1C-2700	1	Orange	900 lb.	48 x 45	W	2,700	96	15
DF4X1C-5200		Orange	900 lb.	66 x 41	W	5,200	250	15
DF4X1C-6500		Orange	900 lb.	72 x 41	W	6,500	310	15
DF4X1C-7000		Orange	900 lb.	72 x 45	S	7,000	148	15
DF4X1C-9400		Orange	900 lb.	84 x 45	S	9,400	199	15
DG4X1C-900		Orange	900 lb.	48 x 28	W	900	79	17
DG4X1C-500R		Orange	900 lb.	48 x 23	W	500	56	17
DG4X1C-1500		Orange	900 lb.	48 x 45	W	1,500	96	17
DG4X1C-1600	1¼	Orange	900 lb.	48 x 45	W	1,600	96	17
DG4X1C-3200		Orange	900 lb.	66 x 41	W	3,200	250	17
DG4X1C-4500		Orange	900 lb.	72 x 45	S	4,500	148	17
DG4X1C-5600		Orange	900 lb.	82 x 41	W	5,600	365	17
DG4X1C-6500		Orange	900 lb.	96 x 41	S	6,500	700	17
DH4X1C-1200		Orange	900 lb.	48 x 45	W	1,200	96	22
DH4X1C-4000	1½	Orange	900 lb.	82 x 45	S	400	193	22
DH4X1C-4500		Orange	900 lb.	84 x 45	S	4,500	199	22
DJ4X1C-700		Orange	900 lb.	48 x 45	W	700	96	27
DJ4X1C-2000	2	Orange	900 lb.	82 x 41	W	200	265	27
DJ4X1C-2800		Orange	900 lb.	84 x 45	S	2,800	199	27
DL4X1C-750	3	Orange	900 lb.	72 x 41	W	750	310	27
W = Wood	S = Steel							

www.tnb.com

United States Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354

Technical Services









Carlon® Riser-Gard® Raceway (continued)

Features:

- For use in riser and general purpose areas per NEC® Articles 725, 770, 800 and 820
- Riser-Gard® is also suitable for direct burial, not approved for exposed applications

Note: UL has not evaluated Riser-Gard® for this application.

- UL® Listed raceway meeting UL 2024
- Available in sizes ¾" through 3"
- Pull tape can be factory pre-installed in 1" through 3"
- · Outside diameters meet IPS dimensions
- Footage sequentially marked

Standard Stock — Coils

CAT. NO.	SIZE (IN.)	COLOR	PULL TAPE	COIL LENGTH (FT.)	PRODUCT WT. PER 100 FT.(LBS.)
DE4X1-350*	3/4	Orange	Empty	350	12
DF4X1C-125		Orange	900 lb.	125	15
DF4X1C-250*		Orange	900 lb.	250	15
DF4X1-250	1	Orange	Empty	250	15
DF4X1C-500		Orange	900 lb.	500	15
DF4X1-250S*		Orange	Empty/Split	250	15
DG4X1-200		Orange	Empty	200	17
DG4X1-200S*	11/4	Orange	Empty/Split	200	17
DG4X1C-200*		Orange	900 lb.	200	17
DG4X1C-500		Orange	900 lb.	500	17
DH4X1-150S	1½	Orange	Empty/Split	150	22
DH4X1C-150*		Orange	900 lb.	150	22
DJ4X1-100S	2	Orange	Empty/Split	100	27
DJ4X1C-100*		Orange	900 lb.	100	27
DL4X1C-250	3	Orange	900 lb.	250	27

^{*} Overnight Shippable

Specifications

SIZE (IN.)	I.D. MIN. REF. (IN.)	MIN. O.D. (IN.)	MAX. O.D. (IN.)	MIN. BEND RADIUS (IN.)
3/4	.74	1.025	1.075	5
1	.98	1.290	1.340	6
1¼	1.31	1.640	1.690	8
1½	1.54	1.880	1.930	10
2	2.00	2.350	2.400	12
3	3.00	3.422	3.452	18

Custom Orders — How to Build a Part Number:

POSITION 1 Product	POSITION 2 SIZE (IN.)	POSITION 3 Type	POSITION 4 Wall	POSITION 5 COLOR	POSITION 6 Pull line	POSITION 7 Length
D = Riser-Gard	E = ¾	4 = Corrugated	X = Standard	1 = Orange	C = 900 lb. Tape	Example
	F = 1			2 = Black		-1000 = Feet
	$G = 1\frac{1}{4}$			3 = Gray		-1000S = 1000 Feet Split
	H = 1½			4 = White		
	J = 2			5 = Blue		
	L = 3			7 = Yellow		
				8 = RED		

- · Custom orders are not returnable
- Custom lengths are available in minimum order quantities of 1,000 ft.
- Custom color runs are available in minimum order quantities of 10,000 ft.

- Options: Color: Black, Blue, Gray, Red, White and Yellow
 - Two-, three- or four-way parallel
 - · Split duct
 - · Custom print line



United States Tel: 901.252.8000

800.816.7809 Fax: 901.252.1354











Carlon® Hal-Free Riser-Gard® Raceway

Hal-Free Riser-Gard® is a halogen-free non-metallic flexible raceway for use in riser and general purpose applications. In the event of a fire, this product will not release halogen elements into the air, which makes it ideal for applications in tunnels, laboratories and high-tech environments. Hal-Free Riser-Gard® is listed to UL® 2024 in accordance with NEC® Articles 725, 770, 800 and 820. Custom lengths and split ducts are available upon request. Hal-Free Riser-Gard® is available in white only.

Features:

- Free from halogen elements
- Compliant with NEC® Articles 725, 770, 800 and 820
- Available in sizes 1" through 2"
- · Available in white only
- Sequentially marked footage

Technical Info

UL LISTED TO 2024	TEST METHOD	MAXIMUM VALUE
Maximum Flame Propagation	UL 2024	3' 6" ft.
Maximum Air Temperature	UL 2024	387° F

- Storage and Handling: -4° to 150° F
- No UV protection (not suitable for outdoor use)
- Do not store outside



Applications: Riser and General Purpose

NEC and National Electrical Code are registered trademarks of the National Fire Protection Association, Inc.



Standard Stock — Reels

CAT. NO.	SIZE (IN.)	COLOR	NOM. I.D (IN.)	NOM. O.D. (IN.)	PULL TAPE	REEL SIZE (F X W) (IN.)	REEL TYPE	REEL LENGTH (FT.)	REEL WT. (LBS.)	PRODUCT WT. PER 100 FT. (LBS.)
HF4X4C-5000	1	White	1.049	1.365	900 lb.	72" x 41"	W	5,000	310	7.5
HG4X4C-4000	11/4	White	1.250	1.550	900 lb.	72" x 41"	W	4,000	310	7.5
HH4X4C-2000	1½	White	1.500	1.850	900 lb.	66" x 41"	W	2,000	250	12
H.14X4C-2000	2	White	2 000	2.425	900 lb	82" x 41"	W	2 000	365	21

Custom Orders — How to Build a Part Number:

POSITION 1 Product	POSITION 2 SIZE (IN.)	POSITION 3 Type	POSITION 4 Wall	POSITION 5 COLOR	POSITION 6 Pull line	POSITION 7 Length
H = Hal-Free	F = 1	4 = Corrugated	X = Standard	4 = White	C = 900 lb. Tape	Example
	G = 11/4					-1000 = Feet
	H = 1½					-1000S = 1000 Feet Split
	.l = 2					

- · Custom orders are not returnable
- · Custom lengths are available in minimum order quantities of 1,000 ft.





1-800-453-1692





Carlon

Flexible Raceway Systems

Carlon® Plenum Duct

Technical Info:

- Maximum flame propagation distance is less than 5.0 ft.
- · Peak optical density of smoke is less than 0.50
- Average optical density of smoke is less than 0.15
- UL® Listed to UL 2024 Standard
- FT-6 Rated



Standard Stock — Reels

CAT. NO.	SIZE (IN.)	COLOR	PULL TAPE	REEL SIZE (IN.)	REEL LENGTH (FT.)	REEL WT. (LBS.)	PRODUCT WT. PER 100 FT. (LBS.)
PLM100T-500		White	900 lb.	34 x 23	500	30	10
PLM100T-1800	1	White	900 lb.	48 x 28	1,800	79	10
PLM100T-5000		White	900 lb.	72 x 41	5,000	310	10
PLM100T-8000		White	900 lb.	82 x 41	8,000	365	10
PLM125T-500		White	900 lb.	34 x 23	500	30	14
PLM125T-1000	11/4	White	900 lb.	48 x 30	1,000	83	14
PLM125T-5000		White	900 lb.	72 x 41	5,000	310	14
PLM125T-6000		White	900 lb.	82 x 41	6,000	365	14
PLM150T-2000	1½	White	900 lb.	66 x 41	2,000	250	14
PLM150T-4000		White	900 lb.	82 x 41	4,000	365	14
PLM200T-2000	2	White	900 lb.	82 x 41	2,000	365	21

Standard Stock — Coils/Box

CAT. NO.	SIZE (IN.)	COLOR	PULL TAPE	BOX SIZE (IN.)	COIL LENGTH (FT.)	PRODUCT WT. PER 100 FT. (LBS.)
PLM100T-250B2	1	White	900 lb.	34 x 14 x 34	250	10
PLM125T-250B4	1¼	White	900 lb.	39 x 15 x 39	250	14

Specifications

SIZE	I.D. MIN. REF.	MIN. O.D.	MAX. O.D.	MIN. BEND RADIUS
1/2	.60	.815	.835	2
3/4	.74	1.025	1.045	2
1	1.00	1.292	1.312	3
11/4	1.35	1.630	1.650	3
1½	1.50	1.868	1.888	4
2	2.00	2.329	2.439	4

Custom Orders — How to Build a Part Number:

POSITION 1 Product	POSITION 2 Size (IN.)	POSITION 3 Pull line	POSITION 4 LENGTH
PLM = PLENUM	100 = 1	T = 900 lb. Tape	Example
	125 = 11/4		-1000 = Feet
	150 = 1½		
	200 = 2		

NEC and National Electrical Code are registered trademarks of the National Fire Protection Association, Inc.





1-800-453-1692



Fax: 901.252.1354



Flexible Raceway Systems

Carlon® Riser Duct

Technical Info:

- · Maximum flame propagation: 6.0 ft. max. value
- Do not store outside
- No UV protection
- UL® Listed to UL 2024
- FT-4 Rated

Standard Stock — Reels



Applications: Riser and General Purpose Applications per NEC® Articles 725, 770, 800 and 820. Suitable for vertical runs in a shaft or between floors.

			PULL	REEL	REEL LENGTH	REEL WT.	PRODUCT WT. PER 100 FT.
CAT. NO.	SIZE (IN.)	COLOR	TAPE	SIZE (IN.)	(FT.)	(LBS.)	(LBS.)
RIS100T-5000	1	Orange	900 lb.	66 x 41	5,000	250	15
RIS125T-4000	11/4	Orange	900 lb.	72 x 41	4,000	310	17
RIS150T-2000	1½	Orange	900 lb.	66 x 41	2,000	250	22
RIS200T-2000	2	Orange	900 lb.	66 x 41	2.000	250	27

Specifications

SIZE (IN.)	I.D. MIN. REF. (IN.)	MIN. O.D. (IN.)	MAX. O.D. (IN.)	MIN. BEND Radius (In.)
3/4	.74	1.025	1.075	6
1	.98	1.290	1.340	6
11/4	1.31	1.640	1.690	7
11/2	1.54	1.880	1.930	81/4
2	2.00	2.350	2.400	91/2

Custom Orders — How to Build a Part Number:

POSITION 1	POSITION 2	POSITION 3	POSITION 4
Product	SIZE (IN.)	Pull line	LENGTH
RIS = Riser	$100 = 1$ $125 = 1\frac{1}{4}$ $150 = 1\frac{1}{2}$ $200 = 2$	T = 900 lb. Tape	Example -1000 = Feet

Carlon® Hal-Free Riser Duct

Technical Info:

- Maximum flame propagation: 6.0 ft. max. value
- Do not store outside
- No UV protection
- UL® Listed to UL 2024 Standard
- FT-4 Rated

Standard Stock — Reels



Applications: Riser and General Purpose Applications per NEC Articles 725, 770, 800 and 820.

			PULL	REEL	REEL LENGTH	REEL WT.	PRODUCT WT. PER 100 FT.
CAT. NO.	SIZE (IN.)	COLOR	TAPE	SIZE (IN.)	(FT.)	(LBS.)	(LBS.)
RHF100T-5000	1	White	900 lb.	66 x 41	5,000	250	15
RHF125T-4000	11/4	White	900 lb.	72 x 41	4,000	310	17
RHF150T-2000	1½	White	900 lb.	66 x 41	2,000	250	22
RHF200T-2000	2	White	900 lb.	82 x 41	2,000	365	27

Specifications

SIZE (IN.)	I.D. MIN. REF. (IN.)	MIN. O.D. (IN.)	MAX. O.D. (IN.)	MIN. BEND RADIUS (IN.)
3/4	.74	1.025	1.075	6
1	.98	1.290	1.340	6
11/4	1.31	1.640	1.690	7
11/2	1.54	1.880	1.930	81/4
2	2.00	2.350	2.400	9½

Custom Orders — How to Build a Part Number:

POSITION 1 Product	POSITION 2 Size (In.)	POSITION 3 Pull line	POSITION 4 LENGTH
RHF = Hal-Free Riser	$100 = 1$ $125 = 1\frac{1}{4}$ $150 = 1\frac{1}{2}$ $200 = 2$	T = 900 lb. Tape	Example -1000 = Feet



United States Tel: 901.252.8000

800.816.7809 Fax: 901.252.1354





Carlon®

Flexible Raceway Systems

Small. Slick. Speedy. Ideal for Telecom Installs! Carlon Micro-Gard Plenum and Micro-Gard Riser Duct

Carlon® Micro-Gard® Plenum and Micro-Gard® Riser is specifically designed to provide fiber pathways in plenum and riser applications in Multi-Dwelling Units (MDUs) and other premise structures.

The 8/6 and 12/10 mm size conduits can be installed individually or used to optimize space in existing duct structures. And the small size significantly reduces the structural damage caused during pass-throughs.

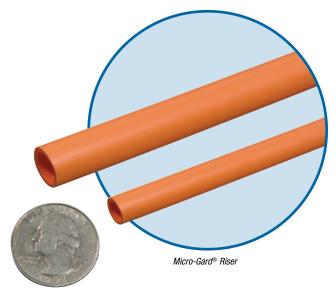
Micro-Gard® Plenum and Riser is UL® Listed for plenum and riser applications. It's easy to handle, easy to install and easy to conceal, making it the ideal MDU cable management system.

Features:

- UL® and cUL Listed to UL 2024 for plenum and riser applications
- Compliant with NEC® Articles 725, 770, 800 and 820
- Two sizes: 8/6mm and 12/10mm. The smaller sizes accommodate the size constraints of multi-dwelling units and make installations faster and easier
- Smooth interior wall eliminates snag points and provides low coefficient of friction, regardless of whether jetting or pull-tape is used
- Superior burn-through resistance for longer cable pulls
- Pre-lubricated, factory installed pull-tape makes installing cable faster and easier (option available for empty duct)
- Sequentially marked footage to easily identify lengths and reduce waste
- Reel sizes from 1,000 to 5,000 feet for easy handling on the jobsite
- Future-proofing raceway system for fast, easy wire/cable upgrades, changes and moves
- Used in cable bundles

NEC and National Electrical Code are registered trademarks of the National Fire Protection Association. Inc.









Technical Services
Tel: 888.862.3289





Flexible Raceway Systems

Carlon® Micro-Gard® Plenum and Micro-Gard® Riser

CAT NO.	SIZE	ТҮРЕ	COLOR	FACTORY INSTALLED	PRE-LUBRICATED Radius (In.)*	MIN. BEND Feet/Reel	REEL Size (In.)
MGP08MT-1000	8/6 mm	Plenum	White	50 lb. Cord	2	1,000	24
MGP08MT-2500	8/6 mm	Plenum	White	50 lb. Cord	2	2,500	24
MGP08MT-5000	8/6 mm	Plenum	White	50 lb. Cord	2	5,000	36
MGP12MT-1000	12/10 mm	Plenum	White	50 lb. Cord	4	1,000	24
MGP12MT-2500	12/10 mm	Plenum	White	50 lb. Cord	4	2,500	24
MGP12MT-5000	12/10 mm	Plenum	White	50 lb. Cord	4	5,000	36
MGR08JT-1000	8/6 mm	Riser	Orange	50 lb. Cord	2	1,000	24
MGR08JT-2500	8/6 mm	Riser	Orange	50 lb. Cord	2	2,500	24
MGR08JT-5000	8/6 mm	Riser	Orange	50 lb. Cord	2	5,000	36
MGR12JT-1000	12/10 mm	Riser	Orange	50 lb. Cord	4	1,000	24
MGR12JT-2500	12/10 mm	Riser	Orange	50 lb. Cord	4	2,500	24
MGR12JT-5000	12/10 mm	Riser	Orange	50 lb. Cord	4	5,000	36

^{*}NOTE: Do not exceed the minimum bend radius during installation of the product.

Micro-Gard® Plenum Dimensions — Smooth O.D./Ribbed I.D.

	OUTSIDE DIAMETER WALL		L		INSIDE DIA. (MIN.)			
CAT. NO.	INCH	ММ	INCH	ММ	INCH	ММ	# RIBS	 STD. WT. (LB./100 FT.)
MGP12RMT	.472 +/004	12 +/1	.047 +0/004	1 +0/1	.354	8.9	26	4.92
MGP08RMT	.315 +/004	8 +/1	.040 +0/004	1 +0/1	.212	5.4	16	2.68

Micro-Gard® Riser Dimensions — Smooth O.D./Ribbed I.D.

	OUTSIDE DIAMETER		WAL	WALL		INSIDE DIA. (MIN.)			– STD. WT.
CAT. NO.	INCH	ММ	INCH	ММ		INCH	ММ	# RIBS	(LB./100 FT.)
MGR12RJT	.472 +/004	12 +/1	.047 +0/004	1 +0/1		.354	8.9	26	2.86
MGR08RJT	.315 +/004	8 +/1	.040 +0/004	1 +0/1		.212	5.4	16	1.55

How to Interpret a Catalog Number

POSITION 1 Product	POSITION 2 Type	POSITION 3 Size	POSITION 4 Color	POSITION 5 Pull line	POSITION 6 Length
MG = Micro-Gard	P = Plenum	08 = 8/6mm	J = Orange	T = 50 lb. Cord	Example
	R = Riser	12 = 12/10mm	M = White		-1000 = Feet





1-800-453-1692



Fax: 901.252.1354



Carlon®

Flexible Raceway System Accessories

For use with Riser-Gard® and General Purpose Non-Metallic Adapters and Couplings





CAT. NO.	SIZE (IN.)	COLOR	STD. CTN.	STD. WT. (LBS.)
SCA240E	3/4	Orange	25	.783
SCA240F	1	Orange	20	.972



Threaded Adapters

CAT. NO.	SIZE (IN.)	COLOR	STD. CTN.	STD. WT. (LBS.)
SCA243E	3/4	Orange	100	2.30
SCA243F	1	Orange	50	2.00



Snap-In Adapters

CAT. NO.	SIZE (IN.)	COLOR	STD. CTN.	STD. WT. (LBS.)
SCA253E	3/4	Orange	100	2.90
SCA253F	1	Orange	50	2.30



For use with Plenum-Gard® Non-Metallic Adapters and Couplings



Couplings

CAT. NO.	SIZE (IN.)	COLOR	STD. CTN.	STD. WT. (LBS.)
A340F	1	Orange	50	2.50



Threaded Adapters

CAT. NO.	SIZE (IN.)	COLOR	STD. CTN.	STD. WT. (LBS.)
A343F	1	Orange	50	1.55



Snap-In Adapters

CAT. NO.	SIZE (IN.)	COLOR	STD. CTN.	STD. WT. (LBS.)
A353F	1	Orange	50	3.00





United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354









Flexible Raceway System Accessories

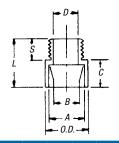
For use with Riser-Gard® and General Purpose



Non-Metallic Male Terminal Adapters

For adapting non-metallic conduits to boxes, threaded fittings, metallic systems. Male threads on one end, socket end on other.

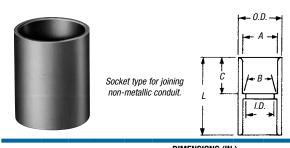




			DIMENSIONS (IN.)								
	SIZE	STD.		TYP	TYPICAL		MAX.	TYPICAL		L	STD. WT.
CAT. NO.	(IN.)		COLOR	Α	В	D	0.D.	C	T	L	(LBS.)
E943E	3/4	125	Gray	1.064	1.046	.800	1 11/ ₃₂	3/4	% ₁₆	1%	3.5
E943F	1	50	Gray	1.330	1.310	1.018	11/8	1	11/16	1 ²⁵ / ₃₂	3
E943G	11/4	50	Gray	1.677	1.655	1.332	21/32	1	3/4	1 15/16	4
E943H	11/2	25	Gray	1.918	1.894	1.566	25/32	13/16	3/4	21/16	2.5
E943J	2	50	Gray	2.393	2.369	2.000	$2^{21}/_{32}$	13/16	3/4	21/8	7
SCE943G	11/4	50	Orange	1.677	1.655	1.332	21/32	1	3/4	1 15/16	4
SCE943H	11/2	25	Orange	1.918	1.894	1.566	25/32	13/16	3/4	21/16	2.5
SCE943J	2	50	Orange	2.393	2.369	2.000	$2^{21}/_{32}$	13/16	3/4	21/8	7

Non-Metallic Standard Couplings

All socket fittings should be attached Using Carlon® solvent cement. Using Carlon® fittings with Carlon® non-metallic conduit ensures system integrity.



				DIMENSIONS (IN.)						
	SIZE	STD.		TYP	TYPICAL		MAX.	TYPI	CAL	STD. WT.
CAT. NO.	(IN.)	CTN.	COLOR	Α	В	MIN. D	0.D.	C	L	(LBS.)
E940E	3/4	100	Gray	1.064	1.046	.840	1 5⁄16	3/4	1%	4.4
E940F	1	50	Gray	1.330	1.310	1.210	11/8	1 ½16	2	3.5
E940G	11/4	30	Gray	1.677	1.655	1.535	1 ⁶³ / ₆₄	1	21/8	3.5
E940H	11/2	25	Gray	1.918	1.894	1.755	$2^{15}/_{64}$	11//8	23/8	3.9
E940J	2	30	Gray	2.393	2.369	2.190	$2^{47}/_{64}$	13/16	21/2	5.25
SCE940G	11/4	30	Orange	1.677	1.655	1.535	1 ⁶³ / ₆₄	1	21/8	3.5
SCE940H	11/2	25	Orange	1.918	1.894	1.755	$2^{15}/_{64}$	11//8	23/8	3.9
SCE940J	2	30	Orange	2.393	2.369	2.190	$2^{47}/_{64}$	13/16	2½	5.25

For use with Plenum-Gard®

Metallic Terminal Adapter



Flat	Sealing	Washer
Flat	Sealing	Washer

Where a waterproof termination is required into any enclosure (metallic or non-metallic), install the neoprene washer over the threads of a terminal adapter before inserting into the enclosure. Use a standard locknut or threaded bushing to secure the assembly.



CAT. NO.	SIZE (IN.)	STD. CTN.	STD. WT. (LBS.)
▶ 255	3/4	10	12
▶ 256	1	100	25
▶ 257	11/4	100	28
▶ 258	1½	100	35
▶ 259	2	50	19

CAT. NO.	SIZE (IN.)	STD. CTN.	STD. WT. (LBS.)
► E943EW	3/4	125	.45
► E943FW	1	100	.46
► E943GW	11/4	50	.44
► E943HW	11/2	50	.45
► E943JW	2	25	.42





Fax: 901.252.1354



Carlon

Flexible Raceway System Accessories

Low-Voltage Boxes and Brackets



Dual-Voltage Box/Bracket*

E11461

CAT. NO.	COVER	VOLUME	STD. CTN.	STD. WT. (LBS.)
SC200DV	1-Gang	20.5 cu. in	16	6.4

*U.S. Patent D463,376.



Low-Voltage Add-On Bracket*

E137781

CAT. NO.	SIZE	STD. CTN.	STD. WT. (LBS.)
SC100SC	1-Gang	24	2.3

*U.S. Patent D459,312.

U.S. Patent 6,710,245.

U.S. Patent 6,872,884.



Low-Voltage Adjustable Brackets*

E137781

CAT. NO.	SIZE	STD. CTN.	STD. WT. (LBS.)
SC100ADJC	1-Gang	24	7.5
SC200ADJC	2-Gang	20	6.9

*U.S. Patent 5,289,934.



Low-Voltage Brackets*

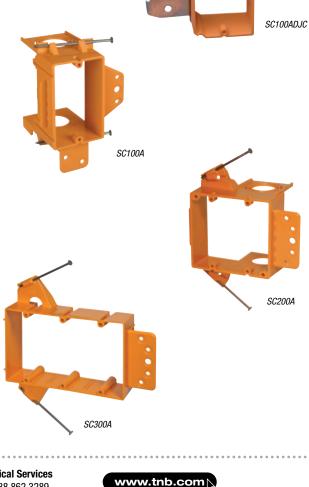
_			_	
E1	3	77	8	1

CAT. NO.	SIZE	RESI-RINGS	STD. CTN.	STD. WT. (LBS.)
SC100A	1-Gang	3/4, 1, 11/4	24	5.3
SC200A	2-Gang	3/4, 1, 11/4	24	7.7
SC300A	3-Gang	_	5	1.6

*U.S. Patent D457,140. U.S. Patent D462,664. U.S. Patent 6,812,405.

For other Carlon® Flexible Raceway System Accessories, refer to the following pages:

- Mud Box Assemblies p. A-330
- Mud Boxes and Covers p. A-335
- Quick-Connect Outlet and Switch Boxes p. A-335
- ENT Box and Extenders p. A-336
- Octagon Ceiling Boxes and Covers p. A-337
- Cutting Tools p. A-338



SC100SC



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354



Tel: 888.862.3289







SC200DV



Flexible Raceway System Accessories

Carlon® Low-VOC Cements

*Meets ASTM D2564

Medium — Clear

RECOMMENDED PIPE APPLICATION AND SIZES		UP TIME ATION RATE)	RECOMMENDED INSTALLATION TEMP.	LAP SHEAR @ 73° F	VISCOSITY AT 75° AS MANUFACTURED
Recommended for all grades	10°–30° F	Not recommended	40° to 100° F	2 hrs. 350 psi	500-900 cps
and types of Carlon® wireway	30°-50° F	5-6 minutes		16 hrs. 800 psi	
and fittings, except Flex-Plus®	50°-70° F	3-4 minutes		72 hrs. 1,500 psi	
Blue™ ENT (Electrical Non- Metallic Tubing)	70°–90° F	1–2 minutes			

Up through 6" diameter.

CAT. NO.	0175	ADDITION	DECORIDEION	STD.	STD. WT.
	SIZE	APPLICATOR	DESCRIPTION DVC Medium Clear	CTN.	(LBS.)
VC9963	Pint	Dauber	PVC Medium Clear	24	29.0
VC9962	Quart	Dauber	PVC Medium Clear	12	27.5
VC9961P	Gallon	_	PVC Medium Clear	6	53.5



Meets ASTM D-2564.

Regular — Clear

RECOMMENDED PIPE APPLICATION AND SIZES		UP TIME ATION RATE)	RECOMMENDED INSTALLATION TEMP.	LAP SHEAR @ 73° F	VISCOSITY AT 75° AS MANUFACTURED
Recommended for all grades	10°–30° F	Not recommended	40° to 100° F	2 hrs. 350 psi	500-900 cps
and types of Carlon® wireway	30°-50° F	5–6 minutes		16 hrs. 800 psi	
and fittings, except Flex-Plus®	50°-70° F	3-4 minutes		72 hrs. 1,500 psi	
Blue™ ENT (Electrical Non- Metallic Tubing.)	70°–90° F	1–2 minutes			

Up through 6" diameter.

CAT. NO.	SIZE	APPLICATOR	DESCRIPTION	STD. CTN.	STD. WT. (LBS.)
VC9964	½ Pint	Dauber	PVC Regular Clear	10	6.5

Meets ASTM D-2564.







1-800-453-1692 www.aboveboardelectronics.com



Fax: 901.252.1354



Flexible Raceway System Accessories

Carlon® Low-VOC Cements (continued)

All Weather — Clear

RECOMMENDED PIPE APPLICATION AND SIZES		P TIME TION RATE)	RECOMMENDED INSTALLATION TEMP.	LAP SHE	AR @ 73° F	VISCOSITY AT 75° AS MANUFACTURED
Recommended for all grades and	-5°–10° F	6-8 Minutes	-5° to 100° F	2 Hrs.	350 PSI	400-700 CPS
types of Carlon® wireway and fittings,	10°-30° F	4-5 Minutes		16 Hrs.	800 PSI	
except Flex-Plus® Blue™ ENT	30°-50° F	3-4 Minutes		72 Hrs.	1,500 PSI	
(Electrical Non-Metallic Tubing.)	50°-70° F	1-2 Minutes				
Up through 6" diameter.	70°–90° F	1/2-11/2 Minutes				

CAT. NO.	SIZE	APPLICATOR	DESCRIPTION	STD. CTN.	STD. WT. (LBS.)
VC9984	½ Pint	Dauber	All Weather "Quick-Set" Cement	10	7.0
VC9983	Pint	Dauber	All Weather "Quick-Set" Cement	24	30.0
VC9982	Quart	Dauber	All Weather "Quick-Set" Cement	12	29.0
VC9981P	Gallon	_	All Weather "Quick-Set" Cement	6	54.0



Meets ASTM D-2564.

uray					
RECOMMENDED PIPE Application and Sizes		UP TIME Ation rate)	RECOMMENDED INSTALLATION TEMP.	LAP SHEAR @ 73°F	VISCOSITY AT 75° AS Manufactured
Recommended for all grades and	10°-30°F	Not recommended	40° to 100°F	2 hrs. 350 psi	500-900 cps
types of Carlon® wireway and fittings,	30°-50°F	5-6 minutes		16 hrs. 800 psi	
except Flex-Plus [®] Blue [™] ENT	50°-70°F	3-4 minutes		72 hrs. 1,500 psi	
(Electrical Non-Metallic Tubing.)	70°-90°F	1-2 minutes			
Up through 6" diameter.					

VOC emission of 490 grams/liter per the Bay and South Coast test method.

CAT. NO.	SIZE	APPLICATOR	DESCRIPTION	STD. CTN.	STD. WT. (LBS.)
VC9LV4-24	½ Pint	Dauber	Low VOC Gray	24	15.5
VC9LV3	Pint	Dauber	Low VOC Gray	24	27.0
VC9LV2	Quart	Dauber	Low VOC Gray	12	26.0
Meets ASTM D-2564.					







1-800-453-1692









Fax: 901.252.1354



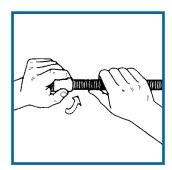


Technical Information

Concrete Encasement Guidelines for Carlon® ENT

- 1. Cut ENT square and clean.
- 2. Insert end into fitting, making sure two (2) full corrugations are snapped into fitting beyond flexible tabs (2 clicks).
- 3. ENT should be tied to rebar at 2–3 foot intervals to prevent flotation. Keep ENT straight. Small deflections over a long run may accumulate significant degrees of bend that will affect conductor installation. Suitable materials include wire, tie wraps and tape.
- 4. When using rigid non-metallic conduit fittings for concrete tight performance:





- A. Do not use chemical primer or cleaner.
- B. Use a brush to apply a light, uniform coat of cement labeled for use with ENT on the coupling and ENT.
- C. Do not use a dauber.
- **D.** Brush excess cement out of ENT grooves.
- **E.** Promptly insert ENT into fitting while cement is wet, until the stop is reached, and give a quarter turn.
- F. Do not disturb until joint is set.

NEC and National Electrical Code are registered trademarks of the National Fire Protection Association, Inc.

Specifications:

- 1.1 Electrical Non-Metallic Tubing (ENT) is designed to replace EMT, flexible metal conduit or other raceway or cable systems, for installation in accordance with Article 362 of the National Electrical Code® Section 12-1500 of the CEC, other applicable sections of the Code and local codes.
- 1.2 Any ENT used shall be listed to the requirements of UL Standard UL 1653 in accordance with Article 362 of the NEC® and Section 12-1500 of the CEC.
- 1.3 Any ENT used shall meet the requirements of BI National Standard CAN/CSA-C22.2 No. 227.1-UL1653 and shall be Listed/Certified in accordance to the Electrical Codes.
- 1.4 Carlon's® ENT shall be installed per the technical assessment prepared by fire cause analysis for use in 1-hour and 2-hour rated construction.
- 1.5 Penetration of fire-rated walls, floors or ceilings shall use Classified Through-Penetration Firestop Systems described in the current Underwriters Laboratories Fire Resistance Directory.
- 1.6 Fittings and outlet boxes designed for use with ENT shall be listed. All fittings, boxes and accessories shall be from one manufacturer.
- 1.7 Only Carlon® ENT Blue™ cement recommended specifically for use with ENT and rigid non-metallic fittings shall be used.
- 1.8 Unless indicated differently on drawings, ENT systems shall be color coded: BLUE for branch and feeder circuit wiring, YELLOW for communications and RED for fire alarm and emergency systems, or colors can designate different voltages.
- 1.9 ENT, fittings and accessories shall be manufactured by Carlon®.

Features:

- Recognized for use with PVC rigid non-metallic conduit fittings with all sizes of ENT
- ENT rated for 90° C conductors U.S., and 75° C Canada
- One-piece ENT Coupling, Threaded Terminator and RNC Transition Fitting are rated concrete tight without tape
- Recognized for use in 2-hour fire-resistive nonload-bearing and load-bearing wall assemblies
- Recognized for use in 1-hour fire-resistive nonload-bearing wall assemblies
- Recognized for use in a fire-resistive ceiling assembly (up to three hours)
- Recognized for Through-Penetration Firestop systems as classified by UL to meet ICC building codes.
- Conductors easily push through the raceway (up to approximately 50 feet)*
- For use in buildings in accordance with NEC® Article 362/ CEC Section 12-1500
- Outside Diameters meet IPS Dimensions
- Storage -4° F to 158° F
 Handling -4° F to 104° F

Continued on next page





Carlon®

Technical Information

Continued from previous page

Approved Uses:

- Concrete slab NEC® Article 362/CEC Section 12-1500
- Walls wood stud, masonry and metal stud NEC® Article 362/CEC Section 12-1500
- Ceilings permanent or dropped (free air only) NEC® Article 362/CEC Section 12-1500
- Exposed NEC® Article 362/CEC Section 12-1500
- Public assembly NEC® Section 518.4, in non-fire rated and certain fire rated structures
- Prewired NEC® Article 362/CEC Section 12-1500
- Classified by UL 1479 for Through Penetration Firestop Systems in UL Guide Category XHEZ and current UL Fire Resistance Directory
- Three-hour rated floor/ceiling assembly
- Raised floors NEC® Section 645.5(E)(2)
- Exposed or concealed in building above three floors when a fire sprinkler system is installed in accordance with NFPA 13 — NEĆ® Section 362.10(2)

- For use in residential attics up to three feet above the bottom of the ceiling joist
- Maximum ambient temperature 140° F (60° C)

Typical Applications:

- Residential: low or high rise multi or single family
- Commercial: low or high rise office, retail, hotel/motel, restaurant, etc.
- Nursing homes/hospitals in non-patient care areas only
- Schools, classrooms, dormitories, offices
- Fire alarm systems
- Recreational vehicles and parks
- Solar photovoltaic systems
- Marinas and boatyards
- Other uses per the current NEC® and CEC

NEC and National Electrical Code are registered trademarks of the National Fire Protection

Carlon® Innerduct Guide When Innerduct is being used inside the building...

Plenum

- Must be UL[®] Listed
- Plenum cable must be installed
- Color: Industry standard orange
- Pull tape pre-installed in sizes ½" through 3"

General	Purpose	and Riser
---------	----------------	-----------

- Must be UL[®] Listed
- Riser rated cable must be used in riser applications
- Color: Industry-standard orange

CA	RLON®	PYRAMID®		
CAT. NO.	SIZE (IN.)	CAT. NO.	SIZE (IN.)	
CD4X1C	1/2	PLM100T	1	
CE4X1C	3/4	PLM125T	11/4	
CF4X1C	1	PLM150T	1½	
CG4X1C	11/4	PLM200T	2	
CH4X1C	1½			
CJ4X1C	2			
CL4X1C	3			

Note: HDPF innerduct will not meet code

Specifying and installing UL Listed innerducts with the anticipation of future upgrades provides the building owner with a low-cost solution for the removal of abandoned cables.

CA	RLON®	PY	'RAMID®
CAT. NO.	SIZE (IN.)	CAT. NO.	SIZE (IN.)
DE4X1C	3/4	RIS100T	1
DF4X1C	1	RIS125T	11/4
DG4X1C	11/4	RIS150T	1½
DH4X1C	11/4	RIS200T	2
DJ4X1C	2		
DL4X1C	3		



United States Technical Services Tel: 901.252.8000

800.816.7809 Fax: 901.252.1354







Kindorf®



In this section...



Kindorf® Modular Metal Framing System

Overview	B-2–B-7
Channels, Nuts and Fittings	B-8–B-30
Conduit, Cable and Pipe Supports	B-31–B-41
Concrete Inserts	B-42–B-43
Beam Clamps and Hanger Rod Supports	B-44–B-54
Wall and Support Brackets	B-55–B-56
Surface Raceway and Lighting Support Systems	B-57–B-72
Hardware and Threaded Components	B-73–B-77
Cable and Mounting Systems	B-78–B-84
Right Angle Slotted Angle Systems	B-85–B-90
Non-Metallic Channel and Accessories	B-91–B-94
Technical Information	B-95–B-104



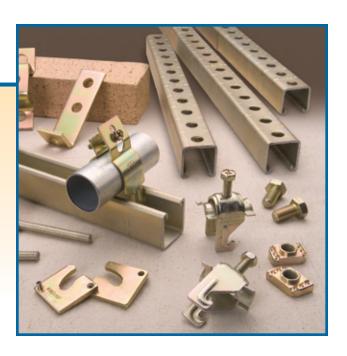


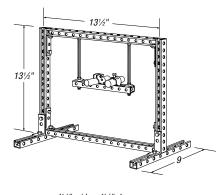
Why Kindorf® 11/2" Channel Saves You Labor Dollars

Kindorf® Channel's 1½" is Much More than a Cross-Section Dimension

The 11/2" with Kindorf® channel is truly a modular dimension. The channel height, width and prepunched hole spacings are all engineered around 1½" increments. The angle fittings and the bolt holes in the angle fittings are all engineered around 11/2" increments as well. Scribe marks are located at 11/2" intervals to mark the midpoint between holes and every 6" on the side for easy measurement.

Jobsite adaptability and structural integrity are the key factors in making strut channel an economical solution to metal framing needs. Kindorf® channel, with its 11/2" modular dimensions, enables the installer to do more work with fewer pieces and less labor dollars.





11/2" wide x 11/2" deep 7/8" continuous open slot 10 ft. and 20 ft. lengths

Kindorf® Channel

The Kindorf® Channel System is designed so that the maximum number of support and framing applications can be constructed with a minimum amount of labor and pieces.

Uniqueness in Design

The 1½" dimension in the channel, hole spacing and fittings means all parts fit together, no matter where they're used, or at what angle. This modular dimension provides maximum flexibility in field applications, and results in saving inventory and labor dollars. The Kindorf® channel exclusive Galv-Krom® finish provides superior corrosion protection for all threaded components, channel and fittings. Through a twopart process, the coating is applied on all finished parts after fabrication — there is no exposed surface where corrosion can start.

Strength

Even though the Kindorf® channel is slightly smaller in dimensions, it supports the same weight as 1%" channel.

Compatibility with 1%" Strut

The Kindorf® System is designed so that most accessories are compatible with 1%" strut. Conduit and pipe straps will work equally well with 1%" and 11/2" strut. In addition, most 1%" accessories are interchangeable with Kindorf® channel. Angle fittings can adapt easily to the open side of any 1%" strut and the unique parallelogram nuts provide secure attachment to both types of strut.

Full Line of Support Products

The Kindorf® channel system's many advantages are extended into a broad product offering including beam clamps, concrete inserts, lighting supports, cable cleats and a variety of threaded components. This system is available in the largest selection of finishes and materials, including green coated, aluminum, stainless steel and non-metallic. This, combined with a nationwide network of distributors and service centers, makes the Kindorf® system a single source for supported metal-framing needs.





Here's What the Modular Dimension Can Do for You

Using a 1½" channel with hole spacings on 1½" centers requires numerous fittings and, in many cases, limits the joint fastening to the open side of the channel. Field drilling and welding, plus the need for extra fittings, become the rule rather than the exception. With constant 1½" dimensions throughout the system, many structural joints can be made with a minimum of fittings. Consider the following:

1. The Entire Section Can be Used.

You are not limited to using only the open-slot side because holes line up on channel and fittings. Using the scribe marks ensures the fittings will work and a straight cut is made.

2. Considerable Field Drilling and Welding Eliminated.

The holes are already there and they are usable. Back-to-back, side-to-back, side-to-side — all combinations that can be made using B-995 Kindorf® channel.

3. Field Cutting and Layout Made Simple.

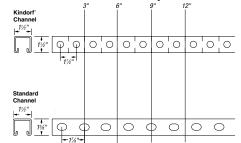
8 scribe marks = 1 ft. Simply count the marks and cut. Position of holes ensures balanced support for trapezes on every piece, thus keeping waste to an absolute minimum.

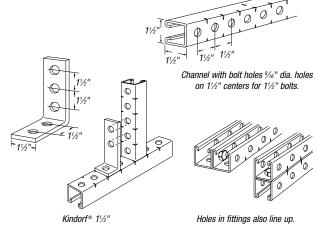
4. Modular Fittings Fasten to Bolt Side or Slot Side — Unique Stud Nut.

Kindorf® framing fittings are engineered for versatile use — to meet the greatest number of framing combinations with maximum rigidity and security. Fittings may be fastened to the channel on either the bolt-hole side or the slot side.

The matching 1½" dimensions of channel bolt holes and fitting bolt holes provide a fast alignment and quick bolting. Fastening on the slot side provides infinite placement of the nut to match bolting requirements. Either way results in simple "building block" erection and permits multiple application of fittings. With the B-911SN Stud Nut, blind fastening of angles and fixtures is eliminated.

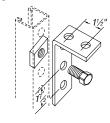
Kindorf® channels make it easy to cut:



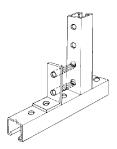


All holes line up — all the time.

Fastening on bolt-hole side.

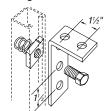


Clamping nut or hex head nut may be used for attachment and security of fittings to either side of channel.

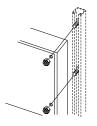


15/4" Strut 7/4" holes cause misalignment.

Fastening on slot side.



Spring nut holds in position without support. Inserts easily in channel and sets automatically — cannot rotate.



Stud nut saves time, reduces labor — like having an extra pair of hands.

800.816.7809 Fax: 901.252.1354

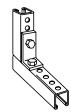


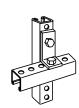


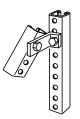
By simply stocking B-995 prepunched channel and three angle fittings, a great number of joints can be made.

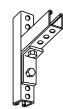
One Kindorf® B-915 Two-Hole Connector Will Do:

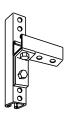




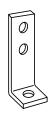


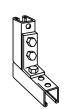


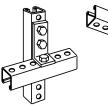


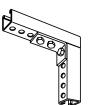


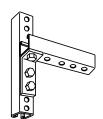
One Kindorf® B-916 Three-Hole Connector Will Do:

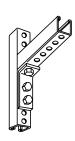




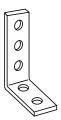


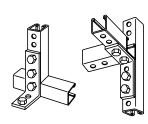


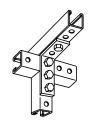


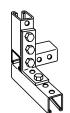


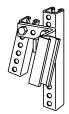
One Kindorf® B-917 Five-Hole Connector Will Do:

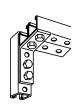














Galv-Krom[®] Electro-Galvanized Finish

Trivalent Galv-Krom® is OSHA Compliant.

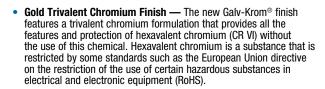
Over the past several years, there have been many questions about hexavalent chromium in the metal framing industry. Many of these questions relate to the changes made by OSHA. In 2006, the Occupational Safety and Health Administration (OSHA) published a revised standard which includes changes related to occupational exposure to hexavalent chromium (Cr VI). The revised standard was promulgated on February 28, 2006 with the compliance provisions taking effect on November 27, 2006 for most businesses. There is no Cr VI in our unique Kindorf® Trivalent Galv-Krom® finish.



New Trivalent Galv-Krom® Finish is RoHS Compliant



In 2007, Thomas & Betts introduced the new and improved trivalent Galv-Krom® finish. Galv-Krom® finish is a combination of .5 mils electro-plated zinc and a gold trivalent chromium finish.



- RoHS Compliant One great feature for the new Trivalent Chromium formulation is RoHS compliance. Because hexavalent chromium is a substance that is restricted by RoHS, moving away from a hexavalent formulation to the new trivalent formulation will make the performance of Galv-Krom® coating available to customers affected by RoHS and other standards like RoHS around the world.
- Trivalent Galv-Krom® Finish Is OSHA Safe As mentioned previously, the hexavalent formulation of the Galv-Krom® finish was safe with regard to the revised 2006 OSHA standard. This new trivalent formulation of the Galv-Krom® finish does not contain any hexavalent chromium and therefore does not fall under the scope of the OSHA standard. As a result, the new Trivalent Galv-Krom® finish, just like the Hexavalent Galv-Krom® finish, is OSHA compliant.
- ASTM B633 Specification The improved Galv-Krom[®] finish is applied in compliance with ASTM B633 coating, the same standard as used previously. This standard outlines electro-deposited coatings of zinc on steel.

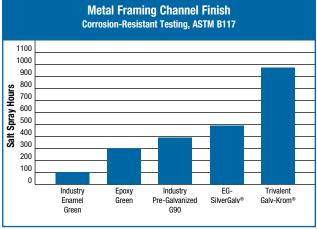


Kindorf[®] Galv-Krom[®] Finish Outperforms the Competition

The new and improved Galv-Krom® finish provides many benefits. First, it provides continued safety within OSHA guidelines. Second, the trivalent formulation provides RoHs compliance. But most important of all, the new Kindorf® Galv-Krom® finish provides a level of performance unmatched by the competition.

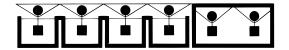
- Superior Corrosion Protection One hallmark of the Galv-Krom® finish is the superior corrosion protection it provides. In the ASTM B117 salt spray test, the new Galv-Krom® finish provided improved protection to the previous Hexavalent formulation, and substantially more protection than painted finishes or G-90 Pre-Galvanized (see chart at right). This outstanding corrosion protection means more versatile installations and more service life for Galv-Krom® finished products.
- Strong Abrasion Resistance The Galv-Krom® finish won't chip or peel like a green-painted strut product. It stands up to rough handling.
- Clean Finish For pre-galvanized finishes, the zinc finish is applied before the strut is manufactured. That means all the oil and grime collected while the steel is formed into strut remains on the strut for the customer. Because Galv-Krom® finish is applied after fabrication, the oils and grime collected during the manufacturing process are thoroughly cleaned off during plating. This creates a finished product that leaves no residue on your hands when handling.
- Paintable Surface The new Galv-Krom® finish uses nano technology to provide a nonporous and non-crystalline surface. Not only does this feature provide enhanced corrosion protection, it also provides an excellent bond for the paint of your choice.
- No More White Rust With pre-galvanized strut, a common quality concern is the formation of white rust on the zinc finish. With Galv-Krom® finish, the trivalent chromium finish is applied over the zinc, to seal in the zinc beneath and stop the formation of white rust.
- Great Electrical Conductivity Unlike paint or enamel, the Galv-Krom® surface offers a minimum of electrical resistance so that electrical applications are easily grounded when grounding is needed.







Soak Degreasing Chemical	Electro Cleaner	Rinse	Sulfuric Acid Bath	Rinse	Zinc Tank	Rinse
Solution	Metal is	Live, clear	Prepares	Live, clear	Electrically	Chemically
removes	negatively	water	the metal	water	applies the	treated
bulk of	charged to	rinse.	by etching	rinse.	zinc metal	rinse water.
oil and	remove		the surface		coating.	
grease	minute		for the zinc			
buildup.	surface		application.			
	particles.					



	Rinse	Trivalent Chromium Prep	Trivalent Chromium Dip	Rinse	Dryer
_	Live, clear water rinse.	Polishing agent to prepare part for chromium.	A gold trivalent chromium conversion coat is applied to the zinc.	Live, clear water rinse.	Forced hot air is circulated around the strut until dry.







Finishes

1. Galv-Krom®

Commonly referred to as "gold," the Galy-Krom® finish is a combination of .5 mils electro-plated zinc and a gold trivalent chromium finish, offering superior rust protection and excellent electrical conductivity.

2. SilverGalv® (Suffix EG)

Often referred to as "zinc plated" or "electroplated zinc," the SilverGalv® finish applies .5 mils of zinc and a clear conversion coat. Electro-galvanizing is available for channel as well as small fittings, hardware and threaded products.

3. Pre-galvanized Steel (Suffix PG)

In addition to the standard Galv-Krom® finish, all Kindorf® channels are available in pre-galvanized steel. This material is identical to the standard steel except for its ASTM G-90 zinc coating. This coating is applied at the steel mill prior to the channel fabrication.

4. Green Coated (Suffix GR)

Green urethane powder resins are applied electrostatically to the steel after fabrication. Once the material is completely covered with the powderedform urethane, it proceeds through a 400° baking process for ten minutes, creating a chemical bond. This results in a minimum of 1.5 mil thickness of urethane coating providing excellent resistance to chipping or peeling.

5. Hot-Dipped Galvanized (Suffix HD)

The material is zinc coated after fabrication providing total product protection on all surfaces. The fabricated channel or fitting is suspended and then dipped into tanks of hot zinc for a prolonged period, creating a coherent bond. The result is superior corrosion resistance as compared to pre-galvanized material. Hot-dipped galvanizing is not recommended for threaded products, considering the zinc coating thickness will often disrupt the threads.

Kindorf® hot-dipped galvanized channel is in conformance with ASTM Specifications A-123 (formerly A-386) and A-153.

Kindorf® channels maintain a minimum 1.5 ounces of zinc per square foot of steel or 2.5 mils (ASTM A-123, Thickness Grade 65). This finish is also referred to as "Hot-dipped galvanized after fabrication."

6. PVC Coated (Prefix P)

A polyvinyl chloride (PVC) plastic coating is fused to the channel, fitting or accessory after fabrication by immersing the part in fluidized PVC tanks. The fused-melt mixed powder PVC coating thickness is 15 mils (.015") plus or minus five mils. PVC material is a thermoplastic and will soften in high temperatures. An inherent weakness with PVC coatings occurs when field alterations are applied, such as cutting or drilling. These acts disrupt the sealed PVC product and warrant field touch-up. Thomas & Betts cannot be held responsible for field-altered PVC coated products.

Materials

1. Standard Steel

The standard Kindorf® Channel is made from high-quality ASTM A570 Grade 40 carbon steel sheet. These sections are cold formed into a unique and modular profile by an efficient roll forming process. Additionally, the process "cold works" the steel is to give it greater mechanical properties.

2. Extruded Aluminum (Suffix AL)

For more corrosive environments, T&B also offers extruded aluminum channel sections. These section are nearly identical to their steel counterparts. Aluminum channel is made from 6063 Aluminum and heat treated to a T-6 specification.

3. Non-Metallic (Suffix N)

Kindorf® channels are also available in fiberglass-reinforced polyester and vinylester. These products are pultruded into shapes similar to steel channels. They offer a high degree of corrosion protection and are very lightweight.

4. Stainless Steel (Suffix SS)

For the most corrosive environments, T&B offers Type 304 Stainless Steel channel sections and accessories. Type 316 stainless available upon request. Contact your local sales rep. These products are identical to their carbon steel counterparts except for a much greater corrosion resistance.

Warning

Load tables, charts and design criteria provided in this catalog are intended as guides only. Selection of proper product, installation intervals, erection and placement are the responsibility of the user.

Kindorf® products are intended to be used for the support and bracing of fixtures, cable, pipe and conduit. Improper use or installation may result in injury to persons or damage to property.

Material and finish specifications are subject to change without notice.



United States

Tel: 901.252.8000

Fax: 901.252.1354

800.816.7809



Channels

Kindorf® channel is a rugged, heavy-gage structural-quality steel channel preformed in a "U" shape with a continuous open slot the entire length. The turned-in edges serve as retaining points for the nut and bolt assembly of fittings to the channel. The shape of the channel permits infinite adjustability of the clamping nut simply by gliding it along the channel to the desired position. Spring-tensioned nuts are generally used for

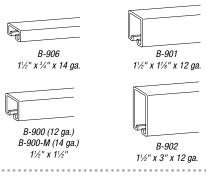
positioning overhead or in vertical channel installations. A stud nut (with spring) is provided for easy mounting of cabinets and equipment.

Channel Nuts are specially shaped as parallelograms with biting edges so that when tightened with normal pressure on the bolt, the nut clamps the sides of the channel together in a secure connection, which reinforces the rigidity of the channel itself. The nut rests on the "lips" of the channel slot.

Steel Channels

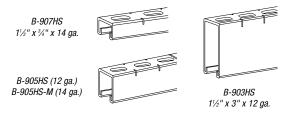
- Galv-Krom[®] finish
- 10 ft. and 20 ft. lengths

Solid Base



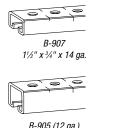
Half-Slot Base

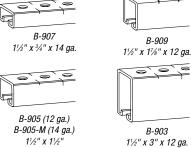
%16" x 7/8" slots on 1½" centers 3/4" from end



Bolt Hole Base

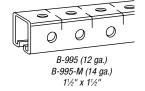
• 1/16" diameter bolt holes on 1½" centers 3/4" from end



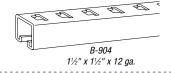


Bolt Hole Base

Bolt holes on 3 sides, %16" diameter on 11/2" centers 3/4" from end

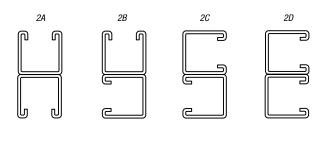


T-Slot Base



Kindorf® Channels — **Combination Channels**

All Kindorf® channels are available in a variety of combinations some are shown below.

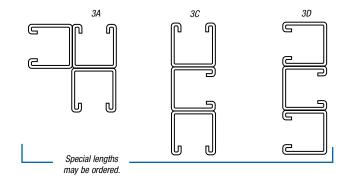


10- and 20-ft. lengths — steel

How To Order

Add the suffix designation of the desired combination to the regular channel catalog number.

(Example: Two B-900 channels back to back are ordered as B-900-2A.)





United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354

Technical Services







B-900 Channel — 1½" x 1½"

Connection by means of continuous slot.

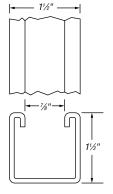


Properties of Section

CAT. NO.	SECTIONAL AREA	MATERIAL THICKNESS	LBS/FT.
B-900	.345	.104	1.206
B-900-M	.217	.074	.74

X-X AXIS			
ı	S	R	
.101	.123	.535	
.018	.163	.272	







CAT. NO.	DESCRIPTION	MATERIAL
B 900 10	Galv-Krom®	12 ga.
B-900-20	Galv-Krom®	12 ga.
B-900-M-10	Galv-Krom®	14 ga.
B-900-M-20	Galv-Krom®	14 ga.
B-900-10-EG	SilverGalv®	12 ga.
B-900-20-EG	SilverGalv®	12 ga.
B-900-M-10-EG	SilverGalv®	14 ga.
B-900-M-20-EG	SilverGalv®	14 ga.

Use H-113-B bolts and B-910-1/2 or B-911-1/2 steel nuts for mounting fittings. B-900, 162 lbs:/C ft. B-900-M, 107 lbs:/C ft.

			END
CAT. NO.	DESCRIPTION	JOINER	CAPS
B-900	12 ga. Galv-Krom®	_	
B-900-M	14 ga. Galv-Krom®	_	_
B-900-10GR	Green powder coated	_	_
B-900-20GR	Green powder coated	G978	_
B-900-10PG	Pre-galvanized	G978A	G967
B-900-20PG	Pre-galvanized	G1503S	_
B-900-10HD	Hot-dipped galvanized	_	_
B-900-20HD	Hot-dipped galvanized	_	_

Use H-113-B bolts and B-910-1/2 or B-911-1/2 steel nuts for mounting fittings. B-900, 162 lbs./C ft. B-900-M, 107 lbs./C ft.

B-901 Channel — 11/2" x 11/8"

For heavier load requirements. Connection by means of continuous slot.

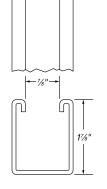


Properties of Section

CAT. NO.	SECTIONAL AREA	MATERIAL THICKNESS	LBS/FT.
B-901	.595	.104	2.028
V V /	VIC	V	V AVIC

X-X AXIS		
ı	S	R
.263	.251	.665





- 11/2" -





CAT. NO.	DESCRIPTION	MATERIAL
B-901-10	Galv-Krom®	12 ga.
B-901-20	Galv-Krom®	12 ga.
B-901-10-EG	SilverGalv®	12 ga.
B-901-20-EG	SilverGalv®	12 ga.

Use H-113-B bolts and B-910-1/2" or B-911-1/2" steel nuts for mounting fittings. 196 lbs./C ft.

CAT. NO.	DESCRIPTION	JOINER	END Caps
B-901	12 ga. Galv-Krom®	G978C	G-966
R-901HD	Hot-dinned galvanized	_	_

Use H-113-B bolts and B-910-1/2" or B-911-1/2" steel nuts for mounting fittings. 196 lbs./C ft.







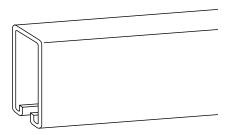


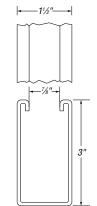
Kindorf®

Channels, Nuts and Fittings

B-902 Channel — 1½" x 3"

Connection by means of continuous slot.





Properties of Section

CAT. N	0.	SECTIONAL AREA	MATER THICKN		LBS	/FT.
B-902		.837	.10	4	2.8	325
X	-X AX	IS	-	Y	-Y-AXI	s
	S	R	_	ı	S	R
.909	.552	1.042		.363	.471	.658





CAT. NO.	DESCRIPTION	MATERIAL
B 902 10	Galv-Krom®	12 ga.
B-902-20	Galv-Krom®	12 ga.
B-902-10-EG	SilverGalv®	12 ga.
B-902-20-EG	SilverGalv®	12 ga.

Use H-113-B bolts and B-910-1/2 steel nuts for mounting fittings. 285 lbs./C ft.





CAT. NO.	DESCRIPTION	JOINER	END CAP
B-902-10	12 ga. Galv-Krom®	_	
B-902-20	12 ga. Galv-Krom®	G978-D	G957
B-902-10HD	Hot-dipped galvanized	G-3003S	_
B-902-20HD	Hot-dipped	_	_

Use H-113-B bolts and B-910-1/2 steel nuts for mounting fittings. 285 lbs./C ft.

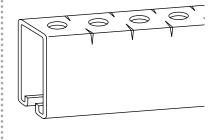


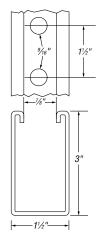


1-800-453-1692

B-903 Channel — 1½" x 3"

Connection by means of continuous slot or %16" holes on 11/2" centers.





CAT. NO.	DESCRIPTION	MATERIAL
B-903-10	Galv-Krom®	12 ga.
B-903-20	Galv-Krom®	12 ga.
B-903-10-EG	SilverGalv [®]	12 ga.
B-903-20-EG	SilverGalv [®]	12 ga.

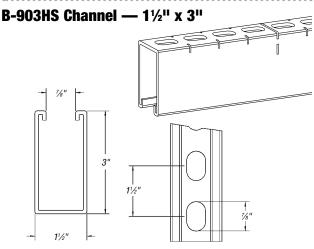
Use H-113-B bolts and B-910-1/2 steel nuts for mounting fittings.

277 lbs./C ft.

CAT. NO.	DESCRIPTION	JOINER	END CAP
B-903	12 ga. Galv-Krom®	G978-D	_
B-903HD	Hot-Dipped Galvanized	G3003S	_

Use H-113-B bolts and B-910-1/2 steel nuts for mounting fittings.

277 lbs./C ft.



CAT. NO.	DESCRIPTION	MATERIAL
B 903HS 10	Galv-Krom®	12 ga.
B-903HS-20	Galv-Krom®	12 ga.
B-903HS-10-EG	SilverGalv®	12 ga.
B-903HS-20-EG	SilverGalv®	12 ga.

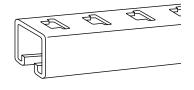
Use H-113-B bolts and B-910-1/2 steel nuts for mounting fittings. 277 lbs./C ft.

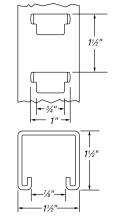




B-904 Channel — 1½" x 1½"

Connection by means of continuous slot or T-slots on 11/2" centers in base side of channel.

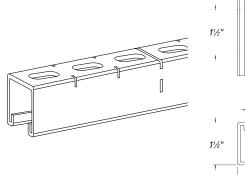


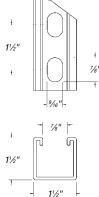


CAT. NO.	DESCRIPTION	
B-904 10	12 ga. Galv-Krom®	
B-904HD	Hot-Dipped Galvanized	

For attachment to continuous slot use H-113-B bolts and B-910-1/2 steel nuts. For attachment to T-slots use F-739 brackets 155 lbs./C ft.

B-905HS Channel — 1½" x 1½"



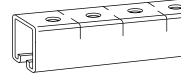


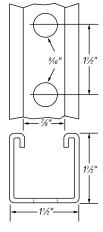
CAT. NO.	DESCRIPTION	MATERIAL
B 905HS 10	Galv-Krom®	12 ga.
B-905HS-20	Galv-Krom®	12 ga.
B-905HS-M-10	Galv-Krom®	14 ga.
B-905HS-M-20	Galv-Krom®	14 ga.
B-905HS-10-EG	SilverGalv®	12 ga.
B-905HS-20-EG	SilverGalv®	12 ga.
B-905HS-M-10-EG	SilverGalv®	14 ga.
B-905HS-M-20-EG	SilverGalv®	14 ga.
11 - 11 440 D I - II 1 D 040	1 /0 · D 044 4 /0 · I · I · I · I	· · · · · · · · · · · · · · · · · · ·

Use H-113-B bolts and B-910-1/2 or B-911-1/2 steel nuts for mounting fittings. Scribe marks designate midpoint between holes for accurate field cutting. B-905, 158 lbs./C ft. B-905-M, 102 lbs./C ft.

B-905 Channel — 1½" x 1½"

Connection by means of continuous slot or %" holes on 1½" centers that match holes in B-900 series fittings.





CAT. NO.	DESCRIPTION	MATERIAL
B 905 10	Galv-Krom®	12 ga.
B-905-20	Galv-Krom®	12 ga.
B-905-M-10	Galv-Krom®	14 ga.
B-905-M-20	Galv-Krom®	14 ga.
B-905-10-EG	SilverGalv®	12 ga.
B-905-20-EG	SilverGalv®	12 ga.
B-905-M-10-EG	SilverGalv®	14 ga.
B-905-M-20-EG	SilverGalv [®]	14 ga.

Use H-113-B bolts and B-910-1/2 or B-911-1/2 steel nuts for mounting fittings. Scribe marks designate midpoint between holes for accurate field cutting. B-905, 158 lbs./C ft. B-905-M, 102 lbs./C ft.

CAT. NO.	DESCRIPTION	JOINER	END CAP
B-905	12 ga. Galv-Krom®		
B-905-M	14 ga. Galv-Krom®	_	_
B-905-10GR	Green Coated	_	_
B-905-20GR	Green Coated	_	_
B-905-10PG	Pre-Galvanized	_	_
B-905-20PG	Pre-Galvanized	_	_
B-905-10HD	Hot-Dipped Galvanized	_	_
B-905-20HD	Hot-Dipped Galvanized	_	_

Use H-113-B bolts and B-910-1/2 or B-911-1/2 steel nuts for mounting fittings. Scribe marks designate midpoint between holes for accurate field cutting. B-905, 158 lbs./C ft. B-905-M, 102 lbs./C ft.









B-906 Channel — 11/211 x 3/411

Connection by means of continuous slot.

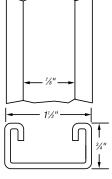


Properties of Section

SECTIONAL AREA	MATERIAL THICKNESS	LBS/FT.
.521	.104	1.776

X-X AXIS		
	S	R
.155	.088	.545



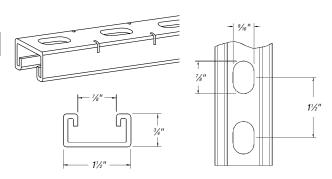




CAT. NO.	DESCRIPTION	MATERIAL
B 906 10	Galv-Krom®	14 ga.
B-906-20	Galv-Krom®	14 ga.
B-906-10-EG	SilverGalv®	14 ga.
B-906-20-EG	SilverGalv®	14 ga.

Use H-113-A bolts and B-910-½" or B-912-½" steel nuts for mounting fittings. Steel 75 lbs://C ft.

B-907HS Channel — 11/211 x 3/411



CAT. NO.	DESCRIPTION	MATERIAL
B 907HS 10	Galv-Krom®	14 ga.
B-907HS-20	Galv-Krom®	14 ga.
B-907HS-10-EG	SilverGalv®	14 ga.
B-907HS-20-EG	SilverGalv®	14 ga.

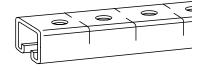
Use H-113-A bolts and B-910-1/2" or B-912-1/2" steel nuts for mounting fittings.

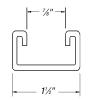
Holes on B-900 series fittings match channel holes.

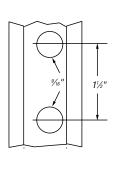
Scribe marks on steel channel designate midpoint between holes for accurate field cutting. Steel 71 lbs://C ft.

B-907 Channel — 1½" x ¾"

Connection by means of continuous slot or \(^9\frac{1}{16}\)" holes on \(1^1\sep'\) centers.











CAT. NO.	DESCRIPTION	MATERIAL
B-907-10	Galv-Krom®	14 ga.
B-907-20	Galv-Krom®	14 ga.
B-907-10-EG	SilverGalv®	14 ga.
B-907-20-EG	SilverGalv®	14 ga.

Use H-113-A bolts and B-910-1/2" or B-912-1/2" steel nuts for mounting fittings.

Holes on B-900 series fittings match channel holes.

Scribe marks on steel channel designate midpoint between holes for accurate field cutting. Steel 71 lbs:/C ft.





CAT. NO.	DESCRIPTION	JOINER
B-907	14 ga. Galv-Krom	B948
B-907-10GR	Green Coated	B948
B-907-20GR	Green Coated	B948
B-907-10PG	Pre-Galvanized	B948
B-907-20PG	Pre-Galvanized	B948
B-907-10HD	Hot-Dipped Galvanized	B948
B-907-20HD	Hot-Dipped Galvanized	B948

Use H-113-A bolts and B-910- $\frac{1}{2}$ " or B-912- $\frac{1}{2}$ " steel nuts for mounting fittings.

Holes on B-900 series fittings match channel holes.

Scribe marks on steel channel designate midpoint between holes for accurate field cutting. Steel 71 lbs:/C ft.



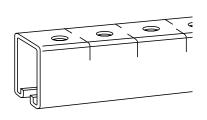


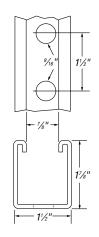




B-909 Channel — 1½" x 1¾"

For heavier load requirements. Connection by means of continuous slot or $\frac{9}{16}$ " holes on $\frac{11}{2}$ " centers.





CAT. NO.	DESCRIPTION	MATERIAL
B 909 10	Galv-Krom®	12 ga.
B-909-20	Galv-Krom®	12 ga.
B-909-10-EG	SilverGalv®	12 ga.
B-909-20-EG	SilverGalv®	12 ga.

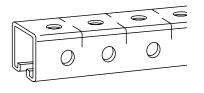
Use H-113-B bolts and B-910- $\frac{1}{2}$ " or B-911- $\frac{1}{2}$ " steel nuts for mounting fittings. 118 lbs./C ft.

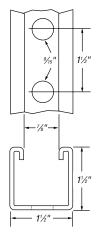
CAT. NO.	DESCRIPTION	JOINER
B-909	12 ga. Galv-Krom	G978-C
B-909HD	Hot-Dipped Galvanized	G978-C

Use H-113-B bolts and B-910-½" or B-911-½" steel nuts for mounting fittings. 118 lbs:/C ft.

B-995 Channel — 1½" x 1½"

Connection by means of continuous slot or %6" holes on 1½" centers on three sides which match holes in B-900 series fittings.





CAT. NO.	DESCRIPTION	MATERIAL
B 995 10	Galv-Krom®	12 ga.
B-995-20	Galv-Krom®	12 ga.
B-995-M-10	Galv-Krom®	14 ga.
B-995-M-20	Galv-Krom®	14 ga.
B-995-10-EG	SilverGalv®	12 ga.
B-995-20-EG	SilverGalv®	12 ga.
B-995-M-10-EG	SilverGalv®	14 ga.
B-995-M-20-EG	SilverGalv®	14 ga.

Use H-113-B bolts and B-910-½" or B-911-½" steel nuts for mounting fittings. 150 lbs./C ft. Scribe marks designate midpoint between holes for accurate field cutting. Standard 10 ft. lengths





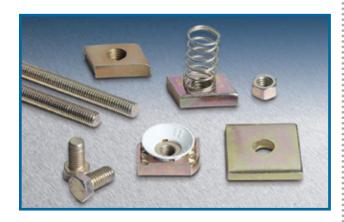


Channel Nuts

Kindorf® Channel Nuts are manufactured from mild steel and are case hardened.

Design Data

Kindorf® self-aligning channel nuts are designed to provide resistance to pull out and resistance to side slip in excess of the full strength of the channels with which they are used. The extreme resistance to side slip results from the unique design of the alternate teeth, spaced and designed to develop a wedging action that increases with pressure or load.



Load Ratings of Steel Channel and Insert Nuts

(B-910-1/2 or B-911-1/2) when used in slot of 12 ga. Kindorf® channel and tightened to a torque of 50 ft. Pounds are as follows:

Withdrawal resistance to pull out safe-load rating = 1,600 lbs. Slip resistance safe-load rating = 400 lbs.

(B-910-1/2 or B-912-1/2) when used in slot of 14 ga. Kindorf channel and tightened to a torque of 50 ft. Pounds are as follows:

Withdrawal resistance to pull out safe-load rating = 1,300 lbs. Slip resistance safe-load rating = 400 lbs.

Load ratings are based on safety factor of 3.

BC-910 Universal Cone Nut

Eliminates the inventory and installation hassles of conventional spring nuts. Fits all 1%" channel, regardless of depth, with a simple twist of your thumb. Pliable nylon cone secures the nut in place through the entire range of construction site temperatures.

Screw Threads

THREAD SIZE	В	J	С	D
Threads per inch	20	18	16	13
Design Torque (ftlbs.)	6	11	19	50

All threaded products are American Standard thread, free fit class 2.

Galv-Krom® hardware finish is standard for all Superstrut products. This is a multi-process finish of electro-plated zinc, followed by gold-colored trivalent chromium finish to give excellent corrosion resistance and a superior paint base.

Standard Finish - Galv-Krom®, unless otherwise stated.

Trapnut® Strut Fastener







H 122 3/8 Trapnut® Strut Fastener Galv-Krom®

H 122 3/8 EG Trapnut® Strut Fastener SilverGalv®

CAT. NO.	DESCRIPTION	SIZE (IN.)	DESIGN Load LBS.	STD. CTN.
H 122 1/4	1/4" Galv-Krom®	1/4	150	50
H 122 3/8	%" Galv-Krom®	3/8	590	50
H 122 1/2	½" Galv-Krom®	1/2	1,080	50
H 122 1/4 EG	1/4" SilverGalv®	1/4	150	50
H 122 3/8 EG	%" SilverGalv®	3/8	590	50
H 122 1/2 EG	½" SilverGalv®	1/2	1,080	50
H 122 1/4 SS6	1/4" Type 316 Stainless Steel	1/4	150	50
H 122 3/8 SS6	%" Type 316 Stainless Steel	3/8	590	50
H 122 1/2 SS6	½" Type 316 Stainless Steel	1/2	1,080	50

Channel Nuts — Standard Finish: Galv-Krom® B-910 Series





For use with all Kindorf® channels

CAT. NO.	SIZE (IN.)	THICKNESS (IN.)	WT. LBS./C
B 910 1/4	1/4–20	3/16	7.5
B-910-5/16	%-18	5/16	7.3
B-910-3/8	¾ – 16	5/16	9.15
B-910-1/2	½-13	3/8	9.9

Load Ratings for B-910 Strut Nuts

CHANNEL NUT SIZES	SLIP TEST RATING	PULL TEST RATING (IN.)
1/4	300	500
3/8	750	1000
1/2	1,200	2000

If connections will be subjected to dynamic or seismic loading conditions, contact the factory for design assistance.

- 1. All ratings have safety factor of 3 applied.
- 2. Load ratings are for Static Applications.



Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354









B-911 Series

Self-holding clamping nut with spring attached. For use with 11/2" deep channels.



SIZE (IN.)	THICKNESS (IN.)	WT. LBS./C
1/4-20	3/16	8
5/16-18	5/16	8.25
¾ − 16	5/16	10
3% - 16	5/16	12
1/2-13	3/8	10
1/2-13	7/8	13
	1/4-20 5/16-18 3/6-16 3/6-16 1/2-13	1/4-20

^{*} For clamping nuts with spring for 3" deep channels add suffix D to catalog number.

B-911-SN Series

Stud nut self-holding clamping nut with spring attached

CAT. NO.	SIZE (IN.)	THICKNESS (IN.)	WT. LBS./C
B 911 3/8 SN1 [†]	3⁄4 – 16	3/16	12.5
B-911-3/8-SN2 [†]	3/8−16	5/16	13.0
B-911-1/2-SN1 [†]	1/2-13	5/16	16.0
B-911-1/2-SN2 [†]	1/2-13	3∕8	17.0

†B-911-3/8-SN1, Stud: % Dia., 1" Long and B-911-3/8-SN2, Stud: % Dia., 11/4" Long. Accepts Kindorf® Nuts H-114C (hex), H-116-C (square).

B-911-1/2-SN1, Stud: ½ Dia., 1" Long. and B-911-1/2-SN2, Stud: ½ Dia., 1¼" Long. Accepts Kindorf® Nuts H-114D (hex), H-116-D (square).

B-912 Series

Self-holding clamping nut with spring attached. For use with 3/4" deep channels.



CAT. NO.	SIZE (IN.)	THICKNESS (IN.)	WT. LBS./C
B 912 1/4	1/4-20	3/16	8.0
B-912-5/16	5/16-18	5/16	7.5
B-912-3/8	³/ ₈ -16	5/16	9.5
B-912-1/2	1/2-13	5/16	9.8
Standard finish: Galv-I	Krom®		

BC-910 Series

· Universal nylon cone nut

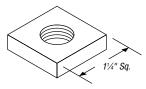
For all 15/8" & 11/2" channels. May • Sizes: 1/4", 3/8" & 1/2" be used with ALL strut depths



CAT. NO.	SIZE (IN.)	FINISH
BC910 1/4	1/4-20	Galv-Krom®
BC910 3/8	³/ ₈ -16	Galv-Krom®
BC910 1/2	1/2-13	Galv-Krom®

B-914 Series

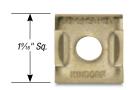
Square nuts for use with channel and spot-type concrete inserts.



CAT. NO.	SIZE (IN.)	THICKNESS (IN.)	WT. LBS./C
B 914 1/4	1/4-20	3/16	10.50
B-914-3/8	3 ₈ -16	5/16	13.25
B-914-1/2	1/2-13	3/8	14.00
B-914-5/8	%−11	3/8	14.00
B-914-3/4	3/4-10	3/8	12.00
B-914-7/8	7/8-9	3/8	10.50
B-914-3/8P	3/ _{-18**}	3/8	12.00
B-914-1/2P	1/2-14**	3/8	11.00

** Standard Pipe Threads. Standard finish: Galv-Krom®.

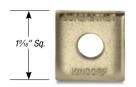
Located Square Washers



CAT. NO.	BOLT SIZE (IN.)	STD. CTN.
AB-241L-1/4	1/4	100
AB-241L-5/16	5/16	100
AB-241L-3/8	3/8	100
AB-241L-1/2	1/2	100
AB-241L-5/8	5/8	100

GoldGalv® is standard finish. Add "EG" suffix for SilverGalv®.

Square Washers



CAT. NO.	BOLT SIZE (IN.)	STD. CTN.
AB-241-1/4	1/4	100
AB-241-5/16	5/16	100
AB-241-3/8	3∕8	100
AB-241-1/2	1/2	100
AB-241-5/8	5/8	50

GoldGalv® is standard finish. Add "EG" suffix for SilverGalv®.

www.tnb.com

United States

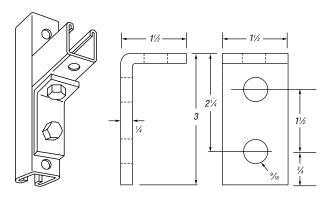
Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354







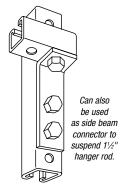
B-915 Two-Hole Angle Connector

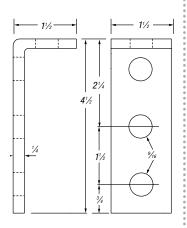


Can also be used as side-beam connector to suspend 1/2" hanger rod.

CAT. NO.	FINISH
B 915	Galv-Krom®
B-915EG	Electro-Galvanized
B-915HD	Hot-Dipped Galvanized
1/4" steel. 39 lbs./C.	

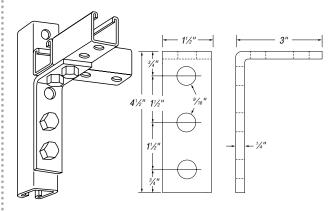
B-916 Three-Hole Angle Connector





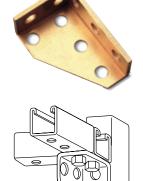
CAT. NO.	FINISH
B 916	Galv-Krom®
B-916HD	Hot-dipped galvanized
1/4" steel. 46 lbs./C.	

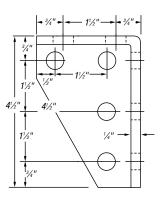
B-917 Five-Hole Angle Connector



CAT. NO.	FINISH
B 917	Galv-Krom®
B-917EG	Electro-Galvanized
B-917HD	Hot-Dipped Galvanized
1/4" steel. 68 lbs./C.	

B-918 Left-Hand Gusset Connector





CAT. NO.	FINISH
B 918	Galv-Krom®
B-918EG	Electro-Galvanized
12 Ga. and 1/4" steel. 102 lbs./C.	

Thomas@Betts

United States

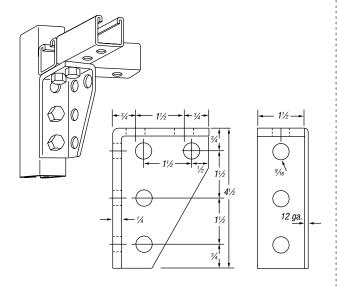
Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services**





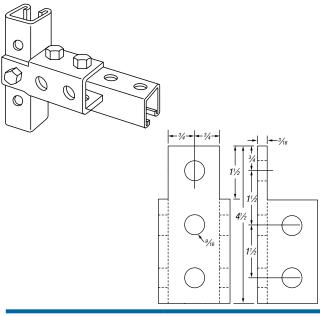


B-919 Right-Hand Gusset Connector

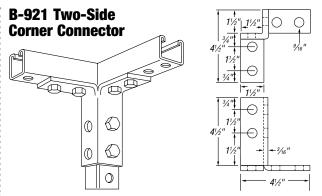


CAT. NO.	FINISH
B 918	Galv-Krom®
B-918EG	Electro-Galvanized
12 Co. and 1/" atool 102 lba /C	

B-920 End Connector

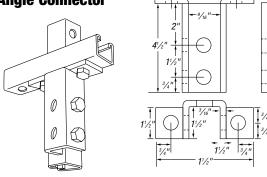


3/4 + 3/4 +
AT. NO. FINISH
920 Galv-Krom®
6" steel. 80 lbs./C.



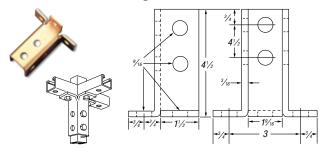
CAT. NO.	FINISH
B 921	Galv-Krom®
3/16" steel. 101 lbs./C.	

B-922 Opposite-Side Angle Connector



CAT. NO.	FINISH
B 922	Galv-Krom®
3/16" steel 124 lbs /C	

B-923 Three-Side Angle Connector



CAT. NO.	FINISH
B 923	Galv-Krom®
3/16" steel. 137 lbs./C.	



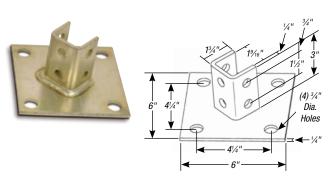
United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services** Tel: 888.862.3289

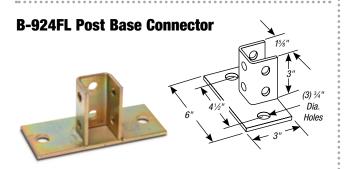




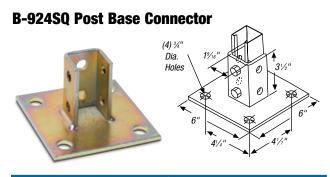
B-924 Post Base Connector



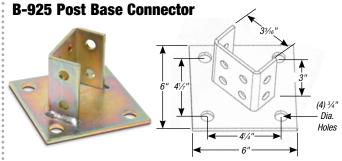
CAT. NO.	FINISH
B 924	Galv-Krom®
B-924-EG	SilverGalv [®]
1/4" steel 250 lbs./C.	
For use with 11/2" x 11/2" channels.	



CAT. NO.	FINISH
B 924FL	Galv-Krom®
B-924-FLEG	SilverGalv®

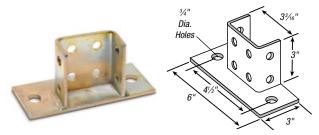


CAT. NO.	FINISH
B 924SQ	Galv-Krom®
B-924SQEG	SilverGalv®



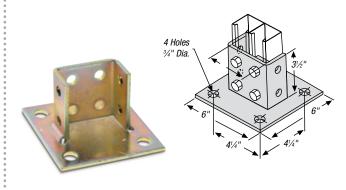
CAT. NO.	FINISH
B-925	Galv-Krom®
B-925-EG	SilverGalv [®]

B-925FL Post Base Connector



CAT. NO.	FINISH
B-925FL	Galv-Krom®
B-925FLEG	SilverGalv®

B-925SQ Post Base Connector



CAT. NO.	FINISH
B-925SQ	Galv-Krom®
B-925S0EG	SilverGalv®



United States

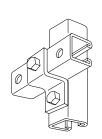
Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services** Tel: 888.862.3289

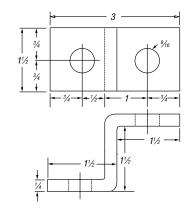




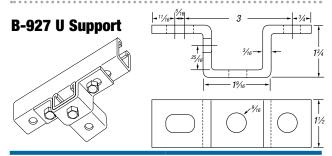


B-926 Z Support





CAT. NO.	FINISH
B 926	Galv-Krom®
1/4" steel. 42 lbs./C.	
For you with 11/" v 11/" channels	



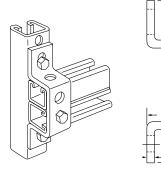
CAT. NO. **FINISH** B 927 Galv-Krom® Electro-Galvanized

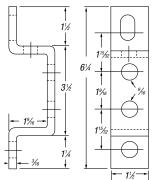
B-927EG

3/16" steel. 57 lbs./C.

For use with 11/2" x 11/2" channels.

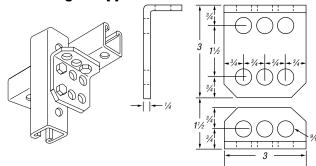
B-929 Wide U Support





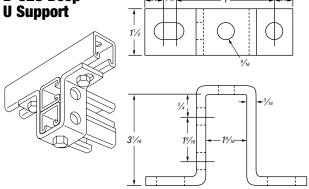
CAT. NO.	FINISH
B 929	Galv-Krom®
3/16" steel. 63 lbs./C.	

B-930 Angle Support



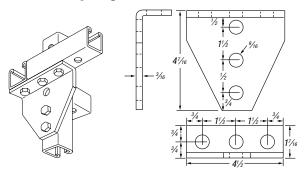
CAT. NO.	FINISH
B 930	Galv-Krom®
1/4" steel. 70 lbs./C.	

B-928 Deep



CAT. NO.	FINISH
B 928	Galv-Krom®
3/16" steel. 77 lbs./C.	

B-932 Heavy Angle Connector



CAT. NO.	FINISH
B 932	Galv-Krom®
3/4" etaal 126 lbc /C	

www.tnb.com

United States

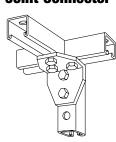
Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services** Tel: 888.862.3289

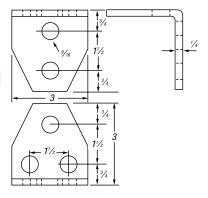






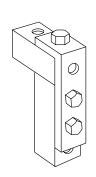
B-933 Five-Hole Joint Connector

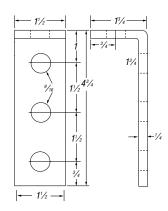




CAT. NO.	FINISH	
B 933	Galv-Krom [®]	
1/4" steel. 96 lbs./C.		

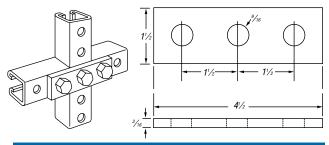
B-934 Outside Corner Connector





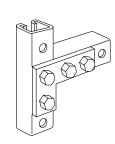
CAT. NO.	FINISH
B 934	Galv-Krom®
1/," ctagl 57 lbc /C	

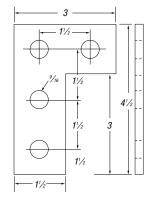
B-935 Three-Hole Plate Connector



CAT. NO.	FINISH
B 935	Galv-Krom®
B-935-GR	Green Coated
B-935-EG	Electro-Galvanized
3/16" steel. 32 lbs./C.	

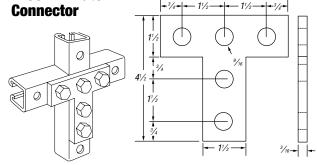
B-936 Angle Plate Connector





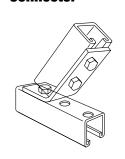
CAT. NO.	FINISH
B 936	Galv-Krom®
B-936GR	Green Coated
B-936EG	Electro-Galvanized
3/2" etaal 42 lbc /C	

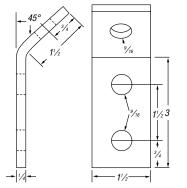
B-937 T-Plate



CAT. NO.	FINISH
B 937	Galv-Krom®
3/4e" steel 53 lhs /C	

B-938 Open Angle Connector





CAT. NO.	FINISH
B 938	Galv-Krom®
1/4" steel 42 lbs /C	

Thomas@Betts

United States

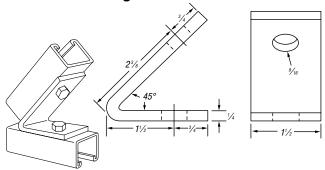
Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services**







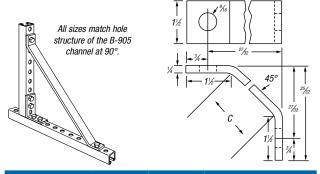
B-939 Closed Angle Connector



CAT. NO.	FINISH
B 939	Galv-Krom®

1/4" steel. 50 lbs./C.

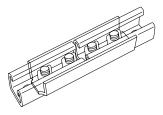
B-940 Corner Braces



	DIMENSIONS (IN.)			WT. IN.
CAT. NO.	Α	В	С	LBS./C
B 940 1	71/2	63/4	81//8	115
B-940-2	131/2	12¾	165//8	212
B-940-3	19½	18¾	251//8	305
1/11 1 1 0 1 1/ 0				

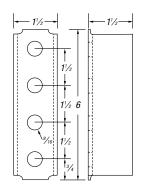
1/4" steel, Galv-Krom®.

B-941 Joiner for B-905 Channel

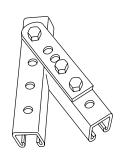


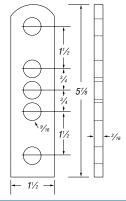
CAT. NO.	FINISH
B 941	Galv-Krom®
Order four B-910-1	/2 nuts and four H-113-A cap

screws separately. 12 ga. steel. 80 lbs./C.

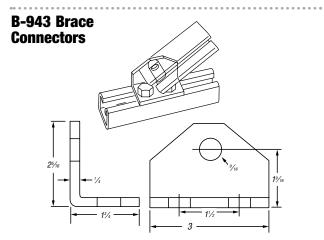


B-942 Swivel Plate





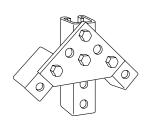
CAT. NO.	FINISH
B 942	Galv-Krom®
3/c" etaal 10 lhe /C	

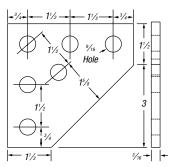


CAT. NO.	FINISH
B 943	Galv-Krom®

1/4" steel. 66 lbs./C.

B-944 Double Brace Connector





CAT. NO.	FINISH
B 944	Galv-Krom®
3/. " ataal 75 lba /C	

www.tnb.com

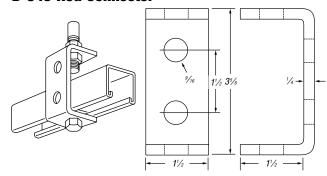
United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services** Tel: 888.862.3289



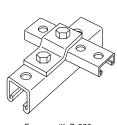


B-945 Rod Connector



CAT. NO.	FINISH
B 945	Galv-Krom®
1/4" steel, 61 lbs./C.	

B-946 Z-Support

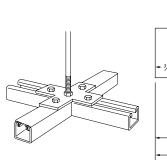


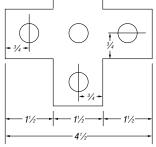


port	1	1	
			3/4
	1/2	9/16 Hole	1½
06 only.	1/4 -		3/ ₄

CAT. NO.	FINISH
B 946	Galv-Krom®
1/4" steel 34 lbs /C	

B-947 Cross-Plate Connector



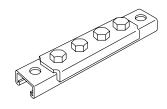


9/16 Holes

CAT. NO. FINISH B 947 Galv-Krom[©]

1/4" steel. 55 lbs./C.

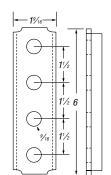
B-948 Joiner for **B-907 Channel**



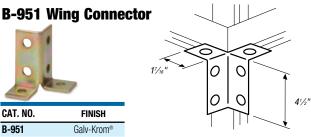
CAT. NO.	FINISH
B 948	Galv-Krom®
Order four R-010	1.1/2 nute and four H-113-A c

screws separately.

12 ga. steel. 51 lbs./C.



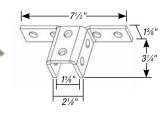
CAT. NO. FINISH B-951 Galv-Krom®





B-952



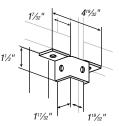


B-953 Wing Connector

Galv-Krom®



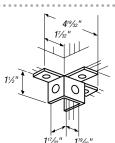
CAT. NO.	FINISH
B-953	Galv-Krom®



B-954 Wing Connector



CAT. NO.	FINISH	
B-954	Galv-Krom®	





United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services** Tel: 888.862.3289



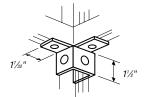




B-957 Wing Connector



CAT. NO.	FINISH	
B-957	Galv-Krom®	



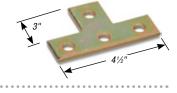
B-958L Wing Connector



CAT. NO.	FINISH	
B-958L	Galv-Krom®	

B-962 Plate Connector

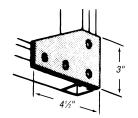




B-964 Plate Connector



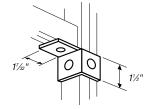
CAT. NO.	FINISH	
B-964	Galv-Krom®	



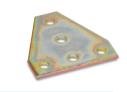
B-958R Wing Connector



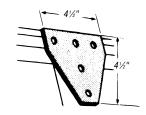
CAT. NO.	FINISH	
B-958R	Galv-Krom®	



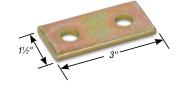
B-965 Plate Connector



CAT. NO.	FINISH	
B-965	Galv-Krom®	



B-960 Plate Connector

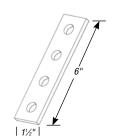


CAT. NO.	FINISH
R-960	Galv-Krom®

B-966 Plate Connector

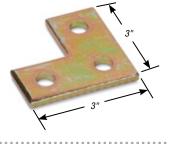


CAT. NO.	FINISH	
B-966	Galv-Krom®	

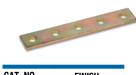


B-961 Plate Connector

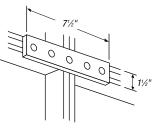
FINISH
Galv-Krom®



B-967 Plate Connector



CAT. NO.	FINISH
B-967	Galv-Krom®



Thomas@Betts



United States





Solar Panel Hold-Down Clamps

Rugged, Corrosion-Resistant Materials

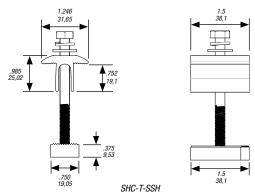
- Body and channel nut made from high-strength extruded aluminum alloy 6061-T6 with clear anodized finish
- ¼-20 x 3" bolt, lock washer and flat washer made from Type 304 stainless steel

Labor-Saving Features

- Hardware is pre-assembled to clamp to save time and labor for the installer
- Self-oriented channel nut is staked to bolt to ensure fast, easy installation

Versatile Design

Can be used with both 1½" Kindorf® channel and 1½" strut systems



	CAT. NO. SHC-T-SSH	CAT. NO. SHC-L-SSH
Applied Load Direction	Allowable Load (lbs.)	
Sliding	331	99
Tension	1535	568
Transverse	702	58
Tighten Torque Value (lbsin.), Minimum	100	100

1.184 30,09 HEX HD, SS HEX HD, SS Usasher, SS Flat Washer, SS Flat Washer, SS Flat Washer, SS Extruded Aluminum Channel Nut 1.500 38,1

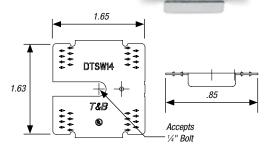
SHC-L-SSH

SHC-L-SSH

Solar Panel Grounding Washer

- Slotted for quicker installation no need to disassemble clamp assembly
- Bent tab ensures washer stays in place during installation
- Can be used with both 1½" Kindorf® channel and 1¾" strut systems
- Made from tin-plated, case-hardened steel
- Can be used on carbon steel or aluminum strut channel
- Complies with UL 467 (UL® Listed E9809)
- Designed for use with ¼" bolt installed with minimum torque value of 100 lbs.-in.

CAT. NO.	DESCRIPTION
DTSW14	Solar Panel Grounding Washer





United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354







SHC-T-SSH



B-900 Channel — Stainless Steel — 1½" x 1½"

· Connection by means of continuous slot





CAT. NO.	DESCRIPTION
B-900-10SS	Type 304
B-900-10316-SS	Type 316

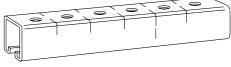
Use H-113-B bolts and B-910-1/2 or B-911-1/2 stainless steel nuts for mounting fittings.

Available 20 Ft. lengths.

1/2 1/2

B-905 Channel — Stainless Steel — 11/2" x 11/2"

 %6" holes on 1½" centers punched in channel base. Connection also by means of continuous slot



CAT. NO.	DESCRIPTION
B-905-10SS	Type 304

Type 316

Use H-113-B bolts and B-910-1/2 or B-911-1/2 stainless steel nuts for mounting fittings.

Scribe marks designate mid-point between holes for accurate field cutting.

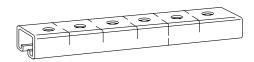
Available 20 Ft. lengths.

B-905-10-316SS

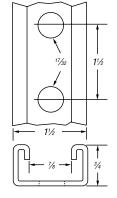
9/16 11/2 11/2 11/2 11/2

B-907 Channel — Stainless Steel

 Connection by means of continuous slot or %6" holes on 1½" centers



CAT. NO.	DESCRIPTION
B-907-10SS	Type 304
B-907-10316SS	Type 316
Available 20 Ft. lengths.	



B-911 Spring Nut — Stainless Steel



CAT. NO.	SIZE (IN.)	THICKNESS (IN.)	LBS./C
B-911-3/8-SS [†]	³/ ₈ –16	3/16	12.5
B-911-1/2-SS [†]	1/2-13	⁵ ⁄ ₁₆	16.0

 $^\dagger Self\text{-holding clamping nut with spring attached.}$ For use with $11\!/\!\!\!/^2$ deep channels.

Kindorf Straps for Rigid Conduit and Pipe — Type 304 Stainless Steel



CAT. NO.	RIGID CONDUIT OR PIPE SIZE (IN.)	CAT. NO.	RIGID CONDUIT OR PIPE SIZE (IN.)
C-105-1/2SS	1/2	C-105-2SS	2
C-105-3/4SS	3/4	C-105-2-1/2SS	21/2
C-105-1SS	1	C-105-3SS	3
C-105-1-1/4SS	11/4	C-105-3-1/2SS	3½
C-105-1-1/2SS	1½	C-105-4SS	4

Add 316 suffix for Type 316 Stainless Steel.

Cobra® Cable and Pipe Clamp — Type 316 Stainless Steel



CAT. NO.	FOR EMT AND RIGID CONDUIT TRADE SIZE (IN.)	CABLE O.D. RANGE (IN.)	STATIC LOAD LIMIT (LB) SAFETY FACTOR = 4	STD CTN.
CPC025SS6	1/4	.312–.600	200	100
CPC050SS6	1/2	.650890	200	100
CPC075SS6	3/4	.860-1.110	200	100
CPC100SS6	1	1.100-1.400	200	100
CPC125SS6	11/4	1.400-1.725	200	50
CPC150SS6	1½	1.690-1.980	200	50
CPC200SS6	2	1.980-2.576	200	50
CPC250SS6	21/2	2.576-3.060	350	25
CPC300SS6	3	3.060-3.626	350	25
CPC350SS6	31/2	3.626-4.126	350	25
CPC400SS6	4	4.126-4.626	350	25



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354







B-900-AL Aluminum Channel

· Connection by means of continuous slot

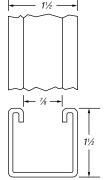


Aluminum (Extruded 6063-T6)

CAT. NO.	DESCRIPTION	
B-900-AL	1½" x 1½" x .1046; 58 lbs./C. ft	

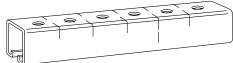
Use H-113-B bolts and B-910-1/2, B-911-1/2 or B-911-1/2-TL steel nuts for mounting fittings.

10 ft. lengths only.



B-905-AL Aluminum Channel

 $\%_6\text{"}$ holes on $1\frac{1}{2}\text{"}$ centers punched in channel base. Connection also by means of continuous slot.



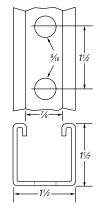


CAT. NO.	DESCRIPTION

1½" x 1½" x .1046; 56 lbs./C. ft.

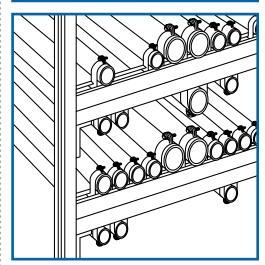
Use H-113-B bolts and B-910-1/2 or B-911-1/2 steel nuts for mounting fittings.

10 ft. lengths only.



Kindorf Straps for Rigid Conduit

and Pipe — Aluminum

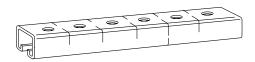


Steel beam mounting application. Aluminum straps with stainless steel hardware. Frame assembly carries multiple conduit runs.

CAT. NO.	RIGID CONDUIT OR PIPE SIZE (IN.)	ALUMINUM STRAP MATERIAL THICKNESS	WT. LBS./C
C-105AL-1/2	1/2	14	7
C-105AL-3/4	3/4	14	8
C-105AL-1	1	14	9
C-105AL-1-1/4	11/4	14	10
C-105AL-1-1/2	1½	12	12
C-105AL-2	2	12	14
C-105AL-2-1/2	21/2	12	16
C-105AL-3	3	12	18
C-105AL-3-1/2	31/2	1/8"	22
C-105AL-4	4	1/8"	24

B-907-AL Aluminum Channel

Connection by means of continuous slot or %16" holes on 11/2" centers

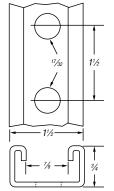


Aluminum (Extruded 6063-T6)

for mounting fittings.

CAT. NO.	DESCRIPTION	
B-907-AL	1½" x ¾" x .1046; .37 lbs. /C. ft.	
IIse H-113-Δ I	nolts and R-910-1/2 or R-912-1/2 steel nuts	

Holes on B-900 series fittings match channel holes.





United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354

Technical Services





PVC-Coated Steel Channel and Fittings for Highly Corrosive Atmospheres

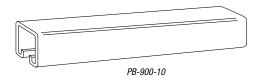
The complete and lasting corrosion protection of conduit with polyvinyl chloride coating is now extended to the supporting system. No longer will installers be faced with the problem of installing PVC-coated conduit or other corrosion-resistant material only to have the support system require constant maintenance or replacement.

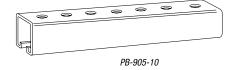
PVC-coated Kindorf® channel and fittings complement other corrosionresistant services installed in chemical plants, foundries, meat packing plants, oil refineries, paper mills, sewage treatment plants and other locations.

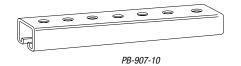
PVC Plastic-Coated Kindorf® Channel Support System for Installations in Severely Corrosive Atmospheres

PVC Coating

The coating is a polyvinyl chloride (PVC) plastic coating that is permanently fused to the Kindorf® Galv-Krom® galvanized steel channels, fittings and accessories. The fused-melt mixed powder (PVC) coating is 15 mils. (.015") ±5 mils thickness.







...... Specifications

- Hardness: 90+ Shore A Durometer
- Dielectric Strength (volts/mil @ 60 cycles): 1100
- · Flammability: Self-extinguishing
- · Tensile strength: 2000 p.s.i.
- · Percent elongation: 180%
- Aging: 14,000 hours Atlas Weatherometer

The material is a thermoplastic and will soften in high temperatures. Service life will be decreased if the normal operating temperature of the support system is in excess of 225° F.

The service life expectancy is 20 years in normal weathering, with no indication of hardening, softening or other physical change.

The Kindorf® plastic-coated support system has excellent resistance to the corrosive atmospheres created in modern processing industries which materially reduce the life of standard products and cause high maintenance costs. The fused-on coating of PVC plastic to a pre-galvanized steel effectively bars corrosive action by eliminating "undercreep" or "corrosion travel". There is practically no maintenance. No special tools are required for installation of the Kindorf® PVC system.

The Kindorf® PVC-coated support system, combining the strength of steel and the corrosion resistance of plastic, is designed for mechanical support of plastic and plastic-coated conduits and pipes. Kindorf® PVC meets the requirements for corrosion resistance in those environments generally found in chemical processing plants, oil refineries, steel mills, foundries, meat packing and other food processing plants, fertilizer plants, textile and paper processing industries.

PVC-Coated Steel Channel

CAT. NO.	DESCRIPTION	WT. LBS./C
PB-900-10	1½" x 1½" x 12 ga. Solid Base	168
PB-905-10	1½" x 1½" x 12 ga. %" Holes on 1½" Centers	160
PB-907-10	1½" x ¾" x 14 ga. %6" Holes on 1½" Centers	82

Standard 10 ft. lengths.



CAT. NO. & Size	DESCRIPTION	WT. LBS./C
PBH-193-3/8-6	3/8" x 6'	174
PBH-193-3/8-10	3/4" x 10'	290
PBH-193-1/2-6	½" x 6'	324
PBH-193-1/2-10	½" x 10'	540



PBH-193



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354





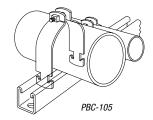


Channels, Nuts and Fittings

PVC-Coated Steel Conduit Straps

CAT. NO. & SIZE	DESCRIPTION (IN.)	WT. LBS./C
PBC-105-3/4	3/4	16
PBC-105-1	1	18
PBC-105-1-1/4	11/4	20
PBC-105-1-1/2	1½	29
PBC-105-2	2	33

CAT. NO. & SIZE	DESCRIPTION (IN.)	WT. LBS./C
PBC-105-2-1/2	21/2	38
PBC-105-3	3	45
PBC-105-3-1/2	31/2	58
PBC-105-4	4	64



PVC-Coated Hardware

CAT. NO. & SIZE	DESCRIPTION	WT. LBS./C
PB-910-3/8	%-16 Steel Nut	9
PB-910-1/2	½-13 Steel Nut	10
PBH-119C-3/8	1½" Square Washer with ¾6" Hole	12
PBH-119D-1/2	11/2" Square Washer with 27/32" Hole	14
PBH-120	Saddle Washer for 3/8" or 1/2" Rod	7



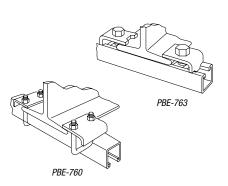




PVC-Coated Beam Clamps

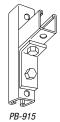
CAT. NO. & SIZE	DESCRIPTION	WT. LBS./C
PB-502	2"- 1/8" Jaw Tapped 3/8-16	95
PB-508	21/2"-2" Jaw Tapped 1/2-13	182
PBE-760-2	For Use with PB-900, PB-905, PB-906 or PB-907	80
PBE-763	For Use with All Channels	25

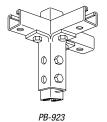


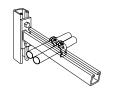


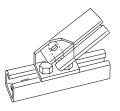
PVC-Coated Framing Fittings

DESCRIPTION









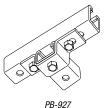
PB-943

PBF-720

WT. LBS./C 2-Hole Angle Connector 40 137 53

PB-923 3-Side Angle Connector PB-927 U Support PB-943 Double-Brace Connector 66 PBF-720-18 Single-Channel Wall Bracket - 18" 275 PBF-721-18 Double-Channel Wall Bracket - 18" 568





Thomas@Betts

United States Tel: 901.252.8000

800.816.7809 Fax: 901.252.1354







CAT. NO. & SIZE

PB-915



Channels, Nuts and Fittings

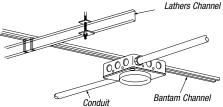
For the support of light- and medium-weight equipment in electrical and mechanical applications.

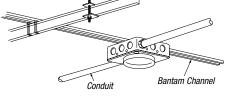
Bantam Channels

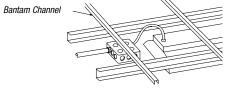
Bantam Channels simplify the support of overhead fixtures, conduits, pipes and boxes in suspended ceiling installations where they can be supported on runs of lathers channel or directly from bar joists or ceiling beams. Ribbed channels may also be mounted on concrete forms and used as low-cost continuous-slot concrete inserts.

Installed slot down the open slot accommodates and enables easy positioning of accessory fittings or 1/4" hanger rod to support lightor medium-weight equipment.

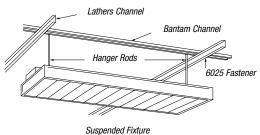
The use of Kindorf® Channel Bars provides a ready made system of bars and accessories designed to eliminate costly and timeconsuming on-the-job improvising.

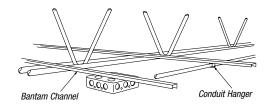






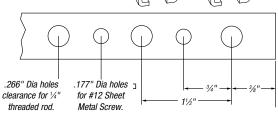
Box mounted on Bantam Channel to feed fixtures.

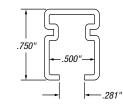




Typical mounting on bar joists

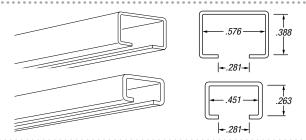






Ribbed Channels (extra strength)

CAT. NO.	DESCRIPTION	WT. LBS./C FT.
6029 H	16 gauge (.060") Ribbed Channel with Holes	30
6029	16 gauge (.060") Ribbed Channel	45
Channels are pr	roduced in 10-ft. lengths. Pre-galvanized steel.	



Lightweight Channels

CAT. NO.	DESCRIPTION	WT. LBS./C FT.
6013	20 gauge (.034") Lightweight Channel	17
6014	18 gauge (.044") Lightweight Channel	16
Channels are p	roduced in 10-ft. lengths. Pre-galvanized steel.	

www.tnb.com

United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354

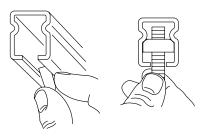




Channels, Nuts and Fittings

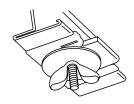
Low-Cost Techniques for Bantam Channel — Fast, Easy Hanging with Standard Fittings

Groove Holds Nut Squarely — Nut Won't Rotate.



CAT. NO. H-116-A-1/4 square nut tips in anywhere.

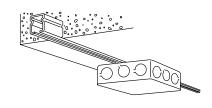
T-Bar Clip



CAT. NO. 6075

Mounts electrical fixtures to exposed grid acoustical ceilings. Fits ¹⁵/₆" or 1" bar face.
Load Rating: 100 lbs. Safety factor of 4.
Furnished complete with cupped washer and wing nut.

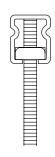
Bantam Channel for Low-Cost, Continuous-Slot Concrete Inserts.



CAT. NO. 6029

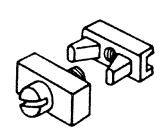
Maximum recommended loads 200 lbs.

Insert Rod Full Height of Channel for Rigidity.



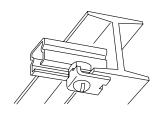
CAT. NO. H-193-1/4 hanger rod.

Fastener and Carrier, (Complete Assembly) 6 lbs./C



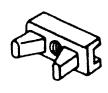
CAT. NO. 6016

Beam Flange Clip



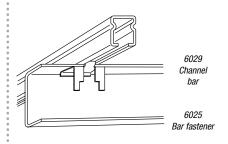
CAT. NO. 6024 Secures channel to I-beams, angle iron or bar joists with flanges not exceeding ¼" thickness.

Channel Carrier 2 lbs./C



CAT. NO. 6017

Hung Ceiling Carrying Channel



CAT. NO. 6025
Secures channel to lathers channel or other ceiling-carrying channels.

Fixture Stud and Carrier,
(Complete Assembly) 7 lbs./C

CAT. NO. 6026

Fits over ends of ribbed channels for continuous runs.

CAT. NO. 6015



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services**

Tel: 888.862.3289









C105 and C106 Series Pipe Straps

Kindorf® Pipe Straps are designed to be twist inserted anywhere along the slot side of the channel. Pipes can be placed as closely as pipe couplings permit.

Single or multiple runs of pipe and cable are secured easily and economically by Kindorf® supports. In the racking of multiple runs of pipe, for example, C-105 Straps are quickly twist inserted into a channel slot and the pipe is installed by the tightening of a single screw. There are no holes to drill and position adjustment is made simple by sliding the strap along the channel slot. Runs of pipe or conduit can be spaced with complete freedom, as close as conduit couplings permit.

For single runs, the C-149 Pipe Hanger saves installation time by allowing the conduit or pipe to be laid in place after the hanger is mounted. The versatile C-149 can be suspended from hanger rod or bolted directly to the wall, and pipe insulation, when needed, can be installed without removing the pipe from the hanger.

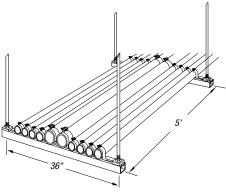
These are but two examples of how Kindorf® products deliver lower installed costs. Whether it be a problem of tight spacing, adjustment or alignment of adequate spacing between hangers, there's a Kindorf® support to solve it.

Kindorf® pipe and cable supports are engineered to provide safe and secure installations. The majority of Kindorf® supports are protected by the exclusive Galv-Krom® finish, including threaded components.

There's a wide range of Kindorf® pipe and cable supports to meet almost every job condition, installed either in combination with channel or individually secured to the structure surface.

Some unique features of the straps include:

- Bolt head is combination slot and hexhead for flexibility of attachment
- Square nut is captivated on the shoulder for easy one-handed tightening
- Straps are interchangeable with 1%" strut for broader application
- Straps are shipped assembled so counting and sorting are easier
- Pipe or conduit sizes are shown on the strap for easy identification



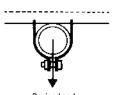
Trapeze application supporting multiple conduit runs.



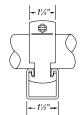
C-247 Beam clamp supports pipe.



Pipe supported by C-149 lay-in hanger.

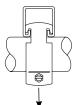


Design Loads





All Kindorf® Straps are pre-assembled for easy handling and sorting.



▼ Desian Load





1-800-453-1692

The new standard for heavy-duty applications.

LOC-KING Cobra One-Piece Cable and Pipe Clamp

The LOC-KING™ Cobra® heavy-duty pipe and cable clamp adds two new design innovations to the heavy-duty features of the original King Cobra® clamp.

First, a pre-set torque mechanism takes the guesswork out of installation, ensuring optimum torque and eliminating excess pressure on cables. Since the torque is pre-set, LOC-KING™ Cobra® clamps are ideally suited for use with power tools, making installation faster and more efficient than ever.

Second, the incorporation of an anti-vibration nut means that once installed, LOC-KING $^{\text{\tiny M}}$ Cobra $^{\text{\tiny 8}}$ clamps remain securely installed, even in high-vibration environments.

- Designed to be used on tray cable, Teck cable, metal-clad cable and armored cable
- · Power-tool compatible for fast and efficient installation
- Pre-set torque mechanism takes the guesswork out of installation, delivering optimum torque even when using power tools
- Pre-set torque prevents over-tightening and excess pressure
- Anti-vibration nut ensures permanent installation, even in high-vibration environments
- Superior design load capabilities for heavy-duty applications: 350 lbs. for ½"-2½" trade sizes; 450 lbs. for 3"-4" trade sizes



Position LOC-KING^{TO} Cobra[®] clamp.



Using a power tool fitted with a %" (16mm) socket, tighten lock nut...





...until it 'blocks' and will no longer turn. Installation is complete.



See Ratings in the Table Below

Note: When pre-set torque engages, lock-nut separates from bolt head and stops firmly against clamp body.

CAT. NO.	FOR EMT AND RIGID CONDUIT TRADE SIZES	CABLE O.D. RANGE (IN.)	ARROW #1 Load rating*	ARROW #2 SLIP RATING**	ARROW #3 Pull rating**	QUANTITY PER BOX
LKCPC050	1/2	.650890	350 lbs.	50 lbs.	50 lbs.	100
LKCPC075	3/4	.860-1.110	350 lbs.	50 lbs.	50 lbs.	100
LKCPC100	1	1.100-1.400	350 lbs.	50 lbs.	50 lbs.	100
LKCPC125	111/4	1.400-1.725	350 lbs.	50 lbs.	50 lbs.	50
LKCPC150	1½	1.690-1.980	350 lbs.	50 lbs.	50 lbs.	50
LKCPC200	2	1.980-2.576	350 lbs.	50 lbs.	50 lbs.	50
LKCPC250	2½	2.576-3.060	350 lbs.	50 lbs.	50 lbs.	25
LKCPC300	3	3.060-3.626	450 lbs.	50 lbs.	50 lbs.	25
LKCPC350	3½	3.626-4.126	450 lbs.	50 lbs.	50 lbs.	25
LKCPC400	4	4.126-4.626	450 lbs.	50 lbs.	50 lbs.	25

Thomas@Betts

United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services** Tel: 888.862.3289







The new specification standard for heavy-duty industrial applications.



King Cobra® Cable and Pipe Clamp with Galv-Krom® Finish

- Superior design load capabilities for industrial applications: 350 lbs. for 1/2" to 21/2" trade sizes; 450 lbs. for 3" to 4" trade sizes
- Durable one-piece heavy-duty steel construction — designed specifically for use in industrial applications
- Embossed shoulder and hooks increase loading capability and durability, preventing deformation of clamps
- Rugged stirrup provides increased strength for heavier loads, minimizing deflection
- · Wider saddle design with anti-rotation tabs distributes load evenly over a larger surface area, preventing jacket damage
- Increased corrosion protection* Galv-Krom® (yellow zinc trivalent) finish stands up to harsh industrial applications
- Parallel hook design keeps conduit and cable square with strut
- Heavy-duty ⁵/₁₆" hex bolt
- One clamp size works on equal trade sizes for both EMT and rigid conduit, simplifying clamp specification

^{*} Compared to conventional electrogalvanization.

CAT. NO.	FOR EMT And Rigid Conduit Trade Size (In.)	CABLE O.D. RANGE (IN.)	STATIC LOAD LIMIT (LB) SAFETY FACTOR = 4	STD. CTN.
Galv-Krom® F	inish			
KCPC050	1/2	.650890	350	100
KCPC075	3/4	.860-1.110	350	100
KCPC100	1	1.100-1.400	350	100
KCPC125	11/4	1.400-1.725	350	50
KCPC150	1½	1.690-1.980	350	50
KCPC200	2	1.980-2.576	350	50
KCPC250	2½	2.576-3.060	350	25
KCPC300	3	3.060-3.626	450	25
KCPC350	3½	3.626-4.126	450	25
KCPC400	4	4.126-4.626	450	25

Cobra® One-Piece Cable and Pipe Clamp

Takes a bite out of your installation time!

- One-piece heavy-duty construction ready to install right out of the box. no need to break apart and reassemble no screws or bolts to drop
- Installs quickly and securely using one hand
- Universal bolt head accepts a range of tools
- Eliminates the guesswork from clamp selection — one catalog number attaches equal trade sizes of EMT and rigid conduit
- Parallel hook design keeps conduits and cable square with strut
- Reconfigure wiring without complete disassembly. Remove cables easily without disturbing neighboring clamps



CAT. NO.	FOR EMT And Rigid Conduit Trade Size (In.)	CABLE O.D. RANGE (IN.)	STATIC LOAD LIMIT (LB) SAFETY FACTOR = 4	STD. CTN.			
EG Silver Finish							
CPC025	1/4	.312600	200	100			
CPC050	1/2	.650890	200	100			
CPC075	3/4	.860-1.110	200	100			
CPC100	1	1.100-1.400	200	100			
CPC125	11/4	1.400-1.725	200	50			
CPC150	1½	1.690-1.980	200	50			
CPC200	2	1.980-2.576	200	50			
CPC250	2½	2.576-3.060	350	25			
CPC300	3	3.060-3.626	350	25			
CPC350	3½	3.626-4.126	350	25			
CPC400	4	4.126-4.626	350	25			

Stainless Steel: add suffix SS6.





1-800-453-1692

Angler® Pipe and Conduit Clamp



Universal Series





CAT. NO.	SIZE (IN.)	STRAP THICKNESS	DESIGN Load (LBS.)	INSTALL Torque (In. LBS.)	STD. CTN.
Galv-Krom® Fini	sh				
C 109 1/2	1/2	14 ga.	400	40	100
C 109 3/4	3/4	14 ga.	500	40	100
C 109 1	1	14 ga.	500	40	100
C 109 1 1/4	11/4	14 ga.	500	40	100
C 109 1 1/2	11/2	12 ga.	800	60	50
C 109 2	2	12 ga.	800	60	50
C 109 2 1/2	21/2	12 ga.	800	60	50
C 109 3	3	12 ga.	800	60	50
C 109 3 1/2	31/2	11 ga.	1,200	60	25
C 109 4	4	11 ga.	1,200	60	25
SilverGalv® Finis	h				
C 109 1/2 EG	1/2	14 ga.	400	40	100
C 109 3/4 EG	3/4	14 ga.	500	40	100
C 109 1 EG	1	14 ga.	500	40	100
C 109 1 1/4 EG	11/4	14 ga.	500	40	100
C 109 1 1/2 EG	11/2	12 ga.	800	60	50
C 109 2 EG	2	12 ga.	800	60	50
C 109 2 1/2 EG	21/2	12 ga.	800	60	50
C 109 3 EG	3	12 ga.	800	60	50
C 109 3 1/2 EG	31/2	11 ga.	1,200	60	25
C 109 4 EG	4	11 ga.	1,200	60	25



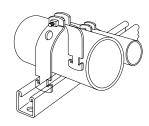
CAT. NO.	SIZE (IN.)	STRAP THICKNESS	DESIGN LOAD (LBS.)	INSTALL Torque (In. LBS.)	STD. CTN.
Galv-Krom® Finis	sh				
C 109R 1/2	1/2	14 ga.	600	40	100
C 109R 3/4	3/4	14 ga.	600	40	100
C 109R 1	1	14 ga.	600	40	100
C 109R 1 1/4	11/4	14 ga.	600	40	100
C 109R 1 1/2	11/2	12 ga.	800	60	50
C 109R 2	2	12 ga.	800	60	50
C 109 2 1/2	21/2	12 ga.	800	60	50
C 109 3	3	12 ga.	800	60	50
C 109 3 1/2	3½	11 ga.	1,200	60	25
C 109 4	4	11 ga.	1,200	60	25
SilverGalv® Finis	h				
C 109R 1/2 EG	1/2	14 ga.	600	40	100
C 109R 3/4 EG	3/4	14 ga.	600	40	100
C 109R 1 EG	1	14 ga.	600	40	100
C 109R 1 1/4 EG	11/4	14 ga.	600	40	100
C 109R 1 1/2 EG	1½	12 ga.	800	60	50
C 109R 2 EG	2	12 ga.	800	60	50
C 109 2 1/2 EG	2½	12 ga.	800	60	50
C 109 3 EG	3	12 ga.	800	60	50
C 109 3 1/2 EG	3½	11 ga.	1,200	60	25
C 109 4 EG	4	11 ga.	1,200	60	25

Hex head size $^3/_8$ " for $^1/_2$ " to $1^1/_4$ " sizes, $^1/_2$ " for $1^1/_2$ " to 4" sizes.

Material: Stamped Steel.

Pipe sizes 21/2" to 4" utilize the same clamps for the Rigid Series and the Universal Series. Available in SilverGalv® Finish by adding "EG" suffix to catalog number.

C-200 Universal Pipe Straps



CAT. NO.	EMT, IMC, RIGID PIPE SIZE (IN.)	PIPE O.D. RANGE (IN.)	STRAP THICKNESS	WT. LBS./C
C-200-1/2	1/2	.706804	14 ga.	12
C-200-3/4	3/4	.922-1.060	14 ga.	13
C-200-1	1	1.163-1.315	14 ga.	14
C-200-1-1/4	11/4	1.508-1.660	14 ga.	16
C-200-1-1/2	1½	1.738-1.900	12 ga.	27
C-200-2	2	2.196-2.375	12 ga.	31

Design load equal to C-105 straps.



United States Tel: 901.252.8000

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354



Tel: 888.862.3289







(P

Conduit, Cable and Pipe Supports

C-105 and C-106 Pipe Straps

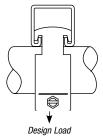
Kindorf® Pipe Straps are designed to be twist inserted anywhere along the slot side of the channel. Pipes can be placed as closely as pipe couplings permit.

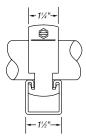
Some unique features of the straps include:

- Bolt head is combination slot and hex head for flexibility of attachment
- Square nut is captivated on the shoulder for easy one-handed tightening
- Straps are interchangeable with 1%" strut for broader application
- Straps are shipped assembled so counting and sorting are easier
- Pipe or conduit sizes are shown on the strap for easy identification

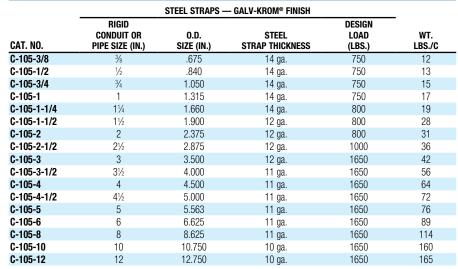


All Kindorf® Straps are pre-assembled for easy handling and sorting.









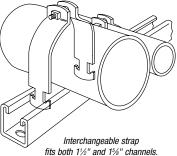




C-106-1-1/2

C-106-2









11/2

800.816.7809 Fax: 901.252.1354



1.740

2.197



12 ga.

12 ga.



800

800

20

22

Kindorf® Straps for O.D. Tubing



701-3/4

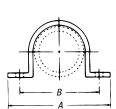
CAT. NO.	TUBING O.D. (IN.)	STEEL STRAP THICKNESS	DESIGN LOAD (LBS.)
Galv-Krom® I	inish		
701 1/4	1/4	14 ga.	750
701-3/8	3/8	14 ga.	750
701-1/2-STR	1/2	14 ga.	750
701-5/8	5/8	14 ga.	750
701-3/4	3/4	14 ga.	750
701-7/8	7/8	14 ga.	750
701-1-STR	1	14 ga.	750
701-1-1/8	11//8	14 ga.	1,000
701-1-1/4	11/4	14 ga.	1,000
701-1-3/8	1%	14 ga.	1,000
701-1-1/2	1½	14 ga.	1,000
701-1-5/8	1%	14 ga.	1,000
701-1-3/4	13/4	12 ga.	1,000
701-1-7/8	1%	12 ga.	1,000
701-2	2	12 ga.	1,000
701-2-1/8	21//8	12 ga.	1,300
701-2-1/4	21/4	12 ga.	1,300
701-2-3/8	2¾	12 ga.	1,300
701-2-1/2	21/2	12 ga.	1,300
701-2-5/8	25/8	12 ga.	1,300
701-2-3/4	23/4	12 ga.	1,300
701-2-7/8	21//8	12 ga.	1,300
701-3	3	12 ga.	1,300
701-3-1/8	31/8	12 ga.	1,300
701-3-1/4	31/4	12 ga.	1,300
701-3-3/8	3¾	12 ga.	1,300
701-3-1/2	31/2	12 ga.	1,300
701-3-5/8	35/8	11 ga.	1,650
701-3-3/4	3¾	11 ga.	1,650
701-3-7/8	31//8	11 ga.	1,650
For SilverGalv® F	inish, add suff		

CAT. NO.	TUBING O.D. (IN.)	STEEL STRAP THICKNESS	DESIGN Load (LBS.)
Galv-Krom® F	inish		
701-4	4	11 ga.	1,650
701-4-1/8	41/8	11 ga.	1,650
701-4-1/4	41/4	11 ga.	1,650
701-4-3/8	43/8	11 ga.	1,650
701-4-1/2	41/2	11 ga.	1,650
701-4-5/8	45/8	11 ga.	1,650
701-4-3/4	43/4	11 ga.	1,650
701-4-7/8	47/8	11 ga.	1,650
701-5	5	11 ga.	1,650
701-5-1/8	51/8	11 ga.	1,650
701-5-1/4	51/4	11 ga.	1,650
701-5-3/8	5%	11 ga.	1,650
701-5-1/2	5½	11 ga.	1,650
701-5-5/8	5%	10 ga.	1,650
701-5-3/4	53/4	10 ga.	1,650
701-5-7/8	5%	10 ga.	1,650
701-6	6	10 ga.	1,650
701-6-1/8	61/8	10 ga.	1,650
701-6-1/4	61/4	10 ga.	1,650
701-6-3/8	6%	10 ga.	1,650
701-6-1/2	6½	10 ga.	1,650
701-6-5/8	65/8	10 ga.	1,650
701-6-3/4	63/4	10 ga.	1,650
701-6-7/8	61/8	10 ga.	1,650
701-8	8	10 ga.	1,650
F . 01 . 0 . 1 @ F		FO	

For SilverGalv® Finish, add suffix EG.

C-708-U Short Strap for Channel or Wall Mounting





	PIPE	DIMENSI	ONS (IN.)	HOLE	STOCK SIZE	DESIGN LOAD
CAT. NO.	SIZE (IN.)	Α	В	SIZE (IN.)	(IN.)	(LBS.)
C708U 1/2	1/2	27//8	2	9/32	½ x 1½	650
C-708-U-3/4	3/4	31/16	23/16	9/32	⅓ x 1⅓	650
C-708-U-1	1	3¾	21/2	9/32	⅓ x 15⁄8	650
C-708-U-1-1/4	11/4	311/16	23/16	9/32	⅓ x 15⁄8	650
C-708-U-1-1/2	1½	315/16	31/16	9/32	⅓ x 1⅓	650
C-708-U-2	2	53/4	41/8	7/16	½ x 15/8	650
C-708-U-2-1/2	21/2	63/16	4%16	7/16	½ x 15/8	1,000
C-708-U-3	3	63/16	53/16	7/16	½ x 15⁄8	1,000
C-708-U-3-1/2	31/2	75/16	511/16	7/16	½ x 1%	1,000
C-708-U-4	4	713/16	63/16	7/16	½ x 15⁄8	1,200
C-708-U-5	5	87//8	71/4	7/16	½ x 15⁄8	1,200
C-708-U-6	6	915/16	85/16	7/16	½ x 15⁄8	1,200

Thomas@Betts

United States Tel: 901.252.8000

800.816.7809 Fax: 901.252.1354 **Technical Services**

Tel: 888.862.3289







Ty-Rap[®] Cable Clamp for Framing Channel

When fastening wire bundles, cables or hoses to framing channels, you can cut costs considerably by using the Ty-Rap® Cable Clamp. It is made of smooth, weather-resistant nylon and designed to protect cable insulation and hoses from wear or damage as can occur with metal clamps. The clamp may be used for both indoor or outdoor applications. It installs in the framing channel with a simple push and twist. It requires no screws, nuts or tools. The clamp fits all 1½" and 1½" channels regardless of channel depth.



- · Installs with a push and twist
- · Designed for indoor or outdoor use
- Smooth design protects cable insulation
- Takes range of cable diameters



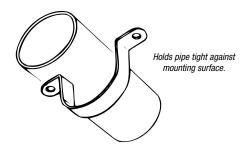


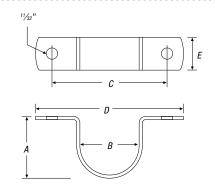


CAT. NO.	CHANNEL SIZE	MAXIMUM TIE WIDTH ACCOM.	UNIT QTY.	STD. CTN.
TC5363X	1.5 & 1.625	.301	50	250

Mounting bases for heavy-duty applications are made from high-impact weather-resistant nylon.

C-144 Two-Hole Pipe Straps





	DIMENSIONS (IN.)			- WOOD SCREW			
CAT. NO.	A & B	С	D	E	SIZE REQ'D.	THICKNESS STEEL	WT. LBS./C
C-144-1/2	.840	2	3	3/4	No. 12 x 1	1/8	10
C-144-3/4	1.050	21/4	31/4	3/4	No. 12 x 1	1/8	11
C-144-1	1.315	21/2	31/2	3/4	No. 12 x 1	1/8	13
C-144-1-1/4	1.660	31/4	41/4	1	No. 12 x 1	1/8	20
C-144-1-1/2	1.900	31/2	41/2	1	No. 12 x 1	1/8	23
C-144-2	2.375	41/4	51/4	1	No. 16 x 11/2	1/8	30
C-144-2-1/2	2.875	5	6	1	No. 16 x 11/2	1/8	35
C-144-3	3.500	53/4	6¾	1	No. 16 x 2	1/8	42
C-144-3-1/2	4.000	61/2	71/2	1	No. 16 x 21/2	3/16	69
C-144-4	4.500	7	8	1	No. 16 x 3	3/16	78

Standard finish Galv-Krom®.

www.tnb.com

United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services** Tel: 888.862.3289





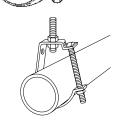
1-800-453-1692

C-711 Lay-in-Pipe Hanger (J-Hanger)

Saves installation time by allowing the conduit or pipe to be laid in place after the hanger is mounted. Fastening of side bolt can be delayed until most convenient for job conditions. Insulation can be installed without removing pipe from hanger. The C-149 hanger can be suspended from hanger rod or can be bolted directly to a wall. When used with hanger rod, assembly requires two H-114 hex nuts.

Vertical adjustment of at least 1½" after pipe is laid in place. The lower nut adjusts pipe lines to the proper pitch and the top nut, when locked into position, prevents loosening due to vibration. The square nut on the side bolt is kept from loosening by the arrangement of hole and up-turned lip.

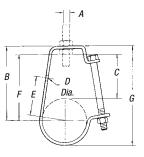
	PIPE SIZE	A ROD	DIMENSIONS (IN.)			-BOLT SIZE	STOCK	MAX. REC			
CAT. NO.	(IN.)	(IN.)	В	C	D	E	F	G	(IN.)	SIZE	LOADS LBS.
C-711-1/2	1/2	3/8	25/8	13/4	7/16	1½	1 ¹⁵ / ₁₆	35/32	1/4	12 ga, x ¾	400
C-711-3/4	3/4	3/8	27/8	1%	7/16	1 ¹ 1/ ₁₆	21/8	31/2	1/4	12 ga. x ¾	400
C-711-1	1	3/8	215/16	1 15/16	7/16	1 13/16	25/16	311/16	1/4	12 ga. x ¾	400
C-711-1-1/4	11/4	3/8	31/4	2	7/16	21/16	25/8	41/8	1/4	12 ga. x ¾	400
C-711-1-1/2	1½	3/8	3%16	23/16	7/16	27/16	27/8	45/8	1/4	12 ga. x ¾	400
C-711-2	2	3/8	311/16	21/8	7/16	29/16	31/16	5	1/4	12 ga. x ¾	400
C-711-2-1/2	21/2	1/2	71/16	27/16	9/16	33/16	35/8	6	3/8	12 ga. x 11/4	500
C-711-3	3	1/2	$4^{13}/_{16}$	29/16	9/16	3½	41/16	$6^{21}/_{32}$	3/8	12 ga. x 11/4	500
C-711-3-1/2	31/2	1/2	51//8	25/8	9/16	3¾	43//8	75/16	3/8	3∕16 X 11∕4	500
C-711-4	4	5/8	61//8	33/16	9/16	45/8	53/16	8%16	3/8	3∕ ₁₆ x 1¹⁄ ₄	550
C-711-5	5	5/8	6¾	31/4	9/16	51/16	5%	$9^{23}/_{32}$	3/8	3∕ ₁₆ x 1¹⁄ ₄	550
C-711-6	6*	3/4	73/4	39/16	9/16	$5^{13}/_{16}$	65/8	1111/4	3/8	3∕ ₁₆ x 13⁄ ₄	600
C-711-8	8*	7/8	93/16	$3^{15}/_{16}$	9/16	615/16	8	1311/16	3/8	3/16 x 13/4	760



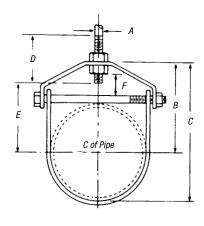
Rest pipe in body of

hanger. Fasten side bolt

when convenient.



C-710 Clevis Hanger



	PIPE SIZE	SIZE OF S	STEEL (IN.)			DIMENSI	ONS (IN.)			. MAX. REC.
CAT. NO.	(IN.)	UPPER	LOWER	Α	В	C	D	E	F	LOADS LBS.
C710 1/2	1/2	1/8 x 1	½ x 1	3/8	111/16	21/8	2½	7/8	7/16	610
C-710-3/4	3/4	⅓ x 1	⅓ x 1	3/8	11//8	27/16	21/2	1	1/2	610
C-710-1	1	⅓ x 1	1/8 x 1	3/8	21/8	213/16	21/2	11/4	5/8	610
C-710-1-1/4	11/4	⅓ x 1	1/8 x 1	3/8	21/16	37/16	21/2	13/4	7/8	610
C710-1-1/2	11/2	⅓ x 1	1/8 x 1	3/8	3	4	21/2	21/8	11/16	610
C-710-2	2	⅓ x 1	⅓ x 1	3/8	311/16	47/8	21/2	215/16	1%	610
C-710-2-1/2	21/2	3/8 x 11/4	3/16 x 11/4	1/2	411/16	61/8	3	313/16	2	1,130
C-710-3	3	3/8 x 11/4	3/16 x 11/4	1/2	43/4	6%16	3	37//8	13/4	1,130
C-710-3-1/2	31/2	3/8 x 11/4	³⁄₁6 x 11⁄₄	1/2	415/16	615/16	3	41/16	13/4	1,130
C-710-4	4	1/4 x 11/4	3/16 x 11/4	5/8	5%16	713/16	3½	41/2	1 15/16	1,130
C-710-5	5	1/4 x 11/4	3/16 x 11/4	5/8	63/16	9	3½	51/8	13/4	1,430
C-710-6	6	1/4 x 11/2	3/16 x 11/2	3/4	63/16	101//8	4	55/8	11//8	1,430
C-710-7	7	1/4 x 13/4	3/16 x 13/4	3/4	81/2	121/8	41/4	61/2	21/4	1,940
C-710-8	8	1/4 x 13/4	3∕16 x 13⁄4	7/8	85/16	125/8	41/4	7	21/8	1,940
C-710-10	10	3/8 x 13/4	1/4 x 13/4	7/8	97/8	151/4	41/2	8¾	21/4	1,940
C-710-12	12	3⁄8 x 2	1/4 x 2	7/8	11 ¹³ ⁄ ₁₆	171/16	43/4	93/4	25/8	3,600
C-710-14	14	½ x 2½	1/4 x 21/2	1	121/16	197/16	51/4	1013/16	215/16	3,800
C-710-16	16	½ x 2½	1/4 x 21/2	1	15	23	6	121/16	25/8	4,200
C-710-18	18	½ x 2½	1/4 x 21/2	11//8	151/4	241/4	6½	1315/16	33/4	4,600
C-710-20	20	% x 3	% x 3	11/4	16¾	26¾	7	1315/16	4	4,800
C-710-24	24	5⁄8 x 3	% x 3	11/4	19	31	7½	17½	41/4	4,800
C-710-30	30	¾ x 3	% x 3	11/4	241//8	391/8	81/4	21%	5	6,000

Order by Cat. No., finish and pipe size.

Thomas@Betts

United States
Tel: 901.252.8000

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services** Tel: 888.862.3289



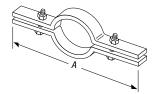


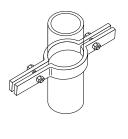


^{*} Hangers 6" and over have hole instead of slot.

C-720 Riser Clamps

Firmly grips vertically mounted pipe or conduit and distributes the load over a larger area.

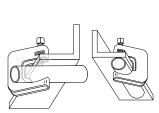


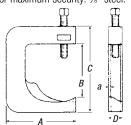


CAT. NO.	PIPE Size (In.)	A (IN.)	SIZE Stock (In.)	SIZE Bolt (In.)	MAX. REC. Load LBS.
C720 1/2	1/2	91/8	³∕₁6 X 1	3/8 x 11/2	220
C-720-3/4	3/4	91/4	³∕₁6 x 1	3⁄8 x 11∕2	220
C-720-1	1	95/8	³∕₁6 x 1	3/8 x 11/2	220
C-720-1-1/4	11/4	91/8	1/4 x 1	3/8 x 11/2	250
C-720-1-1/2	11/2	10	1/4 x 1	3/8 x 11/2	250
C-720-2	2	10½	1/4 x 1	3/8 x 11/2	300
C-720-2-1/2	21/2	111/16	½ x 1	3/8 x 11/2	400
C-720-3	3	11 ¹³ / ₁₆	1/4 x 1	3/8 x 11/2	500
C-720-3-1/2	31/2	13	1/4 x 1	½ x 1½	600
C-720-4	4	13½	1/4 x 1	½ x 1½	750
C-720-5	5	14	1/4 x 11/2	½ x 1¾	1,500
C-720-6	6	15¾6	1/4 x 11/2	½ x 1¾	1,600
C-720-8	8	19	3/8 x 11/2	5⁄8 x 21∕2	2,500

C-247, C-248 & C-249 Steel Conduit Clamps

A versatile clamp for attaching conduit to any type of beam, channel, angle or column. Designed to hold the conduit snug against the support with conduit either parallel or at right angle to it. The case-hardened set screw bites into the structural member for maximum security. 1/8" steel.

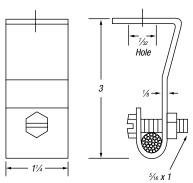




CONDUIT	MAXIMUM	BEAM FLANGE THIC	KNESS (IN.)
SIZE	C-247	C-248	C-249
1/2	5/8	1	
3/4	7/16	3/4	11/2
1	_	1/2	11/4
11/4	_	1	_
1½	_	_	5/8
Dim A	21/4	29/16	31/4
Dim B	1¾	13/4	21/2
Dim C	23/4	3	4
Dim D	9⁄ ₁₆	% 16	5/8
Per Carton	100	50	50
Wt. in lbs./C	33	36	59
Galv-Krom® Finish.			

C-708 Messenger Cable Support

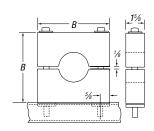
Designed for use as intermediate supports for %" messenger cable. Grips cable when %6" screw is tightened. Provides easy vertical adjustment. Design load 1,000 lbs. Safety factor of 3.

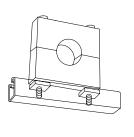


1	5∕16 x 1	
CAT. NO.	DESCRIPTION	
C-708	1/8" Steel, 27 lbs./C	
Galv-Krom® finish.		

C-750 Maple Cable Clamp

Maple blocks, impregnated with paraffin. %" bolts with special nuts facilitate installation on B-900 channel.





CAT. NO. & SIZE	O.D. OF CABLE (IN.)	DIMENSIONS (IN.) A	WT. IN. B	LBS./C
C-750-1	099	4	3 %	90
C750 2	1.0-1.49	4½	4%	100
C-750-3	1.5-1.99	5	41/8	120
C-750-4	2-2.49	5½	5%	140
C-750-5	2.5-2.99	6	5%	160
C750 6	3-3.49	7	6%	200
C-750-7	3.5-3.99	8	7 1/8	240
C-750-8	4-4.49	_	_	_
C-750-9	4.5-5.00	_	_	_
Sizo rofore to o	worall dimonejone of N	Aanla Cahla Clamp only		

Size refers to overall dimensions of Maple Cable Clamp on

Hole will be bored to fit O.D. of cable.

Orders MUST specify exact O.D. of cable.

Special order.

www.tnb.com

United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354





1-800-453-1692

Lightweight, non-breakable and inexpensive!

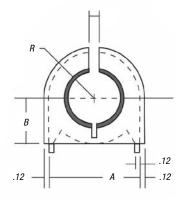
Kindorf® TPE Cable Insulator Clamps

Offer a less expensive, lighter weight and non-breakable alternative to porcelain for cable support, and they won't rot like maple clamps. The one-piece thermoplastic elastomer (TPE) insulator is flame-retardant, UV-resistant and chemical-resistant. A tapered flange isolates and protects cable. Available sizes accommodate cables from %" to 4%" 0.D. and fit all Kindorf® channels as well as all 1%" channel systems.

					(AL)
CAT. NO.	HOLE DIA. (IN.)	CLAMP SIZE (IN.)	DIM. A (IN.)	DIM. B&R (IN.)	TOTAL HEIGHT (IN.)
C755 1ATP	3/8	11/8	1.12	.56	1.82
C-755-1B-TP	1/2	11//8	1.12	.56	1.82
C-755-1C-TP	5/8	11/8	1.12	.56	1.82
C-755-2 TP	3/4	1%	1.62	.81	2.34
C-755-2A-TP	7/8	1%	1.62	.81	2.34
C-755-2B-TP	1	1%	1.62	.81	2.34
C-755-2C-TP	11//8	15//8	1.62	.81	2.34
C-755-3 TP	11/4	21/8	2.12	1.06	2.86
C-755-3A-TP	1%	21/8	2.12	1.06	2.86
C-755-3B-TP	1½	21/8	2.12	1.06	2.86
C-755-3C-TP	1%	21/8	2.12	1.06	2.86
C-755-4 TP	1¾	25/8	2.62	1.31	3.5
C-755-4A-TP	1%	25/8	2.62	1.31	3.5
C-755-4B-TP	2	25/8	2.62	1.31	3.5
C-755-4C-TP	21//8	25/8	2.62	1.31	3.5
C-755-5 TP	21/4	31/8	3.12	1.56	4.05
C-755-5A-TP	2¾	31/8	3.12	1.56	4.05
C-755-5B-TP	21/2	31//8	3.12	1.56	4.05
C-755-5C-TP	25/8	31//8	3.12	1.56	4.05
C-755-6 TP	23/4	35/8	3.62	1.81	4.75
C-755-6A-TP	21/8	35/8	3.62	1.81	4.75
C-755-6B-TP	3	35/8	3.62	1.81	4.75
C-755-6C-TP	31//8	35/8	3.62	1.81	4.75
C-755-7 TP	31/4	41/8	4.12	2.06	5.125
C-755-7A-TP	3¾	41/8	4.12	2.06	5.125
C-755-7B-TP	3½	41/8	4.12	2.06	5.125
C-755-7C-TP	35/8	41/8	4.12	2.06	5.125
C-755-8 TP	3¾	45/8	4.62	2.31	5.54
C-755-8A-TP	31/8	45/8	4.62	2.31	5.54
C-755-8B-TP	4	45/8	4.62	2.31	5.54
C-755-8C-TP	41/8	45/8	4.62	2.31	5.54
C-755-8D-TP	41/4	5	5	2.5	5.92
C-755-8E-TP	43/8	5	5	2.5	5.92
C-755-8F-TP	4½	5	5	2.5	5.92

- Tapered flange isolates and protects cable
- Flame retardant
- UV resistant
- Exceptional chemical resistance
- Ideal for commercial and industrial applications
- Thermoplastic elastomer (TPE) insulator
- Electro-galvanized finish steel clamp with Everdur nut and bolt
- · Dielectric strength of 640V per mil
- Sizes to hold cables \%" to 4\\/2" 0.D.
- Fits all channel sizes
- UL[®] Listed









1-800-453-1692 www.aboveboardelectronics.com



Fax: 901.252.1354

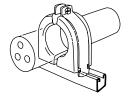


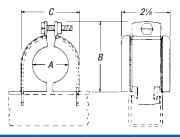
C-755 Porcelain Insulator Clamp

DIMENSIONS (IN.)

Dry-process white-glaze porcelain insulators assembled in pairs to accept cables from 3/8" through 41/2" O.D. C-105 clamp with bronze slotted hex head screw and nut furnished. Fits all Kindorf® channels.



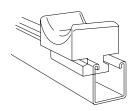


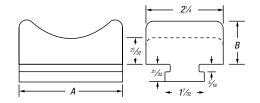


	L	JIMENSIONS (IN	l.)	_ STRAP	WT. IN
CAT. NO.	Α	В	С	C-105 (IN.)	LBS./C
C-755-1A	3/8	21/16	1%6	1	50
C-755-1B	1/2	21/16	1%16	1	50
C-755-1C	5/8	21/16	1%16	1	50
C-755-2	3/4	221/32	25/32	1½	91
C-755-2A	7/8	221/32	25/32	1½	90
C-755-2B	1	221/32	25/32	1/2	85
C-755-2C	11//8	221/32	25/32	1½	82
C-755-3	11/4	31/8	25/8	2	114
C-755-3A	1%	31/8	23/8	2	110
C-755-3B	1½	31//8	25/8	2	105
C-755-3C	1%	31/8	25/8	2	102
C-755-4	1¾	41/4	33/4	3	220
C-755-4A	11//8	41/4	33/4	3	214
C-755-4B	2	41/4	33/4	3	205
C-755-4C	21/8	41/4	33/4	3	200
C-755-5	21/4	43/4	41/4	3½	260
C-755-5A	23/8	43/4	41/4	3½	250
C-755-5B	21/2	43/4	41/4	3½	243
C-755-5C	25/8	43/4	41/4	31/2	240
C-755-6	23/4	51/4	43/4	4	250
C-755-6A	27/8	51/4	43/4	4	240
C-755-6B	3	51/4	43/4	4	230
C-755-6C	31//8	51/4	43/4	4	220
C-755-7	31/4	65/16	513/16	5	340
C-755-7A	3%	65/16	5 ¹³ / ₁₆	5	330
C-755-7B	3½	65/16	513/16	5	318
C-755-7C	35/8	65/16	513/16	5	387
C-755-8	3¾	7%	67/8	6	565
C-755-8A	37/8	73/8	67/8	6	550
C-755-8B	4	73/8	67/8	6	535
C-755-8C	41//8	73/8	67/8	6	520
C-755-8D	41/4	73/8	67/8	6	490
C-755-8E	4%	73/8	67/8	6	475
C-755-8F	41/2	73/8	67/8	6	460

C-756-1 Porcelain Saddle, C-756-2 Porcelain Saddle

- · White-glaze dry-process porcelain cable rack insulator
- Fits all sizes of B-900 series channel including B-906





	DIMENSI	DIMENSIONS (IN.)	
CAT. NO.	A	В	
C-756-1	3	13/16	
C-756-2	4	17/32	

C-756-1 is for cables up to 3" O.D. Weight 72 lbs/C. C-756-2 for cables up to 5" O.D. Weight 102 lbs/C.





1-800-453-1692

₩ ⊙

* Also available in thermoplastic, order as C775-TP.

Kindorf **

Concrete Inserts

Buildings designed with concrete inserts as an integral part of the ceiling or wall construction realize many economies, both in initial construction and when updating of the mechanical and electrical system is required. The initial economies of construction stem from the ease with which pipe, air conditioning, lighting and other fixtures can be attached to ceilings or walls.

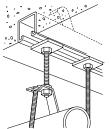
Inserted by casting into the structure, Kindorf® continuous-slot channels will accept all the assembly parts and fittings of the Kindorf® system. This provides virtually limitless structural arrangements — present and future.

Hanger attachments are made by the standard Kindorf® procedure of simply inserting a standard channel nut which can be pre-started on the hanger rod or bolt. Placement or adjustment of attachments can be made in infinite increments at any time along the length of the concrete insert. Future flexibility means economies in terms of future changes in equipment or its placement.

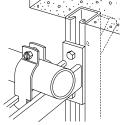
Initial Installation of Continuous-Slot Channel Inserts Offers:

- An immediate savings in time and labor by eliminating the need for precise calculation and measurement, both in layout planning and actual installation of attachment devices
- Additional savings in time and labor because changes or additions can be made readily to the existing channel at any time; the need for costly drilling in concrete and other costly procedures can be eliminated

Companion to the channel inserts is the spot-type insert for use where a single hanger is required at a specific location.

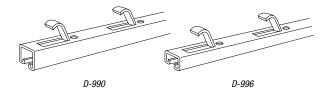






Pipe section hangs from D-990 concrete insert.

D-990 concrete insert supports conduit installation.



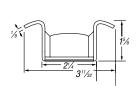
CAT. NO.	TYPE ANCHOR	CROSS-SECTION	LOAD RATING LBS. Per ft.*
D-990	Punched	1½ x 1½ x 12 ga.	2,000
D-996	Punched	1½ x ¾ x 14 ga.	1.500

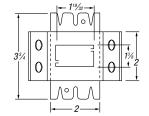
^{*} Safety factor of 3. Based on uniformly distributed load.

D-255 Concrete Inserts

An insert with a knockout saves covering the slot or covering the opening. Load rating at 1,300 lbs. with a safety factor of 3. Accommodates hanger rod sizes from 1/4" through \(\gamma'' \) by means of a B-914 insert nut. 1/8" steel. 52 lbs./C.





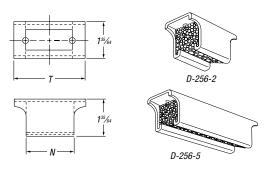




CAT. NO.	DESCRIPTION
D-255	For 1/4" through 7/8" Hanger Rod — 1/4"-1/2" Pipe
Standard finish: Gal	v-Krom®

D-256-2 and D-256-5 Concrete Insert

This unique product reduces the "spot" concrete insert to its simplest possible components with all the adjustability of the most expensive. Its features include: two sizes — 2" and 5" adjustability, takes standard insert nuts, uses hanger rod sizes ¼" through %" and has a load rating up to 1.000 lbs, and a safety factor of 3 (hanger rod permitting).





CAT. NO.	N (IN.)	T (IN.)	WT. IN LBS./C
D-256-2	2	3	34
D-256-5	5	6	76
Standard finish: Gal	ı-Krom®		



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354

Technical Services Tel: 888.862.3289









^{*} Standard lengths 10 and 20 feet.

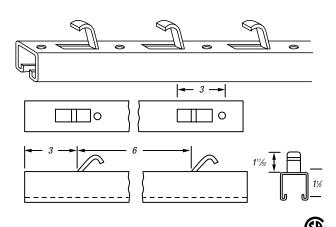
^{*} Special lengths available on request.



Concrete Inserts

D-990 Continuous-Slot Concrete Insert

Insert is made of B-900 channel (12-ga.) with anchors punched out of insert on 6" centers. Polystyrene filled.



CAT. NO. DESCRIPTION

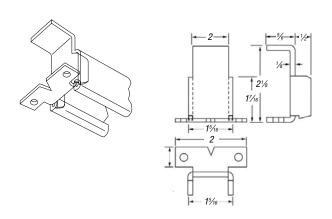
D-990 Continuous Slot and Concrete Insert

Use B-910 or B-914 steel nuts for assembly. Load rating 2,000 lbs. per foot with a safety factor of 3. Available in 10- and 20-foot lengths.

Galv-Krom® finish.

D-982 Anchor End Cap

For capping the ends of D-990 continuous-slot concrete inserts. May be used on the job to make up inserts of less than 1-foot lengths of B-900 channel.



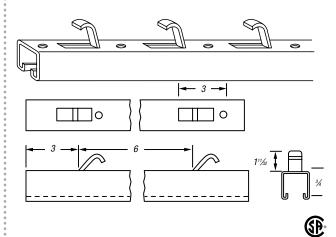
CAT. NO.	DESCRIPTION	
D-982	Anchor End Cap	

Load rating of such an insert less than 1-foot long is 1,000 lbs. with a safety factor of 3. 1/4" steel. 19 lbs./C.

Galv-Krom® finish.

D-996 Continuous-Slot Concrete Insert

Insert is made of B-900 channel (14-ga.) with anchors punched out of insert on 6" centers. Polystyrene filled.



CAT. NO. DESCRIPTION

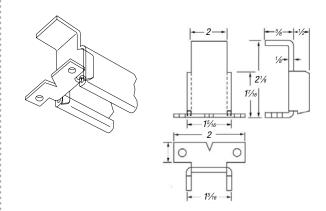
D-996 Continuous Slot and Concrete Insert
Use B-910 or B-914 steel nuts for assembly. Load rating 1,500 lbs. per foot with a safety

use B-910 or B-914 steel nuts for assembly. Load rating 1,500 los. per foot with a safety factor of 3. Available in 10- and 20-foot lengths.

Galv-Krom® finish.

D-988 Anchor End Cap

For capping the ends of D-996 continuous-slot concrete inserts. May be used on the job to make up inserts of less than 1-foot lengths of B-906 channel.



 CAT. NO.
 DESCRIPTION

 D-988
 Anchor End Cap

Load rating of each insert less than 1-foot long is 600 lbs. with a safety factor of 3. $\frac{1}{2}$ steel. 13 lbs./C.

Galv-Krom® finish.



United States Techn

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354



Tel: 888.862.3289











Kindorf® Fast Set Beam Clamps

It can't get much easier than the new Kindorf® Fast Set Beam Clamp. Simply slide the clamp onto the I-beam flange, and it will remain firmly fixed while you install the threaded rod. When tightened, the threaded rod locks the tongue of the clamp against the I-beam for a fast installation and a superior hold.



Standard Beam Clamp

- The clamp must be held in place while tightening the set screw
- · The set screw is difficult to access within the I-beam web





Kindorf® Fast Set Beam Clamp

- Tool-less attachment to the I-beam
- Threaded rod secures the clamp, eliminating an entire step in the process





CAT. NO.	DESCRIPTION	LOAD RATING	ROD SIZE	STD. PKG. QTY.
FBC-1	Fast Set Beam Clamp	250 lbs.	1/4"-20	25
FBC-2	Fast Set Beam Clamp	600 lbs.	3/8" - 16	25
FBC-3	Fast Set Beam Clamp	1,000 lbs.	1/2"-13	10



Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 Tel: 888.862.3289



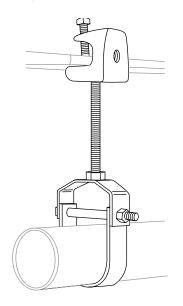


From the Simple Job to the Complex Job with Special Needs, the Kindorf® Line of Beam Clamps Can Fit the Bill.

Kindorf® devices for hanging the load can deliver lower installation costs. Hanger rod and conduit pipe supports are attached to ceilings or to other structural members such as beams, columns or purlins, without drilling, welding or fastening by means of power-actuated tools. A full selection of beam clamps and hanger rod supports are offered to meet a wide variety of needs.

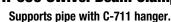
The flexibility of the Kindorf® Series of clamps affords a range of applications, from simple attachment of channel to the suspending of supports from sloping, as well as horizontal, beams.

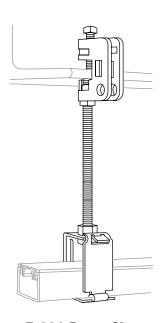
Where high vibrations are expected, additional support can be attained by gripping the beam on both sides.



500 Series Beam Clamp Supports pipe with C-710 clevis hanger.

H-550 Swivel Beam Clamp

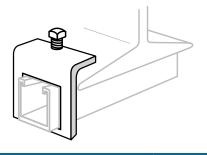




E-231 Beam Clamp

Supports channel raceway with G-1012 lay-in-hanger.

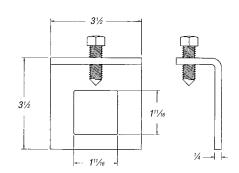
E-761 Channel to Beam Clamp



CAT. NO.	DESIGN LOAD LBS./EA.	CHANNEL SERIES	WT. LBS./C
E-761	800	B-900, B-905, B-995	108

1/2" x 11/2" set screw included.

Galv-Krom® finish.





United States Tel: 901.252.8000

800.816.7809 Fax: 901.252.1354



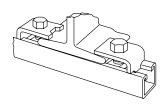


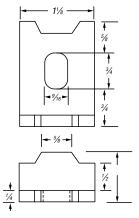
eboardelectronics.com



E-763 Channel to Beam Clamp

Secures all sizes of Kindorf® channel to beams where flange edge does not exceed .8" thickness





CAT. NO.	DESIGN LOAD LBS./EA.	WT. LBS./C
E-763	500	25

Load rating each clamp 800 lbs. with a safety factor of 3.

Assembly requires one H-113-E bolt and one B-910-1/2 steel nut per clamp order separately.

1/4" steel.

Galv-Krom® finish.

E-767 Channel Support

Supports any size Kindorf® channel. Clamps to I-beam where flange edge does not exceed .8" thickness

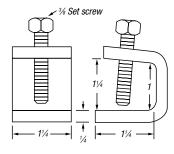
CAT. NO.		DESIGN LOAD LBS./EA.	WT. LBS./C
E-767		800	44

Load rating each clamp 800 lbs. with a safety factor of 3.

1/4" steel.

Galv-Krom® finish.





G-962 and G-962-D **Channel Hangers**

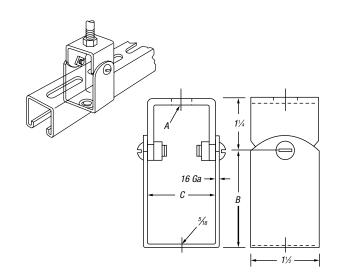
- G-962 fits around 1½" or 1¾" deep channel
- · G-962-D series hangers for 3" deep channel

CAT. NO.	WT. LBS./C	HANGER SIZE (IN.)	DIM. A (IN.)
G-962-D-1	47	1/4 and 3/8 rod	13/32
G-962-D-2	47	½ rod and ¼ pipe	9/16
G-962-D-3	47	¾ pipe and ¾ rod	11/16
G-962-D-4**	47	½ pipe	7/8

^{**} Load rating of 700 lbs. with a safety factor of 3.

"B" dimension for G-962: 21/2"; for G-962-D: 4". UL® Listed for raceway. "C" dimension for G-962, 137/64", for G-962-D, 37/64".

Galv-Krom® finish.





United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354





E-160 Adjustable Beam Clamp (1/2" Rod)

- · Clamps to I-beams where edge of beam flange does not exceed .8" thickness
- · Hook rod is furnished in three lengths to fit beam flanges up to 6, 9 or 12" widths

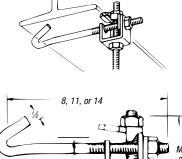
CAT. NO. FOR ½" HANGER RODS	FOR BEAM FLANGE WIDTH (IN.)	WT. LBS./C
E-160-1/2-6	2½ to 6	115
E-160-1/2-9	5½ to 9	125
E-160-1/2-12	8½ to 12	154

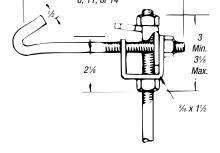
Load rating 800 lbs. with a safety factor of 3.

Assembly requires hanger rod of the proper length and size plus two H-114-D nuts.

3/16" steel, 1/2" hook rod.

Galv-Krom® finish.

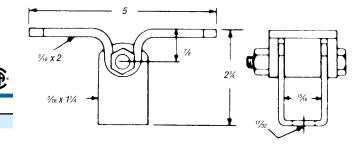




U577 Adjustable Swinging Hanger Flange (3/8" or 1/2" Rod)

 Flange has ¹³/₃₂" holes for connection to ceiling





S./C
)

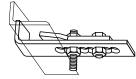
Assembly requires 3/8" or 1/2" hanger rod of proper length plus two H-114-C or H-114-D nuts.

Flange has 13/32" diameter holes for connection to ceiling.

Galv-Krom® finish.

E-177 Adjustable Channel Clamp (½" Rod)

· Adjustable to fit all structural channels up to a maximum flange width of 31/4", and all structural angles with leg up to 3" long and not more than 3/8" thick





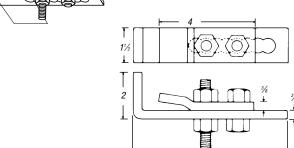
CAT. NO.	WT. LBS./C
E-177	183

Load rating is 800 lbs. with a safety factor of 3.

Assembly requires 1/2" hanger rod of the proper length plus two H-114-D nuts.

3/8" steel.

Galv-Krom® finish.





United States





E-231 Structural Steel Clamp (3/8" or 1/2" Rod)

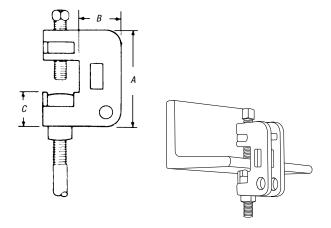
- · Clamps to I-beams, channels, angles and columns
- Two sizes are available, one for 3/8" and the other for 1/2" hanger rod
- · Each takes flanges up to .8"



		DIMENSIONS (IN.)			DESIGN LOADS
CAT. NO.	Α	В	С	– WT. LBS./C	LBS.
E-231-3/8*	21/2	1	7/8	31	25
E-231-1/2**	3	1%2	15/16	53	15

Assembly requires two H-116-C (%") or two H-116-D ($1\!\!/\!\!2$ ") square nuts to attach hanger rod. $1\!\!/\!\!3$ " steel.

Galv-Krom® finish.



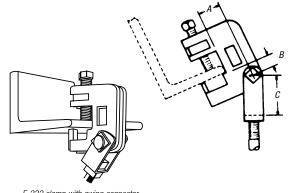
E-232 Clamp with Swing Connector (3/8" or 1/2" Rod)



	DIAMETER _	DIMENSIONS (IN.)			_ WT.	DESIGN LOADS
CAT. NO.	FOR ROD (IN.)	Α	В	С	LBS./C	LBS.
E-232-3/8*	3/8	9/16	7/16	1	48	25
E-232-1/2**	1/2	7/8	29/64	15/8	76	15

^{*} Load rating of 400 lbs. with a safety factor of 3.

Galv-Krom® finish.



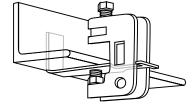
E-232 clamp with swing connector affords a convenient method of attaching to angled beams.

E-233 Anchor Clip

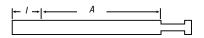
- · Anchor clips should be used when clamps are subject to excessive vibration
- . To obtain the correct size clips, add 1" to the flange width
- . If length required is not standard, order next largest standard length



CAT. NO.	ROD SIZE (IN.)	MAX BEAM WIDTH "A"	FOR USE WITH	WT. LBS./C
E-233-3/8-6	3/8	6	E-231-3/8 or	20
E-233-3/8-10	3/8	10	E-232-3/8	33
E-233-1/2-6	1/2	6	E-231-1/2 or	26
E-233-1/2-10	1/2	10	E-232-1/2	37



For use with E-231 and E-232 clamps when hanger rod is not in straight through position.





Galv-Krom® finish.



Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354



Tel: 888.862.3289







^{*} Load rating of 500 lbs. with a safety factor of 3.

^{**} Load rating of 800 lbs. with a safety factor of 3.

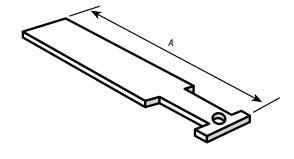
^{**} Load rating of 550 lbs. with a safety factor of 3.



U-568 Beam Clamps

CAT. NO.	BEAM FLANGE WIDTH (IN.)	DIMENSION A (IN.)	STD. CTN.
U-568-6	6	9	25
U-568-8	12	15	25

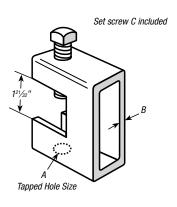
16 ga. material.



E-235 Heavy-Duty Beam Clamp

		IMENSIONS	(IN.)	– WT.	DESIGN LOADS
CAT. NO.	Α	В	C	LBS./C	LBS.
E-235-3/8-HD	3/8	1/8	3/8 x 23/4	109	1,300
E-235-1/2-HD	1/2	1/4	½ x 2¾	201	3,150

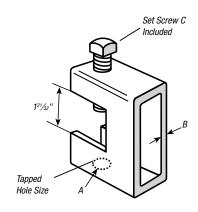
Finish: Hot-dipped galvanized.



U-564 Heavy-Duty Beam Clamp

	D	IMENSIONS (IN.)	WT.	DESIGN LOADS
CAT. NO.	Α	В	С	LBS./C	LBS.
U-564-3/8	3/8	1/4	3/8 x 23/4	1,300	25
U-564-1/2	1/2	1/4	½ x 2¾	3,150	15

Finish: Hot-dipped galvanized.







1-800-453-1692 www.aboveboardelectronics.com



Fax: 901.252.1354



M-775L Clamp with Lock Nut

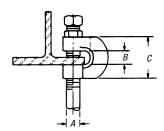
CAT. NO.	ROD SIZE A (IN.)	B (IN.)	C (IN.)	DESIGN Load LBS.	STD CTN.
M-775L-1/2	1/2	3/4	2	440	50
M-775L-5/8	5/8	3/4	2	440	50
M-775L-3/4	3/4	3/4	2	500	50

Standard Finishes - GoldGalv® brand or Black (B) Malleable Iron.

EG=Electro-Galv

B=Black





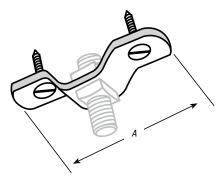
U-579 Beam Clamp for Hanging Rod

CAT. NO.	A (IN.)	STD. CTN.
U579-3/8	3½	25
U-579-1/2	41/4	25

Nuts and wood screws not included.

Mounting holes 13/32".

Finishes - GoldGalv® brand Malleable Iron.



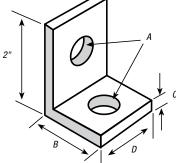
U-579 Ceiling Flange

540 Beam Clamp for Hanging Rod

		DIMENSIO	NS (IN.)		
CAT. NO.	Α	В	C	D	STD. CTN.
540 3/8	1/8	1%	1/4	7/8	25
540-5/8	11/16	21/2	3/8	2	25

Finishes - GoldGalv® brand or Black (B).





540 Side Beam Hanger Clip





1-800-453-1692



Fax: 901.252.1354

Technical Services Tel: 888.862.3289



S5413/8 Swing Connector (%" Rod)

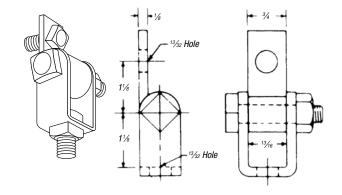
Used to secure a 3/8" hanger rod to the side or bottom of beam or ceiling.

CAT. NO.	WT. LBS./C
S5413/8	28

Assembly requires two (%") square nuts. Also screw or bolt for fastening to beam or ceiling. 1/8" steel.

Load rating of 700 lbs. with a safety factor of 3.

Galv-Krom® finish.



U501 Channel to Beam Clamp

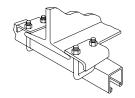
Hardened points bite into beam flange. Fits all I-beams where edge of beam flange does not exceed .8" thickness

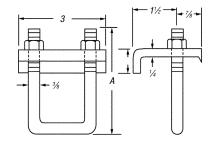
CAT. NO.	FOR STRUCTURE Channel	DIMENSION A (IN.)	WT. LBS./C
U501	B-900, B-905, B-906, B-907	31/4	76
U501SS	Stainless Steel	31/4	76
U502	B-901, B-900-2A, B-902, B-903	43/4	88
U502SS	Stainless Steel	43/4	88

^{*} Load rating of 2,200 lbs. with a safety factor of 3.

1/4" steel, 3/8-inch U-bolt.

Standard finish: Galv-Krom®.



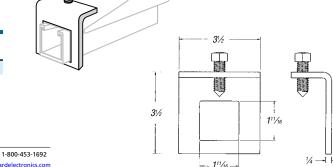


A597 Channel to Beam Clamp

CAT. NO.	DESIGN LOAD	CHANNEL	WT.
	LBS./EA.	SERIES	LBS./C
A597	800	B-900, B-905, B-995	108

1/2" x 1 1/2" set screw included.

Galv-Krom® finish.







800.816.7809 Fax: 901.252.1354





512-U Channel to Beam Clamp

Secures all sizes of Kindorf® channel to beams where flange edge does not exceed .8" thickness.

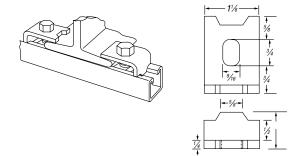
CAT. NO.	DESIGN Load (LBS.)	WT. LBS./C
512-U	500	25

Load rating each clamp 800 lbs. with a safety factor of 3.

Assembly requires one H-113-E bolt and one B-910-1/2 steel nut per clamp — order separately.

1/4" steel.

Galv-Krom® finish.



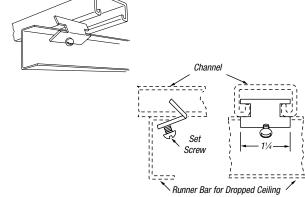
E-764 Channel Clip

Complete with set screw for clipping a length of channel slot-side down and across the runner bars of a dropped ceiling installation.



At least two required per each such application.

Galv-Krom® finish.



E-765 Center Beam Clamp

Clamps 1½" x 1½" Kindorf® channel to beams where beam flange does not exceed $^3\!4$ " thickness and 4" to $6^3\!4$ " wide.

CAT. NO.	LOAD RATING (LBS.)	WT. LBS./C
E-765	800	112

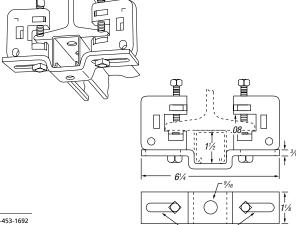
Load rating is 800 lbs. with a safety factor of 3.

Furnished assembled.

1/8" steel clamps, 3/16" steel strap.

Galv-Krom® finish.



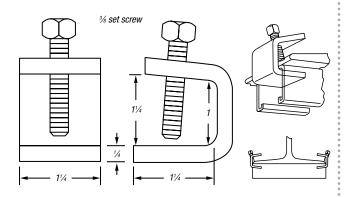






U514 Channel Support

Supports any size Kindorf® channel. Clamps to I-beam where flange edge does not exceed .8" thickness.



CAT. NO.	LOAD RATING (LBS.)	WT. LBS./C
U514	800	44
Load rating in OOO lbg. with a pafaty factor of	f 2	

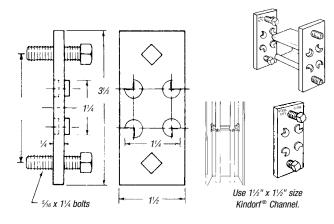
Load rating is 800 lbs. with a safety factor of 3

1/4" steel.

Galv-Krom® finish .

E-768 Column Mount Support

For use with 1½" x 1½" channel. Provides a rigid support between 'H' beam flanges for mounting pipe, conduit, outlet boxes and panel boards.



CAT. NO.	LOAD RATING (LBS.)	WT. LBS./C
E-768	800	50

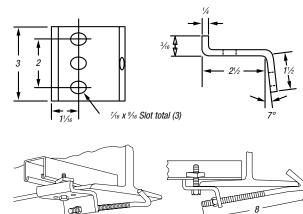
Two E-768's required for installation.

Use C-105, C-106 or C-107 straps for mounting $\frac{1}{2}$ " to 8" pipe on channel section. Load rating of 800# with a safety factor of 3.

Galv-Krom® finish.

E-781 Single-Beam Clamp

For use in attaching channel on top of beam flange with slot side down. Members are shipped assembled for easy installation.

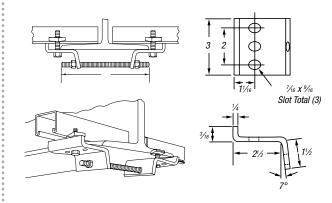


CAT. NO.	WT. LBS./C
E-781	133

Galv-Krom® finish.

E-782 Double-Beam Clamp

For use in attaching channel on both sides of a beam flange with slot side down. Members are shipped assembled for easy installation.



CAT. NO.	WT. LBS./C
E-782	235
Galv-Krom® finish.	





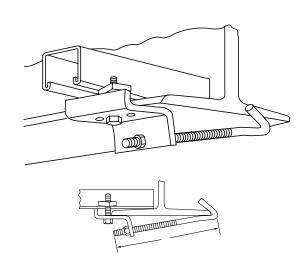


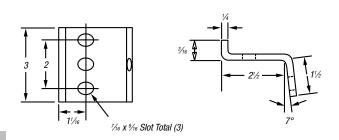
www.aboveboardelectronics.com

1-800-453-1692

U-504 Single Beam Clamp

For use in attaching channel on top of beam flange with slot side down. Members are shipped assembled for easy installation.

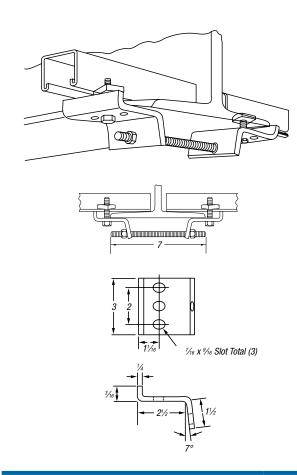




CAT. NO.	WT. LBS./C
U504	133
Galv-Krom® finish.	

U-505 Double Beam Clamp

For use in attaching channel on both sides of a beam flange with slot side down. Members are shipped assembled for easy installation.



CAT. NO.	WT. LBS./C
U505	235
Galv_Krom® finish	





1-800-453-1692

Wall and Support Brackets

Kindorf® wall brackets provide a ready-made shelving arrangement that can be attached quickly to the supporting channels.

Utilizing the built-in advantages of the Kindorf® Channel, the support bracket members allow a great deal of flexibility in meeting the structural framing needs.

Axle supports and a variety of wall brackets all adapt to the standard Kindorf® channel and allow additional flexibility in the support of cables, conduit, pipe and other equipment.

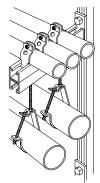
The application of axle supports and bracket members can be made on either the continuous slot of the channel or the pre-punched hole side. Utilizing the 11/2" hole spacing, greater adaptability is attained with a minimum of fittings.

F-715 Wall Bracket

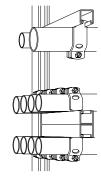
Mounts on Kindorf® channel or directly to wall. F-715 bracket supports 1½" or 15%" channels. Brackets allow for a variety of support channel lengths. The continuous tray on brackets prevent lateral movement of supported channels. Support channels can be fastened from top, bottom or both.

DIMENSIONS (IN.)				WT.
CAT. NO.	Α	В	С	LBS./C.
F-715	5 ²⁷ / ₃₂	45/8	1½	163

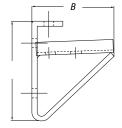
Galv-Krom® finish

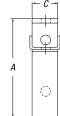


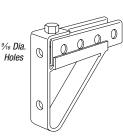




Conduit installations supported above and below by F-721 wall bracket.





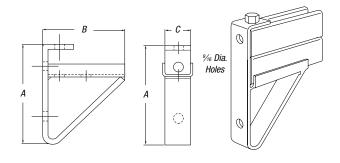


F-716-3 Wall Bracket

Mounts on Kindorf® channel or directly to wall. F-716-3 bracket supports 3" deep or back-to-back channels. Brackets allow for a variety of support channel lengths. The continuous tray on brackets prevent lateral movement of supported channels. Support channels can be fastened from top, bottom or both.

	DIMENSIONS (IN.)			
CAT. NO.	A	— WT. LBS./C.		
F-716-3	711/32	45/8	1½	179

Galv-Krom® finish.



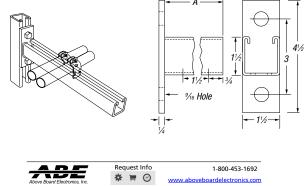
F-720 Wall Bracket

Mounts on Kindorf® channel, concrete inserts or directly to wall. Continuous-slot accepts C-105, C-106 and C-107 series pipe straps. Bracket is 12-gauge steel, 1½" x 1½" channel welded to a ¼" back plate. May be attached to either the continuous slot side or pre-punched holes in back or side of Kindorf® channel.

CAT. NO.	DIM. A (IN.)	END LOAD Rating LBS.*	WT. LBS./C
F720 6**	6	600	132
F-720-9**	9	450	155
F-720-12**	12	300	200
F-720-18	18	200	275
F-720-24**	24	150	350

^{*} Safety factor of 3.

Standard finish: Galv-Krom®









^{**} This product available in green & hot-dipped galvanized.

Wall and Support Brackets

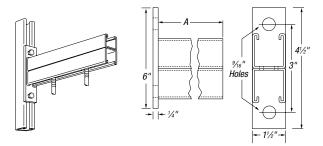
F-721 Wall Bracket

Double channel to provide continuous slot for both top and bottom mounting. 12-ga. steel, ½-inch back plate. May be attached to either the continuous slot side or pre-punched holes in back or side of Kindorf® channel.

	DIM. A	END LOAD	WT.
CAT. NO.	(IN.)	RATING LBS.*	LBS./C
F721 18	18	300	568
F-721-24	24	225	736
F-721-30	30	180	904
F-721-36	36	150	1072

^{*} Safety factor of 3.

Standard finish: Galv-Krom®.



F-735 and F-736 Axle Supports

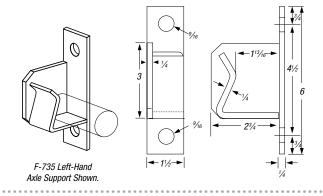
For use on storage racks constructed on Kindorf® channel. Supports reels of electrical cables, wire rope, chain and other materials. Left-hand axle support illustrated. F-736 identical except right hand. May be attached to either the continuous slot side or pre-punched holes in back or side of Kindorf® channel.

CAT NO.	DESCRIPTION	WT. LBS./C
F-735	Left Hand	165
F-736	Right Hand	165

Assembly requires two B-910-1/2 steel nuts and two H-113-B bolts.

Accepts up to $1\frac{1}{4}$ " steel bar or pipe for axle.

Galv-Krom® finish.



F-737 Double Axle Support

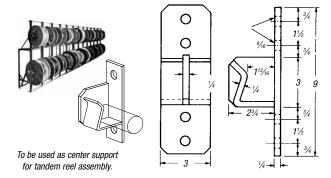
Typical Kindorf® Space-Saver reel rack. Kindorf® reel racks are easy to build, exceptionally strong and economical. Racks adjust easily to accommodate a variety of reel sizes. No special tools needed.

CAT. NO.	WT. LBS./C
F-737	335

Assembly requires four B-910-1/2 steel nuts and four H-113-B bolts.

To be used with F-735 and F-736. 1/4" steel.

Galv-Krom® finish.



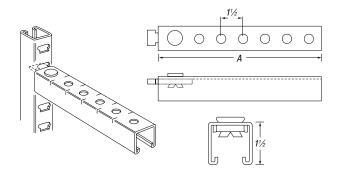
F-739 Telephone Cable Hook

Cantilever-type cable hooks fit into 'T' slot on B-904 channel for rigid, non-slip support. Fast mounting, no hardware to tighten.

	DIMENSION A	WT.
CAT. NO.	(IN.)	LBS./C
F-739-4-1/2	4½	81
F-739-7-1/2	7½	122
F-739-10-1/2	10½	162
F-739-13-1/2	13½	198
F-739-18	18	278

Has %6" diameter holes on 11/2" centers to allow for easy tie banding of cables.

Galv-Krom® 12-ga. steel.





United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services** Tel: 888.862.3289







For Mounting or Suspending High-Intensity Lighting Fixtures in High-Bay Installations.

Surface Raceway and Lighting Support Systems

The Kindorf® Lighting Support System consists of high-quality construction materials that afford definite installation advantages to those most concerned with lighting installations. When used as a surface metal raceway, it is UL Listed and complies with National Electrical Code® Article 386.

To the Owner

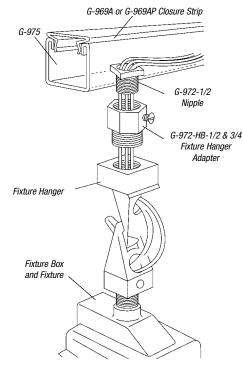
A flexible installation requiring fewer attachments to the building structure with built-in provisions for easy maintenance and future modifications when lighting fixtures must be added, deleted or relocated. Kindorf® channel and fittings form a strong, economical and attractive support and wiring system for fixtures and other equipment.

To the Architect and Engineer

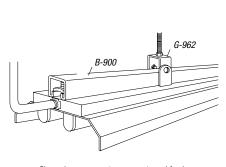
A system of construction least demanding on general design conditions and readily adaptable to all spacing of pillars, purlins and other structural components. Supply will not delay a job because Kindorf® channel is stocked at many locations throughout the country. The Kindorf® System saves planning time because it is designed for fast and easy installation by the contractor with little or no detailing.

To the Contractor

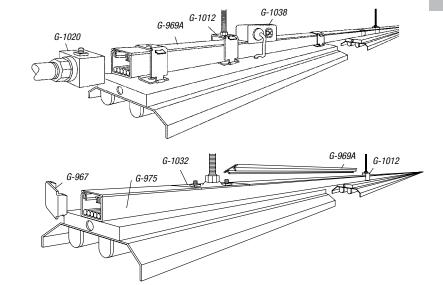
The Kindorf® System consists of time-saving materials that will simultaneously provide for the electrical feed and the mechanical support of lighting and other equipment. Kindorf® affords a means of making fewer attachments to the structure at wider spacing. It ensures true and rigid alignment and lends itself to systematic preassembly methods which economize on labor. No special tools for installation and no painting is required. Kindorf® speeds all jobs because a complete line of fittings assures easy solution of many installation problems as they arise in the field.



Other Mechanical Details.



Channel raceway system supports and feeds fluorescent lighting fixtures.





United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 Technical Services
Tel: 888.862.3289





Surface Raceway Channel Systems

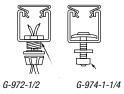
 Knock-out type by means of ½" channel knockouts on 6" centers





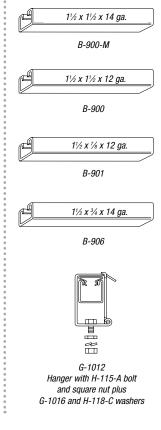






Nipple Lock nut and bushing

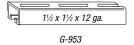
 Plug-in type by means of sliding fixture hanger



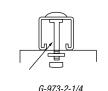
Channel Support Lighting Systems

 Shoulder-bolt type by means of special shoulder bolt ¹³/₃₂" x 3" slots on 4" centers

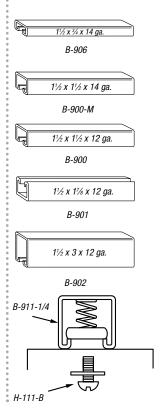
x 3" slots on 4" centers







 Spring-nut type by means of spring-nut and bolt combination



Electrical Conductors "Lay-in" the Channel

Kindorf® Surface Raceway channels provide a central wiring distribution system with conductor capacity that exceeds requirements of any lighting layout and with "power to spare" for other uses. Channel adapts to any interval of structural support — may be dropped to any level where it becomes a rigid platform for fixture attachment. Lighting fixtures may be spaced and fastened anywhere along the channel system with "plug-in" or direct-feed electrical connection.

Branch lighting circuit conductors are completely enclosed in channel from panel to fixture, eliminating the ordinary "clutter" of external conductors and protecting the wires from physical damage.

Listed by Underwriters Laboratories, Inc.

Kindorf® channels, installed slot-side down, are designed to provide fixture support only. A range of accessory fittings permit fixture attachment to the channel safely and securely in an approved manner. Channels with solid base or with slots are generally used for simple channel support systems.

Channel support systems combine economy of investment with maximum strength and rigidity. The continuous-slot channel provides complete flexibility of lighting layout with fixture spacing continuous or intermittent. Fixtures may be added or relocated to meet changing requirements without disturbing the basic support system. The rigid channels maintain fixture alignment and adapt to any interval of structural support.





1-800-453-1692 www.aboveboardelectronics.con



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 Technical Services
Tel: 888.862.3289



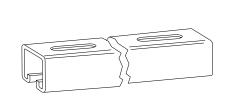
G-950 Fixture Hanging Channel

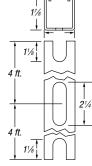
CAT. NO.	DESCRIPTION	JOINER
G 950	1½" x 1%" x 12 ga.	G-978C

11/16" x 21/4" slots on 4 foot centers.

20 ft. lengths only 194 lbs./C ft.

Standard finish: Galv-Krom®.





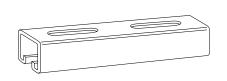
G-953 Fixture Hanging Channel

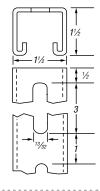
CAT. NO.	DESCRIPTION	JOINER
G-953	1½" x 1½" x 12 ga.	G-958

Fixtures attached to channel of G-973-2-1/4 shoulder bolts. 154 lbs./C ft.

13/32" x 3" slots on 4" centers.

Standard finish: Galv-Krom®.





G-955 Fixture Hanging Channel

To be used in place of G-975 channel when heavy fixtures are used or supports are on wider spacing.



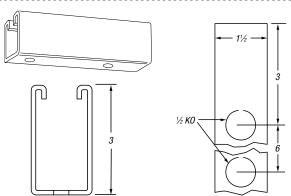


CAT. NO.	DESCRIPTION	JOINER	END CAP
G-955	1½" x 3" x 12 ga.	G-978-D	G-957
			G-959

270 lbs./C ft. UL Listed for raceway.

1/2" KOs on 6" centers.

Standard finish: Galv-Krom®.



G-956 Fixture Hanging Channel

Similar to G-953 channel except lighter gauge and only 3/4" deep.

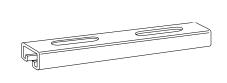
CAT. NO.	DESCRIPTION	JOINER
G-956	1½" x¾" x 14 ga.	G-960

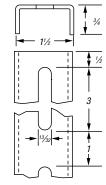
Fixtures attached to channel by means of G-973-1-1/2 shoulder bolts

or G-973-2-1/4 fixture bolts. 80 lbs./C ft.

13/32" x 3" slots on 4" centers.

Standard finish: Galv-Krom®.







United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354





Thomas@Betts



G-957 End Cap

Blank end cap for use with G-955 and B-902 channel.

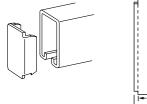


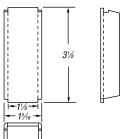


UL Listed for raceway.

14 ga. steel.

Galv-Krom® finish.





G-958 Channel Joiner

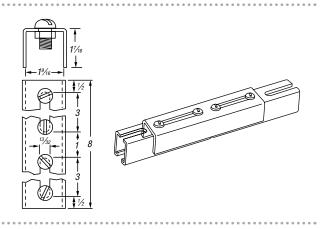
For 11/2" deep-slotted channel G-953.

CAT. NO.	WT. LBS./C
G 958	92

Four 3/8" x 3/4" bolts and nuts are furnished with the joiner.

14 ga. steel.

Galv-Krom® finish.



3/8 Stud Nut G-974-1/2

G-959 End Cap

For use with G-955 and B-902 channel.

CAT. NO.	DESCRIPTION	WT. LBS./C
G 959	With two 1/2" Knockouts	31
12 ga. steel.		

UL Listed for raceway. Galv-Krom® finish.

G-960 Channel Joiner

For 3/4" deep-slotted channel G-956.

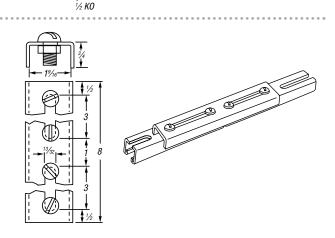
CAT. NO.	WT. LBS./C
G 960	70

Four 3/8" x 3/4" bolts and nuts are furnished with the joiner.

14 ga. steel.

B-60

Galv-Krom® finish.





United States Tel: 901.252.8000

800.816.7809 Fax: 901.252.1354 **Technical Services** Tel: 888.862.3289



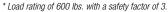




G-962 and G-962-D Channel Hangers

G-962 fits around $1\frac{1}{2}$ " or $1\frac{7}{8}$ " deep channel. G-962-D series hangers for 3" deep channel.

CAT. NO.	WT. LBS./C	CAT. NO.	WT. LBS./C	HANGER SIZE (IN.)	DIM A. (IN.)
G 962 1	40	G-962-D-1	47	1/4 and 3/8 rod	13/32
G-962-2	42	G-962-D-2	47	½ rod and ¼ pipe	9/16
G-962-3	39	G-962-D-3	47	% pipe and % rod	11/16
G-962-4*	47	G-962-D-4**	47	½ pipe	7/8

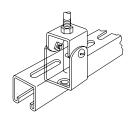


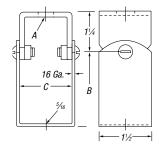
^{**} Load rating of 700 lbs. with a safety factor of 3.

UL Listed for raceway.

"C" dimension for G-962, 137/64", for G-962-D, 37/64".

Galv-Krom® finish.





G-963 Channel Hanger

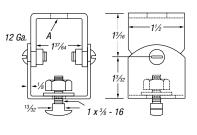
For use with G-953 or G-956 channel. Does not interfere with fluorescent fixtures.

CAT. NO.	HANGER SIZE (IN.)	DIM. A (IN.)
G-963-1	1/4 and 3/8 rod	13/32
G-963-2	$\frac{1}{2}$ rod and $\frac{1}{4}$ pipe	9/16

Load rating of 900 lbs. with a safety factor of 3.

48 lbs./C.

Galv-Krom® finish.



G-965 Fixture Hanging Channel

Provides a combination fixture support and surface raceway.

(ĥ	(P



			END
CAT. NO.	DESCRIPTION	JOINER	CAP
1½" x 1½"	'		
G-965	12 ga., 190#/C ft.	G-978-C	6959
III Listed for ra	ceway		

1/2" knockouts on 6" centers.

Standard finish: Galv-Krom®.

½ KO

G-966 Blank End Cap

For 1%" deep channel.

CAT. NO.

Galv-Krom® finish.

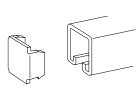


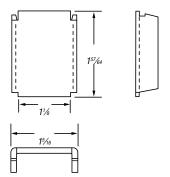


G 966 UL Listed for raceway.



Request Info ₩ ⊙ 1-800-453-1692







United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354

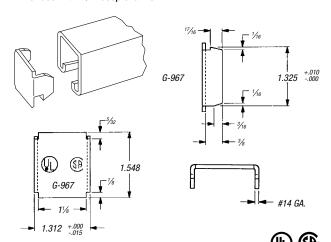




[&]quot;B" dimension for G-962: 21/2"; for G-962-D: 4".

G-967 Blank End Cap

• For use with 1½" deep channel

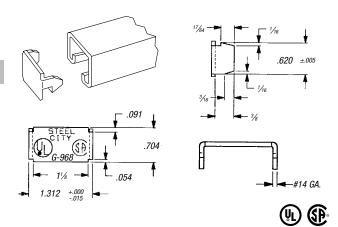


CAT. NO.	WT. LBS./C
G 967	6

UL Listed for raceway. Galv-Krom® finish.

G-968 Blank End Cap

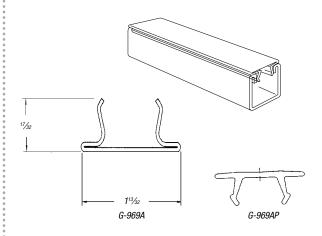
For ¾" deep channel



CAT. NO.	WT. LBS./C
G 968	3
UL Listed for raceway.	

G-969A Closure Strip for Kindorf® Channel

· For use with all channel series to complete enclosure

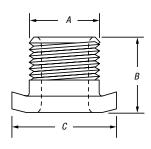


CAT. NO.	DESCRIPTION
G 969A	Steel Closure Strip — Galv-Krom® finish
G-969AP	Plastic Closure Strip — Gold
19 ga. steel. 35	5 lbs./C.
III Listed for ra	CPWAV

G-972 Nipple Malleable Iron

The 1/2" size can nipple fixtures through channel knockouts. All sizes can be fastened to the open slot of all Kindorf® channels. Locknut supplied with nipple.





	DIN	DIMENSIONS (IN.)			
CAT. NO.	Α	В	C	– WT. IN LBS./C	
G 972 1/2	½ pipe size	7/8	11/4	7	
G-972-3/4	¾ pipe size	7/8	11/4	11	
G 972 L 1/2	½ pipe size	2	11/4	9	

The extra length of the G-972-L-1/2 permits its use as a spacing nipple when locked into knockout or continuous slot.

Load rating of 750 lbs. with a safety factor of 3.

Galv-Krom® finish.



Galv-Krom® finish.

United States Tel: 901.252.8000

800.816.7809 Fax: 901.252.1354











G-972-HB-1/2 Steel Fixture Hanger Adapter

The Fixture Hanger Adapter extends the flexibility of the Kindorf® System by easily adapting the 3/4" hanger size of high-intensity fixtures to channel mounting.

The hanger adapter securely mounts the fixture hanger or box to the channel through the 1/2" KO in the base. No special tools are needed for installation of fittings and fixtures.

DESCRIPTION

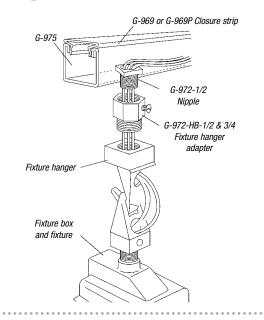
Galv-Krom® finish

Kindorf® channel, with ½" KOs every 6", hangs and feeds the fixtures - thus simplifying install

CAT. NO.

G 972 HB 1/2

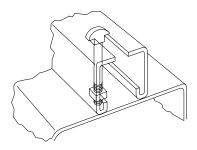
allation.			1 70
			3
			9



G-973 Shoulder Type Fixture Bolt and Nut

For use in fastening fixtures to slotted channels. Permits the preassembly of hardware to the fixture. The head of the G-973 is simply inserted into the channel slot and twisted 90° to seat. The fixture is secured tightly when the nut is run home.

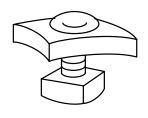
CAT. NO.	USED WITH Channel	SIZE (IN.)	WT. LBS./C
G 973 1 1/2	G-956	½ x 1½	7
G 973 2 1/4 Galv-Krom® finish	G-953	3/8 x 21/4	10

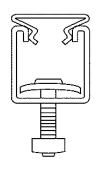


G-974 Fastener

Will fasten fluorescent fixtures to G-975 through knockouts or to the open slot of all Kindorf® channels when installed slot down.

		WT.
CAT. NO.	SIZE (IN.)	LBS./C
G-974-1/2	1/4 X 1/2	8
G-974-3/4	1/4 X 3/4	81/2
G-974-1	1/4 x 1	9
G 974 1 1/4	1/4 x 11/4	10
G-974-1-1/2	1/4 x 11/2	11
Galv-Krom® finish.		







United States Tel: 901.252.8000 **Technical Services** Tel: 888.862.3289



vw.aboveboardelectronics.com





G-975 Fixture Hanging Channel

Designed to provide a combination fixture support and surface raceway. Fixture attaches to KOs by G-972-1/2 nipple for wiring, or a G-974 stud nut where wiring is not required.

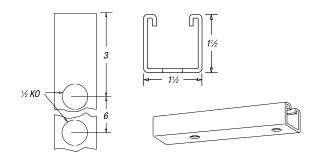


CAT. NO.	DESCRIPTION	JOINER	END CAP
1½" x 1½"			
G 975 10	12 ga.	G978A	G967
G 975 20	12 ga.	G978A	G967
G 975 M 10	14 ga.	G1503-S	G979
G 975 M 20	14 ga.	G1503-S	G979
0.075.400.0			

G-975: 160 lbs./C ft. G-975-M: 107 lbs./C ft. UL Listed for raceway.

1/2" knockouts on 6" centers.

Standard finish: Galv-Krom®.



G-976 Connector

Accepts either ½" or ¾" conduit to feed control channel when used as a combination raceway and lighting fixture support. Includes two stud nuts. Malleable iron.

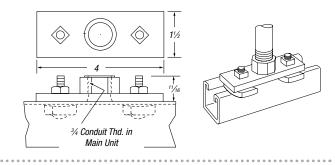




CAT. NO.	DESCRIPTION	WT. LBS./C
G 976	Galv-Krom® finish	54

Load rating of 1,000 lbs. with a safety factor of 3.

UL Listed for raceway.



G-977 Swing Connector (Channel Feed Hanger)

Provides a 15° swing in either direction to the channel run. Accepts 1/2" or 3/4" conduit, or may be adapted for use with 3/4" fixture stem when specified.





CAT. NO.	DESCRIPTION	WT. LBS./C
G 977	Galv-Krom® finish	130

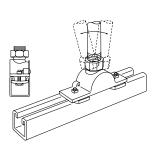
Includes two stud nuts

Malleable iron.

UL Listed for raceway.

Load rating of 1,300 lbs. with a safety factor of 3.

3/4 Conduit Thd. in Main Unit <u>dØ</u>



G-978 Joiners

To splice lengths of raceway channel. Installed by tightening nuts on 1/4" studs which are permanently attached to a smooth inner plate.



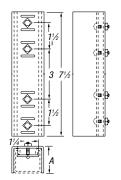
(II)	(1)
(AL)	OF.

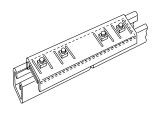
CAT. NO.	TYPE OF CHANNEL APPLICABLE	DIM. A (IN.)	WT. LBS./C
G 978	Use with G-975, G-975-M and B-900, B-900-M	1½	107
G-978-L	Use with B-906	3/4	87
G-978-D	Use with G-955 and B-902	3	137
G-978-C	Use with B-901, G-950 and G-965	1%	122

Nuts included. 14 ga. steel.

UL Listed for raceway.

Galv-Krom® finish



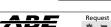




United States Tel: 901.252.8000

800.816.7809 Fax: 901.252.1354







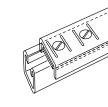
www.tnb.com

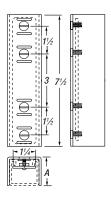


G-978-A Joiners

For installations where fixtures are mounted flush to slot-down channels. Fastening is accomplished by tightening flat head machine screws.

CAT. NO.	TYPE OF CHANNEL APPLICABLE	DIM. A (IN.)	WT. LBS./C
G 978A	Use with G-975, G-975-M and B-900, B-900-M	1½	103
G-978-AL	Use with B-906	3/4	83





G-979 End Cap

Galv-Krom® finish.

Use with G-975 or B-900 channel to provide conduit entrance.



(P)

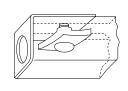
CAT. NO.	DESCRIPTION	WT. LBS./C
G 979 1/2	For %" Hole, ½" Conduit	25
G-979-3/4	For 13/32" Hole, 3/4" Conduit	25

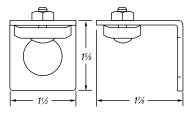


12 ga. steel.

UL Listed for raceway.

Galv-Krom® finish.





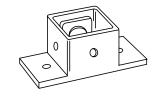
G-1007 Panel Adapter

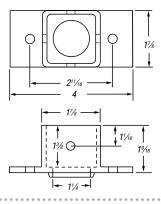
Mounts 11/2" x 11/2" raceway channel to panel board.



Complete with stud nuts. UL Listed for raceway.

Galv-Krom® finish.





G-1012 "Lay-In" Channel Hanger



CAT. NO.	DESCRIPTION	WT. LBS./C
G 1012	Galv-Krom® Finish	33

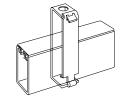
14 ga. steel.

UL Listed for raceway.

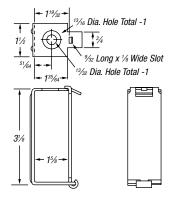
Load rating of 500 lbs. with a safety factor of 3.







Hinged channel hanger for raceway channel.





United States







G-1012-D "Lay-In" Channel Hanger

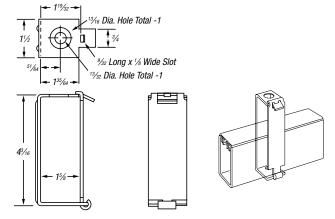
Hinged channel hanger for 3" deep raceway channel.

CAT. NO.	DESCRIPTION	WT. LBS./C
G 1012 D	Galv-Krom® Finish	40

14 ga. steel.

UL Listed for raceway.

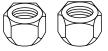
Load rating of 450 lbs. with a safety factor of 3.



G-1013 Hex Swivel Nuts

Two required for each G-1012 channel hanger to provide swivel action.

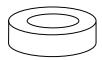
CAT. NO.	DESCRIPTION	WT. LBS./C
G 1013 3/8	For %" Hanger Rod	7
G-1013-1/2	For ½" Hanger Rod	7



G-1016 Rubber Washer

Washers are 1" diameter, 1" thick with $\frac{1}{16}$ " hole. Use with G-1012 fixture hanger as cushion between fixture and hanger.

CAT. NO.	WT. LBS./C
G 1016	1

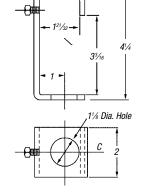


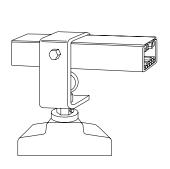
G-1017 Mercury Vapor Hanger

To support high- or low-bay mercury vapor or heavy incandescent fixtures from raceway channels. Permits plug-in connections with G-1038 raceway outlets.

CAT NO.	USED WITH CHANNEL	DEPTH Size (In.)	WT. LBS./C
G 1017	B-900, B-901	41/4	76
	G-975, G-965		
Galv-Krom® finish			









United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services** Tel: 888.862.3289



Kindorf

Surface Raceway and Lighting Support Systems

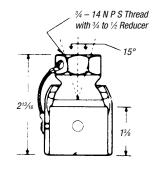
G-1020 End Swivel Joint

Mounts to $1\frac{1}{2}$ " x $1\frac{1}{2}$ " raceway channel. Threaded for $\frac{3}{4}$ " conduit or fitting. Swivel action adapter for ½" conduit furnished.



DESCRIPTION	WT. LBS./C
Galv-Krom® Finish	40





G-1021 Threaded End Fitting

Mounts to 11/2" x 11/2" raceway channel. Threaded for 1" conduit or fitting. No swivel action.

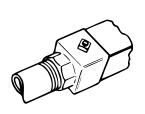


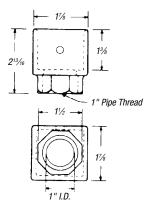
CAT. NO.	DESCRIPTION	WT. LBS./C
G 1021	Galv-Krom® Finish	32

UL Listed for raceway.

CAT. NO. G 1020

UL Listed for raceway.





G-1032 Channel Swivel Joint

Provides a 15° swivel action (to offset possible movement) for connection of ½" or ¾" conduit to raceway channels. May be accepted for use with 3/8" fixture stem when specified. Order two G-974 3/4" fasteners for channel mounting.

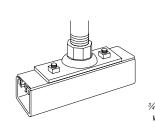


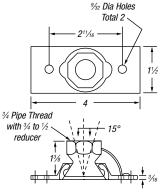


CAT. NO.	DESCRIPTION	WT. LBS./C
G 1032	Galv-Krom® Finish	25

Load rating of 500 lbs. with a safety factor of 3.

UL Listed for raceway.





G-1033 4" Diameter Swivel Cover

Cover for G-2000 through G-2004 junction boxes. Use with 3/4" or 1/2" conduit. Swivel action.

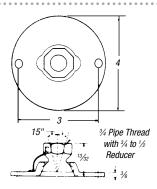




CAT. NO.	DESCRIPTION	WT. LBS./C
G 1033	Galv-Krom® Finish	35

Load rating 400 lbs. with a safety factor of 3. UL Listed for raceway.

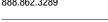






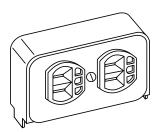
United States



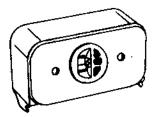




Raceway Outlets



Complete unit including housing, standard duplex 3-wire, 15-amp, 125-volt NEMA ground receptacle and cover plate.



Complete unit including housing, standard single 3-wire, 15-amp, 125-volt NEMA ground receptacle and cover plate.



Complete unit including housing, single, 3-wire, 15-amp, 277-volt-twistlock receptacle and cover plate.



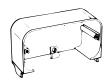
Complete unit including housing, duplex, 3-wire, 15-amp, 277-volt-twistlock receptacle and cover plate.



CAT. NO.	DESCRIPTION	WT. LBS./C
G 1038	Gold Finish	55
G 1038 A	Gold Finish	50
G-1038-D	Gold Finish	60
G 1038 E	Gold Finish	50
UL Listed for racewa	ay.	

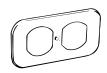
G-1038-B Housing Only

CAT. NO.	DESCRIPTION	WT. LBS./C
G 1038 B	Gold Finish	25



G-1038-C Duplex Cover Plate

CAT. NO.	DESCRIPTION	WT. LBS./C
G 1038 C	Gold Finish	12



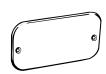
G-1038-CA Single Cover Plate

CAT. NO.	DESCRIPTION	WT. LBS./C
G 1038 CA	Gold Finish	14
Size of opening	: 1.391 diameter	



G-1038-CX Blank Cover Plate

CAT. NO.	DESCRIPTION	WT. LBS./C
G 1038 CX	Gold Finish	15



G-1060 Nylon Bushing

CAT. NO.	WT. LBS./C
G-1060	2
Strain relief bushing to prote	ect lead from fluorescent fixture.







1-800-453-1692







Channel Joiners for Lay-In Wiring

The direction-change joiner fittings for Kindorf® Channels expand to three, the number of channel depths available for complete raceway wiring systems.

Joiner fittings are made for 1½", 1½" and 3" depths of 1½" wide channels. These three systems provide raceway conductor fill capacities for any lighting layout and with erected strength to spare for lighting fixture support.

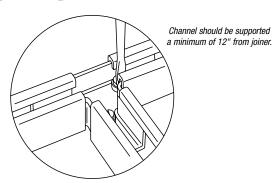
The joiner fitting rests inside the channel without obstructing the channel, or the lay-in of electrical conductors. No time-consuming "fishing" of conductors at the elbows, tee and crosses.

Installation is fast. Simply insert the fitting into the end of the channel and turn the captive set-screw. This "jack-screws" the fitting sidewalls beneath the channel lips for snug, strong joints. Standard Kindorf® Channel Closure Strip is used for a completely enclosed raceway.

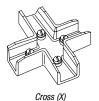
Listed by Underwriters Laboratories, Inc.

G-1500, G-1870 and G-3000 Series Direction **Change Joiner Assemblies**

Direction change joiners for 11/2", 11/8" and 3" deep raceway channels complete with screws and washers. Joiners fit into end of channel. When screws are tightened, joiner is forced up against channel lips for secure installation. Conductors can be laid in, no pulling required. No need for junction boxes. Available in X, T, L and S configurations. Support required within 12" of each joiner.











Straight (S)

Tee (T)

X-Style — G-1500X, G-1870X and G-3000X

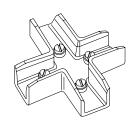
Galv-Krom® finish.

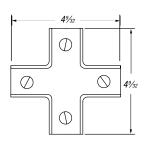
Galv-Krom® finish.

	,	
CAT. NO.	FOR USE WITH CHANNEL NO.	WT. LBS./C
Cast Aluminum		
G 1500 X	B-900 & G-975	44
G-1870X	B-901 & G-965	51
G-3000X	B-902 & G-955	79

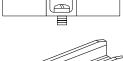


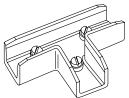
(I) (II)

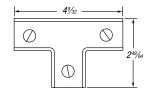




1-Style — G-15011, G-18711 and G-30011		
CAT. NO.	FOR USE WITH CHANNEL NO.	WT. LBS./C
Cast Aluminum		
G 1501 T	B-900 & G-975	34
G-1871T	B-901 & G-965	45
G-3001T	B-902 & G-955	66









United States







Kindorf® Raceway System Fittings for 1½" x 1½" Channel Systems

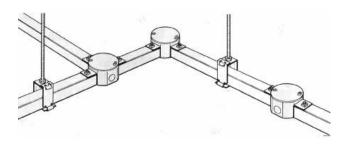
The Kindorf® Channel system serves both as a raceway for electrical conductors and a support system for the electrical outlets or tap-offs.

Kindorf® is a complete wiring and support system with fittings and accessories for the design and installation of your electrical system.

A full line of direction change junction boxes are provided for use with the Kindorf® raceway system. These are made up of a standard Steel City® octagon box, box cover and attachment fittings. Assemblies as shown are available complete, or members can be purchased separately to make up a junction.

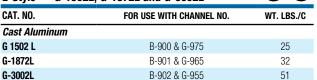
Junction Boxes for 1½" x 1½" Raceway Channels — Galv-Krom® Finish

When purchased as an assembly, the octagon box and cover are Galv-Krom[®] finish to match the channel and end cap and all parts are factory fabricated.

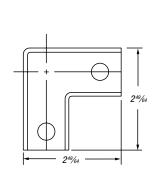


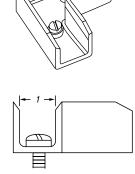
ITEM	QUANTITY
The assembly consists of the following components:	
Octagon Box	1
Box Cover	1
Locknuts	1, 2, 3, or 4 (as required)
Nipples	1, 2, 3, or 4 (as required)
End Caps	1, 2, 3, or 4 (as required)

L-Style — G-1502L, G-1872L and G-3002L



Galv-Krom® finish.

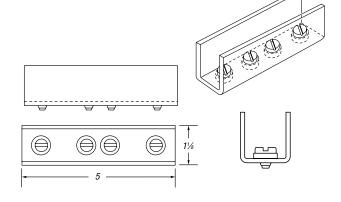




S-Style — G-1503S, G-1873S and G-3003S

o otylo	a 10000, a 10100 ana	u 00000	
CAT. NO.	FOR USE W	ITH CHANNEL NO.	WT. LBS./C
Steel			
G 1503 S	B-90	0 & G-975	21
G-1873S	B-90	11 & G-965	25
G-3003S	B-90	12 & G-955	36

Galv-Krom® finish.





United States

(IL) (SP:









Raceway Junction Boxes







G 2001 Type "C" 121 lbs./C



G 2002 Type "L" 90°

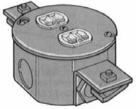


G 2003 Type "T" 140 lbs./C



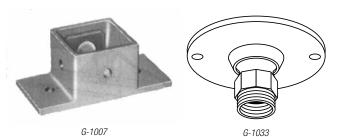
G 2004 Type "X" 150 lbs./C

36 lbs./C



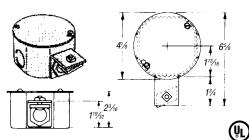
G-2001 Junction Box with 5402-LR outlet box cover and field mounted duplex receptacle.

For 1/2" or 3/4" conduit feed from outlet box 35 lbs./C



G-2000 Junction Box

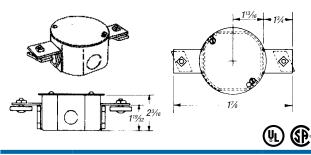
Complete with cover, locknuts, nipples and end caps. Type "E" deadend junction box for raceway channel. Accepts standard devices and covers for 4" octagon outlet boxes.



CAT. NO.	DESCRIPTION	WT. LBS./C
G 2000	Galv-Krom® Finish	123

G-2001 Junction Box

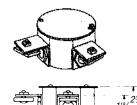
Complete with cover, locknuts, nipples and end caps. Type "C" straightthrough junction box for two raceway channels. Accepts standard devices and covers for 4" octagon outlet boxes.

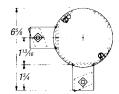


CAT. NO.	DESCRIPTION	WT. LBS./C
G 2001	Galv-Krom® Finish	147

G-2002 Junction Box

Complete with cover, locknuts, nipples and end caps. Type "L" 90° junction box for two raceway channels. Accepts standard devices and covers for 4" octagon outlet boxes.







(ĥ	(P

CAT. NO.	DESCRIPTION	WT. LBS./C
G 2002	Galv-Krom® Finish	120



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354

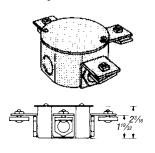
Technical Services Tel: 888.862.3289

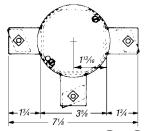




G-2003 Junction Box

Complete with cover, locknuts, nipples and end caps. Type "T" junction box for three raceway channels. Accepts standard devices and covers for 4" octagon outlet boxes.



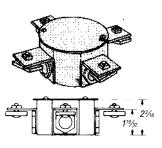


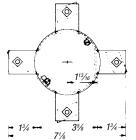
(ÎI)	(1)
------	-----

CAT. NO.	DESCRIPTION	WT. LBS./C
G 2003	Galv-Krom® Finish	140

G-2004 Junction Box

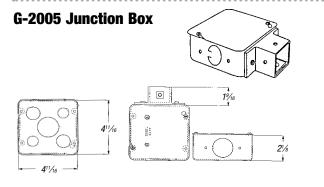
Complete with cover, locknuts, nipples and end caps. Type "X" junction box for four raceway channels. Accepts standard devices and covers for 4" octagon outlet boxes.





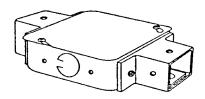


CAT. NO.	DESCRIPTION	WT. LBS./C
G 2004	Galv-Krom® Finish	150



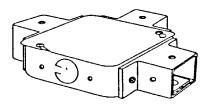
CAT. NO.	DESCRIPTION	WT. LBS./C
G2005	Galv-Krom® Finish	189

G-2006 Junction Box



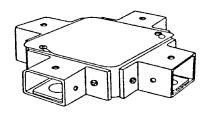
CAT. NO.	DESCRIPTION	WT. LBS./C
G2006	Galv-Krom® Finish	225

G-2007 Junction Box



CAT. NO.	DESCRIPTION	WT. LBS./C
G2007	Galv-Krom® Finish	261

G-2008 Junction Box



CAT. NO.	DESCRIPTION	WT. LBS./C
G2008	Galv-Krom® Finish	290



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services**









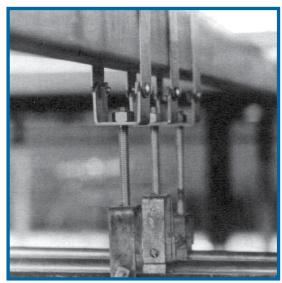
Fast Installation and Low Maintenance

"Threads" are an integral part of erector systems because nearly everything hangs by or is secured by threaded fasteners. Kindorf® threaded hardware includes continuous rolled-thread hanger rod, and special and standard screws and nuts designed with the necessary holding power to serve the requirements of framing and hanging installations.

It is vital that each thread be fully protected against rust and corrosion because they are usually exposed to corrosive atmospheres. Kindorf® threaded hardware and accessories are completely protected by the same Galv-Krom® finish that protects Kindorf® channel and fittings. Kindorf® extra-quality threads are always:

- Free-running clean, uniform
- Corrosion resistant no paint required
- Burr-free smooth finish

Trouble-free threaded hardware is an investment in fast installation and low maintenance. Free-running threads are a time saving asset on every job — saving fingers and tempers, and eliminating delays that result when threads must be specially treated before use. Threaded rod is packed in tubes to prevent damage during shipment. Kindorf® threaded hardware is produced from high-tensile strength carbon steel with Unified National Coarse (U.N.C.) threads. Galv-Krom® finish is standard.



 $\mbox{H-193}$ Hanger Rod supports conduit from G-962-D hanger. ASTM Class 2.

H104 Hanger Rod, Continuous Thread — Galv-Krom



CAT. NO.	SIZE	WT./LBS. PER 100 PCS.
H104 1/4X6		73
H104 1/4X10	1/4"-20	124
H104 1/4X12		148
H104 3/8X6		172
H104 3/8X10	3/8" - 16	293
H104 3/8X12		348
H104 1/2X6		313
H104 1/2X10	1/2"-13	530
H104 1/2X12		648
H104 5/8X6		510
H104 5/8X10	5⁄8" − 11	850
H104 5/8X12		1,020
0 (6 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		

Suffix indicates rod size and length.

H104-EG Hanger Rod, Continuous Thread — SilverGalv[®]

CAT. NO.	SIZE	WT./LBS. PER 100 PCS.
H104 1/4X6-EG		73
H104 1/4X10-EG	1/4"-20	124
H104 1/4X12-EG		148
H104 3/8X6-EG		172
H104 3/8X10-EG	3/8"-16	293
H104 3/8X12-EG		348
H104 1/2X6-EG		313
H104 1/2X10-EG	1/2"-13	530
H104 1/2X12-EG		648
H104 5/8X6-EG		510
H104 5/8X10-EG	5/8"-11	850
H104 5/8X12-EG		1,020

Suffix indicates rod size and length.

National Coarse Thread

SIZE (IN.)	THREADS PER INCH	LBS./ 100 FT.	DESIGN LOAD LBS.
1/4	20	12.5	150
3/8	16	29.0	610
1/2	13	53.5	1,130
5/8	11	85.0	1,810
3/4	10	123.0	2,710
7/8	9	130.0	3,770
1	8	214.0	4,960

Grade ASTM A-510.





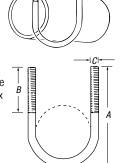




H115 U-Bolts



"U" bolt to support, anchor or guide pipe lines. Sizes through 4" are furnished with one hex nut per leg in Galv-Krom®. H-286 sizes 5" and above are furnished with two hex nuts per leg in black.

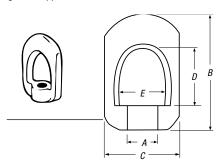


REC MAX	DII	MENSIONS (IN.)	_ WT. IN
LOAD (LBS.)	Α	В	C	LBS./C
1,500	23/4	13/4	5/16	13
2,000	31/16	13/4	5/16	15
2,500	35/16	17//8	5/16	16
2,500	31/2	13/4	5/16	17
2,500	33/4	13/4	5/16	18
3,300	411/16	21/16	3/8	32
4,000	51/8	21/16	3/8	34
4,000	$5^{11}/_{16}$	2	3/8	38
4,000	63/16	2	3/8	40
4,000	615/16	21/4	3/8	46
4,000	85/32	21/4	1/2	128
4,000	93/4	25/8	5/8	239
4,000	11¾	25/8	5/8	283
	1,500 2,000 2,500 2,500 2,500 3,300 4,000 4,000 4,000 4,000 4,000 4,000	REC. MAX. A 1,500 2¾ 2,000 3½ 2,500 3½ 2,500 3¾ 3,300 4½ 4,000 5½ 4,000 6½ 6 4,000 6½ 6 4,000 6½ 6 4,000 8½ 4,000 8½ 4,000 9¾	REC. MAX. A B 1,500 2¾ 1¾ 2,000 3¼6 1¾ 2,500 3¾6 1¾ 2,500 3½ 1¾ 2,500 3½ 1¾ 2,500 3¾ 1¾ 3,300 4¹¼6 2½6 4,000 5½ 2¼6 4,000 5¼6 2 4,000 6¾6 2 4,000 6½6 2½ 4,000 8½2 2¼ 4,000 9¾ 2½6	LOAD (LBS.) A B C 1,500 2½4 1¾4 5½6 2,000 3¼6 1¾4 5½6 2,500 3½6 1½6 5½6 2,500 3½ 1¾4 5½6 2,500 3¾4 1¾4 5½6 3,300 4½6 ½6 ½6 4,000 5½6 2½6 ¾6 4,000 5½6 2 ¾6 4,000 6½6 2 ¾6 4,000 6½6 2½4 ¾6 4,000 8½2 2½4 ½2 4,000 8½2 2½4 ½2 4,000 9¾4 2½6 ½6

H-272 Swivel Eye

 H-272 swivel eye has ¾" or ½" tapped hole for hanger rod applications

Complies with Fed. Spec. WW-H-171E and MSS SP-69 Type 24.



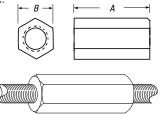
	DIMENSIONS (IN.)					- LOAD RATING	WT.
CAT. NO.	Α	В	C	D	E	(LBS.)	LBS./C
H-272 3/8	³‰−16	23/4	1½	13/16	7/8	2,000	19
H-272 1/2	1/2-13	23/4	11/2	13/16	7/8	2,000	19
Safety factor of 3	3.						

H119 Steel Rod Coupling

For coupling lengths of H-193 hanger rod. Right-hand threaded.

Threads tapered to lock rods in place.





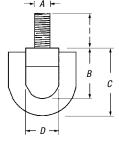
	_	DIMENSIONS (IN.)		LOAD RATING	ING WT.	
CAT. NO.	THREADS	Α	В	(LBS.)	LBS./C	
H119 1/4	1/4-20	7/8	3/8	240	2	
H119 3/8	3⁄8 – 16	11/2	1/2	610	4	
H119 1/2	1/2-13	11/4	5/8	1,130	5	
H119 5/8	5⁄8 −11	11//8	¹³ / ₁₆	1,810	10	

Galv-Krom® finish.

E120, E130 Eyelet with 1/2" or 3/8" Stud

For bolting to a supporting member to furnish suspension for rope, chain or cable.





	D	IMENSI	ONS (IN.	.)	_ LOAD RATING	WT.	
CAT. NO.	Α	В	C	D	(LBS.)	LBS./C	
E120 3/8	¾ − 16	1%	1¾	1/2	1,000	23	
E130 1/2	1/2-13	1½	2	3/4	1,800	28	

Safety factor of 3. Galv-Krom® finish.

H-120 Saddle-Type Washer

- · For rigid attachment of rod to channel
- For use with either 1/8" or 1/2" hanger rod



CAT. NO.	WT. LBS./C
H-120	7

Standard finish: Galv-Krom® unless otherwise specified.











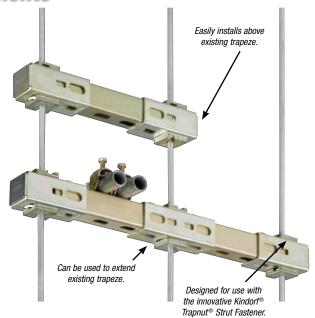
Handle Retrofit Trapeze Applications with Ease!

Trap-Eze[™] Connector

The innovative Kindorf® Trap-Eze™ Connector changes a time-consuming retrofit trapeze application into a streamlined process. Using a Kindorf® Trapnut® Strut Fastener, the new Trap-Eze™ Connector can be easily installed above or to the side of an existing assembly, eliminating the need to disassemble and reassemble the trapeze. It is designed for use with shorter strut lengths that can vary in length by as much as an inch, so the strut can be rough cut versus labor-intense precision cuts.

- Easily installs above or to the side of an existing assembly, eliminating the need to disassemble and reassemble the trapeze
- Connectors can be reused upon disassembly of a trapeze
- Designed for either ¾" and ½" threaded rod
- Designed for use with the innovative Kindorf® Trapnut® Strut Fastener, which can take up to 43% less time than standard nuts and washers on retrofit trapeze applications
- View window provides safety zone for strut length

CAT. NO.	DESCRIPTION	STD. CTN.				
For 1½" Kindorf® Channels						
B998	Trap-Eze™ End Connector Gold-Galv	20				
B999	Trap-Eze™ Mid Connector Gold-Galv	10				
B998EG	Trap-Eze™ End Connector EG	20				
B999EG	Trap-Eze™ Mid Connector EG	10				
For 1%" Str	rut Channels					
AB221	Trap-Eze [™] End Connector Gold-Galv	20				
AB222	Trap-Eze™ Mid Connector Gold-Galv	10				
AB221EG	Trap-Eze™ End Connector EG	20				
AB222EG	Trap-Eze™ Mid Connector EG	10				



View window provides strut length safety zone for rough cuts versus precision cuts.



Unique safety slot maintains bracket position on threaded rod and prevents disengagement of the trapeze system.



Trapnut® Strut Fastener





H 122 3/8 Trapnut® Strut Fastener Galv-Krom®



H 122 3/8	%" Galv-Kı
H 122 1/2	½" Galv-Kı
H 122 1/4 EG	1/4" SilverG
H 122 3/8 EG	%" SilverG
H 122 1/2 EG	½" SilverG
H 122 1/4 SS6	1/4" Type 3
H 122 3/8 SS6	3/4" Type 3
H 122 1/2 SS6	½" Type 3

CAT. NO.	DESCRIPTION	SIZE (IN.)	DESIGN Load LBS.	STD. CTN.
H 122 1/4	1/4" Galv-Krom®	1/4	150	50
H 122 3/8	3/4" Galv-Krom®	3/8	590	50
H 122 1/2	½" Galv-Krom®	1/2	1,080	50
H 122 1/4 EG	1/4" SilverGalv®	1/4	150	50
H 122 3/8 EG	3/4" SilverGalv®	3/8	590	50
H 122 1/2 EG	½" SilverGalv®	1/2	1,080	50
H 122 1/4 SS6	1/4" Type 316 Stainless Steel	1/4	150	50
H 122 3/8 SS6	%" Type 316 Stainless Steel	3/8	590	50
H 122 1/2 SS6	1/2" Type 316 Stainless Steel	1/2	1,080	50



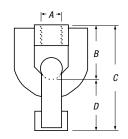




E122 Swivel Joint

Permits hanger rod to swing freely in any direction.





	DIM	DIMENSIONS (IN.)			WT.
CAT. NO.	Α	В	С	LOAD RATING	LBS./C
E122 3/8	3/₅−16	1%	23/4	1,000	28
E122 1/2	1/2-13	11/2	3	1,800	48

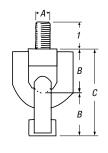
Safety factor of 3.

Galv-Krom® finish.

E131 Swivel Joint with Stud

Same as H-260 but with a $\frac{3}{8}$ " or $\frac{1}{2}$ " stud on one end.





	DIM	ENSIONS (IN.)		WT.
CAT. NO.	Α	В	С	LOAD RATING	LBS./C
E131 3/8	% − 16	1%	23/4	1,000	25
E131 1/2	1/2-13	1½	3	1,800	52

Safety factor of 3. Galv-Krom® finish.

H-134-S Spacer Assembly

Used for attaching fixture to channel with a uniform 1" clearance between fixture and supporting channel. Assembly includes a 1" spacer, a $\frac{\pi}{2}$ " – 18 x $\frac{1}{2}$ " bolt and jam nut, all galvanized.



CAT. NO.	WT. LBS./C
H-134-S	21

Approved for G.S.A. installations.

E142 Hex Head Cap Screw — Less Nut





CAT. NO.	SIZES	WT. LBS./C
	(IN.)	
E142 1/2 15/16	½–13 x ¾	7.0
E142 1/2 15/16	½–13 x 1	9.0
E142 1/2 15/16	½–13 x 1	9.0
E142 1/2 1 1/4	½-13 x 1¼	9.0
E142 1/2 1 1/2	½-13 x 1½	10.0
E142 1/2 2	½-13 x 1¾	13.0
E142 1/2 2	½-13 x 2	14.0
E142 1/2 2 1/4	½-13 x 21/4	16.0
E142 1/2 2 1/2	½-13 x 2½	16.0
E142 1/2 3	½-13 x 3	20.0
E142 1/2 4	½-13 x 4	25.0
E142 3/8 3/4	3%-16 x 3/4	3.0
E142 3/8 1	3%−16 x 1	4.0
E142 3/8 1 1/4	3/8-13 x 1 ⁶¹ / ₆₄	4.0
E142 3/8 1 1/2	3%-16 x 1½	5.0
E142 3/8 2 1/4	3/8-16 x 13/4	6.0
E142 3/8 2 1/4	3/8-16 x 21/4	7.0
E142 3/8 2 1/4	3/8-16 x 21/4	7.0
E142 1/4 1	1/4 X 3/4	1.0
E142 1/4 1	1/4 x 1	1.0
E142 1/4 1 1/4	1/4 x 11/4	1.5
E142 1/4 1 1/2	½ x 1½	2.0
Standard finish: Galv-Krom® unle	ess otherwise specified.	

Thomas@Betts

United States Tel: 901.252.8000

800.816.7809 Fax: 901.252.1354 **Technical Services**

Tel: 888.862.3289







E145 Hex Nut

CAT. NO.	SIZES (IN.)	WT. LBS./C
E145 1/4	1/4-20	1.2
E145 5/16	5/16-18	2.0
E145 3/8	3/₅−16	3.2
E145 1/2	1/2-13	5.0
E145 3/8	5⁄8–11	9.0
Standard finish: Galv-Krom® un	less otherwise specifie	d.



E146 Square Nut

	SIZES	WT.
CAT. NO.	(IN.)	LBS./C
E146 1/4	1/4-20	1.00
E146 5/16	5/16-18	2.40
E146 3/8	3% – 16	2.37
E146 1/2	1/2-13	6.00
E146 5/8	5⁄8−11	11.00

Standard finish: Galv-Krom® unless otherwise specified.



54, E149 Round Head Machine Screw — Less Nut

CAT. NO.	SIZES (IN.)	WT. LBS./C
54 571P	1/4-20 x 1/2	1.00
54-572-P	1/4-20 x 3/4	1.25
54-574	1/4-20 x 11/4	1.76
54-576	½-20 x 2	2.54
E149 3/8 1 1/4	3/8-16 x 3/4	3.45
Standard finish: Galv-Krom® unless	!.	



E147 Flat Steel Washer

CAT. NO.	SIZES (IN.)	WT. LBS./C
E147 1/4	1/4	.67
E147 5/16	5/16	1.20
E147 3/8	3/8	2.00
E147 1/2	1/2	3.85
E147 5/8	5/8	7.70
E147 3/4	3/4	9.00
Standard finish: Galv-Krom® ur	nless otherwise specifi	ed.



E148 Lock Washer

SIZES (IN.)	WT. LBS./C
1/4	.259
5/16	.550
3/8	.630
1/2	1.436
5/8	2.587
3/4	4.293
	(IN.) 1/4 5/16 3/8 1/2 5/8

AB241 Square Washer

	DIMEN	DIMENSIONS (IN.)		
CAT. NO.	SIZE	THICKNESS	LBS./C	
AB241 1/4	1/4	1/8	8.10	
AB241 5/16	5/16	1/8	8.00	
AB241 3/8	3/8	3/16	11.50	
AB241 1/2	1/2	1/4	14.36	
AB241 5/8	5/8	1/4	13.50	
AB241 3/4	3/4	1/4	12.50	
AB241 7/8	7/8	1/4	13.00	







Standard finish: Galv-Krom® unless otherwise specified.

Located Square Washers

CAT. NO.	BOLT SIZE (IN.)	STD. CTN.
AB-241L-1/4	1/4	100
AB-241L-5/16	5/16	100
AB-241L-3/8	3/8	100
AB-241L-1/2	1/2	100
AB-241L-5/8	5/8	100

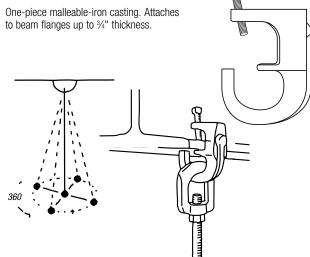
GoldGalv® is standard finish. Add "EG" suffix for SilverGalv®.











CAT. NO.	DESCRIPTION	WT. LBS./C		
H-550	Max. load rating 500 lbs. with a safety factor of 3.	33		
Galv-Krom®	Galv-Krom® finish.			

www.tnb.com







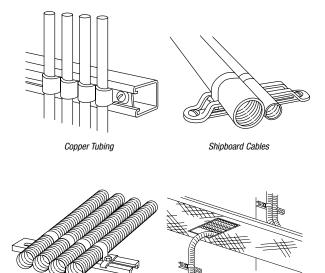
Fast, Precise Installation Method. **Kindorf**° **J-800 System**

Designed originally to eliminate costly and time-consuming methods of installing cables aboard ships, the Kindorf® J-800 series of straps, hangers and brackets has found ever-widening applications by mechanical and electrical contractors in general construction. The J-800 system has proven to be a work-saver when used to install tubing or cable. Tubing and cable of various construction and fabrication can be racked efficiently with built-in provisions for making additions or changes at a later date. They can be secured in all combinations and sequences of sizes. A variety of hangers and brackets secures multiple runs as well as single branch take-offs.

Installation of J-800 straps on Kindorf® supports is simple, requiring only a screwdriver or small wrench. Each run is gripped individually on a hanger and all runs are secured by tightening a single locking device. Loosening the locking device permits fast access to the runs, making it easy to add, remove or adjust them at any time.

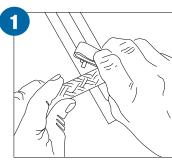
J-800 installations have withstood the severe conditions of service at sea for many years. In countless installations, they have proven their ability to withstand the effects of salt air, moisture, shock and vibration.

J-800 racking is well known for its fast, yet precise, installation method. A proven method that results in labor economy and neat, workman-like installation.

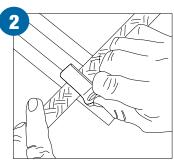


Flexible Tubina

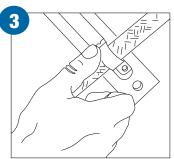
Installation Steps



Insert pin of strap in slot of hanger.



Close Kindorf® cable strap down over cable.



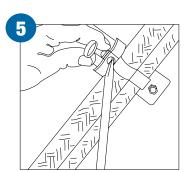
Armored Cable

(Take-off from Cable Tray)

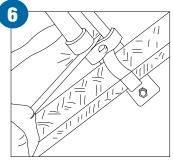
Push strap and cable to end of hanger slot so tongue of strap hooks below slot.



Apply second cable strap, hooking strap tongue under pin of first strap.



Apply locking device and tighten screw moderately.



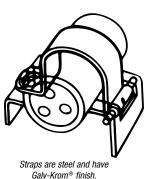
Drive locking device tight against cable strap. Tighten locking device screw.

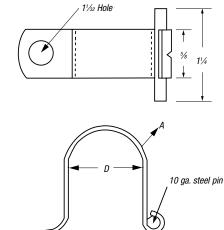
J-800 Interlocking Straps

One J-800 strap of the proper diameter is used to secure each run. All straps have a 1½" pin. In multiple runs the pin is simply twist inserted into the supporting Kindorf® hanger, bracket or channel slot then the strap is closed over the cable or tube to lock the strap tongue under the pin of the adjacent strap.

The same procedure is used for single runs, except the strap tongue is secured directly to the hanger. When all multiple runs have been assembled, they are secured by a single locking device.

J-800 straps can be installed along the continuous slot of any Kindorf® channel. This increases their versatility and extends their possible applications.





CAT. NO. & Size	STRAP SIZE	A Gauge	DIMENSIONS (IN.) D MAX.	WT. LBS./C	USE IN NEW KINDORF® CHANNEL	USE IN OLD KINDORF® CHANNEL	USE IN J SERIES MOUNTINGS
J 800 8	8	18	.2500	2.50		.250	.250
J-800-10	10	18	.3124	2.60	_	.313	.313
J-800-12	12	18	.3750	2.75	.250	.375	.375
J-800-14	14	18	.4375	2.90	.313	.438	.438
J-800-16	16	18	.5000	2.75	.375	.500	.500
J-800-18	18	18	.5625	2.90	.438	.563	.563
J-800-20	20	18	.6250	3.35	.500	.625	.625
J-800-22	22	18	.6875	3.50	.563	.688	.688
J-800-24	24	18	.7500	3.65	.625	.750	.750
J-800-26	26	18	.8125	3.80	.688	.813	.813
J-800-28	28	18	.8750	3.95	.750	.875	.875
J-800-30	30	18	.9375	4.10	.813	.938	.938
J-800-32	32	18	1.0000	4.25	.875	1.000	1.000
J-800-34	34	18	1.0625	4.40	.938	1.063	1.063
J-800-36	36	18	1.1250	4.55	1.000	1.125	1.125
J-800-38	38	18	1.1875	4.70	1.063	1.188	1.188
J-800-40	40	18	1.2500	4.85	1.125	1.250	1.250
J-800-42	42	18	1.3125	5.00	1.188	1.313	1.313
J-800-44	44	18	1.3750	5.15	1.250	1.375	1.375
J-800-46	46	18	1.4375	5.30	1.313	1.438	1.438
J-800-48	48	18	1.5000	5.45	1.375	1.500	1.500
J-800-50	50	16	1.5625	6.38	1.438	1.563	1.563
J-800-52	52	16	1.6250	6.55	1.500	1.625	1.625
J-800-54	54	16	1.6875	6.73	1.563	1.688	1.688
J-800-56	56	16	1.7500	6.90	1.625	1.750	1.750
J-800-58	58	16	1.8125	7.08	1.688	1.813	1.813
J-800-60	60	16	1.8750	7.25	1.750	1.875	1.875
J-800-62	62	16	1.9375	7.43	1.813	1.938	1.938
J-800-64	64	16	2.0000	7.6	1.875	2.000	2.000
J-800-68	68	16	2.1250	7.95	1.938	2.063	2.063
J-800-72	72	16	2.2500	8.30	2.000	2.250	2.250
J-800-76	76	16	2.3750	8.65	2.125	2.375	2.375
J-800-80	80	16	2.5000	9.00	2.250	2.500	2.500
J-800-84	84	16	2.6250	9.35	2.375	2.625	2.625

Separate strap sizes rack 1/4" through 25/8" dia. rounds in 1/16" increments.

www.tnb.com

United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 Technical Services
Tel: 888.862.3289



1-800-453-1692

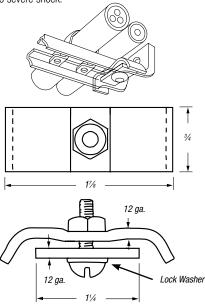
oveboardelectronics.com





J-850 Locking Device

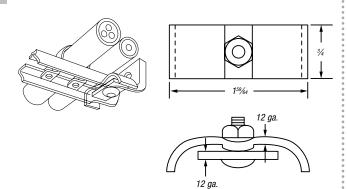
Secures single or multiple interlocked assemblies on bar hangers, mounting brackets and continuous slot channel. For installations not subject to severe shock.



CAT. NO.	DESCRIPTION
J 850	Steel, Galv-Krom® Finish, 11 lbs./C.
Includes 1/4" screw nut a	and lock washer

J-851 Locking Device

Secures single or multiple interlocked assemblies on bar hangers, mounting brackets and continuous slot channels. Similar to J-850 except stud replaces screw for easier assembly.

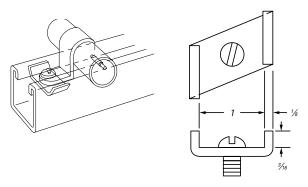


CAT. NO.	DESCRIPTION
J 851	Steel, Galv-Krom® Finish, 11 lbs./C.

Includes 1/4" screw, nut and lock washer.

J-852 Locking Device

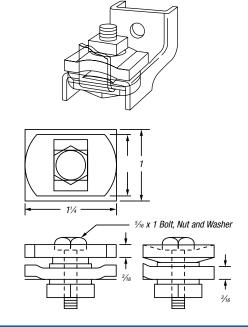
Secures single or multiple interlocked assemblies on bar hangers, mounting brackets and continuous slot channels. Designed for use with B-900 Kindorf channels.



CAT. NO.	DESCRIPTION
J 852	Steel, Galv-Krom® Finish, 11 lbs./C.

J-855 Locking Device — Heavy-Duty

For use with channel-type hangers in installations subject to extreme shock.



CAT. NO.	DESCRIPTION
J 855	Steel, Galv-Krom® Finish, 11 lbs./C.
Includes 5/2" holt nut and wacher	



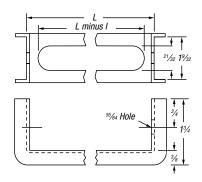


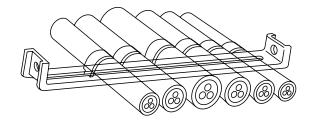




J-860 Mounting Brackets

U-style channel, 12-ga. steel, with Galv-Krom® finish, %" turned edge. Three sizes.

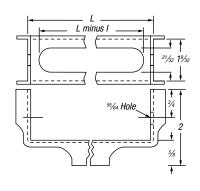


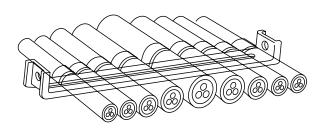


CAT. NO.	DIMENSIONS L (IN.)	WT. LBS./C
J 860 6	6	42
J-860-9	9	48
J-860-12	12	59

J-861 Mounting Brackets

U-style channel, 12-ga. steel, with Galv-Krom® finish, %" turned edge. Six sizes.

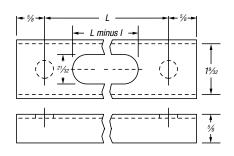


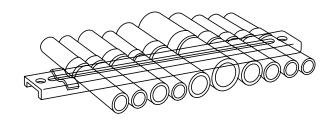


CAT. NO.	DIMENSIONS L (IN.)	WT. LBS./C
J 861 10	10	64
J-861-12	12	73
J-861-14	14	86
J-861-15	15	89
J-861-16	16	96
J-861-18	18	100

J-863 Mounting Brackets

Straight, heavy-duty channel. 12-ga. steel, with Galv-Krom® finish. Five sizes.





CAT. NO.	DIMENSIONS L (IN.)	WT. LBS./C
J 863 6	6	42
J-863-9	9	57
J-863-12	12	73
J-863-15	15	85
J-863-18	18	106



United States

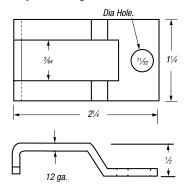


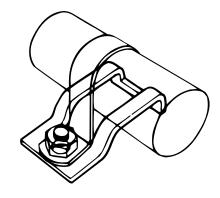




J-865 Bar Hanger

Supports one cable or tube up to $^{11}\!\!/\!_{16}"$ 0.D. Only one stud or screw necessary for mounting.

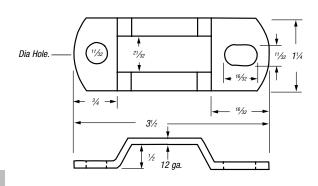


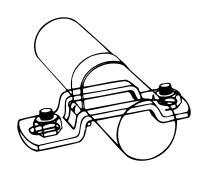


CAT. NO.	DESCRIPTION
OATT 110.	DECOMIN NON
J 865	Steel, Galv-Krom® Finish, 6.7 lbs./C.

J-866 Bar Hanger

Supports one large or two small cables or tubes up to a total of $^{15}\!\!/\!_{16}$ $\!^{\rm H}$ O.D.

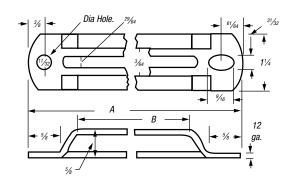


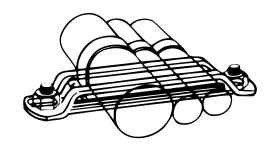


CAT. NO.	DESCRIPTION
J 866	Steel, Galv-Krom® Finish, 9 lbs./C.

J-867 Bar Hanger

- Cable or tube assembly locks in place with one short ¹/₄" screw and nut
- Use two studs, welding pads or bolts to mount





	DIMENSIONS (IN.) WT.		
CAT. NO.	A	В	LBS./C
J 867 1	51//8	27/8	15
J-867-2	71//8	47/8	20
J-867-3	91//8	61/8	27

Steel, Galv-Krom® finish.



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 Tel: 888.862.3289

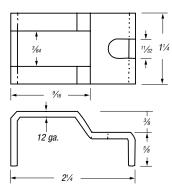


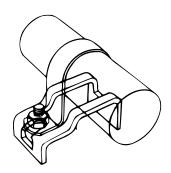




J-868 Bar Hanger

Supports one cable or tube up to $^{11}/_{6}$ " O.D. Strap fastens to hanger by short machine screw and nut.



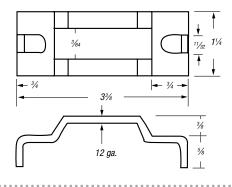


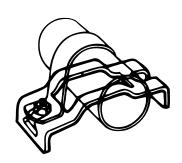
CAT. NO.	DESCRIPTION
J 868	Steel, Galv-Krom® Finish, 8.3 lbs./C.

Use one stud or weld to mount.

J-869 Bar Hanger

- Supports one large or two small cables or tubes up to a total of 15%6" O.D.
- · Both ends of hanger have nut-engaging slot

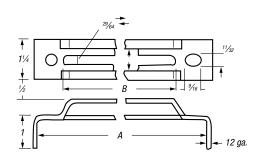


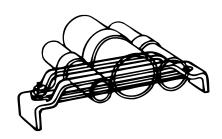


CAT. NO.	DESCRIPTION
J 869	Steel, Galv-Krom® Finish, 11.2 lbs./C.

J-870 Bar Hanger

- Supports cable or tube assembly, locked in place with one short ½" screw and nut
- Mount by welding





CAT. NO.	DIMENSI	ONS (IN.)	WT.
& SIZE	Α	В	LBS./C
J 870 1	51/8	37/16	22.5
J-870-2	71/8	57/16	28.0
J-870-3	91/8	77/16	33.3

Steel, Galv-Krom® finish.



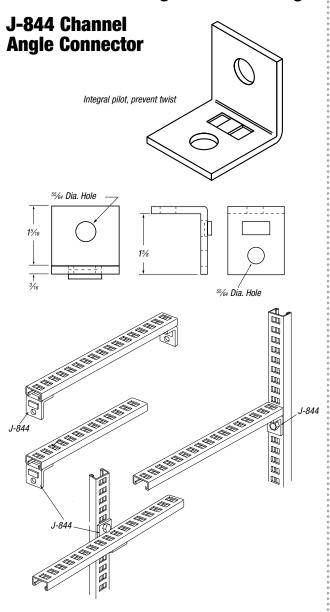
United States





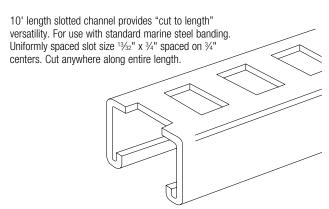


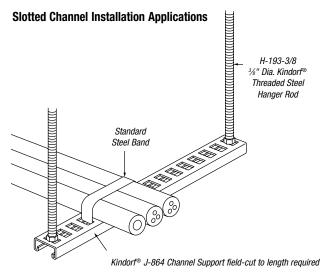
Angle Connector Provides "On-the-Job" Versatility for Cable Racking and Mounting.

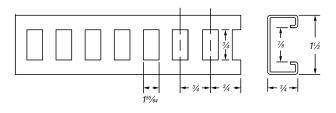


CAT. NO.	DESCRIPTION	
J 844	Galv-Krom® Finish	

J-864 Slotted Channel







CAT. NO.	DESCRIPTION	WT. LBS./C
Mount, Bai	nd or Support at any Slot	
J 864	10' Length 3/4" Deep Kindorf® Slotted Channel	65
Galv-Krom® f	inish.	



United States Tel: 901.252.8000

800.816.7809 Fax: 901.252.1354 **Technical Services** Tel: 888.862.3289







With Right Angle, you get Flexibility — Simplicity — Economy!

Create the support framing you need.

Right Angle is manufactured from commercial-quality steel in three different sizes. The small sizes are 14-ga. steel, the larger size is 12-ga. steel. With this offering, an endless variety of metal framing requirements can be met, from lightweight supporting needs to larger shelving needs such as inventory storage.

One of the legs on all sizes is 1%" wide, while the other is either 1%", 2%" or 3%" long. Depending on the frame requirements, a single size can be utilized throughout, or the sizes can be interchanged to get the most efficient usage from the material.

This book will serve as a guide to plan and build your structure.



Scribe marks are placed every %" which saves planning, layout and cutting time and ensures accuracy. The exclusive slot and hole pattern, repeated every 3", is scientifically designed for ease of assembly and rigidity. No welding is necessary, no holes to drill. A %e" wrench is the

only tool required for assembly. The proper nuts and bolts are included with the material to ensure fast and easy erection.

Right Angle Metal Framing is packaged in 10' and 12' lengths to minimize cut offs and ensure maximum use of material.

120' (10 x 12' lengths) of Right Angle takes up the same amount of space as one 2 x 4. A standard package includes five pieces to a bundle, therefore handling and storage space are significantly reduced.

The importance of cutting Right Angle easily, quickly and accurately is the key to time saving assembly. The Steel City® Portable Cutter provides these advantages and makes layout and erection of any structure a "light-work" job.





Kindorf® Right Angle comes standard with our Galv-Krom® Finish, which ensures a long-lasting, durable installation.

The Galv-Krom® finish is a two-part finishing process that protects the entire system, including all nuts and bolts. The first part of the finish is electro-galvanized zinc that covers the bare steel. The second part is a gold zinc dichromate that is applied over the zinc base.

Three aspects of the Galv-Krom® process are worthy of note:

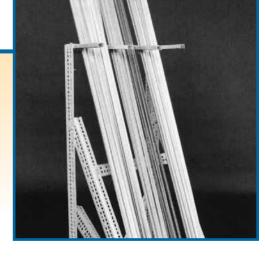
1. Zinc Coating — In the first part of the Galv-Krom® process, a .5 mil coating of zinc is placed on the bare steel. This ensures the sacrificial quality of any galvanizing and becomes a working finish. The zinc literally sacrifices itself over bare steel and protects cut edges or scratches which may occur during construction.

Galv-Krom® is in compliance with ASTM B633-78 Type II coating.

2. Electrogalvanizing —

Because the zinc is applied through a temperature-controlled electrolytic process, a cohesive bond with the steel is assured. This prohibits chipping or peeling. It also distributes the zinc evenly so all components — including threads — can be equally protected.

3. Gold Trivalent Chromium Barrier — The second part of the Galv-Krom® finish is a gold trivalent chromium that is applied over the zinc base. This second layer of plating forms a non-porous barrier which protects the underlying zinc and adds additional resistance to corrosion. In addition, the gold trivalent chromium covering provides an excellent base if the surface is to be painted.



800.816.7809 Fax: 901.252.1354 Technical Services
Tel: 888.862.3289

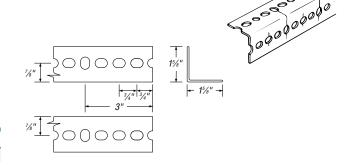




Type RA-160 Slotted Angle

- 1½" x 1½" x .080" (14 gauge)
- Designed for light-duty applications where extra strength is not a requirement
- · Ideal material for light racking and shelving
- Packaged in five 10-ft. or 12-ft. lengths complete with thirty-six ¾" x ¾" long hex head bolts and nuts
- Standard package 10' lengths: 39 lbs., 12' lengths: 48 lbs.

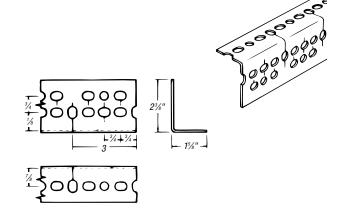
CAT. NO.	LENGTH	FT. PER PKG.	WT. PER 100 FT.
RA-160-10	10 ft.	50	75 lbs.
RA-160-12	12 ft.	60	75 lbs.



Type RA-225 — For Heavy-Duty

- 2%" x 1%" x .080" (14 gauge)
- · Wide range versatility for nearly every type of framing
- · Well suited for electrical applications
- Slot-and-hole pattern provides ready-made anchoring points for panel-board framing and fixtures of all kinds
- Packaged in five 10-ft. or 12-ft. lengths complete with thirty-six 3/6" x 5/8" long hex head bolts and nuts
- Standard package 10' lengths: 48 lbs., 12' lengths: 56 lbs.

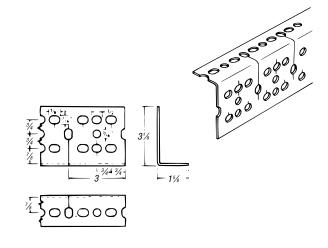
CAT. NO.	LENGTH	FT. PER PKG.	WT. PER 100 FT.
RA-225-10	10 ft.	50	93 lbs.
RA-225-12	12 ft.	60	93 lbs.



Type RA-300 — For Extra Heavy-Duty

- 31/8" x 15/8" x .104" (12 gauge)
- · Used where heavy loads are involved
- Racks and shelving for heavy material and large structures such as ramps and balconies are typical uses
- Packaged in five 10-ft. or 12-ft. lengths complete with thirty-six %" x ¾" long hex head bolts and nuts
- Standard package 10' lengths: 72 lbs., 12' lengths: 84 lbs.

CAT. NO.	LENGTH	FT. PER PKG.	WT. PER 100 FT.
RA 300 10	10 ft.	50	135 lbs.
RA-300-12	12 ft.	60	135 lbs.





United States











Nuts Serrated — For Self-Locking

- · 100 sets per package
- No. RA-BN-5/8, ³/₈"-16 x ⁵/₈" long for RA-160 and RA-225
- No. RA-BN-3/4, 3/8"-16 x 3/4" long for RA-300
- A ⁹/₁₆" wrench is only tool needed for assembly



CAT. NO.	STD. CTN.	WEIGHT PER 100 SETS
RA BN 5/8	100	4 lbs., 3/8"-16 x 5/8"
RA BN 3/4	100	5 lbs., 3/8"-16 x 3/4"

Gusset Plate

- · Three hole connector for extra rigid angle assembly
- For use with all three types of right angle

for 3-bolt connection.



CAT. NO.	STD. CTN.	WEIGHT PER 100 SETS
RA GP	25	10

Portable Cutter

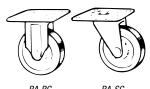
- · Designed for use with all three types of slotted angle
- Cuts with single stroke of handle
- · Produces clean, burr-free cuts



CAT. NO.	STD. CTN.	WEIGHT EACH
RA C	1	17

Rigid and Swivel Casters

- Hard rubber composition
- 31/2" diameter with load rating of 225 lbs. per wheel
- Plate has ¹³/₃₂" diameter holes for mounting on all three types of slotted angle



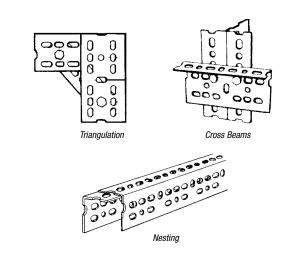
หล-หบ	หล-อบ
Rigid Center	Swivel Cas

CAT. NO.	STD. CTN.	WEIGHT EACH
RA RC	2	2
RA SC	2	3

Helpful Hints to Maximize Right Angle Erection.

Slot and Hole Pattern

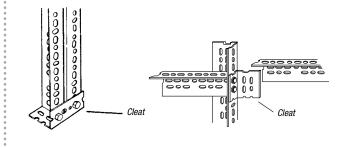
The Right Angle hole pattern is simple and flexible. It is repeated every 3" along the entire length of the Right Angle. An extended line marks the 3" increments (vertical slots), while shorter lines mark every 3/4" increment. With this hole pattern, nesting, triangulation, cross beams and many additional combinations are possible.



Cleat Sections

Cut Off Cleats are small sections of Right Angle used to reinforce joints or used as feet to support vertical columns. These feet prevent damage to floor surfaces or can be used to bolt a structure to the floor.

Additional joints can be made using cut off cleats. Simply butt the cleat against a column and behind a right side beam, as shown in the illustration.







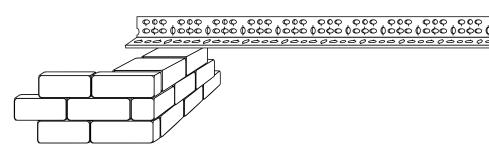


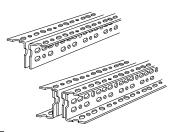


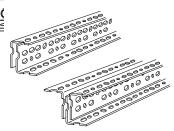
When a beam rests on a ledge of other material (such as a wall) the long flange should extend upward. Right Angle beams are at their strongest when assembled with the long flange downward. Vertical columns may be in either direction. Place short flange of vertical column in front for shelving to permit wider opening for handling material.

Variety of Combinations to Meet Needs

Greater strength is obtained by joining sections of Right Angle in various combinations for beams and columns. See the load charts on **page B-90** for the combination that best suits your need.







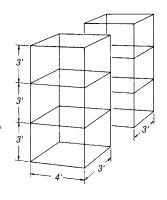
Procedure for Laying Out Structure

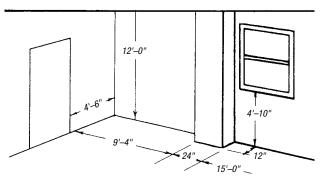
Measure the Space

Right Angle structures may be built to the size of the space available. Measure the space and make a sketch of the area.

Sketch the Planned Structure

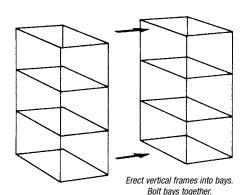
Sketch the structure you plan to build listing all vital dimensions. Include length, width and height of all sections so that load limits can be calculated safely.





Plan Flange Direction

Right Angle beams are at their strongest position with the long flange downward. Vertical uprights may be in either direction for equal strength. Be sure to measure the material to be shelved to allow space for handling. Your sketch will also be used as a cutting and assembly plan.



Assembling the Structure

Follow your plan for cutting sections and for layout. Assemble the structure as a series of frames, or bays and bolt together as units. Use as many bolts as possible and turn nuts up finger-tight. Square-up and level the entire structure. Proceed to tighten bolts with wrench, starting with corners to assure permanent squareness. Use diagonal bracing, if necessary. Add shelves. Your Right Angle structure is ready for a useful lifetime.

Plan View



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 Technical Services
Tel: 888.862.3289





Figure Load Limits

Figure the load your structure must bear on each level or shelf. This is necessary to determine the sections required to carry the load safely.

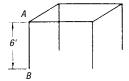
The load tables will enable you to determine the Right Angle gauge and section combination needed.

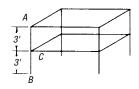
Load Limit Example for Evenly Distributed Loads

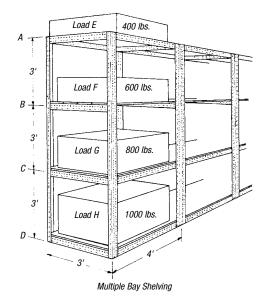
Using the sketch shown and the load tables based on a safety factor of 2.1, calculate the weight supportable by a structure with two or more shelves. A 6-ft. high single shelf structure AB will support a load of 5,200 lbs. using RA-225 Right Angle (4 single uprights x 1,100 lbs. each) from table.

When an additional shelf is framed at C, columns become the same as two 3-ft. uprights, AC and CB, and the total safe load is 10,200 lbs. on columns CB (4 x 2,550 lbs.), based on a safety factor of 2.1. This load can be divided between the shelves in any convenient way, so long as the total load on columns CB does not exceed 10,200 lbs. If shelf loads are unequal, the heavier load should go on the lower shelf to avoid top-heavy instability.

Use the same method of calculating for three or more shelves with the load tables as reference.







How to Determine Weight to Be Supported

Multiple-bay shelving is typical of many Right Angle weight-bearing structures. Load tables are your guide to the weights supportable by RA-160, RA-225 and RA-300. Strengths are increased where needed by combining sections for beams or columns, and by adding braces.

Example for Checking Load Safety

This structure is erected as 3 separate bays and bolted together, using RA-225.

Beam Load Bearing

Load E = 400 lbs. evenly distributed on two 4' beams. Refer to beam load tables for RA-225: Two 4' beams will support 1,090 lbs. — safe load.

Load F = 600 lbs. on solid shelf evenly distributes weight to two 3' beams. Refer to beam load tables: Two 3' beams will support 1,560 lbs. — safe load.

Load G = 800 lbs. on shelf supported by two 3' beams and two 4' beams. Add the 4 sections: 3+3+4+4=14 ft. Divide total load G by 14, i.e., $800 \div 14=57$ lbs. per ft.

Compute wt. on longest beam — two 4' sections, or 8 ft. Multiply 8' x 57 lbs. per ft. load = 456 lbs. supported by the two 4' beam. Refer to load tables: Two 4' beams support 1,090 lbs. — safe load. Since the 3' beams are stronger, they are also safe for the load. Load H, any load on shelf supported by beams at floor level — considered safe.

The example illustrates methods of figuring loads on three different types of shelf construction. It is not a typical bay.

It should be remembered that a safe beam load does not assure a safe structure — column load safety must also be computed.

Column Load Bearing

Four columns support load equally. Column section AB = b load E, or 100 lbs. Column section BC = b load F, or 150 lbs., PLUS b load E, 100 lbs. or 250 lbs.

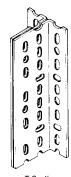
Column section $CD = b \log d$ G, or 200 lbs. PLUS 150 lbs., b load F, PLUS 100 lbs., b load E, for a total load on section CD of 450 lbs. Load H is at floor level. does not count.

Assuming a 9' high structure, the 9' column is supported at 3' intervals by ties for shelving, the 3' column section data is used. Refer to column load tables: 3 column (vertical) supports 2,550 lbs. — safe for the load.

Figures are for a free-standing, unbraced structure. Common uprights in two or more bay structures carry a double load.

See page B-90 for load tables.





Single Section

T-Section

www.tnb.com

United States
Tel: 901.252.8000
800.816.7809

Fax: 901.252.1354

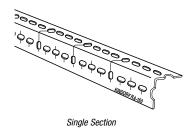
Technical Services
Tel: 888.862.3289



Column Loads

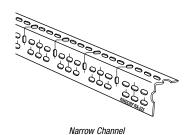
RA 160 — 14 ga. x 15/8" x 15/8"

	T-SECTION	SINGLE SECTION
3'	3,880	1,500
4'	3,500	1,200
5'	3,000	950
6'	2,500	750



RA 225 — 14 ga. x 2¾" x 1¾"

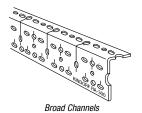
	T-SECTION	SINGLE SECTION
3'	5,550	2,550
4'	5,050	1,900
5'	4,400	1,550
6'	3,850	1,300
7'	3,400	970
8'	3,000	_
9'	2,650	_
10'	2,300	_



RA 300 — 12 ga. x 31/8" x 15/8"

	T-SECTION	SINGLE SECTION
3'	8,000	3,500
4'	7,100	2,900
5'	6,300	2,400
6'	5,550	1,800
7'	4,750	1,300
8'	4,000	1,000
9'	3,200	_
10'	2,400	_

Note: Values shown are static loads (lbs.) applied vertically to an unbraced column. Min. safety factor of 2.1. To increase load capacity columns can be reinforced with side braces cut to size.



Beam Loads

	BROAD Channel	NARROW Channel	SINGLE SECTION
3'	2,550	1,490	770
4'	1,780	1,040	530
5'	1,330	770	400
6'	1,030	600	310
7'	820	470	240
8'	590	380	_
9'	420	310	_
10'	310	230	_
3'	4,110	3,050	1,560
4'	2,870	2,130	1,090
5'	2,140	1,580	810
6'	1,660	1,230	630
7'	1,330	980	500
8'	1,080	790	410
9'	890	650	330
10'	720	540	280
3'	7,570	6,300	3,220
4'	5,290	4,400	2,250
5'	3,950	3,280	1,680
6'	3,060	2,540	1,300
7'	2,440	2,020	1,040
8'	1,990	1,650	840
9'	1,650	1,360	690
10'	1,380	1,140	580

Note: Values shown are for a pair of beams supporting an evenly distributed load (lbs.). For a concentrated load these values should be halved. Min. safety factor of 1.4. Multiple angle beams should be bolted every 6 in. with bolts staggered in alternate rows. To increase load capacity tie angles can be cut to size and bolted between beams.



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354



Tel: 888.862.3289



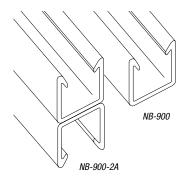


Channels

Kindorf® strut is a complete corrosion-proof system, with a comprehensive selection of channels and accessories. Cost-efficient, extremely durable, easy to use, and made of the strongest non-metallic materials available.

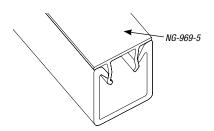
Kindorf®: Demanding products for demanding environments.

- · Can't rust under the worst of conditions
- Cost effective
- Maintenance free
- · Easy to use, cut and drill
- Ideal for a wide variety of applications
- Unsurpassed reliability



CAT. NO.	DESCRIPTION	MATERIAL	COLOR	LBS. WT./100 FT.
NB 900 10 P	1½" x 1½" x 10' Single Channel	Polyester	Gray	55
NB-900-10-V	1½" x 1½" x 10' Single Channel	Vinylester	Beige	55
NB-900-2A-10-P	3" x 1½" x 10' Back-to-Back Channel	Polyester	Gray	110
NB-900-2A-10-V	3" x 1½" x 10' Back-to-Back Channel	Vinylester	Beige	110

Channel Closure Strip



CAT. NO.	DESCRIPTION	MATERIAL	COLOR	LBS. WT./100 FT.
NG-969-5	Standard Length 5'	Rigid PVC	Dark Gray	20

Channel Simple Beam Loading Table

		NIFORM I LOAD	1/360	SPAN	MAX COLUMN - LOAD
CAT. NO.	LBS.	DEF (IN.)	LBS.	DEF (IN.)	LBS.
12 inches		_			
NB 900 10 -P	1,430	.066	723	.033	3439
NB-900-10-V	1,430	.066	723	.033	3439
NB-900-2A-10-P	4231	.036	3940	.033	7007
NB-900-2A-10-V	4231	.036	3940	.033	7007
18 inches					
NB 900 10 P	953	.148	321	.050	3136
NB-900-10-V	953	.148	321	.050	3136
NB-900-2A-10-P	2,821	.081	1751	.050	6501
NB-900-2A-10-V	2,821	.081	1751	.050	6501
24 inches					
NB 900 10 P	715	.264	180	.067	2778
NB-900-10-V	715	.264	180	.067	2778
NB-900-2A-10-P	2,115	.143	985	.067	5909
NB-900-2A-10-V	2,115	.143	985	.067	5909
30 inches					
NB 900 10 P	572	.412	115	.083	2369
NB-900-10-V	572	.412	115	.083	2369
NB-900-2A-10-P	1,692	.224	630	.083	5236
NB-900-2A-10-V	1,692	.224	630	.083	5236
36 inches					
NB 900 10 P	476	.593	80	.100	1,906
NB-900-10-V	476	.593	80	.100	1,906
NB-900-2A-10-P	1,410	.322	437	.100	4,482
NB-900-2A-10-V	1,410	.322	437	.100	4,482
48 inches					
NB 900 10 P	357	1.055	45	.133	1,091
NB-900-10-V	357	1.055	45	.133	1,091
NB-900-2A-10-P	1,057	.573	246	.133	2,809
NB-900-2A-10-V	1,057	.573	246	.133	2,809
60 inches					
NB 900 10 P	286	1.648	28	.167	698
NB-900-10-V	286	1.648	28	.167	698
NB-900-2A-10-P	846	.895	157	.167	1,798
NB-900-2A-10-V	846	.895	157	.167	1,798
72 inches					
NB 900 10 P	238	2.373	20	.200	485
NB-900-10-V	238	2.373	20	.200	485
NB-900-2A-10-P	705	1.289	109	.200	1,248
NB-900-2A-10-V	705	1.289	109	.200	1,248

Deflection in excess of 3.00 inches; midspan support is recommended.

Table lists the total allowable load for various simple spans based on a minimum

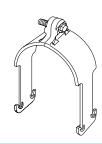
All beams should be supported in a manner to prevent rotation at supports. For beams longer than 72 inches, contact manufacturer's engineering department. Recommend sealing ends of channel with sealant after cutting.







Pipe Clamps



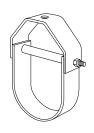
	CO	NDUIT	/PIPE S	TYLE	_		
CAT. NO.	NOMINAL In.	PVC SCH. 80	RIGID	PVC COATED METAL (TYP.)	RECOMMENDED TORQUE IN LBS.	DESIGN Load*	WT. LBS./100
NC-105-1/2	1/2	.840	.840	.920	5	100	4
NC-105-3/4	3/4	1.050	1.050	1.130	5	100	4
NC-105-1	1	1.315	1.315	1.395	5	200	4.8
NC-105-1 1/4	_	_	_	_	_	_	_
NC-105-1 1/2	11/2	1.900	1.900	1.980	5	200	6.4
NC-105-2	2	2.375	2.375	2.455	5	200	8
NC-105-3	3	3.500	3.500	3.580	20	300	10
NC-105-4	4	4.500	4.500	4.580	20	300	10
NC-105-6	6	6.625	6.625	6.705	20	300	16.3

^{*} Design load is based on pullout values with a safety factor of 3.

Material: Polyurethane.

Color: Gray.

Clevis Hangers



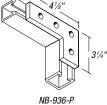
CAT. NO.	NOMINAL DIAMETER	(A) MAX PIPE OD	(B) Dimension Height	(C) Hanger Rod Size	MAXIMUM LOAD	WT. LBS./100
NC-149-1	1	1½	23/4	1/2	60	20.8
NC-149-1 1/2	11/2	2	31/2	1/2	60	24
NC-149-2	2	2 1/8	4 3/4	1/2	90	38
NC-149-2 1/2	21/2	31/4	5 ½	1/2	120	40
NC-149-3	3	31/8	7	5/8	160	62.5
NC-149-4	4	51/8	81/2	5/8	250	88
NC-149-6	6	71/8	10 1/8	5/8	400	170
NC-149-8	8	91/4	14	5/8	450	250
NC-149-10	10	113//	18	5/8	500	400
NC-149-12	12	13½	21 ½	5/8	600	550
NC-149-14	14	15¾	24 1/2	3/4	700	700
NC-149-16	16	18	27 3/8	3/4	800	1,150
NC-149-19	19	21	341/4	3/4	900	1,700

Design loads given are in pounds at 70° F with a safety factor of 3.

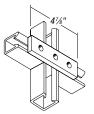
Insulate hangers from pipe at higher temperatures

Material: Polyester Color: Yellow and Gray

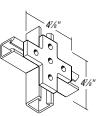
- Polyester and Vinylester Kindorf® fittings are suited for use with all 1½" and 1%" channels
- Kindorf® fittings are manufactured from 3/16" flat material
- Consult the Chemical Compatibility Chart to ensure material will withstand the specific chemical environment
- All holes in Kindorf® fittings are 13/32" in diameter



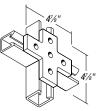
NB-936-V

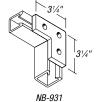




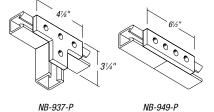


NB-947





NB-944

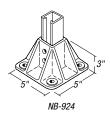


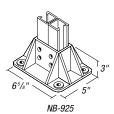


CAT. NO.	MATERIAL	COLOR	WT. LBS./100
NB-935-P	Polyester	Gray	13
NB-935-V	Vinylester	Beige	13
NB-931	Polyurethane	Gray	14
NB-947	Polyurethane	Gray	24
NB-949-P	Polyester	Gray	22
NB-936-P	Polyester	Gray	28
NB-936-V	Vinylester	Beige	28
NB-937-P	Polyester	Gray	20
NB-924	Polyurethane	Gray	56
NB-944	Polyurethane	Gray	34
NB-925	Polyurethane	Gray	70

Gray

Polyurethane







United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services** Tel: 888.862.3289

NB-918





4.6



Channel Nuts

CAT. NO.	THREAD SIZE (IN.)	MAXIMUM LOAD/LBS.	MAXIMUM Torque/ LBS.	WT. LBS./100
NB-910-3/8	3/8	450	35	1.8
NB-910-3/8 HD	3/8	1,370	100	2.6
NB-910-1/2	1/2	450	40	1.8
NB-910-1/2 HD	1/2	1,500	130	5.2
Safety factor of 3				



Material: Glass fiber reinforced polyurethane.

Color: Gray.



Hex Nuts

CAT. NO.	SIZE (IN.)	MAXIMUM LOAD/LBS.	MAXIMUM Torque/LBS.	WT. LBS./100
NH-114C	3/8	465	50	.33
NH-114-D	1/2	830	125	.8

Safety factor of 3.

Material: Glass fiber reinforced polyurethane.



Square Nuts

CAT. NO.	SIZE (IN.)	THREAD SHEAR/ LBS.	MAXIMUM Torque/ LBS.	WT. LBS./100
NH-116C	3/8	1,300	125	1.8
NH-116-D	1/2	1,600	200	2.8
NH-116-E	5/8	1,600	200	5.6

Safety factor of 3.

Material: Vinylester.

Color: Gray.

Hex Head Bolts



CAT. NO.	SIZE (IN.)	THREAD Shear/LBS.	MAXIMUM Torque/ LBS.	WT. LBS./100
NH-113-P	% x 11/4	360	30	1.4
NH-113-U	3/8 x 21/2	360	30	2
NH-113C*	½ x 1¼	600	90	1.4
NH-113-H*	½ x 2½	600	90	2

Safety factor of 3.

Material: Glass fiber reinforced polyurethane.

Color: Gray.

* With molded washer.

Channel Reinforcement Spacer



CAT. NO.	HOLE SIZE (IN.)	WT. LBS./100
NB-950	3/8—1/2	1.6
Matarial Dahmusthana		

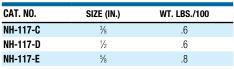
Material: Polyurethane Color: Gray

Channel Washers

CAT. NO.	SIZE (IN.)	WT. LBS./100
NH-119-C	3/8	4
NH-119-D	1/2	3.6
NH-119-E	5/8	3.6

Material: Glass fiber reinforced polyurethane.

Flat Washers



Material: Rigid PVC.

Color: Gray.

Threaded Rod

CAT. NO.	SIZE	THREAD Shear/LBS.	MAXIMUM Torque/ LBS.	WT. LBS./100
NH-193-3/8-4	3/8" x 4'	300	30	7.0
NH-193-1/2-4	½" x 4'	510	80	12
NH-193-5/8-4	%" x 4'	1,600	200	18

Safety factor of 3. Material: Vinylester.

Color: Gray.

Rod Couplers

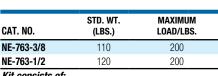
CAT. NO.	SIZE (IN.)	MAXIMUM LOAD/LBS.	WT. LBS./100
NH-195-3/8	3/8	880	6.4
NH-195-1/2	1/2	1,000	6.4
NH-195-5/8	5/8	1,700	13.2

Safety factor of 3.

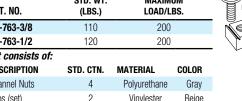
Material: Glass fiber reinforced polyurethane.

Color: Gray.

Channel to Beam Clamp Assembly



Kit consists of:			
DESCRIPTION	STD. CTN.	MATERIAL	COLOR
Channel Nuts	4	Polyurethane	Gray
Clips (set)	2	Vinylester	Beige
Polto	1	Dolyurothano	Gray







Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354







1-800-453-1692



Kindorf[®] Brush-On Fiberglass End Sealant

When fabricating Type "P" or "V" Series materials, Kindorf® Fiberglass End Sealant should be used.
After cutting or drilling the channel, interior glass fibers may fray and lose strength due to exposure to the environment. Kindorf® sealant protects the exposed glass fibers and prevents deterioration. Kindorf® sealant exceeds Vinylester (V) material in corrosion resistance.

CAT. NO.	DESCRIPTION	SIZE	WT. LBS./100
NH-600	Brush-on sealant	1 qt.	220

Kindorf® Spray-On Fiberglass End Sealant

Kindorf® Spray-On Fiberglass End Sealant provides a quick and easy corrosion-resistant coating when applied to fiberglass channel and accessories. Kindorf® Spray-On Fiberglass End Sealant is a rubberized spray which is supplied in a 12 oz. pressurized can.



CAT. NO.	DESCRIPTION	SIZE	WT. LBS./100
NH-601	Spray-on sealant	12 oz.	100

Chemical Resistance

	POLYESTER		VINYLESTER		RIGII	PVC	POLYURETHANE		
CHEMICAL	70°F	160°F	70°F	160°F	70°F	160°F	70°F	160°F	
Acetic Acid, <50%	•	•	•	•	†	†	•	_	
Acetone, <10%	†	†	†	†	_	_	_	_	
Aluminum Hydroxide	•	•	•	•	_	_	_	_	
Ammonium Hydroxide, <20%	†	†	•	150°	•	•	•	_	
Ammonium Nitrate	•	•	•	•	_	_	_	_	
Ammonium Phosphate	•	•	•	•	_	_	_	_	
Benzene	•	•	†	†	_	_	_	_	
Benzoic Acid	•	•	•	•	•	•	•	_	
Bromine, Wet Gas	†	†	•	100°	•	†	_	_	
Butylene Glycol	•	•	•	•	_	_	_	_	
Butyric Acid, <50%	•	•	•	•	_	_	_	_	
Chlorine, Dry Gas	•	•	•	•	_	_	_	_	
Chlorine, Wet Gas	†	†	•	•	_	_	_	_	
Chlorine, Liquid	†	†	†	†	_	_	_	_	
Chlorine, Water	•	•	•	•	•	•	•	_	
Chromic Acid, <5%	†	†	•	•	_	_	_	_	
Copper Chloride	•	•	•	•	•	•	•	_	
Copper Cyanide	•	•	•	•	•	•	•	_	
Copper Nitrate	•	•	•	•	_	_	_	_	
Copper Sulfate	•	•	•	•	•	•	•	_	
Esters, Fatty Acids	•	•	•	•	_	_	_	_	
Ferric Chloride	•	•	•	•	•	•	_	_	
Ferrous Chloride	•	•	•	•	_	_	_	_	
Fluoboric Acid	•	120°	•	•	•	•	•	_	
Fluosilicic Acid, <32%	†	†	•	100°	_	_	_	_	
Formic Acid, <50%	†	†	•	100°	†	†	•	_	

Recommended for use

† Not recommended for use

- No information available at this time

	POLY	ESTER	VINY	LESTER	RIGI	D PVC	POLYURETHANE		
CHEMICAL	70°F	160°F	70°F	160°F	70°F	160°F	70°F	160°F	
Gasoline, Aviation	•	†	•	•	_	_	_	_	
Hydrochloric Acid, <37%	•	†	•	•	•	•	•	_	
Hydroflouric Acid, <20%	†	†	•	100°	•	†	_	_	
Hydrogen Chloride, Wet Gas	•	†	•	•	_	_	_	_	
Hydrogen Sulfide, Wet Gas	•	†	•	•	•	•	_	_	
Lactic Acid	•	†	•	•	•	•	•	_	
Nickel Sulfate, low pH	†	†	•	•	_	_	_	_	
Nickel Sulfate, high pH	†	†	•	•	_	_	_	_	
Nitric Acid, <35%	†	†	•	120°	•	•	•	_	
Perchloric Acid, <10%	†	†	•	150°	_	_	_	_	
Phosphoric Acid	•	•	•	•	•	•	•	_	
Potassium Chloride	•	•	•	•	•	•	•	_	
Potassium Nitrate	•	•	•	•	_	_	_	_	
Potassium Persulfate	†	†	•	•	_	_	_	_	
Sodium Hydroxide, <50%	†	†	•	180°	•	•	•	_	
Sodium Hypochlorite, <15%	†	†	•	150°	•	•	•	_	
Sodium Nitrate	•	•	•	•	_	_	_	_	
Sodium Sulfate	•	†	•	•	_	_	_	_	
Sodium Sulfide	†	†	•	•	•	•	•	_	
Sulfuric Acid, <70%	†	†	•	•	•	•	•	_	
Sulfuric Acid >70%	†	†	•	102°	†	†	_	_	
Trisodium Phosphate	†	†	•	•	•	•	•	_	
Urea	•	†	•	150°	_	_	_	_	
Vegetable Oils	•	•	•	•	_	_	_	_	
Vinegar	•	•	•	•	_	_	_	_	
White Liquor	_	_	•	•	•	•	•	_	

Type operating ranges for:

Polyester -30° F-150° F Vinylester -35° F-200° F Polyurethane -40° F-130° F Nylon -20° F-150° F

Note: The guidelines presented in this table assume the typical application of Kindorf® products where exposure is limited to fumes, vapors, and occasional splashes from chemicals. This information is intended as a guideline and does not guarantee product performance for the applications listed. In special situations where chemical resistance is critical, the factory should be consulted. Some applications may require a screening test of samples in the chemical environment of interest. The user is advised to determine suitability of the product for its particular use.

Class I fire rated per ASTM E-84 and are UL-94 V-0.



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services** Tel: 888.862.3289

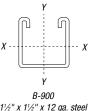


[°] Recommended up to temperature indicated



Metallic Engineering Data and Specifications

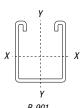
Channel Load Data



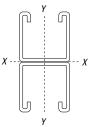
1½" x 1½" x 12 ga. steel B-900-M 11/2" x 11/2" x 14 ga. steel B-900-AL 1½" x 1½" x .1046 aluminum



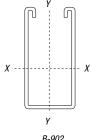
B-906 11/2" x 3/4" x 14 ga. steel



B-901 11/8" x 11/2" x 12 ga. steel



B-900-2A 11/2" x 3" x 12 ga. steel



B-902 11/2" x 3" x 12 ga. steel

				 Y-Y AXIS				
CHANNEL	AREA	LBS./FT.	1	S	R	 ī	S	R
Steel Section Properties								
Material Properties f=30,000	E=30,000,000							
B-906	.217	.740	.018	.041	.272	077	.105	.559
B-900	.521	1.776	.155	.179	.545	200	.259	.619
B-900-M	.354	1.206	.101	.123	.535	129	.175	.603
B-901	.595	2.028	.263	.251	.665	238	.309	.632
B-902	.837	2.852	.909	.552	1.042	363	.471	.658

		SIMPL	E BEAM UNIFOR	MLY DISTRIBUTED	LOAD	SIMP	SIMPLE BEAM CONCENTRATED CENTER LOAD					
SPAN	CHANNEL	MAX LOAD	DEFLECTION	1/240 SPAN LOAD	DESIGN LOAD	MAX LOAD	DEFLECTION	1/240 SPAN LOAD	DESIGN LOAD	COL. LOAD FOR K=1		
	B-906	820	.034	1,200	820	410	.027	750	410	7,337		
	B-900	3,580	.017	10,333	3,580	1,790	.014	6,458	1,790	7,628		
12"	B-900-M	2,460	.018	6,733	2,460	1,230	.015	4,208	1,230	7,625		
	B-901	5,020	.014	17,533	5,020	2,510	.011	10,958	2,510	7,660		
	B-902	11,040	.009	60,600	11,040	5,520	.007	37,875	5,520	7,699		
	B-906	547	.077	533	533	273	.062	333	273	6,852		
	B-900	2,387	.039	4,593	2,387	1,193	.031	2,870	1,193	7,507		
18"	B-900-M	1,640	.041	2,993	1,640	820	.033	1,870	820	7,499		
	B-901	3,347	.032	7,793	3,347	1,673	.026	4,870	1,673	7,579		
	B-902	7,360	.020	26,933	7,360	3,680	.016	16,833	3,680	7,665		
	B-906	410	.137	300	300	205	.109	188	188	6,172		
	B-900	1,790	.069	2,583	1,790	895	.055	1615	895	7,338		
24"	B-900-M	1,230	.073	1,683	1,230	615	.058	1,052	615	7,324		
	B-901	2,510	.057	4,383	2,510	1,255	.046	2,740	1,255	7,465		
	B-902	5,520	.036	15,150	5,520	2,760	.029	9,469	2,760	7,619		
	B-906	328	.214	192	192	164	.171	120	120	5,299		
	B-900	1,432	.108	1,653	1,432	716	.067	1,033	716	7,121		
30"	B-900-M	984	.114	1,077	984	492	.091	673	492	7,098		
	B-901	2,008	.089	2,805	2,008	1,004	.072	1,753	1004	7,319		
	B-902	4,416	.057	9,696	4,416	2,208	.046	6,060	2,208	7,560		
	B-906	273	.308	133	133	137	.246	83	83	4,231		
	B-900	1,193	.156	1,148	1,148	597	.125	718	597	6,855		
36"	B-900-M	820	.164	748	748	410	.132	468	410	6,822		
	B-901	1,673	.129	1,948	1,673	837	.103	1,218	837	7,140		
	B-902	3,680	.082	6,733	3,680	1,840	.066	4,208	1,840	7,487		

For channel with holes in bottom, multiply load by .95.

For channel with holes in bottom and sides, multiply load by .90.

For extruded aluminum channel, multiply load by .33.

Column loads calculated in accordance with ANSI Light Gauge Cold-Formed Steel Design Manual, Section 3.6.



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services** Tel: 888.862.3289





www.aboveboardelectronics.com



1-800-453-1692



Channel Load Data (continued)

		SIMPI	E BEAM UNIFORM	ILY DISTRIBUTE	D LOAD	SIMP				
SPAN	CHANNEL	MAX LOAD	DEFLECTION	1/240 SPAN LOAD	DESIGN LOAD	MAX LOAD	DEFLECTION	1/240 SPAN LOAD	DESIGN LOAD	COL. LOAD FOR K=1
	B-906	234	.419	98	98	117	.335	61	61	3,125
	B-900	1,023	.212	844	844	511	.170	527	511	6,541
42"	B-900-M	703	.224	550	550	351	.179	344	344	6,496
	B-901	1,434	.175	1,431	1,431	717	.140	895	717	6,929
	B-902	3,154	.112	4,947	3,154	1,577	.089	3,092	1,577	7,401
	B-906	205	.547	75	75	103	.437	47	47	2,392
	B-900	895	.277	646	646	448	.222	404	404	6,178
48"	B-900-M	615	.292	421	421	308	.234	263	263	6,120
	B-901	1,255	.229	1,096	1,096	628	.183	685	628	6,686
	B-902	2,760	.146	3,788	2,760	1,380	.117	2,367	1,380	7,302
	B-906	182	.692	59	59	91	.554	37	37	1,890
	B-900	796	.351	510	510	398	.281	319	319	5,767
54"	B-900-M	547	.370	333	333	273	.296	208	208	5,693
01	B-901	1,116	.290	866	866	558	.232	541	541	6,410
	B-902	2,453	.184	2,993	2,453	1,227	.148	1,870	1,227	7,189
	B-906	164	.854	48	48	82	.683	30	30	1,531
	B-900	716	.433	413	413	358	.346	258	258	5,308
60"	B-900-M	492	.457	269	269	246	.365	168	168	5,216
OU	B-900-IVI	1,004	.358	701	701	502	.286	438	438	6,101
	B-902									
		2,208	.228	2,424	2,208	1,104	.182	1,515	1,104	7,064
	B-906	137	1.230	33	33	68	.984	21	21	1,063
7011	B-900	597	.624	287	287	298	.499	179	179	4,244
72"	B-900-M	410	.658	187	187	205	.526	117	117	4,113
	B-901	837	.515	487	487	418	.412	304	304	5,387
	B-902	1,840	.328	1,683	1,683	920	.262	1,052	920	6,773
	B-906	117	1.674	24	24	59	1.339	15	15	781
	B-900	511	.849	211	211	256	.679	132	132	3,136
84"	B-900-M	351	.895	137	137	176	.716	86	86	3,022
	B-901	717	.701	358	358	359	.561	224	224	4,543
	B-902	1,577	.446	1,237	1,237	789	.357	773	773	6,429
	B-906	103	2.187	19	19	51	1.749	12	12	598
	B-900	448	1.109	161	161	224	.887	101	101	2,401
96"	B-900-M	308	1.169	105	105	154	.935	66	66	2,314
	B-901	628	.916	274	274	314	.733	171	171	3,575
	B-902	1,380	.583	947	947	690	.466	592	592	6,032
	B-906	91	2.768	15	15	46	2.214	9	9	473
	B-900	398	1.403	128	128	199	1.123	80	80	1,897
108"	B-900-M	273	1.480	83	83	137	1.184	52	52	1,828
	B-901	558	1.160	216	216	279	.928	135	135	2,825
	B-902	1,227	.738	748	748	613	.590	468	468	5,582
	B-906	82	3.417	12	12	41	2.733	8	8	383
	B-900	358	1.732	103	103	179	1.386	65	65	1,537
120"	B-900-M	246	1.827	67	67	123	1.461	42	42	1,481
	B-901	502	1.432	175	175	251	1.145	110	110	2,288
	B-902	1,104	.911	606	606	552	.729	379	379	5,080

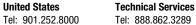
For channel with holes in bottom, multiply load by .95.

For channel with holes in bottom and sides, multiply load by .90.

For extruded aluminum channel, multiply load by .33.

Column loads calculated in accordance with ANSI Light Gauge Cold-Formed Steel Design Manual, Section 3.6.





800.816.7809

Fax: 901.252.1354

Tel: 888.862.3289







Beam Formula

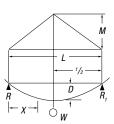
For calculating deflection and maximum safe load (Beams of uniform cross section)

- **I** = Moment of inertia, in position of load, in inches 4.
- $\mathbf{S} = \text{Section modulus} \text{in position of load I/n, in inches 3.}$
- **f** = Bending stress in extreme fiber, in pounds per square inch.
- **E** = Modulus of elasticity, in pounds per square inch.
- $\mathbf{L} = \text{Length of section, in inches.}$
- **W** = Superimposed loads supported by beam, in pounds.
- **W Max.** = Maximum safe load at point given, in pounds.
- **M** = Maximum bending moment, in inch pounds.
- **D, D1** = Deflections at points given, in inches.
- **D Max.** = Maximum deflection at point given, in inches.

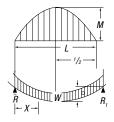
Steel and Aluminum

Modulus of Elasticity (E)

Steel — 29,500,000 pounds per square inch Aluminum — 10,000,000 pounds per square inch



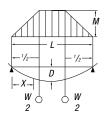
Beam supported at ends Concentrated load at center $W \max = 4fS/I$ $D \max = WI 3/48F$



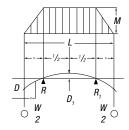
Beam supported at ends Uniformly distributed load W max = 8fS/I $D \max = 5WI .3/384FI$

Maximum Fiber Stress (f)

Steel — 30,000 pounds per square inch Aluminum — 10,000 pounds per square inch



Beam supported at ends Two symmetrical concentrated loads W max. = 2fS/a $D \max = Wa/12EI (3/4 L^2 - a^2)$



Beam continuous over two supports Two exterior symmetrical loads

W max. = 2fS/aD, distance $a = Wa(3aL-4a^2)/12EI$ D1, distance $L/2 - a = Wa(2-2a)^2/16EI$

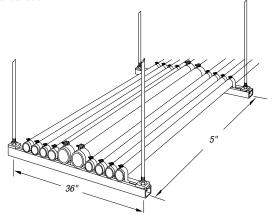
Conclusion

Referring to the load span tables on pages B-95-B-96 for B-905 channel, a 36-inch span has a uniformly distributed load rating of 1,133 lbs., which is greater than the 390 lb. load calculated above, and is therefore satisfactory.

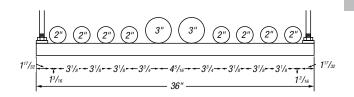
On longer spans or spans with greater loads, use B-901, B-900-2A or B-905-2A channel or provide an intermediate support.

Note on Conduit Support

The National Electrical Code® states the rigid metal conduit, intermediate metal conduit, and electrical metallic tubing shall be supported at least every 10 feet. See Article 344, Section 344.30 for exceptions for rigid metal conduit.



Design trapeze to support 8-2" rigid steel conduits and 2-3" rigid steel conduits on a No. B-905 channel span with hangers spaced five (5) feet apart.



Weight per Hanger Equals

2" rigid steel conduit with heaviest conductor combination = 6.625 lbs. per foot.

3" rigid steel conduit with heaviest conductor combination = 13.415 lbs. per foot.

weight of 2" conduits per hanger 8 x 6.625 x 5 = 265 lbs. = 2 x 13.415 x 5 = 134 lbs. = weight of 3" conduits per hanger $= 399 \, \text{lbs.} =$ weight of conduits per hanger

NEC and National Electrical Code are registered trademarks of the National Fire Protection Association, Inc.







Conduit Spacings

Spacings in inches between centers of conduits.

The light face figures are the minimum dimensions to provide clearance between locknuts. The more liberal spacings printed in bold face type should be used whenever possible.

SIZE (IN.)	1/2	3/4	1	1¼	1½	2	2 ½	3	3½	4	4 ½	5	6
1/2	13/16	_	-	-	_	_	-	-	-	-	_	-	-
	1%	-	-	-	-	-	-	-	-	-	-	-	-
3/4	15/16	11/16	-	-	-	-	-	-	-	-	-	-	-
	1½	1%	-	-	-	-	-	-	-	-	-	-	-
1	1½	1%	1¾	-	-	-	-	-	-	-	-	-	-
	1¾	11//8	2	-	-	-	-	-	-	-	-	-	-
11/4	13/4	1%	2	21/4	-	-	-	-	-	-	-	-	-
	2	2 1//8	21/4	2 ½	-	-	-	-	-	-	-	-	-
11/2	1 ¹⁵ / ₁₆	21/16	23/16	21/16	21/16	-	-	-	-	-	-	-	-
	2 1/8	21/4	2 %	2 %	2 ¾	-	-	-	-	-	-	-	-
2	23/16	25/16	2½	2¾	27/8	31//8	-	-	-	-	-	-	-
	2 %	2 ½	2 ¾	3	31//8	3%	-	-	-	-	-	-	-
21/2	21/16	21/16	23/4	3	31//8	3%	35/8	-	-	-	-	-	-
	2 5//8	2 ¾	3	31/4	3%	3%	4	-	-	-	-	-	-
3	213/16	215/16	31/16	35/16	31/16	3¾	4	45/16	-	-	-	-	-
	3	31//8	3¾	3 %	3¾	4	4 %	4 ¾	-	-	-	-	-
31/2	31/8	31/4	3%	3%	3¾	41/16	45/16	45/8	415/16	-	-	-	-
	3 %	3½	3 %	3%	4	4 %	4 5⁄/ ₈	5	5%	-	-	-	-
4	31/16	31/16	311/16	315/16	41/16	4%	45/8	415/16	51/4	5%16	-	-	-
	3¾	31/8	4	41/4	4 %	4¾	5	5%	5 %	6	-	-	-
41/2	3¾	31//8	4	41/4	43/8	45/8	47/8	51/4	5%16	51/8	61//8	-	-
	4	41/8	41/4	41/2	4 3/ ₄	5	51/4	5%	6	61/4	6½	-	-
5	41/8	41/4	43/8	45/8	43/4	5	51/4	5%16	51/8	6¾6	6½	613/16	-
	4 %	41/2	4%	41//8	5	5%	5%	6	61/4	6%	7	71/4	-
6	43/4	47/8	5	51/4	5%	5%	5%	63/16	6½	613/16	71//8	71/16	81/8
	5	51/8	51/4	5 ½	5 %	6	61/4	6 5//8	7	71/4	7 %	8	8 %



Fax: 901.252.1354

Technical Services Tel: 888.862.3289





Pipe Data

		_							
TRADE SIZE (IN.)	OUT Diai	MINAL TSIDE METER ER UL-6)	DIA OF C	TSIDE Meter Oupling Er UL-6)	CO	GHT OF NDUIT PER FT.)	MAX. WEIGHT OF CONDUIT AND CONDUCTOR (LBS. PER FOOT) NOT LEAD COVERED		
	STEEL	ALUM.	STEEL	ALUM.	STEEL	ALUM.	STEEL	ALUM.	
1/2	.840	.840	1.010	1.078	.790	.274	1.040	.524	
3/4	1.050	1.050	1.250	1.328	1.050	.364	1.760	1.074	
1	1.315	1.315	1.525	1.563	1.530	.530	2.695	1.695	
11/4	1.660	1.660	1.869	1.953	2.010	.696	3.975	2.661	
1½	1.900	1.900	2.155	2.219	2.490	.822	5.000	3.332	
2	2.375	2.375	2.650	2.750	3.320	1.157	6.625	4.462	
21/2	2.875	2.875	3.250	3.281	5.270	1.825	9.460	6.015	
3	3.500	3.500	3.870	3.812	6.830	2.389	13.415	8.974	
3½	4.000	4.000	4.500	4.438	8.310	2.877	16.690	11.257	
4	4.500	4.500	4.875	5.000	9.720	3.400	20.410	14.090	
5	5.563	5.563	6.000	6.219	13.140	4.654	29.350	20.864	
6	6.625	6.625	7.200	7.313	17.450	6.120	41.910	30.580	

		INTERMEDIATE ME	TAL CONDUIT (IMC)	T	IT)		
TRADE SIZE (IN.)	NOMINAL OUTSIDE DIAMETER (IN. PER UL)	OUTSIDE DIAMETER OF COUPLING (IN. PER UL)	WEIGHT OF CONDUIT (LBS. PER FOOT)	MAX. WEIGHT OF CONDUIT AND CONDUCTOR (LBS. PER FT.)	NOMINAL OUTSIDE DIAMETER (IN.)	WEIGHT OF EMT (LBS. PER FT.)	MAX. WEIGHT OF EMT AND CONDUCTOR (LBS. PER FT.)
1/2	.815	1.010	.6	.850	.706	.285	.538
3/4	1.029	1.250	.8	1.530	.922	.435	1.160
1	1.290	1.525	1.1	2.325	1.163	.640	1.825
11/4	1.638	1.869	1.5	3.465	1.510	.950	2.950
11/2	1.883	2.155	1.8	4.330	1.740	1.100	3.674
2	2.360	2.650	2.4	5.725	2.197	1.400	4.436
21/2	2.857	3.250	4.2	8.470	2.875	2.050	6.400
3	3.476	3.870	5.2	11.845	3.500	2.500	9.262
31/2	3.971	4.500	6.1	14.500	4.000	3.400	12.100
4	4.466	4.875	6.8	17.510	4.500	3.700	15.355

Fax: 901.252.1354



Column Loading-Structure Channel Maximum Load in Pounds — Column Loading

COLUMN	TVDE OF	MAY COLUMN -	N	UMBER OF TIE	RS OR BRACE	S PER COLUM	IN
HEIGHT (FT.)	TYPE OF CHANNEL	MAX COLUMN - LOADING (LBS.)	1	2	3	4	5
	B-900	8,625	2,590				
1	B-900-2A	17,400	4,450				
	B-906	4,170	1,280				
	B-906-2A	8,570	2,160				
	B-900	7,900	2,520	2,000			
2	B-900-2A	16,500	4,400	3,650			
	B-906	3,450	1,200	980			
	B-906-2A	7,840	2,100	1,720			
	B-900	6,960	2,420	1,960	1,780		
3	B-900-2A	15,000	4,300	3,520	2,960		
	B-906	2,250	1,015	950	795		
	B-906-2A	6,680	2,020	1,700	1,435		
	B-900	5,970	2,280	1,910	1,640	1,360	
4	B-900-2A	13,095	4,100	3,480	2,930	2,520	
	B-906	1,270	755	895	775	670	
	B-906-2A	4,980	1,830	1,660	1,420	1,230	
	B-900	5,055	2,140	1,850	1,560	1,340	1,180
5	B-900-2A	11,490	3,950	3,420	2,900	2,500	2,210
	B-906			830	745	650	575
	B-906-2A	3,340	1,550	1,610	1,400	1,215	1,075

COLUMN	TVDF 05	MAN 001 11MM -	NUMBER OF TIERS OR BRACES PER COLUMN									
HEIGHT (FT.)	TYPE OF Channel	MAX COLUMN - LOADING (LBS.)	1	2	3	4	5	6	7	8	9	10
6	B-900-2A	9,990	3,750	3,340	2,870	2,480	2,190	1,960				
	B-906			700	710	635	565	505				
	B-906-2A	2,170	1,240	1,550	1,370	1,205	1,065	955				
	B-900	3,645	1,840	1,720	1,490	1,310	1,140	1,025	925			
7	B-900-2A	8,715	3,550	3,240	2,820	2,470	2,170	1,945	1,760			
	B-906			520	635	610	550	495	450			
	B-906-2A			1,450	1,330	1,180	1,050	945	860			
	B-900	3,045	1,670	1,650	1,460	1,290	1,130	1,015	920	835		
8	B-900-2A	7,395	3,180	3,140	2,780	2,450	2,160	1,930	1,750	1,600		
	B-906			470	605	590	535	490	445	410		
	B-906-2A			1,330	1,290	1,160	1,040	935	850	780		
	B-900	2,580	1,520	1,570	1,430	1,260	1,120	1,000	905	825	760	
9	B-900-2A	6,190	3,030	3,040	2,730	2,420	2,140	1,920	1,745	1,595	1,465	
	B-906			130	535	555	525	485	435	400	370	
	B-906-2A			1,200	1,250	1,150	1,020	930	840	775	715	
	B-900	2,100	1,340	1,500	1,380	1,230	1,110	990	900	820	755	700
10	B-900-2A	5,580	2,900	2,940	2,665	2,380	2,135	1,910	1,730	1,580	1,460	1,350
	B-906				470	520	500	465	430	395	365	340
	B-906-2A			1,160	1,190	1,120	1,010	915	835	770	710	660

This table recognizes eccentricity on the column caused by usual connections.



United States Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354

Technical Services Tel: 888.862.3289





Examples for Using the Continuous Run **Load Chart for Channel**

Example Number 1

A total load of 500 lbs. is to be supported in an evenly distributed manner over a distance of 28 feet with the maximum deflection being not greater than 1/240 of the span between the supports.

Which Kindorf® channel should be used and how many supports are needed? On the chart, find the point of intersection for a total load of 500 lbs. and a total run of 28 feet.

Pick the next graph line vertically above this point. This B-900 or G-975 with 4 supports (4B) evenly spaced. By reading horizontally to the left from this point, it can be seen that up to 565 lbs, can be supported on B-900, (G-975) under these conditions and still maintain a deflection of 1/240 of the span.

Example Number 2

Four foot fixtures weighing 30 lbs. each are to be attached to a channel suspended from a ceiling in a continuous 20-foot run and maintain a deflection of less than ½40 of the span between the supports.

Which Kindorf channel should be used and how many supports are needed?

Number of fixtures =
$$\frac{20 \text{ ft.}}{4 \text{ ft./fixture}} = 5 \text{ fixture}$$
Total Load = 5 fixtures x $\frac{30 \text{ lbs.}}{\text{fixture}} = 150 \text{ lbs.}$

On the chart, find the point of intersection for a total load of 150 lbs. and a total run of 20 feet.

Pick the next graph line vertically above this point. This is B-900-M (G-975-M) with 3 supports (3A) - one support on each end and one in the center of the run.

Example Number 3

A 20-foot run of B-901 or G-965 is supported by 3 hangers, one on each end and one in the center. How much evenly distributed weight can this system support and maintain a maximum deflection of 1/240 of the span between the supports?

On the chart, find the point of the intersection for a total run of 20 feet and the graph line for B-901 (G-965) with 3 supports (3C).

From this point, read horizontally to the left to find the total uniform load of 690 lbs. on the vertical scale.

Selection of Hanger Rods

USE H-193-3/8 OR 'R' SERIES HANGER ROD FOR	IF THE TOTAL UNIFORM LOAD IS	USE H-193-1/2 OR 'R' SERIES Hanger Rod For	IF THE TOTAL UNIFORM LOAD IS BETWEEN
2 supports	1220 lbs. or less	2 supports	1220 lbs. and 2260 lbs.
3 supports	975 lbs. or less	3 supports	975 lbs. and 1810 lbs.
4 supports	1665 lbs. or less	4 supports	1665 lbs. and 3080 lbs.

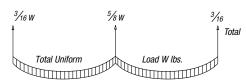
Load Distribution on Hanger Rods

2 Supports



Example – If the total uniformly distributed load W is 1,000 lbs., each hanger must be capable of supporting half of the load or 500 lbs. Therefore, H-193-3/8 or c 'R' series hanger rod would be sufficient to support this load.

3 Supports

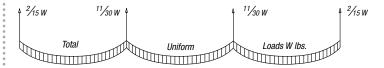


Total Uniform Load W lbs

Maximum Safe Load - H-193-3/8 or 'R' Series - 610 lbs. H-193-1/2 or 'R' Series - 1130 lbs. per hanger rod

Example – If the total uniformly distributed load W is 1,000 lbs., the load is distributed to each support in the following manner: 187d lbs. to each end support and 625 lbs. to the center support. In this case, the maximum load to be supported is 625 lbs., which exceeds the recommended safe load of 610 lbs. for H-193-3/8 hanger rod., therefore H-193-1/2, or d'R' series supports should be used.

4 Supports



Example – If the total uniformly distributed load W is 1,000 lbs., the load is distributed to each support in the following manner: 133 lbs. to each end support and 367 lbs. to each inner support. Therefore, H-193-3/8, or c 'R' series hanger rod would be sufficient to support this load.



Kindorf® Channel Bars — Load Deflection Charts

Concentrated Center Loads

CAT. NO.	BEAM SPAN (IN.)	LOAD AT 25,000 PSI STRESS (LBS.)	DDEFLECTION AT 25,000 PSI STRESS (LBS.)	LOAD AT MAX. DEFLECTION OF ½40 SPAN (LBS.)
6013	12	55	.038	55
6014		34	.048	34
6029		180	.023	180
6029-H		175	.024	175
6013	24	27	.153	18
6014		17	.192	9
6029		89	.093	89
6029-H		87	.095	87
6013	36	18	.345	8
6014		11	.433	4
6029		59	.208	42
6029-H		57	.213	40
6013	48	13	.615	4
6014		8	.773	2
6029		43	.367	23
6029-H		42	.375	22
6013	60	11	.963	2
6014		6	1.216	1
6029		34	.550	14
6029-H		33	.581	13

Loads for lengths greater than 60" spans are available on request.

Uniformly Distributed Loads

CAT. NO.	BEAM SPAN (IN.)	LOAD AT 25,000 PSI STRESS (LBS.)	DDEFLECTION AT 25,000 PSI STRESS (LBS.)	LOAD AT MAX. DEFLECTION OF ½40 SPAN (LBS.)
6013	12	110	.049	110
6014		68	.060	57
6029		361	.029	361
6029-H		350	.030	350
6013	24	55	.194	28
6014		34	.238	14
6029		180	.117	154
6029-H		174	.119	146
6013	36	36	.437	12
6014		22	.536	6
6029		119	.263	67
6029-H		115	.268	64
6013	48	27	.776	6
6014		16	.953	3
6029		88	.467	37
6029-H		86	.477	35
6013	60	21	1.213	4
6014		13	1.490	1
6029		70	.729	22
6029-H		68	.746	21

Loads are rounded off to the nearest pound in all cases.





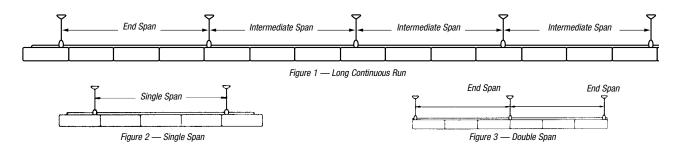
1-800-453-1692







To Select Proper Channel



The hanger spacing is often determined by the type of building construction. The deflection then will determine the proper channel since this deflection should not exceed $\frac{1}{240}$ of the span.

To estimate the deflection at the center of an intermediate span in long continuous runs (**Figure 1**), multiply the weight of a single fixture times the

applicable deflection constant (from table). This deflection also applies to the end span in Figure 1 and the single span in **Figure 2** if the dimension "C" is between $\frac{1}{4}$ and $\frac{1}{3}$ of the length of the span. If a cantilever does not exist as in the double span (**Figure 3**), the deflection of end spans (**Figure 3**) will be doubled.

Deflection Constants for Continuous Run, 4-Foot Fixtures*

	B-906	B-900-M		B-900	B-901		B-902
SPAN FEET	G-956	G-975-M	G-953	G-975	G-950, G-965	B-900-2A	G-955
6	.004	.000	.000	.000	.000	.000	.000
8	.009	.002	.001	.000	.000	.000	.000
10	_	.005	.004	.003	.001	.000	.000
12	_	.010	.007	.006	.004	.001	.001
14	_	_	_	.012	.007	.002	.002
16	_	_	_	.020	.011	.004	.004
18	_	_	_	_	.018	.007	.006
20	_	_	_	_	_	.010	.009

^{*} For 8-foot fixtures reduce the deflection constant by 50%. This table is for normal weight fixtures — the constant ".000" infers negligible deflection.

A long, continuous run of 30 lb. 4-foot fixtures on G-975 channel is supported on 12' centers. The deflection at the center of an intermediate span will be the deflection constant (.006) times the fixture weight (30 lbs.) or .18 inches.



800.816.7809

Fax: 901.252.1354

Tel: 888





Suggested Kindorf® Specifications

I. For purposes of designating type and quality for work in this section, drawings and specifications are based upon products of standard Kindorf® product drawings. Whenever substitute products are to be considered, supporting technical literature, samples, drawings, and certified performance data must be submitted in order to make a valid comparison of products involved.

II. Materials

Steel channel sections shall be rolled from AISI 1008 commercial grade steel and be in conformance with ASTM A569-72.

Aluminum channel sections shall be extruded from 6063-T6 aluminum alloy and be in conformance with ASTM-B221-80.

III. Construction

A. Channel and Accessories for Support Systems.

The cross sectional width dimension of the channel shall be a minimum of $1\frac{1}{2}$ ". The depth will be as required to satisfy the load requirements. Channel with $1\frac{1}{2}$ " depth or greater shall be rolled from Manufacturing Std. 12 gauge steel. Channel smaller than $1\frac{1}{2}$ " may be Manufacturing Std. 14 gauge.

Attachment holes, when required, shall be factory punched on hole centers equal to the channel cross sectional width dimension and shall be a maximum of $\%_6$ " in diameter.

Channel attachment nuts shall be designed to prelocate in the channel and provide a bearing surface on the turned down lips while making positive contact with the side walls of the channel.

Straps for the support of conduit shall be designed such that the attachment nut is captivated on the shoulder of the strap when tightened, and the attachment bolt will allow tightening by either a slot-head screwdriver or wrench.

All nuts, bolts, straps, threaded rod and edges of punched holes shall be protected with the same finish as the channel as described in the FINISH section of this specification.

B. Channel and Accessories for Surface Raceway Systems.

Fluorescent fixtures, as designated on the drawings and according to the fixture schedule, shall be supported and supplied through a combination raceway and support system.

The cross sectional width dimension of the channel shall be a minimum of $1\frac{1}{2}$ ". The depth will be as required to satisfy the load and wire carrying requirements.

The supporting channel shall have ½" diameter knockouts on 6" centers to accommodate ½" conduit fittings, and be listed by Underwriters' Laboratories Inc. as complying with Std. UL-5 for use as surface raceway and support for electric discharge type lighting fixture. The channel must also provide for ground continuity.

The combination raceway and support system shall be complete with channel joiners, end caps, closure strips, hangers, wiring entrance and all necessary fittings for electrical and mechanical connections.

When splicing or joining raceway channel at 90 degree angles, the joiners shall be designed such that they are concealed and fastened to the inside surface of the channel. Joiners shall be listed by Underwriters' Laboratories Inc. and allow wires to be directly laid in place.

All channel and fittings, including threaded components, shall be protected against corrosion as outlined in the finish section of this specification.

Installation of the system shall be in accordance with the National Electrical Code®, NFPA 70 and ANSI C1.

IV. Galv-Krom® Trivalent Finish

The finish on steel components shall consist of a combination of .0005 inch electrogalvanizing on steel in accordance with ASTM B633-78 Type LS coating and a gold Trivalent barrier formed on the zinc. This coating shall be applied after factory fabrication of the material.

When tested in accordance with ASTM B117-73 procedure, there shall be no sign of red rust after 1,000 hours of testing. Certified test results to support this must be submitted upon request.

Warning: Load tables, charts and design criteria provided in this catalog are intended as guides only. Selection of proper product, installation intervals, erection and placement are the responsibility of the user.

Kindorf® products are intended to be used for the support and bracing of fixtures, cable, pipe and conduit. Improper use or installation may result in injury to persons or damage of property.

Material and finish specifications are subject to change without notice.

NEC and National Electrical Code are registered trademarks of the National Fire Protection Association, Inc.



United States
Tel: 901.252.8000
800.816.7809
Fax: 901.252.1354

Technical Services
Tel: 888.862.3289



Superstrut°

Superstrut[®] Metal Framing System





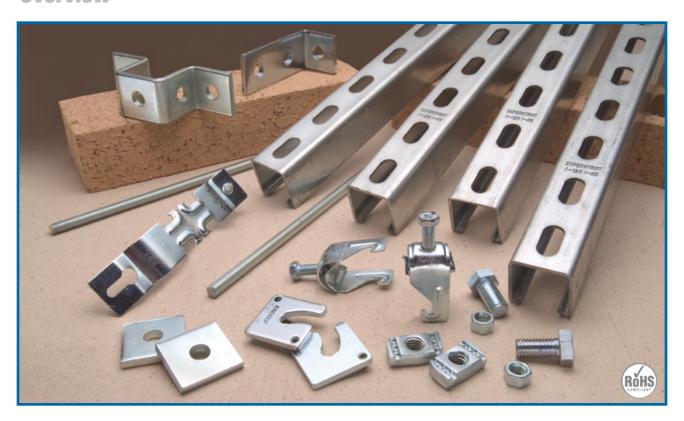
Superstrut® Metal Framing System

Overview	B-106–B-109
Channels	B-110–B-111
Threaded Products and Hardware	B-112–B-117
Fittings and Brackets	B-118–B-125
Concrete Inserts	B-126-B-127
Beam Clamps	B-128-B-135
Pipe Straps, Conduit Clamps and Hangers	B-136-B-182
Surface Raceway and Lighting Systems	B-183–B-187
Slotted Angle Metal Framing	B-188–B-189
Special Metals and Finishes	B-190-B-198
Technical Information	B-199-B-220





Overview



New Trivalent GoldGalv® Finish Is RoHS Compliant

Thomas & Betts is proud to introduce the new and improved Trivalent GoldGalv® finish. GoldGalv® finish is a combination of .5 mils electro-plated zinc and a gold Trivalent Chromium finish.

- Gold Trivalent Chromium Finish The new GoldGalv® finish features a Trivalent Chromium formulation that provides all the features and protection of Hexavalent Chromium (CR VI) without the use of this chemical compound. Hexavalent Chromium is restricted by some standards such as the European Union directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS).
- RoHS Compliant One great feature for the new Trivalent Chromium formulation is RoHS compliance. Because Hexavalent Chromium is a substance that is restricted by RoHS, moving away from a Hexavalent formulation to the new Trivalent formulation will make the performance of GoldGalv® coating available to customers affected by RoHS and other standards like RoHS around the world.
- Trivalent GoldGalv® Finish Is OSHA Safe The Hexavalent formulation of the GoldGalv® finish is safe with regard to the revised 2006 OSHA standard. This new Trivalent formulation of the GoldGalv® finish does not contain any Hexavalent Chromium and therefore does not fall under the scope of the OSHA standard at all. As a result, the new Trivalent GoldGalv® finish, just like the Hexavalent GoldGalv® finish, is OSHA compliant.
- ASTM B633 Specification The improved GoldGalv[®] finish is applied in compliance with ASTM B633 coating, the same standard as used previously. This standard outlines electro-deposited coatings of zinc on steel.





Fax: 901.252.1354

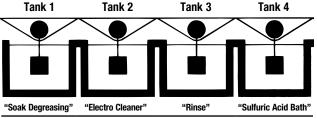
Overview

Finishes

GoldGalv®

The standard GoldGalv® finish is made up of a multi-step zinc electrogalvanizing process. The Trivalent Chromium finish is applied over the zinc, producing a chemically bonded non-porous barrier for protection from moisture and air. The .5 mil electro-plated zinc and gold Trivalent Chromium finish provides all of the features and protection of Hexavalent Chromium without the use of the chemical.



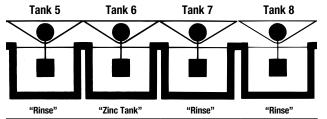


Chemical solution removes bulk of oil and grease buildup.

The metal is negatively charged to remove minute surface particles.

Live, clear water rinse.

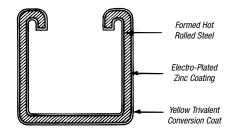
ar Prepares the metal se. by etching the surface for the zinc application.

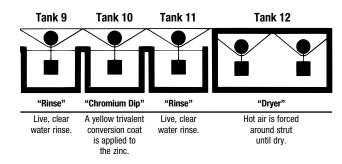


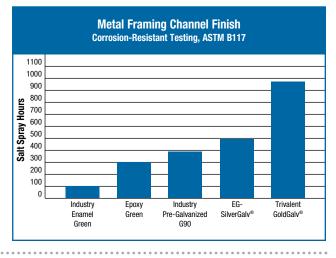
Live, clear water rinse.

Electrically applies the zinc metal coating. Chemically treated rinse water.

Live, clear water rinse.







www.tnb.com

United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services** Tel: 888.862.3289



Overview

Outperforms the Competition Superstrut® SilverGalv®

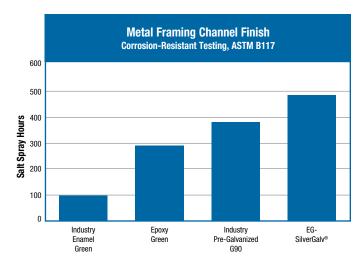
The Superstrut® SilverGalv® finish is a post-fabrication, 12-step electrogalvanizing process that applies a clear conversion coat over .5 mils of zinc. This process provides a strong, cohesive molecular bond that locks out moisture and superior corrosion resistance over standard G90 pre-galvanized channel.

- No More White Rust With pre-galvanized struts, a common quality issue is the formation of white rust on the zinc finish. With SilverGalv®, a clear conversion coat is applied over the zinc to seal it and stop the formation of white rust.
- Strong Abrasion Resistance The SilverGalv® finish won't chip or peel like a green painted strut product. It stands up to rough handling.
- Superior Corrosion Protection One hallmark of the SilverGalv® finish is the superior corrosion protection it provides. In the ASTM B117 salt spray test, the new SilverGalv® finish provided improved protection as compared to painted finishes or G90 Pre-Galvanized. This outstanding corrosion protection means more versatile installations and more service life for SilverGalv® finished products.
- Punched Holes and Cut Ends Are Protected Unlike a pre-galvanized finish where bare steel holes and cuts have no corrosion protection, SilverGalv® protects every portion of the strut. Because the SilverGalv® finish is applied after fabrication, all punched holes and cut ends share a consistent quality with the rest of the material even after cutting or fabricating. SilverGalv® will continue to protect with it's sacrificial zinc process.
- Paintable Surface The new SilverGalv® finish provides a non-porous and non-crystalline surface. Not only does this feature provide enhanced corrosion protection, but also provides an excellent bond for the paint of your choice.
- **Clean Finish** SilverGalv® ensures a finished product that leaves no residue on your hands. In the SilverGalv® process, a zinc finish is applied after fabrication. As a result, all of the oil and grime that accumulates during manufacturing gets thoroughly cleaned off during the plating process.
- **Great Electrical Conductivity** Unlike paint or enamel, the SilverGalv® surface offers a minimum of electrical resistance, so electrical applications are easily grounded when grounding is needed.



Complete Offering of SilverGalv® Fittings and Accessories

Mismatched strut assemblies are a thing of the past with Superstrut SilverGalv. With a complete line of channel, hardware, fittings, hangers and pipe straps, all components have the same electrogalvanized finish for consistent performance and uniform aesthetics.



Fax: 901.252.1354





Overview

Finishes (continued)

GoldGalv®

The standard GoldGalv® finish is made up of a multi-step electrogalvanizing and zinc trivalent chromium process. The trivalent chromium finish is applied over the zinc, producing a chemically bonded non-porous barrier for protection from moisture and air. The .5 mil electro-plated zinc and gold trivalent chromium finish provides all of the features and protection of hexavalent chromium without the use of the chemical.

SilverGalv® (Suffix EG)

Often referred to as "zinc plated" or "electroplated zinc," the steel and .5 mils of zinc are bonded by an electrolysis process. This is the identical process used in the Superstrut Goldgalv® finish without the numerous benefits of the gold-colored trivalent chromium conversion coat (see GoldGalv® finish for more information). Electrogalvanizing is most commonly applied to small fittings, hardware and threaded products.

Green or White Urethane Powder Coated (Suffix GR or WH)

Urethane powder resins are applied electrostatically to the steel after fabrication. Once the material is completely covered with the powder-form urethane, it proceeds through a 400° baking process for ten minutes, creating a chemical bond. This results in a minimum of 1.5 mil thickness of urethane coating, providing excellent resistance to chipping or peeling.

Pregalvanized (Suffix PG)

A zinc coating is applied by hot-dipping the steel coil at the mill prior to fabrication. Once the material is worked by roll-forming, cutting or punching, minimal protection is provided for raw edges. This weakness is typical with precoated material and affects the channel section around holes, extreme ends and the edges of the "U" shape lips. Superstrut pregalvanized material is in conformance with ASTM A-525/G-90 specification standards, representing 0.90 ounces of zinc per square foot of steel. This finish is often referred to as "hot-dipped mill galvanized" or "mill galvanized."

Hot-Dipped Galvanized (Suffix HDG)

The material is zinc coated after fabrication, providing total product protection on all surfaces. The fabricated channel or fitting is suspended and then dipped into tanks of hot zinc for a prolonged period, creating a coherent bond. The result is superior corrosion resistance as compared to pregalvanized material. Hot-dipped galvanizing is not recommended for threaded products, because the thickness of the zinc coating will often disrupt the threads. Superstrut hot-dipped galvanized is in conformance with ASTM Specifications A-123 (formerly A-386) and A-153. Superstrut channels maintain a minimum 1.5 ounces of zinc per square foot of steel or 2.5 mils (ASTM A-123, Thickness Grade 65). This finish is also referred to as "hot-dipped galvanized after fabrication."

PVC Coated (Suffix PVC)

A polyvinyl chloride (PVC) plastic coating is fused to the channel, fitting or accessory after fabrication by immersing the part in fluidized PVC tanks. The fused-melt mixed powder PVC coating thickness is 15 mils (.015") plus or minus five mils. PVC material is a thermoplastic and will soften in high temperature. An inherent weakness with PVC coatings occurs when field alterations are applied, such as cutting or drilling. These acts disrupt the sealed PVC product and warrant field touch-up. Thomas & Betts cannot be held responsible for field-altered PVC coated products.

Copper Plated ("T" inserted as the second digit of the part number; Example: CTL-710-2)

Plain steel proceeds through a series of rinse tanks to clean the material surface. Once cleaned, the fabricated part is etched by dipping into an acid pickle bath to prepare the surface for adhesion. Copper is electrically applied by submerging in a copper bath. To seal the finish, the product continues to a sealer tank and is then dried by forced hot air.

Black (Suffix B)

A black finish is raw steel with only a light oil finish as supplied by the steel manufacturer. There is no protection against red rust.

Stainless Steel (Suffix SS)

Superstrut channel is supplied in type 304 stainless steel when required. Type 316 stainless steel may be available upon request.

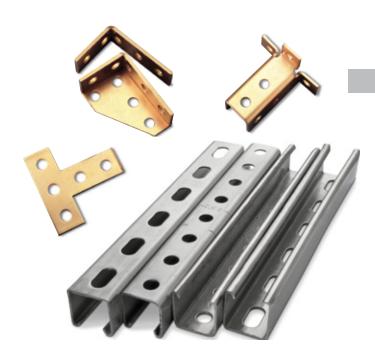
Aluminum (Suffix AL)

Superstrut channel and hardware are available in aluminum.

Warning: Load tables, charts and design criteria provided in this catalog are intended as guides only. Selection of proper product, installation intervals, erection and placement are the responsibility of the user.

Superstrut® products are intended to be used for the support and bracing of fixtures, cable, pipe and conduit. Improper use or installation may result in injury to persons or damage of property.

Material and finish specifications are subject to change without notice.





United States

Tel: 901 252 8000

Fax: 901.252.1354

800.816.7809

Channels

Standard Channels

Material

Channels are cold formed from hot-rolled pickled and oiled strip steel.

Material Thickness

All Series 1200 12 gauge material All Series 1400 14 gauge material

Standard Lengths

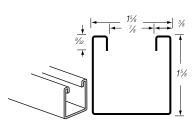
Standard lengths for channel are 10 ft. and 20 ft.

Standard length tolerance $\pm \frac{1}{8}$ ".

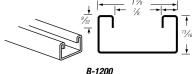
Shorter lengths are available at a small cutting charge.

GoldGalv® hardware finish is standard for all Superstrut products. This is a multi-process finish of electro-plated zinc, followed by gold colored trivalent chromium to give excellent corrosion resistance and superior paint base. See pages B-106-B-107 for a complete description of the GoldGalv® hardware finish. GoldGalv® hardware will be furnished if no other finish is specified.

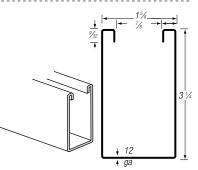




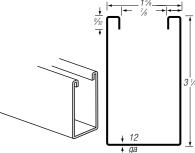
A-1200 Channel available in Solid, Half Slot, Punched, Slotted and Knockout configurations. Wt./Ft. 1.90 lbs.



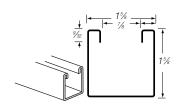
Channel available in Solid, Half Slot, Punched and Slotted configurations. Wt./Ft. 1.28 lbs.



H-1200 Channel available in Solid, Half Slot and Punched configurations.



Wt./Ft. 3.05 lbs.



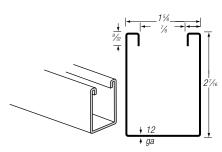
C-1200

Channel available in Solid, Half Slot

and Punched configurations.

Wt./Ft. 1.70 lbs.

A-1400 Channel available in Solid. Half Slot. Punched. Slotted and Knockout configurations. Wt./Ft. 1.40 lbs.



E-1200 Channel available in Solid, Half Slot and Punched configurations. Wt./Ft. 2.47 lbs.

Channel available in Solid, Half Slot, Punched and Slotted configurations. Wt./Ft. 0.90 lbs.



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354

Technical Services



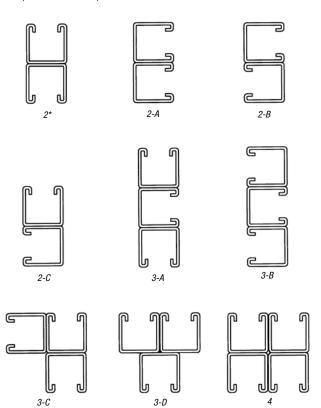




Channels

Superstrut® Channels — Welding Combinations

Multiple channels are spot welded on 3" centers.



How to Order

10 and 20 ft. lengths — steel. Special lengths may be ordered. Replace the 3 last digits of the regular channel catalog number

Examples:

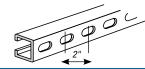
Two A-1200 channels back to back are ordered as A-1202. Two A-1200 channels back to side are ordered as A-1202-C.

with the designation of the desired combination.

Specify desired finish or material.

*"A" and "B" Series back-to-back combinations are joined using Thomas & Betts' steel rivet joining process. The riveted channel is offered in standard GoldGalv®, stainless steel, painted, pre-galvanized and hot-dip galvanized finishes.

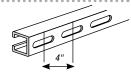
Hole Configurations **Half-Slot Channel**



			STD.
CAT. NO.	DIM. (IN.)	GA.	CTN.
A-1200-HS	1% x 1%	12	*
B-1200-HS	15/8 x 13/16	12	*
C-1200-HS	1% x 1%	12	500
E-1200-HS	1% x 21/16	12	500
H-1200-HS	15/8 x 31/4	12	*
A-1400-HS	1% x 1%	14	*
B-1400-HS	15/8 X 13/16	14	500
* / !!			

% x 11/8" slots on 2" centers.

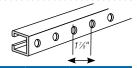
Slotted Channel



CAT. NO.	DIM. (IN.)	GA.	STD. CTN.
A-1200-S	1% x 1%	12	*
B-1200-S	15/8 X 13/16	12	*
A-1400-S	1% x 1%	14	*
B-1400-S	15/8 X 13/16	14	*

7/16" x 3" slots on 4" centers.

Punched Channel

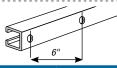


CAT. NO.	DIM. (IN.)	GA.	STD. CTN.
A-1200-P	1% x 1%	12	500
B-1200-P	15% x 13/16	12	500
H-1200-P	1% x ¹³ / ₁₆	12	500
A-1400-P	1% x 1½	14	500
B-1400-P	15% x 13/16	14	500

% holes on 1% centers.

Available in 10 & 20 ft. lengths.

Channel with Knockouts



CAT. NO.	DIM. (IN.)	GA.	STD. CTN.
A-1200-K0	1% x 1%	12	*
A-1400-K0	1% x 1%	14	*

KO for 1/2" conduit

Please consult your local T&B representative.

Standard Finish - GoldGalv® brand.











^{*} Standard lengths 10 ft. and 20 ft. for standard cartons. Please consult your local T&B representative.

^{*} Standard lengths 10 ft. and 20 ft. for standard carton. Please consult your local T&B representative.

Threaded Products and Hardware

Trapnut® Strut Fastener

The unique scissor action of the Trapnut® Strut Fastener closes at any desired position on the threaded rod. Once closed, precision threads trap the threaded rod for a sturdy hold that can be adjusted up or down for fine-tune positioning. While the versatile Trapnut has a locking pin that holds it in the desired position, it can also be removed and reused.



Standard method using nuts and washers.

Unlike a hex nut, there is no need to thread the Trapnut® from either end of the rod, saving valuable time on the job. While the Trapnut® Strut Fastener is a time-saver for new construction, it is invaluable for retro-fit applications. Rather than disassembling an existing trapeze to run additional conduit above it, the Trapnut® fastener can be clamped between the existing trapeze and the beam clamp for a speedy retro-fit solution. It's ideal for applications where the rod ends are not accessible.

The Trapnut® fastener has a sturdy steel construction that is load bearing, so you can be confident of a solid installation. And, the Trapnut® fastener functions as a hex nut, square washer and flat washer combined, so there are fewer parts to keep up with on the job.



New method using Trapnut® Strut Fastener.



CAT. NO. H 122 3/8 Trapnut® Strut Fastener GoldGalv®



CAT. NO. H 122 3/8 EG Trapnut® Strut Fastener SilverGalv®

CAT. NO.	DESCRIPTION	SIZE (IN.)	DESIGN Load LBS.	STD. CTN.
H 122 1/4	1/4" GoldGalv®	1/4	150	50
H 122 3/8	3%" GoldGalv®	3/8	590	50
H 122 1/2	½" GoldGalv®	1/2	1,080	50
H 122 1/4 EG	1/4" SilverGalv®	1/4	150	50
H 122 3/8 EG	3%" SilverGalv®	3/8	590	50
H 122 1/2 EG	1/2" SilverGalv®	1/2	1,080	50
H 122 1/4 SS6	1/4" Type 316 Stainless Steel	1/4	150	50
H 122 3/8 SS6	3/8" Type 316 Stainless Steel	3/8	590	50
H 122 1/2 SS6	½" Type 316 Stainless Steel	1/2	1,080	50



Easy to Install



Hold in the open position.

- No need to thread the Trapnut® fastener from either end of the rod — saving valuable time
- Perfect for retro-fit applications where the rod ends are not accessible



Insert the bottom plate on the rod and close the top plate.

- Precision threads trap the threaded rod for a sturdy hold that can be adjusted up or down for fine-tune positioning
- Functions as a hex nut, square washer and flat washer combined



Press the pin with pliers.

- · Locking pin holds it in the desired position
 - Can be removed and reused



Tighten to the desired position with pliers.

- Can be adjusted up or down for fine-tuned positioning
- Sturdy steel construction that is load bearing
- Sized to provide custom fit for either 15%" or 11/2" strut systems



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354







Threaded Products and Hardware

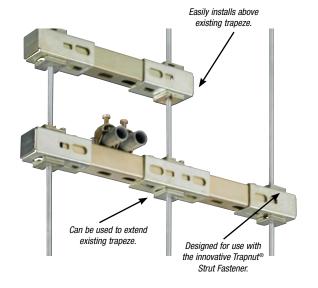
Handle Retrofit Trapeze Applications with Ease!

Trap-Eze[™] Connector

The innovative Trap-Eze™ Connector changes a time-consuming retrofit trapeze application into a streamlined process. Using a Trapnut® Strut Fastener, the new Trap-Eze™ Connector can be easily installed above or to the side of an existing assembly, eliminating the need to disassemble and reassemble the trapeze. It is designed for use with shorter strut lengths that can vary in length by as much as an inch, so the strut can be rough cut versus labor-intense precision cuts.

- Easily installs above or to the side of an existing assembly, eliminating the need to disassemble and reassemble the trapeze
- Connectors can be reused upon disassembly of a trapeze
- Designed for either 3/8" and 1/2" threaded rod
- Designed for use with the innovative Trapnut® Strut Fastener, which can take up to 43% less time than standard nuts and washers on retrofit trapeze applications
- · View window provides safety zone for strut length

CAT. NO.	DESCRIPTION	STD. CTN.
For Superst	rut® or other 15%" Strut	
AB221	Trap-Eze™ End Connector GoldGalv®	20
AB222	Trap-Eze™ Mid Connector GoldGalv®	10
AB221EG	Trap-Eze™ End Connector SilverGalv®	20
AB222EG	Trap-Eze™ Mid Connector SilverGalv®	10
For 1½" Kin	dorf Channels	
B998	Trap-Eze [™] End Connector Galv-Krom [®]	20
B999	Trap-Eze [™] Mid Connector Galv-Krom®	10
B998EG	Trap-Eze [™] End Connector SilverGalv [®]	20
B999EG	Trap-Eze™ Mid Connector SilverGalv®	10



View window provides strut length safety zone for rough cuts versus precision cuts.



Unique safety slot maintains bracket position on threaded rod and prevents disengagement of the trapeze system.



Square Washer



AB-241

CAT. NO.	BOLT Size (in.)	STD. CTN.
AB-241-1/4	1/4	100
AB-241-5/16	5/16	100
AB-241-3/8	3/8	100
AB-241-1/2	1/2	100
AB-241-5/8	5/8	100
AB-241-3/4	3/4	50

Located Square Washer



AB-241L

CAT. NO.	BOLT Size (in.)	STD. CTN.
AB-241L-1/4	1/4	100
AB-241L-5/16	5/16	100
AB-241L-3/8	3/8	100
AB-241L-1/2	1/2	100
AB-241L-5/8	5/8	100





1-800-453-1692

Threaded Products and Hardware

Channel Nuts

Superstrut® channel nuts are manufactured from mild steel and are case hardened.

Design Data

Superstrut® self-aligning channel nuts are designed to provide resistance to pull out and resistance to side slip in excess of the full strength of the channels with which they are used. The extreme resistance to side slip results from the unique design of the alternate teeth, spaced and designed to develop a wedging action that increases with pressure or load.

Load Ratings for 1/4", 3/8" and 1/2" Strut Nuts used in Superstrut®

CHANNEL NUT SIZES (IN.)	SLIP TEST RATING	PULL TEST RATING
312E3 (IN.)	natinu	FULL TEST NATING
1/4	300	500
3/8	750	1,000
1/2	1,200	2,000

If connections will be subjected to dynamic or seismic loading conditions, contact the factory for design assistance.

- 1. All ratings have safety factor of 3 applied.
- 2. Load ratings are for Static Applications.

UC-100 Universal Cone Nut

Eliminates the inventory and installation hassles of conventional spring nuts. Fits all 1%" channel, regardless of depth, with a simple twist of your thumb. Pliable nylon cone secures the nut in place through the entire range of construction site temperatures.

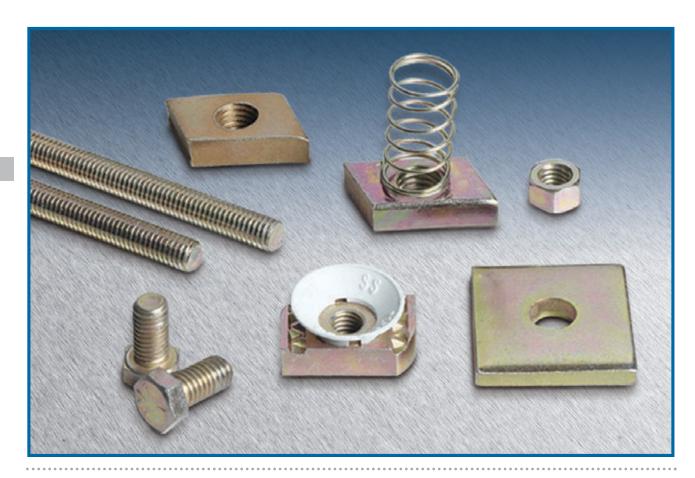
Screw Threads

THREAD SIZE (IN.)	1/4	3/8	1/2
THREADS PER INCH	20	16	13
DESIGN TORQUE (FTLBS.)	6	19	50

Standard Finish - GoldGalv®, unless otherwise stated.

All threaded products are American Standard thread, free fit class 2. GoldGalv® hardware finish is standard for all Superstrut® products. This is a multi-process finish of electro-plated zinc, followed by gold-colored trivalent chromium to give excellent corrosion resistance and a superior paint base. See **pages B-106–B-107** for a complete description of the GoldGalv® hardware finish.

Note: Standard Spring and Springless Nuts are supplied with a silver electro-galvanized (EG) finish. These items are not visible in a gold system and are universal with other systems' finishes and colorations.









Threaded Products and Hardware

A-100 Regular **Spring Nut**

Sizes: 1/4", 5/16", 3/8", 1/2", 5%". 34" & 7%"

Nut is square over 1/2" size. For all "A" and "C" series channel and inserts.



E-145 Standard Hex Nut

Sizes: 1/4", 3/8", 1/2", 5/8", 3/4", **%" & 1"**

GoldGalv® Finish.



E-151-D Wood Screw Drive

Size A: 1/4"

Size B: 2"

Max. Rec. Load: 100 lbs.



AB-100 Springless Nut

Sizes: 1/4", 5/16", 3/8", 1/2", 5%" & 3/4"

Nut is square over 1/2" size.

For use with all channels.

Silver Electroplated Finish.



E-146 Standard Square Nut

Sizes: 1/4", 5/16", 3/8", 1/2" & 5/8" GoldGalv® Finish.



ES-142 Seismic Stiffener Nut

Size: ES-142-1/2 x 11/2"

Bolt Dia.: 1/2"



AC-100 Springless Nut

Sizes: 1/4", 3/8", 1/2", 5/8" & 3/4" Nut is square over 1/2" size.

For all "A", "C", "E" and "H" series channel and inserts.



E-147 Flat Steel Washer

Sizes: 1/4", 5/16", 3/8", 1/2", 5/8", 3/4" & 7/8" GoldGalv® Finish.



ES-145 Swivel Nut and Jam Nut **Combinations**

Sizes: 3/8" & 1/2" GoldGalv® Finish.



B-100 Short Spring Nut

Sizes: 1/4", 5/16", 3/8" & 1/2"

Nut is square over 1/2" size. For all "B" series channel

and inserts.



E-148 Lock Washer

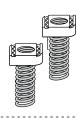
Sizes: 1/4", 3/8", 1/2" & 5/8" GoldGalv® Finish.



H-100 Long **Spring Nut**

Sizes: 3/8", 1/2" & 5/8" Nut is square over 1/2" size

For all "E" and "H" series channel and inserts.



CM-100 Nylon **Cone Nut**

Sizes: 1/4", 3/8" & *1/2" For all 1%" channel.

*Will not fit "B" series channel.

GoldGalv® Finish



Sizes: 1/4" x 3/4", 1/4" x 1", 5/16" x 11/4" & 3/8" x 11/4"



UC-100 Universal Nylon Cone Nut

Sizes: 1/4", 3/8" & 1/2"

For all 1%" & 11/2" channels. May be used with ALL strut depths. Can be used for CM-100. A-100, B-100 & AB-100 Series.

GoldGalv® Finish.

E-142 Hex Head **Cap Screw**

Sizes: 1/4" x 1", 1/4" x 11/2", 3/8" x 1", 3/8" x 1½", ½" x 15/16" & ½" x 1½"

See price sheet for additional sizes.



E-150-S **Lag Bolt Screw**

Size: 3/8" & 1/2" Drill Size: 1/4" & 111/32"







1-800-453-1692 w.aboveboardelectronics.com

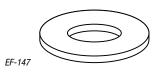


Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354



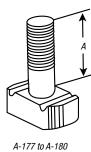
Threaded Products and Hardware

Fender Washer

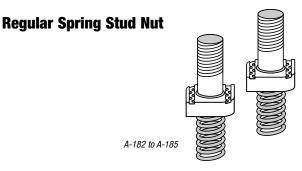


CAT. NO.	SIZE (IN.)	DIA. (IN.)	HOLE STD. (IN.)	STD. CTN.
EF147 1/4	1/4	11/4	5/16	100
EF-147-3/8	3/8	1½	7/16	100
EF-147-1/2	1/2	2	9/16	100

Springless Stud Nut



CAT. NO.	BOLT DIA. (IN.)	LENGTH A (IN.)	STD. CTN.
A177 1/4 1	1/4	1	50
A-177-1/4 X 1-1/4	1/4	11/4	250
A-179-3/8 X 1	3/8	1	250
A-179-3/8 X 1-1/4	3/8	11/4	50
A-180-1/2 X 1*	1/2	1	250
A-180-1/2 X 1-1/4*	1/2	11/4	250
* Cannot be used with "B	" Series chann	el.	



CAT. NO.	BOLT DIA. (IN.)	LENGTH A (IN.)	STD. CTN.
A182 1/4 1	1/4	1	250
A-182-1/4 X 1-1/4	1/4	11/4	250
A-184-3/8 X 1	3/8	1	50
A-184-3/8 X 1-1/4	3/8	11/4	50
A-185-1/2 X 1	1/2	1	50
A-185-1/2 X 1-1/4	1/2	11/4	50
F !! "A" ! "O"			

For all "A" and "C" series channels.

Standard Finish - GoldGalv®, unless otherwise stated.

Swivel Eye



CAT. NO.	A (IN.)	B (IN.)	DESIGN Load LBS.	STD. CTN.
E120 3/8	1%	3/8	1,000	25
E120 1/2	11/2	1/2	1,800	25

E-120

Swivel Joint



E-122

CAT. NO.	A (IN.)	B (IN.)	DESIGN Load LBS.	STD. CTN.
E122 3/8	1%	3/8	1,000	25
E-122-1/2	1½	1/2	1,800	10

Standard Finish - GoldGalv®, unless otherwise stated.

Swivel Eye with Stud



E-130

CAT. NO.	A (IN.)	B (IN.)	DESIGN Load LBS.	STD. CTN.
E130 3/8	13//8	3/8	1,000	25
E-130-1/2	1½	1/2	1,800	25

Swivel Joint with Stud



CAT. NO.	A (IN.)	B (IN.)	DESIGN LOAD LBS.	STD. CTN.
E131 3/8	1%	3/8	1,000	25
E-131-1/2	1½	1/2	1,800	10
01 - 1 - 1 - 1 - 1 - 1	0.110.10			

Standard Finish - GoldGalv®, unless otherwise stated.





1-800-453-1692



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354

Technical Services Tel: 888.862.3289



Threaded Products and Hardware

E-151 — Coach Screw Rod



- · Black available upon request
- · Machine-threaded opposite end, carbon steel
- Order by Cat. No., rod size and rod length

CAT. NO.	ROD SIZE (IN.)	STANDARD ROD LENGTHS	STD. CTN.
E-151-3/8	3/8	4, 6, 8, 10, 12	100
E-151-1/2	1/2	4, 6, 8, 10	100

H104-EG Hanger Rod, Continuous Thread — SilverGalv[®]



CAT. NO.	SIZE	WT./LBS. PER 100 PCS.
H104 1/4X6-EG		73
H104 1/4X10-EG	1/4"-20	124
H104 1/4X12-EG		148
H104 3/8X6-EG		172
H104 3/8X10-EG	3/4"-16	293
H104 3/8X12-EG		348
H104 1/2X6-EG		313
H104 1/2X10-EG	1/2"-13	530
H104 1/2X12-EG		648
H104 5/8X6-EG		510
H104 5/8X10-EG	5/s"-11	850
H104 5/8X12-EG		1,020
Suffix indicates rod size and length.		

H104 Hanger Rod, **Continuous Thread GoldGalv®**



CAT. NO.	SIZE	WT./LBS. PER 100 PCS.
H104 1/4X6		73
H104 1/4X10	1/4"-20	124
H104 1/4X12		148
H104 3/8X6		172
H104 3/8X10	3/s"-16	293
H104 3/8X12		348
H104 1/2X6		313
H104 1/2X10	1/2"-13	530
H104 1/2X12		648
H104 5/8X6		510
H104 5/8X10	5/8"-11	850

Suffix indicates rod size and length.

Standard Rod Coupling

H104 5/8X12



		_	
CAT. NO.	ROD SIZE (IN.)	A (IN.)	STD. CTN.
H119-1/4	1/4	7/8	50
H119-5/16	5/16	7/8	50
H119-3/8	3/8	11//8	50
H119-1/2	1/2	11/4	50
H119-5/8	5/8	21/8	50
H119-3/4	3/4	21/4	50
H119-7/8	7/8	21/2	50
H119-1	1	21/4	50
Standard Fini	sh – GoldGai	′V [®] ,	

Reducing Rod Coupling

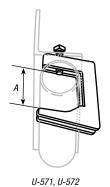


1,020

CAT. NO.	ROD SIZE (IN.)	A (IN.)	STD. CTN.
H119-1/4X3/8	1/4-3/8	1½	50
H119-3/8X1/2	3/8-1/2	11/4	50
H119-1/2X5/8	1/2-5/8	11/4	50
H119-5/8X3/4	5/8-3/4	1½	50
H119-3/4X7/8	3/4-7/8	13/4	50
Standard Finish		,	

unless otherwise stated.

U-571, U-572 Conduit Clamp



CAT. NO.	CONDUIT SIZE (IN.)	MAX. FLANGE THICKNESS (IN.)	DIM. A (IN.)	STD. CTN.
U-571	1/2	1	1¾	25
U-571	3/4	3/4	13/4	25
U-571	1	1/2	13/4	25
U-572	3/4	1½	21/2	25
U-572	1	11/4	21/2	25
U-572	111/4	1	21/2	25
U-572	1½	5/8	21/2	25

Standard Finish - GoldGalv® brand.

For attaching 1/2" thru 11/2" conduit to beam, channel, angle or column. Secures conduit to the support parallel or at right angles to it.

unless otherwise stated.

5/16" set screw, 12 ga. material.



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354

Technical Services





Fittings and Brackets

Fittings and Brackets — Series 200



Material

Superstrut® fittings and brackets are manufactured from hot rolled carbon steel.

Dimensions

The following standard dimensions apply to all fittings except as indicated on the individual drawings.

- Hole spacing: ¹³/₁₆" from end of fittings
- Hole spacing: 1½" centers
- Hole size: %6" diameter
- Material: 1%" wide
- Material: ¼" thickness



Application Instructions

Parts drawings illustrate a typical use for the fitting, and in many cases other uses for the part are appropriate.

Design Data

Ratings vary when used with 12 or 14 gauge channel and are shown for each channel material.

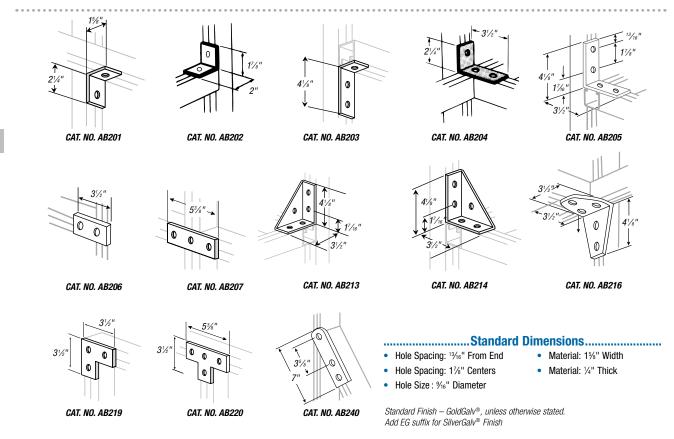
GoldGalv® hardware finish is standard for all Superstrut® products. This is a multi-process finish of electro-plated zinc, followed by gold-colored trivalent chromium to give excellent corrosion resistance and a superior paint base. See **pages B-106–B-107** for complete description of the GoldGalv® hardware finish. GoldGalv® hardware will be furnished if no other finish is specified.

Nuts and Bolts Required

Unless otherwise noted, nuts and bolts for use with fittings and brackets should be ordered separately.

The standard bolt for the %6" hole is a 12" hex head cap screw 1%16" long. The 1%16" length may be used with all series channel.

Standard Finish - GoldGalv®, unless otherwise stated.





United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354

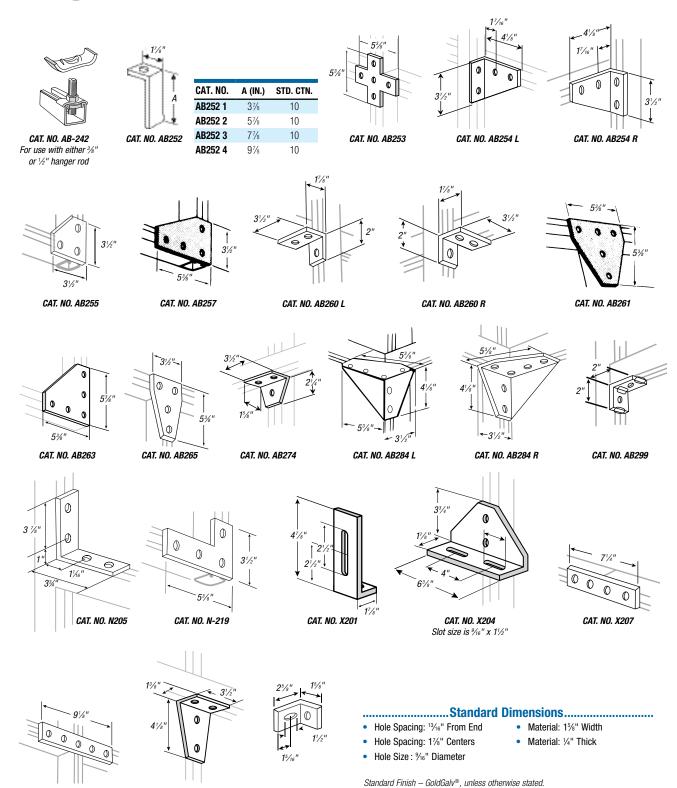
Technical Services







Fittings and Brackets





CAT. NO. X289

CAT. NO. X208

United States

CAT. NO. X299

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354

Technical Services Tel: 888.862.3289

Add EG suffix for SilverGalv® Finish

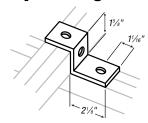




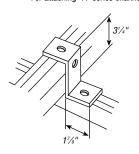


Fittings and Brackets

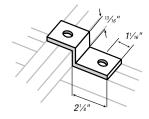
Z Shape Fittings



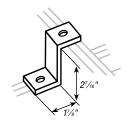
CAT. NO. A209 For attaching "A" series channel.



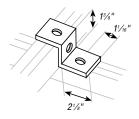
CAT. NO. CZ209 For attaching "A" back to back.



CAT. NO. B209 For attaching "B" series channel.



CAT. NO. EZ209 For attaching "E" series channel.



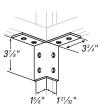
CAT. NO. C209 For attaching "C" series channel.

..... Standard Dimensions

 Hole Spacing: 1¾6" From End Hole Spacing: 11/8" Centers Hole Size: 1" Diameter Material: 15/8" Width Material: 1/4" Thick

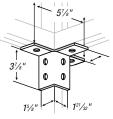
Standard Finish - GoldGalv®, unless otherwise stated. Add EG suffix for SilverGalv® Finish

Wing Shape Fittings



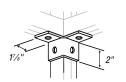
CAT. NO. A217



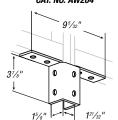


CAT. NO. A218

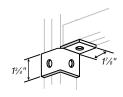
CAT. NO. AW214



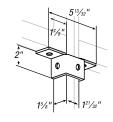
CAT. NO. AW204



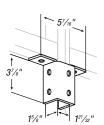
CAT. NO. AW219



CAT. NO. AW205 L

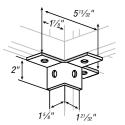


CAT. NO. AW220

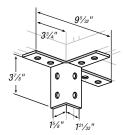


CAT. NO. AW205-R

CAT. NO. AW224



CAT. NO. AW226



CAT. NO. AW228

..... Standard Dimensions

Hole Spacing: 13/16" From End

Hole Spacing: 11/8" Centers

Hole Size: 1" Diameter

Material: 15/8" Width

Material: 1/4" Thick

Standard Finish - GoldGalv®, unless otherwise stated. Add EG suffix for SilverGalv® Finish



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354

Technical Services

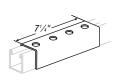




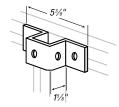


Fittings and Brackets

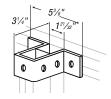
U Shape Fittings



CAT. NO. A208 Does not include strut nut or bolts. For "A" series channel.



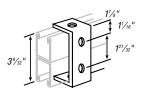
CAT. NO. A210 For attaching "A" series channel



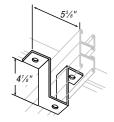
CAT. NO. A211 For attaching "A" series channel.



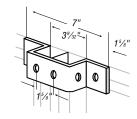
CAT. NO. B210



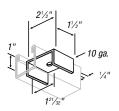
CAT. NO. AB245



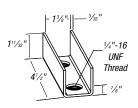
CAT. NO. AN211



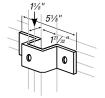
CAT. NO. A212



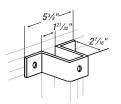
CAT. NO. AB-288



CAT. NO. A-213



CAT. NO. C210 For attaching "C" series channel.



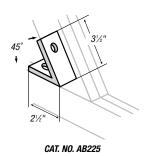
CAT. NO. E210 For attaching "E" series channel.

Standard Dimensions

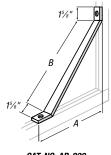
- Hole Spacing: 13/16" From End
- Hole Spacing: 1½" Centers
- Hole Size: 1" Diameter
- Material: 1%" Width
- Material: 1/4" Thick

Standard Finish - GoldGalv®, unless otherwise stated. Add EG suffix for SilverGalv® Finish

Angular Fittings



CAT. NO. AB227



CAT. NO. AB-239

CAT. NO.	A (IN.)	B (IN.)	STD. CTN.
AB239 1	713/16	81/2	15
AB-239-2	13¾	17	10
AB-239-3	19¾	25½	10

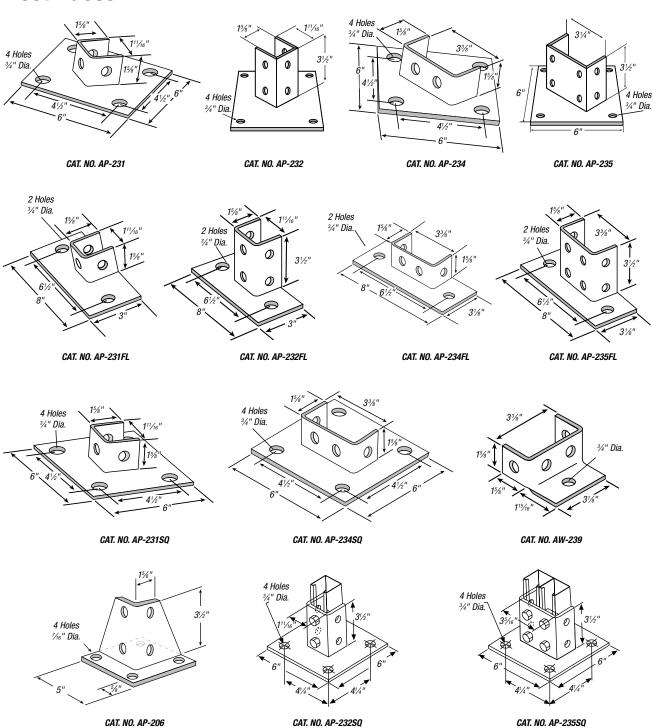
Standard Finish - GoldGalv®, unless otherwise stated. Add EG suffix for SilverGalv® Finish

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354



Fittings and Brackets

Post Bases



Standard Finish - GoldGalv®, unless otherwise stated. Add EG suffix for SilverGalv® Finish



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services** Tel: 888.862.3289

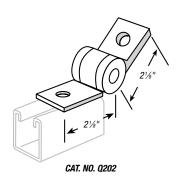


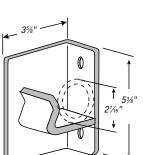




Fittings and Brackets

Special Application Fittings

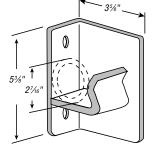




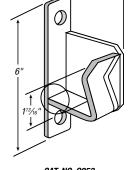
CAT. NO. Q255

For 2" standard pipe.

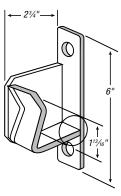
Load 1,500 lbs.



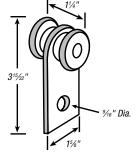
CAT. NO. Q256 For 2" standard pipe. Load 1,500 lbs.



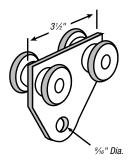




CAT. NO. Q254 For 11/4" standard pipe. Load 1,500 lbs.



CAT. NO. TR292 Frictionless needle bearings. Design load: 500 lbs. Safety factor of 5.



CAT. NO. TR294 Frictionless needle bearings. Design load: 1,000 lbs. Safety factor of 5.

.....Standard Dimensions.....

CAT. NO. Q205

23/4"

- Hole Spacing: 13/16" From End
- Hole Spacing: 17/8" Centers
- Hole Size: 9/16" Diameter
- Material: 15/8" Width
- Material: 1/4" Thick

 $\textit{Standard Finish} - \textit{GoldGalv}^{\circledast}, \textit{ unless otherwise stated}.$ Add EG suffix for SilverGalv® Finish





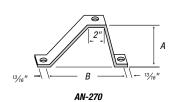
1-800-453-1692

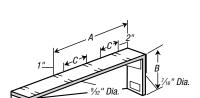




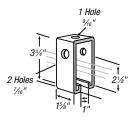
Fittings and Brackets

Special Application Fittings (continued)



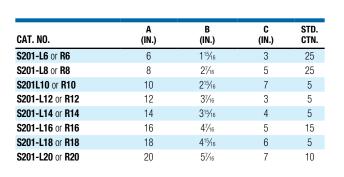


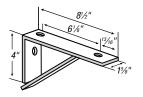
S-201-L and R
R as shown — L opposite hand.
12 ga. steel. Design Uniform Load/lbs.
A-1,200 250
A-1,400 200



TS-272 Track Support Requires ¾" x 2½" bolt and nut (not included). Design load: 1,000 lbs.

Standard Finish — GoldGalv®, unless otherwise stated. Add EG suffix for SilverGalv® Finish

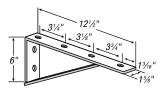




\$204Design Uniform Load/lbs.

A-1,200 650

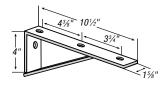
A-1,400 500



\$217Design Uniform Load/lbs.

A-1,200 750

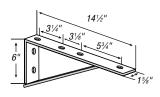
A-1,400 650



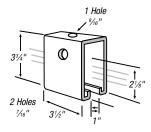
\$205Design Uniform Load/lbs.

A-1,200 650

A-1,400 500



S218Design Uniform Load/lbs.
A-1,200 750
A-1,400 650



TS273
Track Support
For uses over channel splice. Requires
3/6" x 2"/5" bolt and nut (not included).
Design load: 2,000 lbs.

..... Standard Dimensions

- Hole Spacing: 13/16" From End
- Hole Spacing: 1%" Centers
- Hole Size: %6" Diameter
- Material: 15/8" Width
- Material: ¼" Thick

CAT. NO.	A	В	STD.
GAT. NO.	(IN.)	(IN.)	CTN.
AN-270-1	23//8	6	10
AN-270-2	43//8	8	10
AN-270-3	63//8	10	10
AN-270-4	83/8	12	15
AN-270-5	10%	14	10

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354

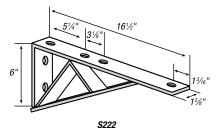




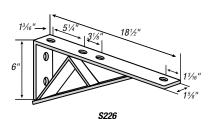


Fittings and Brackets

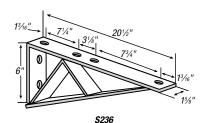
Brackets



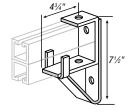
Design Uniform Load/lbs. A-1,200 1,000 A-1,400



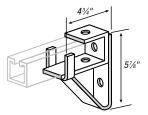
Design Uniform Load/lbs. A-1,200 1,000 A-1,400



Design Uniform Load/lbs. A-1,200 800 A-1,400

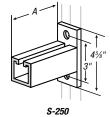


Design Moment (channel upright as shown) When supported by A-1,200 10,800 inch lbs. A-1,400 7,550 inch lbs. Applies to fitting only, not to the arm. For A-1,200 A-1,400



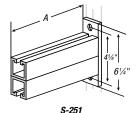
Design Moment (channel upright as shown) When supported by A-1,200 5,250 inch lbs. A-1,400 3,650 inch lbs. Applies to fitting only, not to the arm. For A-1,200 B-1,202

A-1,400 B-1,402

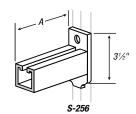


May be installed inverted with no

change in load ratings. Strut section made from half slot channel. Sizes: 6", 12", 18" & 24"



Strut section made from half slot channel. Sizes: 12", 18", 24", 30" & 36"



When installed in inverted position reduce load rating 40%. Strut section made from half slot channel. Sizes: 6", 12", 18" & 24"

CAT. NO.	A (IN.)	DESIGN LOAD LBS.	STD. CTN.
S250 6	6	1,500	1
S-250-12	12	800	1
S-250-18	18	550	1
S-250-24	24	400	1

Standard Finish GoldGalv®, unless otherwise stated. Add EG suffix for SilverGalv® Finish

CAT. NO.	A (IN.)	DESIGN LOAD LBS.	STD. CTN.
S-251-12	12	1,650	1
S-251-18	18	1,050	1
S-251-24	24	800	1
S-251-30	30	650	1
S-251-36	36	500	1

	Α	DESIGN LOAD	STD.
CAT. NO.	(IN.)	LBS.	CTN.
S256 6	6	1,000	1
S-256-12	12	500	1
S-256-18	18	300	1
S-256-24	24	250	1



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354

Technical Services







Concrete Inserts

Concrete Inserts (Series 300/400)

Standard lengths 10 ft. and 20 ft. length tolerance $\%_6$ ". Assemblies available in any length from 12" to 20 ft. Consult factory.

Insert with end caps and foam filler strip installed.



B-302 and C-302 Insert Channel — 12 ga. steel. B-804 and C-804 End Caps — 12 ga. steel. Superstrut® continuous insert channel is cold formed from 12 gauge hot-rolled strip steel in two basic sizes as follows:

CAT. NO. B-302

CAT. NO. C-302

15/8" x 13/8" dim. 7/8" slot

Finishes

Product is available in GoldGalv® pre-galvanized (PG), hot-dipped galvanized (HDG) and stainless steel (SS). Contact your T&B Sales team for delivery and pricing.

Standard lengths are 10 ft. and 20 ft. Product is supplied with foam filler and end caps to prevent seepage of concrete into channel.

Application

For casting into concrete walls, floors or ceilings to provide attachment anywhere along the continuous slot.

Design Data

Load ratings as shown have a safety factor of 3 in 3,000 lb. hard rock concrete. Where "good" concrete does not exist, the load ratings shall not apply

GoldGalv® hardware finish is standard for all Superstrut® products. This is a multi-process finish of electro-plated zinc, followed by gold-colored trivalent chromium to give excellent corrosion resistance and a superior paint base. See **pages B-106–B-107** for a complete description of the GoldGalv® hardware finish. GoldGalv® hardware will be furnished if no other finish is specified.

Standard Finish - GoldGalv®, unless otherwise stated.

Design Load lbs.

2,000 lbs. per foot in 3,000 lbs. hard rock concrete with a safety factor of 2.

NOTE: B-302 and C-302 are furnished with:

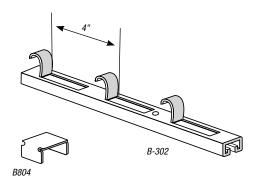
- A. Concrete safe tape applied to interior of channel to cover holes.
- **B.** Styrene insert between tape and %" continuous opening.
- C. Two end caps on either side of strut to prevent concrete seepage.

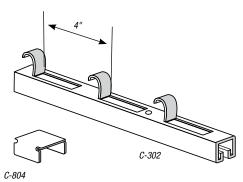
CAT. NO.	DESCRIPTION
B-302*	Insert channel 12 ga. steel — 13/16" depth
C-302*	Insert channel 12 ga. steel — 1%" depth
B804	End cap in B Series Concrete Insert
C-804	End cap in C Series Concrete Insert

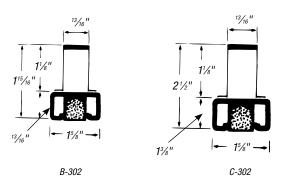
*Add suffix -10 for 10' lengths and -20 for 20' lengths













United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354









Concrete Inserts

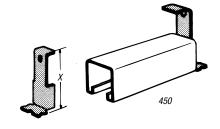
450 — End Cap

CAT. NO.	FOR Channel	X (IN.)	MATERIAL	STD. CTN.
C-450TB	C-1,200	3	12 ga.	100

Does not come in pairs, order number of total pieces required.

Inserts may be assembled from short pieces of channel by use of end caps.

Order closure strip separately.



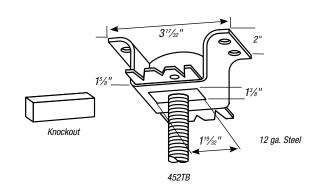
452-TB — Spot Insert — Top is Deep Drawn Cup

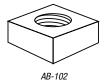
- An insert with a knockout saves covering the opening. Accommodates hanger rod sizes from $\frac{1}{4}$ " through $\frac{1}{6}$ " by means of an AB-102 insert nut
- Design load: 1,350 lbs. in 3,000 lb. hard rock concrete with a safety factor of 3
- · Order AB-102 nut separately



CAT. NO.	SIZE (IN.)	STD. CTN.
AB102 1/4	1/4	50
AB-102-3/8	3/8	100
AB-102-1/2	1/2	100
AB-102-5/8	5/8	50
AB-1002-3/4	3/4	50
AB-102-7/8	7/8	50

For use with Spot Insert Cat. No. 452.





C475 — Metal Deck Ceiling Bolt

Metal Deck Ceiling Bolts are used with our Figure 123. Rod Couplings ordered separately. Made special to customer order.

Material: Steel

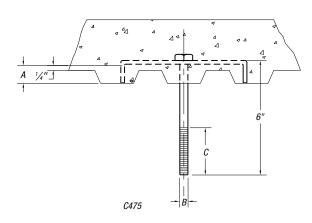
Finish: Standard Finish – GoldGalv®

Black (add suffix "-B")

Electro-Galvanized (add suffix "-EG")

Ordering: Specify size, dimension "A", catalog number and finish.

CAT. NO.	WT. Each	A (IN.)	B (IN.)	C (IN.)	MAX. LOAD (LBS.)
C475 3/8	.75	S	3/8	1	610
C475 1/2	.97	р	1/2	11/4	1,130
C475 5/8	1.11	e	5/8	11/2	1,810
C475 3/4	1.42	C i	3/4	13/4	2,710
C475 7/8	2.00	f	7/8	2	3,770
C475 1	6	у	1	21/4	4,960





United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354







ww.aboveboardelectronics.com

Beam Clamps

Superstrut® Beam Clamps

Materials

Most products are manufactured from hot-rolled carbon steel bars or hot-rolled strip steel. Pipe rollers are cast iron. Products which are copper placed carry the letter "T" in the prefix.

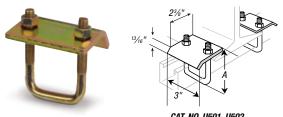
Design Loads

Where design loads are indicated, they provide for a safety factor of 3 in conformance with the "AMERICAN STANDARD CODE FOR PRESSURE PIPING."

GoldGalv® hardware finish is standard for all Superstrut® products. This is a multi-process finish of electro-plated zinc, followed by gold-colored trivalent chromium to give excellent corrosion resistance and a superior paint base. See **pages B-106–B-107** for a complete description of the GoldGalv® hardware finish. GoldGalv® hardware will be furnished if no other finish is specified.

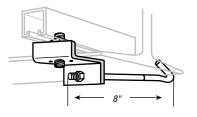


Beam Clamps for Mounting Channel

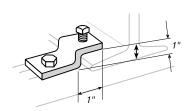


CAT. NO. U501, U502 Furnished complete. Design load U501 – 2,150 lbs. U502 - 3,000 lbs.

CAT. NO.	FOR CHANNEL	A (IN.)	STD. CTN.
U501	A-1200 A-1400 B-1200 B-1400 C-1200 B-1402	3¾6	20
U502	A-1202 A-1402 C-1202 H-1200	413/16	20

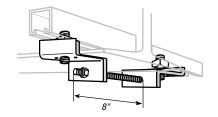


U504

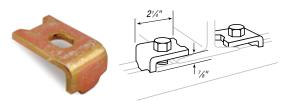


U510
1/2" x 11/2" set screw included.
Order separately one 1/2" x 11/2" hex head cap
screw and 1/2" channel nut.

Channel	Design Load Ibs
A-1,200	1,000
A-1.400	800



U505



512-U
Order separately one ½" x 1½" hex
head cap screw and ½" channel nut.

Channel	Design Load Ib
A-1,200	1,000
A-1,400	800



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 Technical Services
Tel: 888.862.3289



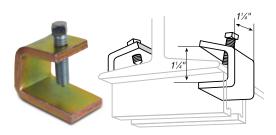




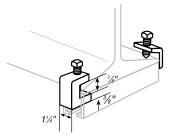
Metal Framing & Cable Tray — Superstrut® Metal Framing System

Superstrut[®]

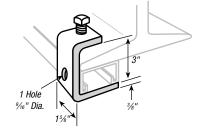
Beam Clamps



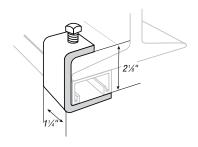
U514 3/6" x 11/2" set screw included. Design load 750 lbs./per pair.



U514A 3/8" x 11/2" set screw included. Design load 1,650 lbs./per pair.

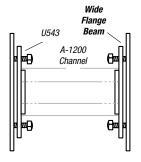


U515For all "A" series channel.
½" x 1½" set screw included.
Design load 800 lbs.



U515B

For all "B" series channel.
1/2" x 11/2" set screw included.
Design load 800 lbs.



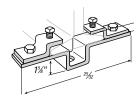
31/2"

A-597Standard Finish — GoldGalv® brand.
Channel Series A
Design load 800 lbs./ea.

CAT. NO.	FLANGE WIDTH* (IN.)	A (IN.)	DESIGN Load LBS.	STD. CTN.
U-520	23/6-41/2	8¾	2,000	10
U-521	3¾-5¾	10	1,300	10
U-522	55%-75%	11%	900	10

*When ordering specify flange width.

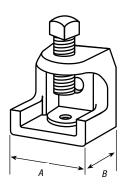
 $\textit{Standard Finish} - \textit{GoldGalv}^{\circledcirc}, \ \textit{unless otherwise stated}.$



U520, U-521 & U-522 Standard Finish – GoldGalv® brand. Nuts, cap screws and set screws included.

Beam Clamps

Beam Clamps — Malleable Iron, **Silver Electroplated Finish**



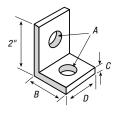
	BASE (IN		JAW - Opening	TAPPING OF BASE AND	SET SCREW LOAD	TORQUE IN	STD.
CAT. NO.	Α	В	(IN.)	BACK HOLES	RATING [‡]	INCH-LBS.	CTN.
500-SC	1	11/4	15/16	1/4-20	250	60	50
501	1½	1%	7/8	5/16-18	500	60	50
502	2	2	1	3 //- 16	750	120	50
503-SC	25/8	21/2	1	1/2-13	1,250	250	20
507	21/2	23/8	13/8	1/2-13	1,250	250	20
508	21/2	23/8	21/8	1/2-13	1,250	250	10
509	1	11/4	1 5⁄16	10-24	150	60	100
510	27/32	11//8	5/8	1/4-20	250	40	100
511-SC	27/32	11//8	5/8	10-24	150	40	100
t0.61 F							

[‡]Safety Factor of 3.

Load Ratings based on bottom hole of Beam Clamp.

Also available in 316 stainless steel.

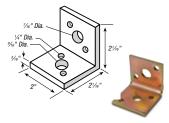
U-540 — Side Hanger Clip



	Α	В	C	D	STD.
CAT. NO.	(IN.)	(IN.)	(IN.)	(IN.)	CTN.
540 3/8	7/16	11//8	1/4	7/8	25
540 1/2 EC	9/16	11//8	1/4	11/8	25
540-5/8	11/16	21/2	3/8	2	25
540-3/4	¹³ / ₁₆	21/2	3/8	2	25

Finishes - GoldGalv® brand or Black (B)

U-542 — Side Hanger Clip



CAT. NO.	ROD SIZE	DESIGN LOAD (LBS.)
544	3/8"	610
	1/2"	1,000
Finichae _	GoldGalv® h	rand or Rlack (R)

Standard Finish - GoldGalv®, EG, HD, & SS available.



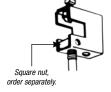
U562

Beam Clamp 1/2" set screw included. Rod Size: 1/2" Design load 500 lbs.



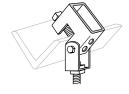
U562

Beam Clamp Optional Use 1/2" set screw included. Rod size: 1/2" Design load 800 lbs. For 20° swivel application, use ES-145-1/2 nut.



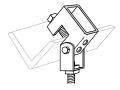
U563

Beam Clamp Optional Use 3/8" set screw included. Rod size: 3/8" Design load 400 lbs.



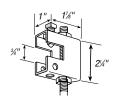
US563

Beam Clamp with Swing Hanger 3/8" set screw included. Rod sizes: 3/8" Design load 540 lbs.



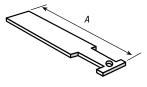
US562

Beam Clamp with Swing Hanger 1/2" screw included. Rod size: 1/21 Design load 800 lbs.



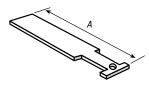
U563

Beam Clamp 3/8" set screw included. Rod size: 3/8" Design load 250 lbs.



U-568

Beam Clamp Safety Strap Standard Finish - GoldGalv® brand For U-563 beam clamp.



U-568

Beam Clamp Safety Strap Standard Finish - GoldGalv® brand For U-562 beam clamp.



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354

Technical Services

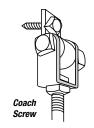






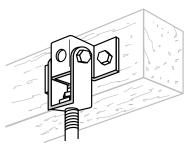
Beam Clamps

S-541 — Swing Connector



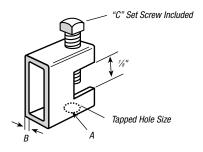
Standard Finish - GoldGalv® brand Rod Size: 3/8" For use with wood beam. 3/8" x 13/4" bolt, nut and clevis included.

U-577 — Clevis & Swing Connector



Rod Size: 1/2" Standard Finish - GoldGalv® brand For use with wood beam.

U-560 — Heavy-Duty Beam Clamp



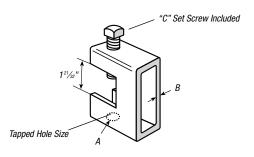
	DIMENSIONS (IN.)		DESIGN	STD.	
CAT. NO.	A	В	C	LOAD LBS.	CTN.
U560 1/4	1/4	1/8	% x 1½	1,050	25
U-560-3/8	3/8	1/8	¾ x 1½	1,050	25
U-560-1/2	1/2	1/4	½ x 1½	2,650	25
U-560-5/8	5/8	1/4	½ x 1½	2,650	25

Channel Angle Connector. Standard Finish — GoldGalv®.

Available in Electro-Galvanized (EG) finish.

Integral pilot, prevents twist.

U-564 — Heavy-Duty Beam Clamp



	D	DIMENSIONS (IN.)		DESIGN	STD.
CAT. NO.	Α	В	С	LOAD LBS.	CTN.
U-564-3/8	3/8	1/4	3/8 x 21/4	1,300	25
U-564-1/2	1/2	1/4	½ x 2¾	3,150	15
U564 5/8	5/8	1/4	½ x 2¾	3,150	25

Available in Electro-Galvanized (EG) finish.







Beam Clamps

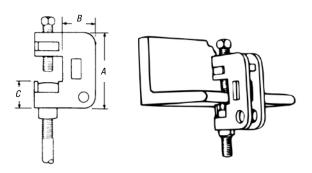
E-231 — Structural Steel Clamp



	DIN	MENSIONS (IN.)	WT.
CAT. NO.	A	В	С	LBS./C
3%" or 1/2" Rod				
*E-231-3/8	21/2	1	7/8	31
**E-231-1/2	3	1%2	¹⁵ / ₁₆	53

Assembly requires two H-116-C (%") or two H-116-D (1/2") square nuts to attach hanger rod. 1/2" steel.

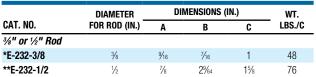
Standard Finish - GoldGalv®, unless otherwise stated.

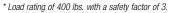


E-232 — Clamp with Swing Connector

- . E-231 clamp with swing connector
- · Affords a convenient method of attaching to angled beams

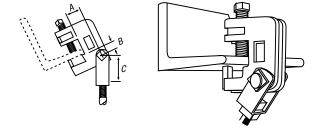






^{**} Load rating of 550 lbs. with a safety factor of 3.

GoldGalv® finish.



E-233 — Anchor Clip

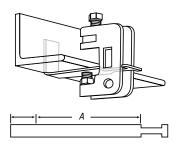
- · Clamps to I-beams, channels, angles and column
- Two sizes are available, one for %" and the other for ½" hanger rod
- · Each takes flanges up to .8" thickness



CAT. NO.	ROD Size (in.)	MAX. BEAM WIDTH "A" (IN.)	FOR USE WITH	WT. LBS./C
E-233-3/8-6	3/8	6	E-231-3/8 or	20
E-233-3/8-10	3/8	10	E-232-3/8	33
E-233-1/2-6	1/2	6	E-231-1/2 or	26
E-233-1/2-10	1/2	10	E-232-1/2	37

Anchor Clips should be used when clamps are subject to excessive vibration. To obtain the correct size clips, add 1 inch to the flange width. If length required is not standard, order next largest standard length.

GoldGalv® finish.



For use with E-231 and E-232 clamps when hanger rod is not in straight through position.



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services**







^{*} Load rating of 500 lbs. with a safety factor of 3.

^{**} Load rating of 800 lbs. with a safety factor of 3.

Beam Clamps

E-160 — Adjustable Beam Clamp

- Clamps to I-beam where edge of beam flange does not exceed .8" thickness
- Hook rod is furnished in three lengths to fit beam flanges up to 6", 9" or 12" widths

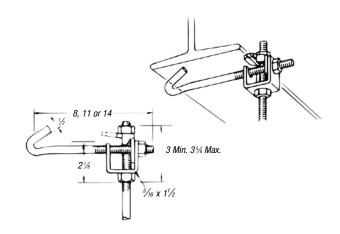
(⊕	

CAT. NO. ½" Hanger Rods	BEAM FLANGE WIDTH (IN.)	WT. LBS./C
½" Rod		
E-160-1/2-6	2½ to 6	115
E-160-1/2-9	5½ to 9	125
E-160-1/2-12	8½ to 12	154

Load rating 800 lbs. with a safety factor of 3.

Assembly requires hanger rod of the proper length and size plus two H-114-D nuts $\%_6$ " steel and $\%_2$ " hook rod.

GoldGalv® finish.

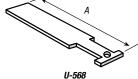


U-568 Beam Clamps

	BEAM FLANGE	Α	STD.
CAT. NO.	WIDTH (IN.)	(IN.)	CTN.
U568 1	6	8	50
U-568-2	9	11	50
U-568-3	6	9	25
U-568-4	9	12	50
U-568-5	12	15	50
U-568-6	6	9	25
U-568-7	9	12	25
U-568-8	12	15	25

16 ga. material.

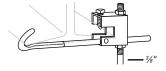
Standard Finish - GoldGalv®, unless otherwise stated.



Beam Clamp Safety Strap Standard Finish — GoldGalv® brand. For U-560 and U-564 beam clamp.

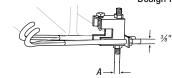
U569 — Beam Clamp

- Standard finish GoldGalv®
- Maximum flange width 5"
- Design load 400 lbs.



U570 — Beam Clamp with Safety Rod

- Standard finish GoldGalv®
- Flange width 4" min. 8" max.
- Sizes ½" (for use with ¾" rod, see U569)
- Design load 650° F 500 lbs.

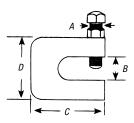


C-775L — Clamp with Lock Nut

	ROD		DIMENSI	ONS (IN.)		DESIGN LOAD	STD.
CAT. NO.	SIZE (IN.)	Α	В	C	D	LBS.	CTN.
C775L 3/8	3/8	3/8	3/4	23/8	23//8	400	100
C-775L-1/2	1/2	3/8	3/4	23/8	23/8	500	100
C-775L-5/8	5/8	1/2	3/4	25/16	23/8	550	50
C-775L-3/4	3/4	5/8	3/4	25/16	23/8	630	50
C-775L-7/8	7/8	3/4	1	35/16	3	1,200	25

Standard Finishes - GoldGalv® brand, Black (B), Stainless Steel (SS) and Electro-Galvanized (EG). Carbon Steel.







United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354



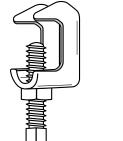


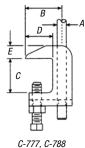


Beam Clamps

C-777 — Steel Top Beam Clamp & C-778 — Steel Wide JawTop Beam Clamp

	ROD SIZE	PIPE		DIME	NSION	S (IN.)		DESIGN	STD.
CAT. NO.	A (IN.)	SIZE	В	С	D	E	F	LOAD LBS.	CTN.
C777 3/8	3/8	1/2-4	13/16	3/4	1	7/16	1	900	100
C-777-1/2	1/2	5-8	11/2	3/4	1	9/16	11/4	2,430	50
C-778-3/8	3/8	1/2-4	13/16	11/4	1	7/16	1	900	100
C-778-1/2	1/2	5-8	11/2	11/4	1	9/16	11/4	2,430	50
Standard Fini	sh – GoldGa	alv®, Bla	nck (B) a	nd Elec	ctro-Ga	lvanized	1 (EG).		

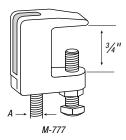




M-777 — Steel Top Beam Clamp

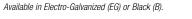
- Junior Top Beam C-Clamp
- Standard finish is Gold-Galv®
- Available in Electro-Galvanized (EG) or Black (B) Malleable Iron
- Provides clamping under roof installations with bar joist construction (max. joist thickness 5/8")
- · Order by Cat. No., rod size

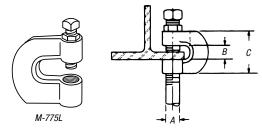
ROD SIZE A (IN.)	DESIGN LOAD LBS.
3/8	350
1/2	470
5/8	550
3/4	700
7/8	1,000



M-775L — Clamp with Lock Nut

CAT. NO.	ROD SIZE A (IN.)	B (IN.)	C (IN.)	DESIGN Load LBS.	STD. CTN.
M-775L-3/8	3/8	3/4	13/4	400	100
M-775L-1/2	1/2	3/4	13/4	400	100
M-775L-5/8	5/8	3/4	2	440	50
M-775L-3/4	3/4	3/4	2	500	50

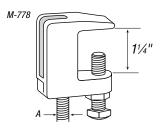




M-778 — Steel Wide Jaw Top Clamp

- Top Beam C-Clamp
- Rod Size: ¾", ½", ¾" and ¾"
- Available in Electro-Galvanized (EG) or Black (B) Malleable Iron
- Provides clamping under roof installations with bar joist type construction
- · Order by Cat. No. and rod size

ROD SIZE A (IN.)	DESIGN LOAD LBS.
3/8	400
1/2	500
5/8	850
3/4	900





United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354







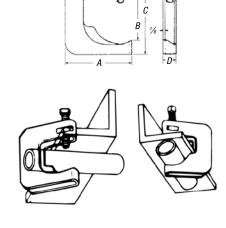


Beam Clamps

C-247, C-248 & C-249 — Steel Conduit Clamps

- A versatile clamp for attaching conduit to any type of beam, channel, angle or column
- Designed to hold the conduit snug against the support with conduit either parallel or at right angle to it
- The case-hardened set screw bites into the structural member for maximum security
- 1/8" steel

CONDUIT SIZE	MAX. BEAM C-247	FLANGE C-248	THICKNESS C-249
1/2	5%	1	
3/4	7∕16	3/4	1½
1		1/2	11⁄4
11/4		1	
11/2			5/8
Dim. A	21/4	2 1/16	31/4
Dim. B	13/8	13/4	21/2
Dim. C	23/4	3	4
Dim. D	9/16	9/16	5/8
Per Carton	100	50	50
Wt. in lbs./C	33	36	59
Standard Finish – G	oldGalv®, unless otherwise	stated.	



_- _

Pipe Supports

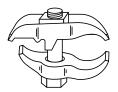
Three types of pipe clamps are available to provide right angle, vertical and parallel attachment to a beam. Types RC, EC and PC are malleable iron clamps with an edge that grips the structural member for maximum holding power when tightened.



- RC Clamp Malleable Iron
- RCS Clamp Steel
- For mounting pipe or conduit at right angles to the beam
- Use SS316 suffix for 316 Stainless Steel
- Use HDG suffix for hot-dip galvanized



- EC Clamp Malleable Iron
- For mounting pipe or conduit vertically across the beam
- Use SS316 suffix for 316 Stainless Steel
- Use HDG suffix for hot-dip galvanized



- PC Clamp Malleable Iron
- For mounting pipe or conduit parallel to the beam
- Use SS316 suffix for 316 Stainless Steel
- Use HDG suffix for hot-dip galvanized

Type RCS clamps are all steel, providing two bearing surfaces for strong attachment for mounting pipe or conduit at right angles to the beam.

All parts are electrogalvanized, including the threads. The clamps are designed for clamping to a wide variety of beam thicknesses and tapers. Can be installed using only a wrench.

	DIMENSIONS (IN.)				DIMENS		
CAT. NO. & SIZE	O.D. OF CONDUIT OR PIPE	NOM. CONDUIT PIPE SIZE	STD. CTN.	CAT. NO. & SIZE	O.D. OF CONDUIT OR PIPE	NOM. CONDUIT PIPE SIZE	STD. CTN.
RCS-1/2	.840	1/2	50	EC-1/2	.840	1/2	50
RCS-3/4	1.050	3/4	50	EC-3/4	1.050	3/4	50
RCS-1	1.315	1	50	EC-1	1.315	1	25
RCS-1-1/4	1.660	11/4	50	EC-1-1/4	1.660	11/4	25
RCS-1-1/2	1.900	11/2	50	EC-1-1/2	1.900	11/2	25
RCS-2	2.375	2	50	EC-2	2.375	2	25
RC-3/8	.675	3/8	50	EC-2-1/2	2.875	21/2	10
RC-1/2	.840	1/2	50	EC-3	3.500	3	10
RC-3/4	1.050	3/4	50	PC-3/8	.675	3/8	50
RC-1	1.315	1	50	PC 1/2	.840	1/2	50
RC-1-1/4	1.660	11/4	50	PC-3/4	1.050	3/4	50
RC-1-1/2	1.900	11/2	50	PC-1	1.315	1	50
RC-2-SC	2.375	2	50	PC-1-1/4	1.660	11/4	25
RC-2-1/2	2.875	21/2	25	PC-1-1/2	1.900	11/2	25
RC-3	3.500	3	25	PC-2	2.375	2	25
RC-3-1/2	4.000	31/2	25	PC-2-1/2	2.875	21/2	25
RC-4-SC	4.500	4	20	PC-3	3.500	3	10
				PC-3-1/2	4.00	31/2	10
				PC-4	4.500	4	10

www.tnb.com

United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services**







Pipe Straps, Conduit Clamps and Hangers

Excellent Corrosion Resistance and a Superior Paint Base

GoldGalv® hardware finish is standard for all Superstrut® products. This is a multi-process finish of electro-plated zinc, followed by gold-colorized trivalent chromium to give excellent corrosion resistance and a superior paint base. See pages B-106-B-107 for a complete description of the GoldGalv® hardware finish. GoldGalv® hardware will be furnished if no other finish is specified.

Materials

Most products are manufactured from hot-rolled carbon steel bars or hot-rolled strip steel. Pipe rollers are cast iron. Products which are copper plated carry the letter "T" in the prefix.

Design Loads

Where design loads are indicated, they provide for a safety factor of 3 in conformance with the "AMERICAN STANDARD CODE FOR PRESSURE PIPING."

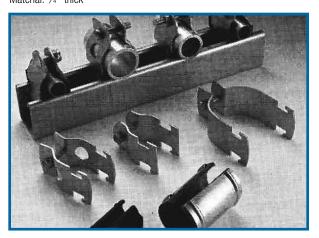
Hanger Design

Pipe hangers are of advanced design and afford a new and better way of ordinary use.

Standard Dimensions

The following, except where noted, apply to all beam clamp fittings.

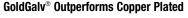
Hole Size: 9/16" diameter Material: 15/8" wide Material: 1/4" thick



ASTM G-87-84 Corrosion Test Results

AOTIM G OT C	r doirealair raac	Hoodito	
FINISH	INITIAL RED RUST	50% RED RUST	100% RED RUST
Test Series I: Li	ght-Duty Adjustab	le Clevis Hanger	
GoldGalv®	120 hours	216 hours	*Never obtained
Copper Plated	24 hours	48 hours	72 hours
Test Series II: 0	D.D. Pipe Straps		
GoldGalv®	168 hours	192 hours	240 hours
Copper plated	24 hours	48 hours	168 hours
*Test series ended a	after 360 hours.		

Standard Finish - GoldGalv®, unless otherwise stated.



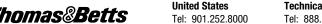
In a test conforming to ASTM G-87-84, also known as the Kesternich Test, Superstrut's GoldGalv® electrogalvanized zinc trivalent chromium finish achieved superior corrosion resistance in comparison to copper plated.

Performed and certified by an independent testing laboratory, the stringent Kesternich test is equivalent to an acid rain environment. The test procedure exposes subject material to condensed moisture containing harsh sulfur dioxide (S02) which accelerates the aging process. During the series of test time cycles, the material is thoroughly inspected for signs and progression of damaging red rust.

The first test series conducted included various light-duty adjustable clevis hangers assembled to copper tubing. The GoldGalv® finish exhibited five times the red rust resistance as compared to copper plated.

The second test series was performed on various O.D. pipe straps attached to copper tubing and continuous slot channel. GoldGalv® achieved greater red dust resistance by seven times over copper plating.

Once tests were completed, all copper tubes were split open and inspected for signs of electrolysis. The copper tubes showed minimal deterioration as a result of the test and no indication of electrolysis occurrence when attached to material with GoldGalv® finish.



800.816.7809 Fax: 901.252.1354

Technical Services Tel: 888.862.3289



Pipe Straps, Conduit Clamps and Hangers

The new standard for heavy-duty applications.

LOC-KING[™] Cobra[®] One-Piece Cable and Pipe Clamp

The LOC-KING™ Cobra® heavy-duty pipe and cable clamp adds two new design innovations to the heavy-duty features of the original King Cobra® clamp.

First, a pre-set torque mechanism takes the guesswork out of installation, ensuring optimum torque and eliminating excess pressure on cables. Since the torque is pre-set, LOC-KING™ Cobra® clamps are ideally suited for use with power tools, making installation faster and more efficient than ever.

Second, the incorporation of an anti-vibration nut means that once installed, LOC-KING™ Cobra® clamps remain securely installed, even in high-vibration environments.

- Designed to be used on tray cable, Teck cable, metal-clad cable and armored cable
- · Power-tool compatible for fast and efficient installation
- Pre-set torque mechanism takes the guesswork out of installation, delivering optimum torque even when using power tools
- Pre-set torque prevents over-tightening and excess pressure
- Anti-vibration nut ensures permanent installation, even in high-vibration environments
- Superior design load capabilities for heavy-duty applications: 350 lbs. for $\frac{1}{2}$ "-2½" trade sizes; 450 lbs. for 3"-4" trade sizes



Position LOC-KING^T Cobra® clamp.



Using a power tool fitted with a %" (16mm) socket, tighten lock nut...





...until it 'blocks' and will no longer turn. Installation is complete.



See Ratings in the Table Below

Note: When pre-set torque engages, lock-nut separates from bolt head and stops firmly against clamp body.

			ARROW #1	ARROW #2	ARROW #3	
CAT. NO.	FOR EMT AND RIGID CONDUIT TRADE SIZES	CABLE O.D. RANGE (IN.)	LOAD RATING*	SLIP RATING**	PULL RATING**	QUANTITY PER BOX
LKCPC050	1/2	.650–.890	350 lbs.	50 lbs.	50 lbs.	100
LKCPC075	3/4	.860-1.110	350 lbs.	50 lbs.	50 lbs.	100
LKCPC100	1	1.100-1.400	350 lbs.	50 lbs.	50 lbs.	100
LKCPC125	111/4	1.400-1.725	350 lbs.	50 lbs.	50 lbs.	50
LKCPC150	1½	1.690-1.980	350 lbs.	50 lbs.	50 lbs.	50
LKCPC200	2	1.980-2.576	350 lbs.	50 lbs.	50 lbs.	50
LKCPC250	2½	2.576-3.060	350 lbs.	50 lbs.	50 lbs.	25
LKCPC300	3	3.060-3.626	450 lbs.	50 lbs.	50 lbs.	25
LKCPC350	3½	3.626-4.126	450 lbs.	50 lbs.	50 lbs.	25
LKCPC400	4	4.126-4.626	450 lbs.	50 lbs.	50 lbs.	25

* Safety Factor of 4 ** Safety Factor of 1

Tel: 888.862.3289



www.aboveboardelectronics.com

1-800-453-1692

Superstrut®

Pipe Straps, Conduit Clamps and Hangers

The new specification standard for heavy-duty industrial applications.



King Cobra® Cable and Pipe Clamp with GoldGalv® Finish

- Superior design load capabilities for industrial applications: 350 lbs. for ½" to 2½" trade sizes; 450 lbs. for 3" to 4" trade sizes
- Durable one-piece heavy-duty steel construction — designed specifically for use in industrial applications
- Embossed shoulder and hooks increase loading capability and durability, preventing deformation of clamps
- Rugged stirrup provides increased strength for heavier loads, minimizing deflection
- Wider saddle design with anti-rotation tabs distributes load evenly over a larger surface area, preventing jacket damage
- Increased corrosion protection* GoldGalv[®] (yellow zinc trivalent) finish stands up to harsh industrial applications
- Parallel hook design keeps conduit and cable square with strut
- Heavy-duty 5/16" hex bolt
- One clamp size works on equal trade sizes for both EMT and rigid conduit, simplifying clamp specification

^{*} Compared to conventional electrogalvanization.

CAT. NO.	FOR EMT AND RIGID CONDUIT TRADE SIZE (IN.)	CABLE O.D. RANGE (IN.)	STATIC LOAD LIMIT (LB) SAFETY FACTOR = 4	STD. CTN.
GoldGalv®	Finish			
KCPC050	1/2	.650890	350	100
KCPC075	3/4	.860-1.110	350	100
KCPC100	1	1.100-1.400	350	100
KCPC125	11/4	1.400-1.725	350	50
KCPC150	11/2	1.690-1.980	350	50
KCPC200	2	1.980-2.576	350	50
KCPC250	21/2	2.576-3.060	350	25
KCPC300	3	3.060-3.626	450	25
KCPC350	3½	3.626-4.126	450	25
KCPC400	4	4.126-4.626	450	25
Standard Finis	sh — GoldGalv®			

Cobra® One-Piece Cable and Pipe Clamp

Takes a bite out of your installation time!

- One-piece heavy-duty construction ready to install right out of the box, no need to break apart and reassemble, no screws or bolts to drop
- Installs quickly and securely using one hand
- Universal bolt head accepts a range of tools
- Eliminates the guesswork from clamp selection — one catalog number attaches equal trade sizes of EMT and rigid conduit
- Parallel hook design keeps conduits and cable square with strut
- Reconfigure wiring without complete disassembly. Remove cables easily without disturbing neighboring clamps



CAT. NO.	FOR EMT And Rigid Conduit Trade Size (in.)	CABLE O.D. RANGE (IN.)	STATIC LOAD LIMIT (LB) SAFETY FACTOR = 4	STD. CTN.
EG Silver Fil	nish			
CPC025	1/4	.312600	200	100
CPC050	1/2	.650890	200	100
CPC075	3/4	.860-1.110	200	100
CPC100	1	1.100-1.400	200	100
CPC125	11/4	1.400-1.725	200	50
CPC150	1½	1.690-1.980	200	50
CPC200	2	1.980-2.576	200	50
CPC250	2½	2.576-3.060	350	25
CPC300	3	3.060-3.626	350	25
CPC350	3½	3.626-4.126	350	25
CPC400	4	4.126-4.626	350	25

Stainless Steel: add suffix SS6.





800.816.7809 Fax: 901.252.1354









Pipe Straps, Conduit Clamps and Hangers

Pre-assembled for easy handling and sorting.

Superstrut® Pipe Straps

Superstrut® Pipe Straps are designed to be twist inserted anywhere along the slot side of the channel. Pipes can be placed as closely as pipe couplings permit.

Some unique features of the straps include:

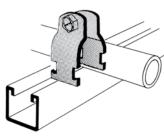
- Bolt head is combination slot and hex head for flexibility of attachment
- Square nut is captivated on the shoulder for easy one-handed tightening
- Straps are interchangeable with 1½" strut for broader application
- · Straps are shipped assembled so counting and sorting are easier
- Pipe or conduit sizes are shown on the strap for easy identification
- All Superstrut® Straps are preassembled for easy handling and sorting







700 — Superstrut® Straps for EMT



CAT. NO.	EMT Size (in.)	O.D. Size (IN.)	STEEL STRAP THICKNESS	DESIGN LOAD (LBS.)	STD. CTN.
700 3/8-STR	3/8	.577	14 ga.	750	100
700-1/2-STR	1/2	.706	14 ga.	750	100
700-3/4-STR	3/4	.922	14 ga.	750	100
700-1-STR	1	1.163	14 ga.	750	100
700-1-1/4-STR	11/4	1.510	14 ga.	750	50
700-1-1/2-STR	11/2	1.740	12 ga.	800	50
700-2-STR	2	2.197	12 ga.	800	50
Standard Finish - 0	GoldGalv®				

701 — Superstrut® Straps for O.D. Tubing



CAT. NO.	TUBING O.D. (IN.)	STEEL STRAP THICKNESS	DESIGN LOAD (LBS.)	STD. CTN
701-1/4	1/4	14 ga.	750	100
701-3/8	3/8	14 ga.	750	100
701-1/2-STR	1/2	14 ga.	750	100
701-5/8	5/8	14 ga.	750	100
701-3/4	3/4	14 ga.	750	100
701-7/8	7/8	14 ga.	750	100
701-1-STR	1	14 ga.	750	50
701-1-1/8	11//8	14 ga.	1,000	100
701-1-1/4	11/4	14 ga.	1,000	25
701-1-3/8	1%	14 ga.	1,000	100
701-1-1/2	1½	14 ga.	1,000	25
701-1-5/8	1%	14 ga.	1,000	100
701-1-3/4	13/4	12 ga.	1,000	25
701-1-7/8	11//8	12 ga.	1,000	50
701-2	2	12 ga.	1,000	50
701-2-1/8	21/8	12 ga.	1,300	50
701-2-1/4	21/4	12 ga.	1,300	25
701-2-3/8	2¾	12 ga.	1,300	25
701-2-1/2	21/2	12 ga.	1,300	25
701-2-5/8	25/8	12 ga.	1,300	50
(continued on follo	wina naae)			

www.tnb.com

United States

(P)

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354

Technical Services

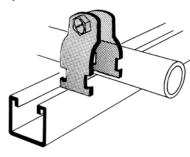






Pipe Straps, Conduit Clamps and Hangers

701 — Superstrut® Straps for O.D. Tubing (continued)



				_
CAT. NO.	TUBING O.D. (IN.)	STEEL STRAP THICKNESS	DESIGN LOAD (LBS.)	STD. CTN
701-2-3/4	23/4	12 ga.	1,300	25
701-2-7/8	21/8	12 ga.	1,300	25
701-3	3	12 ga.	1,300	25
701-3-1/8	31/8	12 ga.	1,300	25
701-3-1/4	31/4	12 ga.	1,300	25
701-3-3/8	3%	12 ga.	1,300	25
701-3-1/2	3½	12 ga.	1,300	25
701-3-5/8	35/8	11 ga.	1,650	25
701-3-3/4	33/4	11 ga.	1,650	25
701-3-7/8	31/8	11 ga.	1,650	25
701-4	4	11 ga.	1,650	25
701-4-1/8	41/8	11 ga.	1,650	25
701-4-1/4	41/4	11 ga.	1,650	25
701-4-3/8	43/8	11 ga.	1,650	25
701-4-1/2	41/2	11 ga.	1,650	10
701-4-5/8	45/8	11 ga.	1,650	10
701-4-3/4	43/4	11 ga.	1,650	10
701-4-7/8	47/8	11 ga.	1,650	10
701-5	5	11 ga.	1,650	25
701-5-1/8	51/8	11 ga.	1,650	10
701-5-1/4	51/4	11 ga.	1,650	10
701-5-3/8	5%	11 ga.	1,650	10
701-5-1/2	5½	11 ga.	1,650	10
701-5-5/8	5%	10 ga.	1,650	10
701-5-3/4	53/4	10 ga.	1,650	10
701-5-7/8	5%	10 ga.	1,650	10
701-6	6	10 ga.	1,650	10
701-6-1/8	61/8	10 ga.	1,650	10
701-6-1/4	61/4	10 ga.	1,650	10
701-6-3/8	63/8	10 ga.	1,650	10
701-6-1/2	6½	10 ga.	1,650	10
701-6-5/8	65/8	10 ga.	1,650	10
701-6-3/4	63/4	10 ga.	1,650	10
701-6-7/8	67/8	10 ga.	1,650	10
701-8	8	10 ga.	1,650	10

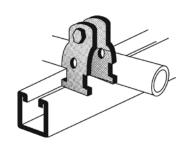
702 — Superstrut® Straps for Rigid Conduit, **IMC** and Pipe

• For Rigid or IMC Conduit, Pipe and Electric Metal Tubing (EMT)

CAT. NO.	RIGID CONDUIT OR PIPE SIZE (IN.)	O.D. Size (IN.)	STEEL STRAP THICKNESS	DESIGN LOAD (LBS.)	STD. CTN.
702-3/8	3/8	.675	14 ga.	750	100
702-1/2	1/2	.840	14 ga.	750	100
702-3/4	3/4	1.050	14 ga.	750	100
702-1	1	1.315	14 ga.	750	100
702-1-1/4	11/4	1.660	14 ga.	800	50
702-1-1/2	1½	1.900	12 ga.	800	50
702-2-STR	2	2.375	12 ga.	800	50
702-2-1/2	21/2	2.875	12 ga.	1,000	50
702-3	3	3.500	12 ga.	1,650	50
702-3-1/2	3½	4.000	11 ga.	1,650	25
702-4	4	4.500	11 ga.	1,650	25
702-4-1/2	41/2	5.000	11 ga.	1,650	25
702-5	5	5.563	11 ga.	1,650	25
702-6	6	6.625	11 ga.	1,650	10
702-8	8	8.625	11 ga.	1,650	10
702-10	10	10.750	10 ga.	1,650	25
702-12	12	12.750	10 ga.	1,650	25
	_				

Standard Finish - GoldGalv® brand. For Electro-Galvanized (Silver), add EG suffix.

703 — Universal Clamp



CAT. NO.	PIPE O.D. (IN.)	STEEL STRAP THICKNESS	DESIGN LOAD (LBS.)	STD. CTN.
703-1/2	.706–.840	16 ga.	400	100
703-3/4	.932-1.050	14 ga.	550	100
703 1	1.163-1.315	14 ga.	550	100
703-1-1/4	1.508-1.660	14 ga.	800	50
703-1-1/2	1.738-1.900	14 ga.	800	50
703-2	2.195-2.375	14 ga.	800	50

Standard Finish - GoldGalv®





1-800-453-1692

Pipe Straps, Conduit Clamps and Hangers

Angled for easy tightening!

Angler[®] Pipe and Conduit Clamp





Universal Series — for EMT, IMC, Rigid and Standard Pipe



				_	
CAT. NO.	SIZE (IN.)	STRAP THICKNESS	DESIGN LOAD (LBS.)	INSTALL TORQUE (IN. LBS.)	STD. CTN.
GoldGalv® Fin	ish				
C 109 1/2	1/2	14 ga.	400	40	100
C 109 3/4	3/4	14 ga.	500	40	100
C 109 1	1	14 ga.	500	40	100
C 109 1 1/4	11/4	14 ga.	500	40	100
C 109 1 1/2	11/2	12 ga.	800	60	50
C 109 2	2	12 ga.	800	60	50
C 109 2 1/2	21/2	12 ga.	800	60	50
C 109 3	3	12 ga.	800	60	50
C 109 3 1/2	31/2	11 ga.	1,200	60	25
C 109 4	4	11 ga.	1,200	60	25
SilverGalv® Fi	inish				
C 109 1/2 EG	1/2	14 ga.	400	40	100
C 109 3/4 EG	3/4	14 ga.	500	40	100
C 109 1 EG	1	14 ga.	500	40	100
C 109 1 1/4 EG	11/4	14 ga.	500	40	100
C 109 1 1/2 EG	11/2	12 ga.	800	60	50
C 109 2 EG	2	12 ga.	800	60	50
C 109 2 1/2 EG	21/2	12 ga.	800	60	50
C 109 3 EG	3	12 ga.	800	60	50
C 109 3 1/2 EG	31/2	11 ga.	1,200	60	25
C 109 4 EG	4	11 ga.	1.200	60	25

Rigid Series — for Rigid Conduit and Standard Pipe



CAT. NO.	SIZE (IN.)	STRAP THICKNESS	DESIGN LOAD (LBS.)	INSTALL TORQUE (IN. LBS.)	STD. CTN.
GoldGalv® Finis	sh				
C 109R 1/2	1/2	14 ga.	600	40	100
C 109R 3/4	3/4	14 ga.	600	40	100
C 109R 1	1	14 ga.	600	40	100
C 109R 1 1/4	11/4	14 ga.	600	40	100
C 109R 1 1/2	1½	12 ga.	800	60	50
C 109R 2	2	12 ga.	800	60	50
C 109 2 1/2	21/2	12 ga.	800	60	50
C 109 3	3	12 ga.	800	60	50
C 109 3 1/2	31/2	11 ga.	1,200	60	25
C 109 4	4	11 ga.	1,200	60	25
SilverGalv® Fin	ish				
C 109R 1/2 EG	1/2	14 ga.	600	40	100
C 109R 3/4 EG	3/4	14 ga.	600	40	100
C 109R 1 EG	1	14 ga.	600	40	100
C 109R 1 1/4 EG	11/4	14 ga.	600	40	100
C 109R 1 1/2 EG	11/2	12 ga.	800	60	50
C 109R 2 EG	2	12 ga.	800	60	50
C 109 2 1/2 EG	21/2	12 ga.	800	60	50
C 109 3 EG	3	12 ga.	800	60	50
C 109 3 1/2 EG	3½	11 ga.	1,200	60	25
C 109 4 EG	4	11 ga.	1,200	60	25

Hex head size $\frac{3}{6}$ " for $\frac{1}{2}$ " to $\frac{1}{4}$ " sizes, $\frac{1}{2}$ " for $\frac{1}{2}$ " to $\frac{4}{6}$ " sizes.

Material: Stamped Steel.

Pipe sizes 21/2" to 4" utilize the same clamps for the Rigid Series and the Universal Series.







w.aboveboardelectronics.com



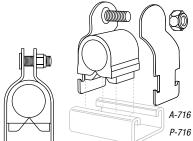
Pipe Straps, Conduit Clamps and Hangers

A-716 — Snap•Guard° Cushioned Clamp Tube Series

P-716 — Pipe Series

- Assembly consisting of GoldGalv® finish steel clamp with bolt/locknut and cushion
- Secure pipes, tubes and hoses for fluid conductors
- Installation is easy and requires no more time than a simple pipe clamp installation
- Cushion absorbs the shocks and associated vibrations from fluid surges in tubes, pipes and hoses
- Can handle temperatures from -40° F to 300° F

Cushioned Clamp assemblies are available individually bagged

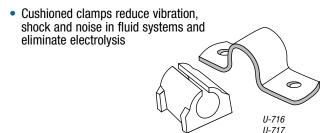


O.D. TUBIN	IG SIZES	STANDAR		
ASSEMBLY CAT. NO.	TUBE O.D. (IN.)	ASSEMBLY CAT. NO.	NOMINAL PIPE SIZE (IN.)	STD. CTN.
A-716-1/4	1/4	P-716-1/4	1/4	25
A-716-3/8	3/8	P-716-3/8	3/8	25
A-716-1/2	1/2	P-716-1/2	1/2	25
A-716-5/8	5/8	P-716-3/4	3/4	25
A-716-3/4	3/4	P-716-1	1	25
A-716-7/8	7/8	P-716-1-1/4	11/4	25
A-716-1	1	P-716-1-1/2	11/2	10
A-716-1-1/8	11//8	P-716-2	2	10
A-716-1-1/4	11/4	P716-2-1/2	21/2	10
A-716-1-3/8	1%	P-716-3	3	10
A-716-1-1/2	1½	P-716-3-1/2	31/2	10
A-716-1-5/8	1%	P-716-4	4	10
A-716-1-3/4	1¾	_	_	10
A-716-1-7/8	11//8	_	_	10
A-716-2	2	_	_	10
A-716-2-1/8	21//8	_	_	10
A-716-2-3/8	2%	_	_	10
A-716-2-5/8	25/8	_	_	10
A-716-3-1/8	31//8	_	_	10
A716-4-1/8	41//8	_	_	10

Standard Finishes – GoldGalv® brand. Available in Stainless Steel — use SS suffix. (i.e) A-716-1SS, Electro-Galvanized (Silver) — use EG suffix. (i.e) A-716-1EG

U-716, U-717 — Two-Hole Cushioned Clamp

- Guides, protects and uniformly spaces line runs.
 Low-cost, time-saving method of attaching tubing and hose to equipment
- Cushion is built to withstand the effects of most oils, chemical and industrial cleaning compounds, in temperatures from -50° F to 275° F. Interlock edge ensures cushion remains in place
- Clamp available in steel with the GoldGalv® hardware finish
- Attached with two standard fasteners to any flat surface, this clamp eliminates the use of special channels, providing a savings in both space requirements and cost



ASSEMBLY CAT. NO.	COPPER AND STEEL TUBING O.D. (IN.)	COPPER WATER PIPE (NOM.) (IN.)	NOMINAL PIPE SIZE (IN.)	STD. CTN.
U716 1/4	1/4	_	_	25
U-716-3/8	3/8	1/4	_	25
U-716-1/2	1/2	3/8	1/4	25
U-716-5/8	5/8	1/2	3/8	25
U-716-3/4	3/4	5/8	_	25
U-716-7/8	7/8	3/4	1/2	25
U-716-1	1	_	_	25
U-716-1-1/8	11/8	1	_	25
U-716-1-1/4	11/4	_	_	10
U-716-1-3/8	1%	11/4	_	10
U-716-1-1/2	1½	_	_	10
U-716-1-5/8	1%	1½	_	10
U-716-1-3/4	1¾	_	_	10
U-716-1-7/8	11//8	_	1½	10
U-716-2	2	_	_	10
U-716-2-1/8	21/8	_	_	10
U-716-2-3/8	2%	_	_	10
U-717-3/4	_	_	3/4	25
U-717-1	_	_	1	10
U-717-1-1/4 Standard Finish -	— - GoldGalv®	_	11⁄4	10

Thomas@Betts

United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 Technical Services
Tel: 888.862.3289







Pipe Straps, Conduit Clamps and Hangers

C-716 — Isolator for Copper Tubing

Features:

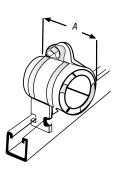
Designed for use with Superstrut® channel and pipe straps and Superstrut® C-711 Hangers, and may also be used with all standard flatbar or malleable iron hangers.

Materials:

Manufactured from one-piece steel shell with reinforcing ribs for stiffening and alignment. Padding is of processed non-conducting hairfelt and is cemented to the metal. Design of ribs creates a hinge so isolator may be opened and closed to install.

Application:

To provide a means to effectively isolate copper tubing from its supports to prevent the transmission of sound and vibration.



CAT. NO.	SIZE	NOMINAL PIPE SIZE	HANGER, C-711 OR	WIDTH A	STD.
GAT. NU.	(IN.)	(IN.)	PIPE STRAP, 702	(IN.)	CTN.
C716 1/2	1/2	1/2	3/4	23/8	100
C-716-3/4	3/4	3/4	3/4	23/8	100
C-716-1	1	1	1	23/8	100
C-716-1-1/4	11/4	11/4	11/4	23/8	50
C-716-1-1/2	11/2	11/2	1½	23/8	50
C-716-2	2	2	2½	23/8	50
C-716-2-1/2	21/2	21/2	3	215/32	50
C-716-3	3	3	3½	23/8	50
C-716-3-1/2	31/2	31/2	4	41/4	30
C-716-4	4	4	5	41/4	20

Order by Cat. No. and size. Standard Finish — GoldGalv®

S716 — Cushioned Strip — For Isolation and Vibration Applications

For use with 701 0.D. tubing and pipe clamp. To determine 701 clamp size, add $\frac{1}{2}$ to 0.D. tube size to allow for the cushioned strip material.

 $\frac{1}{2}$ " markings for fast measuring and cutting. Measurement chart is printed on back of carton. 20 feet included in each carton.

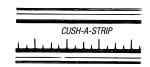
Prevent metal-to-metal contact with the cushioned strip material. It aids in sound insulation, shock absorption and protects against corrosion, distortion and abrasion. Cushioned strip material is designed for optimal use between -30° F and 300° F. Cushioned strip material combined with the Superstrut® 701 pipe strap can handle clamping assignments from $\frac{1}{4}$ " to 6.



Sold in a carton of 20 feet.

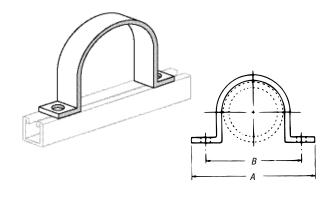


Order 701 clamp separately.





C-708-U — Short Strap for Channel or Wall Mounting



	DIMENSIONS (IN.)						
CAT. NO.	PIPE SIZE	A	В	HOLE SIZE	STOCK SIZE	DESIGN LOAD LBS.	STD. CTN.
C-708-U-1/2	1/2	27/8	2	9/32	⅓ x 1 %	650	50
C-708-U-3/4	3/4	31/16	23/16	9/32	⅓ x 1 %	650	50
C-708-U-1	1	3%	21/2	9/32	⅓ x 1 %	650	50
C-708-U-1-1/4	11/4	311/16	23/16	9/32	⅓ x 1 %	650	25
C-708-U-1-1/2	1½	315/16	31/16	9/32	⅓ x 1 %	650	25
C-708-U-2	2	53/4	41/8	7/16	1/4 X 15/8	650	25
C-708-U-2-1/2	21/2	63/16	4%16	7/16	1/4 X 15/8	1,000	25
C-708-U-3	3	63/16	53/16	7/16	1/4 X 15/8	1,000	25
C-708-U-3-1/2	3½	75/16	511/16	7/16	1/4 x 1 15/32	1,000	25
C-708-U-4	4	713/16	63/16	7/16	1/4 X 1 15/32	1,200	25
C-708-U-5	5	87/8	71/4	7/16	1/4 x 1 15/32	1,200	10
C-708-U-6 Carbon Steel.	6	915/16	85/16	7/16	1⁄4 x 15⁄8	1,200	10

www.tnb.com

United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services** Tel: 888.862.3289

Standard Finish - GoldGalv®





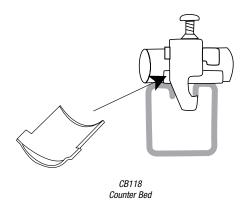


Pipe Straps, Conduit Clamps and Hangers

CB118 — Counter Bed

CAT. NO.	STD. CTN.
Counter Bed	
CB118-047PG	100
CB118-055PG	100
CB118-070PG	100
CB118-090PG	100
CB118-110PG	100

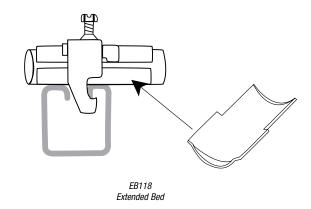
CAT. NO.	STD. CTN.
Counter Bed	
CB118-140PG	100
CB118-175PG	100
CB118-200PG	100
CB118-250PG	100
CB118-300PG	100



EB118 — Extended Bed

CAT. NO.	STD. CTN.
Extended Bed	
EB118-047PG	100
EB118-055PG	100
EB118-070PG	100
EB118-090PG	100
EB118-110PG	100

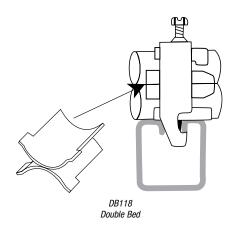
CAT. NO.	STD. CTN.	
Extended Bed		
EB118-140PG	100	
EB118-175PG	1	
EB118-200PG	1	
EB118-250PG	1	
EB118-300PG	1	



DB118 — Double Bed

CAT. NO.	STD. CTN.
Double Bed	
DB118-047PG	1
DB118-055PG	1
Note: Not sold in pairs.	

CAT. NO.	STD. CTN.		
Double Bed	_		
DB118-070PG	1		
DB118-090PG	1		



Thomas@Betts

United States
Tel: 901.252.8000
800.816.7809
Fax: 901.252.1354

Technical Services Tel: 888.862.3289

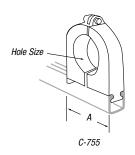






Pipe Straps, Conduit Clamps and Hangers

C-755 — Porcelain Cable Clamps



CAT. NO.	HOLE SIZE (IN.)	A (IN.)	STD. CTN.
C-755-1A	3/8	1%16	10
C-755-1B	1/2	1%16	10
C-755-1C	5/8	1%16	10
C-755-2	3/4	25/32	10
C-755-2A	7/8	25/32	10
C-755-2B	1	25/32	10
C-755-2C	11//8	25/32	10
C-755-3	11/4	25/8	10
C-755-3A	1%	25/8	10
C-755-3B	1½	25/8	10
C-755-3C	15%	25/8	10
C-755-4	13/4	35/8	10
C-755-4A	11//8	35/8	10
C-755-4B	2	35/8	10
C-755-4C	21//8	35/8	10
C-755-5	21/4	41/4	10
C-755-5A	23//8	41/4	10
C-755-5B	2½	41/4	10
C-755-5C	25//8	41/4	10
C-755-6	25/8	45/8	10
C-755-6A	27//8	45/8	10
C-755-6B	3	45/8	10
C-755-6C	31//8	45/8	10
C-755-7	31/4	513/16	10
C-755-7A	3¾	513/16	10
C-755-7B	3½	513/16	10
C-755-7C	35%	513/16	10
C-755-8	35//8	67/8	5
C-755-8A	31//8	67/8	5
C-755-8B	4	67/8	5
C-755-8C	41/8	61/8	5
C-755-8D	41/4	67/8	5
C-755-8E	43/8	67/8	5
C-755-8F	4½	67/8	5

Finish - GoldGalv® brand with bronze hardware.

Also fits 11/2" wide channel.

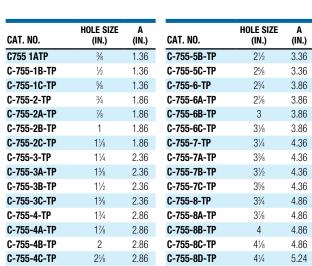
C-755 — TPE Cable Clamps

An easy-to-use one-piece insulator made from Sarlink 4339D, a flameretardant, high hardness grade TPE polymer that is UL Listed. The tapered flange of the insulator ensures complete isolation and protection of the cable. Options include a Stainless Steel Clamp and hardware or an Electro-Galvanized Clamp with Everdur nut and bolt.



Hole

- Non-breakable TPE material
- Exceptional chemical resistance
- Dielectric strength of 640 volts per mil
- Stainless Steel Clamps Type 304 or 316
- Electro-Galvanized Steel Clamps with Everdur Nut and Bolt
- Flame-retardant TPE insulator
- Excellent UV resistance





21/4

3.36

3.36

C-755-5-TP

C-755-5A-TP





43/8

41/2

5.24

5.24



C-755-8E-TP

Pipe Straps, Conduit Clamps and Hangers

HS Series Two-Hole Pipe Strap



CAT. NO.	PIPE SIZE (IN.)	STD. CTN.
HS901	1/2	500
HS902	3/4	500
HS903	1	500
HS904	11/4	250
HS905	1½	250
HS906	2	125
HS907	21/2	125
HS908	3	100
HS909	3½	75
HS910	4	50

Standard Finish — Galvanized.

Carbon steel.

Specify pipe size and catalog number.

For stainless steel, add suffix SS.

HS Series One-Hole Pipe Straps

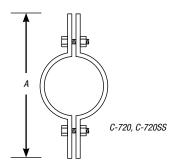


CAT. NO.	PIPE SIZE (IN.)	STD. CTN.
HS100	3/8	500
HS101	1/2	500
HS102	3/4	500
HS103	1	500
HS104	11/4	250
HS105	1½	250
HS106	2	50
HS107	21/2	25
HS108	3	25
HS109	31/2	25
HS110	4	25
F		

For stainless steel, add suffix SS.

C-720, C-720SS — Extension Riser Clamp

Designed for the support or steadying of vertical pipe risers. It is made of carbon steel and is designed to hold tight to the pipe, transmitting the load to the structure through the ears on each end. When possible, the clamp should be placed under a coupling, hub or lugs welded to the pipe.



..... Specifications

Material: Carbon Steel

B-146

- Compliance:Federal Specification A-A-1192A Type 8, MSS-SP-69 (Type 8) and BSPSS-BS3974.
- Finish: Standard Finish GoldGalv®, Black (add suffix "-B"), Electro-Galvanized (add suffix "-EG").

dalvanizoa (ada banix - Eu).

CAT. NO.	PIPE SIZE (IN.)	MAX. LOAD (LBS.)	A (IN.)	WT. EACH
C-720-1/2	1/2	255	9	1.00
C-720-3/4	3/4	255	81/8	1.08
C-720-1	1	255	81/8	1.08
C-720-1-1/4	11/4	255	10	1.86
C-720-1-1/2	1½	255	101/4	1.22
C-720-2	2	255	101/4	1.30
C-720-2-1/2	21/2	390	111/4	1.74
C-720-3	3	530	113//8	1.98
C-720-3-1/2	31/2	670	121/8	2.14
C-720-4	4	810	121/8	2.28
C-720-5	5	1,160	13¾	3.60
C-720-6	6	1,570	14¾	3.68
C-720-8	8	2,500	18½	7.26
C720 10	10	2,500	203/4	11.00
C-720-12	12	2,700	223/4	15.94
C-720-14	14	2,700	24	17.36
C-720-16	16	2,900	26	29.68
C-720-18	18	2,900	28	31.64
C-720-20	20	2,900	30	34.84
C-720-24	24	2,900	34	50.00
Standard Finish -	– GoldGalv® unless	otherwise stated		

Standard Finish - GoldGalv®, unless otherwise stated.

Note: This product is not designed to be supported with rods. Install using the maximum suggested torque values shown in the Technical Section of this catalog.



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354

Technical Services







Pipe Straps, Conduit Clamps and Hangers

C-720L — Offset Pipe Clamp

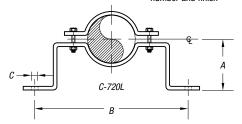
The Offset Pipe Clamp is used on pipe lines running at a fixed distance from a wall or floor. The standard clearance is two inches from the O.D. of pipe to the face of the surface. Non-standard clearances can be fabricated upon request.

...... Specifications

- · Material: Carbon Steel
- · Load Rating: Up to 650° F (343° C)
- Finish: Standard Finish GoldGalv[®]

Black (add suffix "-B"), Electro-Galvanized (add suffix "-EG")

Ordering: Specify pipe size, catalog number and finish



CAT. NO.	PIPE Size (In.)	MAX. LOAD (LBS.)	A (IN.)	B (IN.)	C (IN.)	WT. EACH (LBS.)
C-720L-1/2	1/2	190	27/16	81/2	7/16	1.1
C-720L-3/4	3/4	190	23/4	83/4	7/16	1.3
C-720L-1	1	190	27/8	91/4	7/16	1.4
C-720L-1-1/4	11/4	190	31/16	93/4	7/16	1.5
C-720L-1-1/2	1½	190	33/16	10	7/16	1.6
C-720L-2	2	420	31/2	111/4	9/16	2.8
C-720L-2-1/2	21/2	420	33/4	11¾	9/16	2.9
C-720L-3	3	420	41/16	121/8	⁹ ⁄ ₁₆	3.2
C-720L-4	4	610	49/16	131/8	9/16	4.2
C-720L-5	5	610	51/16	15%	11/16	6.5
C-720L-6	6	870	5%	16¾	11/16	7.2
C-720L-8	8	870	65/8	18¾	11/16	8.3
C-720L-10	10	1,050	73/8	21½	¹³ / ₁₆	12.4
C-720L-12	12	1.200	83/8	247/8	13/16	21.0

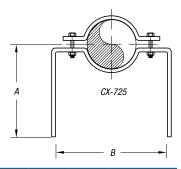
Standard Finish - GoldGalv®, unless otherwise stated.

CX-725 — Extended Offset Pipe Clamp

Designed to attach directly to piping where the exact distance between the structure and the pipe cannot be determined until the piping is in place. The extended legs can be modified in the field to suit the location. Legs of longer lengths can be furnished on order.

..... Specifications......

- Material: Carbon Steel
- Finish: Standard Finish Black (add suffix "-B"), Electro-Galvanized (add suffix "-EG")
- Ordering: Specify pipe size, catalog number and finish



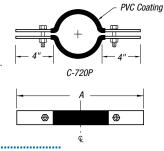
	PIPE	Α	В	WT. EACH
CAT. NO.	SIZE (IN.)	(IN.)	(IN.)	(LBS.)
CX-725-3/8	3/8	12	3¾	1.85
CX-725-1/2	1/2	12	3¾	1.85
CX-725-3/4	3/4	12	43/4	1.85
CX-725-1	1	12	5½	2.34
CX-725-1-1/4	11/4	12	57/8	2.40
CX-725-1-1/2	1½	12	61//8	2.45
CX-725-2	2	12	7	3.13
CX-725-2-1/2	21/2	12	71/2	4.21
CX-725-3	3	12	71/8	4.47
CX-725-4	4	12	10½	4.90
CX-725-5	5	12	121/4	4.90
CX-725-6	6	12	13	5.32
CX-725-8	8	12	151/4	11.20
CX-725-10	10	12	181/4	13.50
CX-725-12	12	12	20¾	22.00
CX-725-14	14	12	21	35.00

Standard Finish - GoldGalv® unless otherwise stated

C-720P — PVC-Coated Riser Clamp

The C-720P is normally used for the support of uninsulated vertical piping where no movement will occur. PVC coating the contact surface prevents galvanic corrosion with the pipe. Please use our C-720 for carbon steel piping or CT-720 for copper tubing requirements.

Note: This product is not designed to be supported with rods. Install using the maximum suggested torque values shown in the Technical Section of this catalog.



..... Specifications

- Material: Carbon Steel
- Compliance: Federal Specification A-A-1192A Type 8, MSS-SP-69 T 1400° F/600° C
- · Finish: Polyvinyl Chloride
- Ordering: Specify pipe size and catalog number

	PIPE SIZE	MAX.	Α	WT. EACH
CAT. NO.	(IN.)	LOAD (LBS.)	(IN.)	(LBS.)
C720P-1/2	1/2	225	9%	1.30
C-720P-3/4	3/4	225	93/8	1.36
C-720P-1	1	225	95/8	1.38
C-720P-1-1/4	11/4	225	10	1.95
C-720P-1-1/2	1½	225	10%	2.01
C-720P-2	2	225	10¾	2.17
C-720P-2-1/2	21/2	390	111/4	2.29
C-720P-3	3	530	12	2.50
C-720P-4	4	810	13½	3.42

Standard Finish - GoldGalv®, unless otherwise stated.

www.tnb.com

United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354

Technical Services







Pipe Straps, Conduit Clamps and Hangers

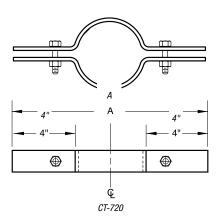
CT-720 — Copper Riser Clamp

Normally used for the support of uninsulated vertical tubing where no movement will occur. Please use C-720 for carbon steel piping or C-720P for plastic coating requirements.

Note: This product is not designed to be supported with rods. Install using the maximum suggested torque values shown in the Technical Section of this catalog.

.....Specifications

- Material: Carbon Steel
- Compliance: Federal Specification A-A-1192A Type 8, MSS-SP-69 Type 8
- · Finish: Copper
- Ordering: Specify tubing size and catalog number



CAT. NO.	TUBE SIZE (IN.)	MAX. LOAD (LBS.)	A (IN.)	WT. EACH (LBS.)
CT-720-1/2	1/2	220	93/16	.70
CT-720-1/2	72 3/ ₄	220	93/16	.70
			-,	** *
CT720 1	1	220	9½	.75
CT-720-1-1/4	11/4	220	9¾	.77
CT-720-1-1/2	1½	220	101//8	.80
CT-720-2	2	220	10½	.84
CT-720-2-1/2	21/2	390	11	1.60
CT-720-3	3	530	11%	1.80
CT-720-3-1/2	31/2	530	125/8	1.95
CT-720-4	4	530	131//	2.04
CT-720-5	5	810	14	3.50
CT-720-6	6	1,570	15	5.25

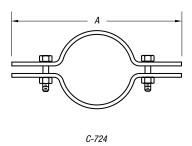
Standard Finish - GoldGalv®, unless otherwise stated.

C-724 — Ductile Iron Pipe Clamp

Can be used to secure mechanical joint piping or socket fittings together to prevent separation under pressure either under or above ground, vertically or horizontally. If using in this fashion, two (2) W-724 Socket Clamp Washers and Figure 133 Rods are also required, but must be ordered separately. The C-724 may also be used to support and guide vertical ductile iron pipe.

..... Specifications

- Materials: Carbon Steel
- Finish: Standard Finish GoldGalv®, Black (add suffix "-B"), Electro-Galvanized (add suffix "-EG")
- Ordering: Specify pipe size, catalog number and finish



CAT. NO.	PIPE SIZE (IN.)	ACTUAL Pipe O.D.	A (IN.)	WASHER Size (In.)	WT. EACH (LBS.)
C-724-3	3	3.96	121/4	3/4	9.00
C-724-4	4	4.8	13¾	3/4	9.00
C-724-6	6	6.9	15¾	3/4	10.70
C-724-8	8	9.05	18	3/4	12.20
C-724-10	10	11.1	201//8	3/4	14.60
C-724-12	12	13.2	227/8	3/4	16.60
C-724-14	14	15.3	25½	11/4	41.90
C-724-16	16	17.4	28	11/4	61.90
C-724-18	18	19.5	33	11/4	65.10
C-724-20	20	21.6	35½	1½	92.20
C-724-24	24	25.8	401/2	1½	122.70
C-724-30	30	32	48	11/2	184.00





1-800-453-1692

Standard Finish - GoldGalv® unless otherwise stated





Pipe Straps, Conduit Clamps and Hangers

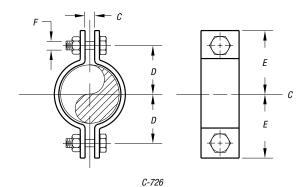
C-725 — Two-Bolt Pipe Clamp

Designed to suspend cold or hot pipe lines where little or no insulation is required. The C-725 is usually used with an E-120-A Weldless Eyenut or E-157 Welded Eyerod. See Figure 298 heavy-duty Two-Bolt Clamp when higher loads are required. We will also design to meet special requirements such as special pipe sizes.

Rated Loads are for up to 750° F (399° C).

..... Specifications

- Material: Carbon Steel
- Compliance: Federal Specification A-A-1192A Type 4, MSS-SP-69 Type 4 and BSPSS-BS3974
- Finish: Standard Finish GoldGalv®, Black (add suffix "-B"), Electro-Galvanized (add suffix "-EG")
- Ordering: Specify catalog number, finish and pipe size. Also, include any special requirements for C-725



		MAXIMU	M LOAD		DOD TAKE OUT			WT FAOU
CAT. NO.	PIPE SIZE (IN.)	650° F/343° C	750° F/343° C	C (IN.)	ROD TAKE OUT D (IN.)	E (IN.)	F (IN.)	WT. EACH (LBS.)
C725 1/2	1/2	500	445	3/8	11//8	1%	3/8	.31
C-725-3/4	3/4	500	445	3/8	11/4	1¾	3/8	.35
C-725-1	1	500	445	3/8	1%	11//8	3/8	.39
C-725-1-1/4	11⁄4	500	445	3/8	1%	21/8	3/8	.40
C-725-1-1/2	1½	800	715	3/8	1¾	21/4	3/8	.45
C-725-2	2	1,040	930	1/2	21//8	25/8	1/2	1.23
C-725-2-1/2	21/2	1,040	930	5/8	25/8	31/8	1/2	1.33
C-725-3	3	1,040	930	5/8	3	31/2	1/2	1.53
C-725-4	4	1,040	930	3/4	35/8	43/8	1/2	2.20
C-725-5	5	1,040	930	3/4	41/4	5	1/2	2.39
C-725-6	6	1,615	1,440	7/8	51/4	61/4	3/4	5.87
C-725-8	8	1,615	1,440	1	63//8	73/8	3/4	6.95
C-725-10	10	2,490	2,220	1	75/8	83/4	7/8	14.39
C-725-12	12	2,490	2,220	11//8	83/4	101/4	7/8	16.73
C-725-14	14	2,490	2,220	11//8	91/4	10%	7/8	21.26
C-725-16	16	2,490	2,220	11//8	101/4	11%	7/8	23.39
C-725-18	18	3,060	2,730	11/4	11%	13	1	32.96
C-725-20	20	3,060	2,730	1%	12¾	141//8	11//8	36.74
C-725-24	24	3,060	2,730	1½	151/4	16%	11//8	52.96
C-725-30	30	3,500	3,360	2	181/2	20¾	1½	103.50

Standard Finish - GoldGalv®, unless otherwise stated.





1-800-453-1692

www.tnb.com

800.816.7809

Fax: 901.252.1354

Pipe Straps, Conduit Clamps and Hangers

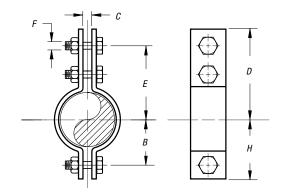
C-726 — Three-Bolt Pipe Clamp

Designed for hot-insulated pipe lines up to 750° F. The spacer on the top inner bolt provides uniform space for the connecting eyerod or weldless eyenut. We will also design to meet special requirements such as special pipe sizes.

Rated Loads are for up to 750° F (399° C).

..... Specifications

- Material: Carbon Steel
- Federal Specification A-A-1192A
 Type 3, MSS-SP-69 Type 3 and BSPSS-BS3974
- Finish: Standard Finish GoldGalv®, Black (add suffix "-B"), Electro-Galvanized (add suffix "-EG")
- Ordering: Specify catalog number, finish and pipe size. Also, include any special requirements



C-726

		MAXIMU	M LOAD				TAKE OUT E			WT. EACH
CAT. NO.	PIPE SIZE (IN.)	650° F/343° C	750° F/399° C	B (IN.)	C (IN.)	D (IN.)	(IN.)	F (IN.)	H (IN.)	(LBS.)
C-726-1/2	1/2	950	845	1	5/8	21/8	21/4	3/8	15/8	.61
C-726-3/4	3/4	950	845	11/8	5/8	31/4	21/2	3/8	13/4	.66
C-726-1	1	950	845	11/2	5/8	33/4	21/2	3/8	21/4	.69
C-726-1/4	11/4	950	845	11/2	3/4	35/8	27/8	3/8	21/4	.75
C-726-1-3/4	1¾	1,545	1,380	13/4	1	47/8	41/4	5/8	21/2	2.14
C-726-2	2	1,545	1,380	21/4	11/4	57/8	51/4	5/8	23/4	2.43
C-726-2-3/4	23/4	1,545	1,380	21/4	11/4	61/4	5¾	5/8	3	2.92
C-726-3	3	1,545	1,380	23/4	11/4	65/8	6	5/8	31/2	3.19
C-726-4	4	2,500	2,230	33/8	1	75/8	61/2	3/4	41/2	7.12
C-726-5	5	2,500	2,230	4	11/4	81/4	7	3/4	51/4	7.96
C-726-6	6	2,865	2,555	43/4	11/4	95/8	81/4	7/8	61/4	11.85
C-726-8	8	2,865	2,555	53/4	11/4	105/8	91/4	7/8	71/4	13.59
C-726-10	10	3,240	2,890	61/8	11/4	12	10½	1	81/4	21.33
C-726-12	12	3,240	2,890	83/8	11/2	13	111/2	1	97/8	23.65
C-726-14	14	4,300	3,835	91/4	2	143/8	123/4	11/4	103/4	38.78
C-726-16	16	4,300	3,835	10	2	151/8	14	11/4	113/4	42.89
C-726-18	18	4,300	3,835	111 1/8	2	163/4	151/4	11/4	131/4	46.35
C-726-20	20	4,500	4,015	123/8	2	171/2	157/8	13/8	14	58.67
C-726-24	24	5,490	4,900	143/4	2	191/8	177/8	11/2	163/8	89.32
C-726-30	30	7,500	6,690	181/2	11/2	263/8	23¾	11/2	21	140.89
C-726-36	36	1,0500	9,360	221/2	3	321/4	283/4	13/4	26	246.44

 $\textit{Standard Finish} - \textit{GoldGalv}^{\otimes} \ \textit{unless otherwise stated}.$





1-800-453-1692 ww.aboveboardelectronics.com



Fax: 901.252.1354



Pipe Straps, Conduit Clamps and Hangers

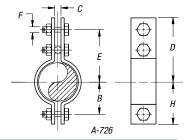
Pipe Clamps — A-726, Alloy Three-Bolt Pipe Clamp

Designed for hot-insulated pipelines. The spacer on the top inner bolt provides uniform space for the connecting eyerod or weldless eyenut.

Temperature range: above 750° F (399° C) to 1050° F (566° C).

...... Specifications

- Material: Chromium Molybdenum Steel, ASTM A-387 Grade 22
- Compliance: Federal Specification A-A-1192A Type 3, MSS-SP-69 Type 3 and BSPSS-BS3974
- Finish: Standard Finish GoldGalv®, Black (add suffix "-B"), Electro-Galvanized (add suffix "-EG")
- Ordering: Specify catalog number and pipe size



	PIPE SIZE	•	MAXIMUM LOAD		В	C	D	TAKE OUT E	F	Н	
CAT. NO.	(IN.)	950° F/510° C	1000° F/538° C	1050° F/566° C	(IN.)	(IN.)	(IN.)	(IN.)	(IN.)	(IN.)	(LBS.)
A-726-3/4	3/4	870	600	440	11//8	5/8	3	21/2	3/8	1%	1.09
A-726-1	1	870	600	440	11/4	5/8	31//8	25/8	3/8	13/4	1.14
A-726-1-1/4	11/4	870	600	440	11/2	3/4	33/4	27/8	3/8	21/4	1.23
A-726-1-1/2	1½	1,400	1,000	700	13/4	1	47/8	41/8	5/8	23/8	2.48
A-726-2	2	1,400	1,000	700	21/8	1	51//8	51//8	5/8	23/4	2.70
A-726-2-1/2	2½	1,400	1,000	700	21/4	1	61//8	5¾	5/8	3	2.76
A-726-3	3	1,400	1,000	700	23/4	1	63/4	6	5/8	31/2	3.19
A-726-4	4	2,300	1,600	1,100	3%	1	7%	6½	3/4	41/2	7.30
A-726-5	5	2,300	1,600	1,100	4	11/8	81//8	7	3/4	51//8	7.96
A-726-6	6	2,600	1,800	1,300	43/4	11/4	10	85/8	7/8	61//8	12.26
A-726-8	8	2,600	1,800	1,300	53/4	11/4	11	95/8	7/8	71//8	14.04
A-726-10	10	3,000	2,100	1,500	67//8	11/4	12	10½	1	81/4	21.33
A-726-12	12	3,000	2,100	1,500	8¾	11/2	131//8	11%	1	91/8	24.00
A-726-14	14	3,900	2,800	2,000	91/8	2	141/8	12¾	11/4	10¾	38.78
A-726-16	16	3,900	2,800	2,000	10	2	151/8	14	11/4	11¾	43.13
A-726-18	18	39	2,800	2,000	11%	2	16¾	151//8	11/4	131/4	47.78
A-726-20	20	5,000	3,200	2,000	123/8	2	171/2	151/8	11/8	14	58.67
A-726-24	24	5,500	3,500	2,700	14¾	1½	19%	17%	11/2	16¾	90.82
Ctandard Einiah (0-140-1-B1		*	-							

Standard Finish — GoldGalV®, unless otherwise stated.

Pipe Hangers — C-710, C-710F, C-710P, C-710SS

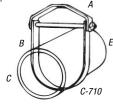
Designed to support non-insulated, stationary lines from above, allowing for approximately 1" to 1½" of vertical adjustment after the pipe is in place. The lower nut (not furnished) adjusts the pipe line to the proper elevation, the top nut (not furnished) prevents loosening due to vibration and must be tightened securely to assure proper hanger performance.

Rated Loads are for up to 650° F (343° C) for carbon steel. Maximum PVC temperature is 140° F (60° C).

Standard Finish - GoldGalv®, unless otherwise stated.

......Specifications

- Material: Carbon Steel (Also available in Stainless Steel as C-710SS)
- Compliance: Federal Specification A-A-1192A Type 1, MSS-SP-69 Type 1, BSPSS-BS3974, UL and FM
- Finish: Standard Finish GoldGalv®, Black (add suffix "-B"), Electro-Galvanized (add suffix "-EG")
- Ordering: Specify catalog number, finish and pipe size



CAT. NO.	PIPE Size (In.)	MAX. Load (LBS.)	A (IN.)	B (IN.)	C (IN.)	ROD TAKE OUT E (IN.)	WT. EACH (LBS.)
C-710-1/2	1/2	610	3/8	23/4	31//8	1%	.27
C-710-3/4	3/4	610	3/8	21/8	23/4	11/2	.29
C-710-1	1	610	3/8	3	33/4	21/4	.33
C-710-1-1/4	11/4	610	3/8	31//8	4	21/4	.36
C-710-1-1/2	1½	610	3/8	31/4	41/4	23/8	.42
C-710-2	2	610	3/8	3¾	45/8	31//8	.52
C-710-2-1/2	21/2	1,130	1/2	41/8	5%	31//8	.61
C-710-3	3	1,130	1/2	5	63/4	41/8	.90
C-710-3-1/2	31/2	1,130	1/2	41/2	65/8	35/8	.99
C-710-4	4	1,430	5/8	5%	73/4	43/8	1.40
C-710-5	5	1,430	5/8	6	81/8	5	2.10
C-710-6	6	1,940	3/4	7	101/2	51//8	3.00

CAT. NO.	PIPE Size (In.)	MAX. Load (LBS.)	A (IN.)	B (IN.)	C (IN.)	ROD TAKE OUT E (IN.)	WT. EACH (LBS.)
C-710-7	7	2,000	3/4	7%	11¾	61/2	5.42
C-710-8	8	2,000	3/4	81/2	12¾	63/4	5.25
C-710-10	10	3,600	7/8	10	15%	81/4	9.10
C-710-12	12	3,800	7/8	111//8	171/2	91/4	11.75
C-710-14	14	4,200	1	121/2	191/2	10%	14.25
C-710-16	16	4,800	1	15	23	131//8	20.75
C-710-18	18	4,800	11/4	15¾	24¾	13¾	23.00
C-710-20	20	4,800	11/4	17%	273/8	151/4	41.50
C-710-24	24	4,800	11/4	19%	31%	171/2	50.00
C-710-30	30	6,000	11/4	24¾	40¾	21¾	68.08
C-710-36	36	9,500	1½	321/8	50%	30	68.68
Ctandard Finish	CaldCald	D	ina atat				

Standard Finish – GoldGalv®, unless otherwise stated

www.tnb.com

United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 Technical Services
Tel: 888.862.3289







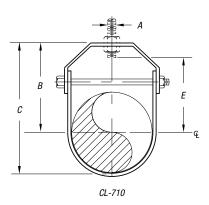
Pipe Straps, Conduit Clamps and Hangers

CL-710 — Light-Duty Clevis Hanger

Designed to support non-insulated, stationary lines from above, allowing for approximately 1" to $1\frac{1}{2}$ " of vertical adjustment after the pipe is in place. The lower nut (not furnished) adjusts the pipe line to the proper elevation, the top nut (not furnished) prevents loosening due to vibration and must be tightened securely to assure proper hanger performance.

...... Specifications

- Material: Carbon Steel
- Compliance: Federal Specification A-A-1192A Type 1, MSS-SP-69 Type 1
- Finish: Standard Finish GoldGalv®, Black (add suffix "-B"), Electro-Galvanized (add suffix "-EG")
- Ordering: Specify catalog number, finish and pipe size



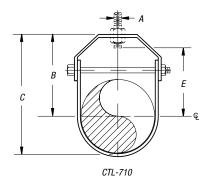
CAT. NO.	PIPE SIZE (IN.)	MAX. LOAD (LBS.)	A (IN.)	B (IN.)	C (IN.)	E (IN.)	WT. EACH (LBS.)
CL710 1/2	1/2	150	3/8	1%	23/8	3/4	.27
CL-710-3/4	3/4	250	3/8	23/8	27/8	1½	.29
CL-710-1	1	250	3/8	23/8	37/8	1%	.33
CL-710-1-1/4	11/4	250	3/8	27/8	33/4	21/8	.36
CL-710-1-1/2	11/2	250	3/8	3	4	21/4	.42
CL-710-2	2	250	3/8	31/2	43/4	23/4	.52
CL-710-2-1/2	21/2	350	1/2	4	51/2	21/8	.81
CL-710-3	3	350	1/2	41/4	61/8	31/4	.90
CL-710-3-1/2	31/2	350	1/2	43/8	61/2	3%	.99
CL-710-4	4	400	5/8	5½	71//8	43/8	1.40

CTL-710 — Copper Clevis Hanger

Designed to support non-insulated, stationary copper tubing lines from above, allowing for approximately 1" to $1\frac{1}{2}$ " of vertical adjustment after the tubing is in place. The lower nut (not furnished) adjusts the pipe line to the proper elevation. The top nut (not furnished) prevents loosening due to vibration and must be tightened securely to assure proper hanger performance.

...... Specifications

- Material: Carbon Steel
- Compliance: Federal Specification A-A-1192A Type 1, MSS-SP-69 Type 1 and BSPSS-BS3974. Rated Loads are for up to 650° F (343° C)
- · Finish: Copper
- Ordering: Specify tubing size and catalog number



CAT. NO.	PIPE SIZE (IN.)	MAX. LOAD (LBS.)	A (IN.)	B (IN.)	C (IN.)	ROD TAKE OUT E (IN.)	WT. EACH (LBS.)
CTL710 1/2	1/2	150	3/8	27/8	31//8	21/4	.16
CTL-710-3/4	3/4	250	3/8	25/8	3	11//8	.16
CTL-710-1	1	250	3/8	25/8	31/8	11//8	.19
CTL-710-1-1/4	11/4	250	3/8	31//8	3¾	23/8	.22
CTL-710-1-1/2	11/2	250	3/8	3%	41/8	25/8	.29
CTL-710-2	2	250	3/8	3%	43/8	25/8	.32
CTL-710-2-1/2	21/2	350	1/2	35/8	47/8	25/8	.72
CTL-710-3	3	350	1/2	31/8	5%	21/8	.82
CTL-710-3-1/2	31/2	350	1/2	41/8	51/8	31/8	.91
CTL-710-4	4	350	1/2	41/2	61/4	3½	1.07
CTL-710-5	5	900	5/8	5	73/4	37/8	1.76
CTL-710-6	6	900	5/8	5¾	87/8	45/8	1.92



Standard Finish - GoldGalv®, unless otherwise stated.

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 Tel: 888.862.3289



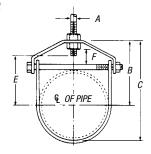


Standard Finish - GoldGalv®, unless otherwise stated

Pipe Straps, Conduit Clamps and Hangers

ETL-710 — Light-Duty Clevis Hanger





	TUBING	MATERIAL			DIMENSIONS (IN.)			STD.
CAT. NO.	SIZE (IN.)	SIZE	Α	В	С	E	F	CTN.
ETL710 1/2	1/2	16 ga x ⅓	3/8	113/16	23/16	11/4	9/16	100
ETL-710-3/4	3/4	16 ga x ⅓	3/8	13/4	21/4	11/4	9/16	100
ETL-710-1	1	16 ga x ⅓	3/8	15/8	25/16	11/8	1/2	100
ETL-710-1-1/4	11/4	16 ga x ⅓	3/8	2	23/4	11/8	11/16	100
ETL-710-1-1/2	11/2	16 ga x ⅓	3/8	23/8	31/8	11/4	1	100
ETL-710-2	2	13 ga x ⅓	3/8	211/16	4	1½	11/16	100
ETL-710-2-1/2	21/2	1/8 x 11/4	1/2	31/4	411/16	2	11//8	100
ETL-710-3	3	1/8 x 11/4	1/2	31/2	53/16	21/4	1 ¾6	100
ETL-710-3-1/2	31/2	1/8 x 11/4	1/2	3¾	511/16	21/2	11//8	100
ETL-710-4	4	1/8 x 11/4	1/2	45/16	6½	3	1 ¾6	100
ETL-710-5	5	3∕16 X 1 1∕4	5/8	5	711/16	3¾	13/16	50
ETL-710-6	6	3∕16 X 11∕4	5/8	511/16	81//8	41/8	11/4	50

Standard Finish - GoldGalv®.

Carbon Steel.

Copper tube sized.

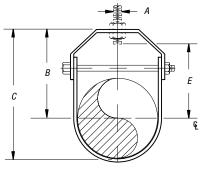
For the suspension of stationary copper tubing lines. Order by Cat. No., tubing size.

CI-710 — Clevis Hanger for Ductile Iron and A.W.W.A. Cast Iron Pipe

Designed to support non-insulated, stationary ductile iron and A.W.W.A. cast iron lines from above, allowing for approximately 1" to $1\frac{1}{2}$ " of vertical adjustment after the pipe is in place. The lower nut (not furnished) adjusts the pipe line to the proper elevation. The top nut (not furnished) prevents loosening due to vibration and must be tightened securely to assure proper hanger performance.

..... Specifications

- Material: Carbon Steel
- Compliance: MSS-SP-69 Type 1, A-A-1192A Type 1
- Finish: Standard Finish GoldGalv®, Black (add suffix "-B"), Electro-Galvanized (add suffix "-EG")
- Ordering: Specify pipe size, catalog number and finish



CI-710

	PIPE	MAX.		DIMENSIONS (IN.)		ROD TAKE	WT. EACH
CAT. NO.	SIZE (IN.)	LOAD (LBS.)	Α	В	С	OUT E (IN.)	(LBS.)
CI-710-4	4	1,430	3/4	53/4	81/8	4%	2.08
CI-710-6	6	1,940	7/8	7	10%	5½	2.78
CI-710-8	8	2,000	7/8	91/4	13¾	73/4	4.47
CI-710-10	10	3,600	7/8	101/4	15¾	85/8	8.87
CI-710-12	12	3,800	7/8	125//8	191/4	11	12.0
CI-710-14	14	4,200	1	141/8	21¾	121/4	15.2
CI-710-16	16	4,800	1	141//8	235/8	13	23.6
CI-710-18	18	4,800	11/4	16½	261/4	14½	25.9
CI-710-20	20	4,800	11/4	18¾	29½	16½	44.3
CI-710-24	24	4,800	11/4	21%	34¾	19½	53.5

Standard Finish - GoldGalv®, unless otherwise stated.



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services**





Pipe Straps, Conduit Clamps and Hangers

C-711 — J Pipe Hanger

Standard Finish - GoldGalv® brand

Complies with Specification MSS SP 58, Type 5. Sizes through 5" conform to Ca. Code Title 24, Div. T22 for seismic restraint bracing.

C-711F — Felt-Lined J Pipe Hanger

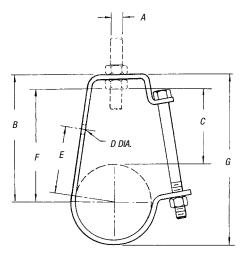
Standard Finish - GoldGalv® brand

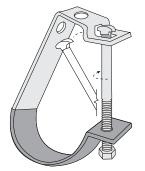
Available in sizes up to 8".

C-711P — Plastic-Coated J Pipe Hanger

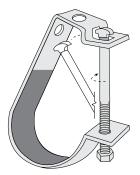
Standard Finish - GoldGalv® brand

Isolates hanger from glass and other piping for corrosion or cushioning purposes. Available in sizes up to 4". Order by Cat. No. and pipe size. Hole provided for side mounting to wall as bracket.





Standard



Felt Lined

Plastic Coated

3/8

3/8

3/8

3/8



	PIPE	A ROD		DIN	IENSIONS	(IN.)			G	STOCK	MAX REC	STD.
CAT. NO.	SIZE (IN.)	SIZE (IN.)	В	C	D	E	F	BOLT SIZE (IN.)	(IN.)	SIZE	LOADS (LBS.)	CTN.
C-711-1/2	1/2	3/8	25/8	13/4	7/16	11/2	1 15/16	1/4	35/32	12 ga x ¾	400	50
C-711-3/4	3/4	3/8	27/8	17/8	7/16	1 11/16	21/8	1/4	31/2	12 ga x ¾	400	50
C-711-1	1	3/8	215/16	1 15/16	7/16	1 13/16	25/16	1/4	311/16	12 ga x 3/4	400	50
C-711-1-1/4	1 1/4	3/8	31/4	2	7/16	21/16	25/8	1/4	41/8	12 ga x ¾	400	50
C-711-1-1/2	1 1/2	3/8	39/16	23/16	7/16	27/16	27/8	1/4	45/8	12 ga x 3/4	400	50
C-711-2	2	3/8	311/16	21/8	7/16	29/16	31/16	1/4	5	12 ga x ¾	400	50
C-711-2-1/2	21/2	1/2	47/16	27/16	9/16	33/16	35/8	3/8	6	12 ga x 11/4	500	25
C-711-3	3	1/2	4 13/16	29/16	9/16	31/2	41/16	3/8	$6^{21}/_{32}$	12 ga x 11/4	500	25

33/4

45/8

51/16

513/16

 $4\frac{3}{8}$

53/16

 $5\frac{3}{8}$

65/8

8

*Hangers 6" and over have hole instead of slot.

C-711-3-1/2

C-711-4

C-711-5

C-711-6

C-711-8

31/2

4

5

6*

8*

Thomas@Betts

United States

51/8

63/4

73/4

93/16

1/2

5/8

3/4

7/8

25/8

33/16

31/4

39/16

315/16

9/16

9/16

9/16

9/16

9/16

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354

Technical Services Tel: 888.862.3289



3/16 X 11/4

3/16 X 11/4

3/16 X 11/4

3/16 X 13/4

3/16 X 13/4

75/16

89/16

 $9^{23}/_{32}$

111/4

1311/16





500

550

550

600

760

25 25

10

10

10

8



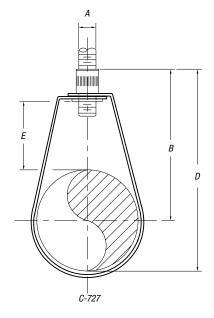
Pipe Straps, Conduit Clamps and Hangers

C-727 — Adjustable Swivel Ring

Designed for the support of non-insulated static pipe lines. The swivel nut is knurled to provide a gripping surface when adjusting the pipe elevation.

...... Specifications

- Compliance: Federal Specification Compilance: Federal Specification
 A-A-1192A Type 10, MSS SP-69
 Type 10, UL Listed and FM Approved
 (¾" through 8"). We also offer
 Swivel Ring hangers that are for
 Copper Tubing (CT-727), PVC coated
 (C-727-P) and for NFPA requirements (C-727-NFPA) in this catalog
- · Material: Carbon Steel
- Finish: Standard Finish -Pre-Galv, Electro-Galvanized (add suffix "-EG") Black (add suffix "-B")
- · Ordering: Specify pipe size, catalog number and finish



				DIMENSI	ONS (IN.)		- WT. EACH
CAT. NO.	PIPE SIZE (IN.)	MAX LOAD (LBS.)	Α	В	D	E	(LBS.)
C-727-1/2	1/2	300	3/8	23/4	31/16	1 ½16	.09
C-727-3/4	3/4	300	3/8	21/2	31/16	11/8	.10
C-727-1	1	300	3/8	21/2	33/16	1	.10
C-727-1-1/4	11/4	300	3/8	213/16	3%16	11/16	.10
C-727-1-1/2	11/2	300	3/8	31/8	37/8	11/16	.11
C-727-2	2	300	3/8	35/16	43/8	11/8	.12
C-727-2-1/2	21/2	600	1/2	311/16	51/8	11/4	.32
C-727-3	3	600	1/2	4	57/8	11/8	.35
C-727-3-1/2	31/2	600	1/2	45/16	65/8	11/2	.39
C-727-4	4	1,000	5/8	415/16	71/8	11/4	.43
C-727-5	5	1,000	5/8	55/8	81/2	13/8	.65
C-727-6	6	1,250	3/4	611/16	101/8	2	1.09
C-727-8	8	1,800	7/8	85/16	121/8	25/8	1.24

Standard Finish: Pre-Galv only.

Add "F" suffix for felt lining.





800.816.7809

Fax: 901.252.1354

1-800-453-1692



Tel: 888.862.3289



B-155

Pipe Straps, Conduit Clamps and Hangers

C-727-P — PVC-Coated Adjustable Swivel Ring

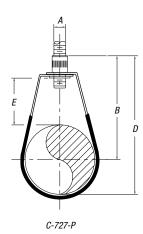
Designed for the support of non-insulated static pipe lines and to protect the pipe from coming into direct contact with the hanger by having the contact surface PVC coated. The swivel nut is knurled to provide a gripping surface when adjusting the pipe elevation.

...... Specifications

 Compliance: Federal Specification A-A-1192A Type 10, MSS SP-69 Type 10, UL Listed and FM Approved (¾" through 8")

We also offer Swivel Ring hangers that are for Copper Tubing (CT-727) and for NFPA requirements (C-727-NFPA) in this catalog. Operating temperature should not exceed 140° F/60° C

- · Material: Carbon Steel
- Finish: Standard Finish GoldGalv®, Black (add suffix "-B"), Electro-Galvanized (add suffix "-EG")
- Ordering: Specify pipe size and catalog number



	PIPE	MAX. LOAD	D	IMENSI	ONS (IN	l.)	WT.
CAT. NO.	SIZE (IN.)	(LBS.)	Α	В	D	E	EACH (LBS.)
C727P 1/2	1/2	300	3/8	23/4	31/16	17/16	.11
C-727-P-3/4	3/4	300	3/8	21/2	31/16	11/8	.13
C-727-P-1	1	300	3/8	21/2	33/16	1	.13
C-727-P-1-1/4	11/4	300	3/8	213/16	31/16	11/16	.15
C-727-P-1-1/2	11/2	300	3/8	31//8	37/8	11/16	.17
C-727-P-2	2	300	3/8	35/16	43/8	11/8	.18
C-727-P-2-1/2	21/2	600	1/2	311/16	51/8	11/4	.34
C-727-P-3	3	600	1/2	4	51/8	11/8	.39
C-727-P-3-1/2	31/2	600	1/2	45/16	65/8	11/2	.42
C-727-P-4	4	1,000	5/8	$4^{15}/_{16}$	71/8	11/4	.48
C-727-P-5	5	1,000	5/8	5%	81/2	13/8	.69
C-727-P-6	6	1,250	3/4	611/16	101//8	2	1.13
C-727-P-8	8	1,800	7/8	85/16	121//8	25/8	1.29

C-727-NFPA — NFPA Swivel Ring

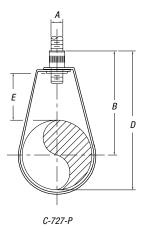
Designed for the support of non-insulated static pipe lines. The swivel nut is knurled to provide a gripping surface when adjusting the tubing elevation and is tapped to the reduced rod standards of NFPA.

..... Specifications

 Compliance: Federal Specification A-A-1192A Type 10, MSS SP-69 Type 10, UL Listed and FM Approved (¾" through 8") and NFPA standards

We also offer Swivel Ring hangers that are for standard commercial pipe (C-727), copper tubing (CT-727) and PVC coated (C-727-P) in this catalog

- · Material: Carbon Steel
- Finish: Standard Finish GoldGalv®, Black (add suffix "-B"), Electro-Galvanized (add suffix "-EG")
- Ordering: Specify pipe size, catalog number and finish



	PIPE	MAX. LOAD	D	IMENSI	V.)	WT.	
CAT. NO.	SIZE (IN.)	(LBS.)	Α	В	D	Е	EACH (LBS.)
C-727-NFPA-1/2	1/2	300	3/8	23/4	31/16	1 ½16	.09
C-727-NFPA-3/4	3/4	300	3/8	21/2	31/16	11/8	.10
C-727-NFPA-1	1	300	3/8	21/2	33/16	1	.10
C-727-NFPA-1-1/4	11/4	300	3/8	213/16	31/16	11/16	.10
C-727-NFPA-1-1/2	11/2	300	3/8	31/8	37/8	11/16	.11
C-727-NFPA-2	2	300	3/8	35/16	43/8	11/8	.12
C-727-NFPA-2-1/2	21/2	525	3/8	311/16	5	11/4	.25
C-727-NFPA-3	3	525	3/8	3¾	59/16	11/8	.30
C-727-NFPA-3-1/2	31/2	525	3/8	45/16	65/16	11/2	.33
C-727-NFPA-4	4	650	3/8	41/2	7	1%	.41
C-727-NFPA-5	5	1,000	1/2	5%	83/8	21/4	.58
C-727-NFPA-6	6	1,000	1/2	6½	$9^{13}/_{16}$	27/16	.92
C-727-NFPA-8	8	1,000	1/2	715/16	121/4	25/8	1.16

Standard Finish - GoldGalv®, unless otherwise stated.



Standard Finish - GoldGalv®, unless otherwise stated.

United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services**









Pipe Straps, Conduit Clamps and Hangers

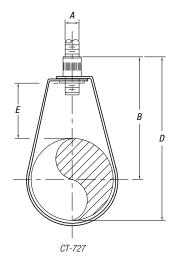
CT-727 — Copper Tubing Swivel Ring

Designed for the support of non-insulated static copper tubing lines. The swivel nut is knurled to provide a gripping surface when adjusting the tubing elevation.

...... Specifications

- Compliance: Federal Specification A-A-1192A Type 10, MSS SP-69 Type 10. We also offer Swivel Ring hangers that are for carbon steel pipe (C-727), PVC coated (C-727-P) and for NFPA requirements (C-727-NFPA) in this catalog
- · Material: Carbon Steel
- · Finish: Copper
- · Ordering: Specify copper tubing size

	PIPE	MAX.		DIMENS	IONS (IN.)		WT. EACH
CAT. NO.	SIZE (IN.)	LOAD (LBS.)	Α	В	D	E	(LBS.)
CT727 1/2	1/2	300	3/8	23/8	31/4	111/16	.11
CT-727-3/4	3/4	300	3/8	23/8	31//8	1%	.11
CT-727-1	1	300	3/8	21/2	31//8	1	.11
CT-727-1-1/4	11/4	300	3/8	23/4	31/4	1 ½16	.13
CT-727-1-1/2	1½	300	3/8	215/16	35/8	11//8	.13
CT-727-2	2	300	3/8	35/16	41/8	11/16	.15
CT-727-2-1/2	2½	525	3/8	4	45/8	11//8	.16
CT-727-3	3	525	1/2	49/16	5%16	1 5⁄16	.32
CT-727-3-1/2	31/2	525	1/2	49/16	51/8	11//8	.35
CT-727-4	4	650	1/2	5%	6½	1 ¾16	.38
CT-727-5	5	1,000	1/2	61/4	83//8	1%	.58
CT-727-6	6	1,000	1/2	73/16	913/16	21/4	.92



ET-727 Copper Sized Adjustable Ring

Standard Finish – GoldGalv® barrier for separation of dissimilar metals. Available in sizes $\frac{1}{2}$ " through 2". Sized for Copper Tubing.

Standard Finish - GoldGalv® unless otherwise stated.

	TUBING	ROD	I	DIMENSIONS (I	V.)	STOCK	MAX REC.	STD.
CAT. NO.	SIZE (IN.)	SIZE (IN.)	Α	В	С	SIZE	LOAD (LBS.)	CTN.
ET727 1/2	1/2	3/8	31//8	23/4	1½	16 ga x %	400	100
ET-727-3/4	3/4	3/8	31//8	25/8	11/4	16 ga x %	400	100
ET-727-1	1	3/8	31//8	21/2	1	16 ga x %	400	100
ET-727-1-1/4	11/4	3/8	31/4	21/2	1	16 ga x ⅓	400	100
ET-727-1-1/2	11/2	3/8	31//8	3	11/4	16 ga x %	400	100
ET-727-2	2	3/8	41/2	3¾	1½	16 ga x %	400	100
ET-727-2-1/2	21/2	3/8*	5½	43/8	2	14 ga x 1¾16	600	100
ET-727-3	3	1/2	63//8	43/4	2	14 ga x 1¾6	600	100
ET-727-3-1/2	31/2	1/2	63//8	41/2	1½	14 ga x 1¾16	600	50
ET-727-4	4	1/2*	73/8	51/4	2	14 ga x 11/4	1,250	100
ET-727-5	5	5/8	83/8	53/4	2	12 ga x 11/4	1,250	25
ET-727-6	6	5/8	9½	6¾	11//8	12 ga x 11/4	1,250	25

 $2\frac{1}{2}$ " CT filled with water weighs less than 2" IP filled with water, 4" CT less than $3\frac{1}{2}$ " IP with water.

21/2" CT available with 1/2" thread and 4" CT available with 5/8" thread for Government Specs.

Standard Finish - GoldGalv®, unless otherwise stated.





800.816.7809

Fax: 901.252.1354

Pipe Straps, Conduit Clamps and Hangers

M-718, M-718-B — Extension Ring Hanger

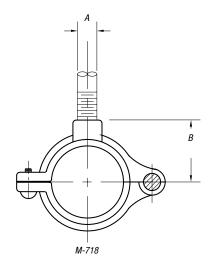
M-718 — (Rod Tapped – Electro-Galvanized) M-718-B — (Rod Tapped – Plain Finish)

This split ring hanger is designed for the support of non-insulated stationary pipe lines. Also available in a two-screw design. The MT-742-R Ceiling Plate is normally used with this product.

..... Specifications

- · Material: Malleable Iron.
- Finish: Standard Finish EG (silver), Black (add suffix "-B"), Electro-Galvanized (add suffix "-EG")
- Compliance: Federal Specification A-A-1192A Type 12, MSS-SP-69 Type 12
- Ordering: Specify pipe size and catalog number.

	PIPE SIZE	MAX LOAD	PIPE SIZE	ROD SIZE		
CAT. NO.	(IN.)	(LBS.)	A (IN.)	A (IN.)	B (IN.)	WT. EACH (LBS.)
M-718-3/8	3/8	180	1/4	3/8	13/16	.16
M-718-1/2	1/2	180	1/4	3/8	7/8	.17
M-718-3/4	3/4	180	1/4	3/8	1	.20
M-718-1	1	180	1/4	3/8	11/8	.21
M-718-1-1/4	11/4	180	1/4	3/8	17/16	.29
M-718-1-1/2	1½	180	1/4	3/8	15/16	.31
M-718-2	2	180	1/4	3/8	111/16	.35
M-718-2-1/2	21/2	480	1/2	1/2	21/8	.57
M-718-3	3	480	1/2	1/2	27/16	.72
M-718-4	4	480	1/2	1/2	31/5	1.16
Standard Finish – EC	G (silver).					



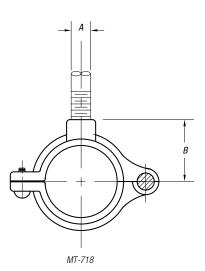
MT-718 — Copper Extension Ring Hanger

This split ring hanger is designed for the support of non-insulated copper tubing lines. The MT-718 is furnished tapped for bolt thread and is used with the MT-742-R Ceiling Plate. Also available in a two-bolt design.

...... Specifications

- Material: Malleable Iron
- Finish: Copper
 For Electro-Galvanizing please see M-718.
- Compliance: Federal Specification A-A-1192A Type 12, MSS-SP-69 Type 12
- Ordering: Specify tube size and catalog number.

CAT. NO.	TUBE SIZE (IN.)	MAX LOAD (LBS.)	ROD SIZE A (IN.)	B (IN.)	WT. EACH (LBS.)
MT718-1/4	1/4	180	3/8	1/2	.10
MT-718-3/8	3/8	180	3/8	1/2	.12
MT-718-1/2	1/2	180	3/8	3/4	.13
MT-718-5/8	5/8	180	3/8	3/4	.14
MT-718-3/4	3/4	180	3/8	7/8	.15
MT-718-1	1	180	3/8	1	.16
MT-718-1-1/4	11/4	180	3/8	11/4	.19
MT-718-1-1/2	1½	180	3/8	11/4	.22
MT-718-2	2	180	3/8	11/2	.27
MT-718-2-1/2	2½	480	1/2	2	.72
MT-718-3	3	480	1/2	21/4	1.07





Standard Finish - GoldGalv®, unless otherwise stated.

United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services**



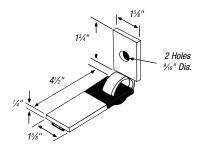




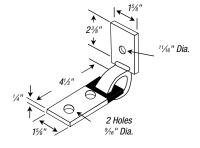
Pipe Straps, Conduit Clamps and Hangers

Seismic Bracing

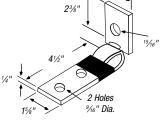
(Consult Superstrut® Seismic Hanger bulletin for additional information.)



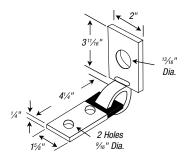
CAT. NO. C749N Seismic Brace 1,500 lb. load safety factor of 3



CAT. NO. C749N 5/8 Seismic Brace 1,650 lb. load safety factor of 3



CAT. NO. C749N 7/8 Seismic Brace 1,650 lb. load safety factor of 3



CAT. NO. C-749-N-1-1/8 Seismic Brace 1,650 lb. load safety factor of 3



CAT. NO. ES-142 Size: 1/2" x 11/4" Bolt Size: 1/2" Seismic bracing rod stiffener connector

S-720 — Adjustable Pipe Hanger

All braces have plastisol coating on the flat member. Plastisol insulates against vibration noise transmission

Standard Finish - GoldGalv® brand. Approved for seismic applications.

and eliminates rattle at the connection points.



CAT. NO.	PIPE SIZE (IN.)	ROD SIZE (IN.)	ADJUSTMENT (IN.)	BOLT CENTERS (IN.)	STOCK SIZE (IN.)	BOLT SIZE (IN.)	DESIGN LOAD (LBS.)	STD. CTN.
S720 3/4	3/4	3/8	15/8	41/2	3/16 X 11/4	1/2-11/4	550	10
S-720-1	1	3/8	11/2	41/2	³∕ ₁₆ x 1 ¹∕ ₄	1/2-11/4	550	10
S-720-1-1/4	1 1/4	3/8	13/8	5	³∕ ₁₆ x 1 ¹∕ ₄	1/2-11/4	550	10
S-720-1-1/2	11/2	3/8	11/2	41/2	³∕ ₁₆ x 1 ¹∕ ₄	1/2-11/4	550	10
S-720-2	2	3/8	11/2	5	1/4 x 11/4	1/2-11/4	700	10
S-720-2-1/2	21/2	1/2	21/8	53/8	1/4 x 11/4	1/2-11/4	700	10
S-720-3	3	1/2	21/4	61/4	1/4 x 11/4	1/2-11/4	1,100	10
S-720-3-1/2	31/2	1/2	21/4	63/4	1/4 x 11/4	1/2-11/4	1,100	10
S-720-4	4	1/2	21/4	71/4	1/4 x 11/4	1/2-11/4	1,300	10
S-720-5	5	5/8	21/4	81/2	1/4 x 11/2	5/8-11/2	1,600	10
S-720-6	6	5/8	21/4	9½	1/4 X 1 1/2	5/8-11/2	1,600	5
S-720-8	8	3/4	21/8	11½	1/4 x 2	3/4-2	2,000	5

www.tnb.com

United States Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354

Technical Services Tel: 888.862.3289





Pipe Straps, Conduit Clamps and Hangers

PG-794 — Pipe Alignment Guide

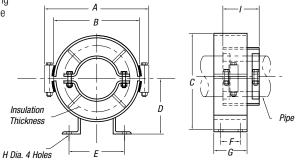
Designed to maintain the axial alignment of piping as it expands and contracts during operation. It is most typically installed adjacent to expansion joints and at reasonable distances between the expansion joint and the anchor point. Our Figures 1007 and 1010 also offer alternative means for your piping alignment needs.

Note: Guides are not designed to carry dead weight loads. Maximum temperature is 750° F.

..... Specifications

- Material: Carbon Steel
- Finish: EG (Silver), Black (add suffix "-B"), Electro-Galvanized (add suffix "-EG")
- Ordering: Specify pipe size, insulation thickness, catalog number and finish.

Example Catalog Number: PG794 T3-2-1/2 would be $2\frac{1}{2}$ " pipe with 2" thick insulation.



M-718

				DIMENSI	ONS (IN.)				WT. EACH
SIZE	Α	В	C	D	E	F	G	Н	(LBS.)
1	6¾	41/2	53/8	31//8	5	11/2	3	5/8	5.8
2	71/4	5%	63%	3½	63/4	11/2	3	5/8	7.2
3	8%	65%	73/8	4	63/4	11/2	3	5/8	8.2
4	10%	85%	93/8	5	73/8	11/2	3	5/8	10.6
5	12⅓	10¾	11%	61/4	73/8	2	4	5/8	15.6
6	141/8	12¾	13%	71/4	8	2	4	5/8	19.5
7	167//8	14¾	151/8	81/2	93/4	2	4	3/4	26.8
8	181/8	16¾	171/8	9½	101/4	4	6	3/4	35.6
9	22%	19	20	10½	111/4	4	6	3/4	44.2
10	235%	21	22	11½	141/8	4	6	7/8	52.6
11	25%	23	24	12½	14¾	4	6	7/8	66.3
12	28%	25¾	26%	13¾	151/8	4	6	1	79.7
13	321/8	29½	30½	15¾	16%	51/2	8	1	106.3
14	361/8	33½	34½	17¾	171//8	51/2	8	1	116.8

SIZE		THICKN	IESS OF II	NSULATIO	N (IN.)	
NUMBER	1	1½	2	2 ½	3	4
1	1					
2	11/4-2	1				
3	21/2	11/4-2	1			
4	3-4	21/2-31/2	11/4-21/2	1-2	1	
5	5-6	4-5	3-4	21/2-31/2	11/4-21/2	1
6		6	5-6	4–5	3-4	11/4-21/2
7		8	8	6	5-6	3-4
8		10	10	8	8	5–6
9		12	12	10	10	8
10			14	12-14	12	10
11			16	16	14	12
12					16-18	14-16
13					20	18-20
14					24	24
Standard Fil	nish – FG	(silver)				

PIPE SIZE (IN.)	DIM. I	MAX. MVT
1–6	4	4
8-16	6	6
18-24	8	8

Inculation	Thickness	Tahla

PRODUCT Designation	INSULATION THICKNESS (IN.)	FOR PIPE Sizes
T1	1	1/2-24
T2	1½	1/2-24
T3	2	1/2-24
T4	21/2	1/2-24
T5	3	1/2-24
T6	3½	1/2-24
T7	4	1/2-24

Standard Finish – GoldGalv®, unless otherwise stated.



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 Technical Services
Tel: 888.862.3289





Pipe Straps, Conduit Clamps and Hangers

Structure Attachments

M-742-R Ceiling Flange

M-742-R. M-742-RB. MT-742-R - Single Plate

M-742-R — (Rod Tapped – Electro-Galvanized)

M-742-RB — (Rod Tapped – Plain Finish)

MT-742-R — (Rod Tapped – Copper Finish)

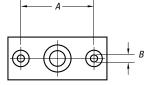
Designed for attaching a rod to a wooden member.

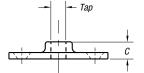
This part is normally used in conjunction with our M-718 Split Ring.

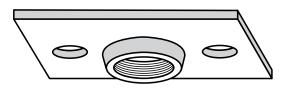
..... Specifications

Material: Malleable Iron. M-742-R is
Carbon Steel

Ordering: Specify rod size and catalog number.







M-742-R Rod Sizes: 3/8" & 1/2"

ROD		MAX.	ı	DIMENSIONS (IN.)	WT. EACH	
CAT. NO.	TAP (IN.)	LOAD (LBS.)	Α	В	C	(LBS.)
M-742-R-3/8	3/8	180	2	1/4	1/2	.19
M-742-R-1/2	1/2	180	2	1/4	1/2	.18

Standard Finish - Black (B), EG (Silver) or Copper-Colored Epoxy Paint.

C-736-Side Clip — Steel Bracket Clip

Clip can be used to support piping $3\frac{1}{2}$ " or smaller from the horizontal member of a C-736 Steel Bracket. The clip is composed of two steel plates and one bolt and nut.

..... Specifications

- Material: Carbon Steel
- Finish: Standard Finish GoldGalv®, Black (add suffix "-B"), Electro-Galvanized (add suffix "-EG")
- Ordering: Specify size number, catalog number and finish.

CAT. NO.	ROD SIZE (IN.)	SIZE (IN.)	MAX. LOAD (LBS.)	WT. EACH (LBS.)
C-736-SIDE CLIP-1	1	3/8	750	6.99
C-736-SIDE CLIP-2	2	1/2	750	10.10

Standard Finish – GoldGalv®, unless otherwise stated.



United States
Tel: 901.252.8000

800.816.7809 Fax: 901.252.1354







Thomas@Betts

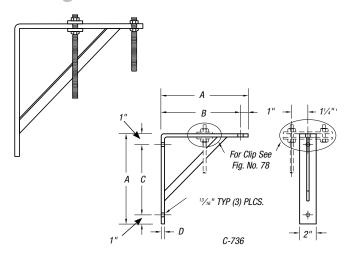
Pipe Straps, Conduit Clamps and Hangers

C-736 — Light Welded Steel Bracket

Designed to support up to 6" pipe. This bracket is for installation to walls as shown or inverted, and may require a backing plate. Holes for up to 34" rods are located at each end of the bracket to allow for use in either orientation. The C-736 Side Clip Steel Bracket Clip can be attached to the C-736 to support piping $3\frac{1}{2}$ " or smaller. Please see Figure 79 for more information.

......Specifications

- Compliance: A-A-1192A Type 31, MSS-SP 69 Type 31
- Finish: Standard Finish GoldGalv®, Black (add suffix "-B"), Electro-Galvanized (add suffix "-EG")
- Ordering: Specify size number, catalog number and finish.



	ROD	MAX. LOAD		WT. EACH		
CAT. NO.	TAP	(LBS.)	A	В	C	(LBS.)
C-736-1	1	750	9	8	6½	6.99
C-736-2	2	750	13	12	10½	10.10
C-736-3	3	750	19	18	16½	10.50

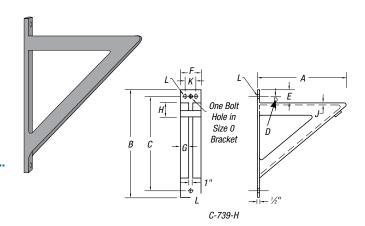
Standard Finish - GoldGalv®, unless otherwise stated

C-739-H — Heavy Welded Steel Bracket

Designed to support pipe from either above or below. Slotted construction allows for drop rod use along the length of the bracket. This bracket is for bolted installation to walls and may require a backing plate. Special steel brackets can be fabricated to customers loads and/or dimensions.

...... Specifications

- Compliance: A-A-1192A Type 33, MSS-SP 69 Type 33
- Finish: Standard Finish GoldGalv®, Black (add suffix "-B"), Electro-Galvanized (add suffix "-EG")
- Ordering: Specify size number, catalog number and finish.



		MAX. LOAD		DIMENSIONS (IN.)									WT. EACH	
CAT. NO.	SIZE	(LBS.)	Α	В	C	D	E	F	G	Н	J	K	L	(LBS.)
C-739-H-0	0	3,000	12	18	151/4	1½	23/4	41/2	1½	2	1/4	NA	13/16	25.1
C-739-H-1	1	3,000	18	24	21%	11/2	23/4	5	1½	2	3/8	23/4	13/16	44.8
C-739-H-2	2	3,000	24	30	271/2	11/2	23/4	5	1½	21/2	3/8	21/2	11/16	60.7
C-739-H-3	3	3,000	30	36	331/4	15%	3	6	2	21/2	3/8	21/2	11/16	98.1
C-739-H-4	4	3,000	36	42	39	11/2	3	6	2	31/2	3/8	31/2	11/16	129.4
C-739-H-5	5	3,000	42	50	46	1½	3½	7	21/2	3½	3/8	31/2	11/16	177.2



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services** Tel: 888.862.3289



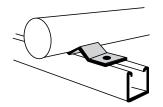


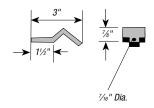


Pipe Straps, Conduit Clamps and Hangers

PG-795 — Pipe Block

Standard Finish - Black (B).





Pipe Attachments

H-115, H-115SS — Standard U-Bolt

Our standard U-Bolts are recommended for use as supports or guides for piping. They are supplied with four hex nuts. The H-115SS is recommended for support of stainless steel piping. Please specify the grade of stainless steel you require when ordering. Load Ratings shown are for Carbon Steel. PVC coating should not exceed 140° F/60° C.

......Specifications

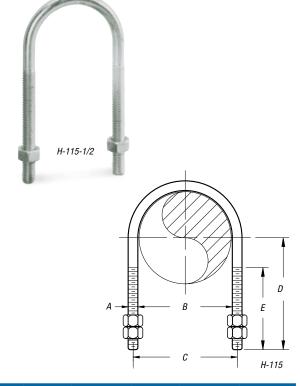
- Materials: Carbon Steel, Stainless Steel
- Compliance: Federal Specification A-A-1192A Type 24, MSS-SP 69 Type 24, and BSPSS-BS3974
- Finish: Standard Finish GoldGalv® Black (add suffix "-B"), Electro-Galvanized (add suffix "-EG"), SS (add suffix SS), SS6 = 316

Side loads are given for the H-115 for a maximum temperature of 650° F/343° C.

When the loading condition requires the simultaneous application of a normal load and side load, the following interaction equation must be used to determine if the H-115 can be used

(Actual Load / Maximum Design Load) + (Actual Side Load/Maximum Side Load). The result of this equation cannot exceed the value of 1.0 if the H-115 is to be used.

 Ordering: Specify pipe size, catalog number and finish.



DIDE	MAX. LO	AD (LBS.)	MAY SIDE						WT.
SIZE	650° F/	750° F/	LOAD (LBS.)		D	IMENSIONS (IN	l.)		EACH
(IN.)	343° C	399° C	650° F/343° C	Α	В	C	D	E	(LBS.)
1/2	485	435	63	1/4	1%	11//8	23/4	21/8	.11
3/4	485	435	63	1/4	11//8	1%	23/4	21/8	.12
1	485	435	63	1/4	1%	1%	23/4	21/8	.12
1/2	1,200	1,070	316	3/8	1%	11/4	23/4	21/8	.16
3/4	1,200	1,070	240	3/8	11/8	1½	23/4	21/8	.16
1	1,200	1,070	186	3/8	1%	13/4	23/4	21/8	.19
11/4	1,220	1,090	194	3/8	13/4	21//8	27/8	21/8	.28
11/2	1,220	1,090	194	3/8	2	23/8	3	21/2	.30
2	1,220	1,090	194	3/8	21/2	27/8	31/4	21/2	.33
21/2	2,260	2,020	184	1/2	3	31/2	3¾	3	.70
3	2,260	2,020	184	1/2	35/8	41/8	4	3	.78
31/2	2,260	2,020	184	1/2	41/8	45/8	41/2	3	.84
4	2,260	2,020	184	1/2	45/8	51//8	41/2	3	.90
	(IN.) 1/2 3/4 1 1/2 3/4 1 11/4 11/2 2 21/2 3 31/2	Size	SIZE (III.) 650° F/ 343° C 750° F/ 399° C ½ 485 435 ¾ 485 435 1 485 435 ½ 1,200 1,070 ¾ 1,200 1,070 1 1,200 1,070 1½ 1,220 1,090 1½ 1,220 1,090 2 1,220 1,090 2½ 2,260 2,020 3 2,260 2,020 3½ 2,260 2,020	SIZE	NAX. SIDE SIZE G50° F/ T50° F/ L0AD (LBS.) SIZE (IN.) 343° C 399° C G50° F/343° C A	NAX. SIDE SIZE G50° F/ T50° F/ L0AD (LBS.) D	MAX. SIDE SIZE	NIMAL NIME NIME	NIMAL SIDE SIZE

www.tnb.com

United States
Tel: 901.252.8000

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 Technical Services
Tel: 888.862.3289



1-800-453-1692

.aboveboardelectronics.com





Pipe Straps, Conduit Clamps and Hangers

Beam Attachments

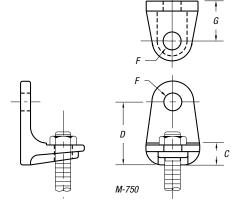
M-750 — Side Beam Bracket

Designed for bolt connections.

.....Specifications.....

- Compliance: A-A-1192A Type 34 and MSS-SP 69 Type 34
- Material: Malleable Iron (Maximum Temperature 450° F/232° C)
- Standard Finish GoldGalv®, Black (add suffix "-B"), Electro-Galvanized (add suffix "-EG")
- Ordering: Specify rod size and catalog number.

	_ WITH	D	WT.					
CAT. NO. (IN		WITH LAG SCREW	BOLT TO	С		F	G	EACH (LBS.)
M-750-3/8	3/8	390	610	5/8	17/16	⁷ / ₁₆	7/8	.26
M-750-1/2	1/2	640	1,130	3/4	11//8	9/16	13/16	.54
M-750-5/8	5/8	760	1,810	7/8	21/8	3/4	17/16	.94



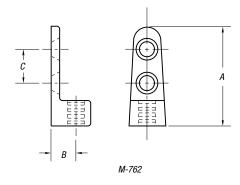
M-762 — Side Beam Connector

Designed for use on buildings of wood construction. They can be secured to the side of beams or joists by means of our Figure 166 Drive Screws (ordered separately).

.....Specifications.....

- Material: Malleable Iron
- Standard Finish GoldGalv[®], Black (add suffix "-B"), Electro-Galvanized (add suffix "-EG")
- Ordering: Specify size, catalog number and finish.

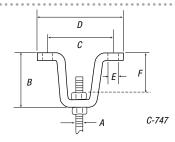
			DI	MENSIONS	(IN.)	WT.
CAT. NO.	SIZE (IN.)	MAX LOAD - (LBS.)	Α	В	С	EACH (LBS.)
M-762-3/8	3/8 rod	250	23/8	3/4	3/4	.13
M-762-1/2	½ rod	480	23/4	3/4	3/4	.25
M-762-1/4	1/4 pipe	250	23/4	3/4	3/4	.25



C-747 — Adjustable Beam Attachment

For attachment to timber with coach screws or to the bottom of beams with bolts.





	'	_				DESIGN				
CAT. NO.	ROD SIZE A (IN.)	HOLE SIZE (IN.)	В	С	D	E	F	STOCK SIZE (IN.)	LOAD (LBS.)	STD. CTN.
C-747-3/8B	3/8B	7/16	23/4	37/8	47/8	7/16	21/8	1/4 X 1 1/4	610	50
C-747-1/2B	1/2B	9/16	31/8	$4^{3}/_{4}$	6	9/16	25/16	3/8 x 1 1/2	1,130	50
C-747-5/8B	5⁄8B	11/16	31/8	43/4	6	9/16	23/16	3/8 x 1½	1,810	50
C-747-3/4B	3/4B	13/16	311/16	61/4	73/4	11/16	29/16	½ x 2	2,710	50
C-747-7/8B	7∕8B	15/16	33/4	63/8	81/4	13/16	21/2	½ x 2	3,770	50

Standard Finish — Black (B).

Order by Cat. No., rod size.

Thomas Betts

United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services**







Pipe Straps, Conduit Clamps and Hangers

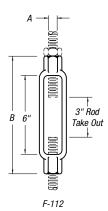
Rods and Rod Attachments

F-112 — Turnbuckle

Used to connect right- and left-hand threaded rods together and provide for adjustment.

.....Specifications.....

- Material: Forged Steel
- Compliance: Federal Specification A-A-1192A Type 13, MSS-SP 69 Type 13 and BSPSS-BS3974
- Finish: Standard Finish GoldGalv®, Black (add suffix "-B"), Electro-Galvanized (add suffix "-EG")
- Specify catalog number, finish and rod size.



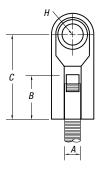
047 NO	DOD 0177 (III)	MAX LOAD (LBS.)	5 (111)	WT. EACH
CAT. NO.	ROD SIZE (IN.)	650° F/343° C	B (IN.)	(LBS.)
F-112-3/8	3/8	610	71/8	.30
F-112-1/2	1/2	1,130	71/2	.60
F-112-5/8	5/8	1,810	77/8	1.00
F-112-3/4	3/4	2,710	81/4	1.20
F-112-7/8	7/8	3,370	85/8	1.90
F-112-1	1	4,960	9	2.50
F-112-1-1/4	11/4	8,000	91/8	3.80
F-112-1-1/2	11/2	11,630	93/4	5.70
F-112-1-3/4	13/4	15,700	103/8	8.20
F-112-2	2	20,700	11	14.20
F-112-2-1/4	21/4	27,200	127/8	27.00
F-112-2-1/2	21/2	33,500	131/2	33.00
Standard Finish - Go	ldGalv®, unless othe	erwise stated.		

M-129 — Extension Piece

Designed for attaching rods to the M-732-EXT Clamp and similar types of attachments.

.....Specifications.....

- Material: Malleable Iron
- Compliance: Federal Specification A-A-1192A Type 30, MSS-SP-69 Type 30 when used with a Figure 82
- Finish: Standard Finish GoldGalv[®], Black (add suffix "-B"), Electro-Galvanized (add suffix "-EG")
- Specify rod size, catalog number and finish



M-129

	ROD SIZE	MAX LOAD	DIMENSIONS (IN.) WT. EA						
CAT. NO.	(IN.)	(LBS.)	В	С	G	Н	(LBS.)		
M-129-3/8	3/8	610	11/4	21/8	1/2	1/2	.20		
M-129-1/2	1/2	1,130	13/8	23/8	5/8	1/2	.40		
M-129-5/8	5/8	1,810	11/2	21/2	5/8	1/2	.44		
M-129-3/4	3/4	2,710	13/4	27/8	5/8	1/2	.65		
M-129-7/8	7/8	2,950	17/8	3	3/4	9/16	.78		

Standard Finish - GoldGalv®, unless otherwise stated.





1-800-453-1692 www.aboveboardelectronics.com





Pipe Straps, Conduit Clamps and Hangers

Structure Attachments

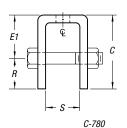
C-780 W/OB, C-780 W/HWB — Welded Beam Attachment

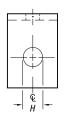
Recommended for attachment to the bottom of beams when little or no pipe movement is expected. C-780 W/HWB is recommended for attachment to the bottom of beams, when pipe movement is expected. A bolt and nut or pin is supplied. A pin with cotters is normally supplied for rod sizes over 1".

Rod Size A

..... Specifications

- Compliance: Federal Specification A-A-1192A Type 22, MSS SP-69 Type 22 and BSPSS-BS3974
- Material: Carbon Steel
- Finish: Standard Finish GoldGalv®, Black (add suffix "-B"), Electro-Galvanized (add suffix "-EG")
- Ordering: Specify catalog number, rod size and finish.





	ROD	MAX. LOAD (LBS.)			ROD TAKEOUT	ROD TAKEOUT				WT. EA	CH (LBS.)
CAT. NO.	SIZE (IN.)	650° F/ 343° C	BOLT OR PIN SIZE (IN.)	C (IN.)	C-780 W/OB E (IN.)	C-780 W/HWB E1 (IN.)	H (IN.)	R (IN.)	S (IN.)	C-780 W/OB W/O B&N	C-780 W/HWB W B&N
C-780-3/8	3/8	610	1/2	21//8	1%	2	9/16	7/8	11/4	.96	1.20
C-780-1/2	1/2	1,130	5/8	21/8	13/4	2	11/16	7/8	11/4	.96	1.20
C-780-5/8	5/8	1,810	3/4	21/8	13/4	2	13/16	7/8	11/4	.96	1.60
C-780-3/4	3/4	2,710	7/8	31/8	11/8	2	1 15/16	11//8	21//8	1.90	2.80
C-780-7/8	7/8	3,770	1	41/4	25/8	3	11//8	11/4	21/8	2.50	3.90
C-780-1	1	4,960	11/8	41/2	3	31/2	11/4	11/2	21/8	4.30	6.30
C-780-1-1/4	11/4	8,000	13/8	5	2	3	11/2	2	3	8.10	10.20
C-780-1-1/2	11/2	11,600	1%	5½	21/2	4	13/4	21/2	3	15.60	19.00
C-780-1-3/4	13/4	15,700	1%	73/4	23/4	5	2	23/4	3¾	18.70	24.20
C-780-2	2	20,700	21/4	81/4	N/A	5	23/8	31/4	3¾	_	30.60
C-780-2-1/4	21/4	27,200	21/2	93/4	N/A	61/4	25/8	31/2	3¾	_	36.80
C-780-2-1/2	21/2	33,500	21/2	9¾	N/A	61/4	21//8	3¾	3¾	_	39.70
C-780-2-3/4	23/4	41,580	3	93/4	N/A	53/4	31//8	4	3¾	_	39.70
C-780-3	3	50,580	31/4	101/4	N/A	61/4	33/8	4	3¾	_	49.00
C-780-3-1/4	31/4	71,280	31/2	11½	N/A	7	35/8	41/2	41/4	_	67.60
C-780-3-1/2	3½	71,280	33/4	12	N/A	71/2	31/8	41/2	41/4	_	79.30





1-800-453-1692



Fax: 901.252.1354



Pipe Straps, Conduit Clamps and Hangers

C-755 — Beam Clamp

Designed to attach to the bottom of flanged beams. Normally used with the E-157 Eye Rod or E-120-A Eye Nut.

C-755

...... Specifications

- · Material: Carbon Steel
- Compliance: Federal Specification A-A-1192A Type 21, MSS-SP-69 Type 21
- Finish: Standard Finish GoldGalv®, Black (add suffix "-B"), Electro-Galvanized (add suffix "-EG"), Thermoplastic (add suffix "-TP")
- · Ordering: Specify clamp size, flange width, flange thickness, catalog number and finish.

	CLAMP	MAX. LOAD			BOLT SIZE	
CAT. NO.	SIZE	(LBS.)	В	С	D	(IN.)
C-755-1	1	500	7/8	1/2	1½	3/8
C-755-2	2	700	11/8	5/8	13/4	1/2
C-755-3	3	800	11/4	5/8	2	1/2
C-755-4	4	1,000	13/8	3/4	23//8	5/8
C-755-5	5	3,000	15/8	7/8	25//8	3/4
C-755-6	6	3,000	2	1	3	7/8
C-755-7	7	5,000	21//8	11//8	41//8	1

	CLAMP	WEIGHT EACH (LBS.) BEAM WIDTH — DIMENSION "A"									
CAT. NO.	SIZE	2	3	4	5	6	7	8	10		
C-755-1	1	.52	.62	.78	.88	.95			_		
C-755-2	2	.74	.82	1.09	1.21	1.31	1.39	_	_		
C-755-3	3	1.26	1.49	1.89	2.12	2.29	2.45	2.69	_		
C-755-4	4	_	2.32	2.85	3.18	3.39	3.60	3.92	_		
C-755-5	5	_	3.40	4.08	4.52	4.80	5.10	5.51	6.23		
C-755-6	6	_	_	6.00	6.45	7.00	7.40	7.90	8.80		
C-755-7	7	_	_	_	11.95	12.75	13.55	14.35	15.95		





1-800-453-1692



Fax: 901.252.1354

800.816.7809

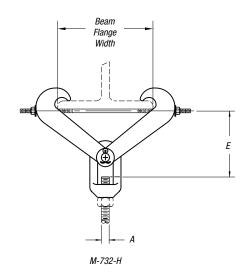
Pipe Straps, Conduit Clamps and Hangers

M-732-H — Steel Beam Clamp with Weldless Eyenut

The M-732-H beam clamp with eyenut is used for support where some movement is expected and welding to the structure is prohibited. The clamping effect is produced by the "ice-tong" action of the arms and is locked in place by the through bolt located just under the beam flange.

..... Specifications

- Material: Carbon Steel with Forged Steel Eyenut
- Compliance: Federal Specification A-A-1192A Type 28, MSS-SP-69 Type 28 and BSPSS-BS3974
- Finish: Standard Finish GoldGalv[®] Black (add suffix "-B"), Electro-Galvanized (add suffix "-EG")
- · Ordering: Specify catalog number, rod size, clamp number and finish.



CAT. NO.	CLAMP Size	MAX. LOAD (LBS.)	MAX. ROD SIZE A (IN.)	BEAM WIDTH	BODY Size (In.)	MAX. FLANGE THICKNESS (IN.)	WT. Each (LBS.)
M-732-H-1	1	2,710	3/4	3–8	25/32	.6	5.5
M-732-H-2	2	4,960	1	3–8	²⁵ / ₃₂	.6	5.5
M-732-H-3	3	4,960	1	4–11	²⁷ / ₃₂	.6	9.0
M-732-H-4	4	4,960	1	4–12	29/32	1.03	29.0
M-732-H-5	5	4,960	1	11–15	1/64	1.03	33.3
M-732-H-6	6	11,500	1½	4-12	29/32	1.03	29.0
M-732-H-7	7	11,500	1½	11–15	1/64	1.03	33.3
M-732-H-8	8	11,500	2	4–12	²⁹ / ₃₂	1.03	29.0

	CLAMP	BODY SIZE		DIMENSIONS (IN.)											
CAT. NO.	SIZE	(IN.)	3	4	5	6	7	8	9	10	11	12	13	14	15
M-732-H-1	1	25/32	53/16	51//8	5	413/16	43//8	315/16							_
M-732-H-2	2	25/32	53/16	51/8	5	413/16	43/8	315/16	_	_	_	_	_	_	_
M-732-H-3	3	27/32	_	81/4	81/8	81/8	71/8	71//8	73/8	7	61/2	_	_	_	_
M-732-H-4	4	27/32	_	85/8	85/8	81/2	83/8	81/8	71/8	75/8	7	61/8	_	_	_
M-732-H-5	5	1/64	_	_	_	_	_	_	_	_	91/2	91/4	87/8	83/8	71/8
M-732-H-6	6	3/8	_	85/8	85/8	81/2	83/8	81/8	71//8	75/8	7	67/8	_	_	_
M-732-H-7	7	1/64	_	_	_	_	_	_	_	_	97/8	91/2	91/8	87/8	81/8
M-732-H-8	8	3/8	_	11%	11½	11½	11%	1111/8	101//8	101/8	10½	10	_	_	_









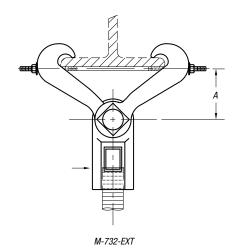
Pipe Straps, Conduit Clamps and Hangers

M-732-EXT — Adjustable Beam Clamp

Designed to attach to the bottom of flanged beams without requiring welding. Normally used with the M-129 Extension Piece (not furnished) up to a maximum 1/8" (M20) rod diameter. Loading is achieved through the clamp jaws while locking is accomplished by tightening the through-bolt located directly below the flange. Maximum flange thickness is .60 inches.

...... Specifications

- Material: Malleable Iron
- Compliance: Federal Specification A-A-1192A Type 30, MSS-SP-69 Type 30 when used with a Figure
- Finish: Standard Finish GoldGalv®, Black (add suffix "-B"), Electro-Galvanized (add suffix "-EG")
- Ordering: Specify catalog number and finish. Order M-129 separately if required.



		MAX.	ROD TAKE OUT BEAM FLANGE WIDTH — B (IN.)							
CAT. NO.	MAX. ROD SIZE (IN.)	LOAD (LBS.)	2C 60	3 76	4 101	5 127	6 152	7 177	WT. EACH (LBS.)	
M-732-EXT-3/8	3/8	610	3½	37/16	35/16	215/16	21/16	17/8	1.91	
M-732-EXT-1/2	1/2	1,130	3½	37/16	35/16	2 ¹⁵ ⁄ ₁₆	29/16	11//8	2.11	
M-732-EXT-5/8	5/8	1,365	3½	37/16	35/16	215/16	29/16	11//8	2.15	
M-732-EXT-3/4	3/4	1,365	3½	37/16	35/16	215/16	29/16	17/8	2.36	
M-732-EXT-7/8	7/8	1,365	3½	37/16	35/16	215/16	29/16	11//8	2.49	

₩ ⊙

United States

Tel: 901.252.8000

Fax: 901.252.1354

800.816.7809

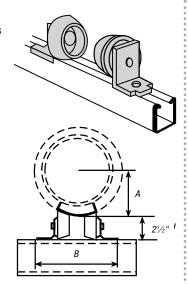
1-800-453-1692

www.tnb.com

Pipe Straps, Conduit Clamps and Hangers

C-728 — Pipe Roller (Pair)

- Cast aluminum rollers, steel brackets
- · Designed for standard saddles
- Order separately for each pair of rollers: Two ½" x 5/16" hex head cap screws, two ½" channel nuts
- Space to fit 0.D. of pipe and wrapping
- Adjustable for radius up to 8"

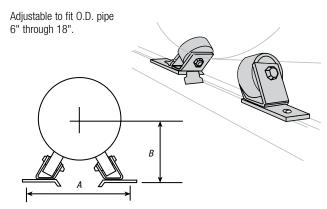


CAT. NO.	A Max os Radius (in.)	B (IN.)	DESIGN Load (LBS.)	STD. CTN.
C728	33/8	63/4	2,350	5 pair (10 pieces)
	45/8	71/2	2,350	5 pair (10 pieces)
	63/8	81/2	2,350	5 pair (10 pieces)
	81/2	9%16	2,350	5 pair (10 pieces)

C728H — Pipe Roller Assembly (Pair)

Cast aluminum roller, steel brackets. Order separately for each pair of rollers:

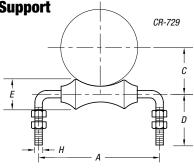
Two $\frac{1}{2}$ " x $\frac{5}{16}$ " hex head cap screws Two $\frac{1}{2}$ " channel nuts



CAT. NO.	PIPE SIZE (IN.)	A (IN.)	B (IN.)	DESIGN Load (LBS.)	STD. CTN.
C728H	6	1013/16	6%16	3,920	5 pair (10 pieces)
	8	11 ¹³ / ₁₆	73/8	3,920	5 pair (10 pieces)
	10	121/8	85/16	3,920	5 pair (10 pieces)
	12	13%	93/16	3,920	5 pair (10 pieces)
	14	141/2	93/4	3,920	5 pair (10 pieces)
	16	15½	10%	3,920	5 pair (10 pieces)
	18	16½	117/16	3,920	5 pair (10 pieces)

CR-729 — Roller Support

Used on steam or hot water systems where pipe is to be supported in tunnels, trenches, structural brackets and frames. Adjustment is made by raising and lowering the top nut on the legs and locked into position by tightening the lower nut.



C-789 1" COV. 25	C-789A 1½" COV. 38	C-789B 2" COV. 51	C-789C 2½" COV. 64	C-789D 3" COV. 76	C-789E 4" COV. 100
2½-3	2-21/2	_	_	_	
31/2	_	_	_	_	_
4-5	3-31/2	2-21/2	_	_	_
6	4-5	3-4	2-21/2	2-21/2	_
8	6	5	3-31/2	3-31/2	_
_	8	6	4-5	4–5	_
10	10	8	6	6–8	4–6
12	12	10	8	_	_
14	14	12-14	10	8	8
	1" COV. 25 2½-3 3½ 4-5 6 8 10 12	1" COV. 25 1½" COV. 38 2½-3 2-2½ 3½ — 4-5 3-3½ 6 4-5 8 6 8 10 10 12 12	1" COV. 25 1½" COV. 38 2" COV. 51 2½-3 2-2½ — 3½ — — 4-5 3-3½ 2-2½ 6 4-5 3-4 8 6 5 — 8 6 10 10 8 12 12 10	1" COV. 25 1½" COV. 38 2" COV. 51 2½" COV. 64 2½-3 2-2½ — — 3½ — — — 4-5 3-3½ 2-2½ — 6 4-5 3-4 2-2½ 8 6 5 3-3½ — 8 6 4-5 10 10 8 6 12 12 10 8	1" COV. 25 1½" COV. 38 2" COV. 51 2½" COV. 64 3" COV. 76 2½-3 2-2½ — — — 3½ — — — — 4-5 3-3½ 2-2½ — — 6 4-5 3-4 2-2½ 2-2½ 8 6 5 3-3½ 3-3½ — 8 6 4-5 4-5 10 10 8 6 6-8 12 12 10 8 —

..... Specifications

- Material: Steel Axle, Cast Iron Roll
- Finish: Standard Finish GoldGalv®, Black (add suffix "-B"), Electro-Galvanized (add suffix "-EG")

	PIPE SIZE	MAX. LOAD	DIMENSIONS (IN.)				WT. EACH	
CAT. NO.	(IN.) (LBS.)		Α	С	D	E	Н	(LBS.)
CR-729-2	2	300	41/2	1%	3¾	13/16	3/8	.79
CR-729-2-1/2	21/2	600	5	15/16	41/2	13/8	1/2	1.44
CR-729-3	3	600	51/8	21/4	41/2	17/16	1/2	1.62
CR-729-3-1/2	3½	600	7	25/8	41/2	1%	1/2	1.64
CR-729-4	4	700	7	213/16	41/2	111/16	1/2	1.82
CR-729-5	5	700	81/2	31/16	$4\frac{1}{2}$	2	5/8	2.90
CR-729-6	6	1,000	10	41/16	41/2	23/8	3/4	4.66
CR-729-8	8	1,300	12	51/8	51/4	23/4	7/8	7.29
CR-729-10	10	1,700	14	61/4	5½	3%	7/8	10.23
CR-729-12	12	2,300	16	71/16	6	$3^{15}/_{16}$	7/8	12.27
CR-729-14	14	3,075	17	83/4	7	43/4	1	21.39
CR-729-16	16	3,075	19	97/16	8	51/16	1	27.76



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354









Pipe Straps, Conduit Clamps and Hangers

C-729 — Harvard Roll Hanger

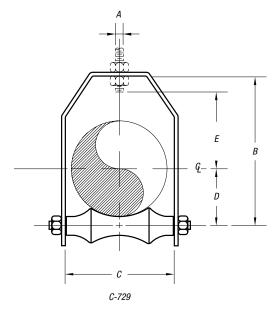
Designed to support piping lines from above, allowing for vertical adjustment and axial movement in the piping. The lower nut (not furnished) adjusts the pipe line to the proper elevation. The top nut (not furnished) prevents loosening due to vibration and must be tightened securely to assure proper hanger performance.

..... Specifications

- Material: Carbon Steel frame with a Cast Iron Roll. Do not exceed 450° F/232° C at the contact point to the roll.
- Compliance: A-A-1192A Type 43 and MSS-SP-69 Type 43
- Finish: Black (add suffix "-B"), Electro-Galvanized (add suffix "-HDG")

For pipe with insulation and a pipe covering protection saddle the C-729 will have to be oversized to suit. Please see the table below showing the correct sizing for insulated pipe.

Ordering: Specify pipe size, catalog number and finish.



	PIPE	MAX.	DIMENSIONS (IN.)					WT.
CAT. NO.	SIZE (IN.)	LOAD (LBS.)	ROD Size A	В	С	D	E	EACH (LBS.)
C-729-2	2	150	1/2	41/4	23/4	1%	25/8	1.60
C-729-2-1/2	21/2	225	1/2	47/8	31/4	2	21//8	2.00
C-729-3	3	310	1/2	61/4	37/8	21/4	31/8	2.30
C-729-3-1/2	3½	390	1/2	61/8	$4\frac{1}{2}$	25/8	31/2	2.50
C-729-4	4	475	5/8	71/2	47/8	21/8	35/8	4.00
C-729-5	5	685	5/8	83/8	63//8	31/2	41/2	5.30
C-729-6	6	780	3/4	97/8	7%	4	5	7.00
C-729-7	7	780	3/4	111//8	81/2	43/4	51/4	9.40
C-729-8	8	780	7/8	12%	91/2	51//8	61/8	12.30
C-729-10	10	965	7/8	15	111/4	61/4	71/4	19.30
C-729-12	12	965	7/8	171//8	13½	71/2	83/8	23.10
C-729-14	14	1,200	1	18%	14%	83//8	83/4	35.50
C-729-16	16	1,400	1	20½	171/4	91/2	93/4	46.50
C-729-18	18	1,400	1	231/8	19	10½	11½	57.00
C-729-20	20	1,600	11/4	241/2	21	11%	121/4	75.90
C-729-24	24	1,800	11/2	29%	24¾	14	15¾	119.30
Standard Finish – GoldGalv®, unless otherwise stated.								

C-729 PIPE SIZE OF ROLL	C-789 1" COV. 25	C-789A 1½" COV. 38	C-789B 2" COV. 51	C-789C 2½" COV. 64	C-789D 3" COV. 76	C-789E 4" COV. 100				
21/2	3/4	_								
3	1-11/2	_	_	_	_	_				
4	2-21/2	1-11/2	_	_	_	_				
5	3-31/2	2-21/2	3/4-11/2	_	_	_				
6	4	3-31/2	2-21/2	3/4-1	_	_				
7	5	4	3-31/2	11/4-11/2	2	_				
8	6	5	4	2-3	21/2	_				
10	8	6	5–6	3½-5	3-4	_				
12	10	8	8	6	5-6	_				
14	12	10	_	8	5–6	_				
16	14	12	10	10	8	8				
18	_	14	14	12	12	10				
20	_	16	16	14	14	12				
24	_	20	20	18	18	16				
Ctandard Eir	Standard Einigh ColdCali® uplace athornica stated									

Standard Finish - GoldGalv®, unless otherwise stated



1-800-453-1692



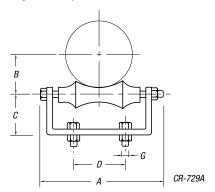
Fax: 901.252.1354

B-171

Pipe Straps, Conduit Clamps and Hangers

CR-729A — Roller Chair

Designed for longitudinal movement of pipe where vertical adjustment is not required. Although two bolts are supplied for installation, the chair can be alternatively welded in position.



..... Specifications

- Material: Carbon Steel Chair and Axle with Cast Iron Pipe Roll. Use a Figure 17 when a Cast Iron Chair is required. Do not exceed 450° F/232° C at the contact point to the roll.
- Finish: Standard Finish GoldGalv®, Black (add suffix "-B"), Electro-Galvanized (add suffix "-EG").

For pipe with insulation and a pipe covering protection saddle, the CR-729A will have to be oversized to suit.

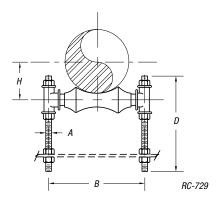
Please see the Table for the RC-729A which shows the correct sizing for insulated pipe.

 Ordering: Specify pipe size, catalog number and finish.

PIPE	MAX.	D	IMENSI	BOLT SIZE	WT. EACH		
(IN.)	(LBS.)	Α	В	С	D	G (IN.)	(LBS.)
2	300	47/8	1%	1½	2	% x 1½	1.10
21/2	600	47/8	2	1%	2	¾ x 1½	1.40
3	600	6	21/4	13/4	2	3⁄8 x 11∕⁄2	1.60
31/2	600	61/2	25/8	21/8	2	3⁄8 x 11∕⁄2	2.60
4	700	7	27/8	23/8	21/2	3⁄8 x 11∕⁄2	2.90
5	700	7%	3½	21/2	3	½ x 2	3.90
6	1,000	93/4	4	23/4	31/4	½ x 2	6.00
8	1,300	11%	51//8	3	41/2	% x 2	9.00
10	1,700	141/2	63/8	35/8	5	3/4 x 21/2	13.80
12	2,300	161/4	71/2	41/8	6	$\frac{3}{4}$ x $2\frac{1}{2}$	18.90
14	3,100	18½	83/8	43/4	61/2	3/4 x 21/2	28.10
16	3,900	20	9¾	5%	10	% х З	34.90
18	4,200	223/4	10½	6	91/4	$\frac{3}{4}$ x $2\frac{1}{2}$	44.40
20	4,500	25%	11%	6½	101/4	$\frac{3}{4}$ x $2\frac{1}{2}$	56.30
24	6,000	30	14	71/8	121/4	⅓ x 3½	87.50
	SIZE (IN.) 2 2½ 3 3½ 4 5 6 8 10 12 14 16 18 20	SIZE (IN.) LOAD (LBS.) 2 300 2½ 600 3 600 3½ 600 4 700 5 700 6 1,000 8 1,300 10 1,700 12 2,300 14 3,100 16 3,900 18 4,200 20 4,500	SIZE (IN.) LOAD (LBS.) A 2 300 4% 2½ 600 4% 3 600 6 3½ 600 6½ 4 700 7 5 700 7% 6 1,000 9¾ 8 1,300 11% 10 1,700 14½ 12 2,300 16¼ 14 3,100 18½ 16 3,900 20 18 4,200 22¾ 20 4,500 25%	SIZE (IN.) LOAD (LBS.) A B 2 300 4½ 1½ 2½ 600 4½ 2 3 600 6 2½ 3½ 600 6½ 2½ 4 700 7 2½ 5 700 7½ 3½ 6 1,000 9¾ 4 8 1,300 11½ 5½ 10 1,700 14½ 6% 12 2,300 16¼ 7½ 14 3,100 18½ 8½ 16 3,900 20 9½ 18 4,200 22½ 10½ 20 4,500 25% 11½	SIZE (IN.) LOAD (LBS.) A B C 2 300 4% 1 1% 1½ 2½ 600 4% 2 1½ 3 600 6 2¼ 1¾ 3½ 600 6½ 2% 2½ 4 700 7 2½ 2½ 5 700 7% 3½ 2½ 6 1,000 9¾ 4 2¾ 8 1,300 11% 5% 3 10 1,700 14½ 6% 3% 12 2,300 16¼ 7½ 4½ 14 3,100 18½ 8% 4¾ 16 3,900 20 9% 5% 18 4,200 22½ 10½ 6 20 4,500 25% 11% 6½	SIZE (IN.) LOAD (LBS.) A B C D 2 300 4% 1% 1½ 2 2½ 600 4% 2 1½ 2 3 600 6 2¼ 1¾ 2 3½ 600 6½ 2% 2½ 2 4 700 7 2½ 2½ 3 6 1,000 9¾ 4 2¾ 3¼ 8 1,300 11½ 5½ 3 4½ 10 1,700 14½ 6% 3½ 5 12 2,300 16¼ 7½ 4½ 6 14 3,100 18½ 8% 4¾ 6½ 16 3,900 20 9% 5% 10 18 4,200 22½ 10½ 6 9½ 20 4,500 25% 11½ 6½ 1½	SIZE (IN.) LOAD (LBS.) A B C D G (IN.) 2 300 4% 1% 1½ 2 % x 1½ 2½ 600 4% 2 1% 2 % x 1½ 3 600 6 2¼ 1¾ 2 % x 1½ 3½ 600 6½ 2% 2½ 2 % x 1½ 4 700 7 2½ 2½ 2½ % x 1½ 5 700 7% 3½ 2½ 3 ½ x 2 6 1,000 9¾ 4 2¾ 3¼ ½ x 2 8 1,300 11% 5½ 3 4½ % x 2 10 1,700 14½ 6% 3% 5 ¾ x 2½ 12 2,300 16¼ 7½ 4¼ 6 ¾ x 2½ 14 3,100 18½ 8% 4¾ 6½ ¾ x 2½ 16 3,900 20

Standard Finish - GoldGalv®, unless otherwise stated.

RC-729 — Adjustable Roll Support



...... Specifications

- Material: Cast Iron Pipe Roll and Sockets, Carbon Steel Axle, Continuous Thread Rods and Hex Nuts. Do not exceed 450° F/232° C at the contact point to the roll.
- Finish: Standard Finish GoldGalv®, Black (add suffix "-B"), Electro-Galvanized (add suffix "-EG").

For pipe with insulation and a pipe covering protection saddle, the RC-729 will have to be oversized to suit

Please see the table for the RC-729A which shows the correct sizing for insulated pipe.

 Ordering: Specify pipe size, catalog number and finish.

	PIPE SIZE	MAX. LOAD		DIMENSI		WT. - EACH	
CAT. NO.	(IN.)	(LBS.)	Α	В	D	Н	(LBS.)
RC-729-1-1/4	11/4	300	3/8	3%	71/4	11/4	1.08
RC-729-1-1/2	1½	300	3/8	35/8	71/4	13/8	1.11
RC-729-2	2	300	3/8	41/8	71/4	1%	1.65
RC-729-2-1/2	21/2	600	1/2	51/2	8	2	2.72
RC-729-3	3	600	1/2	61/8	8	21/4	2.72
RC-729-3-1/2	3½	700	1/2	71/8	8	25/8	2.72
RC-729-4	4	700	5/8	71/8	81/2	27/8	3.91
RC-729-5	5	700	5/8	8¾	9	31/2	4.63
RC-729-6	6	1,000	3/4	9%	9	4	7.07
RC-729-8	8	1,300	7/8	12	10	51//8	11.40
RC-729-10	10	1,700	7/8	141/8	11	63//8	13.70
RC-729-12	12	2,300	7/8	161//8	12	71/2	15.90
RC-729-14	14	3,075	1	173/4	12	83/8	28.70
RC-729-16	16	3,970	1	19¾	18	91/2	42.50
RC-729-18	18	4,200	1	211//8	18	10½	46.60
RC-729-20	20	4,550	11/4	241/4	18	11%	66.20
RC-729-24	24	6,160	11/2	285/8	24	14	102.50
RC-729-30	30	7,290	1½	35½	24	17½	186.80

Standard Finish – GoldGalv®, unless otherwise stated.

Thomas@Betts

United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services**









Pipe Straps, Conduit Clamps and Hangers

RC-729A — Adjustable Roll Support

Designed for longitudinal movement of pipe where vertical adjustment is required. Although primarily used for support of the pipe, this component may also be placed over the pipe to act as a guide.

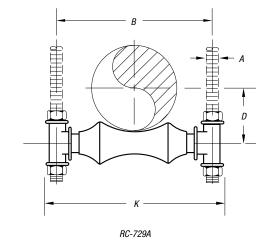
..... Specifications

- Material: Cast Iron Pipe Roll and Sockets with a Carbon Steel Axle.
 Do not exceed 450° F/232° C at the contact point to the roll.
- Compliance: A-A-1192A Type 42, MSS SP-69 Type 41.
- Finish: Black (add suffix "-B").
 Electro-Galvanized (add suffix "-HDG").

For pipe with insulation and a pipe covering protection saddle, the RC-729A will have to be oversized to suit.

Please see the table below which shows the correct sizing for insulated pipe.

 Ordering: Specify pipe size, catalog number and finish.



			DIMENSIONS (IN.)				
CAT. NO.	PIPE SIZE (IN.)	MAX. Load (LBS.)	ROD SIZE A	В	D	K	WT. EACH (LBS.)
RC-729A-1	1	600	3/8	3	1	41//8	.45
RC-729A-1-1/4	11/4	600	3/8	3¾	11/4	41/2	.48
RC-729A-1-1/2	1½	600	3/8	35/8	1%	43/4	.51
RC-729A-2	2	600	3/8	41/8	1%	51/4	.57
RC-729A-2-1/2	21/2	600	1/2	5½	2	7	1.48
RC-729A-3	3	700	1/2	61//8	21/4	7%	1.48
RC-729A-4	4	700	5/8	71/8	27/8	85/8	1.78
RC-729A-5	5	700	5/8	83/8	3½	91/8	2.42
RC-729A-6	6	1,000	3/4	95/8	4	11%	3.96
RC-729A-7	7	1,200	3/4	10¾	43/4	121/2	5.99
RC-729A-8	8	1,300	7/8	12	51//8	14	6.43
RC-729A-10	10	1,700	7/8	141/8	61/4	16	8.45
RC-729A-12	12	2,400	7/8	161/8	71/2	18	10.20
RC-729A-14	14	3,100	1	17¾	8¾	20	20.90
RC-729A-16	16	3,900	1	19%	$9\frac{1}{2}$	221/8	26.07
RC-729A-18	18	4,200	1	221/8	10½	24%	36.59
RC-729A-20	20	4,500	11/4	241/8	11%	26%	39.00
RC-729A-24	24	6,100	11/2	281//8	14	321/8	66.90
RC-729A-30	30	7,200	11/2	35½	17½	391//8	134.00

PIPE SIZE OF COVERING PROTECTION SADDLE TO BE USED WITH RC-729A										
C-789 1" COV. 25	C-789A 1½" COV. 38	C-789B 2" COV. 51	C-789C 2½" COV. 64	C-789D 3" COV. 76	C-789E 4" COV. 100					
3/4-1	_	_	_	_	_					
11/4-11/2	3/4-1		_	_	_					
2½-3	11/2	3/4-1	_	_	_					
31/2	2-21/2	11/4-11/2	3/4-1	_	_					
4-5	3-31/2	2-21/2	11/4-11/2	_	_					
6	4-5	3-4	2-21/2	2-21/2	_					
_	6	5	3-31/2	3-31/2	_					
8	8	6	4-5	4-5	_					
10	10	8	6	6–8	4–6					
12	12	10	8	_	_					
14	14	12-14	10	10	8					
16	16	16	12-14	12-14	10					
18	18	_	16	_	12					
20	20	18-20	18-20	16-20	14-18					
24	24	24	24	24	20-24					
	C-789 1" COV. 25 ¾-1 1¼-1½ 2½-3 3½ 4-5 6 8 10 12 14 16 18 20	C-789 1" COV. 25 C-789A 1½" COV. 38 ¾-1 — 1¼-1½ ¾-1 2½-3 1½ 3½ 2-2½ 4-5 3-3½ 6 4-5 — 6 8 8 10 10 12 12 14 14 16 16 18 18 20 20	C-789 l"C0V. 25 C-789A 38 C-789B 51 ⅓-1 — — 1¼-1½ ¾-1 — 2½-3 1½ ¾-1 3½ 2-2½ 1¼-1½ 4-5 3-3½ 2-2½ 6 4-5 3-4 — 6 5 8 8 6 10 10 8 12 12 10 14 14 12-14 16 16 16 18 18 — 20 20 18-20	C-789 1	C-789 1" COV. 25 C-789A 38 C-789B 2" COV. 51 C-789C 64 C-789D 3" COV. 3" COV. 64 ¾-1 — — — 1¼-1½ ¾-1 — — 2½-3 1½ ¾-1 — — 3½ 2-2½ 1¼-1½ ¾-1 — 4-5 3-3½ 2-2½ 1¼-1½ — 6 4-5 3-4 2-2½ 2-½ — 6 5 3-3½ 3-3½ 8 8 6 4-5 4-5 10 10 8 6 6-8 12 12 10 8 — 14 14 12-14 10 10 16 16 16 12-14 12-14 18 18 — 16 — 20 20 18-20 18-20 16-20					

 $\textit{Standard Finish} - \textit{GoldGalv}^{\circledast}, \ \textit{unless otherwise stated}.$





1-800-453-1692



800.816.7809

Fax: 901.252.1354

B-173

Pipe Straps, Conduit Clamps and Hangers

S-730-C — Chair and Roll

Designed for longitudinal movement of pipe where vertical adjustment is not required. Because the chair is made of steel, it can be either welded or bolted in position.

..... Specifications

· Material: Carbon Steel Chair and Axle with Cast Iron Pipe Roll.

Use a Figure 17 when a Cast Iron Chair is required.

Do not exceed 450° F/232° C at the contact point to the roll.

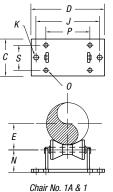
Compliance: Federal Specification A-A-1192A Type 44, MSS-SP-69 Type 44.

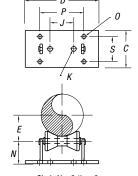
Finish: Black (add suffix "-B"). Electro-Galvanized (add suffix

For pipe with insulation and a pipe covering protection saddle, the S-730-C will have to be oversized to suit.

Please see the Table below showing the correct sizing for insulated pipe.

Ordering: Specify chair number, catalog number and finish.





Chair No. 2 thru 6

S-730-C

CHAIR NO.	BARE PIPE SIZE	C-789 1" COV. 25	C-789A 1½" COV. 38	C-789B 2" COV. 51	C-789C 2½" COV. 64	C-789D 3" COV. 76	C-789E 4" COV. 102
125/32	2						
1 /32	2½	3/4-3	3/4-21/2	3/4-13/4	_	_	_
_	3	20–80	20–65	20–40	_	_	_
_	3½				_	_	_
1	J/2 //	4–6	3–5	2–4	³ / ₄ –1 ¹ / ₂	_	_
_	5	100–150	80–125	50–100	20–40	_	_
_	6	_	—	_	_	_	_
2	8	8	6–8	5–8	2–5	2–6	4–5
_	10	200	150-200	125-200	50-125	50-150	100-125
3	12	10-12	10-12	10-12	6–8	8	6–8
_	14	250-300	250-300	250-300	150-200	200	150-200
4	16	14–18	14–18	14–18	10–16	10–14	10-12
_	18	350-450	350-450	350-450	250-400	250-350	250-300
_	20	_	_	_	_	_	_
5	24	20	20	18–20	18–20	16–18	14–18
5	600	500	500	450-500	450-500	400-450	350-450
6	30	24	24	24	24	20–24	20–24
6	750	600	600	600	600	500-600	500-600
7	36	30	30	30	30	30	28
	900	750	750	750	750	750	700
7	42	40	36	36	36	36	32
_	1,050	1,000	900	900	900	900	800

	CHAIR	MAX. LOAD	BARE PIPE	DIMENSIONS (IN.)						WT. EACH				
CAT. NO.	NO.	(LBS.)	SIZE (IN.)	С	D	E	J	к	М	N	0	P	s	(LBS.)
S-730-C-1A	1 ²⁵ / ₃₂	390	2 2½ 3 3½	6	8½	1½ 1¾ 2½ 2½ 2¾	6½	1	1/4	2	47/64	3½	41//8	7.0
S-730-C-1	1	950	4 5 6	6	101//8	2¾ 3¾ 3¾	8	1	1/4	23/8	47/64	4¾	4¾	10.5
S-730-C-2	2	2,100	8 10	7	9	51/8 61/4	4	1	3/8	33/4	11/16	7	5	16.5
S-730-C-3	3	3,075	12 14	8	11	7¾ 8	5¾	1	3/8	43/4	11/16	9	6	26.8
S-730-C-4	4	4,980	16 18 20	9	12½	8% 10 11	6¾	1	1/2	43/4	13/16	10	6½	40.5
S-730-C-5	5	6,100	24	81/8	13¾	13	71/2	1	5/8	47/8	13/16	11½	63/4	51.0
S-730-C-6	6	7,500	30	11	171/4	161/4	10	1	5/8	5%	13/16	14¾	8	89.8
S-730-C-7	7	12,000	36 42	12	20	20 23½	12	1	1	5%	11/16	17	9	145



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services**









Pipe Straps, Conduit Clamps and Hangers

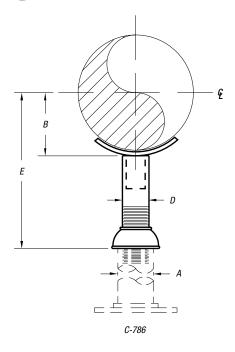
C-786 — Adjustable Pipe Support

Used for support of piping from below without welding to the pipe, and consists of a steel saddle, nipple and pipe reducer. It connects to a threaded pipe standard and base.

Rated loads are for up to 650° F (343° C).

..... Specifications

- · Materials: Reducer is Cast Iron, Pipe saddle and nipple are carbon steel.
- Compliance: Federal Specification A-A-1192A Type 39, MSS-SP-69
- Finish: Standard Finish GoldGalv®, Black (add suffix "-B"), Electro-Galvanized (add suffix "-EG").
- · Ordering: Specify pipe size, catalog number and finish.



CAT. NO.	PIPE SIZE (IN.)	MAX. LOAD (LBS.)	A	В	D	MIN. E	MAX. E	WT. EACH (LBS.)
C-786-1-1/2	1½	5,000	21/2	11/4	1½	8	13	4.75
C-786-2	2	5,000	2½	1½	1½	8	13	4.80
C-786-2-1/2	2½	5,000	21/2	11//8	1½	8	13	4.90
C-786-3	3	5,000	21/2	21/8	1½	81/4	131/4	5.00
C-786-4	4	7,000	3	25/8	2½	91/8	141/8	9.30
C-786-5	5	7,000	3	31/4	2½	95/8	14%	9.65
C-786-6	6	7,000	3	31//8	2½	101/4	151/4	11.70
C-786-8	8	7,000	3	47//8	2½	1111/4	161/4	12.90
C-786-10	10	7,000	3	51//8	2½	12%	17%	14.10
C-786-12	12	7,000	3	61//8	2½	13%	18%	15.30
C-786-14	14	7,000	4	7½	3	15½	20½	21.70
C-786-16	16	7,000	4	85/8	3	16%	21%	25.40
C-786-18	18	7,000	6	9%	4	191/8	241/8	39.30
C-786-20	20	7,000	6	10%	4	201/8	251//8	44.90
C-786-24	24	10,000	6	123/4	4	221/4	271/4	54.30
C-786-30	30	10,000	6	15¾	4	251/4	301/4	62.40
C-786-36	36	10,000	6	18¾	4	281/4	331/4	70.20

Standard Finish - GoldGalv®, unless otherwise stated.



Request Info

1-800-453-1692

www.tnb.com

Technical Services Tel: 901.252.8000 Tel: 888.862.3289

Thomas@Betts

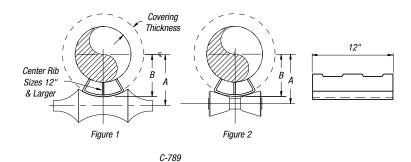
Pipe Straps, Conduit Clamps and Hangers

C-789, C-789A, C789B, C-789C, C-789D, C-789E — Pipe Covering Protection Saddle

The C-789 saddles are used to protect the insulation against damage and keep heat loss to a minimum. They are designed for 1" to 5" of covering. All Saddles are 12" long with three tabs on each side for welding to pipe. Sizes 12" and larger have a welded-in center rib.

..... Specifications

- Material: Carbon Steel (except C-789 and C-789-8 which are Chromium Molybdenum Steel).
- Compliance: Federal Specification A-A-1192A Type 39A or 39B, MSS-SP-69 Type 39A or 39B and BSPSS-BS3974.
- Finish: Standard Finish GoldGalv®, Black (add suffix "-B"), Electro-Galvanized (add suffix "-EG").
- Ordering: Specify catalog number and pipe size.



Pipe Saddles and Pipe Shields

	M		ACTUAL COVERING	MAX.	FI	GURE 1 (IN.)		F	IGURE 2 (IN.)		WT.
CAT. NO.	PIPE SIZE (IN.)	COVERING THICKNESS (IN.)	THICKNESS (IN.)	LOAD (LBS.)	ROLL SIZE	А	В	ROLL SIZE	А	В	EACH (LBS.)
C-789-3/4	3/4	1	15/16	1,200	21/2	21//8	1%	2-31/2	25/16	1%	1.15
C-789A-3/4	3/4	1½	1½	1,200	3	25/8	21/8	2-31/2	211/16	21/4	2.10
C-789B-3/4	3/4	2	2	1,200	4	31/4	25/8	2-31/2	3¾	25/8	2.63
C-789-1	1	1	11/16	1,200	21/4	23/4	13/4	2-31/2	27/16	13/4	1.15
C-789A-1	1	1½	1%16	1,200	3	27/8	23/8	2-31/2	215/16	23/8	2.10
C-789B-1	1	2	21/8	1,200	4	33/8	23/4	2-31/2	31/2	23/4	2.63
C-789-1-1/4	11/4	1	7/8	1,200	3	21/2	2	2-31/2	29/16	2	1.25
C-789A-1-1/4	11/4	1½	1%	1,200	3½	3	21/2	2-31/2	33/16	21/2	2.10
C-789B-1-1/4	11/4	2	1 ¹⁵ / ₁₆	1,200	5	35/8	31/16	2-31/2	311/16	31/16	2.63
C-789C-1-1/4	11/4	21/2	21/2	1,200	6	41/4	3½	4–6	41/16	31/2	3.25
C-789-1-1/2	1½	1	11/16	1,200	3	21/2	2	2-31/2	211/16	2	1.50
C-789A-1-1/2	11/2	1½	1%6	1,200	4	31//8	25/8	2-31/2	35/16	25/8	2.10
C-789B-1-1/2	1½	2	23/8	1,800	5	49/16	3¾	2-31/2	3¾	3¾	3.10
C-789C-1-1/2	1½	21/2	27/8	1,800	6	45/8	31//8	4–6	43/16	31//8	3.75
C-789-2	2	1	11/16	1,200	31/2	27/8	23/8	2-31/2	215/16	23/8	1.63
C-789A-2	2	1½	1%16	1,200	4	3%16	25/8	2-31/2	35/16	25/8	2.10
C-789B-2	2	2	21/8	1,800	6	41/4	31/2	4–6	31/8	31/2	3.12
C-789C-2	2	21/2	25/8	1,800	7	43/4	4	4–6	413/16	4	3.63
C-789D-2	2	3	31/16	1,800	7	51/4	41/2	7–10	55/16	41/2	4.40
C-789-2-1/2	21/2	1	11/16	1,200	4	31/2	21/8	2-31/2	3%16	27/8	1.75
C-789A-2-1/2	21/2	1½	11//8	1,200	6	41/2	3¾	2-31/2	3¾	33/8	2.40
C-789B-2-1/2	21/2	2	2¾	1,800	6	45/8	31/8	4–6	43/16	31//8	3.12
C-789C-2-1/2	21/2	21/2	27/8	1,800	7	5%16	43/8	7–10	51/16	43/8	3.63
C-789D-2-1/2	21/2	3	3¾	1,800	7	55/8	47//8	7–10	5%16	47//8	4.40

 $\textit{Standard Finish} - \textit{GoldGalv}^{\circledast}, \ \textit{unless otherwise stated}.$









Pipe Straps, Conduit Clamps and Hangers

Pipe Saddles and Pipe Shields (Continued)

		MAX. COVERING	ACTUAL COVERING	MAX.		FIGURE 1 (IN.)		FIC	GURE 2 (IN.)		_ WT.
CAT. NO.	(IN.)	THICKNESS (IN.)	THICKNESS (IN.)	LOAD (LBS.)	ROLL SIZE	Α	В	ROLL SIZE	Α	В	EACH (LBS.)
789-3	3	1	11/16	1,200	4	3½	21/8	2–3½	3%16	27/8	1.75
-789A-3	3	11/2	1%6	1,800	6	41/2	33/4	4–6	41/16	33/4	2.75
-789B-3	3	2	21/16	1,800	7	43/4	4	4–6	49/16	4	3.50
-789C-3	3	21/2	29/16	1,800	8	5%	45/8	7–10	5%	45/8	3.93
-789D-3	3	3	31/16	1,800	8	51//8	5	7–10	6	5	4.40
-789-4	4	1	11/16	5,000	6	41/4	3½	4–6	4	31/2	2.13
-789A-4	4	1½	1%6	5,000	7	43/4	4	4–6	41/16	4	3.00
-789B-4	4	2	21/16	5,000	7	53/8	45/8	4–6	51/8	45/8	3.50
C-789C-4	4	2½	29/16	5,000	10	6	51//8	7–10	51/8	51/8	3.93
C-789D-4	4	3	31/8	5,000	10	6%	53/4	7–10	63%	53/4	5.00
C-789E-4	4	4	41//8	5,000	12	73/4	61/2	7–10	7%	6½	6.30
C-789-4	4	4	4/8	5,000	12	73/4	6½	7–10	75/8	6½	14.45
C-789-4	4	5½	511/16	5,000	16	95/8	81/4	16	9½	81/4	26.40
C-789-5						47/8	41/8	4–6		41/8	
	5 5	11/4	11/16	1,800	6 7	4½ 5½	4 1/8	4–6 4–6	4 5¾6	41/8	2.38
C-789A-5		1½	1% ₁₆	1,800							3.00
C-789B-5	5	2	21/16	1,800	8	6	51/4	7–10	6	51/4	3.62
C-789C-5	5	2½	29/16	1,800	10	6%	53/4	7–10	67/16	53/4	4.06
C-789D-5	5	3	31/16	1,800	10	71/8	61/4	7–10	75/32	61/4	5.00
C-789E-5	5	4	41/4	1,800	12	81/4	7	7–10	83/32	7	6.30
C-789-5	5	4	43/16	5,000	12	83/8	71/8	7–10	81/4	71/8	14.9
C-789-5	5	5½	511/16	5,000	18	10¾6	83/4	18	10¾	8¾	27.40
-789-6	6	1	1	1,800	7	5%	45//8	4–6	51//8	4%	3.85
C-789A-6	6	1½	1½	1,800	8	51//8	5	7–10	63/16	5	4.75
C-789B-6	6	2	21/16	1,800	10	6%	51/2	7–10	61/2	51/2	6.28
C-789C-6	6	21/2	29/16	1,800	12	7	6	12–15	7%	6	7.09
C-789D-6	6	3	31/16	1,800	12	73/4	61/2	7–10	71/2	61/2	8.10
C-789E-6	6	4	43/16	1,800	12	81//8	7%	12-15	813/16	75/8	10.1
C-789-6	6	4	41/8	7,200	12	81//8	71//8	12-15	87/8	71//8	16.00
C-789-6	6	5½	5%	7,200	18	11%6	10	18	11½	10	27.50
C-789-8	8	1	11/16	1,800	10	7	6	7–10	6%16	6	5.05
C-789A-8	8	11/2	1%6	1,800	10	7	6	7–10	73/16	6	5.25
C-789B-8	8	2	21/16	1,800	12	7½	61/2	7–10	711/16	61/2	7.00
C-789C-8	8	21/2	211/16	1,800	14	81/4	7	12-15	811/16	7	7.55
C-789D-8	8	3	33/16	1,800	12	81/8	75/8	12–15	827/32	75/8	9.90
C-789E-8	8	4	43/16	1,800	16	10	83/4	12–15	913/16	83/4	10.13
C-789-8	8	4	43/16	7,200	16	10	83/4	12–15	97/8	83/4	16.90
C-789-8	8	5½	5%16	7,200	20	1113/16	101/4	20	11¾	101/4	34.10
C-789-10	10	1	1	1,800	10	81/4	71/4	7–10	6%16	71/4	5.05
C-789A-10	10	1½	1%	1,800	10	81/4	71/4	7–10	73/16	71/4	5.25
C-789B-10	10	2	21/16	1,800	12	91/8	77/8	7–10	711/16	71/8	7.0
C-789C-10	10	2½	21/8	1,800	16	9%	81/8	16–20	911/16	81/8	8.75
C-789D-10	10	3	31/8	5,000	16	101//8	87/8	16–20	103/8	87/8	10.70
C-789E-10	10	4	3/8 4½	5,000	18	1111/8	93/4	16–20	111/16	078 93/4	13.88
	10	4	41/16			111/8	9%	16–20	111/16	9%	17.50
C-789-10				7,200	18						
C-789-10	10	5½	5%16	7,200	20	131/8	111/4	20	12%	111/4	36.60
789-12	12	1	11/8	2,500	14	9%	81/8	12–15	91/4	81/8	7.30
C-789A-12	12	1½	1%	5,000	14	9%	81/8	12–15	97/8	81/8	7.35
-789B-12	12	2	21/8	5,000	16	10	85/8	16–20	915/16	85/8	9.20
C-789C-12	12	2½	21/8	5,000	18	10½	91/8	16–20	10%6	91/8	10.04
C-789D-12	12	3	31/8	5,000	18	111/4	9¾	16–20	111//8	9¾	11.00
C-789E-12	12	4	41/8	5,000	20	121/4	10¾	16–20	121/16	10¾	14.45
C-789-12	12	4	41/8	11,000	20	121/4	10¾	16–20	121//8	10¾	28.00
C-789-12	12	51/2	5%16	11,000	24	141/4	12%	24	13¾	12¾	36.60

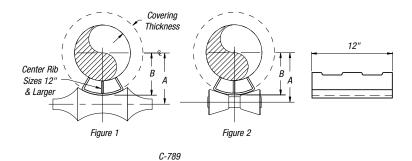




800.816.7809 Fax: 901.252.1354 1-800-453-1692



Pipe Straps, Conduit Clamps and Hangers



Pipe Saddles and Pipe Shields (Continued)

						FIGURE 1 (IN.)		F	_		
CAT. NO.	PIPE Size (In.)	MAX. COVERING THICKNESS (IN.)	ACTUAL COVERING THICKNESS (IN.)	MAX Load (LBS.)	ROLL SIZE	A	В	ROLL SIZE	A	В	WT. EACH (LBS.)
C-789A-14	14	1½	11/2	5,000	16	101/4	9	16-20	103/8	9	8.25
C-789B-14	14	2	2	5,000	18	10¾	93/8	16-20	103/4	93/8	9.20
C-789C-14	14	21/2	21/8	5,000	18	113/8	97/8	16-20	111/4	97/8	10.04
C-789D-14	14	3	3	5,000	18	12	101/2	16-20	113/4	101/2	11.00
C-789E-14	14	4	4	5,000	24	131/4	113/4	22-24	123/8	113/4	15.50
C-789-14	14	4	4	11,000	24	123/4	111/4	22-24	111//8	111/4	27.60
C-789-14	14	5½	5½	11,000	24	15	131/8	24	141/2	131/8	36.60
C-789A-16	16	11/2	11/2	5,000	18	111/8	93/4	16-20	111/4	93/4	8.25
C-789B-16	16	2	2	5,000	20	113/4	101/4	16-20	1111/8	101/4	9.20
C-789C-16	16	21/2	21/2	7,200	20	121/4	10¾	16-20	121/4	103/4	13.69
C-789D-16	16	3	3	7,200	24	121/8	111/8	22-24	127/8	111//8	14.65
C-789E-16	16	4	4	7,200	24	14	121/4	22-24	131/16	121/4	15.50
C-789-16	16	4	4	11,000	24	14	121/4	22-24	135/8	121/4	30.10
C-789-16	16	5½	51/2	11,000	30	161/5	131/8	30	153/4	131//8	39.00
C-789A-18	18	11/2	11/2	5,000	20	121/4	103/4	16-20	121/4	103/4	9.35
C-789B-18	18	2	2	7,200	24	131/8	1111/8	22-24	123/8	11%	12.00
C-789C-18	18	21/2	21/2	7,200	24	131/2	113/4	22-24	13	113/4	14.19
C-789D-18	18	3	3	7,200	24	14	121/4	22-24	131/2	121/4	15.25
C-789E-18	18	4	4	7,200	24	153/8	131/8	22-24	145/8	131/8	21.00
C-789-18	18	4	4	13,200	24	151/8	13%	22-24	143/8	13¾	40.30
C-789-18	18	51/2	51/2	13,200	30	171/3	15	30	167/8	15	52.10
C-789A-20	20	11/2	11/2	7,200	24	131/2	113/4	22-24	13	113/4	11.05
C-789B-20	20	2	2	7,200	24	14	121/4	22-24	131/2	121/4	12.40
C-789C-20	20	21/2	21/2	7,200	24	141/8	121/8	22-24	141/8	121/8	14.19
C-789D-20	20	3	3	7,200	24	151/4	13¾	26-30	147/8	133/4	15.25
C-789E-20	20	4	4	7,200	30	$16\frac{1}{2}$	141/4	26-30	153/4	141/4	22.80
C-789-20	20	4	4	13,200	7	165/8	143/8	26-30	151/8	143/8	44.80
C-789-20	20	5½	51/2	13,200	30	18⅓	16	30	171/8	16	52.10
C-789A-24	24	11/2	11/2	7,200	30	163/8	141/8	26-30	153/4	141/8	12.90
C-789B-24	24	2	2	7,200	30	163/8	141/8	26-30	15¾	141/8	13.90
C-789C-24	24	21/2	21/2	7,200	30	17	143/4	26-30	16%	143/4	18.07
C-789D-24	24	3	3	7,200	30	171/2	151/4	26-30	171/8	151/4	19.35
C-789E-24	24	4	4	7,200	30	18¾	161/2	26-30	18	161/2	23.10
C-789-24	24	4	4	13,200	30	181/8	16%	26-30	181/8	165/8	45.40

Standard Finish – GoldGalv®, unless otherwise stated.





1-800-453-1692



United States Tel: 901.252.8000

Fax: 901.252.1354

901.252.8000 800.816.7809 **Technical Services** Tel: 888.862.3289



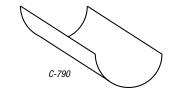
Pipe Straps, Conduit Clamps and Hangers

C-790 — Insulation Shield

Designed to protect the insulation and distribute the load at the hanger point. This item is usually used with our C-710 Clevis Hanger.

.....Specifications.....

- Approvals: Federal Specification A-A-1192A Type 40, MSS-SP-69 Type 40
- Material: Carbon Steel
- Finish: Standard Finish GoldGalv[®], Black (add suffix "-B"), Electro-Galvanized (add suffix "-EG")
- Ordering: Specify hanger size and catalog number



Shield Size Selection Table

PIPE Sizes	1/2	3/4	1	1½	2
Insulation	Thickness (In	ches)			
1/2	1A*	1A	_	_	_
3/4	1A	1A	2A	4A	6A
1	1A	2A	3A	5A	7A
11/4	2A	3A	4A	6A	7A
11/2	2A	3A	4A	6A	7A
2	3A	4A	5A	7A	8A
21/2	4A	5A	6A	7A	8A
3	5A	6A	7A	8A	9A
31/2	_	_	A8	9A	10A
4	_	_	A8	9A	10A
5	_	_	9B	10B	11B
6	_	_	10B	11B	12B
8	_	_	_	13C	14C
10	_	_	14C	15C	16C
12	_	_	16C	17C	19C
14	_	_	17C	19C	_

CAT. NO.	INSIDE DIAMETER (IN.)	CLEVIS HANGER SIZE (IN.)	LENGTH (IN.)	WT. EACH (LBS.)
C-790-1A	23/8	2	12	.62
C-790-2A	27/8	21/2	12	.76
C-790-3A	31/2	3	12	.92
C-790-4A	4	31/2	12	1.04
C-790-5A	41/2	4	12	1.16
C-790-6A	5	5	12	1.32
C-790-7A	55/8	5	12	1.46
C-790-8A	65/8	6	12	1.58
C-790-9A	75/8	7	12	1.74
C-790-10A	85/8	8	12	2.02
C-790-11B	95/8	10	12	2.28
C-790-12B	103/4	10	12	2.54
C-790-13C	113/4	12	12	2.84
C-790-14C	123/4	12	12	4.18
C-790-15C	14	14	12	4.58
C-790-16C	15	16	12	4.90
C-790-17C	16	16	12	5.20
C-790-18C	17	18	12	5.53

Standard Finish - GoldGalv®, unless otherwise stated.

M-117 — Eye Socket

Designed for attaching a rod to split ring type clamps. M-117 is only available in 1/4", 3/8" and 1/2" rod sizes.

.....Specifications.....

Material: Malleable Iron

(Type 16)

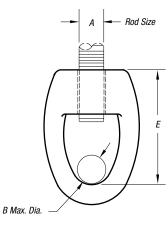
Compliance: Federal Specification

WW-H-171E Type 16, MSS-SP-69

- · Finish: Plain, Copper
- Ordering: Specify rod size and

CAT. NO.	ROD SIZE A (IN.)	MAX LOAD (LBS.)	MAX B (IN.)	E (IN.)	WT. EACH (LBS.)
M-117-1/4	1/4	240	1/4	13/8	.08
M-117-3/8	3/8	610	1/4	13/8	.08
M-117-1/2	1/2	1,000	1/4	19/16	.11
M-117-5/8	5/8	1,400	3/8	13/4	.22
M-117-3/4	3/4	2,200	1/2	21/4	.30
M-117-7/8	7/8	2.300	1/2	27/16	.32

Standard Finish - GoldGalv®, unless otherwise stated.



M-117



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354







Pipe Straps, Conduit Clamps and Hangers

Rods and Rod Attachments

Shield Size Selection Table

Silicia Size Selection Table									
PIPE Sizes	D	F	1	1D	2				
ckness (Inc	ches)								
1/2	1A*	1A	_	_	_				
3/4	1A	1A	2A	4A	6A				
1	1A	2A	3A	5A	7A				
11/4	2A	3A	4A	6A	7A				
1½	2A	3A	4A	6A	7A				
2	3A	4A	5A	7A	A8				
21/2	4A	5A	6A	7A	8A				
3	5A	6A	7A	8A	9A				
3½	_	_	8A	9A	10A				
4	_	_	8A	9A	10A				
5	_	_	9B	10B	11B				
6	_	_	10B	11B	12B				
8	_	_	_	13C	14C				
10	_	_	14C	15C	16C				
12	_	_	16C	17C	18C				
14	_	_	17C	18C	_				
specify X1A									
	PIPE SIZES Ckness (Inc. 1/2 3/4 1 11/4 11/2 2 21/2 3 31/2 4 5 6 8 10 12 14	PIPE SIZES D ckness (Inches) ½ 1A* ¾ 1A 1 1A 1¼ 2A 1½ 2A 2 3A 2½ 4A 3 5A 3½ — 4 — 5 — 6 — 8 — 10 — 12 — 14 —	PIPE SIZES D F ckness (Inches) ½ 1A* 1A ¾ 1A 1A 1 1A 2A 1¼ 2A 3A 1½ 2A 3A 2 3A 4A 2½ 4A 5A 3 5A 6A 3½ — — 4 — — 5 — — 6 — — 8 — — 10 — — 12 — — 14 — —	PIPE SIZES D F 1 ckness (Inches) ½ 1A* 1A — ¾ 1A 1A 2A 3A 1¼ 2A 3A 4A 1½ 2A 3A 4A 2 3A 4A 5A 2½ 4A 5A 6A 3 5A 6A 7A 3½ — 8A 4 — 8A 5 — 9B 6 — 10B 8 — — 10 — 14C 12 — 16C 14 — 17C	PIPE SIZES D F 1 1D ckness (Inches) 1/2 1A* 1A — — ½ 1A* 1A — — ¾ 1A 1A 2A 4A 1 1A 2A 3A 5A 1¼ 2A 3A 4A 6A 1½ 2A 3A 4A 6A 2 3A 4A 5A 7A 2½ 4A 5A 6A 7A 8A 3½ — — 8A 9A 4 — — 8A 9A 5 — — 9B 10B 6 — — 10B 11B 8 — — 13C 10 — — 14C 15C 12 — — 16C 17C 14 — — 17C 18C				

Sizes of CL-710 or C-710 Clevis

PIPE Sizes	1/2	3/4	1	1½	2
For Use with	h Shields Ou	tside of Insu	lation. Insul	ation Thickn	ess (Inches)
1/2	2	2	_	_	_
3/4	2	2	21/2	31/2	5
1	2	21/2	3	4	5
11/4	21/2	3	3	5	5
1½	21/2	3	31/2	5	5
2	3	31/2	4	5	6
21/2	31/2	4	5	5	6
3	4	5	5	6	8
31/2	_	_	6	8	8
4	_	_	6	8	8
5	_	_	8	8	10
6	_	_	8	10	10
8	_	_	_	12	12
10	_	_	12	_	_

E-151 — Lag Rod

Designed for a vertical rod connection to wood.

..... Specifications

- Material: Carbon Steel
- Finish: Standard Finish GoldGalv®, Black (add suffix "-B"), Electro-Galvanized (add suffix "-EG")
- Ordering: Specify rod diameter, rod length, catalog number and finish



	ROD	MAX	MIN. LEN	GTH (IN.)	WT. EACH (LBS.) LENGTH — DIMENSION L				
CAT. NO.	SIZE (IN.)	LOAD (LBS.)	MACHINE B	COACH C	4 114	6 152	8 203	10 254	12 356
E-151-3/8	3/8	390	21/2	2	.12	.19	.25	.31	.37
E-151-1/2	1/2	640	21/2	2	.22	.34	.44	.56	.67
E-151-5/8	5/8	750	21/2	21/2	.35	.53	.70	.87	.59

Standard Finish – GoldGalv®, unless otherwise stated



 1-800-453-1692



United States Tel: 901.252.8000

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 Technical Services
Tel: 888.862.3289





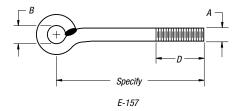
Pipe Straps, Conduit Clamps and Hangers

E-157 — Machine Thread Eye Rod

Welded Eyerods are designed to permit swing in the attachment component due to pipe movement.

..... Specifications

- Material: Carbon Steel. Larger rod diameters over 2¹/₂", special materials and special eye dimensions can be furnished upon request
- Finish: Standard Finish GoldGalv®, Black (add suffix "-B"), Electro-Galvanized (add suffix "-EG")
- Ordering: Specify catalog number, finish, rod size, rod length and thread length if other than standard



A (IN.)	3/8	1/2	5/8	3/4	7/8	1	11/4	1½	13/4	2	21/4	21/2
B (IN.)	3/4	7/8	1	11//8	11/4	13/8	1%	11//8	21/2	23/4	3	31/4
Thread Length D (IN.)	3	3	3	3	4	4	4	6	6	6	6	6
Load at (LBS.) 650° F/343° C	610	1,130	1,810	2,710	3,770	4,960	8,000	11,630	15,700	20,700	27,200	33,500
Load at (LBS.) 750° F/399° C	540	1,010	1,610	2,420	3,360	4,420	7,140	10,370	14,000	18,460	24,260	29,880

Standard Finish - GoldGalv®, unless otherwise stated





1-800-453-1692



Pipe Straps, Conduit Clamps and Hangers

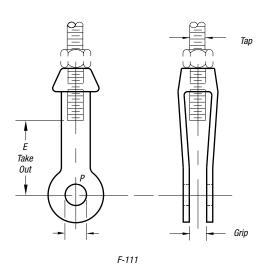
F-111 — Forged Steel Clevis

Used to connect rod ends with structural steel welding lug plates or lugs welded to pipe. It provides a pivot point and adjustment. It can be supplied with a pin as F-111.

...... Specifications

- Material: Forged Steel
- Compliance: Federal Specification A-A-1192A Type 14, MSS-SP 69 Type 14 and BSPSS-BS3974
- Finish: Standard Finish GoldGalv®, Black (add suffix "-B"), Electro-Galvanized (add suffix "-EG")
- Ordering: Specify catalog number, rod size, pin size, grip "G" and

CAT. NO.	ROD Size	MAX. LOAD 650° F/343° C	PIN/BOLT DIA.	SIZE No.	Р	WT. EACH (LBS.)
F-111-3/8	3/8	610	1/2	2	9/16	.77
F-111-1/2	1/2	1,130	5/8	2	11/16	.77
F-111-5/8	5/8	1,810	3/4	2	13/16	.77
F-111-3/4	3/4	2,710	7/8	21/2	1	2.50
F-111-7/8	7/8	3,770	1	21/2	11/8	2.50
F-111-1	1	4,960	11/8	3	11/4	4.00
F-111-1-1/4	11/4	8,000	1%	3	11/2	4.00
F-111-1-1/2	11/2	11,630	1%	3½	13/4	6.00
F-111-1-3/4	13/4	15,700	1%	4	2	8.00
F-111-2	2	20,700	21/4	5	23/8	16.00
F-111-2-1/4	21/4	27,200	21/2	6	25/8	26.00
F-111-2-1/2	21/2	33,500	23/4	6	21/8	36.00



Note: Pins and Cotter Pins supplied when requested as Fig. F-111.

E-120-A — Forged Weldless Eyenut

Used to connect rod ends with structural steel welded beam attachments or pipe clamps as a substitute for a welded eyerod. It provides a pivot point and adjustment. It can also be supplied tapped left hand as E-120-A.

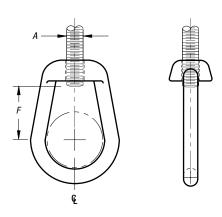
...... Specifications

- Material: Forged Steel
- Compliance: Federal Specification A-A-1192A Type 14, MSS-SP 69 Type 14 and BSPSS-BS3974

Standard Finish - GoldGalv®, unless otherwise stated

- Finish: Standard Finish GoldGalv®, Black (add suffix "-B"), Electro-Galvanized (add suffix "-EG")
- Ordering: Specify catalog number, rod size and finish

CAT. NO.	ROD TAP A	MAX. LOAD 650° F/343° C	F	WT. EACH (LBS.)
E-120-A-3/8	3/8	610	1	.20
E-120-A-1/2	1/2	1,130	1	.31
E-120-A-5/8	5/8	1,810	1	.55
E-120-A-3/4	3/4	2,710	1	1.00
E-120-A-7/8	7/8	3,770	13/8	1.55
E-120-A-1	1	4,960	13/4	2.45
E-120-A-1-1/4	11/4	8,000	13/4	3.75
E-120-A-1-1/2	11/2	11,630	13/4	6.75
E-120-A-1-3/4	13/4	15,700	31/4	16.40
E-120-A-2	2	20,700	31/4	16.75
E-120-A-2-1/4	21/4	27,200	31/4	16.75
E-120-A-2-1/2	21/2	33,500	31/4	16.75
Standard Finish – Ge	oldGalv®, unless o	therwise stated		



E-120-A



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354

Technical Services







Surface Raceway and Lighting Systems

Electrical Raceway

Series 800 Surface Raceway and Lighting Systems

Superstrut® channel together with snap-in closure strip is listed by Underwriters Laboratories as a surface metal raceway. Other accessories listed by Underwriters Laboratories are identified on the drawings.



Column A

Suitable for number of wires indicated when used as a raceway. Also suitable for number of wires indicated when installed to support and supply electric discharge type fixtures when raceway wiring is suitable for not less than 75° C.

Column B

Suitable for number of wires indicated when used as a raceway. Also suitable for number of wires indicated when installed to support electric discharge type fixtures when clearance of not less than 1/8" is provided between raceway and fixture and when wiring is suitable for 75° C.

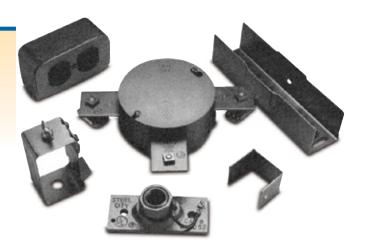
GoldGalv® hardware finish is standard for all Superstrut® products. This is a multi-process finish of electro-plated zinc, followed by gold-colored trivalent chromium coating to give excellent corrosion resistance and a superior paint base. See pages B-106-B-107 for a complete description of the GoldGalv® hardware finish. GoldGalv® hardware finish will be furnished if no other finish is specified.



DEFLECTION AT CHANNEL AT 10 FT. 12 FT. AT 14 FT. A-1200 1/4" 1/2" C-1200 3/8" 3/4" A-1400 3/8" 3/4"

	AT 6 FT.	DEFLECTION Channel at 7 ft.	AT 9 FT.
B-1200	3/8"	⁹ / ₁₆ "	5/8"
R-1400	1"	1/2"	*

*Not recommended for this spacing



Materials:

Superstrut® electrical raceway, fixture hanging channel, closure strip and accessories are cold formed from hot-rolled strip steel.

Design Data:

Deflections at various hanger rod spacings for raceway channels, based on 40 to 45 lbs. per fixture.

UL LISTED CHANNELS		
A-1200	B-1200	
A-1200-K0	B1200AL	
A-1200 AL	B-1400	
A-1200 PG	C-1200	
A-1400	E-1200	
A-1400-K0	H-1200	
A-1400 SS		

Maximum Number of Wires

		RACEWAY WITH OR WITHOUT KO								
	A-1200 B-1200 A-1400 B-1400 C-1200							200 200		
AVG	A	В	Α	В	A	В	A	В		
14	6	10	4	6	5	10	6	10		
12	6	10	3	6	4	10	6	10		
10	5	8	_	_	4	6	5	8		
8	4	6	_	_	3	4	4	6		
6	2	3	_	_	2	2	2	3		



Tel: 888.862.3289

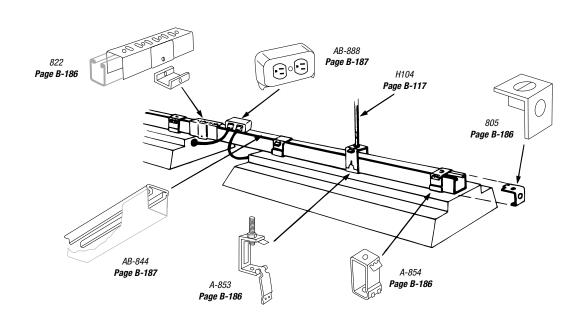


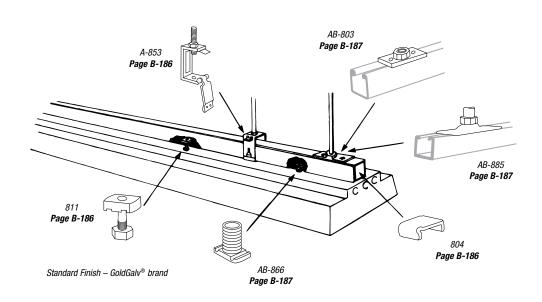


Thomas@Betts

Surface Raceway and Lighting Systems

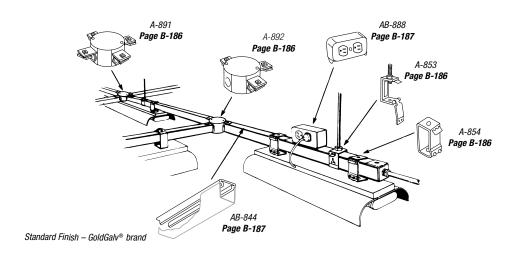
Electrical Applications (continued)

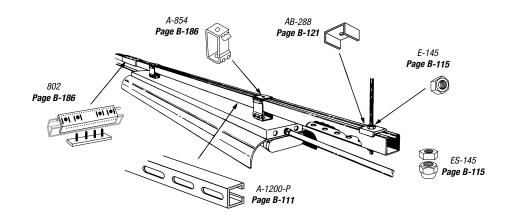






Surface Raceway and Lighting Systems







452TB Concrete Spot Insert Page B-127



540 Side Beam Hanger Clip Page B-130



S-541 Swing Connector Page B-131



500 Beam Clamp Page B-130

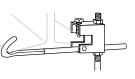




U-579 Ceiling Flange Page B-50



US-563 Beam Clamp Page B-130



U-569 Beam Clamp with Safety Rod Page B-133



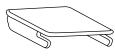
United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services** Tel: 888.862.3289

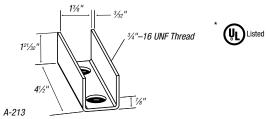


Surface Raceway and Lighting Systems

Fixture Fittings



A-243-1 End Cap for A-1200 Channel





Raceway Joiner with Reinforcing Plate furnished complete with nuts.

CAT. NO.	FOR CHANNEL	STD. CTN.
A802	A Series	25
B-802	B Series	25
E-802	E Series	10
H-802	H Series	10



12 ga for 3/4" or 1" Conduit. Furnished complete with 1/4" x 5/8" Flat Head Machine Screw and AB-100-1/4 nut.

CAT. NO.	FOR CHANNEL	STD. CTN.
A-809	A Series	25
H-809	H Series	25



Stud Nut

End Cap

CAT. NO.	FOR CHANNEL	STD. CTN.
A804	A-1200	25
	A-1400	25
B804	B-1400	25
C-804	C-1200	25
E-804	E-1200	25
H-804	H-1200	25



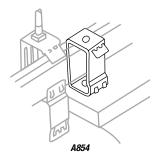
For attaching fixture to Slot Down Channel or to Slot up Knockouts.

CAT. NO.	FOR CHANNEL	STD. CTN.
811 1-STR	1/4 x 1	50
811-2STR	1/4 x 1 1/4	50

Specific length. Hex Nut included.



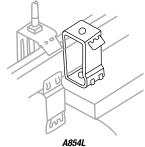
A853 Channel Hanger Use hanger rod 3/8" or 1/2" Use with "A", "B" or "C" series single channel.



Channel Hanger Illustration showing A-854 with nut and bolt furnished to attach to fluorescent fixture. Use with "A", "B" or "C" series channel.



A853L Channel Hanger Long type for all series channel.



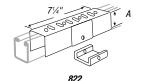
Channel Hanger Long Illustration showing A-854-L with nut and bolt furnished to attach to fluorescent fixture. Long type for all series channel.



End Cap with Knockout

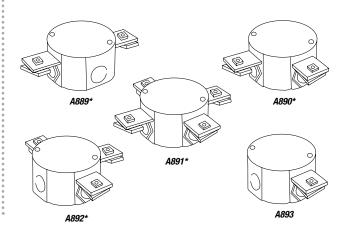
KO for 1/2" conduit. Furnished complete with $\frac{1}{4}$ " x $\frac{5}{8}$ " flat Head Machine Screw and AB-100-1/4 nut.

CAT. NO.	FOR CHANNEL	STD. CTN.
A-805	A Series	25
H-805	H Series	25



Raceway Jointer & Seal

CAT. NO.	A (IN.)	FOR CHANNEL	STD. CTN.
A822*	111/16	A Series	25
B-822*	7/8	B Series	25
C-822*	17/16	C Series	25





United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354



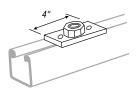






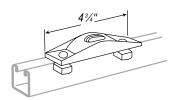
Surface Raceway and Lighting Systems





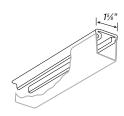
AB803*

Cast Conduit Connector To connect 1/2" or 3/4" conduit to raceway channel — Furnished complete with stud nuts & hex nuts. Part has removable bushing to increase size from 1/2" to 3/4".



AB815

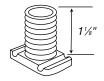
Swing Connector Nuts & bolts to clamp to channel included. For 1/2" or 3/4" conduit.



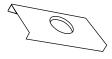
AB-844*

AB-844-PC* Steel Closure Strip Plastic Closure Strip

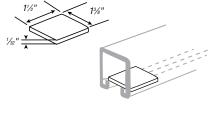
When used as a raceway channel, it is normally installed with the slot up and after wiring is complete, the closure strip is installed. For all channels. Standard lengths 10 ft.



AB-866 1/2" Pipe thread

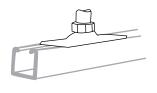


AB867* Spacer Clevis For use with AB-866 wiring stud nuts.



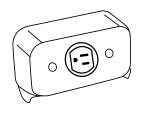
AB868

Fiber Retainer for cables until closure strip is installed.



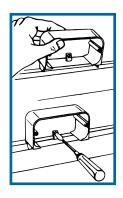
AB885

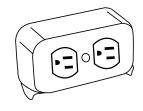
15° Swivel Nuts and bolts to clamp to channel included. For 1/2" or 3/4" conduit.



AB887*

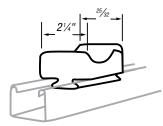
Single Outlet Complete unit including housing, standard SINGLE 3-wire, 15 Amp, 125 Volt, NEMA ground receptacle and cover plate.





AB888*

Duplex Outlet Complete unit including housing, standard DUPLEX 3-wire, 15 Amp, 125 Volt, NEMA ground receptacle and cover plate.



AB-880 AB-881 3" and 4" Porcelain Saddles

CAT. NO.	MAX. CABLE DIAM. (IN.)	STD. CTN.	
AB-880	3	3	
AR-881	4	41/2	



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354

Technical Services







Slotted Angle Metal Framing

With Superangle, You Get Flexibility — Simplicity — Economy!

Superangle Slotted Angle Metal Framing

Create the support framing you need.

Superangle is manufactured from structural-quality steel in three different sizes. The small sizes are 14 ga. steel, the larger size is 12 ga. steel. With this offering, an endless variety of metal framing requirements can be met, from lightweight supporting needs to larger shelving needs such as inventory storage.

One of the legs on all sizes is 1%" wide, while the other is either 1%", 2%" or 3%" long. Depending on the frame requirements, a single size can be utilized throughout, or the sizes can be interchanged to get the most efficient usage from the material.

Installation time is reduced — inventory space is minimal.

Scribe marks are placed every 3/4", which saves planning, layout and cutting time and provides accuracy. The exclusive slot and hole pattern, repeated every 3", is scientifically designed for ease of assembly. The proper nuts and bolts are included with the material to ensure fast and easy erection.

Superangle Metal Framing is packaged in 10' and 12' lengths to minimize cutoffs and ensure maximum use of material.

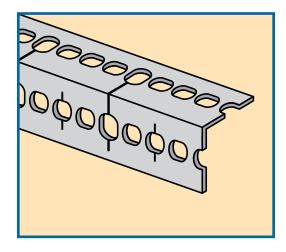
10', 12' lengths of Superangle take up the same amount of space as one 2 x 4. A standard package includes five pieces to a bundle, therefore handling and storage space are significantly reduced.

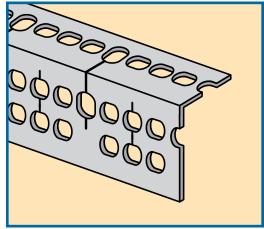
The importance of cutting Superangle easily, quickly and accurately is the key to time-saving assembly. The Portable Cutter provides these advantages and makes layout and erection of any structure a light-work job.

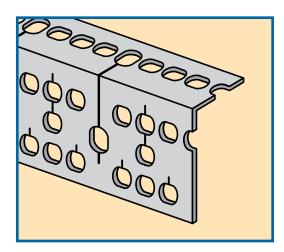
Finish is designed for long lasting durability.

The standard GoldGalv® hardware finish is applied to all Superangle products after rolling and punching of the holes. This provides you with a number of benefits. First, raw ends resulting from cuts will be protected by the sacrificial quality of zinc. Second, the edges of all holes are protected against formation of rust, to provide a call-back free installation. Third, the electro-galvanizing process provides an excellent bonding surface for paint if desired for aesthetic reasons.

Note: Product is also available with Pre-Galvanized (PG) sections







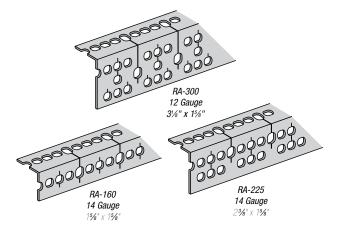


Slotted Angle Metal Framing

Superangle Slotted Angle Metal Framing (continued)

CAT. NO.	LENGTH (FT.)	FT. PER PKG.	STD. CTN.
RA-160-10	10	50	1,000
RA-160-12	12	60	1,200
RA-225-10	10	50	1,000
RA-225-12	12	60	1,200
RA 300 10	10	50	1,000
RA-300-12	12	60	1,200

5 Lengths, 36 Nuts and Bolts



Superangle Accessories

Casters

CAT. NO.	STD. PKG.	STD. CTN.
RA RC	2	2
RA SC	2	2

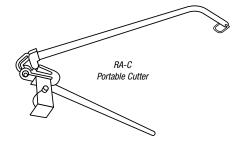




Rigid & Swivel Casters Hard rubber composition 31/2" dia. with load rating of 225 lbs. per wheel.

Portable Cutter

CAT. NO.	STD. PKG.	STD. CTN.
RA C	1	1



Gusset Plate

CAT. NO.	STD. PKG.	STD. CTN.
RA GP	25	100



Gusset Plate for extra-rigid

Extra Nuts and Bolts

CAT. NO.	PACKAGE 100 SETS	STD. CTN.
RA BN 5/8	%"-16 x %" lg.	100
Use with RA-160 & RA-225		
RA BN 3/4	3/8"-16 x 3/4" lg.	100
Use with RA-300		







Extra Nuts and Bolts



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354











Special Metals and Finishes

Properties for Design — Stainless Steel (Suffix SS/Type 304 and 6SS/Type 316)

Superstrut® stainless steel products are made from high-quality austenitic Type 304 and Type 316 material. Stainless steel contains large amounts of chromium and nickel, is non magnetic and offers superior corrosion resistance. Tolerant to high-temperature environments, Superstrut's stainless steel framing provides dependable support, resulting in reduced maintenance cost. The channel is roll-formed to shape when cold, enhancing its structural strength for the most rigid of applications.

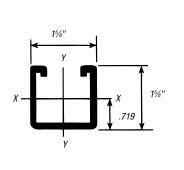
Stainless Steel Channel

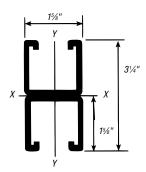
Elements of sections are the same as shown on pages B-200-B-210 for standard steel channel. Load ratings meet or exceed ratings for standard steel channel shown elsewhere in this catalog.

Additional stainless steel and aluminum items are available. Contact your local Superstrut® representative.



Properties for Design Aluminum Channel (Suffix AL)





Span (IN.): 12, 18, 24, 30, 36, 42, 48, 54, 60, 72, 84, 96, 108 & 120.

12 ga. = .105"

I - Moment of Inertia

S - Section of Modulus

r - Radius of Gyration

A — Area

Calculations based on maximum fiber stress of 10,000 psi, maximum 1/360th span deflection. For concentrated loads, multiply load by 0.50.

...... Specifications

- Alloy and Temper: 6063-T6
- Tensile Strength: Yield 25,000 PSI Density: .098 Lbs./Cu. Inch Ultimate — 30,000 PSI
- Shear Ultimate: 19,000 PSI
- Elongation: (Percent in 2 inches) -12
- . Modules of Elasticity: 10 x 106 PSI

		X - X AXIS		L	Y - Y AXIS		
SECTION MEMBER	A IN. ²	I IN.⁴	S IN.3	R IN.	I IN.⁴	S IN.3	R IN.
A-1200	.563	.198	.224	.594	.274	.338	.698
B-1200	.400	.041	.082	.320	.150	.185	.612
A-1202	1.126	1.001	.620	.942	.548	.676	.698

Safe Uniform Total Load Table (X-X AXIS)

		- (
SPAN (IN.)	B-1200-AL (LBS.)	A-1200-AL (LBS.)	A-1202-AL (LBS.)
12	540	1,490	4,130
18	270	990	2,760
24	150	730	2,070
30	90	470	1,650
36	60	320	1,370
42	50	240	1,180
48	_	180	930
54	_	140	730
60	_	110	590
72	_	80	410
84	_	60	300
96	_	40	230
108	_	30	180
120	_	20	140



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354

Technical Services

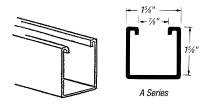




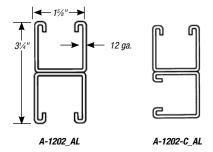


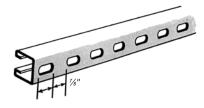
Special Metals and Finishes

Aluminum Products (AL Suffix)

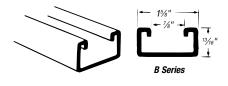


A-1200_AL 15%" deep channel and combination

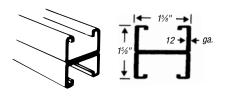




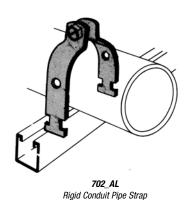
A-1200-HS AL Slots 2" on center. Slot size %16" x 11/8"

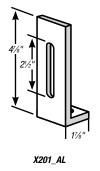


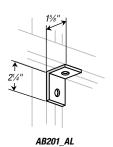
B-1200_AL



B-1202_AL











Thomas@Betts

Special Metals and Finishes

Stainless Steel Products

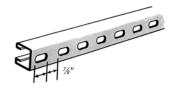
Available in:

- Type 304 Stainless Steel SS Suffix
- Type 316 Stainless Steel SS6 Suffix





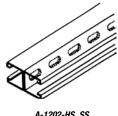
A-1200_SS A-1200 T316SS



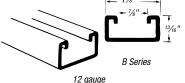
A-1200-HS_SS A-1200 HS T316SS



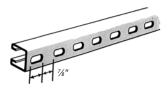
A-1202_SS A-1202-T316SS



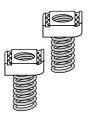
A-1202-HS_SS A-1202-HS_T316SS



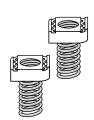
12 gauge **B-1200_SS** B-1200_T316SS 14 gauge B-1400_SS B-1400_T316SS



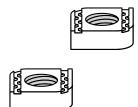
B-1400-HS SS B-1400-HS_T316SS



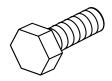
A-100 Regular Spring Nut



Short Spring Nut



AB-100 Springless Nut



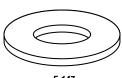
E-142 Hex Head Cap Screw



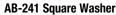
E-145 Standard Hex Nut



Fender Washer



Flat Steel Washer



CAT. NO.	ROD Size (In.)	STD. CTN.
AB-241-1/4	1/4	100
AB-241-3/8	3/8	100
AB-241-1/2	1/2	100





United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354













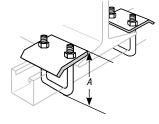
Special Metals and Finishes

Stainless Steel Products (continued)

Available in:

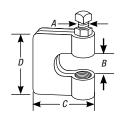
- Type 304 Stainless Steel SS Suffix
- Type 316 Stainless Steel SS6 Suffix





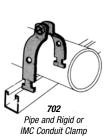


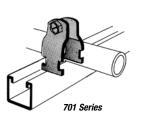
AB201













U501, U502

CAT. NO.	FOR CHANNEL	A (IN.)	STD. CTN.
U501	A-1200 A-1400 B-1200 B-1400	3¾16	20
U502	C-1200 B-1402 A-1202 A-1402	4 ¹³ ⁄ ₁₆	20
UJUZ	C-1202 H-1200	4'7/16	20

Furnished complete Design Load U501 — 2150 lbs. U502 - 3000 lbs.

- Clamp with Lock Nut

	ROD		DIMENS)	. DESIGN	STD.	
CAT. NO.	SIZE (IN.)	Α	В	C	D	LOAD (LBS.)	CTN.
C-775L	3/8	3/8	3/4	2¾	2¾	400	100
	1/2	23/8	25/16	25/16	23/8	500	100

H-104

Hanger rod

· Continuous threaded

	NA	TIONAL COARSE TH	IREAD	
CAT. NO.	SIZE (IN.)	THREADS PER INCH	DESIGN LOAD (LBS.)	STD. CTN.
H-104-1-1/4	11/4	20	150	500
H-104-3/8	3/8	16	610	500
H-104-1/2	1/2	13	1,130	500
H-104-5/8	5/8	11	1,810	500
H-104-3/4	3/4	10	2,710	500
H-104-7/8	7/8	9	3,770	500
H-104-1	1	8	4,960	500

Standard lengths 12' only

Cobra® Clamp

CAT. NO.	FOR EMT AND RIGID CONDUIT TRADE SIZE (IN.)	CABLE O.D. RANGE (IN.)	STATIC LOAD LIMIT (LB) SAFETY FACTOR = 4	STD. CTN.
316 Stainless	Steel			
CPC050SS6	1/2	.650890	200	100
CPC075SS6	3/4	.860-1.110	200	100
CPC100SS6	1	1.100-1.400	200	100
CPC125SS6	11/4	1.400-1.725	200	50
CPC150SS6	1½	1.690-1.980	200	50
CPC200SS6	2	1.980-2.576	200	50
CPC250SS6	2½	2.576-3.060	350	25
CPC300SS6	3	3.060-3.626	350	25
CPC350SS6	3½	3.626-4.126	350	25
CPC400SS6	4	4.126-4.626	350	25





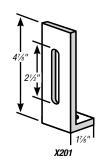


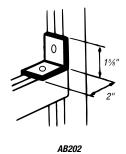
Special Metals and Finishes

Type 304 Stainless Steel Products (SS Suffix)

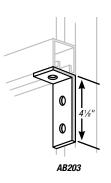


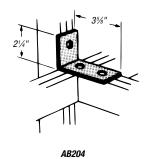


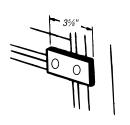




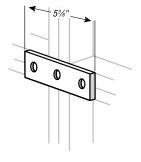
6H Series 6H-B Series Conduit and Pipe Hanger



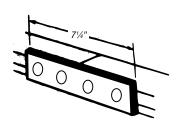




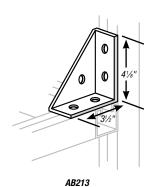
AB206



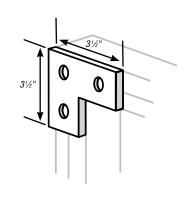
AB207

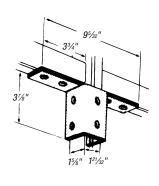


X207



41/6" 0 0 0





AB219

AW219



AB214

United States
Tel: 901.252.8000
800.816.7809
Fax: 901.252.1354

Technical Services Tel: 888.862.3289

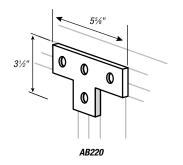


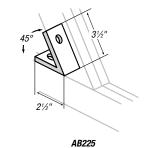


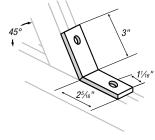


Special Metals and Finishes

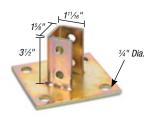
Type 304 Stainless Steel Products (SS Suffix) (continued)



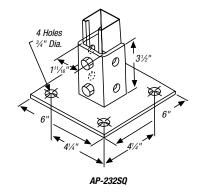


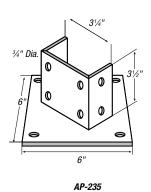


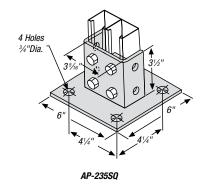


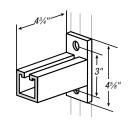


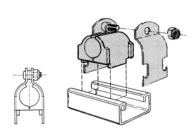
AP-232









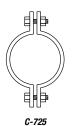


S-250 A is in lengths: 6,12,18 & 24.
May be installed inverted with no change in load ratings. Strut section made from half slot channel.

A-716 Cushioned Clamp Tube Series









C-727 Standard Ring Hanger



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354

Technical Services Tel: 888.862.3289

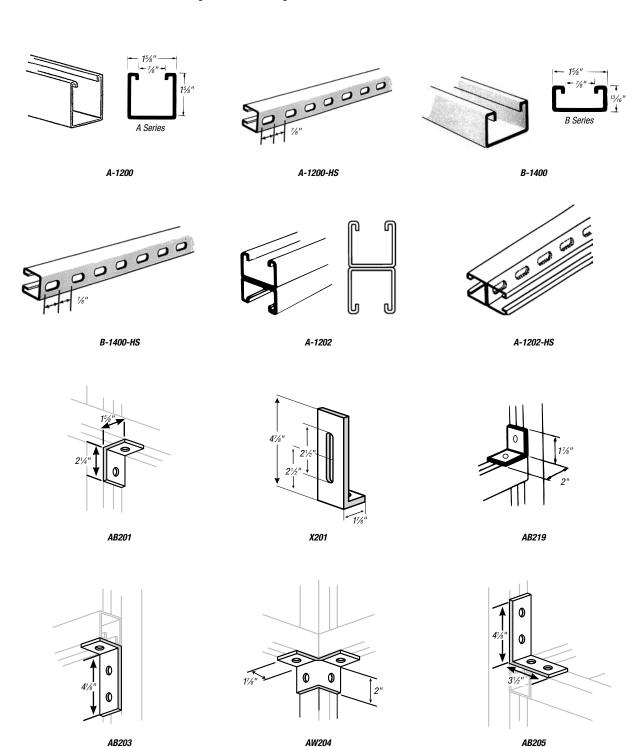






Special Metals and Finishes

White Painted Products (WH Suffix)





United States Tel: 901.252.8000

800.816.7809 Fax: 901.252.1354

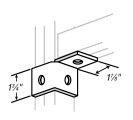




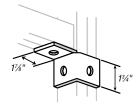


Special Metals and Finishes

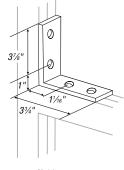
White Painted Products (WH Suffix) (continued)



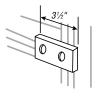
AW205 L



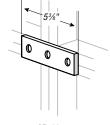
AW-205-R



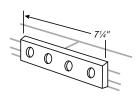
N-205



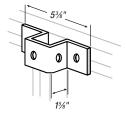
AB-206



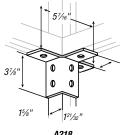
AB-207



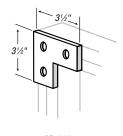
X-207



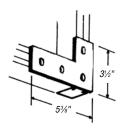
A210 For attaching A Series channel



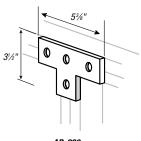
A218



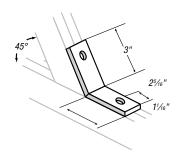
AB-219



N-219



AB-220



AB-227-WH

Thomas@Betts

1-800-453-1692







Special Metals and Finishes

White Painted Products (WH Suffix) (continued)

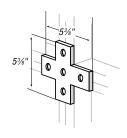


4 Holes

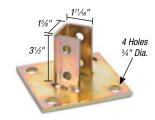
3/4" Dia.

AB-241

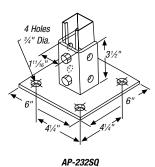
CAT. NO.	ROD Size (In.)	STD. CTN.
AB-241-1/4	1/4	100
AB-241-3/8	3/8	100
AB-241-1/2	1/2	100

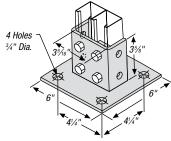


AB253

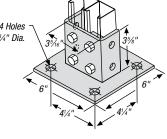


AP-232

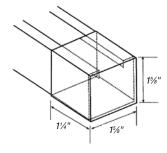




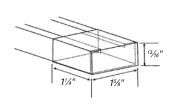
AP-235



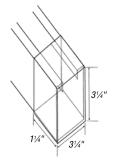
AP-235SQ



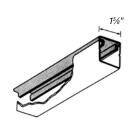
A804 NEOP WH 1%" x 1%" White Plastisol End-Cap



B 804 NEOP WH 15/8" X 13/16' White End-Cap



H804 NEOP WH 15/8" x 31/4" White Plastisol End-Cap



SPAB-844-PC — WHITE White Closure Strip For all channels



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services** Tel: 888.862.3289



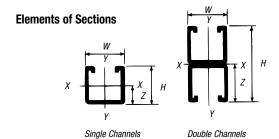






Technical Information

Design Data — Metal Framing Channel



Nominal Thickness (IN.)

12 ga. = .105 14 ga. = .075 16 ga. = .060 I — Moment of Inertia

s — Section of Modulus

r — Radius of Gyration

Z — Nominal Axis

A — Area

Table 1 — Properties for Design: Single Channel

							X-X AXIS			Y-Y AXIS
CAT. NO.	H IN.	W IN.	A IN.2	I IN.4	S IN.3	R IN.	Z IN.	I IN.4	S IN.3	R IN.
A-1200	1.625	1.625	.557	.192	.212	.587	.719	.237	.292	.652
B-1200	.813	1.625	.381	.031	.063	.283	.331	.137	.168	.600
C-1200	1.375	1.625	.500	.121	.155	.492	.595	.205	.252	.640
E-1200	2.438	1.625	.726	.529	.399	.853	1.112	.335	.413	.679
H-1200	3.250	1.625	.897	1.100	.635	1.107	1.507	.436	.536	.697
A-1400	1.625	1.625	.401	.134	.146	.577	.707	.184	.226	.677
B-1400	.813	1.625	.280	.024	.051	.295	.338	.103	.127	.607

Table 1 — Properties for Design: Double Channel

							X-X AXIS			Y-Y AXIS
CAT. NO.	H IN.	W IN.	A IN.2	I IN.4	S IN.3	R IN.	Z IN.	I IN.4	S IN.3	R IN.
A-1202	3.250	1.625	1.114	.948	.583	.992	1.625	.474	.584	.652
B-1202	1.626	1.625	.762	.147	.181	.439	.813	.274	.337	.600
C-1202	2.750	1.625	1.000	.595	.433	.772	1.375	.409	.504	.640
E-1202	4.876	1.625	1.450	2.854	1.171	1.402	2.438	.672	.827	.680
H-1202	6.500	1.625	1.794	6.273	1.930	1.870	3.250	.871	1.072	.697
A-1402	3.250	1.625	.801	.668	.411	.913	1.625	.367	.452	.677
B-1402	1.626	1.625	.560	.112	.138	.447	.813	.206	.254	.607

Table 2 — Load Ratings for 1/2" Strut Nuts used in Superstrut® Channel

		•
CHANNEL NO.	SLIP RESISTANCE (LBS.)	PULL-OUT STRENGTH (LBS.)
A-1200	1,500	2,000
C-1200	1,500	2,000
B-1200	1,400	1,400
A-1400	1,000	1,400
B-1400	1,000	1,400
Safety Factor of 3		

If connections will be subjected to dynamic or seismic loading conditions, contact Thomas & Betts Technical Services for design assistance.



United States
Tel: 901.252.8000

800.816.7809 Fax: 901.252.1354 **Technical Services** Tel: 888.862.3289







Technical Information

Design Data — Metal Framing Channel (continued)

Design Loads for Channel Used as Beam or Column.

Table 3

Beam Loads

Table 3 contains simple beam, uniformly-distributed loads calculated at 25,000 psi fiber stress. Beam loads are based on channel being loaded across the x-x axis. Loads are also listed at reduced deflections for long spans.

Maximum Loads @ 25,000 psi Stress

Maximum allowable deflections and maximum uniform loads for all spans @ 25,000 psi fiber stress.

Reduced Load for all 1/180 Span Deflection

For moderate deflections on the longer spans, reduced loads are listed which will produce a deflection equal to 1/180 of the span. When maximum loads do not induce deflections exceeding 1/180 x the span length, reduced loads are not required.

Reduced Load for 1/360 Span Deflection

For very slight deflections on the longer spans, reduced loads are listed which will produce a deflection equal to 1/360 of the span. When maximum loads do not induce deflections exceeding 1/360 x the span length, reduced loads are not required.

Concentrated Loads

To obtain values for concentrated loads from Table 3, multiply uniform load by .5 and deflection by 1.25.

Slotted, Punched or KO Channel

Reduce load rating 5%.

Long Span Deep Beams

Support in a manner to prevent rotation at supports and tie between supports to prevent twist.

Column Loads

Allowable column loads given are for uniform axial loading with pinned ends. For eccentric loading or other end conditions, reduce allowable loads according to standard engineering practice.

Dynamic Loads

Allowable dynamic loads may be calculated by dividing the static loads shown in Table 3, by 2.08.







Technical Information

Table 3 — Single Channel

	DEPTH		MAXI UNIF			180 'An		860 An	COL.
CAT. NO.	(IN.)	GA.	LOAD	DEFL.	LOAD	DEFL.	LOAD	DEFL.	LOAD
12" Beam oi	r Column								
A-1200	1%	12	3,534	.014	_	.067	_	.033	10,533
B-1200	¹³ / ₁₆	12	1,050	.026	_	.067	_	.033	6,683
C-1200	1%	12	2,584	.016	_	.067	_	.033	9,345
E-1200	27/16	12	6,650	.010	_	.067	_	.033	13,830
H-1200	31/4	12	10,583	.008	_	.067	_	.033	17,106
A-1400	1%	14	2,434	.015	_	.067	_	.033	7,575
B-1400	¹³ / ₁₆	14	850	.028	_	.067	_	.033	4,950
18" Beam oi	r Column								
A-1200	1%	12	2,355	.033	_	.100	_	.050	10,210
B-1200	¹³ / ₁₆	12	700	.059	_	.100	_	.050	6,058
C-1200	1¾	12	1,723	.038	_	.100	_	.050	8,970
E-1200	27/16	12	4,434	.023	_	.100	_	.050	13,482
H-1200	31/4	12	7,055	.016	_	.100	_	.050	16,693
A-1400	1%	14	1,623	.031	_	.100	_	.050	7,334
B-1400	¹³ / ₁₆	14	566	.063	_	.100	453	.050	4,150
24" Beam oi	r Column								
A-1200	1%	12	1,766	.058	_	.133	_	.067	9,842
B-1200	¹³ / ₁₆	12	525	.105	_	.133	333	.067	5,315
C-1200	1¾	12	1,291	.066	_	.133	_	.067	8,545
E-1200	27/16	12	3,325	.039	_	.133	_	.067	13,082
H-1200	31/4	12	5,291	.030	_	.133	_	.067	16,277
A-1400	1%	14	1,216	.056	_	.133	_	.067	7,058
B-1400	¹³ / ₁₆	14	425	.110	_	.133	258	.067	4,000
30" Beam oi	r Column								
A-1200	1%	12	1,414	.089	_	.167	_	.083	9,419
B-1200	¹³ / ₁₆	12	420	.164	_	.167	266	.083	4,465
C-1200	1¾	12	1,034	.104	_	.167	1,040	.083	8,060
E-1200	27/16	12	2,660	.063	_	.167	_	.083	12,640
H-1200	31/4	12	4,234	.046	_	.167	_	.083	15,698
A-1400	15/8	14	974	.088	_	.167	_	.083	6,753
B-1400	13/16	14	340	.172	_	.167	165	.083	3,420

When no numbers are shown, use the maximum uniform load.

Deflections are given in inches; loads in lbs.





1-800-453-1692



800.816.7809 Fax: 901.252.1354



Technical Information

Design Data — **Metal Framing Channel** *(continued)*

Table 3 — Double Channel (Single Channels Welded Back-to-Back)

	DEPTH		MAXI UNIF			180 Pan		360 PAN	_ COL.
CAT. NO.	(IN.)	GA.	LOAD	DEFL.	LOAD	DEFL.	LOAD	DEFL.	LOAD
12" Beam or Co.	lumn								-
A-1202	31/4	12	_	.008	_	.067	_	.033	21,177
B-1202	1%	12	3,016	.016	_	.067	_	.033	14,110
C-1202	23/4	12	_	.010	_	.067	_	.033	18,990
E-1202	47/8	12	_	.005	_	.067	_	.033	27,623
H-1202	6½	12	_	.004	_	.067	_	.033	34,210
A-1402	31/4	14	_	.008	_	.067	_	.033	15,250
B-1402	1%	14	2,300	.016	_	.067	_	.033	10,390
18" Beam or Co	lumn								
A-1202	31/4	12	_	.018	_	.100	_	.050	20,609
B-1202	1%	12	2,011	.036	_	.100	_	.050	13,440
C-1202	23/4	12	4,811	.021	_	.100	_	.050	18,470
E-1202	47/8	12	_	.013	_	.100	_	.050	16,926
H-1202	6½	12	_	.009	_	.100	_	.050	33,390
A-1402	31/4	14	_	.018	_	.100	_	.050	14,867
B-1402	1%	14	1,534	.036	_	.100	_	.050	9,910
24" Beam or Co.	lumn								
A-1202	31/4	12	4,858	.031	_	.133	_	.067	19,974
B-1202	1%	12	1,509	.064	_	.133	_	.067	12,670
C-1202	23/4	12	3,609	.038	_	.133	_	.067	17,890
E-1202	47/8	12	_	.021	_	.133	_	.067	26,143
H-1202	6½	12	_	.016	_	.133	_	.067	32,435
A-1402	31/4	14	3,425	.033	_	.133	_	.067	14,426
B-1402	1%	14	1,150	.064	_	.133		.067	9,350
30" Beam or Co.	lumn								
A-1202	31/4	12	3,886	.049	_	.167	_	.083	19,261
B-1202	1%	12	1,206	.100	_	.167	_	.083	11,803
C-1202	23/4	12	2,886	.059	_	.167	_	.083	17,230
E-1202	47/8	12	7,806	.034	_	.167	_	.083	25,259
H-1202	6½	12		.025	_	.167	_	.083	31,395
A-1402	31/4	14	2,740	.050	_	.167	_	.083	13,937
B-1402	1%	14	920	.100	_	.167	_	.083	8,730

When no numbers are shown, use the maximum uniform load.

Deflections are given in inches; loads in lbs.





1-800-453-1692





Technical Information

Table 3 — Single Channel

	DEPTH		MAXIMUM UNIFORM			/180 Span		360 Pan	COL.
CAT. NO.	(IN.)	GA.	LOAD	DEFL.	LOAD	DEFL.	LOAD	DEFL.	LOAD
A-1200	1%	12	1,178	.129	_	.200	917	.100	8,962
B-1200	13/16	12	350	.236	_	.200	148	.100	3,498
C-1200	1¾	12	861	.149	_	.200	578	.100	7,525
E-1200	27/16	12	2,216	.088	_	.200	_	.100	12,160
H-1200	31/4	12	3,528	.068	_	.200	_	.100	15,132
A-1400	1%	14	811	.126	_	.200	640	.100	6,416
B-1400	13/16	14	284	.248	_	.200	115	.100	2,755
42" Beam or Co	olumn								
A-1200	1%	12	1,010	.175	_	.233	674	.117	8,466
B-1200	13/16	12	300	.323	217	.233	109	.117	2,579
C-1200	1%	12	738	.203	_	.233	425	.117	6,945
E-1200	27/16	12	1,900	.120	_	.233	_	.117	11,698
H-1200	31/4	12	3,024	.091	_	.233	_	.117	14,514
A-1400	1%	14	695	.160	_	.233	470	.117	6,051
B-1400	13/16	14	243	.336	168	.233	84	.117	2,060
48" Beam or Co	olumn								
A-1200	1%	12	884	.228	_	.267	516	.133	7,943
B-1200	13/16	12	263	.420	167	.267	83	.133	1,981
C-1200	1%	12	646	.265	_	.267	325	.133	6,325
E-1200	27/16	12	1,663	.156	_	.267	_	.133	11,092
H-1200	31/4	12	2,646	.120	_	.267	_	.133	13,850
A-1400	1%	14	609	.120	_	.267	360	.133	5,658
B-1400	13/16	14	213	.440	129	.267	64	.133	1,580
54" Beam or Co	olumn								
A-1200	1%	12	785	.289	_	.300	408	.150	7,369
B-1200	13/16	12	234	.533	132	.300	66	.150	1,555
C-1200	1%	12	574	.335	_	.300	257	.150	5,650
E-1200	27/16	12	1,478	.198	_	.300	1,123	.150	10,505
H-1200	31/4	12	2,351	.151	_	.300	_	.150	13,150
A-1400	1%	14	541	.286	_	.300	284	.150	5,241
B-1400	¹³ / ₁₆	14	189	.556	102	.300	51	.150	1,250

When no numbers are shown, use the maximum uniform load.

Deflections are given in inches; loads in lbs.





United States

Tel: 901.252.8000

800.816.7809 Fax: 901.252.1354



Technical Information

Design Data — **Metal Framing Channel** *(continued)*

Table 3 — Double Channel (Single Channels Welded Back-to-Back)

CAT. NO.	DEPTH (IN.)		MAXIMUM UNIFORM		1/180 SPAN		1/360 SPAN		_ COL.
		GA.	LOAD	DEFL.	LOAD	DEFL.	LOAD	DEFL.	LOAD
36" Beam or Colu	ımn					7			-
A-1202	31/4	12	3,239	.071	_	.200	_	.100	18,470
B-1202	1%	12	1,005	.144	_	.200	702	.100	10,840
C-1202	23/4	12	2,400	.085	_	.200	_	.100	16,500
E-1202	47/8	12	6,505	.048	_	.200	_	.100	24,316
H-1202	6½	12		.036	_	.200	_	.100	30,265
A-1402	31/4	14	2,284	.071	_	.200	_	.100	13,416
B-1402	1%	14	766	.144	_	.200	535	.100	8,050
42" Beam or Colu	ımn		,						
A-1202	31/4	12	2,776	.098	_	.233	_	.117	17,635
B-1202	15//8	12	863	.195	_	.233	516	.117	9,790
C-1202	23/4	12	2,063	.115	_	.233	_	.117	15,730
E-1202	47//8	12	5,576	.065	_	.233	_	.117	23,272
H-1202	6½	12	9,190	.049	_	.233	_	.117	29,025
A-1402	31/4	14	1,958	.225	_	.233	_	.117	12,832
B-1402	15//8	14	658	.195		.233	393	.117	7,300
48" Beam or Colu	ımn								
A-1202	31/4	12	2,429	.128	_	.267	_	.133	16,730
B-1202	15⁄8	12	754	.255	_	.267	395	.133	8,640
C-1202	23/4	12	1,804	.151	_	.267	_	.133	14,890
E-1202	47/8	12	4,879	.085	_	.267	_	.133	22,170
H-1202	6½	12	8,041	.064	_	.267	_	.133	27,700
A-1402	31/4	14	1,713	.128	_	.267	_	.133	12,223
B-1402	1%	14	575	.255		.267	301	.133	6,480
54" Beam or Colu	ımn								
A-1202	31/4	12	2,159	.161	_	.300	_	.150	15,763
B-1202	1%	12	670	.323	_	.300	312	.150	7,405
C-1202	23/4	12	1,604	.190	_	.300	1,263	.150	13,990
E-1202	47/8	12	4,338	.108	_	.300	_	.150	20,980
H-1202	6½	12	7,149	.081	_	.300	_	.150	16,280
A-1402	31/4	14	1,523	.161	_	.300	_	.150	11,566
B-1402	15/8	14	511	.323	_	.300	238	.150	5,580

When no numbers are shown, use the maximum uniform load.

Deflections are given in inches; loads in lbs.





1-800-453-1692







Technical Information

Table 3 — Single Channel

CAT. NO.	DEPTH		MAXIMUM UNIFORM		1/180 SPAN		1/360 SPAN		001
	(IN.)	GA.	LOAD	DEFL.	LOAD	DEFL.	LOAD	DEFL.	— COL. Load
60" Beam or Co	lumn								
A-1200	1%	12	706	.358	_	.333	330	.167	6,762
B-1200	13/16	12	210	.658	107	.333	53	.167	_
C-1200	1%	12	516	.414	_	.333	208	.167	4,920
E-1200	27/16	12	1,330	.244	_	.333	909	.167	9,874
H-1200	31/4	12	2,116	.186	_	.333	_	.167	12,406
A-1400	1%	14	486	.353	_	.333	231	.167	4,792
B-1400	13/16	14	170	.687	82	.333	41	.167	_
66" Beam or Co	lumn								
A-1200	1%	12	643	.432	_	.367	273	.183	6,127
B-1200	13/16	12	191	.795	88	.367	44	.183	_
C-1200	1%	12	470	.501	344	.367	172	.183	4,145
E-1200	21/16	12	1,210	.295	_	.367	753	.183	9,211
H-1200	31/4	12	1,924	.226	_	.367	_	.183	11,616
A-1400	1%	14	443	.426	_	.367	190	.183	4,311
B-1400	¹³ / ₁₆	14	155	.831	68	.367	35	.183	_
72" Beam or Co	lumn								
A-1200	1%	12	589	.514	459	.400	299	.200	5,436
B-1200	¹³ / ₁₆	12	175	.946	74	.400	37	.200	_
C-1200	1%	12	430	.595	289	.400	144	.200	3,485
E-1200	27/16	12	1,108	.351	_	.400	632	.200	8,509
H-1200	31/4	12	1,839	.269	_	.400	1,313	.200	10,782
A-1400	1%	14	405	.506	320	.400	160	.200	3,809
B-1400	¹³ / ₁₆	14	141	.989	57	.400	29	200	_
84" Beam or Co	lumn								
A-1200	1%	12	505	.700	337	.467	168	.233	4,061
B-1200	13/16	12	_	_	54	.467	27	.233	_
C-1200	1%	12	369	.811	212	.467	106	.233	2,565
E-1200	27/16	12	950	.479	_	.467	464	.233	6,991
H-1200	31/4	12	1,513	.366	_	.467	965	.233	8,988
A-1400	1%	14	348	.691	235	.467	118	.233	2,827
B-1400	13/16	14	_	_	42	.467	21	.233	_

When no numbers are shown, use the maximum uniform load.

Deflections are given in inches; loads in lbs.





1-800-453-1692

800.816.7809 Fax: 901.252.1354



Technical Information

Design Data — **Metal Framing Channel** *(continued)*

Table 3 — Double Channel (Single Channels Welded Back-to-Back)

CAT. NO.	DEPTH (IN.)	GA.	MAXIMUM UNIFORM		1/180 Span		1/360 SPAN		_ COL.
			LOAD	DEFL.	LOAD	DEFL.	LOAD	DEFL.	LOAD
60" Beam or Co.	lumn				-	-			
A-1202	31/4	12	1,944	.199	_	.333	_	.167	14,738
B-1202	1%	12	604	.398	_	.333	253	.167	6,100
C-1202	23/4	12	1,444	.235	_	.333	1,023	.167	13,050
E-1202	47/8	12	3,904	.133	_	.333	_	.167	19,734
H-1202	61/2	12	6,434	.100	_	.333	_	.167	24,810
A-1402	31/4	14	1,370	.199	_	.333	_	.167	10,878
B-1402	1%	14	460	.399	_	.333	193	.167	4,640
66" Beam or Co	lumn								
A-1202	31/4	12	1,766	.240	_	.367	1,347	.183	13,646
B-1202	15%	12	549	.481	418	.367	209	.183	5,055
C-1202	23/4	12	1,313	.285	_	.367	846	.183	12,030
E-1202	47/8	12	3,549	.180	_	.367	_	.183	18,415
H-1202	61/2	12	5,849	.120	_	.367	_	.183	23,230
A-1402	31/4	14	1,245	.241	_	.367	949	.183	10,133
B-1402	1%	14	419	.483	318	.367	159	.183	3,840
72" Beam or Co.	lumn								
A-1202	31/4	12	1,620	.286	_	.400	1,132	.200	12,500
B-1202	1%	12	503	.574	351	.400	176	.200	4,230
C-1202	23/4	12	1,203	.339	_	.400	710	.200	10,980
E-1202	47/8	12	3,253	.191	_	.400	_	.200	17,023
H-1202	61/2	12	5,361	.143	_	.400	_	.200	21,560
A-1402	31/4	14	1,141	.286	_	.400	798	.200	9,340
B-1402	1%	14	384	.574	267	.400	134	.200	3,220
84" Beam or Co.	lumn								
A-1202	31/4	12	1,388	.390	_	.467	832	.233	9,992
B-1202	1%	12	431	.780	258	.467	129	.233	3,100
C-1202	23/4	12	1,031	.461	_	.467	522	.233	8,670
E-1202	47/8	12	2,788	.260	_	.467	_	.233	13,993
H-1202	61/2	12	4,595	.195	_	.467	_	.233	17,975
A-1402	31/4	14	979	.390	_	.467	586	.233	7,682
B-1402	1%	14	329	.781	197	.467	98	.233	2,370

When no numbers are shown, use the maximum uniform load.

Deflections are given in inches; loads in lbs.





1-800-453-1692







Technical Information

Table 3 — Single Channel

CAT. NO.	DEPTH (IN.)		MAXIMUM UNIFORM		1/180 SPAN			1/360 Span	
		GA.	LOAD	DEFL.	LOAD	DEFL.	LOAD	DEFL.	— COL. Load
96" Beam or Colu	ımn								
A-1200	1%	12	441	.914	258	.533	129	.267	3,108
B-1200	¹³ / ₁₆	12	_	_	42	.533	21	.267	_
C-1200	1%	12	323	1.059	163	.533	81	.267	1,960
E-1200	27/16	12	831	.730	_	.533	355	.267	5,423
H-1200	31/4	12	1,323	.478	_	.533	739	.267	7,059
A-1400	1%	14	304	.903	180	.533	90	.267	2,615
B-1400	¹³ / ₁₆	14	_	_	32	.533	16	.267	_
108" Beam or Co	lumn								
A-1200	1%	12	393	1.156	204	.600	102	.300	2,456
B-1200	¹³ / ₁₆	12	_	_	33	.600	16	.300	_
C-1200	13/8	12	288	1.350	128	.600	64	.300	_
E-1200	27/16	12	739	.790	561	.600	281	.300	4,291
H-1200	31/4	12	1,176	.605	_	.600	584	.300	5,579
A-1400	1%	14	270	1.141	142	.600	71	.300	1,708
B-1400	¹³ / ₁₆	14	_	_	25	.600	13	.300	_
120" Beam or Co	lumn								
A-1200	1%	12	354	1.425	165	.667	83	.333	_
B-1200	¹³ / ₁₆	12	_	_	27	.667	13	.333	_
C-1200	1%	12	259	1.663	104	.667	52	.333	_
E-1200	27/16	12	665	.976	455	.667	227	.333	3,478
H-1200	31/4	12	1,059	.746	_	.667	473	.333	4,521
A-1400	15/8	14	244	1.413	114	.667	57	.333	_
B-1400	¹³ / ₁₆	14	_	_	21	.667	10	.333	_
144" Beam or Co	lumn								
A-1200	1%	12	_	_	115	.800	57	.400	_
C-1200	1%	12	_	_	72	.800	36	.400	_
E-1200	27/16	12	554	1.400	315	.800	158	.400	_
H-1200	31/4	12	883	1.075	657	.800	328	.400	_
A-1400	1%	14	_	_	80	.800	40	.400	_

When no numbers are shown, use the maximum uniform load.

Deflections are given in inches; loads in lbs.





1-800-453-1692



800.816.7809 Fax: 901.252.1354



Technical Information

Design Data — **Metal Framing Channel** *(continued)*

Table 3 — Double Channel (Single Channels Welded Back-to-Back)

	DEPTH			IMUM FORM		180 Pan		360 AN	– COL.
CAT. NO.	(IN.)	GA.	LOAD	DEFL.	LOAD	DEFL.	LOAD	DEFL.	LOAD
96" Beam or Col	umn					_			_
A-1202	31/4	12	1,215	.509	_	.533	637	.267	7,675
B-1202	1%	12	378	1.019	197	.533	99	.267	_
C-1202	23/4	12	903	.603	_	.533	400	.267	6,640
E-1202	47/8	12	2,440	.340	_	.533	1,917	.267	10,875
H-1202	6½	12	4,021	.255	_	.533	_	.267	14,120
A-1402	31/4	14	856	.509	_	.533	449	.267	5,951
B-1402	1%	14	288	1.020	150	.533	75	.267	_
108" Beam or Co	olumn		,						
A-1202	31/4	12	1,080	.644	_	.600	503	.300	6,071
B-1202	15/8	12	355	1.290	156	.600	78	.300	_
C-1202	23/4	12	801	.763	632	.600	316	.300	5,250
E-1202	47//8	12	2,169	.430	_	.600	1,515	.300	8,599
H-1202	6½	12	3,574	.323	_	.600	_	.300	11,160
A-1402	31/4	14	761	.644	_	.600	355	.300	4,702
B-1402	1%	14	255	1.290	119	.600	59	.300	
120" Beam or Co	olumn								
A-1202	31/4	12	971	.795	_	.667	408	.333	_
B-1202	1%	12	301	1.588	126	.667	63	.333	_
C-1202	23/4	12	721	.941	512	.667	256	.333	4,250
E-1202	47//8	12	1,951	.531	_	.667	1,227	.333	6,946
H-1202	6½	12	3,216	.398	_	.667	_	.333	9,040
A-1402	31/4	14	685	.796	_	.667	287	.333	3,805
B-1402	1%	14	230	1.600	96	.667	48	.333	
144" Beam or Co									
A-1202	31/4	12	810	1.145	566	.800	283	.400	_
B-1202	1%	12	_	_	88	.800	44	.400	_
C-1202	23/4	12	601	1.350	355	.800	178	.400	_
E-1202	47//8	12	1,626	.764	_	.800	852	.400	_
H-1202	6½	12	2,680	.573	_	.800	1,873	.400	_
A-1402	31/4	14	571	1.146	399	.800	199	.400	_
B-1402	15/8	14	_	_	67	.800	33	.400	_

When no numbers are shown, use the maximum uniform load.

Deflections are given in inches; loads in lbs.





1-800-453-1692





Technical Information

Table 3 — Single Channel

	DEPTH			IMUM FORM		/180 SPAN		360 PAN	_ COL.
CAT. NO.	(IN.)	GA.	LOAD	DEFL.	LOAD	DEFL.	LOAD	DEFL.	LOAD
168" Beam or Colu	mn								-
A-1200	1%	12	_	_	84	.933	42	.467	_
C-1200	13/8	12	_	_	53	.933	27	.467	_
E-1200	27/16	12	475	1.912	233	.933	116	.467	_
H-1200	31/4	12	756	1.463	482	.933	241	.467	_
A-1400	1%	14	_	_	60	.933	30	.467	_
192" Beam or Colu	mn								
E-1200	27/16	12	_	_	178	1.07	89	.533	_
H-1200	31/4	12	661	1.910	369	1.07	185	.533	_
216" Beam or Colu	mn								
E-1200	27/16	12	_	_	140	1.20	70	.600	_
H-1200	31/4	12	_	_	292	1.20	146	.600	_
240" Beam or Colu	mn								
E-1200	27/16	12	_	_	114	.334	57	.667	_
H-1200	31/4	12	_	_	236	.334	118	.667	_

When no numbers are shown, use the maximum uniform load.

Deflections are given in inches; loads in lbs.





1-800-453-1692

800.816.7809 Fax: 901.252.1354

Technical Information

Design Data — **Metal Framing Channel** *(continued)*

Table 3 — Double Channel (Single Channels Welded Back-to-Back)

	DEPTH			IMUM ORM		180 'AN		360 'AN	- COL.
CAT. NO.	(IN.)	GA.	LOAD	DEFL.	LOAD	DEFL.	LOAD	DEFL.	LOAD
168" Beam or C	olumn								-
A-1202	31/4	12	694	1.563	916	.933	208	.467	_
B-1202	1%	12	_	_	64	.933	32	.467	_
C-1202	23/4	12	515	1.850	261	.933	130	.467	_
E-1202	47/8	12	1,394	1.040	1,255	.933	626	.467	_
H-1202	6½	12	2,298	.780	_	.933	1,326	.467	_
A-1402	31/4	14	489	1.563	293	.933	147	.467	_
B-1402	1%	14	_	_	49	.933	25	.467	_
192" Beam or C	olumn								
A-1202	31/4	12	_	_	318	1.07	159	.533	_
	_	_	_	_	_	_	_	_	_
C-1202	23/4	12	_	_	200	1.07	100	.533	_
E-1202	47/8	12	1,220	1.363	958	1.07	479	.533	_
H-1202	6½	12	2,010	1.019	_	1.07	1,053	.533	_
A-1402	31/4	14	_	_	224	1.07	112	.533	_
_	_	_	_	_	_	_	_		
216" Beam or C	olumn								
A-1202	31/4	12	_	_	252	1.20	126	.600	_
_	_	_	_	_	_	_	_	_	_
C-1202	23/4	12	_	_	158	1.20	79	.600	_
E-1202	47//8	12	1,084	1.725	757	1.20	379	.600	_
H-1202	6½	12	1,788	1.288	_	1.20	832	.600	_
A-1402	31/4	14	_	_	177	1.20	89	.600	_
_									
240" Beam or C	olumn								
A-1202	31/4	12	_	_	204	1.33	102	.667	_
_	_	_	_	_	_	_	_	_	_
C-1202	23/4	12	_	_	128	1.33	64	.667	_
E-1202	47/8	12	_	_	613	1.33	307	.667	_
H-1202	6½	12	1,609	1.588	_	1.33	674	.667	_
A-1402	31/4	14			144	1.33	72	.667	_
_	_	_	_	_	_	_	_	_	_

When no numbers are shown, use the maximum uniform load.

Deflections are given in inches; loads in lbs.





1-800-453-1692





Technical Information

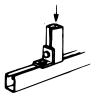
Table 4 — Safe Bearing Loads for 15%" Channel and Combinations

	9
SECTION	RECOMMENDED Load in LBS.
A-1200	5,000
A-1400	3,500
B-1200	6,000
B-1400	3,400
C-1200	5,000
E-1200	5,000
H-1200	4,000

OFOTION	RECOMMENDED
SECTION	LOAD IN LBS.
A-1200	3,500
A-1400	2,500
B-1200	4,000
B-1400	2,600
C-1200	3,500
E-1200	3,500
H-1200	2,000

SECTION	RECOMMENDED Load in LBS.
A-1200	8,000
A-1400	5,500
B-1200	9,000
B-1400	4,800
C-1200	8,000
E-1200	8,000
H-1200	5,500

Safety factor of 21/2





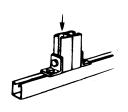
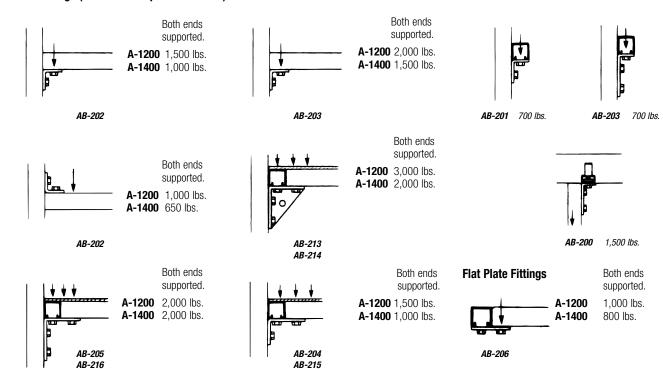


Table 5 — Design Load Table for Typical Channel Connections

Safety factor of $2\frac{1}{2}$ based on ultimate strength of the connection. Load diagrams indicate up to three design loads, for 12 gauge, 14 gauge and 16 gauge channel applications.

90° Fittings (when used in position shown).



www.tnb.com

United States Tel: 901.252.8000

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 Technical Services
Tel: 888.862.3289





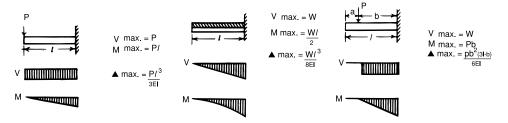
www.aboveboardelectronics.com

1-800-453-1692

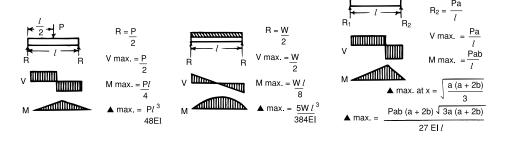
Technical Information

Design Applications

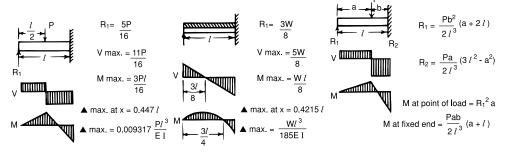
Cantilever Beams



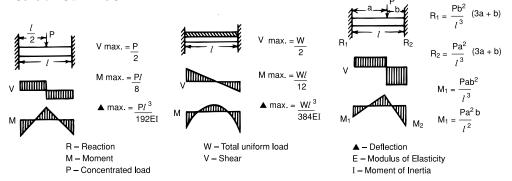
Simple Beams



Beams Fixed on One End, Supported at Other



Beams Fixed at Both Ends





United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354





Technical Information

Load tables on pages B-200-B-210 for A, B, C, E and H series channel are for single span beams supported at the ends. These can be used in the majority of cases. There are times when it is necessary to know what happens with other loading and support conditions. Some common arrangements are shown in Table 6. Simply multiply the loads from the Design Load Tables times the factors given in Table 6. Examples shown on page B-214.

Table 6 — Conversion Factors for Beams with Various Static Loading Conditions

LOAD	AND SUPPORT CONDITION		LOAD Factor	DEFLECTION Factor
1.	Simple Beam — Uniform Load	Span	1.00	1.00
2.	Simple Beam — Concentrated Load at Center		.50	1.25
3.	Simple Beam — Two Equal Concentrated Loads at 1/4 Points		1.00	1.10
4.	Beam Fixed at Both Ends — Uniform Load	"J ummen" l,	1.50	.30
5.	Beam Fixed at Both Ends — Concentrated Load at Center	% · · · · · · · · · · · · · · · · · · ·	1.00	.40
6.	Cantilever Beam — Uniform Load	/ /www.	.25	2.40
7.	Cantilever Beam — Concentrated Load at End	}	.12	3.20
8.	Continuous Beam — Two Equal Spans — Uniform Load on One Span	Span Span	1.30	.92
9.	Continuous Beam — Two Equal Spans		1.00	.42
10.	Continuous Beam — Two Equal Spans — Concentrated Load at Center of One Span	, , , ,	.62	.71
11.	Continuous Beam — Two Equal Spans — Concentrated Load at Center of Both Spans	-	.67	.48



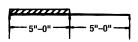
United States

Tel: 901.252.8000

800.816.7809 Fax: 901.252.1354

Technical Information

Design Applications (continued)



Example I

Problem:

Determine the load and deflection of an A-1200 beam continuous over one support and loaded uniformly on one span.

Solution:

A. From load table 3 for A-1200 the load for a 5'0" span is 706 lbs. and deflection is .358".

B. Multiply by factors from Table 6.Load = 706 lbs. x 1.30 = 917.8 lbs.Deflection = .358 x .92 = .329"



Example li

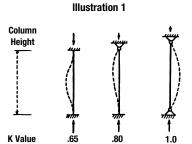
Problem:

Determine load and deflection of an E-1200 cantilever beam with a concentrated load on the end.

Solution:

A. From load table 3 for E-1200 the load for a 3'0" span is 2216 lbs. and deflection is .088".

B. Multiply by factors from Table 6. Load = 2216 lbs. x .12 = 265.9 lbs. Deflection = .088 x 3.20 = .282"



Column Loading

The load bearing capacity of column or compression members is a function of the inherent configurational strength, the unbraced length and design of the end connections.

Values of axial column loading given in Table 3 were calculated using a rotationally free and translation fixed correction at each end (see illustration I). This gives an end condition constant (K) of 1.

If other end conditions are used, axial loading should be calculated using procedures in the AISI specification for the design of cold formed steel structural members (SG671) and the engineering values for Superstrut channel given in Table 1.



End Condition Code

Rotation fixed and translation fixed



Rotation free and translation fixed

Rotation fixed and translation free







Technical Information

Table 7 — Load Carrying Capacities of Hot-Rolled Steel Rod

DIMENSIONS	DIMENSIONS (IN.) — LOADS								
NOMINAL ROD DIA.	ROOT AREA THREAD								
1/8	.068								
1/2	.126								
5/8	.202								
3/4	.302								
7∕8	.419								
Cafaty factor of 5									

Table 8 — Rod Size Determined by Pipe Size for Fire Protection

DIMENSIONS	DIMENSIONS (IN.) — LOADS									
NOMINAL ROD DIA.	ROOT AREA THREAD									
3⁄4 to 2	1/8									
2½ to 3½	1/2									
4 to 5	5/8									
6	3/4									
8 to 12	7∕8									
Safety factor of 5										

Table 9 — Maximum Spacing between Pipe Supports

Steel Pipe																			
Nom. Pipe Size (IN.)	1/2	3/4	1	1½	2	21/2	3	3½	4	5	6	8	10	12	14	16	18	20	24
Max. Spacing (FT.)	5	6	7	9	10	11	12	13	14	16	17	19	22	23	25	27	28	30	32
Copper Size																			
Nom. Pipe Size (IN.)	1/2	3/4	1	11/4	11/2	2	21/2	3	31/2	4									
Max. Spacing (FT.)	5	6	6	7	8	9	10	10	11	12									

Table 10 — Minimum Spacing (IN.) between Centers of Standard Pipe When Using Superstrut #702 Pipe Straps

NOM. PIPE Size	1/2	³⁷ / ₆₄	1	11/4	1½	2	2 ½	3	3½	4	5	6	8
1/2	13/16	_		_	_	_	_	_	_	_		_	
3/4	1 5⁄16	17/16	_	_	_	_	_	_	_	_	_	_	_
1	1½	1%	1¾	_	_	_	_	_	_	_	_	_	_
11/4	13/4	1%	2	21/4	_	_	_	_	_	_	_	_	_
1½	115/16	21/16	23/16	27/16	29/16	_	_	_	_	_	_	_	_
2	23/16	25/16	21/2	23/4	21/8	31//8	_	_	_	_	_	_	_
21/2	27/16	29/16	23/4	3	31//8	31//8	35/8	_	_	_	_	_	_
3	213/16	215/16	31/16	35⁄16	37/16	3¾	4	45/16	_	_	_	_	_
31/2	31/8	31/4	31/8	35/8	3¾	41/16	45/16	45/8	415/16	_	_	_	_
4	37/16	3%16	315/16	41/16	41/8	45/8	415/16	51/4	5%16	_	_	_	_
6	43/4	47//8	5	51/4	51//8	51//8	57//8	63/16	6½	63/16	71/16	81//8	_
8	57/16	6	61//8	61//8	61/2	63/4	7	75/16	75/8	8	8%6	91/4	101//8

800.816.7809 Fax: 901.252.1354

Superstrut*

Technical Information

Design Applications (continued)

Table 11 — Standard Dimensions and Weights of Piping Materials and Conduit

	MECHANICAL (SCHEDULE 40)	
NOMINAL STD. PIPE SIZE (IN.)	PIPE O.D. (IN.)	COUPLING O.D. (IN.)
1/2	.84	1.06
3/4	1.05	1.31
1	1.32	1.58
11/4	1.66	1.90
1½	1.90	2.20
2	2.38	2.75
2½	2.88	3.25
3	3.50	4.00
3½	4.00	4.63
4	4.50	5.00
5	5.56	6.30
6	6.63	7.39
8	8.63	9.23
10	10.75	_
12	12.75	_
14	14.00	_
16	16.00	_
18	18.00	_
20	20.00	_
22	22.00	_
24	24.00	_
26	26.00	_
28	28.00	_
30	30.00	_

NOMINAL Conduit Size (In.)	ELECTRICAL CONDUIT RIGID STEEL CONDUIT O.D. (IN.)	THIN WALL (EMT) CONDUIT O.D. (IN.)
1/2	.84	.71
3/4	1.05	.92
1	1.32	1.16
11/4	1.66	1.51
2	2.38	2.20
2½	2.88	2.88
3	3.50	3.50
4	4.50	4.50

^{*} Includes weight of heaviest conductor combination







Technical Information

Table 12 — Extra Strong Pipe (Schedule 80)

A.S.A. B36.10 SCHEDULE NOS. AND NOMINAL WALL THICKNESS DESIGNATIONS	NOMINAL PIPE SIZE (IN.)	OUTSIDE DIAMETER (IN.)	WALL THICKNESS (IN.)	INSIDE DIAMETER (IN.)
	3/8	.675	.126	.423
	1/2	.840	.147	.546
	3/4	1.050	.154	.742
	1	1.315	.179	.957
	11/4	1.660	.191	1.278
	1½	1.900	.200	1.500
EXTRA STRONG	2	2.375	.218	1.939
PIPE AND Schedule 80 Pipe	21/2	2.875	.276	2.323
THROUGH 8")	3	3.500	.300	2.900
	3½	4.000	.318	3.364
	4	4.500	.337	3.826
	5	5.563	.375	4.813
	6	6.625	.432	5.761
	8	8.625	.500	7.625
	10	10.750	.500	9.750
	12	12.750	.500	11.750
	14 OD	14.000	.500	13.000
	16 OD	16.000	.500	15.000
EXTRA STRONG PIPE 10" Through 24" od)	18 OD	18.000	.500	17.000
10 1111100011 24 05)	20 OD	20.000	.500	19.000
	24 OD	24.000	.500	23.000
	10	10.750	.593	9.564
	12	12.750	.687	11.376
	14 OD	14.000	.750	12.500
SCHEDULE 80 PIPE	16 OD	16.000	.842	14.314
10" THROUGH 24" OD)	18 OD	18.000	.937	16.126
	20 OD	20.000	1.031	17.938
	24 OD	24.000	1.218	21.564

Table 13 — Pipe Covering Weights Thickness (Intended as Guide Only) and Weight of Calcium Silicate Covering

			`	<u> </u>			
NOMINAL PIPE SIZE	260° Thick. (IN.)	360° THICK. (IN.)	440° THICK. (IN.)	525° THICK. (IN.)	600° Thick. (IN.)	700° THICK. (IN.)	800° Thick. (In.)
1	1	1	1	1	1½	1½	1½
11/4	1	1	1	1	1½	1½	2
11/2	1	1	1	1	1½	1½	2
2	1	1	1	1½	1½	2	2
21/2	1	1	1	1½	1½	2	21/2
3	1	1	1	1½	1½	2	2½
31/2	1	1	1½	1½	2	2	2½
4	1	1	1½	1½	2	2	21/2
5	1	1	1½	1½	2	2	21/2
6	1½	1½	1½	1½	2	2	21/2
3	1½	1½	1½	1½	2	2	21/2

www.tnb.com

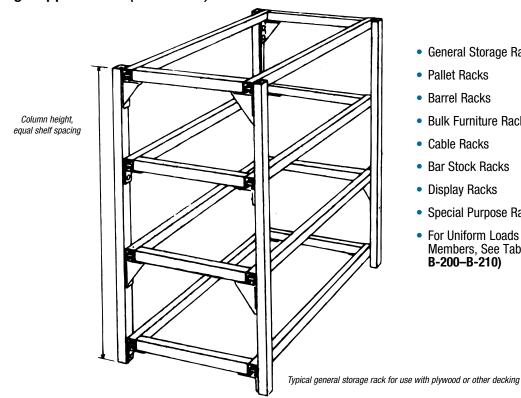
United States
Tel: 901.252.8000
800.816.7809

Fax: 901.252.1354



Technical Information

Design Applications (continued)



- · General Storage Racks
- Pallet Racks
- Barrel Racks
- Bulk Furniture Racks
- Cable Racks
- Bar Stock Racks
- Display Racks
- Special Purpose Racks
- For Uniform Loads on Horizontal Members, See Table 3 (pages B-200-B-210)

Table 14 — Column Loading for Rack Construction

COLUM						LOAD IN LBS. F Of Shelves Per				
HEIGHT	CAT. NO.	2	3	4	5	6	7	8	9	10
6'	A-1200	2,237	1,925	1,650	1,437	1,290	_	_	_	_
	A-1202	4,170	3,580	3,100	2,730	2,450	_	_	_	_
	B-1400	800	820	790	700	630	_	_	_	_
	B-1402	1,930	1,700	1,500	1,300	1,190	_	_	_	_
ı	A-1200	2,150	1,850	1,630	1,425	1,280	1,150	_	_	_
	A-1202	4,000	3,525	3,000	2,700	2,430	2,200	_	_	_
	B-1400	650	790	760	685	615	550	_	_	_
	B-1402	1,800	1,650	1,450	1,300	1,180	750	_	_	_
!	A-1200	2,000	1,820	1,600	1,400	1,250	1,150	1,050	_	_
	A-1202	3,900	3,475	3,000	2,700	2,400	2,185	2,000	_	_
	B-1400	580	750	730	660	610	540	510	_	_
	B-1402	1,650	1,610	1,450	1,300	1,160	940	970	_	_
1	A-1200	1,950	1,780	1,575	1,400	1,250	1,130	1,030	950	_
	A-1202	3,800	3,400	3,020	2,675	2,400	2,180	1,975	1,800	_
	B-1400	_	600	665	600	580	540	500	475	_
	B-1402	1,500	1,500	1,430	1,275	1,160	1,000	900	800	_
0'	A-1200	1,870	1,700	1,500	1,300	1,200	1,100	1,000	900	800
	A-1202	3,600	3,300	3,000	2,650	2,350	2,000	1,975	1,800	1,650
	B-1400	_	550	650	625	580	535	490	450	425
	B-1402	1,450	1,480	1,400	1,250	1,140	1,040	960	885	825



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services**

Tel: 888.862.3289







Technical Information

Federal Specifications (WW-H-171)/ Manufacturers Society Specifications (MSS SP69)



C-710 Adj. Steel Clevis Sizes ¾" through 20" IPS Federal Type 1 SP69 Type 1



C-726 Steel Double Bolt Pipe Clamp Sizes 1½" through 24" IPS Federal Type 3 SP69 Type 3



C-725 Steel Pipe Clamp Sizes 1½" through 24" IPS Federal Type 4 SP69 Type 4



CF-710

Adj. Steel Band Hanger
Sizes ½" through 8"
IPS ¾" through 4" tube
Federal Type 7



C-720/CT-720
Extension Pipe or Riser Clamp
Sizes ¾" through 20"
IPS ½" through 6" tube
Federal Type 8
SP69 Type 8



C-727/CT-727

Adj. Swivel Ring Hanger
Sizes ½" through 8" IPS
½" through 4" tube
Federal Type 10
SP69 Type 10



M-718/MT-718 MI Split Pipe Ring w/wo turnbuckle adj. Sizes ½" through 8" IPS ½" through 4" tube Federal Type 11 SP69 Type 12



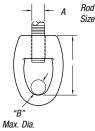
CL-710 Light-Duty Clevis Hanger Sizes ½" through 4" Federal Type 12



F-112
Forged Steel Turnbuckle
Sizes %" through 1½" rod
Federal Type 13
SP69 Type 13



F-111 Forged Steel Clevis Sizes %" through 1½" rod Federal Type 14 SP69 Type 13



M-117 MI Socket only for S Split Ring Hanger Sizes ¾" through ¼" Rod Federal Type 16 SP69 Type 16



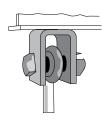
E-120-A Forged Steel Weldless Eye Nut Sizes ¾" through 1½" rod Federal Type 17 SP69 Type 17



452 Steel Concrete Insert Federal Type 19 SP69 Type 18



C-755 T/C-757 T Center I-Beam Clamp Federal Type 21 SP69 Type 21



C-780
Welded attachment as
shown or inverted less bolt
Federal Type 22
SP69 Type 22



M-775-L/C-775-L MI or Steel C-Clamp Sizes 3/6" through 7/6" Federal Type 23 SP69 Type 23



H-115 U-Bolt Sizes ½" through 24" IPS Federal Type 24 SP69 Type 24



M-778 Top Beam C-Clamp Sizes ¾" through ¾" rod SP69 Type 19



M-777 Junior Top Beam C-Clamp Sizes %" through ½" rod SP69 Type 18



C-711 "J" Pipe Hanger Sizes ½" through 8" pipe SP69 Type 5

Thomas@Betts





Technical Information

Federal Specifications (WW-H-171)/ Manufacturers Society Specifications (MSS SP69) *(continued)*



C-704-A Offset J-Hook Sizes ½" through 3" IPS Federal Type 27



M-732-H I-Beam w/Eye Nut Federal w/o links Type 28 Federal w/links Type 29 SP69 Type 28



M-732/M-732 Ext I-Beam Clamp W/Swing Nut Sizes ¾" through ¾" Rod Federal Type 30 SP69 Type 30



C-736 Light Welded Steel Bracket Federal Type 32 SP69 Type 31



C-739-H Heavy Welded Steel Bracket Max. Load 3,000 lbs. Federal Type 34 SP69 Type 33



M-750 Side Beam Bracket Sizes %" through ½" Rod Federal Type 35 SP69 Type 34



C-785-A
Pipe Stanchion Saddle
Sizes 4" through 36" IPS
Federal Type 38
SP69 Type 37

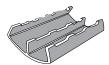


C-786

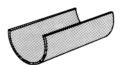
Adj. Pipe Saddle Support
Sizes 2½" through 36" IPS
Federal Type 39
SP69 Type 38



C-789
Steel Pipe Covering
Protection Saddle
Sizes up to and including
10" IPS
Federal Type 40A
SP69 Type 39



C-789-AL Steel Pipe Covering Protection Saddle Sizes 12" IPS and larger Federal Type 40B SP69 Type 39



C-790
Insulation Protection Shield
for Vapor sealed pipe lines and
insulated copper tubing
Sizes ¾" through 12" IPS
Federal Type 41
SP69 Type 40



RC-729A Single Pipe Roll Sizes 1" through 24" IPS Federal Type 42 SP69 Type 41



C-729
Adj. Roller Hanger
Sizes 1" through 20" IPS
Federal Type 44
SP69 Type 43



S-730-C Pipe Roll Complete Federal Type 45 SP69 Type 44



S-730-D Adj. Pipe Roll & Base Federal Type 47 SP69 Type 46



United States Tel: 901.252.8000

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354









In this section...



Steel City® Hangers, Clamps & Fasteners

Overview	B-222-B-223
Beam and Purlin Clamps	B-224-B-229
Hangers	B-230-B-231
Conduit and Cable Supports	B-232-B-240
Stud Wall/Drywall Supports, Clips and Brackets	B-241-B-247
Acoustical Tee Supports, Clips and Brackets	B-248-B-251
Low-Voltage/Datacom Hooks, Hangers and Brackets	B-252–B-256
Fastener Accessories and Hardware	B-257-B-258





Overview



Materials:

The following materials are used for Steel City® Spring Steel Fasteners:

High-Carbon Spring Steel

Spring steel products are manufactured using high-carbon cold-rolled steel, AISI C1075 or equivalent. The final part is heat treated to give the formed product great resilience and strength.

Low-Carbon Steel

Mild steel products are manufactured using low-carbon cold-rolled steel, AISI C1008 or equivalent. Such parts receive a zinc or painted finish to protect the finished product.

Finishes:

Zinc Phosphate

The zinc phosphate finish is per MIL-SPEC-16232, type Z. This finish includes a zinc phosphate base with a supplementary sealant applied. The finished product will withstand 24 to 72 hours of saltspray testing in accordance with ASTM B117.

Pre-Galvanized

Products receiving a pre-galvanized finish are low-carbon steel products with a coating of zinc applied to the steel prior to part fabrication. This finish is in conformance with ASTM A525.

Electro-Galvanized

The electro-galvanized finish is a zinc finish which includes an electro-plated layer of zinc and a clear conversion coat. This finish is applied after fabrication and is in conformance with ASTM B633.

Painted

Some products in the Steel City® line receive a painted finish. Parts are painted for applications which require alternate colors to the standard black zinc phosphate (such as with acoustical ceilings).

Load Ratings:

The Steel City® Spring Steel Fastener products shown in this catalog have a load limit based on the following:

Static Load Limit

Such products show the load limit which is based on a safety factor of 3.

Ultimate Static Load Limit

Such products show the load limit which is the highest load allowed, with no safety factor.

These load limits apply only to catalog numbers which list such a limit. For both instances, the static load limits apply only in the orientation described in the catalog or instruction sheet. These loads apply only to the fastener, the structure to which it will be attached must be evaluated separately.



Tel: 888.862.3289



Overview



Individual	Part Nun	nbering	Systen	n
------------	-----------------	---------	--------	---

SSF - H A 1/4 T

1 2 3 4 5

- 1 Catalog numbers will be preceded by an "SSF" to signify it is a Spring Steel Fastener part and to give it a unique catalog number. Non-Spring Steel Fastening items in this catalog are not preceded by SSF.
- 2 This portion of the catalog number is a one-letter index based on the category into which the product falls. For this example, "H" is used for the Hangers category. The following is a list of all the categories and their one letter index:
 - **B** Beams and Purlin
 - **H** Hangers
 - C Conduit and Cable
 - S Stud Wall and Drywall
 - T Acoustical Tee
 - V Low-Voltage/Telecom
 - M Miscellaneous
- 3 This portion of the catalog number references the style in a given category. For this example, "A" is used for the rod and wire hanger with thread impressions.
- 4 This portion of the catalog number is numeric and will be based on the size or range of sizes the part will fit. For example, the SSF-HA1/4T is a hanger that fits 1/4" threaded rod, so the numeric code would be 1/4.
- **5** A final letter may be, but will not always be, included after the numeric code. This final letter indicates one of the following:
 - S The part has an attached stud
 - T The part has a thread impression
 - A Adjustable

Riveted Combinations

SSF - B V1/4 - A3/8

1 2 3 4

- As with the individual parts, riveted combinations will always be preceded by an "SSF" to signify it as a Spring Steel Fastener part.
- 2 This portion of the catalog number, as with the individual part, is a one letter index based on the category of the product. For this example, "B" is used for the Beams and Purlin category.
- 3 Riveted combinations of two parts will have a catalog number constructed from the two individual catalog numbers. This portion of the catalog number references the style and numeric size or range for the first piece of the combination (see #3 and #4 under the Individual Part Numbering System). Note that the first part in the combination will have the same category as the combination. In this example, V1/4 represents a vertical flange or C-purlin clip with an individual catalog number of SSF-BV1/4.
- This portion of the catalog number references the style and numeric size or range for the second piece of the combination (see #3 and #4 under the Individual Part Numbering System). In this example, the A3/8 represents the rod hanger with an individual catalog number of SSF-HA3/8.

www.tnb.com

United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 Technical Services
Tel: 888.862.3289

Thomas@Betts

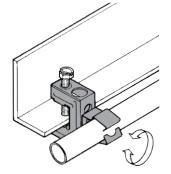
Beam and Purlin Clamps

Beam Clamps

- Fits beam flanges to 1/2"
- Supports 1/4" and 3/8" threaded rod, S-hooks, electrical boxes, conduit and bridle rings
- 1/4-20 or #10-24 threaded openings

CAT. NO.	FIG NO.	DESCRIPTION	STATIC LOAD LIMIT (LBS.)	STD. CTN.
SSF-BBC	1	Stamped-steel beam clamp	100	100
SSF-BBC-S1/2V	2	Beam clamp through $1\!\!\!/2$ flange to conduit clamp, $1\!\!\!/2$ conduit	25	25
SSF-BBC-S3/4V	2	Beam clamp through $1\!\!/\!\!2^{\rm m}$ flange to conduit clamp, $3\!\!/\!\!4^{\rm m}$ conduit	25	25
SSF-BBC-S1V	2	Beam clamp through $1\!\!/\!\!2^{\rm m}$ flange to conduit clamp, 1" conduit	25	25
SSF-BBC-S1/2H	3	Beam clamp through ½" flange to side- mounted conduit clamp, ½" conduit	15	25
SSF-BBC-S3/4H	3	Beam clamp through $\frac{1}{2}$ " flange to sidemounted conduit clamp, $\frac{3}{4}$ " conduit	15	25
SSF-BBC-S1H	3	Beam clamp through ½" flange to side- mounted conduit clamp, 1" conduit	15	25

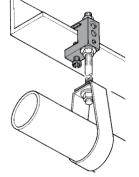
CAT. NO.	FIG NO.	DESCRIPTION	STATIC LOAD LIMIT (LBS.)	STD. CTN.
SSF-BBC-C1/2 3/4V	4	Beam clamp through ½" flange to conduit clamp, ½"-¾" conduit	100	25
SSF-BBC-C1V	4	Beam clamp through $\frac{1}{2}$ " flange to conduit clamp, 1" conduit	100	25
SSF-BBC-C1 1/4V	4	Beam clamp through $\frac{1}{2}$ " flange to conduit clamp, $\frac{1}{4}$ " conduit	100	25
SSF-BBC-C1 1/2V	4	Beam clamp through $\frac{1}{2}$ " flange to conduit clamp, $\frac{1}{2}$ " conduit	100	25
SSF-BBC-C2V	4	Beam clamp through ½" flange to conduit clamp, 2" conduit	100	25
SSF-BBC-C1/2 3/4H	5	Beam clamp through $\frac{1}{2}$ " flange to sidemounted conduit clamp, $\frac{1}{2}$ " $-\frac{3}{4}$ " conduit	25	25
SSF-BBC-C1H	5	Beam clamp through ½" flange to side- mounted conduit clamp, 1" conduit	25	25
SSF-BBC-C1 1/4H	5	Beam clamp through $\frac{1}{2}$ " flange to sidemounted conduit clamp, $\frac{1}{4}$ " conduit	25	25
SSF-BBC-C1 1/2H	5	Beam clamp through $1/2$ " flange to sidemounted conduit clamp, $11/2$ " conduit	25	25
SSF-BBC-C2H	5	Beam clamp through ½" flange to side- mounted conduit clamp, 2" conduit	25	25















United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354







Beam and Purlin Clamps

Beam Clamps





Fig. 2



Fig. 3

CAT. NO.	FIG. NO.	O.D. OF CONDUIT Or Pipe (in.)	OM. CONDUIT OR PIPE SIZE (IN.)	STD. CTN.
RCS Clamp — Steel				
RCS-1/2	1	.840	1/2	50
RCS-3/4	1	1.050	3/4	50
RCS-1	1	1.315	1	100
RCS-1-1/4	1	1.660	11/4	100
RCS-1-1/2	1	1.900	2	100
RCS-2	1	2.375	2	100
RC Clamp — Malleat	ole Iron			
RC-3/8	1	.675	3/8	50
RC-1/2	1	.840	1/2	50
RC-3/4	1	1.050	3/4	50
RC-1	1	1.315	1	100
RC-1-1/4	1	1.660	11/4	100
RC-1-1/2	1	1.900	1½	100
RC-2-SC	1	2.375	2	100
RC-2-1/2	1	2.875	21/2	100
RC-3	1	3.500	3	100
RC-3-1/2	1	4.000	3½	100
RC-4-SC	1	4.500	4	100
EC Clamp — Malleab	le Iron			
EC 1/2	2	.840	1/2	50
EC-3/4	2	1.050	3/4	50
EC-1	2	1.315	1	100
EC-1-1/4	2	1.660	11/4	100
EC-1-1/2	2	1.900	1½	100
EC-2	2	2.375	2	100
EC-2-1/2	2	2.875	2½	100
EC-3	2	3.500	3	100
PC Clamp — Malleab	le Iron			
PC-3/8	3	.675	3/8	50
PC 1/2	3	.840	1/2	50
PC-3/4	3	1.050	3/4	50
PC-1	3	1.315	1	100
PC-1-1/4	3	1.660	11/4	100
PC-1-1/2	3	1.900	1½	100
PC-2	3	2.375	2	100
PC-2-1/2	3	2.875	21/2	100
PC-3	3	3.500	3	100
PC-3-1/2	3	4.000	3½	100
PC-4	3	4.500	4	100

6H Series Conduit and Pipe Hangers

- Accommodates ½" through
 4" EMT or rigid conduit
- · Can be used for either vertical or horizontal installation
- . 6HTB Series have a built-in nut so there are less parts to handle or drop
- Installs easily with a screwdriver

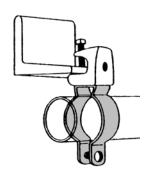










Fig. 1

Fig. 2

Fig. 3

Fig. 4

WITH BO	DLT	WITHOU	T BOLT			
CAT. NO.	FIG. NO.	CAT. NO.	FIG. No.	EMT (IN.)	RIGID CONDUIT OR PIPE (IN.)	STD. CTN.
6H0 B	1	6H0	2	1/2	3/8-1/2	100
6H0 TB	3	6H0	4	1/2	3/8-1/2	100
6H1 B	1	6H1	2	3/4	3/4	100
6H1-TB	3	6H1	4	3/4	3/4	100
6H2-B	1	6H2	2	1	1	100
6H2-TB	4			1	1	100
6H2 1/2-B	1	6H2 1/2	2	11/4	_	100
6H2 1/2-TB	4			11/4	_	100
6H3-B	1	6H3-SC	2	11/2	11/4	100
6H3-TB	4			11/2	11/4	100
6H4-B	1	6H4	2	_	1½	100
6H4-TB	4			_	1½	100
6H5-B	1	6H5	2	2	2	100
6H5-TB	4			2	2	100
6H6-B	1	6H6	2	21/2	21/2	100
6H7-B	1	6H7	2	3	3	100
6H8-B	1	6H8	2	3½	3½	100
6H9-B	1	6H9	2	4	4	100
Add CC cuffix to	nart num	har for etainlace	ctool			

Add SS suffix to part number for stainless steel.

Load rating is 500 lbs. with a safety factor of 3. Available with or without closure bolt. Standard finishes: Electro-Galvanized and Type 304 Stainless Steel.





Beam and Purlin Clamps

Beam Clamps

- Supports threaded rod, threaded bridle rings and electrical boxes
- · Bright zinc plating
- · Supports 100 lbs. static load limit

Malleable Iron, Electro-Plated Finish

Mancabi	C II U	n, Electro-Frateu Fillion		
CAT. NO.	FIG. No.	DESCRIPTION	STATIC LOAD LIMIT (LBS.)	STD. CTN.
BC1-TB	1	Steel beam clamp, 1/4"–20 threaded openings, fits flanges up to 5%" thick	75	50
BC2-TB	1	Steel beam clamp, 5% "-18 threaded openings, fits flanges up to 3%" thick	320	50
510	2	Malleable iron beam clamp, ½"–20 threaded openings, fits flanges up to 5%" thick	250	100
511-SC	2	Malleable iron beam clamp, 10–24 threaded openings, fits flanges up to 5/8" thick	250	100
500-SC	2	Malleable iron beam clamp, ½"–20 threaded openings, fits flanges up to 15/16" thick	250	50
509	2	Malleable iron beam clamp, 10–24 threaded openings, fits flanges up to 15/16" thick	150	100
501	2	Malleable iron beam clamp, 15/16"-18 threaded openings, fits flanges up to 1/8" thick	500	50
502	2	Malleable iron beam clamp, %"-16 threaded openings, fits flanges up to 1" thick	750	25
503-SC	2	Malleable iron beam clamp, ½"-13 threaded openings, fits flanges up to 1" thick	1,250	20
507	2	Malleable iron beam clamp, ½"-13 threaded openings, fits flanges up to 1¾" thick	1,250	20
508	2	Malleable iron beam clamp, ½"-13 threaded openings, fits flanges up to 2½" thick	1,250	10
C-4-4. F4.	or of a	I and Datings beared on bottom balance Decree Olan		

Safety Factor of 3. Load Ratings based on bottom hole of Beam Clamp. CSA File No. LR-63683.

			DI	MENSIC	STD.		
CAT. NO.	SIZE	TAPPED	A	В	С	D	CTN.
BC1-TB	1	1/4-20	111/16	1%	5/8	13/16	250
BC2-TB	215/16	3% - 16	21/8	21/16	3/4	1 ¹¹ / ₁₆	25
Material Steel	Finich: 7	7inc Plated					

Malleable Iron, Silver Electro-Plated Finish

	BASE SIZE (IN.)		JAW OPENING	TAPPING OF BASE AND	LOAD	TORQUE IN	STD.
CAT. NO.	Α	В	(IN.)	BACK HOLES	RATING*	INCH-LBS.	CTN.
500-SC	1	11/4	15/16	1/4-20	250	60	50
501	11/2	15/8	7/8	5/16-18	500	60	50
502	2	2	1	3% - 16	750	125	25
503-SC	25/8	21/2	1	1/2-13	1,250	250	20
507	21/2	23/8	13/8	1/2-13	1,250	250	20
508	21/2	23/8	21/8	1/2-13	1,250	250	10
509	1	11/4	1 5⁄16	10-24	150	60	100
510	27/32	11//8	5/8	1/4-20	250	40	100
511-SC	27/32	11/8	5/8	10-24	150	40	100

[‡]Safety Factor of 3. Load Ratings based on bottom hole of Beam Clamp. CSA File No. LR-63683.

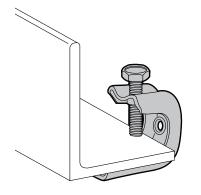
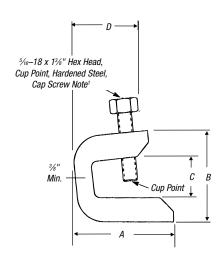
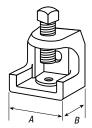






Fig. 2





500SS316, 502SS316 and 503SS316 in 316 Stainless Steel also available.



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services**

Tel: 888.862.3289







Beam and Purlin Clamps

Hammer-On Flange Clips

- Hangs on box from the underside or to the front of beam flanges
- When used with combination conduit hanger, the conduit run lines up with knockouts in outlet box and eliminates offsets and bends
- 1/4-20 threaded opening
- Also available with staked stud, ¼–20 x ¾", to provide easier attachment of outlet boxes to beams — eliminates having to use loose screws
- · Supports 100 lbs. static vertical load limit
- · Installs easily with a hammer

CAT. NO.	FIG. NO.	DESCRIPTION	STATIC LOAD LIMIT (LBS.)	STD. CTN.
SSF-BH1/4	1	Clip without stud, 1/8"-1/4" flange thickness	100	100
SSF-BH1/2	1	Clip without stud, 5/16"-1/2" flange thickness	100	100
SSF-BH3/4	1	Clip without stud, 1/16"-3/4" flange thickness	100	100
SSF-BH1/4S	2	Clip with stud, 1/8"-1/4" flange thickness	100	100
SSF-BH1/2S	2	Clip with stud, 5/16"-1/2" flange thickness	100	100
SSF-BH3/4S	2	Clip with stud, %16"-34" flange thickness	100	100

- · Clips fit most bulb tees and beam flanges
- 1/4" hole provided
- · Installs easily with a hammer

CAT. NO.	FIG. No.	DESCRIPTION	STATIC LOAD LIMIT (LBS.)	STD. CTN.
SSF-BF1/8	1	Hammer-on Flange Clip fits 3/32"-9/64" flange thickness	160	100
SSF-BF1/4	1	Hammer-on Flange Clip fits 1/8"-1/4" flange thickness	200	100
SSF-BF1/2	1	Hammer-on Flange Clip fits 5/16"-1/2" flange thickness	200	100
SSF-BF3/4	1	Hammer-on Flange Clip fits \%6"-\%4" flange thickness	200	100
SSF-BFF1/8	2	Hammer-on Flange Clip fits 32"-964" flange thickness with horizontal tab	50	25
SSF-BFF1/4	2	Hammer-on Flange Clip fits 1/8"-1/4" flange thickness with horizontal tab	50	25
SSF-BFF1/2	2	Hammer-on Flange Clip fits $\frac{1}{6}$ "- $\frac{1}{2}$ " flange thickness with horizontal tab	50	25
SSF-BFF3/4	2	Hammer-on Flange Clip fits %16"-34" flange thickness with horizontal tab	50	25







Fig. 2

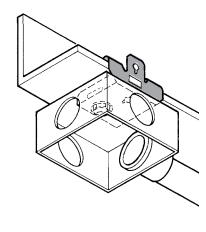
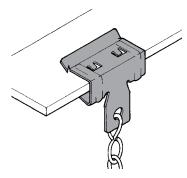
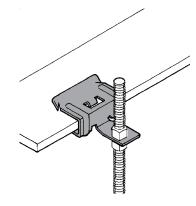






Fig. 2







United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 Technical Services
Tel: 888.862.3289





1-800-453-1692

oveboardelectronics.com

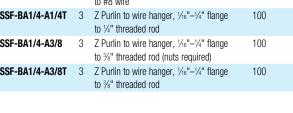
Beam and Purlin Clamps

Z Purlin Clips

SSF-BA Series

- Fits Z Purlin flanges ½6" to ½"
- Riveted combinations support wire, rod or threaded rod from Z Purlin
- · Compensates for the angle of the Purlin design
- · Supports 100 lbs. static load limit
- · Installs easily with hammer

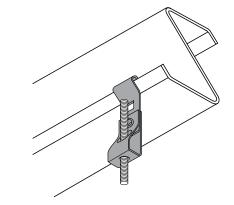
CAT. NO.	FIG. NO.	DESCRIPTION	STATIC LOAD LIMIT (LBS.)	STD. CTN.
SSF-BA1/4	1	Z Purlin clip	100	100
SSF-BA1/4-B1/4	2	Z Purlin to wire hanger, $1/\!\!/_16\text{"}1/\!\!/_4\text{"}$ flange to $1/\!\!/_4\text{"}$ plain rod	100	25
SSF-BA1/4-B3/8	2	Z Purlin to wire hanger, $1\!\!/\!_{16}$ "– $1\!\!/\!_{4}$ " flange to $3\!\!/\!_{8}$ " plain rod	100	25
SSF-BA1/4-B8	2	Z Purlin to wire hanger, $1\!\!/\!_{16}\text{"}1\!\!/\!_{4}\text{"}$ flange to #8 wire	100	25
SSF-BA1/4-A1/4T	3	Z Purlin to wire hanger, $1/\!\!/_16\text{"}1/\!\!/_4\text{"}$ flange to $1/\!\!/_4\text{"}$ threaded rod	100	25
SSF-BA1/4-A3/8	3	Z Purlin to wire hanger, $1/\!\!/_16"-1/\!\!/_1"$ flange to $9\!\!/_8"$ threaded rod (nuts required)	100	25
SSF-BA1/4-A3/8T	3	Z Purlin to wire hanger, $1\!\!/_{16}$ "-1/4" flange to $3\!\!/_{\!\!\!6}$ " threaded rod	100	25



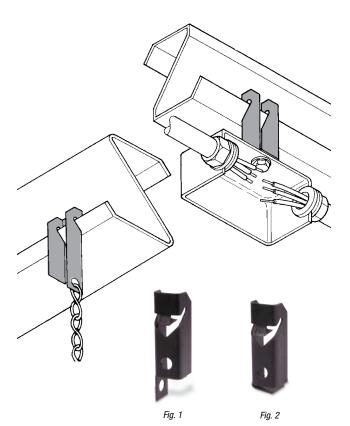
SSF-BZ1/SSF-BZ2 Series

- · Compensates for angle of Purlin
- Provides method for running conduit parallel to Purlin
- Fits Z Purlin thicknesses up to 3/32"
- · Supports 100 lbs. static load limit
- · Installs easily with a hammer

CAT. NO.	FIG. No.	DESCRIPTION	STATIC LOAD LIMIT (LBS.)	
SSF-BZ1	1	Z Purlin clip	100	100
SSF-BZ2	2	Z Purlin clip with bottom	100	100









United States Tel: 901.252.8000

800.816.7809 Fax: 901.252.1354







Beam and Purlin Clamps

SSF-BZ1-A/SSF-BZ1-B Series

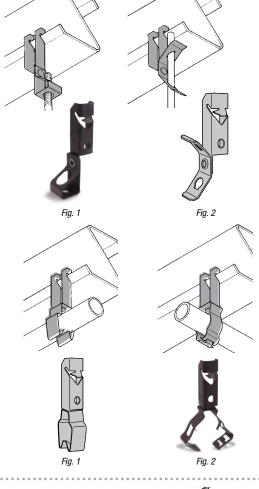
- · Compensates for angle of Purlin
- · Provides method for running conduit parallel to Purlin
- Fits Z Purlin thicknesses up to 3/32"
- · Supports 100 lbs. static load limit
- · Installs easily with a hammer

CAT. NO.	FIG. NO.	DESCRIPTION	STATIC LOAD LIMIT (LBS.)	STD. CTN.
SSF-BZ1-A1/4T	1	Z Purlin clip to rod hanger, ¼" threaded rod	100	25
SSF-BZ1-A3/8T	1	Z Purlin clip to rod hanger, 3/8" threaded rod	100	25
SSF-BZ1-A3/8	1	Z Purlin clip to rod hanger, ½" & ¾" threaded rod, nuts required	100	25
SSF-BZ1-B8	2	Z Purlin clip to rod/wire hanger, #8 wire	100	25
SSF-BZ1-B1/4	2	Z Purlin clip to rod/wire hanger, $\frac{1}{4}$ " threaded or plain rod	100	25
SSF-BZ1-B3/8	2	Z Purlin clip to rod/wire hanger, $\%$ " threaded or plain rod	100	25

SSF-BZ2-A/SSF-BZ1-C Series

- · Compensates for angle of Purlin
- · Provides method for running conduit parallel to Purlin
- Fits Z Purlin thicknesses up to 3/32"
- Supports 100 lbs. static load limit for C series and 25 lbs. for S series
- · Installs easily with a hammer

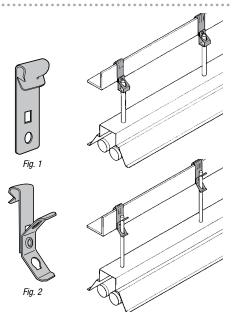
CAT. NO.	FIG. No.	DESCRIPTION	STATIC LOAD LIMIT (LBS.)	STD. CTN.
SSF-BZ2-S1/2	1	Z Purlin to snap-in style conduit clip, ½" conduit	100	25
SSF-BZ2-S3/4	1	Z Purlin to snap-in style conduit clip, ¾" conduit	100	25
SSF-BZ2-S1	1	Z Purlin to snap-in style conduit clip, 1" conduit	100	25
SSF-BZ2-C1/2 3/4	2	Z Purlin finger close style conduit clip, $\frac{1}{2}$ "- $\frac{3}{4}$ " conduit	100	25
SSF-BZ2-C3/8	2	Z Purlin finger close style conduit clip, 3/8" conduit	100	25
SSF-BZ2-C1	2	Z Purlin finger close style conduit clip, 1" conduit	100	25
SSF-BZ2-C1 1/4	2	Z Purlin finger close style conduit clip, 1-1/4" conduit	100	25



C Purlin Clips

- Two sizes of C Purlin clips to cover larger range of vertical flange sizes
- Riveted combinations support wire, rod or threaded rod from bar joist, C Purlin
- · Supports 160 lbs. static load limit
- · Installs easily with a hammer

CAT. NO.	FIG. No.	DESCRIPTION	STATIC LOAD LIMIT (LBS.)	STD. CTN.
SSF-BV1/16	1	C Purlin clip fits 1/32"-3/32" vertical flange	160	100
SSF-BV1/4	1	C Purlin clips fits 3/32"-9/32" vertical flange	160	100
SSF-BV1/16-B8	2	C Purlin fits 1/32"-3/32" vertical flange to #8 wire	160	25
SSF-BV1/16-B1/4	2	C Purlin fits 1/32"-3/32" vertical flange to 1/4" plain rod	160	25
SSF-BV1/16-B3/8	2	C Purlin fits 1/32"-3/32" vertical flange to 3/8" plain rod	160	25
SSF-BV1/4-B8	2	C Purlin clip fits $\mbox{\%2"-\%2"}$ vertical flange to #8 wire or $\mbox{\%1"}$ plain rod	160	25
SSF-BV1/4-B1/4	2	C Purlin clips fits 3/32"-9/32" vertical flange to plain rod	160	25
SSF-BV1/4-B3/8	2	C Purlin fits $\mbox{\%}_2\mbox{"-}\mbox{\%}_2\mbox{"}$ vertical flange to threaded rod	160	25





United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354





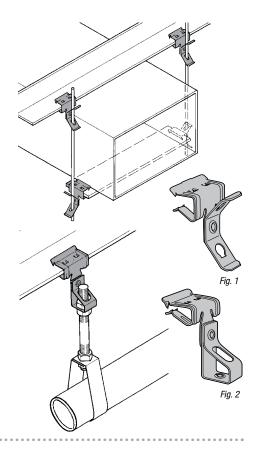


Hangers

Plain and Threaded Rod Hangers

- Used to suspend #8 wire, $\frac{1}{4}$ " or $\frac{3}{8}$ " plain rod or $\frac{1}{4}$ " or 3/8" threaded rod from beam flanges 1/8" to 3/4" thick
- Supports 200 lbs. static load limit
- Installs easily with a hammer

	FIG.		STATIC LOAD	STD.
CAT. NO.		DESCRIPTION	LIMIT (LBS.)	CTN.
SSF-HB8-F1/4	1	Rod/wire to beam hanger, 1/8"-1/4" flange, #8 wire	200	25
SSF-HB8-F1/2	1	Rod/wire to beam hanger, 5/16"-1/2" flange, #8 wire	200	25
SSF-HB8-F3/4	1	Rod/wire to beam hanger, %6"-34" flange, #8 wire	200	25
SSF-HB1/4-F1/4	1	Rod/wire to beam hanger, 1/8"-1/4" flange, 1/4" plain rod	200	25
SSF-HB1/4-F1/2	1	Rod/wire to beam hanger, 5/16"-1/2" flange, 1/4" plain rod	200	25
SSF-HB1/4-F3/4	1	Rod/wire to beam hanger, 5/16"-3/4" flange, 1/4" plain rod	200	25
SSF-HB3/8-F1/4	1	Rod/wire to beam hanger, 1/8"-1/4" flange, 3/8" plain rod	200	25
SSF-HB3/8-F1/2	1	Rod/wire to beam hanger, 5/16"-1/2" flange, 3/8" plain rod	200	25
SSF-HB3/8-F3/4	1	Rod/wire to beam hanger, %6"-34" flange, 38" plain rod	200	25
SSF-HA1/4-F1/4T	2	Hammer-on rod hanger, 1/8"-1/4" flange, 1/4" threaded rod	200	25
SSF-HA1/4-F1/2T	2	Hammer-on rod hanger, 5/16"-1/2" flange, 1/4" threaded rod	200	25
SSF-HA1/4-F3/4T	2	Hammer-on rod hanger, $\%_{16}$ "- $3\%_{1}$ " flange, $1\%_{1}$ " threaded rod	200	25
SSF-HA3/8-F1/4T	2	Hammer-on rod hanger, 1/8"-1/4" flange, 3/8" threaded rod	200	25
SSF-HA3/8-F1/2T	2	Hammer-on rod hanger, $\frac{1}{2}$ flange, $\frac{3}{8}$ threaded rod	200	25
SSF-HA3/8-F3/4T	2	Hammer-on rod hanger, %16"-3/4" flange, 3/8" threaded rod	200	25
SSF-HA3/8-F1/4	2	Rod/wire to beam hanger, $1/\!\!\!/ ^{\!$	200	25
SSF-HA3/8-F1/2	2	Rod/wire to beam hanger, $\frac{5}{16}$ "- $\frac{1}{2}$ " flange, $\frac{1}{4}$ " or $\frac{3}{8}$ " threaded rod	200	25
SSF-HA3/8-F3/4	2	Rod/wire to beam hanger, $\%_{\rm 16}$ "- $3\!\!/\!\!4$ " flange, $1\!\!/\!\!4$ " or $3\!\!/\!\!8$ " threaded rod	200	25



Strap Hanger Clips

- Accepts strap widths up to 1½"
- · Can be attached to a wide variety of products
- · Supports 100 lbs. static load limit
- Clips are made from galvanized steel



Fig. 1

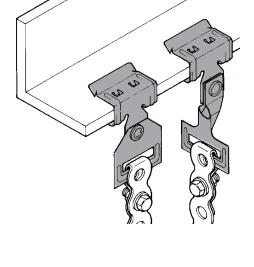






Fig. 4

STATIC LOAD STD. FIG. CAT. NO. NO. DESCRIPTION LIMIT (LBS.) CTN. SSF-HS Strap hanger clip 200 100 SSF-HR Strap hanger clip, right angle 200 100 Strap hanger clip, right angle, 1/8"-1/4" flange thickness 200 SSF-HR-F1/4 25 SSF-HR-F1/2 Strap hanger clip, right angle, 5/16"-1/2" flange thickness 200 25 Strap hanger clip, right angle, %16"-3/4" flange thickness 200 25 SSF-HR-F3/4 SSF-HS-F1/4 Strap hanger clip, flange thickness 1/8"-1/4" 200 25 SSF-HS-F1/2 Strap hanger clip, flange thickness 5/16"-1/2" 200 25 SSF-HS-F3/4 Strap hanger clip, flange thickness 5/16"-3/4" 200





United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354

Technical Services

Tel: 888.862.3289







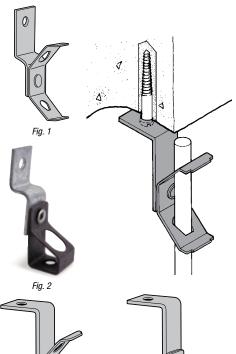
Hangers

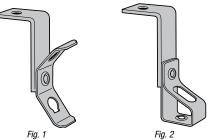
Rod and Wire Hangers

- · Offset bracket suspends plain rod, threaded rod or wire drops from laminated wood or concrete beams, joists, ceilings and walls
- Angle bracket suspends plain rod, threaded rod or wire drops from laminated wood or concrete beams, joists, ceilings and walls
- Supports 160 lbs. static load limit

CAT. NO.	FIG. NO.	DESCRIPTION	STATIC LOAD LIMIT (LBS.)	STD. CTN.
SSF-HB8-OB	1	Rod & wire hanger with offset bracket, #8 wire	160	25
SSF-HB1/4-0B	1	Rod & wire hanger with offset bracket, 1/4" plain rod	160	25
SSF-HB3/8-OB	1	Rod & wire hanger with offset bracket, 3/8" plain rod	160	25
SSF-HA1/4-OBT	2	Rod & wire hanger with offset bracket, 1/4" threaded rod	160	25
SSF-HA3/8-OBT	2	Rod & wire hanger with offset bracket, 3/8" threaded rod	160	25
SSF-HA3/8-0B	2	Rod & wire hanger with offset bracket, $\frac{1}{4}$ " – $\frac{3}{8}$ " threaded rod, nuts required	160	25

CAT. NO.	FIG. No.	DESCRIPTION	STATIC LOAD Limit (LBS.)	STD. CTN.
SSF-HB8-AB	1	Rod & wire angle bracket, #8 wire	160	25
SSF-HB1/4-AB	1	Rod & wire single bracket hanger, 1/4" plain rod	160	25
SSF-HB3/8-AB	1	Rod & wire angle bracket hanger, %" plain rod	160	25
SSF-HA1/4-ABT	2	Rod & wire hanger with angle bracket, 1/4" threaded rod	160	25
SSF-HA3/8-ABT	2	Rod & wire hanger with angle bracket, 3/8" threaded rod	160	25
SSF-HA3/8-AB	2	Rod & wire angle bracket hanger, 1/4"-3/8" threaded rod, nuts required	160	25





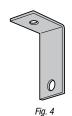
Miscellaneous Hangers

Rod hanger available for ¼" and ¾" threaded rod with or without thread impression



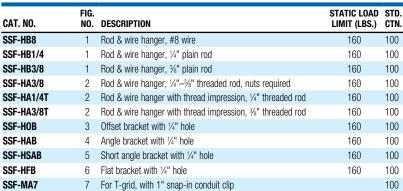


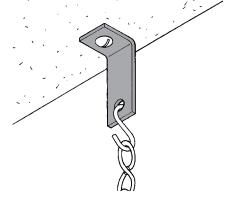














United States Tel: 901.252.8000

800.816.7809 Fax: 901.252.1354

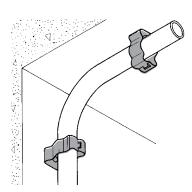




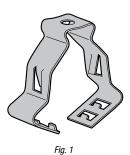
Conduit and Cable Supports

Conduit Clips

- Available for ¾" through 2" trade sizes for EMT, flexible conduit and MC/AC cable
- · Available with either a plain hole for 1/4" bolt or a 1/4-20 thread impression
- · Shape of clip and clasp mechanism enables hand installation (no tools needed)
- · Unique clasp design has an aggressively angled tab and receiving hole to provide consistent, easy clasping of the clip
- Supports 100 lbs, static load limit in the vertical position. Supports 25 lbs. static load limit in the horizontal position
- · Unique finger grips on the ends of the clip provide easy grip for hand installation, or easy plier grip when using pliers to install



CAT. NO.	FIG. NO.	CONDUIT Size	MOUNTING Hole	STD. CTN.
SSF-CC3/8	1	14-2 through 12-3 MC/AC cable & %" conduits	%₂" plain	100
SSF-CC1/2 3/4	1	1/2"-3/4"	%₂" plain	100
SSF-CC1	1	1"	%₃₂" plain	100
SSF-CC1 1/4	1	11/4"	%₂" plain	100
SSF-CC1 1/2	1	1½"	%₂" plain	100
SSF-CC2	1	2"	%₂" plain	100
SSF-CC3/8T	1	14-2 through 12-3 MC/AC cable & 3/8" MC/AC conduits	1/4-20 thread impression	100
SSF-CC1/2 3/4T	1	1/2"-3/4"	1/4-20 thread impression	100
SSF-CC1T	1	1"	1/4-20 thread impression	100
SSF-CC1 1/4T	1	11/4"	1/4-20 thread impression	100
SSF-CC1 1/2T	1	1½"	1/4-20 thread impression	100
SSF-CC2T	1	2"	1/4-20 thread impression	100



- Available for ½" through 1" EMT and rigid conduit
- Available with either a plain hole for $\frac{1}{4}$ " bolt or a $\frac{1}{4}$ -20 thread impression
- Supports ultimate static load limit of 25 lbs. in the vertical position.
- Supports ultimate static load limit of 15 lbs. in the horizontal position

CAT. NO.	FIG. NO.	CONDUIT Size (In.)	MOUNTING Hole	STD. CTN.
SSF-CS1/2	1	1/2	%₂" plain	100
SSF-CS3/4	1	3/4	%₂" plain	100
SSF-CS1	1	1	⅓₂" plain	100
SSF-CS1/2T	1	1/2	1/4-20 thread impression	100
SSF-CS3/4T	1	3/4	1/4-20 thread impression	100
SSF-CS1T	1	1	1/4-20 thread impression	100

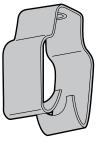


Fig. 1



United States Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354







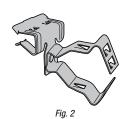
Conduit and Cable Supports

Flange-Mount Conduit Clips

- Available with Spring Steel Conduit Clip. bottom mounted or side mounted
- Available for ¾" through 2" trade sizes for EMT, rigid, flexible conduit and MC/AC cable
- Fits beam flanges 1/8" through 3/4" thick
- Will pivot through 360°
- Fig. 1 supports 75 lbs. static load limit
- . Fig. 2 supports 25 lbs. static load limit
- Installs easily with a hammer and pliers

0	





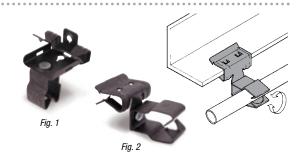
047 NO	FIG.	047 NO	FIG.	
CAT. NO.	NO.	CAT. NO.	NO.	DESCRIPTION
SSF-CC3/8-H1/4	1	SSF-CC3/8-F1/4	2	3/8" conduit, MC/AC cable to 1/8" to 1/4" flanges,
				14-2 through 12-3 MC/AC cable and %" conduits
SSF-CC1/2 3/4-H1/4	1	SSF-CC1/2 3/4-F1/4	2	½" conduit to ¾" conduit to ½" to ¼" flanges
SSF-CC1-H1/4	1	SSF-CC1-F1/4	2	1" conduit to 1/4" flanges
SSF-CC1 1/4-H1/4	1	SSF-CC1 1/4-F1/4	2	11/4" conduit to 1/8" to 1/4" flanges
SSF-CC1 1/2-H1/4	1	SSF-CC1 1/2-F1/4	2	1½" conduit to 1/8" to 1/4" flanges
SSF-CC2-H1/4	1	SSF-CC2-F1/4	2	2" conduit to 1/4" to 1/4" flanges
SSF-CC3/8-H1/2	1	SSF-CC3/8-F1/2	2	3/8" conduit, MC/AC cable to 5/16" to 1/2" flanges,
				14-2 through 12-3 MC/AC cable and 3/8" conduits
SSF-CC1/2 3/4-H1/2	1	SSF-CC1/2 3/4-F1/2	2	½" conduit to ¾" conduit to ½" flanges
SSF-CC1-H1/2	1	SSF-CC1-F1/2	2	1" conduit to 5/16" to 1/2" flanges
SSF-CC1 1/4-H1/2	1	SSF-CC1 1/4-F1/2	2	11/4" conduit to 5/16" to 1/2" flanges
SSF-CC1 1/2-H1/2	1	SSF-CC1 1/2-F1/2	2	1½" conduit to 5/16" to 1/2" flanges
SSF-CC2-H1/2	1	SSF-CC2-F1/2	2	2" conduit to 5/16" to 1/2" flanges
SSF-CC3/8-H3/4	1	SSF-CC3/8-F3/4	2	%" conduit, MC/AC cable to %6" to 3/4" flanges,
				14-2 through 12-3 MC/AC cable and %" conduits
SSF-CC1/2 3/4-H3/4	1	SSF-CC1/2 3/4-F3/4	2	1/2" conduit to 3/4" conduit to 9/16" to 3/4" flanges
SSF-CC1-H3/4	1	SSF-CC1-F3/4	2	1" conduit to 1/16" to 3/4" flanges
SSF-CC1 1/4-H3/4	1	SSF-CC1 1/4-F3/4	2	11/4" conduit to 9/16" to 3/4" flanges
SSF-CC1 1/2-H3/4	1	SSF-CC1 1/2-F3/4	2	1½" conduit to 1/16" to 3/4" flanges
SSF-CC2-H3/4	1	SSF-CC2-F3/4	2	2" conduit to %16" to 3/4" flanges

Flange-Mount Snap-In Conduit Clip

 Available with Spring Steel Conduit Clip, bottom mounted or side mounted

Package quantity of 25 per box.

- Available for ½" through 1" EMT and rigid conduit
- Fits beam flanges 1/8" through 3/4" thick
- Will pivot 360°
- Fig. 1 supports 25 lbs. static load limit
- Fig. 2 supports 15 lbs. static load limit
- · Requires only hammer to install



CAT. NO.	FIG. NO.	DESCRIPTION	STATIC LOAD LIMIT (LBS.)	STD. CTN.
SSF-CS1/2-H1/4	1	½" conduit to 1/8" to 1/4" flanges	25	25
SSF-CS3/4-H1/4	1	$\mbox{\ensuremath{\%^{"}}}$ conduit to $\mbox{\ensuremath{\%^{"}}}$ to $\mbox{\ensuremath{\%^{"}}}$ flanges	25	25
SSF-CS1-H1/4	1	1" conduit to 1/8" to 1/4" flanges	25	25
SSF-CS1/2-H1/2	1	1/2" conduit to 5/16" to 1/2" flanges	25	25
SSF-CS3/4-H1/2	1	3/4" conduit to 5/16" to 1/2" flanges	25	25
SSF-CS1-H1/2	1	1" conduit to 5/16" to 1/2" flanges	25	25
SSF-CS1/2-H3/4	1	1/2" conduit to 9/16" to 3/4" flanges	25	25
SSF-CS3/4-H3/4	1	3/4" conduit to 5/16" to 1/2" flanges	25	25
SSF-CS1-H3/4	1	1" conduit to 5/16" to 1/2" flanges	25	25

CAT. NO.	FIG. NO.	DESCRIPTION	STATIC LOAD LIMIT (LBS.)	STD. CTN.
SSF-CS1/2-F1/4	2	½" conduit to 1/8" to 1/4" flanges	15	25
SSF-CS3/4-F1/4	2	3/4" conduit to 1/8" to 1/4" flanges	15	25
SSF-CS1-F1/4	2	1" conduit to 1/8" to 1/4" flanges	15	25
SSF-CS1/2-F1/2	2	½" conduit to 5/16" to 1/2" flanges	15	25
SSF-CS3/4-F1/2	2	3/4" conduit to 5/16" to 1/2" flanges	15	25
SSF-C1-F1/2	2	1" conduit to 5/16" to 1/2" flanges	15	25
SSF-CS1/2-F3/4	2	1/2" conduit to 1/16" to 3/4" flanges	15	25
SSF-CS3/4-F3/4	2	3/4" conduit to 5/16" to 1/2" flanges	15	25
SSF-CS1-F3/4	2	1" conduit to 5/16" to 1/2" flanges	15	25



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354





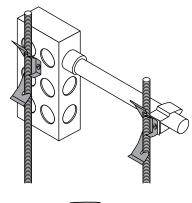


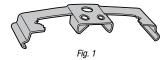
Conduit and Cable Supports

Multi-Function Utility Clip from Drop Wire or Flange

- Attaches to #12 wire through ¾" rod
- Fits ½" to ¾" flanges
- · Provides attachment for conduit and boxes
- Supports #10-24 and ½-20 threaded bridle rings
- Assemblies support ½", ¾" and 1" EMT and rigid conduit
- Also attaches to ¼" and ¾" threaded rod

047.110	FIG.		STATIC LOAD	STD.
CAT. NO.	NO.	DESCRIPTION	LIMIT (LBS.)	CTN.
SSF-CUC	1	Multi-function utility clip	50	100
SSF-CUC-S1/2	2	Utility clip to ½" conduit	15	25
SSF-CUC-S3/4	2	Utility clip to 3/4" conduit	15	25
SSF-CUC-S1	2	Utility clip to 1" conduit	15	25
SSF-CUC-C1/2 3/4	3	Utility clip to 1/2" or 3/4" conduit	25	25
SSF-CUC-C1	3	Utility clip to 1" conduit	25	25



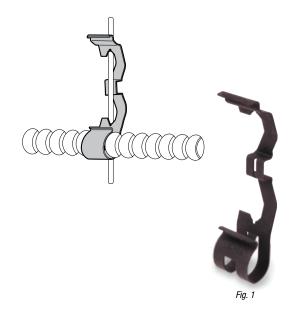




Cable from Drop Wire Support

- · Exclusive slot keeps drop wire centered
- · Will not bend or deform drop wire
- Delivers faster installation
- Supports MC/AC, 14-2 through 12-3 cable and ½" EMT (.433"–.706" O.D.) from #8–#12 wire and 1/4" plainand threaded rod
- Eliminates the need to trap cable against drop wire
- · Supports 25 lbs. static load limit
- · No tools required

CAT. NO.	FIG. No.	DESCRIPTION	STATIC LOAD Limit (LBS.)	STD. CTN.
SSF-CB706	1	Cable from drop wire support	25	100









www.tnb.com

Conduit and Cable Supports

Conduit Hangers from Flange, Wire or Rod

- CK Series attaches conduit (EMT, Rigid, ENT and Aluminum) to drop wire, rods or flanges
- · Application A (vertical flange) supports 25 lbs. static load limit
- Application B (horizontal flange) supports 100 lbs. static load limit
- Application C (vertical drop wire) supports 50 lbs. static load limit

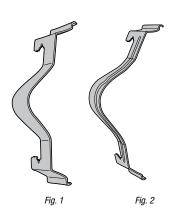
CAT. NO.	FIG. NO.	DESCRIPTION	STD. CTN.
SSF-CK1/2	1	Conduit hangers for flange, wire or rod	100
SSF-CK3/4	1	Conduit hangers for flange, wire or rod	100
SSF-CK1	2	Conduit hangers for flange, wire or rod	100

Wire/Rod

CONDUIT SIZE	#10 & #12 WIRE	#8 & #9 WIRE	3/16" PLAIN ROD	1/4" PLAIN & Threaded rod	3/8" PLAIN & Threaded rod
1/2 EMT	CK1/2	CK1/2	CK1/2	CK1/2	CK3/4
1/2 Rigid	CK1/2	CK1/2	CK1/2	CK3/4	CK3/4
3/4 EMT	CK3/4	CK3/4	CK3/4	CK3/4	CK1
3/4 Rigid	CK3/4	CK3/4	CK3/4	CK1	CK1
1 EMT	_	CK1	CK1	CK1	CK1
1 Rigid	_	CK1	CK1	CK1	_

Flange

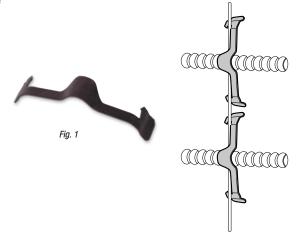
CONDUIT SIZE	½" FLANGE	%6"-1/4" FLANGE	5/16"-3%" FLANGE	7/ ₁₆ "—1/2" FLANGE
1/2 EMT	CK1/2	CK1/2	CK3/4	CK3/4
1/2 Rigid	CK1/2	CK3/4	CK3/4	CK1
3/4 EMT	CK3/4	CK3/4	CK1	CK1
3/4 Rigid	CK3/4	CK1	CK1	CK1
1 EMT	CK1	CK1	CK1	CK1
1 Rigid	CK1	CK1	_	_



Flexible Conduit Hangers from Drop Wire

- One-piece construction
- · Can be used in vertical or horizontal positions
- Fits 14-2 through 12-3 armored cable (.433"-.535" outer diameter)
- · No load rating for positioning only
- No installation tools required

CAT. NO.	FIG. No.	DESCRIPTION	STD. CTN.
SSF-CK535	1	Flexible conduit hanger from drop wire,	100
		#8-#12 wire. 433"- 535" O.D. cable	





United States Tel: 901.252.8000

800.816.7809 Fax: 901.252.1354







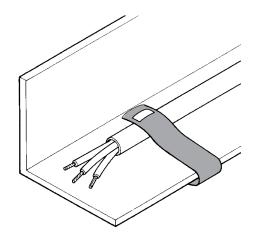
Thomas@Betts

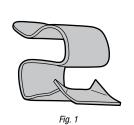
Conduit and Cable Supports

Cable Snap Clip

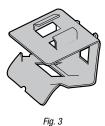
- Supports cable from 1/16"-1/2" flange
- . Works with MC and AC cable dimensions .178" to 1.250"
- · Snaps easily onto flange
- · Cable snaps right into fastener
- · No load rating for positioning only
- · Installs easily with a hammer

CAT. NO.	FIG. NO.	CABLE O.D. (IN.)	FLANGE Thickness (In.)	STD. CTN.
SSF-CES218	1	.178–.218	1/16-3/16	100
SSF-CES281	1	.218276	1/16-3/16	100
SSF-CES375	1	.312375	1/16-3/16	100
SSF-CES437	1	.375437	1/16-3/16	100
SSF-CES562	1	.468562	1/16-3/16	100
SSF-CES718	1	.600718	1/16-3/16	100
SSF-CES937	1	.750937	1/16—3/16	100
SSF-CES1250	1	.968-1.250	1/16-3/16	100
SSF-CEM218	1	.178218	3/16-9/32	100
SSF-CEM281	1	.218276	3/16-9/32	100
SSF-CEM375	1	.312375	3/16-9/32	100
SSF-CEM437	1	.375437	3/16—9/32	100
SSF-CEM562	1	.468562	3/16-9/32	100
SSF-CEM718	1	.600718	3/16-9/32	100
SSF-CEM937	1	.750937	3/16-9/32	100
SSF-CEM1250	1	.968-1.250	3/16-9/32	100
SSF-CEL218	1	.178–.218	5/16—1/2	100
SSF-CEL281	1	.218276	5/16-1/2	100
SSF-CEL375	1	.312–.375	5/16—1/2	100
SSF-CEL437	1	.375437	5/16—1/2	100
SSF-CEL562	1	.468562	5/16—1/2	100
SSF-CEL718	1	.600–.718	5/16—1/2	100
SSF-CEL937	1	.750937	5/16—1/2	100
SSF-CEL1250	1	.968-1.250	5/16-1/2	100
SSF-CF1/8	2	.200468	1/8—1/4	100
SSF-CF3/8	2	.276600	5/16—7/16	100
SSF-CAXL1	3	Snap clip adapter	1/2—5/8	100
SSF-CAXL2	3	Snap clip adapter	5/8-3/4	100









Flexible Conduit to Metal Stud

- · Provides quick attachment for MC or AC to metal stud
- No load rating for positioning only
- · No tools required

CAT. NO.	FIG. NO.	DESCRIPTION	STD. CTN.
SSF-CM535	1	MC/AC cable to metal stud clip,	100
		14-2 through 12-3 cable (433"535" 0.D.)	



Fig. 1



United States Tel: 901.252.8000

800.816.7809 Fax: 901.252.1354





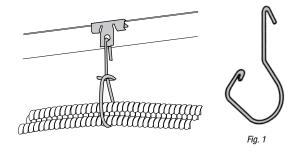


Conduit and Cable Supports

Flexible Conduit and Cable Hanger

- · Effectively supports three runs (CW3) or six runs (CW6) of MC/AC cable
- Can also be used like a bridle ring to support all types of low-voltage cabling
- · Locking hook contains cables inside the loop

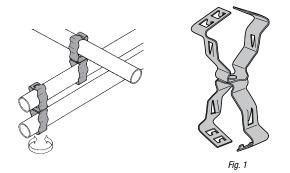
CAT. NO.	FIG. NO.	NO. OF RUNS OF MC/AC CABLE	INNER Diameter (In.)	ULTIMATE Static Load Limit (LBS.)	STD. CTN.
SSF-CW3	1	3	11//8	20	100
SSF-CW6	1	6	13/4	50	100

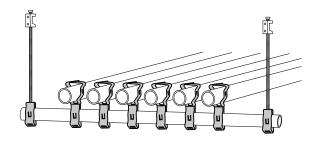


Lightweight Trapeze

- Back-to-back conduit clips for individual use
- Available for ¾" through 2" sizes for EMT, rigid or flexible conduit and MC/AC cable
- · For use as lightweight trapeze, total load limit is 100 lbs.
- Clips for vertical use, static load limit 100 lbs.
- · No screws or bolts

CAT. NO.	FIG. No.	DESCRIPTION	STD. CTN.
SSF-CC1-C3/8	1	Back-to-back conduit clips, 14-2 through 12-3 MC/AC to 1" conduit	25
SSF-CC1-C1/2 3/4	1	Back-to-back conduit clips, ½" or ¾" conduit to 1" conduit	25
SSF-CC1-C1	1	Back-to-back conduit clips, 1" conduit to 1" conduit	25
SSF-CC1-C1 1/4	1	Back-to-back conduit clips, 1¼" conduit to 1" conduit	25
SSF-CC1-C1 1/2	1	Back-to-back conduit clips, 1½" conduit to 1" conduit	25
SSF-CC1-C2	1	Back-to-back conduit clips, 2" conduit to 1" conduit	25
SSF-CC1/2 3/4-C1/2 3/4	1	Back-to-back conduit clips, ½" or ¾" conduit	25





Conduit-to-Conduit Clips

CAT. NO.	FIG. NO.	DESCRIPTION	STATIC LOAD LIMIT (LBS.)	STD. CTN.
SSF-CS1/2-S1/2	1	Back-to-back snap-in conduit clip, ½" to ½" EMT or rigid	25	25
SSF-CS1/2-S3/4	1	Back-to-back snap-in conduit clip, ½" to ¾" EMT or rigid	25	25
SSF-CS1/2-S1	1	Back-to-back snap-in conduit clip, ½" to 1" EMT or rigid	25	25
SSF-CS3/4-S3/4	1	Back-to-back snap-in conduit clip, ¾" to 1" EMT or rigid	25	25
SSF-CS3/4-S1	1	Back-to-back snap-in conduit clip, ¾" to 1" EMT or rigid	25	25
SSF-CS1-S1	1	Back-to-back snap-in conduit clip, 1" to 1" EMT or rigid	25	25







United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354







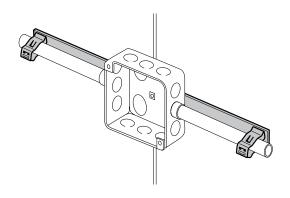


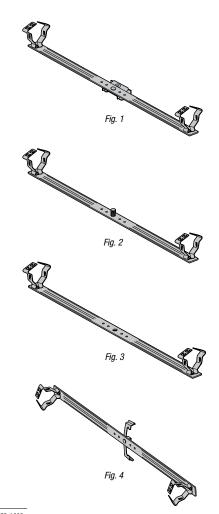
Conduit and Cable Supports

Support Box and Conduits from Single-Drop Wires, **Rods and Flanges**

- Supports conduit on both sides of a junction box
- · Holes in opposite ends of 18" bar accommodate CC and CS Series conduit clips
- · A center hole accepts BH flange clips and CVC utility clip fasteners for attachment to threaded rod

CAT. NO.	FIG. NO.	DESCRIPTION	STD. CTN.
SSF-CX18-C3/8H1/4	1	Support bar for conduit/box, MC/AC cable to %" flex to ¼" flange	25
SSF-CX18-C3/8H1/2	1	Support bar for conduit/box, MC/AC cable to $\%$ " flex to $\%$ " to $\%$ " flange	25
SSF-CX18-C1/2 3/4-H1/4	1	Support bar for conduit/box, ½" & ¾" conduit to ¼" to ¼" flange	25
SSF-CX18-C1/2 3/4-H1/2	1	Support bar for conduit/box, $^{1}/_{2}$ " & $^{3}/_{4}$ " conduit to $^{9}/_{16}$ " to $^{1}/_{2}$ " flange	25
SSF-CX18-C1-H1/4	1	Support bar for conduit/box, 1" conduit to 1/8" to 1/4" flange	25
SSF-CX18-C1-H1/2	1	Support bar for conduit/box, 1" conduit to $\%_{16}$ " to $1/2$ " flange	25
SSF-CX18-C3/8S	2	Support bar for conduit/box, MC/AC cable to $\%$ " flex, $1/4$ "-20 x $\%$ 16" stud in center hole	25
SSF-CX18-C1/2 3/4S	2	Support bar for conduit/box, $\frac{1}{2}$ " to $\frac{3}{4}$ " conduit, $\frac{1}{4}$ "-20 x $\frac{9}{16}$ " stud in center hole	25
SSF-CX18-C1S	2	Support bar for conduit/box, 1" conduit to %" flex, 1/4"–20 x %6" stud in center hole	25
SSF-CX18-C3/8	3	Support bar for conduit/box, MC/AC cable to 3/8" flex for screw or threaded rod mount	25
SSF-CX18-C1/2 3/4	3	Support bar for conduit/box, ½" to ¾" conduit for screw or threaded rod mount	25
SSF-CX18-C1	3	Support bar for conduit/box, 1" conduit for screw or threaded rod mount	25
SSF-CX18-C3/8UC	4	Support bar for conduit/box, MC/AC cable to %" flex from #12 wire through %" rod	25
SSF-CX18-C1/2 3/4UC	4	Support bar for conduit/box, ½" & ¾" conduit from #12 wire through ½" rod	25
SSF-CX18-C1UC	4	Support bar for conduit/box, 1" conduit from #12 wire through 3%" rod	25









1-800-453-1692

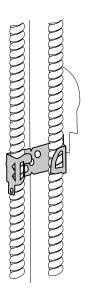


800.816.7809 Fax: 901.252.1354

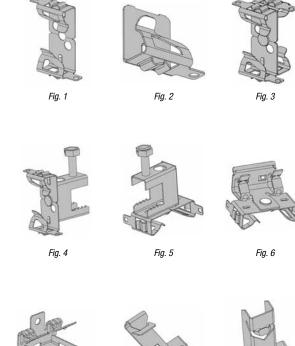
Conduit and Cable Supports

MC/AC Cable — Flexible Conduit

- · Clips available for one-, two- or four-cable runs
- The standard CR2 part can be broken apart to create two single-cable run clips
- · Mounting holes available for mounting flat or perpendicular to stud or flange
- Mounting clips for quick attachment to metal studs
- Sturdy design provides firm support of attached cable



CAT. NO.	FIG. No.	DESCRIPTION	STD. CTN.
SSF-CR2	1	Metal or wood stud and 1/8" flange	100
SSF-CR1	2	Supports 2 runs of MC/AC cable	100
SSF-CR4	3	Supports up to 4 runs of MC/AC cable	25
SSF-CR2-BCH	4	5/16" through 1/2" flange	25
SSF-CR2-BCV	5	5/16" through 1/2" flange	25
SSF-CR2-F1/2	6	1/8" through 1/4" flange	25
SSF-CR2-F1/4	6	1/8" through 1/4" flange	25
SSF-CR2-H1/2	7	1/16" through 1/4" C Purlin or vertical flange	25
SSF-CR2-H1/4	7	1/16" through 1/4" C Purlin or vertical flange	25
SSF-CR2-V1/4	8	1/16" through 1/4" C Purlin or vertical flange	25
SSF-CR2-Z2	9	Z Purlin	25
SSF-CR2-UC	10	Through metal stud	25
SSF-CR1-CV	11	Acoustical tee	25
SSF-CR2-AB	12	Through metal stud	25
SSF-CR1-UC	13	Through metal stud	25
SSF-CR1-F1/2	14	5/16" through ½" flange	25
SSF-CR1-F1/4	14	1/8" through 1/4" flange	25
SSF-CR1-BCH	15	Through 1/2" flange	25



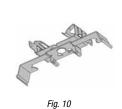


Fig. 7



Fig. 8



Fig. 12

Fig. 9

Fig. 11

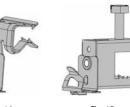


Fig. 13

Fig. 14



Fig. 15

Thomas@Betts



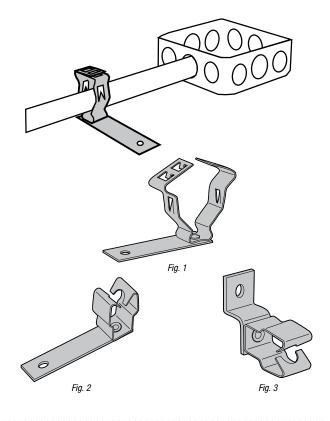


Conduit and Cable Supports

Nailing Bracket

- · Attach conduit to steel, concrete or wood
- FB Series can be used to avoid offset bends when used with 1½" deep boxes
- OB Series can be used to avoid offset bends when used with 21/8" deep boxes

CAT. NO.	FIG. NO.	DESCRIPTION	STD. CTN.
SSF-CC1/2 3/4-FB	1	Nailing bracket riveted to conduit clip, ½" & ¾" conduit	25
SSF-CS1/2-FB	2	Nailing bracket riveted to snap-in conduit clip, $\ensuremath{\%}$ " EMT & Rigid	25
SSF-CS3/4-FB	2	Nailing bracket riveted to snap-in conduit clip, 3/4" EMT & Rigid	25
SSF-CS1/2-OB	3	Offset nailing bracket — 1/2" conduit	25
SSF-CS3/4-0B	3	Offset nailing bracket — ¾" conduit	25
SSF-CS1-OB	3	Offset nailing bracket — 1" conduit	25



Cable Tie Fasteners

- Secures MC/AC cable bundles and Telecom cable bundles
- 11" cable tie included

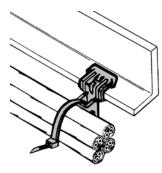
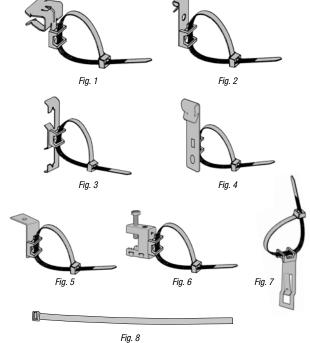


	FIG.		STD.
CAT. NO.	NO.	DESCRIPTION	CTN.
SSF-CT-F1/2	1	5/16" to 1/2" flange	25
SSF-CT-F1/4	1	1/8" to 1/4" flange	25
SSF-CT-V1/4	2	Through 1/4" flange	25
SSF-CT-UC	3	Utility clip	25
SSF-CT-A1/4	4	1/8" to 1/4" vertical flange	25
SSF-CT-AB	5	Angle bracket	25
SSF-CT-BC	6	Through 1/2" flange	25
SSF-CT-CH	7	Acoustical tee	25
L11-120-9-C	8	11" Cable Tie	25





United States Tel: 901.252.8000

800.816.7809 Fax: 901.252.1354





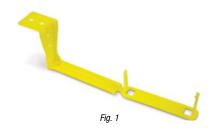




Stud Wall/Drywall Supports, Clips and Brackets

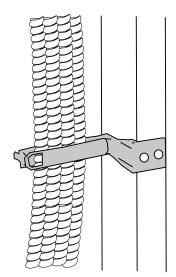
Cable Support

- Supports up to four runs of MC and AC cable and up to six runs of non-metallic sheathed cable
- Installs with nails, staples or sheet metal screws
- Complies with NEC® Section 300.4 for all wood and metal studs
- · Made with high-strength plastic



CAT. NO.	FIG. NO.	DESCRIPTION	STD. CTN.
SSF-SC6	1	Non-metallic sheathed MC/AC cable to stud clip	100

CABLE TYPE	CABLE SIZE	MAX. QTY./ FASTENER
Non-Metallic Sheathed Cable	14-2, 12-2, 10-2, 14-3, 12-3 and 10-3 with ground	6
Non-Metallic	8-2 and 6-2 with ground	4
Metallic Clad (MC) Cable	14-2, 12-2, 10-2, 14-3, 12-3, 10-3, 14-4, 12-4 and 10-4 with ground	4
Armored Cable (AC)	14-4, 12-2, 10-2, 8-2, 14-3, 12-3, 10-3, 14-4, 12-4 and 10-4 with ground	4
Flexible Conduit (BX)	5/16, 3/8	4



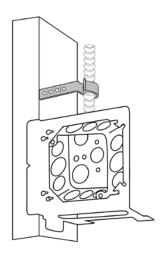
NEC and National Electrical Code are registered trademarks of the National Fire Protection Association, Inc.

Screw-On Conduit Support

- Supports ½" and ¾" EMT conduit and MC/AC cable
- · Works with wood or metal stud
- Preset bend provides alignment with knockouts for 1½" deep boxes or 2½" deep boxes



CAT. NO.	FIG. NO.	DESCRIPTION	STD. CTN.
SSF-SS1/2 3/4	1	½" and ¾" EMT conduit and MC/AC to metal or wood stud, for 1½" deep box	100
SSF-SS1/2 3/4D	1	½" and ¾" EMT conduit, and MC/AC to metal or wood stud. for 2½" deep box	100





United States
Tel: 901.252.8000

800.816.7809 Fax: 901.252.1354





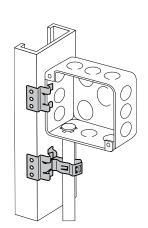


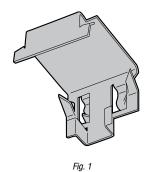


Stud Wall/Drywall Supports, Clips and Brackets

Snap-On Box Clip

- Fits most electrical boxes requiring plaster rings
- · Fits most metal stud sizes
- · Will not move on stud
- Wider part for more secure fastening
- No screws required
- Support leg braces box against stud
- · Installs easily with a hammer





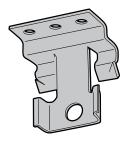
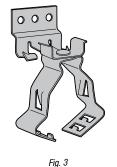


Fig. 2

CAT. NO.	FIG. NO.	DESCRIPTION	STD. CTN.
SSF-SMX	1	Snap-on box support for mounting to stud	100
SSF-SK	2	Screw to stud, box support	100
SSF-SK-C1/2 3/4	3	½"-¾" finger-close conduit clip	25
SSF-SK-C1	3	1" finger-close conduit clip	25
SSF-SK-S1/2	4	½" snap-in conduit clip	25
SSF-SK-S3/4	4	3/4" snap-in conduit clip	25
SSE-SK-S1	4	1" snan-in conduit clin	25



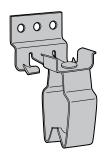
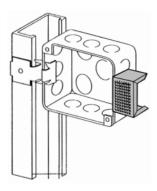


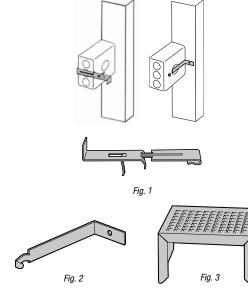
Fig. 4

Far-Side Box Support

- Provides side support for electrical boxes
- Works with most electrical boxes for 2½", 3½" and 4" metal stud depths



CAT. NO.	FIG. NO.	DESCRIPTION	STD. CTN.
SS1-TB	1	Far-side box support	100
50	2	Box brace for 4" square or octagonal box	100
SSF-SX	3	Electrical box support	100





United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354







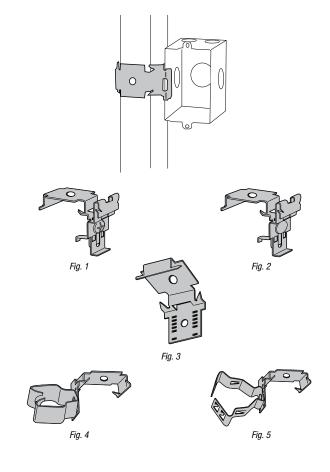


Stud Wall/Drywall Supports, Clips and Brackets

Switch Box or Conduit to Metal Stud

- · Attaches securely to most metal stud sizes
- · Adjustable offset enables the box to protrude through drywall sizes: 1/4", 3/8", 1/2", 5/8" or 3/4"
- Riveted to accommodate your drywall requirements

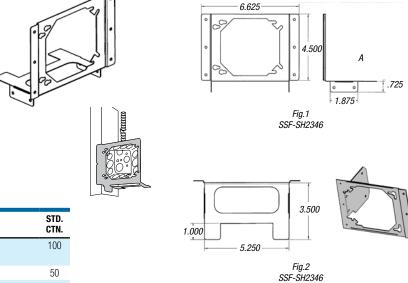
CAT. NO.	FIG. No.	DESCRIPTION	STD. CTN.
SSF-SFA	1	Snap-on box support for mounting to stud, adjustable	25
SSF-SF0	2	Snap-on box support for mounting to stud, riveted for flush-to-stud face	25
SSF-SF1/4	2	Snap-on box support for mounting to stud, riveted for 1/4" drywall	25
SSF-SF3/8	2	Snap-on box support for mounting to stud, riveted for %" drywall	25
SSF-SF1/2	2	Snap-on box support for mounting to stud, riveted for ½" drywall	25
SSF-SF5/8	2	Snap-on box support for mounting to stud, riveted for %" drywall	25
SSF-SF3/4	2	Snap-on box support for mounting to stud, riveted for 3/4" drywall	25
SSF-SFT	3	Snap-on box support for mounting to stud with 1/4"–20 thread impression	25
SSF-SF-S1/2	4	Snap-on stud, push-in conduit clip, ½" conduit	25
SSF-SF-S3/4	4	Snap-on stud, push-in conduit clip, 3/4" conduit	25
SSF-SF-S1	4	Snap-on stud, push-in conduit clip, 1" conduit	25
SSF-SF-C3/8	5	Snap-on stud, conduit support clip, %" conduit or MC/AC cable	25
SSF-SF-C1/2 3/4	5	Snap-on stud, conduit support clip, ½"-¾" conduit	25
SSF-SF-C1	5	Snap-on stud, conduit support clip, 1" conduit	25



Mounting Bracket

- Attaches 4" and 411/16" electrical boxes to metal stud
- Support leg can be attached to stud to eliminate movement of box in wall
- Attaches to metal or wood stud using self-tapping screws and screw gun or nails
- One part mounts boxes for 1½", 2½", 3½", 4" and 6" stud, which means less inventory
- SH4 and SH6 brackets available specifically for 4" and 6" studs, respectively

CAT. NO.	FIG. NO.	DESCRIPTION	STD. CTN.
SSF-SH2346	1	4" & 411/16" outlet boxes to 21/2", 31/2", 4" & 6" metal studs	100
SSF-SH4	2	4" & $4^{11}/_{16}$ " outlet boxes to 4" metal studs	50
SSF-SH6	2	4" & 411/16" outlet boxes to 6" metal studs	50





United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354





Steel City®

Stud Wall/Drywall Supports, Clips and Brackets

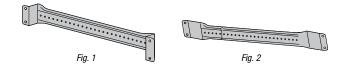
Screw Gun Box Bracket

- Self-tapping screws are aligned with the dimples so that the box is straight
- Enables mounting of multiple boxes
- Preset for metal stud 16" or 24" on center
- Depth set for 1½"- or 2½"-deep electrical box
- Installs easily with a screw gun
- SGP and SGA brackets have adjustable tabs for 11/2" or 21/8" deep boxes
- SGA brackets adjustable for non-standard stud spacing

CAT. NO.	FIG. No.	DESCRIPTION	STUD Spacing (In.)	BOX DEPTH (IN.)	STD. CTN.
SSF-SG1-16	1	Preset box bracket	16	11/2	50
SSF-SG1-24	1	Preset box bracket	24	11/2	50
SSF-SG16A	2	Adjustable box bracket	11–18	1½ or 21/8	50
SSF-SG2-16	1	Preset box bracket	16	21/8	50
SSF-SG2-24	1	Preset box bracket	24	21/8	50
SSF-SG24A	2	Adjustable box bracket	17–26	1½ or 21/8	50



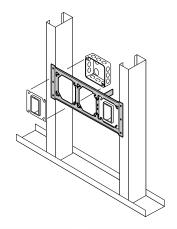




Box Mounting Brackets for Between Studs

- Supports electrical boxes, plaster rings or low-voltage devices from one bracket
- Accommodates 4" or 4¹¹/₁₆" boxes
- Bendable leg serves as a bracket stabilizer
- SB16F and SB24F flat versions enable mounting for any stud spacing, from 4" to 24"
- SB brackets enable box mounting in all four 90° orientations

CAT. NO.	FIG. NO.	DESCRIPTION	STD. CTN.
SSF-SB16	1	Box mounting bracket for between studs, 16" stud spacing	25
SSF-SB24	2	Box mounting bracket for between studs, 24" stud spacing	25
SSF-SB16F	3	Box mounting bracket, flat version, up to 16" stud spacing	25
SSF-SB24F	4	Box mounting bracket, flat version, up to 24" stud spacing	25



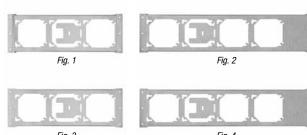


Fig. 3





United States Tel: 901.252.8000

800.816.7809 Fax: 901.252.1354









Stud Wall/Drywall Supports, Clips and Brackets

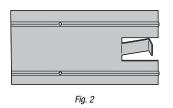
Extension Plate Bracket

- Improved bracket with bendable stabilizer leg for use on 2½" and 3½" metal studs
- Mounts outlet boxes 12" or 18" offset from either a metal stud track or a stud
- When mounted, drywall ring is brought to within 1/8" of drywall every time and will not bulge or break-out drywall
- Mounts 4" or $4^{11}/_{16}$ " outlet boxes, $1\frac{1}{2}$ " or $2\frac{1}{8}$ " deep
- The SSF-S6X extender works with SSF-SV12, SSF-SV18, SSF-SB16 and SSF-SB24 to extend stabilizer leg when using 6" stud
- SSF-SV18 provides compliance with Americans with Disabilities Act (ADA) requirements

CAT. NO.	FIG. NO.	DESCRIPTION	STD. CTN.
SSF-SV12	1	Extension plate bracket, 12" height	50
SSF-SV18	1	Extension plate bracket, 18" height	50
SSF-S6X	2	Extender for 6" metal studs	100

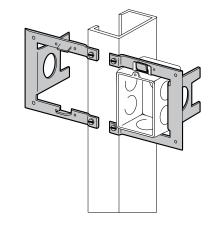


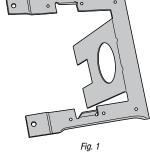




Switch Box Bracket

- Fits 2" x 3" switch boxes with one or two screw plaster ears
- Uses one bracket on 2½" and 3½" metal studs
- Bracket can be piggy-backed on same side of metal stud (singly or any number in series), giving greater flexibility to installer
- Brackets can be mounted on both sides of metal stud for double mounting
- Will not bulge or break out the drywall when mounted





CAT. NO.	FIG. NO.	DESCRIPTION	STD. CTN.
SSF-SHSB	1	Switch box bracket	100







Thomas@Betts

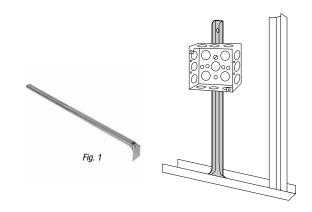
Steel City®

Stud Wall/Drywall Supports, Clips and Brackets

Floor-Mounted Box Supports

- Mounts on metal or wood studding
- · Used as conduit rack or spacer for rigid conduit, IMC or EMT
- Ideal for schools, hospitals, industrial and commercial jobs
- Galvanized steel

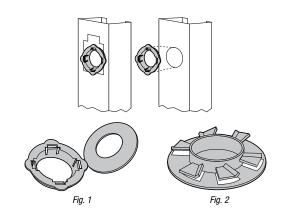
CAT. NO.	FIG. NO.	DESCRIPTION	STD. CTN.
7502	1	Footed box supports, 20" height	25
7503	1	Footed box supports, 30" height	50



Easy-Snap Grommet

- · Fits any size or shape metal stud hole
- Provides complete 360° protection for cable

CAT. NO.	FIG. NO.	DESCRIPTION	STD. CTN.
1300	1	Plastic bushing for metal stud, 1" trade size opening (111/32")	100
1216-EN	2	2" Twisted universal bushing for metal stud, polypropylene material	50

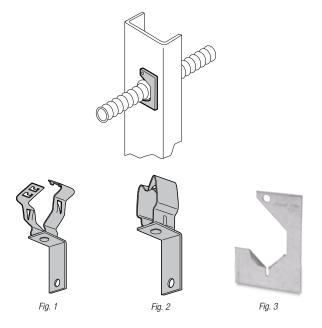


Through-Stud Cable/Conduit Support

- A quick means of support for horizontal runs of conduits or MC/AC through metal stud
- Installs easily with a screw gun
- SSF-SP1 enables ENT conduit and MC/AC cable to be easily pulled through metal stud

CAT. NO.	FIG. No.	DESCRIPTION	STD. CTN.
SSF-SAB-C1/2 3/4	1	½" or ¾" finger-close conduit clip	25
SSF-SAB-C3/8	1	Finger-close conduit clip 14-2 through 12-3 MC/AC cable and %" conduits	25
SSF-SAB-S1/2	2	Snap-in conduit clip — ½" conduit	25
SSF-SAB-S3/4	2	Snap-in conduit clip — ¾" conduit	25
SSF-SP1	3	Supports up to 1" conduit †	100

[†] Requires self-tapping screws to install





United States Tel: 901.252.8000

800.816.7809 Fax: 901.252.1354







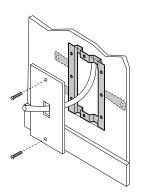


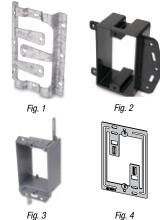
Stud Wall/Drywall Supports, Clips and Brackets

Low-Voltage Mounting Brackets — Screw-On Support

- Eliminates the need for an electrical box when installing low-voltage Class 2 wiring
- · For old work or new work

CAT. NO.	FIG NO.	DESCRIPTION	STD. CTN.
SSF-SLV	1	Old work or new work low-voltage bracket	100
VN1	2	Non-metallic single-gang new work low-voltage bracket	50
VN2	_	Non-metallic two-gang new work low-voltage bracket	50
VW1	3	Non-metallic single-gang old work low-voltage bracket	50
VW2	_	Non-metallic two-gang old work low-voltage bracket	50
WBF-1	4	Low-voltage mounting bracket with screws	100

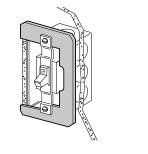




Device Leveler and Retainer

- · Use for oversided drywall openings
- · Prevents broken cover plates
- · Stops device from being pushed back in wall
- · Makes floating device rigid

CAT. NO.	FIG NO.	DESCRIPTION	STD. CTN.
SSF-SR	1	Single-gang device leveler and retainer	100

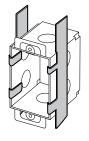


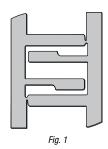


Old Work Box Support

- Quickly attaches box through finished drywall
- For up to 11/2" thick drywall
- New 820D shipped in one piece, break-apart design
- Easy to install

CAT. NO.	FIG NO.	DESCRIPTION	STD. CTN.
820-D	1	Old work switch box steel mounting holder	100 sets



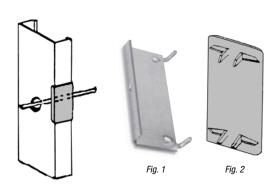


Protector Plates

- Protects cable(s) from damage when installing drywall or paneling
- · No nails or screws required
- Fits all stud sizes
- Both products meet requirements for NEC® Section 300.4
- SSF-ST66 legs are crimped with pliers to stud to provide secure fit

CAT. NO.	FIG NO.	DESCRIPTION	STD. CTN.
SSF-ST66	1	Protector plate for metal stud	100
66EP-SC	2	Protector plate for wood stud	100

NEC and National Electrical Code are registered trademarks of the National Fire Protection Association. Inc.





United States









Steel City®

Acoustical Tee Supports, Clips and Brackets

Snap-On Box Hanger

- Enables positioning of fixture or box anywhere across a 24" span
- Hanger comes complete with THC box mounting clip and ½-20 screw
- Drop wire holes in tee clips and the clip enable support from main structure
- Part includes dual-height feature which enables 1½"-deep electrical box to be mounted flush with tile or offset ¾" for plaster ring
- The series includes bar hanger THC clip and ¼-20 x 38" screw
- The clip is furnished with ¼-30 x ¾" screw

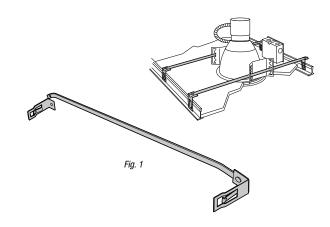
CAT. NO.	FIG. NO.	DESCRIPTION	STD. CTN.
SSF-TH12	1	T-grid box hanger, 12" span	25
SSF-TH20	1	T-grid box hanger, 20" span	25
SSF-TH24	1	T-grid box hanger, 24" span	25
SSF-TH30	1	T-grid box hanger, 30" span	25
SSF-TH24A	2	8" height adjustable, 24" span	25
SSF-THC	3	Snap-on fixture/box hanger mounting clip	100
SSF-MH1/4-3/8	4	1/4-20 x 3/8" bolt combo head	100



Suspension Bars for Lightolier® Calculite® Series Fixtures

- Reduces installation time
- Hanger comes complete with bar riveted to acoustical tee clip, additional acoustical tee clip and ½–20 screw
- Position of fixture adjustable with span
- Solid bar for sturdier installation
- · Installs easily with a screwdriver

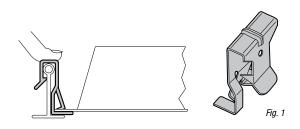
CAT. NO.	FIG. No.	DESCRIPTION	STD. CTN.
SSF-TL24	1	Suspension bars for Lightolier Calculite	10
Lightolier and Calculity	e are re	gistered trademarks of Genlyte Thomas Group, LLC.	



Light Fixture Support Clips

- Enlarged tab enables easy positioning of the clip over the tee bar
- · Fits round- or rectangular-head tee bar
- Gives a positive method of supporting troffers and lay-ins
- · No installation tools required

CAT. NO.	FIG. NO.	DESCRIPTION	STD. CTN.
SSF-TFC	1	Light fixture support clip	100





United States







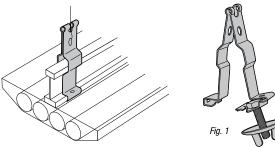


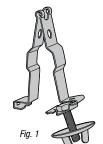
Acoustical Tee Supports, Clips and Brackets

Independent Support Clips

- · Easy to assemble, one-piece construction
- · Provides independent support for fixtures
- Washer wing nut included
- Static load limit 65 lbs.
- No installation tools required

CAT. NO.	FIG. NO.	DESCRIPTION	STATIC LOAD LIMIT (LBS.)	STD. CTN.
SSF-TS5/8	1	Grid size 15/16", stud length 5/8"	65	100
SSF-TS2	1	Grid size 15/16", stud length 2"	65	100
SSF-TS1 1/2	1	Grid size 15/16", stud length 11/2"	65	100

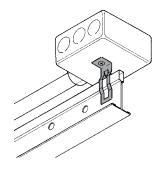




Electrical Component Supports

- · Provides supporting conduit and outlet boxes above acoustical tee bar
- TCH and TCV Series provide both horizontal and vertical support
- Available with 1/4-20 thread impression or plain hole
- · No installation tools required

	_		
CAT. NO.	FIG NO.	DESCRIPTION	STD. CTN.
SSF-TCH	1	Top-mount T-bar fastener with plain hole	100
SSF-TCHT	1	Top-mount T-bar fastener with ½-20 thread impression	100
SSF-TCH-S1/2	2	Acoustical clip with top-mounted snap-in conduit clip for ½" conduit	25
SSF-TCH-S3/4	2	Acoustical clip with top-mounted snap-in conduit clip for ¾" conduit	25
SSF-TCH-S1	2	Acoustical clip with top-mounted snap-in conduit clip for 1" conduit	25
SSF-TCH-C1/2 3/4	3	Acoustical clip with top-mounted conduit clip for $\frac{1}{2}$ "- $\frac{3}{4}$ " conduit	25
SSF-TCV	4	Side-mount T-Bar fastener with plain hole	100
SSF-TCVT	4	Side-mount T-Bar fastener with 1/4–20 thread impression	100
SSF-TCV-S1/2	5	Acoustical clip with side-mounted conduit clip for ½" conduit	25
SSF-TCV-S3/4	5	Acoustical clip with side-mounted conduit clip for $\ensuremath{\mbox{\%}}\xspace^{\prime\prime}$ conduit	25
SSF-TCV-S1	5	Acoustical clip with side-mounted conduit clip for 1" conduit	25
SSF-TCV-C1/2 3/4	6	Acoustical clip with side-mounted conduit clip for $1\!/2"-3\!/\!4"$ conduit	25



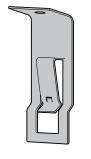






Fig. 1





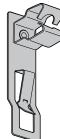


Fig. 4

Fig. 5

Fig. 6

1-800-453-1692

Thomas@Betts







Steel City®

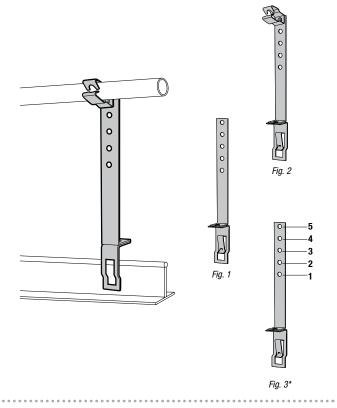
Acoustical Tee Supports, Clips and Brackets

Adjustable Box and Conduit Bracket

- Supports boxes and conduit above acoustical tee with height adjustments from 4¼" through 7¼"
- Attaches to conduit clips with thread impressions at required height
- Assemblies available for preset conduit locations
- TA7-S assemblies are furnished with the TA7 bracket, the conduit clip with thread impressions and ¼-20 cap screw

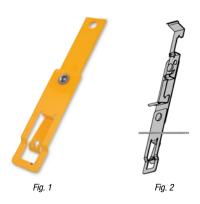
CAT. NO.	FIG. NO.	DESCRIPTION	STD. CTN.
SSF-TA7	1	Adjustable box and conduit support for T-grid	50
SSF-TA7-S1/2	2	For T-grid, with ½" snap-in conduit clip	25
SSF-TA7-S3/4	2	For T-grid, with 3/4" snap-in conduit clip	25
SSF-TA7-S1	2	For T-grid, with 1" snap-in conduit clip	25



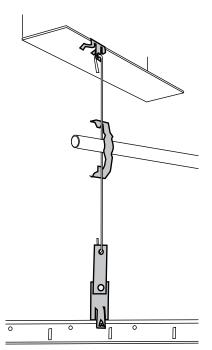


Drop Rod Stabilizer

- Provides attachment for dedicated electrical drop wire
- Yellow painted finish for easy identification
- Compliant with NEC® Section 300.4(A) for supporting end of dedicated drop wire



CAT. NO.	FIG. No.	DESCRIPTION	STD. CTN.
SSF-TCVYL	1	Drop wire stabilizer, #12 through #8 drop wire	25
SSF-TCVYL-FBUC	2	Drop wire stabilizer, #8 drop wire through 3/8" rod	25



NEC and National Electrical Code are registered trademarks of the National Fire Protection Association, Inc.



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 Technical Services
Tel: 888.862.3289





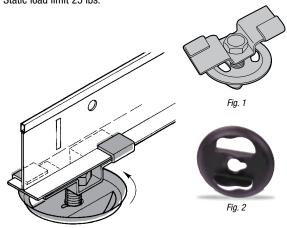


Acoustical Tee Supports, Clips and Brackets

Acoustical Tee Twist-On Clip for Fixture Support

- · Will not damage acoustical tee
- All T-clips with ¼-20 studs are furnished with a TWN-1/4" wing nut
- All T-clips with #8–32 studs are furnished with a #8–32 pal nut
- · Available in black or white painted finish

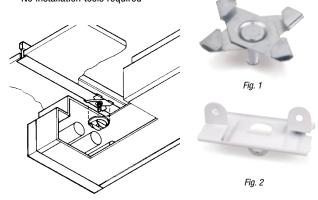
· Static load limit 25 lbs.



CAT. NO.	FIG. No.	DESCRIPTION	STATIC LOAD Limit (LBS.)	STD. CTN.
SSF-T9T5/8	1	1/4-20 x 5/8" stud, 9/16" tee	50	25
SSF-T9T5/8WH	1	$1\!/\!_{\!\!4}\!\!-\!20$ x $5\!/\!_{\!\!8}"$ stud, $9\!/\!_{\!\!16}"$ tee, white	50	25
SSF-T9T8-5/8	1	#8-32 x 5%" stud, 9/16" tee	50	25
SSF-T9T8-5/8WH	1	#8-32 x $\%$ " stud, $\%$ 6" tee, white	50	25
SSF-T9T8-7/16	1	#8-32 x 1/16" stud, 9/16" tee	50	25
SSF-TWN1/4	2	Impression washer wing nut, 1/4–20 thread	50	100

Acoustical Tee Twist-On Fixture Support

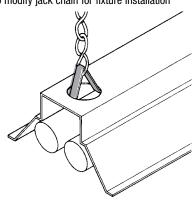
- Supports electrical fixtures from acoustical tee bar 15/16" wide
- 1/4"-20 stud 5/8", 11/2", 2" or 3" long
- All T-Clips with ¼"-20 studs furnished with TWN-¼" wing nut
- All T-Clips with #8-32 studs furnished with #8-32 pal nut
- · No installation tools required

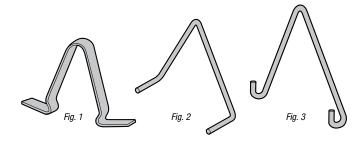


CAT. NO.	FIG. NO.	DESCRIPTION	STATIC LOAD LIMIT (LBS.)	
SSF-T15T5/8	1	1/4-20 x 5/8" stud, 15/16" tee	50	25
SSF-T15T5/8WH	1	$^{1}\!/_{\!\!4}\!\!-\!\!20$ x $^{5}\!/_{\!\!8}"$ stud, $^{15}\!/_{16}"$ tee, white finish	20	25
SSF-T15T1 1/2	1	½-20 x 1½" stud, ½16" tee	50	25
SSF-T15T1 1/2WH	1	$^{1}\!/_{\!\!4}\!\!-\!20$ x $11\!/_{\!\!2}"$ stud, $^{15}\!\!/_{\!16}"$ tee, white finish	20	25
SSF-T15T2	1	½-20 x 2" stud, ½16" tee	50	25
SSF-T15T3	1	1/4-20 x 3" stud, 15/16" tee	50	25
SSF-T15T8-5/8	1	#8-32 x 1/8" stud, 15/16" tee	50	25
SSF-T15T8-5/8WH	1	#8–32 x 3" stud, $^{15}\!\!/_{16}$ " tee, white finish	20	25
SSF-T15T8-7/16	1	#8-32 x 7/16" stud, 15/16" tee	50	25
SSF-T15T8-7/16WH	1	#8–32 x $^{7}\!\!/_{16}"$ stud, $^{15}\!\!/_{16}"$ tee, white finish	20	25
SSF-T15TSH	2	Acoustical tile sign-hanger attachment, white finish	20	25

Light Fixture Hanger

- Supports fluorescent light fixtures from S-hooks and jack chain (see page B-257)
- · Supports 50 lbs. ultimate static load limit
- No need to modify jack chain for fixture installation





CAT. NO.	FIG. No.	DESCRIPTION	STATIC LOAD LIMIT (LBS.)	STD. CTN.
SSF-TV	1	Fluorescent light fixture hanger	50	100
C18930	2	Fluorescent light fixture hanger	115	100
C18932	3	Fluorescent light fixture hanger	115	100



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354





1-800-453-1692



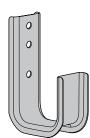
CAT. NO.

Steel City®

Low-Voltage/Datacom Hooks, Hangers and Brackets

Cable Support Hooks

- Extra-wide base provides cable support on a flat surface, eliminating kinking, bending and crimping
- · Accommodates Category 5 fiber optic cable and innerduct
- Available in 15/16" and 2" diameter size cable support hook
- · Complies with UL, CSA, NEC® and EIA/TIA requirements for structured cabling systems
- Supports 50 lbs. per hook static load limit
- VJ series cable support hook can be snapped together with VB-10 hanger bracket without hardware or tools



STATIC



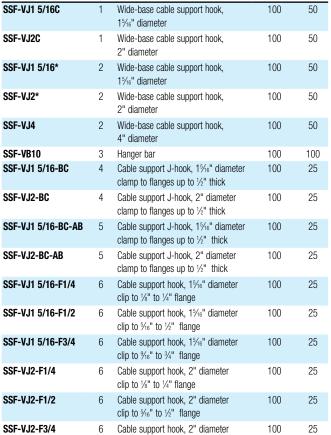




Fig. 1

Fig. 2

	FIG. No.	DESCRIPTION	LOAD LIMIT (LBS.)	STD. CTN.
5/16C	1	Wide-base cable support hook, 15/16" diameter	100	50
C	1	Wide-base cable support hook, 2" diameter	100	50
5/16*	2	Wide-base cable support hook, 15/16" diameter	100	50
*	2	Wide-base cable support hook, 2" diameter	100	50
	2	Wide-base cable support hook, 4" diameter	100	50
0	3	Hanger bar	100	100



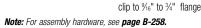




Fig. 3

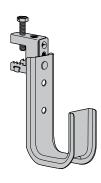


Fig. 4

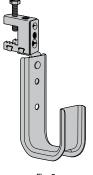


Fig. 5

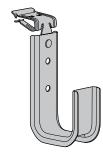


Fig. 6

Thomas@Betts

United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354

Technical Services Tel: 888.862.3289



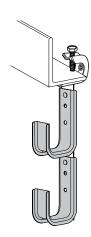


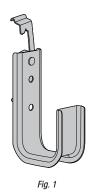


Low-Voltage/Datacom Hooks, Hangers and Brackets

Cable Support Hooks

- · Extra-wide base provides cable support on a flat surface, eliminating kinking, bending and crimping
- · Accommodates Category 5 fiber optic cable and innerduct
- Available in 15/16" and 2" diameter size cable support clips
- Complies with UL, CSA, NEC® and EIA/TIA requirements for structured cabling systems
- Supports 100 lbs. per hook static load limit
- VJ series cable support clips can be snapped together with VB-10 hanger bracket without hardware or tools





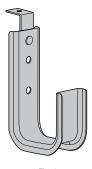
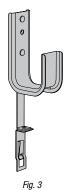




Fig. 2



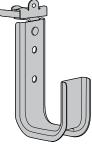
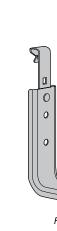
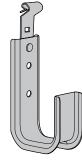


Fig. 4





NEC and National Electrical Code are registered trademarks of the National Fire Protection Association. Inc.

FIG. No.	DESCRIPTION	STATIC LOAD LIMIT (LBS.)	STD. CTN.
1	Cable support hook, $15/6$ " diameter clip to #12 drop wire through $3/6$ " rod	100	25
1	Cable support hook, 2" diameter clip to #12 drop wire through %" rod	100	25
2	Cable support hook, 15/16" diameter clip rotates 360°	100	25
2	Cable support hook, 2" diameter clip rotates 360°	100	25
3	Cable support hook, $15/16$ " diameter clip to acoustical tee	100	25
3	Cable support hook, 3" diameter clip to acoustical tee	100	25
4	Cable support hook, $15\!\!/\!_{16}"$ diameter clip to $1\!\!/\!_{8}"$ to $1\!\!/\!_{4}"$ flange, rotates 360°	100	25
4	Cable support hook, $15\%16$ " diameter clip to $5\%16$ " to $1\%2$ " flange, rotates 360°	100	25
4	Cable support hook, $15\%16$ " diameter clip to $\%16$ " to $3\%1$ " flange, rotates 360°	100	25
4	Cable support hook, 2" diameter clip to $1\!/\!\!\!/8$ " to $1\!/\!\!\!/4$ " flange, rotates 360°	100	25
4	Cable support hook, 2" diameter clip to $5\!\!/\!_{16}$ " to $1\!\!/\!_{2}$ " flange, rotates 360°	100	25
4	Cable support hook, 2" diameter clip to $\% {\rm 16}"$ to $3 {\rm 4}"$ flange, rotates 360°	100	25
5	Cable support hook, $1\%6$ " diameter clip to $3\%2$ " to $\%2$ " vertical flange	100	25
5	Cable support hook, 2" diameter clip to 3/32" to 9/32" vertical flange	100	25
6	Cable support hook, $15/16$ " diameter clip to $1/6$ " to $1/4$ " Z Purlin	100	25
6	Cable support hook, 2" diameter clip to 1/6" to 1/4" Z Purlin	100	25
	NO. 1 1 2 2 3 3 4 4 4 4 4 5 5 6	No. DESCRIPTION 1 Cable support hook, 11½ "diameter clip to #12 drop wire through ½" rod 1 Cable support hook, 2" diameter clip to #12 drop wire through ⅓" rod 2 Cable support hook, 11½ "diameter clip rotates 360° 2 Cable support hook, 2" diameter clip rotates 360° 3 Cable support hook, 11½ "diameter clip to acoustical tee 4 Cable support hook, 11½ "diameter clip to ½" to ½" flange, rotates 360° 4 Cable support hook, 11½ "diameter clip to ½" to ½" flange, rotates 360° 4 Cable support hook, 11½ "diameter clip to ½" to ½" flange, rotates 360° 4 Cable support hook, 2" diameter clip to ½ "flange, rotates 360° 4 Cable support hook, 2" diameter clip to ½ "flange, rotates 360° 4 Cable support hook, 2" diameter clip to ½ "flange, rotates 360° 4 Cable support hook, 2" diameter clip to ½ "flange, rotates 360° 5 Cable support hook, 2" diameter clip to ¾ "flange, rotates 360° 5 Cable support hook, 2" diameter clip to ¾ "support hook, 2" diameter clip to ¾ "support hook, 2" diameter clip to ⅓	No. DESCRIPTION LIMIT (LBS.) 1 Cable support hook, 1%e" diameter clip to #12 drop wire through %" rod 100 2 Cable support hook, 2" diameter clip rotates 360° 100 2 Cable support hook, 1%e" diameter clip rotates 360° 100 3 Cable support hook, 2" diameter clip to acoustical tee 100 4 Cable support hook, 3" diameter clip to 3%e" to ½" flange, rotates 360° 100 4 Cable support hook, 1%e" diameter clip to 5%e" to ½" flange, rotates 360° 100 4 Cable support hook, 1%e" diameter clip to 5%e" to ½" flange, rotates 360° 100 4 Cable support hook, 2" diameter clip to 5%e" to ½" flange, rotates 360° 100 4 Cable support hook, 2" diameter clip to 5%e" to ½" flange, rotates 360° 100 4 Cable support hook, 2" diameter clip to 5%e" to ½" flange, rotates 360° 100 4 Cable support hook, 2" diameter clip to 5%e" to ½" flange, rotates 360° 100 4 Cable support hook, 2" diameter clip to 5%e" to ½" flange, rotates 360° 100 5 Cable support hook, 2" diameter clip to 5%e" to 34" flange, rotates 360° 100 5 Cable support hook, 2" diameter clip to 3½e" to 3½e" vertical flange 100

Note: For assembly hardware, see page B-258.

www.tnb.com

United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354

Technical Services Tel: 888.862.3289



www.aboveboardelectronics.com

1-800-453-1692



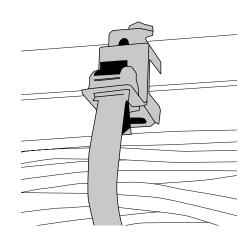


Steel City®

Low-Voltage/Datacom Hooks, Hangers and Brackets

Deltec® Tie Cable Support Fasteners

- · Ideal for attachment of high-performance cable such as fiber optic and CAT5 cables because of the wide strap used for support of the cable bundle
- Preassembled part combinations enable quick installation to vertical and horizontal flanges, Purlin, drop wire, threaded rod and acoustical tee bar
- Can be used for single or multiple bundles
- Fully adjustable around bundle, fully encompasses cabling
- · Wide, firm bearing surface to support wire

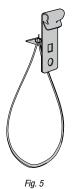
















CAT. NO.	FIG. No.	DESCRIPTION	STD. CTN.
SSF-VT13-F1/4	1	13" strap with ¼" flange clip attachment	25
SSF-VT13-F1/2	1	13" strap with 1/2" flange clip attachment	25
SSF-VT13-BC	2	13" strap with beam clamp attachment	25
SSF-VT13-UC	3	13" strap with utility clip attachment	25
SSF-VT13-AB	4	13" strap with angle bracket attachment	25
SSF-VT13-V1/4	5	13" strap with vertical flange clip attachment	25
SSF-VT13-A1/4	6	13" strap with Z Purlin clip attachment	25
SSF-VT13-A7	7	13" strap with TA7 acoustical tee bar mounting attachment	25
SSF-VT27-F1/4	1	27" strap with 1/4" flange clip attachment	25
SSF-VT27-F1/2	1	27" strap with 1/2" flange clip attachment	25
SSF-VT27-BC	2	27" strap with beam clamp attachment	25
SSF-VT27-UC	3	27" strap with utility clip attachment	25
SSF-VT27-AB	4	27" strap with angle bracket attachment	25
SSF-VT27-V1/4	5	27" strap with vertical flange clip attachment	25
SSF-VT27-A1/4	6	27" strap with Z Purlin clip attachment	25
SSF-VT27-A7	7	27" strap with TA7 acoustical tee bar mounting attachment	25
CSS-H	_	Strap mounting bracket	25
CSS-135	_	Additional 131/2" strap ties	25
000 070		Additional OZII atron tion	OΓ



Low-Voltage/Datacom Hooks, Hangers and Brackets

Loop Tie Cable Support Fasteners

- Attachment of all types of MC/AC cable and highperformance cable such as fiber optic and CAT5 cables
- Preassembled part combinations enable quick installation to vertical and horizontal flanges, purlin, drop wire, threaded rod and acoustical tee bar
- The hook-and-loop type strap makes mounting and adjustment quick and easy
- Perfect product for applications where easy access to the cable bundle after installation is required



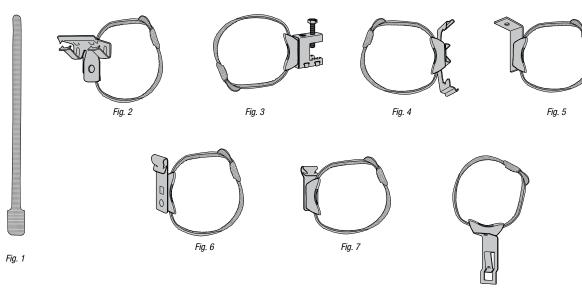


	FIG.		STD.
CAT. NO.	NO.	DESCRIPTION	CTN.
F0350-40	1	Additional 13" Loop Tie straps	25
F0220-40	1	Additional 9" Loop Tie straps	25
SSF-VL13-F1/4	2	13" Loop Tie with 1/4" flange clip attachment	25
SSF-VL13-F1/2	2	13" Loop Tie with 1/2" flange clip attachment	25
SSF-VL13-BC	3	13" Loop Tie with beam clamp attachment	25
SSF-VL13-UC	4	13" Loop Tie with utility clip attachment	25
SSF-VL13-AB	5	13" Loop Tie with angle bracket attachment	25
SSF-VL13-V1/4	6	13" Loop Tie with vertical flange clip attachment	25
SSF-VL13-A1/4	7	13" Loop Tie with Z Purlin clip attachment	25
SSF-VL13-CH	8	13" Loop Tie with TCH acoustical tee bar mounting attachment	25



Steel City®

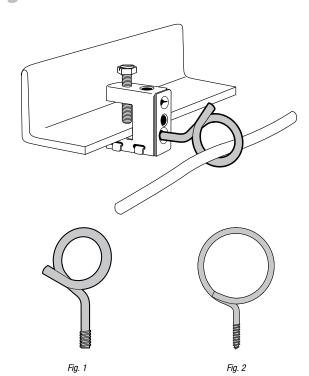
Low-Voltage/Datacom Hooks, Hangers and Brackets

Threaded Bridle Rings

- Bridle rings can be combined with these other Steel City[®] Spring Steel Fastener products: BBC Beam Clamp, BH Series Flange Clips and TC Series Acoustical Tee
- · Bright zinc electro-plated finish

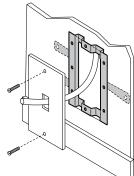
		EYE			MAX.	
CAT. NO.	FIG. No.	DIA. (IN.)	THREAD	DESCRIPTION	LOAD (LBS.)	STD. CTN.
SSF-VR3/4A	1	3/4	#10-24	Machine Screw Bridle Ring	50	100
SSF-VR1 1/4A	1	11/4	#10-24	Machine Screw Bridle Ring	50	100
SSF-VR1 3/4A	1	1¾	#10-24	Machine Screw Bridle Ring	50	100
SSF-VR1 1/4B	1	11/4	1/4-20	Machine Screw Bridle Ring	50	100
SSF-VR1 5/8B	1	1%	1/4-20	Machine Screw Bridle Ring	50	100
SSF-VR 2B	1	2	1/4-20	Machine Screw Bridle Ring	50	100
SSF-VR 4B	1	4	1/4-20	Machine Screw Bridle Ring	50	100
SSF-VR1 5/8D	2	1%	#14	Wood Screw Bridle Ring	75	100
SSF-VR1 1/4D	2	11/4	#14	Wood Screw Bridle Ring	75	100
SSF-VR3E	2	3	#18	Wood Screw Bridle Ring	75	100
SSF-VR7/8C	2	7/8	#10	Wood Screw Bridle Ring	50	100

^{*}These sizes have longer nails for greater load carrying capacity.



Low-Voltage Mounting Brackets — Screw-On Support

- Eliminates the need for an electrical box when installing low-voltage Class 2 wiring
- For old work or new work



CAT. NO.	FIG. No.	DESCRIPTION	STD. CTN.
SSF-SLV	1	Old work or new work low-voltage bracket	100
VN1	2	Non-metallic single-gang new work low-voltage bracket	50
VN2	_	Non-metallic two-gang new work low-voltage bracket	50
VW1	3	Non-metallic single-gang old work low-voltage bracket	50
VW2	_	Non-metallic two-gang old work low-voltage bracket	50
WBF-1	4	Low-voltage mounting bracket with screws	100



Fig. 1



Fia. 3



Fig. 2



Fig. 4



United States
Tel: 901.252.8000
800.816.7809
Fax: 901.252.1354

Technical Services Tel: 888.862.3289







Fastener Accessories and Hardware

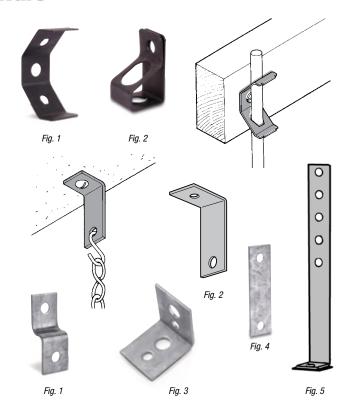
Miscellaneous Hangers

• Rod hanger available for 1 % and % threaded rod with or without thread impression

CAT. NO.	FIG.	DESCRIPTION	STATIC LOAD LIMIT (LBS.)	STD. CTN.
SSF-HB8	1	Rod & wire hanger, #8 wire	160	100
SSF-HB1/4	1	Rod & wire hanger, 1/4" plain rod	160	100
SSF-HB3/8	1	Rod & wire hanger, %" plain rod	160	100
SSF-HA1/4T	2	Rod & wire hanger with thread impression, ½" threaded rod	160	100
SSF-HA3/8	2	Rod & wire hanger, 1/4"-3%" threaded rod, nuts required	160	100
SSF-HA3/8T	2	Rod & wire hanger with thread impression, 3/8" threaded rod	160	100

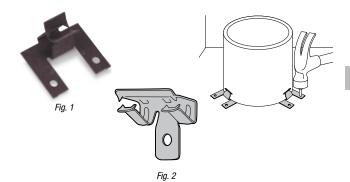
- Rod hanger available for $\frac{1}{4}$ " and $\frac{3}{6}$ " threaded rod with or without thread impression
- Various steel brackets with 1½" holes and galvanized finish

CAT. NO.	FIG. NO.	DESCRIPTION	STATIC LOAD LIMIT (LBS.)	STD. CTN.
SSF-HOB	1	Offset bracket with 1/4" hole	160	100
SSF-HAB	2	Angle bracket with 1/4" hole	160	100
SSF-HSAB	3	Short angle bracket with 1/4" hole	160	100
SSF-HFB	4	Flat bracket with 1/4" hole	160	100
SSF-TA7	5	For T-grid, with 1" snap-in conduit clip	_	100



Pipe Sleeve Positioner

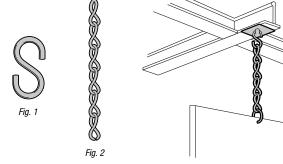
CAT. NO.	FIG. NO.	SLEEVE DIA. (IN.)	DESCRIPTION / WALL THICKNESS	STD. CTN.
SSF-MPS	1	All dia.	Pipe sleeve positioner, 5/16" and under	100
SSF-MPS	1	2-6	Pipe sleeve positioner, Schedule 40 pipe	100
SSF-BF1/2	2	6	Pipe sleeve positioner, Schedule 80 pipe	100
SSF-BF1/2	2	8-10	Pipe sleeve positioner, Schedule 40 pipe	100
SSF-BF3/4	2	9–14	Pipe sleeve positioner, Schedule 80 pipe	100



S-Hook and Jack Chain

- Order S-hooks and jack chain with your Spring Steel orders to save on freight, energy and purchase orders
- S-hook supports 29 lbs. static load limit

CAT. NO.	FIG. No.	DESCRIPTION	STATIC LOAD Limit (LBS.)	STD. CTN.
CI8905	1	S-hook	29	100
CI8912	2	Jack chain	_	50





United States









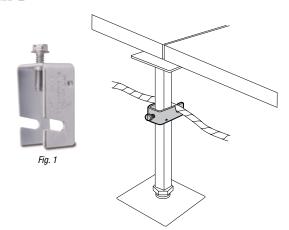
Steel City®

Fastener Accessories and Hardware

Signal Reference Grid Wire Clamp

- · Supports signal reference grid wires below computer-room floors
- One fastener supports wire sizes #8 stranded (.146") to #4 stranded (.232")
- Fits post sizes 3/4" to 1" round or square
- Slots in fastener grip wire provides positive contact with post
- Clamps grid wire directly to post, enabling a low-resistance connection across bare metal contacts
- · Installs easily with a screw driver or nut driver

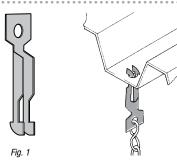
CAT. NO.	FIG. NO.	DESCRIPTION	STD. CTN.
3900	1	Signal reference grid wire clamp	100



Deck Hanger

- · Easy method to hang items below decking
- Requires pre-drilled hole, ½" diameter
- Works for material thicknesses up to 1/8"

CAT. NO.	FIG. NO.	DESCRIPTION	STD. CTN.
SSF-MNH	1	Deck Hanger Clip	100



Hardware Components







R-Series Continuous Thread Rod — Galvanized

	DATA FOR PRESSURE PIPING						
CAT. NO.	ROD SIZE	ULTIMATE ‡ Load in LBS.	ROOT Area Thread	NOMINAL PIPE SIZE	MAX. SAFE Load at 450°	STD. CTN.	
R628-6 FT.	1/4-20	900	.027			300	
R638-6 FT.	%−16	1,900	.068	3/4"-2"	610	150	
R648-6 FT.	1/2-13	3,500	.126	21/2"-31/2"	1,130	60	
R1028-10 FT.	1/4-20	900	.027	_	_	500	
R1038-10 FT.	%−16	1,900	.068	3/4"-2"	610	250	
R1048-10 FT.	1/2-13	3,500	.126	21/2"-31/2"	1,130	100	

[‡] Load Ratings based on safely factor of three.





United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 Tel: 888.862.3289

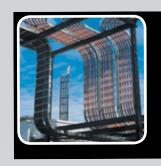








In this section...



T&B® Cable Tray

Overview	B-260–B-261
Aluminum Tray	B-262–B-309
Steel Tray	B-310–B-333
One-Piece Tray	B-334–B-357
Channel Tray	B-358–B-373
Common Accessories	B-374–B-376
Grounding and Bonding	B-377–B-379
Options	B-380–B-385
Non-Metallic Tray	B-386–B-423
Technical Information	





Overview

Benefits of Cable Tray

Cable tray wiring systems offer significant advantages over conduit pipe and other wiring systems. Cable tray is less expensive, more reliable, more adaptable to changing needs and easier to maintain. In addition, its design does not contribute to potential safety problems associated with other wiring

An evaluation of the costs and benefits of various wiring systems should be done in the design phase. Unfortunately, many engineers who are unfamiliar with wiring systems avoid the system selection process or defer it until construction — often resulting in higher costs, scheduling delays and a system that will not meet future needs

Selection of a wiring system that is not the most suitable for a particular application in terms of cost, potential corrosion and electrical considerations can lead to numerous problems, including excessive initial cost, poor design, faulty installation, extra maintenance, future power outages and unnecessary safety concerns.

Cost

Extensive experience has shown that the initial cost of a cable tray installation (including conductor, material and installation labor costs) may be as much as 60% less than a comparable conduit wiring system.

Cable tray systems, including trays, supports, fittings and other materials, are generally much less expensive than conduit wiring systems. In addition, major cost savings are generated by the relative ease of installation. Labor costs of installing a cable tray system can run up to 50 percent less. Total cost savings will vary with the complexity and size of the installation.

Direct cost savings are easy to calculate during the design phase of an installation, but the enormous advantages of cable tray may accrue only over time. The system's reliability, adaptability, ease of maintenance and inherent safety features result in many other types of cost savings,

- · Lower engineering and maintenance costs
- Less need to reconfigure system as needs change
- Less down time for electrical and data handling systems
- Fewer environmental problems resulting from loss of power to essential equipment

Reliability

Cable tray systems offer unsurpassed reliability, resulting in less need for maintenance and less down time — important considerations for all installations but especially for such industries as data communications and financial services.

In addition, since cable tray is not a closed system, moisture build up problems are eliminated and damage to cable insulation during installation is also greatly reduced.

Adaptabilty

A major advantage of cable tray systems derives from their adaptability to new needs and technology. The pace of change in the economy, constantly shifting competitive pressures and rapid introduction of innovative technologies are all accelerating. More than ever before, businesses must be prepared to quickly expand facilities, change products or introduce new processes. The flexibility of the wiring system is a key consideration.

Modifying a cable tray system or adding cables to meet new needs is relatively easy because cables can enter or exit a tray at any point. And initial design considerations can build-in extra capacity as part of the planning process. Cable tray's inherent adaptability allows rewiring for future expansion, building redesign or new technologies without disruption or need to replace the entire wiring system.



Maintenance

Cable tray wiring systems require less maintenance than conduit systems. When maintenance is necessary, it is easier, less time-consuming and less lahor intensive

The physical condition and status of both the cable tray and the tray cables can be inspected visually, something that is not possible with conduit systems. In addition, it is also easy to see if there is sufficient capacity in the trays for additional cables. As was noted above, changing or adding cables can also be accomplished without difficulty.

Another comparative benefit of cable tray systems is that they do not act as channels of moisture paths, as conduit wiring systems do. Conduit systems tend to collect condensation and channel the moisture to electrical equipment, where it can lead to corrosion and failure.

Cable tray and tray cable are also less susceptible to fire loss than conduit. An external fire usually results in damage to only a few feet of a cable tray system, while wire insulation inside a conduit suffers significant damage and thermoplastic insulation may actually fuse to the conduit.

Safety

Cable tray wiring systems lack the inherent safety concerns of conduit systems. By its nature, a conduit wiring system can serve as a flow-through for corrosive, explosive and toxic gases.

The conduit installation process can also present a safety issue for electricians. The cable tray installation process precludes those safety concerns by providing a means to pull tray cables from near one termination enclosure to the next before they are inserted into the enclosure and then terminated, unlike conduit installation where the electrician may be inadvertently exposed to live, energized equipment that may already be in the enclosure.

Finally, in installations where cable tray can be used as the equipment grounding conductor (per the National Electrical Code® standards), it is easy to visually check the system components as well as conduct checks for electrical continuity.

NEC and National Electrical Code are registered trademarks of the National Fire Protection Association, Inc.



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354

Technical Services

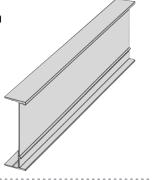


Overview

Thomas & Betts Cable Tray Unique Design Points — Features and Benefits

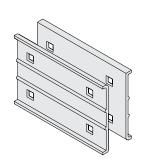
I-Beam Siderail

- Maximum structural strength
- Aluminum



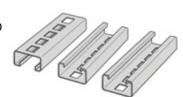
Snap-in Splice Plates

- Snap-in aluminum splice plates for easy installation
- Aluminum



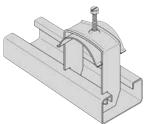
Alternating Rungs

- · Alternating rungs for top and bottom accessory installation and cable lashing
- Aluminum and steel



Continuous Open Slot

- · Rungs have continuous open slot to accept standard strut pipe clamps and provide complete barrier strip adjustability
- Aluminum and steel



Ty-Rap® Cable Tie Slots

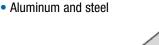
- Exclusive Ty-Rap® cable tie slots on 1" centers on all ladder and ventilated bottoms
- Aluminum and steel

Added Support

- Aluminum and steel solid bottoms are constructed with a flat sheet for added cable protecton
- Aluminum and steel

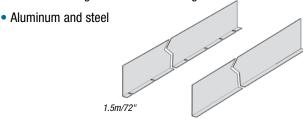
Extra-Wide Rung Design

 Extra-wide rung design for maximum cable-bearing surface



Adjustable Barrier Strips

 Barrier strips are fully adjustable (side to side) for use in straight sections and fittings





800.816.7809 Fax: 901.252.1354



Aluminum Tray

4" Straight Sections, Series 0-4, 1-4, 2-4 — Ladder, Ventilated and Solid Trough

H 0 - 4 - 24 L09 - 144 Material **Style Series** Side Rail Height Width **Bottom Type** Length $\mathbf{A} = Aluminum$ H = H-Beam **0** = Series 0* **06** = 6" **L06** = 6" Rung Spacing **144** = 12 ft. **09** = 9" **1** = Series 1³ **L09** = 9" Rung Spacing **288** = 24 ft. L12 = 12" Rung Spacing 2 = Series 2**12** = 12" 3 = 3mV = Ventilated** **18** = 18" 6 = 6m**24** = 24" S = Solid Trough **30** = 30" **36** = 36"

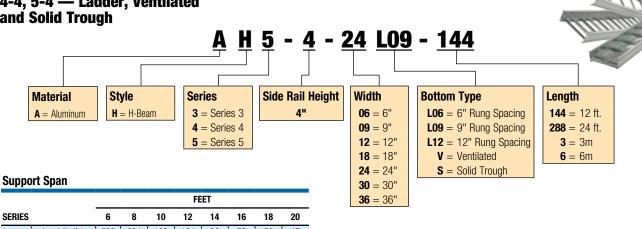
Support Span

					FE	ET			
SERIES		6	8	10	12	14	16	18	20
	Load (lb./ft.)	152	86	55	38	_	_	_	_
AH0-4	Deflection (in.)	.265	.472	.737	1.062	—	_	_	_
	Deflection Factor	.002	.006	.013	.028	_	_	_	_
	Load (lb./ft.)	239	134	86	60	<u> </u>	_	_	$\overline{}$
AH1-4	Deflection (in.)	.318	.565	.884	1.272	—	_	_	—
	Deflection Factor	.001	.004	.010	.021	_	_	_	
	Load (lb./ft.)	358	202	129	90	66	51	40	32
AH2-4	Deflection (in.)	.416	.740	1.156	1.673	2.277	2.974	3.764	4.590
	Deflection Factor	.001	.004	.009	.019	.034	.059	.094	.143

.....Specifications.....

- NEMA Rating AHO-4: 8B; AH1-4: 12A, 8C; AH2-4: 12B
- CSA AH1-4: C; AH2-4: D/3m
- UL Cross Sectional Area All: .6 in.²
- Side Rail Design Factors, 1 Pair AH0-4: lx: 1.67 in.4; Sx: .774 in.3; Area: .742 in.2; AH1-4: lx: 2.19 in.4; Sx: 1.05 in.3; Area: .906 in.2; AH2-4: lx: 2.51 in.4; Sx: 1.17 in.3; Area: .986 in.2
- * Series 0 and Series 1 not available in 24-ft. or 6m lengths.
- ** For load ratings of CSA Class C/NEMA 12C or less, please see an alternative ventilated series of cable tray on pages B-334-B-357.





					FE	ET			
SERIES		6	8	10	12	14	16	18	20
	Load (lb./ft.)	522	294	188	131	96	73	58	47
AH3-4	Deflection (in.)	.477	.849	1.326	1.909	2.599	3.395	4.296	5.304
	Deflection Factor	.001	.003	.007	.015	.027	.046	.074	.113
	Load (lb./ft.)	589	331	212	147	108	83	65	53
AH4-4	Deflection (in.)	.441	.785	1.226	1.766	2.403	3.139	3.973	4.905
	Deflection Factor	.001	.002	.006	.012	.022	.038	.061	.092
	Load (lb./ft.)	867	488	312	217	159	122	96	78
AH5-4	Deflection (in.)	.505	.898	1.403	2.021	2.751	3.593	4.547	5.614
	Deflection Factor	.001	.002	.004	.009	.017	.029	.047	.072

.....Specifications.....

- NEMA Rating AH3-4: 12C, 16A; AH4-4: 20A, 16B; AH5-4: 20B, 16C
- CSA AH3-4: D/6m; AH4-4: E/3m; AH5-4: E/6m
- UL Cross Sectional Area AH3-4, AH4-4: 1 in.²; AH5-4: 1.5 in.²
- Side Rail Design Factors, 1 Pair AH3-4: lx: 3.19 in.4; Sx: 1.41 in.3; Area: 1.22 in.2; AH4-4: lx: 3.89 in.4; Sx: 1.75 in.3; Area: 1.4 in.2; AH5-4: lx: 5 in.4; Sx: 2.24 in.3; Area: 1.76 in.2



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354



Tel: 888.862.3289



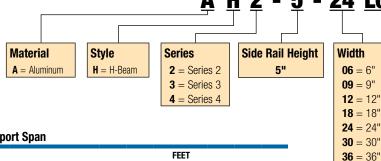




Aluminum Tray

5" Straight Sections, Series 2-5, 3-5, 4-5 — Ladder, Ventilated and Solid Trough

A H 2 - 5 - 24 L09 - 144



Bottom Type Length **L06** = 6" Rung Spacing **144** = 12 ft. **L09** = 9" Rung Spacing **288** = 24 ft. L12 = 12" Rung Spacing 3 = 3mV = Ventilated 6 = 6mS = Solid Trough

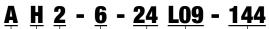
Support Span

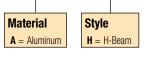
					FE	EΤ			
SERIES		6	8	10	12	14	16	18	20
	Load (lb./ft.)	511	288	184	128	94	72	57	46
AH2-5	Deflection (in.)	.328	.584	.912	1.313	1.787	2.334	2.955	3.648
	Deflection Factor	.001	.002	.005	.010	.019	.032	.052	.079
	Load (lb./ft.)	600	338	216	150	110	84	67	54
AH3-5	Deflection (in.)	.313	.557	.870	1.253	1.706	2.228	2.820	3.481
	Deflection Factor	.001	.002	.004	.008	.015	.026	.042	.064
	Load (lb./ft.)	844	475	304	211	155	119	94	76
AH4-5	Deflection (in.)	.337	.599	.936	1.348	1.834	2.396	3.033	3.744
	Deflection Factor	.004	.001	.003	.006	.012	.020	.032	.049

.....Specifications.....

- NEMA Rating AH2-5: 12C, 16A; AH3-5: 20A, 16B; AH4-5: 20B, 16C
- CSA AH2-5: D/6m; AH3-5: E/3m; AH4-5: E/6m
- UL Cross Sectional Area AH2-5: 1 in.²; AH3-5, AH4-5: 1.5 in.²
- Side Rail Design Factors, 1 Pair AH2-5: lx: 4.54 in.⁴; Sx: 1.73 in.³; Area: 1.23 in.²; AH3-5: lx: 5.58 in.⁴; Sx: 2.13 in.³; Area: 1.52 in.²; AH4-5: lx: 7.31 in.⁴; Sx: 2.66 in.³; Area: 1.87 in.²







Series $\mathbf{0} = \text{Series } 0^*$ **1** = Series 1

2 = Series 2

3 = Series 3

Side Rail Height

18 = 18"

Width 06 = 6"**09** = 9" **12** = 12"

24 = 24"

30 = 30" **36** = 36"

Bottom Type

L06 = 6" Rung Spacing **L09** = 9" Rung Spacing

L12 = 12" Rung Spacing **V** = Ventilated** S = Solid Trough

144 = 12 ft. 288 = 24 ft.

3 = 3m 6 = 6m

Length

Support Span

					FEI	ET			
SERIES		6	8	10	12	14	16	18	20
	Load (lb./ft.)	308	173	111	77	_	_	_	_
AH0-6	Deflection (in.)	.069	.128	.384	.552	_	_	_	_
	Deflection Factor	.0002	.0007	.003	.007	_	_	_	_
	Load (lb./ft.)	511	288	184	128	94	72	57	46
AH1-6	Deflection (in.)	.191	.340	.531	.764	1.040	1.359	1.720	2.132
	Deflection Factor	.0004	.001	.003	.006	.011	.019	.030	.046
	Load (lb./ft.)	589	331	212	147	108	83	65	53
AH2-6	Deflection (in.)	.203	.360	.563	.811	1.104	1.442	1.825	2.253
	Deflection Factor	.0003	.001	.003	.006	.010	.017	.028	.043
	Load (lb./ft.)	889	500	320	222	163	125	99	80
AH3-6	Deflection (in.)	.199	.353	.552	.794	1.081	1.412	1.788	2.207
	Deflection Factor	.0002	.001	.002	.004	.007	.011	.018	.028

.....Specifications.....

- NEMA Rating AH0-6: 12B; AH1-6: 12C, 16A; AH2-6: 20A, 16B; AH3-6: 20B, 16C
- CSA AH0-6: C; AH1-6: D/6M; AH2-6: E/3M; AH3-6: E/6M
- UL Cross Sectional Area AH0-6, AH1-6: 1 in.²; AH2-6: 1.5 in.²; AH3-6: 2 in.²
- Side Rail Design Factors, 1 Pair AH0-6: lx: 6.27 in.⁴; Sx: 1.92 in.³; Area: 1.22 in.²; AH1-6: lx: 7.8 in.⁴; Sx: 2.36 in.³; Area: 1.43 in.²; AH2-6: lx: 8.47 in.⁴; Sx: 2.59 in.³; Area: 1.55 in.²; AH3-6: lx: 13.05 in.⁴; Sx: 3.88 in.³; Area: 2.12 in.²
- * Available in 12-ft. and 3m lengths only.
- ** For load ratings of CSA Class C/NEMA 12C or less, please see an alternative ventilated series of Cable Tray on pages B-334-B-357.



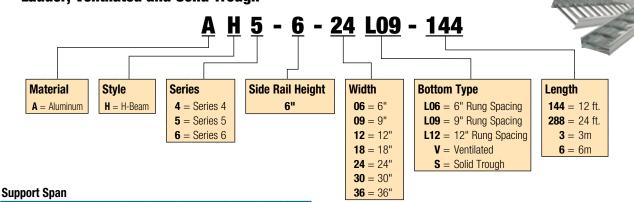
Tel: 888.862.3289



oveboardelectronics.com

Aluminum Tray





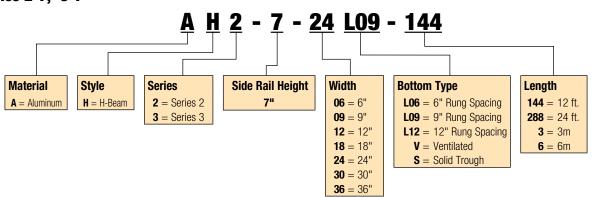
	р								
					FE	ET			
SERIES		6	8	10	12	14	16	18	20
	Load (lb./ft.)	1133	638	408	283	208	159	126	102
AH4-6	Deflection (in.)	.238	.424	.662	.954	1.298	1.696	2.146	2.649
	Deflection Factor	.0002	.001	.002	.003	.006	.011	.017	.026
	Load (lb./ft.)	1334	756	484	336	247	189	149	121
AH5-6	Deflection (in.)	.249	.443	.693	.997	1.358	1.773	2.244	2.771
	Deflection Factor	.0002	.001	.002	.003	.005	.009	.015	.023
	Load (lb./ft.)	1889	1063	680	472	347	266	210	170
AH6-6	Deflection (in.)	.315	.560	.875	1.260	1.715	2.240	2.835	3.500
	Deflection Factor	.0002	.001	.001	.003	.005	.008	.014	.021

...... Specifications

- NEMA Rating AH4-6: 20C; AH5-6, AH6-6: Exceeds 20C
- UL Cross Sectional Area All: 2.00 in.²
- Side Rail Design Factors, 1 Pair AH4-6: lx: 13.86 in.⁴; Sx: 4.07 in.³; Area: 2.32 in.²; AH5-6: lx: 15.63 in.⁴; Sx: 4.66 in.³; Area: 2.68 in.²; AH6-6: lx: 18.84 in.⁴; Sx: 5.51 in.³; Area: 3.25 in.²

Note: See appendix for information on "Heavy Load" bearing trays and spans beyond 6m.

7" Straight Sections, Series 2-7, 3-7



Support Span

						Ft	EI.			
;	SERIES		6	8	10	12	14	16	18	20
Ī		Load (lb./ft.)	844	475	304	211	155	119	94	76
	AH2-7	Deflection (in.)	.149	.265	.415	.597	.813	1.061	1.343	1.658
		Deflection Factor	.0002	.001	.001	.003	.005	.009	.014	.022
		Load (lb./ft.)	1456	819	524	364	267	205	162	131
	AH3-7	Deflection (in.)	.168	.298	.466	.671	.913	1.192	1.509	1.863
		Deflection Factor	.0001	.0004	.001	.002	.003	.006	.009	.014

...... Specifications

- NEMA Rating AH2-7: 20B; AH3-7: Exceeds 20C
- CSA AH2-7: E/6m
- UL Cross Sectional Area All: 2.00 in.²
- Side Rail Design Factors, 1 Pair AH2-7: lx: 20.24 in.⁴; Sx: 5.00 in.³; Area: 2.66 in.²; AH3-7: lx: 25.32 in.⁴; Sx: 6.35 in.³; Area: 3.30 in.²

Note: See appendix for information on "Heavy Load" bearing trays and spans beyond 6m.



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services**

Tel: 888.862.3289







Aluminum Tray

Which Tray Style Meets the Project Criteria and Budget?

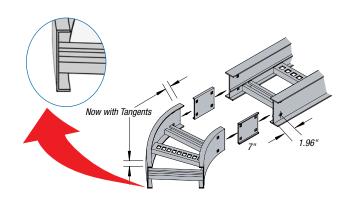
U-Style features fittings constructed with side rail flanges on the inside only (U-Beam).

Features

- Functional design
- · Simplicity of design
- Tangents on fittings
- 7" snap-in splice plate
- U-shaped fitting side rails

Benefits

- Lowest purchase price
- Easy to install
- Occupies less space in areas where space is restrained
- · Easy to align straights
- Splice plate holds components together while hardware is inserted
- Lighter fittings are easy to handle



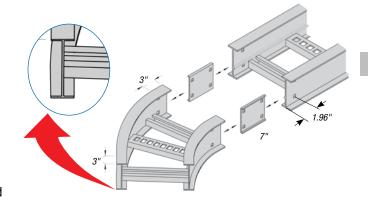
H-Style features fittings constructed with side rail having inner and outer flanges (H-Beam).

Features

- · Premium design
- · Simplicity of design
- · 3" tangents on fittings
- 7" snap-in splice plate
- · H-shaped fitting side rails

Benefits

- Improved aesthetics and customer appeal
- Easy to install
- Improved system rigidity
- Easy to align straights and fittings
- Splice plate holds components together while hardware is inserted



Aluminum Tray

Fitting Number Selection

Fittings in a cable tray system are required to change cable routing direction and to join straight sections and other fittings. This step of the cable tray selection process requires that the specifier chooses between two distinct styles, U and H.

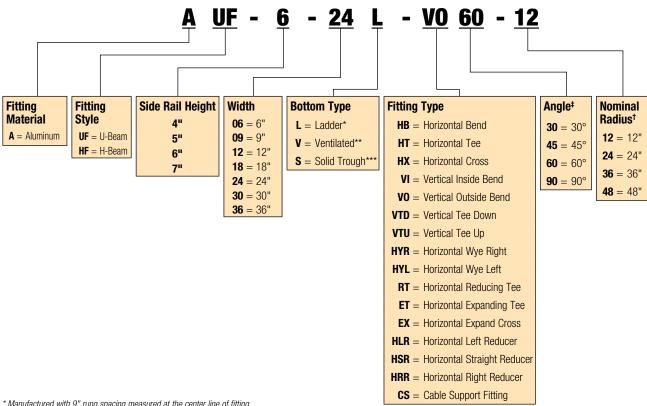
Note: The U-Style and H-Style systems are interchangeable.

U-Style Fitting

- A U-shaped extrusion forms the fitting side rail
- U-Style fittings utilize a 7" splice plate and the fittings have tangents at the extremities
- This style offers maximum quality versus cost ratios of the installation

H-Style Fitting

- An H-shaped extrusion forms the fitting side rail
- . H-Style fittings utilize a 7" splice plate and the fittings have 3" tangents at the extremities
- This style offers enhanced aesthetics to the end-user and increased system rigidity



^{*} Manufactured with 9" rung spacing measured at the center line of fitting.





^{***} Manufactured with 4" edge to edge rung spacing measured at the center line of fitting.

^{****} Manufactured with flat sheet inserted under rungs with 9" rung spacing measured at the center line of fitting.

[‡] Angle is required for HB, VI, VO only.

[†] Radius is not required for the following Fitting Types: HYR, HYL, HLR, HRR, HSR

Aluminum Tray

Horizontal Bends

U-Style



60° Horizontal Bend page B-274



45° Horizontal Bend page B-276



30° Horizontal Bend page B-276



H-Style

90° Horizontal Bend page B-275



60° Horizontal Bend



45° Horizontal Bend

page B-277



30° Horizontal Bend

page B-277



T&B aluminum cable tray is composed of two distinct systems — H-Style and U-Style. These systems are interchangeable.



Fax: 901.252.1354

Aluminum Tray

Horizontal Tees, Crosses

U-Style



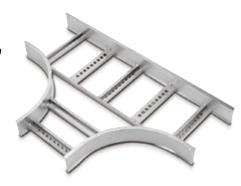


Cross page B-278



H-Style

Tee page B-279



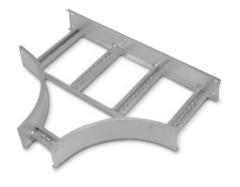
Cross page B-279



Horizontal Reducing Tees

U-Style

page B-280



H-Style

page B-281



T&B aluminum cable tray is composed of two distinct systems — H-Style and U-Style. These systems are interchangeable.



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services** Tel: 888.862.3289



Aluminum Tray

Horizontal Expanding Tees





Horizontal Expanding Crosses

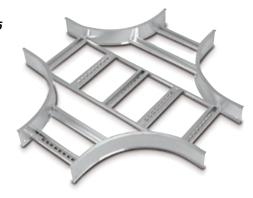
U-Style

page B-284



H-Style

page B-285

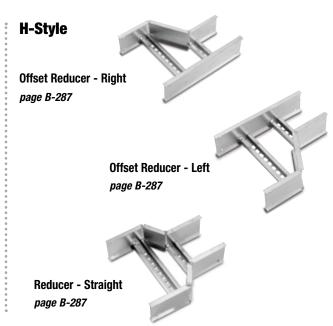


T&B aluminum cable tray is composed of two distinct systems — H-Style and U-Style. These systems are interchangeable.

Fax: 901.252.1354

Aluminum Tray

Reducers U-Style Offset Reducer - Right page B-286 Offset Reducer - Left page B-286 Reducer - Straight



Horizontal Wyes

U-Style

page B-286

Left-Hand Wye page B-288



H-Style

Left-Hand Wye page B-289



Right-Hand Wye page B-288



Right-Hand Wye page B-289







Aluminum Tray

Vertical Bends

U-Style

90° Outside Bend page B-290





90° Outside Bend page B-291



90° Inside Bend page B-290



90° Inside Bend page B-291



60° Outside Bend

page B-292



60° Outside Bend page B-293



60° Inside Bend

page B-292



60° Inside Bend page B-293





Aluminum Tray

Vertical Bends (continued)

U-Style

45° Outside Bend page B-294



45° Inside Bend page B-294



30° Outside Bend page B-296



30° Inside Bend page B-296



H-Style

45° Outside Bend page B-295



45° Inside Bend page B-295



30° Outside Bend page B-297



30° Inside Bend page B-297







Aluminum Tray

Vertical Tees Up/Down







H-Style

Up page B-299



Down page B-299



Cable Supports

U-Style





H-Style

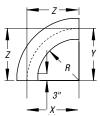
page B-301



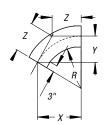


Aluminum Tray

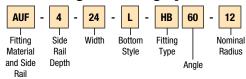








Catalog Numbering System



Selection Guide

Inside Tray Widths: 6, 9, 12, 18, 24, 30, 36

Angle: 90°, 60°

Nominal Radius: 12, 24, 36, 48

Bottom Styles: L- Ladder, V- Ventilated, S- Solid

Side Rail Depth: 4"-7"

U-Style 90° Horizontal Bends

NOMIN	AL RADIUS			DIMENSION	S
R	WIDTH	CAT. NO.	Х	Y	Z
	6	AUF(†)-06-(*)-HB90-12	15	15	15
	9	AUF(†)-09-(*)-HB90-12	16½	16½	16½
	12	AUF(†)-12-(*)-HB90-12	18	18	18
12	18	AUF(†)-18-(*)-HB90-12	21	21	21
	24	AUF(†)-24-(*)-HB90-12	24	24	24
	30	AUF(†)-30-(*)-HB90-12	27	27	27
	36	AUF(†)-36-(*)-HB90-12	30	30	30
	6	AUF(†)-06-(*)-HB90-24	27	27	27
	9	AUF(†)-09-(*)-HB90-24	281/2	281/2	281/2
	12	AUF(†)-12-(*)-HB90-24	30	30	30
24	18	AUF(†)-18-(*)-HB90-24	33	33	33
	24	AUF(†)-24-(*)-HB90-24	36	36	36
	30	AUF(†)-30-(*)-HB90-24	39	39	39
	36	AUF(†)-36-(*)-HB90-24	42	42	42
	6	AUF(†)-06-(*)-HB90-36	39	39	39
	9	AUF(†)-09-(*)-HB90-36	401/2	401/2	401/2
	12	AUF(†)-12-(*)-HB90-36	42	42	42
36	18	AUF(†)-18-(*)-HB90-36	45	45	45
	24	AUF(†)-24-(*)-HB90-36	48	48	48
	30	AUF(†)-30-(*)-HB90-36	51	51	51
	36	AUF(†)-36-(*)-HB90-36	54	54	54
	6	AUF(†)-06-(*)-HB90-48	51	51	51
	9	AUF(†)-09-(*)-HB90-48	52½	521/2	521/2
	12	AUF(†)-12-(*)-HB90-48	54	54	54
48	18	AUF(†)-18-(*)-HB90-48	57	57	57
	24	AUF(†)-24-(*)-HB90-48	60	60	60
	30	AUF(†)-30-(*)-HB90-48	63	63	63
	36	AUF(†)-36-(*)-HB90-48	66	66	66

U-Style 60° Horizontal Bends

NOMIN	NAL RADIUS		D	IMENSION	IS
R	WIDTH	CAT. NO.	x	Y	Z
	6	AUF(†)-06-(*)-HB60-12	141//8	85/8	915/16
	9	AUF(†)-09-(*)-HB60-12	16¾6	93/8	1013/16
	12	AUF(†)-12-(*)-HB60-12	171/2	101//8	1111/16
12	18	AUF(†)-18-(*)-HB60-12	201/16	1111/8	13%
	24	AUF(†)-24-(*)-HB60-12	2211/16	131/8	151/8
	30	AUF(†)-30-(*)-HB60-12	255/16	141/8	161/8
	36	AUF(†)-36-(*)-HB60-12	271/8	161//8	18%6
	6	AUF(†)-06-(*)-HB60-24	255/16	145/8	16%
	9	AUF(†)-09-(*)-HB60-24	26%	15%	17¾
	12	AUF(†)-12-(*)-HB60-24	271/8	161//8	18%6
24	18	AUF(†)-18-(*)-HB60-24	30½	175/8	205/16
	24	AUF(†)-24-(*)-HB60-24	331/16	191//8	221/16
	30	AUF(†)-30-(*)-HB60-24	3511/16	205/8	2313/16
	36	AUF(†)-36-(*)-HB60-24	381/4	221/8	25½
	6	AUF(†)-06-(*)-HB60-36	3511/16	20%	2313/16
	9	AUF(†)-09-(*)-HB60-36	37	21%	24%
	12	AUF(†)-12-(*)-HB60-36	381/4	221/8	251/2
36	18	AUF(†)-18-(*)-HB60-36	401//8	235/8	27%
	24	AUF(†)-24-(*)-HB60-36	431/2	251/8	29
	30	AUF(†)-30-(*)-HB60-36	461/16	265/8	3011/16
	36	AUF(†)-36-(*)-HB60-36	4811/16	281/8	327/16
	6	AUF(†)-06-(*)-HB60-48	461/16	265/8	3011/16
	9	AUF(†)-09-(*)-HB60-48	473/8	273/8	31%6
	12	AUF(†)-12-(*)-HB60-48	4811/16	281/8	321/16
48	18	AUF(†)-18-(*)-HB60-48	511/16	295/8	343/16
	24	AUF(†)-24-(*)-HB60-48	53%	311//8	3515/16
	30	AUF(†)-30-(*)-HB60-48	567/16	325/8	37%
	36	AUF(†)-36-(*)-HB60-48	591/16	341/8	39%

Includes one pair of splice plates with hardware.

T&B aluminum cable tray is composed of two distinct systems — H-Style and U-Style. These systems are interchangeable.





Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services**

Tel: 888.862.3289







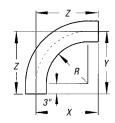
^(†) Insert side rail depth. (*) Insert bottom style to complete Catalog Number.

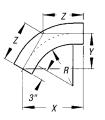
Metal Framing & Cable Tray — T&B® Cable Tray

T&B° Cable Tray

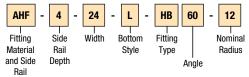
Aluminum Tray







Catalog Numbering System



Selection Guide

Inside Tray Widths: 6, 9, 12, 18, 24, 30, 36

60° Horizontal Bend

Angle: 90°, 60°

Nominal Radius: 12, 24, 36, 48

Bottom Styles: L- Ladder, V- Ventilated, S- Solid

Side Rail Depth: 4"-7"

H-Style 90° Horizontal Bends

II-Otyle	90 1101120	iitai deiius		
NOMINA	L RADIUS		DIMEN	ISIONS
R	WIDTH	CAT. NO.	Х	Υ
	6	AHF(†)-06-(*)-HB90-12	18	18
	9	AHF(†)-09-(*)-HB90-12	19½	19½
	12	AHF(†)-12-(*)-HB90-12	21	21
12	18	AHF(†)-18-(*)-HB90-12	24	24
	24	AHF(†)-24-(*)-HB90-12	27	27
	30	AHF(†)-30-(*)-HB90-12	30	30
	36	AHF(†)-36-(*)-HB90-12	33	33
	6	AHF(†)-06-(*)-HB90-24	30	30
	9	AHF(†)-09-(*)-HB90-24	31½	31½
	12	AHF(†)-12-(*)-HB90-24	33	33
24	18	AHF(†)-18-(*)-HB90-24	36	36
	24	AHF(†)-24-(*)-HB90-24	39	39
	30	AHF(†)-30-(*)-HB90-24	42	42
	36	AHF(†)-36-(*)-HB90-24	45	45
	6	AHF(†)-06-(*)-HB90-36	42	42
	9	AHF(†)-09-(*)-HB90-36	431/2	431/2
	12	AHF(†)-12-(*)-HB90-36	45	45
36	18	AHF(†)-18-(*)-HB90-36	48	48
	24	AHF(†)-24-(*)-HB90-36	51	51
	30	AHF(†)-30-(*)-HB90-36	54	54
	36	AHF(†)-36-(*)-HB90-36	57	57
	6	AHF(†)-06-(*)-HB90-48	54	54
	9	AHF(†)-09-(*)-HB90-48	55½	55½
	12	AHF(†)-12-(*)-HB90-48	57	57
48	18	AHF(†)-18-(*)-HB90-48	60	60
	24	AHF(†)-24-(*)-HB90-48	63	63
	30	AHF(†)-30-(*)-HB90-48	66	66
	36	AHF(†)-36-(*)-HB90-48	69	69

H-Style 60° Horizontal Bends

ii Otyic	00 110112	ontai bonas			
NOMINA	L RADIUS		D	IMENSIO	NS
R	WIDTH	CAT. NO.	x	Y	Z
	6	AHF(†)-06-(*)-HB60-12	17½	101//8	1111/16
	9	AHF(†)-09-(*)-HB60-12	1813/16	101/8	12½
	12	AHF(†)-12-(*)-HB60-12	201/16	11%	13%
12	18	AHF(†)-18-(*)-HB60-12	2211/16	131//8	151//
	24	AHF(†)-24-(*)-HB60-12	255/16	14%	16%
	30	AHF(†)-30-(*)-HB60-12	271/8	161//8	18%
	36	AHF(†)-36-(*)-HB60-12	301/2	17%	205/16
	6	AHF(†)-06-(*)-HB60-24	271//8	161//8	181/16
	9	AHF(†)-09-(*)-HB60-24	293/16	161/8	197/16
	12	AHF(†)-12-(*)-HB60-24	30½	17%	205/16
24	18	AHF(†)-18-(*)-HB60-24	331/16	191/8	221/16
	24	AHF(†)-24-(*)-HB60-24	3511/16	20%	2313/16
	30	AHF(†)-30-(*)-HB60-24	381/4	221/8	25½
	36	AHF(†)-36-(*)-HB60-24	401//8	235/8	271/4
	6	AHF(†)-06-(*)-HB60-36	381/4	221/8	25½
	9	AHF(†)-09-(*)-HB60-36	391/16	221/8	26%
	12	AHF(†)-12-(*)-HB60-36	401//8	235/8	271/4
36	18	AHF(†)-18-(*)-HB60-36	431/2	251/8	29
	24	AHF(†)-24-(*)-HB60-36	461/16	26%	3011/16
	30	AHF(†)-30-(*)-HB60-36	4811/16	281/8	327/16
	36	AHF(†)-36-(*)-HB60-36	511/4	29%	343/16
	6	AHF(†)-06-(*)-HB60-48	4811/16	281//8	327/16
	9	AHF(†)-09-(*)-HB60-48	4915/16	281/8	335/16
	12	AHF(†)-12-(*)-HB60-48	511/4	29 %	34¾6
48	18	AHF(†)-18-(*)-HB60-48	53%	311//	3515/16
	24	AHF(†)-24-(*)-HB60-48	567/16	32 1/8	37%
	30	AHF(†)-30-(*)-HB60-48	591/16	341/8	39¾
	36	AHF(†)-36-(*)-HB60-48	6111/16	35%	411/8

(†) Insert side rail depth. (*) Insert bottom style to complete Catalog Number.

Includes one pair of splice plates with hardware.



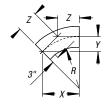






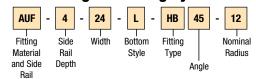
Aluminum Tray





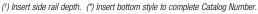
45° Horizontal Bend

Catalog Numbering System



U-Style 45° Horizontal Bends

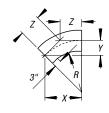
NOMINAL RADIUS				IMENSION	S
R	WIDTH	CAT. NO.	Х	Y	Z
	6	AUF(†)-06-(*)-HB45-12	13%	5%	8
İ	9	AUF(†)-09-(*)-HB45-12	1411/16	61/16	89/16
İ	12	AUF(†)-12-(*)-HB45-12	15¾	6½	93/16
12	18	AUF(†)-18-(*)-HB45-12	171/8	73/8	107/16
	24	AUF(†)-24-(*)-HB45-12	20	81/4	11 ¹¹ / ₁₆
	30	AUF(†)-30-(*)-HB45-12	221/16	91//8	1215/16
	36	AUF(†)-36-(*)-HB45-12	243/16	10	143/16
	6	AUF(†)-06-(*)-HB45-24	221/16	91//8	1215/16
ĺ	9	AUF(†)-09-(*)-HB45-24	231//8	9%16	131/16
	12	AUF(†)-12-(*)-HB45-24	243/16	10	143/16
24	18	AUF(†)-18-(*)-HB45-24	265/16	1015/16	151/16
	24	AUF(†)-24-(*)-HB45-24	281/16	11 ¹³ ⁄ ₁₆	1611/16
ĺ	30	AUF(†)-30-(*)-HB45-24	301/16	1211/16	1715/16
	36	AUF(†)-36-(*)-HB45-24	3211/16	131/16	191//8
	6	AUF(†)-06-(*)-HB45-36	30%16	1211/16	1715/16
	9	AUF(†)-09-(*)-HB45-36	31%	131//8	181/16
	12	AUF(†)-12-(*)-HB45-36	3211/16	131/16	191/8
36	18	AUF(†)-18-(*)-HB45-36	3413/16	147/16	203/8
	24	AUF(†)-24-(*)-HB45-36	3615/16	155/16	21%
	30	AUF(†)-30-(*)-HB45-36	391/16	163/16	221/8
ĺ	36	AUF(†)-36-(*)-HB45-36	413/16	171/16	241/8
	6	AUF(†)-06-(*)-HB45-48	391/16	16¾6	221/8
ĺ	9	AUF(†)-09-(*)-HB45-48	401//8	16%	231/2
	12	AUF(†)-12-(*)-HB45-48	41¾6	171/16	241/8
48	18	AUF(†)-18-(*)-HB45-48	435/16	1715/16	25%
	24	AUF(†)-24-(*)-HB45-48	457/16	1813/16	26%
	30	AUF(†)-30-(*)-HB45-48	47%	1911/16	271//8
	36	AUF(†)-36-(*)-HB45-48	4911/16	20%16	291/8



Includes one pair of splice plates with hardware.

T&B aluminum cable tray is composed of two distinct systems — H-Style and U-Style. These systems are interchangeable.





30° Horizontal Bend

Selection Guide

Inside Tray Widths: 6, 9, 12, 18, 24, 30, 36

Angle: 45°, 30°

Nominal Radius: 12, 24, 36, 48

Bottom Styles: L- Ladder, V- Ventilated, S- Solid

Side Rail Depth: 4"-7"

U-Style 30° Horizontal Bends

NOMINAL RADIUS				DIMENSIONS		
R	WIDTH	CAT. NO.	Х	Y	Z	
	6	AUF(†)-06-(*)-HB30-12	11%	31/8	63/16	
	9	AUF(†)-09-(*)-HB30-12	12%	35/16	65/8	
	12	AUF(†)-12-(*)-HB30-12	13½	31/2	7	
12	18	AUF(†)-18-(*)-HB30-12	14%	315/16	713/16	
	24	AUF(†)-24-(*)-HB30-12	161//8	45/16	85/8	
	30	AUF(†)-30-(*)-HB30-12	17%	411/16	97/16	
	36	AUF(†)-36-(*)-HB30-12	191//8	51/8	101/4	
	6	AUF(†)-06-(*)-HB30-24	17%	411/16	97/16	
	9	AUF(†)-09-(*)-HB30-24	18¾	415/16	913/16	
	12	AUF(†)-12-(*)-HB30-24	191//8	52/16	101/16	
24	18	AUF(†)-18-(*)-HB30-24	20%	58/16	111/16	
	24	AUF(†)-24-(*)-HB30-24	221/8	$5^{15}/_{16}$	1113/10	
	30	AUF(†)-30-(*)-HB30-24	23%	65/16	1211/10	
	36	AUF(†)-36-(*)-HB30-24	251//s	612/16	131/16	
	6	AUF(†)-06-(*)-HB30-36	23%	65/16	12%	
	9	AUF(†)-09-(*)-HB30-36	24%	61/2	131/16	
	12	AUF(†)-12-(*)-HB30-36	251//8	63/4	131/16	
36	18	AUF(†)-18-(*)-HB30-36	26%	71/4	141/4	
	24	AUF(†)-24-(*)-HB30-36	281/8	71/2	151/16	
	30	AUF(†)-30-(*)-HB30-36	29%	715/16	15%	
	36	AUF(†)-36-(*)-HB30-36	311//8	85/16	1611/1	
	6	AUF(†)-06-(*)-HB30-48	29%	715/16	15%	
	9	AUF(†)-09-(*)-HB30-48	30%	81/8	161/4	
	12	AUF(†)-12-(*)-HB30-48	311//8	85/16	1611/1	
48	18	AUF(†)-18-(*)-HB30-48	325/8	83/4	17½	
	24	AUF(†)-24-(*)-HB30-48	341/8	91/8	181/4	
	30	AUF(†)-30-(*)-HB30-48	35%	9%16	191/16	
	36	AUF(†)-36-(*)-HB30-48	371/8	$9^{15}/_{16}$	191/8	



Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 Tel: 888.862.3289





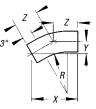


Aluminum Tray

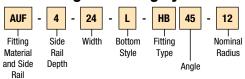




30° Horizontal Bend



Catalog Numbering System



H-Style 45° Horizontal Bends

OMINA	AL RADIUS		I	DIMENSIONS	3
R	WIDTH	CAT. NO.	Х	Y	Z
	6	AHF(†)-06-(*)-HB45-12	15¾	6½	93/16
	9	AHF(†)-09-(*)-HB45-12	1613/16	615/16	913/16
	12	AHF(†)-12-(*)-HB45-12	17%	73/8	107/16
12	18	AHF(†)-18-(*)-HB45-12	20	81/4	11 ¹¹ /16
	24	AHF(†)-24-(*)-HB45-12	221/16	91//8	1215/16
	30	AHF(†)-30-(*)-HB45-12	243/16	10	143/16
	36	AHF(†)-36-(*)-HB45-12	265/16	1015/16	157/16
	6	AHF(†)-06-(*)-HB45-24	243/16	10	143/16
	9	AHF(†)-09-(*)-HB45-24	251/4	10½	1413/16
	12	AHF(†)-12-(*)-HB45-24	265/16	1015/16	151/16
24	18	AHF(†)-18-(*)-HB45-24	287/16	11 ¹³ ⁄ ₁₆	1611/1
	24	AHF(†)-24-(*)-HB45-24	301/16	1211/16	1715/1
	30	AHF(†)-30-(*)-HB45-24	3211/16	131/16	191/8
	36	AHF(†)-36-(*)-HB45-24	3413/16	141//8	20%
	6	AHF(†)-06-(*)-HB45-36	3211/16	131/16	191/8
	9	AHF(†)-09-(*)-HB45-36	33¾	14	19¾
	12	AHF(†)-12-(*)-HB45-36	3413/16	147/16	20%
36	18	AHF(†)-18-(*)-HB45-36	$36^{15}/_{16}$	155/16	21%
	24	AHF(†)-24-(*)-HB45-36	391/16	16¾6	227/8
	30	AHF(†)-30-(*)-HB45-36	41¾6	171/16	241/8
	36	AHF(†)-36-(*)-HB45-36	435/16	17¹5⁄₁6	25%
	6	AHF(†)-06-(*)-HB45-48	41¾6	171/16	241/8
48	9	AHF(†)-09-(*)-HB45-48	421/4	171/2	24¾
	12	AHF(†)-12-(*)-HB45-48	435/16	1715/16	25%
	18	AHF(†)-18-(*)-HB45-48	457/16	1813/16	26%
	24	AHF(†)-24-(*)-HB45-48	471/16	1911/16	27¾
	30	AHF(†)-30-(*)-HB45-48	4911/16	201/16	291/8
	36	AHF(†)-36-(*)-HB45-48	51 ¹³ / ₁₆	211/16	305/16

Selection Guide

Inside Tray Widths: 6, 9, 12, 18, 24, 30, 36

Angle: 45°, 30°

Nominal Radius: 12, 24, 36, 48

Bottom Styles: L- Ladder, V- Ventilated, S- Solid

Side Rail Depth: 4"-7"

H-Style 30° Horizontal Bends

NOMINAL RADIUS			DIMENSIONS		
R	WIDTH	CAT. NO.	Х	Υ	Z
	6	AHF(†)-06-(*)-HB30-12	131/8	3½	7
	9	AHF(†)-09-(*)-HB30-12	13%	311/16	71/16
	12	AHF(†)-12-(*)-HB30-12	14%	315/16	713/16
12	18	AHF(†)-18-(*)-HB30-12	161//8	45/16	85/8
	24	AHF(†)-24-(*)-HB30-12	17%	411/16	97/8
	30	AHF(†)-30-(*)-HB30-12	191/8	51/8	101/4
	36	AHF(†)-36-(*)-HB30-12	20%	5½	111/16
	6	AHF(†)-06-(*)-HB30-24	191//8	51/8	101/4
	9	AHF(†)-09-(*)-HB30-24	197/8	55/16	10%
	12	AHF(†)-12-(*)-HB30-24	20%	5½	111/16
24	18	AHF(†)-18-(*)-HB30-24	221/8	55/16	11 ¹³ / ₁₆
	24	AHF(†)-24-(*)-HB30-24	23%	65/16	12%
	30	AHF(†)-30-(*)-HB30-24	251//8	63/4	131/16
	36	AHF(†)-36-(*)-HB30-24	26%	71/8	141/4
	6	AHF(†)-06-(*)-HB30-36	251//s	63/4	131/16
	9	AHF(†)-09-(*)-HB30-36	251//8	$6^{15}/_{16}$	13%
	12	AHF(†)-12-(*)-HB30-36	26%	71/8	141/4
36	18	AHF(†)-18-(*)-HB30-36	281//8	71/2	151/16
	24	AHF(†)-24-(*)-HB30-36	29%	715/16	151/8
	30	AHF(†)-30-(*)-HB30-36	311//8	85/16	16 ¹¹ / ₁₆
	36	AHF(†)-36-(*)-HB30-36	32%	83/4	171/2
	6	AHF(†)-06-(*)-HB30-48	311//8	85/16	1611/16
48	9	AHF(†)-09-(*)-HB30-48	31%	81/16	171/16
	12	AHF(†)-12-(*)-HB30-48	325/8	83/4	17½
	18	AHF(†)-18-(*)-HB30-48	341/8	91/8	181/4
	24	AHF(†)-24-(*)-HB30-48	35%	9%	191/16
	30	AHF(†)-30-(*)-HB30-48	371/8	$9^{15}/_{16}$	191/8
	36	AHF(†)-36-(*)-HB30-48	385/8	105/16	2011/16

(†) Insert side rail depth. (*) Insert bottom style to complete Catalog Number.

Includes one pair of splice plates with hardware.





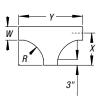




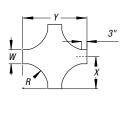


Aluminum Tray

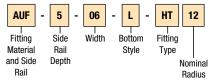








Catalog Numbering System



Selection Guide

Inside Tray Widths: 6, 9, 12, 18, 24, 30, 36

Angle: 90°, 60°

Nominal Radius: 12, 24, 36, 48

Bottom Styles: L- Ladder, V- Ventilated, S- Solid

Side Rail Depth: 4"-7"

U-Style Horizontal Tees

NOMINAL RADIUS			DIMEN	DIMENSIONS	
R	WIDTH	CAT. NO.	Х	Υ	
	6	AUF(†)-06-(*)-HT12	15	30	
	9	AUF(†)-09-(*)-HT12	16½	33	
	12	AUF(†)-12-(*)-HT12	18	36	
12	18	AUF(†)-18-(*)-HT12	21	42	
	24	AUF(†)-24-(*)-HT12	24	48	
	30	AUF(†)-30-(*)-HT12	27	54	
	36	AUF(†)-36-(*)-HT12	30	60	
	6	AUF(†)-06-(*)-HT24	27	54	
	9	AUF(†)-09-(*)-HT24	281/2	57	
	12	AUF(†)-12-(*)-HT24	30	60	
24	18	AUF(†)-18-(*)-HT24	33	66	
	24	AUF(†)-24-(*)-HT24	36	72	
	30	AUF(†)-30-(*)-HT24	39	78	
	36	AUF(†)-36-(*)-HT24	42	84	
	6	AUF(†)-06-(*)-HT36	39	78	
	9	AUF(†)-09-(*)-HT36	401/2	81	
	12	AUF(†)-12-(*)-HT36	42	84	
36	18	AUF(†)-18-(*)-HT36	45	90	
	24	AUF(†)-24-(*)-HT36	48	96	
	30	AUF(†)-30-(*)-HT36	51	102	
	36	AUF(†)-36-(*)-HT36	54	108	
	6	AUF(†)-06-(*)-HT48	51	102	
48	9	AUF(†)-09-(*)-HT48	52½	105	
	12	AUF(†)-12-(*)-HT48	54	108	
	18	AUF(†)-18-(*)-HT48	57	114	
	24	AUF(†)-24-(*)-HT48	60	120	
	30	AUF(†)-30-(*)-HT48	63	126	
	36	AUF(†)-36-(*)-HT48	66	132	

U-Style Horizontal Crosses

NOMINAL RADIUS			DIMENSIONS	
R	WIDTH	CAT. NO.	Х	Υ
	6	AUF(†)-06-(*)-HX12	15	30
	9	AUF(†)-09-(*)-HX12	16½	33
	12	AUF(†)-12-(*)-HX12	18	36
12	18	AUF(†)-18-(*)-HX12	21	42
	24	AUF(†)-24-(*)-HX12	24	48
	30	AUF(†)-30-(*)-HX12	27	54
	36	AUF(†)-36-(*)-HX12	30	60
	6	AUF(†)-06-(*)-HX24	27	54
	9	AUF(†)-09-(*)-HX24	281/2	57
	12	AUF(†)-12-(*)-HX24	30	60
24	18	AUF(†)-18-(*)-HX24	33	66
	24	AUF(†)-24-(*)-HX24	36	72
	30	AUF(†)-30-(*)-HX24	39	78
	36	AUF(†)-36-(*)-HX24	42	84
	6	AUF(†)-06-(*)-HX36	39	78
	9	AUF(†)-09-(*)-HX36	401/2	81
	12	AUF(†)-12-(*)-HX36	42	84
36	18	AUF(†)-18-(*)-HX36	45	90
	24	AUF(†)-24-(*)-HX36	48	96
	30	AUF(†)-30-(*)-HX36	51	102
	36	AUF(†)-36-(*)-HX36	54	108
	6	AUF(†)-06-(*)-HX48	51	102
	9	AUF(†)-09-(*)-HX48	521/2	105
	12	AUF(†)-12-(*)-HX48	54	108
48	18	AUF(†)-18-(*)-HX48	57	114
	24	AUF(†)-24-(*)-HX48	60	120
	30	AUF(†)-30-(*)-HX48	63	126
	36	AUF(†)-36-(*)-HX48	66	132

(†) Insert side rail depth. (*) Insert bottom style to complete Catalog Number.

Includes one pair of splice plates with hardware.

T&B aluminum cable tray is composed of two distinct systems — H-Style and U-Style. These systems are interchangeable.





Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services**

Tel: 888.862.3289

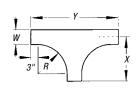




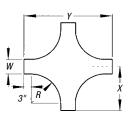


Aluminum Tray

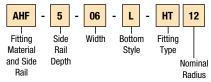








Catalog Numbering System



Selection Guide

Inside Tray Widths: 6, 9, 12, 18, 24, 30, 36

Angle: 90°, 60°

Nominal Radius: 12, 24, 36, 48

Bottom Styles: L- Ladder, V- Ventilated, S- Solid

Side Rail Depth: 4"-7"

H-Style Horizontal Tees

NOMINAL RADIUS			DIMEN	SIONS
R	WIDTH	CAT. NO.	Х	Y
	6	AHF(†)-06-(*)-HT12	18	36
	9	AHF(†)-09-(*)-HT12	19½	39
	12	AHF(†)-12-(*)-HT12	21	42
12	18	AHF(†)-18-(*)-HT12	24	48
	24	AHF(†)-24-(*)-HT12	27	54
	30	AHF(†)-30-(*)-HT12	30	60
	36	AHF(†)-36-(*)-HT12	33	66
	6	AHF(†)-06-(*)-HT24	30	60
	9	AHF(†)-09-(*)-HT24	31½	63
	12	AHF(†)-12-(*)-HT24	33	66
24	18	AHF(†)-18-(*)-HT24	36	72
	24	AHF(†)-24-(*)-HT24	39	78
	30	AHF(†)-30-(*)-HT24	42	84
	36	AHF(†)-36-(*)-HT24	45	90
	6	AHF(†)-06-(*)-HT36	42	84
	9	AHF(†)-09-(*)-HT36	431/2	87
	12	AHF(†)-12-(*)-HT36	45	90
36	18	AHF(†)-18-(*)-HT36	48	96
	24	AHF(†)-24-(*)-HT36	51	102
	30	AHF(†)-30-(*)-HT36	54	108
	36	AHF(†)-36-(*)-HT36	57	114
	6	AHF(†)-06-(*)-HT48	54	108
48	9	AHF(†)-09-(*)-HT48	55½	111
	12	AHF(†)-12-(*)-HT48	57	114
	18	AHF(†)-18-(*)-HT48	60	120
	24	AHF(†)-24-(*)-HT48	63	126
	30	AHF(†)-30-(*)-HT48	66	132
	36	AHF(†)-36-(*)-HT48	69	138

H-Style Horizontal Crosses

NOMINAL RADIUS			DIMENSIONS	
R	WIDTH	CAT. NO.	Х	Y
	6	AHF(†)-06-(*)-HX12	18	36
	9	AHF(†)-09-(*)-HX12	19½	39
	12	AHF(†)-12-(*)-HX12	21	42
12	18	AHF(†)-18-(*)-HX12	24	48
	24	AHF(†)-24-(*)-HX12	27	54
	30	AHF(†)-30-(*)-HX12	30	60
	36	AHF(†)-36-(*)-HX12	33	66
	6	AHF(†)-06-(*)-HX24	30	60
	9	AHF(†)-09-(*)-HX24	31½	63
	12	AHF(†)-12-(*)-HX24	33	66
24	18	AHF(†)-18-(*)-HX24	36	72
	24	AHF(†)-24-(*)-HX24	39	78
	30	AHF(†)-30-(*)-HX24	42	84
	36	AHF(†)-36-(*)-HX24	45	90
	6	AHF(†)-06-(*)-HX36	42	84
	9	AHF(†)-09-(*)-HX36	431/2	87
	12	AHF(†)-12-(*)-HX36	45	90
36	18	AHF(†)-18-(*)-HX36	48	96
	24	AHF(†)-24-(*)-HX36	51	102
	30	AHF(†)-30-(*)-HX36	54	108
	36	AHF(†)-36-(*)-HX36	57	114
	6	AHF(†)-06-(*)-HX48	54	108
	9	AHF(†)-09-(*)-HX48	55½	111
	12	AHF(†)-12-(*)-HX48	57	114
48	18	AHF(†)-18-(*)-HX48	60	120
	24	AHF(†)-24-(*)-HX48	63	126
	30	AHF(†)-30-(*)-HX48	66	132
	36	AHF(†)-36-(*)-HX48	69	138

(†) Insert side rail depth. (*) Insert bottom style to complete Catalog Number.

Includes one pair of splice plates with hardware.

T&B aluminum cable tray is composed of two distinct systems — H-Style and U-Style. These systems are interchangeable.





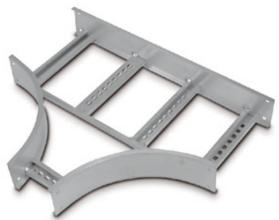


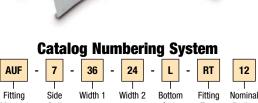
1-800-453-1692

aboveboardelectronics.com



Aluminum Tray

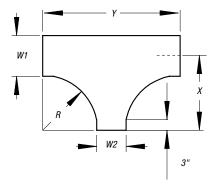




Style

Type

Radius



Selection Guide

Tray Widths W1: 36, 30, 24, 18, 12, 9 **Tray Widths W2**: 30, 24, 18, 12, 9, 6 **Nominal Radius**: 12, 24, 36, 48

Bottom Styles: L- Ladder, V- Ventilated, S- Solid

Side Rail Depth: 4"-7"

U-Style Horizontal Reducing Tees

Material

and Side Rail

WIDT	HS		(+) 12" NOMII	NAL RADIUS	(+) 24" NOMI	NAL RADIUS	(+) 36" NOMI	NAL RADIUS	(+) 48" NOMI	NAL RADIUS
W1	W2	CAT. NO.	Х	Y	Х	Υ	X	Υ Υ	Х	Υ
	30	AUF-(†)-3630-(*)-RT(+)	30	54	42	78	54	102	66	126
	24	AUF-(†)-3624-(*)-RT(+)	30	48	42	72	54	96	66	120
36	18	AUF-(†)-3618-(*)-RT(+)	30	42	42	66	54	90	66	114
30	12	AUF-(†)-3612-(*)-RT(+)	30	36	42	60	54	84	66	108
	9	AUF-(†)-3609-(*)-RT(+)	30	33	42	57	54	81	66	105
	6	AUF-(†)-3606-(*)-RT(+)	30	30	42	54	54	78	66	102
	24	AUF-(†)-3024-(*)-RT(+)	27	48	39	72	51	96	63	120
	18	AUF-(†)-3018-(*)-RT(+)	27	42	39	66	51	90	63	114
30	12	AUF-(†)-3012-(*)-RT(+)	27	36	39	60	51	84	63	108
	9	AUF-(†)-3009-(*)-RT(+)	27	33	39	57	51	81	63	105
	6	AUF-(†)-3006-(*)-RT(+)	27	30	39	54	51	78	63	102
	18	AUF-(†)-2418-(*)-RT(+)	24	42	36	66	48	90	60	114
24	12	AUF-(†)-2412-(*)-RT(+)	24	36	36	60	48	84	60	108
24	9	AUF-(†)-2409-(*)-RT(+)	24	33	36	57	48	81	60	105
	6	AUF-(†)-2406-(*)-RT(+)	24	30	36	54	48	78	60	102
	12	AUF-(†)-1812-(*)-RT(+)	21	36	33	60	45	84	57	108
18	9	AUF-(†)-1809-(*)-RT(+)	21	33	33	57	45	81	57	105
	6	AUF-(†)-1806-(*)-RT(+)	21	30	33	54	45	78	57	102
12	9	AUF-(†)-1209-(*)-RT(+)	18	33	30	57	42	81	54	105
12	6	AUF-(†)-1206-(*)-RT(+)	18	30	30	54	42	78	54	102
9	6	AUF-(†)-0906-(*)-RT(+)	161/2	30	28½	54	401/2	78	52½	102

(†) Insert side rail depth. (*) Insert bottom style. (+) Insert radius (12"-48") to complete Catalog Number. Includes two pairs of splice plates with hardware.

T&B aluminum cable tray is composed of two distinct systems — H-Style and U-Style. These systems are interchangeable.





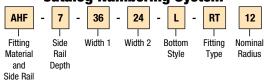


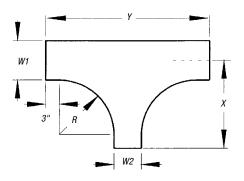


Aluminum Tray



Catalog Numbering System





Selection Guide

Tray Widths W1: 36, 30, 24, 18, 12, 9 Tray Widths W2: 30, 24, 18, 12, 9, 6 Nominal Radius: 12, 24, 36, 48

Bottom Styles: L- Ladder, V- Ventilated, S- Solid

Side Rail Depth: 4"-7"

H-Style Horizontal Reducing Tees

WIDT	HS		(+) 12" NOM	INAL RADIUS	(+) 24" NOM	INAL RADIUS	(+) 36" NOM	INAL RADIUS	(+) 48" NOM	INAL RADIUS
W1	W2	CAT. NO.	Х	Y	Х	Υ	Х	Y	Х	Y
	30	AHF-(†)-3630-(*)-RT(+)	33	60	45	84	57	108	69	132
	24	AHF-(†)-3624-(*)-RT(+)	33	54	45	78	57	102	69	126
200	18	AHF-(†)-3618-(*)-RT(+)	33	48	45	72	57	96	69	120
36	12	AHF-(†)-3612-(*)-RT(+)	33	42	45	66	57	90	69	114
	9	AHF-(†)-3609-(*)-RT(+)	33	39	45	63	57	87	69	111
	6	AHF-(†)-3606-(*)-RT(+)	33	36	45	60	57	84	69	108
	24	AHF-(†)-3024-(*)-RT(+)	30	54	42	78	54	102	66	126
	18	AHF-(†)-3018-(*)-RT(+)	30	48	42	72	54	96	66	120
30	12	AHF-(†)-3012-(*)-RT(+)	30	42	42	66	54	90	66	114
	9	AHF-(†)-3009-(*)-RT(+)	30	39	42	63	54	87	66	111
	6	AHF-(†)-3006-(*)-RT(+)	30	36	42	60	54	84	66	108
	18	AHF-(†)-2418-(*)-RT(+)	27	48	39	72	51	96	63	120
24	12	AHF-(†)-2412-(*)-RT(+)	27	42	39	66	51	90	63	114
24	9	AHF(†)-2409-(*)-RT(+)	27	39	39	63	51	87	63	111
	6	AHF-(†)-2406-(*)-RT(+)	27	36	39	60	51	84	63	108
	12	AHF-(†)-1812-(*)-RT(+)	24	42	36	66	48	90	60	114
18	9	AHF-(†)-1809-(*)-RT(+)	24	39	36	63	48	87	60	111
	6	AHF-(†)-1806-(*)-RT(+)	24	36	36	60	48	84	60	108
12	9	AHF-(†)-1209-(*)-RT(+)	21	39	33	63	45	87	57	111
12	6	AHF-(†)-1206-(*)-RT(+)	21	36	33	60	45	84	57	108
9	6	AHF-(†)-0906-(*)-RT(+)	19½	36	31½	60	431/2	84	55½	108

(†) Insert side rail depth. (*) Insert bottom style. (+) Insert radius (12"-48") to complete Catalog Number. Includes two pairs of splice plates with hardware.

T&B aluminum cable tray is composed of two distinct systems — H-Style and U-Style. These systems are interchangeable.







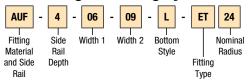


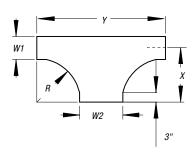
Thomas@Betts

Aluminum Tray



Catalog Numbering System





Selection Guide

Tray Widths W1: 30, 24, 18, 12, 9, 6 **Tray Widths W2**: 36, 30, 24, 18, 12, 9

 $\textbf{Nominal Radius} : 12, \, 24, \, 36, \, 48$

Bottom Styles: L- Ladder, V- Ventilated, S- Solid

Side Rail Depth: 4"-7"

U-Style Horizontal Expanding Tees

WID	THS		(+) 12" NOM	INAL RADIUS	(+) 24" NOM	INAL RADIUS	(+) 36" NOM	INAL RADIUS	(+) 48" NOM	INAL RADIUS
W1	W2	CAT. NO.	Х	Y	Х	Y	Х	Y	Х	Y
30	36	AUF(†)-3036-(*)-ET(+)	27	60	39	84	51	108	63	132
24	30	AUF(†)-2430-(*)-ET(+)	24	54	36	78	48	102	60	126
	36	AUF(†)-2436-(*)-ET(+)	24	60	36	84	48	108	60	132
	24	AUF(†)-1824-(*)-ET(+)	21	48	33	72	45	96	57	120
18	30	AUF(†)-1830-(*)-ET(+)	21	54	33	78	45	102	57	126
	36	AUF(†)-1836-(*)-ET(+)	21	60	33	84	45	108	57	132
	18	AUF(†)-1218-(*)-ET(+)	18	42	30	66	42	90	54	114
12	24	AUF(†)-1224-(*)-ET(+)	18	48	30	72	42	96	54	120
12	30	AUF(†)-1230-(*)-ET(+)	18	54	30	78	42	102	54	126
	36	AUF(†)-1236-(*)-ET(+)	18	60	30	84	42	108	54	132
	12	AUF(†)-0912-(*)-ET(+)	16½	36	28½	60	401/2	84	52½	108
	18	AUF(†)-0918-(*)-ET(+)	16½	42	28½	66	401/2	90	52½	114
9	24	AUF(†)-0924-(*)-ET(+)	16½	48	28½	72	401/2	96	52½	120
	30	AUF(†)-0930-(*)-ET(+)	16½	54	281/2	78	401/2	102	52½	126
	36	AUF(†)-0936-(*)-ET(+)	16½	60	28½	84	40½	108	52½	132
	9	AUF(†)-0609-(*)-ET(+)	15	33	27	57	39	81	51	105
	12	AUF(†)-0612-(*)-ET(+)	15	36	27	60	39	84	51	108
6	18	AUF(†)-0618-(*)-ET(+)	15	42	27	66	39	90	51	114
U	24	AUF(†)-0624-(*)-ET(+)	15	48	27	72	39	96	51	120
	30	AUF(†)-0630-(*)-ET(+)	15	54	27	78	39	102	51	126
	36	AUF(†)-0636-(*)-ET(+)	15	60	27	84	39	108	51	132

(†) Insert side rail depth. (*) Insert bottom style to complete Catalog Number. (+) Insert radius (12"-48").

Includes two pairs of splice plates with hardware.

T&B aluminum cable tray is composed of two distinct systems — H-Style and U-Style. These systems are interchangeable.



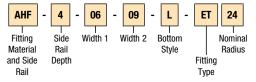


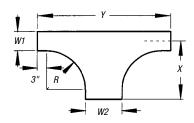


Aluminum Tray



Catalog Numbering System





Selection Guide

Tray Widths W1: 30, 24, 18, 12, 9, 6 **Tray Widths W2**: 36, 30, 24, 18, 12, 9

Nominal Radius: 12, 24, 36, 48

Bottom Styles: L- Ladder, V- Ventilated, S- Solid

Side Rail Depth: 4"-7"

H-Style Horizontal Expanding Tees

WID	THS		(+) 12" NOM	INAL RADIUS	(+) 24" NOM	INAL RADIUS	(+) 36" NOM	INAL RADIUS	(+) 48" NOM	INAL RADIUS
W1	W2	CAT. NO.	Х	Υ	Х	Υ	Х	Υ	x	Υ
30	36	AHF(†)-3036-(*)-ET(+)	30	66	42	90	54	114	66	138
24	30	AHF(†)-2430-(*)-ET(+)	27	60	39	84	51	108	63	132
24	36	AHF(†)-2436-(*)-ET(+)	27	66	39	90	51	114	63	138
	24	AHF(†)-1824-(*)-ET(+)	24	54	36	78	48	102	60	126
18	30	AHF(†)-1830-(*)-ET(+)	24	60	36	84	48	108	60	132
	36	AHF(†)-1836-(*)-ET(+)	24	66	36	90	48	114	60	138
	18	AHF(†)-1218-(*)-ET(+)	21	48	33	72	45	96	57	120
12	24	AHF(†)-1224-(*)-ET(+)	21	54	33	78	45	102	57	126
12	30	AHF(†)-1230-(*)-ET(+)	21	60	33	84	45	108	57	132
	36	AHF(†)-1236-(*)-ET(+)	21	66	33	90	45	114	57	138
	12	AHF(†)-0912-(*)-ET(+)	19½	42	31½	66	431/2	90	551/2	114
	18	AHF(†)-0918-(*)-ET(+)	19½	48	31½	72	431/2	96	551/2	120
9	24	AHF(†)-0924-(*)-ET(+)	19½	54	31½	78	431/2	102	55½	126
	30	AHF(†)-0930-(*)-ET(+)	19½	60	31½	84	431/2	108	55½	132
	36	AHF(†)-0936-(*)-ET(+)	19½	66	31½	90	431/2	114	55½	138
	9	AHF(†)-0609-(*)-ET(+)	18	39	30	63	42	87	54	111
	12	AHF(†)-0612-(*)-ET(+)	18	42	30	66	42	90	54	114
6	18	AHF(†)-0618-(*)-ET(+)	18	48	30	72	42	96	54	120
U	24	AHF(†)-0624-(*)-ET(+)	18	54	30	78	42	102	54	126
	30	AHF(†)-0630-(*)-ET(+)	18	60	30	84	42	108	54	132
	36	AHF(†)-0636-(*)-ET(+)	18	66	30	90	42	114	54	138

(†) Insert side rail depth. (*) Insert bottom style to complete Catalog Number. (+) Insert radius (12"-48").

Includes two pairs of splice plates with hardware.

T&B aluminum cable tray is composed of two distinct systems — H-Style and U-Style. These systems are interchangeable.





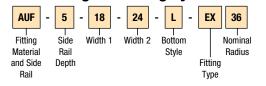


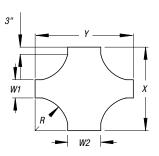
1-800-453-1692

Aluminum Tray



Catalog Numbering System





Selection Guide

Tray Widths W1: 30, 24, 18, 12, 9, 6 Tray Widths W2: 36, 30, 24, 18, 12, 9

Nominal Radius: 12, 24, 36, 48

Bottom Styles: L- Ladder, V- Ventilated, S- Solid

Side Rail Depth: 4"-7"

U-Style Horizontal Expanding Crosses

W	/IDTHS		(+) 12" NOM	IINAL RADIUS	(+) 24" NOM	IINAL RADIUS	(+) 36" NOM	IINAL RADIUS	(+) 48" NOM	INAL RADIUS
W1	W2	CAT. NO.	Х	Υ	Х	Υ	Х	Υ Υ	Х	Υ
30	36	AUF(†)-3036-(*)-EX(+)	54	60	78	84	102	108	126	132
24	30	AUF(†)-2430-(*)-EX(+)	48	54	72	78	96	102	120	126
	36	AUF(†)-2436-(*)-EX(+)	48	60	72	84	96	108	120	132
	24	AUF(†)-1824-(*)-EX(+)	42	48	66	72	90	96	114	120
18	30	AUF(†)-1830-(*)-EX(+)	42	54	66	78	90	102	114	126
	36	AUF(†)-1836-(*)-EX(+)	42	60	66	84	90	108	114	132
	18	AUF(†)-1218-(*)-EX(+)	36	42	60	66	84	90	108	114
12	24	AUF(†)-1224-(*)-EX(+)	36	48	60	72	84	96	108	120
12	30	AUF(†)-1230-(*)-EX(+)	36	54	60	78	84	102	108	126
	36	AUF(†)-1236-(*)-EX(+)	36	60	60	84	84	108	108	132
	12	AUF(†)-0912-(*)-EX(+)	33	36	57	60	81	84	105	108
	18	AUF(†)-0918-(*)-EX(+)	33	42	57	66	81	90	105	114
9	24	AUF(†)-0924-(*)-EX(+)	33	48	57	72	81	96	105	120
	30	AUF(†)-0930-(*)-EX(+)	33	54	57	78	81	102	105	126
	36	AUF(†)-0936-(*)-EX(+)	33	60	57	84	81	108	105	132
	9	AUF(†)-0609-(*)-EX(+)	30	33	54	57	78	81	102	105
	12	AUF(†)-0612-(*)-EX(+)	30	36	54	60	78	84	102	108
6	18	AUF(†)-0618-(*)-EX(+)	30	42	54	66	78	90	102	114
U	24	AUF(†)-0624-(*)-EX(+)	30	48	54	72	78	96	102	120
	30	AUF(†)-0630-(*)-EX(+)	30	54	54	78	78	102	102	126
	36	AUF(†)-0636-(*)-EX(+)	30	60	54	84	78	108	102	132

(†) Insert side rail depth. (*) Insert bottom style to complete Catalog Number. (+) Insert radius (12"-48").

Includes three pairs of splice plates with hardware.

T&B aluminum cable tray is composed of two distinct systems — H-Style and U-Style. These systems are interchangeable.



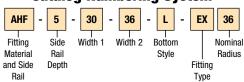


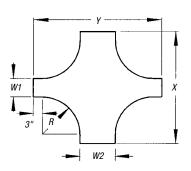


Aluminum Tray



Catalog Numbering System





Selection Guide

Tray Widths W1: 30, 24, 18, 12, 9, 6 Tray Widths W2: 36, 30, 24, 18, 12, 9

Nominal Radius: 12, 24, 36, 48

Bottom Styles: L- Ladder, V- Ventilated, S- Solid

Side Rail Depth: 4"-7"

H-Style Horizontal Expanding Crosses

WII	DTHS		(+) 12" NOM	INAL RADIUS	(+) 24" NON	INAL RADIUS	(+) 36" NOM	INAL RADIUS	(+) 48" NOM	INAL RADIUS
W1	W2	CAT. NO.	Х	Y	x	Y	Х	Y	Х	Υ
30	36	AHF(†)-3036-(*)-EX(+)	60	66	84	90	108	114	132	138
24	30	AHF(†)-2430-(*)-EX(+)	54	60	78	84	102	108	126	132
24	36	AHF(†)-2436-(*)-EX(+)	54	66	78	90	102	114	126	138
	24	AHF(†)-1824-(*)-EX(+)	48	54	72	78	96	102	120	126
18	30	AHF(†)-1830-(*)-EX(+)	48	60	72	84	96	108	120	132
	36	AHF(†)-1836-(*)-EX(+)	48	66	72	90	96	114	120	138
	18	AHF(†)-1218-(*)-EX(+)	42	48	66	72	90	96	114	120
12	24	AHF(†)-1224-(*)-EX(+)	42	54	66	78	90	102	114	126
12	30	AHF(†)-1230-(*)-EX(+)	42	60	66	84	90	108	114	132
	36	AHF(†)-1236-(*)-EX(+)	42	66	66	90	90	114	114	138
	12	AHF(†)-0912-(*)-EX(+)	39	42	63	66	87	90	111	114
	18	AHF(†)-0918-(*)-EX(+)	39	48	63	72	87	96	111	120
9	24	AHF(†)-0924-(*)-EX(+)	39	54	63	78	87	102	111	126
	30	AHF(†)-0930-(*)-EX(+)	39	60	63	84	87	108	111	132
	36	AHF(†)-0936-(*)-EX(+)	39	66	63	90	87	114	111	138
	9	AHF(†)-0609-(*)-EX(+)	36	39	60	63	84	87	108	111
	12	AHF(†)-0612-(*)-EX(+)	36	42	60	66	84	90	108	114
6	18	AHF(†)-0618-(*)-EX(+)	36	48	60	72	84	96	108	120
U	24	AHF(†)-0624-(*)-EX(+)	36	54	60	78	84	102	108	126
	30	AHF(†)-0630-(*)-EX(+)	36	60	60	84	84	108	108	132
	36	AHF(†)-0636-(*)-EX(+)	36	66	60	90	84	114	108	138

(†) Insert side rail depth. (*) Insert bottom style to complete Catalog Number. (+) Insert radius (12"-48").

Includes three pairs of splice plates with hardware.

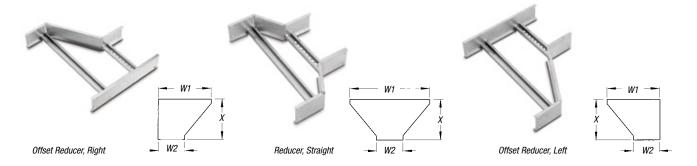
T&B aluminum cable tray is composed of two distinct systems — H-Style and U-Style. These systems are interchangeable.



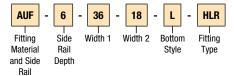




Aluminum Tray



Catalog Numbering System



Selection Guide

Tray Widths W1: 36, 30, 24, 18, 12, 9 **Tray Widths W2**: 30, 24, 18, 12, 9, 6

Bottom Styles: L – Ladder, V – Ventilated, S – Solid

Side Rail Depth: 4"-7"

U-Style Horizontal Reducers

WIE	DTHS	LH REDUCER		STRAIGHT REDUCER (CONC	ENTRIC)	RH REDUCER	
W1	W2	CAT. NO.	DIM. X	CAT. NO.	DIM. X	CAT. NO.	DIM. X
	30	AUF(†)-36-30-(*)-HLR	157/16	AUF(†)-36-30-(*)-HSR	13¾	AUF(†)-36-30-(*)-HRR	151/16
	24	AUF(†)-36-24-(*)-HLR	1815/16	AUF(†)-36-24-(*)-HSR	157/16	AUF(†)-36-24-(*)-HRR	1815/16
36	18	AUF(†)-36-18-(*)-HLR	22¾	AUF(†)-36-18-(*)-HSR	17%	AUF(†)-36-18-(*)-HRR	223/8
30	12	AUF(†)-36-12-(*)-HLR	257//8	AUF(†)-36-12-(*)-HSR	185/16	AUF(†)-36-12-(*)-HRR	257/8
	9	AUF(†)-36-09-(*)-HLR	27%	AUF(†)-36-09-(*)-HSR	1913/16	AUF(†)-36-09-(*)-HRR	27%
	6	AUF(†)-36-06-(*)-HLR	295/16	AUF(†)-36-06-(*)-HSR	2011/16	AUF(†)-36-06-(*)-HRR	295/16
	24	AUF(†)-30-24-(*)-HLR	157/16	AUF(†)-30-24-(*)-HSR	13¾	AUF(†)-30-24-(*)-HRR	157/16
	18	AUF(†)-30-18-(*)-HLR	1815/16	AUF(†)-30-18-(*)-HSR	151/16	AUF(†)-30-18-(*)-HRR	1815/16
30	12	AUF(†)-30-12-(*)-HLR	22¾	AUF(†)-30-12-(*)-HSR	173/16	AUF(†)-30-12-(*)-HRR	223/8
	9	AUF(†)-30-09-(*)-HLR	241//8	AUF(†)-30-09-(*)-HSR	181/16	AUF(†)-30-09-(*)-HRR	241/8
	6	AUF(†)-30-06-(*)-HLR	257//8	AUF(†)-30-06-(*)-HSR	1815/16	AUF(†)-30-06-(*)-HRR	251/8
	18	AUF(†)-24-18-(*)-HLR	157/16	AUF(†)-24-18-(*)-HSR	13¾	AUF(†)-24-18-(*)-HRR	151/16
24	12	AUF(†)-24-12-(*)-HLR	1815/16	AUF(†)-24-12-(*)-HSR	157/16	AUF(†)-24-12-(*)-HRR	1815/16
24	9	AUF(†)-24-09-(*)-HLR	2011/16	AUF(†)-24-09-(*)-HSR	165/16	AUF(†)-24-09-(*)-HRR	2011/16
	6	AUF(†)-24-06-(*)-HLR	22¾	AUF(†)-24-06-(*)-HSR	173/16	AUF(†)-24-06-(*)-HRR	223/8
	12	AUF(†)-18-12-(*)-HLR	157/16	AUF(†)-18-12-(*)-HSR	13¾	AUF(†)-18-12-(*)-HRR	157/16
18	9	AUF(†)-18-09-(*)-HLR	173/16	AUF(†)-18-09-(*)-HSR	14%	AUF(†)-18-09-(*)-HRR	17¾6
	6	AUF(†)-18-06-(*)-HLR	1815/16	AUF(†)-18-06-(*)-HSR	157/16	AUF(†)-18-06-(*)-HRR	1815/16
12	9	AUF(†)-12-09-(*)-HLR	13¾	AUF(†)-12-09-(*)-HSR	121//8	AUF(†)-12-09-(*)-HRR	13¾
12	6	AUF(†)-12-06-(*)-HLR	151/16	AUF(†)-12-06-(*)-HSR	13¾	AUF(†)-12-06-(*)-HRR	157/16
9	6	AUF(†)-09-06-(*)-HLR	13¾	AUF(†)-09-06-(*)-HSR	121//8	AUF(†)-09-06-(*)-HRR	13¾

(†) Insert side rail depth. (*) Insert bottom style to complete Catalog Number.

Includes one pair of splice plates with hardware.

T&B aluminum cable tray is composed of two distinct systems — H-Style and U-Style. These systems are interchangeable.

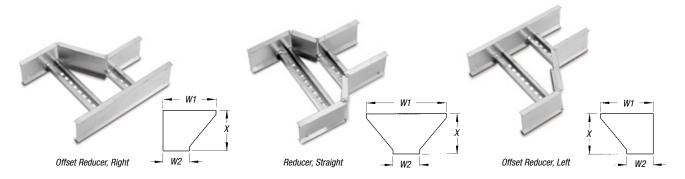




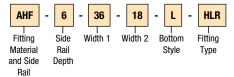




Aluminum Tray



Catalog Numbering System



Selection Guide

Tray Widths W1: 36, 30, 24, 18, 12, 9 **Tray Widths W2**: 30, 24, 18, 12, 9, 6

Bottom Styles: L – Ladder, V – Ventilated, S – Solid

Side Rail Depth: 4"-7"

H-Style Horizontal Reducers

WIE	OTHS	LH REDUCER		STRAIGHT REDUCER (CON	CENTRIC)	RH REDUCER	
W1	W2	CAT. NO.	DIM. X	CAT. NO.	DIM. X	CAT. NO.	DIM. X
	30	AHF(†)-36-30-(*)-HLR	157/16	AHF(†)-36-30-(*)-HSR	13¾	AHF(†)-36-30-(*)-HRR	157/16
	24	AHF(†)-36-24-(*)-HLR	18¹⁵⁄₁6	AHF(†)-36-24-(*)-HSR	151/16	AHF(†)-36-24-(*)-HRR	18¹⁵⁄₁6
36	18	AHF(†)-36-18-(*)-HLR	223/8	AHF(†)-36-18-(*)-HSR	17%	AHF(†)-36-18-(*)-HRR	22¾
30	12	AHF(†)-36-12-(*)-HLR	25%	AHF(†)-36-12-(*)-HSR	185/16	AHF(†)-36-12-(*)-HRR	257/8
	9	AHF(†)-36-09-(*)-HLR	27%16	AHF(†)-36-09-(*)-HSR	1913/16	AHF(†)-36-09-(*)-HRR	271/16
	6	AHF(†)-36-06-(*)-HLR	295/16	AHF(†)-36-06-(*)-HSR	2011/16	AHF(†)-36-06-(*)-HRR	295/16
	24	AHF(†)-30-24-(*)-HLR	151/16	AHF(†)-30-24-(*)-HSR	13¾	AHF(†)-30-24-(*)-HRR	157/16
	18	AHF(†)-30-18-(*)-HLR	1815/16	AHF(†)-30-18-(*)-HSR	157/16	AHF(†)-30-18-(*)-HRR	18¹5⁄₁6
30	12	AHF(†)-30-12-(*)-HLR	22%	AHF(†)-30-12-(*)-HSR	173/16	AHF(†)-30-12-(*)-HRR	223/8
	9	AHF(†)-30-09-(*)-HLR	241/8	AHF(†)-30-09-(*)-HSR	181/16	AHF(†)-30-09-(*)-HRR	241/8
	6	AHF(†)-30-06-(*)-HLR	25%	AHF(†)-30-06-(*)-HSR	1815/16	AHF(†)-30-06-(*)-HRR	257/8
	18	AHF(†)-24-18-(*)-HLR	151/16	AHF(†)-24-18-(*)-HSR	13¾	AHF(†)-24-18-(*)-HRR	157/16
24	12	AHF(†)-24-12-(*)-HLR	1815/16	AHF(†)-24-12-(*)-HSR	157/16	AHF(†)-24-12-(*)-HRR	18¹5⁄₁6
24	9	AHF(†)-24-09-(*)-HLR	2011/16	AHF(†)-24-09-(*)-HSR	165/16	AHF(†)-24-09-(*)-HRR	2011/16
	6	AHF(†)-24-06-(*)-HLR	22%	AHF(†)-24-06-(*)-HSR	17¾16	AHF(†)-24-06-(*)-HRR	22%
	12	AHF(†)-18-12-(*)-HLR	157/16	AHF(†)-18-12-(*)-HSR	13¾	AHF(†)-18-12-(*)-HRR	157/16
18	9	AHF(†)-18-09-(*)-HLR	17¾6	AHF(†)-18-09-(*)-HSR	14%	AHF(†)-18-09-(*)-HRR	173/16
	6	AHF(†)-18-06-(*)-HLR	1815/16	AHF(†)-18-06-(*)-HSR	157/16	AHF(†)-18-06-(*)-HRR	18¹5⁄₁6
12	9	AHF(†)-12-09-(*)-HLR	13¾	AHF(†)-12-09-(*)-HSR	121//8	AHF(†)-12-09-(*)-HRR	13¾
12	6	AHF(†)-12-06-(*)-HLR	157/16	AHF(†)-12-06-(*)-HSR	13¾	AHF(†)-12-06-(*)-HRR	157/16
9	6	AHF(†)-09-06-(*)-HLR	13¾	AHF(†)-09-06-(*)-HSR	121//8	AHF(†)-09-06-(*)-HRR	13¾

(†) Insert side rail depth. (*) Insert bottom style to complete Catalog Number.

Includes one pair of splice plates with hardware.

T&B aluminum cable tray is composed of two distinct systems — H-Style and U-Style. These systems are interchangeable.





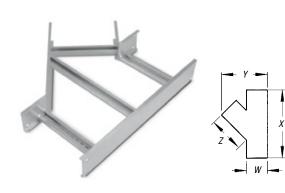
800.816.7809 Fax: 901.252.1354



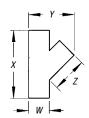




Aluminum Tray



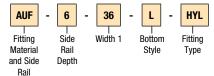




Left-Hand Wye

Right-Hand Wye

Catalog Numbering System



Selection Guide

Inside Tray Widths: 6, 9, 12, 18, 24, 30, 36Bottom Styles: L-Ladder, V-Ventilated, S-SolidSide Rail Depth: 4"-7"

U-Style 45° Horizontal Wyes

	LEFT HAND WYE	RIGHT HAND WYE		DIMENSIONS	
WIDTH	CAT. NO.	CAT. NO.	X	Y	Z
6	AUF-(†)-06-(*)-HYL	AUF-(†)-06-(*)-HYR	185/16	1413/16	127/16
9	AUF-(†)-09-(*)-HYL	AUF-(†)-09-(*)-HYR	221/2	1915/16	157/16
12	AUF-(†)-12-(*)-HYL	AUF-(†)-12-(*)-HYR	26¾	25	187/16
18	AUF-(†)-18-(*)-HYL	AUF-(†)-18-(*)-HYR	351/4	351/4	247/16
24	AUF-(†)-24-(*)-HYL	AUF-(†)-24-(*)-HYR	431/2	45½	307/16
30	AUF-(†)-30-(*)-HYL	AUF-(†)-30-(*)-HYR	521/4	55¾	367/16
36	AUF-(†)-36-(*)-HYL	AUF-(†)-36-(*)-HYR	6011/16	66	427/16

(†) Insert side rail depth.

(*) Insert bottom style to complete Catalog Number. Includes two pairs of splice plates with hardware.





1-800-453-1692 ww.aboveboardelectronics.com

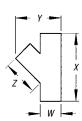


Fax: 901.252.1354

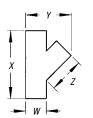


Aluminum Tray





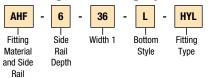




Left-Hand Wye

Right-Hand Wye

Catalog Numbering System



Selection Guide

 $\label{eq:linear_state} \textbf{Inside Tray Widths} \hbox{: } 6, 9, 12, 18, 24, 30, 36 \\ \\ \textbf{Bottom Styles} \hbox{: } L-Ladder, V-Ventilated, S-Solid \\ \\ \end{matrix}$

Side Rail Depth: 4"-7"

H-Style 45° Horizontal Wyes

	LEFT HAND WYE	RIGHT HAND WYE		DIMENSIONS	
WIDTH	CAT. NO.	CAT. NO.	Х	Y	Z
6	AHF-(†)-06-(*)-HYL	AHF-(†)-06-(*)-HYR	185/16	1413/16	127/16
9	AHF-(†)-09-(*)-HYL	AHF-(†)-09-(*)-HYR	221/2	19¹⁵⁄₁6	151/16
12	AHF-(†)-12-(*)-HYL	AHF-(†)-12-(*)-HYR	26¾	25	187/16
18	AHF-(†)-18-(*)-HYL	AHF-(†)-18-(*)-HYR	351/4	351/4	247/16
24	AHF-(†)-24-(*)-HYL	AHF-(†)-24-(*)-HYR	431/2	45½	307/16
30	AHF-(†)-30-(*)-HYL	AHF-(†)-30-(*)-HYR	521/4	55¾	367/16
36	AHF-(†)-36-(*)-HYL	AHF-(†)-36-(*)-HYR	6011/16	66	427/16

(†) Insert side rail depth.

(*) Insert bottom style to complete Catalog Number. Includes two pairs of splice plates with hardware.





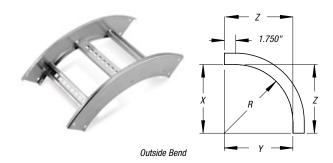
1-800-453-1692

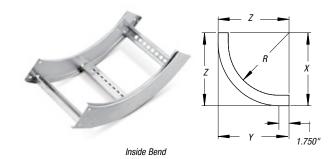


800.816.7809 Fax: 901.252.1354

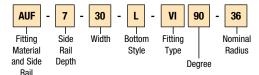


Aluminum Tray





Catalog Numbering System



Selection Guide

Inside Tray Widths: 6, 9, 12, 18, 24, 30, 36

Angle: 90°

Nominal Radius: 12, 24, 36, 48

Bottom Styles: L- Ladder, V- Ventilated, S- Solid

Side Rail Depth: 4"-7"

U-Style 90° Vertical Bends

NO	MINAL		(+)	VO SIDE I	RAIL					(+)	VI SIDE I	RAIL HEI	GHT				
	DIUS		HE	IGHT 4"-	-7"		4"			5"			6"			7"	
R	WIDTH	CAT. NO.	Х	Y	Z	Х	Y	Z	Х	Y	Z	Х	Y	Z	Х	Y	Z
	6	AUF-(†)-06-(*)-(+)90-12															
	9	AUF-(†)-09-(*)-(+)90-12															
	12	AUF-(†)-12-(*)-(+)90-12															
12	18	AUF-(†)-18-(*)-(+)90-12	12	12	12	1715/16	1715/16	17¹5⁄₁6	1813/16	1813/16	1813/16	20	20	20	21	21	21
	24	AUF-(†)-24-(*)-(+)90-12															
	30	AUF-(†)-30-(*)-(+)90-12															
	36	AUF-(†)-36-(*)-(+)90-12															
	6	AUF-(†)-06-(*)-(+)90-24															
	9	AUF-(†)-09-(*)-(+)90-24															
	12	AUF-(†)-12-(*)-(+)90-24															
24	18	AUF-(†)-18-(*)-(+)90-24	24	24	24	2915/16	2915/16	2915/16	3013/16	3013/16	3013/16	32	32	32	33	33	33
	24	AUF-(†)-24-(*)-(+)90-24															
	30	AUF-(†)-30-(*)-(+)90-24															
	36	AUF-(†)-36-(*)-(+)90-24															
	6	AUF-(†)-06-(*)-(+)90-36															
	9	AUF-(†)-09-(*)-(+)90-36															
00	12	AUF-(†)-12-(*)-(+)90-36	00	00		44157	44157	4415/	40127	40127	40127		١	١	4.5	4.5	45
36	18	AUF-(†)-18-(*)-(+)90-36	36	36	36	4115/16	4115/16	41 ¹⁵ / ₁₆	4213/16	4213/16	4213/16	44	44	44	45	45	45
	24	AUF-(†)-24-(*)-(+)90-36															
	30	AUF-(†)-30-(*)-(+)90-36															
	36	AUF-(†)-36-(*)-(+)90-36															
	9	AUF-(†)-06-(*)-(+)90-48															
	12	AUF-(†)-09-(*)-(+)90-48															
48	18	AUF-(†)-12-(*)-(+)90-48	48	48	48	5315/16	5315/16	53 ¹⁵ / ₁₆	54 ¹³ / ₁₆	54 ¹³ / ₁₆	54 ¹³ / ₁₆	56	56	56	57	57	57
40	24	AUF-(†)-18-(*)-(+)90-48	40	40	40	03.716	03.716	JJ 716	34.716	34.716	J4'716	00	00	00	37	37	3/
		AUF-(†)-24-(*)-(+)90-48															
	30 36	AUF-(†)-30-(*)-(+)90-48															
	30	AUF-(†)-36-(*)-(+)90-48		I	I	1	I	l	I	I	I	l	I	I	I	I	I

(†) Insert side rail depth. (*) Insert bottom style to complete Catalog Number. (+) Insert "VO" for vertical outside or "VI" for vertical inside. Includes one pair of splice plates with hardware.

T&B aluminum cable tray is composed of two distinct systems — H-Style and U-Style. These systems are interchangeable.



United States

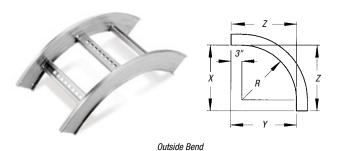
Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services** Tel: 888.862.3289



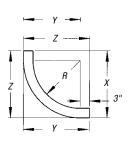




Aluminum Tray

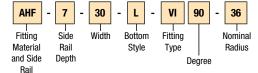






Inside Bend

Catalog Numbering System



Selection Guide

Inside Tray Widths: 6, 9, 12, 18, 24, 30, 36

Angle: 90°

Nominal Radius: 12, 24, 36, 48

Bottom Styles: L- Ladder, V- Ventilated, S- Solid

Side Rail Depth: 4"-7"

H-Style 90° Vertical Bends

NOI	MINAL		(+)	VO SIDE I	RAIL					(+)	VI SIDE I	RAIL HEI	GHT				
	DIUS	•	HE	IGHT 4"-	7"		4"			5"			6"			7"	
R	WIDTH	CAT. NO.	Х	Υ	Z	X	Υ	Z	X	Y	Z	Х	Y	Z	Х	Y	Z
	6	AHF-(†)-06-(*)-(+)90-12															
	9	AHF-(†)-09-(*)-(+)90-12															
	12	AHF-(†)-12-(*)-(+)90-12															
12	18	AHF-(†)-18-(*)-(+)90-12	15	15	15	193/16	19¾16	19¾6	201/16	201/16	201/16	211/4	211/4	211/4	221/4	221/4	221/4
	24	AHF-(†)-24-(*)-(+)90-12															
	30	AHF-(†)-30-(*)-(+)90-12															
	36	AHF-(†)-36-(*)-(+)90-12												-			
	6	AHF-(†)-06-(*)-(+)90-24															
	9	AHF-(†)-09-(*)-(+)90-24 AHF-(†)-12-(*)-(+)90-24															
24	18	AHF-(†)-18-(*)-(+)90-24	27	27	27	313/16	31¾6	31¾6	321/16	321/16	321/16	331/4	331/4	331/4	341/4	341/4	341/4
24	24	AHF-(†)-24-(*)-(+)90-24	21	21	21	J1/16	J1/16	J1/16	JZ/16	JZ/16	JZ/16	33/4	33/4	33/4	J4/4	J4/4	J4/4
	30	AHF-(†)-30-(*)-(+)90-24															
	36	AHF-(†)-36-(*)-(+)90-24															
	6	AHF-(†)-06-(*)-(+)90-36															
	9	AHF-(†)-09-(*)-(+)90-36															
	12	AHF-(†)-12-(*)-(+)90-36													İ		
36	18	AHF-(†)-18-(*)-(+)90-36	39	39	39	433/16	43¾6	43¾6	441/16	441/16	441/16	451/4	451/4	451/4	461/4	461/4	461/4
	24	AHF-(†)-24-(*)-(+)90-36															
	30	AHF-(†)-30-(*)-(+)90-36															
	36	AHF-(†)-36-(*)-(+)90-36															
	6	AHF-(†)-06-(*)-(+)90-48															
	9	AHF-(†)-09-(*)-(+)90-48															
	12	AHF-(†)-12-(*)-(+)90-48				==0/	===:	==0.	=0.1	=047	= 0.1 /				=01/	5047	5047
48	18	AHF-(†)-18-(*)-(+)90-48	51	51	51	55¾6	55¾6	55¾6	561/16	561/16	561/16	571/4	571/4	571/4	581/4	581/4	581/4
	24	AHF-(†)-24-(*)-(+)90-48															
	30	AHF-(†)-30-(*)-(+)90-48															
	36	AHF-(†)-36-(*)-(+)90-48				1											l

(†) Insert side rail depth. (*) Insert bottom style to complete Catalog Number. (+) Insert "VO" for vertical outside or "VI" for vertical inside. Includes one pair of splice plates with hardware.

T&B aluminum cable tray is composed of two distinct systems — H-Style and U-Style. These systems are interchangeable.

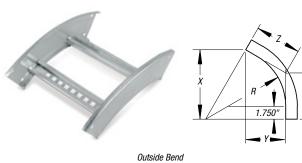




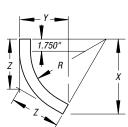




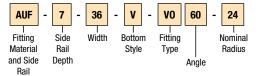
Aluminum Tray







Catalog Numbering System



Selection Guide

Inside Tray Widths: 6, 9, 12, 18, 24, 30, 36

Angle: 60°

Nominal Radius: 12, 24, 36, 48

Bottom Styles: L- Ladder, V- Ventilated, S- Solid

Inside Bend

Side Rail Depth: 4"-7"

U-Style 60° Vertical Bends

NO	MINAL		(+)	VO SIDE	RAIL					(+) VI SIDE	RAIL HE	IGHT				
	DIUS		HE	IGHT 4"-	-7"		4"			5"			6"			7"	
R	WIDTH	CAT. NO.	Х	Υ	Z	X	Y	Z	X	Υ	Z	X	Y	Z	X	Y	Z
	6	AUF-(†)-06-(*)-(+)60-12															
	9	AUF-(†)-09-(*)-(+)60-12															
	12	AUF-(†)-12-(*)-(+)60-12															
12	18	AUF-(†)-18-(*)-(+)60-12	13	71/2	811/16	16%	1111/16	111/16	171/16	125/8	11%	18%	1311/16	121/4	195/16	14¾	121//8
	24	AUF-(†)-24-(*)-(+)60-12															
	30	AUF-(†)-30-(*)-(+)60-12															
	36	AUF-(†)-36-(*)-(+)60-12															
	6	AUF-(†)-06-(*)-(+)60-24															
	9	AUF-(†)-09-(*)-(+)60-24															
	12	AUF-(†)-12-(*)-(+)60-24															
24	18	AUF-(†)-18-(*)-(+)60-24	237/16	13½	15%	27	1711/16	18	2713/16	18%	16%	28¾	1911/16	19¾6	2911/16	20¾	19¹¾16
	24	AUF-(†)-24-(*)-(+)60-24															
	30	AUF-(†)-30-(*)-(+)60-24															
	36	AUF-(†)-36-(*)-(+)60-24															
	6	AUF-(†)-06-(*)-(+)60-36															
	9	AUF-(†)-09-(*)-(+)60-36															
0.0	12	AUF-(†)-12-(*)-(+)60-36	00127	101/	000/	077/	0011/	0.4157	002/	0.457	0.57/	002/	0511/	001/	4017	002/	0011 /
36	18	AUF-(†)-18-(*)-(+)60-36	3313/16	19½	221/16	377/16	2311/16	2415/16	38¾6	24%	257/16	39¾6	2511/16	261//8	401/16	26¾	2611/16
	24	AUF-(†)-24-(*)-(+)60-36															
	30	AUF-(†)-30-(*)-(+)60-36															
	36	AUF-(†)-36-(*)-(+)60-36			-						-						
	6	AUF-(†)-06-(*)-(+)60-48															
	9	AUF-(†)-09-(*)-(+)60-48															
40	12	AUF-(†)-12-(*)-(+)60-48	4.43/	0.E1/	207/	47 13/	2011/	017/	409/	205/	203/	409/	0111/	221/	E07/	203/	225/
48	18	AUF-(†)-18-(*)-(+)60-48	443/16	25½	297/16	4713/16	2911/16	31%	48%16	30%	32¾	491/16	3111/16	331/16	507/16	32¾	33%
	24	AUF-(†)-24-(*)-(+)60-48															
	30	AUF-(†)-30-(*)-(+)60-48															
	36	AUF-(†)-36-(*)-(+)60-48	1	I	1	I	l		I	1	I	1	l	1	l	1	

(†) Insert side rail depth. (*) Insert bottom style to complete Catalog Number. (+) Insert "VO" for vertical outside or "VI" for vertical inside. Includes one pair of splice plates with hardware. T&B aluminum cable tray is composed of two distinct systems — H-Style and U-Style. The systems are interchangeable.



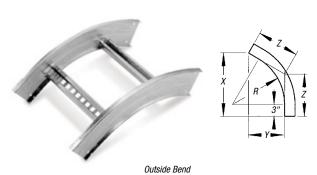
United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services** Tel: 888.862.3289

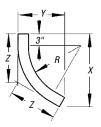




Aluminum Tray

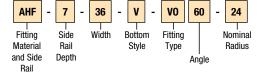






Inside Bend

Catalog Numbering System



Selection Guide

Inside Tray Widths: 6, 9, 12, 18, 24, 30, 36

Angle: 60°

Nominal Radius: 12, 24, 36, 48

Bottom Styles: L– Ladder, V– Ventilated, S– Solid

Side Rail Depth: 4"-7"

H-Style 60° Vertical Bends

NON	/INAL		(+)	VO SIDE I	RAIL					(+) VI SIDE	RAIL HE	IGHT				
	DIUS		HE	IGHT 4"-	-7"		4"			5"			6"			7"	
R	WIDTH	CAT. NO.	Х	Y	Z	Х	Υ	z	Х	Υ	Z	Х	Υ	Z	Х	Υ	Z
	6	AHF-(†)-06-(*)-(+)60-12															
	9	AHF-(†)-09-(*)-(+)60-12															
	12	AHF-(†)-12-(*)-(+)60-12															
12	18	AHF-(†)-18-(*)-(+)60-12	141//8	85/8	915/16	18½	12¾	125/16	195/16	1311/16	121/8	205/16	1413/16	13½	211//8	15 ¹³ / ₁₆	141/8
	24	AHF-(†)-24-(*)-(+)60-12															
	30	AHF-(†)-30-(*)-(+)60-12															
	36	AHF-(†)-36-(*)-(+)60-12															
	6	AHF-(†)-06-(*)-(+)60-24															
	9	AHF-(†)-09-(*)-(+)60-24															
	12	AHF-(†)-12-(*)-(+)60-24															
24	18	AHF-(†)-18-(*)-(+)60-24	255/16	14%	16%	28%	18¾	191/4	2911/16	1911/16	1913/16	3011/16	2013/16	207/16	31%	2113/16	21
	24	AHF-(†)-24-(*)-(+)60-24															
	30	AHF-(†)-30-(*)-(+)60-24															
	36	AHF-(†)-36-(*)-(+)60-24							-			-					
	6	AHF-(†)-06-(*)-(+)60-36															
	9	AHF-(†)-09-(*)-(+)60-36															
36	12	AHF-(†)-12-(*)-(+)60-36	0511/	005/	0013/	205/	0.437	0.037	401/	0511/	0011/	441/	0013/	073/	4 + 15/	0713/	0715/
30	18 24	AHF-(†)-18-(*)-(+)60-36	3511/16	20%	2313/16	395/16	24¾	26¾6	401/16	2511/16	2611/16	411/16	2613/16	27%	4115/16	2713/16	2715/16
	30	AHF-(†)-24-(*)-(+)60-36 AHF-(†)-30-(*)-(+)60-36															
	36	AHF-(†)-36-(*)-(+)60-36															
	6	AHF-(†)-06-(*)-(+)60-48															
	9	AHF-(†)-09-(*)-(+)60-48															
	12	AHF-(†)-12-(*)-(+)60-48															
48	18	AHF-(†)-18-(*)-(+)60-48	461/16	265%	3011/16	4911/16	30¾	331/8	507/16	3111/16	335%	51½	3213/16	345/16	525/16	3313/16	34%
-10	24	AHF-(†)-24-(*)-(+)60-48	10/10	20,0	30 / 10	10 / 10	00/4	00/8	00710	31 /10	00/8	01/2	JZ /10	0-1/10	02/10	30 / 18	0-1/0
	30	AHF-(†)-30-(*)-(+)60-48															
	36	AHF-(†)-36-(*)-(+)60-48															

(†) Insert side rail depth. (*) Insert bottom style to complete Catalog Number. (+) Insert "VO" for vertical outside or "VI" for vertical inside. Includes one pair of splice plates with hardware.

T&B aluminum cable tray is composed of two distinct systems — H-Style and U-Style. The systems are interchangeable.



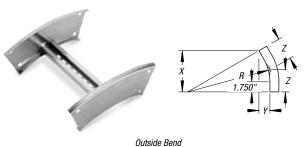




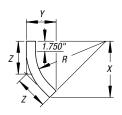


www.aboveboardelectronics.com

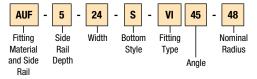
Aluminum Tray







Catalog Numbering System



Selection Guide

 $\textbf{Inside Tray Widths} \hbox{:} \ 6, \ 9, \ 12, \ 18, \ 24, \ 30, \ 36\\$

Inside Bend

Angle: 45°

Nominal Radius: 12, 24, 36, 48

Bottom Styles: L- Ladder, V- Ventilated, S- Solid

Side Rail Depth: 4"-7"

U-Style 45° Vertical Bends

NO	MINAL		(+)	VO SIDE I	RAIL					(+) VI SIDE	RAIL HE	IGHT				
	DIUS		HE	IGHT 4"-	-7"		4"			5"			6"			7"	
R	WIDTH	CAT. NO.	X	Y	z	Х	Y	z	Х	Y	z	Х	Υ	z	Х	Y	z
	6	AUF-(†)-06-(*)-(+)45-12															
	9	AUF-(†)-09-(*)-(+)45-12															
	12	AUF-(†)-12-(*)-(+)45-12															
12	18	AUF-(†)-18-(*)-(+)45-12	11½	43/4	6¾	141/16	815/16	87/16	151/16	913/16	813/16	15%	1015/16	95/16	161/16	12	93/4
	24	AUF-(†)-24-(*)-(+)45-12															
	30	AUF-(†)-30-(*)-(+)45-12															
	36	AUF-(†)-36-(*)-(+)45-12															
	6	AUF-(†)-06-(*)-(+)45-24															
	9	AUF-(†)-09-(*)-(+)45-24															
	12	AUF-(†)-12-(*)-(+)45-24	10457			00457	4.07/	407/	000/	4007	4.0407	0.457			0547		
24	18	AUF-(†)-18-(*)-(+)45-24	1915/16	81/4	1111/16	2215/16	127/16	137/16	231/16	13%	1313/16	245/16	147/16	141/4	251/16	15½	1411/16
	24	AUF-(†)-24-(*)-(+)45-24															
	30	AUF-(†)-30-(*)-(+)45-24															
	36	AUF-(†)-36-(*)-(+)45-24															
	6	AUF-(†)-06-(*)-(+)45-36															
	9	AUF-(†)-09-(*)-(+)45-36															
36	18	AUF-(†)-12-(*)-(+)45-36 AUF-(†)-18-(*)-(+)45-36	287/16	11 ¹³ / ₁₆	1611/16	31%	15 ¹⁵ / ₁₆	18%	321/16	16%	18¾	3213/16	18	191/4	33%16	19	1911/16
30	24	AUF-(†)-24-(*)-(+)45-36	20716	11.216	10.716	3178	13.416	1078	JZ/16	1078	1074	JZ 716	10	1974	33716	19	19.716
	30	AUF-(†)-30-(*)-(+)45-36															
	36	AUF-(†)-36-(*)-(+)45-36															
	6	AUF-(†)-06-(*)-(+)45-48															
	9	AUF-(†)-09-(*)-(+)45-48															
	12	AUF-(†)-12-(*)-(+)45-48															
48	18	AUF-(†)-18-(*)-(+)45-48	3615/16	155/16	21%	39%	19½	23%	401/2	20%	23¾	415/16	21½	243/16	421/16	22%	245/8
10	24	AUF-(†)-24-(*)-(+)45-48	00 /10	13710	21/0	55/6	13/2	20/8	10/2	25/8	20/4	11710	-1/2	2 1710	12/10		2 170
	30	AUF-(†)-30-(*)-(+)45-48															
	36	AUF-(†)-36-(*)-(+)45-48															

(1) Insert side rail depth. (2) Insert bottom style to complete Catalog Number. (+) Insert "VO" for vertical outside or "VI" for vertical inside. Includes one pair of splice plates with hardware. T&B aluminum cable tray is composed of two distinct systems -- H-Style and U-Style. These systems are interchangeable.



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services** Tel: 888.862.3289

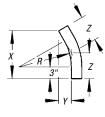




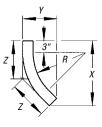


Aluminum Tray

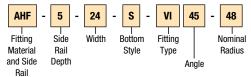








Catalog Numbering System



Selection Guide

Inside Tray Widths: 6, 9, 12, 18, 24, 30, 36

Angle: 45°

Nominal Radius: 12, 24, 36, 48

Bottom Styles: L- Ladder, V- Ventilated, S- Solid

Side Rail Depth: 4"-7"

H-Style 45° Vertical Bends

NO	MINAL		(+)	VO SIDE	RAIL					(+)	VI SIDE	RAIL HEI	GHT				
	DIUS		HE	IGHT 4"-	-7"		4"			5"			6"			7"	
R	WIDTH	CAT. NO.	x	Υ	z	X	Y	z	X	Υ	Z	x	Y	z	X	Υ	Z
	6	AHF-(†)-06-(*)-(+)45-12															
	9	AHF-(†)-09-(*)-(+)45-12															
	12	AHF-(†)-12-(*)-(+)45-12															
12	18	AHF-(†)-18-(*)-(+)45-12	13%	5%	8	161/16	913/16	911/16	173/16	1011/16	101/16	18	11%	101/16	1811/16	12%	1015/1
	24	AHF-(†)-24-(*)-(+)45-12															
	30	AHF-(†)-30-(*)-(+)45-12															
	36	AHF-(†)-36-(*)-(+)45-12															
	6	AHF-(†)-06-(*)-(+)45-24															
	9	AHF-(†)-09-(*)-(+)45-24															
	12	AHF-(†)-12-(*)-(+)45-24															
24	18	AHF-(†)-18-(*)-(+)45-24	221/16	91/8	1215/16	251/16	135/16	1411/16	2511/16	141/4	151/16	26½	15%	15½	27¾16	16%	1515/16
	24	AHF-(†)-24-(*)-(+)45-24															
	30	AHF-(†)-30-(*)-(+)45-24															
	36	AHF-(†)-36-(*)-(+)45-24		-						<u> </u>	<u> </u>	-					-
	6	AHF-(†)-06-(*)-(+)45-36															
	9	AHF-(†)-09-(*)-(+)45-36															
36	18	AHF-(†)-12-(*)-(+)45-36 AHF-(†)-18-(*)-(+)45-36	30%	1211/16	1715/16	33½	16 ¹³ / ₁₆	195/8	343/16	17¾	20	35	18%	20½	3511/16	19%	20%
30	24	AHF-(†)-24-(*)-(+)45-36	30716	12.716	17.716	3372	10.218	1978	34716	1774	20	33	1078	2072	33.716	1978	2078
	30	AHF-(†)-30-(*)-(+)45-36															
	36	AHF-(†)-36-(*)-(+)45-36															
	6	AHF-(†)-06-(*)-(+)45-48															
	9	AHF-(†)-09-(*)-(+)45-48															
	12	AHF-(†)-12-(*)-(+)45-48															
48	18	AHF-(†)-18-(*)-(+)45-48	391/16	163/16	221/8	42	20%	245/8	425/8	211/4	25	43½	227/16	257/16	443/16	23%	25%
	24	AHF-(†)-24-(*)-(+)45-48		1	,				,,								
	30	AHF-(†)-30-(*)-(+)45-48															
	36	AHF-(†)-36-(*)-(+)45-48															

(†) Insert side rail depth. (*) Insert bottom style to complete Catalog Number. (+) Insert "VO" for vertical outside or "VI" for vertical inside. Includes one pair of splice plates with hardware.

T&B aluminum cable tray is composed of two distinct systems — H-Style and U-Style. These systems are interchangeable.



United States
Tel: 901.252.8000
800.816.7809
Fax: 901.252.1354

Technical Services Tel: 888.862.3289

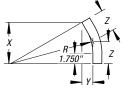






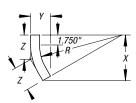
Aluminum Tray





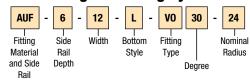
Outside Bend





Inside Bend

Catalog Numbering System



Selection Guide

Inside Tray Widths: 6, 9, 12, 18, 24, 30, 36

Angle: 30°

Nominal Radius: 12, 24, 36, 48

Bottom Styles: L- Ladder, V- Ventilated, S- Solid

Side Rail Depth: 4"-7"

U-Style 30° Vertical Bends

NO	MINAL		(+)	VO SIDE	RAIL	_				(+)	VI SIDE	RAIL HEI	GHT				
	DIUS		HE	IGHT 4"-	-7"		4"			5"			6"			7"	
R	WIDTH	CAT. NO.	Х	Υ	Z	X	Υ	Z	Х	Y	Z	X	Y	z	X	Υ	Z
	6	AUF(†)-06-(*)-(+)30-12															
	9	AUF(†)-09-(*)-(+)30-12															
	12	AUF(†)-12-(*)-(+)30-12															
12	18	AUF(†)-18-(*)-(+)30-12	91/4	2½	415/16	11%	611/16	61/16	11 ¹³ / ₁₆	7%16	65/16	12%	811/16	6%	121/8	9¾	6%
	24	AUF(†)-24-(*)-(+)30-12															
	30	AUF(†)-30-(*)-(+)30-12															
	36	AUF(†)-36-(*)-(+)30-12															
	6	AUF(†)-06-(*)-(+)30-24															
	9	AUF(†)-09-(*)-(+)30-24															
	12	AUF(†)-12-(*)-(+)30-24															
24	18	AUF(†)-18-(*)-(+)30-24	151/4	41/16	83/16	17%	81/4	95/16	17 ¹³ / ₁₆	9¾6	9%16	18%	101/4	913/16	18%	115/16	101//8
	24	AUF(†)-24-(*)-(+)30-24															
	30	AUF(†)-30-(*)-(+)30-24															
	36	AUF(†)-36-(*)-(+)30-24															
	6	AUF(†)-06-(*)-(+)30-36															
	9	AUF(†)-09-(*)-(+)30-36															
	12	AUF(†)-12-(*)-(+)30-36															
36	18	AUF(†)-18-(*)-(+)30-36	211/4	511/16	11%	23%	9%	12½	2313/16	10¾	12¾	24%	11%	131/16	241//8	1215/16	135/16
	24	AUF(†)-24-(*)-(+)30-36															
	30	AUF(†)-30-(*)-(+)30-36															
	36	AUF(†)-36-(*)-(+)30-36															
	6	AUF(†)-06-(*)-(+)30-48															
	9	AUF(†)-09-(*)-(+)30-48															
	12	AUF(†)-12-(*)-(+)30-48															
48	18	AUF(†)-18-(*)-(+)30-48	211/4	75/16	14%	29%	11½	15¾	2913/16	12%	16	30%	13½	161/4	30%	14%	161/16
	24	AUF(†)-24-(*)-(+)30-48															
	30	AUF(†)-30-(*)-(+)30-48															
	36	AUF(†)-36-(*)-(+)30-48															

(*) Insert side rail depth. (*) Insert bottom style to complete Catalog Number. (+) Insert "VO" for vertical outside or "VI" for vertical inside. Includes one pair of splice plates with hardware. T&B aluminum cable tray is composed of two distinct systems — H-Style and U-Style. These systems are interchangeable.



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services**

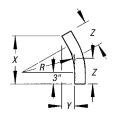




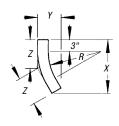


Aluminum Tray

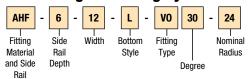








Catalog Numbering System



Selection Guide

Inside Tray Widths: 6, 9, 12, 18, 24, 30, 36

Angle: 30°

Nominal Radius: 12, 24, 36, 48

Bottom Styles: L- Ladder, V- Ventilated, S- Solid

Side Rail Depth: 4"-7"

H-Style 30° Vertical Bends

NO	MINAL		(+)	/O SIDE	RAIL					(+)	VI SIDE	RAIL HEI	GHT				
	ADIUS		HE	IGHT 4"-	-7"		4"		-	5"		_	6"			7"	
R	WIDTH	CAT. NO.	X	Y	Z	Х	Y	Z	Х	Υ	Z	Х	Y	Z	X	Υ	z
	6	AHF(†)-06-(*)-(+)30-12															
	9	AHF(†)-09-(*)-(+)30-12															
	12	AHF(†)-12-(*)-(+)30-12															
12	18	AHF(†)-18-(*)-(+)30-12	11%	31//8	63/16	1311/16	75/16	75/16	141/8	83/16	7%16	1411/16	9%	71//8	1311/16	105/16	81//8
	24	AHF(†)-24-(*)-(+)30-12															
	30	AHF(†)-30-(*)-(+)30-12															
	36	AHF(†)-36-(*)-(+)30-12															
	6	AHF(†)-06-(*)-(+)30-24															
	9	AHF(†)-09-(*)-(+)30-24															
	12	AHF(†)-12-(*)-(+)30-24															
24	18	AHF(†)-18-(*)-(+)30-24	17%	411/16	97/16	1911/16	8%	10%6	201//8	913/16	1013/16	2011/16	1015/16	111//8	1911/16	11 ¹⁵ ⁄ ₁₆	11%
	24	AHF(†)-24-(*)-(+)30-24															
	30	AHF(†)-30-(*)-(+)30-24															
	36	AHF(†)-36-(*)-(+)30-24															
	6	AHF(†)-06-(*)-(+)30-36															
	9	AHF(†)-09-(*)-(+)30-36															
	12	AHF(†)-12-(*)-(+)30-36															
36	18	AHF(†)-18-(*)-(+)30-36	23%	65/16	12%	2511/16	10½	13%	261//8	11%	14	2611/16	121/16	145/16	2511/16	13%	14%
	24	AHF(†)-24-(*)-(+)30-36															
	30	AHF(†)-30-(*)-(+)30-36															
	36	AHF(†)-36-(*)-(+)30-36															
	6	AHF(†)-06-(*)-(+)30-48															
	9	AHF(†)-09-(*)-(+)30-48															
	12	AHF(†)-12-(*)-(+)30-48															
48	18	AHF(†)-18-(*)-(+)30-48	29%	715/16	15%	3111/16	121/8	17	321/8	13	171/4	3211/16	143/16	17%16	3111/16	151//8	1713/16
	24	AHF(†)-24-(*)-(+)30-48															
	30	AHF(†)-30-(*)-(+)30-48															
	36	AHF(†)-36-(*)-(+)30-48															

(1) Insert side rail depth. (2) Insert bottom style to complete Catalog Number. (+) Insert "VO" for vertical outside or "VI" for vertical inside. Includes one pair of splice plates with hardware. T&B aluminum cable tray is composed of two distinct systems — H-Style and U-Style. These systems are interchangeable.





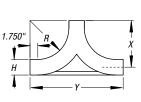


oveboardelectronics.com

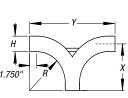


Aluminum Tray

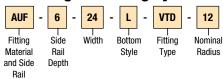








Catalog Numbering System



U-Style Up/Down Vertical Tees

Selection Guide

Inside Tray Widths: 6, 9, 12, 18, 24, 30, 36

Nominal Radius: 12, 24, 36, 48

Bottom Styles: L- Ladder, V- Ventilated, S- Solid

Side Rail Depth: 4"-7"

							SIDE RAIL	HEIGHT "H"			
NOMINA	AL RADIUS				1"	5	;"		5"	7	'11
R	WIDTH	CAT. NO.	CAT. NO.	X	Y	Х	Y	X	Y	Х	Y
	6	AUF(†)-06-(*)-VTU12	AUF(†)-06-(*)-VTD12								
	9	AUF(†)-09-(*)-VTU12	AUF(†)-09-(*)-VTD12								
	12	AUF(†)-12-(*)-VTU12	AUF(†)-12-(*)-VTD12								
12	18	AUF(†)-18-(*)-VTU12	AUF(†)-18-(*)-VTD12	1513/16	3111/16	165/16	32%	16%	33¾	17%	34¾
	24	AUF(†)-24-(*)-VTU12	AUF(†)-24-(*)-VTD12								
	30	AUF(†)-30-(*)-VTU12	AUF(†)-30-(*)-VTD12								
	36	AUF(†)-36-(*)-VTU12	AUF(†)-36-(*)-VTD12								
	6	AUF(†)-06-(*)-VTU24	AUF(†)-06-(*)-VTD24								
	9	AUF(†)-09-(*)-VTU24	AUF(†)-09-(*)-VTD24								
	12	AUF(†)-12-(*)-VTU24	AUF(†)-12-(*)-VTD24								
24	18	AUF(†)-18-(*)-VTU24	AUF(†)-18-(*)-VTD24	2713/16	5511/16	285/16	56%	28%	57¾	29%	58¾
	24	AUF(†)-24-(*)-VTU24	AUF(†)-24-(*)-VTD24								
	30	AUF(†)-30-(*)-VTU24	AUF(†)-30-(*)-VTD24								
	36	AUF(†)-36-(*)-VTU24	AUF(†)-36-(*)-VTD24								
	6	AUF(†)-06-(*)-VTU36	AUF(†)-06-(*)-VTD36								
	9	AUF(†)-09-(*)-VTU36	AUF(†)-09-(*)-VTD36								
	12	AUF(†)-12-(*)-VTU36	AUF(†)-12-(*)-VTD36								
36	18	AUF(†)-18-(*)-VTU36	AUF(†)-18-(*)-VTD36	3913/16	7911/16	405/16	80%6	40%	81¾	41%	82¾
	24	AUF(†)-24-(*)-VTU36	AUF(†)-24-(*)-VTD36								
	30	AUF(†)-30-(*)-VTU36	AUF(†)-30-(*)-VTD36								
	36	AUF(†)-36-(*)-VTU36	AUF(†)-36-(*)-VTD36								
	6	AUF(†)-06-(*)-VTU48	AUF(†)-06-(*)-VTD48								
	9	AUF(†)-09-(*)-VTU48	AUF(†)-09-(*)-VTD48								
	12	AUF(†)-12-(*)-VTU48	AUF(†)-12-(*)-VTD48								
48	18	AUF(†)-18-(*)-VTU48	AUF(†)-18-(*)-VTD48	51 ¹³ / ₁₆	10311/16	525/16	104%	521//8	105¾	53%	106¾
	24	AUF(†)-24-(*)-VTU48	AUF(†)-24-(*)-VTD48								
	30	AUF(†)-30-(*)-VTU48	AUF(†)-30-(*)-VTD48								
	36	AUF(†)-36-(*)-VTU48	AUF(†)-36-(*)-VTD48								

(†) Insert side rail depth. (*) Insert bottom style to complete Catalog Number. Includes two pairs of splice plates with hardware.

T&B aluminum cable tray is composed of two distinct systems — H-Style and U-Style. These systems are interchangeable.



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services**

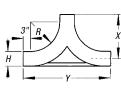




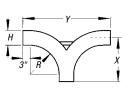


Aluminum Tray

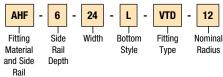








Catalog Numbering System



Selection Guide

Inside Tray Widths: 6, 9, 12, 18, 24, 30, 36

Nominal Radius: 12, 24, 36, 48

Bottom Styles: L- Ladder, V- Ventilated, S- Solid

Side Rail Depth: 4"-7"

H-Style Up/Down Vertical Tees

							SIDE RAIL	HEIGHT "H"			
NOMINA	AL RADIUS			4	ļ"	5	5"	E	5"	7	·II
R	WIDTH	CAT. NO.	CAT. NO.	Х	Y	Х	Υ	Х	Υ	Х	Υ
	6	AHF(†)-06-(*)-VTU12	AHF(†)-06-(*)-VTD12								
	9	AHF(†)-09-(*)-VTU12	AHF(†)-09-(*)-VTD12								
	12	AHF(†)-12-(*)-VTU12	AHF(†)-12-(*)-VTD12								
12	18	AHF(†)-18-(*)-VTU12	AHF(†)-18-(*)-VTD12	171/16	34¾6	17%	351/16	181//8	361/4	18%	371/4
	24	AHF(†)-24-(*)-VTU12	AHF(†)-24-(*)-VTD12								
	30	AHF(†)-30-(*)-VTU12	AHF(†)-30-(*)-VTD12								
	36	AHF(†)-36-(*)-VTU12	AHF(†)-36-(*)-VTD12								
	6	AHF(†)-06-(*)-VTU24	AHF(†)-06-(*)-VTD24								
	9	AHF(†)-09-(*)-VTU24	AHF(†)-09-(*)-VTD24								
	12	AHF(†)-12-(*)-VTU24	AHF(†)-12-(*)-VTD24								
24	18	AHF(†)-18-(*)-VTU24	AHF(†)-18-(*)-VTD24	291/16	58¾6	291/16	591/16	301/8	601/4	30%	611/4
	24	AHF(†)-24-(*)-VTU24	AHF(†)-24-(*)-VTD24								
	30	AHF(†)-30-(*)-VTU24	AHF(†)-30-(*)-VTD24								
	36	AHF(†)-36-(*)-VTU24	AHF(†)-36-(*)-VTD24								
	6	AHF(†)-06-(*)-VTU36	AHF(†)-06-(*)-VTD36								
	9	AHF(†)-09-(*)-VTU36	AHF(†)-09-(*)-VTD36								
	12	AHF(†)-12-(*)-VTU36	AHF(†)-12-(*)-VTD36								
36	18	AHF(†)-18-(*)-VTU36	AHF(†)-18-(*)-VTD36	411/16	82¾6	41%	831/16	421/8	841/4	42%	851/4
	24	AHF(†)-24-(*)-VTU36	AHF(†)-24-(*)-VTD36								
	30	AHF(†)-30-(*)-VTU36	AHF(†)-30-(*)-VTD36								
	36	AHF(†)-36-(*)-VTU36	AHF(†)-36-(*)-VTD36								
	6	AHF(†)-06-(*)-VTU48	AHF(†)-06-(*)-VTD48								
	9	AHF(†)-09-(*)-VTU48	AHF(†)-09-(*)-VTD48								
	12	AHF(†)-12-(*)-VTU48	AHF(†)-12-(*)-VTD48								
48	18	AHF(†)-18-(*)-VTU48	AHF(†)-18-(*)-VTD48	531/16	1063/16	53%	1071/16	541/8	1081/4	54%	1091/4
	24	AHF(†)-24-(*)-VTU48	AHF(†)-24-(*)-VTD48								
	30	AHF(†)-30-(*)-VTU48	AHF(†)-30-(*)-VTD48								
	36	AHF(†)-36-(*)-VTU48	AHF(†)-36-(*)-VTD48								

(†) Insert side rail depth. (*) Insert bottom style to complete Catalog Number. Includes two pairs of splice plates with hardware.

T&B aluminum cable tray is composed of two distinct systems — H-Style and U-Style. These systems are interchangeable.





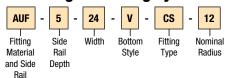


www.aboveboardelectronics.com

Aluminum Tray



Catalog Numbering System



Selection Guide

Inside Tray Widths: 6, 9, 12, 18, 24, 30, 36

Nominal Radius: 12, 24, 36, 48

Bottom Styles: L- Ladder, V- Ventilated, S- Solid

Side Rail Depth: 4"-7"

U-Style Cable Support Fittings

	очиропот					SIDE RAIL	HEIGHT "H"			
NOMINA	L RADIUS			ļ"	5	;"	6	3"	7	, II
R	WIDTH	CAT. NO.	Х	Υ	Х	Y	Х	Y	Х	Y
	6	AUF(†)-06-(*)-CS12								
	9	AUF(†)-09-(*)-CS12								
	12	AUF(†)-12-(*)-CS12								
12	18	AUF(†)-18-(*)-CS12	1715/16	13¾	1813/16	13¾	20	13¾	21	13¾
	24	AUF(†)-24-(*)-CS12								
	30	AUF(†)-30-(*)-CS12								
	36	AUF(†)-36-(*)-CS12								
	6	AUF(†)-06-(*)-CS24								
	9	AUF(†)-09-(*)-CS24								
	12	AUF(†)-12-(*)-CS24								
24	18	AUF(†)-18-(*)-CS24	2915/16	25¾	3013/16	25¾	32	25¾	33	25¾
	24	AUF(†)-24-(*)-CS24								
	30	AUF(†)-30-(*)-CS24								
	36	AUF(†)-36-(*)-CS24								
	6	AUF(†)-06-(*)-CS36								
	9	AUF(†)-09-(*)-CS36								
	12	AUF(†)-12-(*)-CS36								
36	18	AUF(†)-18-(*)-CS36	4115/16	37¾	4213/16	37¾	44	37¾	45	37¾
	24	AUF(†)-24-(*)-CS36								
	30	AUF(†)-30-(*)-CS36								
	36	AUF(†)-36-(*)-CS36								
	6	AUF(†)-06-(*)-CS48								
	9	AUF(†)-09-(*)-CS48								
	12	AUF(†)-12-(*)-CS48								
48	18	AUF(†)-18-(*)-CS48	5315/16	49¾	54 ¹³ / ₁₆	49¾	56	49¾	57	49¾
	24	AUF(†)-24-(*)-CS48								
	30	AUF(†)-30-(*)-CS48								
	36	AUF(†)-36-(*)-CS48								

(1) Insert side rail depth. (*) Insert bottom style to complete Catalog Number. Includes one pair of splice plates with hardware.

T&B aluminum cable tray is composed of two distinct systems — H-Style and U-Style. These systems are interchangeable.





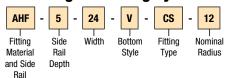


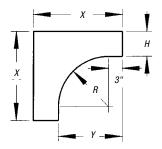


Aluminum Tray



Catalog Numbering System





Selection Guide

Inside Tray Widths: 6, 9, 12, 18, 24, 30, 36

Nominal Radius: 12, 24, 36, 48

Bottom Styles: L- Ladder, V- Ventilated, S- Solid

Side Rail Depth: 4"-7"

H-Style Cable Support Fittings

						SIDE RAIL	HEIGHT "H"			
NOMINA	AL RADIUS			ļ"	5	;"	6	5"	7	, II
R	WIDTH	CAT. NO.	Х	Υ	Х	Υ	Х	Y	Х	Y
	6	AHF(†)-06-(*)-CS12								
	9	AHF(†)-09-(*)-CS12								
	12	AHF(†)-12-(*)-CS12								
12	18	AHF(†)-18-(*)-CS12	193/16	15	201/16	15	211/4	15	221/4	15
	24	AHF(†)-24-(*)-CS12								
	30	AHF(†)-30-(*)-CS12								
	36	AHF(†)-36-(*)-CS12								
	6	AHF(†)-06-(*)-CS24								
	9	AHF(†)-09-(*)-CS24								
	12	AHF(†)-12-(*)-CS24								
24	18	AHF(†)-18-(*)-CS24	31¾6	27	321/16	27	331/4	27	341/4	27
	24	AHF(†)-24-(*)-CS24								
	30	AHF(†)-30-(*)-CS24								
	36	AHF(†)-36-(*)-CS24								
	6	AHF(†)-06-(*)-CS36								
	9	AHF(†)-09-(*)-CS36								
	12	AHF(†)-12-(*)-CS36								
36	18	AHF(†)-18-(*)-CS36	43¾6	39	441/16	39	451/4	39	461/4	39
	24	AHF(†)-24-(*)-CS36								
	30	AHF(†)-30-(*)-CS36								
	36	AHF(†)-36-(*)-CS36								
	6	AHF(†)-06-(*)-CS48								
	9	AHF(†)-09-(*)-CS48								
	12	AHF(†)-12-(*)-CS48								
48	18	AHF(†)-18-(*)-CS48	553/16	51	561/16	51	571/4	51	581/4	51
	24	AHF(†)-24-(*)-CS48								
	30	AHF(†)-30-(*)-CS48								
	36	AHF(†)-36-(*)-CS48								

(†) Insert side rail depth. (*) Insert bottom style to complete Catalog Number. Includes one pair of splice plates with hardware.

T&B aluminum cable tray is composed of two distinct systems — H-Style and U-Style. These systems are interchangeable.









Aluminum Tray

Tray Covers

Tray covers are available for all classes of tray. They should be installed where falling objects may damage cables or where vertical tray run is accessible by pedestrian or vehicular traffic.

Note: Cover mounting hardware must be ordered separately.

Solid Covers

- These covers provide maximum mechanical protection for cables with limited heat build up. Solid covers are available with or without flange.
- Flanged covers have ½" flange.

Note: Cover mounting hardware must be ordered separately.



Ventilated Flanged Covers

 This design offers excellent mechanical protection while allowing heat produced by cables to dissipate.

Note: Cover mounting hardware must be ordered separately.



Peaked Flanged Covers

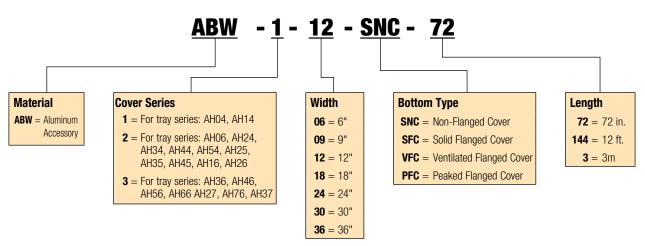
- Peaked covers offer mechanical protection, reduce pooling of liquids on the cover and minimize accumulation of snow or ice.
- Peaked covers have 15° rise.

Note: Cover mounting hardware must be ordered separately.

Covers greater than 12" wide available in 72" and 3m lengths only.



Straight Covers

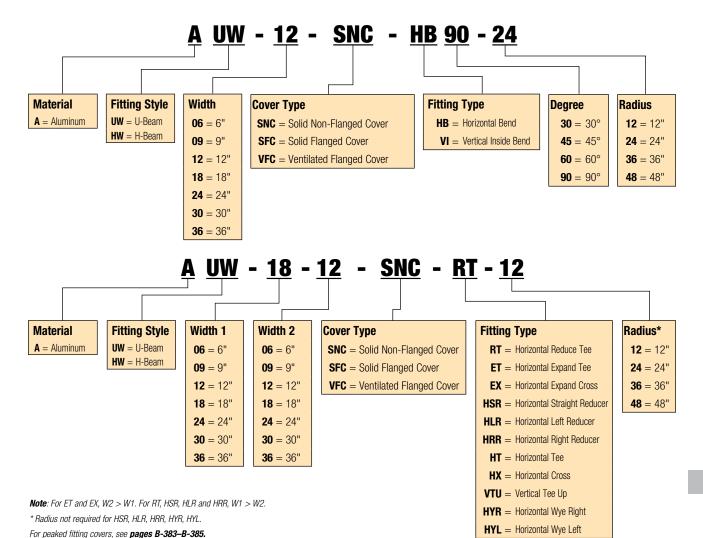


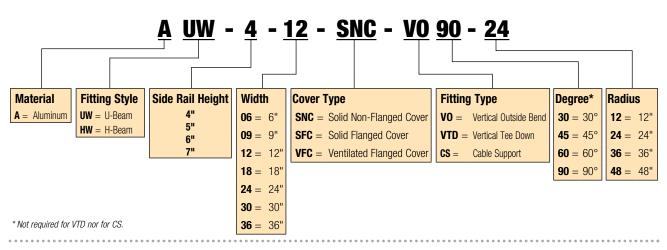
Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354



Aluminum Tray

Fitting Covers





www.tnb.com

United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 Technical Services
Tel: 888.862.3289



1-800-453-1692

Aluminum Tray

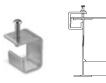
Quantity of Standard Cover Clamps Required

Straight Section (6 ft.) 4 pcs. Tees 6 pcs. Straight Section (12 ft./3m) 6 pcs. Crosses 8 pcs. Horizontal and Vertical Bends 4 pcs.

Notes: When using the Heavy-Duty Cover Clamp, only half the quantity of pieces are required. "B" in catalog number indicates this accessory can be used for both styles.

Economical Cover Clamp

 Rigid indoor cover clamp for flat and flanged covers



CAT. NO.	MATERIAL	SIDE RAIL HEIGHT
ABW-SCC	Zinc-Plated Steel	All Sizes
Cannot be used with U-Style fit	tings.	

Can be used with straights and AH fittings only.

Universal Fitting Cover Clamp

 Rigid indoor cover clamp for flat and flanged covers



CAT. NO.	MATERIAL	
ABW(*)FCC	Zinc-Plated Steel	
(*) Insert side rail height — 4", 5", 6" or 7".		

Heavy-Duty Cover Clamp

 Wraparound design offers added protection for rugged applications and outdoor conditions



Hardware included

CAT. NO.	MATERIAL	SIDE RAIL HEIGHT
ABW4(*)HCC	Aluminum	4"
ABW5(*)HCC		5"
ABW6(*)HCC		6"
ABW7(*)HCC		7"

(*) Insert tray width — 06", 09", 12", 18", 24", 30", 36" or 42".

Extreme Heavy-Duty Cover Clamp

 Wraparound design offers added protection for rugged applications and outdoor conditions



Hardware included

		SIDE RAIL
CAT. NO.	MATERIAL	HEIGHT
ABW4(*)ECC	Aluminum	4"
ABW5(*)ECC		5"
ABW6(*)ECC		6"
ABW7(*)ECC		7"

(*) Insert tray width — 06", 09", 12", 18", 24", 30" or 36".

T&B aluminum cable tray is composed of two distinct systems — H-Style and U-Style. These systems are interchangeable.

Heavy-Duty Peaked Cover Clamp

 Wraparound design formed to fit peaked cover for outdoor applications





CAT. NO.	MATERIAL	SIDE RAIL HEIGHT
ABW4(*)HPC		4"
ABW5(*)HPC	Aluminum	5"
ABW6(*)HPC		6"
ABW7(*)HPC		7"

(*) Insert tray width — 06", 09", 12", 18", 24", 30" or 36".

Combination Hold-Down Cover Clamp

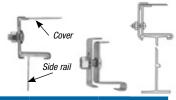
 Designed to secure flat and flanged covers with holddown feature



		OIDE DAII
CAT. NO.	MATERIAL	SIDE RAIL HEIGHT
ABW-4-CCC		4"
ABW-5-CCC	Alumainuma	5"
ABW-6-CCC	Aluminum	6"
ARW-7-CCC		7"

Raised Cover Clamp

 Designed to raise cover above tray for added ventilation



CAT. NO.	MATERIAL	COVER SERIES	COVER OFFSET
ABW(*) (+) RCC	Zinc-Plated Steel	1, 2, 3	1"
			2"
			3"

(*) Insert cover series. (+) Insert cover offset.

Peaked End Cap

 Transition between peaked covers to straight covers



CAT. NO.	MATERIAL
ABW(*) PEC	Aluminum

(*) Insert tray width — 6", 9", 12", 18", 24", 30" or 36".

Cover Joint Strip

Join covers end to end



CAT. NO.	MATERIAL
ABW(*) SCS	Plastic

(*) Insert tray width — 6", 9", 12", 18", 24", 30" or 36".



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services**







Aluminum Tray

Snap-In Splice Plate

- · Lock into place for easy alignment and installation
- · Packaged in pairs with hardware
- · Standard with each straight and/or fitting



CAT. NO.	MATERIAL	SIDE RAIL HEIGHT
ABW-4-SSP	Aluminum	4"
ABW-5-SSP		5"
ABW-6-SSP		6"
ABW-7-SSP		7"

Snap-In Expansion Splice Plate

- Enables a 1" expansion or contraction of tray system
- · Packaged in pairs with zinc-plated hardware



CAT. NO.	MATERIAL	SIDE RAIL HEIGHT
ABW-4-ESP	Aluminum	4"
ABW-5-ESP		5"
ABW-6-ESP		6"
ABW-7-ESP		7"

Horizontal Adjustable Plate

- Provide maximum installation flexibility
- Furnished in pairs with hardware



CAT. NO.	MATERIAL	FOR TRAY WIDTHS
ABW(*)06HAP		6"
ABW(*)09HAP		9"
ABW(*)12HAP	Aluminum	12"
ABW(*)18HAP		18"
ABW(*)24HAP		24"
ABW(*)30HAP		30"
ABW(*)36HAP		36"
ABW(*)42HAP		42"

(*) Insert side rail height.

Vertical Adjustable Plate

- Provide maximum flexibility for changes in elevation
- · Furnished in pairs with hardware



CAT. NO.	MATERIAL	SIDE RAIL HEIGHT
ABW-4-VSP	Aluminum	4"
ABW-5-VSP		5"
ABW-6-VSP		6"
ABW-7-VSP		7"

T&B aluminum cable tray is composed of two distinct systems — H-Style and U-Style. These systems are interchangeable.

Box to Tray Plates

- Secure tray to electrical panels or boxes, walls or end supports
- Furnished in pairs with hardware



CAT. NO.	MATERIAL	SIDE RAIL HEIGHT
ABW-4-BSP	Aluminum	4"
ABW-5-BSP		5"
ABW-6-BSP		6"
ABW-7-BSP		7"

Closure End Plate

- Provides closure for any tray end
- Includes hardware



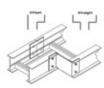
CAT. NO.	MATERIAL	SIDE RAIL HEIGHT
ABW-4(*)-CEP		4"
ABW-5(*)-CEP	Alumainuma	5"
ABW-6(*)-CEP	Aluminum	6"
ABW-7(*)-CEP		7"

(*) Insert tray width — 06", 09", 12", 18", 24", 30" or 36".

Reducing Splice Plate

- Used in pairs for a straight reduction
- Use with a standard splice plate for an offset reduction





CAT. NO.	MATERIAL	SIDE RAIL Height
ABW-4(*)-RSP		4"
ABW-5(*)-RSP	Aluminum	5"
ABW-6(*)-RSP		6"
ABW-7(*)-RSP		7"

(*) For offset reduction: insert width to be reduced.
For straight reduction: insert ½ width to be reduced (two required).
Example: ABW-403-RSP = 3" offset reducer.

Step-Down Splice Plate

- Connects side rails of different heights
- Hardware included



CAT. NO.	MATERIAL	SIDE RAIL HEIGHT
ABW(*)(**)SDS	Aluminum	4"
		5"
		6"
		7"

(*) Side rail height 1. (**) Side rail height 2. **Note**: Side rail height 1 is greater than side rail height 2.







B-305

Aluminum Tray

Barrier Strips



- Aluminum barrier strips provide a method of separating cables in tray and trough systems
- Easily installed using supplied hardware
- 72" barriers are flexible for use with horizontal fittings

CAT. NO.	SIDE RAIL HEIGHT	LENGTH
ABW-4-SBH-72	4"	72"
ABW-5-SBH-72	5"	72"
ABW-6-SBH-72	6"	72"
ABW-7-SBH-72	7"	72"
ABW-4-SB-(*)	4"	144"
ABW-5-SB-(*)	5"	3m
ABW-6-SB-(*)	6"	3m
ABW-7-SB-(*)	7"	3m

(*) Insert length.

Note: 72" barriers provided with three SPW10SCR; 144" and 3m barriers provided with six SPW10SCR

Inside/Outside Vertical Bend Barriers



- Preformed to fit all standard aluminum vertical bends
- Provided with hardware

INSIDE BEND	OUTSIDE BEND	SIDE RAIL
CAT. NO.	CAT. NO.	HEIGHT
AUW(*)VIB-(**)-(+)	AUW(*)VOB-(**)-(+)	4"
AUW(*)VIB-(**)-(+)	AUW(*)VOB-(**)-(+)	5"
AUW(*)VIB-(**)-(+)	AUW(*)VOB-(**)-(+)	6"
AUW(*)VIB-(**)-(+)	AUW(*)VOB-(**)-(+)	7"
AHW(*)VIB-(**)-(+)	AHW(*)VOB-(**)-(+)	4"
AHW(*)VIB-(**)-(+)	AHW(*)VOB-(**)-(+)	5"
AHW(*)VIB-(**)-(+)	AHW(*)VOB-(**)-(+)	6"
AHW(*)VIB-(**)-(+)	AHW(*)VOB-(**)-(+)	7"

(*) Insert side rail height. (**) Insert bend angle. (+) Insert bend radius.

Barrier Strip Clamp





- Alternate mounting method for barrier strip mounting
- Barrier strip clamps mount barrier strips to ladder rungs and ventilated bottoms
- Complete mounting hardware supplied

CAT. NO.	MATERIAL
SPW-BSC	Zinc-Plated Steel
SSW-BSC	Stainless Steel 316

Barrier Strip Splice



 Alignment splice for joining connecting barrier strips

CAT. NO.	MATERIAL
ABW-BSS	Plastic

T&B aluminum cable tray is composed of two distinct systems — H-Style and U-Style. These systems are interchangeable.



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services**



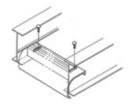




Aluminum Tray

Drop-Out





- Designed to provide a smooth radiused surface at any position on the tray or trough bottom
- Easily attached using hardware provided
- · Standard radius 4"

CAT. NO.	DESCRIPTION/MATERIAL	WIDTHS OF TRAY
ABW(*)DO	For ladder and ventilated tray/	06"
.,	Aluminum	12"
		18"
ABW(*)DOS	For solid tray/Aluminum	24"
		30"
		36"

(*) Insert width of tray.

Wall Penetration Sleeve



- Designed to pass through walls and fire walls
- Hardware included

CAT. NO.	MATERIAL	SIDE RAIL HEIGHT	WIDTHS OF TRAY
ABW(*)(**)WPS	Aluminum	4"	06"
		5"	09"
		6"	12"
		7"	18"
			24"
			30"
			36"

(*) Insert side rail height. (**) Insert width of tray. Note: Not fire rated. Fire stop not included.

Frame Type Tray to Box Plate



- Designed to secure tray to electrical enclosures and panels
- Hardware included

CAT. NO.	MATERIAL	SIDE RAIL HEIGHTS	WIDTHS OF TRAY
ABW(*)(**)FBP	Aluminum	4"	06"
		5"	09"
		6"	12"
		7"	18"
			24"
			30"
			36"

(*) Insert side rail height.

(**) Insert width of tray.

Nylon Expansion Pad



 Allows for thermal expansion and contraction of cable trays over supports

CAT. NO.	MATERIAL
ABW-NSP	Natural Nylon

T&B aluminum cable tray is composed of two distinct systems — H-Style and U-Style. These systems are interchangeable.



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354

Technical Services Tel: 888.862.3289







Aluminum Tray

Standard Hold-Down Clamp

- · Designed for most indoor installations
- Easy to use and install
- Order 3/8" hardware separately

CAT. NO.	MATERIAL
SPW-SHC	Zinc-Plated Steel
SSW-SHC	316 Stainless

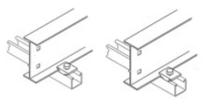


Combination Hold-Down/ Expansion Guide Clamp

CAT. NO.	MATERIAL
ABW-HECC	Aluminum

Note: Order 3/8" hardware separately.





Hold-down clamp

Expansion guide

Aluminum Tray Hardware

CAT. NO.	MATERIAL	DESCRIPTION
SPW-1/4-CB	Zinc-Plated Steel	1/4" Carriage Bolt
SPW-3/8-CB	Zinc-Plated Steel	%" Carriage Bolt
SPW-1/4-HN	Zinc-Plated Steel	1/4" Hex Nut
SPW-3/8-HN	Zinc-Plated Steel	%" Hex Nut
SSW-1/4-CB	316 Stainless	1/4" Carriage Bolt
SSW-1/4-HN	316 Stainless	1/4" Hex Nut
SSW-3/8-CB	316 Stainless	%" Carriage Bolt
SSW-3/8-HN	316 Stainless	%" Hex Nut
SSW-3/8-HWK*	316 Stainless	316 Stainless Steel Hardware Kit

^{*} Contains eight bolts, eight nuts and eight lockwashers.



Square shoulder selfpositioning carriage bolt.

Self-Drilling Tapping Screw

CAT. NO.	MATERIAL	DESCRIPTION
UA1. NO.	INATERIAL	DESCRIPTION
SPW-10-SCR	Zinc-Plated Steel	Self-Drilling Tapping Screw

T&B aluminum cable tray is composed of two distinct systems — H-Style and U-Style. These systems are interchangeable.





United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services**







Aluminum Tray

Cable Tray Guide

- · Expansion guide for single or double runs of cable tray
- · No need to field drill of channel or I-beam

CAT. NO.	MATERIAL
SPW-CTG	Zinc-Plated Steel
SHW-CTG	Steel Hot Dip



Cable Tray Clamp

- · Clamps for single run of cable tray
- · No need to field drill the channel or I-beam

CAT. NO.	MATERIAL
SPW-CTC	Zinc-Plated Steel
SHW-CTC	Steel Hot Dip



Vertical Tray Hanger

CAT. NO.	MATERIAL	SIDE RAIL HEIGHT
ABW(*)VTH	Aluminum	4"
		5"
		6"
		7"

^{*} Insert side rail height.

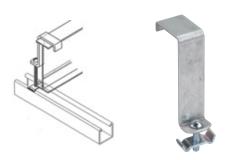


Hold-Down Clamp

- · Designed to secure cable tray to support system
- Hardware included

CAT. NO.	MATERIAL	SIDE RAIL HEIGHT
ABW(*)HDC	Aluminum	4"
		5"
		6"
		7"

(*) Insert side rail height.



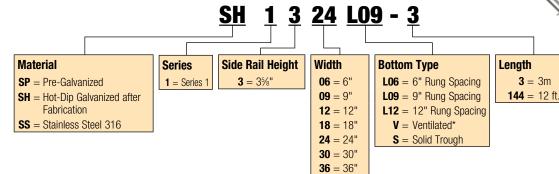




Thomas@Betts

Steel Tray

35/4" Straight Sections Series 1-3 — **Ladder, Ventilated and Solid Trough**



Support	t Span
---------	--------

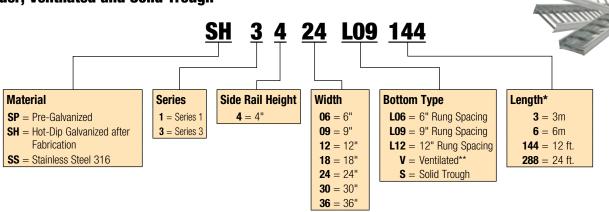
					FEET				
SERIES		6	8	10	12	14	16	18	20
SP1-3	Load (lb./ft.)	200	112.5	72	50	_	_	_	_
SH1-3	Deflection (in.)	.250	.445	.695	1.001	_	_	_	_
SS1-3	Deflection Factor	.0013	.0040	.0097	.0097	_	_	_	_

......Specifications

3 = 3m

- NEMA Rating All: 12A
- CSA AII: C/3M
- UL Cross Sectional Area All: .40 in.2
- Side Rail Design Factors, 1 Pair All: Ix: .804 in.4; Sx: .444 in.3;

4" Straight Sections Series 1-4, 3-4 — **Ladder, Ventilated and Solid Trough**



Support Span

					FE	ET			
SERIES		6	8	10	12	14	16	18	20
SP1-4	Load (lb./ft.)	420	236	151	105	_	_	_	_
SH1-4	Deflection (in.)	.420	.473	.756	1.155	_	_	_	_
SS1-4	Deflection Factor	.001	.002	.005	.011	_	_	_	_
SP3-4	Load (lb./ft.)	956	538	344	239	176	134	106	86
SH3-4	Deflection (in.)	.478	.538	1.032	1.672	2.282	3.091	3.928	4.816
SS3-4	Deflection Factor	.0005	.001	.003	.007	.013	.023	.037	.056

...... Specifications

- NEMA Rating SP1-4, SH1-4, SS1-4: 12C; SP3-4, SH3-4, SS3-4: 20A
- CSA SP1-4, SH1-4, SS1-4: D/3M; SP3-4, SH3-4, SS3-4: D/6M
- UL Cross Sectional Area All: .70 in.2
- Side Rail Design Factors, 1 Pair SP1-4, SH1-4, SS1-4: lx: 1.974 in.4; Sx: .788 in.3; Area: .682 in.2; SP3-4, SH3-4, SS3-4: lx: 2.224 in.4; Sx: 1.022 in.3; Area: 1.080 in.2
- * Series 1-4 not available in 6m or 24 ft. lengths.
- ** For load ratings of CSA Class C/NEMA 12C or less, please see an alternative ventilated series of cable tray on pages B-334-B-357.



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354

Technical Services







^{*} For load ratings of CSA Class C/NEMA 12C or less, please see an alternative ventilated series of cable tray on pages B-334-B-357.

Steel Tray

5" Straight Sections Series 2-5, 4-5, 5-5 — **Ladder, Ventilated and Solid Trough**

2 5 24 L09 144 SH



Material

- SP = Pre-Galvanized
- **SH** = Hot-Dip Galvanized after Fabrication
- **SS** = Stainless Steel 316

Series

2 = Series 2 **4** = Series 4 5 = Series 5

5 = 5"

Side Rail Height

Width

- 06 = 6"09 = 9"
- **12** = 12" **18** = 18"
- **24** = 24" **30** = 30" **36** = 36"

Bottom Type

L06 = 6" Rung Spacing **L09** = 9" Rung Spacing

L12 = 12" Rung Spacing V = Ventilated

S = Solid Trough

Length

3 = 3m

6 = 6 m

144 = 12 ft.288 = 24 ft.

Support Span

			FEET							
SERIES		6	8	10	12	14	16	18	20	
SP2-5	Load (lb./ft.)	556	313	200	139	102	78	62	50	
SH2-5	Deflection (in.)	.193	.344	.537	.773	1.052	1.375	1.740	2.148	
SS2-5	Deflection Factor	.0003	.0011	.0027	.0056	.0103	.0176	.0282	.0430	
SP4-5	Load (lb./ft.)	833	469	298	208	153	117	92	75	
SH4-5	Deflection (in.)	.223	.397	.617	.894	1.217	1.589	1.998	2.483	
SS4-5	Deflection Factor	.003	.0008	.0021	.0043	.0079	.0136	.0217	.0331	
SP5-5	Load (lb./ft.)	111	625	298	278	204	156	92	100	
SH5-5	Deflection (in.)	.241	.429	.499	.964	1.312	1.714	.617	2.678	
SS5-5*	Deflection Factor	.0002	.0007	.0017	.0035	.0064	.0110	.0176	.0268	

..... Specifications

- NEMA Rating SP2-5, SH2-5, SS2-5: 20A; SP4-5, SH4-5, SS4-5: 20B; SP5-5, SH5-5, SS5-5: 20C
- CSA SP2-5, SH2-5, SS2-5: D/6M; SP4-5, SH4-5, SS4-5: E/6M
- UL Cross Sectional Area SP2-5, SH2-5, SS2-5: .70 in.2; All others: 1.00 in.2
- Side Rail Design Factors, 1 Pair SP2-5, SH2-5, SS2-5: lx: 2.89 in.4; Sx: 1.09 in.3; Area: .778 in.2; SP4-5, SH4-5, SS4-5: lx: 3.75 in.4; Sx: 1.40 in.3; Area: 1.018 in.2; SP5-5, SH5-5, SS5-5: lx: 4.635 in.4; Sx: 1.732 in.3; Area: 1.24 in.2

6" Straight Sections Series 1-6, 3-6, 4-6 — **Ladder, Ventilated and Solid Trough**

6 24 L12 - 6 SH



Load (lb./ft.)

Deflection (in.)

Deflection Factor

Load (lb./ft.)

Deflection (in.)

Deflection Factor

Load (lb./ft.)

Deflection (in.)

SS4-6** Deflection Factor | .0001

Support Span

SERIES

SP1-6

SH1-6

SS1-6

SP3-6

SH3-6

SS3-6

SP4-6

SH4-6

- **SP** = Pre-Galvanized
- **SH** = Hot-Dip Galvanized after Fabrication

6 8 10

556 313 200 139 102 78 62 50

.126

.0002 .0007

833

.156 .277 .433

.0002

1289 725

.181

.224

469 300 208 153 117 93 75

0006 0014

321 .502

.0004 .0011 .0022 .0042 .0071 .0114 .0173

.349

.0017

464

SS = Stainless Steel 316

Side Rail Height **Series**

6 = 6"

1.132

.0152

1.398

.0231

116

2.008

1 = Series 1 3 = Series 3

FEET

.685

.984

895

.0095

181 143

1.285 1.626

12 14 16 18 20

.503

0036 .0067 .0115 .0183 .0280

.624 .849 1.109 1.404 1.733

.0030 .0055

322 237

.723

4 = Series 4

Width

- 06 = 6"
- 09 = 9''
- **12** = 12" **18** = 18"
 - **24** = 24" **30** = 30" **36** = 36"

Bottom Type

- **L06** = 6" Rung Spacing
- **L09** = 9" Rung Spacing L12 = 12" Rung Spacing
- V = Ventilated*
- S = Solid Trough

Length

144 = 12 ft.**288** = 24 ft.

3 = 3m

6 = 6m

- NEMA Rating SP1-6, SH1-6, SS1-6: 20A; SP3-6, SH3-6, SS3-6: 20B; SP4-6, SH4-6, SS4-6: 20C
- CSA SP1-6, SH1-6, SS1-6: D/6M; SP3-6, SH3-6, SS3-6: E/6M
- UL Cross Sectional Area SP1-6, SH1-6, SS1-6: .70 in.²; All others: 1.00 in.²

..... Specifications

- Side Rail Design Factors, 1 Pair SP1-6, SH1-6, SS1-6: lx: 4.44 in.4; Sx: 1.39 in.3; Area: .874 in.2; SP3-6, SH3-6, SS3-6: lx: 5.373 in.4; Sx: 1.70 in.3; Area: 1.40 in.2; SP4-6, SH4-6, SS4-6: lx: 7.173 in.4; Sx: 2.250 in.3; Area: 1.40 in.2
- * For load ratings of CSA Class C/NEMA 12C or less, please see an alternative ventilated series of cable tray on pages B-334-B-357.



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354

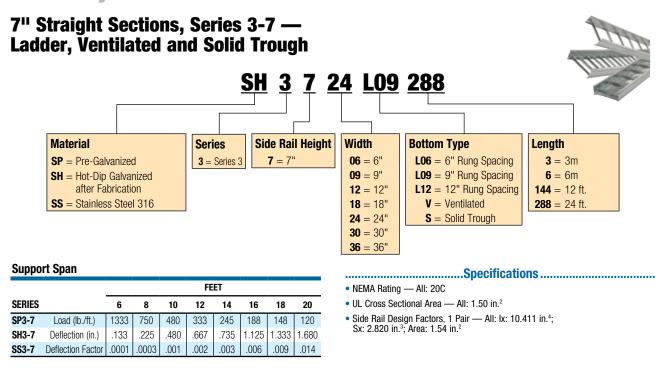
Technical Services



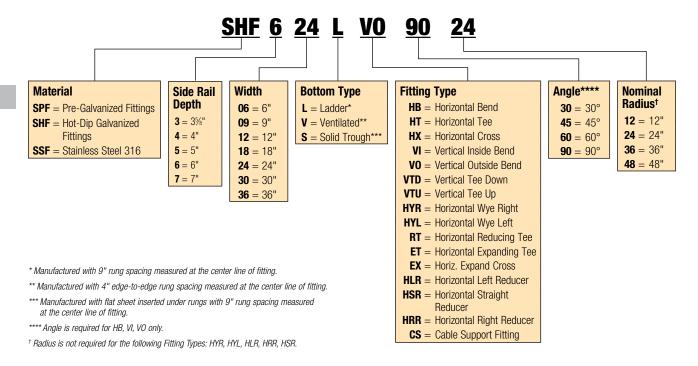




Steel Tray



Fitting Number Selection



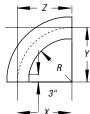




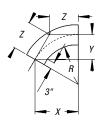


Steel Tray

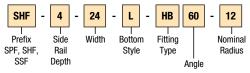








Catalog Numbering System



Selection Guide

Prefix: SPF (Pre-Galv.), SHF (Hot Dip),

SSF (Stainless Steel)

Inside Tray Widths: 6, 9, 12, 18, 24, 30, 36

Nominal Radius: 12, 24, 36, 48

Bottom Styles: L- Ladder, V- Ventilated, S- Solid

Side Rail Depth: 3", 4", 5", 6", 7"

90° Horizontal Bend

NOMINA	AL RADIUS		DIMEN	ISIONS
R	WIDTH	CAT. NO.	Х	Y
	6	PREFIX-(†)-06-(*)-HB90-12	15	15
	9	PREFIX-(†)-09-(*)-HB90-12	16½	16½
	12	PREFIX-(†)-12-(*)-HB90-12	18	18
12	18	PREFIX-(†)-18-(*)-HB90-12	21	21
	24	PREFIX-(†)-24-(*)-HB90-12	24	24
	30	PREFIX-(†)-30-(*)-HB90-12	27	27
	36	PREFIX-(†)-36-(*)-HB90-12	30	30
	6	PREFIX-(†)-06-(*)-HB90-24	27	27
	9	PREFIX-(†)-09-(*)-HB90-24	281/2	281/2
	12	PREFIX-(†)-12-(*)-HB90-24	30	30
24	18	PREFIX-(†)-18-(*)-HB90-24	33	33
	24	PREFIX-(†)-24-(*)-HB90-24	36	36
	30	PREFIX-(†)-30-(*)-HB90-24	39	39
	36	PREFIX-(†)-36-(*)-HB90-24	42	42
	6	PREFIX-(†)-06-(*)-HB90-36	39	39
	9	PREFIX-(†)-09-(*)-HB90-36	401/2	401/2
	12	PREFIX-(†)-12-(*)-HB90-36	42	42
36	18	PREFIX-(†)-18-(*)-HB90-36	45	45
	24	PREFIX-(†)-24-(*)-HB90-36	48	48
	30	PREFIX-(†)-30-(*)-HB90-36	51	51
	36	PREFIX-(†)-36-(*)-HB90-36	54	54
	6	PREFIX-(†)-06-(*)-HB90-48	51	51
	9	PREFIX-(†)-09-(*)-HB90-48	52½	521/2
	12	PREFIX-(†)-12-(*)-HB90-48	54	54
48	18	PREFIX-(†)-18-(*)-HB90-48	57	57
	24	PREFIX-(†)-24-(*)-HB90-48	60	60
	30	PREFIX-(†)-30-(*)-HB90-48	63	63
	36	PREFIX-(†)-36-(*)-HB90-48	66	66

60° Horizontal Bend

NOMINAL RADIUS			0	DIMENSIONS	
R	WIDTH	CAT. NO.	Х	Υ	Z
	6	PREFIX-(†)-06-(*)-HB60-12	147/8	85/8	915/16
	9	PREFIX-(†)-09-(*)-HB60-12	16¾6	93/8	1013/1
	12	PREFIX-(†)-12-(*)-HB60-12	17½	101//8	1111/
12	18	PREFIX-(†)-18-(*)-HB60-12	201/16	11%	13%
	24	PREFIX-(†)-24-(*)-HB60-12	2211/16	131/8	151/8
	30	PREFIX-(†)-30-(*)-HB60-12	255/16	141/8	167/
	36	PREFIX-(†)-36-(*)-HB60-12	271//8	161/8	18%
	6	PREFIX-(†)-06-(*)-HB60-24	255/16	14%	167/8
	9	PREFIX-(†)-09-(*)-HB60-24	261/16	15%	173/
	12	PREFIX-(†)-12-(*)-HB60-24	271/8	161//8	18%
24	18	PREFIX-(†)-18-(*)-HB60-24	30½	17%	205/1
	24	PREFIX-(†)-24-(*)-HB60-24	331/16	191/8	221/1
	30	PREFIX-(†)-30-(*)-HB60-24	3511/16	20%	2313/1
	36	PREFIX-(†)-36-(*)-HB60-24	38¼	221//8	251/
	6	PREFIX-(†)-06-(*)-HB60-36	3511/16	20%	2313/
	9	PREFIX-(†)-09-(*)-HB60-36	37	21%	245/
	12	PREFIX-(†)-12-(*)-HB60-36	381/4	221/8	251/
36	18	PREFIX-(†)-18-(*)-HB60-36	401/8	23 1/8	27%
	24	PREFIX-(†)-24-(*)-HB60-36	431/2	251/8	29
	30	PREFIX-(†)-30-(*)-HB60-36	461/16	26%	3011/1
	36	PREFIX-(†)-36-(*)-HB60-36	4811/16	281//8	327/1
48	6	PREFIX-(†)-06-(*)-HB60-48	461/16	26%	3011/
	9	PREFIX-(†)-09-(*)-HB60-48	47¾	27¾	31%
	12	PREFIX-(†)-12-(*)-HB60-48	4811/16	281/8	327/1
	18	PREFIX-(†)-18-(*)-HB60-48	51½ ₁₆	295/8	34¾
	24	PREFIX-(†)-24-(*)-HB60-48	53%	311/8	3515/1
	30	PREFIX-(†)-30-(*)-HB60-48	567/16	325/8	37%
	36	PREFIX-(†)-36-(*)-HB60-48	591/16	341/8	39¾

(†) Insert side rail depth. (*) Insert bottom style to complete Catalog Number. Includes one pair of splice plates with hardware.



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services** Tel: 888.862.3289

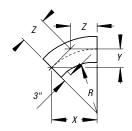




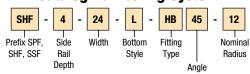


Steel Tray





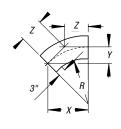
Catalog Numbering System



45° Horizontal Bends

NOMINAL RADIUS			DIMENSIONS		
R	WIDTH	CAT. NO.	х	Y	Z
12	6	PREFIX-(†)-06-(*)-HB45-12	13%	5%	8
	9	PREFIX-(†)-09-(*)-HB45-12	1411/16	61/16	8%16
	12	PREFIX-(†)-12-(*)-HB45-12	15¾	6½	93/16
	18	PREFIX-(†)-18-(*)-HB45-12	171/8	7%	101/16
	24	PREFIX-(†)-24-(*)-HB45-12	20	81/4	1111/16
	30	PREFIX-(†)-30-(*)-HB45-12	221/16	91//8	1215/16
	36	PREFIX-(†)-36-(*)-HB45-12	24¾6	10	143/16
	6	PREFIX-(†)-06-(*)-HB45-24	221/16	91//8	1215/16
	9	PREFIX-(†)-09-(*)-HB45-24	231/8	9%16	131/16
	12	PREFIX-(†)-12-(*)-HB45-24	243/16	10	143/16
24	18	PREFIX-(†)-18-(*)-HB45-24	265/16	1015/16	151/16
	24	PREFIX-(†)-24-(*)-HB45-24	287/16	1113/16	1611/16
	30	PREFIX-(†)-30-(*)-HB45-24	30%16	1211/16	17 ¹⁵ ⁄ ₁₆
	36	PREFIX-(†)-36-(*)-HB45-24	3211/16	131/16	191/8
	6	PREFIX-(†)-06-(*)-HB45-36	30%16	1211/16	1715/16
	9	PREFIX-(†)-09-(*)-HB45-36	31%	131//8	181/16
	12	PREFIX-(†)-12-(*)-HB45-36	3211/16	131/16	191/8
36	18	PREFIX-(†)-18-(*)-HB45-36	3413/16	141/16	20%
	24	PREFIX-(†)-24-(*)-HB45-36	3615/16	155/16	21%
	30	PREFIX-(†)-30-(*)-HB45-36	391/16	163/16	221//8
	36	PREFIX-(†)-36-(*)-HB45-36	41¾16	171/16	241/8
	6	PREFIX-(†)-06-(*)-HB45-48	391/16	16¾6	221/8
48	9	PREFIX-(†)-09-(*)-HB45-48	401//8	16¾	23½
	12	PREFIX-(†)-12-(*)-HB45-48	41¾6	171/16	241/8
	18	PREFIX-(†)-18-(*)-HB45-48	435/16	17 ¹⁵ / ₁₆	25%
	24	PREFIX-(†)-24-(*)-HB45-48	457/16	1813/16	26%
	30	PREFIX-(†)-30-(*)-HB45-48	47%	1911/16	271/8
	36	PREFIX-(†)-36-(*)-HB45-48	4911/16	20%16	291/8





Selection Guide

Prefix: SPF (Pre-Galv.), SHF (Hot Dip), SSF (Stainless Steel)

Inside Tray Widths: 6, 9, 12, 18, 24, 30, 36

Angle: 45°, 30°

Nominal Radius: 12, 24, 36, 48

Bottom Styles: L – Ladder, V – Ventilated, S – Solid

Side Rail Depth: 3", 4", 5", 6", 7"

30° Horizontal Bends

NOMINAL RADIUS			0	DIMENSIONS	
R	WIDTH	CAT. NO.	Х	Υ	Z
	6	PREFIX-(†)-06-(*)-HB30-12	11%	31/8	63/16
	9	PREFIX-(†)-09-(*)-HB30-12	12¾	35/16	65/8
	12	PREFIX-(†)-12-(*)-HB30-12	13½	31/2	7
12	18	PREFIX-(†)-18-(*)-HB30-12	14%	315/16	713/16
	24	PREFIX-(†)-24-(*)-HB30-12	161/8	45/16	85/8
	30	PREFIX-(†)-30-(*)-HB30-12	17%	411/16	97/16
	36	PREFIX-(†)-36-(*)-HB30-12	191/8	51/8	101/2
	6	PREFIX-(†)-06-(*)-HB30-24	17%	411/16	97/16
	9	PREFIX-(†)-09-(*)-HB30-24	18¾	$4^{15}/_{16}$	913/10
	12	PREFIX-(†)-12-(*)-HB30-24	191//8	52/16	101/1
24	18	PREFIX-(†)-18-(*)-HB30-24	20%	5%16	111/1
	24	PREFIX-(†)-24-(*)-HB30-24	221/8	5 ¹⁵ ⁄16	1113/
	30	PREFIX-(†)-30-(*)-HB30-24	23 1/8	65/16	121%
	36	PREFIX-(†)-36-(*)-HB30-24	251/8	612/16	13¾
	6	PREFIX-(†)-06-(*)-HB30-36	23%	65/16	12%
	9	PREFIX-(†)-09-(*)-HB30-36	24%	61/2	131/1
	12	PREFIX-(†)-12-(*)-HB30-36	251/8	63/4	131/1
36	18	PREFIX-(†)-18-(*)-HB30-36	265/8	71/4	141/
	24	PREFIX-(†)-24-(*)-HB30-36	281/8	71/2	151/1
	30	PREFIX-(†)-30-(*)-HB30-36	295/8	$7^{15}/_{16}$	157/8
	36	PREFIX-(†)-36-(*)-HB30-36	311//8	85/16	1611/
	6	PREFIX-(†)-06-(*)-HB30-48	29%	715/16	15%
	9	PREFIX-(†)-09-(*)-HB30-48	30%	81/8	161/
	12	PREFIX-(†)-12-(*)-HB30-48	311//8	85/16	1611/
48	18	PREFIX-(†)-18-(*)-HB30-48	325/8	8¾	171/2
	24	PREFIX-(†)-24-(*)-HB30-48	341//8	91/8	181/
	30	PREFIX-(†)-30-(*)-HB30-48	35%	9%16	191/1
	36	PREFIX-(†)-36-(*)-HB30-48	371/8	915/16	19%

(†) Insert side rail depth. (*) Insert bottom style to complete Catalog Number. Includes one pair of splice plates with hardware.



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services**

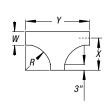


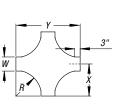




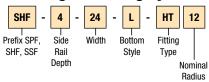
Steel Tray







Catalog Numbering System



Selection Guide

Prefix: SPF (Pre-Galv.), SHF (Hot Dip), SSF (Stainless Steel)

Inside Tray Widths: 6, 9, 12, 18, 24, 30, 36

Angle: 45°, 30°

Nominal Radius: 12, 24, 36, 48

Bottom Styles: L – Ladder, V – Ventilated, S – Solid

Side Rail Depth: 3", 4", 5", 6", 7"

Horizontal Tees

NOMINAL RADIUS			DIMENSIONS	
R	WIDTH	CAT. NO.	Х	Y
	6	PREFIX-(†)-06-(*)-HT12	15	30
	9	PREFIX-(†)-09-(*)-HT12	16½	33
	12	PREFIX-(†)-12-(*)-HT12	18	36
12	18	PREFIX-(†)-18-(*)-HT12	21	42
	24	PREFIX-(†)-24-(*)-HT12	24	48
	30	PREFIX-(†)-30-(*)-HT12	27	54
	36	PREFIX-(†)-36-(*)-HT12	30	60
	6	PREFIX-(†)-06-(*)-HT24	27	54
	9	PREFIX-(†)-09-(*)-HT24	281/2	57
	12	PREFIX-(†)-12-(*)-HT24	30	60
24	18	PREFIX-(†)-18-(*)-HT24	33	66
	24	PREFIX-(†)-24-(*)-HT24	36	72
	30	PREFIX-(†)-30-(*)-HT24	39	78
	36	PREFIX-(†)-36-(*)-HT24	42	84
	6	PREFIX-(†)-06-(*)-HT36	39	78
	9	PREFIX-(†)-09-(*)-HT36	401/2	81
	12	PREFIX-(†)-12-(*)-HT36	42	84
36	18	PREFIX-(†)-18-(*)-HT36	45	90
	24	PREFIX-(†)-24-(*)-HT36	48	96
	30	PREFIX-(†)-30-(*)-HT36	51	102
	36	PREFIX-(†)-36-(*)-HT36	54	108
48	6	PREFIX-(†)-06-(*)-HT48	51	102
	9	PREFIX-(†)-09-(*)-HT48	521/2	105
	12	PREFIX-(†)-12-(*)-HT48	54	108
	18	PREFIX-(†)-18-(*)-HT48	57	114
	24	PREFIX-(†)-24-(*)-HT48	60	120
	30	PREFIX-(†)-30-(*)-HT48	63	126
	36	PREFIX-(†)-36-(*)-HT48	66	132

Horizontal Crosses

NOMINAL RADIUS			DIMEN	SIONS
R	WIDTH	CAT. NO.	Х	Y
	6	PREFIX-(†)-06-(*)-HX12	15	30
	9	PREFIX-(†)-09-(*)-HX12	16½	33
	12	PREFIX-(†)-12-(*)-HX12	18	36
12	18	PREFIX-(†)-18-(*)-HX12	21	42
	24	PREFIX-(†)-24-(*)-HX12	24	48
	30	PREFIX-(†)-30-(*)-HX12	27	54
	36	PREFIX-(†)-36-(*)-HX12	30	60
	6	PREFIX-(†)-06-(*)-HX24	27	54
	9	PREFIX-(†)-09-(*)-HX24	28½	57
	12	PREFIX-(†)-12-(*)-HX24	30	60
24	18	PREFIX-(†)-18-(*)-HX24	33	66
	24	PREFIX-(†)-24-(*)-HX24	36	72
	30	PREFIX-(†)-30-(*)-HX24	39	78
	36	PREFIX-(†)-36-(*)-HX24	42	84
	6	PREFIX-(†)-06-(*)-HX36	39	78
	9	PREFIX-(†)-09-(*)-HX36	401/2	81
	12	PREFIX-(†)-12-(*)-HX36	42	84
36	18	PREFIX-(†)-18-(*)-HX36	45	90
	24	PREFIX-(†)-24-(*)-HX36	48	96
	30	PREFIX-(†)-30-(*)-HX36	51	102
	36	PREFIX-(†)-36-(*)-HX36	54	108
	6	PREFIX-(†)-06-(*)-HX48	51	102
48	9	PREFIX-(†)-09-(*)-HX48	521/2	105
	12	PREFIX-(†)-12-(*)-HX48	54	108
	18	PREFIX-(†)-18-(*)-HX48	57	114
	24	PREFIX-(†)-24-(*)-HX48	60	120
	30	PREFIX-(†)-30-(*)-HX48	63	126
	36	PREFIX-(†)-36-(*)-HX48	66	132

(†) Insert side rail depth. (*) Insert bottom style to complete Catalog Number. Tees include two pairs/Crosses include three pairs of splice plates with hardware.



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354

Technical Services Tel: 888.862.3289

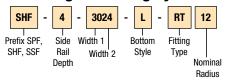


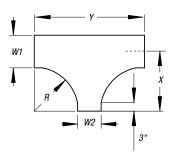


Steel Tray



Catalog Numbering System





Selection Guide

Prefix: SPF (Pre-Galv.), SHF (Hot Dip), SSF (Stainless Steel)

Tray Widths W1: 36, 30, 24, 18, 12, 9 Tray Widths W2: 30, 24, 18, 12, 9, 6 **Nominal Radius**: 12, 24, 36, 48

Bottom Styles: L – Ladder, V – Ventilated, S – Solid

Side Rail Depth: 3", 4", 5", 6", 7"

Horizontal Reducing Tees

WIE	THS		(+) 12" l Rac		(+) 24" N RAD		(+) 36" N RAD		(+) 48" N RAD	
W1	W2	CAT. NO.	Х	Y	Х	Y	Х	Y	Х	Y
	30	PREFIX-(†)-3630-(*)-RT(+)	30	54	42	78	54	102	66	126
	24	PREFIX-(†)-3624-(*)-RT(+)	30	48	42	72	54	96	66	120
36	18	PREFIX-(†)-3618-(*)-RT(+)	30	42	42	66	54	90	66	114
30	12	PREFIX-(†)-3612-(*)-RT(+)	30	36	42	60	54	84	66	108
	9	PREFIX-(†)-3609-(*)-RT(+)	30	33	42	57	54	81	66	105
	6	PREFIX-(†)-3606-(*)-RT(+)	30	30	42	54	54	78	66	102
	24	PREFIX-(†)-3024-(*)-RT(+)	27	48	39	72	51	96	63	120
	18	PREFIX-(†)-3018-(*)-RT(+)	27	42	39	66	51	90	63	114
30	12	PREFIX-(†)-3012-(*)-RT(+)	27	36	39	60	51	84	63	108
	9	PREFIX-(†)-3009-(*)-RT(+)	27	33	39	57	51	81	63	105
	6	PREFIX-(†)-3006-(*)-RT(+)	27	30	39	54	51	78	63	102
	18	PREFIX-(†)-2418-(*)-RT(+)	24	42	36	66	48	90	60	114
24	12	PREFIX-(†)-2412-(*)-RT(+)	24	36	36	60	48	84	60	108
24	9	PREFIX-(†)-2409-(*)-RT(+)	24	33	36	57	48	81	60	105
	6	PREFIX-(†)-2406-(*)-RT(+)	24	30	36	54	48	78	60	102
	12	PREFIX-(†)-1812-(*)-RT(+)	21	36	33	60	45	84	57	108
18	9	PREFIX-(†)-1809-(*)-RT(+)	21	33	33	57	45	81	57	105
	6	PREFIX-(†)-1806-(*)-RT(+)	21	30	33	54	45	78	57	102
12	9	PREFIX-(†)-1209-(*)-RT(+)	18	33	30	57	42	81	54	105
12	6	PREFIX-(†)-1206-(*)-RT(+)	18	30	30	54	42	78	54	102
9	6	PREFIX-(†)-0906-(*)-RT(+)	16½	30	28½	54	40½	78	52½	102

(1) Insert side rail depth. (2) Insert bottom style to complete Catalog Number. (+) Insert radius (12"-48"). Includes two pairs of splice plates with hardware.





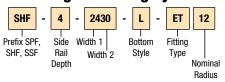


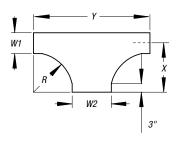


Steel Tray



Catalog Numbering System





Selection Guide

Prefix: SPF (Pre-Galv.), SHF (Hot Dip), SSF (Stainless Steel)

Tray Widths W1: 36, 30, 24, 18, 12, 9 **Tray Widths W2**: 30, 24, 18, 12, 9, 6 **Nominal Radius**: 12, 24, 36, 48

Bottom Styles: L – Ladder, V – Ventilated, S – Solid

Side Rail Depth: 3", 4", 5", 6", 7"

Horizontal Expanding Tees

WID	THS			NOMINAL DIUS	(+) 24" N RAD			NOMINAL DIUS	(+) 48" I Rai	NOMINAL DIUS
W1	W2	CAT. NO.	Х	Υ	Х	Y	Х	Y	Х	Υ
30	36	PREFIX-(†)-3036-(*)-ET(+)	27	60	39	84	51	108	63	132
24	30	PREFIX-(†)-2430-(*)-ET(+)	24	54	36	78	48	102	60	120
24	36	PREFIX-(†)-2436-(*)-ET(+)	24	60	36	84	48	108	60	13
	24	PREFIX-(†)-1824-(*)-ET(+)	21	48	33	72	45	96	57	12
18	30	PREFIX-(†)-1830-(*)-ET(+)	21	54	33	78	45	102	57	12
	36	PREFIX-(†)-1836-(*)-ET(+)	21	60	33	84	45	108	57	13
	18	PREFIX-(†)-1218-(*)-ET(+)	18	42	30	66	42	90	54	11
12	24	PREFIX-(†)-1224-(*)-ET(+)	18	48	30	72	42	96	54	12
12	30	PREFIX-(†)-1230-(*)-ET(+)	18	54	30	78	42	102	54	12
	36	PREFIX-(†)-1236-(*)-ET(+)	18	60	30	84	42	108	54	13
	12	PREFIX-(†)-0912-(*)-ET(+)	16½	36	28½	60	401/2	84	52½	10
	18	PREFIX-(†)-0918-(*)-ET(+)	16½	42	28½	66	401/2	90	521/2	11
9	24	PREFIX-(†)-0924-(*)-ET(+)	16½	48	28½	72	401/2	96	521/2	12
	30	PREFIX-(†)-0930-(*)-ET(+)	16½	54	28½	78	401/2	102	521/2	12
	36	PREFIX-(†)-0936-(*)-ET(+)	16½	60	28½	84	401/2	108	52½	13
	9	PREFIX-(†)-0609-(*)-ET(+)	15	33	27	57	39	81	51	10
	12	PREFIX-(†)-0612-(*)-ET(+)	15	36	27	60	39	84	51	10
6	18	PREFIX-(†)-0618-(*)-ET(+)	15	42	27	66	39	90	51	11
U	24	PREFIX-(†)-0624-(*)-ET(+)	15	48	27	72	39	96	51	12
	30	PREFIX-(†)-0630-(*)-ET(+)	15	54	27	78	39	102	51	12
	36	PREFIX-(†)-0636-(*)-ET(+)	15	60	27	84	39	108	51	13

(†) Insert side rail depth. (*) Insert bottom style to complete Catalog Number. (+) Insert radius (12"-48"). Includes two pairs of splice plates with hardware.



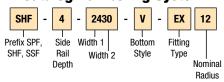


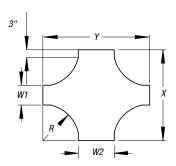


Steel Tray



Catalog Numbering System





Selection Guide

Prefix: SPF (Pre-Galv.), SHF (Hot Dip), SSF (Stainless Steel)

Tray Widths W1: 30, 24, 18, 12, 9, 6 Tray Widths W2: 36, 30, 24, 18, 12, 9

Nominal Radius: 12, 24, 36, 48

Bottom Styles: L – Ladder, V – Ventilated, S – Solid

Side Rail Depth: 3", 4", 5", 6", 7"

Horizontal Expanding Crosses

WID	THS		(+) 12" NOM	INAL RADIUS	(+) 24" NON	IINAL RADIUS	(+) 36" NON	IINAL RADIUS	(+) 48" NOM	INAL RADIUS
W1	W2	CAT. NO.	Х	Y	Х	Υ	Х	Y	Х	Υ
30	36	PREFIX-(†)-3036-(*)-EX(+)	54	60	78	84	102	108	126	132
24	30	PREFIX-(†)-2430-(*)-EX(+)	48	54	72	78	96	102	120	126
	36	PREFIX-(†)-2436-(*)-EX(+)	48	60	72	84	96	108	120	132
	24	PREFIX-(†)-1824-(*)-EX(+)	42	48	66	72	90	96	114	120
18	30	PREFIX-(†)-1830-(*)-EX(+)	42	54	66	78	90	102	114	126
	36	PREFIX-(†)-1836-(*)-EX(+)	42	60	66	84	90	108	114	132
	18	PREFIX-(†)-1218-(*)-EX(+)	36	42	60	66	84	90	108	114
12	24	PREFIX-(†)-1224-(*)-EX(+)	36	48	60	72	84	96	108	120
12	30	PREFIX-(†)-1230-(*)-EX(+)	36	54	60	78	84	102	108	126
	36	PREFIX-(†)-1236-(*)-EX(+)	36	60	60	84	84	108	108	132
	12	PREFIX-(†)-0912-(*)-EX(+)	33	36	57	60	81	84	105	108
	18	PREFIX-(†)-0918-(*)-EX(+)	33	42	57	66	81	90	105	114
9	24	PREFIX-(†)-0924-(*)-EX(+)	33	48	57	72	81	96	105	120
	30	PREFIX-(†)-0930-(*)-EX(+)	33	54	57	78	81	102	105	126
	36	PREFIX-(†)-0936-(*)-EX(+)	33	60	57	84	81	108	105	132
	9	PREFIX-(†)-0609-(*)-EX(+)	30	33	54	57	78	81	102	105
	12	PREFIX-(†)-0612-(*)-EX(+)	30	36	54	60	78	84	102	108
6	18	PREFIX-(†)-0618-(*)-EX(+)	30	42	54	66	78	90	102	114
U	24	PREFIX-(†)-0624-(*)-EX(+)	30	48	54	72	78	96	102	120
	30	PREFIX-(†)-0630-(*)-EX(+)	30	54	54	78	78	102	102	126
	36	PREFIX-(†)-0636-(*)-EX(+)	30	60	54	84	78	108	102	132

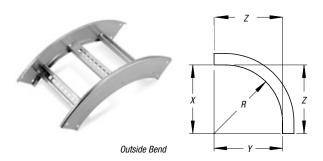
(†) Insert side rail depth. (*) Insert bottom style to complete Catalog Number. (+) Insert radius (12"-48"). Includes three pairs of splice plates with hardware.

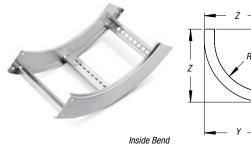


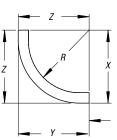




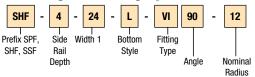
Steel Tray







Catalog Numbering System



Selection Guide

Prefix: SPF (Pre-Galv.), SHF (Hot Dip), SSF (Stainless Steel)

Inside Tray Widths: 6, 9, 12, 18, 24, 30, 36

Angle: 90°

Nominal Radius: 12, 24, 36, 48

Bottom Styles: L – Ladder, V – Ventilated, S – Solid

Side Rail Depth: 3", 4", 5", 6", 7"

90° Vertical Bends

			(+) V	O SIDE	RAIL						(+) VI SI	DE RAI	L HEIGI	НТ					
NOMINA	L RADIUS	•	HEIG	GHT 3½'	'-7"		3½"			4"			5"			6"			7"	
R	WIDTH	CAT. NO.	Х	Υ	Z	х	Υ	z	Х	Υ	z	Х	Υ	z	х	Υ	Z	х	Υ	Z
	6	PREFIX-(†)-06-(*)-(+)90-12																		
	9	PREFIX-(†)-09-(*)-(+)90-12																		
	12	PREFIX-(†)-12-(*)-(+)90-12																		
12	18	PREFIX-(†)-18-(*)-(+)90-12	12	12	12	15%	15%	15%	16¾6	16¾6	16¾6	17¾6	17¾6	17¾6	18¾6	18¾6	18¾6	19¾6	19¾6	19¾6
	24	PREFIX-(†)-24-(*)-(+)90-12																		
	30	PREFIX-(†)-30-(*)-(+)90-12																		
	36	PREFIX-(†)-36-(*)-(+)90-12																		
	6	PREFIX-(†)-06-(*)-(+)90-24																		
	9	PREFIX-(†)-09-(*)-(+)90-24																		
	12	PREFIX-(†)-12-(*)-(+)90-24																		
24	18	PREFIX-(†)-18-(*)-(+)90-24	24	24	24	27%	27%	27%	28¾16	28¾6	28¾6	29¾16	29¾16	29¾16	30¾16	30¾16	30¾6	31¾6	31¾6	31¾6
	24	PREFIX-(†)-24-(*)-(+)90-24																		
	30	PREFIX-(†)-30-(*)-(+)90-24																		
	36	PREFIX (*)-36-(*)-(+)90-24																		
	6	PREFIX (*) -06-(*)-(+)90-36																		
	9	PREFIX-(†)-09-(*)-(+)90-36																		
36	12	PREFIX-(†)-12-(*)-(+)90-36	200	200	00	205/	205/	205/	403/	403/	403/	443/	443/	443/	403/	403/	403/	403/	403/	403/
30	18 24	PREFIX-(†)-18-(*)-(+)90-36	36	36	36	39%	39%	39%	40%16	40%16	40%16	4 17/16	4 1 7 16	41¾6	42716	42716	42716	43716	43¾6	43%16
	30	PREFIX-(†)-24-(*)-(+)90-36 PREFIX-(†)-30-(*)-(+)90-36																		
	36	PREFIX-(†)-36-(*)-(+)90-36																		
	6	PREFIX-(†)-06-(*)-(+)90-48																		
	9	PREFIX-(†)-09-(*)-(+)90-48																		
	12	PREFIX-(†)-12-(*)-(+)90-48																		
48	18	PREFIX-(†)-18-(*)-(+)90-48	48	48	48	51%	51%	51%	523/16	523/16	523/16	533/16	533/16	53¾6	543/16	543/16	543/16	553/16	553/16	553/16
10	24	PREFIX-(†)-24-(*)-(+)90-48	10	'	10	31,0	31,0	31,0	32,10	JE/10	32,10	30,10	30,10	30,10	31,10	31,710	31,710	30,10	30,10	30710
	30	PREFIX-(†)-30-(*)-(+)90-48																		
	36	PREFIX-(†)-36-(*)-(+)90-48																		

(†) Insert side rail depth. (*) Insert bottom style to complete Catalog Number. (+) Insert "VO" for vertical outside or "VI" for vertical inside. Includes one pair of splice plates with hardware.



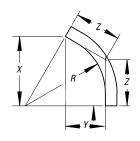




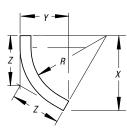
1-800-453-1692

Steel Tray

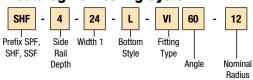








Catalog Numbering System



Selection Guide

Prefix: SPF (Pre-Galv.), SHF (Hot Dip), SSF (Stainless Steel)

Inside Tray Widths: 6, 9, 12, 18, 24, 30, 36

Angle: 60°

Nominal Radius: 12, 24, 36, 48

Bottom Styles: L – Ladder, V – Ventilated, S – Solid

Side Rail Depth: 3", 4", 5", 6", 7"

60° Vertical Bends

			(+) V	O SIDE	RAIL						(+) VI SII	DE RAI	L HEIG	НТ					
NOMINA	L RADIUS		HEIG	HT 3½	·"-7"		3½"			4"			5"			6"			7"	
R	WIDTH	CAT. NO.	X	Υ	Z	Х	Υ	z	Х	Υ	Z	Х	Υ	Z	Х	Υ	Z	X	Υ	z
	6	PREFIX-(†)-06-(*)-(+)60-12																		
	9	PREFIX-(†)-09-(*)-(+)60-12																		
	12	PREFIX-(†)-12-(*)-(+)60-12																		
12	18	PREFIX-(†)-18-(*)-(+)60-12	10%	6	615/16	13½	95/8	9	14	10¾6	9%	14%	113/16	915/16	15¾,	123/16	10½	16%,	13¾6	1111/16
	24	PREFIX-(†)-24-(*)-(+)60-12																		
	30	PREFIX-(†)-30-(*)-(+)60-12																		
	36	PREFIX-(†)-36-(*)-(+)60-12																		
	6	PREFIX-(†)-06-(*)-(+)60-24																		
	9	PREFIX-(†)-09-(*)-(+)60-24																		
	12	PREFIX-(†)-12-(*)-(+)60-24																		
24	18	PREFIX-(†)-18-(*)-(+)60-24	2013/16	12	13%	2315/16	15%	15 ¹⁵ /16	247/16	163/16	161/4	251/4	17¾6	16%	261/8	18¾6	171/16	27	19¾6	18
	24	PREFIX-(†)-24-(*)-(+)60-24																		
	30	PREFIX-(†)-30-(*)-(+)60-24																		
	36	PREFIX-(†)-36-(*)-(+)60-24																		
	6	PREFIX-(†)-06-(*)-(+)60-36																		
	9	PREFIX-(†)-09-(*)-(+)60-36																		
	12	PREFIX-(†)-12-(*)-(+)60-36																		
36	18	PREFIX-(†)-18-(*)-(+)60-36	31¾6	18	2013/16	345/16	21%	221/8	3413/16	223/16	23¾6	3511/16	23¾6	23¾	36½	24¾6	243/8	377/16	25¾6	2415/16
	24	PREFIX-(†)-24-(*)-(+)60-36																		
	30	PREFIX-(†)-30-(*)-(+)60-36																		
	36	PREFIX-(†)-36-(*)-(+)60-36																		
	6	PREFIX-(†)-06-(*)-(+)60-48																		
	9	PREFIX-(†)-09-(*)-(+)60-48																		
	12	PREFIX-(†)-12-(*)-(+)60-48																		
48	18	PREFIX-(†)-18-(*)-(+)60-48	41%	24	2711/16	4411/16	27%	2913/16	45¾6	28¾6	301//	461/16	29¾6	3011/16	4615/16	30¾6	311//	4713/16	31¾6	31%
	24	PREFIX-(†)-24-(*)-(+)60-48																		
	30	PREFIX-(†)-30-(*)-(+)60-48																		
	36	PREFIX-(†)-36-(*)-(+)60-48																		

(†) Insert side rail depth. (*) Insert bottom style to complete Catalog Number. (+) Insert "VO" for vertical outside or "VI" for vertical inside. Includes one pair of splice plates with hardware.



B-320

United States Tel: 901.252.8000

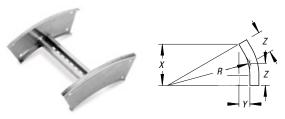
Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services** Tel: 888.862.3289



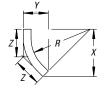




Steel Tray

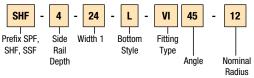


Outside Bend



Inside Bend

Catalog Numbering System



Selection Guide

Prefix: SPF (Pre-Galv.), SHF (Hot Dip), SSF (Stainless Steel)

Inside Tray Widths: 6, 9, 12, 18, 24, 30, 36

Angle: 45°

Nominal Radius: 12, 24, 36, 48

Bottom Styles: L – Ladder, V – Ventilated, S – Solid

Side Rail Depth: 3", 4", 5", 6", 7"

45° Vertical Bends

			(+) V	O SIDE	RAIL						(+) VI SI	DE RAI	L HEIG	HT					
NOMINAI	RADIUS		HEIG	HT 3½	"-7"		3½"			4"			5"			6"			7"	
R	WIDTH	CAT. NO.	Х	Υ	Z	X	Υ	Z	X	Υ	Z	Х	Υ	Z	Х	Υ	Z	X	Y	z
	6	PREFIX-(†)-06-(*)-(+)45-12																		
	9	PREFIX-(†)-09-(*)-(+)45-12																		
	12	PREFIX-(†)-12-(*)-(+)45-12																		
12	18	PREFIX-(†)-18-(*)-(+)45-12	81/2	31/2	5	111/16	71//8	6½	111/16	711/16	611/16	121/8	811/16	71/8	121//8	911/16	7½	13%6	1011/16	715/16
	24	PREFIX-(†)-24-(*)-(+)45-12																		
	30	PREFIX-(†)-30-(*)-(+)45-12																		
	36	PREFIX-(†)-36-(*)-(+)45-12																		<u> </u>
	6	PREFIX-(†)-06-(*)-(+)45-24																		
	9	PREFIX-(†)-09-(*)-(+)45-24																		
	12	PREFIX-(†)-12-(*)-(+)45-24																		
24	18	PREFIX-(†)-18-(*)-(+)45-24	17	7	915/16	19½	10%	111/16	1915/16	11¾16	11 ¹¹ / ₁₆	20%	123/16	121/16	21%	13¾6	12½	221/16	143/16	1215/16
	24	PREFIX-(†)-24-(*)-(+)45-24																		
	30	PREFIX-(†)-30-(*)-(+)45-24																		
	36	PREFIX-(†)-36-(*)-(+)45-24																		
	6	PREFIX-(†)-06-(*)-(+)45-36																		
	9	PREFIX-(†)-09-(*)-(+)45-36																		
	12	PREFIX-(†)-12-(*)-(+)45-36																		
36	18	PREFIX-(†)-18-(*)-(+)45-36	257/16	10%16	14¹5⁄₁6	28	143/16	167/16	287/16	14¾	16%	291/8	15¾	171/16	2913/16	16¾	17½	30½	17¾	171/8
	24	PREFIX-(†)-24-(*)-(+)45-36																		
	30	PREFIX-(†)-30-(*)-(+)45-36																		
	36	PREFIX-(†)-36-(*)-(+)45-36																		
	6	PREFIX-(†)-06-(*)-(+)45-48																		
	9	PREFIX-(†)-09-(*)-(+)45-48																		
	12	PREFIX-(†)-12-(*)-(+)45-48																		
48	18	PREFIX-(†)-18-(*)-(+)45-48	3315/16	141/16	19%	36½	1711/16	21%	36%	181/4	21%	375/8	191/4	22	395/16	201/4	227/16	39	211/4	221/8
	24	PREFIX-(†)-24-(*)-(+)45-48																		1
	30	PREFIX-(†)-30-(*)-(+)45-48																		1
	36	PREFIX-(†)-36-(*)-(+)45-48																		1

(1) Insert side rail depth. (2) Insert bottom style to complete Catalog Number. (+) Insert "VO" for vertical outside or "VI" for vertical inside. Includes one pair of splice plates with hardware.





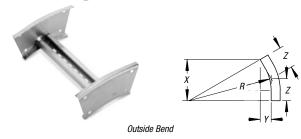




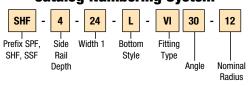
1-800-453-1692



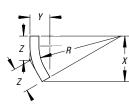
Steel Tray











Inside Bend

Selection Guide

Prefix: SPF (Pre-Galv.), SHF (Hot Dip), SSF

(Stainless Steel)

Inside Tray Widths: 6, 9, 12, 18, 24, 30, 36

Angle: 30°

Nominal Radius: 12, 24, 36, 48

Bottom Styles: L – Ladder, V – Ventilated, S – Solid

Side Rail Depth: 3", 4", 5", 6", 7"

30° Vertical Bends

NON	/INAL		(+) V() SIDE	RAIL						(-	+) VI SI	DE RAI	L HEIGH	Т					
	DIUS		HEIG	HT 3½'	' -7 "		31/2"			4"			5"			6"			7"	
R	WIDTH	CAT. NO.	Х	Υ	z	Х	Υ	Z	Х	Y	Z	Х	Y	Z	Х	Υ	z	Х	Υ	Z
	6	PREFIX-(†)-06-(*)-(+)30-12																		
	9	PREFIX-(†)-09-(*)-(+)30-12																		
	12	PREFIX-(†)-12-(*)-(+)30-12																		
12	18	PREFIX-(†)-18-(*)-(+)30-12	6	1%	33/16	713/16	51/4	43/16	81/16	15 ¹³ / ₁₆	45/16	8%16	613/16	4%	91/16	713/16	47//8	9%16	813/16	51//8
	24	PREFIX-(†)-24-(*)-(+)30-12																		
	30	PREFIX-(†)-30-(*)-(+)30-12																		
	36	PREFIX-(†)-36-(*)-(+)30-12																		<u> </u>
	6	PREFIX-(†)-06-(*)-(+)30-24																		
	9	PREFIX-(†)-09-(*)-(+)30-24																		
	12	PREFIX-(†)-12-(*)-(+)30-24																		
24	18	PREFIX-(†)-18-(*)-(+)30-24	12	33/16	67/16	1313/16	613/16	7%	141/16	7%	7%16	14%	8%	713/16	151/16	9%	81/16	151/16	10%	8%
	24	PREFIX-(†)-24-(*)-(+)30-24																		
	30	PREFIX-(†)-30-(*)-(+)30-24																		
	36	PREFIX (*) -36-(*)-(+)30-24																		<u> </u>
	6	PREFIX-(†)-06-(*)-(+)30-36																		
	9	PREFIX-(†)-09-(*)-(+)30-36																		
36	12 18	PREFIX-(†)-12-(*)-(+)30-36	10	A13/	05/	1013/	07/	105/	001/	_	103/	001/	10	441/	041/	4.4	445/	049/	10	110/
30	24	PREFIX-(†)-18-(*)-(+)30-36 PREFIX-(†)-24-(*)-(+)30-36	18	413/16	9%	1913/16	87/16	10%	201/16	9	10¾	201/16	10	111/16	211/16	11	115/16	21%6	12	11%6
	30	PREFIX-(†)-24-(*)-(+)30-36																		
	36	PREFIX-(†)-36-(*)-(+)30-36																		
	6	PREFIX-(†)-06-(*)-(+)30-48						<u> </u>												
	9	PREFIX-(†)-09-(*)-(+)30-48																		
	12	PREFIX-(†)-12-(*)-(+)30-48																		
48	18	PREFIX-(†)-18-(*)-(+)30-48	24	67/16	12%	2513/16	101/40	1313/16	261/16	10%	14	26%	11%	141/4	271/16	12%	14½	27%	13%	14 ¹³ / ₁₆
-10	24	PREFIX-(†)-24-(*)-(+)30-48	L ¬	0/10	12/0	20 / 10	10/18	10 /18	20/10	10/8	1.7	20/10	11/0	1774	L1 / 10	12/0	17/2	-1/10	10/8	1 7 7 10
	30	PREFIX-(†)-30-(*)-(+)30-48																		
	36	PREFIX-(†)-36-(*)-(+)30-48																		

(†) Insert side rail depth. (*) Insert bottom style. (+) Insert "VO" for vertical outside or "VI" for vertical inside to complete Catalog Number. Includes one pair of splice plates with hardware.



United States
Tel: 901.252.80

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services** Tel: 888.862.3289

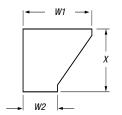




Steel Tray

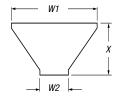


Right-Hand Reducer



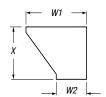


Straight Reducer

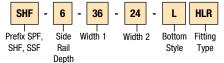




Left-Hand Reducer



Catalog Numbering System



Selection Guide

Prefix: SPF (Pre-Galv.), SHF (Hot Dip), SSF

(Stainless Steel)

Tray Widths W1: 36, 30, 24, 18, 12, 9 **Tray Widths W2**: 30, 24, 18, 12, 9, 6

Bottom Styles: L – Ladder, V – Ventilated, S – Solid

Side Rail Depth: 3", 4", 5", 6", 7"

Horizontal Reducers

WID	THS	LEFT-HAND REDUCE	R	STRAIGHT REDUCER (CONC	CENTRIC)	RIGHT-HAND REDUCE	ER
W1	W2	CAT. NO.	DIM. X	CAT. NO.	DIM. X	CAT. NO.	DIM. X
	30	PREFIX(†)-36-30-(*)-HLR	157/16	PREFIX(†)-36-30-(*)-HSR	13¾	PREFIX(†)-36-30-(*)-HRR	157/16
	24	PREFIX(†)-36-24-(*)-HLR	1815/16	PREFIX(†)-36-24-(*)-HSR	151/16	PREFIX(†)-36-24-(*)-HRR	1815/16
36	18	PREFIX(†)-36-18-(*)-HLR	22¾	PREFIX(†)-36-18-(*)-HSR	17%	PREFIX(†)-36-18-(*)-HRR	223/8
30	12	PREFIX(†)-36-12-(*)-HLR	251/8	PREFIX(†)-36-12-(*)-HSR	185/16	PREFIX(†)-36-12-(*)-HRR	25%
	9	PREFIX(†)-36-09-(*)-HLR	27%	PREFIX(†)-36-09-(*)-HSR	19 ¹³ ⁄ ₁₆	PREFIX(†)-36-09-(*)-HRR	27%
	6	PREFIX(†)-36-06-(*)-HLR	295/16	PREFIX(†)-36-06-(*)-HSR	2011/16	PREFIX(†)-36-06-(*)-HRR	295⁄16
	24	PREFIX(†)-30-24-(*)-HLR	151/16	PREFIX(†)-30-24-(*)-HSR	13¾	PREFIX(†)-30-24-(*)-HRR	157/16
	18	PREFIX(†)-30-18-(*)-HLR	1815/16	PREFIX(†)-30-18-(*)-HSR	151/16	PREFIX(†)-30-18-(*)-HRR	1815/1
30	12	PREFIX(†)-30-12-(*)-HLR	223/8	PREFIX(†)-30-12-(*)-HSR	17¾6	PREFIX(†)-30-12-(*)-HRR	223/8
	9	PREFIX(†)-30-09-(*)-HLR	241//8	PREFIX(†)-30-09-(*)-HSR	181/16	PREFIX(†)-30-09-(*)-HRR	241/8
	6	PREFIX(†)-30-06-(*)-HLR	257//8	PREFIX(†)-30-06-(*)-HSR	18¹5⁄₁6	PREFIX(†)-30-06-(*)-HRR	257/8
	18	PREFIX(†)-24-18-(*)-HLR	151/16	PREFIX(†)-24-18-(*)-HSR	13¾	PREFIX(†)-24-18-(*)-HRR	157/1
0.4	12	PREFIX(†)-24-12-(*)-HLR	1815/16	PREFIX(†)-24-12-(*)-HSR	157/16	PREFIX(†)-24-12-(*)-HRR	1815/1
24	9	PREFIX(†)-24-09-(*)-HLR	2011/16	PREFIX(†)-24-09-(*)-HSR	165/16	PREFIX(†)-24-09-(*)-HRR	2011/1
	6	PREFIX(†)-24-06-(*)-HLR	223/8	PREFIX(†)-24-06-(*)-HSR	17¾6	PREFIX(†)-24-06-(*)-HRR	223/8
	12	PREFIX(†)-18-12-(*)-HLR	151/16	PREFIX(†)-18-12-(*)-HSR	13¾	PREFIX(†)-18-12-(*)-HRR	157/16
18	9	PREFIX(†)-18-09-(*)-HLR	173/16	PREFIX(†)-18-09-(*)-HSR	145/8	PREFIX(†)-18-09-(*)-HRR	173/10
	6	PREFIX(†)-18-06-(*)-HLR	1815/16	PREFIX(†)-18-06-(*)-HSR	151/16	PREFIX(†)-18-06-(*)-HRR	1815/1
10	9	PREFIX(†)-12-09-(*)-HLR	13¾	PREFIX(†)-12-09-(*)-HSR	121//8	PREFIX(†)-12-09-(*)-HRR	13¾
12	6	PREFIX(†)-12-06-(*)-HLR	151/16	PREFIX(†)-12-06-(*)-HSR	13¾	PREFIX(†)-12-06-(*)-HRR	157/16
9	6	PREFIX(†)-09-06-(*)-HLR	13¾	PREFIX(†)-09-06-(*)-HSR	127/8	PREFIX(†)-09-06-(*)-HRR	13¾

 $(\dagger) \ \textit{Insert side rail depth.} \ (\dagger) \ \textit{Insert bottom style to complete Catalog Number.} \ \textit{Includes one pair of splice plates with hardware.}$

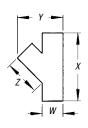




www.aboveboardelectronics.com

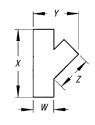
Steel Tray





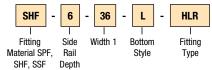
Left-Hand Wye





Right-Hand Wye

Catalog Numbering System



Selection Guide

Prefix: SPF (Pre-Galv.), SHF (Hot Dip), SSF (Stainless Steel)

Inside Tray Widths: 6, 9, 12, 18, 24, 30, 36

Bottom Styles: L – Ladder, V – Ventilated, S – Solid

Side Rail Depth: 3", 4", 5", 6", 7"

45° Horizontal Wyes

	LEFT HAND WYE	RIGHT HAND WYE		DIMENSIONS	
WIDTH	CAT. NO.	CAT. NO.	Х	Υ	Z
6	PREFIX-(†)-06-(*)-HYL	PREFIX-(†)-06-(*)-HYR	185/16	1413/16	127/16
9	PREFIX-(†)-09-(*)-HYL	PREFIX-(†)-09-(*)-HYR	22½	1915/16	157/16
12	PREFIX-(†)-12-(*)-HYL	PREFIX-(†)-12-(*)-HYR	26¾	25	187/16
18	PREFIX-(†)-18-(*)-HYL	PREFIX-(†)-18-(*)-HYR	351/4	351/4	247/16
24	PREFIX-(†)-24-(*)-HYL	PREFIX-(†)-24-(*)-HYR	431/2	451/2	307/16
30	PREFIX-(†)-30-(*)-HYL	PREFIX-(†)-30-(*)-HYR	521/4	553/4	367/16
36	PREFIX-(†)-36-(*)-HYL	PREFIX-(†)-36-(*)-HYR	6011/16	66	427/16

(†) Insert side rail depth. (*) Insert bottom style to complete Catalog Number. Includes two pairs of splice plates with hardware.





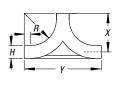
1-800-453-1692



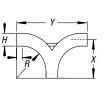


Steel Tray

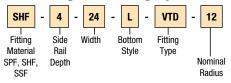








Catalog Numbering System



Selection Guide

Prefix: SPF (Pre-Galv.), SHF (Hot Dip), SSF (Stainless Steel)

Inside Tray Widths: 6, 9, 12, 18, 24, 30, 36

Nominal Radius: 12, 24, 36, 48

Bottom Styles: L – Ladder, V – Ventilated, S – Solid

Side Rail Depth: 3", 4", 5", 6", 7"

Up and Down Vertical Tees

							S	IDE RAIL	HEIGHT "H	"			
NOMINA	L RADIUS	VERTICAL TEE UP	VERTICAL TEE DOWN	31/	/ ₂ "	4	ļ"	5	ıı .	6	ıı	7	711
R	WIDTH	CAT. NO.	CAT. NO.	Х	Y	Х	Υ	x	Y	x	Y	x	Υ
	6	PREFIX-(†)-06-(*)-VTU-12	PREFIX-(†)-06-(*)-VTD-12										
	9	PREFIX-(†)-09-(*)-VTU-12	PREFIX-(†)-09-(*)-VTD-12										
	12	PREFIX-(†)-12-(*)-VTU-12	PREFIX-(†)-12-(*)-VTD-12										
12	18	PREFIX-(†)-18-(*)-VTU-12	PREFIX-(†)-18-(*)-VTD-12	1313/16	27%	141/8	28¾16	14%	29¾16	151/8	30¾6	15%	31¾6
	24	PREFIX-(†)-24-(*)-VTU-12	PREFIX-(†)-24-(*)-VTD-12										
	30	PREFIX-(†)-30-(*)-VTU-12	PREFIX-(†)-30-(*)-VTD-12										
	36	PREFIX-(†)-36-(*)-VTU-12	PREFIX-(†)-36-(*)-VTD-12										
	6	PREFIX-(†)-06-(*)-VTU-24	PREFIX-(†)-06-(*)-VTD-24										
	9	(, (,	PREFIX-(†)-09-(*)-VTD-24										
	12	., .,	PREFIX-(†)-12-(*)-VTD-24										
24	18	(, (,	PREFIX-(†)-18-(*)-VTD-24	2513/16	51%	261//8	523/16	26%	53¾6	271/8	543/16	27%	55¾6
	24	., .,	PREFIX-(†)-24-(*)-VTD-24										
	30	(, (,	PREFIX-(†)-30-(*)-VTD-24										
	36		PREFIX-(†)-36-(*)-VTD-24							ļ			
	6	(, (,	PREFIX-(†)-06-(*)-VTD-36										
	9	(, (,	PREFIX-(†)-09-(*)-VTD-36										
	12	(, (,	PREFIX-(†)-12-(*)-VTD-36										
36	18	., .,	PREFIX-(†)-18-(*)-VTD-36	NA	NA	381/8	76¾16	38%	773/16	391/8	78¾6	39%	79¾6
	24	(, (,	PREFIX-(†)-24-(*)-VTD-36										
	30	., .,	PREFIX-(†)-30-(*)-VTD-36										
	36	PREFIX-(†)-36-(*)-VTU-36					-						
	6	., .,	PREFIX (*) -06-(*)-VTD-48										
	9	(, (,	PREFIX-(†)-09-(*)-VTD-48										
40	12	PREFIX-(†)-12-(*)-VTU-48	., .,			501/	1002/	F05/	4042/	E41/	1002/	F45/	1002/
48	18	., .,	PREFIX (*) -18-(*)-VTD-48	NA	NA	501//8	1003/16	50%	101¾6	511//	1023/16	51%	103¾6
	24	., .,	PREFIX-(†)-24-(*)-VTD-48										
	30	PREFIX-(†)-30-(*)-VTU-48	(, (,										
	36	PREFIX-(†)-36-(*)-VTU-48	PREFIX-(†)-36-(*)-VTD-48							1			

(†) Insert side rail depth. (*) Insert bottom style to complete Catalog Number. Includes two pairs of splice plates with hardware.





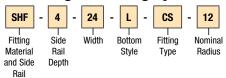


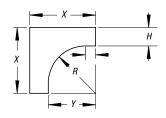






Catalog Numbering System





Selection Guide

Prefix: SPF (Pre-Galv.), SHF (Hot Dip), SSF (Stainless Steel)

Inside Tray Widths: 6, 9, 12, 18, 24, 30, 36

Nominal Radius: 12, 24, 36, 48

Bottom Styles: L – Ladder, V – Ventilated, S – Solid

Side Rail Depth: 3", 4", 5", 6", 7"

Cable Support Fittings

					SIDERAIL HEIGHT "H"		
NOMINA	L RADIUS	_	37/8"	4"	5"	6"	7"
R	WIDTH	CAT. NO.			Х		
	6	PREFIX-(†)-06-(*)-CS-12					
	9	PREFIX-(†)-09-(*)-CS-12					
	12	PREFIX-(†)-12-(*)-CS-12					
12	18	PREFIX-(†)-18-(*)-CS-12	15%	16¾6	17¾6	18¾6	19¾6
	24	PREFIX-(†)-24-(*)-CS-12					
	30	PREFIX-(†)-30-(*)-CS-12					
	36	PREFIX-(†)-36-(*)-CS-12					
	6	PREFIX-(†)-06-(*)-CS-24					
	9	PREFIX-(†)-09-(*)-CS-24					
	12	PREFIX-(†)-12-(*)-CS-24					
24	18	PREFIX-(†)-18-(*)-CS-24	27%	28¾6	29¾6	30¾6	31¾6
	24	PREFIX-(†)-24-(*)-CS-24					
	30	PREFIX-(†)-30-(*)-CS-24					
	36	PREFIX-(†)-36-(*)-CS-24					
	6	PREFIX-(†)-06-(*)-CS-36					
	9	PREFIX-(†)-09-(*)-CS-36					
	12	PREFIX-(†)-12-(*)-CS-36					
36	18	PREFIX-(†)-18-(*)-CS-36	395%	403/16	413/16	423/16	43¾16
	24	PREFIX-(†)-24-(*)-CS-36					
	30	PREFIX-(†)-30-(*)-CS-36					
	36	PREFIX-(†)-36-(*)-CS-36					
	6	PREFIX-(†)-06-(*)-CS-48					
	9	PREFIX-(†)-09-(*)-CS-48					
	12	PREFIX-(†)-12-(*)-CS-48					
48	18	PREFIX-(†)-18-(*)-CS-48	51%	52¾6	53¾6	54¾16	55¾6
	24	PREFIX-(†)-24-(*)-CS-48					
	30	PREFIX-(†)-30-(*)-CS-48					
	36	PREFIX-(†)-36-(*)-CS-48					

(*) Insert side rail depth. (*) Insert bottom style to complete Catalog Number. Includes two pairs of splice plates with hardware.



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services**





Steel Tray

Tray Covers

Tray covers are available for all classes of tray. They should be installed where falling objects may damage cables or where vertical tray run is accessible by pedestrian or vehicular traffic.

Outside cable tray runs should be covered with a Peaked Flanged cover to protect cable from the elements and excess build up of snow and ice.

Solid Covers

These covers provide maximum mechanical protection for cables with limited heat build up. Solid covers are available with or without flange. Flanged covers have $\frac{1}{2}$ " flange.

Note: Cover mounting hardware must be ordered separately.



Ventilated Flanged Covers

This design offers excellent mechanical protection while allowing heat produced by cables to dissipate.

Note: Cover mounting hardware must be ordered separately.



Ventilated Flanged

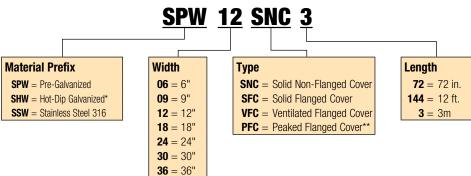
Peaked Flanged Covers

Peaked covers offer mechanical protection plus prevent accumulation of liquid on the cover. Peaked covers have 15° rise at the peak. Covers greater than 12" wide available in 72" and 3m lengths only.

Note: Cover mounting hardware must be ordered separately.



Straight Covers



^{*} Hot-Dipped Covers only available in 72" and 1500mm lengths.

^{**} Peaked covers greater than 12" wide available in 72" and 3m lengths only.



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354

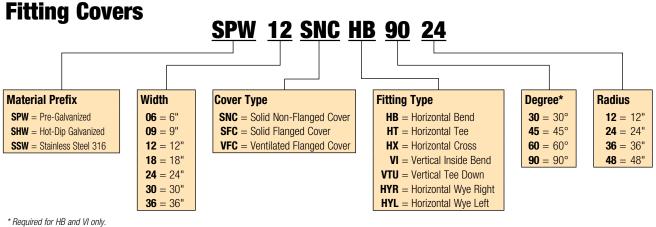
Technical Services Tel: 888.862.3289

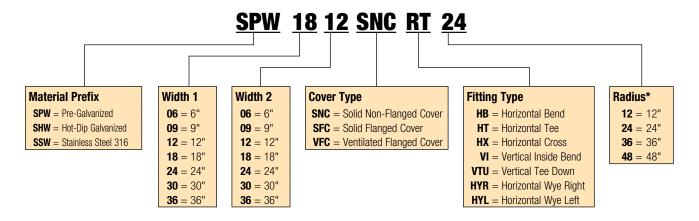




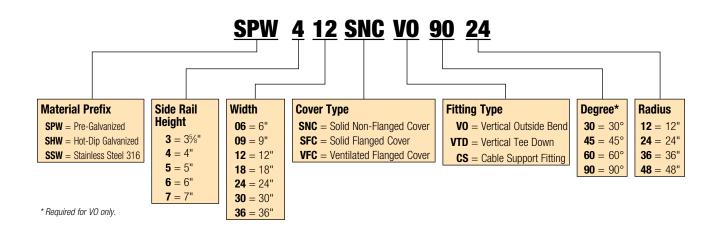
1-800-453-1692

Steel Tray





^{*} Radius not required for HSR, HLR, HRR.





Steel Tray

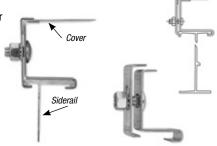
Quantity of Standard Cover Clamps Required

Straight Section (6 ft.)	4 pcs.
Straight Section (12 ft.)	6 pcs.
Horizontal and Vertical Bends	4 pcs.
Tees	6 pcs.
Crosses	8 pcs.

Note: When using the Heavy-Duty Cover Clamp, only half the quantity of pieces are required.

Raised Cover Clamp

 Designed to raise cover above tray for added ventilation



CAT. NO.	MATERIAL
SPW(+)RCC	Pre-Galvanized
SSW(+)RCC	Stainless Steel 316
(±) Insert cover offset: 1" 2" or 3"	

Peaked End Cap

· Used for transition between peaked covers to straight covers

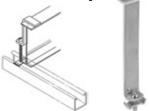


CAT. NO.	MATERIAL
SPW(*)PEC	Pre-Galvanized
SHW(*)PEC	Hot-Dip Galvanized
SSW(*)PEC	Stainless Steel 316

(*) Insert tray width: 06", 09", 12", 18", 24", 30" or 36".

Combination Hold-Down Cover Clamp

 Designed to secure flat and flanged covers with hold down feature



CAT. NO.	MATERIAL
SPW-(*)-CCC	Pre-Galvanized
SSW-(*)-CCC	Stainless Steel 316

(*) Insert side rail height: 3", 4", 5", 6" or 7".

Cover Clamp

Rigid indoor cover clamp for flat and flanged covers



CAT. NO.	MATERIAL
SPW-(*)-SCC	Pre-Galvanized
SSW-(*)-SCC	Stainless Steel 316
/*\	

Heavy-Duty Cover Clamp

- Wrap-around design offers added protection
- Hardware included
- Pre-Galvanized (SPW), Hot-Dip Galvanized (SHW) or Stainless Steel 316 (SSW)



CAT. NO.	SIDE RAIL HEIGHT
(PREFIX)-3-(*)-HCC	3"
(PREFIX)-4-(*)-HCC	4"
(PREFIX)-5-(*)-HCC	5"
(PREFIX)-6-(*)-HCC	6"
(PREFIX)-7-(*)-HCC	7"
(*) Insert tray width: 06", 09", 12", 18", 24", 30" or 36".	

Heavy-Duty Peaked Cover Clamp

- · Fits peaked cover for outdoor applications
- Hardware included
- Pre-Galvanized (SPW), Hot-Dip Galvanized (SHW) or Stainless Steel 316 (SSW)



CAT. NO.	SIDE RAIL HEIGHT
(PREFIX)-3-(*)-HPC	3"
(PREFIX)-4-(*)-HPC	4"
(PREFIX)-5-(*)-HPC	5"
(PREFIX)-6-(*)-HPC	6"
(PREFIX)-7-(*)-HPC	7"
(*) Insert tray width: 06" 00" 12" 18" 24" 30" or 36"	

Cover Joint Strip

Strip used for joining covers end to end



CAT. NO.	MATERIAL
SPW-(*)-SCS	Pre-Galvanized
(*) Insert tray width: 06", 09", 12", 18", 24", 30" or 36".	

Note: Material is plastic.





Thomas@Betts

Steel Tray

Splice Plate

- Packaged in pairs with zinc-plated hardware
- Available in Pre-Galvanized (SPW), Hot-Dip Galvanized (SHW) and Stainless Steel 316 (SSW)



CAT. NO.	SIDE RAIL HEIGHT
(PREFIX)-3-SSP	3"
(PREFIX)-4-SSP	4"
(PREFIX)-5-SSP	5"
(PREFIX)-6-SSP	6"
(PREFIX)-7-SSP	7"

Expansion Splice Plate

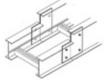
- Enables 1" expansion or contraction of tray system
- · Packaged in pairs with hardware
- Available in Pre-Galvanized (SPW), Hot-Dip Galvanized (SHW) and Stainless Steel 316 (SSW)



CAT. NO.	SIDE RAIL HEIGHT
(PREFIX)-3-ESP	3"
(PREFIX)-4-ESP	4"
(PREFIX)-5-ESP	5"
(PREFIX)-6-ESP	6"
(PREFIX)-7-ESP	7"

Step-Down Splice Plate

- Connects side rails of different heights
- Hardware included



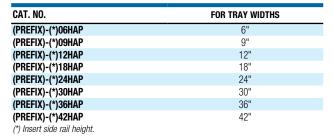


CAT. NO.	MATERIAL PREFIX
(PREFIX)-(*)-(**)-SDS	SPW
	SHW
	SSW

(*) Insert side rail height 1. (**) Insert side rail height 2. **Note:** Side rail height 1 is greater than side rail height 2.

Horizontal Adjustable Plate

- Adjustable hinge plates provide maximum horizontal installation flexibility
- Furnished in pairs with hardware
- Available in Pre-Galvanized (SPW), Hot-Dip Galvanized (SHW) and Stainless Steel 316 (SSW)



Vertical Adjustable Plate

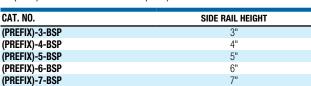
- · Provide maximum flexibility for changes in elevation
- Packaged in pairs with hardware
- Available in Pre-Galvanized (SPW), Hot-Dip Galvanized (SHW) and Stainless Steel 316 (SSW)



CAT. NO.	SIDE RAIL HEIGHT
(PREFIX)-3-VSP	3"
(PREFIX)-4-VSP	4"
(PREFIX)-5-VSP	5"
(PREFIX)-6-VSP	6"
(PREFIX)-7-VSP	7"

Box to Tray Plates

- Secure tray to electrical panels or boxes, walls or end supports
- Packaged in pairs with hardware
- Available in Pre-Galvanized (SPW), Hot-Dip Galvanized (SHW) and Stainless Steel 316 (SSW)



Closure End Plate

- · Provides closure for any tray end
- Hardware included
- Available in Pre-Galvanized (SPW), Hot-Dip Galvanized (SHW) and Stainless Steel 316 (SSW)



CAT. NO.	SIDE RAIL HEIGHT
(PREFIX)-3-(*)-CEP	3"
(PREFIX)-4-(*)-CEP	4"
(PREFIX)-5-(*)-CEP	5"
(PREFIX)-6-(*)-CEP	6"
(PREFIX)-7-(*)-CEP	7"
* Insert tray width.	

Reducing Splice Plate

- Used in pairs to provide a straight reduction or used with a Standard Splice Plate for an offset reduction
- One per package with hardware
- Available in Pre-Galvanized (SPW), Hot-Dip Galvanized (SHW) and Stainless Steel 316 (SSW)



* For offset reduction: Insert width to be reduced. For straight reduction: Insert ½ width to be reduced (two required). Example: SPW-5-03-RSP = 3" offset reducer.



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 Tel: 888.862.3289

Technical Services





www.tnb.com



Steel Tray

Standard Hold-Down Clamp

- · Designed for most indoor installations
- · Easy to use and install
- Order 1/4" hardware separately



CAT. NO.	MATERIAL Prefix	
(PREFIX)-SHC	SPW	
	SSW	
(PREFIX)-SHC-HDW	SPW	
	SSW	

Note: HDW = Supplied complete with 1/4" hardware.

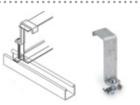
Combination Hold-Down/ Expansion Clamp



CAT. NO.	MATERIAL PREFIX
(PREFIX)-HEC	SPW
	SHW
	SSW

Hold-Down Clamp

Available in Pre-Galvanized (SPW) and Stainless Steel 316 (SSW)



CAT. NO.	SIDE RAIL Height
(PREFIX)-3-HDC	3"
(PREFIX)-4-HDC	4"
(PREFIX)-5-HDC	5"
(PREFIX)-6-HDC	6"
(PREFIX)-7-HDC	7"
Note: Hardware included.	

Steel Tray Hardware

· Square shoulder self-positioning carriage bolt



CAT. NO.	DESCRIPTION	MATERIAL
SPW-1/4-CB	1/4" Carriage Bolt	Zinc-Plated Steel
SPW-3/8-CB	%" Carriage Bolt	Zinc-Plated Steel
SPW-1/4-HN	1/4" Hex Nut	Zinc-Plated Steel
SPW-3/8-HN	3/8" Hex Nut	Zinc-Plated Steel
SSW-1/4-CB	1/4" Carriage Bolt	316 Stainless
SSW-1/4-HN	1/4" Hex Nut	316 Stainless
SSW-3/8-CB	%" Carriage Bolt	316 Stainless
SSW-3/8-HN	3/8" Hex Nut	316 Stainless
SSW-3/8-HWK*	316 Stainless Steel Hardware Kit	316 Stainless
* Contains eight nuts, eight bolts, eight lockwashers.		

Self-Drilling Tapping Screw



CAT. NO.	MATERIAL
SPW-10-SCR	Zinc-Plated Steel

Cable Tray Guide

- Expansion guide for single or double runs of cable tray
- · No need to field drill channel or I-beam



CAT. NO.	MATERIAL
SPW-CTG	Zinc-Plated Steel
SHW-CTG	Steel Hot Dip
SSW-CTG	Stainless Steel

Cable Tray Clamp

- · Clamps for single run of cable tray
- · No need to field drill channel or I-beam



CAT. NO.	MATERIAL
SPW-CTC	Zinc-Plated Steel
SHW-CTC	Steel Hot Dip
SSW-CTC	Stainless Steel

Vertical Tray Hanger





1-800-453-1692

CAT. NO.	MATERIAL PREFIX	SIDE RAIL HEIGHT
(PREFIX)-(*)-VTH	SPW	3"
	SHW	4"
	SSW	5"
		6"
		7"

(*) Insert side rail height.





Steel Tray

Drop-Out

- · Provide a smooth radiused surface at any position on the tray or trough bottom
- Standard radius is 4"
- Available in Pre-Galvanized (SPW), Hot-Dip Galvanized (SHW) and Stainless Steel 316 (SSW)



(PREFIX)-(*)-DO	06 00 12 19 24 20 26	
(PREFIX)-(*)-DOS	06, 09, 12, 18, 24, 30, 36	

(*) Insert width of tray. DOS is solid tray.

Wall Penetration Sleeve

- · Designed to pass through walls and fire walls
- · Hardware included



CAT. NO.	MATERIAL PREFIX	SIDE RAIL HEIGHT	TRAY WIDTH
(PREFIX)-(*)-(**)-WPS	SPW	3"	06
	SHW	4"	09
	SSW	5"	12
		6"	18
		7"	24
			30
			36

(*) Insert side rail height. (**) Insert width of tray. Note: Not fire rated. Fire stop not included.

Frame-Type Tray to Box Plate

- Secures tray to electrical enclosures and panels
- Hardware included



CAT. NO.	MATERIAL PREFIX	SIDE RAIL HEIGHT	TRAY WIDTH
(PREFIX)-(*)-(**)-FBP	SPW	3"	06
	SHW	4"	09
	SSW	5"	12
		6"	18
		7"	24
			30
			36

(*) Insert side rail height. (**) Insert width of tray.

Nylon Expansion Pad

 Allows for thermal expansion and contraction of cable trays over supports



CAT. NO.	MATERIAL
ABW-NSP	Natural Nylon



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services** Tel: 888.862.3289







Steel Tray

Barrier Strips

- · Provide a method of separating cables in tray and trough systems
- Easily installed using supplied hardware
- 72" Barriers can be used with horizontal fittings
- Available in Pre-Galvanized (SPW), Hot-Dip Galvanized (SHW) and Stainless Steel 316 (SSW)



CAT. NO.	SIDE RAIL HEIGHT	LENGTH
(PREFIX)-3-SBH-72	3"	72"
(PREFIX)-4-SBH-72	4"	72"
(PREFIX)-5-SBH-72	5"	72"
(PREFIX)-6-SBH-72	6"	72"
(PREFIX)-7-SBH-72	7"	72"
(PREFIX)-3-SB	3"	144"
(PREFIX)-4-SB	4"	3m
(PREFIX)-5-SB	5"	3m
(PREFIX)-6-SB	6"	3m
(PREFIX)-7-SB	7"	3m

Notes: 72" barriers provided with three SPW10SCR144, 3m barriers provided with selfdrilling tapping screw (SPW10SCR).

72" length, three screws; 3m length, five screws; 144" length, six screws.

SHW barriers are only available in 72" or 1500mm.

Inside/Outside Vertical Bend Barriers

- · Fit all standard steel vertical bends
- Provided with hardware
- · Available in Pre-Galvanized (SPW), Hot-Dip Galvanized (SHW) and Stainless Steel 316 (SSW)



INSIDE BEND CAT. NO.	OUTSIDE BEND CAT. NO.	SIDE RAIL HEIGHT
(PREFIX)-3-VIB-(*)-(+)	(PREFIX)-3-VOB-(*)-(+)	3"
(PREFIX)-4-VIB-(*)-(+)	(PREFIX)-4-VOB-(*)-(+)	4"
(PREFIX)-5-VIB-(*)-(+)	(PREFIX)-5-VOB-(*)-(+)	5"
(PREFIX)-6-VIB-(*)-(+)	(PREFIX)-6-VOB-(*)-(+)	6"
(PREFIX)-7-VIB-(*)-(+)	(PREFIX)-7-VOB-(*)-(+)	7"

(*) Insert bend degree. (+) Insert bend radius.

Barrier Strip Clamp

- · Barrier Strip Clamps mount Barrier Strips to ladder rungs and ventilated trough bottoms
- Mounting hardware supplied



CAT. NO.	MATERIAL PREFIX
(PREFIX)-BSC	SPW
	SSW

Barrier Strip Splice

· Alignment splice for joining connecting Barrier Strips



CAT. NO.	MATERIAL
ABW-BSS	Plastic



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354

Technical Services Tel: 888.862.3289



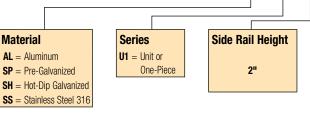




One-Piece Tray

2" Straight Section, Series AL, SP, SH, SS — **Solid and Vented**

AL U1 2 12 V - 3



Width **Bottom Type** Length $3 = 3m^*$ V = Ventilated Trough 06 = 6" **12** = 12" **S** = Solid Trough **18** = 18" **24** = 24" * Standard straight length is 10 feet nominal = actually 3m. **30** = 30" 1m = 3.2808 ft. 3m = 9.842 ft.**36** = 36"

ouppoit	opan

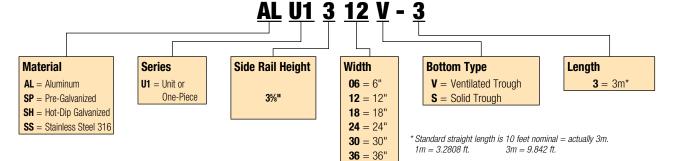
Cunnort Cnan

		FEET							
SERIES		6	8	10	12	14	16	18	20
	Load (lb./ft.)	69	39	25	_	_	_	_	_
ALU12	Deflection (in.)	.382	.730	1.000	_	_	_	_	_
	Deflection Factor	.006	.019	.040	_	_	_	_	_
SPU12	Load (lb./ft.)	69	39	25	_	_	_	_	$\overline{}$
SHU12	Deflection (in.)	.382	.730	1.000	_	_	_	_	_
30012	Deflection Factor	.006	.019	.040	_	_		_	_
	Load (lb./ft.)	69	39	25	_	_	_	_	_
SSU12	Deflection (in.)	.382	.730	1.000	_	_	_	_	_
	Deflection Factor	.006	.019	.040	_	_	_	_	_

.....Specifications.....

- CSA All: A
- Deflection Based on 36"-wide cable travs with travs supported as simple spans and deflection measured at the midpoint; continuous spans may reduce deflection by as much as 50%
- Deflection at Any Length For lighter loads, multiply Load x Deflection Factor

3%" Straight Section, Series AL, SP, SH, SS — **Solid and Vented**



Support Span

		FEET							
SERIES		6	8	10	12	14	16	18	20
	Load (lb./ft.)	180	101	65	_	_	_	_	_
ALU13	Deflection (in.)	.382	.430	.540	_	_	-	_	_
	Deflection Factor	.002	.004	.008	_	_	_	_	_
SPU13	Load (lb./ft.)	180	101	65	_	_	_	_	_
SHU13	Deflection (in.)	.125	.250	.320	_	_	_	_	_
20013	Deflection Factor	.001	.002	.005	_	_	-	-	_
	Load (lb./ft.)	180	101	65	_	_	_	_	_
SSU13	Deflection (in.)	.125	.250	.320	_	_	_	_	_
	Deflection Factor	.001	.002	.005	_	_		-	_

.....Specifications.....

- NEMA Rating All: 8C
- CSA All: C1
- Deflection Based on 36"-wide cable trays with trays supported as simple spans and deflection measured at the midpoint; continuous spans may reduce deflection by as much as 50%
- Deflection at Any Length For lighter loads, multiply Load x Deflection Factor



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354

Technical Services

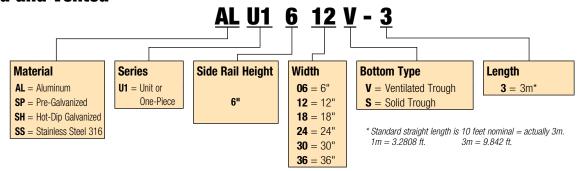






One-Piece Tray

6" Straight Section, Series AL, SP, SH, SS — Solid and Vented



Support Span

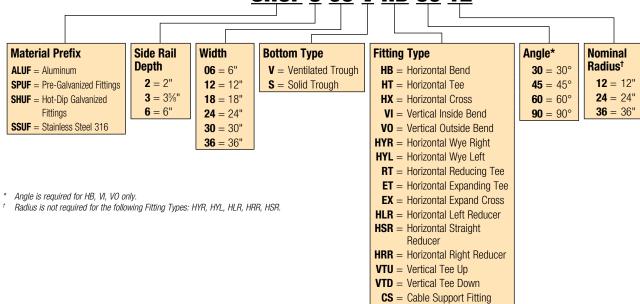
		FEET							
SERIES		6	8	10	12	14	16	18	20
	Load (lb./ft.)	180	101	65	_	_	_	_	_
ALU16	Deflection (in.)	.082	.128	.160	_	_	_	_	_
	Deflection Factor	.000	.001	.002	_	_	_	_	_
SPU16	Load (lb./ft.)	180	101	65	_	_	_	_	_
SHU16	Deflection (in.)	.125	.250	.320	_	_	_	_	_
31110	Deflection Factor	.001	.002	.005	_	_	_	_	_
	Load (lb./ft.)	180	101	65	_	_	_	_	_
SSU16	Deflection (in.)	.125	.250	.320	_	_	_	_	_
	Deflection Factor	.001	.002	.005	_	_	_	_	_

......Specifications.....

- NEMA Rating All: 8C
- CSA All: C1
- Deflection Based on 36"-wide cable trays with trays supported as simple spans and deflection measured at the midpoint; continuous spans may reduce deflection by as much as 50%
- · Deflection at Any Length For lighter loads, multiply Load x Deflection Factor

Fittings Number Selection

SHUF 3 06 V HB 90 12





United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services**



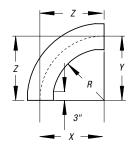


One-Piece Tray

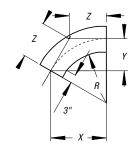




90° Horizontal Bend

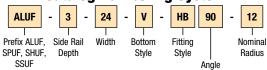


90° Horizontal Bend



60° Horizontal Bend

Catalog Numbering System



Selection Guide

Prefix: ALUF (Aluminum), SPUF (Pre-Galv.), SHUF (Hot-Dip Galv.), SSUF (Stainless Steel)

 $\textbf{Inside Tray Widths:}\ 6,\ 9,\ 12,\ 18,\ 24,\ 30,\ 36$

Angle: 90°, 60°

Nominal Radius: 12, 24, 36

Bottom Styles: V – Ventilated, S – Solid

Side Rail Depth: 2", 3", 6"

90° Horizontal Bends

NOMINAL RADIUS			D	IMENSION	S
R	WIDTH	CAT. NO.	Х	Υ	Z
	06	PREFIX-(†)-06-(*)-HB90-12	15	15	15
	12	PREFIX-(†)-12-(*)-HB90-12	18	18	18
12	18	PREFIX-(†)-18-(*)-HB90-12	21	21	21
12	24	PREFIX-(†)-24-(*)-HB90-12	24	24	24
	30	PREFIX-(†)-30-(*)-HB90-12	27	27	27
	36	PREFIX-(†)-36-(*)-HB90-12	30	30	30
	06	PREFIX-(†)-06-(*)-HB90-24	27	27	27
	12	PREFIX-(†)-12-(*)-HB90-24	30	30	30
24	18	PREFIX-(†)-18-(*)-HB90-24	33	33	33
24	24	PREFIX-(†)-24-(*)-HB90-24	36	36	36
	30	PREFIX-(†)-30-(*)-HB90-24	39	39	39
	36	PREFIX-(†)-36-(*)-HB90-24	42	42	42
	06	PREFIX-(†)-06-(*)-HB90-36	39	39	39
	12	PREFIX-(†)-12-(*)-HB90-36	42	42	42
36	18	PREFIX-(†)-18-(*)-HB90-36	45	45	45
30	24	PREFIX-(†)-24-(*)-HB90-36	48	48	48
	30	PREFIX-(†)-30-(*)-HB90-36	51	51	51
	36	PREFIX-(†)-36-(*)-HB90-36	54	54	54

60° Horizontal Bends

NOMINA	L RADIUS		D	IS	
R	WIDTH	CAT. NO.	х	Υ	Z
	06	PREFIX-(†)-06-(*)-HB60-12	14%	85/8	915/16
	12	PREFIX-(†)-12-(*)-HB60-12	171/2	101/8	1111/16
12	18	PREFIX-(†)-18-(*)-HB60-12	201/16	11%	13%
12	24	PREFIX-(†)-24-(*)-HB60-12	2211/16	131/8	151//
	30	PREFIX-(†)-30-(*)-HB60-12	255/16	14%	16%
	36	PREFIX-(†)-36-(*)-HB60-12	27%	161//8	181/16
	06	PREFIX-(†)-06-(*)-HB60-24	255/16	14%	16%
	12	PREFIX-(†)-12-(*)-HB60-24	271/8	161/8	181/16
24	18	PREFIX-(†)-18-(*)-HB60-24	30½	17%	205/16
24	24	PREFIX-(†)-24-(*)-HB60-24	331/16	191/8	221/16
	30	PREFIX-(†)-30-(*)-HB60-24	3511/16	20 1/8	2313/16
	36	PREFIX-(†)-36-(*)-HB60-24	381/4	221/8	25½
	06	PREFIX-(†)-06-(*)-HB60-36	3511/16	20%	2313/16
	12	PREFIX-(†)-12-(*)-HB60-36	381/4	221/8	251/2
36	18	PREFIX-(†)-18-(*)-HB60-36	40%	23%	27%
30	24	PREFIX-(†)-24-(*)-HB60-36	431/2	251/8	29
	30	PREFIX-(†)-30-(*)-HB60-36	461/16	26%	3011/16
	36	PREFIX-(†)-36-(*)-HB60-36	4811/16	281/8	321/16

(†) Insert side rail depth. (*) Insert bottom style to complete Catalog Number. Includes one pair of splice plates with hardware.



United States

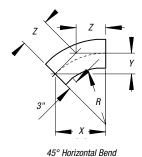
Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services**

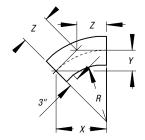






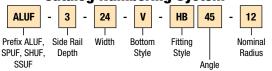
One-Piece Tray





30° Horizontal Bend

Catalog Numbering System



Selection Guide

Prefix: ALUF (Aluminum), SPUF (Pre-Galv.), SHUF (Hot-Dip Galv.), SSUF (Stainless Steel)

Inside Tray Widths: 6, 9, 12, 18, 24, 30, 36

Angle: 45°, 30°

Nominal Radius: 12, 24, 36

Bottom Styles: V – Ventilated, S – Solid

Side Rail Depth: 2", 3", 6"

45° Horizontal Bends

NOMINA	AL RADIUS		DIMENSIONS				
R	WIDTH	CAT. NO.	Х	Y	Z		
	06	PREFIX-(†)-06-(*)-HB45-12	13%	5%	8		
	12	PREFIX-(†)-12-(*)-HB45-12	15¾	61/2	93/16		
12	18	PREFIX-(†)-18-(*)-HB45-12	171/8	73/8	107/16		
12	24	PREFIX-(†)-24-(*)-HB45-12	20	81/4	11 ¹ / ₁₆		
	30	PREFIX-(†)-30-(*)-HB45-12	221/16	91/8	12 ¹⁵ / ₁₆		
	36	PREFIX-(†)-36-(*)-HB45-12	243/16	10	143/16		
	06	PREFIX-(†)-06-(*)-HB45-24	221/16	91/8	1215/16		
	12	PREFIX-(†)-12-(*)-HB45-24	243/16	10	143/16		
24	18	PREFIX-(†)-18-(*)-HB45-24	265/16	1015/16	157/16		
24	24	PREFIX-(†)-24-(*)-HB45-24	287/16	11 ¹³ / ₁₆	1611/16		
	30	PREFIX-(†)-30-(*)-HB45-24	30%16	1211/16	1715/16		
	36	PREFIX-(†)-36-(*)-HB45-24	3211/16	13%6	191/8		
	06	PREFIX-(†)-06-(*)-HB45-36	30%16	1211/16	1715/16		
	12	PREFIX-(†)-12-(*)-HB45-36	3211/16	131/16	191/8		
26	18	PREFIX-(†)-18-(*)-HB45-36	3413/16	147/16	20%		
36	24	PREFIX-(†)-24-(*)-HB45-36	3615/16	155/16	21%		
	30	PREFIX-(†)-30-(*)-HB45-36	391/16	163/16	221/8		
	36	PREFIX-(†)-36-(*)-HB45-36	413/16	171/16	241/8		

30° Horizontal Bends

NOMINA	AL RADIUS		D	IMENSION	IS
R WIDTH		CAT. NO.	x	Y	
	06	PREFIX-(†)-06-(*)-HB30-12	11%	31/8	63/16
	12	PREFIX-(†)-12-(*)-HB30-12	13½	3½	7
	18	PREFIX-(†)-18-(*)-HB30-12	14%	315/16	713/16
12	24	PREFIX-(†)-24-(*)-HB30-12	161/8	45/16	85/8
	30	PREFIX-(†)-30-(*)-HB30-12	17%	411/16	97/16
	36	PREFIX-(†)-36-(*)-HB30-12	191/8	51/8	101/4
	06	PREFIX-(†)-06-(*)-HB30-24	17%	411/16	97/16
	12	PREFIX-(†)-12-(*)-HB30-24	191/8	52/16	101/16
24	18	PREFIX-(†)-18-(*)-HB30-24	20%	5%16	111/16
24	24	PREFIX-(†)-24-(*)-HB30-24	221/8	$5^{15}/_{16}$	11 ¹³ / ₁₆
	30	PREFIX-(†)-30-(*)-HB30-24	23%	65/16	1211/16
	36	PREFIX-(†)-36-(*)-HB30-24	251//8	612/16	137/16
	06	PREFIX-(†)-06-(*)-HB30-36	23%	65/16	12%
	12	PREFIX-(†)-12-(*)-HB30-36	251/8	6¾	137/16
36	18	PREFIX-(†)-18-(*)-HB30-36	26%	71/4	141/4
30	24	PREFIX-(†)-24-(*)-HB30-36	281//8	7½	151/16
	30	PREFIX-(†)-30-(*)-HB30-36	29%	715/16	151/8
	36	PREFIX-(†)-36-(*)-HB30-36	311//	85/16	1611/16

(†) Insert side rail depth. (*) Insert bottom style to complete Catalog Number. Includes one pair of splice plates with hardware.



800.816.7809 Fax: 901.252.1354

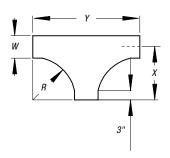


www.aboveboardelectronics.com

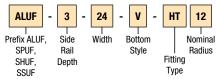
One-Piece Tray







Catalog Numbering System



Selection Guide

Prefix: ALUF (Aluminum), SPUF (Pre-Galv.), SHUF (Hot-Dip Galv.), SSUF (Stainless Steel)

Inside Tray Widths: 6, 12, 18, 24, 30, 36

Nominal Radius: 12, 24, 36

Bottom Styles: L – Ladder, V – Ventilated, S – Solid

Side Rail Depth: 2", 3", 6"

Horizontal Tees

NOMINA	L RADIUS		DIME	NSIONS
R	WIDTH 06 12 18 24 30 36 06 12 18 24 30 36 06 12 18 24 30 36 12 18 24	CAT. NO.	Х	Υ
	06	PREFIX-(†)-06-(*)-HT12	15	30
	12	PREFIX-(†)-12-(*)-HT12	18	36
12	18	PREFIX-(†)-18-(*)-HT12	21	42
12	24	PREFIX-(†)-24-(*)-HT12	24	48
	30	PREFIX-(†)-30-(*)-HT12	27	54
	36	PREFIX-(†)-36-(*)-HT12	30	60
	06	PREFIX-(†)-06-(*)-HT24	27	54
	12	PREFIX-(†)-12-(*)-HT24	30	60
24	18	PREFIX-(†)-18-(*)-HT24	33	66
24	24	PREFIX-(†)-24-(*)-HT24	36	72
	30	PREFIX-(†)-30-(*)-HT24	39	78
	36	PREFIX-(†)-36-(*)-HT24	42	84
	06	PREFIX-(†)-06-(*)-HT36	39	78
	12	PREFIX-(†)-12-(*)-HT36	42	84
36	18	PREFIX-(†)-18-(*)-HT36	45	90
30	24	PREFIX-(†)-24-(*)-HT36	48	96
	30	PREFIX-(†)-30-(*)-HT36	51	102
	36	PREFIX-(†)-36-(*)-HT36	54	108

(†) Insert side rail depth. (*) Insert bottom style to complete Catalog Number. Tees include two pairs of splice plates with hardware.



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services**



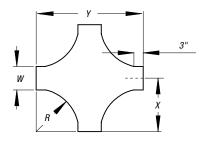




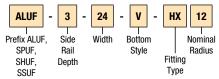
One-Piece Tray







Catalog Numbering System



Selection Guide

Prefix: ALUF (Aluminum), SPUF (Pre-Galv.), SHUF (Hot-Dip Galv.), SSUF (Stainless Steel)

Inside Tray Widths: 6, 12, 18, 24, 30, 36

Nominal Radius: 12, 24, 36,

Bottom Styles: L – Ladder, V – Ventilated, S – Solid

Side Rail Depth: 2", 3", 6"

Horizontal Crosses

NOMINA	AL RADIUS		DIME	NSIONS
R	WIDTH	CAT. NO.	Х	Υ
	06	PREFIX-(†)-06-(*)-HX12	15	30
	12	PREFIX-(†)-12-(*)-HX12	18	36
12	18	PREFIX-(†)-18-(*)-HX12	21	42
12	24	PREFIX-(†)-24-(*)-HX12	24	48
	30	PREFIX-(†)-30-(*)-HX12	27	54
	36	PREFIX-(†)-36-(*)-HX12	30	60
	06	PREFIX-(†)-06-(*)-HX24	27	54
	12	PREFIX-(†)-12-(*)-HX24	30	60
24	18	PREFIX-(†)-18-(*)-HX24	33	66
24	24	PREFIX-(†)-24-(*)-HX24	36	72
	30	PREFIX-(†)-30-(*)-HX24	39	78
	36	PREFIX-(†)-36-(*)-HX24	42	84
	06	PREFIX-(†)-06-(*)-HX36	39	78
	12	PREFIX-(†)-12-(*)-HX36	42	84
36	18	PREFIX-(†)-18-(*)-HX36	45	90
30	24	PREFIX-(†)-24-(*)-HX36	48	96
	30	PREFIX-(†)-30-(*)-HX36	51	102
	36	PREFIX-(†)-36-(*)-HX36	54	108

(†) Insert side rail depth. (*) Insert bottom style to complete Catalog Number. Crosses include three pairs of splice plates with hardware.



United States Tel: 901.252.8000

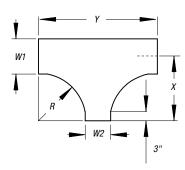
800.816.7809 Fax: 901.252.1354 **Technical Services** Tel: 888.862.3289



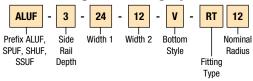




One-Piece Tray



Catalog Numbering System



Selection Guide

Prefix: ALUF (Aluminum), SPUF (Pre-Galv.), SHUF (Hot-Dip Galv.), SSUF (Stainless Steel)

Tray Widths W1: 36, 30, 24, 18, 12 **Tray Widths W2**: 30, 24, 18, 12, 6 **Nominal Radius**: 12, 24, 36

 $\textbf{Bottom Styles} \colon V-\text{Ventilated, } S-\text{Solid}$

Side Rail Depth: 2", 3", 6"

Horizontal Reducing Tees

WID	THS		(+) 12" NOM	INAL RADIUS	(+) 24" NON	IINAL RADIUS	(+) 36" NOM	IINAL RADIUS	(+) 48" NOM	INAL RADIUS
W1	W2	CAT. NO.	Х	Y	Х	Υ	Х	Y	Х	Y
	30	PREFIX-(†)-3630-(*)-RT(+)	30	54	42	78	54	102	66	126
	24	PREFIX-(†)-3624-(*)-RT(+)	30	48	42	72	54	96	66	120
36	18	PREFIX-(†)-3618-(*)-RT(+)	30	42	42	66	54	90	66	114
	12	PREFIX-(†)-3612-(*)-RT(+)	30	36	42	60	54	84	66	108
	06	PREFIX-(†)-3606-(*)-RT(+)	30	30	42	54	54	78	66	102
	24	PREFIX-(†)-3024-(*)-RT(+)	27	48	39	72	51	96	63	120
30	18	PREFIX-(†)-3018-(*)-RT(+)	27	42	39	66	51	90	63	114
30	12	PREFIX-(†)-3012-(*)-RT(+)	27	36	39	60	51	84	63	108
	06	PREFIX-(†)-3006-(*)-RT(+)	27	30	39	54	51	78	63	102
	18	PREFIX-(†)-2418-(*)-RT(+)	24	42	36	66	48	90	60	114
24	12	PREFIX-(†)-2412-(*)-RT(+)	24	36	36	60	48	84	60	108
	06	PREFIX-(†)-2406-(*)-RT(+)	24	30	36	54	48	78	60	102
18	12	PREFIX-(†)-1812-(*)-RT(+)	21	36	33	60	45	84	57	108
10	06	PREFIX-(†)-1806-(*)-RT(+)	21	30	33	54	45	78	57	102
12	06	PREFIX-(†)-1206-(*)-RT(+)	18	30	30	54	42	78	54	102

(†) Insert side rail depth. (*) Insert bottom style. (+) Insert radius (12"-48") to complete Catalog Number. Includes two pairs of splice plates with hardware.

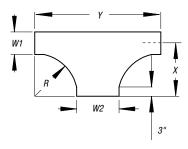


Fax: 901.252.1354

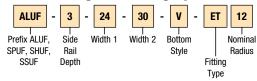




One-Piece Tray



Catalog Numbering System



Selection Guide

Prefix: ALUF (Aluminum), SPUF (Pre-Galv.), SHUF (Hot-Dip Galv.), SSUF (Stainless Steel)

Tray Widths W1: 30, 24, 18, 12, 6 **Tray Widths W2**: 36, 30, 24, 18, 12 **Nominal Radius**: 12, 24, 36, 48

Bottom Styles: V – Ventilated, S – Solid

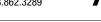
Side Rail Depth: 2", 3", 6"

Horizontal Expanding Tees

WIE	OTHS		(+) 12" NOM	INAL RADIUS	(+) 24" NON	IINAL RADIUS	(+) 36" NON	IINAL RADIUS	(+) 48" NON	IINAL RADIUS
W1	W2	CAT. NO.	Х	Y	X	Υ	X	Y	Х	Υ
30	36	PREFIX-(†)-3036-(*)-ET(+)	27	60	39	84	51	108	63	132
24	30	PREFIX-(†)-2430-(*)-ET(+)	24	54	36	78	48	102	60	126
24	36	PREFIX-(†)-2436-(*)-ET(+)	24	60	36	84	48	108	60	132
	24	PREFIX-(†)-1824-(*)-ET(+)	21	48	33	72	45	96	57	120
18	30	PREFIX-(†)-1830-(*)-ET(+)	21	54	33	78	45	102	57	126
	36	PREFIX-(†)-1836-(*)-ET(+)	21	60	33	84	45	108	57	132
	18	PREFIX-(†)-1218-(*)-ET(+)	18	42	30	66	42	90	54	114
12	24	PREFIX-(†)-1224-(*)-ET(+)	18	48	30	72	42	96	54	120
12	30	PREFIX-(†)-1230-(*)-ET(+)	18	54	30	78	42	102	54	126
	36	PREFIX-(†)-1236-(*)-ET(+)	18	60	30	84	42	108	54	132
	12	PREFIX-(†)-0612-(*)-ET(+)	15	36	27	60	39	84	51	108
	18	PREFIX-(†)-0618-(*)-ET(+)	15	42	27	66	39	90	51	114
06	24	PREFIX-(†)-0624-(*)-ET(+)	15	48	27	72	39	96	51	120
	30	PREFIX-(†)-0630-(*)-ET(+)	15	54	27	78	39	102	51	126
	36	PREFIX-(†)-0636-(*)-ET(+)	15	60	27	84	39	108	51	132

(1) Insert side rail depth. (2) Insert bottom style. (4) Insert radius (12"-48") to complete Catalog Number. Includes two pairs of splice plates with hardware.



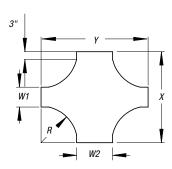


₩ ⊙

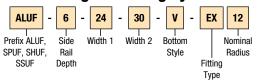


oardelectronics.com

One-Piece Tray



Catalog Numbering System



Selection Guide

Prefix: ALUF (Aluminum), SPUF (Pre-Galv.), SHUF (Hot-Dip Galv.), SSUF (Stainless Steel)

Tray Widths W1: 30, 24, 18, 12, 6 Tray Widths W2: 36, 30, 24, 18, 12 Nominal Radius: 12, 24, 36, 48

Bottom Styles: V – Ventilated, S – Solid

Side Rail Depth: 2", 3", 6"

Horizontal Expanding Crosses

WIE	DTHS		(+) 12" NOM	IINAL RADIUS	(+) 24" NOM	IINAL RADIUS	(+) 36" NOM	INAL RADIUS	(+) 48" NOM	INAL RADIUS
W1	W2	CAT. NO.	Х	Υ	Х	Υ	Х	Y	Х	Y
30	36	PREFIX-(†)-3036-(*)-EX-(+)	54	60	78	84	102	108	126	132
24	30	PREFIX-(†)-2430-(*)-EX-(+)	48	54	72	78	96	102	120	126
24	36	PREFIX-(†)-2436-(*)-EX-(+)	48	60	72	84	96	108	120	132
	24	PREFIX-(†)-1824-(*)-EX-(+)	42	48	66	72	90	96	114	120
18	30	PREFIX-(†)-1830-(*)-EX-(+)	42	54	66	78	90	102	114	126
	36	PREFIX-(†)-1836-(*)-EX-(+)	42	60	66	84	90	108	114	132
	18	PREFIX-(†)-1218-(*)-EX-(+)	36	42	60	66	84	90	108	114
12	24	PREFIX-(†)-1224-(*)-EX-(+)	36	48	60	72	84	96	108	120
12	30	PREFIX-(†)-1230-(*)-EX-(+)	36	54	60	78	84	102	108	126
	36	PREFIX-(†)-1236-(*)-EX-(+)	36	60	60	84	84	108	108	132
	12	PREFIX-(†)-0612-(*)-EX-(+)	30	36	54	60	78	84	102	108
	18	PREFIX-(†)-0618-(*)-EX-(+)	30	42	54	66	78	90	102	114
06	24	PREFIX-(†)-0624-(*)-EX-(+)	30	48	54	72	78	96	102	120
	30	PREFIX-(†)-0630-(*)-EX-(+)	30	54	54	78	78	102	102	126
	36	PREFIX-(†)-0636-(*)-EX-(+)	30	60	54	84	78	108	102	132

(1) Insert side rail depth. (2) Insert bottom style. (+) Insert radius (12"-48") to complete Catalog Number. Includes three pairs of splice plates with hardware.

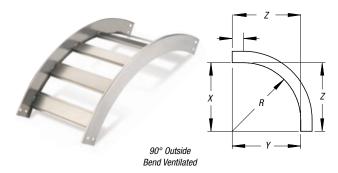


United States Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services** Tel: 888.862.3289

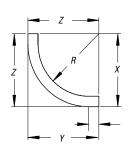




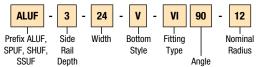
One-Piece Tray







Catalog Numbering System



Selection Guide

Prefix: ALUF (Aluminum), SPUF (Pre-Galv.), SHUF (Hot-Dip Galv.), SSUF (Stainless Steel) Inside Tray Widths: 6, 12, 18, 24, 30, 36

Angle: 90°

Nominal Radius: 12, 24, 36

Bottom Styles: V – Ventilated, S – Solid

Side Rail Depth: 2", 3", 6"

90° Vertical Bends

			(+)	VO SIDER	AIL				(+) VI	SIDE RAIL	HEIGHT			
WID	THS		HEI	GHT 2", 3'	', 6"		2"		_	3"			6"	
W1	W2	CAT. NO.	х	Υ	Z	x	Υ	Z	х	Υ	Z	Х	Υ	Z
	06	PREFIX-(†)-06-(*)-(+)90-12												
	12	PREFIX-(†)-12-(*)-(+)90-12												
12	18	PREFIX-(†)-18-(*)-(+)90-12	12	12	12	13%	13%	13%	15%	15%	15%	183/16	18¾6	18¾6
	24	PREFIX-(†)-24-(*)-(+)90-12												
	36	PREFIX-(†)-36-(*)-(+)90-12												
	06	PREFIX-(†)-06-(*)-(+)90-24												
	12	PREFIX-(†)-12-(*)-(+)90-24												
24	18	PREFIX-(†)-18-(*)-(+)90-24	24	24	24	257/8	25%	25%	275/8	27%	275%	303/16	303/16	303/16
24	24	PREFIX-(†)-24-(*)-(+)90-24	24	24	24	23/8	23/8	23/8	2178	21/8	21 /8	30/16	30/16	30/16
	30	PREFIX-(†)-30-(*)-(+)90-24												
	36	PREFIX-(†)-36-(*)-(+)90-24												
	06	PREFIX-(†)-06-(*)-(+)90-36												
	12	PREFIX-(†)-12-(*)-(+)90-36												
36	18	PREFIX-(†)-18-(*)-(+)90-36	36	36	36	371//8	37%	37%	395/8	39%	39%	423/16	423/16	423/16
50	24	PREFIX-(†)-24-(*)-(+)90-36	30	30	30	37.78	3178	3178	3978	3978	3978	42716	42716	42716
	30	PREFIX-(†)-30-(*)-(+)90-36												
	36	PREFIX-(†)-36-(*)-(+)90-36												

(1) Insert side rail depth. (2) Insert bottom style. (+) Insert "VO" for vertical outside or "VI" for vertical inside to complete Catalog Number. Includes one pair of splice plates with hardware.

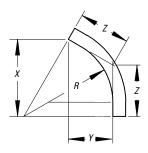




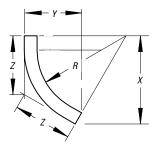


Thomas@Betts

One-Piece Tray

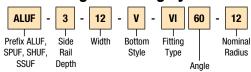


60° Outside Bend



60° Inside Bend

Catalog Numbering System



Selection Guide

Prefix: ALUF (Aluminum), SPUF (Pre-Galv.), SHUF (Hot-Dip Galv.), SSUF (Stainless Steel)

Inside Tray Widths: 6, 12, 18, 24, 30, 36

Angle: 60°

Nominal Radius: 12, 24, 36

Bottom Styles: V – Ventilated, S – Solid

Side Rail Depth: 2", 3", 6"

60° Vertical Bends

			(+)	VO SIDE F	RAIL				(+) VI S	SIDE RAIL	HEIGHT			
NOMINA	L RADIUS		HEI	GHT 2", 3"	', 6"		2"			3"			6"	
R	WIDTH	CAT. NO.	X	Y	Z	Х	Y	Z	Х	Y	Z	X	Y	Z
	06	PREFIX-(†)-06-(*)-(+)60-12												
	12	PREFIX-(†)-12-(*)-(+)60-12												
12	18	PREFIX-(†)-18-(*)-(+)60-12	10%	6	615/16	12	71//8	8	13½	95%	9	15¾	123/16	10½
12	24	PREFIX-(†)-24-(*)-(+)60-12	1078	0	0.716	12	1 78	0	13/2	978	9	1374	12716	1072
	30	PREFIX-(†)-30-(*)-(+)60-12												
	36	PREFIX-(†)-36-(*)-(+)60-12												
	06	PREFIX-(†)-06-(*)-(+)60-24												
	12	PREFIX-(†)-12-(*)-(+)60-24												
24	18	PREFIX-(†)-18-(*)-(+)60-24	2013/16	12	13%	227/16	13%	14 ¹⁵ / ₁₆	2315/16	15%	15 ¹⁵ / ₁₆	261//8	183/16	177/16
24	24	PREFIX-(†)-24-(*)-(+)60-24	20.716	12	13/8	22/16	1378	14.716	23.716	1378	13.416	2078	10716	17716
	30	PREFIX-(†)-30-(*)-(+)60-24												
	36	PREFIX-(†)-36-(*)-(+)60-24												
-	06	PREFIX-(†)-06-(*)-(+)60-36												
	12	PREFIX-(†)-12-(*)-(+)60-36												
36	18	PREFIX-(†)-18-(*)-(+)60-36	31¾6	18	2013/16	3213/16	19%	21%	345/16	21%	22%	36½	243/16	24%
30	24	PREFIX-(†)-24-(*)-(+)60-36	3 17/16	10	20.3/16	32.7/16	1978	2178	J4716	2178	22/8	JU/2	Z4716	2478
	30	PREFIX-(†)-30-(*)-(+)60-36												
	36	PREFIX-(†)-36-(*)-(+)60-36												

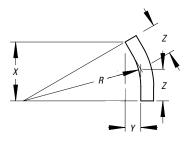
(1) Insert side rail depth. (*) Insert bottom style. (+) Insert "VO" for vertical outside or "VI" for vertical inside to complete Catalog Number. Includes one pair of splice plates with hardware.



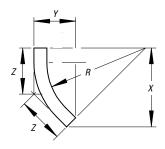




One-Piece Tray

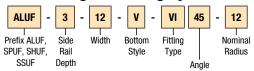


45° Outside Bend



45° Inside Bend

Catalog Numbering System



Selection Guide

Prefix: ALUF (Aluminum), SPUF (Pre-Galv.), SHUF (Hot-Dip Galv.), SSUF (Stainless Steel)

Inside Tray Widths: 6, 12, 18, 24, 30, 36

Angle: 45°

Nominal Radius: 12, 24, 36

Bottom Styles: V – Ventilated, S – Solid

Side Rail Depth: 2", 3", 6"

45° Vertical Bends

			(+)	VO SIDE F	RAIL				(+) VI S	SIDE RAIL	HEIGHT			
NOMINA	L RADIUS		HEI	GHT 2", 3'	', 6"		2"			3"			6"	
R	WIDTH	CAT. NO.	х	Υ	Z	Х	Υ	Z	X	Y	z	Т х	Υ	Z
	06	PREFIX-(†)-06-(*)-(+)45-12												
	12	PREFIX-(†)-12-(*)-(+)45-12												
12	18	PREFIX-(†)-18-(*)-(+)45-12	8½	3½	5	913/16	5%	53/4	1111/16	71/8	611/16	121//8	911/16	7%
12	24	PREFIX-(†)-24-(*)-(+)45-12	0/2	3/2]	9 /16	378	074 11710	1 /8	0 /16	12/8	9 /16	1 /16	
	30	PREFIX-(†)-30-(*)-(+)45-12		7										
	36	PREFIX-(†)-36-(*)-(+)45-12												
	06	PREFIX-(†)-06-(*)-(+)45-24												
	12	PREFIX-(†)-12-(*)-(+)45-24												
24	18	PREFIX-(†)-18-(*)-(+)45-24	17	7	915/16	185/16	87/8	1011/16	19½	10%	117/16	21%	133/16	12½
24	24	PREFIX-(†)-24-(*)-(+)45-24] ''	'	9 /16	10/16	0/8	10 /16	19/2	1078	1 1 / 16	21/8	13/16	12/2
	30	PREFIX-(†)-30-(*)-(+)45-24												
	36	PREFIX-(†)-36-(*)-(+)45-24		7										
	06	PREFIX-(†)-06-(*)-(+)45-36												
	12	PREFIX-(†)-12-(*)-(+)45-36												
36	18	PREFIX-(†)-18-(*)-(+)45-36	257/16	10%	1415/16	2613/16	127/16	1511/16	28	143/16	167/16	2913/16	16¾	17½
30	24	PREFIX-(†)-24-(*)-(+)45-36	ZJ/16	10716	14.716	20.716	12/16	13.716	20	I 1 7 716	1 0716	29.716	1074	1772
	30	PREFIX-(†)-30-(*)-(+)45-36												
	36	PREFIX-(†)-36-(*)-(+)45-36												

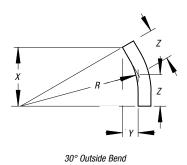
(*) Insert side rail depth. (*) Insert bottom style. (+) Insert "VO" for vertical outside or "VI" for vertical inside to complete Catalog Number. Includes one pair of splice plates with hardware.

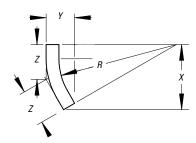




oveboardelectronics.com

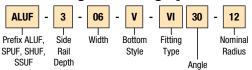
One-Piece Tray





30° Inside Bend

Catalog Numbering System



Selection Guide

Prefix: ALUF (Aluminum), SPUF (Pre-Galv.), SHUF (Hot-Dip Galv.), SSUF (Stainless Steel)

Inside Tray Widths: 6, 12, 18, 24, 30, 36

Angle: 30°

Nominal Radius: 12, 24, 36

Bottom Styles: V – Ventilated, S – Solid

Side Rail Depth: 2", 3", 6"

30° Vertical Bends

			(+)	VO SIDE R	AIL				(+) VI S	SIDE RAIL	HEIGHT			
NOMINA	L RADIUS		HEI	GHT 2", 3"	, 6"		2"			3"			6"	
R	WIDTH	CAT. NO.	Х	Y	Z	Х	Y	Z	Х	Y	Z	Х	Y	Z
	06	PREFIX-(†)-06-(*)-(+)30-12												
	12	PREFIX-(†)-12-(*)-(+)30-12												
12	18	PREFIX-(†)-18-(*)-(+)30-12	6	15/8	33/16	615/16	3½	311/16	713/16	51/4	43/16	91/8	713/16	47/8
12	24	PREFIX-(†)-24-(*)-(+)30-12	0	178	3716	0.716	3/2	3.716	7 716	374	4716	978	7 716	478
	30	PREFIX-(†)-30-(*)-(+)30-12												
	36	PREFIX-(†)-36-(*)-(+)30-12												
	06	PREFIX-(†)-06-(*)-(+)30-24												
	12	PREFIX-(†)-12-(*)-(+)30-24												
24	18	PREFIX-(†)-18-(*)-(+)30-24	12	33/16	67/16	1215/16	51/16	615/16	1313/16	613/16	7%	151/8	9%	81/16
24	24	PREFIX-(†)-24-(*)-(+)30-24	12	3716	0716	12.316	J/16	0.216	13.416	0.716	178	1378	378	0716
	30	PREFIX-(†)-30-(*)-(+)30-24												
	36	PREFIX-(†)-36-(*)-(+)30-24												
	06	PREFIX-(†)-06-(*)-(+)30-36												
	12	PREFIX-(†)-12-(*)-(+)30-36												
36	18	PREFIX-(†)-18-(*)-(+)30-36	18	413/16	95/8	1815/16	611/16	10%	19 ¹³ / ₁₆	87/16	10%	211//8	11	115/16
30	24	PREFIX-(†)-24-(*)-(+)30-36	10	4.716	978	10'916	U 716	1078	19'916	O'/16	10%	2178	''	1 1 7/16
	30	PREFIX-(†)-30-(*)-(+)30-36												
	36	PREFIX-(†)-36-(*)-(+)30-36												

(1) Insert side rail depth. (2) Insert bottom style. (+) Insert "VO" for vertical outside or "VI" for vertical inside to complete Catalog Number. Includes one pair of splice plates with hardware.



United States Tel: 901.252.8000

800.816.7809 Fax: 901.252.1354 **Technical Services** Tel: 888.862.3289





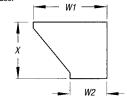
One-Piece Tray



Straight Reducer

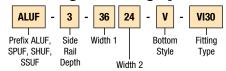
W1 W2 Straight Reducer W1

Right Offset Reducer



Left Offset Reducer

Catalog Numbering System



Selection Guide

Prefix: ALUF (Aluminum), SPUF (Pre-Galv.), SHUF (Hot-Dip Galv.), SSUF (Stainless Steel)

Tray Widths W1: 36, 30, 24, 18, 12 Tray Widths W2: 30, 24, 18, 12, 6 **Bottom Styles**: V – Ventilated, S – Solid

Side Rail Depth: 2", 3", 6"

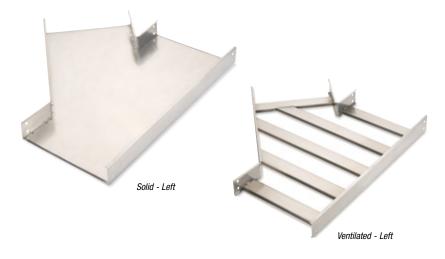
Reducers

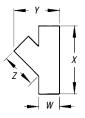
WID	THS	LH REDUCER		STRAIGHT REDUCER (CONCE	NTRIC)	RH REDUCER	
W1	W2	CAT. NO.	DIM. X	CAT. NO.	DIM. X	CAT. NO.	DIM. X
	30	PREFIX-(†)-36-30-(*)-HLR	157/16	PREFIX-(†)-36-30-(*)-HSR	13¾	PREFIX-(†)-36-30-(*)-HRR	151/16
	24	PREFIX-(†)-36-24-(*)-HLR	1815/16	PREFIX-(†)-36-24-(*)-HSR	157/16	PREFIX-(†)-36-24-(*)-HRR	1815/16
36	18	PREFIX-(†)-36-18-(*)-HLR	22%	PREFIX-(†)-36-18-(*)-HSR	17%	PREFIX-(†)-36-18-(*)-HRR	223/8
	12	PREFIX-(†)-36-12-(*)-HLR	25%	PREFIX-(†)-36-12-(*)-HSR	185/16	PREFIX-(†)-36-12-(*)-HRR	251/8
	06	PREFIX-(†)-36-06-(*)-HLR	295/16	PREFIX-(†)-36-06-(*)-HSR	2011/16	PREFIX-(†)-36-06-(*)-HRR	295/16
	24	PREFIX-(†)-30-24-(*)-HLR	157/16	PREFIX-(†)-30-24-(*)-HSR	13¾	PREFIX-(†)-30-24-(*)-HRR	157/16
30	18	PREFIX-(†)-30-18-(*)-HLR	1815/16	PREFIX-(†)-30-18-(*)-HSR	157/16	PREFIX-(†)-30-18-(*)-HRR	1815/16
30	12	PREFIX-(†)-30-12-(*)-HLR	22%	PREFIX-(†)-30-12-(*)-HSR	173/16	PREFIX-(†)-30-12-(*)-HRR	223/8
	06	PREFIX-(†)-30-06-(*)-HLR	257/8	PREFIX-(†)-30-06-(*)-HSR	1815/16	PREFIX-(†)-30-06-(*)-HRR	251/8
	18	PREFIX-(†)-24-18-(*)-HLR	157/16	PREFIX-(†)-24-18-(*)-HSR	13¾	PREFIX-(†)-24-18-(*)-HRR	157/16
24	12	PREFIX-(†)-24-12-(*)-HLR	1815/16	PREFIX-(†)-24-12-(*)-HSR	157/16	PREFIX-(†)-24-12-(*)-HRR	1815/16
	06	PREFIX-(†)-24-06-(*)-HLR	22%	PREFIX-(†)-24-06-(*)-HSR	173/16	PREFIX-(†)-24-06-(*)-HRR	22¾
10	12	PREFIX-(†)-18-12-(*)-HLR	157/16	PREFIX-(†)-18-12-(*)-HSR	13¾	PREFIX-(†)-18-12-(*)-HRR	151/16
18	06	PREFIX-(†)-18-06-(*)-HLR	1815/16	PREFIX-(†)-18-06-(*)-HSR	157/16	PREFIX-(†)-18-06-(*)-HRR	18¹5⁄₁6
12	06	PREFIX-(†)-12-06-(*)-HLR	157/16	PREFIX-(†)-12-06-(*)-HSR	13¾	PREFIX-(†)-12-06-(*)-HRR	157/16

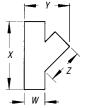
 $(^\dagger) \ \textit{Insert side rail depth.} \ (^*) \ \textit{Insert bottom style to complete Catalog Number.} \ \textit{Includes one pair of splice plates with hardware.}$



One-Piece Tray



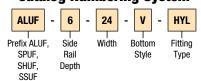




Left-Hand Wye

Right-Hand Wye

Catalog Numbering System



Selection Guide

Prefix: ALUF (Aluminum), SPUF (Pre-Galv.), SHUF (Hot-Dip Galv.), SSUF (Stainless Steel) **Inside Tray Widths**: 6, 12, 18, 24, 30, 36 **Bottom Styles**: V – Ventilated, S – Solid

Side Rail Depth: 2", 3", 6"

45° Horizontal Wyes

	LEFT-HAND WYE	RIGHT-HAND WYE		DIMENSIONS	
WIDTH	CAT. NO.	CAT. NO.	Х	Υ	Z
06	PREFIX-(†)-06-(*)-HYL	PREFIX-(†)-06-(*)-HYR	185/16	1413/16	127/16
12	PREFIX-(†)-12-(*)-HYL	PREFIX-(†)-12-(*)-HYR	26¾	25	187/16
18	PREFIX-(†)-18-(*)-HYL	PREFIX-(†)-18-(*)-HYR	351/4	351/4	247/16
24	PREFIX-(†)-24-(*)-HYL	PREFIX-(†)-24-(*)-HYR	43½	45½	307/16
30	PREFIX-(†)-30-(*)-HYL	PREFIX-(†)-30-(*)-HYR	521/4	55¾	367/16
36	PREFIX-(†)-36-(*)-HYL	PREFIX-(†)-36-(*)-HYR	6011/16	66	427/16

(†) Insert side rail depth. (*) Insert bottom style to complete Catalog Number. Includes one pair of splice plates with hardware.



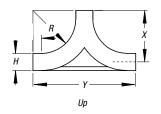


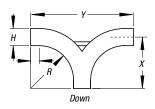
1-800-453-1692 vww.aboveboardelectronics.com



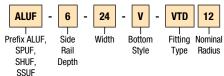
One-Piece Tray







Catalog Numbering System



Selection Guide

Prefix: ALUF (Aluminum), SPUF (Pre-Galv.), SHUF (Hot-Dip Galv.), SSUF (Stainless Steel)

Inside Tray Widths: 6, 12, 18, 24, 30, 36

Nominal Radius: 12, 24, 36

Bottom Styles: V – Ventilated, S – Solid

Side Rail Depth: 2", 3", 6"

Up and Down Vertical Tees

NON	IINAL	V=D=10.41	V===0.1			SIDE RAIL I	HEIGHT "H"		
	DIUS	VERTICAL TEE UP	VERTICAL TEE DOWN	2		3		6	3"
R	WIDTH	CAT. NO.	CAT. NO.	Х	Y	Х	Y	Х	Y
	06	PREFIX-(†)-06-(*)-VTU12	PREFIX-(†)-06-(*)-VTD12						
	12	PREFIX-(†)-12-(*)-VTU12	PREFIX-(†)-12-(*)-VTD12						
12	18	PREFIX-(†)-18-(*)-VTU12	PREFIX-(†)-18-(*)-VTD12	1215/16	257/8	1313/16	275/8	1.51/	303/16
12	24	PREFIX-(†)-24-(*)-VTU12	PREFIX-(†)-24-(*)-VTD12	12.7/16	23/8	13.716	2178	151//8	30716
	30	PREFIX-(†)-30-(*)-VTU12	PREFIX-(†)-30-(*)-VTD12						
	36	PREFIX-(†)-36-(*)-VTU12	PREFIX-(†)-36-(*)-VTD12						
	06	PREFIX-(†)-06-(*)-VTU24	PREFIX-(†)-06-(*)-VTD24						
	12	PREFIX-(†)-12-(*)-VTU24	PREFIX-(†)-12-(*)-VTD24						
24	18	PREFIX-(†)-18-(*)-VTU24	PREFIX-(†)-18-(*)-VTD24	2415/16	49%	25 ¹³ / ₁₆	51 ⁵ / ₈	271//8	54 ³ / ₁₆
24	24	PREFIX-(†)-24-(*)-VTU24	PREFIX-(†)-24-(*)-VTD24	Z4 /16	49/8	ZJ /16	J1/8	21 /8	J4/16
	30	PREFIX-(†)-30-(*)-VTU24	PREFIX-(†)-30-(*)-VTD24						
	36	PREFIX-(†)-36-(*)-VTU24	PREFIX-(†)-36-(*)-VTD24						
	06	PREFIX-(†)-06-(*)-VTU36	PREFIX-(†)-06-(*)-VTD36						
	12	PREFIX-(†)-12-(*)-VTU36	PREFIX-(†)-12-(*)-VTD36						
36	18	PREFIX-(†)-18-(*)-VTU36	PREFIX-(†)-18-(*)-VTD36	36 ¹⁵ / ₁₆	73%	N/A	N/A	391/8	78 ³ / ₁₆
30	24	PREFIX-(†)-24-(*)-VTU36	PREFIX-(†)-24-(*)-VTD36	JU 716	1 378	IV/A	I IV/A	39/8	1 0716
	30	PREFIX-(†)-30-(*)-VTU36	PREFIX-(†)-30-(*)-VTD36						
	36	PREFIX-(†)-36-(*)-VTU36	PREFIX-(†)-36-(*)-VTD36						

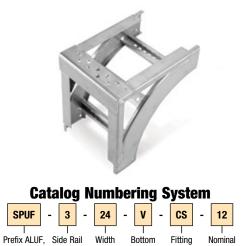
(†) Insert side rail depth. (*) Insert bottom style to complete Catalog Number. Includes two pairs of splice plates with hardware.







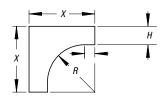
One-Piece Tray



Style

Type

Radius



Selection Guide

Prefix: ALUF (Aluminum), SPUF (Pre-Galv.), SHUF (Hot-Dip Galv.), SSUF (Stainless Steel) **Inside Tray Widths**: 6, 12, 18, 24, 30, 36

Nominal Radius: 12, 24, 36

Bottom Styles: V – Ventilated, S – Solid

Side Rail Depth: 2", 3", 6"

Cable Support Fittings

SPUF, SHUF,

SSUF

Depth

			SIDE RAIL HEIGHT "H"		
NOMINAL RADIUS			2"	3"	6"
R	WIDTH	CAT. NO.		Х	
12	06	PREFIX-(†)-06-(*)-CS12	13%	15%	18%
	12	PREFIX-(†)-12-(*)-CS12			
	18	PREFIX-(†)-18-(*)-CS12			
	24	PREFIX-(†)-24-(*)-CS12			
	30	PREFIX-(†)-30-(*)-CS12			
	36	PREFIX-(†)-36-(*)-CS12			
24	06	PREFIX-(†)-06-(*)-CS24	25%	27%	30%6
	12	PREFIX-(†)-12-(*)-CS24			
	18	PREFIX-(†)-18-(*)-CS24			
	24	PREFIX-(†)-24-(*)-CS24			
	30	PREFIX-(†)-30-(*)-CS24			
	36	PREFIX-(†)-36-(*)-CS24			
36	06	PREFIX-(†)-06-(*)-CS36	37%	39%	42 % ₁₆
	12	PREFIX-(†)-12-(*)-CS36			
	18	PREFIX-(†)-18-(*)-CS36			
	24	PREFIX-(†)-24-(*)-CS36			
	30	PREFIX-(†)-30-(*)-CS36			
	36	PREFIX-(†)-36-(*)-CS36			

(†) Insert side rail depth. (*) Insert bottom style to complete Catalog Number. Includes two pairs of splice plates with hardware.





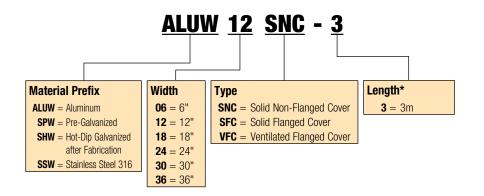
1-800-453-1692 ww.aboveboardelectronics.com





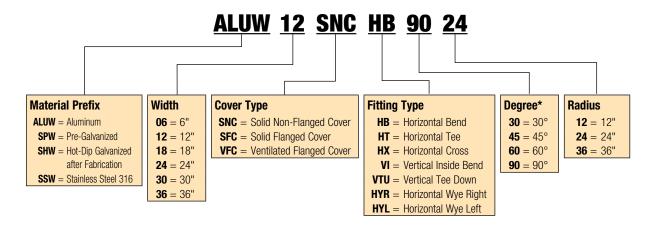
One-Piece Tray

Straight Covers



^{*} For SHW covers, maximum lengths are 72" and 1500mm.

Fitting Covers



Note: Cover mounting hardware sold separately.

* Required for HB and VI only.

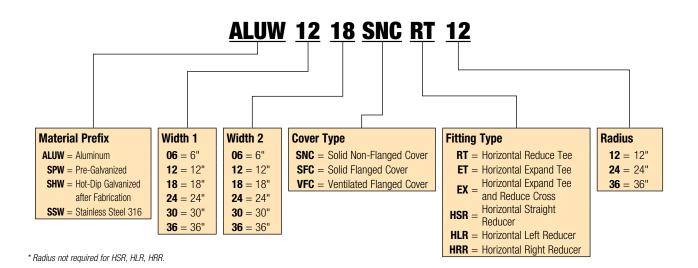


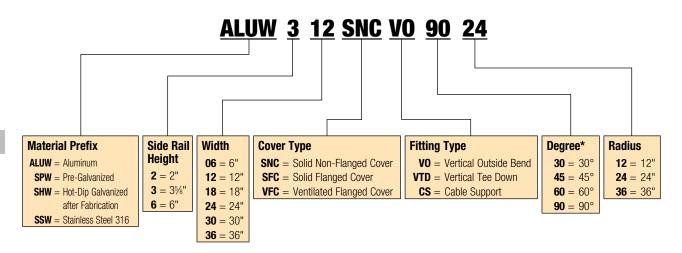


Thomas@Betts

One-Piece Tray

Fitting Covers (continued)





Note: Cover mounting hardware sold separately.

* Required for VO only.





1-800-453-1692 w.aboveboardelectronics.com





One-Piece Tray

Standard Splice Plate

- Packaged in pairs with zinc-plated hardware
- · Provided as standard with each straight and/or fitting

CAT. NO.	SIDE RAIL HEIGHT
(PREFIX)-2-SSP	2"
Available in Aluminum (ALUW) and Stainless Steel 316 (SSUV	, Hot-Dip Galvanized (SHUW), Pre-Galvanized (SPUW) V).

CAT. NO. SIDE RAIL HEIGHT (PREFIX)-3-SSP (PREFIX)-6-SSP

Available in Aluminum (ALUW), Hot-Dip Galvanized (SHW), Pre-Galvanized (SPW) and Stainless Steel 316 (SSW).



- · Allows for a 1" expansion or contraction of tray system
- · Packaged in pairs with hardware

CAT. NO.	SIDE RAIL HEIGHT
(PREFIX)-2-ESP	2"
Available in Aluminum (ALUW), Ho	ot-Dip Galvanized (SHUW), Pre-Galvanized (SPUW)

and Stainless Steel 316 (SSUW).

CAT. NO.	SIDE RAIL HEIGHT
(PREFIX)-3-ESP	3"
(PREFIX)-6-ESP	6"

Available in Aluminum (ALUW), Hot-Dip Galvanized (SHW), Pre-Galvanized (SPW) and Stainless Steel 316 (SSW).

Box to Tray Plates

- Designed to secure tray to electrical panels or boxes, walls or end supports
- Packaged in pairs with hardware

CAT. NO.	SIDE RAIL HEIGHT
(PREFIX)-3-BSP	3"
(PREFIX)-4-BSP	4"
(PREFIX)-5-BSP	5"
(PREFIX)-6-BSP	6"
(PREFIX)-7-BSP	7"

Available in Pre-Galvanized (SPW), Hot-Dip Galvanized (SHW) and Stainless Steel 316 (SSW)

Horizontal Adjustable Plate

- Adjustable hinge plates provide maximum horizontal installation flexibility
- · Furnished as a kit with hardware

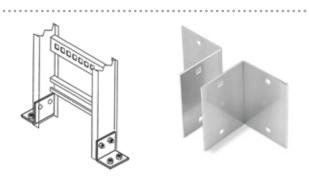
CAT. NO.	WIDTH
(PREFIX)-(*)06HAP	06"
(PREFIX)-(*)09HAP	09"
(PREFIX)-(*)12HAP	12"
(PREFIX)-(*)18HAP	18"
(PREFIX)-(*)24HAP	24"
(PREFIX)-(*)30HAP	30"
(PREFIX)-(*)36HAP	36"

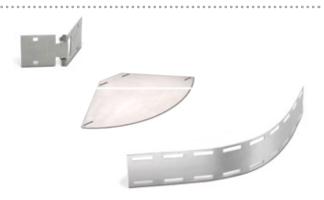
* Insert side rail height.

Available in Aluminum (ALUW), Pre-Galvanized (SPUW) and Stainless Steel 316 (SSUW)











United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354

Technical Services Tel: 888.862.3289







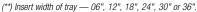
Thomas@Betts

One-Piece Tray

Vertical Adjustable Plate

- Provide maximum flexibility for changes in elevation
- · Includes hardware
- Available in Aluminum (ALUW), Pre-Galvanized (SPUW) and Stainless Steel 316 (SSUW)

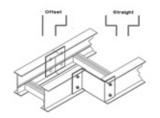
CAT. NO.	HEIGHT
(PREFIX)-2-(**)-VSP	2"
(PREFIX)-3-(**)-VSP	3"
(PREFIX)-6-(**)-VSP	6"





Reducing Splice Plate

- · Used in pairs to provide a straight reduction or used with a Standard Splice Plate for an offset reduction
- · One per package with hardware





CAT. NO.	SIDE RAIL HEIGHT
(PREFIX)-2-(*)-RSP	2"
Available in Aluminum (ALUW), Hot-Dip Galva	anized (SHUW). Pre-Galvanized (SPUW)

and Stainless Steel 316 (SSUW).

(*) Insert width to reduce.

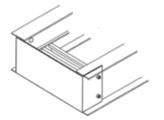
CAT. NO.	SIDE RAIL HEIGHT
(PREFIX)-3-RSP	3"
(PREFIX)-6-RSP	6"

Available in Aluminum (ALUW), Hot-Dip Galvanized (SHW), Pre-Galvanized (SPW) and Stainless Steel 316 (SSW).

Note: For offset reduction: Insert width to be reduced. For straight reduction: Insert ½ width to be reduced (two required). Example: ALUW-3-RSP = 3" offset reducer.

Closure End Plate

- · Provides closure for any tray end
- Hardware included





CAT. NO.	SIDE RAIL HEIGHT
(PREFIX)-2-(**)-CEP	2"
Available in Aluminum (ALUW), Hot-Dip Galvar	nized (SHUW), Pre-Galvanized (SPUW)

and Stainless Steel 316 (SSUW).

(**) Insert width of tray — 06", 12", 18", 24", 30" or 36".

CAT. NO.	SIDE RAIL HEIGHT
(PREFIX)-3-(**)-CEP	3"
(PREFIX)-6-(**)-CEP	6"

Available in Aluminum (ALUW), Hot-Dip Galvanized (SHW), Pre-Galvanized (SPW) and Stainless Steel 316 (SSW).

(**) Insert width of tray — 06", 12", 18", 24", 30" or 36".



B-354

United States

Tel: 901.252.8000 800.816.7809









One-Piece Tray

Heavy-Duty Cover Clamp

- · Models with 2" side rail height available in Aluminum (ALUW), Hot-Dip Galvanized (SHUW), Pre-Galvanized (SPUW) and Stainless Steel 316 (SSUW)
- Models with 3" and 6" side rail heights available in Aluminum (ALUW), Hot-Dip Galvanized (SHW), Pre-Galvanized (SPW) and Stainless Steel 316 (SSW)

CAT. NO.	SIDE RAIL HEIGHT
(PREFIX)-2-(**)-HCC	2"

(**) Insert width of tray — 06", 12", 18", 24", 30" or 36".



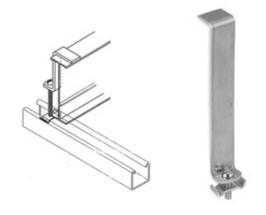
CAT. NO.	SIDE RAIL HEIGHT
(PREFIX)-3-(**)-HCC	3"
(PREFIX)-6-(**)-HCC	6"

(**) Insert width of tray — 06", 12", 18", 24", 30" or 36".

Combination Hold-Down Cover Clamp

- · Designed to secure flat and flanged covers with hold-down feature
- · Available in Pre-Galvanized (SPW) and Stainless Steel 316 (SSW)

CAT. NO.	SIDE RAIL HEIGHT
(PREFIX)-3-CCC	3"
(PREFIX)-4-CCC	4"
(PREFIX)-5-CCC	5"
(PREFIX)-6-CCC	6"
(PREFIX)-7-CCC	7"



Cover Clamp

- · Rigid indoor cover clamp for flat and flanged covers
- · Available in Pre-Galvanized (SPW) and Stainless Steel 316 (SSW)

CAT. NO.	HEIGHT
(PREFIX)-2-SCC	2"
(PREFIX)-3-SCC	3"
(PREFIX)-6-SCC	6"





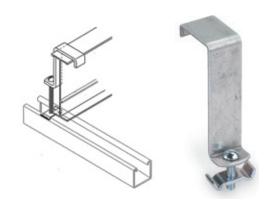
Thomas@Betts

One-Piece Tray

Combination Hold-Down/Cover Clamp

· Available in Pre-Galvanized (SPUW) and Stainless Steel 316 (SSUW)

CAT. NO.	SIDE RAIL HEIGHT
(PREFIX)-2-HDC	2"
(PREFIX)-3-HDC	3"
(PREFIX)-6-HDC	6"



Horizontal Tee Branch

 Available in Aluminum (ALUW), Pre-Galvanized (SPUW) and Stainless Steel 316 (SSUW)

CAT. NO.	HEIGHT
(PREFIX)-2-(**)-HTB	2"
(PREFIX)-3-(**)-HTB	3"
(PREFIX)-6-(**)-HTB	6"

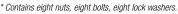
(**) Insert width of tray — 06", 12", 18", 24", 30" or 36".



Steel Tray Hardware

- Wrap-around design offers added protection for rugged applications and outdoor conditions
- · Hardware included

CAT. NO.	DESCRIPTION	MATERIAL	
SPW-1/4-CB 1/4" Carriage Bolt		Zinc-Plated Steel	
SPW-3/8-CB	%" Carriage Bolt	Zinc-Plated Steel	
SPW-1/4-HN	1/4" Hex Nut	Zinc-Plated Steel	
SPW-3/8-HN	%" Hex Nut	Zinc-Plated Steel	
SSW-3/8-CB	%" Carriage Bolt	316 Stainless	
SSW-3/8-HN	¾" Hex Nut	316 Stainless	
SSW-3/8-HWK*	316 Stainless Steel Hardware Kit	316 Stainless	







B-356

United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services**







One-Piece Tray

Drop-Out

- · Provide a smooth radiused surface at any position on the tray or trough bottom
- · Attach using hardware provided
- · Standard radius is 4"
- · Available in Aluminum (ALUW), Pre-Galvanized (SPW) and Stainless Steel 316 (SSW)



CAT. NO.

(PREFIX)-(**)-DOS

(**) Insert width of tray — 06", 12", 18", 24", 30" or 36".

Horizontal Barrier Strips

- · Separate cables in tray and trough systems
- · Easily installed using supplied hardware or Barrier Strip Clamps (sold separately)
- . 72" barriers are flexible for use with horizontal fittings
- Available in Aluminum (ALUW), Pre-Galvanized (SPUW) and Stainless Steel 316 (SSUW)

CAT. NO.	HEIGHT	LENGTH
(PREFIX)-2-SB-3	2"	3m
(PREFIX)-3-SB-3	3"	3m
(PREFIX)-6-SB-3	6"	3m
(PREFIX)-2-SBH-72	2"	72"
(PREFIX)-3-SBH-72	3"	72"
(PREFIX)-6-SBH-72	6"	72"

Note: 3m barriers provided with six SPW10SCR; 72" barriers provided with three SPW10SCR.



Vertical Barrier Strips

- · Preformed to fit all standard steel vertical bends
- Provided with hardware

INSIDE BEND	OUTSIDE BEND	
CAT. NO.	CAT. NO.	HEIGHT
(PREFIX)-2-VIB-(*)-(**)	(PREFIX)-2-VOB-(*)-(**)	2"
(PREFIX)-3-VIB-(*)-(**)	(PREFIX)-3-VOB-(*)-(**)	3"
(PREFIX)-6-VIB-(*)-(**)	(PREFIX)-6-VOB-(*)-(**)	6"

Available in Aluminum (ALUW), Pre-Galvanized (SPUW) and Stainless Steel 316 (SSUW). (*) Insert angle — 90°, 60°, 45° or 30°. (**) Insert radius — 12", 24" or 36".









Channel Tray

In order to ensure that your Channel Tray installation will meet your present and future needs, a sequence of decisions must be made. These decisions are relatively simple and can be condensed down to four steps.

Material Choice

- Aluminum
- Pre-Galvanized
- Hot-Dipped Galvanized
- Stainless Steel
- Coatings
- Other

T&B Channel Tray systems are fabricated from a corrosion-resistant metal (low-carbon steel, stainless steel or an aluminum alloy) or from a metal with a corrosion-resistant finish (zinc or epoxy). The choice of material for any particular installation depends on the installation environment (corrosion and electrical considerations) and cost. Please refer to **pages B-424–B-438** for further explanation.

Type of Tray Bottom

- Ventilated
- Solid

Thomas & Betts offers cable channel in solid or ventilated straight sections. Ventilated channel has burr-free oblong punched holes for easy access. Ty-Rap® slots are provided between each opening for securing of cable. Thomas & Betts channel tray meets NEMA VE-1/CSA C22.22 No. 126.1-02.

T&B Channel Tray Width

- 1.5"
- 3"
- 4"
- 6"

The width of a channel tray is a function of the number, size, spacing and weight of the cables in the tray. Available nominal widths are 1.5, 3, 4 and 6 inches. When specifying width, cable ties or other spacing devices may be used to maintain the required air space between cables.

Fittings Selection

- · Horizontal Bends (90°, 60°, 45° and 30°)
- · Horizontal Tees and Crosses
- Vertical Bends (90°, 60°, 45° and 30°)

Fittings are used to change the size or direction of the channel tray. The most important decision to be made in fitting design concerns radius. The radius of the bend, whether horizontal or vertical, can be zero (non-radius), 12", 24" or greater on a custom basis. The selection requires a compromise, with the considerations being available space, minimum bending radius of cables, ease of cable pulling and cost. The typical radius is 24 inches.

Fittings are also available for 30°, 45°, 60° and 90° angles. When a standard angle will not work, field fittings or adjustable elbows can be used. It may be necessary to add supports to the tray at these points.

Refer to CSA/NEMA VE2 Installation Guidelines for suggested support locations.



Ventilated Channel



Solid Channel



Technical Services



Channel Tray

How to create Straight Section catalog numbers

- 1. Select the material
- 2. Select nominal width of tray
- 3. Select the bottom type
- 4. The last number is the length of the channel tray

Example: ALTC04V-3

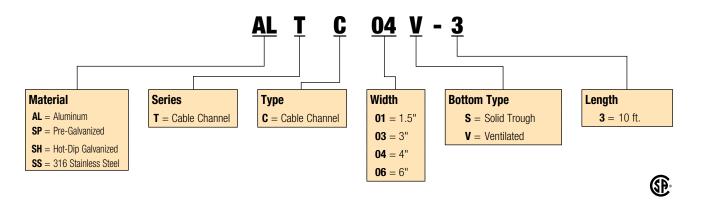
- Aluminum
- 4" wide
- Ventilated bottom
- 10-ft. length





Ventilated Channel

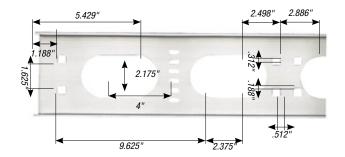
Solid Channel











Bottom view of ventilated Channel Tray larger then 1.5" wide.

Selection Guide

Prefix: ALT (Alum.), SPT (Pre-Galv.), SHT (Hot-Dip Galv.) SST (Stainless Steel)

Inside Channel Widths: 01 = 1.5", 03 = 3", 04 = 4", 06 = 6"

Bottom Styles: V – Ventilated, S – Solid







Channel Tray

Solid and Vented Bottom Straight Sections

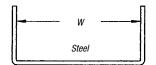
 $\textbf{Solid} : \textbf{Steel} \longrightarrow \textbf{Roll-formed steel}. \ \textbf{Aluminum} \longrightarrow \textbf{Extruded material}$

Ventilated: Pre-punched burr-free oblong holes with Ty-Rap® slots between each opening

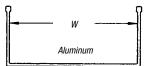
Accessories: One connector complete with hardware supplied for each length

Material: Aluminum-6063-T6

Pre-Galvanized Hot-Dip Galvanized Stainless Steel 316







ALUMINUM	CHANNEL				S	UPPORT SPAN (FEE	Γ)	
SOLID	WIDTH (W)	DEPTH (D)		2	4	6	8	10
	1.5"	3/4"	LOAD (LB./FT.) DEFLECTION (IN.)	47.5 .170	11.9 .680	5.4 .745	3.0 1.325	1.9 2.070
	3"	1%"	LOAD (LB./FT.) Deflection (in.)	362.5 .083	90.6 .330	40.3 .743	22.7 1.322	17.0 2.065
ALTC	4"	1%"	LOAD (LB./FT.) DEFLECTION (IN.)	580.0 .065	145.0 .260	64.4 .585	36.3 1.041	24.0 1.626
	6"	1¾"	LOAD (LB./FT.) DEFLECTION (IN.)	607.5	151.9 .244	67.5 .550	38.0 .977	25.0 1.527
ALUMINUM	CHANNEL			.001		UPPORT SPAN (FEE		
VENTILATED	WIDTH (W)	DEPTH (D)		2	4	6	8	10
	1.5"	3/4"	LOAD (LB./FT.) Deflection (In.)	47.5 .170	11.9 .680	5.4 .745	3.0 1.325	1.9 2.070
	3"	1%"	LOAD (LB./FT.) Deflection (In.)	300.0 .100	75.0 .400	33.3 .900	18.8 1.600	14.0 2.500
ALTC	4"	15%"	LOAD (LB./FT.) Deflection (in.)	525.0 .074	131.3 .295	58.3 .664	32.8 1.181	19.0 1.846
	6"	13/4"	LOAD (LB./FT.) Deflection (in.)	580.0 .065	145.0 .261	64.4 .587	36.3 1.044	21.0 1.631
STEEL	CHANNEL				S	UPPORT SPAN (FEE	Γ)	
SOLID	WIDTH (W)	DEPTH (D)		2	4	6	8	10
	1.5"	3/4"	LOAD (LB./FT.) Deflection (In.)	97.5 .045	24.4 .181	10.8 .408	6.1 .725	3.9 1.133
SPTC								
	3"	1%"	LOAD (LB./FT.) Deflection (In.)	252.0 .034	63.0 .134	28.0 .302	15.8 .538	17.0 .840
SHTC SSTC	3" 4"	1%" 1%"						.840 24.0
			DEFLECTION (ÍN.) LOAD (LB./FT.)	.034 408.0	.134 102.0	.302 45.3	.538 25.5	.840
SSTC	4" 6"	1½"	DEFLECTION (ÍN.) LOAD (LB./FT.) DEFLECTION (IN.) LOAD (LB./FT.)	.034 408.0 .026 432.0	.134 102.0 .105 108.0 .096	.302 45.3 .237 48.0	.538 25.5 .421 27.0 .386	.840 24.0 .658 25.0
	4"	1½"	DEFLECTION (ÍN.) LOAD (LB./FT.) DEFLECTION (IN.) LOAD (LB./FT.)	.034 408.0 .026 432.0 .024	.134 102.0 .105 108.0 .096	.302 45.3 .237 48.0 .217	.538 25.5 .421 27.0 .386	.840 24.0 .658 25.0
SSTC	4" 6"	1%" 1¾"	DEFLECTION (ÍN.) LOAD (LB./FT.) DEFLECTION (IN.) LOAD (LB./FT.)	.034 408.0 .026 432.0 .024	.134 102.0 .105 108.0 .096	.302 45.3 .237 48.0 .217 UPPORT SPAN (FEE	.538 25.5 .421 27.0 .386	.840 24.0 .658 25.0 .603
STEEL VENTILATED	4" 6" CHANNEL WIDTH (W)	15/4" 13/4" DEPTH (D)	DEFLECTION (ÍN.) LOAD (LB./FT.) DEFLECTION (IN.) LOAD (LB./FT.) DEFLECTION (IN.)	.034 408.0 .026 432.0 .024 2 97.5 .045 207.0	.134 102.0 .105 108.0 .096	.302 45.3 .237 48.0 .217 UPPORT SPAN (FEE) 6 10.8 .408 23.0	.538 25.5 .421 27.0 .386	.840 24.0 .658 25.0 .603 10 3.9 1.133 14.0
SSTC STEEL VENTILATED	4" 6" CHANNEL WIDTH (W) 1.5"	1%" 1¾" DEPTH (D)	DEFLECTION (ÍN.) LOAD (LB./FT.) DEFLECTION (IN.) LOAD (LB./FT.) DEFLECTION (IN.) LOAD (LB./FT.) DEFLECTION (IN.) LOAD (LB./FT.) LOAD (LB./FT.)	.034 408.0 .026 432.0 .024 2 97.5 .045	.134 102.0 .105 108.0 .096 S 4 24.4 .181 51.8	.302 45.3 .237 48.0 .217 UPPORT SPAN (FEE) 6 10.8 .408	.538 25.5 .421 27.0 .386 T) 8 6.1 .725	.840 24.0 .658 25.0 .603 10 3.9 1.133





Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services** Tel: 888.862.3289







Channel Tray

How to create fitting part numbers

- 1. Select fitting material
- 2. Select nominal width of fitting
- 3. Select type of fitting
- 4. Select degree of angle if required
- 5. Select radius



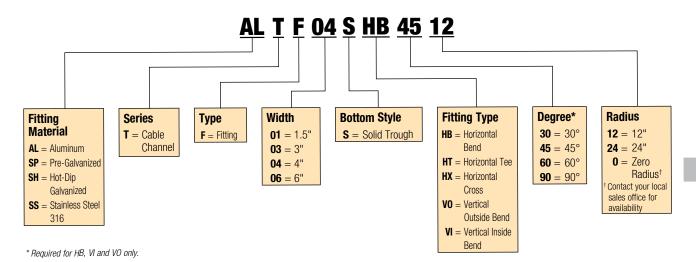
- Aluminum
- 4" wide
- Horizontal bend
- 45° degree
- 12" radius















1-800-453-1692



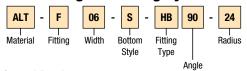


Channel Tray



90° Horizontal Bend

Catalog Numbering System



Selection Guide

Prefix: ALT (Alum.), SPT (Pre-Galv.), SHT (Hot-Dip Galv.), SST (Stainless Steel)

Inside Channel Widths: 01 = 1.5", 03 = 3",

04 = 4", 06 = 6"





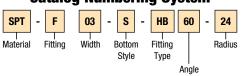


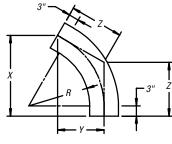
RADIUS (IN.)	WIDTH (IN.)		DIMENSI	DNS (IN.)
R	W	CAT. NO.	X	Y
	1.5	(PREFIX)-F 01-S-HB90-12	15¾	15¾
12	3	(PREFIX)-F 03-S-HB90-12	16½	16½
12	4	(PREFIX)-F 04-S-HB90-12	17	17
	6	(PREFIX)-F 06-S-HB90-12	18	18
	1.5	(PREFIX)-F 01-S-HB90-24	27¾	27¾
24	3	(PREFIX)-F 03-S-HB90-24	28½	28½
24	4	(PREFIX)-F 04-S-HB90-24	29	29
	6	(PREFIX)-F 06-S-HB90-24	30	30



60° Horizontal Bend

Catalog Numbering System





Selection Guide

Prefix: ALT (Alum.), SPT (Pre-Galv.), SHT (Hot-Dip Galv.), SST (Stainless Steel)

Inside Channel Widths: 01 = 1.5", 03 = 3", 04 = 4", 06 = 6"

Bottom Styles: S - Solid

60° Horizontal Bends

oo momzoman	Dellas				
RADIUS (IN.)	WIDTH (IN.)			DIMENSIONS (IN.)	
R	w	CAT. NO.	Х	Υ	Z
	1.5	(PREFIX)-F 01-S-HB60-12	15½	9	101/4
12	3	(PREFIX)-F 03-S-HB60-12	16¾16	9¾	1013/16
12	4	(PREFIX)-F 04-S-HB60-12	165//8	95/8	1111/16
	6	(PREFIX)-F 06-S-HB60-12	17½	101//8	1111/16
	1.5	(PREFIX)-F 01-S-HB60-24	26	15	171/4
24	3	(PREFIX)-F 03-S-HB60-24	26%16	15%	17¾
24	4	(PREFIX)-F 04-S-HB60-24	27	15%	18
	6	(PREFIX)-F 06-S-HB60-24	271//8	161//8	181/16





Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services**



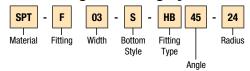




Channel Tray



Catalog Numbering System



Selection Guide

Prefix: ALT (Alum.), SPT (Pre-Galv.), SHT (Hot-Dip Galv.), SST (Stainless Steel)

Inside Channel Widths: 01 = 1.5", 03 = 3", 04 = 4", 06 = 6"

Bottom Styles: S - Solid



45° Horizontal Bends

o monzoman	Dellas				
RADIUS (IN.)	WIDTH (IN.)			DIMENSIONS (IN.)	
R	w	CAT. NO.	Х	Υ	Z
	1.5	(PREFIX)-F 01-S-HB45-12	141/8	57//8	81/4
10	3	(PREFIX)-F 03-S-HB45-12	14 ¹¹ / ₁₆	61/16	8%16
12	4	(PREFIX)-F 04-S-HB45-12	15	61/4	813/16
	6	(PREFIX)-F 06-S-HB45-12	15¾	6½	93/16
	1.5	(PREFIX)-F 01-S-HB45-24	22%	9¾	131/4
24	3	(PREFIX)-F 03-S-HB45-24	231/8	9%6	131/16
24	4	(PREFIX)-F 04-S-HB45-24	23½	93⁄4	13¾
	6	(PREFIX)-F 06-S-HB45-24	24¾16	10	143/16



30° Horizontal Bend

Selection Guide

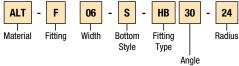
Prefix: ALT (Alum.), SPT (Pre-Galv.), SHT (Hot-Dip Galv.), SST (Stainless Steel)

Inside Channel Widths: 01 = 1.5", 03 = 3", 04 = 4", 06 = 6"

Bottom Styles: S - Solid

(F)

Catalog Numbering System



30° Horizontal Bends

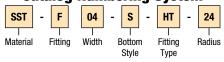
oo monzontar	Donas				
RADIUS (IN.)	WIDTH (IN.)			DIMENSIONS (IN.)	
R	w	CAT. NO.	Х	Υ	Z
	1.5	(PREFIX)-F 01-S-HB30-12	12	31/4	6½
10	3	(PREFIX)-F 03-S-HB30-12	12¾	35/16	65/8
12	4	(PREFIX)-F 04-S-HB30-12	125//8	33/8	63/4
	6	(PREFIX)-F 06-S-HB30-12	131//8	3½	7
	1.5	(PREFIX)-F 01-S-HB30-24	18	43/4	9%
24	3	(PREFIX)-F 03-S-HB30-24	18¾	415/16	913/16
24	4	(PREFIX)-F 04-S-HB30-24	185//8	5	915/16
	6	(PREFIX)-F 06-S-HB30-24	191/8	51//8	101/4

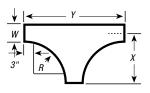


Channel Tray



Catalog Numbering System





Selection Guide

Prefix: ALT (Alum.), SPT (Pre-Galv.), SHT (Hot-Dip Galv.), SST (Stainless Steel)

Inside Channel Widths: 01 = 1.5", 03 = 3", 04 = 4", 06 = 6"

Bottom Styles: S - Solid

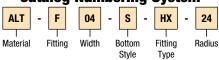
Horizontal Tees

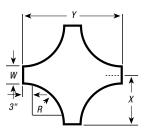
RADIUS (IN.)	WIDTH (IN.)			DIMENSIONS (IN.)	
R	w	CAT. NO.	Х	Υ	Z
	1.5	(PREFIX)-F 01-S-HT-12	15¾	31½	<u> </u>
12	3	(PREFIX)-F 03-S-HT-12	16½	33	_
12	4	(PREFIX)-F 04-S-HT-12	17	34	_
	6	(PREFIX)-F 06-S-HT-12	18	36	_
	1.5	(PREFIX)-F 01-S-HT-24	27¾	55½	_
24	3	(PREFIX)-F 03-S-HT-24	28½	57	_
24	4	(PREFIX)-F 04-S-HT-24	29	58	_
	6	(PREFIX)-F 06-S-HT-24	30	60	_



Horizontal Cross

Catalog Numbering System





Selection Guide

Prefix: ALT (Alum.), SPT (Pre-Galv.), SHT (Hot-Dip Galv.), SST (Stainless Steel)

Inside Channel Widths: 01 = 1.5", 03 = 3", 04 = 4", 06 = 6"

Bottom Styles: S - Solid



RADIUS (IN.)	WIDTH (IN.)			DIMENSIONS (IN.)	
R	w	CAT. NO.	Х	Υ	Z
	1.5	(PREFIX)-F 01-S-HX-12	15¾	31½	_
12	3	(PREFIX)-F 03-S-HX-12	16½	33	_
12	4	(PREFIX)-F 04-S-HX-12	17	34	_
	6	(PREFIX)-F 06-S-HX-12	18	36	_
	1.5	(PREFIX)-F 01-S-HX-24	27¾	55½	_
24	3	(PREFIX)-F 03-S-HX-24	28½	57	_
24	4	(PREFIX)-F 04-S-HX-24	29	58	_
	6	(PREFIX)-F 06-S-HX-24	30	60	_



Horizontal Crosses

United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services**



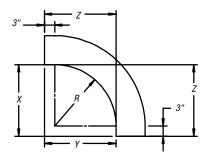


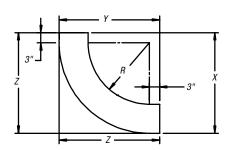


Channel Tray

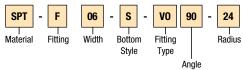








Catalog Numbering System



Selection Guide

Prefix: ALT (Alum.), SPT (Pre-Galv.), SHT (Hot-Dip Galv.), SST (Stainless Steel)

Inside Channel Widths: 01 = 1.5", 03 = 3", 04 = 4", 06 = 6"

Bottom Styles: S - Solid

90° Vertical Outside Bend

90° Vertical Outside Bend			W	
RADIUS	WIDTH		DIMENSI	ONS (IN.)
(IN.)	(IN.)	CAT. NO.	Х	Y
	1.5	(PREFIX)-F 01-S-V090-12	15	15
12	3	(PREFIX)-F 03-S-V090-12	15	15
12	4	(PREFIX)-F 04-S-V090-12	15	15
	6	(PREFIX)-F 06-S-V090-12	15	15
	1.5	(PREFIX)-F 01-S-V090-24	15	15
24	3	(PREFIX)-F 03-S-V090-24	27	27
24	4	(PREFIX)-F 04-S-V090-24	27	27
	6	(PREFIX)-F 06-S-V090-24	27	27

90° Vertical Inside Bend

		, = 0.1.u		
RADIUS	WIDTH		DIMENSI	ONS (IN.)
(IN.)	(IN.)	CAT. NO.	Х	Y
	1.5	(PREFIX)-F 01-S-VI90-12	15¾	15¾
12	3	(PREFIX)-F 03-S-VI90-12	16½	16½
12	4	(PREFIX)-F 04-S-VI90-12	161/8	167/8
	6	(PREFIX)-F 06-S-VI90-12	16%	16%
	1.5	(PREFIX)-F 01-S-VI90-24	27¾	27¾
24	3	(PREFIX)-F 03-S-VI90-24	28½	281/2
24	4	(PREFIX)-F 04-S-VI90-24	281//8	281//8
	6	(PREFIX)-F 06-S-VI90-24	281/8	28%



United States Tel: 901.252.8000

(12)

800.816.7809 Fax: 901.252.1354

Technical Services



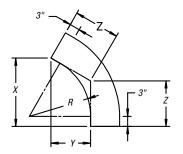




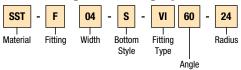
Channel Tray



Vertical Outside



Catalog Numbering System

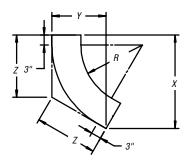


60° Vertical Outside Bend

RADIUS	WIDTH		DIN	IENSIONS (IN.)
(IN.)	(IN.)	CAT. NO.	Х	Υ	Z
	1.5	(PREFIX)-F 01-S-V060-12	147//8	85/8	9%
12	3	(PREFIX)-F 03-S-V060-12	141//8	85/8	91//8
12	4	(PREFIX)-F 04-S-V060-12	141//8	85/8	97/8
	6	(PREFIX)-F 06-S-V060-12	141//8	85/8	91/8
	1.5	(PREFIX)-F 01-S-V060-24	251/4	14%	16%
24	3	(PREFIX)-F 03-S-V060-24	251/4	14%	16%
24	4	(PREFIX)-F 04-S-V060-24	251/4	14%	161/8
	6	(PREFIX)-F 06-S-V060-24	251/4	14%	161/8



Vertical Inside



Selection Guide

Prefix: ALT (Alum.), SPT (Pre-Galv.), SHT (Hot-Dip Galv.), SST (Stainless Steel)

Inside Channel Widths: 01 = 1.5", 03 = 3", 04 = 4", 06 = 6"

Bottom Styles: S - Solid

60° Vertical Inside Bend



RADIUS	WIDTH		DIM	IENSIONS (IN.)
(IN.)	(IN.)	CAT. NO.	x	Y	Z
	1.5	(PREFIX)-F 01-S-VI60-12	15½	9	101/4
12	3	(PREFIX)-F 03-S-VI60-12	161/8	91/4	10¾
12	4	(PREFIX)-F 04-S-VI60-12	161/4	93/8	101//8
	6	(PREFIX)-F 06-S-VI60-12	16%	91/2	11
	1.5	(PREFIX)-F 01-S-VI60-24	26	15	171/4
24	3	(PREFIX)-F 03-S-VI60-24	26½	151/4	17%
24	4	(PREFIX)-F 04-S-VI60-24	26¾	15%	17¾
	6	(PREFIX)-F 06-S-VI60-24	26¾	15½	171//8



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services**



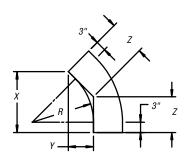




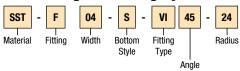
Channel Tray



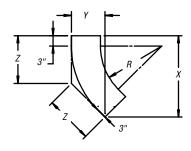
Vertical Outside



Catalog Numbering System







Selection Guide

Prefix: ALT (Alum.), SPT (Pre-Galv.), SHT (Hot-Dip Galv.), SST (Stainless Steel)

Inside Channel Widths: 01 = 1.5", 03 = 3", 04 = 4", 06 = 6"

Bottom Styles: S - Solid

45° Vertical Outside Bend

RADIUS	WIDTH		DIN	IENSIONS ((IN.)
(IN.)	(IN.)	CAT. NO.	х	Y	Z
	1.5	(PREFIX)-F 01-S-V045-12	13%	5%	8
12	3	(PREFIX)-F 03-S-V045-12	13%	5%	8
12	4	(PREFIX)-F 04-S-V045-12	13%	5%	8
	6	(PREFIX)-F 06-S-V045-12	13%	5%	8
	1.5	(PREFIX)-F 01-S-V045-24	221//8	91/8	121/8
24	3	(PREFIX)-F 03-S-V045-24	221/8	91/8	13
24	4	(PREFIX)-F 04-S-V045-24	11	11	13
	6	(PREFIX)-F 06-S-V045-24	11	11	13

45° Vertical Inside Rend

45 VEI	45 Vertical ilisiue dellu				•
RADIUS	WIDTH		DIN	IENSIONS ((IN.)
(IN.)	(IN.)	CAT. NO.	x	Y	Z
	1.5	(PREFIX)-F 01-S-VI45-12	141//8	51//8	9
12	3	(PREFIX)-F 03-S-VI45-12	141/8	6	81/2
12	4	(PREFIX)-F 04-S-VI45-12	143/4	71/8	85/8
	6	(PREFIX)-F 06-S-VI45-12	147/8	11	83/4
	1.5	(PREFIX)-F 01-S-VI45-24	22%	8%	13½
24	3	(PREFIX)-F 03-S-VI45-24	23	91/2	13½
24	4	(PREFIX)-F 04-S-VI45-24	231/4	95/8	13%
	6	(PREFIX)-F 06-S-VI45-24	23%	9%	13%



United States Tel: 901.252.8000

800.816.7809 Fax: 901.252.1354









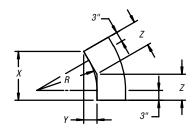
Channel Tray

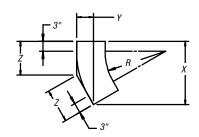


Vertical Outside

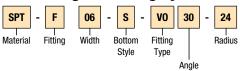


Vertical Inside





Catalog Numbering System



Selection Guide

Prefix: ALT (Alum.), SPT (Pre-Galv.), SHT (Hot-Dip Galv.), SST (Stainless Steel)

Inside Channel Widths: 01 = 1.5", 03 = 3",

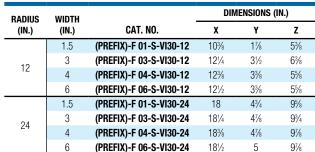
04 = 4", 06 = 6"

 $\textbf{Bottom Styles} \colon S - Solid$

30° Vertical Outside Bends

RADIUS	WIDTH		DIM	ENSIONS (I	N.)
(IN.)	(IN.)	CAT. NO.	Х	Y	Z
	1.5	(PREFIX)-F 01-S-V030-12	101//8	1%	51/4
12	3	(PREFIX)-F 03-S-V030-12	11%	31/8	61/8
12	4	(PREFIX)-F 04-S-V030-12	11%	31/8	61/8
	6	(PREFIX)-F 06-S-V030-12	11%	31/8	61//8
	1.5	(PREFIX)-F 01-S-V030-24	17%	4¾	9½
24	3	(PREFIX)-F 03-S-V030-24	17%	43/4	91/4
24	4	(PREFIX)-F 04-S-V030-24	175/8	4¾	91/4
	6	(PREFIX)-F 06-S-V030-24	17%	4¾	91/4

30° Vertical Inside Bends





800.816.7809 Fax: 901.252.1354







Channel Tray

Straight Section Covers Catalog Number Selection Guide

Tray Covers

Tray covers are available for all widths of tray. They should be installed where falling objects may damage cables or where a vertical tray run is accessible by pedestrian or vehicular traffic.

Note: Cover mounting hardware must be ordered separately.

(SP

72 = 6 ft.

Straight Covers

These covers provide maximum mechanical protection for cables with limited heat build up. **03 SFC** Flanged covers have ½" flange. Width **Bottom Style** Material* **Series** Type Length **AL** = Aluminum T = Cable Accessory 01 = 1.5" **SFC** = Solid Flanged Covers 3 = 10 ft.

i.e.: Straight Cover

6 pieces

03 = 3"

04 = 4"

06 = 6"

SS = Stainless Steel 316 * Hot-Dip Galvanized Covers only available in 1500mm lengths.

SH = Hot-Dip Galvanized

SP = Pre-Galvanized

Quantity of Standard Cover Clamps Required

Straight section (10 ft.)

Note: When using the Heavy-Duty Cover Clamps, only half the quantity of pieces are required.

Channel

Fitting Covers **Catalog Number Selection Guide**

Tray Covers

Tray covers are available for all widths of tray. They should be installed where falling objects may damage cables or where a vertical tray run is accessible by pedestrian or vehicular traffic.



Note: Cover mounting hardware must be ordered separately.

Fitting Covers

Fitting covers are available to complete your cable channel layout. 06 HBC 45 12 All fitting covers are flanged. SP. Material **Series** Width Fitting Type Cover Degree* **Radius** Type **AL** = Aluminum T = CableF = Fitting Cover 01 = 1.5" **HBC** = Horizontal Bend $30 = 30^{\circ}$ **12** = 12" Channel **03** = 3" $45 = 45^{\circ}$ **24** = 24" **SP** = Pre-Galvanized **HTC** = Horizontal Tee SH = Hot-Dip Galvanized 04 = 4" **HXC** = Horizontal Cross $60 = 60^{\circ}$ 0 = Zero Radius† **06** = 6" **VOB** = Vertical Outside $90 = 90^{\circ}$ Contact your local **SS** = Stainless Steel 316 sales office for Bend * Required for HB, VI and VO only. VIB = Vertical Inside availability Bend

Quantity of Standard Cover Clamps Required

Horizontal and Vertical Bends 4 pieces Tees 6 pieces Crosses 8 pieces Note: When using the Heavy-Duty Cover Clamps, only half the quantity of pieces are required.

www.tnb.com

United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354

Technical Services Tel: 888.862.3289





1-800-453-1692 aboveboardelectronics.com

Channel Tray

Selection Guide

Prefix: ALT (Alum.), SPT (Pre-Galv.), SHT (Hot-Dip Galv.), SST (Stainless Steel) **Inside Channel Widths**: 01 = 1.5", 03 = 3", 04 = 4", 06 = 6"

Standard 1.5" Splice Plate



CAT. NO.	WIDTH
(PREFIX)-W-01-CCS	1.5"
Supplied standard with each length.	

Standard Splice Plate



CAT. NO.	WIDTH
(PREFIX)-W-03-CCS	3"
(PREFIX)-W-04-CCS	4"
(PREFIX)-W-06-CCS	6"
Supplied standard with each length.	

Expansion Splice Plate



CAT. NO.	WIDTH
(PREFIX)-W-03-ESP	3"
(PREFIX)-W-04-ESP	4"
(PREFIX)-W-06-ESP	6"

Wraparound Splice Plate



CAT. NO.	WIDTH
(PREFIX)-W-01-ACS	1.5"
(PREFIX)-W-03-ACS	3"
(PREFIX)-W-04-ACS	4"
(PREFIX)-W-06-ACS	6"

Adjustable Horizontal Splice Plate



CAT. NO.	WIDTH
(PREFIX)-W-01-CHA	1.5"
(PREFIX)-W-03-CHA	3"
(PREFIX)-W-04-CHA	4"
(PREFIX)-W-06-CHA	6"

Standard Vertical Adjustable Splice Plate



CAT. NO.	WIDTH
(PREFIX)-W-01-CCV	1.5"
(PREFIX)-W-03-CCV	3"
(PREFIX)-W-04-CCV	4"
(PREFIX)-W-06-CCV	6"

Wraparound Vertical Adjustable Splice Plate



CAT. NO.	WIDTH
(PREFIX)-W-01-WAV	1.5"
(PREFIX)-W-03-WAV	3"
(PREFIX)-W-04-WAV	4"
(PREFIX)-W-06-WAV	6"



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services**







Channel Tray

Selection Guide

Prefix: ALT (Alum.), SPT (Pre-Galv.), SHT (Hot-Dip Galv.), SST (Stainless Steel)

Inside Channel Widths: 01 = 1.5", 03 = 3", 04 = 4", 06 = 6"

Closed End Plate



CAT. NO.	WIDTH
(PREFIX)-W-01-CEP	1.5"
(PREFIX)-W-03-CEP	3"
(PREFIX)-W-04-CEP	4"
(PREFIX)-W-06-CEP	6"

Channel to Cable Tray Plate



CAT. NO.	WIDTH
(PREFIX)-W-01-CCT	1.5"
(PREFIX)-W-03-CCT	3"
(PREFIX)-W-04-CCT	4"
(PREFIX)-W-06-CCT	6"

Channel Straight Reducer Plate



CAT. NO.	WIDTH
(PREFIX)-W-03-01-RSP	3" to 1"
(PREFIX)-W-04-01-RSP	4" to 1"
(PREFIX)-W-06-01-RSP	6" to 1"
(PREFIX)-W-04-03-RSP	4" to 3"
(PREFIX)-W-06-03-RSP	6" to 3"
(PREFIX)-W-06-04-RSP	6" to 4"

Channel to Floor Base Plate



CAT. NO.	WIDTH
(PREFIX)-W-01-CBP	1.5"
(PREFIX)-W-03-CBP	3"
(PREFIX)-W-04-CBP	4"
(PREFIX)-W-06-CBP	6"



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services**





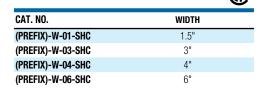


Channel Tray

Standard Hold-Down Clamp

 Available in Aluminum (ALT), Pre-Galvanized (SPT), Hot-Dipped Galvanized (SHT) and Stainless Steel (SST)





Channel Expansion Guide Clamp

 Available in Aluminum (ALT), Pre-Galvanized (SPT), Hot-Dipped Galvanized (SHT) and Stainless Steel (SST)



<u>_</u>
WIDTH
1.5"
3"
4"
6"

(\$P:

(F)

(12)

Combination Hold-Down/Cover Clamp

 Available in Aluminum (ALT), Pre-Galvanized (SPT), Hot-Dipped Galvanized (SHT) and Stainless Steel (SST)



CAT. NO.	WIDTH
(PREFIX)-W-01-CCC	1.5"
(PREFIX)-W-03-CCC	3"
(PREFIX)-W-04-CCC	4"
(PREFIX)-W-06-CCC	6"

Heavy-Duty Cover Clamp

 Available in Aluminum (ALT), Pre-Galvanized (SPT), Hot-Dipped Galvanized (SHT) and Stainless Steel (SST)



	•
CAT. NO.	WIDTH
(PREFIX)-W-01-HCC	1.5"
(PREFIX)-W-03-HCC	3"
(PREFIX)-W-04-HCC	4"
(PREFIX)-W-06-HCC	6"





800.816.7809 Fax: 901.252.1354







(1)

T&B° Cable Tray

Channel Tray

Channel Mounting Bracket

· Available in Pre-Galvaninzed (SPT) and Hot-Dip Galvanized (SHT)



CAT. NO.	WIDTH
(PREFIX)-W-01-CCB	1.5"
(PREFIX)-W-03-CCB	3"
(PREFIX)-W-04-CCB	4"
(PREFIX)-W-06-CCB	6"

Channel to Tray Mounting Bracket

Available in Pre-Galvaninzed (SPT) and Hot-Dip Galvanized (SHT)



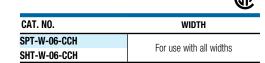
	•
CAT. NO.	WIDTH
(PREFIX)-W-01-TCB	1.5"
(PREFIX)-W-03-TCB	3"
(PREFIX)-W-04-TCB	4"
(PREFIX)-W-06-TCB	6"

Single-Channel Hanger

 Available in Pre-Galvaninzed (SPT) and Hot-Dip Galvanized (SHT)

Note: Designed for use with 1/2" threaded rod.





Double-Channel Hanger

 Available in Pre-Galvaninzed (SPT) and Hot-Dip Galvanized (SHT)

Note: Designed for use with 1/2" threaded rod.



	⊕ ∘
CAT. NO.	WIDTH
SPT-W-06-DCH	For use with all widths
SHT-W-06-DCH	For use with all widths



Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354







Common Accessories

T&B° Cable Roller System

Why should rollers be used?

- 1. To reduce pulling stress on cables, avoiding undue fatigue or abrasions
- 2. To minimize harmful "shear" load placed on cable trays
- 3. To reduce installation time

Why purchase the T&B® Cable Roller System?

- Universal fits virtually all tray systems
- Mounts from bottom of cable tray, eliminating the need for double handling cables and reducing possibility of cable damage
- Sideways telescopic adjustment allows rollers to accommodate virtually all tray widths
- · Nylon bearings require no lubrication
- Independent rollers limit cable abrasion

CAT. NO.	DESCRIPTION	FITS
VHR04	Corner	All Profiles
CAT. NO.	DESCRIPTION	FITS
HAR 1224	Straight	All Profiles
		12" to 24" (30cm to 60cm)
HAR 1836	Straight	All Profiles
		18" to 36" (45cm to 90cm)



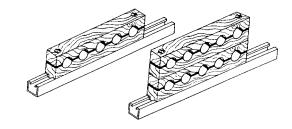


Corner Roller

Custom Maple Hardwood Block

- Multiple cable blocks can be made to your specific requirements
- Cable blocks ensure proper separation of singleconductor cables and prevent any interference due to magnetic fields
- Paraffin wax impregnated to prevent moisture from penetrating and causing rotting and splitting
- Cable blocks are also available in nylon and highdensity polyethylene
- Electrogalvanized hardware included; stainless steel hardware also available upon request













Common Accessories

Hanger Rod Clamp Kits

- · Designed for ladder and ventilated cable tray
- Provide a fast and economical solution for a suspended cable tray installation
- One kit is needed per each threaded rod location
- Kit consists of one bottom clamp and one top clamp and uses 1/2" threaded rod (order separately)
- · 250-lb. capacity per kit

For Steel Cable Tray

CAT. NO.	HEIGHT
(*)-3-HRC	3"
(*)-4-HRC	4"
(*)-5-HRC	5"
(*)-6-HRC	6"
(*)-7-HRC	7"
(*) Insert Pre-Galvanized (SPM) Hot-Dir	Galvanized (SHM) or Stainless Steel 316

(SSW) prefix.



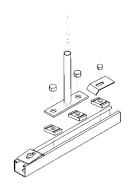
For Aluminum Cable Tray

CAT. NO.	TRAY SERIES	CAT. NO.	TRAY SERIES	CAT. NO.	TRAY SERIES
ABW04HRC	AH04	ABW25HRC	AH25	ABW46HRC	AH46
ABW14HRC	AH14	ABW35HRC	AH35	ABW56HRC	AH56
ABW24HRC	AH24	ABW45HRC	AH45	ABW66HRC	AH66
ABW34HRC	AH34	ABW16HRC	AH16	ABW27HRC	AH27
ABW44HRC	AH44	ABW26HRC	AH26	ABW37HRC	AH37
ABW54HRC	AH54	ABW36HRC	AH36		

Center Support Bracket

- · Reduces cable pulling by allowing access from both sides of cable tray
- Installation cost and time are reduced significantly by single-point suspension
- Supplied as a complete kit
- Uses ½" threaded rod (order separately)
- For use with up to 24"-wide tray
- · Load capacity is 700 lb. per kit

CAT. NO.	MATERIAL	CHANNEL WIDTH	TRAY WIDTH
SHW18CSB	Hot-Dip Galvanized	18"	6" 9"
SHW30CSB	Hot-Dip Galvanized	30"	12" 18" 24"



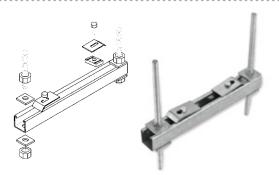


Trapeze Kit

· Supports various cable tray widths in a suspending installation

CAT. NO.	TRAY WIDTH	CHANNEL WIDTH
(*)-06-TPK	6"	16%"
(*)-09-TPK	9"	18¾"
(*)-12-TPK	12"	221/2"
(*)-18-TPK	18"	281/8"
(*)-24-TPK	24"	35%"
(*)-30-TPK	30"	411/4"
(*)-36-TPK	36"	467/8"
(*)-42-TPK	42"	521/2"

(*) Insert Hot-Dip Galvanized (SHW), Pre-Galvanized (SPW) or Stainless Steel 316 (SSW) prefix.



Kit consists of:

United States

Tel: 901.252.8000

Fax: 901.252.1354

800.816.7809

- (1) piece of strut cut to length
- (2) hold-down clips
- (2) 3/8" x 7/8" hex-head cap screws
- (4) %" strut nuts

Thomas@Betts

 $-(4) \frac{1}{2}$ " hex nuts - (4) ½" square washers

Kit uses 1/2" threaded rod (order separately)



Technical Services Tel: 888.862.3289





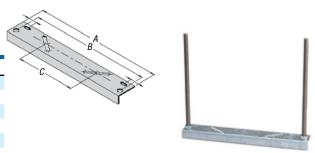


Common Accessories

Cross Member

- · Hanging rods not included
- · Hot-dipped galvanized finish

CAT. NO.	Α	В	С
S202-6HDG	6	5	_
S202-9HDG	9	8	2
S202-15HDG	5	14	8
S202-21HDG	21	20	14
S202-27HDG	27	26	20
S202-33HDG	33	32	26



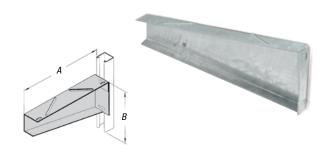
Note: Order hold-down clips (SSW-SHC) separately.

Cantilever Support

· Hot-dipped galvanized finish

			DESIGN
CAT. NO.	Α	В	LOAD/LBS.
S203-8HDG	8½	41/16	1200
S203-14HDG	141/2	5%	1200
S203-20HDG	20½	611/16	1200
S203-26HDG	26½	8	1200
S203-32HDG	32½	8	1200
S203-38HDG	38½	8	1200





Conduit to Cable Tray Clamp

- · Made from steel
- · Electro-galvanized finish



CAT. NO.	CONDUIT SIZE (INCHES)
6210	1/2—3/4
6212	1-11/4



Conduit to Cable Tray Swivel Clamp

- For aluminum and steel trays with regular or reinforced flanges
- Serrations and biting teeth on clamping saddle provide a high-quality bond between conduit and clamp
- · Clamp to any position in a 90° arc
- · Malleable iron hub and steel U-bolt
- · Zinc-plated finish



CAT. NO.	CONDUIT SIZE (INCHES)
6209	1/2-3/4
6211	1–11/4
6214	1½–2
6216	21/2-3
6218	3½–4





United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354











Grounding and Bonding

Economical Cable Tray Ground Clamp

- · Made from malleable iron
- Zinc-plated finish

CAT. NO.	DESCRIPTION
10103TB	For single conductor #4 solid to 4/0 str.
MA2GC	For single conductor #4 solid to 4/0 str.; includes Superstrut® springless channel nut
	for easy installation in cable tray rungs



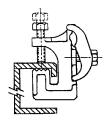
Cable Tray Ground Clamp

- · Made from malleable iron
- · Zinc-plated finish





CAT. NO.	DESCRIPTION
10105	For single conductor #4 solid to 2/0 str.
10109	For single conductor 2/0 solid to 4/0 str.





10109

Blackburn® Ground Clamp

- Bolt has square shank to prevent turning and allows clamp to be tightened with one wrench
- Made from copper alloy
- · Tin-plated finish for aluminum cable tray





	CONDUCTOR RANGE				
CAT. NO.	MIN.	MAX.	FIGURE		
GTC13P	#4 sol.	2/0 str.	1		
GTC14P	2/0 str.	250 kcmil	1		
GTC23P	#4 sol.	2/0 str.	2		
GTC24P	2/0 str.	250 kcmil	2		





Castings are of high-strength, corrosion-resistant copper alloy.





Grounding and Bonding

Blackburn® Cable Tray Ground Clamp

- Made from copper alloy
- Tin-plated finish





CAT. NO.	DESCRIPTION
CTG250	For parallel or tapping applications,
	#2 solid to 250 kcmil



Blackburn® Lay-in Lug

- · Dual-rated grounding connector for aluminum and copper conductors
- Open-faced design enables you to quickly lay-in the grounding connector as a jumper
- Made from tin-plated high-strength 6061-T6 aluminum alloy





	CONDUCT	CONDUCTOR RANGE			
CAT. NO.	MIN.	MAX.	IN.	MM ²	
LL306	#6 solid	3/0 str.	.33	8.38	
LL2506	#6 str.	#6 str. 250 kcmil		8.38	



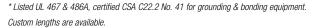
Bonding Jumpers

- Made from copper
- Tin-plated finish





CAT. NO.	BONDING AMP CAPACITY	SINGLE Bolt Hole	DESCRIPTION
FBD12-1*	600 Amps	7∕16	12" flat flexible braid
FBD16-1*	600 Amps	7/16	16" flat flexible braid
FBE12-1*	1200 Amps	9/16	12" flat flexible braid
FBE16-1*	1200 Amps	9/16	16" flat flexible braid
FBG12-1*	2000 Amps	9/16	12" flat flexible braid
FBG16-1*	2000 Amps	9/16	16" flat flexible braid



Important: Bonding Jumpers are required for expansion joints as well as adjustable joints. Please note due to the overall length of the expansion plate, a 12"-long bonding jumper is no longer sufficent to span the joint properly.













Grounding and Bonding

Grounding and Bonding

Table 1 NEC® Table 392.60(A) Metal Area Requirements for Cable Trays Used as Equipment Grounding Conductors

Maximum Fuse Ampere Rating, Circuit Breaker Ampere Trip Setting, or Circuit		SECTIONAL AREA OF QUARE INCHES
Breaker Protective Relay Ampere Trip Setting for Ground Fault Protection of Any Cable Circuit in the Cable Tray System	STEEL Cable Trays	ALUMINUM Cable Trays
60	.20	.20
100	.40	.20
200	.70	.20
400	1.00	.40
600	1.50 **	.40
1000	_	.60
1200	_	1.00
1600	_	1.50
2000	_	2.00 **

For SI units, one square inch = 645 square millimeters.

For larger ampere ratings, an additional grounding conductor must be used.

For more information on grounding and bonding cable tray, refer to Section 4.7 of the new NEMA VE 2 Cable Tray Installation Guidelines.

Table 2
Minimum Size Equipment Grounding Conductors for Grounding & Bonding Raceway and Equipment (Based on NEC Table 250.122 and CEC Table 16)

Rating or Setting of	S	IZE
Automatic Overcurrent Device in Circuit Ahead of Equipment, Conduit, etc. Not Exceeding (Amperes)	COPPER WIRE NO.	ALUMINUM OR COPPER-CLAD ALUMINUM WIRE NO.*
15	14	12
20	12	10
30	10	8
40	10	8
60	10	8
100	8	6
200	6	4
300	4	2
400	3	1
500	2	1/0
600	1	2/0
800	1/0	3/0
1000	2/0	4/0
1200	3/0	250 kcmil
1600	4/0	350 kcmil
2000	250 kcmil	400 kcmil
2500	350 kcmil	600 kcmil
3000	400 kcmil	600 kcmil
4000	500 kcmil	800 kcmil
5000	700 kcmil	1200 kcmil
6000	800 kcmil	1200 kcmil

^{*} See installation restrictions in NEC Section 250.120.

NEC and National Electrical Code are registered trademarks of the National Fire Protection Association, Inc.



800.816.7809

Fax: 901.252.1354

^{*} Total cross-sectional area of both side rails for ladder or trough-type cable trays or the minimum cross-sectional area of metal in channel-type cable trays or cable trays of one-piece construction.

^{**} Steel cable trays shall not be used as equipment grounding conductors for circuits with ground-fault protection above 600 amperes. Aluminum cable trays shall not be used as equipment grounding conductors for circuits with ground-fault protection above 2000 amperes.

Options

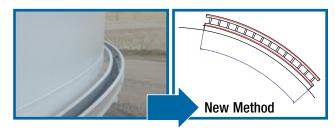
Large-Radius Aluminum Cable Tray

- No mitered joints
- No bent splice plate
- Less costly
- · Easier to install
- Faster to install
- · Fewer skills required to install
- Cleaner lines
- More resistant support structure
- Improved functionality and aesthetics

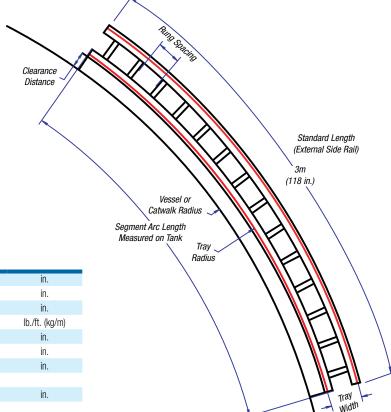
The custom-built cable support system makes this cable tray design ideal for petrochemical tanks and towers as well as other applications requiring a wider radius.

Thomas & Betts takes pride in manufacturing a complete system to meet your most rigorous requirements. Our cable support systems reduce the costly and labor-intensive modifications required to assemble straight sections, splice plates and accessories that fit in your tank or

Thomas & Betts Large-Radius Aluminum Cable Tray systems mount flawlessly with no extra cutting, set-up or surplus material. With the option of pre-assembly of this cable tray system prior to erection of the tank or vessel, you can drastically reduce installing time.







Data Required for Quotation

Height of the Cable Tray	in.
Width of the Cable Tray	in.
Rung Spacing Required	in.
Load Rating and Support Span	lb./ft. (kg/m)
Radius of Tank or Vessel	in.
Clearance Distance	in.
Segment Arc Length (measured on structure)	in.
Quantity Required (number of segments)	
Total Arc Length (= segment arc length x quantity)	in.

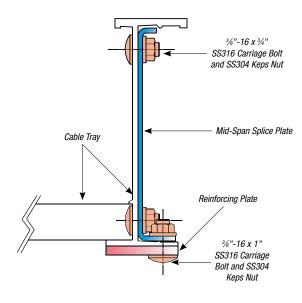


Options

Aluminum Mid-Span Splice Plate

- Factory pre-drilled side rails for easy installation
- Allows random splice location
- Tested loading 160 lb./ft., based on a 20-ft. simple beam test with 1.5 safety factor (tested with AH66 series)
- Supplied with stainless steel type 316 hardware
- Great for ladder, vented or solid tray style
- Only available for the following series of aluminum trays: AH46, AH56, AH66 and AH76*

^{* 20-}ft. support span only.

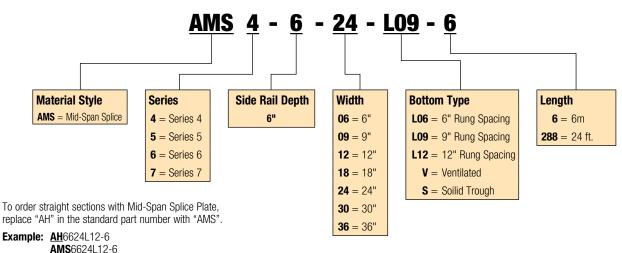




Typical Installation of Mid-Span Splice Plate

These heavy-duty splice plates are designed to allow random splice location, including the midspan for 20-ft. support spans. These splices are available for all long-span ladder, vented or solid tray styles.

Note: Also available on fittings to complete the system if required. Please consult the factory for more information.



www.tnb.com

United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 Technical Services
Tel: 888.862.3289



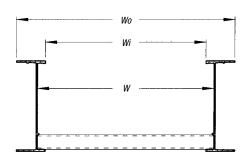




veboardelectronics.com

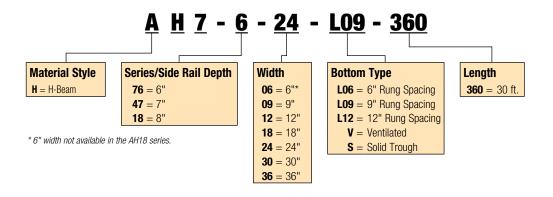
Options

Long-Span Systems — 30-ft. Straight Sections, Series 7–6, 4–7, 1–8



	AH7-6		AH7-6 AH4-7		AH1-8		
W (IN.)	WI (IN.)	WO (IN.)	WI (IN.)	WO (IN.)	WI (IN.)	WO (IN.)	
6	4.92	8.92	4.62	8.62	4.55	10.55	
9	7.92	11.92	7.62	11.62	7.55	13.55	
12	10.92	14.92	10.62	14.62	10.55	16.55	
18	16.92	20.92	16.62	20.62	16.55	22.55	
24	22.92	26.92	22.62	26.62	22.55	28.55	
30	28.92	32.92	28.62	32.62	28.55	34.55	
36	34.92	38.92	34.62	38.62	34.55	40.55	





Support Span

					FEET			
SERIES		18	20	22	24	26	28	30
	Load (lb./ft.)	228	185	153	128	109	94	82
AH7-6	Deflection (in.)	2.457	3.033	3.670	4.367	5.125	5.944	6.824
	Deflection Factor	.011	.016	.024	.034	.047	.063	.083
	Load (lb./ft.)	292	236	195	164	140	121	105
AH4-7	Deflection (in.)	1.869	2.308	2.793	3.324	3.901	4.524	5.193
	Deflection Factor	.006	.010	.014	.020	.028	.038	.049
	Load (lb./ft.)	522	423	350	294	250	216	188
AH1-8	Deflection (in.)	2.113	2.609	3.157	3.757	4.409	5.114	5.871
	Deflection Factor	.004	.006	.009	.013	.018	.024	.031

.....Specifications.....

- NEMA All: Exceed 20C
- UL Cross Sectional Area All: 2.00 in.²
- Side Rail Design Factors, 1 Pair AH7-6: lx: 21.96 in.⁴; Sx: 6.38 in.³; Area: 3.82 in.²; AH4-7: lx: 36.85 in.⁴; Sx: 9.08 in.³; Area: 4.65 in.²; AH1-8: lx: 58.36 in.⁴; Sx: 13.37 in.³; Area: 5.86 in.²
- Deflection Based on 36"-wide cable trays with trays supported as simple spans and deflection measured at the midpoint; continuous spans may reduce deflection by as much as 50%
- Deflection at Any Length For lighter loads, multiply Load x Deflection Factor



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354





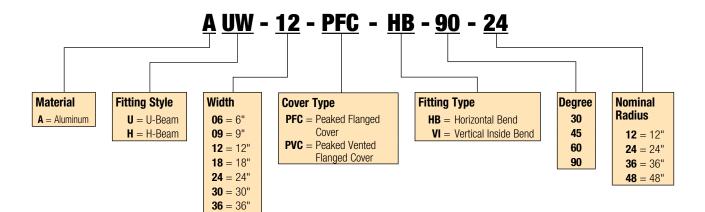


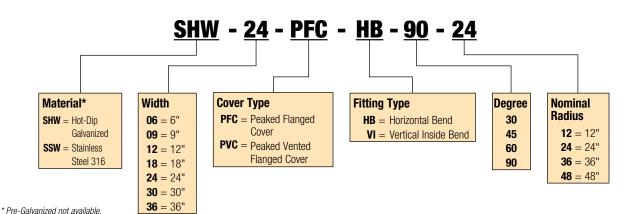
Options

Peaked Cover Components — **Horizontal Bends/Vertical Inside Bends**



Horizontal Bend







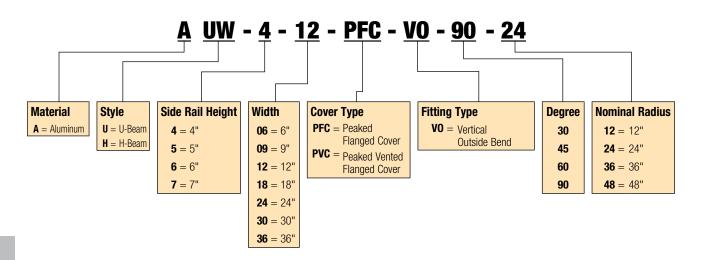


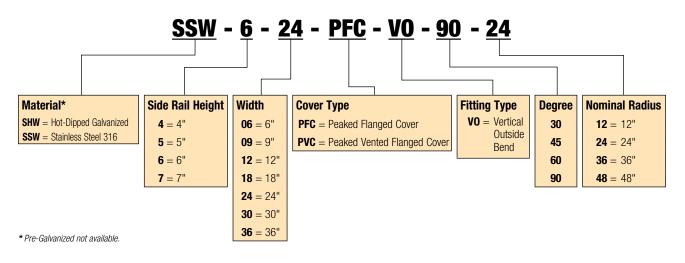
Thomas@Betts

Options

Peaked Cover Components — Vertical Outside Bends



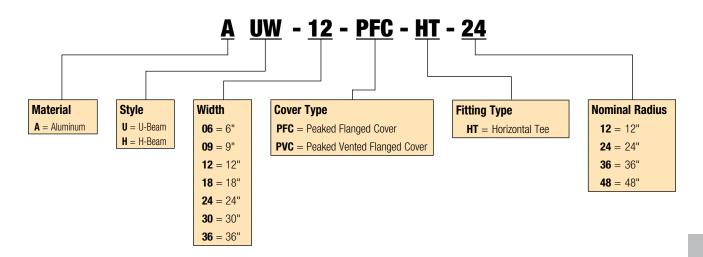


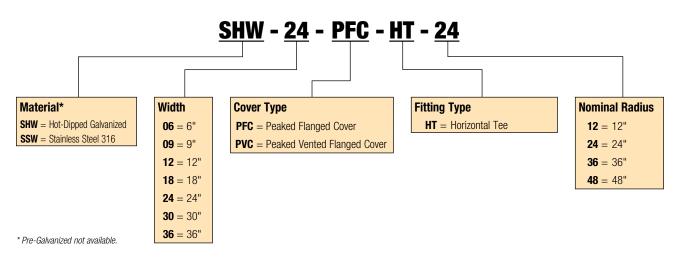


Options

Peaked Cover Components — Horizontal Tees











Thomas@Betts

Non-Metallic Tray

Why Specify T&B° Non-Metallic Cable Tray?

Non-Metallic Cable Tray Systems have been tested and proven in the harsh environment of the offshore oil and gas industry. Subject to the corrosive conditions inherent in petroleum products, plus the daily punishment of exposure to wind, weather and saltwater — Non-Metallic Cable Tray has stood up!

Non-Metallic Cable Tray gives you the load capacity of steel plus the inherent characteristics afforded by our Pultrusion Technology: non-conductive, non-magnetic and corrosion-resistant. Although light in weight, their strength-to-weight ratio surpasses that of equivalent steel products. Non-Metallic Cable Tray will not rust, nor does it ever require painting. Available in both polyester and vinylester resin systems, they are manufactured to meet ASTM E-84, Class 1 Flame Rating and self-extinguishing requirements of ASTM D-635.

The CSA/NEMA loadings are load-tested in accordance with NEMA/CSA guidelines.



Non-Metallic Cable Tray comes in two colors: Slate grey (polyester resin) and Beige (vinylester resin). Custom colors are available on request.





A surface veil is applied during the pultrusion process to ensure a resin-rich surface for superior corrosion resistance as well as an ultraviolet exposure barrier.



Horizontal and vertical drops, exterior installation.



Horizontal (suspended) tray, with vertical drop to machinery below



Horizontal bends change direction of tray suspended from deck above



United States

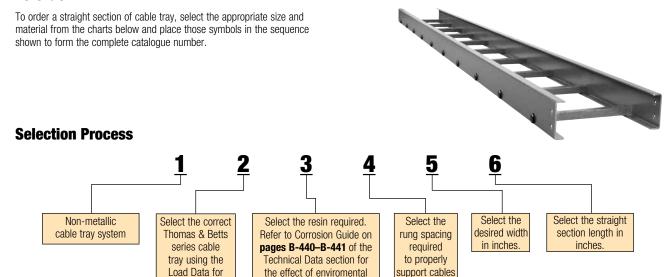
Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services** Tel: 888.862.3289



Non-Metallic Tray

Straight Section Catalog Numbering System

To Order

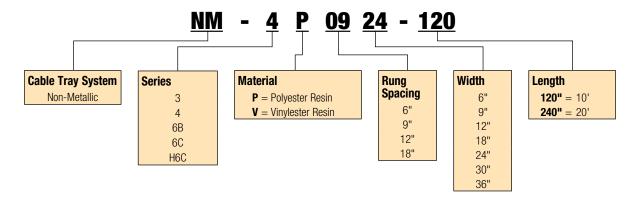


conditions on the desired

material. For the effective

temperature range, see page B-444 of the same section.

Straight Section Catalog Selector



Example: NM-4P0924-120 for 4' side rail, polyester resin, 9" rung spacing, 24" wide, 120" (10 ft) length. Note: One pair of stainless steel SS6 splice plates with SS6 hardware included with each length. For other types of splice plates, see page B-415-B-417.

straight sections

found on pages

B-388-B-392.



in tray.

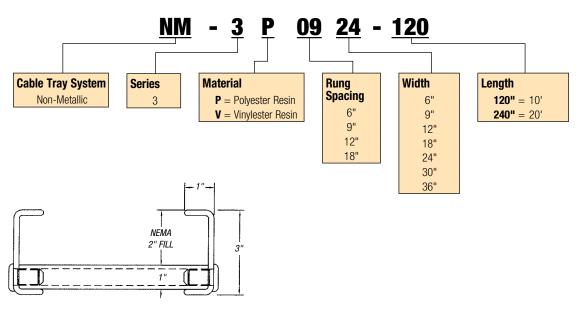


Non-Metallic Tray

3" Straight Section



Straight Section Catalog Selector



Side Rail Height: 3' (2" loading depth)

Specifications

	SAFETY			SUPPORT	SPAN (FT.)		
SERIES	FACTOR		6	8	10	12	14
		Design Load lb./ft.	257	145	93	64	47
3	1.5	Deflection in.	1.3	2.3	3.7	5.3	7.2
		K Factor	.005	.016	.040	.083	.153

Splice Plates

One pair of stainless steel SS6 splice plates with SS6 (316 Stainless Steel) hardware included.

Loading

- · CSA load class: C1/3M
- NEMA 8C
- 12" rung spacing

Deflection Factor

To calculate deflection at any span length for lighter loads than listed, multiply the load by the K factor.

When trays are used in continuous spans, the deflection of the tray is reduced by as much as 50%.



Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354



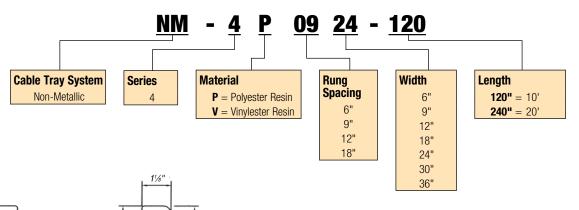




4" Straight Section



Straight Section Catalog Selector



Side Rail Height: 4" (3" loading depth)

NEMA 3" FILL

Specifications

	SAFETY			SUPPORT S	SPAN (FT.)		
SERIES	FACTOR		10	12	14	16	18
		Design Load lb./ft.	157	109	80	61	48
4	1.5	Deflection in.	2.1	3.0	4.0	5.3	6.7
		K Factor	.013	.028	.050	.087	.140

Splice Plates

One pair of stainless steel SS6 splice plates with SS6 (316 Stainless Steel) hardware included.

Loading

- · CSA load class: C1/3M
- NEMA 120
- 12" rung spacing

Deflection Factor

To calculate deflection at any span length for lighter loads than listed, multiply the load by the K factor.

When trays are used in continuous spans, the deflection of the tray is reduced by as much as 50%.





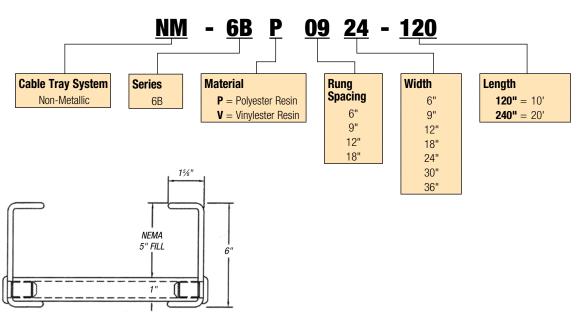


Non-Metallic Tray

6" Straight Section — 6B Series



Straight Section Catalog Selector



Specifications

	SAFETY			SUPPORT SF	PAN (FT.)		
SERIES	FACTOR		12	14	16	18	20
		Design Load lb./ft.	254	186	143	113	91
6B	1.5	Deflection in.	1.6	2.2	2.8	3.6	4.4
		K Factor	.006	.012	.020	.032	.048

Splice Plates

One pair of stainless steel SS6 splice plates with SS6 (316 Stainless Steel) hardware included.

Side Rail Height: 6" (5" loading depth)

Loading

- CSA load class: E/3M
- NEMA 20B
- 12" rung spacing

Deflection Factor

To calculate deflection at any span length for lighter loads than listed, multiply the load by the K factor.

When trays are used in continuous spans, the deflection of the tray is reduced by as much as 50%.



Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354





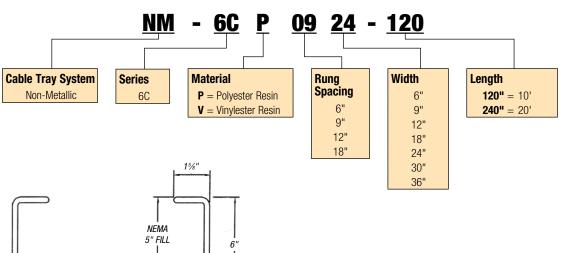


Non-Metallic Tray

6" Straight Section — 6C Series



Straight Section Catalog Selector



Side Rail Height: 6" (5" loading depth)

Specfications

	SAFETY			SUPPORT S	SPAN (FT.)		
SERIES	FACTOR		12	14	16	18	20
		Design Load lb./ft.	356	262	200	158	128
6C	1.5	Deflection in.	1.6	2.2	2.9	3.7	4.6
		K Factor	.004	.008	.015	.023	.136

Splice Plates

One pair of stainless steel SS6 splice plates with SS6 (316 Stainless Steel) hardware included.

Loading

- CSA load class: E/3M, D/6M
- NEMA 20C
- 12" rung spacing

Deflection Factor

To calculate deflection at any span length for lighter loads than listed, multiply the load by the K factor.

When trays are used in continuous spans, the deflection of the tray is reduced by as much as 50%.









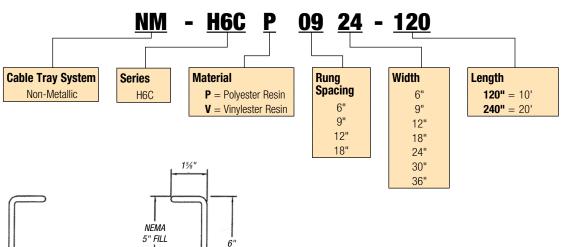
1-800-453-1692

Non-Metallic Tray

6" Straight Section — H6C Series



Straight Section Catalog Selector



Side Rail Height: 6" (5" loading depth)

Specifications

	SAFETY		SUPPORT SPAN (FT.)					
SERIES	FACTOR		12	14	16	18	20	
		Design Load lb./ft.	386	283	217	171	139	
	1.5	Deflection in.	1.8	2.4	3.2	4.0	5.0	
LICC		K Factor	.005	.008	.015	.023	.036	
H6C		Design Load lb./ft.	289	212	163	129	104	
	2.0	Deflection in.	1.3	1.8	2.4	3.0	3.7	
		K Factor	.004	.008	.015	.023	.036	

Splice Plates

One pair of stainless steel SS6 splice plates with SS6 (316 Stainless Steel) hardware included.

Loading

- CSA load class: *D/6M (* with safety factor of 1.5 only), E/3M
- NEMA 20C
- 12" rung spacing

Deflection Factor

To calculate deflection at any span length for lighter loads than listed, multiply the load by the K factor.

When trays are used in continuous spans, the deflection of the tray is reduced by as much as 50%.



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services**





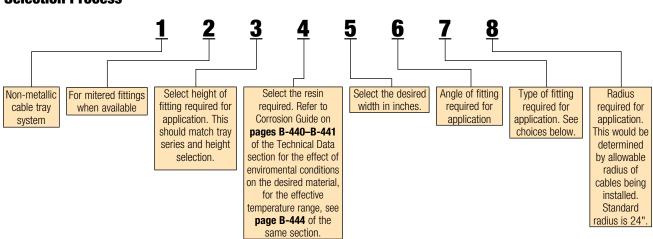


Fittings Catalog Numbering System

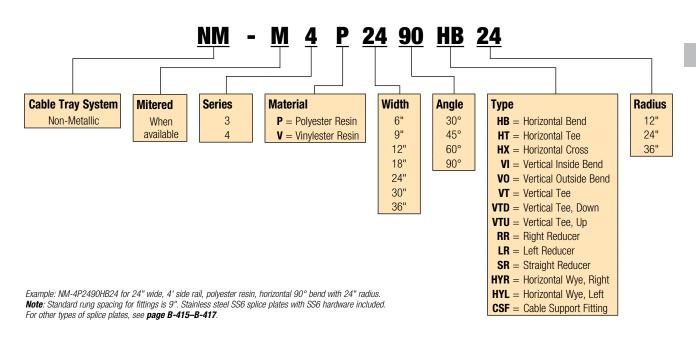
To Order

To order a fitting for a complete cable tray system, select the appropriate size, material, angle, type and radius from the charts below. Place those symbols in the sequence shown to form the complete catalogue number.

Selection Process



Fitting Section Catalog Selector





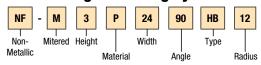
800.816.7809

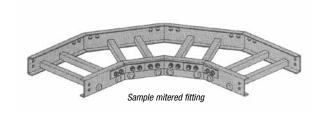
Fax: 901.252.1354

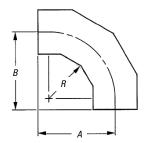
Non-Metallic Tray

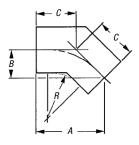
3" Horizontal Bends

Catalog Numbering System









90° Horizontal Bend

	TRAY		DIMEN	SIONS
-R- BEND Radius in.	WIDTH IN.	CAT. NO.	A IN.	B IN.
	6	NM-M3-(MATL)-06-90HB12	20%	20%
	9	NM-M3-(MATL)-09-90HB12	21%	21%
12	12	NM-M3-(MATL)-12-90HB12	223/4	223/4
	18	NM-M3-(MATL)-18-90HB12	265/16	265/16
	24	NM-M3-(MATL)-24-90HB12	29%	29%

45° Horizontal Bend

-R- BEND	TRAY		D	IMENSION	s
RADIUS IN.	WIDTH IN.	CAT. NO.	A IN.	B IN.	C IN.
	6	NM-M3-(MATL)-06-45HB12	2213/16	97/16	13%
	9	NM-M3-(MATL)-09-45HB12	231/8	91/8	14
12	12	NM-M3-(MATL)-12-45HB12	247/8	105/16	14%
	18	NM-M3-(MATL)-18-45HB12	27	113/16	15%
	24	NM-M3-(MATL)-24-45HB12	291//8	121/16	171/16

One pair of stainless steel SS6 splice plates with SS6 hardware included.

Standard rung spacing for fittings is 9". For other types of splice plates, see page B-415-B-417.

Dimensions for reference only, when critical contact factory. Consult factory for availability of molded fittings.





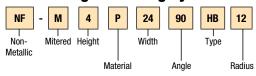
1-800-453-1692

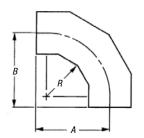


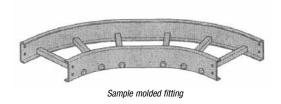


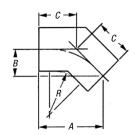
4" Horizontal Bends

Catalog Numbering System









90° Horizontal Bend

			DIMEN	ISIONS
-R- BEND Radius in.	TRAY WIDTH IN.	CAT. NO.	A IN.	B IN.
	6	NM-M4-(MATL)-06-90HB12	221/4	221/4
	9	NM-M4-(MATL)-09-90HB12	23¾	23¾
	12	†NM-M4-(MATL)-12-90HB12	251/4	251/4
12	18	†NM-M4-(MATL)-18-90HB12	281/4	281/4
	24	†NM-M4-(MATL)-24-90HB12	311/4	311/4
	30	†NM-M4-(MATL)-30-90HB12	341/4	341/4
	36	†NM-M4-(MATL)-36-90HB12	371/4	371/4
	6	†NM-M4-(MATL)-06-90HB24	341/4	341/4
	9	NM-M4-(MATL)-09-90HB24	35¾	34¾
	12	†NM-M4-(MATL)-12-90HB24	371/4	371/4
24	18	†NM-M4-(MATL)-18-90HB24	401/4	401/4
	24	†NM-M4-(MATL)-24-90HB24	431/4	431/4
	30	NM-M4-(MATL)-30-90HB24	461/4	461/4
	36	NM-M4-(MATL)-36-90HB24	491/4	491/4
	6	NM-M4-(MATL)-06-90HB36	445/8	445/8
	9	NM-M4-(MATL)-09-90HB36	461//8	461/8
	12	NM-M4-(MATL)-12-90HB36	475/8	475/8
36	18	NM-M4-(MATL)-18-90HB36	50%	50%
	24	NM-M4-(MATL)-24-90HB36	53%	535/8
	30	NM-M4-(MATL)-30-90HB36	56%	56%
	36	NM-M4-(MATL)-36-90HB36	59%	595/8

One pair of stainless steel SS6 splice plates with SS6 hardware included.

Standard rung spacing for fittings is 9". For other types of splice plates, see page B-415-B-417.

Dimensions for reference only, when critical contact factory. Consult factory for availability of molded fittings.

45° Horizontal Bend

-R-			D	IMENSION	IS
BEND Radius In.	TRAY WIDTH In.	CAT. NO.	A IN.	B IN.	C IN.
	6	NM-M4-(MATL)-06-45HB12	15¾	6½	93/16
	9	NM-M4-(MATL)-09-45HB12	16 ¹³ / ₁₆	10½	$9^{13}/_{16}$
12	12	†NM-M4-(MATL)-12-45HB12	171//8	73/8	101/16
	18	†NM-M4-(MATL)-18-45HB12	20	81/4	1111/16
	24	†NM-M4-(MATL)-24-45HB12	221/16	91//8	1215/16
	30	†NM-M4-(MATL)-30-45HB12	243/16	10	143/16
	36	†NM-M4-(MATL)-36-45HB12	265/16	1015/16	157/16
	6	†NM-M4-(MATL)-06-45HB24	243/16	10	143/16
	9	NM-M4-(MATL)-09-45HB24	251/4	10½	1413/16
	12	†NM-M4-(MATL)-12-45HB24	265/16	$10^{15}/_{16}$	151/16
24	18	†NM-M4-(MATL)-18-45HB24	287/16	11 ¹³ / ₁₆	1611/16
	24	†NM-M4-(MATL)-24-45HB24	30%16	1211/16	1715/16
	30	NM-M4-(MATL)-30-45HB24	3211/16	131/16	191/8
	36	NM-M4-(MATL)-36-45HB24	3413/16	147/16	20%
	6	NM-M4-(MATL)-06-45HB36	39%	161/2	23%
	9	NM-M4-(MATL)-09-45HB36	4015/16	16¹5⁄16	2315/16
	12	NM-M4-(MATL)-12-45HB36	42	17%	241/16
36	18	NM-M4-(MATL)-18-45HB36	441/8	183/16	2513/16
	24	NM-M4-(MATL)-24-45HB36	463/16	191/8	271/16
	30	NM-M4-(MATL)-30-45HB36	485/16	20	285/16
	36	NM-M4-(MATL)-36-45HB36	507/16	20%	291/16



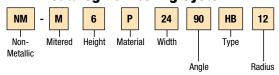


[†] Denotes molded fitting available.

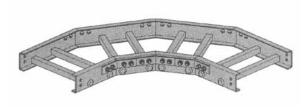
Non-Metallic Tray

6" Horizontal Bends

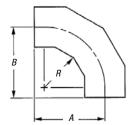
Catalog Numbering System

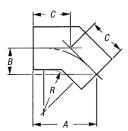


[†] For molded fitting, if available, please remove "M" in the catalogue number Ex: NM-6P2490HB12



Sample mitered fitting





90° Horizontal Bend

-R-	TDAY		DIMEN	ISIONS
BEND Radius In.	TRAY WIDTH In.	CAT. NO.	A (IN.)	B (IN.)
	6	NM-M6-(MATL)-06-90HB12	20%	20%
	9	NM-M6-(MATL)-09-90HB12	21%	21%
	12	NM-M6-(MATL)-12-90H812	223/4	22¾
12	18	NM-M6-(MATL)-18-90HB12	265/16	265/16
	24	NM-M6-(MATL)-24-90HB12	29%	29%
	30	NM-M6-(MATL)-30-90HB12	32¾	32¾
	36	NM-M6-(MATL)-36-90HB12	35%	35%
	6	NM-M6-(MATL)-06-90HB24	341/4	341/4
	9	NM-M6-(MATL)-09-90HB24	351/4	35¾
	12	†NM-M6-(MATL)-12-90HB24	371/4	371/4
24	18	†NM-M6-(MATL)-18-90HB24	401/4	401/4
	24	†NM-M6-(MATL)-24-90HB24	431/4	431/4
	30	NM-M6-(MATL)-30-90HB24	461/4	461/4
	36	†NM-M6-(MATL)-36-90HB24	491/4	491/4
	6	NM-M6-(MATL)-06-90HB36	461/4	461/4
	9	NM-M6-(MATL)-09-90HB36	47¾	47¾
	12	NM-M6-(MATL)-12-90HB36	491/4	491/4
36	18	NM-M6-(MATL)-18-90HB36	521/4	521/4
	24	NM-M6-(MATL)-24-90HB36	551/4	551/4
	30	NM-M6-(MATL)-30-90HB36	581/4	581/4
	36	NM-M6-(MATL)-36-90HB36	611/4	611/4

45° Horizontal Bend

-R- Bend	TRAY			IMENSION	S
RADIUS	WIDTH				
IN.	IN.	CAT. NO.	A (IN.)	B (IN.)	C (IN.)
	6	NM-M6-(MATL)-06-45HB12	2213/16	97/16	13%
	9	NM-M6-(MATL)-09 45HB12	231/8	97/8	14
	12	NM-M6-(MATL)-12-45HB12	241//8	105/16	14%
12	18	NM-M6-(MATL)-18-45HB12	27	113/16	15%
	24	NM-M6-(MATL)-24-45HB12	291/8	121/16	171/16
	30	NM-M6-(MATL)-30-45HB12	311/4	12 ¹⁵ /16	185/16
	36	NM-M6-(MATL)-36-45HB12	33%	1313/16	191/16
	6	NM-M6-(MATL)-06-45HB24	243/16	10	143/16
	9	NM-M6-(MATL)-09-45HB24	251/4	10½	1413/16
	12	†NM-M6-(MATL)-12-45HB24	265/16	10 ¹⁵ / ₁₆	157/16
24	18	†NM-M6-(MATL)-18-45HB24	287/16	11 ¹³ ⁄ ₁₆	16 ¹ / ₁₆
	24	†NM-M6-(MATL)-24-45HB24	30%16	1211/16	17¹5⁄₁6
	30	NM-M6-(MATL)-30-45HB24	3211/16	131/16	191/8
	36	†NM-M6-(MATL)-36-45HB24	3413/16	147/16	20%
	6	NM-M6-(MATL)-06-45HB36	3211/16	13%	191//8
	9	NM-M6-(MATL)-09-45HB36	33¾	14	19¾
	2	NM-M6-(MATL)-12-45HB36	3413/16	147/16	20%
36	18	NM-M6-(MATL)-18-45HB36	$36^{15}/_{16}$	151/16	21%
	24	NM-M6-(MATL)-24-45HB36	391/16	163/16	221//8
	30	NM-M6-(MATL)-30-45HB36	413/16	171/16	241/8
	36	NM-M6-(MATL)-36-45HB36	435/16	17 ¹⁵ /16	25%

One pair of stainless steel SS6 splice plates with SS6 hardware included.

Standard rung spacing for fittings is 9". For other types of splice plates, see page B-415-B-417.

Dimensions for reference only, when critical contact factory. Consult factory for availability of molded fittings.





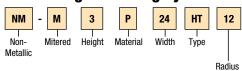




[†] Denotes molded fitting available.

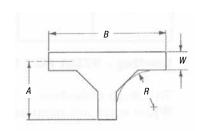
3" Horizontal Tee and Cross

Catalog Numbering System



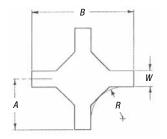


Sample mitered fitting





Sample mitered fitting



Horizontal Tee

-R-	TDAY		DIMENSIONS		
BEND Radius In.	TRAY WIDTH In.	CAT. NO.	A IN.	B IN.	
	6	NM-M3-(MATL)-06-HT12	191/4	38	
	9	NM-M3-(MATL)-09-HT12	203/4	411/2	
12	12	NM-M3-(MATL)-12-HT12	221/4	441/2	
	18	NM-M3-(MATL)-18-HT12	251/4	50½	
	24	NM-M3-(MATL)-24-HT12	281/4	561/2	

Horizontal Cross

-R-			DIMENSIONS	
BEND Radius In.	TRAY WIDTH In.	CAT. NO.	A IN.	B IN.
	6	NM-M3-(MATL)-06-45HX12	191/4	38½
	9	NM-M3-(MATL)-09-45HX12	203/4	411/2
12	12	NM-M3-(MATL)-12-45HX12	221/4	441/2
	18	NM-M3-(MATL)-18-45HX12	251/4	50½
	24	NM-M3-(MATL)-24-45HX12	281/4	56½

Two pairs of stainless steel SS6 splice plates with SS6 hardware included.

Standard rung spacing for fittings is 9". For other types of splice plates, see page B-415-B-417.

Dimensions for reference only, when critical contact factory. Consult factory for availability of molded fittings.





800.816.7809

Fax: 901.252.1354

1-800-453-1692 www.aboveboardelectronics.com



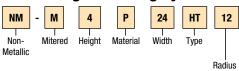
Tel: 888



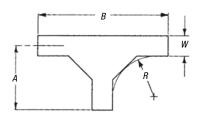
Non-Metallic Tray

4" Horizontal Tee and Cross

Catalog Numbering System



† For molded fitting, if available, please remove "M" in the catalogue number. Ex: NM-4P-24HT12





Sample mitered fitting

W

Horizontal Tee

-R-			DIMEN	ISIONS
BEND Radius In.	TRAY WIDTH IN.	CAT. NO.	A IN.	B IN.
	6	†NM-M4-(MATL)-06-HT12	221/4	441/2
	9	†NM-M4-(MATL)-09-HT12	23¾	471/2
	12	†NM-M4-(MATL)-12-HT12	251/4	50½
12	18	†NM-M4-(MATL)-18-HT12	281/4	56½
	24	†NM-M4-(MATL)-24-HT12	311/4	621/2
	30	†NM-M4-(MATL)-30-HT12	341/4	681/2
	36	†NM-M4-(MATL)-36-HT12	371/4	74½
	6	†NM-M4-(MATL)-06-HT24	341/4	68½
	9	†NM-M4-(MATL)-09-HT24	35¾	71½
	12	†NM-M4-(MATL)-12-1-M4	371/4	741/2
24	18	†NM-M4-(MATL)-18-HT24	401/4	801/2
	24	†NM-M4-(MATL)-24-HT24	431/4	861/2
	30	†NM-M4-(MATL)-30-HT24	461/4	921/2
	36	†NM-M4-(MATL)-36-HT24	491/4	98½
	6	NM-M4-(MATL)-06-HT36	431/4	861/2
	9	NM-M4-(MATL)-09-HT36	44¾	89½
	12	NM-M4-(MATL)-12-HT36	461/4	921/2
36	18	NM-M4-(MATL)-18-HT36	491/4	98½
	24	NM-M4-(MATL)-24-HT36	521/4	104½
	30	NM-M4-(MATL)-30-HT36	551/4	110½
	36	NM-M4-(MATL)-36-HT36	581/4	116½

Horizontal Cross

-R-			DIMEN	ISIONS
BEND Radius In.	TRAY WIDTH In.	CAT. NO.	A IN.	B IN.
	6	†NM-M4-(MATL)-06-HX12	221/4	441/2
	9	†NM-M4-(MATL)-09-HX12	23¾	471/2
	12	†NM-M4-(MATL)-12-HX12	251/4	501/2
12	18	†NM-M4-(MATL)-18-HX12	281/4	561/2
	24	†NM-M4-(MATL)-24-HX12	311/4	621/2
	30	†NM-M4-(MATL)-30-HX12	341/4	681/2
	36	†NM-M4-(MATL)-36-HX12	371/4	74½
	6	†NM-M4-(MATL)-06-HX24	341/4	681/2
	9	†NM-M4-(MATL)-09-HX24	35¾	71½
	12	†NM-M4-(MATL)-12-HX24	371/4	741/2
24	18	†NM-M4-(MATL)-18-HX24	401/4	801/2
	24	†NM-M4-(MATL)-24-HX24	431/4	861/2
	30	†NM-M4-(MATL)-30-HX24	461/4	921/2
	36	†NM-M4-(MATL)-36-HX24	491/4	981/2
	6	NM-M4-(MATL)-06-HX36	431/4	86½
	9	NM-M4-(MATL)-09-HX36	443/4	89½
	12	NM-M4-(MATL)-12-HX36	461/4	921/2
36	18	NM-M4-(MATL)-18-HX36	491/4	98½
	24	NM-M4-(MATL)-24-HX36	521/4	1041/2
	30	NM-M4-(MATL)-30-HX36	551/4	1101/2
	36	NM-M4-(MATL)-36-HX36	581/4	1161/2

Standard rung spacing for fittings is 9". For other types of splice plates, see page B-415-B-417.

Dimensions for reference only, when critical contact factory. Consult factory for availability of molded fittings.







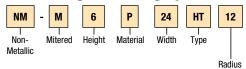


Two pairs of stainless steel SS6 splice plates with SS6 hardware included.

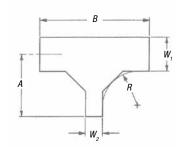
[†] Denotes molded fitting available.

6" Horizontal Tee and Cross

Catalog Numbering System



† For molded fitting, if available, please remove "M" in the catalogue number. Ex: NM-6P24HT12



Sample mitered fitting

Horizontal Tee

-R-			DIMENS	SIONS
BEND Radius In.	TRAY WIDTH In.	CAT. NO.	A IN.	B IN.
	6	NM-M6-(MATL)-06-HT12	191/4	38
	9	NM-M6-(MATL)-09-HT12	20¾	41
	12	NM-M6-(MATL)-12-HT12	221/4	44
12	18	NM-M6-(MATL)-18-HT12	251/4	50
	24	NM-M6-(MATL)-24-HT12	281/4	56
	30	NM-M6-(MATL)-30-HT12	311/4	62
	36	NM-M6-(MATL)-36-HT12	341/4	68
	6	†NM-M6-(MATL)-06-HT24	341/4	68½
	9	†NM-M6-(MATL)-09-HT24	35¾	71½
	12	†NM-M6-(MATL)-12-HT24	371/4	74½
24	18	†NM-M6-(MATL)-18-HT24	401/4	81½
	24	†NM-M6-(MATL)-24-HT24	431/4	86½
	30	†NM-M6-(MATL)-30-HT24	461/4	92½
	36	†NM-M6-(MATL)-36-HT24	491/4	98½
	6	NM-M6-(MATL)-06-HT36	461/4	92½
	9	NM-M6-(MATL)-09-HT36	47¾	95½
	12	NM-M6-(MATL)-12-HT36	491/4	98½
36	18	NM-M6-(MATL)-18-HT36	521/4	104½
	24	NM-M6-(MATL)-24-HT36	551/4	110½
	30	NM-M6-(MATL)-30-HT36	581/4	116½
	36	NM-M6-(MATL)-36-HT36	611/4	122½

Horizontal Cross

-R-			DIME	ISIONS
BEND Radius In.	TRAY WIDTH In.	CAT. NO.	A IN.	B IN.
	6	NM-M6-(MATL)-06-HX12	191/4	38
	9	NM-M6-(MATL)-09-HX12	203/4	41
	12	NM-M6-(MATL)-12-HX12	221/4	44
12	18	NM-M6-(MATL)-18-HX12	251/4	50
	24	NM-M6-(MATL)-24-HX12	281/4	56
	30	NM-M6-(MATL)-30-HX12	311/4	62
	36	NM-M6-(MATL)-36-HX12	341/4	68
	6	†NM-M6-(MATL)-06-HX24	341/4	681/2
	9	†NM-M6-(MATL)-09-HX24	35¾	711/2
	12	†NM-M6-(MATL)-12-HX24	371/4	741/2
24	18	†NM-M6-(MATL)-18-HX24	401/4	801/2
	24	†NM-M6-(MATL)-24-HX24	431/4	86½
	30	†NM-M6-(MATL)-30-HX24	461/4	921/2
	36	†NM-M6-(MATL)-36-HX24	491/4	981/2
	6	NM-M6-(MATL)-06-HX36	461/4	921/2
	9	NM-M6-(MATL)-09-HX36	47¾	951/2
	12	NM-M6-(MATL)-12-HX36	491/4	981/2
36	18	NM-M3-(MATL)-18-HX36	521/4	104½
	24	NM-M3-(MATL)-24-HX36	551/4	110½
	30	NM-M3-(MATL)-30-HX36	581/4	116½
	36	NM-M3-(MATL)-36-HX36	611/4	1221/2

≒ ⊙

Two pairs of stainless steel SS6 splice plates with SS6 hardware included.

Standard rung spacing for fittings is 9". For other types of splice plates, see page B-415-B-417.

Dimensions for reference only, when critical contact factory. Consult factory for availability of molded fittings.







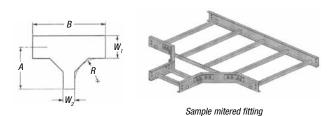
1-800-453-1692



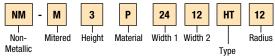
[†] Denotes molded fitting available.

Non-Metallic Tray

3" Horizontal Reducing Tee



Catalog Numbering System



			_		_	_		
NM	-	M	3	P	24	12	нт	12
Non- Metallic	N	/litered	Height	Material	Width 1	Width 2	Type	Radius

Horizontal Reducing Tee

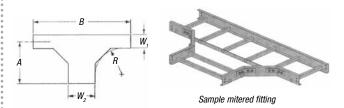
TRAY	WIDTH		12" R	ADIUS
W1 IN.	W2 IN.	CAT. NO.	A IN.	B IN.
9	6	NM-M3-(MATL)-09-06-HT12	20¾	38½
12	6	NM-M3-(MATL)-12-06-HT12	221/4	38½
12	9	NM-M3-(MATL)-12-09-HT12	221/4	41½
	6	NM-M3-(MATL)-18-06-HT12	251/4	38½
18	9	NM-M3-(MATL)-18-09-HT12	251/4	411/2
	12	NM-M3-(MATL)-18-12-HT12	251/4	411/2
	6	NM-M3-(MATL)-24-06-HT12	281/4	38½
24	9	NM-M3-(MATL)-24-09-HT12	281/4	411/2
24	12	NM-M3-(MATL)-24-12-HT12	281/4	441/2
	18	NM-M3-(MATL)-24-18-HT12	281/4	50½

Two pair of stainless steel SS6 splice plates with SS6 hardware included.

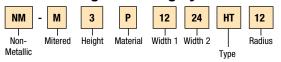
Standard rung spacing for fittings is 9". For other types of splice plates, see page B-415-B-417.

Dimensions for reference only, when critical contact factory. Consult factory for availability of molded fittings.

3" Horizontal Expanding Tee



Catalog Numbering System



Horizontal Expanding Tee

TRAY	WIDTH		12" RADIUS	
W1 IN.	W2 IN.	CAT. NO.	A IN.	B IN.
	9	NM-M3-(MATL)-06-09-HT12	191/4	41½
9	12	NM-M3-(MATL)-12-12-HT12	191/4	441/2
9	18	NM-M3-(MATL)-06-18-HT12	191/4	50½
	24	NM-M3-(MATL)-06-24-HT12	191/4	56½
	12	NM-M3-(MATL)-09-12-HT12	20¾	441/2
12	18	NM-M3-(MATL)-09-18-HT12	20¾	50½
12	24	NM-M3-(MATL)-09-24-HT12	20¾	56½
	18	NM-M3-(MATL)-12-18-HT12	221/4	50½
18	24	NM-M3-(MATL)-12-24-HT12	221/4	50½
24	24	NM-M3-(MATL)-18-24-HT12	251/4	56½





1-800-453-1692

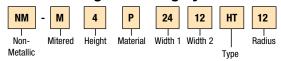


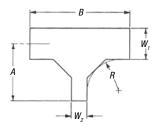
Fax: 901.252.1354



4" Horizontal Reducing Tee

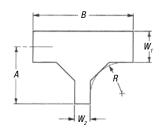
Catalog Numbering System







Sample mitered fitting



Horizontal Reducing Tee — 12" or 24" Radius

			11000100			
TRAY	WIDTH	CAT. NO.	12" RADIUS		24" R	ADIUS
W1 IN.	W2 IN.	*INSERT RADIUS (12" OR 24")	A IN.	B IN.	A IN.	B IN.
9	6	NM-M4-(MATL)-09-06-HT*	23¾	441/2	35¾	68½
12	6	NM-M4-(MATL)-12-06-HT*	251/4	441/2	371/4	681/2
12	9	NM-M4-(MATL)-12-09-HT*	251/4	47½	371/4	71½
	6	NM-M4-(MATL)-18-06-HT*	281/4	441/2	401/4	681/2
18	9	NM-M4-(MATL)-18-09-HT*	281/4	471/2	401/4	71½
	12	NM-M4-(MATL)-18-12-HT*	281/4	50½	401/4	741/2
	6	NM-M4-(MATL)-24-06-HT*	311/4	441/2	431/4	681/2
0.4	9	NM-M4-(MATL)-24-09-HT*	311/4	471/2	431/4	711/2
24	12	NM-M4-(MATL)-24-12-HT*	311/4	50½	431/4	741/2
	18	NM-M4-(MATL)-24-18-HT*	311/4	56½	431/4	801/2
	6	NM-M4-(MATL)-30-06-HT*	341/4	441/2	461/4	681/2
	9	NM-M4-(MATL)-30-09-HT*	341/4	471/2	461/4	711/2
30	12	NM-M4-(MATL)-30-12-HT*	341/4	50½	461/4	741/2
	18	NM-M4-(MATL)-30-18-HT*	341/4	56½	461/4	801/2
	24	NM-M4-(MATL)-30-24-HT*	341/4	621/2	461/4	861/2
	6	NM-M4-(MATL)-36-06-HT*	371/4	441/2	491/4	681/2
	9	NM-M4-(MATL)-36-09-HT*	371/4	471/2	491/4	711/2
26	12	NM-M4-(MATL)-36-12-HT*	371/4	50½	491/4	741/2
36	18	NM-M4-(MATL)-36-18-HT*	371/4	56½	491/4	801/2
	24	NM-M4-(MATL)-36-24-HT*	371/4	62½	491/4	861/2
	30	NM-M4-(MATL)-36-30-HT*	371/4	681/2	491/4	921/2

Horizontal Reducing Tee — 36" Radius

TRAY WIDTH		CAT. NO.	36" F	RADIUS
W1 IN.	W2 IN.	*INSERT RADIUS (36")	A IN.	B IN.
9	6	NM-M4-(MATL)-09-06-HT36	443/4	86½
12	6	NM-M4-(MATL)-12-06-HT36	461/4	861/2
12	9	NM-M4-(MATL)-12-09-HT36	461/4	891/2
	6	NM-M4-(MATL)-18-06-HT36	491/4	861/2
18	9	NM-M4-(MATL)-18-09-HT36	491/4	891/2
	12	NM-M4-(MATL)-18-12-HT36	491/4	921/2
	6	NM-M4-(MATL)-24-06-HT36	521/4	861/2
0.4	9	NM-M4-(MATL)-24-09-HT36	521/4	891/2
24	12	NM-M4-(MATL)-24-12-HT36	521/4	921/2
	18	NM-M4-(MATL)-24-18-HT36	521/4	981/2
	6	NM-M4-(MATL)-30-06-HT36	551/4	861/2
	9	NM-M4-(MATL)-30-09-HT36	551/4	89½
30	12	NM-M4-(MATL)-30-12-HT36	551/4	921/2
	18	NM-M4-(MATL)-30-18-HT36	551/4	98½
	24	NM-M4-(MATL)-30-24-HT36	551/4	104½
	6	NM-M4-(MATL)-36-06-HT36	581/4	86½
	9	NM-M4-(MATL)-36-09-HT36	581/4	89½
00	12	NM-M4-(MATL)-36-12-HT36	581/4	921/2
36	18	NM-M4-(MATL)-36-18-HT36	581/4	981/2
	24	NM-M4-(MATL)-36-24-HT36	581/4	1041/
	30	NM-M4-(MATL)-36-30-HT36	581/4	1101/

Two pair of stainless steel SS6 splice plates with SS6 hardware included.

Standard rung spacing for fittings is 9". For other types of splice plates, see page B-415-B-417.

Dimensions for reference only, when critical contact factory. Consult factory for availability of molded fittings.

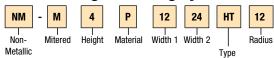


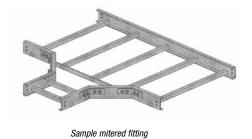


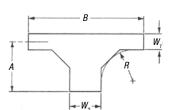
Non-Metallic Tray

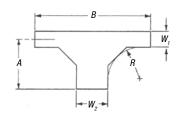
4" Horizontal Expanding Tee

Catalog Numbering System









Horizontal Expanding Tee — 12" or 24" Radius

TRAY	WIDTH	CAT. NO.	12" R	ADIUS	24" R	ADIUS
W1 IN.	W2 IN.	*INSERT RADIUS (12" OR 24")	A IN.	B IN.	A IN.	B IN.
	9	NM-M4-(MATL)-06-09-HT*	221/4	471/2	341/4	71½
	12	NM-M4-(MATL)-06-12-HT*	221/4	50½	341/4	741/2
6	18	NM-M4-(MATL)-06-18-HT*	221/4	561/2	341/4	801/2
O	24	NM-M4-(MATL)-06-24-HT*	221/4	621/2	341/4	86½
	30	NM-M4-(MATL)-06-30-HT*	221/4	681/2	341/4	921/2
	36	NM-M4-(MATL)-06-36-HT*	221/4	74½	341/4	98½
	12	NM-M4-(MATL)-09-12-HT*	23¾	50½	35¾	74½
	18	NM-M4-(MATL)-09-18-HT*	23¾	56½	35¾	801/2
9	24	NM-M4-(MATL)-09-24-HT*	23¾	621/2	35¾	861/2
	30	NM-M4-(MATL)-09-30-HT*	23¾	681/2	35¾	921/2
	36	NM-M4-(MATL)-09-36-HT*	23¾	741/2	35¾	981/2
	18	NM-M4-(MATL)-12-18-HT*	251/4	56½	371/4	80½
12	24	NM-M4-(MATL)-12-24-HT*	251/4	621/2	371/4	861/2
12	30	NM-M4-(MATL)-12-30-HT*	251/4	681/2	371/4	921/2
	36	NM-M4-(MATL)-12-36-HT*	251/4	74½	371/4	98½
	24	NM-M4-(MATL)-18-24-HT*	281/4	621/2	401/4	86½
18	30	NM-M4-(MATL)-18-30-HT*	281/4	681/2	401/4	921/2
	36	NM-M4-(MATL)-18-36-HT*	281/4	74½	401/4	98½
24	30	NM-M4-(MATL)-24-30-HT*	31¼	68½	431/4	921/2
	36	NM-M4-(MATL)-24-36-HT*	31¼	74½	431/4	98½
30	36	NM-M4-(MATL)-30-36-HT*	341/4	74½	461/4	98½

Horizontal Expanding Tee — 36" Radius

TRAY WIDTH		CAT. NO.	36" R	ADIUS
W1 IN.	W2 IN.	*INSERT RADIUS (36")	A IN.	B IN.
	9	NM-M4-(MATL)-06-09-HT36	431/4	89½
	12	NM-M4-(MATL)-06-12-HT36	431/4	92½
6	18	NM-M4-(MATL)-06-18-HT36	431/4	98½
O	24	NM-M4-(MATL)-06-24-HT36	431/4	104½
	30	NM-M4-(MATL)-06-30-HT36	431/4	110½
	36	NM-M4-(MATL)-06-36-HT36	431/4	116½
	12	NM-M4-(MATL)-09-12-HT36	443/4	92½
	18	NM-M4-(MATL)-09-18-HT36	443/4	981/2
9	24	NM-M4-(MATL)-09-24-HT36	443/4	104½
	30	NM-M4-(MATL)-09-30-HT36	443/4	110½
	36	NM-M4-(MATL)-09-36-HT36	443/4	116½
	18	NM-M4-(MATL)-12-18-HT36	461/4	98½
10	24	NM-M4-(MATL)-12-24-HT36	461/4	104½
12	30	NM-M4-(MATL)-12-30-HT36	461/4	110½
	36	NM-M4-(MATL)-12-36-HT36	461/4	116½
	24	NM-M4-(MATL)-18-24-HT36	491/4	104½
18	30	NM-M4-(MATL)-18-30-HT36	491/4	110½
	36	NM-M4-(MATL)-18-36-HT36	491/4	116½
24	30	NM-M4-(MATL)-24-30-HT36	521/4	110½
24	36	NM-M4-(MATL)-24-36-HT36	521/4	116½
30	36	NM-M4-(MATL)-30-36-HT36	521/4	116½

Two pair of stainless steel SS6 splice plates with SS6 hardware included.

Standard rung spacing for fittings is 9". For other types of splice plates, see page B-415-B-417.

Dimensions for reference only, when critical contact factory. Consult factory for availability of molded fittings.





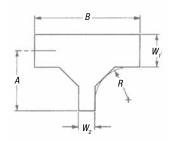




6" Horizontal Reducing Tee

Catalog Numbering System





Horizontal Reducing Tee — 12" Radius

TRAY	WIDTH		12" R	ADIUS
W1 IN.	W2 IN.	CAT. NO.	A IN.	B IN.
9	6	NM-M6-(MATL)-09-06-HT12	203/4	38½
12	6	NM-M6-(MATL)-12-06-HT12	221/2	38½
12	9	NM-M6-(MATL)-12-09-HT12	221/4	411/2
	6	NM-M6-(MATL)-18-06-HT12	251/4	38½
18	9	NM-M6-(MATL)-18-09-HT12	251/4	411/2
	12	NM-M6-(MATL)-18-12-HT12	251/4	441/2
	6	NM-M6-(MATL)-24-06-HT12	281/4	38½
24	9	NM-M6-(MATL)-24-09-HT12	281/4	411/2
24	12	NM-M6-(MATL)-24-12-HT12	281/4	441/2
	18	NM-M6-(MATL)-24-18-HT12	281/4	50½
	6	NM-M6-(MATL)-30-06-HT12	311/4	38½
	9	NM-M6-(MATL)-30-09-HT12	311/4	411/2
30	12	NM-M6-(MATL)-30-12-HT12	311/4	441/2
	18	NM-M6-(MATL)-30-18-HT12	311/4	50½
	24	NM-M6-(MATL)-30-24-HT12	311/4	561/2
	6	NM-M6-(MATL)-36-06-HT12	341/4	38½
	9	NM-M6-(MATL)-36-09-HT12	341/4	411/2
36	12	NM-M6-(MATL)-36-12-HT12	341/4	
30	18	NM-M6-(MATL)-36-18-HT12	341/4	50½
	24	NM-M6-(MATL)-36-24-HT12	341/4	561/2
	30	NM-M6-(MATL)-36-30-HT12	341/4	62½

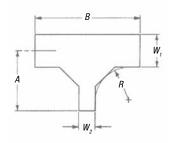
Two pair of stainless steel SS6 splice plates with SS6 hardware included.

Standard rung spacing for fittings is 9". For other types of splice plates, see page B-415-B-417.

Dimensions for reference only, when critical contact factory. Consult factory for availability of molded fittings.



Sample mitered fitting



Horizontal Reducing Tee — 24" or 36" Radius

110112	Oiitai	illoudollig foc 24 of	oo na	aido		
TRAY	WIDTH	CAT. NO.	24" R	ADIUS	36" R	ADIUS
W1 IN.	W2 IN.	*INSERT RADIUS (24" OR 36")	A IN.	B IN.	A IN.	B IN
9	6	NM-M6-(MATL)-09-06HT*	35¾	68½	47¾	92½
12	6	NM-M6-(MATL)-12-06HT*	371/4	68½	491/4	921/2
12	9	NM-M6-(MATL)-12-09HT*	371/4	71½	491/4	95½
	6	NM-M6-(MATL)-18-06HT*	401/4	68½	521/4	92½
18	9	NM-M6-(MATL)-18-09HT*	401/4	71½	521/4	95½
	12	NM-M6-(MATL)-18-12HT*	401/4	74½	521/4	98½
	6	NM-M6-(MATL)-24-06HT*	431/4	68½	551/4	921/2
24	9	NM-M6-(MATL)-24-09HT*	431/4	71½	551/4	95½
24	12	NM-M6-(MATL)-24-12HT*	431/4	74½	551/4	981/2
	18	NM-M6-(MATL)-24-18HT*	431/4	80½	551/4	104½
	6	NM-M6-(MATL)-30-06HT*	461/4	68½	581/4	921/2
	9	NM-M6-(MATL)-30-09HT*	461/4	71½	581/4	95½
30	12	NM-M6-(MATL)-30-12HT*	461/4	74½	581/4	981/2
	18	NM-M6-(MATL)-30-18HT*	461/4	80½	581/4	104½
	24	NM-M6-(MATL)-30-24HT*	461/4	80½	581/4	110½
	6	NM-M6-(MATL)-36-06HT*	491/4	68½	611/4	92½
	9	NM-M6-(MATL)-36-09HT*	491/4	71½	611/4	95½
36	12	NM-M6-(MATL)-36-12HT*	491/4	74½	611/4	98½
30	18	NM-M6-(MATL)-36-18HT*	491/4	80½	611/4	104½
	24	NM-M6-(MATL)-36-24HT*	491/4	86½	611/4	110½
	30	NM-M6-(MATL)-36-30HT*	491/4	92½	611/4	116½

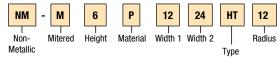


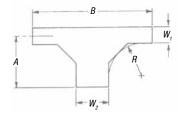


Non-Metallic Tray

6" Horizontal Expanding Tee

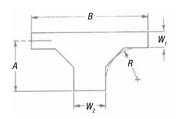
Catalog Numbering System







Sample mitered fitting



Horizontal Expanding Tee — 12" Radius

TRAY WIDTH			12" R	ADIUS
W1 IN.	W2 IN.	CAT. NO.	A IN.	B IN.
	9	NM-M6-(MATL)-06-09-HT12	191/4	41½
	12	NM-M6-(MATL)-06-12-HT12	191/4	441/2
6	18	NM-M6-(MATL)-06-18-HT12	191/4	501/2
0	24	NM-M6-(MATL)-06-24-HT12	191/4	56½
	30	NM-M6-(MATL)-06-30-HT12	191/4	621/2
	36	NM-M6-(MATL)-06-36-HT12	191/4	681/2
	12	NM-M6-(MATL)-09-12-HT12	203/4	441/2
	18	NM-M6-(MATL)-09-18-HT12	203/4	50½
9	24	NM-M6-(MATL)-09-24-HT12	203/4	561/2
	30	NM-M6-(MATL)-09-30-HT12	203/4	621/2
	36	NM-M6-(MATL)-09-36-HT12	203/4	681/2
	18	NM-M6-(MATL)-12-18-HT12	221/4	50½
10	24	NM-M6-(MATL)-12-24-HT12	221/4	561/2
12	30	NM-M6-(MATL)-12-30-HT12	221/4	621/2
	36	NM-M6-(MATL)-12-36-HT12	221/4	681/2
	24	NM-M6-(MATL)-18-24-HT12	251/4	56½
18	30	NM-M6-(MATL)-18-30-HT12	251/4	621/2
	36	NM-M6-(MATL)-18-36-HT12	251/4	681/2
24	30	NM-M6-(MATL)-24-30-HT12	281/4	621/2
24	36	NM-M6-(MATL)-24-36-HT12	281/4	681/2
30	36	NM-M6-(MATL)-30-36-HT12	31¾	68½

Horizontal Expanding Tee — 24" or 36" Radius

		Expanding 100 24 of	0411.0	4 DILLO	0011 D	4 D II I O
IKAY	WIDTH		24" K	ADIUS	36" K	ADIUS
W1 IN.	W2 IN.	*INSERT RADIUS (24" OR 36")	A IN.	B IN.	A IN.	B IN
	9	NM-M6-(MATL)-06-09-HT*	341/4	71½	461/4	95½
	12	NM-M6-(MATL)-06-12-HT*	341/4	74½	461/4	98½
6	18	NM-M6-(MATL)-06-18-HT*	341/4	80½	461/4	1041/2
O	24	NM-M6-(MATL)-06-24-HT*	341/4	861/2	461/4	110½
	30	NM-M6-(MATL)-06-30-HT*	341/4	921/2	461/4	116½
	36	NM-M6-(MATL)-06-36-HT*	341/4	98½	461/4	1221/2
	12	NM-M6-(MATL)-09-12-HT*	35¾	74½	473/4	98½
	18	NM-M6-(MATL)-09-18-HT*	35¾	80½	473/4	104½
9	24	NM-M6-(MATL)-09-24-HT*	35¾	861/2	473/4	1101/2
	30	NM-M6-(MATL)-09-30-HT*	35¾	921/2	473/4	116½
	36	NM-M6-(MATL)-09-36-HT*	35¾	981/2	473/4	1221/2
	18	NM-M6-(MATL)-12-18-HT*	371/4	80½	491/4	104½
10	24	NM-M6-(MATL)-12-24-HT*	371/4	861/2	491/4	1101/2
12	30	NM-M6-(MATL)-12-30-HT*	371/4	921/2	491/4	116½
	36	NM-M6-(MATL)-12-36-HT*	371/4	981/2	491/4	1221/2
	24	NM-M6-(MATL)-18-24-HT*	401/4	86½	521/4	1101/2
18	30	NM-M6-(MATL)-18-30-HT*	401/4	921/2	521/4	1161/2
	36	NM-M6-(MATL)-18-36-HT*	401/4	981/2	521/4	1221/2
0.4	30	NM-M6-(MATL)-24-30-HT*	431/4	921/2	551/4	1161/2
24	36	NM-M6-(MATL)-24-36-HT*	431/4	98½	551/4	1221/2
30	36	NM-M6-(MATL)-30-36-HT*	461/4	98½	581/4	1221/2

Two pair of stainless steel SS6 splice plates with SS6 hardware included.

Standard rung spacing for fittings is 9". For other types of splice plates, see page B-415-B-417.

Dimensions for reference only, when critical contact factory. Consult factory for availability of molded fittings.

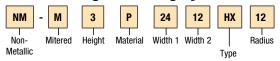






3" Horizontal Expanding/Reducing Cross

Catalog Numbering System

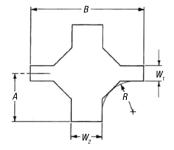




Sample mitered fitting

Horizontal Expanding/Reducing Cross

TRAY	WIDTH		12" R	ADIUS
W1 IN.	W2 IN.	CAT. NO.	A IN.	B IN.
9	6	NM-M3-(MATL)-09-06-HX12	191/4	41½
12	6	NM-M3-(MATL)-12-06-HX12	191/4	441/2
12	9	NM-M3-(MATL)-12-09-HX12	20¾	441/2
	6	NM-M3-(MATL)-18-06-HX12	191/4	50½
18	9	NM-M3-(MATL)-18-09-HX12	203/4	50½
	12	NM-M3-(MATL)-18-12-HX12	221/4	50½
	6	NM-M3-(MATL)-24-06-HX12	191/4	56½
24	9	NM-M3-(MATL)-24-09-HX12	20¾	56½
24	12	NM-M3-(MATL)-24-12-HX12	221/4	561/2
	18	NM-M3-(MATL)-24-18-HX12	251/4	56½



Three pairs of stainless steel SS6 splice plates with SS6 hardware included.

Standard rung spacing for fittings is 9". For other types of splice plates, see page B-415-B-417.

Dimensions for reference only, when critical contact factory. Consult factory for availability of molded fittings.





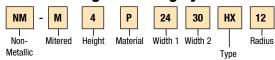
1-800-453-1692

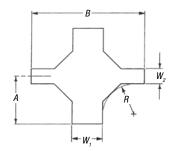
www.tnb.com

Non-Metallic Tray

4" Horizontal Expanding/Reducing Cross

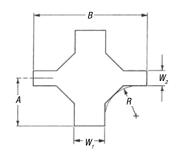
Catalog Numbering System







Sample mitered fitting



Horizontal Expanding/Reducing Cross — 12" or 24" Radius

TRAY WIDTH		CAT. NO.	12" R	ADIUS	24" R	ADIUS
W1 IN.	W2 IN.	*INSERT RADIUS (12" OR 24")	A IN.	B IN.	A IN.	B IN
	9	NM-M4-(MATL)-06-09-HX*	221/4	471/2	341/4	71½
	12	NM-M4-(MATL)-06-12-HX*	221/4	50½	341/4	74½
9	18	NM-M4-(MATL)-06-18-HX*	221/4	56½	341/4	80½
9	24	NM-M4-(MATL)-06-24-HX*	221/4	621/2	341/4	86½
	30	NM-M4-(MATL)-06-30-HX*	221/4	681/2	341/4	921/2
	36	NM-M4-(MATL)-06-36-HX*	221/4	74½	341/4	98½
	12	NM-M4-(MATL)-09-12-HX*	23¾	50½	35¾	74½
	18	NM-M4-(MATL)-09-18-HX*	23¾	56½	35¾	80½
12	24	NM-M4-(MATL)-09-24-HX*	23¾	621/2	35¾	86½
	30	NM-M4-(MATL)-09-30-HX*	23¾	681/2	35¾	921/2
	36	NM-M4-(MATL)-09-36-HX*	23¾	74½	35¾	98½
	18	NM-M4-(MATL)-12-18-HX*	251/4	56½	371/4	80½
18	24	NM-M4-(MATL)-12-24-HX*	251/4	621/2	371/4	86½
10	30	NM-M4-(MATL)-12-30-HX*	251/4	681/2	371/4	92½
	36	NM-M4-(MATL)-12-36-HX*	251/4	74½	371/4	98½
	24	NM-M4-(MATL)-18-24-HX*	281/4	621/2	401/4	86½
24	30	NM-M4-(MATL)-18-30-HX*	281/4	681/2	401/4	92½
	36	NM-M4-(MATL)-18-36-HX*	281/4	74½	401/4	98½
30	30	NM-M4-(MATL)-24-30-HX*	31¼	68½	431/4	92½
30	36	NM-M4-(MATL)-24-36-HX*	31¼	74½	431/4	98½
36	36	NM-M4-(MATL)-30-36-HX*	341/4	74½	461/4	98½

Horizontal Expanding/Reducing Cross — 36" Radius

HUHZUHL	ai Expai	iding/neducing 01055 — 50	naulus	
TRAY	WIDTH		36" R	ADIUS
W1 IN.	W2 IN.	CAT. NO.	A IN.	B IN.
	9	NM-M4-(MATL)-06-09-HX36	431/4	89½
	12	NM-M4-(MATL)-06-12-HX36	431/4	921/2
9	18	NM-M4-(MATL)-06-18-HX36	431/4	981/2
9	24	NM-M4-(MATL)-06-24-HX36	431/4	104½
	30	NM-M4-(MATL)-06-30-HX36	431/4	110½
	36	NM-M4-(MATL)-06-36-HX36	431/4	116½
	12	NM-M4-(MATL)-09-12-HX36	443/4	921/2
	18	NM-M4-(MATL)-09-18-HX36	443/4	981/2
12	24	NM-M4-(MATL)-09-24-HX36	443/4	104½
	30	NM-M4-(MATL)-09-30-HX36	443/4	110½
	36	NM-M4-(MATL)-09-36-HX36	44¾	116½
	18	NM-M4-(MATL)-12-18-HX36	461/4	98½
18	24	NM-M4-(MATL)-12-24-HX36	461/4	104½
10	30	NM-M4-(MATL)-12-30-HX36	461/4	110½
	36	NM-M4-(MATL)-12-36-HX36	461/4	116½
	24	NM-M4-(MATL)-18-24-HX36	491/4	104½
24	30	NM-M4-(MATL)-18-30-HX36	491/4	110½
	36	NM-M4-(MATL)-18-36-HX36	491/4	116½
30	30	NM-M4-(MATL)-24-30-HX36	521/4	110½
30	36	NM-M4-(MATL)-24-36-HX36	521/4	116½
36	36	NM-M4-(MATL)-30-36-HX36	521/4	116½

Three pairs of stainless steel SS6 splice plates with SS6 hardware included.

Standard rung spacing for fittings is 9". For other types of splice plates, see page B-415-B-417.

Dimensions for reference only, when critical contact factory. Consult factory for availability of molded fittings.



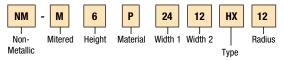


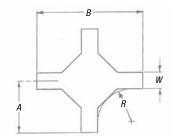




6" Horizontal Expanding/Reducing Cross

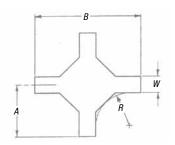
Catalog Numbering System







Sample mitered fitting



Horizontal Expanding/Reducing Cross — 12" Radius

TRAY	WIDTH		12" R	ADIUS
W1 IN.	W2 IN.	CAT. NO.	A IN.	B IN.
9	6	NM-M6-(MATL)-09-06-HX12	191/4	41½
12	6	NM-M6-(MATL)-12-06-HX12	191/4	441/2
12	9	NM-M6-(MATL)-12-09-HX12	20¾	441/2
	6	NM-M6-(MATL)-18-06-HX12	191/4	50½
18	9	NM-M6-(MATL)-18-09-HX12	20¾	50½
	12	NM-M6-(MATL)-18-12-HX12	221/4	50½
	6	NM-M6-(MATL)-24-06-HX12	191/4	56½
24	9	NM-M6-(MATL)-24-09-HX12	20¾	56½
24	12	NM-M6-(MATL)-24-12-HX12	221/4	56½
	18	NM-M6-(MATL)-24-18-HX12	251/4	56½
	6	NM-M6-(MATL)-30-06-HX12	191/4	62½
	9	NM-M6-(MATL)-30-09-HX12	20¾	62½
30	12	NM-M6-(MATL)-30-12-HX12	221/4	62½
	18	NM-M6-(MATL)-30-18-HX12	251/4	62½
	24	NM-M6-(MATL)-30-24-HX12	281/4	62½
	6	NM-M6-(MATL)-36-06-HX12	191/4	68½
	9	NM-M6-(MATL)-36-09-HX12	20¾	68½
36	12	NM-M6-(MATL)-36-12-HX12	221/4	68½
50	18	NM-M6-(MATL)-36-18-HX12	251/4	68½
	24	NM-M6-(MATL)-36-24-HX12	281/4	68½
	30	NM-M6-(MATL)-36-30-HX12	311/4	68½

Horizontal Expanding/Reducing Cross — 24" or 36" Radius

WIDTH	CAT. NO.	24" R	ADIUS	36" R	ADIUS
W2 IN.	*INSERT RADIUS (24" OR 36")	A IN.	B IN.	A IN.	B IN
9	NM-M6-(MATL)-06-09-HT*	341/4	71½	461/4	95½
12	NM-M6-(MATL)-06-12-HT*	341/4	74½	461/4	98½
18	NM-M6-(MATL)-06-18-HT*	341/4	80½	461/4	104½
24	NM-M6-(MATL)-06-24-HT*	341/4	86½	461/4	110½
30	NM-M6-(MATL)-06-30-HT*	341/4	921/2	461/4	116½
36	NM-M6-(MATL)-06-36-HT*	341/4	98½	461/4	122½
12	NM-M6-(MATL)-09-12-HT*	35¾	74½	47¾	98½
18	NM-M6-(MATL)-09-18-HT*	35¾	80½	47¾	104½
24	NM-M6-(MATL)-09-24-HT*	35¾	861/2	47¾	110½
30	NM-M6-(MATL)-09-30-HT*	35¾	921/2	47¾	116½
36	NM-M6-(MATL)-09-36-HT*	35¾	98½	47¾	122½
18	NM-M6-(MATL)-12-18-HT*	371/4	80½	491/4	104½
24	NM-M6-(MATL)-12-24-HT*	371/4	86½	491/4	110½
30	NM-M6-(MATL)-12-30-HT*	371/4	921/2	491/4	116½
36	NM-M6-(MATL)-12-36-HT*	371/4	98½	491/4	122½
24	NM-M6-(MATL)-18-24-HT*	401/4	86½	521/4	110½
30	NM-M6-(MATL)-18-30-HT*	401/4	921/2	521/4	116½
36	NM-M6-(MATL)-18-36-HT*	401/4	98½	521/4	122½
30	NM-M6-(MATL)-24-30-HT*	431/4	92½	551/4	116½
36	NM-M6-(MATL)-24-36-HT*	431/4	98½	551/4	122½
36	NM-M6-(MATL)-30-36-HT*	461/4	98½	581/4	122½
	W2 IN. 9 12 18 24 30 36 12 18 24 30 36 18 24 30 36 24 30 36 24 30 36	*INSERT RADIUS IN. (24" OR 36") 9	W2	W2	W2

Three pairs of stainless steel SS6 splice plates with SS6 hardware included.

Standard rung spacing for fittings is 9". For other types of splice plates, see page B-415-B-417.

Dimensions for reference only, when critical contact factory. Consult factory for availability of molded fittings.





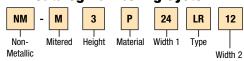


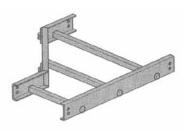


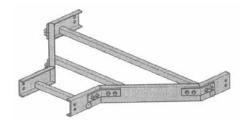
Non-Metallic Tray

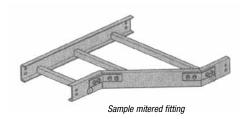
3" Horizontal Reducers

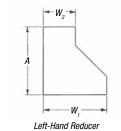
Catalog Numbering System

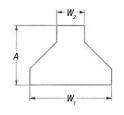


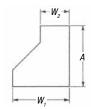












Straight Reducer

Right-Hand Reducer

Horizontal Reducers

TRAY	WIDTH	VIDTH LEFT-HAND REDUCER STRA		STRAIGHT REDU	ICER	RIGHT-HAND RED	RIGHT-HAND REDUCER	
W1 IN.	W2 IN.	CAT. NO.	A (IN.)	CAT. NO.	A (IN.)	CAT. NO.	A (IN.)	
9	6	NM-M3-(MATL)-09-LR06	17½	NM-M3-(MATL)-09-SR06	16	NM-M3-(MATL)-09-RR06	17½	
12	9	NM-M3-(MATL)-12-LR09	17½	NM-M3-(MATL)-12-SR09	16	NM-M3-(MATL)-12-RR09	17½	
12	6	NM-M3-(MATL)-18-LR06	26½	NM-M3-(MATL)-18-SR06	201/2	NM-M3-(MATL)-18-RR06	26½	
18	9	NM-M3-(MATL)-18-LR09	23½	NM-M3-(MATL)-18-SR09	19	NM-M3-(MATL)-18-RR09	23½	
10	12	NM-M3-(MATL)-18-LR12	201/2	NM-M3-(MATL)-18-SR12	171/2	NM-M3-(MATL)-18-RR12	20½	
	6	NM-M3-(MATL)-24-LR06	32½	NM-M3-(MATL)-24-SR06	231/2	NM-M3-(MATL)-24-RR06	32½	
24	9	NM-M3-(MATL)-24-LR09	291/2	NM-M3-(MATL)-24-SR09	22	NM-M3-(MATL)-24-RR09	29½	
24	12	NM-M3-(MATL)-24-LR12	26½	NM-M3-(MATL)-24-SR12	201/2	NM-M3-(MATL)-24-RR12	261/2	
	18	NM-M3-(MATL)-24-LR18	201/2	NM-M3-(MATL)-24-SR18	171/2	NM-M3-(MATL)-24-RR18	20½	

One pair of stainless steel SS6 splice plates with SS6 hardware included.

Standard rung spacing for fittings is 9". For other types of splice plates, see page B-415-B-417.

Dimensions for reference only, when critical contact factory. Consult factory for availability of molded fittings.





1-800-453-1692 vww.aboveboardelectronics.com



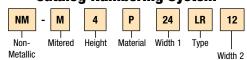
United States

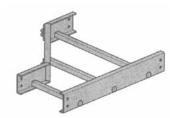
Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services** Tel: 888.862.3289

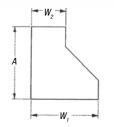


4" Horizontal Reducers

Catalog Numbering System

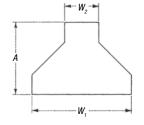




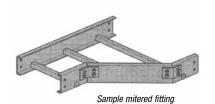


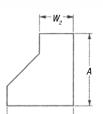
Left-Hand Reducer





Straight Reducer





Right-Hand Reducer

Horizontal Reducers

TRAY WIDTH		LEFT-HAND REDU	CER	STRAIGHT REDU	JCER	RIGHT-HAND RE	DUCER
W1 IN.	W2 IN.	CAT. NO.	A IN.	CAT. NO.	A IN.	CAT. NO.	A IN.
9	6	NM-M4-(MATL)-09-LR06	17½	NM-(MATL)-09-SR06	16	NM-(MATL)-09-RR06	17½
12	6	NM-M4-(MATL)-12-LR06	201/2	NM-(MATL)-12-SR06	17½	NM-(MATL)-12-RR06	201/
12	9	NM-M4-(MATL)-12-LR09	17½	NM-(MATL)-12-SR09	16	NM-(MATL)-12-RR09	17½
	6	NM-M4-(MATL)-18-LR06	26½	NM-(MATL)-18-SR06	20½	NM-(MATL)-18-RR06	261/
18	9	NM-M4-(MATL)-18-LR09	231/2	NM-(MATL)-18-SR09	19	NM-(MATL)-18-RR09	231/
	12	NM-M4-(MATL)-18-LR12	201/2	NM-(MATL)-18-SR12	17½	NM-(MATL)-18-RR12	201/
	6	NM-M4-(MATL)-24-LR06	32½	NM-(MATL)-24-SR06	23½	NM-(MATL)-24-RR06	321/
24	9	NM-M4-(MATL)-24-LR09	291/2	NM-(MATL)-24-SR09	22	NM-(MATL)-24-RR09	291/
24	12	NM-M4-(MATL)-24-LR12	261/2	NM-(MATL)-24-SR12	201/2	NM-(MATL)-24-RR12	261/
	18	NM-M4-(MATL)-24-LR18	201/2	NM-(MATL)-24-SR18	17½	NM-(MATL)-24-RR18	201/
	6	NM-M4-(MATL)-30-LR06	38½	NM-(MATL)-30-SR06	26½	NM-(MATL)-30-RR06	381/
	9	NM-M4-(MATL)-30-LR09	35½	NM-(MATL)-30-SR09	25	NM-(MATL)-30-RR09	351/
30	12	NM-M4-(MATL)-30-LR12	321/2	NM-(MATL)-30-SR12	23½	NM-(MATL)-30-RR12	321/
	18	NM-M4-(MATL)-30-LR18	261/2	NM-(MATL)-30-SR18	20½	NM-(MATL)-30-RR18	261/
	24	NM-M4-(MATL)-30-LR24	201/2	NM-(MATL)-30-SR24	17½	NM(MATL)30RR24	201/
	6	NM-M4-(MATL)-36-LR06	441/2	NM-(MATL)-36-SR06	29½	NM-(MATL)-36-RR06	441/
	9	NM-M4-(MATL)-36-LR09	411/2	NM-(MATL)-36-SR09	28	NM-(MATL)-36-RR09	411/
20	12	NM-M4-(MATL)-36-LR12	38½	NM-(MATL)-36-SR12	26½	NM-(MATL)-36-RR12	381/
36	18	NM-M4-(MATL)-36-LR18	321/2	NM-(MATL)-36-SR18	23½	NM-(MATL)-36-RR18	321/
	24	NM-M4-(MATL)-36-LP24	261/2	NM-(MATL)-36-SP24	20½	NM-(MATL)-36-RR24	261/2
	30	NM-M4-(MATL)-36-LR30	201/2	NM-(MATL)-36-SR30	171/2	NM-(MATL)-36-RR30	201/3

One pair of stainless steel SS6 splice plates with SS6 hardware included.

Standard rung spacing for fittings is 9". For other types of splice plates, see page B-415-B-417.

Dimensions for reference only, when critical contact factory. Consult factory for availability of molded fittings.



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services** Tel: 888.862.3289



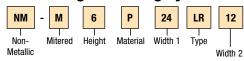




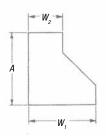
Non-Metallic Tray

6" Horizontal Reducers

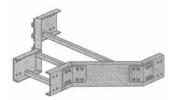
Catalog Numbering System

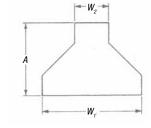




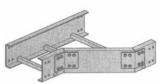




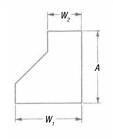




Straight Reducer



Sample mitered fitting



Right-Hand Reducer

Horizontal Reducers

TRAY	WIDTH	LEFT-HAND RED	DUCER	STRAIGHT RED	UCER	RIGHT-HAND RED	UCER
W1 IN.	W2 IN.	CAT. NO.	A IN.	CAT. NO.	A IN.	CAT. NO.	A IN.
9	6	NM-(MATL)-09-LR06	17½	NM-(MATL)-09-SR06	16	NM-(MATL)-09-RR06	17½
12	6	NM-(MATL)-12-LR06	20½	NM-(MATL)-12-SR06	17½	NM-(MATL)-12-RR06	201/2
12	9	NM-(MATL)-12-LR09	171/2	NM-(MATL)-12-SR09	16	NM-(MATL)-12-RR09	171/2
	6	NM-(MATL)-18-LR06	26½	NM-(MATL)-18-SR06	20½	NM-(MATL)-18-RR06	6½
18	9	NM-(MATL)-18-LR09	231/2	NM-(MATL)-18-SR09	19	NM-(MATL)-18-RR09	231/2
	12	NM-(MATL)-18-LR12	201/2	NM-(MATL)-18-SR12	17½	NM-(MATL)-18-RR12	201/2
	6	NM-(MATL)-24-LR06	32½	NM-(MATL)-24-SR06	23½	NM-(MATL)-24-RR06	321/2
24	9	NM-(MATL)-24-LR09	291/2	NM-(MATL)-24-SR09	22	NM-(MATL)-24-RR09	291/2
24	12	NM-(MATL)-24-LR12	261/2	NM-(MATL)-24-SR12	201/2	NM-(MATL)-24-RR12	261/2
	18	NM-(MATL)-24-LR18	20½	NM-(MATL)-24-SR18	17½	NM-(MATL)-24-RR18	201/2
	6	NM-(MATL)-30-LR06	38½	NM-(MATL)-30-SR06	26½	NM-(MATL)-30-RR06	381/2
	9	NM-(MATL)-30-LR09	351/2	NM-(MATL)-30-SR09	25	NM-(MATL)-30-RR09	35½
30	12	NM-(MATL)-30-LR12	321/2	NM-(MATL)-30-SR12	23½	NM-(MATL)-30-RR12	321/2
	18	NM-(MATL)-30-LR18	261/2	NM-(MATL)-30-SR18	201/2	NM-(MATL)-30-RR18	261/2
	24	NM-(MATL)-30-LR24	20½	NM-(MATL)-30-SR24	17½	NM-(MATL)-30-RR24	201/2
	6	NM-(MATL)-36-LR06	441/2	NM-(MATL)-36-SR06	29½	NM-(MATL)-36-RR06	441/2
	9	NM-(MATL)-36-LR09	411/2	NM-(MATL)-36-SR09	28	NM-(MATL)-36-RR09	411/2
36	12	NM-(MATL)-36-LR12	38½	NM-(MATL)-36-SR12	26½	NM-(MATL)-36-RR12	381/2
30	18	NM-(MATL)-36-LR18	321/2	NM-(MATL)-36-SR18	23½	NM-(MATL)-36-RR18	321/2
	24	NM-(MATL)-36-LR24	261/2	NM-(MATL)-36-SR24	201/2	NM-(MATL)-36-RR24	261/2
	30	NM-(MATL)-36-LR30	201/2	NM-(MATL)-36-SR30	171/2	NM-(MATL)-36-RR30	201/2

One pair of stainless steel SS6 splice plates with SS6 hardware included.

Standard rung spacing for fittings is 9". For other types of splice plates, see page B-415-B-417.

Dimensions for reference only, when critical contact factory. Consult factory for availability of molded fittings.

Thomas@Betts

United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services**



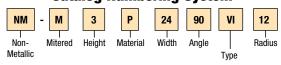


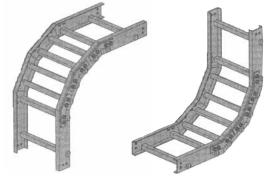


Non-Metallic Tray

3" Vertical Bends

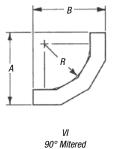
Catalog Numbering System

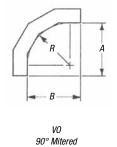


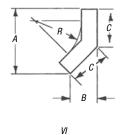


VO Vertical Outside Bend Sample Mitered

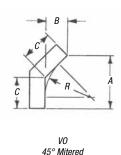
VI Vertical Inside Bend Sample Mitered







45° Mitered



90° Vertical Bend

-R- BEND	TRAY		OUT	TICAL SIDE ND	INS	TICAL SIDE ND
RADIUS In.	WIDTH IN.	CAT. NO.	A IN.	B IN.	A IN.	B IN.
	6	NM-M3-(MATL)-06-90(*)12				
	9	NM-M3-(MATL)-09-90(*)12				
12	12	NM-M3-(MATL)-12-90(*)12	2315/16	2315/16	2615/16	2615/16
	18	NM-M3-(MATL)-18-90(*)12				
	24	NM-M3-(MATL)-24-90(*)12				

45° Vertical Bend

-R- BEND	TRAY			ERTIC <i>i</i> Utsid Bend			ERTICA Insidi Bend	•
RADIUS In.	WIDTH IN.	CAT. NO.	A IN.	B IN.	C IN.	A IN.	B IN.	C IN.
	6	NM-M3-(MATL)-06-45(*)12						
	9	NM-M3-(MATL)-09-45(*)12						
12	12	NM-M3-(MATL)-12-45(*)12	20½	81/2	12	22%	9%	131/4
	18	NM-M3-(MATL)-18-45(*)12						
	24	NM-M3-(MATL)-24-45(*)12						

One pair of stainless steel SS6 splice plates with SS6 hardware included.

Standard rung spacing for fittings is 9". For other types of splice plates, see page B-415-B-417.

Dimensions for reference only, when critical contact factory. Consult factory for availability of molded fittings.





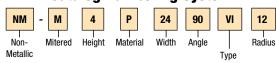
1-800-453-1692 www.aboveboardelectronics.com

^{*} Add: VI - For vertical inside/VO - For vertical outside

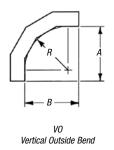
Non-Metallic Tray

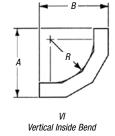
4" Vertical Bends

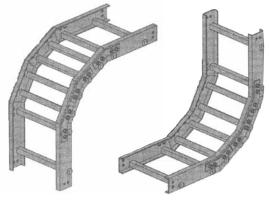
Catalog Numbering System



[†] For molded fitting, if available, please remove "M" in the catalog number. Ex: NM-4P2490VI12





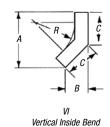


VO Vertical Outside Bend Sample Mitered

VI Vertical Inside Bend Sample Mitered







90° Vertical Bend

-R- BEND	TRAY			ICAL E BEND		ICAL Bend
RADIUS In.	WIDTH IN.	CAT. NO.	A IN.	B IN.	A IN.	B IN.
	6	†NM-M4-(MATL)-06-90(*)12				
	9	†NM-M4-(MATL)-09-90(*)12				
	12	†NM-M4-(MATL)-12-90(*)12				
12	18	†NM-M4-(MATL)-18-90(*)12	191/4	191/4	231/4	231/4
	24	†NM-M4-(MATL)-24-90(*)12				
	30	†NM-M4-(MATL)-30-90(*)12				
	36	†NM-M4-(MATL)-36-90(*)12				
	6	NM-M4-(MATL)-06-90(*)24				
	9	NM-M4-(MATL)-09-90(*)24				
	12	NM-M4-(MATL)-12-90(*)24				
24	18	NM-M4-(MATL)-18-90(*)24	311/4	311/4	351/4	351/4
	24	NM-M4-(MATL)-24-90(*)24				
	30	NM-M4-(MATL)-30-90(*)24				
	36	NM-M4-(MATL)-36-90(*)24				
	6	NM-M4-(MATL)-06-90(*)36				
	9	NM-M4-(MATL)-09-90(*)36				
	12	NM-M4-(MATL)-12-90(*)36				
36	18	NM-M4-(MATL)-18-90(*)36	37¾	37¾	41¾	41¾
	24	NM-M4-(MATL)-24-90(*)36				
	30	NM-M4-(MATL)-30-90(*)36				
	36	NM-M4-(MATL)-36-90(*)36				

^{45°} Vertical Bend

-R- BEND	TRAY		_	ERTIC. SIDE I			RTICA IDE BE	_
RADIUS In.	WIDTH IN.	CAT. NO.	A IN.	B IN.	C IN.	A IN.	B IN.	C IN.
	6	†NM-M4-(MATL)-06-45(*)12						
	9	†NM-M4-(MATL)-09-45(*)12						
	12	†NM-M4-(MATL)-12-45(*)12						
12	18	†NM-M4-(MATL)-18-45(*)12	13%	5%	8	16%	213/16	613/16
	24	†NM-M4-(MATL)-24-45(*)12						
	30	†NM-M4-(MATL)-30-45(*)12						
	36	†NM-M4-(MATL)-36-45(*)12						
	6	NM-M4-(MATL)-06-45(*)24						
	9	NM-M4-(MATL)-09-45(*)24						
	12	NM-M4-(MATL)-12-45(*)24						
24	18	NM-M4-(MATL)-18-45(*)24	221/16	91/8	1215/16	2415/16	105/16	14%
	24	NM-M4-(MATL)-24-45(*)24						
	30	NM-M4-(MATL)-30-45(*)24						
	36	NM-M4-(MATL)-36-45(*)24						
	6	NM-M4-(MATL)-06-45(*)36						
	9	NM-M4-(MATL)-09-45(*)36						
	12	NM-M4-(MATL)-12-45(*)36						
36	18	NM-M4-(MATL)-18-45(*)36	371/16	15½	2115/16	405/16	1611/16	23%
	24	NM-M4-(MATL)-24-45(*)36						
	30	NM-M4-(MATL)-30-45(*)36						
	36	NM-M4-(MATL)-36-45(*)36						

Standard rung spacing for fittings is 9". For other types of splice plates, see page B-415–B-417.

Dimensions for reference only, when critical contact factory. Consult factory for availability of molded fittings.



Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354







^{*}Add VI - For vertical inside/VO - For vertical outside

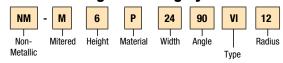
One pair of stainless steel SS6 splice plates with SS6 hardware included.

[†] Denotes molded fitting available.

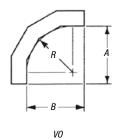
Non-Metallic Tray

6" Vertical Bends

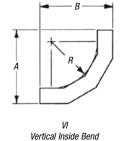
Catalog Numbering System

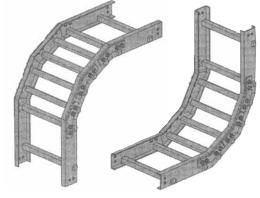


[†] For molded fitting, if available, please remove "M" in the cataloguen number.

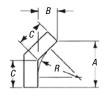


Vertical Outside Bend



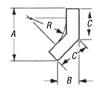


VO Vertical Outside Bend Sample Mitered





VI Vertical Inside Bend Sample Mitered



Vertical Inside Bend

90° Vertical Bend

-R- BEND	TRAY			ICAL E BEND		ICAL Bend
RADIUS In.		CAT. NO.	A IN.	B IN.	A IN.	B IN.
	6	NM-M6-(MATL)-06-90(*)12				
	9	NM-M6-(MATL)-09-90(*)12				
	12	NM-M6-(MATL)-12-90(*)12				
12	18	NM-M6-(MATL)-18-90(*)12	26	26	2613/16	2613/16
	24	NM-M6-(MATL)-24-90(*)12				
	30	NM-M6-(MATL)-30-90(*)12				
	36	NM-M6-(MATL)-36-90(*)12				
	6	†NM-M6-(MATL)-06-90(*)24				
	9	†NM-M6-(MATL)-09-90(*)24				
	12	†NM-M6-(MATL)-12-90(*)24				
24	18	†NM-M6-(MATL)-18-90(*)24	311/4	311/4	371/4	371/4
	24	†NM-M6-(MATL)-24-90(*)24				
	30	†NM-M6-(MATL)-30-90(*)24				
	36	†NM-M6-(MATL)-36-90(*)24				
	6	NM-M6-(MATL)-06-90(*)36				
	9	NM-M6-(MATL)-09-90(*)36				
	12	NM-M6-(MATL)-12-90(*)36	431/4			
36	18	NM-M6-(MATL)-18-90(*)36		431/4	491/4	491/4
	24	NM-M6-(MATL)-24-90(*)36				
	30	NM-M6-(MATL)-30-90(*)36				
	36	NM-M6-(MATL)-36-90(*)36				

^{45°} Vertical Bend

.0 .0	rtioui	20114						
-R- BEND	TRAY		_	ERTIC <i>i</i> Side B		_	ERTIC <i>i</i> Side be	
RADIUS IN.		CAT. NO.	A IN.	B IN.	C IN.	A IN.	B IN.	C IN.
	6	NM-M6-(MATL)-06-45(*)24						
	9	NM-M6-(MATL)-09-45(*)24						
	12	NM-M6-(MATL)-12-45(*)24						
12	18	NM-M6-(MATL)-18-45(*)24	20½	8½	12	243/4	101/4	14½
12	24	NM-M6-(MATL)-16-45(*)12	2072	0/2	12	2474	1074	1472
	30	NM-M6-(MATL)-30-45(*)12						
		. , , , ,						
	36 6	NM-M6-(MATL)-36-45(*)12 †NM-M6-(MATL)-06-45(*)24						
	9	†NM-M6-(MATL)-09-45(*)24						
	12	†NM-M6-(MATL)-12-45(*)24						
24	18	. , ,,		01/	1015/	0.65/	1015/	1 57/
24		†NM-M6-(MATL)-18-45(*)24		91/8	1215/16	265/16	1015/16	157/16
	24	†NM-M6-(MATL)-24-45(*)24						
	30	†NM-M6-(MATL)-30-45(*)24						
	36	†NM-M6-(MATL)-36-45(*)24						
	6	NM-M6-(MATL)-06-45(*)36						
	9	NM-M6-(MATL)-09-45(*)36						
00	12	NM-M6-(MATL)-12-45(*)36	000/	4 011 /	4715/		4.47/	0001
36	18	NM-M6-(MATL)-18-45(*)36	30%16	1211/16	1715/16	34 ¹³ /16	14/16	20%
	24	NM-M6-(MATL)-24-45(*)36						
	30	NM-M6-(MATL)-30-45(*)36						
	36	NM-M6-(MATL)-36-45(*)36						

One pair of stainless steel SS6 splice plates with SS6 hardware included.

Standard rung spacing for fittings is 9". For other types of splice plates, see page B-415-B-417.

Dimensions for reference only, when critical contact factory. Consult factory for availability of molded fittings.









1-800-453-1692

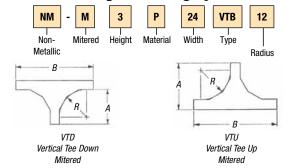
^{*}Add VI - For vertical inside/VO - For vertical outside

[†] Denotes molded fitting available.

Non-Metallic Tray

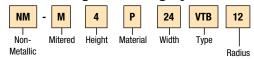
3" Vertical Tees

Catalog Numbering System

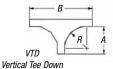


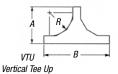
4" Vertical Tees

Catalog Numbering System



† For molded fitting, if available, please remove "M" in the catalogue number. Ex: NM-4P24VTD12





4" Vertical Tees

-R- BEND	TRAY			ICAL DOWN		ICAL UP
RADIUS In.	WIDTH In.	CAT. NO.	A IN.	B IN.	A IN.	B IN.
	6	†NM-M4-(MATL)-06-(*)12				
	9	†NM-M4-(MATL)-09-(*)12				
	12	†NM-M4-(MATL)-12-(*)12				
12	18	†NM-M4-(MATL)-18-(*)12	191/4	421/2	231/4	42½
	24	†NM-M4-(MATL)-24-(*)12				
	30	†NM-M4-(MATL)-30-(*)12				
	36	†NM-M4-(MATL)-36-(*)12				
	6	NM-M4-(MATL)-06-(*)24				
	9	NM-M4-(MATL)-09-(*)24				
	12	NM-M4-(MATL)-12-(*)24				
24	18	NM-M4-(MATL)-18-(*)24	311/4	66½	351/4	66½
	24	NM-M4-(MATL)-24-(*)24				
	30	NM-M4-(MATL)-30-(*)24				
	36	NM-M4-(MATL)-36-(*)24				
	6	NM-M4-(MATL)-06-(*)36				
	9	NM-M4-(MATL)-09-(*)36				
36	12	NM-M4-(MATL)-12-(*)36	37¾	79½	41¾	79½
30	18	NM-M4-(MATL)-18-(*)36		, 5/2	11/4	1 7 7 2
	24	NM-M4-(MATL)-24-(*)36				
	30	NM-M4-(MATL)-30-(*)36				

^{*} Add: VTD - For vertical tee down/VTU - For vertical tee up Two pairs of stainless steel SS6 splice plates with SS6 hardware included. Dimensions for reference only, when critical contact factory. Consult factory for availability of molded fittings.

3" Vertical Tees

-R- BEND	TRAY			ICAL OOWN		ICAL UP
RADIUS In.	WIDTH IN.	CAT. NO.	A IN.	B IN.	A IN.	B IN.
	6	NM-M3-(MATL)-06-(*)12				
	9	NM-M3-(MATL)-09-(*)12				
12	12	NM-M3-(MATL)-12-(*)12	2315/16	50%	2615/16	50%
	18	NM-M3-(MATL)-18-(*)12				
	24	NM-M3-(MATL)-24-(*)12				

* Add: VTD - For vertical tee down/VTU - For vertical tee up

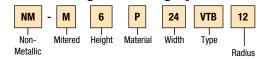
Two pairs of stainless steel SS6 splice plates with SS6 hardware included. Standard rung spacing for fittings is 9". For other types of splice plates,

see page B-415-B-417.

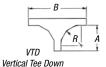
Dimensions for reference only, when critical contact factory. Consult factory for availability of molded fittings.

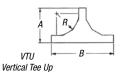
6" Vertical Tees

Catalog Numbering System



[†] For molded fitting, if available, please remove "M" in the catalogue number. Ex: NM-6P24VTD12





6" Vertical Tees

-R- BEND	TRAY			TICAL DOWN		ICAL UP
RADIUS In.	WIDTH IN.	CAT. NO.	A IN.	B IN.	A IN.	B IN.
	6	NM-M6-(MATL)-06-(*)12				
	9	NM-M6-(MATL)-09-(*)12				
12	12	NM-M6-(MATL)-12-(*)12	26	58	32	58
12	18	NM-M6-(MATL)-18-(*)12	20	30	J2	50
	24	NM-M6-(MATL)-24-(*)12				
	30	NM-M6-(MATL)-30-(*)12				
	6	†NM-M6-(MATL)-06-(*)24				
	9	†NM-M6-(MATL)-09-(*)24				
	12	†NM-M6-(MATL)-12-(*)24		68½	371/4	68½
24	18	†NM-M6-(MATL)-18-(*)24	311/4			
	24	†NM-M6-(MATL)-24-(*)24				
	30	†NM-M6-(MATL)-30-(*)24				
	36	†NM-M6-(MATL)-36-(*)24				
	6	NM-M6-(MATL)-06-(*)36				
	9	NM-M6-(MATL)-09-(*)36				
	12	NM-M6-(MATL)-12-(*)36				
36	18	NM-M6-(MATL)-18-(*)36	43½	92½	491/2	92½
	24	NM-M6-(MATL)-24-(*)36				
	30	NM-M6-(MATL)-30-(*)36				
	36	NM-M6-(MATL)-36-(*)36				

* Add: VTD - For vertical tee down / VTU - For vertical tee up Two pairs of stainless steel SS6 splice plates with SS6 hardware included. † Denotes molded fitting available.

Dimensions for reference only, when critical contact factory. Consult factory for availability of molded fittings.



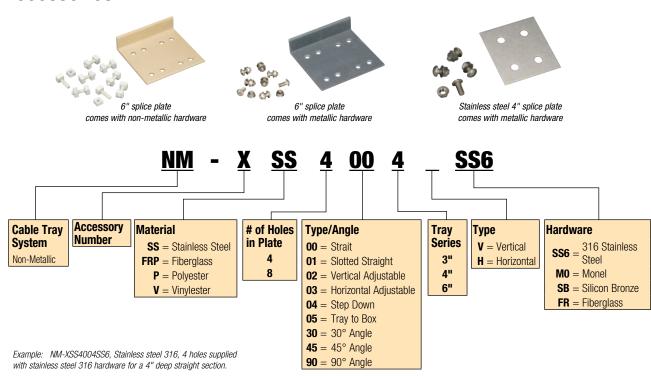
Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354







Accessories



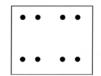
Note: Splice plates shown on pages B-415-B-417 represent splices for 6" side rail height. Number of holes may vary with other side rail heights.

Standard Splice Plates

Quantity required supplied with each tray section.

Order only pairs of splice plates needed for field modifications. SS6 hardware supplied as standard — use SS6 suffix.

Other hardware available, specify by hardware suffix. Hardware other than SS6 is considered special.



HEIGHT	CAT. NO.
6"	NM-XSS-8006*
4"	NM-XSS-4004*
3"	NM-XSS-4003*
	6" 4"

^{*} Hardware suffix needed to complete part number

Expansion Splice Plates

These plates allow for up to 1" expansion or contraction of tray system.

For correct gap setting procedure, see page B-444.



MATERIAL	SIDE RAIL HEIGHT	CAT. NO.
Ctainless Ctasl	6"	NM-XSS-8016*
Stainless Steel 316 (16 gauge)	4"	NM-XSS-4014*
STO (TO gauge)	3"	NM-XSS-4013*

^{*} Hardware suffix needed to complete part number

All splice plate hardware is 3/8".



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354

Technical Services Tel: 888.862.3289



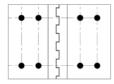


Non-Metallic Tray

Accessories

Horizontal Adjustable Splice Plates

These plates provide for changes in the horizontal direction that do not conform to standard fittings. Furnished in pairs.

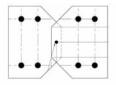


MATERIAL	SIDE RAIL HEIGHT	CAT. NO.
04-1-1 041	6"	NM-XSS-8036*
Stainless Steel 316 (16 Guage)	4"	NM-XSS-4034*
310 (10 duaye)	3"	NM-XSS-4033*

^{*} Hardware suffix needed to complete part number

Vertical Adjustable Splice Plates

These plates provide for changes in elevation that do not conform to standard vertical fittings. Furnished in pairs.

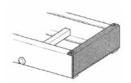


MATERIAL	SIDE RAIL HEIGHT	CAT. NO.
Stainless Steel 316 (16 Guage)	6"	NM-XSS-8026*
	4"	NM-XSS-4024*
	3"	NM-XSS-4023*

^{*} Hardware suffix needed to complete part number

Blind End Plate

This plate forms a closure for any tray that dead ends. Furnished as one plate.



MATERIAL	HEIGHT	CAT. NO.
Stainless Steel	6"	NM-XBE*1086W**
	4"	NM-XBE*1084W**
	3"	NM-XBE*1083W**

^{*} Material suffix: P=Polyester, V= Vinylester, S=Stainless Steel

Tray To Box Splice Plates

These plates are used to attach the end of a tray run to a distribution box or control center.

Furnished in pairs.





MATERIAL	HEIGHT	CAT. NO.
Stainless Steel	6"	NM-XSS8056*
	4"	NM-XSS4054*
	3"	NM-XSS4053*

^{*} Hardware suffix needed to complete part number

Step Down Plates

These splice plates provide for changes in side rail heights.

Furnished in pairs.



MATERIAL	HEIGHT	CAT. NO.
Stainless	6" to 3"	NM-XSS-8063*
Steel 316	6" to 4"	NM-XSS-8064*
(16 Guage)	4" to 3"	NM-XSS-4043*

^{*} Hardware suffix needed to complete part number

All splice plate hardware is 3/1". Splice plates shown represent splices for 6" side rail height. Number of holes may vary with other side rail heights.



800.816.7809 Fax: 901.252.1354





^{**} Harware suffix needed to complete part number W = tray width

Accessories

Vertical Splice Plates

90°

These splice plates provide for changes in elevation. Furnished in pairs.



MATERIAL	SIDE RAIL HEIGHT	CAT. NO.
Stainless	6"	NM-XSS-8906V*
Steel 316	4"	NM-XSS-4904V*
(16 Guage)	3"	NM-XSS-4903V*

^{*} Hardware suffix needed to complete part number

45°

These splice plates provide for changes in elevation. Furnished in pairs.



MATERIAL	SIDE RAIL HEIGHT	CAT. NO.
Stainless	6"	NM-XSS-8456V*
Steel 316	4"	NM-XSS-4454V*
(16 Guage)	3"	NM-XSS-4453V*

^{*} Hardware suffix needed to complete part number

30°

These splice plates provide for changes in elevation. Furnished in pairs.



MATERIAL	SIDE RAIL HEIGHT	CAT. NO.
Stainless	6"	NM-XSS-8306V*
Steel 316	4"	NM-XSS-4304V*
(16 Guage)	3"	NM-XSS-4303V*

^{*} Hardware suffix needed to complete part number

Horizontal Splice Plates

90°

These splice plates provide for changes in the horizontal direction. Furnished in pairs.



MATERIAL	SIDE RAIL HEIGHT	CAT. NO.
Stainless	6"	NM-XSS-8906H*
Steel 316	4"	NM-XSS-4904H*
(16 Guage)	3"	NM-XSS-4903H*

^{*} Hardware suffix needed to complete part number

45°

These splice plates provide for changes in the horizontal direction. Furnished in pairs.



MATERIAL	SIDE RAIL HEIGHT	CAT. NO.
Stainless	6"	NM-XSS-8456H*
Steel 316	4"	NM-XSS-4454H*
(16 Guage)	3"	NM-XSS-4453H*

^{*} Hardware suffix needed to complete part number

30°

These splice plates provide for changes in the horizontal direction. Furnished in pairs.



MATERIAL	SIDE RAIL HEIGHT	CAT. NO.
Stainless	6"	NM-XSS-8306H*
Steel 316	4"	NM-XSS-4304H*
(16 Guage)	3"	NM-XSS-4303H*

^{*} Hardware suffix needed to complete part number

All splice plate hardware is 3/6". Splice plates shown represent splices for 6" side rail height. Number of holes may vary with other side rail heights.



800.816.7809 Fax: 901.252.1354







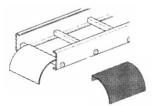
1-800-453-1692

Non-Metallic Tray

Accessories

Ladder Drop-out

Specially-designed Ladder Drop-Outs provide a rounded surface with adequate radius to protect cable as it exits from the tray, preventingdamage to insulation.



MATERIAL	HEIGHT	CAT. NO.
Polyester Resin	6" to 36"	NM-XF-1104-W

Supplied with a 4" radius. W = tray width

Barriers

Furnished with #10 x $\frac{3}{4}$ self-tapping stainless steel screws.



MATERIAL	SIDE RAIL HEIGHT	CAT. NO.
	6"	NM-BS06P-120
Polyester Resin	4"	NM-BS04P-120
	3"	NM-BS03P-120
Vinylester Resin	6"	NM-BS06V-120
	4"	NM-BS04V-120
	3"	NM-BS03V-120

Flexible Horizontal Barrier Kit

One Kit allows up to 38" radius position of the barrier. For larger than 38" radius barrier position, two kits are required.

Kit Contents

- (1) 72" Straight Barrier
- (4) XF-9002 Barrier Strip Clips
- (8) Thermoplastic Drive Rivets
- (4) #10 x ¾" Stainless Steel Self-Tapping Screws
- Assembly required directions included

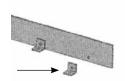


MATERIAL	SIDE RAIL HEIGHT	LOADING Depth 'h'	CAT. NO.
Dolyootor	6"	411/16	NM-BS06P-90HBFL
Polyester Resin	4"	211/16	NM-BS04P-90HBFL
nesiii	3"	13/4	NM-BS03P-90HBFL
Vinulantau	6"	411/16	NM-BS06V-90HBFL
Vinylester Resin	4"	211/16	NM-BS04V-90HBFL
Resili	3"	13/4	NM-BS03V-90HBFL

Barrier Mounting Angle Clips with Fasteners

1 pack contains

- . (4) angle clips and fasteners
- . (2) thermoplastic drive rivets
- (1) #10 x 3/4" stainless steel self-tapping screw



MATERIAL	CAT. NO.
Polylester Resin	NM-PK-BAC



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354





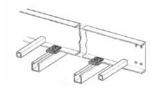


Non-Metallic Tray

Accessories

Clamp/Guide

Combination hold-down clamp and guide. Designed for %" hardware — not included. Furnished in pairs.



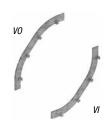
MATERIAL	CAT. NO.
Polyester Resin	NM-XFP-1208

Vertical Barriers

Barriers for vertical fitting.

Please add angle (X) and radius (†) to catalogue number.

Furnished with #10 x 3/4" self-tapping stainless steel screws.



MATERIAL	SIDE RAIL HEIGHT	CAT. NO.
	6"	NM-BS06P(X)VI/V0(†)
Polyester Resin	4"	NM-BS06P(X)VI/VO(†)
	3"	NM-BS06P(X)VI/VO(†)
	6"	NM-BS06V(X)VI/VO(†)
Vinylester Resin	4"	NM-BS06V(X)VI/VO(†)
	3"	NM-BS06V(X)VI/VO(†)

= Inside vertical VO = Outside vertical

Spray Sealant

Spray acrylic to reseal fiberglass after field modifications.



DESCRIPTION	CAT. NO.
12 fl. oz. can	NM-CLEAR-1215

Resin Seal Kit

To reseal fiberglass after field modifications. Vinylester Resin

Kit Contents

- Resin
- Catalyst
- · Stir stick and applicator



DESCRIPTION	CAT. NO.
½ pint	NM-RSK-05
1 pint	NM-RSK-10







Thomas@Betts

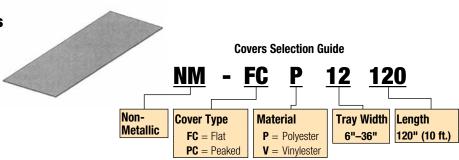
Non-Metallic Tray

Covers For Straight Sections

Material thickness: ½"

Standard cover length: 120" (10')

Standard mounting hardware: (10 each)
#10 x ½" stainless, self-tapping
screws provided with each section



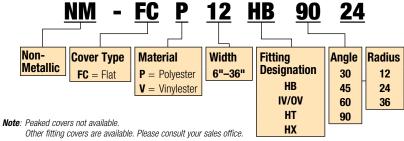
Note: Peaked covers available for straight sections only.

Covers For Fittings

Material thickness: 1/8"

Standard mounting hardware: (10 each) #10 x ½" stainless, self-tapping screws provided with each section

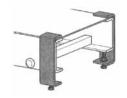
Covers Selection Guide



Standard Cover Clamp

Recommended for indoor applications. Available in both Polyester and Vinylester Resin.

Cover clamp available for flat covers only.



MATERIAL	SIDE RAIL Height	CAT. NO.
	6"	NM-XCC-P-9016
Polyester Resin	4"	NM-XCC-P-9014
	3"	NM-XCC-P-9013
	6"	NM-XCC-V-9016
Vinylester Resin	4"	NM-XCC-V-9014
	3"	NM-XCC-V-9013

Heavy-Duty Cover Clamp

Recommended for outdoor service.

Heavy-duty cover clamp available for flat covers only. Available in both Polyester and Vinylester Resin.



MATERIAL	SIDE RAIL HEIGHT	CAT. NO.
	6"	NM-XWC-P-W*-9064
Polyester Resin	4"	NM-XWC-P-W*-9044
	3"	NM-XWC-P-W*-9034
	6"	NM-XWC-C-W*-9064
Vinylester Resin	4"	NM-XWC-C-W*-9044
	3"	NM-XWC-C-W*-9034

^{*} W = tray width

Thermoplastic Drive Rivet

Shipped in packages of 25 pieces.



MATERIAL	CAT. NO.			
Thermoplastic	TPDR			
Paisad savar alampa available. Placese cancult your calca offices				



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354



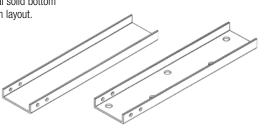






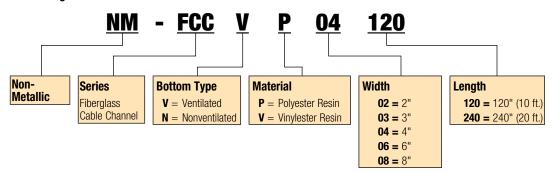
Fiberglass Cable Channel Straight Sections

Thomas & Betts offers non-metallic cable channel in solid or ventilated straight sections. Horizontal and vertical solid bottom fittings are also available to complete your system layout.





Straight Section Catalog Selector



Example: NM-FCCVP04-120 for Polyester Resin Cable Channel, 4" wide ventilated bottom, 120" (10 ft.) length

Specifications

		V	ENTILATED				NOI	NVENTILATED	
WIDTH IN.	HEIGHT IN.	LENGTH FT.	POLYESTER	VINYLESTER	WIDTH IN.	HEIGHT IN.	LENGTH FT.	POLYESTER	VINYLESTER
2	1	10	NM-FCCVP-02-120	NM-FCCVV-02-120	2	1	10	NM-FCCNP-02-120	NM-FCCNV-02-120
	1	20	NM-FCCVP-02-240	NM-FCCVV-02-24		1	20	NM-FCCNP-02-240	NM-FCCNV-02-240
3	1	10	NM-FCCVP-03-120	NM-FCCVV-03-120	3	1	10	NM-FCCNP-03-120	NM-FCCNV-03-120
	1	20	NM-FCCVP-03-240	NM-FCCVV-03-240	3	1	20	NM-FCCNP-03-240	NM-FCCNV-03-240
4	11//8	10	NM-FCCVP-04-120	NM-FCCVV-04-120	4	11//	10	NM-FCCNP-04-120	NM-FCCNV-04-120
4	11//8	20	NM-FCCVP-04-240	NM-FCCVV-04-240	4	11//	20	NM-FCCNP-04-240	NM-FCCNV-04-240
6	1%	10	NM-FCCVP-06-120	NM-FCCVV-06-120	6	1%	10	NM-FCCNP-06-120	NM-FCCNV-06-120
0	1%	20	NM-FCCVP-06-240	NM-FCCVV-06-240	0	1%	20	NM-FCCNP-06-240	NM-FCCNV-06-240
8	23/16	10	NM-FCCVP-08-120	NM-FCCVV-08-120	0	23/16	10	NM-FCCNP-08-120	NM-FCCNV-09-120
0	23/16	20	NM-FCCVP-08-240	NM-FCCVV-08-240	8	23/16	20	NM-FCCNP-08-240	NM-FCCNV-08-240

Splice plates NOT included. See following page for types of splice plates available.

Covers are available. Please consult your sales office.



800.816.7809

Fax: 901.252.1354





Non-Metallic Tray

Cable Channel Fittings

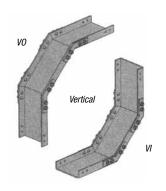
Horizontal Bends



ANGLE	WIDTH	CAT. NO.
	3"	NM-FCCNP-03-90HB 12
90	4"	NM-FCCNP-04-90HB 12
90	6"	NM-FCCNP-06-90HB 12
	8"	NM-FCCNP-08-90HB 12
	3"	NM-FCCNP-03-45HB 12
45	4"	NM-FCCNP-04-45HB 12
40	6"	NM-FCCNP-06-45HB 12
	8"	NM-FCCNP-08-45HB 12

One pair of splice plates with SS6 hardware included. For vinylester resin, use "V" instead of "P" in catalog number. Example: FCCNV-04-90HB12

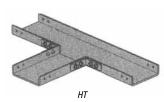
Vertical Bends



ANGLE	WIDTH	CAT. NO.
	3"	NM-FCCNP-03-90V* 12
00	4"	NM-FCCNP-04-90V* 12
90	6"	NM-FCCNP-06-90V* 12
	8"	NM-FCCNP-08-90V* 12
	3"	NM-FCCNP-03-45V* 12
45	4"	NM-FCCNP-04-45V* 12
45	6"	NM-FCCNP-06-45V* 12
	8"	NM-FCCNP-08-45V* 12

One pair of splice plates with SS6 hardware included. For vinylester resin, use "V" instead of "P" in catalog number. Example: FCCNV-04-90V112

Horizontal Tees



WIDTH IN.	CAT. NO.
3	NM-FCCNP-03-HT12
4	NM-FCCNP-04-HT12
6	NM-FCCNP-06-HT12
8	NM-FCCNP-08-HT12

Two pairs of splice plates included. For vinylester resin, use "V" instead of "P" in catalog number. Example: FCCNV-04-HT12

Horizontal Crosses



WIDTH IN.	CAT. NO.
3	NM-FCCNP-03-HX12
4	NM-FCCNP-04-HX12
6	NM-FCCNP-06-HX12
8	NM-FCCNP-08-HX12

Three pairs of splice plates included. For vinylester resin, use "V" instead of "P" in catalog number. Example: FCCNV-04-HX12

Covers available. Please contact your sales office.



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services**







Non-Metallic Tray

Cable Channel Splice Plates

Standard Splice Plates



Expansion Splice Plates



Horizontal 90° Splice Plates



Horizontal 45° Splice Plates



Horizontal 30° Splice Plates



Standard hardware is 1/4" Stainless Steel 316.

MATERIAL	CAT. NO.
Stainless Steel	NM-XSS-1001-SS6
Polyester Resin	NM-XFP-1001-SS6
Vinylester Resin	NM-XFV-1001-SS6
Supplied in pairs	

MATERIAL	CAT. NO.
Stainless Steel	NM-XSS-1011-SS6
Polyester Resin	NM-XFP-1011-SS6
Vinylester Resin	NM-XFV-1011-SS6
Supplied in pairs	

MATERIAL	CAT. NO.
Stainless Steel	NM-XSS-190IH-SS6
Polyester Resin	NM-XFP-190IH-SS6
Vinylester Resin	NM-XFV-190IH-SS6
Cumplied in pairs	

Supplied in pairs

MATERIAL	CAT. NO.
Stainless Steel	NM-XSS-145IH-SS6
Polyester Resin	NM-XFP-145IH-SS6
Vinylester Resin	NM-XFV-145IH-SS6
Sunnlied in nairs	

MATERIAL	CAT. NO.	
Stainless Steel	NM-XSS-130IH-SS6	
Polyester Resin	NM-XFP-130IH-SS6	
Vinylester Resin	NM-XFV-130IH-SS6	
Supplied in paire		

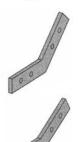
Cable Channel Splice Plates





Vertical 45° Splice Plates

Vertical 30° Splice Plates



MATERIAL	CAT. NO.
Stainless Steel	NM-XSS-190IV-SS6
Polyester Resin	NM-XFP-190IV-SS6
Vinylester Resin	NM-XFV-190IV-SS6
Supplied in paire	

MATERIAL	CAT. NO.
Stainless Steel	NM-XSS-145IV-SS6
Polyester Resin	NM-XFP-145IV-SS6
Vinylester Resin	NM-XFV-145IV-SS6

MATERIAL	CAT. NO.
Stainless Steel	NM-XSS-130IV-SS6
Polyester Resin	NM-XFP-130IV-SS6
Vinylester Resin	NM-XFV-130IV-SS6
Cupplied in pairs	

Supplied in pairs



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354

Technical Services Tel: 888.862.3289



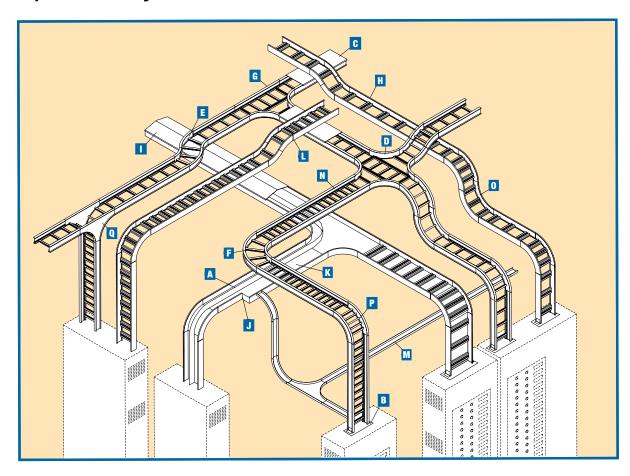




1-800-453-1692

Technical Information

Sample Plant Layout



Application

Commercial

- Schools
- Hospitals
- Office Buildings
- Airports
- Casinos
- Stadiums

Industrial

- · Petro-Chemical Plants
- Automotive Plants
- Paper Plants
- Food Processing
- Power Plants
- Refineries
- Manufacturing
- Mining

Key

- A Barrier Strip
- B Box Connector
- C Flat Cover
- **D** Horizontal Cross
- E Horizontal 45°
- F Horizontal 90°
- G Horizontal TeeH Ladder Tray
- I Peaked Cover

- J Right Reducer
- K Solid Tray
- L Splice Connector
- M Solid Channel Tray
- N Ventilated Tray
- 0 Vertical 90° Inside
- P Vertical 90° Outside
- **Q** Vertical Tee



800.816.7809 Fax: 901.252.1354



Technical Information

Glossary of Terms

Accessories:

Devices which are used to supplement the function of straight sections and fittings, and include such items as dropouts, covers, conduit adapters, hold-down devices and dividers.

Cable Tray Connector:

A device that joins cable tray straight sections or fittings, or both. The basic types of connectors are:

- 1. Rigid
- 2. Expansion
- 3. Adjustable
- 4. Reducer

Cable Tray Fitting:

A device that is used to change the direction, elevation or size of a cable tray system.

Cable Support:

A device that provides adequate means for supporting cable tray sections or fittings, or both. The basic types of cable tray supports are:

- 1. Cantilever bracket
- 2. Trapeze
- 3. Individual and suspension

Channel Cable Tray

A prefabricated metal structure consisting of a one-piece ventilated bottom or solid bottom channel section, or both, not exceeding six inches in width.

Ladder Cable Tray

A prefabricated metal structure consisting of two longitudinal side rails connected by individual transverse members.

Solid Bottom Cable Tray:

A prefabricated metal structure consisting of a bottom with no openings within integral or separate longitudinal side rails.

One Piece/Unit Cable Tray:

A prefabricated metal structure consisting of a one-piece solid or ventilated bottom.

Horizontal Cross:

A cable tray fitting that is suitable for joining cable trays in four directions at 90-degree intervals in the same plane.

Horizontal Bend:

A cable tray fitting that changes the direction in the same plane.



Horizontal Tee:

A cable tray fitting that is suitable for joining cable trays in three directions at 90-degree intervals in the same plane.

Metallic Cable Tray System:

An assembly of cable tray straight section, fitting, and accessories that forms a rigid structural system to support cables.

Reducer:

A cable tray fitting that is suitable for joining cable trays of different widths in the same plane. A straight reducer has two symmetrical offset sides. A right-hand reducer, when viewed from the large end, has a straight side on the right. A left-hand reducer, when viewed from the large end, has a straight side on the left.

Straight Section:

A length of cable tray that has no change in direction or size.

Ventilated Bottom:

A cable tray bottom having openings sufficient for the passage of air and utilizing 75 percent or less of the plan area of the surface to support cables.

Vertical Bend:

United States

Tel: 901.252.8000

Fax: 901.252.1354

800.816.7809

A cable tray fitting that changes direction to a different plane. An inside vertical elbow changes direction upward from the horizontal plane. An outside vertical elbow changes direction downward from the horizontal plane.



Technical Information

Cable Tray Selection Process

T&B has developed a seven-step process to help you select a cable tray system:

- 1. Select material and finish
- 2. Select the tray load class
- 3. Select the tray type
- 4. Select the tray size
- 5. Select the fittings
- Consider deflection
- 7. Electrical grounding capacity

Each step is described in detail below. For many applications, however, you may also have to take the following into account:

- Weight of the installation, which affects the cost of the support structure and the ease of installation.
- Corrosion resistance of the material is one of the most important selection criteria. Cable tray materials may not respond the same way in different environments. Chemicals or combinations of chémicals have corrosion effects on some materials that can be compounded by temperature or even the speed at which the corrosive elements contact the cable tray. For example, some grades of stainless steel may be resistant to salt water at high flow rates (perfect for heat exchangers) while exhibiting some corrosion pitting in standing salt water. For more information, see pages B-431-B-432.
- Galvanic effect can cause corrosion even if the cable tray material is resistant to its chemical environment. Dissimilar metals in contact (e.g., aluminum tray on steel supports or bare copper bonding conductor in aluminum tray) in the presence of an electrolyte are susceptible to galvanic effect. If there is a hazard of galvanic corrosion, it may be possible to isolate the tray system from other metals instead of using a more expensive type of tray that would resist corrosion in a given application.
- Melting point and flammability rating are primarily concerns for nonmetallic tray. Local building codes may restrict the use of a given product if certain performance levels are not met. Check with the appropriate inspection authorities before specifying the product.
- Relative cost varies dramatically, including material costs that float with the commodity index. For example, stainless steel prices may vary significantly according to daily changes in the market.
- Thermal expansion must also be taken into account on a long cable run, especially in areas where temperature variation is extreme. Expansion connectors may be required if the temperature differential is 25° F or greater. See page B-433 for expansion plate spacing and gap settings. Two bonding jumpers are required for every pair of splice plates for grounding continuity.

Selection Steps:

1. Select Material and Finish

The most suitable material and finish for your application will depend on cost, the potential for corrosion and electrical considerations. T&B offers cable tray systems fabricated from corrosion-resistant steel, stainless steel and aluminum alloys along with corrosion-resistant finishes, including zinc, PVC and epoxy. Special paint is also available. For more information, see the "Material Descriptions" section on **page B-429**.

2. Select the Tray Class/Load Capacity (Loading)

The standard classes of cable trays, as related to their maximum design loads and to the associated design support spacing based on a simple beam span requirement, shall be designated in accordance with the Load/Span table (right). Please note the load ratings are those most commonly used. Other load ratings are acceptable.

Costs vary between different load classes. Since labor and coupling costs are similar for a given length of tray, the heavier classes are more cost-effective on a load length basis. The designer should therefore specify the lightest class of tray compatible with the weight requirements of the cable tray.

Cable Loads: The cable load is the total weight, expressed in (kg/m), of all the cables that will be placed in the cable tray.

Snow Loads: The additional design load from snowfall should be determined using the building codes which apply for each installation.

Ice Loads: The additional load design due to the ice is determined by the following formula: $Wi = W \times Ti \times Di / 144$

Where: Wi = ice load (lb./linear foot)

W = width of the tray (inches)
Ti = maximum ice thickness (inches)

Di = 57 lb./ft.3 ice density

Ice thickness will vary depending on installation location. A value of ½ inch can be used as a conservative standard.

Wind Loads: The additional loading to be considered is the effect of the impact pressure normal to the side rail. This loading is determined by the following formula:

 $Wp = 0.00256 \times V^2 \times H/12$

Where: Wp = loading due to the wind (lb./linear foot)

V = wind velocity (mph)

H = Height of the side rail (inches)

Concentrated Loads: A concentrated static load is not included in the table below. Some user applications may require that a given concentrated static load be imposed over and above the working load.

Such a concentrated static load represents a static weight applied on the centerline of the tray at midspan. When so specified, the concentrated static load may be converted to an equivalent uniform load (We) in kilograms/ meter (pounds/linear foot), using the following formula, and added to the static weight of cable in the tray:

We = 2 x concentrated static load, kg (lb.) Span length, m (ft.)

Load/Span Class Designation

		SPAN, M (FT.)				
KG/M	LB./FT.	2.4 (8)	3.0 (10)	3.7 (12)	4.9 (16)	6.0 (20)
37	25	_	Α	_	_	_
67	45	_	_	_	_	D
74	50	8A	-	12A	16A	20A
97	65	_	С	_	_	_
112	75	8B	-	12B	16B	E or 20B
149	100	8C	-	12C	16C	20C
179	120	_	D	_	_	_
299	200	_	Е	_	_	_
* *	* *	† †	*	\	\	\
†		Deflection Span				^

Note: 8A/B/C, 12A/B/C, 16A/B/C and 20A/B/C are the traditional NEMA designations. A, C, D and E are the conventional CSA designations.



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354

Technical Services



Technical Information

3. Select the Tray Type

Cable tray is available with three styles of bottom:

Ladder Cable Tray is a prefabricated structure consisting of two longitudinal siderails connected by individual transverse members.

Ventilated Cable Tray is a prefabricated structure consisting of a ventilated bottom within integral or separate longitudinal siderails, with no openings exceeding 4 in. in a longitudinal direction.

Solid Bottom Cable Tray is a prefabricated structure without openings in the bottom.

Ladder tray is most often used because of its cost-effectiveness. The designer has a choice of four nominal rung spacings: 6, 9, 12 and 18 inches. The greatest rung spacing compatible with an adequate cable-bearing surface area should be selected. Heavy power cables often require greater cable bearing area due to the possibility of creep in the jacket material of the cable. If this is a concern, consult the cable manufacturer. This condition may require the use of ventilated tray, which also offers additional mechanical protection for the cables.

Local building codes may require totally enclosed cable tray systems under certain conditions. The designer should verify these before specifying the type of tray to be used.

4. Select the Tray Size

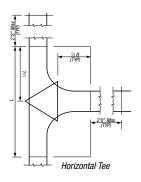
The width or height of a cable tray is a function of the number, size, spacing and weight of the cables in the tray. Available nominal widths are 6, 9, 12, 18, 24, 30 and 36 inches.

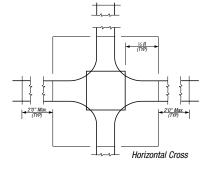
When specifying width, it is important to remember that the load rating does not change as the width increases. Even with six times the volume, a 36-in-wide tray cannot hold any more weight than a 6-in-wide tray. If the load rating of the tray permits, cable can be piled deeper in the tray. Most tray classes are available in a nominal 3%, 4, 5, 6 and 7 inches (8-inch height also available as a special — see Appendix). Cable ties or other spacing devices may be used to maintain the required air space between cables.

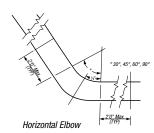
5. Select the Fittings

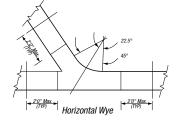
Fittings are used to change the size or direction of the cable tray. The most important decision to be made in fitting design concerns radius. The radius of the bend, whether horizontal or vertical, can be 12, 24, 36 or 48 in., or even greater on a custom basis. The selection requires a compromise with the considerations being available space, minimum bending radius of cables, ease of cable pulling and cost. The typical radius is 24 in. Fittings are also available for 30°, 45°, 60° and 90° angles. When a standard angle will not work, field fittings or adjustable elbows can be used. It may be necessary to add supports to the tray at these points. Refer to NEMA VE2 Installation Guidelines for suggested support locations. Note that fittings are not subject to NEMA/CSA load ratings.

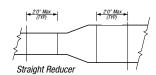
Support Locations for Fittings

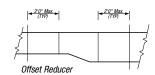


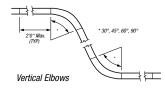


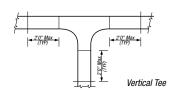














United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 Technical Services
Tel: 888.862.3289



Technical Information

6. Consider Deflection

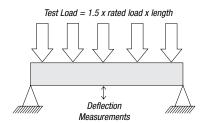
Deflection of the cable tray affects the appearance of an installation, but it is not a structural issue. In the case of non-metallic cable tray, deflection may be affected by elevated temperatures.

The NEMA/CSA load test is a simple beam, uniformly distributed load test (see illustration, **right**). This type of test was initially selected because:

. It was easiest to test.

 It represents the worst-case beam condition compared to continuous or fixed configurations. When consulting the manufacturer's catalog for deflection information, the designer must verify whether the data shown represents simple or continuous beam deflection. If continuous beam deflection is shown, the calculation factor should be given.

NEMA/CSA has one criterion for acceptance under their load test: the ability to support 150% of the rated load.



Simple vs. Continuous Beam Deflection

Theoretical maximum deflection for a simple beam, uniformly distributed load may be calculated as:

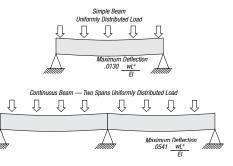
Where: w = Load in lb./ft.

L = Length in Inches
E = Modulus of Elasticity

I = Moment of Inertia

The maximum deflection calculation for a continuous beam of two spans with a uniformly distributed load is:

A continuous beam of two spans therefore has a theoretical maximum deflection of only 42% of its simple beam deflection. As the number of spans increases, the beam behaves increasingly like a fixed beam, and the maximum deflection continues to decrease. As this occurs, the system's load-carrying capability increases.

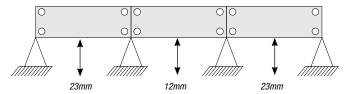


Location of Couplings

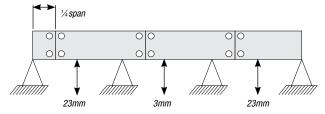
Since different bending moments are created in each span, there is no simple factor to approximate deflection as the number of spans increases. It is possible to calculate these deflections at any given point by using second

integration of the basic differential equation for beams. Testing shows that the center span of a three-tray continous beam can deflect less than 10 % of its simple beam deflection.

Couplers at Supports — Not Recommended



Couplers at 1/4" Span from Supports — Ideal Layout



The support span should not be greater than the straight section length, to ensure no more than one splice is located between supports.

Location of Couplers. The location of the coupler dramatically affects the deflection of a cable tray system under equal loading conditions. Testing

indicates that the maximum deflection of the center span of a three-span tray run can decrease four times if the couplers are moved from one-quarter span to above the supports. This can be a major concern for designers considering modular systems for tray and pipe racks.



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 Technical Services
Tel: 888.862.3289



Technical Information

Materials and Finishes

Materials

Most cable tray systems are fabricated from a corrosion-resistant metal (low-carbon steel, stainless steel or an aluminum alloy) or from a metal with a corrosion-resistant finish (zinc or epoxy). The choice of material for any particular installation depends on the installation environment (corrosion and electrical considerations) and cost.

Aluminum

Cable trays fabricated of extruded aluminum are often used for their high strength-to-weight ratio, superior resistance to certain corrosive environments, and ease of installation. They also offer the advantages of being lightweight (approximately 50% that of a steel tray) and maintenance free, and since aluminum cable trays are non-magnetic, electrical losses are reduced to a minimum.

T&B cable tray products are formed from the 6063 series alloys which by design are copper-free alloys for marine applications. These alloys contain silicon and magnesium in appropriate proportions to form magnesium silicide, allowing them to be heat treated. These magnesium-silicon alloys possess good formability and structural properties, as well as excellent corrosion resistance.

The unusual resistance to corrosion, including weathering, exhibited by aluminum is due to the self-healing aluminum-oxide film that protects the surface. Aluminum's resistance to chemicals in the application environment should be tested before installation.

Steel

T&B steel cable trays are fabricated from structural quality steels using a continuous roll-formed process. Forming and extrusions increase the mechanical strength.

The main benefits of steel cable tray are its high strength and low cost. Disadvantages include high weight, low electrical conductivity and relatively poor corrosion resistance.

The rate of corrosion will vary depending on many factors such as the environment, coating or protection applied and the composition of the steel. T&B offers finishes and coatings to improve the corrosion resistance of steel. These include pre-galvanized, hot-dip galvanized (after fabrication), epoxy and special paints.

Stainless Steel

Stainless steel offers high yield strength and high creep strength at high ambient temperatures.

T&B stainless steel cable tray is roll-formed from AISI Type 316 stainless steel.

Stainless steel is resistant to dyestuffs, organic chemicals and inorganic chemicals at elevated temperatures. Higher levels of chromium and nickel and a reduced level of carbon serve to increase corrosion resistance and facilitate welding. Type 316 includes molybdenum to increase high temperature strength and improve corrosion resistance, especially to chloride and sulfuric acid. Carbon content is reduced to facilitate welding.

Galvanized Coatings

The most widely used coating for cable tray is galvanizing. It is costeffective, protects against a wide variety of environmental chemicals and is self-healing if an area becomes unprotected through cuts or scratches.

Steel is coated with zinc through electrolysis by dipping steel into a bath of zinc salts. A combination of carbonates, hydroxides and zinc oxides forms a protective film to protect the zinc itself. Resistance to corrosion is directly related to the thickness of the coating and the harshness of the environment.

Pre-Galvanized

Pre-galvanized, also known as mill-galvanized or hot-dip mill-galvanized, is produced in a rolling mill by passing steel coils through molten zinc. These coils are then slit to size and fabricated.

Areas not normally coated during fabrication, such as cuts and welds, are protected by neighboring zinc, which works as a sacrificial anode. During welding, a small area directly affected by heat is also left bare, but the same self-healing process occurs.

G90 requires a coating of .90 ounces of zinc per square foot of steel, or .32 ounces per square foot on each side of the metal sheet. In accordance with A653/A653M-06a, pre-galvanized steel is not generally recommended for outdoor use or in industrial environments.

Hot-Dip Galvanized

After the steel cable tray has been manufactured and assembled, the entire tray is immersed in a bath of molten zinc, resulting in a coating of all surfaces, as well as all edges, holes and welds.

Coating thickness is determined by the length of time each part is immersed in the bath and the speed of removal. Hot-dip galvanizing after fabrication creates a much thicker coating than the pre-galvanized process, a minimum of 3.0 ounces per square foot of steel or 1.50 ounces per square foot on each side of the sheet (according to ASTMA123, grade 65).

The process is recommended for cable tray used in most outdoor environments and many harsh industrial environment applications.

Other Coatings

Epoxy and special paint coatings are available on request.



Technical Information

Corrosion

Corrosion of metal occurs naturally when the metal is exposed to chemical or electrochemical attack. The atoms on the exposed surface of the metal come into contact with a substance, leading to deterioration of the metal through a chemical or electrochemical reaction. The corroding medium can be a liquid, gas or solid.

Although all metals are susceptible to corrosion, they corrode in different ways and at various speeds. Pure aluminum, bronze, brass, most stainless steels and zinc corrode relatively slowly, but some aluminum alloys, structural grades of iron and steel and the 400 series of stainless steels corrode quickly unless protected.

Various types of metal corrosion are categorized by its appearance or the method of acceleration:

- Chemical corrosion occurs through dissolution of the metal by reaction with a corrosive medium
- · Electrochemical corrosion involves chemical dissolution
- Galvanic corrosion is accelerated by a difference in potential between metals that are in contact
- Pitting corrosion is accelerated by a difference in the concentration of an ion or another dissolved substance
- Crevice corrosion is accelerated by oxygen concentration or ion cell formation
- · Erosion corrosion is accelerated by a flow of liquid or gas
- Intergranular corrosion occurs at grain (or crystal) boundaries

Electrochemical Corrosion

Electrochemical corrosion is caused by an electrical current flow between two dissimilar metals, or if a difference of potential exists, between two areas of the same metal surface.

The energy flow occurs only in the presence of an electrolyte, a moist conductor that contains ions, which carry an electric charge. Solutions of acids, alkalies and salts contain ions, making water — especially salt water — an excellent electrolyte.

Galvanic Corrosion

Galvanic corrosion results from the electrochemical reaction that occurs in the presence of an electrolyte when two dissimilar metals are in contact. The strength of the reaction — and the extent of the corrosion — depend on a number of factors, including the conductivity of the electrolyte and potential difference of the metals.

The metal with less resistance becomes anodic and more subject to corrosion, while the more resistant becomes cathodic.

The Galvanic Series Table, developed through laboratory tests on industrial metal alloys in sea water (a powerful electrolyte), lists metals according to their relative resistance to galvanic corrosion. Those less resistant to galvanic corrosion (anodic) are at the top, and those more resistant (cathodic) are at the bottom.

The metals grouped together are subject to only slight galvanic effect when in contact, and metals at the top will suffer galvanic corrosion when in contact with metals at the bottom (in the presence of an electrolyte). The farther apart two metals are on the table, the greater the potential corrosion.

Galvanic Series Table

Anodic End	
Magnesium	Type 304 stainless steel (active)
Magnesium alloys	Type 316 stainless steel (active)
Zinc	Lead
Galvanized steel	Tin
Naval brass (C46400)	
Aluminum 5052H	Muntz metal (C28000)
Aluminum 3004	Manganese bronze (C67500)
Aluminum 3003	
Aluminum 1100	Nickel (active)
Aluminum 6053	Inconel (active)
Alclad aluminum alloys	
Aluminum bronze (C61400)	Cartridge brass (C26000)
Cadmium	Admiralty metal (C44300)
Copper (C11000)	
Aluminum 2017	Red brass (C23000)
Aluminum 2024	
	Silicon bronze (C 65100)
Low-carbon steel	Copper nickel, 30% (C71500)
Wrought iron	
Cast iron	Nickel (passive)
Monel	Inconel (passive)
Ni-resist	
Type 304 stainless steel (passive)	Gold
Type 410 stainless steel (passive)	
Type 316 stainless steel (active)	Platinum
50Pb-50Sn solder	
Silver	

Cathodic End

Pitting

Pitting corrosion is localized and is identified by a cavity with a depth equal to or greater than the cavity's surface diameter. Pits may have different sizes and depths and most often appear randomly distributed. Aluminum and stainless steels in chloride environments are especially susceptible to pitting.

Pitting begins when surface defects, foreign particles or other variations in the metal lead to fixation of anodic (corroded) and cathodic (protected) sites on the metal surface. Acidic metal chlorides, which form and accumulate in the pit as a result of anodes attracting chloride ions, accelerate the pitting process over time. The nature of pitting often makes it difficult to estimate damage.

Crevice Corrosion

Crevice corrosion is a specialized form of pitting that particularly attacks metals or alloys protected by oxide films or passive layers. It results from a relative lack of oxygen in a crevice, with the metal in the crevice becoming anodic to the metal outside. For the crevice to corrode, it must be large enough to admit the electrolyte, but small enough to suffer oxygen depletion.

Erosion Corrosion

While erosion is a purely mechanical process, erosion corrosion combines mechanical erosion with chemical or electrochemical reaction. The process is accelerated by the generally rapid flow of liquid or gas over an eroded metal surface, removing dissolved ions and solid particles. As a result, the metal surface develops grooves, gullies, waves, rounded holes and valleys.

Erosion corrosion can damage most metals, especially soft ones like aluminum that are susceptible to mechanical wear, and those that depend for protection on a passive surface film, which can be eroded. Resulting damage can also be enhanced by particles or gas bubbles in a suspended state.





Technical Information

Intergranular Corrosion

Intergranular corrosion occurs between the crystals (or grains) that formed when the metal solidified. The composition of the areas between the crystals differs from that of the crystals themselves, and these boundary areas can become subject to intergranular corrosion. Weld areas of austenitic stainless steels are often affected by this form of corrosion, and the heat-treatable aluminum alloys are also susceptible.

Corrosion Resistance Guide

The following table has been compiled as a guide for selecting appropriate cable trays for various industrial environments. The information can only be used as a guide because corrosion processes are dictated by the unique circumstances of any particular assembly. Corrosion is significantly affected by trace impurities which, at times, can become concentrated through wet/ dry cycles in locations that are prone to condensation and evaporation. It is not uncommon to find aggressive mists created from contaminant species, notably from sulfur or halogen sources.

Temperature greatly influences corrosion, sometimes increasing the rate of metal loss (a rule-of-thumb guide is that a 30° C change in temperature results in a 10X change in corrosion rate). Sometimes corrosion attack slows down at higher temperatures because oxygen levels in aqueous solutions are lowered as temperatures increase. If an environment completely dries out, then there can be no corrosion.

Stress-associated corrosion might occur when assemblies are poorly installed and/or fabricated, e.g., on-site welding or mechanical fastening. Premature failure can result from corrosion fatigue, which can occur in any environment; stress corrosion cracking, which occurs in the presence of a specific chemical when the metal is under a tensile stress, which may be residual or applied (e.g., from poor fabrication or welding); fretting, where two adjacent surfaces (under load) are subjected to an oscillatory motion across the mating surfaces.

Design plays a significant role in exacerbating corrosion. Good design should minimize the risk of stress concentrations within a structure. Examples include sharp profiles, abrupt section changes and threaded screws. These measures are particularly important for metals that are prone to stress corrosion cracking in specific media.

Non-draining locations create liquid traps; local metal-to-metal (or metal-to-non-metal) contact points (e.g., mechanical assemblies [bolts] with washers or spacers) permit crevice corrosion and/or galvanic corrosion to occur. Areas that are poorly maintained (e.g., surfaces are not regularly or properly washed and stubborn deposits remain on the metal surface) are particularly prone to localized corrosion damage due to different levels of oxygen under and adjacent to the location in question (differential aeration). Resulting damage from these situations is in the form of small holes (pits). In each of the examples just quoted there is a restricted supply of oxygen. Thus, metals (e.g., aluminum, stainless steels, zinc) that rely on oxygen to form protective corrosion films (oxides, hydroxides, carbonates, etc.,) may be prone to localized pitting and/or crevice corrosion.

A further example of localized corrosion occurs when dissimilar metals contact each other in the presence of a corrodent, i.e., galvanic corrosion. Each metal will corrode but the one that is most active (anode) can be more corroded especially when there is a large surrounding area of the less active (cathodic) metal. It is wise to avoid small anodic areas. Some examples include steel bolts (small area of anodic metal) in stainless steel plate (large area of cathodic metal); steel bolts in copper plate (the steel corrodes). There can be environmental influences. For example when a fluid that contains active metallic species comes in contact with aluminum (copper picked up from aqueous solutions conveyed in copper pipe), the aluminum corrodes. A further dramatic example is provided when trace quantities of mercury contact aluminum — the aluminum corrodes very rapidly. These are examples of deposit corrosion.

Key to Symbols in Tables

The following symbols are used throughout the Chemical Species tables in order to provide an indication about the suitability of a potential candidate material for a specific chemical environment.

Note: These tables should be regarded only as guides to anticipated performance because of possible contributions from temperature, pollutant (contaminant) species, etc. Further details are given elsewhere.

Symbols

- ++ First choice; very low corrosion rate, typically <5 mpy, or <.005 inch/year, (1 mil = ½000 inch)
- + Good choice; low corrosion rate, typically <20 mpy, or <.02 ipy
- Can use; corrosion rate up to 50 mpy (.05 ipy); some limitations may apply
- X Not recommended
- (-) Brackets indicate probable limitations, e.g., at higher temperatures, [symbol "T"]; at higher concentrations, [symbol "C"]; due to pitting, [symbol "P"]; due to local grain boundary attack in the metal/intergranular corrosion, [symbol "I"]; or, due to stress corrosion cracking, [symbol "S"]
- **nd** No available data

Chemical Resistance

CHEMICAL	ALUMINUM	HDG/STEEL	316SS
Acetaldehyde	++	+	++
Acetic acid (aerated)	(+) T,C	Χ	(++) T
Acetic acid (not aerated)	(+) T,C	Χ	(++) T
Acetone	++	++	++
Acetylene	++	nd	++
Allyl alcohol	+	nd	++
Aluminum chloride (dry)	+	nd	(+) T,P
Aluminum chloride (wet)	Χ	Χ	(-) P
Aluminum sulfate (satd.)	Χ	nd	+
Ammonia (anhydrous)	++	++	++
Ammonia (gas)	-	+	(+) T
Ammonium acetate	+	nd	+
Ammonium bicarbonate	-	nd	(+) T
Ammonium carbonate (satd.)	+	Χ	+
Ammonium chloride (28%)	Χ	Χ	(+) P,S
Ammonium chloride (50%)	Χ	Χ	Χ
Ammonium hydroxide	+	+	(++) C
Ammonium nitrate	+	Χ	(++) S
Ammonium phosphate (40%)	Χ	nd	+
Ammonium sulfate (to 30%)	Χ	-	+
Amyl acetate	++	++	++
Asphalt	++	+	+
Beer	++	Χ	++
Benzene (benzol)	++	+	(+) P
Benzoic acid	+	nd	+
Benzol (see benzene)			
Boric acid (boracic acid)	++	nd	(++) T,P
Bromine (wet)	Χ	Χ	Χ
Butadiene (butylene)	+	+	+
Butyl alcohol (butanol)	++	++	++
Butyric acid	+	Χ	+
Cadmium sulfate	+	nd	++
Calcium carbonate	-	nd	+



United States Tel: 901.252.8000

800.816.7809 Fax: 901.252.1354





Technical Information

Chemical Resistance (continued)

Chemicai Resistance <i>(continuea)</i>						
CHEMICAL	ALUMINUM	HDG/STEEL	316SS			
Calcium chloride (satd.)	+	Х	(+) S			
Calcium hydroxide (satd.)	Χ	nd	+			
Calcium hypochlorite (satd.)	Χ	Χ	(-) P			
Carbon dioxide (wet)	++	+	+			
Carbon disulfide (bisulfide)	++	+	++			
Carbon tetrachloride	Χ	+	(++) P, S			
Carbolic acid (see phenol)						
Carbonic acid (see carbon dioxide)						
Caustic potash (see potassium hydroxide)						
Caustic soda (see sodium hydroxide)	.,		() D 0			
Chlorine gas (wet)	X	++	(-) P, S			
Chloroform	(+) dry	+	(+) T, S			
Chromic acid	+	nd	(+) P			
Citric acid (dilute)	(+) T, C	X	(++) P			
Copper chloride	X	X	(-) P			
Copper nitrate	X	nd -	++			
Copper sulfate Cresol			+			
Crude oil	+	+	++			
Diethylamine	+	++	++			
Dimethyl ketone (see acetone)	+	TT	++			
Ethyl acetate	(++) dry	++	+			
Ethyl alcohol (ethanol)	(++) ury ++	++	++			
Ethylene dichloride	(-) dry	++	(+) P, S			
Ethylene glycol (glycol)	++	++	++			
Ferric chloride	Χ	Х	Χ			
Ferric nitrate (10%)	X	nd	+			
Ferrous sulfate	+	nd	(+) P			
Formaldehyde (methanal)	(+) P	++	(++) T, C			
Fluorine gas (moist)	X	Χ	X			
Formalin (see formaldehyde)						
Formic acid (methanoic acid, 10%)	(+) T	Χ	(+) P, C			
Furfural (furfuraldehyde)	+	nd	+			
Furol (see furfural)						
Gelatin	++	+	++			
Glycerine (glycerol)	++	++	++			
Hexamine (80%)	++	nd	++			
Hydrobromic acid	Х	X	X			
Hydrochloric acid (muriatic acid)	Χ	X	Χ			
Hydrocyanic acid (dilute)	+	nd	+			
Hydrocyanic acid (conc.)	X	nd	+			
Hydrofluoric acid	X	X	X			
Hydrogen chloride gas (dry)	X	X	(++) S			
Hydrogen chloride gas (wet)	X	X	+			
Hydrogen parevide (to 40%)	(-) T	nd	+			
Hydrogen peroxide (to 40%)	++ (,) D	nd	+ (+) P, S			
Hydrogen sulfide (wet) Hypo (see sodium thiosulfate)	(+) P	nd	(+) r, s			
Hypochlorous acid	Χ	Χ	Χ			
lodine solution (satd.)	X	X	X			
Lactic acid	(+) T	nd	(+) P, I			
Latex	++	-	++			
Lithium chloride (to 30%)	X	nd	++			
Linseed oil	+	nd	++			
Magnesium chloride (50%)	X	Х	(+) P, S			
Magnesium hydroxide	+	nd	++			
Magnesium sulfate	+	Х	+			
Maleic acid (maleinic acid, 20%)	+	nd	+			
Methyl alcohol (methanol)	++	++	++			
Methyl ethyl ketone	+	++	+			
Milk	++	Χ	++			

CHEMICAL	ALUMINUM	HDG/STEEL	316SS
Molasses	+	nd	++
Naptha	+	+	+
Natural fats	++	++	++
Nickel chloride	Χ	nd	(+) P, S
Nickel sulfate	Χ	nd	+
Nitric acid	Χ	Χ	(++) l
Oleic acid	(++) T	nd	++
Oxalic acid (dilute)	-	nd	+
Oxalic acid (satd.)	(+) T	Χ	Χ
Paraformaldehyde (to 30%)	+	nd	++
Perchloroethylene	+	X	(++) P
Phenol (carbolic acid)	+	+	++
Phosphoric acid (dilute)	Χ	Χ	++
Phosphoric acid (50%)	Χ	Х	(++) l
Picric acid	++	nd	+
Potassium bicarbonate (30%)	Х	nd	++
Potassium carbonate	X	nd	++
Potassium chloride (to 25%)	Х	Χ	(++) P
Potassium dichromate (30%)	(++) T	X	++
Potassium hydroxide	Χ Χ	nd	(+) S
Potassium nitrate	++	++	+
Potassium sulfate	++	++	++
Propionic acid (propanoic acid)	(+) T	Χ	(+) T
Propyl alcohol (propane)	++	++	++
Prussic acid (see hydrocyanic acid)			
Pyridine	+	nd	++
Soaps	+	-	+
Sodium bicarbonate (20%)	+	nd	++
Sodium bisulfate	X	X	(+) T
Sodium bisulfite	X	X	+
Sodium chloride (to 30%)	X	X	(+) P, S
Sodium cyanide	X	nd	(+) T
Sodium hydroxide (10–30%)	X	X	(+) S
Sodium hydroxide (50%)	X	X	(++) S
Sodium hydroxide (conc.)	X	X	++
Sodium hypochlorite (conc.)	X	+	(-) P, S
Sodium nitrate	++	X	++
Sodium peroxide (10%)	+	nd	+
Sodium silicate	++	nd	++
Sodium sulfate	(++) 30%	X	++
Sodium sulfide (to 50%)	X	nd	(+) T
Sodium thiosulfate	+	nd	++
Steam	(+) P	++	++
Stearic acid	+	nd	++
Sorbital (hexahydric alcohol)	++	+	++
Sulfur dioxide (dry)	+	+	++
Sulfur dioxide (wet)	X	X	(+) T
Sulfuric acid (to 80%)	X	X	X
Sulfuric acid (80–90%)	X	X	(-) I
Sulfuric acid (98%)	X	X	(+)
Tannic acid (tannin)	X	X	+
Tartaric acid (to 50%)	(+) T	nd	++
Toluene (Toluol; methyl benzene)	(+) 1	11u ++	++
Trichloroethylene	(++) T		(+) P
Turpentine		+	(+) P ++
Water (acid, mine)	+ X	++	++ (++) P
Water (potable)	+		. ,
Water (sea)		+	++
` '	+	+ nd	++
Xylene Zino oblorido (diluto)	++	nd	++
Zinc chloride (dilute)	++	nd	(++) P, S



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 Technical Services Tel: 888.862.3289



Technical Information

Electrical Grounding Capacity/Thermal Expansion and Contraction

7. Electrical Grounding Capacity

The National Electrical Code®, Section 392.60 allows cable tray to be used as an equipment grounding conductor. All T&B standard cable trays are classified by UL per NEC® Table 392.60(A) based on their cross sectional area.

The corresponding cross-sectional area for each siderail design (2-siderails) is listed on the label. This cable tray label is attached to each straight section that is UL classified. Fittings are not subject to CSA or UL.

See pages B-377-B-379 for grounding and bonding products.

For more information on grounding and bonding cable tray, refer to section 4.7 of the NEMA VE 2 Cable Tray installation guidelines.

NEC Table 392.60(A) Metal Area Requirements for Cable Trays Used as Equipment Grounding Conductors

Maximum Fuse Ampere Rating, Circuit Breaker Ampere Trip Setting or Circuit Breaker Protective	Minimum Cross-Sectional Ar of Metal in Square Inches*		
Relay Ampere Trip Setting for Ground Fault Protection of any Cable Circuit in the Cable Tray System	Steel Cable Trays	Aluminum Cable Trays	
60	.20	.20	
100	.40	.20	
200	.70	.20	
400	1.00	.40	
600	1.50 **	.40	
1000	_	.60	
1200	_	1.00	
1600	_	1.50	
2000	_	2.00 **	

For SI units: One square inch = 645 square millimeters.

For larger ampere ratings, an additional grounding conductor must be used.

Thermal Expansion and Contraction

A cable tray system may be affected by thermal expansion and contraction, which must be taken into account during installation. To determine the number of expansion splice plates you need, decide the length of the straight cable tray runs and the total difference between the minimum winter and maximum summer temperatures. To function properly, expansion splice plates require accurate gap settings between trays. To find the gap, see **Table 2**.

Plot Your Gap Setting

- · Locate the lowest metal temperature on low temperature line
- Locate the highest metal temperature on high temperature line
- Connect these two points
- Locate installation temperature and plot to high/low line; drop plot to gap setting

The support nearest the midpoint between expansion splice plates should be anchored, allowing the tray longitudinal movement in both directions. All other support location should be secured by expansion guides (see **Table 3**).

When a cable tray system is used as an equipment grounding conductor, it is important to use bonding jumpers at all expansion connections to keep the electrical circuit continuous.

Table 1
Maximum Distance Between Expansion Joints
(For 1" Movement)

	RATURE Rential	ST	EEL	ALUN	MINUM
°C	°F	М	FT.	М	FT.
14	25	156	512	79	260
28	50	78	256	40	130
42	75	52	171	27	87
56	100	39	128	20	65
70	125	31	102	16	52
83	150	26	85	13	43
97	175	22	73	11	37

Note: Every pair of expansion splice plates requires two bonding jumpers for grounding continuity.

Table 2 Gap Setting of Expansion Splice Plate

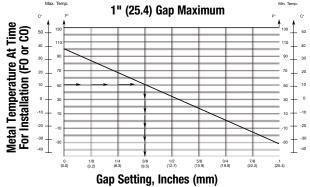
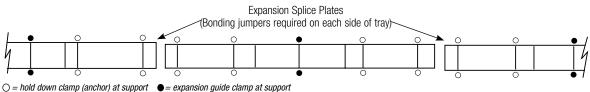


Table 3

Typical Cable Tray Installation



NEC and National Electrical Code are registered trademarks of the National Fire Protection Association, Inc.



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 Technical Services
Tel: 888.862.3289



^{*} Total cross-sectional area of both side rails for ladder or trough-type cable trays, or the minimum cross-sectional area of metal in channel-type cable trays or cable trays of one-piece construction.

^{**} Steel cable trays shall not be used as equipment grounding conductors for circuits with ground-fault protection above 600 amperes. Aluminum cable trays shall not be used as equipment grounding conductors for circuits with ground-fault protection above 2000 amperes.

Technical Information

Structural Design

An installed cable tray system functions as a beam under a uniformly distributed load. The four basic beam configurations found in cable installations are simple, continuous, cantilever and fixed. Each is attached to the cable tray support in a different way.

Simple Beam

A straight section of cable tray supported at both ends but not fastened functions as a simple beam. Under a load, the tray will exhibit deflection. The load-carrying capacity of a cable tray unit should be based on simple beam loading, since this type of loading occurs at run ends, offsets, etc., in any tray system. The NEMA/CSA Load Test is a simple beam, uniformly distributed load test. It represents the worst-case beam condition compared to continuous or fixed configurations. The only criterion for NEMA/CSA acceptance is the ability to support 150% of the rated load.

Continuous Beam

Cable tray sections forming spans constitute a continuous beam configuration, the most common found in cable tray installations. This configuration exhibits characteristics of the simple beam and the fixed beam. For example, with loads applied to all spans at the same time, the ends spans function like simple beams, while the counterbalancing loads on either side of a support function like a fixed beam. As the number of spans increases, the continuous beam behaves increasingly like a fixed beam, and the maximum deflection continues to decrease. As this occurs, the system's load-carrying capability increases.

Cantilever Beam

A cantilever beam has more to do with the cable tray supports than the tray. Attaching one end of a beam to a support while the other end remains unsupported, as when wall mounting a bracket, creates a cantilever beam configuration. Obviously, with one end unsupported, the load rating of a cantilever beam is significantly less than that of a simple beam.

Fixed Beam

A fixed beam applies more to the cable tray supports than the tray itself, because both ends of a fixed beam are firmly attached to the supports. The rigid attachment prevents movement and increases load-bearing ability.

Design Loadings

Basic cable trays are designed on the basis of maximum allowable stress for a certain section and material. The allowable cable load varies with the span, type and width of the tray.

Splicing

A continuous system requires that side rails be spliced, and splice plates must be strong and easy to install. T&B Aluminum Snap-In Splice Plate allows hands-free installation of hardware for easier assembly. If practical, splices in a continuous span cable tray system should be installed at points of minimum stress. Unspliced straight sections should be used on all simple spans and on end spans of continuous span runs. Straight section lengths should be equal to or greater than the span length to ensure not more than one splice between supports. Examples of splicing configurations are shown on **page B-266**.

Basic Design Stresses

Allowable working stresses are the basis for all structural design. Since they must be of such magnitude as to ensure the safety of the structure against failure, their selection is a matter of prime importance. In practice, a basic design stress is determined by dividing the strength of the material by a factor of safety. The determining factors in establishing a set of basic design stresses for a structure are therefore the mechanical properties of the materials and suitable factors of safety. Yield strength and ultimate strength are the mechanical properties most commonly considered to govern design. Values for these properties are readily obtainable. In determining the factor of safety, the designer must be guided by official technical standards and his or her own judgment and experience.

Factors of Safety

Since a low value for the factor of safety results in economy of material, the designer seeks to establish a value as low as is practical, based on sound engineering judgment and experience. Consider these important criteria:

The accuracy with which the loads to represent service conditions are selected and assumed. If there is much doubt concerning these loads, the basic design stress will have to be more conservative than under conditions where the loads are known with considerable accuracy.

The accuracy with which the stresses in the members of a structure are calculated. Many approximations are used in structural design to estimate stress distribution. The choice of a factor of safety should be consistent with how accurate the analysis is. The more precise the method, the greater the allowable unit stress may be.

The significance of the structure being designed. The designer must keep in mind the relative importance of the structure and appraise the possibility of its failure causing significant property damage or loss of life. In this respect, the significance of the design will govern the choice of a factor of safety to a considerable extent.

Application of Design Stresses to Cable Tray Systems

A cable tray manufacturer must design standard products to accommodate the great variations encountered in applications. The factors affecting the selection of a suitable basic design stress necessarily result in more conservative stresses than might otherwise be required.

An engineer may consider that the manufacturer's basic design stresses are too conservative for a particular project and establish a new set of basic design stresses, selecting those safety factors that would result in a cable tray system best suited to meet the projected service conditions. With these stresses, the engineer can easily calculate an increase or decrease in the manufacturer's loading data, since the load is always in direct proportion to the stress. The factors of safety determining maximum allowable stresses are:

- Aluminum Alloys
 - a. For tension: the lower of ½ the minimum ultimate strength or ½ the minimum yield strength in tension.
 - b. For compression: the lower of $\frac{1}{2}$ the minimum ultimate strength or $\frac{2}{3}$ the minimum yield strength in compression.
 - c. For shear: the lower of % the minimum ultimate strength or % the minimum yield strength in shear.
- Hot-Rolled Steels
 - a. For tension: the lower of $\frac{1}{2}$ the minimum ultimate strength or the minimum yield point in tension times .61.
 - b. For compression: the lower of ½ the minimum ultimate strength or the minimum yield point in compression times .61.
 - c. For shear: maximum stress not to exceed a value of % the basic design stress for tension.

Design Efficiency

A tray designed to perform its required function with the minimum weight (which facilitates installation) requires the material to be used in the most effective manner. The design requirements of side rails are different from those of rungs or ventilated bottom; fabricated tray allows the designer to use different shapes and thicknesses of metal to the best advantage. The strength of the side rail and rungs is increased by the proper use of metal in the high-strength heat-treated aluminum or continuously rolled cold-worked steel sections.

Loading

Per NEMA VE1, cable tray is not designed to support personnel. Display warnings to prevent the use of cable tray as walkways.

Cable Loads

The cable load is the total weight, expressed in kg/m or lb./ft., of all the cables placed in the cable tray.

Seismic Loads

Cable tray systems can withstand stronger earthquakes than previously thought. The tray itself and the support material are highly ductile, and the cables moving within the tray tend to dissipate energy. Consult T&B if you have specific seismic specifications.



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services**



Technical Information

Load Diagrams for Beams

SIMPLE BEAMS

Uniform Load

w per unit of length, total load w

Reaction:

= WX(L-X) Moment at any point:

2L Maximum moment, at center: Mmax= wL2

Maximum deflection: 5wL4 384EI 384FI

WL Maximum shear:

Concentrated Load at Center

Reaction: Moment at any point:

Maximum moment, at center: Maximum deflection:

Maximum shear:

Concentrated Load at any Point

Reaction: Moment at any point: $X \le a, M =$ X >= a, M =Maximum moment: At X = a.

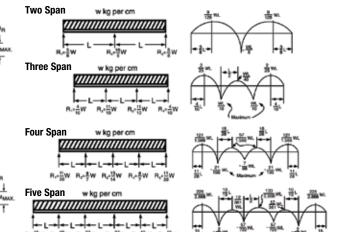
Maximum deflection: Pab(L+b)3a(L+b) Maximum shear:

CONTINUOUS BEAMS

W = wL

R = Reaction, kg

= Span Length, cm R1 = cw



CANTILEVER BEAMS

Uniform Load

w per unit of length: total load w

Reaction R = wL = W $M = WX^2 =$ Moment at any point:

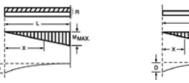
WX² 2L Maximum moment: WL

Maximum deflection: RFI

Maximum shear: V = Concentrated load at free end Reaction: R = P Moment at any point: M = PxMaximum moment, Mmax = PL Maximum deflection. $D = Pl^3$

3EI

Maximum shear, V = P



General Loading Requirements and Maps (IEEE: Section 25 Loading for Grades B, C and D)

General

- 1. It is necessary to assume the loadings that may be expected to occur on a line because of wind and ice during all seasons of the year. These weather loadings shall be the values of loading resulting from the application of Rules 250B or 250C. Where both rules apply, the required loading shall be the one that, when combined with the appropriate overload capacity factors, has the greater effect on strength requirements.
- 2. Where construction or maintenance loads exceed those imposed by Rule 250A1, which may occur more frequently in light loading areas, the assumed loadings shall be increased accordingly.
- 3. Loadings experienced in certain areas in each of the loading districts may be greater or may be less than those specified in these rules. In the absence of a detailed loading analysis, no reduction in the loadings specified therein shall be made without the approval of the administrative authority.

Combined Ice and Wind Loading

Three general degrees of loading due to weather conditions are designated

as heavy, medium and light loading. Page B-438 shows the districts in which these loadings are normally applicable as well as the radial thickness of ice and the wind pressures to be used in calculating loading. Ice is assumed to weigh 57 lb./ft.2 (913 kg/m3).

Extreme Wind Loading

If any portion of a structure or its supported facilities exceeds 60 ft. (18m) above ground or water level, the applicable horizontal wind speed shall be used to calculate horizontal wind pressures. These pressures shall be applied to the entire structure and supported facilities without ice loading. The following formulas shall be used to calculate wind pressures on cylindrical surfaces:

pressure in lb./ft. 3 = .00256 (v m/h) 2 pressure in pascals = .613 (v m/h)²

Page B-438 lists the conversions of velocities to pressures for typical wind speeds as calculated by the formulas listed above. If no portion of the structure or its supported facilities exceeds 60 ft. (18m) above ground or water level, the provisions of this rule are not required.





Technical Information

Cable Tray Engineering Specification

Cable Tray

 Cable tray shall be by one manufacturer and shall consist of straight sections, fittings and accessories per NEMA VE1-2006/CSA C22.2 No. 126.1-02. Cable tray must be listed by UL as equipment grounding conductor. There shall be no burrs, projections or sharp edges to damage the cable insulation.

Material

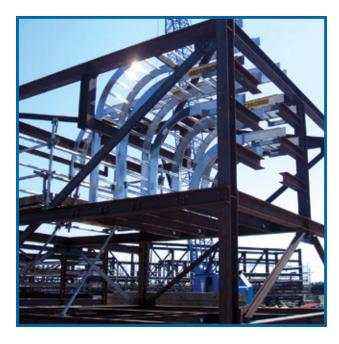
- Aluminum All siderails, and rungs shall be of extruded aluminum type 6063-T6. Siderails shall be of I-beam construction.
- Pre-Galvanized Steel All siderails and rungs shall be of steel conforming to the requirements of ASTM A653/A653M-06a with G90 coating thickness. Siderail shall be reinforced with flanges turned inward.
- Hot Dip Galvanized Steel All siderails and rungs shall be made from steel conforming to the requirements of A1008/A1008M-07, SS grade 33, type 2 or A1011/A1011-06b SS, grade 33 and shall be hot dip galvanized after manufacture per ASTM A123 providing a minimum thickness of 1.50 oz per ft.2
- Stainless Steel All cable tray and accessories shall be of type AISI 316 stainless steel.

Tray Types

- Ladder Ladder tray shall incorporate two siderails connected by lateral rungs. Rungs shall provide minimum 1" bearing surface and have slots perpendicular to the centerline of the rung on 1" centers for attachment of cable ties. Rungs shall also have an open slot to facilitate attachment of pipe straps and other accessories. Rungs shall be installed at 6", 9", 12" or 18" spacing. The rungs shall not be below the bottom of the siderail.
- Solid Bottom Solid Bottom tray shall incorporate two siderails connected by rungs on 12" centers with a solid sheet applied below the rungs.
- Ventilated Trough Ventilated trough tray shall incorporate two siderails connected by rungs at 4" spacing.

Dimensions

- Siderail Height Siderails heights shall be 3-%", 4", 5", 6", and 7" minimum loading depths shall be 2-%", 3", 4", 5", and 6".
- Length All cable tray straight sections shall be supplied in 12', 24', 3m and 6m lengths.
- Width Cable tray shall be supplied in 6", 9", 12", 18", 24", 30" and 36" widths as required.
- Radiused Fittings For all fittings requiring a radius that radius shall be 12", 24", 36", and 48" and shall be measured to the nearest perpendicular surface.



Accessories

- Covers and Accessories Covers shall be supplied to protect tray
 cable where needed. Appropriate holddowns shall be supplied to
 properly attach the covers to the tray.
- Splice Plates Aluminum splice plates shall be designed to snap into tray siderail and shall be supplied with four square neck carriage bolts and hex nuts for attachment. Steel splice plates shall be supplied with four square neck carriage bolts and hex nuts for attachment.

Loading Capabilities

 Cable tray shall meet specified NEMA/CSA load ratings with safety factor of 1.5.

Design and Manufacture

 Cable tray design shall be that of T&B Cable Tray Systems as manufactured by Thomas & Betts.





Technical Information

Selection of Thomas & Betts Series of Cable Tray

- Please refer to Table 2 for Aluminum and Table 3 for Steel

Table 1 Load/Span Class Designation

LO)AD			SPAN, M (FT.)		
KG/M	LB./FT.	2.4 (8)	3.0 (10)	3.7 (12)	4.9 (16)	6.0 (20)
37	25	_	А	_	_	_
67	45	_	_	_	_	D
74	50	8A	_	12A	16A	20A
97	65	_	С	_	_	_
112	75	8B	_	12B	16B	E or 20B
149	100	8C	_	12C	16C	20C
179	120	_	D	_	_	_
299	200	_	E	_	_	_

Note: 8A/B/C, 12A/B/C, 16A/B/C and 20A/B/C are the traditional NEMA designations. A, C, D and E are the conventional CSA designations.

Table 2 Aluminum Load / Span Class Designation

SIDE RAIL			NEMA	CSA
HEIGHT	SERIES	LOAD DEPTH (IN.) NOMINAL	CLASS	CLASS
	AH04		8B	_
	AH14		12A	C/3m
4"	AH24	3"	12B	D/3m
4	AH34	S	12C	D/6m
	AH44		20A	E/3m
	AH54		20B	E/6m
	AH25		12C	D/6m
5"	AH35	4"	20A	E/3m
	AH45		20B	E/6m
	AH06		12B	C/3m
	AH16		120	D/6m
	AH26		20A	E/3m
6"	AH36	5"	20B	E/6m
	AH46		20C	_
	AH56		20C	_
	AH66		20C	_
7"	AH27	6"	20B	E/6m
1	AH37	U	20C	_

Note: See appendix for information on Aluminum "Heavy Load" bearing trays and spans beyond 6m.

Table 3 Steel Load/Span Class Designation

SIDE RAIL			NEMA	CSA
HEIGHT	SERIES	LOAD DEPTH (IN.) NOMINAL	CLASS	CLASS
35/8"	SH13/SP13/SS13	25/8"	12A	C/3M
4"	SH14/SP14/SS14	3"	12C	D/3M
4	SH34/SP34/SS34	ა	20A	D/6M
	SH25/SP25/SS25		20A	D/6M
5"	SH45/SP45/SS45	4"	20B	E/6M
	SH55/SP55/*		20C	_
	SH16/SP16/SS16		20A	D/6M
6"	SH36/SP36/SS36	5"	20B	E/6M
	SH46/SP46/*		20C	_
7"	SH37/SP37/*	6"	20C	_

^{*} Stainless Steel 316 available. Consult with T&B sales for further information.

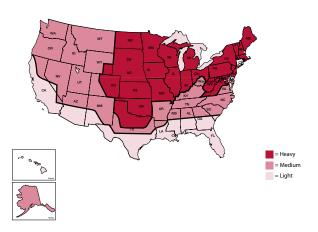




Technical Information

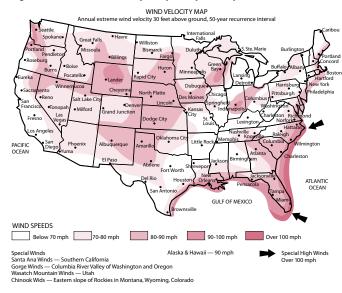
Loading for Grades B, C and D US Installations

Fig. 250-1USA: General Loading Map of USA with respect to loading of overhead lines



Note: The localities are classified in the different loading districts according to the relative simultaneous prevalence of wind velocity and thickness of ice that accumulates on wires. Light loading is for places where little, if any, ice accumulates on wires.

Fig. 250-2USA: Basic Wind Speed (miles per hour)



This map is reproduced by permission of the American Society of Civil Engineers.

Note: Wind velocity usually increases with height; therefore, experience may show that the wind pressures specified herein need to be further increased.

Canadian Installations

Fig. 250-1CDN: General Loading Map of Canada with respect to loading of overhead lines

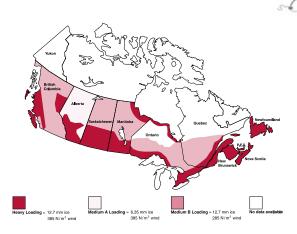


Fig. 250-2CDN:
Basic Wind Speed
(miles per hour)

Note: All maximum wind
velocities are in miles per
hour based on a 50-year
mean recurrence interval
(annual probability = 2%)
at a height of 30 ft. (10 m)
over smooth terrain.

Wind map reproduced from ASCE 7-88 [52]. For Hawaii and Puerto Rico, the basic wind speeds are 80 mph and 95 mph, respectively.

Note: Wind velocity usually increases with height; therefore, experience may show that the wind pressures specified herein need to be further increased.





Technical Information

Non-Metallic Cable Tray

Typical Properties Of Pultruded Components

Thomas & Betts Non-Metallic Cable Tray systems are manufactured from glass fiber-reinforced plastic shapes that meet ASTM E-84, Class 1 Flame Rating and self-extinguishing requirements of ASTM D-635. A surface veil is applied during pultrusion to ensure a resin-rich surface and ultraviolet resistance.

	TEST	UNIT/	3" & 4" CABLE TRAY, CABLE CHANNEL		6" CABI	LE TRAY
PROPERTIES	METHOD	VALUE	LONGITUDINAL	TRANSVERSE	LONGITUDINAL	TRANSVERSE
Tensile Strength	ASTM D638	psi	30,000	7,000	40,000	4,500
Tensile Modulus	ASTM D638	psi x 10 ⁶	2.5	.8	3.2	.6
Flexural Strength	ASTM D790	psi	30,000	10,000	40,000	10,000
Flexural Modulus	ASTM D790	psi x 10 ⁶	1.6	.8	2.1	.8
Izod Impact	ASTM D256	ft-lbs/in	28	4	28	4
Compressive Strength	ASTM D695	psi	30,000	15,000	40,000	10,000
Compressive Modulus	ASTM D695	psi x 10 ⁶	2.5	1.0	3.2	.7
Barcol Hardness	ASTM D2583	_	45	45	45	45
Shear Strength	ASTM D732	psi	5,500	5,500	5,500	5,500
Density	ASTM D1505	lbs/in ³	.05862	_	.072076	_
Coefficient of Thermal						
Expansion	ASTM D696	in/in/°F	5.0 x 10 ⁻⁶	_	5.0 x 10 ⁻⁶	_
Water Absorption	ASTM D570	Max %	.5		.5	_
Dielectic Strength	ASTM D149	V/mil (vpm)	200	_	200	_
Flammability						
Classification	UL94	VO	_	_	_	_
Flame Spread	ASTM E-84	20 Max	_	_	_	_

Flame Rating Results

TEST	IGNITION	BURNING	RATING
Flame Resistance (FTMS 406-2023)	75 seconds	75 seconds	_
Intermittent Flame Test (HLT- 15)	_	_	100
Flammability Test (ASTM D635)	None	0 second	_

Fax: 901.252.1354

Technical Information

Corrosion Guide

The information shown in this corrosion guide is based on full immersion laboratory tests and data generated from resin manufacturers. It should be noted that in some of the environments listed, splashes and spills may result in a more corrosive situation than indicated due to the evaporation of water. Regular wash down is recommended in these situations.

All data represents the best available information and is believed to be correct. The data should not be construed as a warranty of performance for that product as presented in these tables. User tests should be performed to determine suitability of service if there is any doubt or concern.

Such variables as concentration, temperature, time of exposure and combined chemical effects of mixtures of chemicals make it impossible to specify the exact suitability of fiber-reinforced plastics in all environments. Thomas & Betts will be happy to supply material samples for testing. These recommendations should only be used as a guide and Thomas & Betts does not take responsibility for design or suitability of materials for service intended. In no event will Thomas & Betts be liable for any consequential or special damages for any defective material or workmanship including, without limitation, labor charges or other expenses or damage to property resulting from loss of materials or profits or increased expenses of operations.

POLYESTER

VINYLESTER

Non-Metallic Cable Tray

	POLYESTER		VINY	LESTER
CHEMICAL ENVIRONMENT	MAX WT. %	MAX OPER. TEMP °F	MAX WT. %	MAX OPER. TEMP °F
Acetic Acid	10	190	10	210
Acetic Acid	50	125	50	180
Acetone	N/R	N/R	100	75
Aluminum Chloride	SAT	170	SAT	200
Aluminum Hydroxide	SAT	160	SAT	170
Aluminum Nitrate	SAT	150	SAT	170
Aluminum Sulfate	SAT	180	SAT	200
Ammonium Chloride	SAT	170	SAT	190
Ammonium Hydroxide	1	100	10	150
Ammonium Hydroxide	28	N/R	28	100
Ammonium Carbonate	N/R	N/R	SAT	150
Ammonium Bicarbonate	15	125	SAT	130
Ammonium Nitrate	SAT	160	SAT	190
Ammonium Persultate	SAT	N/R	SAT	150
Ammonium Sulfate	SAT	170	SAT	200
Amyl Alcohol	ALL	N/R	ALL	90
Amyl Alcohol Vapor	_	140	_	120
Benzene	N/R	N/R	100	140
Benzene Sulfonic Acid	25	110	SAT	200
Benzoic Acid	SAT	150	SAT	200
Benzoyl Alcohol	100	N/R	100	N/R
Borax		SAT	170	SAT
Calcium Carbonate	SAT	170	SAT	200
Calcium Chloride	SAT	170	SAT	200
Calcium Hydroxide	25	70	25	165
Calcium Nitrate	SAT	180	SAT	200
Calcium Sulfate	SAT	180	SAT	200
Carbon Disulfide	N/R	N/R	N/R	N/R
Carbonic Acid	SAT	130	SAT	180
Carbon Dioxide Gas	_	200	_	200
Carbon Monoxide Gas	_	200	_	200
Carbon Tetrachloride	N/R	N/R	100	75
Chlorine, Dry Gas	_	140	_	170
Chlorine, Wet Gas	_	N/R	_	180
Chlorine Water	SAT	80	SAT	180
No Information Assistable				

CHEMICAL MAX MAX OPER MAX MAX OPFR ENVIRONMENT WT. % TEMP °F WT. % TEMP °F Chromic Acid 5 10 120 Citric Acid SAT 170 SAT 200 Copper Chloride SAT SAT 170 200 Copper Cyanide SAT 170 SAT 200 Copper Nitrate SAT 170 SAT 200 Crude Oil, Sour 100 170 100 200 Cyclohexane N/R N/R N/R N/R Cyclohexane, Vapor ALL 100 ALL 130 Diesel Fuel 100 160 100 180 Diethyl Ether N/R N/R N/R N/R Dimethyl Phthalate N/R N/R N/R N/R Ethanol 50 75 50 90 Ethyl Acetate N/R N/R N/R N/R Ethylene Chloride N/R N/R N/R N/R 100 90 100 Ethylene Glycol 200 SAT 180 SAT Fatty Acids 200 SAT Ferric Chloride SAT 170 200 SAT Ferric Nitrate SAT 170 200 Ferric Sulfate SAT 170 SAT 200 Ferrous Chloride SAT 170 SAT 200 Fluoboric Acid N/R N/R SAT 165 Fluosilicic Acid N/R N/R SAT 70 50 100 Formaldehyde 50 75 N/R Formic Acid N/R 50 100 Gasoline 100 80 100 150 Glucose 100 170 200 Glycerine 100 150 100 200 Heptane 100 110 100 200 Hexane 100 100 90 130 Hydrobromic Acid 50 120 50 120 Hydrochloric Acid 10 10 150 200 Hydrochloric Acid 20 140 20 190 Hydrochloric Acid 37 75 37 95 Hydrochloric Acid N/R N/R 15 80

No Information Available
N/R: Not Recommended
SAT: Saturated Solution

FUM: Fumes

Thomas@Betts

United States Tel: 901.252.8000

800.816.7809 Fax: 901.252.1354 Technical Services
Tel: 888.862.3289

Hydrogen Bromide, Dry



190

100

200

Technical Information

Corrosion Guide (continued)

Non-Metallic Cable Tray

	POL	YESTER	VINYLESTER	
CHEMICAL Environment	MAX WT. %	MAX OPER. TEMP °F	MAX WT. %	MAX OPER TEMP °F
Hydrogen Bromide, Wet	100	75	100	130
Hydrogen Chloride	_	120	_	200
Hydrogen Peroxide	5	100	30	100
Hydrogen Sulfide, Dry	100	170	100	210
Hydrogen Sulfide, Wet	100	170	100	210
Hypochlorous Acid	20	80	20	150
Isopropyl Alcohol	N/R	N/R	15	80
Kerosene	100	140	100	80
Lactic Acid	SAT	170	SAT	200
Lead Acetate	SAT	170	SAT	200
Lead Chloride	SAT	140	SAT	200
Lead Nitrate	SAT	_	SAT	200
Linseed Oil	100	150	100	190
Lithium Chloride	SAT	150	SAT	190
Magnesium Carbonate	SAT	140	SAT	170
Magnesium Chloride	SAT	170	SAT	200
Magnesium Hydroxide	SAT	150	SAT	190
Magnesium Nitrate	SAT	140	SAT	180
Magnesium Sulfate	SAT	170	SAT	190
Mercuric Chloride	SAT	150	SAT	190
Mercurous Chloride	SAT	140	SAT	180
Methyl Ethyl ketone	N/R	N/R	N/R	N/R
Mineral Oils	100	170	100	200
Monochlorobenzene	N/R	N/R	N/R	N/R
Naphtha	100	140	100	170
Nickel Chloride	SAT	170	SAT	200
Nickel Nitrate	SAT	170	SAT	200
Nickel Sulfate	SAT	170	SAT	200
Nitric Acid	5	140	5	150
Nitric Acid	20	70	20	100
Oleic Acid	100	170	100	90
Oxalic Acid	ALL	75	ALL	120
Paper Mill Liquors	—	100		120
Perchlorethylene	100	N/R	100	N/R
Perchloric Acid	N/R	N/R	100	150
Perchloric Acid	N/R	N/R	30	80
Phosphoric Acid	10	160	10	200
Phosphoric Acid	100	120	100	200
Potassium Alum, Sulfate	SAT	170	SAT	200
Potassium Bicarbonate	5A1	80	50	140
Potassium Bichromate	SAT	170	SAT	200
Potassium Carbonate	10	N/R	10	120
Potassium Carbonate Potassium Chloride				
Potassium Unionae	SAT	170	SAT	200

	POLY	/ESTER	VINYLESTER		
CHEMICAL ENVIRONMENT	MAX WT. %	MAX OPER. TEMP °F	MAX WT. %	MAX OPER. TEMP °F	
Potassium Hydroxide	N/R	N/R	25	150	
Potassium Nitrate	SAT	170	SAT	200	
Potassium Permanganate	100	80	100	210	
Potassium Sulfate	SAT	170	SAT	200	
Propylene Glycol	ALL	170	ALL	200	
Phthalic Acid	_	_	SAT	200	
Sodium Acetate	SAT	160	SAT	200	
Sodium Benzoate	SAT	170	SAT	200	
Sodium Bicarbonate	SAT	160	SAT	175	
Sodium Bisulfate	ALL	170	ALL	200	
Sodium Bromide	ALL	170	ALL	200	
Sodium Carbonate	10	80	35	160	
Sodium Chloride	SAT	170	SAT	200	
Sodium Cyanide	SAT	170	SAT	200	
Sodium Hydroxide	N/R	N/R	50	150	
Sodium Hydroxide	N/R	N/R	25	80	
Sodium Hypochloride	N/R	N/R	10	150	
Sodium Monophosphate	SAT	170	SAT	200	
Sodium Nitrate	SAT	170	SAT	200	
Sodium Sulfate	SAT	170	SAT	200	
Sodium Thiosulfate	ALL	100	ALL	120	
Stannic Chloride	SAT	160	SAT	190	
Styrene	N/R	N/R	N/R	N/R	
Sulfated Detergent	0/50	170	0/50	200	
Sulfur Dioxide	100	80	100	200	
Sulfur Trioxide	100	80	100	200	
Sulfuric Acid	93	N/R	93	N/R	
Sulfuric Acid	50	N/R	50	180	
Sulfuric Acid	25	75	25	190	
Sulfurous Acid	SAT	80	N/R	N/R	
Tartaric Acid	SAT	170	SAT	200	
Tetrachloroethylene	N/R	N/R	FUM	75	
Toluene	N/R	N/R	N/R	N/R	
Trisodium Phosphate	N/R	N/R	SAT	175	
Urea	SAT	130	SAT	140	
Vinegar	100	170	100	200	
Water, Distilled	100	170	100	190	
Water, Tap	100	170	100	190	
Water, Sea	SAT	170	SAT	190	
Xylene	N/R	N/R	N/R	N/R	
Zinc Chloride	SAT	170	SAT	200	
Zinc Nitrate	SAT	170	SAT	200	
7' 0 1' 1	0.4.T	470	0.4.T	000	

—: No Information Available

N/R: Not Recommended SAT: Saturated Solution

FUM: Fumes



800.816.7809 Fax: 901.252.1354

Zinc Sulfate

Technical Information

Non-Metallic Cable Tray CSA and NEMA Loading Classes

Loading

Select the Tray Class/Load Capacity

The standard classes of cable trays, as related to their maximum design loads and to the associated design support spacing based on a simple beam span requirement, shall be designated in accordance with Table 1.

Please note the load ratings in Table 1 are those most commonly used. Other load ratings are acceptable.

Table 1 Load/Span Class Designations

LO)AD	SPAN, M (FT)				
KG/M	(LB/FT)	2.4 (8)	3.0 (10)	3.7 (12)	4.9 (16)	6.0 (20)
37	(25)	_	A	_	_	_
67	(45)	_	_	_	_	D
74	(50)	8A	_	12A	16A	20A
97	(65)	_	С	_	_	_
112	(75)	8B	_	12B	16B	E or 20B
149	(100)	8C	_	12C	16C	20C
179	(120)	_	D	_	_	_
299	(200)	_	E	_	_	_

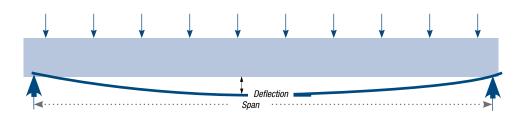


Table 2 Conventional CSA Load Designations

DESIGNATION	KG/M (LB/FT)
A	37 (25)
C	97 (65)
D	179 (120)
E	299 (200)

Table 3 Traditional NEMA Designations

DESIGNATION	KG/M (LB/FT)	DESIGNATION	KG/M (LB/FT)	DESIGNATION	KG/M (LB/FT)	DESIGNATION	KG/M (LB/FT)
8A	64 (50)	12A	74 (50)	16A	74 (50)	20A	74 (50)
8B	112 (75)	12B	112 (75)	16B	112 (75)	20B	112 (75)
8C	149 (100)	12C	149 (100)	16C	149 (100)	20C	149 (100)

United States Tel: 901.252.8000

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354





Technical Information

Non-Metallic Cable Tray Loading

Loading Capacity

Strength properties of reinforced plastics are reduced when continuously exposed to elevated temperatures. Working loads shall be reduced based on the following:

Cable Loads The cable load is the total weight, expressed in lb./ft., of all the cables that will be placed in the cable tray. Depending on the area, snowfall could indicate an additional design load. If snowfall is a factor and the tray **Snow Loads**

has a solid cover in outdoor installations, a minimum load of 5 lb. per square foot should be used.

If a cable tray system is subject to icing conditions, usually only the top surface or cover and the windward Ice Loads

side will be coated with any significant amount. It is generally assumed that ice weighs 57 lb. per cubic foot.

Wind Loads All outdoor cable tray installations should factor in wind loads, especially the pressure exerted on siderails

of ladder trays. There have also been instances of strong winds lifting covers off trays, which can be minimized

with the use of wraparound cover clamps.

Concentrated Loads

A concentrated static load is not included in Table 1 (page 8). Some user applications may require that a given concentrated static load be imposed over and above the working load.

Such a concentrated static load represents a static weight applied on the centerline of the tray at midspan. When so specified, the concentrated static load may be converted to an equivalent uniform load (We) in kilograms/metre (pounds/linear foot), using the following formula, and added to the static weight of cable in the tray:

 $W_a = 2 X$ (concentrated static load, kg (lb.)) Span length, m (ft.)

This combined load may be used to select a suitable load/span designation. If the combined load exceeds the working load shown on pages B-388-B-392, the manufacturer should be consulted.

Effect Of Temperature

Strength properties of reinforced plastics are reduced when continuously exposed to elevated temperatures. Working loads shall be reduced based on the following:

TEMPE	TEMPERATURE		
°C	(°F)	APPROXIMATE PERCENT OF STRENGTH	
23.8	(75)	100	
37.7	(100)	90	
51.6	(125)	78	
65.5	(150)	68	
79.4	(175)	60	
93.3	(200)	52	

NEMA Standard 8-10-1986

If unusual temperature conditions exist, the manufacturer should be consulted.



800.816.7809

Fax: 901.252.1354

Tel: 888.862.3289



B-443

Technical Information

Non-Metallic Cable Tray Thermal Contraction and Expansion

It is important that thermal contraction and expansion be considered when installing cable tray systems. The length of the straight cable tray runs and the temperature differential govern the number of expansion splice plates required (see Figure 1 below). The cable tray should be anchored at the support nearest to its midpoint between the expansion splice plates and secured by expansion guides at all other support locations (see Figure 2). The cable tray should be permitted longitudinal movement in both directions from that fixed point.

Accurate gap setting at the time of installation is necessary for the proper operation of the expansion splice plates. The following procedure should assist the installer in determining the correct gap: (see Figure 3)

- Plot the highest expected tray temperature on the maximum temperature line.
- Plot the lowest expected tray temperature on the minimum temperature.
- 3 Draw a line between the maximum and minimum points.
- 4 Plot the tray temperature at the time of installation to determine the gap setting.

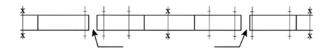
Figure 1 — Expansion or Contraction for Various Temperature Differences

TEMPEI	RATURE	MAX. DISTANCE BETWEEN EXPANSION MAX. DISTANG CONNECTOR* FOR EXPANSION (1" EXPANSION FOR %" EX			CONNECTOR			
°C	(°F)	METRES	(FEET)	METRES	(FEET)			
-3,9	(25)	203,3	(667)	127,1	(417)			
10,0	(50)	101,5	(333)	63,3	(208)			
23,8	(75)	67,6	(222)	42,3	(139)			
37,7	(100)	50,9	(167)	31,7	(104)			
51,6	(125)	40,5	(133)	25,2	(83)			
65,5	(150)	33,8	(111)	21,0	(69)			
79,4	(175)	28,9	(95)	17,9	(59)			

Gap set and hold down/guide location, see installation instruction above.

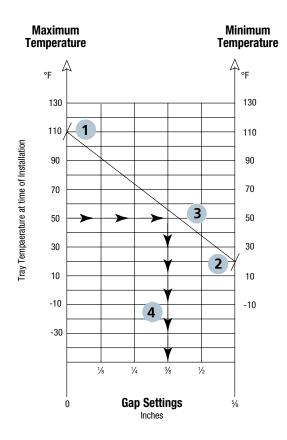
*1 slotted hole in each expansion connector allow 5/8 total expansion or contraction.

Figure 2 — Typical Cable Tray Installation



- X: Denotes hold-down clamp (anchor) at support.
- -: Denotes expansion guide/clamp at support.

Figure 3 — Proper Gap Settings





United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services** Tel: 888.862.3289



Technical Information

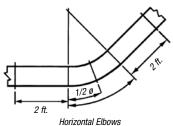
Non-Metallic Cable Tray Installation Guidelines

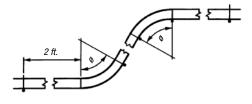
Installation of Thomas & Betts Non-Metallic Cable Tray should be made in accordance with the standards set by NEMA VE2-2000 **Publication and CSA Standards.**

- Always observe common safety practices when assembling tray and fittings. Installations generally require some field cutting. Dust created during fabrication presents no serious health hazard, but skin irritation may be experienced by some workers.
- Operators of saws and drills should wear masks, long-sleeve shirts or coveralls.
- Fabrication with Non-Metallic Cable Tray is relatively easy and comparable to working with wood. Ordinary hand tools may be
- · Avoid excessive pressure when sawing or drilling. Too much force can rapidly dull tools and also produce excessive heat which softens the bonding resin in the Non-Metallic Cable Tray resulting in a ragged edge rather than a cleancut edge.
- · Field cutting is simple and can be accomplished with a circular power saw with an abrasive cut-off wheel (masonry type) or hack saw (24 to 32 teeth per inch).

- Drill non-metallic as you would drill hardwood. Standard twist drills are more than adequate.
- Any surface that has been drilled, cut, sanded or otherwise broken, must be sealed with a compatible resin.
- Carbide tipped saw blades and drill bits are recommended when cutting large quantities.
- Support the Non-metallic Cable Tray material firmly during cutting operations to keep material from shifting which may cause chipping at the cut edge.
- Each tray section length should be equal to or greater than the support span.
- When possible, the splice should be located at quarter span.
- Fittings should be supported as per NEMA VE2-2000 Section 4.4.

Non-Metallic Cable Tray Support Locations For Fittings

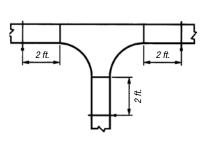




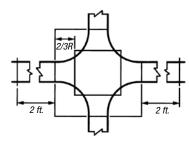
Vertical Elbows

2 ft. 2 ft.

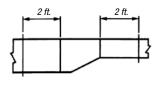
Horizontal Tee



Horizontal Tee

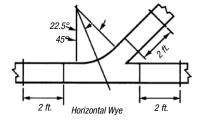


Horizontal Cross



2/3R

Horizontal Reducers



Note: $\emptyset = 30^\circ$, 45° , 60° , 90° (degree of fitting)



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354

Technical Services Tel: 888.862.3289



Technical Information

Non-Metallic Cable Tray Sample Recommended Specifications

Cable Tray System

 Cable Tray System shall be made of straight sections, fittings and accessories as defined in the latest CSA/NEMA standards publication.

Cable Tray Design

- Straight section structural elements; side rails, rungs and splice plates shall be pultruded from glass fiber reinforced polyester or vinylester resin.
- Pultruded shapes shall be constructed with a surface veil to ensure a resin-rich and ultraviolet resistant surface.
- Pultruded shapes shall meet ASTM E-84, Class 1 flame rating and self-extinguishing requirements of ASTM D-635.

Construction

- Straight section lengths will be 120 inches (10 ft.) or 240 inches (20 ft.) standard.
- Side rails will be inward "C" configuration and be predrilled to accept splice plates.
- Overall heights shall be 6", 4" or 3" respectively.
- Loading depths for cable tray systems shall be 5", 3" or 2" as per CSA/NEMA tolerances
- Loading classifications arid test specimens shall be per CSA/NEMA.

Fittings

- Molded fittings shall be formed with a minimum 3" tangent following the radius.
- 3" or 5" loading depth systems shall have 90° and 45° molded fittings in 12" or 24" radius.
- All fittings not included in above statement should be of mitered construction.
- Width (usable inside tray width) shall be 6", 9", 12", 18", 24", 30", 36".
- Outside width shall not exceed inside by more than a total of 2"
- Straight and expansion splice plates will be of stainless steel or fiberglass design with an eight-bolt pattern in 5" fill systems and four-bolt pattern in 3" and 2" fill systems.
- · Dimension tolerances will be per CSA/NEMA.
- Cable tray must have integral connection between side rails and rungs consisting of non-metallic mechanical fasteners and adhesive bonding.

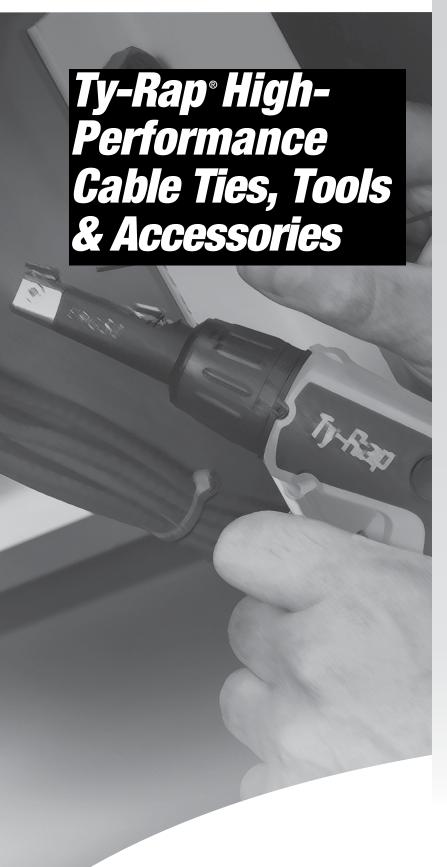
Manufacture

- All manufacturing practices will be in accordance with CSA/NEMA.
- Cable trays shall be by Thomas & Betts, or approved CSA/NEMA member.





Ty-Rap®



In this section...



Ty-Rap® High-Performance Cable Ties, Tools & Accessories

Ty-Rap® High-Performance Nylon Cable Ties	C-2–C-4
Engineered-Performance Material Cable Ties	C-5–C-11
Color Coding Cable Ties	
Identification Tags, Cable Ties and Accessories	C-13-C-14
Mounting Bases, Cable Ties and Accessories	C-15-C-24
Safety, Reusable and Double-Loop Cable Ties	C-25
Messenger and Lashing Ties and Straps	. C-26-C-27
Deltec® Cable Tie and Support System	. C-28–C-29
Ty-Rap® High-Performance Stainless Steel Cable Ties	C-30-C-43
Hook-and-Loop Fasteners	C-44-C-45
Ty-Rap® Installation Tools	C-46-C-50
Ty-Rap® Wire Management Clips, Clamps, Spiral Wrap and More	. C-51–C-60





Ty-Rap®

Choose Genuine Ty-Rap® High-Performance Cable Ties for Quality, Performance and Innovation.

1.252.1354



Ty-Rap[®] High-Performance Nylon Cable Ties





Ty-Rap® 6.6 Nylon **Cable Ties — Natural**

 Suitable for air handling (plenum) applications

(8)	7-120-0
	TY523M — Tie body width .091"
G	O Table
	TY524M — Tie body width .140"
	The Talk was a second
9	TY525M — Tie body width .187"
5	
	20 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

Select the best material for your application. See pages C-9-C-11 for a Material Selection Guide.

TY5272M — Tie body width .270"

STD. PKG. CAT. NO.	BULK PKG. Cat. No.	BODY WIDTH IN./MM	LENGTH IN./MM	MAX. WIRE BUNDLE DIA. IN./MM	MILITARY STANDARD PART NO.	TENSILE Strength LBS./N	STD. PKG. QTY.	BULK PKG. QTY.
TY523M	TY23M	.09/2.29	3.62/91.95	.63/16.00	MS3367-4	18/80.07	100	1,000
TY52315M	TYB2315M	.09/2.29	7.00/177.80	1.50/38.10	_	18/80.07	100	1,000
TY5232M	TY232M	.09/2.29	8.00/203.20	2.00/50.80	_	18/80.07	100	1,000
TY5234M	TY234M	.09/2.29	14.00/355.60	4.00/101.60	_	18/80.07	100	1,000
TY524M	TY24M	.14/3.56	5.50/139.70	1.13/28.70	MS3367-5	40/177.90	100	1,000
TY5242M	TY242M	.14/3.56	8.19/208.03	2.00/50.80	_	40/177.90	100	1,000
TY526M	TY26M	.14/3.56	11.10/281.94	3.00/76.20	_	30/133.40	100	1,000
TY5244M	TY244M	.14/3.56	14.50/368.30	4.00/101.60	_	30/133.40	100	1,000
TY525M	TY25M	.19/4.83	7.31/185.67	1.75/44.45	MS3367-1	50/222.40	100	1,000
TY5253M	TY253M	.19/4.83	11.60/294.64	3.00/76.20	MS3367-7	50/222.40	100	1,000
TY528M	TY28M	.19/4.83	14.20/360.68	4.00/101.60	MS3367-2	50/222.40	100	1,000
TY5272M [†]	TY272M†	.27/6.86	8.75/222.250	2.00/50.80	_	120/533.80	50	500
TY527M [†]	TY27M†	.27/6.86	13.40/340.36	3.50/88.90	MS3367-3	120/533.80	50	500
TY5275M	TY275M	.27/6.86	18.00/457.20	5.00/127.00	_	120/533.80	50	500
TY5277M	TY277M	.27/6.86	24.30/617.22	7.00/177.80	_	120/533.80	50	500
TY529M	TY29M	.27/6.86	30.00/762.00	9.00/228.60	MS3367-6	120/533.80	50	500
TY53510M [†]	_	.32/8.13	35.00/889.00	10.00/254.00	_	175/778.40	50	_
TY54513M [†]	_	.32/8.13	45.00/1,143.00	13.00/330.20	_	175/778.40	50	_

Cable ties made from natural nylon 6.6 are excellent performers in most applications.

For use in temperatures ranging from -40° F to 185° F (-40° C to 85° C).

[†] **TL** Recognized Models

- UL® Listed Natural 6.6 Nylon Cable Ties are suitable for use in air handling spaces (plenums) in accordance with Section 300.22 (C) & (D) of the National Electrical Code®.
- UL File No. E49405
- Installation tools available on pp. C-46-C-48.

Air handling (plenum) and UV colors!

Ty-Rap® UV-Resistant 6.6 Nylon Cable Ties — **Color Assortment**

 Suitable for air handling (plenum) applications





STD. PKG. CAT. NO.	BULK PKG. CAT. NO.	DESCRIPTION	LENGTH IN./MM	TENSILE Strength LBS./N	STD. PKG. QTY.	BULK PKG. QTY.
TY525M-35	TY25M-35	Air Handling (plenum) Maroon	7.31/185.67	50/222.40	100	1,000
TY525M-CLRS	_	Multi-Colored, UV-Stabilized Nylon, (10 each of standard 10 colors)*	7.31/185.67	50/222.40	100	_
_	TY25M-X	Black, UV-Stabilized Nylon	7.31/185.67	50/222.40	_	1,000
_	TY25M-1	Brown, UV-Stabilized Nylon	7.31/185.67	50/222.40	_	1,000
TY525M-2	TY25M-2	Red, UV-Stabilized Nylon	7.31/185.67	50/222.40	100	1,000
_	TY25M-3	Orange, UV-Stabilized Nylon	7.31/185.67	50/222.40	_	1,000
_	TY25M-4	Yellow, UV-Stabilized Nylon	7.31/85.67	50/222.40	_	1,000
TY525M-5	TY25M-5	Green, UV-Stabilized Nylon	7.31/185.67	50/222.40	100	1,000
TY525M-6	TY25M-6	Blue, UV-Stabilized Nylon	7.31/185.67	50/222.40	100	1,000
_	TY25M-7	Purple, UV-Stabilized Nylon	7.31/185.67	50/222.40	_	1,000
_	TY25M-8	Gray, UV-Stabilized Nylon	7.31/185.67	50/222.40	_	1,000
_	TY25M-9	White, UV-Stabilized Nylon	7.31/185.67	50/222.40	_	1,000
_	TY25M-22	Beige, UV-Stabilized Nylon	7.31/185.67	50/222.40	_	1,000

For use in temperatures ranging from -40° F to 185° F (-40° C to 85° C).

Suitable for use in air handling spaces in accordance with Section 300.22 (C) & (D) of the National Electrical Code®, except for TY25M-X (black).

* 100 standard ties in black, brown, red, orange, yellow, green, blue, purple, gray and white (10 each)

Recommended tooling --- ERG-50, WT1-TB

How to Order Colored Ty-Rap® Cable Ties and Accessories

COLOR	SUFFIX No.	COLOR	SUFFIX No.	COLOR	SUFFIX No.	COLOR	SUFFIX No.	COLOR	SUFFIX NO.
Black	Χ	Orange	3	Blue	6	White	9	Fluor. Orange	53
Brown	1	Yellow	4	Purple	7	Beige	22	Fluor. Yellow	54
Red	2	Green	5	Gray	8	Maroon	35	Fluor. Green	55
								Fluor. Pink	59

Note: The base catalog number for Ty-Rap® cable ties is for natural (non-colored) nylon without the UV-stabilizing additive, which is not suitable for outdoor use. For colored UV-stabilized nylon Ty-Rap® cable ties, add the following suffix numbers to the base catalog numbers. For example, TY25M is natural (non-colored) nylon for indoor use only, while TY25M-2 is red UV-stabilized nylon for indoor or outdoor use. Consult customer service for ordering information.

NEC and National Electrical Code are registered trademarks of the National Fire Protection Association, Inc.



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354

Technical Services Tel: 888.862.3289





1-800-453-1692

Ty-Rap[®] High-Performance Nylon Cable Ties

Ty-Rap® 6.6 Nylon Cable Ties — Weather-Resistant Black

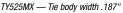














TY5272MX — Tie body width .270"

STD. PKG. CAT. NO.	BULK PKG. Cat. No.	BODY WIDTH In./MM	LENGTH IN./MM	MAX. WIRE BUNDLE DIA. IN./MM	MILITARY STANDARD PART NO.	TENSILE Strength LBS./N	STD. PKG. QTY.	BULK PKG. QTY.
TY523MX	TY23MX	.09/2.29	3.62/91.95	.63/16.00	MS3367-4	18/80.07	100	1,000
TY52315MX	TYB2315MX	.09/2.29	7.00/177.80	1.50/38.10	_	18/80.07	100	1,000
TY5232MX	TY232MX	.09/2.29	8.00/203.20	2.00/50.80	_	18/80.07	100	1,000
TY5234MX	TY234MX	.09/2.29	14.00/355.60	4.00/101.60	_	18/80.07	100	1,000
TY524MX	TY24MX	.14/3.56	5.50/139.70	1.13/28.70	MS3367-5	40/177.90	100	1,000
TY5242MX	TY242MX	.14/3.56	8.19/208.03	2.00/50.80	_	40/177.90	100	1,000
TY526MX	TY26MX	.14/3.56	11.10/281.94	3.00/76.20	_	30/133.40	100	1,000
TY5244MX	TY244MX	.14/3.56	14.50/368.30	4.00/101.60	_	30/133.40	100	1,000
TY525MX	TY25MX	.19/4.83	7.31/185.67	1.75/44.45	MS3367-1	50/222.40	100	1,000
TY5253MX	TY253MX	.19/4.83	11.60/294.64	3.00/76.20	MS3367-7	50/222.40	100	1,000
TY528MX	TY28MX	.19/4.83	14.20/360.68	4.00/101.60	MS3367-2	50/222.40	100	1,000
TY5272MX†	TY272MX [†]	.27/6.86	8.75/222.250	2.00/50.80	_	120/533.80	50	500
TY527MX†	TY27MX [†]	.27/6.86	13.40/340.36	3.50/88.90	MS3367-3	120/533.80	50	500
TY5275MX	TY275MX	.27/6.86	18.00/457.20	5.00/127.00	_	120/533.80	50	500
TY5277MX	TY277MX	.27/6.86	24.30/617.22	7.00/177.80	_	120/533.80	50	500
TY529MX*	TY29MX*	.27/6.86	30.00/762.00	9.00/228.60	MS3367-6	120/533.80	50	500
TY53510MX [†]	· —	.32/8.13	35.00/889.00	10.00/254.00	_	175/778.40	50	_
TY54513MX [†]	_	.32/8.13	45.00/1,143.00	13.00/330.20	_	175/778.40	50	_

For use in temperatures ranging from -40° F to 185° F (-40° C to 85° C).

Increase efficiency! **Ty-Rap Tote** Cable Tie Dispensers

Attach to your belt _ or almost any other convenient location via a built-in belt clip and chrome steel loop.

Includes 100 genuine Ty-Rap® cable ties.



Quickly refill your Ty-Rap Tote® through the hook-and-loopsecured flap.

Easily remove the tie you need through the reinforced, diamondshaped cut-out while the Ty-Rap Tote® securely holds the rest.

Keep cable ties clean and organized inside the durable, lightweight polyester exterior and tough vinyl interior.







STD PKG.		
CAT. NO.	DESCRIPTION	STD. PKG. QTY.
TY-TOTE-25	Ty-Rap Tote® 8" Cable Tie Dispenser (includes 1 pkg. TY525M)	1
TY-TOTE-23	Ty-Rap Tote® 4" Cable Tie Dispenser (includes 1 pkg. TY523M)	1
TY-TOTE-28	Ty-Rap Tote® 11"-14" Cable Tie Dispenser (includes 1 pkg. TY528M)	1

Order only genuine Ty-Rap® Cable Ties to refill your dispenser!



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services** Tel: 888.862.3289





^{*} For military compliance of weather-resistant black 120-lb. ties, replace suffix X with O (i.e., TY27M-0).

[†] Not Listed or Recognized Models.

[•] UL® File No. E49405

[•] Installation tools available on pp. C-46-C-48.

Safety and decontamination.

Ty-Rap® Detectable Ties

Ty-Rap® Detectable Cable Ties are made from standard nylon or polypropylene, and incorporate a unique compound detectable by metal detectors and x-ray equipment. Their bright blue color makes them easy to spot. The polypropylene version is buoyant, making it ideal for use in liquid-processing areas.

With Ty-Rap® Detectable Cable Ties, you have all of the advantages of the original Ty-Rap® Cable Tie, including a smooth body with an infinitely adjustable design, high-performance stainless steel locking device for a perfect fit and superior holding power — plus the peace of mind of knowing the integrity of your product is uncompromised.

Ty-Rap® Detectable Cable Ties are a contamination solution for food and beverage processing plants and may aid companies in meeting the US Food and Drug Administration (FDA) Hazard Analysis of Critical Control Points (HACCP) safety standards and the European Union (EU) hygiene monitoring regulations.



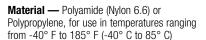
See p. C-46-C-48 for cable tie installation tools.

Features

- Detectable by metal detectors set at minimum 1.5mm ferrous sphere
- Detectable by x-ray equipment
- Bright blue color allows easy visual detection, especially on white conveyor systems
- Buoyant Polypropylene version available for use in liquid-processing applications

Typical Applications

- Food and beverage processing
- Pharmaceutical production
- Chemical and compounds manufacturing
- Tobacco processing
- Tire and airbag manufacturing
- Any other industry sensitive to contamination and using detection equipment



Color — Blue (for easy visual detection)



STD. PKG. CAT. NO.	TIE LENGTH IN./MM	BODY WIDTH IN./MM	MAX. WIRE Bundle in./MM	TENSILE STRENGTH LBS./N	BASE Material	STD. PKG. QTY.
Nylon 6.6						
TY523M-NDT	3.62/91.90	.09/2.36	.63/15.90	18/80	Nylon	100
TY524M-NDT	5.50/139.70	.14/3.56	1.13/28.70	40/178	Nylon	100
TY525M-NDT	7.31/186.00	.19/4.70	1.75/44.40	50/220	Nylon	100
TY527M-NDT	13.40/340.00	.27/6.86	3.50/89.00	120/540	Nylon	50
TY528M-NDT	14.20/361.00	.19/4.70	4.00/102.00	50/220	Nylon	100
Polypropyle	ne					
TY523M-PDT	3.62/91.90	.09/2.36	.63/15.90	18/80	Polypropylene	100
TY525M-PDT	7.31/186.00	.19/4.70	1.75/44.40	30/135	Polypropylene	100
TY527M-PDT	13.40/340.00	.27/6.86	3.50/89.00	60/267	Polypropylene	50
TY528M-PDT	14.20/361.00	.19/4.75	4.00/102.00	30/135	Polypropylene	100



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 Technical Services
Tel: 888.862.3289





Ty-Rap®

Engineered-Performance Material Cable Ties

Extra high temperatures!

Ty-Rap® Extra High-Temperature 4.6 Nylon Ties





For use in temperatures ranging from -40° F to 302° F (-40° to 150° C).

Color — Natural (Olive)

- Non-hydroscopic stainless steel barb will not weaken or wear out after years of environmental stress
- Smooth, notchless body reduces stress, increasing life expectancy over standard notched, one-piece cable ties
- Quicker to install and less expensive than metallic fasteners, lacing cord or tape
- Ideal for Industrial applications including metal processing, paper mills, lighting and commercial construction markets with high temperature environments up to 302° F (150° C)
- Provides a smooth, low-profile look and unlimited tensioning range for a perfect fit
- Features an oval head on every original Ty-Rap® Cable Tie



BULK PKG. Cat. No.	LENGTH IN./MM	TENSILE STRENGTH LBS./N	BULK PKG. QTY.
TYHT23M	3.62/91.95	18/80.07	1,000
TYHT25M	7.31/185.67	50/222.40	1,000
TYHT27M	13.40/340.36	120/533.80	500
TYHT28M	14.20/360.68	50/222.40	1,000

Engineered to withstand high temperatures!

Ty-Rap® Heat-Stabilized Natural 6.6 Nylon Ties





For use in temperatures ranging from -40° F to 221° F (-40° C to 105° C). Material meets ASTM D4066 PA121.

Color - Green Tint

					/45
BULK PKG. Cat. No.	WIDTH IN./MM	BODY LENGTH IN./MM	MAX. WIRE BUNDLE DIA. IN./MM	TENSILE STRENGTH LBS./N	BULK PKG. QTY.
TYH23M	.09/2.29	3.62/91.95	.63/16.00	18/80.07	1,000
TYH232M	.09/2.29	8.00/203.20	2.00/50.80	18/80.07	1,000
TYH24M	.14/3.56	5.50/139.70	1.13/28.70	40/177.90	1,000
TYH242M	.14/3.56	8.19/208.03	2.00/50.80	40/177.90	1,000
TYH26M	.14/3.56	11.10/281.94	3.00/76.20	30/135	1,000
TYH25M	.18/4.57	7.31/185.67	1.75/44.45	50/222.40	1,000
TYH253M	.18/4.57	11.40/289.56	3.00/76.20	50/222.40	1,000
TYH28M	.18/4.57	14.20/360.68	4.00/101.60	50/222.40	1,000
TYH27M	.27/6.86	13.20/335.28	3.50/88.90	120/533.80	500
TYH272M	.27/6.86	8.75/222.25	2.00/50.80	120/533.80	500
TYH29M	.30/7.62	30.00/762.00	9.00/228.60	120/533.80	500

Perfect for outdoor applications!

Ty-Rap[®] Heat-Stabilized/ UV-Resistant Black 6.6 Nylon Ties



For use in temperatures ranging from -40° F to 221° F -40° C to 105° C

Color — Black





- Non-hydroscopic stainless steel barb will not weaken or wear out after years of environmental stress
- Smooth, notchless body reduces stress, increasing life expectancy over standard notched, one-piece cable ties
- Ideal for Industrial applications including lawn/garden/farming equipment, recreation vehicles and heavy equipment
- Can be placed in environments requiring heat stabilization and UV resistance
- Provides a smooth, low-profile look and unlimited tensioning range for a perfect fit
- Features an oval head on every original Ty-Rap® Cable Tie
- Quicker to install and less expensive than metallic fasteners, lacing cord or tape



BULK PKG. CAT. NO.	LENGTH IN./MM	TENSILE STRENGTH LBS./N	BULK PKG. QTY.
TY23MX-A	3.62/91.95	18/80.07	1,000
TY24MX-A	5.50/139.70	40/177.90	1,000
TY25MX-A	7.31/185.67	50/222.40	1,000
TY28MX-A	14.20/360.68	50/222.40	1,000
TY27MX-A	13.40/340.36	120/533.80	500



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services**







Resists acids, salts and bases.

Ty-Rap® Weather-Resistant Polypropylene Ties

- Excellent resistance to chemical exposure
- Greater UV resistance
- Buoyant will float to the surface of most liquids

Color — Black

For use in temperatures ranging from -40° F to 185° F (-40° C to 85° C)







BULK PKG. CAT. NO.	WIDTH IN./MM	BODY Length In./MM	MAX. WIRE BUNDLE DIA. IN./MM	TENSILE STR. LBS./N	BULK PKG. QTY.
TYP23MX	.09/2.29	3.62/91.95	.63/16.00	18/80.07	1,000
TYP25MX	.18/4.57	7.31/185.67	1.75/44.45	30/133.40	1,000
TYP28MX	.18/4.57	14.20/360.68	4.00/101.60	30/133.40	1,000
TYP27MX	.27/6.86	13.20/335.28	3.50/88.90	60266.90	500

Long life in UV and chemical environments.

Ty-Rap® Weather-Resistant Nylon 12 Ties

This material provides very good resistance to ultraviolet light and chemical exposure. Nylon 12 is a lower, moisture-absorbing material than 6.6 nylon, and the effect of water on properties is much less.

For use in temperatures ranging from -40° F to 185° F (-40° C to 85° C).

Color — Black









STD. Cat. No.	BULK Cat. No.	BODY WIDTH IN./MM	LENGTH IN./MM	MAX. WIRE BUNDLE DIA. IN./MM	TENSILE Strength LBS./N	STD. PKG. QTY.	BULK PKG. QTY.
TYC525MX	TYC25MX	.18/4.57	7.31/185.67	1.75/44.45	35/155.70	100	1,000
_	TYC28MX	.18/4.57	14.20/360.68	4.00/101.60	35/155.70	_	1,000
_	TYC272MX	.27/6.86	8.00/203.20	2.00/50.80	85/378.10	_	500
TYC527MX	TYC27MX	.27/6.86	13.20/335.28	3.50/88.90	85/378.10	50	500
_	TYC29MX	.30/7.62	30.00/762.00	9.00/228.60	85/378.10	_	500





Ty-Rap®

Engineered-Performance Material Cable Ties

Perfect for passenger areas!

Ty-Rap® Flame-Retardant 6.6 Nylon Ties

- · Meets the UL94V-0 flammability rating
- Low smoke

Color — White

For use in temperatures ranging from -40° F to 185° F (-40° C to 85° C).









BULK CAT. NO.	BODY Width In./MM	LENGTH IN./MM	MAX WIRE BUNDLE DIA. IN./MM	MARKING PAD SIZE IN./MM W X H	TENSILE STRENGTH LBS./N	BULK PKG. QTY.
TY23MFR	.09/2.29	3.62/91.95	.63/16.00	N/A	18/80.07	1,000
TY232MFR	.09/2.29	8.00/203.20	2.00/50.80	N/A	18/80.07	1,000
TY24MFR	.14/3.56	5.50/139.70	1.13/28.70	N/A	40/177.90	1,000
TY25MFR	.18/4.57	7.31/185.67	1.75/44.45	N/A	50/222.40	1,000
TY28MFR	.18/4.57	14.20/360.68	4.00/101.60	N/A	50/222.40	1,000
TY272MFR [†]	.27/6.86	8.00/203.20	2.00/50.80	N/A	120/533.80	500
TY27MFR	.27/6.86	13.20/335.28	3.50/88.90	N/A	120/533.80	500
TY53MFR	.09/2.29	4.00/101.60	.63/16.00	.81 x .36/20.57 x 9.1	18/80.07	500
TY153MFR	.10/2.54	4.35/110.49	.63/16.00	.78 x 1/19.81 x 14.00	18/80.07	500
† Not UL® Reco	ognized Model.					

Al

Withstand even the toughest environments!

Ty-Rap® Radiation-Resistant Fluoropolymer Ties

- High radiation resistance 2 x 108 Rads
- · Extremely chemical resistant
- Meets flammability rating UL94V-0
- Long application life expectancy

Color — Aqua

For use in temperatures ranging from -76° F to 338° F (-60° C to 170° C)









STD. CAT. NO.	BULK Cat. No.	BODY WIDTH IN./MM	LENGTH IN./MM	MAX. WIRE BUNDLE DIA. IN./MM	TENSILE Strength LBS./N	STD. PKG. QTY.	BULK PKG. QTY.
TYZ523M*	TYZ23M*	.09/2.29	3.62/91.95	.63/16.00	18/80.07	100	1,000
TYZ525M	TYZ25M	.18/4.57	7.31/185.67	1.75/44.45	50/222.40	100	1,000
TYZ528M	TYZ28M	.18/4.57	14.19/360.43	4.00/101.60	50/222.40	100	1,000
TYZ527M	TYZ27M	.27/6.86	13.38/339.85	3.50/88.90	120/533.80	50	100
*UL Listed							

Perfect for low smoke-generation applications.

Ty-Rap® Low-Smoke Fluoropolymer Ties

- Made of tough fluoropolymer material
- Use in air-handling spaces
- UL94V-0 flammability rating
- Low-smoke density

Color — Maroon

For use in temperatures ranging from -50° F to 284° F (-45° C to 140° C)







STD. CAT. NO.	BULK Cat. No.	BODY WIDTH IN./MM	LENGTH IN./MM	MAX. WIRE BUNDLE DIA. IN./MM	TENSILE Strength LBS./N	STD. PKG. QTY.	BULK PKG. QTY.
TYV523M	TYV23M	.09/2.29	3.62/91.95	.63/16.00	18/80.07	100	1,000
TYV525M	TYV25M	.18/4.57	7.31/185.67	1.75/44.45	50/222.40	100	1,000



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354









Select the cable ties you need for special environments!

Thomas & Betts offers Ty-Rap® cable ties and accessories in a wide variety of materials, each suited for specific environments. The purpose of this document is to assist you in choosing the best material for your particular application. The effects of weathering, flame, chemicals, extreme temperatures, and radiation on the different materials are clearly presented in the following tables to simplify this process. Once you have determined the most suitable material, you can choose from the wide variety of Ty-Rap® cable ties, identification ties, mounting bases, lashing ties, etc., offered by Thomas & Betts.

General — How to use Table 1:

Table 1 simplifies the material selection process by giving the relative performance ratings of the materials offered by Thomas & Betts. For example, if your application is in an extremely cold environment, four materials will answer your need: 1. Radiation-resistant fluoropolymer, 2. Low-smoke fluoropolymer, 3. Nylon 12, 4. Stainless steel. Then, cost may be your next most important criteria, so out of those four options, nylon 12 would be the most cost effective. However, if tensile strength is important, then stainless steel would be the better choice.

Refer to Tables 2 and 3 for more detailed information regarding physical properties of the materials and chemical resistance of the materials respectively.

It is extremely difficult to provide data on all the possible combinations or conditions that can occur. This information is based on data provided by the manufacturers of the specific materials listed and is provided only as a general guide. No specific recommendation is intended. As each application may differ, cable tie samples should be tested in the intended application by the user to determine suitability.

Table 1 — Available Materials 5 = Most Suitable 1 = Least Suitable

	NATURAL 6.6 Nylon*	WEATHER- RESISTANT 6.6 NYLON		HEAT- Stabilized UV 6.6 Nylon				WEATHER- RESISTANT POLY- PROPYLENE	LOW- SMOKE FLUORO- POLYMER		DELTEC° Weatherable Acetel	DETECTABLE NYLON*	STAINLESS STEEL
Ultraviolet Resistance	1	4	1	4	1	1	4	4	5	5	4	1	5
Radiation Resistance	1	1	1	1	1	1	1	1	4	4	1	1	5
Low Temperature	3	3	3	4	3	2	4	3	4	4	4	2	5
High Temperature	3	3	4	3	4	3	2	2	4	4	2	2	5
Flammablity	3	3	3	3	3	4	1	1	4	4	1	3	5
Tensile Strength	3	3	3	3	3	3	2	1	3	3	2	3	5
Relative Cost	Low	Low	Low	Low	Med	Med	Med	Low	High	High	High	Med	High
Chemical Resistance						SEE TABL	E 3 (PAGE	S C-10-C-11)				

^{*} Funaus inert

Flammability ratings for selecting Ty-Rap® cable ties

Flammability ratings of Ty-Rap® cable tie materials are shown in Table 2 on the following page. These tests for flammability of plastic material are intended to serve as a preliminary indication of acceptability with respect to flammability for particular applications.

UL 94 vertical burn test procedures

Test specimens of the material, with dimensions 5" x ½", with the thickness intended for use in the end product, are tested in both the manufactured condition and in the aged state. The test requires that the specimen be supported in a vertical fixture and a precisely controlled flame applied for a 10-second period.

The flame is removed and the duration of flaming is noted. If the flame extinguishes, a second exposure to flame for 10 seconds is applied and duration of flaming is again noted. It is observed and recorded whether or not test specimens drip flaming particles that ignite a cotton swatch.

Materials classed UL94V-0:

A material classed V-0 shall:

- A. Not have any specimens that burn with flaming combustion for more than 10 seconds after either application of the test flame.
- B. Not have a total flaming combustion time exceeding 50 seconds for the 10 flame applications for each set of five specimens.
- C. Not have any specimens that burn with flaming or glowing combustion up to the holding fixture.
- D. Not have any specimens that drip flaming particles that ignite the dry absorbent surgical cotton located 12" below the test specimen.
- E. Not have any specimens with glowing combustion that persists for more than 30 seconds after the second removal of the test flame.

Materials classed UL94V-1:

A material classed V-1 shall:

- A. Not have any specimens that burn with flaming combustion for more than 30 seconds after either application of the test flame.
- B. Not have a total flaming combustion time exceeding 250 seconds for the 10 flame applications for each set of five specimens
- C. Not have any specimens that burn with flaming or glowing combustion up to the holding fixture.
- D. Not have any specimens that drip flaming particles that ignite the dry absorbent surgical cotton located 12" below

800.816.7809

Fax: 901.252.1354

E. Not have any specimens with glowing combustion that persists for more than 60 seconds after the second removal of the test flame.

Materials classed UL94V-2:

A material classed V-2 shall:

- A. Not have any specimens that burn with flaming combustion for more than 30 seconds after either application of the test flame
- B. Not have a total flaming combustion time exceeding 250 seconds for the 10 flame applications for each set of five specimens.
- C. Not have any specimens that burn with flaming or glowing combustion up to the holding fixture.
- **D.** Be permitted to have specimens that drip flaming particles that burn only briefly, some of which ignite the dry absorbent surgical cotton placed 12" below the test specimen.
- **E.** Not have any specimens with glowing combustion that persists for more than 60 seconds after the second removal of the test flame.





Table 2 — Physical Properties of Ty-Rap® Cable Tie Materials

	NATURAL 6.6 Nylon	WEATHER- RESISTANT 6.6 NYLON	HEAT- Stabilized Natural 6.6 Nylon	HEAT- Stabilized UV 6.6 Nylon	EXTRA HIGH TEMP 4.6 NYLON	FLAME- Retardant 6.6 Nylon	WEATHER- RESISTANT NYLON 12	WEATHER- RESISTANT POLY- PROPYLENE	LOW-SMOKE FLUORO- POLYMER	RADIATION- RESISTANT FLUORO- POLYMER	DELTEC® Weatherable Acetal	STAINLESS STEEL
Tensile Strength (Yield) @ 73° F (Dry-As-Molded) ¹ [psi]	12,000	12,000	12,000	11,500	14,500	11,000	7,500	4,600	6,600	6,700	10,000	90,000
Flammability Rating	UL94V-2	UL94V-2	UL94V-2	UL94V-2	UL94V-2	UL94V-0	_	_	UL94V-0	UL94V-0	UL94HB	_
Radiation Resistance [rads]	1 x 10 ⁵	1 x 10 ⁵	1 x 10 ⁵	1 x 10 ⁵	1 x 10 ⁵	1 x 10⁵	1 x 10 ⁵	1 x 10 ⁵	2 x 10 ⁶	2 x 10 ⁸	1 x 10 ⁶	2 x 10 ⁸
Ultraviolet Light Resistance	Poor	Good	Poor	Good	Poor	Poor	Good	Good	Excellent	Excellent	Very Good	Excellent
Water Absorption (24 hrs.) [%]	1.3	1.2	1.4	.25	2.3	1.4	.25	.1	<.1	<.01	.25	None
Oxygen Index	28	28	31	26	27	34	_	_	52	30	21	_
Max. Continuous Use Temperature [F°/C°]	185/85	185/85	221/105	221/105	302/150	185/85	176/80	194/90	284/140	302/150	194/90	1000/537
Min. Continuous Use Temperature [F°/C°]	-40/-40	-40/-40	-40/-40	-40/-40	-40/-40	-40/-40	-40/-40	-65/-65	-50/-46	-50/-46	-85/-65	-112/-80
Color	Natural	Black	Green Tint	Black	Light Green	White	Black	Black	Maroon	Aqua	Black	Stainless

¹ ASTM D638-878 except stainless steel, which is ASTME8

Chemical Resistance

Table 3 shows the resistance of Ty-Rap® cable tie materials to various chemicals. The table is designed to help you determine the cable tie material best suited for a particular chemical environment.

Table 3 — Resistance of Available Materials to Various Chemicals Temp 70° F

REAGENTS	CONCENTRATION	STANDARD 6.6 Nylon as USED In Ty Series	WEATHER- RESISTANT 6.6 NYLON AS USED IN TY X SERIES	HEAT- STABILIZED 6.6 NYLON AS USED IN TYH SERIES	FLAME- RETARDANT 6.6 NYLON AS USED IN TY FR SERIES	WEATHER- RESISTANT NYLON 12 AS USED IN TYC X SERIES	WEATHER- RESISTANT POLY- PROPYLENE AS USED IN TYP X SERIES	LOW-SMOKE FLUOROPOLYMER AS USED IN TYV SERIES	RADIATION- RESISTANT FLUOROPOLYMER AS USED IN TYZ SERIES	DELTEC® WEATHERABLE ACETAL AS USED IN TYD SERIES	STAINLESS STEEL AS USED IN TYS SERIES
Arsenic Acid	40%						E	_			E
Acetaldehyde	50%	S	S	S	S	_	_	_	_	_	_
Acetone	100%	E	E	F	E	Е	Е	Е	F	F	Е
Aluminum Hydroxide	AQ	_	_	_	_	_	E	E	E		E
Ammonia	All	_	_	_	_	Е	Ē	Ē	Ē	_	
Ammonium Carbonate	5%	S	S	S	S	Е	F	F	F	_	Е
Ammonium Hydroxide	10%	Ē	Ē	Ē	Ē	_	E	E	E	F	Ē
Ammonium Nitrate	_	_	_	_	_	Е	E	E	E		E
Ammonium Sulfate	10%	_	_	_	_	S	S	Ē	S	_	S
Barium Carbonate	All	_	_	_	_	F	F	Ě	Ĕ	_	Ĕ
Barium Chloride	5%	NR	NR	NR	NR	Ē	Ē	_	Ē	_	Ē
Barium Sulfate	10%	Ē	E	E	E	Ē	Ē		Ē	_	Ē
Barium Sulfide	10%	S	S	S	Š	Ē	Ē		Ē	_	Ē
Benzene	100%	Ĕ	Ĕ	Ĕ	Ĕ	Ē	Š	Е	F	F	F
Benzoic Acid	100%	NR	NR	NR	NR	Ē	Ĕ	Ē	Ē	<u> </u>	Ē
Butyric Acid	50%	NR	NR	NR	NR	_	Ē	F	F	_	Ē
Calcium Carbonate	AQ					_	Ē	Ē	F	_	F
Calcium Hydroxide	20%	_	_	_	_	_	Ē	Ē	F	Е	Ē
Calcium Hydrochlorite	2	NR	NR	NR	NR	_	F	<u> </u>	F		Ē
Calcium Sulfate	2%	_	_	_	_	_	Ė	Е	F	_	Ė
Carbon Tetrachloride	100%	Е	Е	E	Е	Е	F	È	F	Е	F
Chlorine (WET)	-	NR	NR	NR	NR	_	F	_	F	_	F
Chlorine (DRY)	_	NR	NR	NR	NR	_	NR	_	F	_	F
Chloroacetic Acid	30%	NR	NR	NR	NR	_		_	F	_	F
Chloroform	100%		_	_		F	F	Е	F	_	Ė
Chromic Acid	50%	NR	NR	NR	NR		F	Š	F	_	F
Citric Acid	50%	S	S	S	S	Е	Ė	F	F	F	F
Copper Cyanide	10%	_	_	_	_	_	F	F	F	_	Ē
Copper Nitrate	50%	_	_	_	_	_	F	F	F	_	F
Cider	-	_	_	_	_	_	F	F	F	_	F
Dichloroethane	100%	_	_	_	_	_		F	F	_	F
Diethyl Ether	100%	_	_	_	_	Е	Е	F	F	S	F
Ethyl Alcohol	100%	S	S	S	S	F	F	F	F	_	F
Ethyl Chloride	100%	_	_	_	_	F	Ē	S	F	Е	Ē
Ethylene Glycol	100%	Е	Е	Е	Е		F	F	F	S	F
Ferric Hydroxide	All	_	_	_	_		Ė	Ë	F	_	F
Ferric Nitrate	10%	_	_	_	_	_	Ē	F	F	_	Ë
Ferrous Sulfate	10%	_	_	_	_	_	Ē	F	F	_	F
Fuel Oil	100%					Е		F	F		Ė
Furfural	100%					_	F	F	F		F
Gallic Acid	AQ							F	Ē		E
Gasoline	100%	E	E	E	E		S	Ē	E		F
Glycerine	100%	_				E	E E	F	L		E
Hydrocyanic Acid	All					_	F	E	E		Ē
Hydrogen Peroxide	30%	NR	NR	NR	NR	S	E	F	E	 F	E
Hydrogen Sulfide	Dry	NR	NR NR	NR NR	NR	F F	E	F	F		F
riyuruyen sumue	ыy	INU	INU	INU	INU	E	E	E	E	_	Е

United States Tel: 901.252.8000

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services** Tel: 888.862.3289



Table 3 (continued)

DF10511F0		STANDARD 6.6 NYLON AS USED IN	WEATHER- RESISTANT 6.6 NYLON AS USED IN	HEAT- STABILIZED 6.6 NYLON AS USED	FLAME- RETARDANT 6.6 NYLON AS USED IN	WEATHER- RESISTANT NYLON 12 AS USED IN	WEATHER- RESISTANT POLY- PROPYLENE AS USED IN	AS USED IN	RADIATION- RESISTANT FLUOROPOLYMER AS USED IN	DELTEC® WEATHERABLE ACETAL AS USED	STAINLESS STEEL AS USED IN TYS SERIES
REAGENTS	CONCENTRATION	TY SERIES	TY X SERIES	IN TYH SERIES	IY FK SERIES	TYC X SERIES	TYP X SERIES	TYV SERIES F	TYZ SERIES E	IN TYD SERIES	F F
odoform	100%	_	<u> </u>	S	S	E	E	E	E	_	E
sopropyl Alcohol	100%	S	E	E	E	_	S	E	E		E
let Fuel	100%	E				S	E E	F	E		E
actic Acid	10%	E	E	E	E	E	E .	F	F		E
anolin	10%	E	E	Е	E			_	E		E
ead Acetate	5%	_	_	_	_	_	E	E		E	E
inseed Oil	10%	Е	Е	Е	E	E	E	E	E		
Magnesium Carbonate	All			_	_	E	E	E	E		E
Magnesium Chloride	10%	F	F	F	F	F	F	_	F	_	F
Magnesium Nitrate	All	_	_	_	_	Е	E	Ē	Ē	_	E
∕Ialic Acid	AQ	_	_	_	_	_	Ē	E	E	_	E
Mercury	100%	_	_	_	_	Е	E	E	E	_	E
Methyl Alcohol	100%	S	S	S	S	E	E	E	E	_	Е
Methyl Chloride	100%	_	_	_	_	_	S	S	Е	_	Е
Methyl Ethyl Ketone	100%	_	_	_	_	E	E	E	E	F	E
Vaptha	100%	_	_	_	_	_	E	E	Е	_	Е
Vitric Acid	30%	NR	NR	NR	NR	_	E	E	E	NR	Е
Vitric Acid	30-70%	NR	NR	NR	NR	_	F	S	S	NR	E
Vitrous Acid	5%	_	_	_	_	_	F	E	E	_	Е
Dieic Acid	100%	_	_	_	_	_	Ë	E	E	S	E
Oxalic Acid	10%	_	_	_	_	S	Ē	Ē	Ē	_	Ē
Paraffin	100%	E	Е	Е	Е	Ē	F	Ē	Ē	_	Ē
Petroleum Ether	100%			_	_	Ē	F	F	Ē	_	Ē
Phenol	90%	NR	NR	NR	NR	_	F	Ē	Ē	NR	Ē
	10%	NR	NR	NR	NR		Ē	Ē	F		Ē
Phosphoric Acid	1%	INK —	INFI	IND	IND	_	E	E	E	_	E
Picric Acid	AQ	_	_	_	_		S		S		S
Potassium Bromide		_		E	E	E	E E		E	_	J
Potassium Carbonate 1%		_					F		F		Е
Potassium Chlorate	AQ	ND.	—	— ND	— ND	S F	E F	E E	E	_	E
Potassium Dichromate	40%	NR	NR	NR	NR						
Potassium Ferrocyanide	25%	_	_	_	_	_	E	Ē	Ē	_	E
Potassium Hydroxide	5%	S	S	S	S	_	E	E	E		E
Potassium lodide	All	_	_	_	_	E	E	E	E	_	E
Potassium Nitrate	50%	F	F	F	F	E	E	E	E	_	E
Potassium Permanganate	5%	NR	NR	NR	NR	NR	E	Е	E	S	E
Potassium Sulfate	5%	_	_	_	_	E	E	E	E	_	E
Potassium Sulfide	AQ	_	_	_	_	_	E	E	E	_	Е
Propyl Alcohol	100%	E	E	E	Е	_	Е	E	Е	_	Е
Silver Nitrate	10%	_	_	_	_	E	Е	Е	E	_	Е
Sodium Acetate	60%	E	E	E	Е	_	Е	Е	E	_	E
Sodium Bicarbonate	All	Е	E	E	Е	E	Е	Е	Е	_	Е
Sodium Bisulfate	10%	_	_	_	_	E	Е	E	E	E	E
Sodium Borate	All	_	_	_	_	_	Е	E	E	_	Е
Sodium Carbonate	5%	Е	Е	Е	Е	E	Ē	Ē	E	S	Е
Sodium Chlorate	25%			_	_	S	Ē	Ē	Ē	Ē	E
Sodium Chloride	2%	Е	Е	E	Е	Ē	Ē	Ē	Ē	S	Ē
Sodium Fluoride	5%	_	_				F	_	F	_	F
Sodium Hydroxide	10%	E	E	Е	Е	Е	Ė	Е	Ė	S	Ē
Sodium Hyposulfite	AQ				_			Ē	F		Ē
Sodium Nitrate	5%	E	E	E	E	E	E	Ē	Ē	_	Ē
	AQ			_		S	E	E	F		F
Sodium Nitrite			_	_		J	E	E	E		E
Sodium Perchlorate	10%	_	_		_	_	E	-	E	_	
Sodium Phosphate	5%	_	_	_	_	E		E	E	_	E
Sodium Sulfate	5%	S	E	S	E	E	E	E	E	_	
Sodium Thiosulfate	5%	_	_	_	_	S	S	_	S	S	S
Stearic Acid	100%		_		_	F	E	E	E	_	E
Sulfur	100%	_		_	_	E	Ē	E	E	_	E
Sulfur Dioxide	All	NR	NR	NR	NR	E	E	E	E		E
Sulfuric Acid	Conc.	NR	NR	NR	NR	_	S	Ē	E	NR	E
Sulfuric Acid	5%	NR	NR	NR	NR	F	F	F	F	F	F
Tannic Acid	10%	_	_	_	_	_	E	E	E	_	E
Tartaric Acid	50%	_	_	_	_	Е	E	E	E	E	E
Tetrahydrofuran	100%	_	_	_	_	S	F	F	E	E	Е
Toluene	100%	Е	Е	Е	Е	E	F	E	E	F	F
Xylene	100%	Ē	Ē	Ē	Ē	Ē	F		Е	_	Е
Zinc Chloride	70%	F	F	F	F	Ē	E	Е	E	NR	Е
Zinc Nitrate	AQ		<u> </u>	<u> </u>	_	Ē	Ē	Ē	Ē	_	Ē
Zinc Sulfate	AQ		_	_	_	Ē	Ē	Ē	Ē	_	E
		=Fair NR =N	ot Recommended	(AQ =Aqueous	3)	_	_	_	-		-

www.tnb.com

800.816.7809 Fax: 901.252.1354

Color Coding Cable Ties

Ty-Rap[®] Striped-Colored Cable Ties for Identification Telephone Cable Binder

Designed primarily for P.I.C. and station cable binder marking, these self-locking ties install without tools in less than 10 seconds. Compared to an installation time of 30–60 seconds using the twisted-wire method, the time saving is substantial. High-contrast color stripes extend to end of tail for instant, permanent identification of binder.



STD. PKG. CAT. NO.	BULK. PKG. CAT. NO.	TIE COLOR	COLOR Stripe	BODY Width In./mm	LENGTH IN./MM	TENSILE Strength LBS./N	STD. PKG. QTY.	BULK PKG. QTY.
696-40527-0C	696-40527-0	Black	_	.09/2.29	3.62/91.95	18/80.07	50	1,000
696-40527-1-0C	696-40527-1-0	Brown	Black	.09/2.29	3.62/91.95	18/80.07	50	1,000
696-40527-1-2C	696-40527-1-2	Brown	Red	.09/2.29	3.62/91.95	18/80.07	50	1,000
696-40527-1-4C	696-40527-1-4	Brown	Yellow	.09/2.29	3.62/91.95	18/80.07	50	1,000
696-40527-1-7C	696-40527-1-7	Brown	Violet	.09/2.29	3.62/91.95	18/80.07	50	1,000
696-40527-1-9C	696-40527-1-9	Brown	White	.09/2.29	3.62/91.95	18/80.07	50	1,000
696-40527-2C	696-40527-2	Red	_	.09/2.29	3.62/91.95	18/80.07	50	1,000
696-40527-3-0C	696-40527-3-0	Orange	Black	.09/2.29	3.62/91.95	18/80.07	50	1,000
696-40527-3-2C	696-40527-3-2	Orange	Red	.09/2.29	3.62/91.95	18/80.07	50	1,000
696-40527-3-4C	696-40527-3-4	Orange	Yellow	.09/2.29	3.62/91.95	18/80.07	50	1,000
696-40527-3-7C	696-40527-3-7	Orange	Violet	.09/2.29	3.62/91.95	18/80.07	50	1,000
696-40527-3-9C	696-40527-3-9	Orange	White	.09/2.29	3.62/91.95	18/80.07	50	1,000
696-40527-4C	696-40527-4	Yellow	_	.09/2.29	3.62/91.95	18/80.07	50	1,000
696-40527-5-0C	696-40527-5-0	Green	Black	.09/2.29	3.62/91.95	18/80.07	50	1,000
696-40527-5-2C	696-40527-5-2	Green	Red	.09/2.29	3.62/91.95	18/80.07	50	1,000
696-40527-5-4C	696-40527-5-4	Green	Yellow	.09/2.29	3.62/91.95	18/80.07	50	1,000
696-40527-5-7C	696-40527-5-7	Green	Violet	.09/2.29	3.62/91.95	18/80.07	50	1,000
696-40527-5-9C	696-40527-5-9	Green	White	.09/2.29	3.62/91.95	18/80.07	50	1,000
696-40527-6-0C	696-40527-6-0	Blue	Black	.09/2.29	3.62/91.95	18/80.07	50	1,000
696-40527-6-2C	696-40527-6-2	Blue	Red	.09/2.29	3.62/91.95	18/80.07	50	1,000
696-40527-6-4C	696-40527-6-4	Blue	Yellow	.09/2.29	3.62/91.95	18/80.07	50	1,000
696-40527-6-7C	696-40527-6-7	Blue	Violet	.09/2.29	3.62/91.95	18/80.07	50	1,000
696-40527-6-9C	696-40527-6-9	Blue	White	.09/2.29	3.62/91.95	18/80.07	50	1,000
696-40527-8-0C	696-40527-8-0	Slate	Black	.09/2.29	3.62/91.95	18/80.07	50	1,000
696-40527-8-2C	696-40527-8-2	Slate	Red	.09/2.29	3.62/91.95	18/80.07	50	1,000
696-40527-8-4C	696-40527-8-4	Slate	Yellow	.09/2.29	3.62/91.95	18/80.07	50	1,000
696-40527-8-9C	696-40527-8-9	Slate	White	.09/2.29	3.62/91.95	18/80.07	50	1,000

For use in temperatures ranging from -40° F to 185° F (-40° C to 85° C).

Ty-Rap® Striped-Colored Cable Tie Kits



STD. PKG. CAT. NO.	DESCRIPTION	STD. PKG.
650-40587	Pouch only	1
650-40587-1	Pouch with Ty-Rap® cable tie assortment 1 bag each of 50 each (1,250 total)	1
650-40587C	Cloth pouch only	1
650-40587CF	Cloth pouch with 1 bag of 50 each Ty-Rap® cable ties (1,250 total)	1
650-40587M	Mini pouch only	1
650-40587MF	Mini pouch filled with assortment of Ty-Rap® cable ties (50 each)	1

Thomas@Betts

United States
Tel: 901.252.8000
800.816.7809

Fax: 901.252.1354

Technical Services
Tel: 888.862.3289





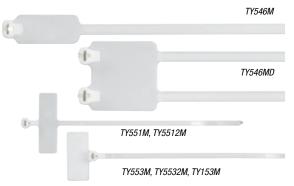


Identification Tags, Cable Ties and Accessories

Keep your cables clearly identified!

Ty-Rap® 6.6 Nylon Identification Ties

Self-locking Ty-Rap® identification ties are available in both single and multiple configurations. They can be marked with the special Thomas & Betts marking pen (see **page C-14**) that immediately produces a permanent legend, or they can be heat stamped. Because the ties serve the dual purpose of tying and identifying, you will achieve extra economies. They can be applied with the standard Ty-Rap® tying tools used for regular ties.



AI	

STD	BULK	BODY WIDTH	TOTAL LENGTH	MAX. WIRE Bundle	MILITARY Standard	MARKING PAD SIZE IN./MM.	TENSILE Strength	STD.	BULK
CAT. NO.	CAT. NO.	IN./MM	IN./MM	IN./MM	PART NO.	WXH	LBS./N	PKG. QTY.	PKG. QTY.
TY551M	TY51M	.09/2.29	3.60/91.44	.63/16.00	MS3368-5	1 x .313	18/80.07	100	500
TY5512M	TY512M*	.09/2.29	8.30/210.82	2.00/50.80	_	1 x .313	18/80.07	100	1,000
TY553M	TY53M	.09/2.29	4.00/101.6	.63/16.00	_	.813 x .359	18/80.07	100	500
TY5532M	TY532M	.09/2.29	8.40/213.36	2.00/50.80	_	.813 x .359	18/80.07	100	1,000
_	TY153M	.10/2.54	4.35/110.49	.63/16.00	_	.781 x 1	18/80.07	_	500
TY546M	TY46M	.18/4.57	7.10/180.34	1.75/44.45	MS3368-1	.5 x .875	50/222.40	100	1,000
TY548M	TY48M*	.19/4.83	14.20/360.68	4.00/101.6	MS3368-2	.5 x 2.125	50/222.40	100	1,000
TY546MD	TY46MD*	.19/4.83	7.25/184.15	1.75/44.45	MS3368-3	1.172 x 1	50/222.40	50	500
TY546MT	TY46MT*	.19/4.83	7.25/184.15	1.75/44.45	MS3368-4	1.210 x 1	50/222.40	100	500
TY546MF	TY46MF	.19/4.83	7.25/184.15	1.75/44.45	_	2.48 x 1	50/222.40	50	250

*Nylon 6.6 UV weather-resistant version available (add suffix X).

For use in temperatures ranging from -40° F to 185° F (-40° C to 85° C).

• Natural nylon color

Custom Heat Stamping

Thomas & Betts Custom Heat Stamping provides an economical way to fasten and identify cable bundles. Mark nylon cable ties, identification cable ties, and identification plates to suit your application.

- 1/16", 1/8", 3/16" characters available
- Standard type Gothic Capitol
- Character sizes can be mixed from line to line on Identification cable ties
- Alphanumeric and sequential numbering available
- Six-digit sequential numbering available in 1/8" characters
- Eight-digit sequential numbering available in 1/16" and 3/16" characters
- Special logos and different type styles can be accommodated when camera-ready artwork is provided



- Minimum order quantity is 3,000 pieces per part number and message
- Lead time is 8–10 weeks





www.aboveboardelectronics.com

1-800-453-1692

Identification Tags, Cable Ties and Accessories

Stay organized!

Identification Tags

Ranging in length from 1.25" to 2.5", the identification plates are secured to the cable with Ty-Rap® ties. They are composed of .010"- and .015"-thick nylon 6.6, and have a surface that can be marked easily. Thomas & Betts offers custom heat stamping of your plates at the factory.







BULK CAT. NO.	WIDTH IN./MM	LENGTH IN./MM	THICKNESS In./MM	MAX. CABLE Bundle dia. In./MM	# TIE SLOTS	BULK PKG. QTY.
TC123-TB	.75/19.05	1.25/31.75	.01/.25	.19/4.83	3	1,000
TC124-TB	.75/19.05	1.50/38.10	.01/.25	.19/4.83	3	1,000
TC125-TB	.75/19.05	1.75/44.45	.01/.25	.19/4.83	3	1,000
TC126-TB	.75/19.05	2.00/50.80	.01/.25	.19/4.83	3	1,000
TC128-TB	.75/19.05	2.50/63.50	.01/.25	.19/4.83	3	1,000
TC223-TB	.75/19.05	1.28/32.51	.02/.51	.19/4.83	2	1,000
TC224-TB	.75/19.05	1.50/38.10	.02/.51	.19/4.83	2	1,000
TC225-TB	.75/19.05	1.75/44.45	.02/.51	.19/4.83	2	1,000
TC226-TB	.75/19.05	2.00/50.80	.02/.51	.19/4.83	2	1,000
TC228-TB	.75/19.05	2.50/63.50	.02/.51	.19/4.83	2	1,000

For use in temperatures ranging from -40° F to 185° F (-40° C to 85° C).

Mark and bundle simultaneously!

Snap-On Identification Marker Tag



Snaps onto the head of a conventional cable tie to convert it to an identification tie.

- When snapped onto the tie head, the tag is conveniently held in place until it is permanently fastened
- Offers maximized inventory control because the I.D. tag will accommodate different tie lengths and materials

- Enables marking and bundling to be done in one operation
- The marking can be made with a Thomas & Betts permanent marking pen, Cat. No. WT163M-1
- The identification tags are sold separately and can be conveniently snapped on the cable ties at the assembly location just before being installed on the bundle
- · Made of natural nylon 6.6

STD. CAT. NO.	BULK Cat. No.	DESCRIPTION	MARKING PAD Size W X H (IN./MM)	PKG. QTY.	PKG. QTY.
TC523	TC23	Snaps onto the heads of all miniature 18 lbs. (80.07 N) series cable ties	1 x .35/25.40 x 889.00	100	1,000
TC524	TC24	Snaps onto the heads of all intermediate 30 (133.40N) & 40 (177.90N) lbs. series cable ties	1 x .50/25.40 x 500.00	100	1,000
TC525	TC25	Snaps onto the heads of all standard 50 lbs. series cable ties	1 x .50/25.40 x 500.00	100	1,000

· Natural nylon color

Ty-Rap® Marking Pen

- Permanent ink for long life on nylon cable ties and tags
- Fine-point tip for easy cable tie and tag marking



CAT. NO.	COLOR INK	STD. PKG. QTY.
WT163M-1	Black	1



Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354

Tel: 888.862.3289







[·] Natural nylon color

Great for use with screws, nuts and bolts for secure fastening to surfaces.

Ty-Rap® 6.6 Nylon Mounting Head Ties — Natural







STD. Cat. No.	BULK CAT. NO.	BODY WIDTH IN./MM	LENGTH IN./MM	MAX. WIRE BUNDLE DIA. IN./MM	MOUNTING Hole	TENSILE Strength LBS./N	STD. PKG. QTY.	BULK PKG. QTY.
TY533M	TY33M	.09/2.29	4.00/101.60	.63/16.00	#4	18/80.07	100	1,000
TY534M	TY34M	.14/3.56	6.00/152.40	1.13/28.70	#8	40/177.90	100	1,000
TY535M	TY35M	.18/4.57	7.80/198.12	1.75/44.45	#10	50/222.40	100	1,000
TY5354M	TY354M	.18/4.57	14.60/370.84	4.00/101.60	#10	50/222.40	100	1,000
_	TY635M	.19/4.83	7.80/198.12	1.77/44.96	#6	50/222.40	_	1,000
TYF535M	TYF35M	.19/4.83	7.24/183.90	1.77/44.96	#6	50/222.40	100	1,000
TY537M	TY37M	.30/7.62	13.90/353.06	3.50/88.90	1/4"	120/533.80	50	500

For use in temperatures ranging from -40° F to 185° F (-40° C to 85° C).

Ty-Rap® 6.6 Nylon Mounting Head Ties — **Weather Resistant**

The MX series cable ties are recommended for outdoor use. The addition of carbon black provides good ultraviolet resistance and prolongs the useful life of the cable tie.



STD. CAT. NO.	BULK Cat. No.	BODY WIDTH In./MM	LENGTH IN./MM	MAX. WIRE BUNDLE DIA. IN./MM	MOUNTING Hole	TENSILE Strength LBS./N	STD. PKG. QTY.	BULK PKG. QTY.
TY533MX	TY33MX	.09/2.29	4.00/101.60	.63/16.00	#4	18/80.07	100	1,000
TY534MX	TY34MX	.14/3.56	6.00/152.40	1.13/28.70	#8	40/177.90	100	1,000
TY535MX	TY35MX	.18/4.57	7.80/198.12	1.75/44.45	#10	50/222.40	100	1,000
TY5354MX	TY354MX	.18/4.57	14.60/370.84	4.00/101.60	#10	50/222.40	100	1,000
TY537MX	TY37MX	.30/7.62	13.90/353.06	3.50/88.90	1/4"	120/533.80	50	500

For use in temperatures ranging from -40° F to 185° F (-40° C to 85° C).

Ty-Rap® 6.6 Nylon Push-Mount Ties

For use in 3/16" and 1/4" pre-drilled holes. Panel thickness .09" max. (TY554M) Range .04-.156" (TY538M)



الله الله الله الله الله الله الله الله	TY554M

STD. CAT. NO.	BULK Cat. No.	BODY WIDTH IN./MM	LENGTH IN./MM	MAX. WIRE Bundle Dia. In./MM	MOUNTING HOLE	TENSILE STRENGTH LBS./N	STD. PKG. QTY.	BULK PKG. QTY.
TY554M	TY33MX	.14/3.56	5.96/151.38	1.13/28.70	3/16"	40/177.90	100	1,000
TY538M	TY38M *	.18/4.57	7.80/198.12	1.75/44.45	1/4"	50/222.40	100	1,000

*Nylon 6.6 UV weather-resistant version available (TY38MX).

For use in temperatures ranging from -40° F to 185° F (-40° C to 85° C).

· Natural nylon color







[·] Natural nylon color

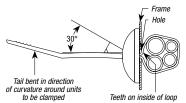
[·] Black color

Convenient one-piece design!

Ty-Rap® Tie for Panel and Chassis Mounting



- One-piece design, fast and convenient to use
- Clamping range of 1/16 to 23/8 inches reduces your inventory — one clamp replaces many
- · Visually attractive head resembles rivet
- Locking grooves maintain tight grip
- Lowers your installed cost



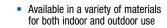
STD. CAT. NO.	BULK Cat. No.	BODY WIDTH IN./MM	LENGTH IN./MM	MAX. WIRE BUNDLE DIA. IN./MM	HOLE SIZE IN./MM	STRENGTH LBS./N	STD. PKG. QTY.	BULK PKG. QTY.
TY541M	TY41M	.23/5.84	9.60/243.84	2.37/60.20	.3268/8.13-17.27	65/289.10	50	1,000
650-41600	_	.23/5.84	10.25/260.35	2.50/63.50	.3268/8.13-17.27	65/289.10	500	1,000
696-41848	_	.23/5.84	12.50/317.50	3.00/76.20	.3268/8.13-17.27	65/289.10	500	1,000

Note: Loop tie through hole in frame, around electrical, hydraulic, or air hoses to be clamped, and through head. Tighten and cut off with Ty-Rap tool. Visually looks like a rivet.

- For use in temperatures ranging from -40° F to 185° F (-40° C to 85° C).
- · Black color

Choose from adhesive-backed, epoxy or screw mounting bases!

Two-Way Adhesive Mounting Bases



· One-piece molding — no lost parts

Adhesive-backed with pressuresensitive adhesive tape (where applicable)





STD. PKG. CAT. NO.	BULK PKG. CAT. NO.	MOUNTING METHOD	MAX. TIE WIDTH ACCOM.	LENGTH IN./MM	WIDTH IN./MM	MATERIAL	STD. PKG. QTY.	BULK PKG.
TC5342A	TC342A	SRA* Adhesive	.19	1.13/28.58	1.13/28.58	Nylon 6.6	100	1,000
_	TC342A-X	SRA* Adhesive	.19	1.13/28.58	1.13/28.58	UV Black	_	1,000
_	TC342	TC2PA [†]	.19	1.13/28.58	1.13/28.58	Nylon 6.6	_	1,000
_	TC342X	TC2PA [†]	.19	1.13/28.58	1.13/28.58	UV Black	_	1,000
_	TC342A-FR	SRA* Adhesive	.19	1.13/28.58	1.13/28.58	Flame-Retardant Nylon	_	1,000
_	TC342AH-TFR	Acrylic Adhesive	.19	1.13/28.58	1.13/28.58	Black High-Temp Flame-Retardant Nylon	_	1,000

Temperature Rating: 32° F to 120° F (0° C to 48° C)

*Synthetic Rubber Adhesive

†TC2PA Adhesive sold separately

Note: See product expiration date on package. Periodically check product for adhesion and replace as needed. Product is for wire management only and is not intended for use as a primary support of wire, cable, etc.

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354





www.tnb.com

Select the four-way configuration you need! **Four-Way Adhesive Mounting Base**

- Eliminates errors in premounting the base with respect to its orientation to wire bundle direction
- For synthetic rubber adhesive (SRA), allow 15-minute setting time for maximum adhesion performance
- For acrylic adhesive, allow 24- to 72-hour setting time for maximum adhesion performance (acrylicadhesive mounting bases may be re-positioned initially before the adhesive has set)





Four-Way Mini Base





Large Four-Way Base







- Storage/Service Temperature: 32° F to 120° F (0° C to 48° C)
- Application Temperature: 65° F to 100° F (18° C to 37° C)
- Surface Preparation: Surface should be cleaned with alcohol-based (IPA) cleaner before application *Synthetic Rubber Adhesive

Note: See product expiration date on packages with adhesive. Periodically check product for adhesion and replace as needed. Product is for wire management only and is not intended for use as a primary support of wire, cable, etc.

Two-and Four-Way Adhesive Mounting Base



- 4-way base for cable ties up to .184" maximum width and a two-way base for ties up to .301' maximum width
- May also be mounted with #8 size screw (2 holes)

STD. PKG. CAT. NO.	BULK PKG. Cat. No.	MOUNTING Method	MAX. TIE WIDTH ACCOM.	LENGTH IN./MM	WIDTH IN./MM	MATERIAL	STD. PKG. QTY.	BULK PKG. QTY.
TC5347A	TC347A	SRA* Adhesive	.30	1.13/28.58	1.13/28.58	Nylon 6.6	100	1,000
TC5347AX	_	SRA* Adhesive	.30	1.13/28.58	1.13/28.58	UV Black	100	_
_	TC347	TC2PA/Screws	.30	1.13/28.58	1.13/28.58	Nylon 6.6	_	1,000
_	TC347FR	TC2PA/Screws	.30	1.13/28.58	1.13/28.58	Flame-Retardant	_	1,000
_	TC347X	TC2PA/Screws	.30	1.13/28.58	1.13/28.58	UV Black	_	1,000

Temperature Rating: 32° F to 120° F (0° C to 48° C) *Synthetic Rubber Adhesive

Note: See product expiration date on packages with adhesive. Periodically check product for adhesion and replace as needed. Product is for wire management only and is not intended for use as a primary support of wire, cable, etc.







Mounting Bases, Cable Ties and Accessories

Great for securing cables!

One-Piece Mounting Clamp



- Provides a fast and convenient method of securing bundles
- Single-piece design offers reduced installation time and maximized inventory control
- Integral top cover incorporates a unique ratchet design that is fully adjustable and releasable
- Available in a pressure-sensitive adhesive or screw mount design

				CLAMP	ING AREA		
STD. PKG. CAT. NO.	BULK PKG. CAT. NO.	BASE STYLE	MAXIMUM HEIGHT (IN.)	MINIMUM IN./MM	MAXIMUM IN./MM	STD. PKG. QTY.	BULK PKG. QTY.
TC5349A-TB	TC349A-TB	SRA* Adhesive	.57	.18 x .24/4.57 x 6.10	.035 x .24/.89 x 6.10	100	1,000
TC5350A-TB	TC350A-TB	SRA* Adhesive	.89	.20 x .59/5.08 x 14.99	.45 x .59/11.43 x 14.99	100	1,000
TC5350-TB	_	Screw Mount (#8)	.89	.20 x .59/5.08 x 14.99	.45 x .59/11.43 x 14.99	100	1,000

· Natural nylon color.

*Synthetic Rubber Adhesive

Product Base is .94" x .94" (23.88 x 23.88 mm)

For adhesive-back bases, temperature rating is 32° F to 120° F (0° C to 48° C)

For non-adhesive-back bases, temperature rating is -40° F to 185° F (-40° C to 85° C)

(===========

Hole for #6 screw

Note: See product expiration date on packages with adhesive. Periodically check product for adhesion and replace as needed. Product is for wire management only and is not intended for use as a primary support of wire, cable, etc.

Simple to install!

Snap-In Mounting Base for Preassembled Ties



STD. PKG.	BULK PKG.	MOUNTING	MAX. TIE	LENGTH	WIDTH	MATERIAL	STD.	BULK
CAT. NO.	Cat. No.	METHOD	WIDTH ACCOM.	IN./MM	IN./MM		PKG. QTY.	PKG. QTY.
TC5353A	TC353A	SRA* Adhesive	.190	2.00/50.80	1.00/25.40	Nylon 6/6	25	500

• Natural nylon color.

Temperature Rating: 32° F to 120° F (0° C to 48° C).

*Synthetic Rubber Adhesive.

Note: See product expiration date on package. Periodically check product for adhesion and replace as needed.

Product is for wire management only and is not intended for use as a primary support of wire, cable, etc.

Great for securing cables! Aluminum Mounting Plates



STD. PKG. CAT. NO.	MOUNTING METHOD	WIDTH ACCOM.	MAX. TIE LENGTH ACCOM.	WIDTH IN./MM	MATERIAL	BULK PKG. QTY.
TC105	TC2PA/Screws	.190	1.00/25.40	.50/12.70	Aluminum	1,000
TC824-TB	TC2PA	.190	1.38/34.93	.38/.38	Aluminum	1,000
650-41349*	TC2PA/Screws	.190	1.38/34.93	.38/.38	Aluminum	1,000
650-41863	Adhesive	.190	1.38/34.93	.38/.38	Aluminum	1,000
Temperature Rating: 32° F to 150° F (0° C to 66° C).			. *650-41349	has two holes	s for mounting	

Note: See product expiration date on package. Periodically check product for adhesion and replace as needed. Product is for wire management only and is not intended for use as a primary support of wire, cable, etc.

Super strong adhesive! Mounting Base Adhesive





STD. PKG		STD.
CAT. NO.	DESCRIPTION	PKG. QTY
TC2PA	Consists of one tube of adhesive and activator	1

Note: See product expiration date on package. Periodically check product for adhesion and replace as needed. Product is for wire management only and is not intended for use as a primary support of wire, cable, etc.



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354



Tel: 888.862.3289







Saddle Support Base

This mounting base provides a saddle for the wire run. Ty-Rap® tie is threaded under bundle and tied in usual manner. Note: For additional materials, see Technical Services.





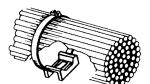


AI

100

1,000

500



STD. PKG. CAT. NO.	BULK PKG. Cat. No.	MOUNTING METHOD	MAXIMUM TIE WIDTH ACCOM.	WIDTH IN./MM	LENGTH IN./MM	STD. PKG. QTY.	BULK PKG. QTY.
_	TC140	#4 Pan Head	.091	.344/8.74	.563/14.30	_	500
TC5141	TC141*†	#6 Pan Head	.190	.439/11.15	.672/17.07	100	500
TC5142	TC142 [†]	#10 Pan Head	.301	.563/14.30	.922/23.42	100	500

Add suffix FR for flame-retardant material (TC141 only).

For use in temperatures ranging from -40° F to 185° F (-40° C to 85° C).

Multiple-Bundle Mounting Strips

These nylon mounting strips for parallel installation of wire bundles can accommodate up to six closely spaced bundles.



STD. PKG. CAT. NO.	MAXIMUM MOUNTING METHOD	TIE WIDTH ACCOM.	WIDTH IN./MM	LENGTH IN./MM	CAPACITY (BUNDLES)	MIL. STD. Part no.	BULK PKG. QTY.
TC1101	#6 Screws	.190	.50/12.70	1.75/44.45	1	MS3339-1	100
TC1102	#6 Screws	.190	.50/12.70	3.00/76.20	2	MS3339-2	100
TC1103	#6 Screws	.190	.50/12.70	4.25/107.95	3	MS3339-3	100
TC1104	#6 Screws	.190	.50/12.70	5.50/139.70	4	MS3339-4	100
TC1105	#6 Screws	.190	.50/12.70	6.75/171.45	5	MS3339-5	100
TC1112	#6 Screws	.301	.63/15.88	9.60/243.84	6	MS3339-11	100
TC1113	#6 Screws	.301	.63/15.88	2.10/53.34	1	MS3339-6	100
TC1114	#6 Screws	.301	.63/15.88	3.60/91.44	2	MS3339-7	100
TC1115	#6 Screws	.301	.63/15.88	5.10/129.54	3	MS3339-8	100
TC1116	#6 Screws	.301	.63/15.88	6.60/167.64	4	MS3339-9	100

8.10/205.74

· Natural nylon color.

TC1117

For use in temperatures ranging from -40° F to 185° F (-40° C to 85° C)

.301

#6 Screws

TC101

TC103

Provides a mounting range for bundles from 1/4" through 4" in diameter!

Single-Bundle Mounting E



Base							M
STD. PKG. CAT. NO.	BULK PKG. Cat. No.	MOUNTING METHOD	MAXIMUM TIE WIDTH ACCOM. IN./MM	WIDTH IN./MM	LENGTH IN./MM	STD. PKG. QTY.	BULK PKG. QTY.

.63/15.88

The TC101 and TC103 nylon bases provide a mounting range for bundles from 1/4" through 4" in diameter. One mounting hole is slotted to permit adjustment of the bundle position up to the time of actual bundle installation.

#10 Screws

1/4" Screws

· Natural nylon color

For use in temperatures ranging from -40° F to 185° F (-40° C to 85° C).



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354

Technical Services

190/4.83

.301/7.65

Tel: 888.862.3289





.500/12.7

.625/15.88

2.00/50.80



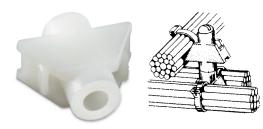
Thomas@Betts

MS3339-10

Natural nylon color.

Permits vertical stacking!

Ty-Rap® Mounting Blocks



BULK PKG. CAT. NO.	MOUNTING HOLE SIZE	TIE WIDTH ACCOM.	MAXIMUM WIDTH IN./MM	LENGTH IN./MM	BULK PKG. QTY.
TC115-TB	#10	.190/4.83	.47/11.91	1.00/25.40	1,000

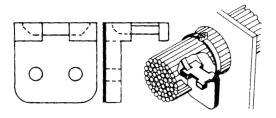
Mounting blocks permit vertical stacking and can be used in any direction.

Natural nylon color.

For use in temperatures ranging from -40° F to 185° F (-40° C to 85° C).

Meets military specs as a support in bulkheads and walls!

Right-Angle Bundle Support



BULK PKG. CAT. NO.	TIE WIDTH ACCOM.	MAXIMUM WIDTH IN./MM	LENGTH IN./MM	BULK PKG. QTY.
TC109	.19/4.83	.56/14.30	.44/11.13	200
TC106	.30/7.62	1.00/25.40	1.00/25.40	1,000

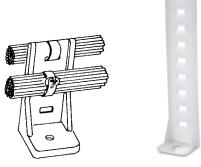
This style meets Military Specification requirements as a support at holes in bulkheads and walls. (MS3341)

Natural nylon color.

For use in temperatures ranging from -40° F to 185° F (-40° C to 85° C).

Mount bundles on either side!





STD. PKG. CAT. NO.	MAXIMUM TIE WIDTH ACCOM.	WIDTH IN./MM	LENGTH IN./MM	STD. PKG. QTY.
TC375	.19/4.83	.75/19.05	3.65/92.71	100
TC375X (WEATHERABLE)	.19/4.83	.75/19.05	3.65/92.71	100
TC376	.19/4.83	.67/17.01	1.75/44.45	100

These brackets permit bundles to be mounted on either side. They also serve as means to raise bundles off the surface.

Natural nylon color.

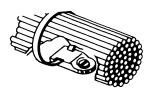
For use in temperatures ranging from -40° F to 185° F (-40° C to 85° C). Weatherable nylon is black.

Ideal for high-density packaging!

Low-Profile Two-Way Miniature Mounting Bases

 Simply slip Ty-Rap® cable tie under slot in fastened mount, and attach bundle





All

*E*II°

STD. PKG. CAT. NO.	BULK PKG. Cat. No.	MOUNTING METHOD	MAXIMUM TIE WIDTH ACCOM.	WIDTH IN./MM	LENGTH IN./MM	STD. PKG. QTY.	BULK PKG. QTY.
TC502	TC102	#8 screw	.19	.50/12.70	.75/19.05	100	1,000
_	TC104	#5 screw	.09	.32/8.03	.41/10.31	_	1,000
_	TC804-TB	#2 screw	.09	.32/8.03	.40/10.31	_	1,000
_	TC112-TB	#8 screw	.19	.38/9.53	.75/19.05	_	1,000
_	TC812-TB	#10 screw	.19	.38/9.53	.75/19.05	_	1,000
_	TC814-TB	#5 screw	.19	.38/9.53	.75/19.05	_	1,000

Threaded insert permits screw to come from outside of mounting surface.

Natural nylon color.

For use in temperatures ranging from -40° F to 185° F (-40° C to 85° C).



Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354



Tel: 888.862.3289





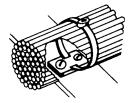


Mounting Bases, Cable Ties and Accessories

Installs in-line with the wire bundle!

In-Line Mounting Base





BULK CAT. NO.	MOUNTING METHOD	WIDTH ACCOM. IN./MM	MAX. TIE WIDTH IN./MM	LENGTH IN./MM	BULK PKG. QTY.
TC815-TB	#10 screws	.30/7.62	.75/19.05	1.13/28.58	500

A standard 2-hole base that installs in-line with the wire bundle that conceals it.

For use in temperatures ranging from -40° F to 185° F (-40° C to 85° C).

Miniature Base





BULK PKG. CAT. NO.	MOUNTING METHOD	MAX. TIE WIDTH ACCOM.	LENGTH IN./MM	WIDTH IN./MM	MATERIAL	BULK PKG. QTY.
TC817-TB	TC2PA	.19	.44/11.10	.44/11.10	Nylon 6/6	1,000

· Natural nylon color.

For use in temperatures ranging from -40° F to 185° F (-40° C to 85° C).

Handles ties installed in either direction!

Low-Profile Four-Way Mounting Base





							74
STD. PKG. CAT. NO.	BULK PKG. Cat. No.	MOUNTING METHOD	MAXIMUM TIE WIDTH ACCOM.	WIDTH IN./MM	LENGTH IN.	STD. PKG.	BULK PKG.
_	TC826-TB*	#8 screw	.19	.50/12.70	1/25.40		1,000
TC5828	TC828-TB*	#8 screw	.19	.39/9.91	.88/22.23	100	1,000

The TC826-TB mounting base can be used to tie bundles running parallel or perpendicular to length of base.

The TC828-TB mounting plate also handles ties installed in either direction and is somewhat smaller than TC826.

*Natural nylon color is standard. Replace TB with O suffix for black color. For use in temperatures ranging from -40° F to 185° F (-40° C to 85° C).

Firmly locks into position when projecting pin is pushed into the mounting hole.

Self-Riveting Base





BULK PKG. Cat. No.	MOUNTING HOLE PKG. SIZE	MAX. TIE WIDTH ACCOM.	WIDTH IN./MM	LENGTH IN./MM	MATERIAL	BULK PKG. QTY.
TC116-TB	.146	.190	.5/12.7	.75/19.05	Nylon 6.6 (Red)	1,000
TC116-0	.146	.190	.5/12.7	.75/19.05	Nylon 6.6 (Black)	1,000
TC118-TB	.169	.190	.5/12.7	.75/19.05	Nylon 6.6 (Blue)	1,000
TC120	.196	.190	.5/12.7	.75/19.05	Nylon 6.6 (Yellow)	1,000
Clin tio unde	r hood to attac	ah hundla				

Slip tie under base to attach bundle.

For use in temperatures ranging from -40° F to 185° F (-40° C to 85° C).

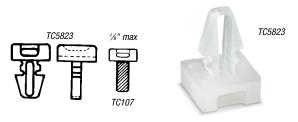




Natural nvlon color.

Mounting Bases, Cable Ties and Accessories

Push-In and Bolted Bases



STD. PKG CAT NO.		MOUNTING HOLE SIZE	MAXIMUM TIE WIDTH ACCOM.	WIDTH IN./MM	LENGTH In./MM	STD. PKG. QTY	BULK PKG. QTY
TC5823	TC823-TB	1/4	.190	.44/11.13	.63/15.88	100	1,000
_	TC107 [†]	#10-32 thd	.190	.44/11.13	.69/15.88	_	1,000

[†] Not UL Recognized.

For use in temperatures ranging from -40° F to 185° F (-40° C to 85° C).

MAX. TIE

WIDTH

ACCOM.

.190

.190

.190

Snap-In Mounting Base Cap

Snap-in, premountable base for securing wire bundles in cabinets maintains the attractive external appearance of the equipment housing

— TC121 Snap-Cap.



	BULK PKG.
200	CAT. NO.
55 41	TC121-TB
	TCH121 [†]
kness	
	TCH121-0 [†]

† Not UL Recognized.

MOUNTING

HOLE PKG.

SIZE

.250

250

.250

Natural nylon color.

Nylon 6.6 for use in temperatures ranging from -40° F to 185° F (-40° C to 85° C). Heat stabilized for use in temperatures ranging from -40° F to 221° F (-40° C to 105° C).

WIDTH

IN./MM

.445/11.30 .415/10.54

.445/11.30 .415/10.54

.445/11.30 .415/10.54

LENGTH

IN./MM

MATERIAL

Nylon 6.6

Nylon 6.6

Heat Stabilized

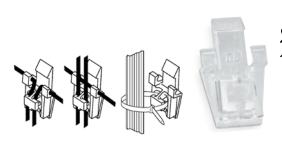
Nylon 6.6 Black

Heat Stabilized

Weather resistant and transparent!

TC121-TB

Aluminum Siding Clip



STD. PKG. Cat. No.	WIRE ACCOMMODATION	STD. PKG. QTY.
TC201	1/4" Diameter Wire (2-pair station wire)	50
Material:		

- Transparent Color and texture of siding shows through.
- Material Weather-resistant grade polycarbonate.
- Designed to accommodate PITTSBURG INTERLOCK metal siding.
- · Accommodates wires both vertically and/or horizontally.
- Provision for utilizing Ty-Rap® cable ties to secure large diameter bundles.



C-22





'UR

BULK

PKG.QTY.

1,000

1,000

1,000

[·] Natural nylon color.

Designed for indoor or outdoor use and heavy-duty applications.

Framing Channel Clamp

- · Quick and easy to install on existing metal framing channel
- · Installs with a push and twist
- Smooth design protects cable insulation
- · Takes range of cable diameters

When fastening wire bundles, cables or hoses to framing channels, you can cut costs considerably by using the Ty-Rap® cable clamp. It's made of smooth, weather-resistant nylon and designed to protect cable insulation and hoses from wear or damage, which can occur with metal clamps. The clamp may be used for both indoor or outdoor applications. It quickly installs in the framing channel with a simple push and twist. It requires no screws, nuts or tools. The clamp fits all 11/2" and 11/8" channels regardless of channel depth.









STD. PKG.	CHANNEL SIZE	MAXIMUM TIE WIDTH ACCOM.	STD.
CAT. NO.	(IN.)		PKG. QTY.
TC5363X	1½ & 1%	.301/7.65	50

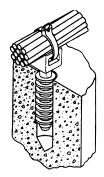
· Made from high-impact weather-resistant black nylon For use in temperatures ranging from -40° F to 185° F (-40° C to 85° C).

Specially designed head is range-taking.

Ty-Rap® Mounting Base for Masonry and Brick Surfaces

- Quick, easy installation without cumbersome adhesives or epoxies
- Provides a quick, easy and dependable means of attaching cable and wires to masonry surfaces
- Installs by tapping it into a drilled hole
- It's immediately ready to accept a cable tie and wire bundle - no tedious surface preparation; no waiting for adhesives to set
- Replaces a variety of anchors, clamps, screws and adhesives
- Designed for both indoor and outdoor applications
- Only two sizes to stock reduces inventory





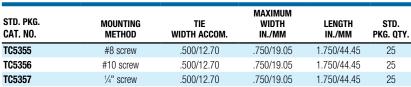
STD. PKG. CAT. NO.	HOLE SIZE IN MASONARY	MAXIMUM TIE WIDTH ACCOM.	STD. PKG. QTY.
TC5358	1/4	.190/4.83	100
TC5359	3/8	.500/12.70	50

· Made of a special impact and ultraviolet-resistant black nylon For use in temperatures ranging from -40° F to 185° F (-40° C to 85° C).

Weather resistant!

Ty-Rap® Mounting Base for Lashing Tie





· For use with lashing ties up to .500" width (i.e. TY5409)

· Black nylon construction

For use in temperatures ranging from -40° F to 185° F (-40° C to 85° C).

High impact







A fast and simple harnessing method for neat, versatile wire management.

Stud Mounting System

- Great for harnessing wires, cables and hoses to truck and trailer chassis
- Fast, easy installation, using standard 3/8" power drill and application tool or simply hammer on
- Unlimited harnessing flexibility using conventional T&B cable ties
- Custom drill bit quickly installs base to proper torque won't crack or break mounting base due to being overtightened
- Unique 4-way multi-directional design
- 10-position harness capability
- Available for ¾", ½", ¾", and ¾" stud/bolt sizes
- Self-tapping thread design for reliable installation onto stud
- High pull-out strength of 500+ lbs.

Thomas & Betts Stud Mount Fastening System is a fast and simple harnessing method for neat, versatile, cord, cable, hose, and wire management. Using a custom drill bit for your 3/8" power drill, the Stud Mount base is quickly attached onto a threaded stud or bolt to the proper torque—every time. The innovative "X" design of the base reliably supports many types of cable or hose assemblies using a wide range of conventional T&B cable ties. Designed with 10 separate lashing positions, the Stud Mount offers unlimited wire harnessing arrangements. T&B's Stud Mount is available in four convenient stud bolt sizes.



The Stud Mount Cable Fastening System includes a range of bases and the custom drill bit that mounts all sizes.



During installation, the custom Stud Mount drill bit application tool ejects itself from mounting base, ensuring proper torque and preventing cracking or breaking of the mount from being overtightened.



Virtually unlimited harnessing flexibility is provided in the unique 10-position harness design of the Stud Mount base.

BULK PKG. Cat. No.	DESCRIPTION	STUD SIZE	MATERIAL	COLOR	BULK PKG.
XMNY-375-0-D	Mount Fastener	3/8	Nylon, UV Stabilized	Black	500
XMNY-500-0-D	Mount Fastener	1/2	Nylon, UV Stabilized	Black	500
XMNY-625-0-D	Mount Fastener	5/8	Nylon, UV Stabilized	Black	500
XMNY-750-0-D	Mount Fastener	3/4	Nylon, UV Stabilized	Black	500
WTXM	Application Tool	_	Tool Steel	_	1

Material: Impact-resistant weatherable black nylon For use in temperatures ranging from -40° F to 185° F (-40° C to 85° C).



Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354

Tel: 888.862.3289







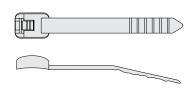
Safety, Reusable and Double-Loop Cable Ties

Ideal for precision bundling!

Low-Profile All-Nylon 6.6 Ties

This fastener design from Thomas & Betts is ideal for use where clearance is a necessity and allows for easy pull-through in bulkheads and other tight spaces. Our contoured head eliminates snagging, and sharp edges are reduced by our safeguard walls.

- Low-profile, contoured head reduces clearance required for the bundle and enhances the appearance of your harness
- The safeguard wall eliminates exposure to sharp edges



- The saddleback fits snug against the contour of the wiring harness
- Sizes and colors available to accommodate varying requirements

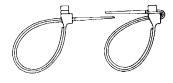


Low-profile contoured head compared with the profile of a common cable tie.

STD. PKG. CAT. NO.	BULK PKG. CAT. NO.	MATERIAL	BUNDLE RANGE DIA. IN./MM	TENSILE STRENGTH LBS./N	TIE LENGTH IN./MM	STRAP WIDTH IN./MM	STRAP THICK In./MM	STD. PKG. QTY.	BULK. PKG. QTY.
_	SF100-18	Natural	.13/3.3-1.00/25.4	18/80.07	4.65/118.11	.095/2.41	.04/1.09		1,000
SF100-18X-100	SF100-18X	UV Black	.13/3.3-1.00/25.4	18/80.07	4.65/118.11	.095/2.41	.04/1.09	100	1,000
_	SF200-18	Natural	.13/3.3-2.00/50.8	18/80.07	8.10/205.74	.1/2.41	.04/1.09	_	1,000
_	SF200-18X	UV Black	.13/3.3-2.00/50.8	18/80.07	8.10/205.74	.1/2.41	.04/1.09	_	1,000
_	SF175-50	Natural	.19/4.8-1.75/44.45	50/222.4	7.70/195.58	.19/4.75	.05/1.22	_	1,000
_	SF175-50X	UV Black	.19/4.8-1.75/44.45	50/222.4	7.70/195.58	.19/4.75	.05/1.22	_	1,000
_	SF175-50FR	Flame Retardant	.19/4.8-1.75/44.45	50/222.4	7.70/195.58	.19/4.75	.05/1.22	_	1,000
_	SF300-50X	UV Black	.19/4.8-3.00/76.2	50/222.4	11.33/287.78	.19/4.75	.05/1.22	_	1,000
_	SF400-50	Natural	.19/4.8-4.00/101.6	50/222.4	14.53/369.06	.19/4.75	.05/1.22	_	1,000
_	SF400-120X	UV Black	.38/9.6-4.00/101.6	120/533.8	14.58/370.33	.30/7.62	.07/1.78	_	500

Use these ties again and again!

Ty-Rap® Reusable Ties



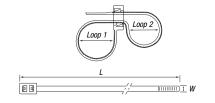
STD. PKG. CAT. NO.	BODY WIDTH IN./MM	LENGTH IN./MM	BUNDLE DIA. IN./MM	TENSILE STRENGTH LBS./N	STD PKG. QTY.
TYR505	.18/4.57	7.50/190.50	1.75/1.75	50/222.40	100
TYR508	.18/4.57	14.30/363.22	4.00/101.60	50/222.40	100

For use in temperatures ranging from -40° F to 185° F (-40° C to 85° C).

Double Loop 6.6 Nylon Tie

Advantages:

- Enables parallel routing of two cable bundles with one single cable tie!
- Halogen- and silicone-free to meet your application needs
- Quick and easy pull-through increases productivity, reduces operator fatigue







BULK PKG.	ULK PKG. LENGTH WIDTH		BUNDLE DIA	METER RANGE	TENSILE	INSTALLATION TOOLING	BULK
CAT. NO.	IN./MM	IN./MM	LOOP 1 IN./MM	L00P 2 IN./MM	STRENGTH (LB/N)	FOR ALL SIZES	PKG.
TB-12-50RLDH	11.8/299.72	.19/4.83	.1/2.54-2.8/71.12	.1/2.54-2.7/68.58	50/222.4	ERG50	1,000

Natural nylon color

For use in temperatures ranging from -40° F to 185° F (-40° C to 85° C).



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 Technical Services
Tel: 888.862.3289







Natural nylon color



Messenger and Lashing Ties and Straps

Resistant to UV light, chemicals, and lower in moisture absorption.

Weather-Resistant Nylon 12 Messenger Hanger and Hanger Straps (Releasable)

Nylon 12 is a lower moisture-absorbing material than 6.6 nylon — making the effect of water on properties much less.











STD. PKG. CAT. NO.	BODY Width In./MM	LENGTH IN./MM	MAX. WIRE BUNDLE DIA. IN./MM	HOOK MATERIAL	TENSILE Strength LBS./N	STD. PKG. QTY.				
Weather-Res	sistant l	lylon 12 Me	ssenger Han	iger Straps (Rele	easable)					
TYM5412X	.5/12.7	12/304.8	3/76.2	Bronze	200/889.6	50				
TYM5418X	.5/12.7	18/457.2	5/127	Bronze	200/889.6	25				
TYM5423X	.5/12.7	24/609.6	7/177.8	Bronze	200/889.6	25				
TYM5430X	.5/12.7	30/762.0	9/228.6	Bronze	200/889.6	25				
TYM5412X-S	.5/12.7	12/304.8	3/76.2	304 Stainless Steel	200/889.6	50				
TYM5418X-S	.5/12.7	18/457.2	5/127	304 Stainless Steel	200/889.6	25				
TYM5423X-S	.5/12.7	24/609.6	7/177.8	304 Stainless Steel	200/889.6	25				
TYM5430X-S	.5/12.7	30/762.0	9/228.6	304 Stainless Steel	200/889.6	25				
TYM5436X-S	.5/12.7	36/914.4	11/279	304 Stainless Steel	200/889.6	25				
Weather-Res	Weather-Resistant Nylon 12 Hanger Strap (Releasable)									
TY54407X	.5/12.7	6.36/151.54	2/50.8	Steel	200/889.6	50				
TY54413X	.5/12.7	13.75/349.25	4/101.6	Steel	200/889.6	25				

The recommended maximum continuous static loading for the nylon 12 straps is 25 lbs. per strap. For best results, suggested spacing is 15". It's the responsibility of the user to determine whether or not their application meets our recommendation. Hook will accommodate ½" dia. messenger wire.

• Color – Black For use in temperatures ranging from -40° F to 176° F (-40° C to 80° C).

Heavy-Duty Lashing Tie (Releasable)







Length: 19'

- Heavy-duty and made of weather-resistant nylon
- For use in temperatures ranging from -40° F to 176° F (-40° C to 80° C)

STD. PKG. CAT. NO.	BULK PKG. CAT. NO.	BODY WIDTH IN./MM	LENGTH IN./MM	MAX. WIRE BUNDLE DIA. IN./MM	TENSILE STRENGTH LBS./N	STD. PKG. QTY.	BULK PKG. QTY.
TY5409	TYANG	5/12 7	19/482 6	4 75/120 65	200/889 6	25	100





1-800-453-1692 www.aboveboardelectronics.com





Messenger and Lashing Ties and Straps

An absolute in chemical environments — and it floats!

Weather-Resistant Polypropylene Lashing Ties with Releasable Heads

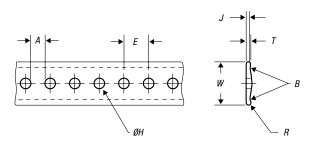


- Excellent chemical resistance
- Buoyant will float on most surfaces
- Made of black weather-resistant polypropylene for outdoor use
- Locking heads made of UV-resistant nylon
- For use in temperatures ranging from -40° F to 176° F (-40° C to 80° C)



STD. PKG. CAT. NO.	BODY WIDTH IN./MM	LENGTH IN./MM	MAX. WIRE BUNDLE DIA. IN./MM	TENSILE Strength LBS./N	STD. PKG. QTY.						
Weather-R	Weather-Resistant Polypropylene Lashing Tie (Releasable)										
TY5418PX	.5/12.7	18/457.2	5/127.0	150/667.2	25						
TY5424PX	.5/12.7	24/609.6	7/177.8	150/667.2	25						
TY5442PX	.5/12.7	42/1066.8	12/304.8	150/667.2	10						
TY5460PX	.5/12.7	60/1524	18/457.2	150/667.2	10						
Weather-Resistant Polypropylene Hanger Lashing Tie (Releasable)											
TY53418PX		.5/12.7	18/457.2	5	25						

Weather-Resistant Polypropylene Strapping and Accessories



STRAPPING					DIMEI	NSIONS (IN.)				STRAP-TITE	MOUNTING	MACHINE
CAT. NO.	MATERIAL	A	В	E	Н	J	R	T	W	BUCKLE	TAB	SCREW
S2NY-096-0-C	Black Nylon	.091 ± .010	.189	.187	.096 ± .003	$.023 \pm .003$.016	.031 ± .003	.284 ± .012	_	_	#2
S4NY-167-0-C	Black Nylon	$.145 \pm .020$.189	.312	$.167 \pm .005$	$.033 \pm .003$.022	.045± .003	$.375 \pm .010$	_	_	#8
S6NY-203-0-C	Black Nylon	$.187 \pm .020$.189	.390	$.203 \pm .005$	$.045 \pm .005$.030	$.060 \pm .005$	$.490 \pm .015$	B6NY-203-0-D	M6NY-265-0-D	#10





1-800-453-1692



800.816.7809 Fax: 901.252.1354

Deltec® Cable Tie and Support System

Designed to perform a minimum of 20 years outdoors down to -65° C.

The Deltec® Cable Tie and Support System

Lost-time accidents and downtime are often the result of using traditional metal bundling and support systems for high strength and harsh environment applications. Metal support systems can be both difficult and dangerous to install. They can also nick or cut through cable insulation. Insulation failures lead to dangerous and costly situations. There are few options outside of traditional metal for bundling and supporting cable that will withstand the harshest of environments and offer extended outdoor life.

In response to the demand for a better solution, Thomas & Betts engineers developed the Deltec® Cable Support System. The Deltec® System is safe and easy to install with a guaranteed weatherable life, even at temperatures as low as -85° F.

A three-piece, three-material engineered design provides the ideal solution for bundling in harsh outdoor environments. The Deltec® System combines the strength and rigidity of an injection-molded head with marine-grade copper barbs and a soft and pliable, stress-resistant, extruded body. The unique multi-piece design with separate head and strapping also allows installers to select and customize the strap length for any application. The Deltec® System provides the ultimate in cable support and management for your most demanding applications.





Advantages of the Deltec® System Include:

- Designed to perform a minimum of 20 years outdoors
- Continuous use temperature: -85° F to 194° F (-65° C to 90° C)
- No sharp edges
- Perfect for coaxial, fiber optic and all other communication and electrical conducting cables
- Total flexibility in length when using reel
- Extruded body provides total flexibility in length from 10" to 5.000 feet
- Made in the USA

- Rodents and other pests won't eat it
- Strap and Body: Weatherable acetal; offers superior resistance to sunlight, moisture and salt environments
- Locking Device: Marine-grade corrosionresistant copper alloy
- Installation Temperature Range:
 -30° F to 150° F (-34° C to 66° C)
- Minimum Tensile Strength: 250 lbs. (1,211 N)
- Continuous Load: 20 lbs. (9.07 kg)





Extra security!

Deltec® Cable Tie with Double-Locking Head

The recommended maximum continuous static loading for the Deltec® straps is 20 lbs. per strap. For best results, suggested spacing is 15". It's the responsibility of the user to determine whether or not their application meets our recommendation.

Note: Use WT3D Tool for tensioning and cutoff.

..... Specifications

- Strap and Body: Weatherable acetal; offers superior resistance to sunlight, moisture and salt environments
- Locking Device: Marine-grade corrosion-resistant copper alloy
- Installation Temperature Range: -30° F to 150° F (-34° C to 66° C)
- Continuous Use Temperature: -85° F to 194° F (-65° C to 90° C)
- Minimum Tensile Strength: 250 lbs. minimum (1,211 N)
- Service Life: Designed to last a minimum of 20 years outdoors
- Continuous Load: 20 lbs. (9.07 kg)
- Color: Black



STD. PKG. CAT. NO.	BODY WIDTH IN./MM	LENGTH IN./MM	MAX BUNDLE DIA. IN./MM	TENSILE Strength LBS./N	STD. PKG. QTY.
CSS-100	.5/12.70	10/254.00	3/76.20	250/1,112	50
CSS-135	.5/12.70	13.5/342.90	3.5/88.90	250/1,112	50
CSS-160	.5/12.70	16/406.40	4/101.60	250/1,112	50
CSS-270	.5/12.70	27/685.80	8/203.20	250/1,112	25



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services**

Tel: 888.862.3289







Deltec[®] Cable Tie and Support System

Cut to the length you need!

Deltec® Strap Dispenser on Reels

STD PKG. CAT. NO.	DESCRIPTION	TENSILE STRENGTH LBS./N	BODY WIDTH IN./MM	STD. PKG. QTY.
CSS-50R	50' Reel of Strap	250/1,112	.50/12.70	1
696-41794	1,000' Reel of Strap	250/1,112	.50/12.70	1
696-41952	3,500' Reel of Strap	250/1,112	.50/12.70	1



One spacer for any cable size!

Modular Stackable Cable Spacers

- Stackable for any desired spacing
- · Less inventory one catalog number
- 1/2" high



STD PKG. CAT. NO.	DESCRIPTION	STD. PKG. QTY.
TCP5255	Modular Stackable Spacer for Deltec® Straps	25
TCP360	For Coaxial Cable	100

- · Made of weather-resistant polypropylene
- Color Black

Heads for Deltec® strap! **Locking Heads**

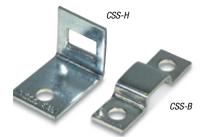


STD PKG. CAT. NO.	DESCRIPTION	STD. PKG. QTY.
CSS-LH	Heads only for Deltec® Strap	25
696-41795	Heads only for Deltec® Strap	1,000

- · Made of weatherable acetal
- Color Black

Secures cables to all types of surfaces.

Deltec® Base and Hanger



STD PKG. Cat. No.	DESCRIPTION	STD. PKG. QTY.
CSS-B	Base for Deltec® Strap	50
CSS-H	Hanger for Deltec® Strap	50

· Made of zinc-plated steel

Install ties easily!

Installation/Cutting Tool

STD PKG. CAT. NO.	DESCRIPTION	RANGE	WT. EACH	STD. PKG. QTY.
WT3D	Installs self-locking Ty-Rap® cable ties, lashing ties and Deltec® System	.184 thru .500	8 oz.	1

Twist tool handle one-half turn to cut strapping.





United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354







Ty-Rap® High-Performance Stainless Steel Cable Ties

Engineered Ty-Rap® Tough to Withstand the World's Harshest Environments!



Ty-Rap®

Stainless Steel Cable Ties

Ball-Lock Ties

- Polyester-coated 316 grade (marine-grade) stainless steel
- Uncoated 302/304 grade stainless steel
- Uncoated 316 grade (marine-grade) stainless steel

Roller-Locking Ties

- Uncoated 302/304 grade stainless steel
- Uncoated 316 grade (marine-grade) stainless steel

Dual-Lock Ties

- · Uncoated 304 grade stainless steel
- · Also available in uncoated 316 grade stainless steel

Re-Usable Ties

- Nylon 11-coated 200/300 series stainless steel
- Also available in nylon 11-coated 316 grade stainless steel

Free-End Clamps

Uncoated 201 grade stainless steel

Multi-Lok Stainless Steel Self-Locking Ties

- · Nylon-coated 316 grade stainless steel
- Uncoated 316 grade stainless steel

Stainless Steel Strap Ties

Uncoated 316 grade stainless steel

Thomas@Betts

United States
Tel: 901.252.8000
800.816.7809
Fax: 901.252.1354

Technical Services
Tel: 888.862.3289

www.tnb.com

Safe and easy to install! Designed for continuous exposure to salt spray, sunlight, petroleum and chemicals!

Ty-Rap® Polyester-Coated Stainless **Steel Ball-Lock Cable Ties**

Stainless steel offers excellent strength, durability and corrosion-resistance properties. But to stand up to the harshest environments in the world, such as those found on offshore drilling rigs, petroleum refineries, shipyards and chemical processing plants, even stainless steel needs an added layer of protection. That's why Ty-Rap® has added coated ties to its line of stainless steel cable ties. These new ties offer the same easy-to-install, low-profile, secure ball-lock mechanism as standard Ty-Rap® stainless steel ball-lock ties, but they're fully coated with a layer of rugged polyester to seal out salt, moisture, chemicals and UV radiation. Put these Ty-Rap® tough ties to the test against the elements in your harshest applications!

- 316 grade (marine-grade) stainless steel construction for strength and durability
- Fully coated with polyester to resist corrosion, UV radiation, temperature extremes, chemicals, impact, abrasion and cracking
- Rolled wire versus traditional slot steel to ensure no sharp edges
- Low-smoke, halogen-free polyester coating offers added personnel safety
- Pointed tail enables fast, easy insertion
- · Low-profile ball in wedge-shaped head locks tie securely in place
- Wide operating temperature range of -40° F to 302° F (-40° C to 150° C)
- Certifications/Standards: Lloyds Register, DNV. GL. CE. RoHS

CAT. NO.	LENTH (IN/MM)	WIDTH (IN/MM)	MAX. BUNDLE DIA. (IN/MM)	TENSILE STRENGTH (IN/MM)	STD. PKG. QTY.					
316 Grade Stainless Steel — Fully Polyester Coated										
LS-4.6-200-C	7.9/201	.18/4.6	2/51	100/444.8	100					
LS-4.6-260-C	10.2/259	.18/4.6	27/69	100/444.8	100					
LS-4.6-360-C	14.3/362	.18/4.6	4/102	100/444.8	100					
LS-4.6-520-C	20.5/521	.18/4.6	6/152	100/444.8	100					
LS-4.6-680-C	26.8/679	.18/4.6	8/203	100/444.8	100					
LS-7.9-200-C	7.9/201	.31/7.9	2/51	250/1112	50					
LS-7.9-360-C	14.3/362	.31/7.9	4/102	250/1112	50					
LS-7.9-520-C	20.5/521	.31/7.9	6/152	250/1112	50					
LS-7.9-680-C	26.8/679	.31/ 7.9	8/203	250/1112	50					







Safe and easy to install! Ty-Rap® Ball-Lock Stainless Steel Ties

These one-piece, self-locking stainless steel cable ties offer quick and easy installation — no crimping or folding required — and a strong, reliable lock. Choose among a variety of sizes and materials to meet all of your wire and cable bundling needs, even in the most extreme environments.

Fast, easy installation

- Self-locking no time-consuming crimping or folding
- Stainless steel ball in low-profile, wedge-shaped head locks tie securely in place
- Angled tail enables fast, easy insertion
- Rounded edges and smooth surfaces protect installer's hands

Two materials suit a variety of environments

- 302/304 grade stainless steel for standard applications
- 316 grade (marine-grade) stainless steel for extra corrosion resistance

Typical Applications

- Offshore drilling
- Petrochemical processing
- Shipbuilding
- Food and beverage processing
- Pharmaceutical processing

..... Specifications..

Operating Temp. Range:

-112° F to 1,000° F (-80° C to 538° C)

Application Tool DAS250 HAND TOOL

(Adjustable tension, automatic cut-off)



CAT. NO.	LENTH (IN/MM)	WIDTH (IN/MM)	MAX. BUNDLE DIA. (IN/MM)	TENSILE STRENGTH (IN/MM)	STD. PKG. QTY.
302/304 Grade Stainles	ss Steel — Uncoated				
-S-4.6-200A	7.9/201	.18/4.6	2/51	100/444.8	100
.S-4.6-260A	10.2/259	.18/4.6	2.9/69	100/444.8	100
.S-4.6-360A	14.2/360	.18/4.6	4 /102	100/444.8	100
S-4.6-520A	20.5/520	.18/4.6	6/152	100/444.8	100
.S-4.6-680A	26.7/679	.18/4.6	8/203	100/444.8	100
.S-4.6-840A	33.0/838	.18/4.6	10/254	100/444.8	100
.S-7.9-200A	7.9/201	.31/7.9	2/51	250/1112	50
.S-7.9-360A	14.2/360	.31/7.9	4/102	250/1112	50
.S-7.9-520A	20.5/520	.31/7.9	6/152	250/1112	50
.S-7.9-680A	26.7/679	.31/7.9	8/203	250/1112	50
S-7.9-840A	33.0/838	.31/7.9	10/254	250/1112	50
S-7.9-1010A	41.3/1050	.31/7.9	12.5/318	250/1112	50
316 Grade Stainless St	eel — Uncoated				
.S-4.6-200B	7.9/201	.18/4.6	2/51	100/444.8	100
S-4.6-260B	10.2/259	.18/4.6	2.7/69	100/444.8	100
S-4.6-360B	14.2/360	.18/4.6	4 /102	100/444.8	100
.S-4.6-520B	20.5/520	.18/4.6	6/152	100/444.8	100
.S-4.6-680B	26.7/679	.18/4.6	8/203	100/444.8	100
.S-4.6-840B	33.0/838	.18/4.6	10/254	100/444.8	100
.S-7.9-200B	7.9/201	.31/7.9	2/51	250/1112	50
.S-7.9-360B	14.2/360	.31/7.9	4/102	250/1112	50
S-7.9-520B	20.5/520	.31/7.9	6/152	250/1112	50
.S-7.9-680B	26.7/679	.31/7.9	8/203	250/1112	50
.S-7.9-840B	33.0/838	.31/7.9	10/254	250/1112	50
.S-7.9-1010B	41.3/1050	.31/7.9	12.5/318	250/1112	50



Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354







Multiple barb lock design!

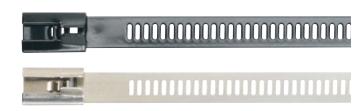
Ty-Rap® Multi-Lok Stainless **Steel Self-Locking Cable Ties**

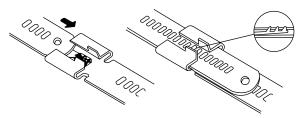
Fire hazards — corrosive environments — temperature extremes for many cable bundling applications, plastic ties are simply inadequateor even dangerous.

That's why we developed stainless steel Multi-Lok Ties. Unaffected by fire, UV or extreme temperatures, corrosion-resistant Multi-Lok Ties provide a safe, strong, worry-free hold.

Quickly and easily applied by hand or with the Thomas & Betts Cable Tie Tensioner or Tensioning Hook, Multi-Lok Ties feature a unique, self-locking, multiple-locking system that holds in excess of 200 lbs.

Nylon II coating is halogen-free and non-toxic black. This weather-resistant coating is unaffected by UV sunlight. This adds resistance to corrosion, chemicals and weathering. Preferred stainless steel strap eliminates sharp edges.





As the free end of the Multi-Lok tie passes through the buckle, three separate teeth (four teeth in the 12mm Multi-Lok) mesh with corresponding slots in the band automatically locking the tie as it is being tensioned. Self-locking Multi-Lok Ties feature an extremely strong, unique multiple locking system.

Type 316 Stainless Steel — Nylon 11 Halogen-Free Coated



		WIDTH		LENGTH		WEIGHT	
	TENSILE STRENGTH —		-		-		
CAT. NO.	LBS	IN	MM	IN	MM	LBS	KG
TYS6-280C	250	.276	7	6	150	.66	.30
TYS9-280C	250	.276	7	9	225	.99	.45
TYS12-280C	250	.276	7	12	300	1.32	.60
TYS18-280C	250	.276	7	18	450	1.76	.80
TYS24-280C	250	.276	7	24	610	2.64	1.20
TYS6-470C	250	.472	12	6	150	1.10	.50
TYS9-470C	250	.472	12	9	225	1.65	.75
TYS12-470C	250	.472	12	12	300	2.20	1.00
TYS18-470C	250	.472	12	18	450	2.97	1.35
TYS24-470C	250	.472	12	24	610	4.29	1.95

Packaging Quantity: 100/bag .010" (.245mm) Thickness

Type 316 Stainless Steel — Uncoated

71							
	TENSILE STRENGTH —	V	VIDTH	LEI	NGTH	WEIGHT	
CAT. NO.	LBS	IN	ММ	IN	ММ	LBS	KG
TYS6-280	250	.276	7	6	150	.66	.30
TYS9-280	250	.276	7	9	225	.88	.40
TYS12-280	250	.276	7	12	300	1.21	.55
TYS18-280	250	.276	7	18	450	1.98	.90
TYS24-280	250	.276	7	24	610	2.64	1.20
TYS6-470	250	.472	12	6	150	1.10	.50
TYS9-470	250	.472	12	9	225	1.65	.75
TYS12-470	250	.472	12	12	300	2.20	1.00
TYS18-470	250	.472	12	18	450	3.19	1.45
TYS24-470	250	.472	12	24	610	4.29	1.95

Packaging Quantity: 100/bag .010" (.245mm) Thickness



United States Tel: 901.252.8000

800.816.7809 Fax: 901.252.1354 **Technical Services** Tel: 888.862.3289







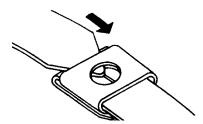
Ty-Rap® High-Performance Stainless Steel Cable Ties

Strong and slip-free with a unique dual lock.

Ty-Rap® Dual-Lock Stainless Steel Cable Ties

- 304 grade stainless steel construction
- · Two-piece design
- Fast, easy installation
- · Mini ties (.18" wide) offer 100 lbs. tensile strength
- Standard ties (.25" wide) offer 200 lbs. tensile strength
- Also available in 316 grade stainless steel (to order, add -316 suffix to catalog number)





After wrapping the object to be tied, insert the free end of the tie through the buckle and into the tool.



Squeeze the handle of the tool to create the dual lock and cut off the tail. The cable tie forms a low-profile dual lock.



The tail is formed into a fold lock behind the buckle.

The tool forces a dimple in the band into
a hole in the buckle.

	FOR BUNDLE	TENSILE	WIDTH	LENGTH	WEIGHT	STD.
CAT. NO.	DIAMETER OF IN/MM	STRENGTH LBS/N	IN/MM	IN/MM	LBS/KG	PKG. QTY.
Mini Stainless Steel C	able Ties					
SS7-180	1/25	100/444.8	.18/4.5	6.5/165	.70/.32	100
SS10-180	2/51	100/444.8	.18/4.5	10.0/254	.90/.41	100
SS16-180	4/102	100/444.8	.18/4.5	16.0/406	1.40/.64	100
SS23-180	6//152	100/444.8	.18/4.5	22.5/572	1.85/.84	100
SS29-180	8/203	100/444.8	.18/4.5	29.0/737	2.35/1.07	100
Standard Stainless Sta	eel Cable Ties					
SS10-250	2/51	200/890	.25/6.35	10.0/254	1.10/.50	100
SS17-250	4/101	200/890	.25/6.35	16.5/419	1.80/.82	100
SS23-250	6/152	200/890	.25/6.35	22.5/572	2.50/1.13	100
SS29-250	8/203	200/890	.25/6.35	29.0/737	3.20/1.45	100
SS35-250	10/254	200/890	.25/6.35	35.0/ 889	3.80/1.72	100
004.00-1-1						

304 Stainless Steel

.015" (.38mm) Thickness

Note: Other lengths available on special request. Add suffix -316 for 316 Stainless Steel.



Fax: 901.252.1354

Technical Services Tel: 888.862.3289

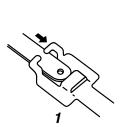




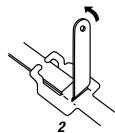
Ties to use and re-use with quickness and ease! Ty-Rap® Re-Usable Stainless Steel Cable Ties

- 200/300 series stainless steel construction
- Fully coated in non-toxic, halogen-free low-smoke Nylon 11 for extra corrosion resistance
- Unique buckle design for easy application and re-use
- May be double-wrapped for additional tensile strength
- Also available in 316 grade stainless steel (to order, add -316 suffix to catalog number)

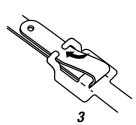




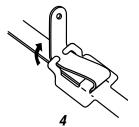
Insert cable tie tail through holding tabs and locking emboss



Bend cable tie tail up



Insert cable tie tail back through holding tabs, creating as tight a bend as possible



For increased tensile strength follow steps #4 and #5 *Patent Pending

Bend cable tie tail up

Fold cable tie tail over holding tabs

CAT. NO.	TENSILE STRENGTH (LBS/N)	WIDTH (IN/MM)	LENGTH (IN/MM)	WEIGHT (LBS/KG)	STD. PKG. QTY.
SSR6-250C	75/333.60	.25/6.35	6/152	1.4/.64	100
SSR9-250C	75/333.60	.25/6.35	9/229	1.8/.82	100
SSR12-250C	75/333.60	.25/6.35	12/305	2.1/.95	100
SSR18-250C	75/333.60	.25/6.35	18/457	3.0/1.36	100
SSR24-250C	75/333.60	.25/6.35	24/610	3.7/1.68	100
SSR6-375C	100/444.80	.38/9.53	6/152	1.8/.82	100
SSR9-375C	100/444.80	.38/9.53	9/229	2.0/.91	100
SSR12-375C	100/444.80	.38/9.53	12/305	3.1/1.41	100
SSR18-375C	100/444.80	.38/9.53	18/457	4.4/2.00	100
SSR24-375C	100/444.80	.38/9.53	24/610	6.6/2.99	100
SSR30-375C	100/444.80	.38/9.53	30/762	7.0/3.18	100
SSR36-375C	100/444.80	.38/9.53	36/914	8.3/3.76	100

Material: 200/300 Series Stainless Steel

.015" (.38mm) metal thickness; .045" (1.1mm) coated thickness

Note: This product may be double-wrapped for additional tensile strength.

For additional colors and uncoated ties, consult Thomas & Betts Customer Service for pricing and availability.

For 316 Stainless Steel, add suffix -316 after catalog number. Consult Customer Service for availability.







Pre-assembled for single or double wrapping. **Ty-Rap® Free-End Stainless Steel Clamps**

- 201 grade stainless steel construction
- Double-wrapped clamps provide extra strength
- Available in various lengths, widths and thicknesses



CAT. NO.	MAX. DIA. ONCE Around in/MM	MAX. DIA. TWICE AROUND IN/MM	LENGTH IN/MM	TENSILE STRENGTH SINGLE WRAP LBS/N	BAND WIDTH In/MM	BAND THICKNESS IN/MM	WEIGHT LBS/KG	STD. PKG. QTY.
SSH10-250	2/50	_	10/25	450/2002	.25/6.35	.02/.51	2.2/1.00	100
SSH16-250	3.5/88	1.5/38	16/40	450/2002	.25/6.35	.02/.51	3.1/1.41	100
SSH16-375	3.5/88	1.5/38	16/40	900/4003	.38/9.53	.03/.63	6.2/2.81	100
SSH18-500	4/101	2/50	18/45	1,400/6228	.5/12.70	.03/.76	10.5/4.76	100
SSH19-250	5/127	2.5/63	19/48	450/2002	.25/6.35	.02/.51	3.5/1.59	100
SSH21-625	5/127	2.5/63	21/53	1,700/7562	.63/15.88	.03/.76	15.1/6.85	100
SSH24-750	6/152	3/76	24/60	2,000/8896	.75/19.05	.03/.76	10.9/4.94	50
SSH27-250	7/177	3.5/88	27/68	450/2002	.25/6.35	.02/.51	4.6/2.09	100
SSH31-500	8/203	4/101	31/78	1,400/6228	.5/12.70	.03/.76	4.7/2.13	25
SSH34-250	9/228	4.5/114	34/86	450/2002	.25/6.35	.02/.51	5.6/2.54	100
SSH37-750	10/254	5/127	37/93	2,000/8896	.75/19.05	.03/.76	7.6/3.45	25
SSH44-375	12/304	6/152	44/112	900/4003	.38/9.53	.03/.76	3.6/1.69	25
SSH50-750	14/355	7/177	50/127	2,000/8896	.75/19.05	.03/.76	9.7/4.40	25
SSH56-625	16/406	8/203	56/142	1,700/7562	.63/15.88	.03/.76	9.0/4.08	25
SSH62-750	18/457	9/228	62/157	2,000/8896	.75/19.05	.03/.76	11.6/5.26	25
SSH69-625	20/508	10/254	69/175	1,700/7562	.63/15.88	.00/.76	10.7/4.86	25

Type 201 Stainless Steel

Other Free-End Clamp sizes and metals are available on special order.

Boiler rooms, shipyards, or off-shore oil platforms a match for any severe environment!

Ty-Rap® Stainless Steel Strap Cable Ties

- Stainless steel strap cable ties have been designed for high-temperature applications and for use in areas of harsh, corrosive environments
- Rated at 200-lb. tensile strength
- Smooth edges protect both the cable insulation and the installer



CAT. NO.	BODY WIDTH IN/MM	LENGTH IN/MM	MAX. WIRE BUNDLE DIA. IN/MM	TENSILE STRENGTH LBS/N	STD. PKG. QTY.
TYS8	.31/7.87	10.65/270.51	2/50.80	200/889.60	100
TYS14	.31/7.87	14.65/372.11	4/101.60	200/889.60	50
TYS22	.31/7.87	22.65/575.31	6/152.40	200/889.60	50
TYS28	.31/7.87	28.65/727.71	8/203.20	200/889.60	50

Note: Use WT3S Tool for tensioning

Cannot be coated with any covering material

Made of 316 stainless steel

Technical Services







1,000-ft. reel to cut your desired length!

Stainless Steel Strapping on a Reel



CAT. NO.	DESCRIPTION	WIDTH IN/MM	STRENGTH LBS/N	STD. PKG. QTY.
TYS1000	1,000 ft. of strap, 2 reels of 500 ft. each	.31/7.87	200/889.60	1

Stainless steel ties of virtually any length can be produced from the 1,000-ft. reel in combination with the matching head.

Note: Use WT3S tool for tensioning

Lockable heads for stainless steel strapping.

Stainless Steel Strapping Locking Heads



CAT. NO.	DESCRIPTION	STD. PKG. QTY.
TYS5200H	Heads only for stainless strapping	50

Long-lasting anchor hold.

Stainless Steel Mounting Base



CAT. NO.	DESCRIPTION	STD. PKG. QTY.
TCS25	Mounting base for stainless steel ties	50







Thomas@Betts

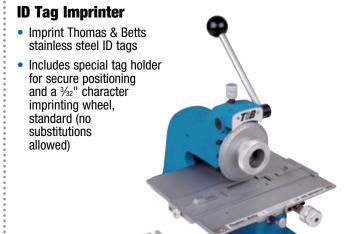
Identify cable bundles with permanent, stainless steel imprintable tags.

ID Tagging System

- Apply Type 304 stainless steel tags with stainless steel cable ties
- Easy-to-use slip a tie through the slots in the tag and fasten with the installation tool
- Works with ¼" wide ties
- .015" thickness



No second guessing — quickly and accurately position ID tags!



CAT. NO.	WIDTH IN/MM	LENGTH IN/MM	WEIGHT PER 100 LBS/N	STD. PKG. QTY.
SSID100	.75/	2.0/	.5/	100
	19.05	50.80	2.22	
SSID101	1.50/	2.5/	1.2/	100
	38.10	63.50	5.34	
SSID102	.75/	3.5/	.8/	100
	19.05	88.90	3.56	

Packaging Quantity: 100/box

Note: Customized pre-embossed tags are available. Please consult Technical Service for details.

Add suffix (316) for 316 Stainless Steel.

CAT. NO.	DESCRIPTION	WEIGHT LBS/N
WTID200	I.D. Tag Imprinter	29.5/131.2
WTID290	3/32" Character Imprinting Wheel	_
WTID281	1/8" Character Imprinting Wheel	_
WTID283	%₅" Character Imprinting Wheel	_
WTID204	(Kit) WTID200 and WTID 283	-
Packanina Ou	antity: 1/hov	

Stainless Steel ID Tag Strips/Carriers



CAT. NO.	DESCRIPTION	LENGTH IN/MM	WIDTH IN/MM	WT. PER 100 LBS	STD. PKG. QTY.
ER043	6-Character Carrier	3.64/92.46	.38/9.65	.73	100
ER044	10-Character Carrier	5.14/130.56	.38/9.65	1.25	100
ER045	16-Character Carrier	7.39/187.71	.38/9.65	1.47	100
ER050	Short Strip	4.25/107.95	.38/9.65	.98	100
ER051	Medium Strip	5.75/146.05	.38/9.65	1.33	100
ER052	Long Strip	8.00/203.20	.38/9.65	1.85	100
ER060	I.D. Tag Kit	_	_	_	1

ID Tag Kit contains 50 of each letter, number, symbol, carrier, and strip in a handy carrying case.



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 Technical Services Tel: 888.862.3289





Letters, numbers, and symbols — create easy-to-use custom identifications!

Stainless Steel ID Tags

 Slip tags over carriers or strips (see previous page) and attach to your cable or hose with a variety of Thomas & Betts Stainless Steel Cable Ties



CAT. NO.	DESCRIPTION	LENGTH IN/MM	WIDTH IN/MM	WT. PER 100	STD. PKG. QTY.
ER010	A	.45/2.00	.38/1.69	.31	100
R011	В	.45/2.00	.38/1.69	.31	100
R012	С	.45/2.00	.38/1.69	.31	100
R013	D	.45/2.00	.38/1.69	.31	100
R014	E	.45/2.00	.38/1.69	.31	100
R015	F	.45/2.00	.38/1.69	.31	100
R016	G	.45/2.00	.38/1.69	.31	100
R017	Н	.45/2.00	.38/1.69	.31	100
R018		.45/2.00	.38/1.69	.31	100
R019	J	.45/2.00	.38/1.69	.31	100
R020	K	.45/2.00	.38/1.69	.31	100
R021	L	.45/2.00	.38/1.69	.31	100
R022	M+W	.45/2.00	.38/1.69	.31	100
R023	N	.45/2.00	.38/1.69	.31	100
R024	0	.45/2.00	.38/1.69	.31	100
R025	P	.45/2.00	.38/1.69	.31	100
R026	Q	.45/2.00	.38/1.69	.31	100
R027	R	.45/2.00	.38/1.69	.31	100
R028	S	.45/2.00	.38/1.69	.31	100
R029	T	.45/2.00	.38/1.69	.31	100
R030	Ú	.45/2.00	.38/1.69	.31	100
R031	V	.45/2.00	.38/1.69	.31	100
R032	X	.45/2.00	.38/1.69	.31	100
R033	Ŷ	.45/2.00	.38/1.69	.31	100
R034	7	.45/2.00	.38/1.69	.31	100
R018	1	.45/2.00	.38/1.69	.31	100
R037	2	.45/2.00	.38/1.69	.31	100
R038	3	.45/2.00	.38/1.69	.31	100
R039	4	.45/2.00	.38/1.69	.31	100
R040	5	.45/2.00	.38/1.69	.31	100
R041	6	.45/2.00	.38/1.69	.31	100
R021	7	.45/2.00	.38/1.69	.31	100
R042	8	.45/2.00	.38/1.69	.31	100
R041	9	.45/2.00	.38/1.69	.31	100
R024	0	.45/2.00	.38/1.69	.31	100
R035	Minus/Hyphen (-)	.45/2.00	.38/1.69	.31	100
หบรอ R036		.45/2.00	.38/1.69		100
	Blank ()			.31 .31	100
R046	Plus (+)	.45/2.00	.38/1.69	.31	
R047	Earth (≈)	.45/2.00	.38/1.69	.31	100
R048	Sine (~)	.45/2.00	.38/1.69	.31	100
R049 Character size: .218"	Slash (/) Material: .025" 316 stainless steel	.45/2.00	.38/1.69	.31	100

Character size: .218" Material: .025" 316 stainless steel





1-800-453-1692 www.aboyeboardelectronics.cor



800.816.7809 Fax: 901.252.1354



Ty-Rap® High-Performance Stainless Steel Cable Ties

13

Type LS Heavy-Duty Stainless Steel Ball-Lock Cable Ties — Uncoated



Type LS Heavy-Duty Stainless Steel Ball-Lock Cable Ties — Coated



Type TYS Multi-Lok Stainless Steel Ties — Uncoated



Type TYS Multi-Lok Stainless Steel Ties — Coated



Type SS Mini Stainless Steel Cable Ties



Type SS Standard Stainless Steel Cable Ties

Stainless Steel Cable Tie Specifications

CAT. NO.		WIDTH	LENGTH IN./MM	THICKNESS IN./MM	MAX. DIA. SINGLE WRAP IN./MM	MAX. DIA. DOUBLE WRAP IN./MM	
	y-Duty Stainles:	IN./MM			IN./IVIIVI	IN./WIVI	
Uncoated	y-Duty Stanness	Sieer Dair-Lu	UN GADIE 1163)			
LS-4.6-200A		.18/4.6	7.9/201	_	2/51	(single	
LS-4.6-360A		.18/4.6	14.2/360		4/102	wrap	
LS-4.6-520A		.18/4.6	20.5/520		6/152	only)	
LS-4.6-680A		.18/4.6	26.7/679	_	8/203	Offiy)	
LS-4.6-840A		.18/4.6	33.0/838		10/254		
LS-7.9-200A		.31/7.9	7.9/201		2/51	(single	
LS-7.9-260A LS-7.9-360A		.31/7.9	14.2/360	_	4/102	wrap	
LS-7.9-500A LS-7.9-520A		.31/7.9	20.5/520		6/152	only)	
LS-7.9-680A		.31/7.9	26.7/679	_	8/203	Offigy	
LS-7.9-840A		.31/7.9	33.0/838	_	10/254		
LS-7.9-1010A		.31/7.9	41.3/1050		12.5/318		
E0-7:9-1010A	Fully Polyester		41.0/1000		12.3/310		
Uncoated	Coated	1					
LS-4.6-200B	LS-4.6-200-C	.18/4.6	7.9/201	_	2/51	(single	
LS-4.6-360B	LS-4.6-360-C	.18/4.6	14.2/360	_	4/102	wrap	
LS-4.6-520B	LS-4.6-520-C	.18/4.6	20.5/520	_	6/152	only)	
LS-4.6-680B	LS-4.6-680-C	.18/4.6	26.7/679	_	8/203)	
LS-4.6-840B	_	.18/4.6	33.0/838	_	10/254		
LS-7.9-200B	LS-7.9-200-C	.31/7.9	7.9/201		2/51	(single	
LS-7.9-360B	LS-7.9-360-C	.31/7.9	14.2/360	_	4/102	wrap	
LS-7.9-520B	LS-7.9-520-C	.31/7.9	20.5/520	_	6/152	only)	
LS-7.9-680B	LS-7.9-680-C	.31/7.9	26.7/679	_	8/203	3,	
LS-7.9-840B	_	.31/7.9	33.0/838	_	10/254		
LS-7.9-1010B	_	.31/7.9	41.3/1050	_	12.5/318		
	ti-Lok Stainless						
Uncoated	Nylon 11 Coate						
TYS6-280	TYS6-280C	.28/7.00	6/152	.01/.25	1.9/48	(single	
TYS9-280	TYS9-280C	.28/7.00	9/229	.01/.25	2.8/71	wrap	
TYS12-280	TYS12-280C	.28/7.00	12/305	.01/.25	3.8/96	only)	
TYS18-280	TYS18-280C	.28/7.00	18/457	.01/.25	5.7/144	3y _/	
TYS24-280	TYS24-280C	.28/7.00	24/610	.01/.25	7.6/193		
TYS6-470	TYS6-470C	.47/12.00	6/152	.01/.25	1.9/48		
TYS9-470	TYS9-470C	.47/12.00	9/229	.01/.25	2.8/71		
TYS12-470	TYS12-470C	.47/12.00	12/305	.01/.25	3.8/96		
TYS18-470	TYS18-470C	.47/12.00	18/457	.01/.25	5.7/144		
TYS24-470	TYS24-470C	.47/12.00	24/610	.01/.25	7.6/193		
1	Stainless Steel						
SS7-180		.18/4.50	6.5/165	.02/.51	1.7/43	(single	
SS10-180		.18/4.50	10/254	.02/.51	2.8/71	wrap	
SS16-180		.18/4.50	16/406	.02/.51	4.7/119	only)	
SS23-180		.18/4.50	22.5/572	.02/.51	6/152	VIII,)	
SS29-180		.18/4.50	29.0/737	.02/.51	8/203		
	dard Stainless S			.02/.01	G/200		
SS10-250	0 0 0 0 0	.25/6.35	10/254	.02/.51	2.1/53		
SS17-250		.25/6.35	16.5/419	.02/.51	4.3/109	(single	
SS23-250		.25/6.35	22.5/572	.02/.51	6.5/165	wrap	
SS29-250		.25/6.35	29/737	.02/.51	8.5/215	only)	
SS35-250		.25/6.35	35/889	.02/.51	10.5/265	VIII,)	
		0, 0.00	00,000	.027.01	. 5.5/ 200		

Tel: 888.862.3289







STAINLESS STEEL Type	COATING Or Finish	MIN. LOOP TENSILE STRENGTH SINGLE WRAP LBS./N	MIN. LOOP TENSILE STRENGTH DOUBLE WRAP LBS./N	APPLICATION TOOLS USED	GENERAL Application
302/304	Dull	100/445	(single	DAS250	
302/304		100/445	wrap	DAS250	
302/304		100/445	only)	DAS250	
302/304		100/445		DAS250	
302/304		100/445		DAS250	_
302/304		250/1,112		DAS250	
302/304		250/1,112		DAS250	
302/304 302/304		250/1,112		DAS250 DAS250	
		250/1,112		DAS250 DAS250	
302/304 302/304		250/1,112		DAS250 DAS250	Offshore drilling
302/304	'	250/1,112		DAGZOU	Petrochemical processing
					 Shipbuilding
316	Uncoated	100/445	(single	DAS250	Food & Beverage processing
316	or Fully	100/445	wrap	DAS250	Pharmaceutical processing
316	Polyester	100/445	only)	DAS250	
316	Coated Black	100/445	omy	DAS250	
316	Coulcu Diagn	100/445		DAS250	
316		250/1,112		DAS250	_
316		250/1,112		DAS250	
316		250/1,112		DAS250	
316		250/1,112		DAS250	
316		250/1,112		DAS250	
316		250/1,112		DAS250	
		,			
316	Uncoated or	250/1,112	(single	WTAE200	
316	Nylon 11	250/1,112	wrap	WTAE200	
316	Coated Black	250/1,112	only)	WTAE200	
316		250/1,112	•	WTAE200	Self-locking
316		250/1,112		WTAE201	Cable bundling
316		400/1,779		WTC075	Hazardous and corrosive
316		400/1,779		WTC075	environments
316		400/1,779		WTC075	
316		400/1,779		WTC075	
316		400/1,779		WTC075	
304*	Dull to Bright	100/445	(single	WTA290	
304*		100/445	wrap	WTA290	 Wire/cable bundling
304*		100/445	only)	WTA290	I.D. tagging
304*		100/445		WTA290	
304*		100/445		WTA290	
304*	Dull to Bright	200/890		WTA250	
304*		200/890	(single	WTA250	Wire/cable bundling
304*		200/890	wrap	WTA250	I.D. tagging
304*		200/890	only)	WTA250	
304*		200/890		WTA250	
+00 : : : : : : :					

* SS series also available in Type 316 stainless.



Fax: 901.252.1354





Ty-Rap® High-Performance Stainless Steel Cable Ties

Stainless Steel Cable Tie Specifications (continued)



Type SSR Reusable Stainless Steel Cable Ties



Type SSH Free-End Clamps

					()	
CAT. NO.	WIDTH IN./MM	LENGTH IN./MM	THICKNESS IN./MM	MAX. DIA. SINGLE Wrap In./Mm	MAX. DIA. DOUBLE WRAP IN./MM	
Type SSR Reusa	ble Stainless S	teel Cable Ties		,		
SSR6-250C	.25/6.35	6/152	.02/.51	1.5/38	N/A	
SSR9-250C	.25/6.35	9/229	.02/.51	2.5/63	1.1/28	
SSR12-250C	.25/6.35	12/305	.02/.51	3.4/86	1.5/38	
SSR18-250C	.25/6.35	18/457	.02/.51	5.4/137	2.5/64	
SSR24-250C	.25/6.35	24/610	.02/.51	7.3/185	3.5/89	
SSR6-375C	.38/9.53	6/152	.02/.51	1.5/38	N/A	
SSR9-375C	.38/9.53	9/229	.02/.51	2.5/63	1.1/28	
SSR12-375C	.38/9.53	12/305	.02/.51	3.4/86	1.5/38	
SSR18-375C	.38/9.53	18/457	.02/.51	5.4/137	2.5/64	
SSR24-375C	.38/9.53	24/610	.02/.51	7.3/185	3.5/89	
SSR30-375C	.38/9.53	30/762	.02/.51	9.1/231	4.4/112	
SSR36-375C	.38/9.53	36/914	.02/.51	11.0/280	5.3/135	
Type SSH Free-E	nd Clamps					
SSH10-250	.25/6.35	10/250	.02/.51	2.0/50	_	
SSH16-250	.25/6.35	16/400	.02/.51	3.5/88	1.5/38	
SSH19-250	.25/6.35	19/480	.02/.51	5.0/127	2.5/63	
SSH27-250	.25/6.35	27/680	.02/.51	7.0/177	3.5/88	
SSH34-250	.25/6.35	34/860	.02/.51	9.0/228	4.5/114	
SSH16-375	.38/9.53	16/400	.03/.76	3.5/88	1.5/38	
SSH44-375	.38/9.53	44/1,120	.03/.76	12.0/304	6.0/152	
SSH18-500	.5/12.70	18/460	.03/.76	4.0/101	2.0/50	
SSH31-500	.5/12.70	31/780	.03/.76	8.0/203	4.0/101	
SSH21-625	.63/15.88	21/530	.03/.76	5.0/127	2.5/63	·
SSH56-625	.63/15.88	56/1,420	.03/.76	16.0/406	8.0/203	
SSH69-625	.63/15.88	69/1,750	.03/.76	20.0/508	10.0/254	
SSH24-750	.75/19.05	24/600	.03/.76	6.0/152	3.0/76	
SSH37-750	.75/19.05	37/940	.03/.76	10.0/254	5.0/127	
SSH50-750	.75/19.05	50/1,270	.03/.76	14.0/355	7.0/177	
SSH62-750	.75/19.05	62/1,570	.03/.76	18.0/457	9.0/228	





1-800-453-1692





STAINLESS STEEL TYPE	COATING OR FINISH	MIN. LOOP TENSILE Strength Single Wrap LBS./N	MIN. LOOP TENSILE Strength double wrap LBS./N	APPLICATION TOOL USED	GENERAL APPLICATION
200/300	Nylon 11 Coated	75/334	300/1,334	WTAE200	
200/300	(Uncoated or other	75/334	300/1,334	WTAE200	
200/300	colors available on	75/334	300/1,334	WTAE200	
200/300	special order)	75/334	300/1,334	WTAE200	Reusable
200/300		75/334	300/1,334	WTAE200	Cable bundling Oil rigg
200/300		100/445	500/2,224	WTAE200	Oil rigs Telecommunications towers
200/300		100/445	500/2,224	WTAE200	Hazardous and corrosive
200/300		100/445	500/2,224	WTC075	environments
200/300		100/445	500/2,224	WTC075	Cable trays
200/300		100/445	500/2,224	WTC075	
200/300		100/445	500/2,224	WTC075	
200/300		100/445	500/2,224	WTC075	
					1
201	Bright	450/2,002	1,200/5,338	WTJ020/WTC075/WTC001	
201		450/2,002	1,200/5,338	WTJ020/WTC075/WTC001	
201		450/2,002	1,200/5,338	WTJ020/WTC075/WTC001	
201		450/2,002	1,200/5,338	WTJ020/WTC075/WTC001	
201		450/2,002	1,200/5,338	WTJ020/WTC075/WTC001	
201		900/4,003	2,400/10,675	WTJ020/WTC075/WTC001	
201		900/4,003	2,400/10,675	WTJ075/WTC001	Industrial hoses
201		1,400/6,227	3,300/14,678	WTJ075/WTC001	Cable bundling
201		1,400/6,227	3,300/14,678	WTJ075/WTC001	High strength
201		1,700/7,562	4,000/17,792	WTJ075/WTC001	riigii da diigai
201		1,700/7,562	4,000/17,792	WTJ075/WTC001	
201		1,700/7,562	4,000/17,792	WTC001	
201		2,000/8,896	5,000/22,240	WTC001	
201		2,000/8,896	5,000/22,240	WTC001	
201		2,000/8,896	5,000/22,240	WTC001	
201		2,000/8,896	5,000/22,240	WTC001	

Ty-Rap® Stainless Steel Cable Ties have passed a variety of mechanical, environmental, and electrical tests. Other data can be made available upon request.





1-800-453-1692 www.aboveboardelectronics.com



Fax: 901.252.1354

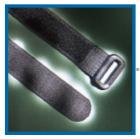
Hook-and-Loop Fasteners



Slotted Loop Ties (FO Series)

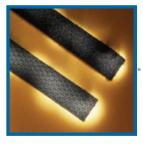
Never lose your strap. Use the slotted head hook-andloop tie to install on one wire while using the body of the strap to bundle.





Buckle Ties (FOL Series)

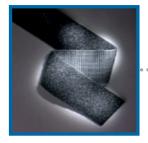
Polymer buckles provide added strength and stability.



Strip Ties (FOS Series)

Pre-cut lengths make bundling a cinch!





Rolled hook-and-loop material enables custom cut lengths, avoiding waste.

Rolls (FOR Series)

Fasteners available in these colors: Black, Brown, Red, Orange, Yellow, Green, Blue, Gray, and White. Please consult Customer Service for pricing and availability.





Hook-and-Loop Fasteners

Available in UL94V-2 rated material.

FO, FOL, FOS and FOR Series Hook-and-Loop Fasteners

- High-quality Hook-and-Loop Fasteners
- Reusable great for frequently changed bundles
- · Wide bearing surface ideal for data and fiber optic cable
- Sizes available to accommodate varying bundle diameters
- Flame-retardant and colored material available

STD. PKG. Cat. No.	MIN. TENSILE Strength LBS./N	MAX. BUNDLE DIA. IN./MM	LENGTH IN./MM	WIDTH IN./MM	STD. PKG. QTY.
FO Series Slotted Loop Ti	es*				
F0200-40-0	40/177.9	2.0/50.80	9/228.6	.50/12.7	10
F0200-50-0	50/222.4	2.0/50.80	9/228.6	.75/19.05	10
F0350-40-0	50/222.4	3.5/88.90	13/330.2	.50/12.7	10
F0350-50-0	50/222.4	3.5/88.90	13/330.2	.75/19.05	10
FOL Series Buckle Ties					
F0L300-50-0	50/222.4	3.0/76.20	12/304.8	.75	10
F0L500-50-0	50/222.4	5.0/127.0	18/457.2	.75	10
FOS Series Strip Ties					
F0S150-50-0	50/222.4	1.5/38.10	6/152.4	.75	10
F0S320-50-0	50/222.4	3.2/81.28	12/304.8	.75	10
F0S500-50-0	50/222.4	5.0/127.00	18/457.2	.75	10
FOR Series Rolled Hook a	nd Loop				
FOR180-50-0	50/222.4	Various	180/4572	.75	1

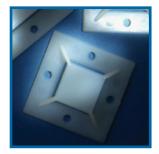
^{• 1/16&}quot; strap thickness

*Add suffix "FR" for UL94V-2 rated flame-retardant material, after color choice.

Contact Customer Service for availability and delivery.

Mounting bases for use with hook-and-loop fasteners.

Nylon 6.6 Mounting Bases



BULK PKG. CAT. NO.	DESCRIPTION	SCREW SIZE	MAXIMUM TIE WIDTH ACCOM.	BULK PKG. QTY.
TC368	2" x 2" Screw Mounted	#8	.75/19.05	500
TC368A	2" x 2" Adhesive Mounted	#8	.75/19.05	500

^{-40°} F to 176° F (-40° C to 80° C)

Note: See expiration date on TC368A package. Periodically check product for adhesion and replace as needed. Product is for wire management only and is not intended for use as a primary support of wire, cable, etc.







[·] Black is standard color.

[·] Multiple colors available for identifying specific bundles

[·] Natural nylon color.

Boost productivity and reduce user fatigue in demanding, high-volume cable tie installations!

Ty-Rap® Pneumatic Cable Tie **Installation Tool**

For fast, consistent installation of cable ties in high-volume applications, you can't beat the new Ty-Rap® Pneumatic Cable Tie Installation Tool. Pneumatic power combined with a balanced, ergonomic design enables you to tension and trim large quantities of Ty-Rap® cable ties in rapid succession with accuracy and one-button ease.

- Easy, one-step tensioning and cut-off of cable ties
- Narrow nose rotates 360° to maneuver in tight spaces
- · Easy-access tension-adjustment wheel at nose with locking mechanism for repetitive-tension work
- Spare cutting blade storage in handle
- · Cuts tail off flush no sharp ends to injure installers or damage cables
- Holds tails captive until ejected by operator — no mess to clean up
- · Soft, over-molded grip with over-sized trigger
- Wide cable-tie insertion gap no fumbling to insert tie

..... Specifications

- Dimensions: 10"L x 6¼"H x 15%"D
- Weight: 14 oz.
- Operating Pressure: 85-100 psi (non-lubricated air)

· Cable Tie Tensile-Strength Range: 18-50 lbs.

CAT. NO.	DESCRIPTION	STD. PKG. QTY.
ERG50P	Pneumatic Cable Tie Installation Tool	1
	for 10 TO lb Tipe (includes 0 ft air base)	



Tightens cable tie and cuts flush in one step



360° rotating nose for maximum flexibility



Narrow-shaped nose for easy reach in tight spaces



800.816.7809 Fax: 901.252.1354









The most comfortable and efficient hand tool available for installing cable ties!

Ty-Rap® Cable Tie Installation Tool

Thomas & Betts set out to develop a reliable, high-performance hand-operated cable tie installation tool. It's ergonomic with more features than any competing tool on the market. This new and improved Ty-Rap® Cable Tie Installation Tool is the result, and it fits the bill in every aspect.

Our engineers carefully considered user comfort and designed this rugged yet lightweight, well-balanced tool to reduce stress, fatigue and the risk of cumulative trauma injury to the hand and wrist. They didn't stop with ergonomics, however. This new tool offers a flush cable tie tail-to-head trim, a longer handle stroke requiring less handle force, higher tension capabilities and much, much more!







Eliminate sharp cable tie ends with flush tail-to-head cut-off

......Specifications.....

- Dimensions: 7" (177mm) L x 5" (127mm) H x 15/4" (41.3mm) W
- Weight: 9 oz. (255g)

STD. PKG CAT. NO.	DESCRIPTION	STD. PKG. QTY.
ERG50	Tool for 18-50 lb. (80-222N) Cable Ties	1
ERG120	Tool for 50-120 lb. (222-534N) Cable Ties	1



Most flexible with a 360° rotating nose for use at any angle and in tight spaces



Adjustable grip perfectly fits any hand size



Tension-adjustment wheel on nose for easy access and setting



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 Technical Services
Tel: 888.862.3289







Lightweight. Economical. Durable. Perfect for spot-tying!

Ty-Rap[®] Cable Tie Installation Tool — Light Duty

- Installs Ty-Rap cable ties up to .301" wide by .080" thick
- · Designed for use by both left- and right-handed operators
- Lightweight, high-impact polymer and steel components

They cinch up the tie with a squeeze action, and cut away the excess tail when twisted 180°. A specially designed pawl cuts away the tail if the tension limit is exceeded, thereby preventing the cable tie from being over-tightened.



STD. PKG. Cat. No.	DESCRIPTION	TIE BODY WIDTH IN./MM	STD. PKG. QTY.
WT1-TB	Cable Tie Installation Tool, 18–50 lbs. (80–222.4N)	.0918/2.39-4.67	1
WT2-TB	Cable Tie Installation Tool, 50–120 lbs. (222.4–533.8N)	.18301/4.67-7.65	1

Cuts tail off — flush.

Ty-Rap[®] Cable Ties Installation Tool — Metallic

- Installs Ty-Rap® cable ties
- · Rugged metallic construction
- Pistol-grip installation tool
- Easy tension adjustment
- · Tensions and cuts tie tail off flush



STD. PKG.	DESCRIPTION	TIE BODY	STD.
CAT. NO.		WIDTH IN./MM	PKG. QTY.
WT193A	Cable Tie Installation Tool, 18–50 lbs. (80–222.4N)	.0918/2.39-4.67	1

Easy tension adjustment!

Ty-Rap[®] Heavy-Duty Installation Tool — Mil Spec Approved



- · Rugged metallic construction
- Pistol-grip installation tool
- · Tensions and cut cable tie tail off flush

STD. PKG.	DESCRIPTION	TIE BODY WIDTH IN./MM	STD. PKG. QTY.
WT199	Installation Tool, 18–50 lbs. (80–222.4N)	.0918/2.39-4.67	1
WT197	Installation Tool, 50-120 lbs. (222.4-533.8N)	.1830/4.67-7.65	1
* Mil Space	Approved (M/T100 MC00297 1 M/T107	MC00297 2)	

Makes tie installation easy!

Ty-Rap[®] Installation Tool — Deltec[®] & Stainless Steel

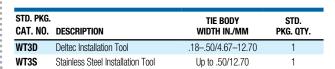
WT3D

 Installs both self-locking Ty-Rap® cable ties and lashing ties

WT3S

Installs stainless steel ties

WT3E





United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services**

Tel: 888.862.3289







Get the job done right!

Ty-Rap® Heavy-Duty Installation Tool — Stainless Steel

- Installs Ty-Rap® Ball-Lock and Multi-Lok Stainless Steel Cable Ties
- · Rugged stainless steel construction
- · Pistol-type installation tool
- · Adjustable tension settings



STD. PKG.	DESCRIPTION	TIE BODY	STD.
CAT. NO.		WIDTH IN./MM	PKG. QTY.
DAS250	Stainless Steel Installation Tool	Up to .31/7.87	1



The right tools make installing Ty-Rap® Stainless Steel Cable Ties a cinch!

Installation Tools for Dual-Lock Stainless Steel Ties

- Lightweight
- Easy-to-use tool applies tension, locks tie with the dual lock, and cuts off band flush with top surface of buckle

CAT. NO.	DESCRIPTION	WEIGHT LBS/KG	STD. PKG. QTY.
WTA290	Hand tool to apply mini stainless steel cable ties	1.17/.53	1
WTA250	Hand tool to apply standard stainless steel cable ties	1.17/.53	1



Quality tools for tensioning.

Tensioning Tools





CAT. NO.	DESCRIPTION	WEIGHT LBS/KG	STD. PKG. QTY.
WTAE200	Cable Tie Tensioner, for tensioning Re-Usable Ties and Multi-Lok Ties	.6/.27	1
WTAE201	Tensioning Hook, for tensioning Re-Usable Ties and Multi-Lok Ties	.1/.05	1



United States
Tel: 901.252.8000

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354





Ty-Rap[®] Installation Tools

Apply tension, cut and secure with confidence!

Installation Tools for Free-End Stainless Steel Ties



WTC001 A drop-forged tool with tensioning capability to do all ¼" to ¾" Free-End Clamp sizes.



WTC075
Designed to install ¼" to %" wide Free-End Clamps.
The lightweight, ratchet-action tool tension cuts
and secures the buckle tab.



WTJ020 Lightweight pocket-sized toll to install ¼" and ¾" wide Free-End Clamps. This tool also applies tension and has a built-in cutter.

		WEIGHT	STD.
CAT. NO.	DESCRIPTION	LBS/KG	PKG. QTY.
WTJ020	Compact Free-End Stainless Steel Cable Tie Installation Tool for 1/4" to 3/8" sizes	1.1/.50	1
WTC075	Pistol-Grip Free-End Stainless Steel Cable Tie Installation Tool for 1/4" to 5/6" sizes	2.6/1.18	1
WTC001	Free-End Stainless Steel Cable Tie Installation Tool for All Sizes	4.4/2.00	1

Makes tie installation easy!

Ty-Rap® Installation Tool

· Installs stainless steel ties



CAT. NO.	DESCRIPTION	TIE BODY WIDTH IN./MM.	STD. PKG. QTY.
WT3S	Installation Tool for Stainless Steel Ties	Up to .50/12.70	1

Note: Tensions only



Tel: 888.862.3289

Technical Services

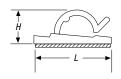


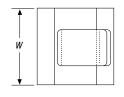


Versatile adhesive clips keep cable paths organized.

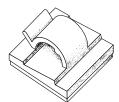
Round Adhesive Clips

- Diverse cable clamps for bundle diameters from .160" to .620"
- · Mounted on a rubber-based closed cell foam adhesive
- · Flexible center tang for removal or addition of cables









BULK PKG. CAT. NO.			H LENGTH IN./MM	L WIDTH IN./MM	W Maximum Bundle	MOUNTING METHOD	BULK PKG. QTY.
RANY-280-9-D	Nylon	.410/10.41	1.000/25.40	1.000/25.40	.280/7.11	Rubber-based adhesive	500
RANY-530-9-D	Nylon	15.75/.620	1.000/25.40	1.000/25.40	.530/13.46	Rubber-based adhesive	500
RANY-620-9-D	Nylon	14.22/.560	1.250/31.75	28.45	.620/15.75	Rubber-based adhesive	500

Natural nylon color.

Adhesive for use in temperatures ranging from 32° F to 150° F (0° C to 66° C).

Note: See product expiration date on package. Periodically check product for adhesion and replace as needed. Product is for wire management only and is not intended for use as a primary support of wire, cable, etc.

Release and refasten with ease — in three adjustable sizes!

Adjustable Cable Clamps

- Three sizes for bundles from .118" to .984"
- · Ladder-style fastener is easily released and refastened
- · Supplied on a rubber-based closed cell foam adhesive
- · Optional screw hole for #4 or #5 flat head screw



STD. PKG CAT. NO.	MATERIAL	A HEIGHT IN./MM	B Length In./MM	S WIDTH In./MM	L Maximum Bundle In./mm	APPLIED WIRE RANGE IN./MM	SCREW HOLE DIAMETER IN./MM	STD. PKG. QTY.
ULNY-013-8-C	Gray Nylon	.709/18.00	.984/24.99	.314/7.98	2.340/59.44	.118500/3.0 - 12.7	.110/2.79	100
ULNY-018-8-C	Gray Nylon	.827/21.00	1.180/29.97	.472/11.99	3.120/79.25	.197827/5.0 - 21.0	.110/2.79	100
ULNY-023-8-C	Gray Nylon	.984/24.99	1.380/35.05	.551/14.00	3.370/79.25	.275984/7.0 - 25.0	.135/3.43	100

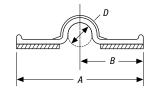
Adhesive for use in temperatures ranging from 32° F to 150° F (0° C to 66° C).

Choose from four sizes to accommodate bundles up to 1/2".

Press Clips

- Clips are provided on a rubber-based closed cell foam adhesive
- Stocked in 6.6 natural nylon color. Contact factory for availability in special materials







BULK PKG.		D Diameter	A	В	Н	W	
CAT. NO.	MATERIAL	IN./MM	IN./MM	IN./MM	IN./MM	IN./MM	PKG. QTY.
PCNY-125-9-D	Nylon	.13/3.30	.76/19.30	.38/9.65	.21/5.33	.38/9.65	500
PCNY-250-9-D	Nylon	.25/6.35	1.38/35.05	.69/17.53	.32/8.13	.50/12.70	500
PCNY-375-9-D	Nylon	.38/9.65	1.47/37.34	.74/18.80	.44/11.176	.63/16.00	500
PCNY-500-9-D	Nylon	.50/12.70	1.59/40.39	.80/20.32	.59/15.00	.75/19.05	500

For use in temperatures ranging from 32° F to 150° F (0° C to 66° C)



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 Technical Services



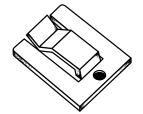


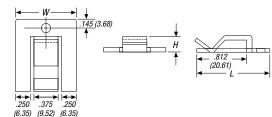


Flat design provides an attractive, yet discreet look.

Flat Cable Screw Clip

- Flat ribbon cable clamp with mounting hole for #8 screw
- Stocked in 6.6 natural nylon color
- Flexible center tang enables easy removal and replacement of desired cable





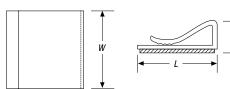
STD. PKG. CAT. NO.	MATERIAL	HEIGHT IN./MM	H LENGTH IN./MM	L WIDTH IN./MM	W MOUNTING METHOD	STD. PKG.
FSNY-812-9-C	Nylon	.25/6.35	1.19/30.23	1.00/25.40	#8 Screw	100

For use in temperatures ranging from 32° F to 150° F (0° C to 66° C).

Adhesive eliminates need for tools when mounting clips. Flat PVC Clips

- Low-profile clip for single or multiple layers of flat ribbon cable.
- "Single-Cut" on a rubber-based closed cell foam adhesive
- Gray PVC
- UL Flammability 94 V-0 (clip)





STD. PKG. CAT. NO.	BULK PKG. CAT. NO.	MATERIAL	H HEIGHT IN./MM	L Length In./mm	W WIDTH IN./MM	MOUNTING METHOD	STD. PKG. QTY.	BULK PKG. QTY.
FRPV-1000-8-C	FRPV-1000-8-D	Gray PVC	.42/10.67	1.06/26.92	1.00/25.40	Adhesive	100	500

For use in temperatures ranging from 32° F to 150° F (0° C to 66° C).

Note: See product expiration date on package. Periodically check product for adhesion and replace as needed.

Product is for wire management only and is not intended for use as a primary support of wire, cable, etc.



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services** Tel: 888.862.3289





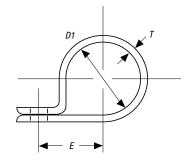


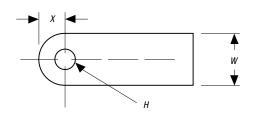
Choose the diameter you need to clamp a specific-sized cable.

Plain Edge Cable Clamps

- · Fully radiused inside edges with size markings in inches and millimeters for easy identification
- Stocked in natural and black nylon 6.6
- Plain edge cable clamps are designed to perform to NAS-1397P
- 18 diameters and 2 widths with mounting holes for #8 and #10 screws
- Replace "-M" or "-D" with "-C" for 100 pack







For use in temperatures ranging from -40° F to 185° F (-40° C to 85° C).

	BLACK CAT. NO.	D1 Closed DIA. In./MM	E IN./MM	T Thickness In./MM	W WIDTH IN./MM	H MOUNTING HOLE SIZE	X IN./MM	BULK PKG. QTY.
4NY-002-9-M	N4NY-002-0-M	.13/3.18	.34/8.71	.05/1.27	.38/9.53	#8	.22/5.54	1,000
14NY-003-9-M	N4NY-003-0-M	.19/4.475	.38/9.60	.05/1.27	.38/9.53	#8	.22/5.54	1,000
4NY-004-9-M	N4NY-004-0-M	.25/6.35	.42/10.70	.05/1.27	.38/9.53	#8	.22/5.54	1,000
4NY-005-9-M	N4NY-005-0-M	.31/7.92	.44/11.20	.05/1.27	.38/9.53	#8	.22/5.54	1,000
4NY-006-9-M	N4NY-006-0-M	.38/9.53	.46/11.79	.05/1.27	.38/9.53	#8	.22/5.54	1,000
4NY-007-9-M	N4NY-007-0-M	.44/11.10	.50/12.70	.05/1.27	.38/9.53	#8	.22/5.54	1,000
4NY-008-9-M	N4NY-008-0-M	.50/12.70	.53/13.46	.05/1.27	.38/9.53	#8	.22/5.54	1,000
6NY-004C-9-M	N6NY-004C-0-M	.25/6.35	.44/11.10	.06/1.52	.50/12.70	#10	.22/5.54	1,000
16NY-005C-9-M	N6NY-005C-0-M	.31/7.92	.47/12.04	.06/1.52	.50/12.70	#10	.22/5.54	1,000
6NY-006C-9-M	N6NY-006C-0-M	.38/9.53	.50/12.70	.06/1.52	.50/12.70	#10	.22/5.54	1,000
6NY-007C-9-M	N6NY-007C-0-M	.44/11.10	.53/13.54	.06/1.52	.50/12.70	#10	.22/5.54	1,000
6NY-008C-9-M	N6NY-008C-0-M	.50/12.70	.55/14.05	.06/1.52	.50/12.70	#10	.22/5.54	1,000
6NY-009-9-M	N6NY-009-0-M	.56/14.27	.60/15.32	.06/1.52	.50/12.70	#10	.22/5.54	1,000
6NY-010-9-M	N6NY-010-0-M	.63/15.88	.63/15.88	.06/1.52	.50/12.70	#10	.22/5.54	1,000
6NY-011-9-M	N6NY-011-0-M	.69/17.45	.67/16.89	.06/1.52	.50/12.70	#10	.22/5.54	1,000
6NY-012-9-M	N6NY-012-0-M	.75/19.05	.67/17.75	.06/1.52	.50/12.70	#10	.22/5.54	1,000
16NY-013-9-M	N6NY-013-0-M	.81/20.62	.77/19.43	.06/1.52	.50/12.70	#10	.22/5.54	1,000
16NY-014-9-M	N6NY-014-0-M	.88/22.23	.80/20.19	.06/1.52	.50/12.70	#10	.22/5.54	1,000
I6NY-016-9-M	N6NY-016-0-M	1.00/25.40	.83/21.00	.06/1.52	.50/12.70	#10	.22/5.54	1,000
16NY-018-9-D	N6NY-018-0-D	1.13/28.58	.94/23.88	.06/1.52	.50/12.70	#10	.22/5.54	500
16NY-019-9-D	N6NY-019-0-D	1.19/30.15	.96/24.46	.06/1.52	.50/12.70	#10	.22/5.54	500
16NY-020-9-D	N6NY-020-0-D	1.25/31.75	.98/24.90	.06/1.52	.50/12.70	#10	.22/5.54	500
16NY-022-9-D	N6NY-022-0-D	1.38/34.93	1.05/26.54	.06/1.52	.50/12.70	#10	.22/5.54	500
16NY-024-9-D	N6NY-024-0-D	1.50/38.10	1.11/28.30	.06/1.52	.50/12.70	#10	.22/5.54	500



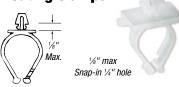
Ty-Rap®

Ty-Rap[®] Wire Management Clips, Clamps, Spiral Wrap and More

Several mounting styles available.

Mechanical-Locking Routing Clamps

 Clamp acts as a retainer during wire routing, and as a permanent clamp when desired



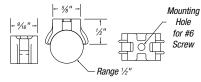
STD. CAT. NO.	MOUNTING HOLE SIZE IN./MM	BUNDLE DIA. IN./MM	MAX. WIRE Bundle Dia.	LENGTH IN./MM	LENGTH IN./MM	STD. PKG. QTY.
TC88	.250/6.35	.500/12.7	.250/6.35	.891/22.63	100	1,000
TC95	.250/6.35	1.000/25.4	.500/12.7	1.590/40.39	100	1,000

Natural nylon color.

For use in temperatures ranging from -40° F to 185° F (-40° C to 85° C).

Ty-Rap® Saddle Mounting Plate

· For use with round bundles



7	STD. PKG. CAT. NO.	MAX TIE WIDTH IN./MM	SIZE IN./MM	BUNDLE HOLE SIZE IN./MM	MOUNTING STD. PKG. QTY.
	TC92	.190/4.83	1/2-11/4/12.7-31.75	#6 Screw	100

Natural nylon color.

For use in temperatures ranging from -40° F to 185° F (-40° C to 85° C).

Wires are held 1/2" above work surface for easy tying.

Wire-Bundle Retainers

- Consist of a spring-loaded clip and an elastic bundle support
- Wires are inserted by snapping them through spring-loaded clips

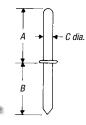


STD. PKG. CAT. NO.		MAX. WIRE BUNDLE DIA.	WIDTH IN./MM	LENGTH IN./MM	HEIGHT IN./MM	STD. PKG. QTY.
TC86	#6 screws	.750/19.05	1.750/44.45	1.813/46.05	25	1,000
TC87	#6 screws	1.250/31.75	2.469/62.71	2.281/57.94	10	1,000

Hardened, nickel-plated, steel construction.

Harness-Board Nails





STD. PKG.				
CAT. NO.	Α	В	C	STD. PKG.
HBP112	1.500/38.10	.625/15.88	.082/2.08	100
HBP2	2.000/50.80	.625/15.88	.092/2.34	100
HBP212	2.500/63.50	.625/15.88	.105/2.67	100
HBP3	3.000/76.20	.625/15.88	.120/3.05	100

Keep wire bundles apart.

Wire-Bundle Spacer



STD. PKG.	MAXIMUM TIE	WIDTH	LENGTH	
CAT. NO.	WIDTH ACCOM.	IN./MM	IN./MM	STD. PKG.
TC5339	.190/4.83	.266/6.76	.500/12.70	100
100000	.130/ 7.00	.200/0.70	.000/12.70	100

Natural nylon color.

For use in temperatures ranging from -40° F to 185° F (-40° C to 85° C).



United States Tel: 901.252.8000

800.816.7809 Fax: 901.252.1354









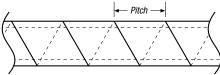
Install with gaps for greater flexibility or butted together for maximum abrasion resistance, insulation and rigidity!

Spiral Wrap

- · Packaged in 100 foot reels
- Protects bundles from .063" to 7" (1.6 mm to 177.8 mm) diameters
- Available in three material types
- Also commonly known as reverse cut, left-handed cut or counter-clockwise cut
- Use cutting tool CC120B (see page C-57)
- UL94HB Flammability Rating







	7		71 °

STD. PKG.		OUTSIDE DIAMETER	PITCH	NOMINAL WALL THICKNESS	MINIMUM/MAXIM	UM BUNDLE RANGE	REEL
CAT. NO.	MATERIAL	IN./MM	IN./MM	IN./MM	IN./MM	IN./MM	QTY.
SRPE-125-9-C	Natural Polyethylene	.13/3.18	.21/5.33	.04/.89	.06/1.60	.50/12.70	1 (100 ft.)
SRPE-187-9-C	Natural Polyethylene	.19/4.75	.24/6.10	.04/1.02	.13/3.18	1.50/38.10	1 (100 ft.)
SRPE-250-9-C	Natural Polyethylene	.25/6.35	.38/9.53	.05/1.14	.19/4.78	2.00/50.80	1 (100 ft.)
SRPE-375-9-C	Natural Polyethylene	.38/9.53	.44/11.13	.05/1.32	.31/7.95	3.00/76.20	1 (100 ft.)
SRPE-500-9-C	Natural Polyethylene	.50/12.70	.56/14.30	.06/1.57	.38/9.53	4.00/101.60	1 (100 ft.)
SRPE-625-9-C	Natural Polyethylene	.63/15.88	.63/15.88	.06/1.57	.63/15.88	4.50/114.30	1 (100 ft.)
SRPE-750-9-C	Natural Polyethylene	.63/15.88	.75/19.05	.07/1.65	.75/19.05	5.00/127.00	1 (100 ft.)
SRPE-1000-9-C	Natural Polyethylene	1.00/25.40	1.11/28.19	.70/17.78	1.0/25.40	7.00/177.80	1 (100 ft.)
SRPE-125-0-C	Weatherable Black Polyethylene	.13/3.18	.21/5.33	.04/.89	.06/1.60	.50/12.70	1 (100 ft.)
SRPE-187-0-C	Weatherable Black Polyethylene	.19/4.75	.24/6.10	.04/1.02	.13/3.18	1.50/38.10	1 (100 ft.)
SRPE-250-0-C	Weatherable Black Polyethylene	.25/6.35	.38/9.53	.05/1.14	.19/4.78	2.00/50.80	1 (100 ft.)
SRPE-375-0-C	Weatherable Black Polyethylene	.38/9.53	.44/11.13	.05/1.32	.31/7.95	3.00/76.20	1 (100 ft.)
SRPE-500-0-C	Weatherable Black Polyethylene	.50/12.70	.56/14.30	.06/1.57	.38/9.53	4.00/101.60	1 (100 ft.)
SRPE-625-0-C	Weatherable Black Polyethylene	.63/15.88	.63/15.88	.06/1.57	.63/15.88	4.50/114.30	1 (100 ft.)
SRPE-750-0-C	Weatherable Black Polyethylene	.63/15.88	.75/19.05	.07/1.65	.75/19.05	5.00/127.00	1 (100 ft.)
SRPE-1000-0-C	Weatherable Black Polyethylene	1.00/25.40	1.11/28.19	.70/17.78	1.0/25.40	7.00/177.80	1 (100 ft.)
SRNY-187-9-C	Natural Nylon 6.6	.19/4.75	.24/6.10	.03/.64	.13/3.18	1.50/38.10	1 (100 ft.)

Sold in 100-ft. rolls.

Polyethylene

Available in natural and weatherable black.

For general indoor use to 122° F (50° C). Material is flexible and easy to work with.

Weatherable Polyethylene

Available in black only. Designed to resist ultraviolet light in outdoor applications.

Nylon 6.6

Available in natural only.

Offers highest abrasion resistance and rigidity. Self-extinguishing to UL94HB and a UL® Recognized Component.



Fax: 901.252.1354







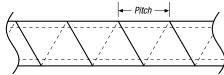
Perfect for protection of bundles from .063" to 7" diameters.

Forward Cut Spiral Wrap

- Install with gaps for greater flexibility or butted together for maximum abrasion resistance, insulation, and rigidity
- Available in three materials
- Also known as right-hand cut or clockwise cut
- Use cutting tool CC120B (page C-57)







_		
Т	7	
7	М.	

STD. PKG. CAT. NO.	MATERIAL	OUTSIDE Diameter In./MM	PITCH In./MM	NOMINAL WALL THICKNESS IN./MM	MIN./MAX. BUNDLE RANGE IN./MM	UL Flammability	REEL QTY.
SRPE-125F-9-C	Natural Polyethylene	.19/4.75	.24/6.10	.04/1.02	.13-1.50/3.18-80.77	94 HB	1 (100 ft.)
SRPE-187F-9-C	Natural Polyethylene	.19/4.75	.24/6.10	.04/1.02	.13-1.50/3.18-80.77	94 HB	1 (100 ft.)
SRPE-250F-9-C	Natural Polyethylene	.25/6.35	.38/9.53	.05/1.14	.19-2.0/4.78-50.80	94 HB	1 (100 ft.)
SRPE-375F-9-C	Natural Polyethylene	.38/9.53	.44/11.13	.05/1.32	.31-3.0/7.95-76.20	94 HB	1 (100 ft.)
SRPE-500F-9-C	Natural Polyethylene	.50/12.70	.56/14.30	.06/1.57	.38-4.0/9.53-101.60	94 HB	1 (100 ft.)
SRPE-625F-9-C	Natural Polyethylene	.63/15.88	.63/15.88	.06/1.57	.63-4.5/15.88-114.30	94 HB	1 (100 ft.)
SRPE-750F-9-C	Natural Polyethylene	.75/19.05	.75/19.05	.07/1.65	.75-5.0/19.05-127.00	94 HB	1 (100 ft.)
SRPE-1000F-9-C	Natural Polyethylene	1.0/25.40	1.11/28.19	.07/1.78	1.0-7.0/25.40-177.80	94 HB	1 (100 ft.)
SRPE-125F-0-C	Weatherable Black Polyethylene	.19/4.75	.24/6.10	.04/1.02	.13-1.50/3.18-80.77	94 HB	1 (100 ft.)
SRPE-187F-0-C	Weatherable Black Polyethylene	.19/4.75	.24/6.10	.04/1.02	.13-1.50/3.18-80.77	94 HB	1 (100 ft.)
SRPE-250F-0-C	Weatherable Black Polyethylene	.25/6.35	.38/9.53	.05/1.14	.19-2.0/4.78-50.80	94 HB	1 (100 ft.)
SRPE-375F-0-C	Weatherable Black Polyethylene	.38/9.53	.44/11.13	.05/1.32	.31-3.0/7.95-76.20	94 HB	1 (100 ft.)
SRPE-500F-0-C	Weatherable Black Polyethylene	.50/12.70	.56/14.30	.06/1.57	.38-4.0/9.53-101.60	94 HB	1 (100 ft.)
SRPE-625F-0-C	Weatherable Black Polyethylene	.63/15.88	.63/15.88	.06/1.57	.63-4.5/15.88-114.30	94 HB	1 (100 ft.)
SRPE-750F-0-C	Weatherable Black Polyethylene	.75/19.05	.75/19.05	.07/1.65	.75-5.0/19.05-127.00	94 HB	1 (100 ft.)
SRPE-1000F-0-C Sold in 100-ft. rolls.	Weatherable Black Polyethylene	1.0/25.40	1.11/28.19	.07/1.78	1.0-7.0/25.40-177.80	94 HB	1 (100 ft.)

Polyethylene

Available in natural and weatherable black.

For general indoor use to 122° F (50° C). Material is flexible and easy to work with.

Weatherable Polyethylene

Available in black only. Designed to resist ultraviolet light in outdoor applications.

Nylon 6.6

Available in natural only.

Offers highest abrasion resistance and rigidity. Self-extinguishing to UL94HB and a UL® Recognized Component.



800.816.7809 Fax: 901.252.1354

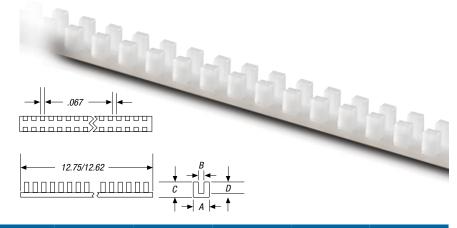




Suitable for round hole or odd-shape applications!

Molded Grommeting

- Used to protect panel edges and knockouts where the chafing of passing wires is a concern
- Strip length 12¾"



STD. PKG. CAT. NO.	MATERIAL	A IN./MM	B IN./MM	C IN./MM	D IN./MM	FOR PANEL THICKNESS IN./MM	STD. PKG.
GSNY-052-9-C	Natural Nylon 6.6	.15/3.81	.06/1.42	.16/3.94	.10/2.54	.02052/.38-1.32	100
GSNY-085-9-C	Natural Nylon 6.6	.18/4.45	.09/2.29	.16/3.94	.10/2.54	.05085/1.35-2.16	100
GSNY-128-9-C	Natural Nylon 6.6	.22/5.59	.13/3.33	.16/3.94	.10/2.54	.09128/2.18-3.25	100
GSNY-192-9-C	Natural Nylon 6.6	.36/8.26	.20/4.95	.23/5.84	.16/4.06	.19192/3.25-4.88	100

High-carbon, Teflon® coated steel blade!

Cutting Tool

Use our cutting tool for all your spiral wrap, plastic pipe, raceway, PVC conduit and tubing cutting needs up to 11/4" I.D.

- · Contoured handle resists tube crushing
- Produces no "sawdust" no need to debur
- · Lightweight, low-profile and no exposed blade when stored
- Can be used to cut Carlon® Electrical Non-Metallic Tubing (ENT)

CAT. NO.	DESCRIPTION
CC120B	Cutting Tool

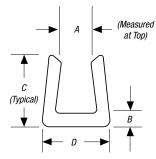




Thomas@Betts

Line panel edges and knockouts! Extruded Grommeting

- Used to line panel edges and knockouts where the chafing of passing wires is a concern
 - Available in 8 stock sizes in 100-ft. lengths for panels from .040" (1.02mm) to .250" (6.35mm) thick
 - A variety of stocked materials to cover a wide range of applications



Note: Min. bend radius is 11/4".

		A	В	С	D		
STD. PKG. CAT. NO.	MATERIAL	MAX. PANEL THICKNESS IN./MM	GROMMETING THICKNESS IN./MM	GROMMETING HEIGHT IN./MM	GROMMETING WIDTH IN./MM	UL Flammability	REEL QTY.
GRNY-040-9-C	Natural Nylon	.04/1.02	.04/1.02	.19/4.83	.13/3.18	94 V-2	1 (100 ft.)
GRNY-052-9-C	Natural Nylon	.05/1.32	.04/1.02	.19/4.83	.13/3.18	94 V-2	1 (100 ft.)
GRNY-062-9-C	Natural Nylon	.06/1.57	.05/1.14	.20/5.08	.17/4.32	94 V-2	1 (100 ft.)
GRNY-085-9-C	Natural Nylon	.09/2.16	.05/1.14	.20/5.08	.17/4.32	94 V-2	1 (100 ft.)
GRNY-100-9-C	Natural Nylon	.10/2.54	.05/1.14	.22/5.89	.21/5.33	94 V-2	1 (100 ft.)
GRNY-125-9-C	Natural Nylon	.13/3.18	.05/1.27	.22/5.89	.21/5.21	94 V-2	1 (100 ft.)
GRNY-187-9-C	Natural Nylon	.19/4.75	.05/1.27	.27/6.86	.28/6.99	94 V-2	1 (100 ft.)
GRNY-250-9-C	Natural Nylon	.25/6.35	.05/1.27	.28/7.11	.379/.40	94 V-2	1 (100 ft.)
GRNY-040-0-C	Black Nylon	.04/1.02	.04/1.02	.19/4.83	.13/3.18	94 V-2	1 (100 ft.)
GRNY-052-0-C	Black Nylon	.05/1.32	.04/1.02	.19/4.83	.13/3.18	94 V-2	1 (100 ft.)
GRNY-062-0-C	Black Nylon	.06/1.57	.05/1.14	.20/5.08	.17/4.32	94 V-2	1 (100 ft.)
GRNY-085-0-C	Black Nylon	.09/2.16	.05/1.14	.20/5.08	.17/4.32	94 V-2	1 (100 ft.)
GRNY-100-0-C	Black Nylon	.10/2.54	.05/1.14	.22/5.89	.21/5.33	94 V-2	1 (100 ft.)
GRNY-125-0-C	Black Nylon	.13/3.18	.05/1.27	.22/5.89	.21/5.21	94 V-2	1 (100 ft.)
GRNY-187-0-C	Black Nylon	.19/4.75	.05/1.27	.27/6.86	.28/6.99	94 V-2	1 (100 ft.)
GRNY-250-0-C	Black Nylon	.25/6.35	.05/1.27	.28/7.11	.379/.40	94 V-2	1 (100 ft.)
GRPE-040-9-C	Natural Polyethylene	.04/1.02	.04/1.02	.19/4.83	.13/3.18	94 HB	1 (100 ft.)
GRPE-052-9-C	Natural Polyethylene	.05/1.32	.04/1.02	.19/4.83	.13/3.18	94 HB	1 (100 ft.)
GRPE-062-9-C	Natural Polyethylene	.06/1.57	.05/1.14	.20/5.08	.17/4.32	94 HB	1 (100 ft.)
GRPE-085-9-C	Natural Polyethylene	.09/2.16	.05/1.14	.20/5.08	.17/4.32	94 HB	1 (100 ft.)
GRPE-100-9-C	Natural Polyethylene	.10/2.54	.05/1.14	.22/5.89	.21/5.33	94 HB	1 (100 ft.)
GRPE-125-9-C	Natural Polyethylene	.13/3.18	.05/1.27	.22/5.89	.21/5.21	94 HB	1 (100 ft.)
GRPE-187-9-C	Natural Polyethylene	.19/4.75	.05/1.27	.27/6.86	.28/6.99	94 HB	1 (100 ft.)
GRPE-250-9-C	Natural Polyethylene	.25/6.35	.05/1.27	.28/7.11	.379/.40	94 HB	1 (100 ft.)





1-800-453-1692



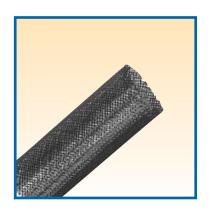


Available in handy mini spools or bulk reels! Braided Expandable Wire Protection Sleeving

Thomas & Betts braided wire protection sleeving is used to bundle and protect wires and cables from abrasion and excessive wear. Its flexible, lightweight, open weave construction installs easily over a variety of bundle diameters and shapes. The sleeving is resistant to chemicals, fungus, fuels, UV sunlight, and has an indefinite shelf life. It's easily cut with a hot knife, which seals the end, preventing fraying. Ends can be secured using Ty-Rap® cable ties.

Available in:

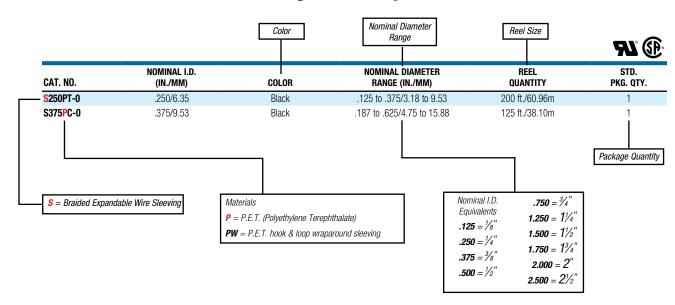
- · Handy mini spools or bulk reels
- Eight sizes from ½" (3.18mm) to 2½" (63.5mm) nominal I.D. size
- Solid or wraparound hook and loop braided expandable wire sleeving
- Meets UL94V-1
- Meets Federal Motor Vehicle Standard No. FMV SS 302



Polyethylene Terephthalate (P.E.T.)

A black 0.010" (.25mm) polyester monofilament material designed for indoor and outdoor applications. It's rated for continuous operating temp. -103° F to 257° F (-75° C to 125° C).

Catalog Number System

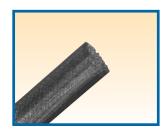


Fax: 901.252.1354





1-800-453-1692



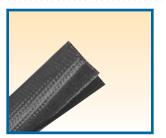
Portable convenience!

PET Braided Expandable Wire Sleeving — Mini Spool



NOMINAL I.D. IN./MM	COLOR	NOMINAL DIAMETER RANGE IN./MM	SPOOL Quantity	STD. PKG. QTY.
.25/6.35	Black	.13 to .38/3.18 to 9.53	200 ft./60.96m	1
.38/9.53	Black	.19 to .63/4.75 to 15.88	125 ft./38.10m	1
.50/12.70	Black	.25 to .75/6.35 to 19.05	100 ft./30.48m	1
.75/19.05	Black	.50 to 1.25/12.70 to 31.75	100 ft./30.48m	1
1.25/31.75	Black	.75 to 1.75/19.05 to 44.45	50 ft./15.24m	1
	.25/6.35 .38/9.53 .50/12.70 .75/19.05	IN./MM COLOR .25/6.35 Black .38/9.53 Black .50/12.70 Black .75/19.05 Black	IN./MM COLOR RANGE IN./MM .25/6.35 Black .13 to .38/3.18 to 9.53 .38/9.53 Black .19 to .63/4.75 to 15.88 .50/12.70 Black .25 to .75/6.35 to 19.05 .75/19.05 Black .50 to 1.25/12.70 to 31.75	IN./MM COLOR RANGE IN./MM QUANTITY .25/6.35 Black .13 to .38/3.18 to 9.53 200 ft./60.96m .38/9.53 Black .19 to .63/4.75 to 15.88 125 ft./38.10m .50/12.70 Black .25 to .75/6.35 to 19.05 100 ft./30.48m .75/19.05 Black .50 to 1.25/12.70 to 31.75 100 ft./30.48m

Note: Order by spool, not per foot.



No tools required to close the sleeving

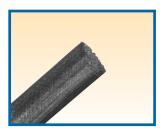
 Hook and loop material is made of 100% nylon

Enables for easy wrapping of existing wire harnesses and cables!

PET Hook and Loop, Wraparound Sleeving — Mini Spool



IN./MM	COLOR	NOMINAL DIAMETER Range In./mm	SPOOL Quantity	STD. PKG. QTY.
.50/12.70	Black	.25 to .75/6.35 to 19.05	50 ft./15.24m	1
.75/19.05	Black	.50 to 1.25/12.70 to 31.75	50 ft./15.24m	1
1.25/31.75	Black	.75 to 1.75/19.05 to 44.45	50 ft./15.24m	1
2.00/50.80	Black	1.50 to 3.50/38.10 to 88.90	50 ft./15.24m	1
	.50/12.70 .75/19.05 1.25/31.75	.50/12.70 Black .75/19.05 Black 1.25/31.75 Black 2.00/50.80 Black	.50/12.70 Black .25 to .75/6.35 to 19.05 .75/19.05 Black .50 to 1.25/12.70 to 31.75 1.25/31.75 Black .75 to 1.75/19.05 to 44.45 2.00/50.80 Black 1.50 to 3.50/38.10 to 88.90	.50/12.70 Black .25 to .75/6.35 to 19.05 50 ft./15.24m .75/19.05 Black .50 to 1.25/12.70 to 31.75 50 ft./15.24m 1.25/31.75 Black .75 to 1.75/19.05 to 44.45 50 ft./15.24m 2.00/50.80 Black 1.50 to 3.50/38.10 to 88.90 50 ft./15.24m



Buy in bulk and save!

PET Braided Expandable Wire Sleeving — Bulk Reel



BULK PKG. CAT. NO.	NOMINAL I.D. IN./MM	COLOR	NOMINAL DIAMETER Range In./MM	REEL Quantity	BULK PKG. QTY.
S125PM-0	.125/3.18	Black	.09 to .250/2.39 to 6.35	1,000 ft./304.80m	1
S250PM-0	.25/6.35	Black	.125 to .375/3.18 to 9.53	1,000 ft./304.80m	1
S500PD-0	.50/12.70	Black	.25 to .75/6.35 to 19.05	500 ft./152.40m	1
S750PK-0	.75/19.05	Black	.50 to 1.25/12.70 to 31.75	250 ft./76.20m	1
S1250PK-0	1.25/31.75	Black	.75 to 1.75/19.05 to 44.45	250 ft./76.20m	1
S1500PT-0	1.50/38.10	Black	1.00 to 2.50/25.40 to 63.50	200 ft./60.96m	1
S1750PT-0	1.75/44.45	Black	1.25 to 2.75/31.75 to 59.85	200 ft./60.96m	1
S2000PT-0	2.00/50.80	Black	1.50 to 3.50/38.10 to 88.90	200 ft./60.96m	1
S2500PT-0	2.50/63.50	Black	1.75 to 4.50/44.45 to 114.30	200 ft./60.96m	1
M-1- 0 1 1					

Note: Order by reel, not per foot.



The right tool for the job!

Sleeving End Cutter/Sealer Tool

It's recommended that the sleeving be cut with a hot knife for a straight cut and to seal the ends, which prevents fraying.



STD. PKG.		
CAT. NO.	DESCRIPTION	STD PKG.
WTBM	Benchmount End Cutter/Sealer Tool, 110 VAC	1



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 Technical Services
Tel: 888.862.3289







Catamount®

Catamount® General-Purpose Ties & Accessories



In this section...



Catamount® General-Purpose Ties & Accessories

Twist Tail® Cable Ties	C-62
General-Purpose Cable Ties and Accessories	C-63-C-66





Twist Tail® Cable Ties

Tail twists right off — no tools needed!

Catamount® Twist Tail® Cable Tie



- Redesigned using impact-modified nylon to increase both flexibility and wearability
- Unique and improved design for quick, easy no-tool installation
- After installing, remove excess tail with a simple "bend, bend again and twist" motion
- Tail breaks off neat and clean no sharp edges to damage hands or cables
- Ideal for limited-space installations where you can't fit a cut-off tool
- Suitable for light-duty cable tie applications



For fast and easy installation, you can't beat the Catamount® Twist Tail® Cable Tie. After you secure the Twist Tail® tie around a bundle of cables, simply grasp the excess tail between your thumb and forefinger, bend, bend in the other direction and twist. The tail breaks right off, leaving no sharp edges to scratch your hands or your cables. The Twist Tail® cable tie makes tail removal easy with its unique design but still provides a full 30 lbs. minimum loop tensile strength — perfect for any general-purpose cable tie application.

CAT. NO.	LENGTH (IN.)	WIDTH (IN.)	MIN. TENSILE STRENGTH (LBS.)	COLOR	STD. QTY.
TT-7-30-9-L	7	.187	30	Natural	50
TT-7-30-0-L	7	.187	30	UV Black	50
TT-11-30-9-L	11	.187	30	Natural	50
TT-11-30-0-L	11	.187	30	UV Black	50
TT-14-30-9-L	14	.187	30	Natural	50
TT-14-30-0-L	14	.187	30	UV Black	50













Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354









Catamount® Ties fit the needs of general-purpose fastening. Installers quickly discover that Catamount® products offer durable and value-priced cable bundling for a variety of commercial and residential construction applications. Catamount® Ties are offered in a wide range of sizes, styles and colors and meet the requirements for most fastening projects. Catamount® Cable Ties are UL Recognized per File #E-4905.

Miniature — Series 18

					714
CAT. NO.	LENGTH (IN.)	WIDTH (IN.)	MAX. BUNDLE DIA. (IN.)	COLOR	STD. QTY.
L-4-18-9-C	4.0	.100	5/8	Natural	100
L-4-18-9-M	4.0	.100	5/8	Natural	1,000
L-4-18-0-C	4.0	.100	5/8	UV Black	100
L-4-18-0-M	4.0	.100	5/8	UV Black	1,000
L-6-18-9-M	6.4	.100	11/2	Natural	1,000
L-8-18-9-C	8.0	.100	2	Natural	100
L-8-18-9-M	8.0	.100	2	Natural	1,000
L-8-18-0-C	8.0	.100	2	UV Black	100
L-8-18-0-M	8.0	.100	2	UV Black	1,000



Heavy-Duty

CAT. NO.	LENGTH (IN.)	WIDTH (IN.)	MAX. BUNDLE DIA. (IN.)	COLOR	STD. QTY.
Series 120		. ,	. ,		
L-8-120-0-C	8.0	.300	2	UV Black	100
L-11-120-9-C	11.1	.300	3	Natural	100
L-11-120-0-C	11.1	.300	3	UV Black	100
L-14-120-9-C	14.2	.300	4	Natural	100
L-14-120-0-C	14.2	.300	4	UV Black	100
L-18-120-9-L	18.0	.300	47/8	Natural	50
L-18-120-0-L	18.0	.300	47/8	UV Black	50
L-24-120-9-Q	24.2	.300	7	Natural	25
L-24-120-9-L	24.2	.300	7	Natural	50
L-24-120-0-Q	24.2	.300	7	UV Black	25
L-24-120-0-L	24.2	.300	7	UV Black	50
L-24-120-2-L	24.2	.300	7	Red	50
L-28-120-9-L	28.0	.300	8	Natural	50
L-28-120-0-L	28.0	.300	8	UV Black	50
Series 175					
L-24-175-9-L	24.0	.345	7.2	Natural	50
L-24-175-0-L	24.0	.345	7.2	UV Black	50
L-36-175-9-L	36.0	.345	10¾	Natural	50
L-36-175-0-L	36.0	.345	10¾	UV Black	50
L-48-175-9-L	48.0	.345	15	Natural	50
L-48-175-8-L	48.0	.345	15	Gray	50
L-48-175-0-L	48.0	.345	15	UV Black	50
Series 250					
L-28-250-0-L	28.0	.345	8	UV Black	50



					77
CAT. NO.	LENGTH (IN.)	WIDTH (IN.)	MAX. BUNDLE DIA. (IN.)	COLOR	STD. QTY.
L-5-30-9-C	5.6	.130	11/4	Natural	100
L-5-30-9-M	5.6	.130	11/4	Natural	1,000
L-5-30-0-C	5.6	.130	11/4	UV Black	100
L-5-30-0-M	5.6	.130	11/4	UV Black	1,000
L-8-40-9-C	8.5	.140	2	Natural	100
L-8-40-9-M	8.5	.140	2	Natural	1,000
L-8-40-0-C	8.5	.140	2	UV Black	100
L-8-40-0-M	8.5	.140	2	UV Black	1,000
L-11-40-9-C	11.5	.146	3	Natural	100
L-11-40-9-M	11.5	.146	3	Natural	1,000
L-11-40-0-C	11.5	.146	3	UV Black	100
L-11-40-0-M	11.5	.146	3	UV Black	1,000
L-14-40-9-C	14.5	.146	4	Natural	100
L-14-40-9-M	14.5	.146	4	Natural	1,000
L-14-40-0-C	14.5	.146	4	UV Black	100
L-14-40-0-M	14.5	.146	4	UV Black	1,000



For installation tools, see pp. C-46-C-48.

Standard — Series 50

					<u> 47</u>
CAT. NO.	LENGTH (IN.)	WIDTH (IN.)	MAX. BUNDLE DIA. (IN.)	COLOR	STD. QTY.
L-7-50-9-C	7.5	.187	13/4	Natural	100
L-7-50-9-M	7.5	.187	13/4	Natural	1,000
L-7-50-0-C	7.5	.187	13/4	UV Black	100
L-7-50-0-M	7.5	.187	13/4	UV Black	1,000
L-11-50-9-C	11.1	.187	3	Natural	100
L-11-50-9-D	11.1	.187	3	Natural	500
L-11-50-0-C	11.1	.187	3	UV Black	100
L-11-50-0-D	11.1	.187	3	UV Black	500
L-14-50-9-C	14.1	.187	4	Natural	100
L-14-50-9-D	14.1	.187	4	Natural	500
L-14-50-0-C	14.1	.187	4	UV Black	100
L-14-50-0-D	14.1	.187	4	UV Black	500





Sample Catalog Order Color Length Tensile Strength Quantity 4" Length, 18-lb. Tensile Strength, Releasable Tie, Natural Color, 100-Pack Quantity Color 0 - Black (UV Resistant) 9 - Natural 8 - Gray **Pack Quantity** L = 50D = 500C = 100M = 1,000**Style** Releasable MH = Mounting Head



United States Tel: 901.252.8000

800.816.7809 Fax: 901.252.1354

Technical Services Tel: 888.862.3289

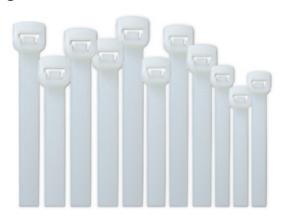






Catamount® Cable Tie Assortment Packages

- Natural nylon or black weather-resistant nylon
- · Reusable jar
- · Easily merchandised
- · Great value





CAT. NO.	LENGTH (IN.)	WIDTH	MAX. BUNDLE (IN.)	TENSILE STRENGTH	MATERIAL	JAR QTY
90650-I	4	.100	5/8	18#		300
	7.5	.187	1¾	50#	Natural Nylon	300
	11.1	.187	3	50#		50
90650-IUV	4	.100	5/8	18#	Black Weather-	300
	7.5	.187	13/4	50#	Resistant	300
	11.1	.187	3	50#	Nylon	50

Mounting Head Ties



CAT. NO.	LENGTH (IN.)	WIDTH (IN.)	MAX BUNDLE DIA. (IN.)	MIN. LOOP TENSILE TENSILE	MOUNTING HEAD SCREW SIZE	COLOR	STD. QTY.
L-7-50MH-9-C	7.5	.185	11/4	30	No. 10	Natural	100
L-7-50MH-9-M	7.5	.185	11/4	30	No. 10	Natural	1,000
L-7-50MH-0-C	7.5	.185	13/4	30	No. 10	UV Black	100
L-7-50MH-0-M	7.5	.185	1¾	30	No. 10	UV Black	1,000





1-800-453-1692 www.aboveboardelectronics.com





Cable Tie Mounting Bases

- ¾" and 1" mounts for use with 18# through 50# tensile cable ties
- · Supplied on rubber-based adhesive
- Available in 6.6 natural nylon and 6.6 black weather-resistant nylon
- UL94V-2 flammability (clip)

Note: See product expiration date on package.
Periodically check product for adhesion and replace
as needed. Product is for wire management only
and is not intended for use as a primary support
of wire, cable, etc.



CAT. NO.	MOUNT METHOD	COLOR	PKG. QTY.
3/4" x 3/4" Sizes			
MPNY-750-9-C	Synthetic Rubber Adhesive	Natural	100
MPNY-750-9-D	Synthetic Rubber Adhesive	UV Black	500
1" x 1" Sizes			
MPNY-1000-9-C	Synthetic Rubber Adhesive	Natural	100
MPNY-1000-0-C	Synthetic Rubber Adhesive	UV Black	100
F	O. I.I. The		

For use with 18-50 lb. Cable Ties

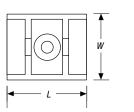
- Mounting Surface should be cleaned with alcohol based (IPA) cleaner before application
- Allow 15 minutes setup for maximum performance

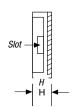
Accepts cable ties up to 50-lb. tensile strength!

Adhesive Mounting Cradle

- Supplied on closed cell foam with synthetic rubber-based adhesive
- Use #6 self-tapping screw for added strength if desired







STD. PKG. Cat. No.	BULK PKG. Cat. No.	MATERIAL	H HEIGHT IN./MM	L Length In./MM	W WIDTH IN./MM	SLOT HEIGHT IN./MM	SLOT WIDTH In./MM	MOUNT METHOD	STD. PKG. QTY.	BULK PKG. QTY.
MCNY-1250-9-C	MCNY-1250-9-D	Natural Nylon 6.6	.285/7.24	1.250/31.75	1.000/25.4	.090/2.29	.300/7.62	SRA Adhesive*	100	500

*Synthetic Rubber Adhesive

Note: See product expiration date on package. Periodically check product for adhesion and replace as needed.

Product is for wire management only and is not intended for use as a primary support of wire, cable, etc.





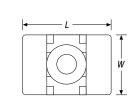
1-800-453-1692

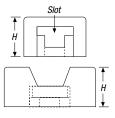


Two-Way Screw Mount

- SMNY-000 accepts 18 lb. (80N) tensile strength cable ties (miniature)
- SMNY-001 accepts up to 50 lb. (222N) tensile strength cable ties







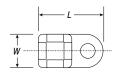
BULK PKG. Cat. No.	MATERIAL	H HEIGHT IN./MM	L Length In./MM	W WIDTH IN./MM	SLOT HEIGHT In./MM	SLOT WIDTH In./MM	MOUNT METHOD	BULK PKG. QTY.
SMNY-000-9-D	Natural Nylon 6.6	.27/6.86	.57/14.48	.34/8.64	.07/1.78	.12/3.10	#4 Screw	500
SMNY-001-9-D	Natural Nylon 6.6	.25/7.11	.60/15.24	.38/9.77	.06/1.52	.20/5.68	#6 or #8 screw	500

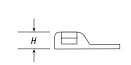
SMNY series for use in temperatures ranging from -40° F to 221° F (-40° C to 105° C).

Four-way screw mount for cable ties up to 50-lb. (222N) tensile strength!

Four-Way Mount

- · Mount with #6 or #8 screws
- · Available in 6.6 natural nylon







· Natural nylon color.

For use in temperatures ranging from -40° F to 185° F (-40° C to 85° C).

STRONG — up to 50-lb. tensile strength!

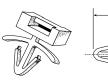
Push Mounts

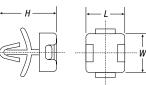
PMNY-185

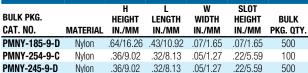
- · Versatile push mount for cable ties to 50-lb. tensile strength
- For use in .187"/.192" mounting hole for panel thickness .030" to .080"

PMNY-245

- Accepts cable ties to 50-lb. tensile (miniature through standard)
- For use in .250" mounting hole for maximum panel thickness of .062"

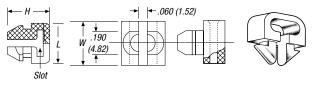






Natural nylon color.

For use in temperatures ranging from -40° F to 185° F (-40° C to 85° C).



Snap Mounts

- For panel thicknesses from .060" to .150" to hold separate pieces of material together
- For MSNY-166-0-M used with W4 or N4 Series Cable Clamps, allowable panel thickness is .030" to .050"
- For MSNY-187-0-M used with W6 or N6 Series Cable Clamps, allowable panel thickness is .030" to .050"











CAT. NO.	MATERIAL	A IN./MM	B IN./MM	C IN./MM	D IN./MM	BULK PKG QTY.
MSNY-166-0-M	UV Black Nylon	.49/12.45	.31/7.87	.28/7.11	.18/4.57	1,000
MSNY-187-0-M	LIV Black Nylon	625/15.87	343/8 73	281/7 14	210/5.33	1 000



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services**

Tel: 888.862.3289







Ty-Duct Carlon



In this section...



Wiring Duct & Wiring Trough

Ty-Duct® Wiring Duct	C-68-C-77
Wiring Duct Tools and Accessories	C-78-C-81
Wiring Duct Technical Information	C-82-C-86
Carlon® Wiring Trough and Accessories	C-87-C-89
Wiring Trough Technical Information	C-90-C-92





Ty-Duct[®] Wiring Duct

Ty-Duct[®] — The versatile configurations you need for routing and concealing wiring!

Thomas & Betts' innovative new Ty-Duct products offer a total solution for routing and concealing wiring in control panels. Many different sizes are available to accommodate anything from the smallest wallmount panel to the larger integrated systems!

Here are some of the impressive features incorporated into our wiring duct solutions.

Ty-Duct® Features



- Available in Wide and Narrow Slot versions to meet your capacity and flexibility needs
- Widths from .75" to 6" and depths from 1" to 5"
- Complete selection of accessories and tools for installation
- Lead-free construction
- Lightweight halogen-free material available for Wide Slot Wiring Duct



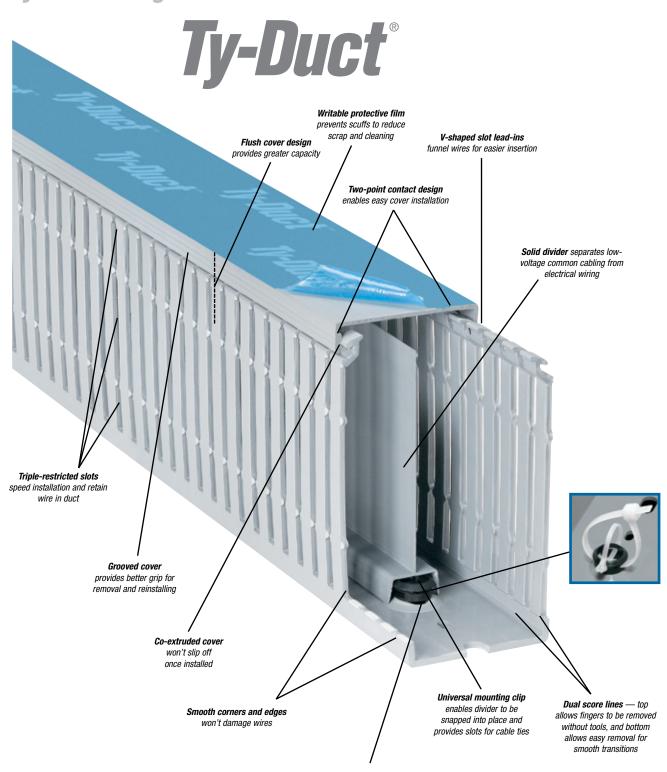


Ty-Duct® Certifications

- UL® Recognized Continuous-Use Temperature 122° F (50° C) for Standard PVC Material 203° F (95° C) for Halogen-Free Material
- UL® 94 Flammability —
 Rating of V-0 for Standard PVC Material
 Rating of V-1 for Halogen-Free Material
- Conforms with NFPA 79-2011 Section 13.3.1 Requirement for Flame-Retardant Material
- · CE compliant for European shipping
- CSA Certified
- RoHS Certified







Embossed holes on ½" and wider sizes allow the installation of universal mounting clips even after duct has been riveted to the panel



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services**

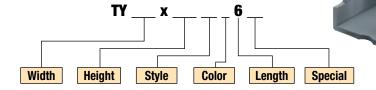
Tel: 888.862.3289



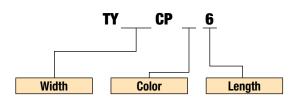
Ordering the Ty-Duct° products you need is easy!

Select the appropriate Ty-Duct[®] solutions for your application.

For Ty-Duct® Wiring Duct:



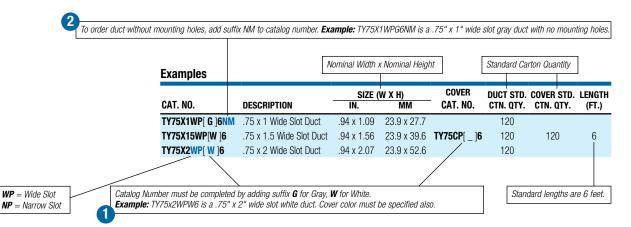
For Ty-Duct® Covers:



[_] = space for color identifier:

G = Gray

W = White



Note: See product expiration date on packages with adhesive. Periodically check product for adhesion and replace as needed. Product is for wire management only and is not intended for use as a primary support of wire, cable, etc.



United States

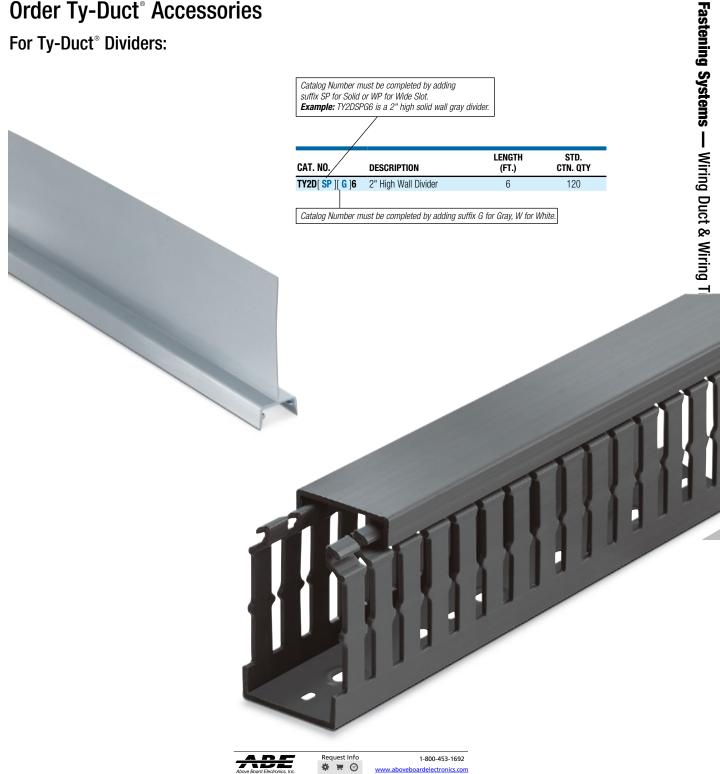
Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 Technical Services
Tel: 888.862.3289





Order Ty-Duct® Accessories

For Ty-Duct® Dividers:

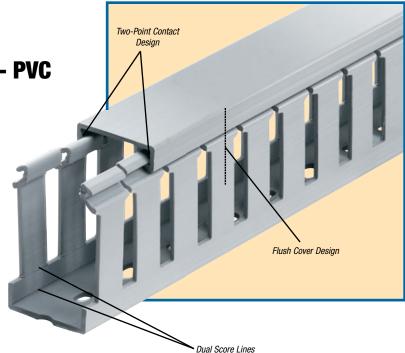


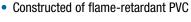
800.816.7809 Fax: 901.252.1354

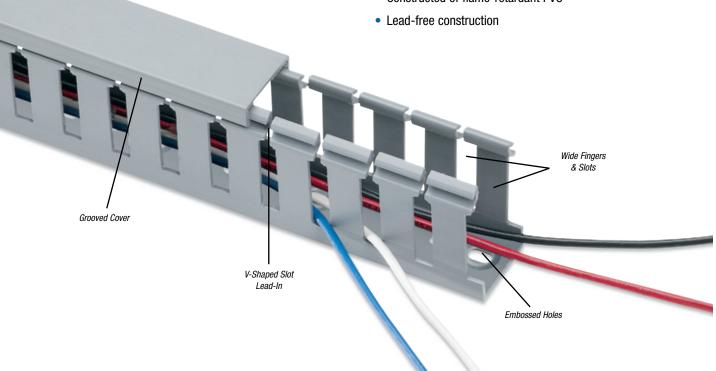
Greater sidewall rigidity with increased versatility!

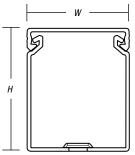
Wide Slot Wiring Duct — PVC

- · Wide fingers and slots increase rigidity and enable insertion of bundles
- Non-slip cover does not slide easily and resists vibration
- Rounded edges keep hands and wires free of abrasion
- V-shaped slot lead-in enables easier and faster wire installation
- Dual score lines are designed to yield clean breakoffs at the base of the slot and the duct
- Restricted slot design makes sure that wires are held with or without the cover inserted
- Cover attaches flush with sidewall for finished look and increased wire capacity
- Versatile North American and DIN Standard mounting holes enables same duct for multiple applications

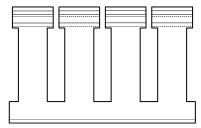












Side View without Cover

For a complete listing of Wide Slot mounting and dimensional details, see page C-84.



		SIZE	(W X H)	COVER	DUCT STD.	COVER STD.	LENGTH
CAT. NO.*	DESCRIPTION	IN.	ММ	CAT. NO.*	CTN. QTY.	CTN. QTY.	(FT.)
TY75X15WP[_]6	.75" x 1.5"	.94 x 1.70	23.9 x 43.2	TY75CP[_]6	120	120	6
TY75X2WP[_]6	.75" x 2"	.94 x 2.19	23.9 x 55.6		120		
TY1X1WP[_]6	1" x 1"	1.25 x 1.24	31.8 x 31.5		120		
TY1X15WP[_]6	1" x 1.5"	1.25 x 1.70	31.8 x 43.2		120		
TY1X2WP[_]6	1" x 2"	1.25 x 2.19	31.8 x 55.6	TY1CP[_]6	120	120	6
TY1X3WP[_]6	1" x 3"	1.25 x 3.14	31.8 x 79.8		120		
TY1X4WP[_]6	1" x 4"	1.25 x 4.46	31.8 x 113.3		60		
TY15X15WP[_]6	1.5" x 1.5"	1.75 x 1.70	44.5 x 43.2		120		
TY15X2WP[_]6	1.5" x 2"	1.75 x 2.19	44.5 x 55.6	TY15CP[_]6	120	120	6
TY15X3WP[_]6	1.5" x 3"	1.75 x 3.14	44.5 x 79.8		120		
TY15X4WP[_]6	1.5" x 4"	1.75 x 4.46	44.5 x 113.3		60		
TY2X1WP[_]6	2" x 1"	2.25 x 1.24	57.2 x 31.5		120		
TY2X15WP[_]6	2" x 1.5"	2.25 x 1.70	57.2 x 43.2		120		
TY2X2WP[_]6	2" x 2"	2.25 x 2.19	57.2 x 55.6	TY2CP[_]6	120	120	6
TY2X3WP[_]6	2" x 3"	2.25 x 3.14	57.2 x 79.8		60		
TY2X4WP[_]6	2" x 4"	2.25 x 4.46	57.2 x 113.3		60		
TY2X5WP[_]6	2" x 5"	2.25 x 5.15	57.2 x 130.8		60		
TY25X2WP[_]6	2.5" x 2"	2.75 x 2.19	69.9 x 55.6		120		
TY25X3WP[_]6	2.5" x 3"	2.75 x 3.14	69.9 x 79.8	TY25CP[_]6	60	120	6
TY25X4WP[_]6	2.5" x 4"	2.75 x 4.46	69.9 x 113.3		60		
TY3X1WP[_]6	3" x 1"	3.25 x 1.24	82.6 x 31.5		120		
TY3X2WP[_]6	3" x 2"	3.25 x 2.19	82.6 x 55.6		60		
TY3X3WP[_]6	3" x 3"	3.25 x 3.14	82.6 x 79.8	TY3CP[_]6	60	120	6
TY3X4WP[_]6	3" x 4"	3.25 x 4.46	82.6 x 113.3		60		
TY3X5WP[_]6	3" x 5"	3.25 x 5.15	82.6 x 130.8		60		
TY4X3WP[_]6	4" x 3"	4.25 x 3.14	108.0 x 79.8	TY4CP[_]6	60	120	6
TY4X4WP[_]6	4" x 4"	4.25 x 4.46	108.0 x 113.3		30		
TY4X5WP[_]6	4" x 5"	4.25 x 5.15	108.0 x 130.8		30		
TY6X4WP[_]6	6" x 4"	6.25 x 4.46	158.8 x 113.3	TY6CP[_]6	30	60	6



^{*} Catalog Number must be completed by adding suffix G for Gray, W for White. **Example:** TY75X1WPG6 is a .75" x 1" wide slot gray duct.

To order duct without mounting holes, add suffix NM to catalog number.

Example: TY75X1WPG6NM is a .75" x 1" wide slot gray duct with no mounting holes.

PVC duct is UL® Recognized N, CSA Certified and CE Compliant.









1-800-453-1692

Designed to fit the spacing of high-density terminal blocks!

Narrow Slot Wiring Duct

Smaller, higher number of fingers for more concise harnessing

· Non-slip cover does not slide easily and resists vibration

 Rounded edges keep hands and wires free of abrasion

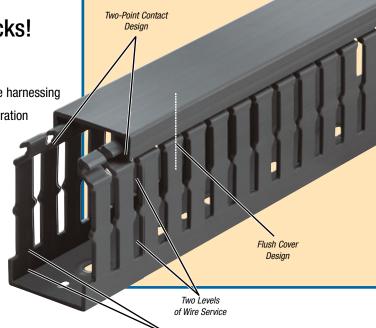
 V-shaped slot lead-in enables easier and faster wire installation

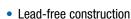
 Restricted slot design makes sure that wires are held with or without the cover inserted

 Cover attaches flush with sidewall for finished look and increased wire capacity

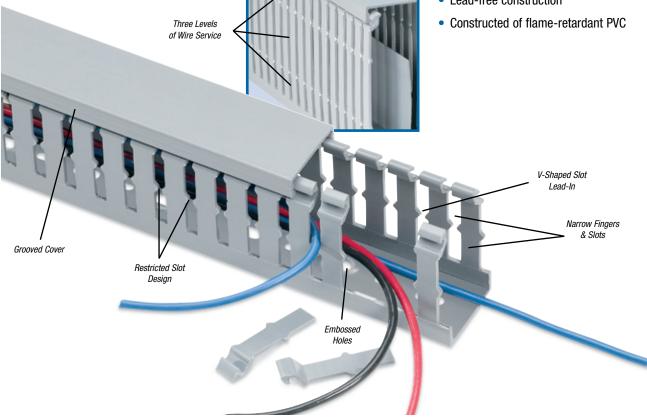
 Versatile North American and DIN Standard mounting holes enable same duct for multiple applications

 Dual score lines are designed to yield clean breakoffs at the base of the slot and the duct

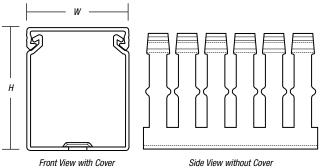




Dual Score Lines



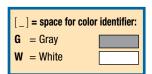
Fax: 901.252.1354



For a complete listing of Narrow Slot mounting and dimensional details, see page C-85.



		SIZE	(W X H)				
CAT. NO.*	DESCRIPTION	IN.	ММ	- COVER CAT. NO.*	DUCT STD. CTN. QTY.	COVER STD. CTN. QTY.	LENGTH (FT.)
TY75X15NP[_]6	.75" x 1.5"	.94 x 1.70	23.9 x 43.2	TY75CP[_]6	120	120	6
TY1X1NP[_]6	1" x 1"	1.25 x 1.24	31.8 x 31.5		120		
TY1X15NP[_]6	1" x 1.5"	1.25 x 1.70	31.8 x 43.2		120		
TY1X2NP[_]6	1" x 2"	1.25 x 2.19	31.8 x 55.6	TY1CP[_]6	120	120	6
TY1X3NP[_]6	1" x 3"	1.25 x 3.14	31.8 x 79.8		120		
TY1X4NP[_]6	1" x 4"	1.25 x 4.46	31.8 x 113.3		60		
TY15X1NP[_]6	1.5" x 1"	1.75 x 1.24	44.5 x 31.5		120		
TY15X15NP[_]6	1.5" x 1.5"	1.75 x 1.70	44.5 x 43.2		120		
TY15X2NP[_]6	1.5" x 2"	1.75 x 2.19	44.5 x 55.6	TY15CP[_]6	120	120	6
TY15X3NP[_]6	1.5" x 3"	1.75 x 3.14	44.5 x 79.8		120		
TY15X4NP[_]6	1.5" x 4"	1.75 x 4.46	44.5 x 113.3		60		
TY2X1NP[_]6	2" x 1"	2.25 x 1.24	57.2 x 31.5		120		
TY2X15NP[_]6	2" x 1.5"	2.25 x 1.70	57.2 x 43.2		120		
TY2X2NP[_]6	2" x 2"	2.25 x 2.19	57.2 x 55.6	TY2CP[_]6	120	120	6
TY2X3NP[_]6	2" x 3"	2.25 x 3.14	57.2 x 79.8		60		
TY2X4NP[_]6	2" x 4"	2.25 x 4.46	57.2 x 113.3		60		
TY2X5NP[_]6	2" x 5"	2.25 x 5.15	57.2 x 130.8		60		
TY25X2NP[_]6	2.5" x 2"	2.75 x 2.19	69.9 x 55.6		120		
TY25X3NP[_]6	2.5" x 3"	2.75 x 3.14	69.9 x 79.8	TY25CP[_]6	60	120	6
TY25X4NP[_]6	2.5" x 4"	2.75 x 4.46	69.9 x 113.3		60		
TY3X1NP[_]6	3" x 1"	3.25 x 1.24	82.6 x 31.5		120		
TY3X2NP[_]6	3" x 2"	3.25 x 2.19	82.6 x 55.6		60		
TY3X3NP[_]6	3" x 3"	3.25 x 3.14	82.6 x 79.8	TY3CP[_]6	60	120	6
TY3X4NP[_]6	3" x 4"	3.25 x 4.46	82.6 x 113.3		60		
TY3X5NP[_]6	3" x 5"	3.25 x 5.15	82.6 x 130.8		60		
TY4X2NP[_]6	4" x 2"	4.25 x 2.19	108.0 x 55.6		60		
TY4X3NP[_]6	4" x 3"	4.25 x 3.14	108.0 x 79.8	TY4CP[_]6	60	120	6
TY4X4NP[_]6	4" x 4"	4.25 x 4.46	108.0 x 113.3		30		
TY4X5NP[_]6	4" x 5"	4.25 x 5.15	108.0 x 130.8		30		



* Catalog Number must be completed by adding suffix G for Gray, W for White. **Example:** TY75X15NPB6 is a .75" x 1.5" narrow slot black duct.

To order duct without mounting holes, add suffix NM to catalog number.

Example: TY75X15NPB6NM is a .75" x 1.5" narrow slot black duct with no mounting holes.

PVC duct is UL Recognized **91**, CSA Certified and CE Compliant.

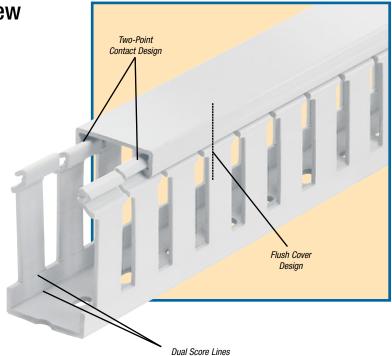




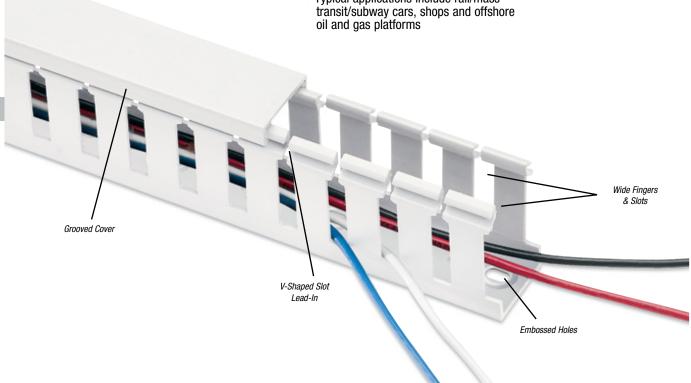
Perfect for passenger or crew areas where smoke toxicity is a concern!

Halogen-Free Wide Slot Wiring Duct

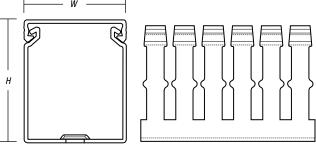
- Halogen-free construction RoHS Compliant
- · Higher temperature rating than standard PVC material (203° F/95° C)
- UL94V-1 flammability rating
- · Wide fingers and slots increase rigidity and enable for insertion of bundles
- Non-slip cover does not slide easily and resists vibration
- Dual score lines are designed to yield clean breakoffs at the base of the slot and the duct
- V-shaped slot lead-in enables easier and faster wire installation



- Light weight
- Typical applications include rail/mass



Fax: 901.252.1354



For a complete listing of Solid Wall mounting and dimensional details, see page C-84.

Front View with Cover Side View without Cover



		SIZE ((W X H)	COVER	DUCT STD	COVER STD.	LENGTH
CAT. NO.	DESCRIPTION	IN.	ММ	CAT. NO.	CTN. QTY.	CTN. QTY.	(FT.)
TY1X1WHW6	1" x 1"	1.25 x 1.24	31.8 x 31.5		120		
TY1X15WHW6	1" x 1.5"	1.25 x 1.70	31.8 x 43.2		120		
TY1X2WHW6	1" x 2"	1.25 x 2.19	31.8 x 55.6	TY1CHW6	120	120	6
TY1X3WHW6	1" x 3"	1.25 x 3.14	31.8 x 79.8		120		
TY1X4WHW6	1" x 4"	1.25 x 4.46	31.8 x 113.3		60		
TY15X15WHW6	1.5" x 1.5"	1.75 x 1.70	44.5 x 43.2		120		
TY15X2WHW6	1.5" x 2"	1.75 x 2.19	44.5 x 55.6	TY15CHW6	120	120	6
TY15X3WHW6	1.5" x 3"	1.75 x 3.14	44.5 x 79.8		120		
TY15X4WHW6	1.5" x 4"	1.75 x 4.46	44.5 x 113.3		60		
TY2X1WHW6	2" x 1"	2.25 x 1.24	57.2 x 31.5		120		
TY2X2WHW6	2" x 2"	2.25 x 2.19	57.2 x 55.6	TY2CHW6	120	120	6
TY2X3WHW6	2" x 3"	2.25 x 3.14	57.2 x 79.8		60		
TY2X4WHW6	2" x 4"	2.25 x 4.46	57.2 x 113.3		60		
TY3X1WHW6	3" x 1"	3.25 x 1.24	82.6 x 31.5		120		
TY3X2WHW6	3" x 2"	3.25 x 2.19	82.6 x 55.6		60		
TY3X3WHW6	3" x 3"	3.25 x 3.14	82.6 x 79.8	TY3CHW6	60	120	6
TY3X4WHW6	3" x 4"	3.25 x 4.46	82.6 x 113.3		60		
TY3X5WHW6	3" x 5"	3.25 x 5.15	82.6 x 130.8		60		
TY4X2WHW6	4" x 2"	4.25 x 2.19	108.0 x 55.6		60		
TY4X3WHW6	4" x 3"	4.25 x 3.14	108.0 x 79.8	TY4CHW6	60	120	6
TY4X4WHW6	4" x 4"	4.25 x 4.46	108.0 x 113.3		30		
TY4X5WHW6	4" x 5"	4.25 x 5.15	108.0 x 130.8		30		

Halogen-Free Wiring Duct Solid Divider Wall

((

CAT. NO.	FITS DUCT Trade Size	STD. CTN. QTY.	LENGTH (FT.)
TY1DSHW6	1" H	120	6
TY1.5DSHW6	1½" H	120	6
TY2DSHW6	2" H	120	6
TY3DSHW6	3" H	1120	6
TY4DSHW6	4" H	120	6
TY5DSHW6	5" H	120	6

W = White

To order duct without mounting holes, add suffix NM to catalog number. **Example:** TY1XWHW6NM is a 1" x 1" wide slot halogen-free white duct with no mounting holes.

Halogen-free (modified PPE) duct is UL® Recognized NI, CSA Certified and meets the JIC requirements.



Fax: 901.252.1354





Thomas@Betts

Create multiple channels inside wiring ducts!

Divider Wall

- · Separates high and low voltage to reduce shortages and interference
- Mount inside any Ty-Duct® PVC wiring duct using Universal Mounting Clips
- Solid and Wide Slotted style





CAT. NO.	DESCRIPTION	LENGTH (FT.)	STD. CTN. QTY.
TY1D[_]P[_]6	1" High Wall Divider	6	120
TY1.5D[_]P[_]6	1.5" High Wall Divider	6	120
TY2D[_]P[_]6	2" High Wall Divider	6	120
TY3D[_]P[_]6	3" High Wall Divider	6	120
TY4D[_]P[_]6	4" High Wall Divider	6	120
TY5D[_]P[_]6	5" High Wall Divider	6	120

+Catalog number must be completed first by adding S for Solid divider or W for Wide Finger Slotted divider and then by adding G for Gray, W for White.

Examples: TY2DSPG6 is a 2" high solid wall gray divider. TY2DWPG6 is a 2" high slotted gray divider.

One size fits all!

Universal Mounting Clips

- · Added before or after the duct is in place, without additional hardware
- Twists into place holds securely
- Installs easily using a screwdriver
- Accommodates up to 40 lb. cable ties
- Black polycarbonate
- For ½" and wider wiring duct sizes









CAT. NO.	DESCRIPTION	QTY.
UMC	Universal Fastener Mount	100 pk









Ideal for high-temperature environments! **Mounting Clips**

- · Speeds duct mounting
- Enables duct removal
- · Provides a stand-off between panel and duct to prevent direct heat transfer - ideal for hightemperature environments



CAT. NO.	WIDTH (IN.)	STD. CTN. QTY.
TY1MC	1	100
TY15MC	1.5	100
TY2MC	2	100
TY3MC	3	100

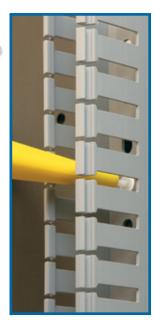
All are .75"D x .35"H and made of Type 316 stainless steel.

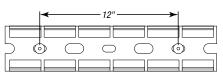
Plastic rivets make mounting ducts easy!

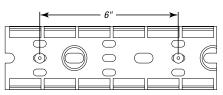
Plastic Rivets

- Fast installation
- Durable and economical
- Used with panel thickness from .030"-.125" thick
- Recommended Panel Hole size: .196" ± .02

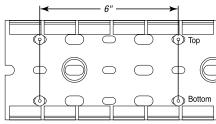
STD. Cat. No.	DESCRIPTION	QTY.
08200C	3/16" Plastic Rivet	100 pk
08200M	3/16" Plastic Rivet	1,000 pk







Minimum mounting rivet distance for ducts 11/2" to 21/2" wide



Minimum mounting rivet distance for ducts greater than 2½' wide. Installed top and bottom.



Thomas@Betts

The wiring duct tools you need for every application!

Features include:

- Duct Cutting Tools for a clean professional finish
- Finger Cutting Tools that make modifications simple
- Notching Tools for duct sidewalls to facilitate tee and corner junctions
- Benchmount Cutting Tools for fast, high volume duct cutting
- Rivet Installation Tools for quick duct mounting

Lightweight and durable!

Duct/ Cover Cutting Tool





- All-steel construction
- Sharp cutting surface
- Replaceable blades available

CAT. NO.	DESCRIPTION
CC125	Handheld Duct Cutter
SX-25TB	Handheld Duct Cutter — Long

Cut duct fingers easily!

Finger Cutting Tool





- Rugged die-cast construction with insulated handles for a comfortable, non-slip grip
- · Removes duct fingers in tight places
- · Works with all slotted wiring duct
- Also cuts round and solid wall duct
- Spring loaded

CAT. NO.	DESCRIPTION
DK-65TB	Duct Finger Cutter



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354



Tel: 888.862.3289







For fast, high-volume duct cutting!

Benchmount Cutting Tool

- Engineered for use with Ty-Duct® plastic wiring ducts and covers
- All-steel construction lasts for years
- Adjustable gauge sets the desired length of duct
- Easy-to-read measuring indicator
- Adjustable stop for easy repeated cutting
- · Sharp, easy-to-replace blades

CAT. NO.	DESCRIPTION				
DC-125TB	Benchmount Duct Cutter				

Notch duct sidewalls fast! Notching Tool



- · Notches sidewalls to bottom scoreline
- · Facilitates tee and corner junctions
- Rugged design
- Easy to use
- Spring loaded

CAT. NO.	DESCRIPTION
DNT-100TB	Duct Notching Tool

Mount ducts quickly!

Rivet Installation Tool

- Use for setting duct rivets
- · Pressure on the tool head secures the rivet in place



CAT. NO.	DESCRIPTION
08205	08200 Series Rivet Installation Tool



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 Technical Services
Tel: 888.862.3289





1-800-453-1692



Wiring Duct — Wire Fill Capacity

Note: Wire fill is based on 50% fill of duct area.

							ELECT	RICAL						D	ATA CABL	.E
NORMAL		8 AWG	10 AWG	12 /	\WG		14 AWG		16 /	AWG	18 /	AWG	22 AWG		24 AWG	
DUCT SIZE	AREA (INCHES ²)	0.216	0.153	0.122	0.158	0.105	0.139	0.165	0.096	0.125	0.084	0.113	0.065	0.217	0.250	0.422
(IN.)	(UTP/CM	UTP/CM	
W H		THHN	THHN	THHN	MTW	THHN	MTW	MTW	THHN	MTW	THHN	MTW	MTW	CAT5E	CAT6	UTP/CM
.75 X 1.00	.750	5	9	14	9	19	11	8	23	14	30	17	51	5	3	1
.75 X 1.50	1.125	7	14	22	13	29	17	12	35	21	46	25	76	7	5	2
.75 X 2.00	1.500	9	18	29	17	39	22	16	47	27	61	34	101	9	7	2
1.00 X 1.00	1.000	6	12	19	11	26	15	10	31	18	40	22	68	6	5	2
1.00 X 1.50	1.500	9	18	29	17	39	22	16	47	27	61	34	101	9	7	2
1.00 X 2.00	2.000	12	24	38	23	52	30	21	62	37	81	45	135	12	9	3
1.00 X 3.00	3.000	18	37	58	34	78	44	31	93	55	121	67	203	18	14	5
1.00 X 4.00	4.000	24	49	77	46	104	59	42	124	73	162	90	270	24	18	6
1.50 X 1.00	1.500	9	18	29	17	39	22	16	47	27	61	34	101	9	7	2
1.50 X 1.50	2.250	14	27	43	26	58	33	24	70	41	91	50	152	14	10	4
1.50 X 2.00	3.000	18	37	58	34	78	44	31	93	55	121	67	203	18	14	5
1.50 X 3.00	4.500	27	55	86	52	117	67	47	140	82	182	101	304	27	21	7
1.50 X 4.00	6.000	36	73	115	69	155	89	63	186	110	243	134	406	36	27	10
2.00 X 1.00	2.000	12	24	38	23	52	30	21	62	37	81	45	135	12	9	3
2.00 X 1.50	3.000	18	37	58	34	78	44	31	93	55	121	67	203	18	14	5
2.00 X 2.00	4.000	24	49	77	46	104	59	42	124	73	162	90	270	24	18	6
2.00 X 3.00	6.000	36	73	115	69	155	89	63	186	110	243	134	406	36	27	10
2.00 X 4.00	8.000	48	98	154	92	207	118	84	248	146	324	179	541	49	37	13
2.00 X 5.00	10.000	60	122	192	114	259	148	105	310	183	405	224	676	61	46	16
2.50 X 2.00	5.000	30	61	96	57	130	74	52	155	91	202	112	338	30	23	8
2.50 X 3.00	7.500	45	92	144	86	194	111	79	233	137	304	168	507	46	34	12
2.50 X 4.00	10.000	60	122	192	114	259	148	105	310	183	405	224	676	61	46	16
3.00 X 1.00	3.000	18	37	58	34	78	44	31	93	55	121	67	203	18	14	5
3.00 X 2.00	6.000	36	73	115	69	155	89	63	186	110	243	134	406	36	27	10
3.00 X 3.00	9.000	54	110	173	103	233	133	94	279	165	364	201	609	55	41	14
3.00 X 4.00	12.000	72	146	230	137	311	177	126	372	219	486	269	811	73	55	19
3.00 X 5.00	15.000	90	183	288	172	389	222	157	465	274	607	336	1014	91	69	24
4.00 X 1.50	6.000	36	73	115	69	155	89	63	186	110	243	134	406	36	27	10
4.00 X 2.00	8.000	48	98	154	92	207	118	84	248	146	324	179	541	49	37	13
4.00 X 3.00	12.000	72	146	230	137	311	177	126	372	219	486	269	811	73	55	19
4.00 X 4.00	16.000	96	195	307	183	415	237	168	496	293	648	358	1082	97	73	26
4.00 X 5.00	20.000	120	244	384	229	518	296	210	620	366	810	448	1352	121	91	32
6.00 X 4.00	24.000	144	293	461	275	622	355	252	744	439	972	537	1623	146	110	39

Formula for Calculating Fill Capacity

Number of wires = $\frac{Duct W x H}{1.75 x (Wire 0.D.)^2} / 2$



United States
Tel: 901.252.8000
800.816.7809
Fax: 901.252.1354

Technical Services Tel: 888.862.3289



Properties of Materials Used in Wiring Duct

PROPERTY	UNITS	ASTM TEST	PVC	HALOGEN FREE
Specific Gravity		D792	1.43	1.10
ZOD	ftlb./in.	D256	2	5.0
Flexural Strength	psi	D790	10,900	12,800
Flexural Modulus	psi	D790	382,000	360,000
Tensile Strength	psi	D638	5,500	7,800
Compressive Strength	psi	D695	8,600	16,000
Vater Absorption	24 hrs%	D570	.10	.07
Hardness	Rockwell Duro D	D785 D676	R-111 78	R-115
Dielectric Strength 60Hz, 25° C, s/t	vpm	D149		400
Dielectric Constant		D150		
60Hz, Dry			1.9	2.65
1MHz, Dry				2.64
Olume Resistivity	ohm-cm	D257		1017
leat Deflecting (° F@ 264 psi)	۰F	D648	158	212
Flammability			94 V-0	94 V-1

The above information is believed reliable. The user should, however, check the applicable specifications to verify values.

Rigid Polyvinyl Chloride (PVC)

- · General-purpose material for indoor applications
- UL94 flammability rating of V-0
- UL® Recognized for use in temperatures up to 50° C (122° F)
- · Economical wiring duct material

Halogen Free

- For use in halogen-free or high-temperature applications
- . UL94 flammability rating of V-1
- UL® Recognized for use in higher temperatures up to 95° C (203° F)
- · 20% lighter than PVC



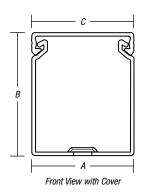
United States

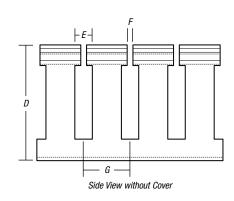
Tel: 901.252.8000

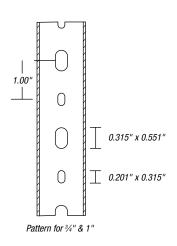
800.816.7809 Fax: 901.252.1354



Ty-Duct * Wide Slot Wiring Duct Dimensions







0 0 0

0 0 0

0 0 0

Pattern for 2" & 21/2"

1.00"

1.00"

1.00"

TRA	DE S	SIZE			DIMENSIONS (INCHES)				
W		Н	Α	В	C	D	E	F	G
.75	Χ	1.00	.94	1.24	.94	1.03	.30	.10	.80
.75	Χ	1.50	.94	1.70	.94	1.50	.30	.10	.80
.75	Χ	2.00	.94	2.19	.94	2.01	.30	.10	.80
1.00	Χ	1.00	1.25	1.24	1.25	1.03	.30	.10	.80
1.00	Χ	1.50	1.25	1.70	1.25	1.50	.30	.10	.80
1.00	Χ	2.00	1.25	2.19	1.25	2.01	.30	.10	.80
1.00	Χ	3.00	1.25	3.14	1.25	2.99	.30	.10	1.00
1.00	Χ	4.00	1.25	4.46	1.25	4.32	.30	.10	1.00
1.50	Χ	1.00	1.75	1.24	1.75	1.03	.30	.10	.80
1.50	Χ	1.50	1.75	1.70	1.75	1.50	.30	.10	.80
1.50	Χ	2.00	1.75	2.19	1.75	2.01	.30	.10	.80
1.50	Χ	3.00	1.75	3.14	1.75	2.99	.30	.10	1.00
1.50	Χ	4.00	1.75	4.46	1.75	4.32	.30	.10	1.00
2.00	Χ	1.00	2.25	1.24	2.25	1.05	.30	.10	.80
2.00	Χ	1.50	2.25	1.70	2.25	1.52	.30	.10	.80
2.00	Χ	2.00	2.25	2.19	2.25	2.03	.30	.10	.80
2.00	Χ	3.00	2.25	3.14	2.25	3.00	.30	.10	1.00
2.00	Χ	4.00	2.25	4.46	2.25	4.33	.30	.10	1.00
2.00	Χ	5.00	2.25	5.15	2.25	5.02	.38	.10	1.33
2.50	Χ	2.00	2.75	2.19	2.75	2.03	.30	.10	.80
2.50	Χ	3.00	2.75	3.14	2.75	3.00	.30	.10	1.00
2.50	Χ	4.00	2.75	4.46	2.75	4.33	.30	.10	1.00
3.00	Χ	1.00	3.25	1.24	3.25	1.06	.30	.10	.80
3.00	Χ	2.00	3.25	2.19	3.25	2.08	.30	.10	.80
3.00	Χ	3.00	3.25	3.14	3.25	3.06	.30	.10	1.00
3.00	Χ	4.00	3.25	4.46	3.25	4.39	.30	.10	1.00
3.00	Χ	5.00	3.25	5.15	3.25	5.06	.38	.10	1.33
4.00	Χ	1.50	4.25	1.70	4.25	1.58	.30	.10	.80
4.00	Χ	2.00	4.25	2.19	4.25	2.08	.30	.10	.80
4.00	Χ	3.00	4.25	3.14	4.25	3.06	.30	.10	1.00
4.00	Χ	4.00	4.25	4.46	4.25	4.39	.30	.10	1.00
4.00	Χ	5.00	4.25	5.15	4.25	5.06	.38	.10	1.33

Pattern for 3", 4" & 6"

Dimensions shown are for reference only. Contact T&B for specific dimensional needs.

6.25

4.46



6.25

6.00 X 4.00

United States Tel: 901.252.8000

4.39

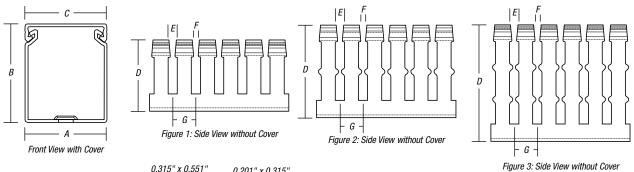
.30

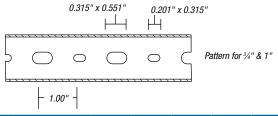
800.816.7809 Fax: 901.252.1354 **Technical Services** Tel: 888.862.3289



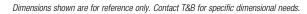
Pattern for 11/2"

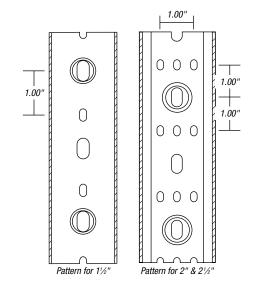
Ty-Duct® **Narrow Slot Wiring Duct Dimensions**

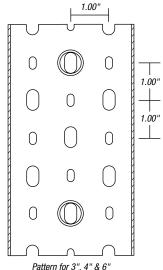




TRADE SIZE DIMENSIONS (INCHES)										
	ADE				1		<u>`</u>			
W		Н	FIG.	Α	В	С	D	E	F	G
.75	Χ	1.50	1	.94	1.70	.94	1.70	.195	.10	.50
1.00	Χ	1.00	1	1.25	1.24	1.25	1.24	.195	.10	.50
1.00	Χ	1.50	1	1.25	1.70	1.25	1.70	.195	.10	.50
1.00	Χ	2.00	2	1.25	2.19	1.25	2.19	.195	.10	.50
1.00	Χ	3.00	3	1.25	3.14	1.25	3.14	.195	.10	.50
1.00	Χ	4.00	3	1.25	4.46	1.25	4.46	.195	.10	.50
1.50	Χ	1.00	1	1.75	1.24	1.75	1.24	.195	.10	.50
1.50	Χ	1.50	1	1.75	1.70	1.75	1.70	.195	.10	.50
1.50	Χ	2.00	2	1.75	2.19	1.75	2.19	.195	.10	.50
1.50	Χ	3.00	3	1.75	3.14	1.75	3.14	.195	.10	.50
1.50	Χ	4.00	3	1.75	4.46	1.75	4.46	.195	.10	.50
2.00	Χ	1.00	1	2.25	1.24	2.25	1.05	.195	.10	.50
2.00	Χ	1.50	1	2.25	1.70	2.25	1.52	.195	.10	.50
2.00	Χ	2.00	2	2.25	2.19	2.25	2.03	.195	.10	.50
2.00	Χ	3.00	3	2.25	3.14	2.25	3.00	.195	.10	.50
2.00	Χ	4.00	3	2.25	4.46	2.25	4.33	.195	.10	.50
2.00	Χ	5.00	3	2.25	5.15	2.25	5.02	.195	.10	.50
2.50	Χ	2.00	2	2.75	2.19	2.75	2.03	.195	.10	.50
2.50	Χ	3.00	3	2.75	3.14	2.75	3.00	.195	.10	.50
2.50	Χ	4.00	3	2.75	4.46	2.75	4.33	.195	.10	.50
3.00	Χ	1.00	1	3.25	1.24	3.25	1.06	.195	.10	.50
3.00	Χ	2.00	2	3.25	2.19	3.25	2.08	.195	.10	.50
3.00	Χ	3.00	3	3.25	3.14	3.25	3.06	.195	.10	.50
3.00	Χ	4.00	3	3.25	4.46	3.25	4.39	.195	.10	.50
3.00	Χ	5.00	3	3.25	5.15	3.25	5.06	.195	.10	.50
4.00	Χ	2.00	2	4.25	2.19	4.25	2.08	.195	.10	.50
4.00	Χ	3.00	3	4.25	3.14	4.25	3.06	.195	.10	.50
4.00	Χ	4.00	3	4.25	4.46	4.25	4.39	.195	.10	.50
4.00	Χ	5.00	3	4.25	5.15	4.25	5.06	.195	.10	.50







Pattern for 3", 4" & 6"

www.tnb.com

United States Tel: 901.252.8000 800.816.7809

Fax: 901.252.1354

Technical Services Tel: 888.862.3289





Wiring Duct Technical Information

Ty-Duct Wiring Duct meets all of the prominent agency approvals and standards.

Agency Approvals

Thomas & Betts Ty-Duct® wiring duct is UL® recognized for all requirements set forth in UL standard 1565 "Positioning Device."



Ty-Duct® wiring duct meets all applicable requirements of the Canadian Standard Association as described in CSA C22.2 No. 18.5.



All Ty-Duct® wiring duct components comply with the European Directives for CE (Conformite European) Marking.



All materials used in the making of the Ty-Duct® wiring duct comply with the European Directives 2002/95/EC (RoHS), 2002/96/EC (WEEE), and 2003/11/EC.

Standards

NFPA-79-2011

Thomas & Betts Ty-Duct® wiring duct is compliant with the National Fire Protection Agency NFPA-79-2011. All materials used in the manufacturing of the Ty-Duct® components are selected from flame-retardant material and comply with IEC 60332-1. The testing is required in order to comply with NFPA-79-2011, Section 13.3.1.

UL 508/UL 508A

As required in UL508/UL508A a factory-installed conductor shall be separated from a conductor used in a different circuit when the conductors are not insulated for the maximum voltage of either circuit. The Ty-Duct® wiring duct with a divider wall creates the required separation to meet this requirement.

DIN 43 659

This European standard specifies dimensions for slotted trunkings installed in electrical switchgear assemblies. The standard defines the following dimensions:

- The mounting hole pattern
- The mounting hole slot dimensions
- The mounting hole pitch and location
- The minimum overall product length



800.816.7809 Fax: 901.252.1354



Carlon® Wiring Trough and Accessories

No wires to pull, no hard-towork-with metal components.

Carlon[®] Wire Safe[®] Wireway and Wiring Trough

Carlon® leads the way with the world's broadest line of non-metallic wiring management products designed for easier installation, greater performance and lower installed cost. That includes our Carlon® Wire Safe® wireway, wiring trough and fittings. It's the perfect solution for containing electrical, electronic and communication wire and cable. That's because it's easy to install, provides durable protection and eliminates the need to pull conductors, too. Just compare it point for point against the competition and you'll see why it's the bestalternative for you.



Easy to Cut and Assemble.

Wireway and trough can be cut easily and cleanly with either a hacksaw or fine-tooth saw to make field fabrication a snap. And it's equally easy to couple components with either Carlon® primer and PVC cement or non-metallic push rivets.

Rugged Yet Lightweight.

UV-stabilized, high-impact resistant PVC provides a strong, durable, non-corrosive, non-conductive housing for wire and cable. At the same time, components are so light and easy to handle that installation can be done by one person.



Application Flexibility.

Wireway and trough are suitable for a wide range of applications, from the most demanding commercial and industrial uses, including food service companies and chemical plants, to communication and computer facilities. Both wireway and trough can be used on walls, ceilings or across supports.

A Complete Non-Metallic System.

Both wireway and trough are available in 2" x 2", 3" x 3", 4" x 4" and 6" x 6" dimensions. Wireway comes cut in easy-to-use 10' lengths for larger jobs, and for tighter spaces, we offer specific lengths of wiring trough to fit distances of 1' to 10'. Both can be used with our non-metallic enclosures, conduit and fittings to create a total non-metallic wire and cable management system far superior to metal counterparts.



No Wires to Pull.

Once your wireway or trough is installed, just lay your wire and cable in, pop the cover on and you're done. It's as easy as that, and that's a lot easier than pulling wire or cable.

Easy to Rewire.

Clip-on cover design enables easy access for adding or removing wire and cable after initial installation.



Improved NEMA 12 Wireway End Caps.

Our new wireway end caps are now made with pre-installed adhesive-backed gaskets. This new design makes them easier to use and also qualifies them for a NEMA 12 rating.



Carlon

Carlon® Wiring Trough and Accessories

Wire Safe® Wireway

CAT. NO.	OUTSIDE NOMINAL DIMENSIONS (IN.)	LENGTH (FT.)	STD. CTN.	STD. WT. (LBS.) PER 10'
17011	2 x 2	10	1	4.7
17013	3 x 3	10	1	11.2
17015	4 x 4	10	1	11.2
17017	6 x 6	10	1	21.4

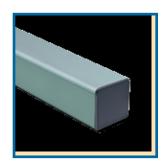
Note: Endcaps are not supplied with this series.

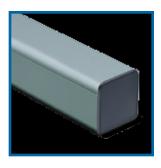


Wire Safe® Wiring Trough

	<u> </u>		
CAT. NO.	OUTSIDE NOMINAL DIMENSIONS (IN.)	STD. CTN.	STD. Wt. (LBS.)
12" Trough			
18111	2 x 2	1	.6
18113	3 x 3	1	1.0
18115	4 x 4	1	1.4
18117	6 x 6	1	3.1
24" Trough			
18211	2 x 2	1	1.1
18213	3 x 3	1	1.8
18215	4 x 4	1	2.6
18217	6 x 6	1	5.3
36" Trough			
18311	2 x 2	1	1.5
18313	3 x 3	1	2.6
18315	4 x 4	1	3.7
18317	6 x 6	1	7.4
48" Trough			
18411	2 x 2	1	2.0
18413	3 x 3	1	3.3
18415	4 x 4	1	4.8
18417	6 x 6	1	9.6
60" Trough			
18511	2 x 2	1	2.5
18513	3 x 3	1	4.1
18515	4 x 4	1	5.9
18517	6 x 6	1	11.7
72" Trough			
18611	2 x 2	1	2.9
18613	3 x 3	1	4.9
18615	4 x 4	1	7.1
18617	6 x 6	1	13.8
120" Trough			
18011	2 x 2	1	4.8
18013	3 x 3	1	8.1
18015	4 x 4	1	11.6
18017	6 x 6	1	22.4
All wiring trough ic made	to order and is supplied with a pair	of and cane	

All wiring trough is made to order and is supplied with a pair of end caps.









United States Tel: 901.252.8000

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services** Tel: 888.862.3289







Carlon[®]

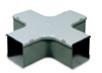
Except where noted by ►

Carlon[®] Wiring Trough and Accessories

Wire Safe® Fittings

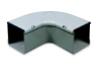
Flat Cross (Clip-On Cover)

	SIZE	STD.	STD. WT.
CAT. NO.	(IN.)	CTN.	(LBS.)
EGFCJ *	2 x 2	1	.5
EGFCL *	3 x 3	1	1.3
EGFCN †	4 x 4	1	1.7
EGFCR †	6 x 6	1	4.8



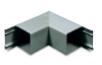
90° Bend Flat Cover (Clip-On Cover)

CAT. NO.	SIZE (IN.)	STD. CTN.	STD. WT. (LBS.)
EGLFJ*	2 x 2	1	.3
EGLFL *	3 x 3	1	.6
EGLFN †	4 x 4	1	1.1
EGLFR †	6 x 6	1	3.3



90° Bend External Cover (Clip-On Cover)

CAT. NO.	SIZE (IN.)	STD. CTN.	STD. WT. (LBS.)
EGLEJ *	2 x 2	1	.3
EGLEL †	3 x 3	1	.8
EGLEN †	4 x 4	1	1.2
EGLER †	6 x 6	1	3.3



Flange

CAT. NO.	SIZE (IN.)	STD. CTN.	STD. WT. (LBS.)
EGFJ ►	2 x 2	10	1.1
EGFL ►	3 x 3	10	1.4
EGFN ►	4 x 4	10	2.2
EGFR ►	6 x 6	10	3.0



End Cap (UL NEMA 12 Rated)

	SIZE	STD.	STD. WT.
CAT. NO.	(IN.)	CTN.	(LBS.)
EGSEJ *	2 x 2	10 Pair	.6
EGSEL *	3 x 3	10 Pair	.9
EGSEN *	4 x 4	10 Pair	1.6
EGSER #	6 x 6	10 Pair	5.0



External Coupling

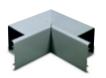
CAT. NO.	SIZE (IN.)	STD. CTN.	STD. WT. (LBS.)
EGCEJ	2 x 2	10	1.3
EGCEL	3 x 3	10	2.2
EGCEN	4 x 4	10	2.5
EGCER	6 x 6	10	7.8



E151021

90° Bend Internal Cover (Clip-On Cover)

	SIZE	STD.	STD. WT.
CAT. NO.	(IN.)	CTN.	(LBS.)
EGLIJ *	2 x 2	1	.3
EGLIL †	3 x 3	1	.7
EGLIN †	4 x 4	1	1.1
EGLIR †	6 x 6	1	3.0



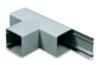
Tee Flat Cover (Clip-On Cover)

	SIZE	STD.	STD. WT.
CAT. NO.	(IN.)	CTN.	(LBS.)
EGTFJ *	2 x 2	1	.4
EGTFL *	3 x 3	1	.9
EGTFN †	4 x 4	1	1.4
EGTFR †	6 x 6	1	3.8



Tee External Cover (Clip-On Cover)

	SIZE	STD.	STD. WT.
CAT. NO.	(IN.)	CTN.	(LBS.)
EGTEJ†	2 x 2	1	.4
EGTEL †	3 x 3	1	.9
EGTEN †	4 x 4	1	1.4
EGTER †	6 x 6	1	3.8



Internal Coupling

CAT. NO.	SIZE (IN.)	STD. CTN.	STD. WT. (LBS.)
EGCIJ ►	2 x 2	10	1.3
EGCIL ►	3 x 3	10	2.2
EGCIN ►	4 x 4	10	2.5
_	6 x 6	N/A	N/A



Push Rivets

CAT. NO.	SIZE	STD.	STD. WT.
	(IN.)	CTN.	(LBS.)
EGPR ►	N/A	200	.4



Hangers

CAT. NO.	SIZE (IN.)	STD. CTN.	STD. WT. (LBS.)
EGSBJ ►	2 x 2	10	.9
EGSBL ►	3 x 3	10	1.3
EGSBN ►	4 x 4	10	1.9
EGSBR ►	6 x 6	10	2.8



* Molded fitting — couplings not needed

† Fabricated fitting — order couplings separately

** No coupling is required for 6" fabricated end cap



800.816.7809 Fax: 901.252.1354





www.aboveboardelectronics.com







Wiring Trough Technical Information

Installation Instructions

Description.

Carlon® Wire Safe® Wireway and Wiring Trough is manufactured from extruded PVC. The standard color is gray. The wireway consists of a base channel that is formed to receive a clip-on cover. Wiring troughs include a pair of ready-to-install end caps.

Cover Installation and Removal.

The cover can be installed by exerting hand pressure along its front face in such a manner as to engage and clip projections on the side walls of the base channel. The cover can be removed by inserting a tool (i.e., a screwdriver shaft) into one end of the wireway enclosure and exerting pressure against the underside of the cover, which is then "peeled off" from the base.

Wireway Fittings.

Fittings enable the wireway to be positioned around corners and enable tees and crosses to be created without detracting from the protective characteristics. Interconnecting pieces can be assembled using couplings and rivets or cement as necessary.

Molded fittings do not require couplings because they fit on the exterior of the wireway. However, primer and solvent cement are needed. See cementing instructions on the following page.

Fabricated fittings do require internal or external couplings, and these must be ordered separately. To install fittings, a ½2"-diameter hole should be drilled in the wireway to match the external coupling hole. A push rivet should be used to connect the two pieces. To connect an internal coupling to the inside of a fitting, use Carlon® Quick-Set Clear Cement.

Applications.

These systems are designed for use in commercial and industrial areas. They may be used for the containment of electrical wiring/cables for power and lighting circuits and also communication and computer facilities. They are suitable for mounting on the surface of walls or ceilings or suspended across suitably positioned supports. Ambient temperatures should not exceed 122° F.

Installation.

- 1. Mark the surface upon which the wireway is to be mounted.
- 2. Measure the run and identify position of fittings.
- Remove cover from wireway, starting at one end, with a peeling action (use of a screwdriver or similar lever is recommended).
- 4. Drill mounting holes through base at 36" centers maximum. To evenly distribute the load, drill two rows of mounting holes adjacent to each wall of the wireway.
- The holes in the wireway should be drilled oversize to enable expansion. Mount washers under the head of the mounting device. Do not fully tighten the mounting head.
- 6. Mount the wireway using screws or bolts.
- Affix the wireway cover by aligning it to the wireway base. Starting at one end, press the cover into its engaged position.
- **8.** Overlap the cover to the base joint to improve rigidity of the joint.

Engineering Specifications

Code Approvals.

Carlon® Wire Safe® Wireway and Wiring Trough is recognized by the current National Electrical Code®, Article 378, for non-metallic wireways. It is UL Listed for electrical wiring up to 600 volts. UL File Numbers: UL E151021.

Specification for Carlon® Wire Safe Wireway and Wiring Trough.

- The wireway and wiring troughs shall be Carlon[®] Wire Safe Wireway and Wiring Trough.
- The Carlon® Wire Safe Wireway and Wiring Trough shall provide protection for electrical, low-voltage, data and communication wiring or cables.
- The Carlon® Wire Safe Wireway and Wiring Trough shall be listed and installed per the NEC® Article 378 for non-metallic wireways.
- The Carlon® Wire Safe Wireway and Wiring Trough shall be manufactured from gray precision-extruded Polyvinyl Chloride (PVC) meeting UL 94 V-O requirements and shall be suitable for field painting.
- The Carlon® Wire Safe Wireway and Wiring Trough shall include base, cover, fittings, etc.
- The Carlon® Wire Safe Wireway and Wiring Trough shall provide all fittings required to form a complete, integrated surface raceway system. End caps shall be gasketed and shall have a NEMA Type 12 rating.

 The Carlon® Wire Safe Wireway and Wiring Trough shall provide raceway with the following cross sectional areas:

1. 2 x 2 — 3.165 in.² (20.4 cm²) **3.** 4 x 4 — 13.694 in.² (88 cm²)

2. 3 x 3 — 7.378 in.² (47 cm²) **4.** 6 x 6 — 31.871 in.² (205 cm²)

Fittings.

Internal and external elbow shall be a fitting cover that snaps onto the main base. Flat elbows and flat tees shall be a fitting cover that snaps on to the main base. End caps shall be gasketed and NEMA Type 12 rated.

Installation.

Install in accordance with the manufacturer's instructions, NFPA 70 and NEC® standard. Install base, cover, fittings, accessories, etc., as necessary for a complete system.

NEC and National Electrical Code are registered trademarks of the National Fire Protection Association, Inc.



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services**

Tel: 888.862.3289





Wiring Trough Technical Information

Cementing Instructions

- Make a square cut using a miter box or precisely marked line on the wireway to provide a smooth connection.
- Make certain surfaces to be bonded are free of dirt, dust, etc., by wiping them clean with a rag and by removing sawcut burrs with a knife or rasp.
- With a dauber, place a coating of Carlon® Clear Primer on the wireway and its mating parts. Thoroughly coat the surfaces to be mated.
- 4. Allow the Carlon® Clear Primer a few seconds to soften the PVC surface (the time may need to be adjusted depending upon the temperature).
- 5. Apply a complete coating of Carlon® Quick-Set Clear Cement to matching ends that will be joined.
- **6.** Hold the parts in position by exerting pressure on the surfaces with clamps.
- 7. Allow 15 minutes or more before removing clamps.

Clear Primer

CAT. NO.	STANDARD Size	STD. CTN.	STD. WT. (LBS.)
VC9903	Pint, Dauber Top	24	27.0
VC9902	Quart, Dauber Top	12	25.0

Cement and primer not needed for end caps.

All-Weather Quick-Set Clear Cement

CAT. NO.	STANDARD Size	STD. CTN.	STD. WT. (LBS.)
VC9984	Half-Pint, Dauber Top	10	7.0
VC9983	Pint, Dauber Top	24	30.0
VC9982	Quart, Dauber Top	12	29.0
VC9981P	Gallon, Pour Top	6	54.0

Expansion And Contraction

Wireway will expand or contract with variations in temperature. To compensate for this expansion and contraction, during installation leave a .25" gap at joint, glue only one side of internal coupling or use external coupling with push rivets. All mounting holes should be drilled oversize and fasteners should not be tightened fully to allow for expansion and contraction.

Materials

PVC Homopolymer (ASTM F1784)	minimum cell class 12354B
Specific Gravity (ASTM D792)	1.46
Thermal Conductivity (ASTM C177)	1.3 BTU/hr./ft.²/°F/in.
Heat-Deflection Temperature	
@ 264 psi (ASTM D648)	70° C
Tensile Strength (ASTM D638)	6000 psi
Flammability (UL 94)	V-0

Physical Properties

SIZE (IN.)	CRUSH STRENGTH ¹ (LBS.)	IMPACT STRENGTH ² (FTLBS.)
2 x 2	650	40
3 x 3	500	30
4 x 4	500	40
6 x 6	600	50

- 1 Load on 6" long sample just prior to wall buckling; fully recoverable.
- 2 5-lb. weight with 11/4" dia. face at 73° F.



Dimensions

OUTSIDE Nominal Size (in.)	OUTSIDE ACTUAL SIZE (IN.)	INSIDE HEIGHT (IN.)	INSIDE Width (in.)	INSIDE Area (In.²)	WIREWAY THICKNESS (IN.)	COVER THICKNESS (IN.)	WT./FT. (LB./FT.)
2 x 2	1.97 x 1.97	1.8	1.79	3.31	.09	.08	.6
3 x 3	2.96 x 2.96	2.8	2.76	7.94	.10	.08	.85
4 x 4	3.94 x 3.94	3.75	3.72	14.39	.11	.08	1.48
6 x 6	5.91 x 5.91	5.67	5.67	13.48	.12	.12	2.29

All information represents typical values and does not represent a minimum performance specification.





Thomas@Betts



Wiring Trough Technical Information

Wire Fill Chart

	AREA	OF CONDU	JCTOR (SQ	. IN.)																	
	A RFH-2,	В	С	D														RS ALLOWE OF THE WII)	
CONDUCTOR SIZE	RH, RHH, RHW***.	TF, THW,	TFN, THHN,	XHHW,		2 x 2 (.6 IN. ²			3 :	x 3 (1	.5 IN.2)		4 x 4 (2.7 IN.	<u>'</u>)		6 x 6 (6.4 IN. ²)
AWG/KCMIL	SF-2***	TW [†]	THWN	ZW ^{††}	Α	В	С	D	A		В	С	D	Α	В	С	D	Α	В	С	D
#18 AWG	.0167	.0088	.0062	_	36	68	96	_	89)	170	241	_	161	306	435	_	383	727	1032	_
#6 AWG	.0196	.0109	.0079	_	31	55	76	_	76	3	137	189	_	137	247	341	_	326	587	810	_
#14 AWG	.0230	.0135	.0087	_	26	44	69	_	6	5	111	172	_	117	200	310	—	278	474	735	_
#14 AWG	.0327*	_	_	_	18	_	_	_	4	5	_	_	_	82	_	_	_	195	_	_	_
#14 AWG	_	$.0206^{\dagger}$	_	.0131	_	29	_	46	_	-	72	_	114	_	131	_	206	_	310	_	488
#12 AWG	.0278	.0172	.0117	_	21	35	51	_	53	3	87	128	_	97	156	230	_	230	372	547	_
#12 AWG	.0384*	_	_	_	16	_	_	_	39	9	_	_	_	70	_	_	_	166	_	_	_
#12 AWG	_	$.0252^{\dagger}$	_	.0167	_	24	_	36	_	-	59	_	89	_	107	_	161	_	253	_	383
#10 AWG	.0460	.0222	.0184	_	13	27	33	_	32	2	67	81	_	58	121	146	_	139	288	347	_
#10 AWG	_	.0311	_	.0216	_	19	_	28	_	-	48	_	69	_	86	_	125	_	205	_	296
#8 AWG	.0845	.0471	.0373	_	7	13	16	_	17	7	31	40	_	31	57	72	_	75	135	171	_
#8 AWG	_	.0598 [†]	_	.0456	_	10	_	13	_	-	25	_	32	_	45	_	59	_	107	_	140
#6 AWG	.1238	.0819	.0519	.0625	4	7	11	10	12	2	18	28	24	21	32	52	43	51	78	123	102
#4 AWG	.1605	.1087	.0845	.0845	4	6	7	7	9		13	17	17	16	24	31	31	39	58	75	75
#3 AWG	.1817	.1263	.0995	.0995	3	5	6	6	8		11	15	15	14	21	27	27	35	50	64	64
#2 AWG	.2067	.1473	.1182	.1182	3	4	5	5	7		10	12	12	13	18	22	22	30	43	54	54
#1 AWG	.2715	.2027	.1590	.1590	2	3	4	4	5		7	9	9	9	13	16	16	23	31	40	40
1/0 AWG	.3107	.2367	.1893	.1893	2	2	3	3	4		6	7	7	8	11	14	14	20	27	33	33
2/0 AWG	.3578	.2781	.2265	.2265	1	2	2	2	4		5	6	6	7	9	11	11	17	23	28	28
3/0 AWG	.4151	.3288	.2715	.2715	1	1	2	2	3		4	5	5	6	8	9	9	15	19	23	23
4/0 AWG	.4840	.3904	.3278	.3278	1	1	1	1	3		4	4	4	5	6	8	8	13	16	19	19
250 kcmil	.5917	.4877	.4026	.4026	1	1	1	1	2		3	3	3	4	5	6	6	10	13	15	15
300 kcmil	.6837	.5581	.4669	.4669	_	1	1	1	2		2	3	3	3	4	5	5	9	11	13	13
350 kcmil	.7620	.6291	.5307	.5307	_	_	1	1	1		2	2	2	3	4	5	5	8	10	12	12
400 kcmil	.8365	.6969	.5931	.5931	_	_	1	1	1		2	2	2	3	3	4	4	7	9	10	10
500 kcmil	.9834	.8316	.7163	.7163	_	_	_	_	1		1	2	2	2	3	3	3	6	7	8	8
600 kcmil	1.1940	1.0261	.8791	.9043	_	_	_	_	1		1	1	1	2	2	3	3	5	6	7	7
700 kcmil	1.3355	1.1575	1.0011	1.0297	_	_	_	_	1		1	1	1	2	2	2	2	4	5	6	6
750 kcmil	1.4082	1.2252	1.0623	1.0936	_	_	_	_	1		1	1	1	1	2	2	2	4	5	6	5
800 kcmil	1.4784	1.2908	1.1234	1.1499	_	_	_	_	1		1	1	1	1	2	2	2	4	4	5	5
900 kcmil	1.6173	1.4208	1.2449	1.2668	_	_	_	_	_	_	1	1	1	1	1	2	2	3	4	5	5
1000 kcmil	1.7530	1.5482	1.3623	1.3893	_	_	_	_	_		_	1	1	1	1	1	1	3	4	4	4
1250 kcmil	2.2062	1.9532		1.7671	_	_	_	_		_	_			1	1		1	2	3	_	3
1500 kcmil	2.5475	2.2751		2.0612										1	1		1	2	2		3
1750 kcmil	2.8832	2.5930	_	2.3779	_	_	_	_		_	_	_	_		1		1	2	2	_	2
2000 kcmil	3.2079	2.9013		2.6590											_		1	1	2		2
ZUUU NUIIII	5.2013	2.3013		2.0000							_						'	1	_		۷.

^{*} Dimensions of RHH and RHW.

Notes:

- 1) The ampacities of the conductors shall be reduced as shown in the table below.
- 2) Refer to the National Electrical Code® for ambient temperature correction factors.

NUMBER OF CONDUCTORS	COLUMN A — PERCENT OF VALUES IN Tables as adjusted for ambient Temperature if necessary	NUMBER OF CONDUCTORS	COLUMN B** — PERCENT OF VALUES IN Tables as adjusted for ambient Temperature if necessary
4 through 6	80	4 through 6	80
7 through 9	70	7 through 9	70
10 through 24*	70	10 through 20	50
25 through 42*	60	21 through 30	45
43 and above*	50	31 through 40	40
_	_	41 through 60	35

^{*} These factors include the effects of a load diversity of 50 percent. ** No diversity.

Thomas@Betts

United States Tel: 901.252.8000

Fax: 901.252.1354

901.252.8000 800.816.7809 **Technical Services**

Tel: 888.862.3289

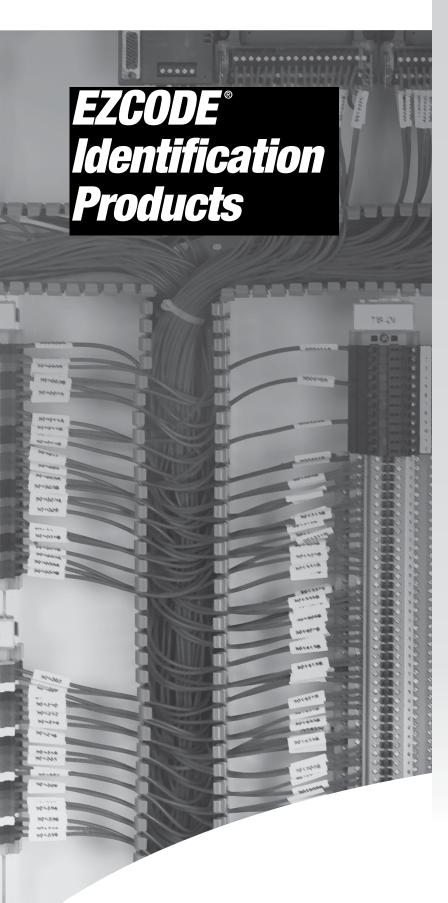


^{***} Dimensions of RHH and RHW without outer covering are the same as THW No. 18 through No. 10, solid as well as No. 8 and larger, stranded.

Dimensions of THW in sizes No. 14 through No. 8. No. 6 THW and larger are same dimension as TW.

^{††} No. 14 through No. 2.

EZCODE®



In this section...



EZCODE® Identification Products

Wire and Cable Marking	D-2–D-19
Tags	
Labels	
Signs	D-36–D-38
Warning Tanes	D-39-D-40





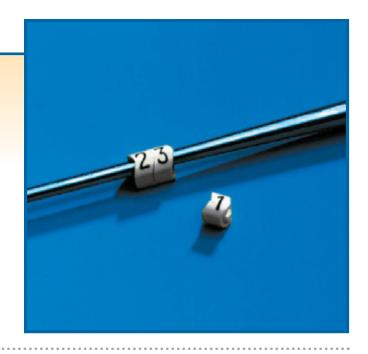


Wire and Cable Marking

Count on EZCODE® solutions for wire markers that are easy to read and stand up to the test of time. We offer printable lable sheets that let you create and print your own wire markers, as well as preprinted wire marker books, cards and sleeve markers.

Sleeve Markers

- Permanently I.D. wires, cables, leads and more
- · Available in a variety of sizes and materials
- · A large print surface provides easy identification
- For more information, see pages D-15-D-19



Wire Marker Books/Cards

- Name components in seconds
- · Choose the numbers or letters you need
- · Carry most books and cards in your shirt pocket
- For more information, see pages D-4-D-14





United States Tech Tel: 901.252.8000 Tel:

800.816.7809 Fax: 901.252.1354 Technical Services
Tel: 888.862.3289





Print your own markers to meet your requirements!

Laser Printable Markers

- Self-laminating markers have a clear overlay of polyester that protects the legend against oils, grease, water, chemicals and foreign matter
- Markers feature a strong adhesive for maximum adhesion to the wire and are available in a variety of sizes, both as standard and specials
- 1 mil polyester (same material as WPR rolls)
- Test template included with each 25 pack
- Sizes to suit most applications



CAT. NO.	SHEET SIZE	MARKERS PER SHEET	MARKER SIZE W x L	PRINT AREA W x L	MAX. WIRE DIA.
WLP-1112	8½" x 11"	48	1" x 1½"	½" x 1"	5∕ ₁₆ "
WLP-1214	8½" x 11"	32	1" x 21/4"	1" x ¾"	15/32"
WLP-12112	8½" x 11"	96	½" x 1½"	1/2" x ½"	5/16"
WLP-12214	8½" x 11"	64	½" x 2½"	½" x ¾"	15/ ₃₂ "
WLP-12300	8½" x 11"	48	½" x 3"	½" x 1"	7/8"
WLP-1300	8½" x 11"	24	1" x 3"	1" x 1"	7/8"
WLP-1500	8½" x 11"	16	1" x 5"	1" x 1"	11/4"
WLP-2112	8½" x 11"	24	2" x 1½"	2½" x 2"	5/16"
WLP-2214	8½" x 11"	16	2" x 21/4"	2 x 3/4"	15/32"
WLP-2300	8½" x 11"	12	2" x 3"	2" x 1"	7∕8"
WLP-2500	8½" x 11"	8	2" x 5"	2" x 1"	11/4"

Order multiple 25 sheets.

Add suffix A for 500 sheets, B for 1,000 sheets.

WLP labels may be used on any standard laser printer.

Dot-Matrix Printer Labels

CAT. NO.	SHEET SIZE	MARKERS PER SHEET	MARKER SIZE W x L	PRINT AREA W x L	MAX. WIRE DIA.
WES-12112	9½" x 8"	64	½" x 1½"	½" x ½"	5/16"
WES-1112	9½" x 8"	32	1" x 1½"	1" x ½"	5/ ₁₆ "
WES-2112	9½" x 8"	16	2" x 1½"	2" x ½"	5/ ₁₆ "
WES-12214	9½" x 9"	48	½" x 21/4"	½" x ¾"	15/ ₃₂ "
WES-1214	9½" x 9"	24	1" x 2½"	1" x ¾"	15/32"
WES-2214	9½" x 9"	12	2" x 21/4"	2" x ¾"	15/32"
WES-12334	9½" x 9"	32	½" x 3¾"	½" x 1"	7/8"
WES-1334	9½" x 9"	16	1" x 3¾"	1" x 1"	7/8"
WES-2334	9½" x 9"	8	2" x 3¾"	2" x 1"	7/8"
WES-2512	9½" x 12"	8	2" x 5½"	2" x 1"	1½"
WES-2128	9½" x 9"	3	2½" x 8½"	2½" x 2"	2"

Order multiple 25 sheets.

WES labels may be used on any standard dot-matrix printer.



United States
Tel: 901.252.8000
800.816.7809

Fax: 901.252.1354

Technical Services Tel: 888.862.3289







Vinyl Cloth Wire Marker Books

Standard Wire Marker Books

- Wide selection of sizes and legends
- Standard books are 3" x 51/2" with 10 pages per book
- High-quality vinyl cloth material resists abrasion, oil, water and dirt
- Includes wire marker and terminal marker on one label



Standard Books

CAT. NO.	LEGENDS	NO. MARKERS PER LEGEND
WM-0 THRU 9	0 through 9;	40
	T1, T2, T3, L1, L2, L3	10
WM-0-9M	0 through 9 (full page each number)	46
WM-0-45	0 through 45	10
WM-46-90	46 through 90	10
WM-A-Z	A through Z, +, -, 0 through 15	10
WM-123	1, 2, 3	150
WM-ABC	A, B, C	150
WM-A-33	1 through 33, A, B, C, +, -, T1, T2, T3, L1, L2, L3	10
WM-A-90	0 through 15;	6
	16 through 90;	4
	A through Z	2
WM-0 THRU WM-9	Any number: 0 through 9	460
WM-A, -B, -C, -D, -E, -F, -G, -L, -N, -P, -R, -S, -T, OR -X	Any letter: -A, -B, -C, -D, -E, -F, -G, -L, -N, -P, -R, -S, -T or -X	460
WM-GRD	GRD (1/16" x 21/2")	120
	or GRD (7/16" x 11/4")	240
WMLC-1	24 house wiring and circuit breaker legends	
	(5/8" X 13/32")	20
WM-T3	T1, T2, T3	140
WM-L3	L1, L2, L3	140
WM-9T	1, 2, 3, A, B, C;	42
	T1, T2, T3; L1, L2, L3	28
WM-1-30	1 through 30	14
WM-12	A through Z;	14
	Blank Write-Ons;	22
	+, -	7
WM-13	+, -, AC, DC;	46
	Pos. Neg. GND;	28
	Spare, Neut., Blank Write-Ons	22
WM-0-90	0 through 45; 46 through 90	5
Order multiple 10 books	for Standard Books	



Compact Wire Marker Books

- Bold letters/numbers easy to apply and read
- · Convenient alphanumeric and load-center legends
- E-Z Snap feature allows removal of the entire sheet from the book more easily

Compact Books

CAT. NO.	LEGENDS	NO. MARKERS PER LEGEND
WCMB-0-9	0 through 9, A, B, C, +, - (1/4" x 11/2")	128
WCMB-LC	Load Center Labels (11/32 x 3/4")	176
Order multiple 20 b	ooks for Compact Books	





Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354



Tel: 888.862.3289



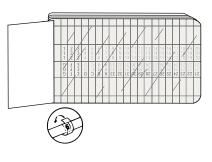






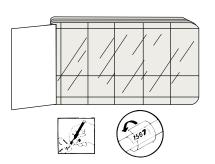
Vinyl Self-Laminating Books

CAT. NO.	LEGENDS	NO. MARKERS PER LEGEND
WMSL 1-33, A-G	1/4" x 11/4" – printed area 5/6"; 1 through 33 and A through G	10
WMSL-0-9	0 through 9;	40
	T1, T2, T3, L1, L2, L3	10
WMSL-0-45	0 through 45	10
WMSL-46-90	46 through 90;	10
WMSL-A-Z	A through Z; +, -, 0 through 15	10
WMSL-A-90	0 through 15;	6
	16 through 90;	4
	A through Z	2



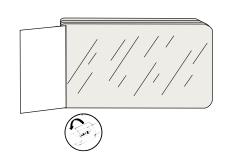
Vinyl Self-Laminating, Blank Write-On Books

CAT. NO.	LEGENDS	NO. MARKERS PER LEGEND
WM-BW3	1" x 6" blank write-on self-laminating markers; marking area: 1" x 1"	30
WM-BW5	1" x 3" blank write-on, self laminating markers; marking area: 1" x 3/4"	60
WM-BW12	½" x 1¼" blank write-on, self laminating markers; marking area: ½" x 5%"	200
WM-BW14	1/4" x 11/4" blank write-on, self-laminating markers; marking area: 1/4" x 5/8"	400
WM-BW34	3/4" x 13/4" blank write-on, self-laminating markers; marking area: 3/4" x 1/2"	120



Vinyl Self-Laminating, Standard Laminator Book

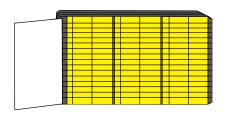
CAT. NO.	LEGENDS	NO. MARKERS PER LEGEND
WM-LAM	3½" x 5" Clear Cable Laminators	50



Vinyl, Color-Coding Standard books

- Available in two sizes
- · Color your wires for coding and other applications

CAT. NO.	LEGENDS	NO. MARKERS PER LEGEND
WM-COL14	1/4" x 11/4" 1 page yellow and blue; 2 pages red, white, green and black	460
WM-COL1	1" x 21/4" 1 page yellow and blue; 2 pages red, white, green and black	50





United States Tel: 901.252.8000

800.816.7809 Fax: 901.252.1354







.aboveboardelectronics.com

Make identification clean and fast! Just pull out tape, tear and wrap.

Wire Marker Dispenser

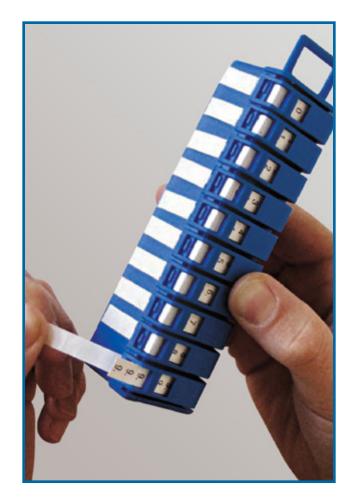
- · Compact size fits in your pocket or hangs from work belt
- Unique design enables easy access to all legends during use or when refilling
- Holds 760 markers 10 rolls of 76 markers each
- Markers are pre-cut, 1¼"-long, oil- and water-resistant polyester with acrylic adhesive

Dispenser

CAT. NO.	DESCRIPTION	STD. PKG. QTY.
WDFP-0-9	Loaded Dispenser with Legends 0 through 9	1
WDFP-NEMA	Loaded Dispenser with 10 NEMA Colors	1
WDFP	Empty Dispenser	1

Polyester Tape Refills for Dispenser

CAT. NO.	LEGEND	LABEL COLOR	ROLLS PER Legend
WDFPR-0	0	White	10
WDFPR-1WDFPR-9	1, 29	White	10
WDFPR-0-9	09	White	1
WDFPR-10-19	1019	White	1
WDFPR-AWDFPR-Z	A, BZ	White	10
WDFPR-L1	L1	White	10
WDFPR-L2	L2	White	10
WDFPR-L3	L3	White	10
WDFPR-T1	T1	White	10
WDFPR-T2	T2	White	10
WDFPR-T3	T3	White	10
WDFPR-MIN	_	White	10
WDFPR-PLS	+	White	10
WDFPR-YEL	BLANK	Yellow	10
WDFPR-WHT	BLANK	White	10
WDFPRL-BLK	BLANK	Black	10
WDFPR-BRN	BLANK	Brown	10
WDFPR-BLU	BLANK	Blue	10
WDFPR-GRN	BLANK	Green	10
WDFPR-RED	BLANK	Red	10









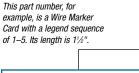


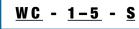
Fax: 901.252.1354





Vinyl Cloth Wire Marker Cards





Card Type

WC = Wire Marker Card

WS = Vinyl Self-Laminating

Legend

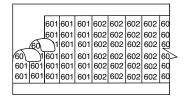
Single Character = 1, 2, 3, etc.

Sequence = 1–33, 34–66, etc.

Length

 $S = 1\frac{1}{2}$ " $D = \frac{3}{4}$ "

Numbers in Sequence



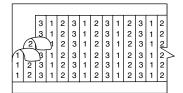
Solid Numbers on a Colored Background



Solid Letters and Numbers



Numbers in Sequence Repeated



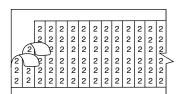
Numbers in Sequence on a Colored Background



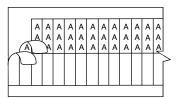
Voltage Markers



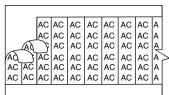
Solid Numbers



Solid Letters



Solid Symbols — Miscellaneous Electrical Symbols



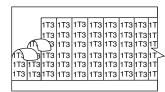
Paired Numbers in Sequence

															l
			2	2	3	3	4	4	5	5	<u>6</u>	<u>6</u>	7	7	
		_	2	2	3	3	4	4	5	5	6	6	7	7	l
		1	1	Þ	3	3	4	4	5	5	<u>6</u>	6	7	7	
1	1	١	B	2	3	3	4	4	5	5	6	6	7	7	>
	1	1	2	2	3	3	4	4	5	5	6	6	7	7	l
	1	1	2	2	3	3	4	4	5	5	<u>6</u>	6	7	7	l
İ															ı

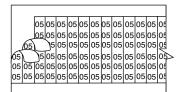
Letters in Sequence

	C	D	E	F	G	Н	1	J	K	L	<u>M</u>	Ν
_	C	D	E	F	G	Н	1	J	K	L	М	Ν
B	١	ď	E	F	G	Н	1	J	Κ	L	M	Ñ
$\bigcap_{i=1}^{\infty}$	7											\Box
	۲ ا											
					_						_	_

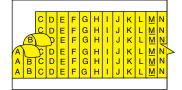
Solid Machine Tool Markers



Suffix Numbers



Letters in Sequence on a Colored Background



Machine Tool Markers in Sequence





United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354

Technical Services

Tel: 888.862.3289







Vinyl Cloth Wire Marker Cards (continued)

			MARKERS PER CARD	OR PAIRS PER CARD	_
CAT. NO.	STYLE	LEGEND	1-½" (38MM)	¾" (19MM)*	DESCRIPTION (IF NEEDED)
VC1-THRU-33S		1–33	33	66	_
VC34-THRU-66S		34–66	33	66	_
C67-THRU-99S		67–99	33	66	_
C100-THRU-124S	Numbers in Sequence	100–124	25	50	_
C125-THRU-149S		125–149	25	50	_
C974-THRU-999S		974–999	25	50	_
C1-THRU-3S		1–3	36	72	_
C1-THRU-4S		1–4	36	72	_
C1-THRU-5S		1–5	35	70	_
CO-THRU-10S	Numbers in Sequence	0–10	33	66	_
C1-THRU-12S	Repeated	1–12	36	72	_
C1-THRU-18S		1–18	36	72	_
C19-THRU-36S		19–36	36	72	_
CZEROS		0	36	72	_
C1S, WC2S THRU WC99S		1, 299	36	72	_
C101S, 2C102S THRU	Solid Numbers	101, 102600	25	50	_
C600S		101, 102000	20	30	
C1 THRU 16PS	Defined Month one in	1–16	16	32	_
C17 THRU 32PS	Paired Numbers in	17-32	16	32	_
C33 THRU 48PS	Sequence	33-48	16	32	_
COOS		00	36	72	Cat. No. WC0009S has three sequer
CO1S, WCO2S THRU WCO9S	Suffix Numbers	01, 0209	36	72	of 0009 per card. Cat. No. WC000
C0009S		0009	30	60	has six sequences of 0009 per ca
CBLZEROS		0	36	72	W
CBL1SWCBL50S		150	36	72	White Legend on Blue Background
CGRZEROS		0	36	72	
CGR1SWCGR50S		150	36	72	White Legend on Green Backgrour
CORZEROS	Solid Numbers on a	0	36	72	
COR1SWCOR50S	Colored Background	150	36	72	Black Legend on Orange Backgroui
CRDZEROS		0	36	72	
CRD1SWCRD50S		150	36	72	White Legend on Red Background
CYLZEROS		0	36	72	
CYL1SWCYL50S		150	36	72	Black Legend on Yellow Backgrour
CBK1-33S		1-33	33	66	
CBK34-66S	Numbers in Sequence	34-66	33	66	
CBK67-99S	on a Colored	67-99	33	66	White Legend on Black Backgroun
CBK100-124S	Background	100-124	25	50	
CBL1-33S		1–33	33	66	
CBL34-66S	Numbers in Sequence	34–66	33	66	
CBL67-99S	on a Colored	67–99	33	66	White Legend on Blue Background
CBL100-124S	Background	100–124	25	50	
CBR1-33S		1–33	33	66	
CBR34-66S	Numbers in Sequence	34–66	33	66	
CBR67-99S	on a Colored	67–99	33	66	White Legend on Brown Backgroui
CBR100-124S	Background	100–124	25	50	
CGR1-33S		1–33	33	66	
CGR34-66S	Numbers in Sequence	34–66	33	66	
Juli34-003	on a Colored	67–99	33	66	White Legend on Green Backgrour
CGR67-99S	Background				

Note: Order multiple 25 cards.

^{*} When ¾" length markers are required, replace the last S in the catalog number with a D. For example, WC1S would become WC1D.



United States Tel: 901.252.8000

800.816.7809 Fax: 901.252.1354 **Technical Services** Tel: 888.862.3289







			MARKERS PER CARD	OR PAIRS PER CARD	DESCRIPTION (IF NEEDED)	
CAT. NO.	STYLE	LEGEND	1-½" (38MM)	¾" (19MM)*		
WCRD1-33S		1–33	33	66		
WCRD34-66S	Numbers in Sequence	34-66	33	66	MI ''	
WCRD67-99S	on a Colored	67–99	33	66	White Legend on Red Background	
WCRD100-124S	Background	100-124	25	50		
WCOR1-33S		1–33	33	66		
WCOR34-66S	Numbers in Sequence	34–66	33	66		
WCOR67-99S	on a Colored	67–99	33	66	Black Legend on Orange Background	
WCOR100-124S	Background	100-124	25	50		
WCYL1-33S		1–33	33	66		
WCYL34-66S	Numbers in Sequence	34–66	33	66		
WCYL67-99S	on a Colored	67–99	33	66	Black Legend on Yellow Background	
WCYL100-124S	Background	100–124	25	50		
WCAS		A	36	72	_	
WCBSWCZS		BZ	36	72	_	
WCLAS	Solid Letters	a	36	72	_	
WCLBSWCLZS		bz	36	72	_	
WCAZAJS		A–Z plus A–J	36	72	_	
WCAZ09S	Letters in Sequence	A–Z plus 0–9	36	72	_	
WCLAZAJS	Lottors in ocquerioc	a–z plus a–j	36	72	_	
WCBKA-ZS		A–Z plus A–J	36	72	White Legend on Black Background	
WCBLA-ZS		A–Z plus A–J	36	72	White Legend on Dark Blue Background	
WCBRA-ZS	Latters in Common	A–Z plus A–J	36	72	White Legend on Brown Background	
WCGRA-ZS	Letters in Sequence on a Colored	A–Z plus A–J	36	72	White Legend on Dark Green Background	
WCRDA-ZS	Background	A-Z plus A-J	36	72	-	
	Dackground				White Legend on Red Background	
WCORA-ZS		A–Z plus A–J	36	72	Black Legend on Yellow Background	
WCYLA-ZS		A–Z plus A–J	36	72	Black Legend on Orange Background	
WCA1SWCA5S		A1A5	36	72	_	
WCB1SWCB5S		B1B5	36	72	_	
WCC1SWCC5S		C1C5	36	72	_	
WCD1SWCD5S		D1D5	36	72	_	
WCE1SWCE5S		E1E5	36	72	_	
WCF1SWCF4S		F1F4	36	72	_	
WCG1SWCG4S		G1G4	36	72	_	
WCH1SWCH5S		H1H5	36	72	_	
WCJ1SWCJ4S		J1J4	36	72	_	
WCK1SWCK4S		K1K4	36	72	_	
WCL1SWCL5S	Solid Letters and	L1L5	36	72	_	
WCM1SWCM5S	Numbers	M1M5	36	72	_	
WCP1SWCP4S	140/110010	P1P4	36	72	_	
WCR1SWCR5S		R1R5	36	72	_	
WCS1SWCS5S		S1S5	36	72	_	
WCTOSWCT9S		T0T9	36	72	_	
WCT10SWCT15S		T10T15	36	72	_	
WCU1SWCU2S		U1U2	36	72	_	
WCV1SWCV2S		V1V2	36	72	_	
WCW1SWCW2S		W1W2	36	72	_	
WCX1SWCX4S		X1X4	36	72	_	
WCY1SWCY4S		Y1Y4	36	72	_	
WCZ1SWCZ4S		Z1Z4	36	72	_	

Note: Order multiple 25 cards.

^{*} When ¾" length markers are required, replace the last S in the catalog number with a D. For example, WC1S would become WC1D.





Thomas@Betts

1-800-453-1692



Vinyl Cloth Wire Marker Cards (continued)

			MARKERS PER CARD	OR PAIRS PER CARD	
CAT. NO.	STYLE	LEGEND	1-½" (38MM) ¾" (19MM)*		DESCRIPTION (IF NEEDED)
WC3VS		3V	36	72	_
VC6VS		6V	36	72	_
VC12VS		12V	25	50	_
VC24VS		24V	25	50	_
VC110VS		110V	22	44	_
VC115VS		115V	22	44	_
VC120VS		120V	22	44	_
/C125VS		125V	22	44	_
/C180VS	Voltage Markers	180V	22	44	_
/C220VS	, and the second	220V	22	44	_
/C230VS		230V	22	44	_
/C240VS		240V	22	44	_
C270VS		270V	22	44	_
/C280VS		280V	22	44	<u> </u>
C440VS		440V	22	44	_
C460VS		460V	22	44	_
/C480VS		480V	22	44	_
/CPLSS		+	36	72	
CMINS		-	36	72	
CAPLSS		A+	25	50	_ _
CAMINS		A-	25	50	
CBPLSS		B+	25	50	_
CBMINS		Б+ В-	25 25	50	_
CPOSS					_
		POS	25	50	_
CNEGS		NEG	25	50	_
CPHS		Phase	18	36	_
CPHAS		Phase A	18	36	_
CPHBS		Phase B	18	36	_
CPHCS		Phase C	18	36	_
C1PHS		1 Phase	18	36	_
C2PHS		2 Phase	18	36	_
C3PHS		3 Phase	18	36	_
CINS	Solid Miscellaneous	IN	36	72	_
COUTS	Electrical Symbols	OUT	25	50	_
CHOTS		НОТ	25	50	_
CGRDS		GRD	25	50	_
CNEUTS		NEUT	22	44	_
CLINES		LINE	22	44	_
CLPLS		L+	25	50	_
CLMIS		L-	25	50	_
CLOADS		LOAD	22	44	_
CPUS		PU	36	72	_
CGRCS		-	36	72	_
CGENS		GEN	25	50	_
ICACS		AC	36	72	_
CDCS		DC	36	72	_
CCOMS		COM	25	50	_
CBATS		BAT	25	50	_
/CBBS		BB	36	72	<u>_</u>

Note: Order multiple 25 cards.

* When ¾" length markers are required, replace the last S in the catalog number with a D. For example, WC1S would become WC1D.



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354

Technical Services Tel: 888.862.3289









			MARKERS PER CARD OR PAIRS PER CARD		
CAT. NO.	STYLE	LEGEND	1-1/2" (38MM)	¾" (19MM)*	DESCRIPTION (IF NEEDED)
/CCBS		СВ	36	72	_
/CCTS		CT	36	72	_
VCIGNS		IGN	25	50	_
VCSIGS		SIG	25	50	_
VCSECS		SEC	25	50	_
VCPSS		PS	36	72	_
/CPRIS		PRI	25	50	_
/CPLSS		PL	36	72	_
VCTBS		TB	36	72	_
ICSSS	Calid Missallanasus	SS	36	72	_
/CSPARES	Solid Miscellaneous Electrical Symbols	SPARE	18	36	_
CCYSS	Electrical Symbols	~	36	72	_
/CGRSS		-	36	72	_
/CPES		PE	36	72	_
VCPENS		PEN	25	50	_
/C1US		1U	36	72	_
/C2US		2U	36	72	_
/C1VS		1V	36	72	_
VC2VS		2V	36	72	_
VC1WS		1W	36	72	_
VC2WS		2W	36	72	_
VC1L1S		1L1	25	50	_
VC1L2S		1L2	25	50	_
/C1L3S		1L3	25	50	_
/C2L1S		2L1	25	50	_
/C2L2S		2L2	25	50	_
/C2L3SWC6L1S		2L36L1	25	50	_
VC6L2S		6L2	25	50	_
/C6L3S		6L3	25	50	_
/C1T1S		1T1	25	50	_
/C1T2S	Solid Machine Tool	1T2	25	50	_
VC1T3S	Markers	1T3	25	50	_
VC2T1S		2T1	25	50	_
VC2T2S		2T2	25	50	_
/C2T3SWC7T1S		2T37T1	25	50	_
VC7T2S		7T2	25	50	_
/C7T3S		7T3	25	50	_
VCLL1S		LL1	25	50	_
VCLL2S		LL2	25	50	_
/CLL3S		LL3	25	50	_
/C1T1-3T3S		1T1, 1T2, 1T3, 2T1, 2T2,	27	54	_
		2T3, 3T1, 3T2, 3T3	_,	Ŭ.	
VC4T1-6T3S		4T1, 4T2, 4T3, 5T1, 5T2,	27	54	_
	Machine Tool Markers	5T3, 6T1, 6T2, 6T3		•	
VC7T1-9T3S	in Sequence	7T1, 7T2, 7T3, 8T1, 8T2,	27	54	_
	· ·	8T3, 9T1, 9T2, 9T3			
VCLL1-LL3S		LL1, LL2, LL3	27	54	_
VCA1-S2S		A1, A2, F1, F2, S1, S2	36	72	_

Note: Order multiple 25 cards.

^{*} When ¾" length markers are required, replace the last S in the catalog number with a D. For example, WC1S would become WC1D.



Fax: 901.252.1354





Thomas@Betts



Identify smaller items, such as terminal blocks and small wires.

Vinyl Cloth Mini Markers

Terminal Block

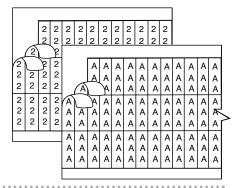
		MARKERS PER CARD
CAT. NO.	LEGEND	MARKER SIZE 1/6" x 1/6"
WC1-48TM	1, 2 through 48	144
WC49-96TM	49, 50 through 96	144
WCA-ZTM	A, B through Z *	144
Order multiple 25 cards		

(1) (2) (3) (4) (5) (6) (7) (8) (9) (10) (2) (26) (27) (28) (29) (30) (31) (32) (33) (34) (1) (2) (26) (27) (28) (29) (30) (31) (32) (33) (34) (1) (2) (3) (4) (5) (6) (7) (8) (9) (10) (25) (26) (27) (28) (29) (30) (31) (32) (33) (34) (25) (26) (27) (28) (29) (30) (31) (32) (33) (34)

Solid Numbers and Solid Letters

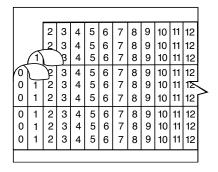
* A through Z legend does not include "I" or "O."

		MARKERS PER CARD
CAT. NO.	LEGEND	½" (13MM)
Solid Numbers		
WCZEROMINWC99MIN	0, 1,99	150
WC100MINWC250MIN	100, 101250	99
Solid Letters		
WCAMIN	A	150
WCBMINWCZMIN Order multiple 25 cards.	B,C Z	150



Numbers in Sequence

		MARKERS PER CARD
CAT. NO.	LEGEND	½" (13MM)
WCO-49MIN	0, 1 49	150
WC50-99MIN	50, 5199	150
WC100-132MIN	100, 101132	99
WC133-165MIN THRU WC463-495MIN	133, 134495	99
Order multiple 25 cards.		

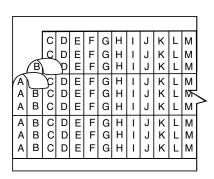


Letters in Sequence

Quantity of each number per card — 3.

		MARKERS PER CARD
CAT. NO.	LEGEND	½" (13MM)
WCAZMIN	A, BZ	156

Order multiple 25 cards.





United States Tel: 901.252.8000

800.816.7809 Fax: 901.252.1354









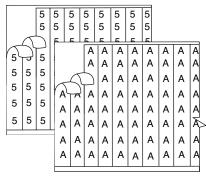


Identify large conductors, cables and tubing for hydraulic systems.

Vinyl Cloth Cable Markers

Solid Numbers or Letters

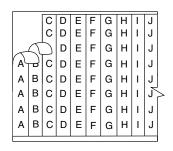
		MARKERS	PER CARD
CAT. NO.	LEGEND	3½" (89MM)	1¾" (45MM)*
Solid Letters			
WCCMAS	Α	18	36
WCCMBS	В	18	36
WCCMCS	С	18	36
WCCMDS	D	18	36
WCCMES	E	18	36
WCCMFS	F	18	36
WCCMNS	N	18	36
Solid Numbers			
WCCMOS	0	18	36
WCCM1S, WCCM2S WCCM9S Order multiple 25 cards.	1, 29	18	36



^{*} When 13/4" length markers are required, replace the last S in the part number with a D. e.g., WCCM1S would become WCCM1D.

Numbers or Letters in Sequence

		MARKERS	MARKERS PER CARD	
CAT. NO.	LEGEND	3½" (89MM)	1¾" (45MM)*	
WCCM01-09S	01 through 09	2	4	
WCCM1-9S	1 through 9	2	4	
WCCM1-18S	1 through 18	1	2	
WCCM19-36S	19 through 36	1	2	
WCCM37-54S	37 through 54	1	2	
WCCM55-72S	55 through 72	1	2	
WCCM73-90S	73 through 90	1	2	
WCCM91-99S	91 through 99	2	4	
WCCMA-IS	A through I	2	4	
WCCMJ-RS	J through R	2	4	
WCCMS-ZS	S through Z	2	4	
Order multiple 25 cards.				

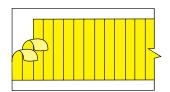


^{*} When 13/4" length markers are required, replace the last S in the part number with a D. e.g., WCCM1S would become

Solid NEMA Colors

Order multiple 25 cards.

		MARKERS	PER CARD
CAT. NO.	COLOR	1½" (38MM)	¾" (19MM)*
WCBLKS	Black	36	72
WCBLDS	Dark Blue	36	72
WCBLLS	Light Blue	36	72
WCBRNS	Brown	36	72
WCGRYS	Gray	36	72
WCDGRS	Dark Green	36	72
WCGRLS	Light Green	36	72
WCMARS	Maroon	36	72
WCOLIS	Olive	36	72
WCORAS	Orange	36	72
WCPINS	Pink	36	72
WCPURS	Purple	36	72
WCREDS	Red	36	72
WCTANS	Tan	36	72
WCWHIS	White	36	72
WCYELS	Yellow	36	72



* When 3/4" length markers are required, replace the last S in the part number with a D. e.g., WC1S would become WC1D





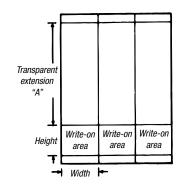




Self-Laminating Vinyl Wire Marker Cards

Blank Write-On Cable Markers

CAT. NO.	OVERALL Marker Size	WRITE-ON AREA W X H	MARKERS PER CARD
WSLM33	1" x 2¾"	1" x ¾"	3
WSLM35	1" x 5"	1" x 1"	3
WSLM123	1½" x 3"	1½" x ¾"	2
WSLM23	2" x 3"	2" x 3/4"	2
WSLM125	1½" x 5"	1½" x 1"	2
WSLM25	2" x 5"	2" x 1"	2
WSLM48	2" x 8"	2" x 3¾"	2
WSLM95	21/4" x 21/4"	2½" x 2¼"	2
WSLM410	2" x 10"	2" x 4½"	2
WSLM415	2" x 15"	2" x 7"	2



Solid Letters

		MARKERS	MARKERS PER CARD	
CAT. NO.	LEGEND	1½" (38MM)	¾" (19MM)*	
WSAS	A	36	72	
WSBSWSZS	B, CZ	36	72	

Order multiple 25 cards.

^{*} When 1¾" length markers are required, replace the last S in the part number with a D. e.g., WCCM1S would become WCCM1D.



Solid Numbers

		MARKERS	PER CARD
CAT. NO.	LEGEND	1½" (38MM)	¾" (19MM)*
WSZEROS	0	36	72
WS1SWS99S	1, 299	36	72
WS100S	100	25	50
WS101SWS600S	101, 102600	25	_



^{*} When 134" length markers are required, replace the last S in the part number with a D. e.g., WCCM1S would become WCCM1D.

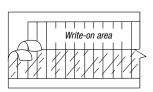
4 4 4 4 4 4 4 4

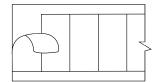
Blank Write-On

CAT. NO.	WRITE-ON AREA (W X D)	MARKERS PER CARD 1½" (38MM)
WSBW14X112S	1/4" x 11/2"	36
WSBW38X112S	3%" x 1½"	26
WSBW12X112S	½" x 1½"	18
WSBW34X112S	3/4" x 11/2"	12
WSBW1X112S	1" x 1½"	9
WSBW112X112S	1½" x 1½"	6
CAT. NO.	MARKER SIZE	MARKERS PER CARD

WODWIIZAIIZO	1/2 X 1/2	0
CAT. NO.	MARKER SIZE	MARKERS PER CARD
WCBW14X34D*	1/4" x 3/4"	72
WCBW14X112S*	½" x 1½"	36
WCBW1132X112S*	11/32" x 11/2"	26
WCBW12X12D*	½" x ½"	54
WCBW12X112S*	½" x 1½"	18
WCBW58X112S*	5%" x 1½"	14
WCBW34X12D*	3/4" X 1/2"	36
WCBW34X214S*	3/4" x 21/4"	12
WCBW1X112S*	1" x 1½"	9
WCBW112X112S*	1½" x 1½"	6

Order multiple 25 cards.







United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services**

Tel: 888.862.3289







^{*} Not self-laminating.



Sleeve Markers Features at a Glance

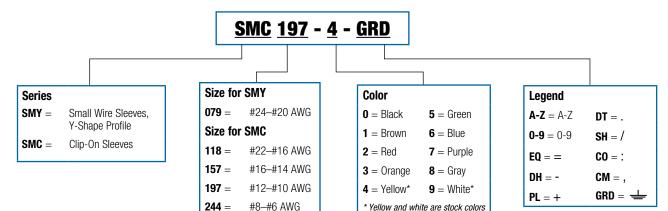
	SMY Series	SMC Series	SMS/SMD/SMR Series	SMO Series	SMK Series
	3.5			8	
SHAPE	H H W	H H W	H		L1
FOR MORE Information, See	p. D-16	p. D-16	p. D-17	p. D-18	p. D-18
STYLE	Closed Y-shape	Open clip-on	Closed spring-action	Closed oval	Closed slotted
APPLICATION	Install on wires before connection	Install on wires before or after connection	Install on wires before connection	Install on wires before connection or on holders	Install on holders
WIRE SIZE RANGE	#24-#20 AWG	#18–#6 AWG	#22-#5 AWG	#10–#6 AWG for direct install; any size with holder*	Any size with holder*
MARKER SIZE	.130"H x .138"W	.142"H x .146"W to .264"H x .272"W	.142"H x .138"W to .650"H x .433"W	.445"H x .169"W	.445"H
PACKAGING	Reel	Strips	Strips, disc or reel	Disc	Bag

^{*} Holder fastens with cable ties around cable or pipe



800.816.7809 Fax: 901.252.1354 8.862.3289 **Thon**





Example: The catalog number shown above is for yellow clip-on sleeve markers imprinted with the ground symbol for #12-#10 AWG wires.

SMY Series Sleeve Markers

- Closed combination marker
- Special Y-shaped profile covers a wide diameter range of small wires
- Large print surface enables excellent readability at normal reading distances

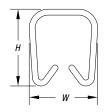


		RECOMMENDED		MARKER SIZE	STD.
CAT. NO.	COLOR	WIRE DIAMETER (IN.)	AWG	H x W (IN.)	PKG. QTY.
SMY079-4-[_]	Yellow	.039–.079	#23-#20	.130 x .138	1 reel of 1,000 markers
SMY079-9-[_]	White	.039–.079	#23-#20	.130 x .138	1 reel of 1,000 markers

SMC Series Clip-On Sleeve Markers

- Open marker snaps easily onto already connected wires
- Barbed design holds markers securely in place





		RECOMMENDED		MARKER SIZE	STD.
CAT. NO.	COLOR	WIRE DIAMETER (IN.)	AWG	H x W (IN.)	PKG. QTY.
SMC118-4-[_]	Yellow	.094–.118	#18–#16	.142 x .146	10 strips of 20 markers
SMC118-9-[_]	White	.094–.118	#18-#16	.142 x .146	10 strips of 20 markers
SMC157-4-[_]	Yellow	.118–.157	#16-#14	.165 x .177	10 strips of 20 markers
SMC157-9-[_]	White	.118–.157	#16-#14	.165 x .177	10 strips of 20 markers
SMC197-4-[_]	Yellow	.157–.197	#12-#10	.217 x .224	10 strips of 20 markers
SMC197-9-[_]	White	.157–.197	#12-#10	.217 x .224	10 strips of 20 markers
SMC244-4-[_]	Yellow	.197–.244	#8-#6	.264 x .272	10 strips of 20 markers
SMC244-9-[_]	White	.197–.244	#8-#6	.264 x .272	10 strips of 20 markers



United States
Tel: 901.252.8000

800.816.7809 Fax: 901.252.1354 Technical Services
Tel: 888.862.3289









DT = .

SH = /

 $\mathbf{CO} = :$

CM = .

Wire and Cable Marking



Size Series 118 = #22-#16 AWG SMS = Standard Sleeves **157** = #16-#14 AWG Standard Sleeves on SMD =disc (500 pieces) **197** = #12-#10 AWG SMR = Standard Sleeves on **244** = #8-#6 AWG reel (1000 pieces) **394** = #13-#4 AWG #6-2/0 AWG 630 =

Color

0 = Black5 = Green

1 = Brown**6** = Blue

2 = Red7 = Purple

3 = Orange**8** = Gray

4 = Yellow* 9 = White*

* Yellow and white are stock colors

GRD = PL = +

Legend

 $\mathbf{A}\mathbf{-Z} = A\mathbf{-Z}$

0-9 = 0-9

EQ = =

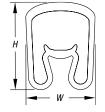
DH = -

Example: The catalog number shown above is for white sleeve markers in strips imprinted with the number 3 for #22-#16 AWG wire.

Closed Combination Sleeve Markers

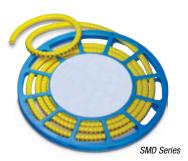
- · Available in strips or bags (SMS Series), on compact disc (SMD Series) or on a reel (SMR Series)
- Permanent grip and adjustable marking sleeve for as-yet unconnected wires
- · Unique profile with spring-action bellows covers wide wire diameter range
- Twist-protection for secure combination marking





SMS Series

		RECOMMENDED		MARKER SIZE	STD.		
CAT. NO.	COLOR	WIRE DIAMETER (IN.)	AWG	H x W (IN.)	PKG. QTY.		
SMS Series Sleeve Markers in Strips or Bags							
SMS118-4-[_]	Yellow	.051118	#22-#16	.142 x .138	10 strips of 25 markers		
SMS118-9-[_]	White	.051118	#22-#16	.142 x .138	10 strips of 25 markers		
SMS196-4-[_]	Yellow	.059197	#16-#10	.217 x .165	10 strips of 25 markers		
SMS196-9-[_]	White	.059197	#16-#10	.217 x .165	10 strips of 25 markers		
SMS394-4-[_]	Yellow	.157394	#13-#4	.374 x .260	10 strips of 25 markers		
SMS394-9-[_]	White	.157394	#13-#4	.374 x .260	10 strips of 25 markers		
SMS630-4-[_]	Yellow	.315630	#5	.650 x .433	1 bag of 20 loose markers		
SMS630-9-[_]	White	.315630	#5	.650 x .433	1 bag of 20 loose markers		
SMD Series Sleet	ve Marker	s on a Compact Disc					
SMD118-4-[_]	Yellow	.051118	#22-#16	.142 x .138	1 disc of 500 markers		
SMD118-9-[_]	White	.051118	#22-#16	.142 x .138	1 disc of 500 markers		
SMD196-4-[_]	Yellow	.059197	#16-#10	.217 x .165	1 disc of 500 markers		
SMD196-9-[_]	White	.059197	#16-#10	.217 x .165	1 disc of 500 markers		
SMD394-4-[_]	Yellow	.157394	#13-#4	.374 x .260	1 disc of 250 markers		
SMD394-9-[_]	White	.157394	#13-#4	.374 x .260	1 disc of 250 markers		
SMDP394-9-[_]	White	Use with RG6/RG59 coax	#12-#4	_	1 disc of 250 markers		
SMR Series Sleeve Markers on a Reel							
SMR118-4-[_]	Yellow	.051118	#22-#16	.142 x .138	1 reel of 1,000 markers		
SMR118-9-[_]	White	.051118	#22-#16	.142 x .138	1 reel of 1,000 markers		
SMR196-4-[_]	Yellow	.059197	#16-#10	.217 x .165	1 reel of 1,000 markers		
SMR196-9-[_]	White	.059–.197	#16-#10	.217 x .165	1 reel of 1,000 markers		







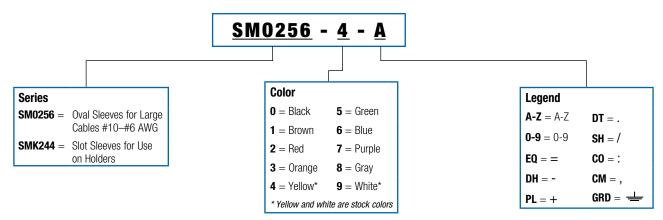
United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services** Tel: 888.862.3289





1-800-453-1692



Example: The catalog number shown above is for yellow oval sleeve markers imprinted with the letter A for use directly on #10-#6 AWG cables or on SMOH or SMKH holders.

Combination markers for cable and pipe marking! **SMO and SMK Series Sleeve Markers**

- Made of cadmium-free and siliconefree rigid PVC
- SMK markers install quickly onto SMKH or SMOH holder, which fastens with cable ties around cable or pipe
- SMO markers can also be used with SMKH or SMOH holders or installed directly onto cable



SMO and SMK Markers

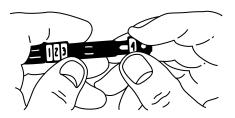
CAT. NO.	COLOR	RECOMMENDED WIRE DIAMETER (IN.)	AWG	MARKER SIZE H X W (IN.)	STD. PKG. QTY.
SM0256-4-[_]	Yellow	.147256	#10-#6	.445 x.169	1 disc of 500 markers
SM0256-9-[_]	White	.197256	#10-#6	.445 x.169	1 disc of 500 markers
SMK244-4-[_]	Yellow	Use with Holder	_	.445 H	1 bag of 100 markers
SMK244-9-[_]	White	Use with Holder	_	.445 H	1 bag of 100 markers

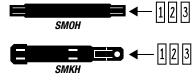
SMOH and SMKH Holders

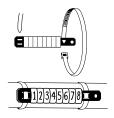
CAT. NO.	COLOR	MAX. NO. OF SMO MARKERS	MAX. NO. OF SMK MARKERS	STD. PKG. QTY.
SM0H07-0	Black	7	8	1 bag of 100 holders
SM0H12-0	Black	12	13	1 bag of 100 holders
SMOH18-0	Black	18	19	1 bag of 100 holders
SM0H30-0	Black	30	31	1 bag of 100 holders
SMKH10-0	Black	10	10	1 bag of 100 holders
SMKH20-0*	Black	20	20	1 bag of 100 holders

^{*} Made of Polyamide 6/6 resistant to organic solvents with limited resistance against acids and alkalis. Recommended Ty-Rap® cable tie is Cat. No. TY524MX. Other colors available on request. Contact Tech Services for availability.













United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354

Technical Services Tel: 888.862.3289







Sleeve Marker Magazine Dispenser

- · Feeds left or right
- Sturdy polystyrene construction

This magazine dispenser features two identical lids, linked by a hinge on one side. The outer sides of the lids have grooves to hold SMS Series Sleeve Marker Strips.

CAT. NO.	DESCRIPTION	STD. PKG. QTY.
Dispenser with A	pplication Tool Only (order sleeve markers separately)	
SMMDT118-E	Dispenser and SMAT118 Tool for SMS118 Markers	1
SMMDT196-E	Dispenser and SMAT196 Tool for SMS196 Markers	1
Dispenser with A	pplication Tool and 20 Strips of 25 SMS Sleeve Markers*	
SMMDT118-9-0-9	Dispenser with 500 White SMS118 Sleeve Markers and SMAT118 Tool	1
SMMDT118-4-0-9	Dispenser with 500 Yellow SMS118 Sleeve Markers and SMAT118 Tool	1
SMMDT196-9-0-9	Dispenser with 500 White SMS196 Sleeve Markers and SMAT196 Tool	1
SMMDT196-4-0-9	Dispenser with 500 Yellow SMS196 Sleeve Markers and SMAT196 Tool	1



For refills, order SMS118 (#22-#16 AWG) or SMS196 (#16-#10 AWG) sleeve markers (page D-17).

Sleeve Marker Application Tool

Made of Teflon® coated stainless steel, this application tool makes it easy to slide SMS Series sleeve markers onto cables.

CAT. NO.	USE WITH SLEEVE MARKER	RECOMMENDED WIRE DIAMETER (IN.)	AWG	STD. PKG. QTY.
SMAT118	SMS118	.051118	#22-#16	5/bag
SMAT196	SMS196	.098196	#16-#10	5/bag
Teflon is a trademark of DuPont.				



Sleeve Marker Installation Magazine

- · Complete kit for onsite marking
- · Each kit includes 20 wands of 25 markers
- Marker legends include 0-9, L, R, S, T, Ground, Neutral, Blue -, Red +, Gray Neutral

		STD.
CAT. NO.	DESCRIPTION	PKG. QTY.
Kit with 20 Wa	nds of 25 SMS Sleeve Markers	'
SMMK118-4	Kit with 500 Yellow SMS118 Markers for #22-#16 AWG Wire	1
SMMK118-9	Kit with 500 White SMS118 Markers for #22-#16 AWG Wire	1
SMMK196-4	Kit with 500 Yellow SMS196 Markers for #16-#10 AWG Wire	1
SMMK196-9	Kit with 500 White SMS196 Markers for #16-#10 AWG Wire	1

For refills, order SMS118 (#22-#16 AWG) or SMS196 (#16-#10 AWG) sleeve markers (page D-17).











www.aboveboardelectronics.com

1-800-453-1692

^{*} Legend for markers included in magazine dispenser is 0-9.



Stay safe and get into compliance — with EZCODE® Tags.

You don't need accidents happening on the job. To ensure greater workplace safety, choose the warning tags that hang tough in industrial environments and designate potential hazards. EZCODE® Tags enable easy identification and can help your facility meet OSHA regulations.

- Made of rigid vinyl with sturdy brass eyelets
- · Withstand moisture, dirt and grease
- Write on with pencil, ballpoint pen or permanent marker
- Sold in packages of 25 identical tags

- Standard size is 3½" x 6" for Accident Prevention, Lockout and Inspection and Control Tags
- Standard size is 3½" x 5½" for Self-Laminating Tags

Accident Prevention Tags

Choose among DANGER, CAUTION or NOTICE style tags to meet OSHA regulations and help prevent personnel injury or death. They're available in English or in bilingual English/ Spanish versions. All of our Accident Prevention Tags meet OSHA requirements and current ANSI Z535.5 recommendations for color and header design. They ship with heavy-duty nylon ties for fastening.



▲ DANGER

▲ CAUTION

DANGER indicates an immediate hazard with a strong potential for death or severe injury

CAUTION warns against potential hazards or unsafe practices

For more information, see pp. D-21-D-23

Inspection and Control Tags

These tags indicate equipment safety inspection and material production status at a glance with their bold headers and easily understood colorcoding system. They ship with heavy-duty nylon ties for fastening.



Self-Laminating Tags

Add your own information to a pre-printed or blank tag and then seal it under a clear, protective cover. EZCODE® Self-Laminating Tags are weatherproof, moisture-resistant and tamperproof — your information can't be altered once the tag is sealed. They're made of rigid .010" plastic with a clear polyester self-laminating cover and ½" brass eyelet.



Lockout Tags

Provide critical safety information in accordance with current OSHA regulations with Lockout Tags. Designed for repeat use, they withstand up to 80 lbs. of pulling pressure and feature brass eyelets large enough (1/16" I.D.) to accommodate most locks.



For more information, see p. D-24

Custom Tags

Need tags you don't see in this catalog? No problem — we welcome custom orders. Please refer to the form on page **D-27** for guidance, and don't hesitate to contact our knowledgeable, helpful EZCODE[®] Technical Services representatives for ordering assistance.



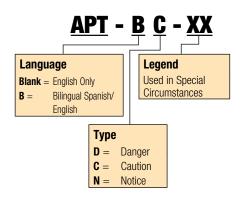
800.816.7809 Fax: 901.252.1354 **Technical Services** Tel: 888.862.3289

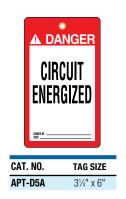




Avoid peril with danger tags.

Danger Tags











31/4" x 6"









APT-D12A



CAT. NO.	TAG SIZE
APT-D20A	31/4" x 6"

CAT. NO.	TAG SIZE
APT-D27A	31/4" x 6"











United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354







oveboardelectronics.com

Give others fair warning with easy-to-see caution tags.

Caution Tags

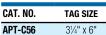








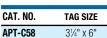


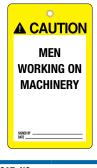












CAT. NO.	TAG SIZE
APT-C59	31/4" x 6"



CAT. NO.	TAG SIZE
APT-C60	31/4" x 6"



CAT. NO.	TAG SIZE
APT-C61	31/4" x 6"







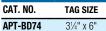




Don't let language be a barrier to safety.

Bilingual Tags







CAT. NO.	TAG SIZE
APT-BD75	31/4" x 6"

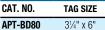


CAT. NO.	TAG SIZE
APT-BD76	31/4" x 6"



CAT. NO.	TAG SIZE
APT-BD79	31/4" x 6"





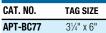


CAT. NO.	TAG SIZE
APT-BD81	31/4" x 6"



CAT. NO.	TAG SIZE
APT-RD82	31/4" x 6"







Note: Order multiple 25 tags.





United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services** Tel: 888.862.3289





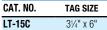


Greatly reduce the chance of an accident.

Lockout Tags

Lockout tags meet current OSHA regulations and can prevent serious accidents from happening. When secured with nylon ties, lockout tags can withstand 80 lbs. of pulling pressure. They feature brass eyelets with an inner diameter of $\frac{7}{16}$ — large to accommodate most locks. A write-on matte finish enables you to write on the tags with pens, pencils or permanent markers.

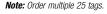




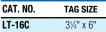




CAT. NO.	TAG SIZE
LT-33	31/4" x 6"













CAT. NO.	TAG SIZE
LT-59A	31/4" x 6"



CAT. NO.	TAG SIZE
LT-12C	31/4" x 6"



CAT. NO.	TAG SIZE	
LT-45A	31/4" x 6"	



CAT. NO.	TAG SIZE
LT-58A	31/4" x 6"



CAT. NO.	TAG SIZE
LT-44	31/4" x 6"



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services** Tel: 888.862.3289









Identify your cable bundles with permanent, Type 304 stainless steel imprinted tags applied with stainless steel cable ties.

I.D. Tagging System

- After imprinting tags, simply slip a tie through slots in the tag and fasten with a cable tie installation tool
- Works with ¼" wide ties
- Type 304 Stainless Steel



	WI	DTH	LEN	GTH
CAT. NO.	IN.	ММ	IN.	ММ
SSID100	.75	19.05	2.0	51
SSID101	1.50	.10	2.5	63
SSID102	.75	19.05	3.5	89

Packaging Quantity: 100/box

.015" (.254mm) Thickness

Note: Customized pre-embossed tags are available. Please consult Customer Service for details.

Add suffix (316) for 316 Stainless Steel.



Imprints Thomas & Betts stainless steel I.D. tags.

I.D. Tag Imprinter

· Includes special tag holder that provides quick, accurate positioning of tag

• Comes with a 3/32" character imprinting wheel

CAT. NO.	DESCRIPTION
WTID200	I.D. Tag Imprinter
WTID281	1/4" Character Imprinting Wheel
WTID283	%" Character Imprinting Wheel
WTID290	3/2" Character Imprinting Wheel

Packaging Quantity: 1/box





Thomas@Betts

A complete range of individual letters, numbers and symbols!

Stainless Steel I.D. Tags

- Slip these I.D. tags over carriers or strips (shown below)
- Attach to your cable or hose with a variety of Thomas & Betts Stainless Steel Cable Ties

CAT. NO.	DESCRIPTION	LENGTH	WIDTH	STD. PKG. QTY.
ER010	А	.445"	.375"	100
ER011	В	.445"	.375"	100
ER012	С	.445"	.375"	100
ER013	D	.445"	.375"	100
ER014	E	.445"	.375"	100
ER015	F	.445"	.375"	100
ER016	G	.445"	.375"	100
ER017	Н	.445"	.375"	100
ER018	I	.445"	.375"	100
ER019	J	.445"	.375"	100
ER020	K	.445"	.375"	100
ER021	L	.445"	.375"	100
ER022	M	.445"	.375"	100
ER023	N	.445"	.375"	100
ER024	0	.445"	.375"	100
ER025	Р	.445"	.375"	100
ER026	Q	.445"	.375"	100
ER027	R	.445"	.375"	100
ER028	S	.445"	.375"	100
ER029	T	.445"	.375"	100
ER030	U	.445"	.375"	100



CAT. NO.	DESCRIPTION	LENGTH	WIDTH	STD. PKG. QTY.
ER031	V	.445"	.375"	100
ER032	W	.445"	.375"	100
ER033	Υ	.445"	.375"	100
ER034	Z	.445"	.375"	100
ER018	1	.445"	.375"	100
ER037	2	.445"	.375"	100
ER038	3	.445"	.375"	100
ER039	4	.445"	.375"	100
ER040	5	.445"	.375"	100
ER041	6	.445"	.375"	100
ER021	7	.445"	.375"	100
ER042	8	.445"	.375"	100
ER041	9	.445"	.375"	100
ER024	0	.445"	.375"	100
ER035	Minus/Hyphen	.445"	.375"	100
ER036	Blank	.445"	.375"	100
ER046	Plus +	.445"	.375"	100
ER047	Earth	.445"	.375"	100
ER048	Sine	.445"	.375"	100
ER049	Slash /	.445"	.375"	100

Character size .218" Material .025" Type 316 Stainless Steel

Convenient and easy identification! **Stainless Steel I.D. Tag Carriers/Strips**

- Select from carriers and strips
- Tag kit contains 50 of each letter, number, symbol, carrier and strip in a handy carrying case

CAT. NO.	DESCRIPTION	LENGTH	WIDTH	STD. PKG. QTY.
ER043	6 Character Carrier	3.64"	.38"	100
ER044	10 Character Carrier	5.14"	.38"	100
ER045	16 Character Carrier	7.39"	.38"	100
ER050	Short Strip	4.25"	.38"	100



CAT. NO.	DESCRIPTION	LENGTH	WIDTH	STD. PKG. QTY.
ER051	Medium Strip	5.75"	.38"	100
ER052	Long Strip	8.0"	.38"	100
ER060	I.D. Tag Kit	_	_	1

I.D. Tag Kit contains 50 of each letter, number, symbol, carrier and strip in a handy carrying case.



United States Tel: 901.252.8000

800.816.7809 Fax: 901.252.1354







D-26



Custom Tag Express Order Form

This Custom Tag Order Form is for the convenience of you and your authorized Thomas & Betts Distributor. To help expedite your order, please copy this form and fax a completed copy to us. For questions about ordering Custom Tags, call Tech Services at 888-862-3289.

Fax your order to 901-252-1321.

Materials and Available Sizes:

Please check the appropriate boxes for material and size.

MATERIAL	AVAILABLE SIZES	
Vinyl	3½" x 6"	3½" x 5½"
Other	Other	

Tag Type:

Please check one of the options below for English or Spanish language.









LADDER

INSPECTION

No minimum order. Orders for 50+ tags are welcome. Call for delivery and additional volume discounts.

DANGER DO NOT REMOVE

PELIGRO

NO REMOVER

ESTA TARJETA

0 CAUTION DO NOT REMOVE THIS TAG

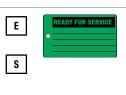
IS HERE FOR A PURPOSE SEE OTHER SIDE

IDENTIFICATION

THIS TAG SEE OTHER SIDE







Production Status

Danger





NIIMBEDS

Blank	Tag	COL	or:

Dark Green	Light Blue	Orange
Red	White	Yellow

Message, Tag Front:

Please print your message clearly in the box below.

Message, Tag Back:	
If none, leave blank.	

Brass Grommets/Eyelets:

Please check the appropriate boxes for number and size.

Carbon

To discuss these options, call Tech Services at 888-862-3289.

Set

1 Other	1/4" Other
Protective Options:	
SELF-LAMINATING COVERS	UV PROTECTION
Front Back	
Additional Options:	

AVAII ARI E SIZES

Perforation

Distributor Billing Location:

Distributor Name:	
P.O. Number:	
Fax Number:	

Shipping Location:

Bar

Codes

•		
Your Name/Title: _		
Company Name: _		
Address:		
	State:	

Sequential

Numbering



Labels

Stick to safety with EZCODE® Labels.

All kinds of dangers exist with high-voltage equipment and industrial machinery. Warn your employees of hazards and keep them safe with EZCODE® Labels. Place the self-adhesive labels where they need to be seen for on-the-spot identification and instruction and to help you comply with OSHA and NFPA regulations.

Arc Flash Labels

Avoid accidents and OSHA fines by clearly marking electrical equipment with potential for arc flash hazards with EZCODE® Arc Flash Labels. They're designed to meet the latest ANSI standards for safety labels and help you comply with National Electrical Code® standards.

Made of pressure-sensitive vinyl with aggressive acrylic adhesive



Conduit and Voltage Markers

Positively identify voltage on conduit, load centers, circuit breakers, switches and other electrical equipment to allow faster, safer repair.

- Made from rugged, self-sticking vinyl adheres to most surfaces
- High-contrast black type on safety-orange background for visibility
- For more information, see p. D-29



Electrical Safety Labels

"Mr. Ouch" NEMA Safety Labels use both words and pictures to warn children of the dangers of playing around pad-mounted transformers.

- Made from tamper-resistant film with permanent acrylic adhesive
- Weatherproof and fade-resistant
- For more information, see p. D-30



Lockout Labels

Compliant with OSHA lockout/tagout requirements, EZCODE® Lockout Labels are design to help you develop, implement and update a lockout/tagout program for your facility.

- Made from pressure-sensitive vinyl with polyester overlaminate
- Adhere to almost any clean, dry surface rough or smooth
- Use in indoor or outdoor applications



Pictogram Labels

Use these labels featuring universal symbols to communicate hazards to anyone, regardless of literacy or language.

- · Made from self-adhesive vinyl
- For more information, see p. D-34



Machine Warning Labels

Machine Warning Labels help you prevent injuries and reduce downtime. They also comply with ASME (ANSI Z535) and OSHA (1910.145) requirements to use safety and compliance signs to indicate hazards that may lead to accidents, injury and property damage.



DANGER indicates an immediate hazard with a strong potential for death or severe injury



WARNING indicates hazardous situations that may result in death or severe injury



CAUTION warns against potential hazards or unsafe practices

- Made from pressure-sensitive vinyl with polyester overlaminate and permanent acrylic adhesive
- Use indoors or outdoors temperature range of -40° F to 180° F
- 5-year durability



Write-On Control Markers

A quick and simple way to keep on-the-spot records, write-on control markers are easy to carry and dispense as needed.

- Made from pressure-sensitive, imprintable matte vinyl
- Adhere to clean, flat, dry, smooth surfaces
- Resists grease, oil and moisture
- Accepts pen, pencil, felt-tip marker, typewriter or rubber stamp
- For more information, see pp. D-31–D-32



Industrial Markers

Individual letters and numbers are ideal for fast, general-purpose marking of bins, shelves, poles, panels, switches and equipment.

- Made from plastic-coated vinyl cloth with high-tack adhesive
- · Rated for indoor use
- Available in 4 sizes with character height ranging from 5/16" to 2"
- Reflective letters and numbers also available for high visibility in dark or dimly lit areas
- For more information, see p. D-33



Custom Labels

Need labels you don't see in this catalog? No problem — we welcome custom orders. Please refer to the form on page **D-35** for guidance, and don't hesitate to contact our knowledgeable, helpful EZCODE® Technical Services representatives for ordering assistance.



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services**

Tel: 888.862.3289





Labels

Identify electrical systems, including load centers, circuit breakers, switches and any other vital electrical equipment!

Vinyl Conduit and Voltage Markers

- Helps prevent mistakes and trial-and-error searching during electrical service work
- · Manufactured from rugged, self-sticking vinyl with highcontrast black printing on safety-orange background
- OSHA compliant



WJT-5018 WDT-5018 WAT-5018 277 Volts WJT-5046 WDT-5046 277/480 Volts WJT-5057 WDT-5057 380 Volts WJT-5044 WDT-5044 WAT-5044 415 Volts WJT-5019 WDT-5019 WAT-5019 440 Volts WJT-5020 WDT-5020 WAT-5020 460 Volts WJT-5021 WDT-5021 WAT-5021 480 Volts WJT-5022 WDT-5022 WAT-5022 550 Volts WJT-5023 WDT-5023 WAT-5023 600 Volts WJT-5024 WDT-5024 WAT-5024 2,200 Volts WJT-5025 WDT-5025 WAT-5026 2,400 Volts WJT-5026 WDT-5026 WAT-5027 4,160 Volts				
WJT-5010 WDT-5010 WAT-5010 110 Volts WJT-5011 WDT-5011 WAT-5011 115 Volts WJT-5012 WDT-5012 WAT-5012 120 Volts WJT-5045 WDT-5045 WAT-5045 120/208 Volts WJT-5013 WAT-5013 208 Volts WJT-5014 WDT-5014 WAT-5014 220 Volts WJT-5015 WDT-5015 WAT-5015 230 Volts WJT-5016 WDT-5016 WAT-5016 240 Volts WJT-5017 WDT-5017 WAT-5017 250 Volts WJT-5018 WDT-5018 WAT-5018 277 Volts WJT-5046 WDT-5046 WAT-5046 277/480 Volts WJT-5057 WDT-5057 WAT-5057 380 Volts WJT-5044 WDT-5044 WAT-5044 415 Volts WJT-5019 WDT-5019 WAT-5019 440 Volts WJT-5020 WDT-5020 WAT-5020 460 Volts WJT-5021 WDT-5021 WAT-5021 480 Volts WJT-5022 WDT-5022 WAT-5022 550 Volts WJT-5023 WDT-5023 WAT-5023 600 Volts WJT-5024 WDT-5024 WAT-5024 2,200 Volts WJT-5025 WDT-5025 WAT-5026 2,400 Volts WJT-5026 WDT-5027 WAT-5027 4,160 Volts WJT-5028 WJT-5058			. = 0 = 11	
WJT-5011 WDT-5011 WAT-5011 115 Volts WJT-5012 WDT-5012 WAT-5012 120 Volts WJT-5045 WDT-5045 WAT-5045 120/208 Volts WJT-5013 WDT-5013 WAT-5013 208 Volts WJT-5014 WDT-5014 WAT-5014 220 Volts WJT-5015 WDT-5015 WAT-5015 230 Volts WJT-5016 WDT-5016 WAT-5016 240 Volts WJT-5017 WDT-5017 WAT-5016 240 Volts WJT-5017 WDT-5017 WAT-5017 250 Volts WJT-5018 WAT-5018 277 Volts WJT-5018 WAT-5018 277 Volts WJT-5018 WAT-5018 277 Volts WJT-5046 WDT-5046 WAT-5046 277/480 Volts WJT-5057 WDT-5057 WAT-5057 380 Volts WJT-5044 WDT-5044 WAT-5044 415 Volts WJT-5019 WDT-5019 WAT-5019 440 Volts WJT-5020 WDT-5020 WAT-5020 460 Volts <t< th=""><th></th><th></th><th></th><th></th></t<>				
WJT-5012 WDT-5012 WAT-5012 120 Volts WJT-5045 WDT-5045 WAT-5045 120/208 Volts WJT-5013 WDT-5013 WAT-5013 208 Volts WJT-5014 WDT-5014 WAT-5014 220 Volts WJT-5015 WDT-5015 WAT-5015 230 Volts WJT-5016 WDT-5016 WAT-5016 240 Volts WJT-5017 WDT-5017 WAT-5017 250 Volts WJT-5018 WAT-5018 277 Volts WJT-5018 WDT-5018 WAT-5018 277 Volts WJT-5046 WDT-5018 WAT-5018 277 Volts WJT-5057 WDT-5046 WAT-5046 277/480 Volts WJT-5057 WDT-5057 WAT-5057 380 Volts WJT-5044 WDT-5044 WAT-5044 415 Volts WJT-5019 WDT-5019 WAT-5019 440 Volts WJT-5020 WDT-5020 WAT-5020 460 Volts WJT-5021 WDT-5021 WAT-5021 480 Volts WJT-5022 WDT-5023 WAT-5				110 1010
WJT-5045 WDT-5045 WAT-5045 120/208 Volts WJT-5013 WDT-5013 WAT-5013 208 Volts WJT-5014 WDT-5014 WAT-5014 220 Volts WJT-5015 WDT-5015 WAT-5015 230 Volts WJT-5016 WDT-5016 WAT-5016 240 Volts WJT-5017 WDT-5017 WAT-5017 250 Volts WJT-5018 WAT-5018 277 Volts WJT-5018 WAT-5018 277 Volts WJT-5046 WDT-5046 WAT-5046 277/480 Volts WJT-5057 WDT-5057 WAT-5057 380 Volts WJT-5044 WDT-5044 WAT-5044 415 Volts WJT-5019 WDT-5019 WAT-5019 440 Volts WJT-5020 WDT-5020 WAT-5020 460 Volts WJT-5021 WDT-5021 WAT-5021 480 Volts WJT-5022 WDT-5023 WAT-5022 550 Volts WJT-5023 WDT-5023 WAT-5024 2,200 Volts WJT-5025 WDT-5026 WAT-5026 2,4				
WJT-5013 WDT-5013 WAT-5013 208 Volts WJT-5014 WDT-5014 WAT-5014 220 Volts WJT-5015 WDT-5015 WAT-5015 230 Volts WJT-5016 WDT-5016 WAT-5016 240 Volts WJT-5017 WDT-5017 WAT-5017 250 Volts WJT-5018 WDT-5018 WAT-5018 277 Volts WJT-5018 WDT-5018 WAT-5018 277/480 Volts WJT-5046 WDT-5046 WAT-5046 277/480 Volts WJT-5057 WDT-5057 WAT-5057 380 Volts WJT-5044 WDT-5044 WAT-5044 415 Volts WJT-5019 WAT-5019 440 Volts WJT-5019 WJT-5020 WDT-5020 WAT-5020 460 Volts WJT-5021 WDT-5021 WAT-5021 480 Volts WJT-5022 WDT-5022 WAT-5022 550 Volts WJT-5023 WDT-5023 WAT-5023 600 Volts WJT-5024 WDT-5025 WAT-5026 2,300 Volts WJT-5025 WDT				1_0 1010
WJT-5014 WDT-5015 WAT-5015 230 Volts WJT-5016 WDT-5016 WAT-5016 240 Volts WJT-5017 WDT-5017 WAT-5017 250 Volts WJT-5018 WDT-5018 WAT-5018 277 Volts WJT-5046 WDT-5046 WAT-5046 277/480 Volts WJT-5057 WDT-5057 WAT-5057 380 Volts WJT-5044 WDT-5044 WAT-5044 415 Volts WJT-5019 WDT-5019 WAT-5019 440 Volts WJT-5020 WDT-5020 WAT-5020 460 Volts WJT-5021 WDT-5021 WAT-5021 480 Volts WJT-5022 WDT-5022 WAT-5022 550 Volts WJT-5023 WDT-5023 WAT-5023 600 Volts WJT-5024 WDT-5023 WAT-5024 2,200 Volts WJT-5025 WDT-5026 WAT-5026 2,400 Volts WJT-5026 WDT-5027 WAT-5027 4,160 Volts WJT-5028 WDT-5028 WAT-5058 5,000 Volts				
WJT-5015 WDT-5016 WAT-5016 230 Volts WJT-5016 WDT-5016 WAT-5016 240 Volts WJT-5017 WDT-5017 WAT-5017 250 Volts WJT-5018 WDT-5018 WAT-5018 277 Volts WJT-5046 WDT-5046 WAT-5046 277/480 Volts WJT-5057 WDT-5057 WAT-5057 380 Volts WJT-5044 WDT-5044 WAT-5044 415 Volts WJT-5019 WDT-5019 WAT-5019 440 Volts WJT-5020 WDT-5020 WAT-5020 460 Volts WJT-5021 WDT-5021 WAT-5021 480 Volts WJT-5022 WDT-5022 WAT-5022 550 Volts WJT-5023 WDT-5023 WAT-5023 600 Volts WJT-5024 WDT-5024 WAT-5024 2,200 Volts WJT-5025 WDT-5026 WAT-5026 2,400 Volts WJT-5026 WDT-5027 WAT-5028 4,800 Volts WJT-5028 WDT-5058 WAT-5058 5,000 Volts	WJT-5013	WDT-5013	WAT-5013	208 Volts
WJT-5016 WDT-5016 WAT-5016 240 Volts WJT-5017 WDT-5017 250 Volts WJT-5018 WDT-5018 277 Volts WJT-5046 WDT-5046 277/480 Volts WJT-5057 WDT-5057 380 Volts WJT-5044 WDT-5044 415 Volts WJT-5019 WDT-5019 440 Volts WJT-5020 WDT-5020 WAT-5020 460 Volts WJT-5021 WDT-5021 WAT-5021 480 Volts WJT-5022 WDT-5022 WAT-5022 550 Volts WJT-5023 WDT-5023 WAT-5023 600 Volts WJT-5024 WDT-5024 WAT-5024 2,200 Volts WJT-5025 WDT-5025 WAT-5026 2,400 Volts WJT-5026 WDT-5026 WAT-5027 4,160 Volts WJT-5028 WDT-5028 WAT-5028 5,000 Volts	WJT-5014	WDT-5014	WAT-5014	220 Volts
WJT-5017 WDT-5017 WAT-5017 250 Volts WJT-5018 WDT-5018 277 Volts WJT-5046 WDT-5046 277/480 Volts WJT-5057 WDT-5057 380 Volts WJT-5044 WDT-5044 415 Volts WJT-5019 WDT-5019 440 Volts WJT-5020 WDT-5020 460 Volts WJT-5021 WDT-5021 WAT-5021 480 Volts WJT-5022 WDT-5022 WAT-5022 550 Volts WJT-5023 WDT-5023 WAT-5023 600 Volts WJT-5024 WDT-5024 WAT-5024 2,200 Volts WJT-5025 WDT-5025 WAT-5026 2,400 Volts WJT-5026 WDT-5027 WAT-5027 4,160 Volts WJT-5028 WDT-5028 WAT-5028 4,800 Volts WJT-5058 WDT-5058 S,000 Volts	WJT-5015	WDT-5015	WAT-5015	230 Volts
WJT-5018 WDT-5018 WAT-5018 277 Volts WJT-5046 WDT-5046 277/480 Volts WJT-5057 WDT-5057 380 Volts WJT-5057 WDT-5057 380 Volts WJT-5044 WDT-5044 415 Volts WJT-5019 WDT-5019 440 Volts WJT-5020 WDT-5020 460 Volts WJT-5021 WDT-5021 WAT-5021 480 Volts WJT-5022 WDT-5022 WAT-5022 550 Volts WJT-5023 WDT-5023 WAT-5023 600 Volts WJT-5024 WDT-5024 WAT-5024 2,200 Volts WJT-5025 WDT-5025 WAT-5025 2,300 Volts WJT-5026 WDT-5026 WAT-5027 4,160 Volts WJT-5028 WDT-5028 WAT-5028 4,800 Volts WJT-5058 WDT-5058 S,000 Volts	WJT-5016	WDT-5016	WAT-5016	240 Volts
WJT-5046 WDT-5046 WAT-5046 277/480 Volts WJT-5057 WDT-5057 380 Volts WJT-5044 WDT-5044 415 Volts WJT-5019 WDT-5019 440 Volts WJT-5020 WDT-5020 460 Volts WJT-5021 WDT-5021 WAT-5021 480 Volts WJT-5022 WDT-5022 WAT-5022 550 Volts WJT-5023 WDT-5023 WAT-5023 600 Volts WJT-5024 WDT-5024 WAT-5024 2,200 Volts WJT-5025 WDT-5025 WAT-5025 2,300 Volts WJT-5026 WDT-5026 WAT-5027 4,160 Volts WJT-5028 WDT-5028 WAT-5028 4,800 Volts WJT-5058 WDT-5058 S,000 Volts	WJT-5017	WDT-5017	WAT-5017	250 Volts
WJT-5057 WDT-5057 WAT-5057 380 Volts WJT-5044 WDT-5044 WAT-5044 415 Volts WJT-5019 WDT-5019 WAT-5019 440 Volts WJT-5020 WDT-5020 WAT-5020 460 Volts WJT-5021 WDT-5021 WAT-5021 480 Volts WJT-5022 WDT-5022 WAT-5022 550 Volts WJT-5023 WDT-5023 WAT-5023 600 Volts WJT-5024 WDT-5024 WAT-5024 2,200 Volts WJT-5025 WDT-5025 WAT-5025 2,300 Volts WJT-5026 WDT-5026 WAT-5026 2,400 Volts WJT-5027 WDT-5027 WAT-5027 4,160 Volts WJT-5028 WDT-5028 WAT-5058 5,000 Volts	WJT-5018	WDT-5018	WAT-5018	277 Volts
WJT-5044 WDT-5044 WAT-5044 415 Volts WJT-5019 WDT-5019 440 Volts WJT-5020 WDT-5020 460 Volts WJT-5021 WDT-5021 480 Volts WJT-5022 WDT-5022 WAT-5022 550 Volts WJT-5023 WDT-5023 WAT-5023 600 Volts WJT-5024 WDT-5024 WAT-5024 2,200 Volts WJT-5025 WDT-5025 WAT-5025 2,300 Volts WJT-5026 WDT-5026 WAT-5026 2,400 Volts WJT-5027 WDT-5027 WAT-5027 4,160 Volts WJT-5028 WDT-5028 WAT-5058 5,000 Volts	WJT-5046	WDT-5046	WAT-5046	277/480 Volts
WJT-5019 WDT-5019 WAT-5019 440 Volts WJT-5020 WDT-5020 460 Volts WJT-5021 WDT-5021 480 Volts WJT-5022 WDT-5022 WAT-5022 550 Volts WJT-5023 WDT-5023 WAT-5023 600 Volts WJT-5024 WDT-5024 WAT-5024 2,200 Volts WJT-5025 WDT-5025 WAT-5025 2,300 Volts WJT-5026 WDT-5026 WAT-5026 2,400 Volts WJT-5027 WDT-5027 WAT-5027 4,160 Volts WJT-5028 WDT-5028 WAT-5028 4,800 Volts WJT-5058 WDT-5058 5,000 Volts	WJT-5057	WDT-5057	WAT-5057	380 Volts
WJT-5020 WDT-5020 460 Volts WJT-5021 WDT-5021 480 Volts WJT-5022 WDT-5022 WAT-5022 550 Volts WJT-5023 WDT-5023 WAT-5023 600 Volts WJT-5024 WDT-5024 WAT-5024 2,200 Volts WJT-5025 WDT-5025 WAT-5025 2,300 Volts WJT-5026 WDT-5026 WAT-5026 2,400 Volts WJT-5027 WDT-5027 WAT-5027 4,160 Volts WJT-5028 WDT-5028 WAT-5028 4,800 Volts WJT-5058 WDT-5058 5,000 Volts	WJT-5044	WDT-5044	WAT-5044	415 Volts
WJT-5021 WDT-5021 480 Volts WJT-5022 WDT-5022 550 Volts WJT-5023 WDT-5023 600 Volts WJT-5024 WDT-5024 2,200 Volts WJT-5025 WDT-5025 2,300 Volts WJT-5026 WDT-5026 2,400 Volts WJT-5027 WDT-5027 4,160 Volts WJT-5028 WDT-5028 4,800 Volts WJT-5058 WDT-5058 5,000 Volts	WJT-5019	WDT-5019	WAT-5019	440 Volts
WJT-5022 WDT-5022 WAT-5022 550 Volts WJT-5023 WDT-5023 600 Volts WJT-5024 WDT-5024 2,200 Volts WJT-5025 WDT-5025 2,300 Volts WJT-5026 WDT-5026 2,400 Volts WJT-5027 WDT-5027 4,160 Volts WJT-5028 WDT-5028 4,800 Volts WJT-5058 WDT-5058 5,000 Volts	WJT-5020	WDT-5020	WAT-5020	460 Volts
WJT-5023 WDT-5023 WAT-5023 600 Volts WJT-5024 WDT-5024 2,200 Volts WJT-5025 WDT-5025 2,300 Volts WJT-5026 WDT-5026 2,400 Volts WJT-5027 WDT-5027 4,160 Volts WJT-5028 WDT-5028 WAT-5028 4,800 Volts WJT-5058 WDT-5058 5,000 Volts	WJT-5021	WDT-5021	WAT-5021	480 Volts
WJT-5024 WDT-5024 WAT-5024 2,200 Volts WJT-5025 WDT-5025 2,300 Volts WJT-5026 WDT-5026 2,400 Volts WJT-5027 WDT-5027 4,160 Volts WJT-5028 WDT-5028 WAT-5028 4,800 Volts WJT-5058 WDT-5058 5,000 Volts	WJT-5022	WDT-5022	WAT-5022	550 Volts
WJT-5025 WDT-5025 WAT-5025 2,300 Volts WJT-5026 WDT-5026 WAT-5026 2,400 Volts WJT-5027 WDT-5027 WAT-5027 4,160 Volts WJT-5028 WDT-5028 WAT-5028 4,800 Volts WJT-5058 WDT-5058 WAT-5058 5,000 Volts	WJT-5023	WDT-5023	WAT-5023	600 Volts
WJT-5026 WDT-5026 WAT-5026 2,400 Volts WJT-5027 WDT-5027 WAT-5027 4,160 Volts WJT-5028 WDT-5028 WAT-5028 4,800 Volts WJT-5058 WDT-5058 WAT-5058 5,000 Volts	WJT-5024	WDT-5024	WAT-5024	2,200 Volts
WJT-5027 WDT-5027 WAT-5027 4,160 Volts WJT-5028 WDT-5028 WAT-5028 4,800 Volts WJT-5058 WDT-5058 WAT-5058 5,000 Volts	WJT-5025	WDT-5025	WAT-5025	2,300 Volts
WJT-5028 WDT-5028 WAT-5028 4,800 Volts WJT-5058 WDT-5058 WAT-5058 5,000 Volts	WJT-5026	WDT-5026	WAT-5026	2,400 Volts
WJT-5058 WDT-5058 WAT-5058 5,000 Volts	WJT-5027	WDT-5027	WAT-5027	4,160 Volts
	WJT-5028	WDT-5028	WAT-5028	4,800 Volts
WJT-5029 WDT-5029 WAT-5029 6,900 Volts	WJT-5058	WDT-5058	WAT-5058	5,000 Volts
	WJT-5029	WDT-5029	WAT-5029	6,900 Volts



STYLE A: 21/4" x 91 (1 marker per card) Character Height 17/8"



STYLE B: 11/8" x 41/2" (4 markers per card) Character Height 7/8"



STYLE C: 21/4" x 1/2" (18 markers per card) Character Height 5/16"

STYLE A 21/4" X 9"	STYLE B 11/8" X 41/2"	STYLE C 21/4" X 1/2"	LEGEND
WJT-5030	WDT-5030	WAT-5030	7,200 Volts
WJT-5059	WDT-5059	WAT-5059	,
			12,000 Volts
WJT-5060	WDT-5060	WAT-5060	13,000 Volts
WJT-5047	WDT-5047	WAT-5047	13,200 Volts
WJT-5031	WDT-5031	WAT-5031	13,800 Volts
WJT-5032	WDT-5032	WAT-5032	AC
WJT-5043	WDT-5043	WAT-5043	Air Conditioning
WJT-5052	WDT-5052	WAT-5052	Circuit Breaker
WJT-5051	WDT-5051	WAT-5051	Circuit #
WJT-5038	WDT-5038	WAT-5038	DC
WJT-5050	WDT-5050	WAT-5050	Electric Out of Service
WJT-5033	WDT-5033	WAT-5033	Emergency Service
WJT-5039	WDT-5039	WAT-5039	Exit Lights
WJT-5040	WDT-5040	WAT-5040	Fire Alarm
WJT-5053	WDT-5053	WAT-5053	Fuse Box
WJT-5041	WDT-5041	WAT-5041	Heating Circuit
WJT-5037	WDT-5037	WAT-5037	Lights
WJT-5042	WDT-5042	WAT-5042	Light & Power
WJT-5048	WDT-5048	WAT-5048	On/Off
WJT-5036	WDT-5036	WAT-5036	Power
WJT-5034	WDT-5034	WAT-5034	Single Phase
WJT-5055	WDT-5055	WAT-5055	Spare
WJT-5056	WDT-5056	WAT-5056	Telephone
WJT-5035	WDT-5035	WAT-5035	Three Phase
WJT-5054	WDT-5054	WAT-5054	Volts

www.tnb.com

Note: Order multiple 25 cards.

United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services** Tel: 888.862.3289



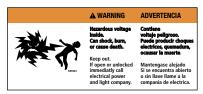


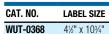


"Mr. Ouch" NEMA **Safety Labels**

- Use on pad-mounted transformers located in public areas
- Meets NEMA and UL standards
- Made of tamper-resistant film to prevent defacing and vandalism
- · Permanent pressure-sensitive adhesive makes removal virtually impossible
- Orange WARNING label goes on outside of enclosure
- Red DANGER label goes on inside of enclosure

Note: Order multiple 25 labels.







CAT. NO. LABEL SIZE WUT-0366







CAT. NO. LABEL SIZE WUT-0367 4½" x 8"

Self-Sticking Polyester Safety Labels



CAT. NO.	LABEL SIZE	
WJA-1100	21/4" x 9"	
W0A_1100	5" v 1/1"	





CAT. NO.	LABEL SIZE	
LB86871	3½" x 5"	



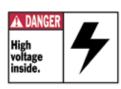
CAT. NO.	LABEL SIZE	
WJA-0076	21/4" x 9"	
WQA-0076	5" x 14"	



CAT. NO.	LABEL SIZE
LB86860	3½" x 5"



CAT. NO.	LABEL SIZE
LB86877	3½" x 5"



CAT. NO.	LABEL SIZE	
LB86861	3½" x 5"	







www.tnb.com



The handy markers for frequent identification jobs.

Write-On Control Markers

- A quick and easy way to keep on-the-spot records
- · Easy to carry and dispense as needed
- Made from pressure-sensitive, imprintable matte vinyl
- · Adheres to clean, flat, dry, smooth surfaces
- · Resists grease, oil and moisture

•	Accepts	marking	by pen,	pencil,	felt-tip
	marker,	typewrite	er or rub	ber sta	mp

- Standard marker size is 1½"W x %"H with 14 markers per card
- Some markers available in extra-large 2½"W x 1"H size with 9 markers per card



CAT. NO.	MARKERS SIZE	MARKERS PER CARD
WCMP16	1½" x ½"	14



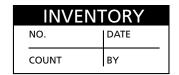
CAT. NO.	MARKERS SIZE	MARKERS PER CARD
WCMP19	1½" x ½"	14



CAT. NO.	MARKERS SIZE	MARKERS PER Card
WCMP6	11//" x 5//"	14



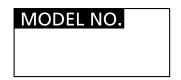
		MARKERS PER
CAT. NO.	MARKERS SIZE	CARD
WCMP9	1½" x %"	14



CAT. NO.	MARKERS SIZE	MARKERS PER Card
WCMP20	1½" x 5%"	14



CAT. NO.	MARKERS SIZE	MARKERS PER Card
WCMP3	1½" x 5%"	14



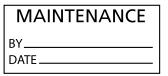
CAT. NO.	MARKERS SIZE	MARKERS PER Card
WCMP22	1½" x 5/8"	14

EMERGE	NCY
FIRE	
POLICE	
MEDICAL	
MAINTENANCE	

CAT. NO.	MARKERS SIZE	MARKERS PER Card
WCMP7	2½" x 1"	9



CAT. NO.	MARKERS SIZE	MARKERS PER Card
WCMP24	2½" x 1"	9



CAT. NO.	MARKERS SIZE	MARKERS PER CARD
WCMP21	2½" x 1"	9

ACCEPTED	
BY	DATE

CAT. NO.	MARKERS SIZE	MARKERS PER Card
WCMP5	1½" x %"	14

CALIBRATED	
BY	DATE
DUE	

CAT. NO.	MARKERS SIZE	MARKERS PER Card
WCMP1	1½" x 5/8"	14



CAT. NO.	MARKERS SIZE	MARKERS PER Card
WCMP26	1½" x ½"	14

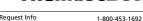
Note: Order multiple 25 cards.



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 Technical Services
Tel: 888.862.3289









Write-On Control Markers (continued)



CAT. NO.	MARKERS SIZE	MARKERS PER CARD
WCMP2	1½" x 5/8"	14



CAT. NO.	MARKERS SIZE	MARKERS PER CARD
WCMP18	1½" x %"	14



		MARKERS PER
CAT. NO.	MARKERS SIZE	CARD
WCMP4	1½" x %"	14



		MARKERS PER
CAT. NO.	MARKERS SIZE	CARD
WCMP25	1½" x 5%"	14



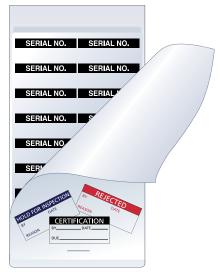
CAT. NO.	MARKERS SIZE	MARKERS PER Card
WCMP75	2¾" x 1"	9

Note: Order multiple 25 cards.

Stay ready for quality control!

Polyolefin Pocket Pack Markers

- Easy to carry marker books fit in shirt pocket
- Easy to use just peel the marker from the page
- Clean and convenient markers are tabbed so fingers never touch the adhesive



CAT. NO.	LEGEND	LABELS PER BOOK
WTMP-1B	CALIBRATED (black)	240
WTMP-2B	CERTIFICATION (black)	240
WTMP-3B	MAINTENANCE (blue)	240
WTMP-4B	REJECTED (red)	240
WTMP-5B	ACCEPTED (green)	240
WTMP-6B	HOLD (red)	240
WTMP-7B	RETURN TO VENDOR (orange)	240
WTMP-8B	REWORK (black)	240
WTMP-9B	HOLD FOR INSPECTION (blue)	240
WTMP-11B	CAUTION (black)	240
WTMP-16B	DATE INSTALLED (black)	240
WTMP-18B	DUE FOR INSPECTION (orange)	240
WTMP-19B	DO NOT USE AFTER (red)	240
WTMP-20B	INSPECTED (black)	240
WTMP-21B	BLANK HEADING	240
WTMP-22B	REPAIRED BY (orange)	240
WTMP-24B	SCRAPPED (orange)	240
WTMP-25B	TESTED (green)	240
WTMP-26B	CALIBRATION (green)	240
WTMP-52B	PROPERTY TAG (black)	240
WTMP-53B	SERIAL NO. (black)	240
WTMP-55B	TOOL NO. (blue)	240

15 pages per book, 16 markers per page. Each label is $1\frac{1}{2}$ " $x\frac{5}{6}$ ". Each book contains 240 identical labels.

Note: Order multiple 10 books.



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services** Tel: 888.862.3289









Easy to read and available in a variety of configurations!

Numbers and Letters

- High-contrast, self-sticking, vinyl cloth markers make numbering and coding quick and easy
- Rated for indoor use
- Select character heights ranging from 5/16" to 33/4"

8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	L		_
8																									
8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8

Series 003 78 markers per card Marker Size: 3/8" x 1/2" Character Height: 5/16"



Series 063 32 markers per card Marker Size: 9/16" x 3/4" Character Height: 5/8"



Series 100 10 markers per card Marker Size: 1/2" Character Height: 1"



10 markers per card Marker Size: 7/8" x 21/4" Character Height: 2"

DESCRIPTION	LEGEND	SERIES 003	SERIES 063	SERIES 100	SERIES 200
Letters	A–Z	WCNL003AWCNL003Z	WCNL063AWCNL063Z	WCNL100AWCNL100Z	WCNL200AWCNL200Z
Numbers	0	WCNL003ZERO	WCNL063ZERO	WCNL100ZERO	WCNL200ZERO
Numbers	1–9	WCNL0031WCNL0039	WCNL0631WCNL0639	WCNL1001WCNL1009	WCNL2001WCNL2009
Letters in Sequence	A–Z	WCNL003AZ	WCNL063AZ	N/A	N/A
Letters in Sequence	A–J	N/A	N/A	WCNL100AJ	WCNL200AJ
Letters in Sequence	K–T	N/A	N/A	WCNL100KT	WCNL200KT
Letters in Sequence	U–Z	N/A	N/A	WCNL100UZ	WCNL200UZ
Numbers in Sequence	0–9	WCNL00309	WCNL06309	WCNL10009	WCNL20009
Note: Order multiple 5 cards.					

Reflective Industrial Markers

- · High visibility markers for use in dimly lit or dark areas
- · Pressure-sensitive adhesive
- Apply at temperatures above 40° F

CAT. NO.	SIZE	CHARACTER HEIGHT	MARKER SIZE (W X H)
WRSUM*	Small	1½"	1¾" x 1½"
WRUM*	Standard	21/2"	1¾" x 21/8"
WRLUM*	Large	3¾"	27/8" x 45/16"

* Add desired letter (A-Z) or number (0-9) in place of asterisk to complete CAT. NO. Example: WRSUM1, WRSUM2, WRSUMA, etc.

Note: Order multiple 25 cards.





United States Tel: 901.252.8000

800.816.7809 Fax: 901.252.1354 **Technical Services** Tel: 888.862.3289





www.aboveboardelectronics.com

Don't let words get in the way of hazard information.

Pictogram Labels

- Universal symbols communicate hazards to anyone, regardless of literacy or language
- · Made from self-adhesive vinyl
- Label size is 2" x 2"



CAT. NO.	LABEL SIZE
PTG-100	2" x 2"



CAT. NO.	LABEL SIZE
PTG-101	2" x 2"



CAT. NO.	LABEL SIZE
PTG-102	2" x 2"



CAT. NO.	LABEL SIZE
PTG-103	2" x 2"



CAT. NO.	LABEL SIZE
PTG-104	2" x 2"



CAT. NO.	LABEL SIZE
PTG-105	2" x 2"



CAT. NO.	LABEL SIZE
PTG-106	2" x 2"



CAT. NO.	LABEL SIZE
PTG-107	2" x 2"



CAT. NO.	LABEL SIZE
PTG-108	2" x 2"



CAT. NO.	LABEL SIZE
PTG-109	2" x 2"

Note: Order multiple 100 labels.



800.816.7809 Fax: 901.252.1354





EZCODE®

Custom Label Express Order Form

This Custom Label Order Form is for the convenience of you and your authorized Thomas & Betts Distributor. To help expedite your order, please copy this form and fax a completed copy to us. For questions about ordering Custom Labels, call Technical Services at 888-862-3289.

For questions about ordering Cust Fax your order to 901-252-132	om Labels, call Technical Services at 888-8 1 1.	62-3289. FROM SEVERAL ENERGY SOURCES	TOW
Label Types and Ava		LOCK- ENERGY	AS .
	oxes to choose English or Spanish and the	size. Safety glasses required beyond this point.	
Arc Flash Arc Flash Arc Flash Appropriate PPE Required. Failure To Comply Can Result in Death or In Refer to NFPA 70 E. Arc Flash	21/1 v 1011	E 2½" x 4½" 2½" x 9" 3½" x 5" 4½" x 8" 4½" x 10¾" 5" x 14" Electrical Safety	
E REMEMBER LOCK OUT ALL POWER SOURCES	2½" x 4½" 3½" x 5" Lockout	E S Padlock B A CAUTION 3½" x 5" Do not operate without guards. Machine Warning	ng
Legend		Materials: Quantity:	_ 7
Please print your message clear	ly in the box below.	Please check one box. No minimum order. Orders	╛
		Vinyl for 50+ labels are welcome. Call for delivery and additional volume discounts.	
High-Volume Blank I	Printer Labels:		_
Please complete all portions.		Color Label Material	
Your Printer Technology	Label Size	White SL Self-Laminating N Nylon	
TT Thermal	 Use fractional inches, not decimals. 	Yellow C Vinyl Cloth HS Heat Shrink	
LP Laser DM Dot Matrix	For labels on a cassette, check the C box to indicate continuous measurement in feet and indicate length post to the box.	P Polyester PM Polymide	
JT Ink Jet	indicate length next to the box.		_
EZ Portable	Width Height C Lengthft.	Quantity: No minimum order. Orders for 50+ labels are welcome. Call for delivery and additional volume discounts.	
Distributor Billing Location:		Shipping Location:	_
Distributor Name:		Your Name/Title:	
Distributor Address:		Company Name:	_
		Attn:	_
P.O. Number:		Address:	_
·		City:Zip:	_
		Phone/Fax Number:	_
Fax Number:		P.O. Number:	



Signs

Prevent injuries and reduce downtime with EZCODE® safety and compliance signs.

Industry Standards

ASME (ANSI Z535) and OSHA (1910.145 require the use of safety and compliance signs to indicate hazards that may lead to accidents, injury and property damage. EZCODE® signs comply with all current OSHA and ANSI standards and will help you create a safer workplace for both employees and visitors.

Guide to Headers





DANGER indicates an immediate hazard with a strong potential for death or severe injury

NOTICE



NOTICE provides general information to prevent confusion





CAUTION warns against potential hazards or unsafe practices





SAFETY FIRST offers information about health, housekeeping and general safety



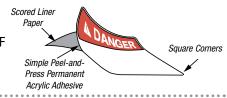


Signs

Materials

Self-Sticking (SS)

- Made from pressure-sensitive vinyl with permanent acrylic adhesive
- Indoor and outdoor applications
- Temperature range of -40° F to 180° F
- 2- to 3-year durability



Plastic (PL)

- Made from durable linear polyethylene
- · Fade- and crack-resistant
- · Indoor and outdoor applications
- Temperature range of -10° F to 176° F
- 5- to 8-year durability



Aluminum (AL)

- Made from aluminum with baked finish and screen-printed graphics
- Indoor and outdoor applications
- 8- to 10-year durability



Sizes

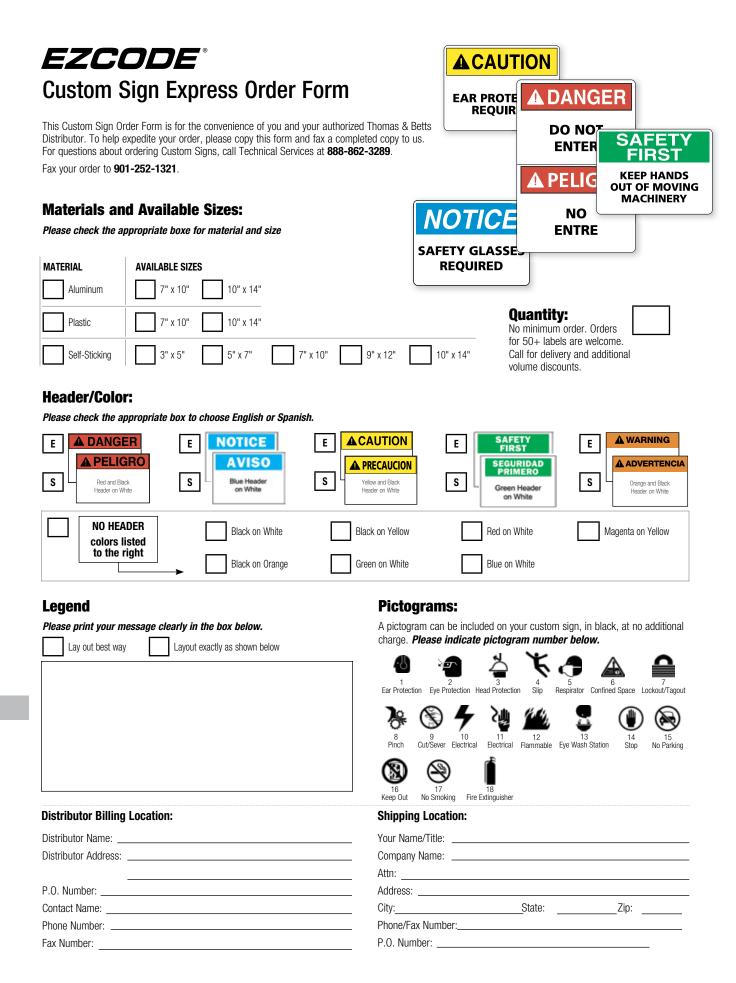
- Most signs available in your choice of 7" x 10" or 10" x 14" sizes
- Bilingual signs available in larger 10" x 14" size only

Custom Signs

Need signs you don't see in this catalog? No problem — we welcome custom orders. Please refer to the form on page **D-38** for guidance, and don't hesitate to contact our knowledgeable, helpful EZCODE® Technical Services representatives for ordering assistance.









Warning Tapes

Save time and money over painting!

Color-Coded Vinyl I.D. Tape

- Effectively warns or identifies equipment, traffic and housekeeping items
- · Choose from different widths
- Many colors available



1" WIDE	2" WIDE	3" WIDE	4" WIDE	
CAT. NO.	CAT. NO.	CAT. NO.	CAT. NO.	COLOR
AA-1121	BA-1121	CA-1121	NA-1121	Silver
AA-1122	BA-1122	CA-1122	NA-1122	Black
AA-1123	BA-1123	CA-1123	NA-1123	Blue
AA-1124	BA-1124	CA-1124	NA-1124	Brown
AA-1125	BA-1125	CA-1125	NA-1125	Green
AA-1126	BA-1126	CA-1126	NA-1126	Orange
AA-1127	BA-1127	CA-1127	NA-1127	Purple
AA-1128	BA-1128	CA-1128	NA-1128	Red
AA-1129	BA-1129	CA-1129	NA-1129	White
AA-1130	BA-1130	CA-1130	NA-1130	Yellow
AA-1131	BA-1131	CA-1131	NA-1131	Clear

60 yards per roll

5 yards per roll.

Reflective Roll Tape



2" WIDE Cat. No.	3" WIDE CAT. NO.	4" WIDE CAT. NO.	COLOR
AZ-3108	BZ-3108	CZ-3108	Black & Yellow Stripe
AZ-3110	BZ-3110	CZ-3110	Red & White Stripe

Self-Sticking Vinyl Cloth Tape



2" WIDE Cat. No.	3" WIDE CAT. NO.	4" WIDE Cat. No.	COLOR
AZ-1100	BZ-1100	CZ-1100	Black & Yellow Stripe
AZ-1102	BZ-1102	CZ-1102	Red & White Stripe
AZ-1303	BZ-1303	CZ-1303	Magenta & Yellow Stripe & Radiation Symbol
00			

30 yards per roll.

Laminated Vinyl Tape



2" WIDE Cat. No.	3" WIDE CAT. NO.	4" WIDE CAT. NO.	COLOR
AZ-2104	BZ-2104	CZ-2104	Black & Yellow Stripe
AZ-2106	BZ-2104	CZ-2104	Red & White Stripe

18 yards per roll.

2-Sided Foam Mounting Tape

CAT. NO.	DESCRIPTION
NA-0365	2-Sided Foam Mounting Tape
9 yards per roll.	



United States
Tel: 901.252.8000

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354











Warning Tapes

Mark off hazardous or off-limit areas quickly and easily! **Protect-A-Line**™ **Barricade and Burial Tapes**



Barricade Tape

- Inexpensive and easy to handle
- Convenient and reusable
- For indoor and outdoor use



Buried Utility Tape

- · Protect against costly dig-ins
- Place 1 to 1½ feet below the ground surface directly above the pipeline or cable below
- Bright, fade-resistant colors warn equipment operators that a vital pipeline or cable is buried below before damage occurs
- · Black text on a bright background



Foil-Backed Detectable Buried Utility Tape

- Features a metallic backing designed to be detectable under normal earthen surfaces up to 18" with common metal detectors
- Simple and fast method for relocating lines, cables and conduit for future renovation
- · Black text on a bright background

CAT. NO.	LEGEND	COLOR
Surveyors Tape 1½" x 1	',000'	
NA-0200	No Legend, No Printing	Yellow
NA-0201	No Legend, No Printing	Red
NA-0202	No Legend, No Printing	Green
NA-0203	No Legend, No Printing	Blue
NA-0204	No Legend, No Printing	Orange
Barricade Tape 3" x 1,0	00'	
NA-0250	Caution	Yellow
NA-0253	Caution Construction Area	Yellow
NA-0254	Caution Do Not Enter	Yellow
NA-0256	Caution Hard Hat Area	Yellow
NA-0257	Caution High Voltage	Yellow
NA-0258	Caution Men Working	Yellow
NA-0261	Caution Open Trench	Yellow
NA-0267	Danger, on Stripes	Red & White
Buried Utility Tape 3" x	1,000'	
NA-0600	Electric Line	Red
NA-0608	Electric Line	Yellow
NA-0601	Water Line	Blue
NA-0602	Telephone Line	Orange
NA-0603	Gas Line	Yellow
NA-0605	Sewer Line	Green
NA-0606	High Voltage Line	Red
NA-0609	Fiber Optic Cable	Orange

Note: All barricade and utility tapes are 4 MIL polyethylene and are not self sticking. All legends are printed in black. Standard package is 1 roll.

CAT. NO.	LEGEND	COLOR
Buried Utility Tape 6" x 1,000'		
NA-0700	Electric Line	Red
NA-0708	Electric Line	Yellow
NA-0701	Water Line	Blue
NA-0702	Telephone Line	Orange
NA-0703	Gas Line	Yellow
NA-0706	High Voltage Line	Red
NA-0709	Fiber Optic Cable	Orange
Foil-Backed Detectable Buried	l Utility Tape 3" x 1,000	ı
NAF-0600	Electric Line	Red
NAF-0608	Electric Line	Yellow
NAF-0601	Water Line	Blue
NAF-0602	Telephone Line	Orange
NAF-0603	Gas Line	Yellow
NAF-0604	Oil Line	Yellow
NAF-0605	Sewer Line	Green
NAF-0606	High Voltage Line	Red
NAF-0607	Cable TV Line	Orange
NAF-0609	Fiber Optic Cable	Orange
Foil-Backed Detectable Buried	l Utility Tape 6" x 1,000	'
NAF-0700	Electric Line	Red
NAF-0708	Electric Line	Yellow
NAF-0701	Water Line	Blue
NAF-0702	Telephone Line	Orange
NAF-0703	Gas Line	Yellow
NAF-0704	Oil Line	Yellow
NAF-0705	Sewer Line	Green
NAF-0706	High Voltage Line	Red
NAF-0707	Cable TV Line	Orange
NAF-0709	Fiber Optic Cable	Orange



United States Tel: 901.252.8000

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 **Technical Services**







Catamount®

Catamount® Electrician's Supplies



In this section...



Catamount® Electrician's Supplies

Wire Connectors	D-42–D-44
Wire Pulling Lubricants	D-45
Electrician Hand Tools	D-46
Hardware and Rough-In Products	D-47–D-52
Wire Testing Equipment	D-52





Wire Connectors

Catamount® Wire Connectors

In 1914, William Marr invented the world's first pressure-type wire connector. Since then, these connectors have become synonymous with "best quality wire connectors." Easy to install and comfortable in the hand, they are indispensable to electricians. And now they're available as key components of the Catamount® product line. This is very good news for your fingers.

How good are they?

The first thing you'll notice about Catamount® wire connectors is that they come in a variety of types and styles, making it easy for you to identify wire size at a glance.

Feature for feature, here's what makes Catamount® connectors significantly better than other connectors.

- Catamount® connectors are the ONLY wire connector to offer a non-winged, variable-volume live-action spring in the connector. The spring expands to receive the conductors, rather than crushing them together as typical non-winged competitors do.
- They can handle a broader range of wire connection combinations.
- They're coated with 100% pure copper, which reduces the corrosion common to tin- and zinc-coated products.
- Catamount® connectors' "finger friendly" design offers a truer grip for less hand fatigue during repeated use.
- They are the ONLY red non-winged connector that is UL Listed for a pair of #8 AWG wires.



 The high-grade polypropylene outer shell prevents "blooming" or "blossoming" of the connector sidewall. The outer shell maintains a constant moisture level, reducing the likelihood of the connector becoming dry, brittle to extreme heat or cold.



Catamount® XTP® (Non-Winged)

		,				
CAT. NO.	WIRE RANGE*	MIN.	MAX.	COLOR	DESCRIPTION	STD. CTN.
329-P					100 pc/box	1000
329-BP	22-16	1#22 + 1#20	2#16	XTP-Gray	1,000 pc/bulk box	1000
29-BK					10,000 pc/bulk box	10,000
30-P					100 pc/box	1000
30-BP	22-14	3#20	3#16	XTP-Blue	1,000 pc/bulk box	1000
30-BK					10,000 pc/bulk box	10,000
31P					100 pc/bulk box	1000
31M	18-14	2#18	3#14	XTP-Orange	1,000 pc/masterpak®	5000
31KP					500 pc/bag	10,000
33P					100 pc/box	1000
33M	18-10	1#14 + 2#18	1#10 + 2#14	XTP-Yellow	1,000 pc/masterpak®	3000
33KP					500 pc/bag	5000
35P					100 pc/box	1000
35D	18–8	2#16 + 2#18	3#10	XTP-Red	500 pc/masterpak®	_
3350					200 pc/bag	_

*AWG Solid or Stranded



United States Tel: 901.252.8000

800.816.7809 Fax: 901.252.1354 **Technical Services** Tel: 888.862.3289







Catamount[®]

Wire Connectors

Catamount® Set-Screw Wire Connectors

Threaded brass inserts provide vibration-resistant connections that are easily removed for disconnection, visual inspection or rewiring. Catamount® set-screw wire connectors feature flexible, color-coded nylon insulating shells which are compact for tight applications.

The nylon insulating shells resist heat, cold and impact with a temperature rating of 105° C (221° F) max. Rated: 600V.

- Threaded brass inserts for vibration-resistant connections
- Easily removed
- · Color-coded nylon insulating shells
- · UL Listed and CSA Certified





		WIRE				DIMENSI	ONS (IN.)		- STD.
CAT. NO.	DESCRIPTION	RANGE*	MIN.	MAX.	Α	В	С	D	CTN.
Carton Packed									
10-305	(SS-0) Orange	#18-#12	(2) #18	(1) #12 w/ (3) #18	¹⁵ / ₁₆	7/16	²³ / ₆₄	3/8	100
10-307	(SS-2) Red	#18-#10	(6) #18	(2) #10 w/ (1) #12	13/32	39/64	33/64	35/64	100
Bulk Packed									
10-315	(SS-0) Orange	#18-#12	(2) #18	(1) #12 w/ (3) #18	¹⁵ / ₁₆	7/16	²³ / ₆₄	3/8	1000
10-317-H	(SS-2) Red	#18-#10	(6) #18	(2) #10 w/ (1) #12	13/32	39/64	33/64	35/64	1000
* Solid only									

UL File E-17010; CSA File LR-6541; 10-306 and 10-316 have been superceded by IBP.

Catamount® Set-Screw Vibration-Proof/Visible Connection

The Catamount® Set Screw is a two-piece, pressure-type connector featuring a solid brass insert with a screw-on insulating cap. It's the perfect choice when changing a motor, adding a circuit, conducting instrument testing or simply lashing-up temporary wiring.

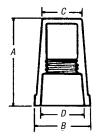
External Cap

- · Made of rugged, phenolic material and 150° C-rated.
- Insulator cap locks securely in place to safeguard against accidental loosening in high-vibration applications.

Brass Insert

- Choice of slot or Robertson set screw. When tightening into the insert, provides a solid pressure-type connection on all approved wire combinations.
- No need to "re-strip" wires when rewiring. Simply loosen set screw to remove non-twisted wires.

- CSA (LR6591), UL (424H) approved for circuits up to 600V and lighting fixtures and signs up to 1,000V.
- Convenient packaging sized right and jobsite ready!



Marrette Set Screws

CAT. NO.	DESCRIPTION	WIRE Range	STD. CTN.	STD. PKG.
1SHP	Marrette Set Screw, Small Robertson	#18-#12	100	1000
2SHP	Marrette Set Screw, Large Robertson	#18-#10	100	1000
1C-CDN	Marrette Set Screw, Small Slot-Head	#18-#12	3/Card	10 Cards
2C-CDN	Marrette Set Screw, Large Slot-Head	#18-#10	3/Card	10 Cards

Crimp Sleeve Wire Connectors

- · Zinc plated, chromate-treated steel
- Two sizes accommodate #18–#8 AWG copper
- · UL Listed and CSA Certified

* Stranded only. Installation tool 18-500.









		WIRE				DIMENSI	ONS (IN.)		STD.
CAT. NO.	DESCRIPTION	RANGE*	MIN.	MAX.	Α	В	С	D	CTN.
Carton Packet	1								
10-500	(Hi-410)	#18-#10*	(1) #14 w/ (1) #18	(2) #10 w/ (1) #12	3/8	19/64	1/4	13/64	50
10-501	(Hi-411)	#18-#8	(3) #12	(4) #10	³⁹ / ₆₄	23/64	5/16	17/64	50
Bulk Packed	,								
10-510	(Hi-410)	#18-#10*	(1) #14 w/ (1) #18	(2) #10 w/ (1) #12	3/8	19/64	1/4	13/64	1000
10-511	(Hi-411)	#18-#8	(3) #12	(4) #10	39/64	23/64	5/16	17/64	1000

Fax: 901.252.1354



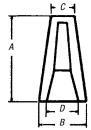
Thomas@Betts

Wire Connectors

Porcelain Wire Connectors — High Temperature

- For high-temperature applications over 105° C
- Rated up to 645° C (1200° F)
- Three sizes accommodate #18–#14 AWG stranded copper
- 300V Rated
- UL Listed and CSA Certified
- UL Standard 486C







		WIRE				DIMENSI	ONS (IN.)		_ STD.
CAT. NO.	DESCRIPTION	RANGE*	MIN.	MAX.	Α	В	С	D	CTN.
Carton Packed									
10-401	(Hi-1)	#18-#14	(2) #18	(1) #18 w/ (2) #16	11/16	13/32	3/16	1/4	100
10-405	(Hi-5)	#18-#14	(2) #18	(2) #16 w/ (2) #18	3/4	31/64	13/64	5/16	100
10-407	(Hi-7)	#18-#14	(2) #18	(4) #16	27/32	17/32	7/32	13/32	100
Multi-Carton Packed									
10-411	(Hi-1)	#18-#14	(2) #18	(1) #18 w/ (2) #16	11/16	13/32	3/16	1/4	1,000
10-415	(Hi-5)	#18-#14	(2) #18	(2) #16 w/ (2) #18	3/4	31/64	13/64	5/16	1,000
10-417	(Hi-7)	#18-#14	(2) #18	(4) #16	27/32	17/32	7/32	13/32	1,000
Bulk Packed				,					
10-421	(Hi-1)	#18-#14	(2) #18	(1) #18 w/ (2) #16	11/16	13/32	³ / ₁₆	1/4	10,000
10-425	(Hi-5)	#18-#14	(2) #18	(2) #16 w/ (2) #18	3/4	31/64	13/64	5/16	5,000
10-427	(Hi-7)	#18-#14	(2) #18	(4) #16	27/32	17/32	7/32	13/32	5,000

^{*} Stranded only.

UL File E-17010; CSA File LR-6541.

Catamount® Black® High-Temperature Wire Connectors

The Catamount® Black™ connector's high-temperature rating makes it the best solution for high-wattage lighting fixtures and signs.

External Cap

- Made of rugged, phenolic material and 150° C rated
- Large, finely ribbed, "barrel-shaped" cap makes it easier to grip even when hands are greasy or damp
- Deep, wide throat ensures full insulation coverage
- Threaded entry helps guide large wire bundles right into the spring

Inner Spring

- Internal round spring design multiplies the "twist-on" torque applied by the leverage and wedge action to firmly crush wires into a solid joint
- Unique copper-coated spring helps resist corrosion
- CSA (LR6591), UL (424H)
 - Model No. 30 Black™ is approved for circuits and fixture-type connections up to 300V only
 - Model Nos. 31, 33 & 35 Black[™] are approved for circuits up to 600V, and lighting fixtures and signs up to 1,000V

 Convenient packaging — sized right and jobsite ready!



CAT. NO.	DESCRIPTION	WIRE RANGE	MODEL	STD. CTN.
30P	Black	#22-#14	30	1,000
30BP	Black	#22-#14	30	1,000
30BK	Black	#22-#14	30	10,000
31P	Black	#18-#14	31	1,000
31KP	Black	#18-#14	31	5,000
31BP	Black	#18-#14	31	1,000
31BK	Black	#18-#14	31	10,000
33P	Black	#18-#12	33	1,000
33KP	Black	#18-#12	33	5,000
33BP	Black	#18-#12	33	10,000
33BK	Black	#18-#12	33	10,000
35P	Black	#18-#10	35	1,000
35KP	Black	#18-#10	35	2,500
35BP	Black	#18-#10	35	1,000
35BK	Black	#18-#10	35	5,000



United States Tel: 901.252.8000

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354



Tel: 888.862.3289







Wire Pulling Lubricants

Wire Pulling Lubricant — Semi-Synthetic Base

T&B offers a choice of wire and cable pulling lubricants. The popular standard base, cold weather and advanced engineered polymer-base lubricants are available. Each features superior stability, adherence and cable compatibility as well as excellent lubricating properties.

- Preferred semi-synthetic base formulation
- Retains lubricating properties and will not separate up to 200° F
- Will not separate after freezing
- Superior adherence to cable
- Recommended for use on all commonly used wire and cable. including high-voltage cable and all UL Listed conduits
- Dries to slick, waxy film
- Non-toxic, no silicones, non-staining, easy cleanup

Technical Information

- 1. pH:7.9
- 2. Coefficient of Friction (wet and dry residue) sliding wet — .07 sliding dry — .08
- 3. Color: yellow
- 4. Weight per Gallon: 8.26 lbs.
- 5. Freezing Point: +25° F (-4° C)
- 6. High-Temperature Stability: 200° F (93° C)
- 7. Non-toxic, non-staining, contains no silicones

Note: Additional test data available upon request.





CAT. NO.	DESCRIPTION	STD. CTN.
15-231	1 Gallon	4

Suitable for use with wire or cable insulated with rubber (R, RH, etc.), Neoprene, nylon and PVC plastics (T, TW, THW THHN, etc.), Hypalon*, high-density polyethylene and Cross Linked Polyethlene (XLP). Not recommended for use on asbestos or low-density polyethylene insulated cables. Compatible with semiconducting jackets present on highvoltage cable. Meets the requirements of ICEA Standards:

ICEA #S-61-402/NEMA Pub. #WC5 ICEA #S-66-524/NEMA Pub #WC7

Ul File F-43782.

*Hypalon is a registered trademark of E.I. DuPont.

For 24-hour safety and MSDS requirements, call Chemtrec at 800-424-9300.

WireSlick™ Wire and Cable Pulling Lubricant

WireSlick[™] wire and cable pulling lubricant represents the latest in polymer technology. An economical formulation, WireSlick™ polymer-base lubricant provides extremely good thermal stability and a lower freezing point (20° F) than clay-, soap- or wax-base formulations.

WireSlick™ is recommended for use with wire or cable insulated with rubber (R, RH, etc.), Neoprene; nylon and PVC plastics (T, TW, THW, THHN, etc.); Hypalon*; High-Density Polyethylene and Cross-Linked Polyethylene (XLP). It is also compatible with high-voltage cable with semi-conducting jackets.

WireSlick™ has been tested and passes the requirements of ICEA Standards:

ICEA #S-61-402/NEMA Pub. #WC5 ICEA #S-66-524/NEMA Pub. #WC7

- Polymer-base formulation
- Universally compatible with all types of wire and cable
- Widely used by power and telephone utilities
- Economical lubricant

Technical Information

- 1. pH:8.2
- 2. Coefficient of Friction (wet and dry residue) sliding wet — .11 sliding dry — .17
- 3. Color: orange
- 4. Weight per Gallon: 10 lbs.
- 5. Freezing Point: +20° F (-7° C)
- 6. High-Temperature Stability: 200° F (93° C)
- 7. Non-toxic, non-staining, contains no silicones

Note: Additional test data available upon reauest.

Wire and Cable Pulling Lubricant



CAT. NO.	DESCRIPTION	STD. CTN.
15-631	1-Gallon Pail	4

Ul File F-43782

*Hypalon is a registered trademark of E.I. DuPont.

For 24-hour safety and MSDS requirements, call Chemtrec at 800-424-9300.









1-800-453-1692

Catamount®

Electrician Hand Tools

7" Awl



- Comfortable cushion-grip handle that is small enough for working in obstructed areas
- Constructed of hardened and tempered steel for strength and durability
- · Convenient precision-ground tip can be resharpened

CAT. NO.	DESCRIPTION	STD. CTN.
18-AWL	7" Awl	5

Cable Cutter



- Designed to cut 4/0 aluminum and up to 2/0 soft copper
- Manufactured to meet or exceed U.S. government specifications

CAT. NO.	DESCRIPTION	STD. CTN.
18-CC9	Cable Cutter	5

Screw Starter



CAT. NO.	DESCRIPTION	STD. CTN.
18-265	Screw Starter 6" (Card Display)	10
18-266	Screw Starter 9" (Card Display)	10

Cable Rippers



 Slits outer jacket from Romex and other non-metallic (NM) sheathed cable

Model 18-223

- · Made from cast aluminum; has replaceable blades
- For 2- or 3-wire #14, #12 or #10 with or without ground

CAT. NO.	DESCRIPTION	WIRE RANGE	STD. CTN.
18-223	Cable Ripper for 2 or 3 Wires	#14, #12 or #10	12
18-201	Replacement Blade for 18-223	_	1

Wire and Cable Cutting and Stripping Tool



- Interchangeable cassettes enable the user to strip a wide range of insulations without having to change tools
- Tool automatically strips wire to preset length

CAT. NO.	DESCRIPTION	PKG. QTY.
ERG1-WS	Self-Adjusting, Cutting and Stripping Tool	1
VBC-1	Replacement "V" Blade Cassette	1
EDO4 14/0 14/1	01::	U. (0D0 4)

ERG1-WS Wire Stripping/Cutting Tool is shipped with one Straight Blade Cassette (SBC-1).

"V" Blade Cassettes sold separately.



Tel: 888.862.3289



Grounding Screws for Metal Boxes

- · Color-coded green
- Size 10-32 x 3/8, fits tapped screw hole in most boxes
- Cat. No. 11-104 taps its own threads





CAT. NO.	DESCRIPTION	STD. CTN.
11-101	Washer Head Screws	1,000
11-104	Hex/Phillips/Slotted Head Self-Tapping	1,000

Anchors — Metallic

Lead Expansion Anchors

- · For heavy-duty anchoring in solid masonry
- · One setting tool supplied in each standard carton; no screws supplied



CAT. NO.	SCREW SIZE	HOLE Depth (In.)	DRILL SIZE	STD. CTN.
53-308	1/4-20	7/8	1/2	500
53312	3%-16	11/4	3/4	250

Mushroom Head Toggle Bolts

- · "Spring-Wing" type, zinc plated
- · Bolts are threaded full length



CAT. NO.	SIZE	DRILL Hole (IN.)	STD. CTN.
52-602	1/8 (6-32) x 3	3/8	250
52-604	1/8 (6-32) x 4	3/8	250
52-622	³⁄₁6 (10-24) x 3	9/16	250
52-624	3/16 (10-24) x 4	9/16	250
52-632	½-20 x 3	3/4	250
52-634	½-20 x 4	3/4	250

Anchors — Non-Metallic

Economy Plastic Screw Anchor

· Superior holding power in solid masonry or concrete block



		FOR TAPPING SCR	. DRILL*	STD.	
CAT. NO.	SIZE	SIZE	LENGTH (IN.)	D	CTN.
50-404	#12 x 1"	10 to 12	1	1/4	1,000

^{*} When impact hammer drill is used, downsize drill hole 1/32".

Economy Screw Anchor Kits



DESCRIPTION	STD. CTN.
(100) #12 x 1" Screw Anchor	12
(100) 10 x 1" Slot/Phillips Head Screws	
(1) 1/4" Carbide-Tip Drill Bit	
(100) #12 x 1" Screw Anchor	12
(100) 10 x 1" Hex-Slotted Screws	
(1) 1/4" Carbide-Tip Drill Bit	
	(100) #12 x 1" Screw Anchor (100) 10 x 1" Slot/Phillips Head Screws (1) ¼" Carbide-Tip Drill Bit (100) #12 x 1" Screw Anchor (100) 10 x 1" Hex-Slotted Screws

^{*} Now with Slot/Phillips screws.







Thomas@Betts

Anchors — Non-Metallic (continued)

Hexagon Nuts

- · For use with machine bolts
- · Finest quality steel, zinc plated



CAT. NO.	SIZE	STD. CTN.
55-004P	6-32	1,000
55-005P	8-32	1,000
55-008P	1/4-20	1,000
55-010	5∕16-18	1,000
55-012	3%-16	1,000

Red-Cap® Anchor Kits

 Red Cap® anchors, screws and drill bit in reusable plastic kit box



CAT. NO.	DESCRIPTION	STD. CTN.
51-208	(100) #8 Anchors	12
	(100) 6 x 1" Panhead Screws (1) ¾6" Carbide-Tip Drill Bit	
51-212*	(100) #12 Anchors (100) 10 x 1" Combination Slot/Phillips Head Screws (1) ¼" Carbide-Tip Drill Bit	12
51-212HX	(100) #12 Anchors (100) 10 x 1" Hex-Slotted Screws (10) ¼" Carbide-Tip Drill Bit	12
51-216	(50) #16 Anchors (50) 14 x 11/64" Panhead Screws	12
* Now with com	bination Slot/Phillips screws.	

Self-Drilling Screws

- · Drill their own hole and form mating threads
- #8 screws fasten combined material thickness up to 3/32"
- #10 screws fasten combined material thickness up to 1/4
- · Hex Washer Head (no slot)
- ¼" hex head fits 54-090 Magnetic Driver
- 5/16" hex head fits 54-091 Magnetic Driver

CAT. NO.	SIZE	HEAD Size (In.)	POINT NO.	STD. CTN.
54-301	8 x ¾"	1/4	2	1,000
54-302P	10 x 5/s"	5/16	3	1,000
54-303P	10 x 1"	5/16	3	1,000
54-304	12-14 x ¾"	5/16	3	1,000

Magnetic Drivers

- For driving self-piercing and self-drilling hex head screws
- Fits power screwdriver and electric drill chucks
- Strong permanent magnet holds screw in position



Machine Bolts

- Steel, zinc plated
- Accurate, uniform threads
- Round heads standard; flat heads available in some sizes





CAT. NO.	SIZE	STD. CTN.
54-541P	8-32 x ½"	1,000
54-543P	8-32 x 1"	1,000
54-545P	8-32 x 1½"	1,000
54-546P	8-32 x 2"	1,000
54-570P	1/4-20 x 3/8"	1,000
54-571P	1/4-20 x 1/2"	1,000
54-572P	1/4-20 x 3/4"	500
54-573P	½-20 x 1"	500

Red-Cap® Screw Anchors

Superior holding power in solid masonry or concrete block



		FOR TAPPING SCREWS		. DRILL*	STD.
CAT. NO.	SIZE	SIZE	LENGTH (IN.)		CTN.
50-210	#8 x ¾"	6, 7 or 8	1-11/4	3/16	1,000
50-230	#12 x 1"	9, 10 or 12	1-11/4	1/4	1,000
50-250	#16 x 1%"	14 or 16, 1/4" Lag Screw	11/4-11/2	5/16	500
BULK					
50-239	#12 x 1"	9, 10 or 12	1-11/4	1/4	10,000

* When impact hammer drill is used, downsize drill hole 1/32".

Note: For maximum holding power, select screw length 1/4" longer than anchor.



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354



Tel: 888.862.3289





www.tnb.com

Snap-In Blanks

- Steel
- · Zinc plated
- · Used for replacing knockouts in outlet boxes



CAT. NO.	SIZE	DIAMETER (IN.)	STD. CTN.
BL-111	1/2	15/64	1,000
BL-112	3/4	11/4	1,000
BL-113	1	11/2	1,000
BL-114	11/4	113/16	500
BL-115	11/2	27/32	500
BL-116	2	211/16	250

Plastic Clamps — Nylon

- Nylon
- Screw hole size .203 for #10 screw
- Temperature range -40° F to 176° F



			DIMENSI	ONS (IN.)		STD.
CAT. NO.	DESCRIPTION	D	W	T	E	CTN.
12-102	(NPC-2)	1/8	3/8	3/64	21/64	1,000
12-103	(NPC-3)	3/16	3/8	3/64	3/8	1,000
12-104	(NPC-4)	1/4	3/8	3/64	13/32	1,000
12-105	(NPC-5)	5/16	3/8	3/64	²⁹ / ₆₄	1,000
12-106	(NPC-6)	3/8	3/8	3/64	15/32	1,000
12-107	(NPC-7)	⁷ / ₁₆	3/8	3/64	33/64	1,000
12-108	(NPC-8)	1/2	3/8	3/64	35/64	1,000
12-109	(NPC-9)	9/16	1/2	1/16	5/8	1,000
12-110	(NPC-10)	5/8	1/2	1/16	21/32	1,000
12-111	(NPC-11)	11/16	1/2	1/16	47/64	1,000
12-112	(NPC-12)	3/4	1/2	1/16	25/32	500
12-114	(NPC-14)	7/8	1/2	1/16	27/32	_
12-116	(NPC-16)	1	1/2	1/16	29/32	_
12-118	(NPC-18)	1¹/ ₈	1/2	1/16	31/32	50
Bulk Cart	ons					
12-202	(NPC-2)	1/8	3/8	3/64	21/64	1,000
12-203	(NPC-3)	3/16	3/8	3/64	3/8	1,000
12-204	(NPC-4)	1/4	3/8	3/64	13/32	1,000
12-205	(NPC-5)	5/16	3/8	3/64	²⁹ / ₆₄	1,000
12-206	(NPC-6)	3/8	3/8	3/64	15/32	1,000
12-207	(NPC-7)	7/16	3/8	3/64	33/64	1,000
12-208	(NPC-8)	1/2	3/8	3/64	35/64	1,000
12-209	(NPC-9)	9/16	1/2	1/16	3/8	1,000
12-210	(NPC-10)	5/8	1/2	1/16	21/32	1,000
12-211	(NPC-11)	11/16	1/2	1/16	47/64	_
12-212	(NPC-12)	3/4	1/2	1/16	²⁵ / ₃₂	1,000
12-214	(NPC-14)	7/8	1/2	1/16	27/32	500
12-216	(NPC-16)	1	1/2	1/16	29/32	500
12-218	(NPC-18)	11/8	1/2	1/16	31/32	_

Conduit Seals (Pennies)

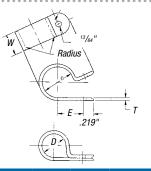
- Stee
- Used to keep plaster out of conduit during construction



OAT NO	A.==	STD.
CAT. NO.	SIZE	CTN.
815-TB	1/2	1,000
816	3/4	500
817	1	250
818	11/4	250
819	11/2	100
820	2	100
821	21/2	100
822	3	50
824-TB	31/2	25
823	4	100

Plastic Clamps – Polypropylene

- Polypropylene
- Cost effective
- Hole size .203 for #10 screw
- Temperature range -40° F to 221° F



		DIMENSIONS (IN.)			STD.	
CAT. NO.	DESCRIPTION	D	W	T	E	CTN.
12-502	(PPC-2)	1/8	1/2	1/16	23/64	1,000
12-503	(PPC-3)	3/16	1/2	1/16	27/64	1,000
12-504	(PPC-4)	1/4	1/2	1/16	29/64	1,000
12-505	(PPC-5)	⁵ / ₁₆	1/2	1/16	1/2	1,000
12-506	(PPC-6)	3/8	1/2	1/16	17/32	1,000
12-507	(PPC-7)	7/16	1/2	1/16	9/16	1,000
12-508	(PPC-8)	1/2	1/2	1/16	19/32	1,000
12-509	(PPC-9)	9/16	1/2	1/16	5/8	1,000
12-510	(PPC-10)	5/8	1/2	1/16	21/32	1,000
12-511	(PPC-11)	11/16	1/2	1/16	3/4	1,000
12-512	(PPC-12)	3/4	1/2	1/16	25/32	500
12-516	(PPC-16)	1	1/2	1/16	29/32	
Bulk Cart	ons					
12-602	(PPC-2)	1/8	1/2	1/16	23/64	1,000
12-603	(PPC-3)	3/16	1/2	1/16	27/64	1,000
12-604	(PPC-4)	1/4	1/2	1/16	²⁹ / ₆₄	1,000
12-605	(PPC-5)	5/16	1/2	1/16	1/2	1,000
12-606	(PPC-6)	3/8	1/2	1/16	17/32	1,000
12-607	(PPC-7)	7/16	1/2	1/16	9/16	1,000
12-608	(PPC-8)	1/2	1/2	1/16	19/32	1,000
12-609	(PPC-9)	9/16	1/2	1/16	5/8	1,000
12-610	(PPC-10)	5/8	1/2	1/16	21/32	1,000
12-611	(PPC-11)	11/16	1/2	1/16	3/4	1,000
12-612	(PPC-12)	3/4	1/2	1/16	25/32	1,000
12-616	(PPC-16)	1	1/2	1/16	29/32	500



United States

Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 Technical Services
Tel: 888.862.3289





1-800-453-1692

Steel Cable Staples



CAT. NO.	SIZE (IN.)	DESCRIPTION	H (IN.)	W (IN.)	STD. CTN.
For NM Cable					
17-130TB	1/2	2-Wire #12 or #14	7/8	1/2	5,000
17-140TB	1/2	Romex up to	7/8	1/2	5,000
17-140B	1/2	1/2" Wide	7/8	1/2	10,000*
17140XB	1/2		7/8	1/2	17,000
17-132	9/16	3-Wire #10 or #12	11/8	37/64	5,000
17-142	9/16	B X Romex; UF up	11/8	37/64	5,000
17-142B	9/16	to 37/64" Wide	1 1/8	37/64	8,000
17-123	3/4	3-Wire #6 SEU	1 ⁵ / ₁₆	25/32	1,000
17-124TB	1	3-Wire #2 SEU	11/2	1	1,000

^{*} Reusable Plastic Bucket.

Plastic Cable Staples



CAT. NO.	SIZE (IN.)	DESCRIPTION	STD. CTN.
17-214	½ (bag)	2-Wire, #12-#14 Romex,	500
17-224	1/2 (ctn.)	UF and other NM Cable	5,000
17-234	1/2 (ctn.)		5,000
17-215	3/4 (bag)	3-Wire #10 or #12 Romex	500
17-225	3/4 (ctn.)	UF up to % Wire	5,000
17-235	3/4 (ctn.)		5,000

^{*} Reusable Plastic Bucket.

Cable Protector Plate

 Protects wires, cords and cables from nail and screw penetration





CAT. NO.	DESCRIPTION	STD. CTN.
CP-1	Steel Clip	100

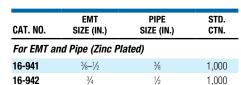
Perforated Hanger Strap (¾" Wide, 20 Gauge)

- · Galvanized finish
- Easily bends or twists to desired shape



CAT. NO.	DESCRIPTION	STD. CTN.
16-263	50' Bulk	1
16-264	100' Bulk	1

Drive Straps





Service Entrance Cable Straps



CAT. NO.	THINWALL CONDUIT SIZE (IN.)	STD. CTN.
ECS6	3:6, 2:6, 1:8	100
ECS2	3:2, 2:2, 1:4, 3:4	100
ECS20	3:2/0, 3:1/0	50
ECS40	3:4/0	50

Extra-Duty One-Hole Snap-Straps



CAT. NO.	THINWALL CONDUIT SIZE (IN.)	STD. CTN.	
16-910	1/2	500	

Tel: 888.862.3289





www.tnb.com

(F)

Hardware and Rough-In Products

Silicone Lubricant for High-Voltage Electrical Work

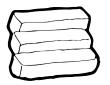
 Seals around junction boxes, flashings, service mast entries, service cable entries and countless other applications



CAT. NO.	SIZE	STD. CTN.
SL-5	5 oz.	12

Duct Seal

- · Can be painted immediately after application
- +20° F to 212° F workable temperature range
- -40° F to 250° F service temperature range
- Contains no asbestos



CAT. NO.	DESCRIPTION	PKG. QTY.
DX-1	1-lb. Slug	50
DX-5	(5) 1-lb. Slugs	10
DX-5S	5-lb. Slug	10

UL Classified R13335.

Note: Not classified as a "Fire Stop." For moisture and air sealing only.

Wire Bristle Brush

- · For removing oxides from conductor surfaces
- · Easy-grip handle with glove guard to prevent rubber glove puncture



CAT. NO.	ТҮРЕ	STD. CTN.
WWB1	Complete Brush with Handle	6
WRB1	Wire Element Only, Pair	30

CONTAX® Oxide-Inhibiting Compound

- Seals electrical connections from oxygen and moisture
- · Non-water soluble, non-petroleum based polymer grease
- · Non-toxic, will not irritate the skin
- Service temperature to 460° F; can be applied in 0° F weather

CAT. NO.	SIZE	PKG. QTY.
CTA	½-oz. Package	400
CTB	4-oz. Plastic Bottles	72
CTB8	8-oz. Plastic Bottles	12
CTQ	Quart Cans	6
CTG	Gallon Cans	2





Thomas@Betts

Catamount®

Hardware and Rough-In Products, Wire Testing Equipment

CTO™ Conduit Threading Oil

This oil is a premium petroleum-type cutting oil, chemically compounded to provide an excellent lubricant and coolant for heavy-duty threading, cutting, tapping and drilling.

CAT. NO.	DESCRIPTION	PKG. QTY.
15-112	1 Gallon	4

Receptacle Tester

- Conveniently tests receptacles for proper wiring, including polarity and presence of safety ground wire
- Label gives interpretations of all readings





CAT. NO.	DESCRIPTION	PKG. QTY.
19-060	Receptacle Tester for 120V Circuits	6
UL File E-80682.		

High-Volt Testers

- 90–250 volts AC/DC
- · Convenient pocket clip included



CAT. NO.	DESCRIPTION	PKG. QTY.
UAT. NO.	DESCRIPTION	rku. Q11.
19-079	Tester & Screwdriver, 5" Overall Length	6

19-660C Audible Voltage Continuity Tester

Designed for the everyday needs of the professional electrician and made in the USA.

This solenoid-type tester model's features include:

- Three voltage indications: Solenoid vibration sensing, electronic neon visual indication and audible buzzer
- Positive AC/DC voltage identification: 6 to 600 volts, 60/50 Hz
- · Automatic testing for continuity through 300K ohms
- · Electronic buzzer indication for AC/DC voltage and continuity





CAT. NO.	DESCRIPTION	PKG. QTY.
19-660C	Audible Voltage/Continuity Tester, Solenoid Type	10



Technical Services







Catalog Number Index

CAT. NO.	0	PAGE NO.	CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.
	0		118-LB 118-LBP			D-49 A-64, B-246
08200C			118-N			•
08200M			12005-200			D-49 D-49
08205			12005-200 12005AK-001			D-49
	1		12005AKC-001			D-49
10103TB		B-377	12005AKC-001			D-49
10105			12005G-370			D-49
10109			12005n-200			D-49
102-W-LB-1/4			12005-0F0			D-49
10-305			120031-200			D-49
10-307			12007-100			D-49
10-315			12007AA-001			D-49
10-317-H			12007G-240			
1032-C			12007K-100			D-49
1032-UB			12007-0PC			D-49
103-W-AB						
1040			12008-010 12008-100		122-LB	A-81 A-81
10-401						
10-405			12008-750			A-80
10-407			12008C-160			A-80
10-411			12008C-750			A-92
10-415			12008R-100			A-93
10-417			12008R-750			D-49
10-421			12008Y-100			D-49
10-425			12008Y-750			D-49
10-427			12009-750			D-49
1043			12010-750			D-49
1043-C			12010Y-750			D-49
1043-C-SQ			12011-500			D-49
1045-0-3Q 104-W-FB-3/4			12011R-500			D-49
104-W-FB-3/4			12011Y-500			A-92
10–500			1205AKR-001			A-92
1050-UB			1205AKY-001			D-49
10–510			1207AAC-001			D-49
10–510			1207AAR-001			D-49
10–311 1052-C			1207AAY-001			D-49
1052-C-SQ			120-LB			A-92
1052-0-3u 1052-PC			120-LBP			D-49
1052-FG		A-93 A-93	120-N			D-49
			120-N-FS			D-49
1063			12-102			D-49
106-3/4			12-103			D-49
1063-C		A-95	12-104			D-49
1063-C-SQ			12-105			D-49
106-FB-1/2			12-106			D-49
106-FB-3/4			12-107			A-92
1072			12-108			D-49
1072-C			12-109			D-49
1072-C-SQ			12-110			D-49
1072-PC			12-111			D-49
11-101			12-112			A-60
11-104			12-114			A-64, B-246
114-0W		A-83	12-116	D-49	132-W-1/2	A-52

Fax: 901.252.1354

Catalog Number Index

CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.
132-W-AB-1/2	A-52	171-MS-18 5/8	A-8	18417	
132-W-FB-1/2	A-52	171MSX13	A-8	18511	C-88
132-W-FB-3/4		171-MSX-14	A-8		C-88
132-W-FBC	A-52	171-MSX-1458	A-8	18515	C-88
134-BW		171MSX18			
14-B		171-MSX-18 5/8			
14-BL		171-SH2346-13			
15-112		171-SH2346-14			
151-MS-13		171-SH2346-1458			
151-MS-14		171-SH2346-17			
151-MS-1458		171-SH2346-18			D-46
151-SH2346-13		171-SH2346-1858			
151-SH2346-14		171-SV12-13			
151-SH2346-1458		171-SV12-14			
151-SH2346-17		171-SV12-1458			D-31
151-SH2346-18		171-SV12-1430			A-58
151-SH2346-1858		171-SV12-17			A-56
151-SV12-13		171-SV12-1858			D-43
151-SV12-14		171-SV18-13			2 A-127
151-SV12-1458		171-SV18-14		2" N.P.S. PLUG	A-127
151-SV12-17		171-SV18-1458		2000	A-92
151-SV12-18		171-SV18-17			A-93
151-SV12-1858		171-SV18-18			A-94
151-SV18-13		171-SV18-1858			A-94
151-SV18-14		17-214			A-94
151-SV18-1458	A-9	17-215			A-96
151-SV18-17		17-224			A-96
151-SV18-18		17-225			A-96
151-SV18-1858		17-234	D-50		A-96
15-231	D-45	17-235	D-50		A-90
15-631	D-45	18011	C-88		A-92
16-263	D-50	18013	C-88		A-93
16-264	D-50	18015	C-88		A-93
16-910	D-50	18017	C-88		A-92
16-941	D-50	18111	C-88		A-92
16-942	D-50	18113	C-88		
17011	C-88	18115	C-88		A-29
17013	C-88	18117	C-88		A-83
17015		18-201			A-81
17017	C-88	18211	C-88		A-81
17-123		18213		-0 : ::: ::::::::::::::::::::::::::::::	A-81
17-124TB		18215			A-29
17-130TB		18217			A-29
17-132		18-223			A-349
17-140B		18-265			A-349
17-140TB		18-266			A-349
17140XB		18311			A-349
17-142		18313			A-349
17-142B		18315			A-27
171MS13		18317			A-27
171-MS-14		18411			A-60
171-MS-1458		18413			D-8
171-WS-1456		18415			A-219
17 11VIO10	A-0	10 4 1J	U-00	2CCB-FS	A-219



Catalog Number Index

CAT. NO.	PAGE NO.
2CCD	
2CCDG	
2CCD-L	
2C-CDN	
2CCG	
2CCS	
2CCSD	
2CCSG	
2CCSG-L	
2CCS-L	
2CCT	
2CCT-1	
2CCTD	
2CCTD-1	
2CCTG	
2CCU	
2CCU-BR	
2CCU-WH	
2CKNM	
2CKNMD	
2CKNM-NG	
2CKNM-NGD	A-227
2CKU	
2G 1/2 3/4	A-52
2G4D 1/2 & 3/4	A-40
2G4DV 1/2 & 3/4	
2G4DV 1/2 3/4	A-53
2-GC	A-54
2-GCB	A-54
2-GCS	
2IH3	A-233
2lH3-1	A-231
2lH3-2	A-231
2IH4	A-233
2IH4-1	A-231
2lH4-2	A-231
2IH5	A-233
2IH5-1	A-231
2IH5-2	A-231
2IH5S2	A-233
2IH5S2-1	A-231
2IH5S2-2	A-231
2IH7	
2IH7-1	A-231
2IH7-2	
2IH7S2	
2IH7S2-1	A-231
2IH7S2-2	
2IHD5	A-233
2IHD5-1	A-232
2IHD5-2	A-232
2IHD5-3	
SIME	

CAT. NO.	PAGE N
2L80D2	A-24
2-MB	A-5
2-MBS	
2SHP	
3000	
3000	A-9
3000-02	
3000-9-PC	
3000-9-UB	
3000-PC	
300-DR	A-3
300-SR	
3030	
3030-02	
3030-02-40	
3030PC	
3051	A-10
3060	A-9
3080	A-10
3080-9	A-10
3080-902	A-10
3080-9-40	A-10
3080-9-PC	
3080-9-SQ	A-10
3080-SQ	A-10
3090-94	
3090-94-40	A-10
3090-95	A-10
3090-95-40	A-10
3090-N	A-9
3090-N-40	A-9
3090-N-S	A-9
30BK	D-4
30BP	D-4
30P	D-4
3190	
3190-C	
3190-C-94	A-10
3190-C-95	
3190-PC	
31BK	D-4
31BP	D-4
31KP	D-4
31P	
329-BK	
329-BP	
329-P	
330-BK	
330-BP	
330-P	
331KP	
221M	

:at. nu. 333KP	PAGE NO.
333KP	D-42
33M	
333P	
335D	
335P	D-42
3350	
33BK	
33BP	
33KP	
3P	
345-LB	A-82
345-N	A-82
35BK	D-44
S5BP	D-44
85KP	D-44
85P	D-44
86	A-106
86115 C30	A-29
86125 D	A-29
6-PFC	
900	
CCB	A-219
GG 1/2 3/4	A-52
GG4D 1/2	A-53
GG4D B 1/2	A-53
GG4D V 1/2	
B-GC	
B-GCB	Δ-54
B-GCS	Δ-54
SIHD7	Λ 0 1 Δ-233
SIHD7-2	
SIHD7-3	
B-MB	
8-MBS	۳-50 ۸ ₋ 57
B-0-B-1/2	Λ-3U
B-O-B-MXN	Λ-3U
8-0-LCE	A-30
8-0-LCH	A-30
8-0-SPL	A-30
BR-16-BH	A-30
BR-16-BHGP	
BR-16-N	A-90
R-16-NGP	
R-16-N-RED	
4	_
1000-02	A-97
000-1-UB	
1000-N	
1000-N02	
01-CS	

4020-1 A-97

Catalog Number Index

CAT. NO. 403-T	PAGE NO.	CAT. NO. 476	PAGE NO.	CAT. NO.	PAGE NO.
					D-48
4041		477-NEC			D-48
4042-12		478			B-130, B-226
4043		478-G-12			D-47 A-103
4051 4052 BROWN		479-GFI			
		480-BW		5000 IVUKY	A-103
4052 IVORY		481-BW			A-103
4052 WHITE		482-NEC			B-130, B-226
405-B		489-MA			A-103
4060-02		4-DWS			A-103
4060-9402		4G 1/2 3/4			A-103
4060-9502		4G4D 1/2			A-103
4060-N02		4G4D B 1/2			A-103
4061		4G4D V 1/2			A-103
4062 BROWN		4-GC			B-130, B-226
4062 IVORY		4-GCB			A-103
4062 WHITE		4-GCS			A-103
4070-302		4-MB	A-58		A-103
4070-94		4-MBS			B-130, B-226
4070-9402	A-101	4-0D-EXT-1/2			A-60
4070-95	A-101	4-0D-EXT-SPL			B-130, B-226
4070-9502		4-0D-FB-MXN			B-130, B-226
4070-95-40	A-101	4-0D-LCB	A-32	51-208	D-48
4070-95-PC	A-101	4-0D-U-MXN	A-32	51-212	D-48
4070CFB-BHL	A-35	4-0-ULC	A-32	51-212HX	D-48
4070-CFB-BHL	A-101	4-0W-LC-BHC	A-32	51-216	D-48
4070-N	A-100	4-0W-MXN	A-32	512-U	B-52, B-128
4070-N02	A-100	4S-32-N	A-83	51-404	D-47
4070-N-SQ	A-100	4S-812C	A-74		D-47
40-UB		4-SDW-FB-MXN			A-23
410-LC		4-SDW-LC			A-43
4160-UB		4-SDW-MXN			A-43
4170		4-SS-WR-1/2			A-43
4170-3-CFB		4-SW-1/2-2BC			A-43
4170-C		4-SW-AB-1/2			A-43
4170-CFB		4-SW-LC			A-43
4170-CFB-S		4-SW-MXN			A-43
440-B		4-S-WR-1/2			A-43
449-BW		5	A TI		A 43
44-B					A 43
44-BD		5 GC			A-43
44-BL		5 GCB			A-36
452		5 GCS	A-54		A-30
460-LB		50	B-242		A-43
460-SB		500			A-43
460-SB-24		500-K-3/4	A-33	52 C 40 1/2	A-43
		500-SC	B-130, B-226		
469		500-TL	A-33		A-43
470-BW		501			A-43
471-NEC		501-CA			A-43
472-NEC		501-CS			A-43
473-NEC		502			A-43
474-BW		50-210	,		A-41
475	A-42	50-230		52 PS 2	A-41



Fax: 901.252.1354

Catalog Number Index

CAT. NO. 52141-1/2	PAGE NO. Δ-37	CAT. NO. 52171-CMD18	PAGE NO. Λ_7	CAT. NO.	PAGE NO. A-23
52151 1/2		52171-CMD18-5/8			A-23
52151 1/2 3/4		52171-CV-1/2 & 3/4			A-23
52151 BN		52171-CV-1234RD			A-24
52151 BX		52171-CVX			A-42
52151 CV 1/2 3/4		52171-EW-SSX			A-42
52151 CV 3/4		52171-EXTOWRD			A-42
52151 CVN		52171-EXTRD			
52151 CVX		52171-EXTRU			A-42
52151 MS 1/2 & 3/4					A-42
		52171MSXP			A-36
52151 MS N		52171-0W			A-24
52151 MS X		52171-SVT			D-47
52151 N		52171-VN			D-47
52151 VN	_	52171-X-SSX			A-24
52151 VX		521911234			A-24
52151 X		521911234CV			A-24
52151-1/2 & 3/4-EW	• • • • • • • • • • • • • • • • • • • •	521911234CVRD			A-24
521511234EWGB		521911234RD			A-24
521511234EWGBP		52-3/4-BW			A-24
521511234EWP	-,	52-602		53-0WE	A-24
521511234P		52-604	D-47	53-0WEC	A-24
52151-1234RD	A-36	52-622	D-47	53-0WE-MXN	A-24
52151-3/4	A-37	52-624	D-47	54 571P	B-77
52151-3/4-W		52-632	D-47	54 C 1	A-33
52151B1234	A-37	52-634	D-47	54 C 14	A-33
52151-CM13	A-7	52-C-17-25	A-43	54 C 3	A-33
52151-CM14	A-7	52-C-18-5/8-25	A-43	54 C 3 1	A-33
52151-CM14-5/8	A-7	52C1-VT			A-33
52151-CMD17	A-7	52C20-25			A-33
52151-CMD18	A-7	52-C-3-1/2-25			A-33
52151-CMD18-5/8		52-C-3-1-1/4			A-33
52151CVNP		52-C-3-25			B-130
52151DV12	,	52-C-3-3/4			B-50, B-130
52151-EF-SSX		52-C-36		5401-LR	
52151-SVT		52-C-49-1		5402 LR	
52151-V-1/2 & 3/4		52-C-49-1-1/4		540-3/4	
52151XP		52-C-49-3/4		540-5/8	
52151-X-SSX		52C5011/2-25		54-090	
52171 1		52C512-25		54-091	
52171 3/4		52-C-52-1		54151 1/2	
52171 MS 1/2 3/4		52-C-52-1-1/4		54151 1/2 & 3/4	-
52171 MSX		52-C-52-3/4		54151 3/4	
52171 N		52-C-ADJ			
52171 V 1/2 & 3/4				54151 A	
		52-C-ADJ2		54151 AF	
52171 X		52CM13		54151 AL	
521711234E		52CM14		54151 J 1/2	
521711234EP	A-0, A-38	52CM14-5/8		54151 L 1/2	
52171-1234RD		52CMD17		54151 N	
52171-B-1/2 & 3/4		52CMD18		54151 NE	
52171-CM13		52CMD18-5/8		54151 NF	
52171-CM14		52-FB-3/4		54151 NG	
52171-CM14-5/8		52-FBC		54151 NL	
52171-CMD17	A-7	52-LCNE	A-23	54151 NO	A-32

Fax: 901.252.1354

Catalog Number Index

CAT. NO. 54151 NP	PAGE NO.	CAT. NO. 55-008P	PAGE NO.	CAT. NO.	PAGE NO. A-59
54151 NV		55-010		6011DW-25	A-59
54151 V 1/2		55-012			A-63, B-29, B-102
54151-1/2-CFB-BP		55151 1/2 3/4			A-63, B-29, B-102
54151AV-25		551511/2-25			A-63, B-30
54151-CFB		56111			A-63, B-30
54151CFB-BHL		56111-CFB			B-30
54151CFB-BHL-OW		56111CFB-BHL			A-147
54151-VT		58 C 1			A-48
54171 1		58 C 11			A-147, A-148
54171 1/2 3/4		58 C 16			A-126
54171 3/4		58 C 30			A-125
54171 NL		58 C 4			A-98
541711/2-25		58 C 5			A-147, A-148
54171-1/2-F-CFB-BP		58 C 6			B-30
54171-CFB		58 C 7			B-30
54171-F-CFB		58351 1/2			A-63, B-30
54171N-25	A-31	58351 B 1/4	A-50	6029	A-63, B-29, B-30, B-102
54171NV-25	A-31	58361 1/2	A-50	6029 H	A-63, B-29, B-102
54-301	D-48	58361 3/4	A-50	602-AL-SC	A-147
54-302P	D-48	58361 V 1/2	A-50	602-SC	A-147, A-148
54-303P	D-48	58371 1/2	A-50	602-SC SERIES	A-126
54-304		58371 3/4	A-50	603	A-125
544		58371 T 1/2			A-147
54531 1/2 3/4	A-56	58371V1/2-25			A-147, A-148
54541 1/2 3/4		59361 1/2			A-126
54541-CFB		59361 3/4			A-125
54-541P		5G 1/2 3/4			A-147
54-543P		5-SDW-FB-1			A-48
54-545P		6			A-48
54-546P					A-147, A-148
54551 1/2 & 3/4		6 GC			A-126
54551-3/4 & 1		6 GCB			A-98
54551-CFB		6 GCS			A-98
54561 1/2		600			A-98
54561-1/2 & 3/4		6000-402			A-94
54561-3/4 & 1		600-11/4			A-94
54-570P		600-1-SC			A-94
54571 1/2 3/4		600-2-SC	A-147, A-148		A-94
54571-3/4 & 1		600-4-FL	A-171		A-95
		600-4-FL-AL	A-171		
54-571P		600-AL-SC			A-98
54-572P		600-SC	A-147, A-148		A-98
54-573P		600-SC SERIES	A-126		B-30
54-574		601			A-48
54-576		6010-402		6090-402	A-98
54581 1/2 & 3/4		6010-4-PC			A-125, A-126, A-169
54591 1/2 & 3/4		6010-4-UB			B-376
54C1-VT		6010ADW-25			B-376
54-FBC		6010DW-25			B-376
54-FB-MXN		601-1			B-376
54-LC		601-1/2-SC			B-376
55-004P		601-11/4			B-376
55-005P	D-48	601-1-1/4		6218	B-376
		001 1 1/7			

Catalog Number Index

CAT. NO. PAGE NO.	CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.
62WA-125, A-126, A-169		C-12		A-139
630-SCA-171		C-12		A-139
631 A-171		C-12		A-139
638 A-171		C-18		A-139
639 A-171		C-16		A-139
63W A-169		C-18		A-125, A-138
640 A-171	650-BW	A-49	668- CST-BGE	A-137
641 A-125, A-126, A-158, A-159		A-49		A-137
641-1 A-159		A-49		A-137
641-AL A-159	663-BW	A-49	668-CST-BRN	A-137
641PA-125, A-126, A-162		A-125, A-126, A-129		A-137
641P-CACAA-162, A-165		A-131		A-125, A-136
641P-CACBA-162, A-165	664-Cl	A-125, A-126, A-130	668-S-1G	A-137
641P-CAC-BGEA-162, A-165	664-CST-SW-ALM	A-131	668-S-1RP	A-137
641P-CAC-BLKA-162, A-165	664-CST-SW-BGE	A-131	668-S-6AVA	A-137
641P-CAC-GRYA-162, A-165	664-CST-SW-BLK	A-131	668-S-60RT	A-137
641P-TACAA-162, A-165	664-CST-SW-BRN	A-131	668-S-6PAN	A-137
641P-TACBA-162, A-165	664-CST-SW-BRS	A-131	668-S-6RJ	A-137
641P-TAC-BGEA-162, A-165	664-CST-SW-GRY	A-131	668-S-BP	A-137
641P-TAC-BLKA-162, A-165	664-GP	A-131	668-TRIM-ALM	A-137
641P-TAC-GRYA-162, A-165		A-131	668-TRIM-BGE	A-137
642 A-125, A-126, A-158, A-159	664-S	A-125, A-126, A-130		A-137
642-1A-159		A-131	668-TRIM-BRN	A-137
642-AL A-159		A-125, A-126, A-130		A-137
642PA-125, A-126, A-162		A-131		A-66
642P-CACAA-162, A-165		A-131		B-247
642P-CACBA-162, A-165		A-131		A-126
642P-CAC-BGEA-162, A-165		A-125		A-125, A-156
642P-CAC-BLKA-162, A-165		A-135		A-125, A-156
642P-CAC-GRYA-162, A-165		A-134		A-51
642P-TACAA-162, A-165		A-135		A-51
642P-TACBA-162, A-165		A-49		A-51
642P-TAC-BGEA-162, A-165		A-125		A-51
642P-TAC-BLKA-162, A-165		A-133		A-51
642P-TAC-GRYA-162, A-165		A-135		A-50
643 A-125, A-126, A-158, A-159		A-135		A-50
643-AL		A-135		5, A-126, A-147, A-148
643P		A-135		A-147
643P-CACAA-162, A-165		A-135		A-144
643P-CACBA-162, A-165		A-135		A-145
643P-CAC-BGEA-162, A-165		A-135		A-144
643P-CAC-BLKA-162, A-165		A-135		A-145
643P-CAC-GRYA-162, A-165		A-135		A-145
643P-TACAA-162, A-165		A-135		A-145
643P-TACBA-162, A-165		A-126, A-132		A-145
643P-TACBA-102, A-103		A-120, A-132		A-145
643P-TAC-BLKA-162, A-165		A-135		A-145
643P-TAC-GRYA-162, A-165		A-135		A-145
644		A-120		A-145
649A-125, A-126, A-136, A-139		A-139		A-144
650-40587 C-12		A-139		A-144 A-144
650-40587-1		A-139 A-139		A-144 A-146
				A-146 A-146
650-40587C	υσ <i>ι</i> -D۲	A-139	00-07-770-BLN	A-14b

Fax: 901.252.1354

Catalog Number Index

CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.
68-HP-FFC-BRS	A-146	696-40527-3-9C		6H3-SC	B-225
68-HP-FFMK	A-146	696-40527-4	C-12	6H3-TB	B-225
	A-145		C-12		B-225
	A-125, A-126,	696-40527-5-0	C-12	6H4-B	B-225
	A-142, A-150, A-151	696-40527-5-0C	C-12	6H4-TB	B-225
	A-150				B-225
	A-151				B-225
	A-151				B-225
	A-151				B-225
	A-151				B-225
	A-151				B-225
68P-DV-KIT-BRS	A-151	696-40527-5-9			B-225
	A-151				B-225
	A-151				B-225
	A-150				B-225
	A-150				B-225
	A-142				B-194
	A-142		C-12	011 D	
	A-142				7
	A-142				B-139
	A-142		C-12		B-139
	A-142		C-12		B-139
	5, A-126, A-147, A-148				B-139
	A-120, A-147, A-140				B-139
	A-157, A-161, A-171				A-94
	A-157, A-161, A-171		C-12		A-94
	A-157, A-161, A-171				B-139
	A-157, A-161, A-171		C-12		B-139
60/	A-157, A-161, A-171		C-12		B-193
605	A-157, A-161, A-171				A-98
			C-12		A-98
			C-29		B-36, B-139
					B-36, B-139
			C-16		B-36, B-139
					B-36, B-139
			A-157, A-161, A-171		B-36, B-139
			A-157, A-161, A-171		B-36, B-139
			A-157, A-161, A-171		B-36, B-139
			A-137, A-101, A-171		B-36, B-139
			B-194		B-36, B-139
			B-194 B-225	701-1-STR	B-36, B-139
	C-12		B-225	701-2	B-36, B-139
				701-2-1/2	B-36, B-139
			B-225	701-2-1/4	B-36, B-139
			B-225	701-2-1/8	B-36, B-139
			B-225	701-2-3/4	B-36, B-139
			B-225	701-2-3/8	B-36, B-139
			B-225	701-2-5/8	B-36, B-139
			B-225		B-36, B-140
			B-225		B-36, B-140
			B-225		B-36, B-139
			B-225		B-36, B-139
			B-225		B-36, B-140
696-4052/-3-9	C-12	рнз-в	B-225		B-36, B-140



Catalog Number Index

CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.
	B-36, B-140	703-1/2		72151MSXP	
	B-36, B-140	703-1-1/2	B-140	72171 1	
701-3-3/8	B-36, B-140	703-1-1/4	B-140	72171 1 1/4	A-47
	B-36, B-140	703-2	B-140	72171 3/4 1	A-47
701-3-7/8	B-36, B-140	703-3/4	B-140	72171 MS 1/2 3/4	A-47
	B-36, B-140	7060	A-98	72171-1/2 & 3/4-E	A-47
	B-36, B-140	7072-2	A-94	72171-1234RD	A-36
	B-36, B-140	7072-202		72171CV 1/2 3/4	
	B-36, B-140	7072-N02		72171MS14	
	B-36, B-140	7073-2		72171-MS-1458	
	B-36, B-140	7073-202		72171MS18	
	B-36, B-140	7073-238-02		72171-MS-18 5/8	
	B-36, B-140	7074 BH		72171 MO 10 3/0	
	B-36, B-139	7074-02 BH		72171MSX14	
	B-36, B-139	707-SPL		72171-MSX-1458	
	B-36, B-140	708-SPL		72171-W3X-1430	
	B-36, B-140	7090		72171-MSX-1858	
	B-36, B-140	709-SPL		72171MSXP	
	B-36, B-140	710-SPL		72171-SVT	
	B-36, B-140	71-W		72-C	
	B-36, B-140	71W-DS		72C1-VT	
	B-36, B-140	71W-DS-N		72-C-3-1	
	B-36, B-140	71W-GFCI		72-C-3-1/2	
	B-36, B-140	71W-GFCI-N		72-C-3-3/4	
	B-36, B-140	72		72-C-49-1	
	B-36, B-140	72 C 1		72-C-49-1/2	
701-6-3/4	B-36, B-140	72 C 13		72-C-49-1-1/4	
	B-36, B-140	72 C 14		72-C-52-1	
	B-36, B-140	72 C 14 5/8		72-C-52-1/2	
	B-36, B-140	72 C 15		72-C-52-1-1/4	
701-7/8	B-36, B-140	72 C 16	A-49	72-FB-MXN	A-25
701-8	B-36, B-140	72 C 17	A-49	72-0C	A-25
702	B-193	72 C 18	A-49	72-ONS-MXN	A-25
702_AL	B-191	72 C 18 5/8	A-49	72-0WE	A-25
7020-8	A-98	72 C 19	A-49	73151 1/2 3/4	A-47
702-1	B-140	72 C 21	A-49	73171 1	A-47
702-1/2	B-140	72 C 3		73171 1/2 3/4	
	B-140	72 C 49 3/4		73-FBC	A-26
	B-140	72 C 50 1 1/2		73-FB-MXN	
	B-140	72 C 51 2		73-0NCS	
	B-140	72 C 52 3/4		741-D	
	B-140	72 C 53 1 1/2		741-S	
	B-140	72 C 54 2		742-D	
	B-140	72 C 6		742-S	
	B-140	72 C 62		743-D	
	B-140	72 PD 1		743-S	
	B-140	72 PD 2		74-CE	
	B-140	72 PS 1		74-FBC	
	B-140	72 PS 2		74-PBC	
	B-140	72151 MS 1/2 3/4		74-0NGS	
	B-140	72151-1/2 & 3/4-E		7503	
	B-140	72151MSP		7503-SC	
703 I	B-140	72151MSX	A-4/	75-0NCS	A-26

Fax: 901.252.1354

Catalog Number Index

CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.
	A-125, A-126, A-154, A-155	9803		A-185-1/2 X 1-1/4	
/8-SU	A-125, A-126, A-154, A-155		1	A200D	
	8	A-100	B-115, B-192	A200E A200F	
	A-19	A-1200 B-110,		A200F A208	
	A-21	B-199,	B-201, B-203, B-205,	A209	
	A-22	B-207		A210	
	A-20	A-1200 AL		A210D	
	A-20	A-1200 PG		A210E	
	A-54	A-1200_AL		A210F	
	A-54	A-1200_HS_T316SS		A211	
	A-54	A-1200_SS		A212	
	A-54	A-1200_T316SS		A-213	
	B-186	A-1200-HS		A217	
	A-19	A-1200-HS_AL		A218	
	B-186	A-1200-HS_SS	B-192	A220D	
	D-49	A-1200-K0	B-111, B-183	A220E	
	D-49	A-1200-P		A220F	
		A-1200-S	B-111	A220G	
	D-49	A-1202		A220H	
	D-49			A220J	
				A230D	
	A-28	A-1202_AL		A230E	
	B-247	A-1202_SS		A230F	
	D-49	A-1202-C_AL		A238	
	D-49	A-1202-HS		A238DIV	
		A-1202-HS_SS		A240D	
		A-1202-HS_T316SS		A240E	
	A-159	A-1202-T316SS		A240F	
	A-125, A-126,	A122		A-243-1	
	A-158, A-159	A12-25		A243D	
	A-159	A12E-25		A243E	
842-SC	A-125, A-126,	A-1400		A243F	
	A-158, A-159			A245D	
	A-159	A 4400 00		A245E	
	A-125, A-126,	A-1400 SS		A245F	
	A-158, A-159	A-1400-HS		A253D	
	A-157, A-172	A-1400-K0		A253E	
	A-157, A-172	A-1400-P		A253F	
	A-155, A-172	A-1400-S		A254-25	
	A-172	A-1402		A-256	
	A-157, A-172			A257-25	
	A-172	A16-25		A-258	
	A-125, A-126,	A177 1/4 1		A263D	
	A-154, A-155	A-177-1/4 X 1-1/4		A263E	
	A-126	A-179-3/8 X 1		A263F	
	A-125, A-126,	A-179-3/8 X 1-1/4		A273DE	
	A-154, A-155	A-180-1/2 X 1		A273EF	
	9	A-180-1/2 X 1-1/4		A293DEF	
90650-I		A182 1/4 1		A340F	
		A-182-1/4 X 1-1/4		A343F	
	A-56	A-184-3/8 X 1		A353F	
	A-126	A-184-3/8 X 1-1/4		A400	
		A-185-1/2 X 1	B-116		,



Catalog Number Index

CAT. NO. A410	PAGE NO. A-105, A-336	CAT. NO. A-726-12	PAGE NO. B-151	CAT. NO. AA-1123	PAGE NO.
A411		A-726-14			D-39
A412		A-726-16			D-39
A413		A-726-18			D-39
A414		A-726-2			D-39
A420		A-726-20	B-151		D-39
A421		A-726-2-1/2			D-39
A422		A-726-24			D-39
A470D		A-726-3	B-151	AA-1131	D-39
A471	A-105, A-337	A-726-3/4	B-151	AB-100	B-115, B-192
A472	A-105, A-337	A-726-4	B-151	AB-1002-3/4	B-127
A52151D		A-726-5	B-151	AB102 1/4	B-127
A52151E		A-726-6	B-151	AB-102-1/2	B-127
A52171D	A-335	A-726-8	B-151	AB-102-3/8	B-127
A52171E	A-335	A802	B-186	AB-102-5/8	B-127
A5217DE	A-335		B-186		B-127
A521DE	A-335	A804 NEOP WH	B-198		B-211
A5329DE		A-805	B-186	AB201	B-118, B-193, B-196, B-211
A540DS	A-336	A-809		AB201_AL	B-191
A58381D		A822	B-186	AB202	B-118, B-194, B-211
A58381E		A853			B-118, B-194, B-196, B-211
A597	B-51, B-129	A853L	B-186	AB204	B-118, B-194, B-211
A615D		A854		AB205	B-118, B-193, B-196, B-211
A615DE		A854L			B-118, B-194, B-197, B-211
A615DH		A861			B-118, B-194, B-197
A615DJ		A862D			B-118, B-194, B-211
A615DL		A862E			B-118, B-194, B-211
A615E			A-330		B-211
A-716			A-330		B-118, B-211
A-716-1			A-330	AB219	B-118, B-194, B-196, B-197
A-716-1/2		A863CF			B-118, B-195, B-197
A-716-1/4			A-330		B-75, B-113
A-716-1-1/2			A-330		B-75, B-113
A-716-1-1/4			A-330		B-75, B-113
A-716-1-1/8			A-330		B-75, B-113
A-716-1-3/4			A-330		B-75, B-113
A-716-1-3/8		A863DG			B-121
A-716-1-5/8			A-330		B-197
A-716-1-7/8		A863MB			B-121
A-716-2		A863S			B-121
A-716-2-1/8		A863SF			B-121
A-716-2-3/8			A-330		B-121
A-716-2-5/8			A-330		B-118
A-716-3/4		A864D			B-77
A-716-3/8		A864E			B-77
A-716-3-1/8		A864F			B-77
A716-4-1/8		A889			B-77 B-77
A-716-5/8		A890			
A-716-7/8		A891			B-77
A-726-1 A-726-10		A892			B-77 R-15 R-112
A-726-10 A-726-1-1/2		A893 AA-1121			B-15, B-113,
A-726-1-1/4		AA-1121 AA-1122			B-192, B-198
M-120-1-1/4	D-101	MM-1144	บ-งษ		

Fax: 901.252.1354

Catalog Number Index

CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.
	B-15, B-113,		B-305		B-304
	B-192, B-198	ABW(*)12HAP	B-305		B-304
AB-241-3/4	B-113	ABW(*)18HAP	B-305	ABW6(*)HPC	B-304
AB-241-3/8	B-15, B-113,	ABW(*)24HAP	B-305	ABW-6(*)-RSP	B-305
	B-192, B-198		B-305		B-375
	B-15, B-113	ABW(*)36HAP	B-305	ABW-6-BSP	B-305
AB-241-5/8	B-15, B-113	ABW(*)42HAP	B-305	ABW-6-CCC	B-304
AB-241L-1/2	B-15, B-77, B-113		B-307		B-305
AB-241L-1/4	B-15, B-77, B-113	ABW(*)DOS	B-307	ABW-6-SB-(*)	B-306
AB-241L-3/8	B-15, B-77, B-113		B-304		B-306
	B-15, B-77, B-113		B-309		B-305
	B-15, B-77, B-113		B-309	ABW-6-VSP	B-305
	B-119		B-375		B-305
	B-121		B-375		B-304
	B-119		B-375		B-304
	B-119		B-375		B-304
	B-119		B-375		B-305
	B-119		B-375		B-305
	B-119		B-375		B-304
	B-119, B-198		B-375		B-305
	B-119		B-375		B-306
	B-119		B-375		B-306
	B-119		B-375		B-305
	B-119		B-305		B-305
	B-119		B-304		B-306, B-333
	B-119		B-304		B-308
	B-119		B-304		B-307, B-332
	B-119		B-305		B-304
	B-119		B-375		B-304
	B-119		B-375		A-239
	B-119		B-375		
					A-189, A-191
	B-119		B-305		A-187
	B-121		B-304		A-189
	B-119		B-305		A-189, A-191
	B-187		B-306		A-189
	B-187		B-306		A-194
	B-187		B-305		A-194
	B-187		B-305		A-194
	B-187		B-305		A-194
	B-187	ABW5(*)ECC	B-304		A-191
	B-187		B-304		A-191
	B-187		B-304		A-191
	B-187		B-305		A-192
	B-187		B-375		A-192
	B-187		B-375		A-193
	B-187		B-305		A-188
ABW(*) (+) RCC	B-304		B-304		A-187
	B-304		B-305		A-187
	B-304		B-306		A-187
	B-307		B-306		A-188
	B-305		B-305		A-187
ABW(*)(*)WPS	B-307		B-305		A-190
ABW(*)06HAP	B-305	ABW-6(*)-CEP	B-305	AFM-4-ALM-R	A-190

Catalog Number Index

CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.
AFM-4-BGE	A-189	AH0-6	B-263, B-437	AHF(†)-06-(*)-HB90-24	B-275
AFM-4-BLK	A-189	AH1-4	B-262, B-437	AHF(†)-06-(*)-HB90-36	
AFM-4-BRN	A-189	AH1-6	B-263, B-437	AHF(†)-06-(*)-HB90-48	B-275
AFM-4-BRS	A-190	AH1-8	B-382	AHF(†)-06-(*)-HT12	B-279
AFM-4-BRS-R	A-190	AH2-4	B-262, B-437	AHF(†)-06-(*)-HT24	B-279
AFM-4EX	A-189	AH2-5	B-263, B-437	AHF(†)-06-(*)-HT36	B-279
AFM-4-GRY	A-189	AH2-6	B-263, B-437	AHF(†)-06-(*)-HT48	B-279
AFM-4R-BLK	A-194	AH2-7	B-264, B-437	AHF(†)-06-(*)-HX12	B-279
AFM-4R-CST-BLK	A-194	AH3-4	B-262, B-437	AHF(†)-06-(*)-HX24	B-279
AFM-6-BGE	A-191	AH3-5	B-263, B-437	AHF(†)-06-(*)-HX36	
AFM-6-BLK	A-191	AH3-6	B-263, B-437	AHF(†)-06-(*)-HX48	B-279
AFM-6-BRN	A-191	AH3-7	B-264, B-437	AHF-(†)-06-(*)-HYL	B-289
AFM-6EX	A-191	AH4-4	B-262, B-437	AHF-(†)-06-(*)-HYR	B-289
AFM-6-GRY	A-191	AH4-5	B-263, B-437	AHF(†)-06-(*)-VTD12	B-299
AFM-6S-BGE	A-192	AH4-6	B-264, B-437	AHF(†)-06-(*)-VTD24	B-299
AFM-6S-BLK	A-192	AH4-7	B-382	AHF(†)-06-(*)-VTD36	B-299
AFM-6S-BRN	A-192	AH5-4	B-262, B-437	AHF(†)-06-(*)-VTD48	B-299
AFM-6S-GRY	A-192	AH5-6	B-264, B-437	AHF(†)-06-(*)-VTU12	B-299
AFM-8-BGE	A-193	AH6-6	B-264, B-437	AHF(†)-06-(*)-VTU24	B-299
AFM-8-BLK	A-193	AH7-6	B-382	AHF(†)-06-(*)-VTU36	B-299
AFM-8-BRN	A-193	AHF(†)-06-(*)-(+)30-12	B-297	AHF(†)-06-(*)-VTU48	B-299
AFM-8-GRY	A-193	AHF(†)-06-(*)-(+)30-24	B-297	AHF(†)-0609-(*)-ET(+)	B-283
AFP-2A	A-187	AHF(†)-06-(*)-(+)30-36	B-297	AHF(†)-0609-(*)-EX(+)	B-285
AFP-2B	A-187	AHF(†)-06-(*)-(+)30-48	B-297	AHF(†)-0612-(*)-ET(+)	B-283
AFP-4A	A-189	AHF-(†)-06-(*)-(+)45-12	B-295	AHF(†)-0612-(*)-EX(+)	B-285
AFP-4A60	A-189	AHF-(†)-06-(*)-(+)45-24	B-295	AHF(†)-0618-(*)-ET(+)	B-283
AFP-4B	A-189	AHF-(†)-06-(*)-(+)45-36	B-295	AHF(†)-0618-(*)-EX(+)	B-285
AFP-4B60	A-189	AHF-(†)-06-(*)-(+)45-48	B-295	AHF(†)-0624-(*)-ET(+)	B-283
AFP-4GFCI	A-189	AHF-(†)-06-(*)-(+)60-12	B-293	AHF(†)-0624-(*)-EX(+)	B-285
AFP-4-GFCI-45		AHF-(†)-06-(*)-(+)60-24		AHF(†)-0630-(*)-ET(+)	B-283
AFP-4R-A		AHF-(†)-06-(*)-(+)60-36	B-293	AHF(†)-0630-(*)-EX(+)	B-285
AFP-4R-B		AHF-(†)-06-(*)-(+)60-48		AHF(†)-0636-(*)-ET(+)	B-283
AFP-4R-GFCI		AHF-(†)-06-(*)-(+)90-12		AHF(†)-0636-(*)-EX(+)	
AFP-6A	A-191	AHF-(†)-06-(*)-(+)90-24		AHF(†)-09-(*)-(+)30-12	
AFP-6A60		AHF-(†)-06-(*)-(+)90-36		AHF(†)-09-(*)-(+)30-24	
AFP-6B		AHF-(†)-06-(*)-(+)90-48		AHF(†)-09-(*)-(+)30-36	
AFP-6B60		AHF(†)-06-(*)-CS12		AHF(†)-09-(*)-(+)30-48	
AFP-6-GFCI-45		AHF(†)-06-(*)-CS24		AHF-(†)-09-(*)-(+)45-12	
AFP-6Q		AHF(†)-06-(*)-CS36		AHF-(†)-09-(*)-(+)45-24	B-295
AFP-6R60		AHF(†)-06-(*)-CS48		AHF-(†)-09-(*)-(+)45-36	
AFP-6S2-BR (-BL)		AHF(†)-06-(*)-HB30-12		AHF-(†)-09-(*)-(+)45-48	
AFP-6S2-GR (-GL)		AHF(†)-06-(*)-HB30-24		AHF-(†)-09-(*)-(+)60-12	
AFP-6S2-R (-L)		AHF(†)-06-(*)-HB30-36		AHF-(†)-09-(*)-(+)60-24	
AFP-8A		AHF(†)-06-(*)-HB30-48		AHF-(†)-09-(*)-(+)60-36	
AFP-8B		AHF(†)-06-(*)-HB45-12		AHF-(†)-09-(*)-(+)60-48	
AFP-8G		AHF(†)-06-(*)-HB45-24		AHF-(†)-09-(*)-(+)90-12	
AFR-2		AHF(†)-06-(*)-HB45-36		AHF-(†)-09-(*)-(+)90-24	
AFR-6		AHF(†)-06-(*)-HB45-48		AHF-(†)-09-(*)-(+)90-36	
AFR-8		AHF(†)-06-(*)-HB60-12		AHF-(†)-09-(*)-(+)90-48	
AFT-2		AHF(†)-06-(*)-HB60-24		AHF(†)-09-(*)-CS12	
AFT-4		AHF(†)-06-(*)-HB60-36		AHF(†)-09-(*)-CS24	
AFT-46		AHF(†)-06-(*)-HB60-48		AHF(†)-09-(*)-CS36	
AH0-4	В-262, В-437	AHF(†)-06-(*)-HB90-12	В-275	AHF(†)-09-(*)-CS48	B-301

CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.
AHF(†)-09-(*)-HB30-12	B-277	AHF-(†)-12-(*)-(+)45-24	B-295	AHF(†)-12-09-(*)-HLR	B-287
AHF(†)-09-(*)-HB30-24		AHF-(†)-12-(*)-(+)45-36		AHF(†)-12-09-(*)-HRR	
AHF(†)-09-(*)-HB30-36		AHF-(†)-12-(*)-(+)45-48		AHF(†)-12-09-(*)-HSR	
AHF(†)-09-(*)-HB30-48		AHF-(†)-12-(*)-(+)60-12		AHF-(†)-1209-(*)-RT(+)	
AHF(†)-09-(*)-HB45-12		AHF-(†)-12-(*)-(+)60-24	B-293	AHF(†)-1218-(*)-ET(+)	
AHF(†)-09-(*)-HB45-24	B-277	AHF-(†)-12-(*)-(+)60-36		AHF(†)-1218-(*)-EX(+)	B-285
AHF(†)-09-(*)-HB45-36		AHF-(†)-12-(*)-(+)60-48	B-293	AHF(†)-1224-(*)-ET(+)	
AHF(†)-09-(*)-HB45-48	B-277	AHF-(†)-12-(*)-(+)90-12	B-291	AHF(†)-1224-(*)-EX(+)	B-285
AHF(†)-09-(*)-HB60-12	B-275	AHF-(†)-12-(*)-(+)90-24	B-291	AHF(†)-1230-(*)-ET(+)	B-283
AHF(†)-09-(*)-HB60-24	B-275	AHF-(†)-12-(*)-(+)90-36	B-291	AHF(†)-1230-(*)-EX(+)	B-285
AHF(†)-09-(*)-HB60-36		AHF-(†)-12-(*)-(+)90-48	B-291	AHF(†)-1236-(*)-ET(+)	B-283
AHF(†)-09-(*)-HB60-48	B-275	AHF(†)-12-(*)-CS12	B-301	AHF(†)-1236-(*)-EX(+)	B-285
AHF(†)-09-(*)-HB90-12	B-275	AHF(†)-12-(*)-CS24	B-301	AHF(†)-18-(*)-(+)30-12	B-297
AHF(†)-09-(*)-HB90-24	B-275	AHF(†)-12-(*)-CS36	B-301	AHF(†)-18-(*)-(+)30-24	B-297
AHF(†)-09-(*)-HB90-36		AHF(†)-12-(*)-CS48	B-301	AHF(†)-18-(*)-(+)30-36	
AHF(†)-09-(*)-HB90-48	B-275	AHF(†)-12-(*)-HB30-12	B-277	AHF(†)-18-(*)-(+)30-48	
AHF(†)-09-(*)-HT12		AHF(†)-12-(*)-HB30-24		AHF-(†)-18-(*)-(+)45-12	
AHF(†)-09-(*)-HT24	B-279	AHF(†)-12-(*)-HB30-36	B-277	AHF-(†)-18-(*)-(+)45-24	B-295
AHF(†)-09-(*)-HT36	B-279	AHF(†)-12-(*)-HB30-48	B-277	AHF-(†)-18-(*)-(+)45-36	B-295
AHF(†)-09-(*)-HT48	B-279	AHF(†)-12-(*)-HB45-12	B-277	AHF-(†)-18-(*)-(+)45-48	B-295
AHF(†)-09-(*)-HX12	B-279	AHF(†)-12-(*)-HB45-24	B-277	AHF-(†)-18-(*)-(+)60-12	
AHF(†)-09-(*)-HX24	B-279	AHF(†)-12-(*)-HB45-36	B-277	AHF-(†)-18-(*)-(+)60-24	B-293
AHF(†)-09-(*)-HX36	B-279	AHF(†)-12-(*)-HB45-48	B-277	AHF-(†)-18-(*)-(+)60-36	B-293
AHF(†)-09-(*)-HX48		AHF(†)-12-(*)-HB60-12		AHF-(†)-18-(*)-(+)60-48	B-293
AHF-(†)-09-(*)-HYL	B-289	AHF(†)-12-(*)-HB60-24	B-275	AHF-(†)-18-(*)-(+)90-12	
AHF-(†)-09-(*)-HYR	B-289	AHF(†)-12-(*)-HB60-36	B-275	AHF-(†)-18-(*)-(+)90-24	B-291
AHF(†)-09-(*)-VTD12		AHF(†)-12-(*)-HB60-48		AHF-(†)-18-(*)-(+)90-36	
AHF(†)-09-(*)-VTD24		AHF(†)-12-(*)-HB90-12		AHF-(†)-18-(*)-(+)90-48	
AHF(†)-09-(*)-VTD36		AHF(†)-12-(*)-HB90-24		AHF(†)-18-(*)-CS12	
AHF(†)-09-(*)-VTD48		AHF(†)-12-(*)-HB90-36		AHF(†)-18-(*)-CS24	
AHF(†)-09-(*)-VTU12		AHF(†)-12-(*)-HB90-48		AHF(†)-18-(*)-CS36	
AHF(†)-09-(*)-VTU24		AHF(†)-12-(*)-HT12		AHF(†)-18-(*)-CS48	
AHF(†)-09-(*)-VTU36		AHF(†)-12-(*)-HT24		AHF(†)-18-(*)-HB30-12	
AHF(†)-09-(*)-VTU48		AHF(†)-12-(*)-HT36		AHF(†)-18-(*)-HB30-24	
AHF(†)-09-06-(*)-HLR		AHF(†)-12-(*)-HT48		AHF(†)-18-(*)-HB30-36	
AHF(†)-09-06-(*)-HRR		AHF(†)-12-(*)-HX12		AHF(†)-18-(*)-HB30-48	
AHF(†)-09-06-(*)-HSR		AHF(†)-12-(*)-HX24		AHF(†)-18-(*)-HB45-12	
AHF-(†)-0906-(*)-RT(+)		AHF(†)-12-(*)-HX36		AHF(†)-18-(*)-HB45-24	
AHF(†)-0912-(*)-ET(+)		AHF(†)-12-(*)-HX48		AHF(†)-18-(*)-HB45-36	
AHF(†)-0912-(*)-EX(+)		AHF-(†)-12-(*)-HYL		AHF(†)-18-(*)-HB45-48	
AHF(†)-0918-(*)-ET(+)		AHF-(†)-12-(*)-HYR		AHF(†)-18-(*)-HB60-12	
AHF(†)-0918-(*)-EX(+)		AHF(†)-12-(*)-VTD12		AHF(†)-18-(*)-HB60-24	
AHF(†)-0924-(*)-ET(+)		AHF(†)-12-(*)-VTD24		AHF(†)-18-(*)-HB60-36	
AHF(†)-0924-(*)-EX(+)		AHF(†)-12-(*)-VTD36		AHF(†)-18-(*)-HB60-48	
AHF(†)-0930-(*)-ET(+)		AHF(†)-12-(*)-VTD48		AHF(†)-18-(*)-HB90-12	
AHF(†)-0930-(*)-EX(+)		AHF(†)-12-(*)-VTU12		AHF(†)-18-(*)-HB90-24	
AHF(†)-0936-(*)-ET(+)		AHF(†)-12-(*)-VTU24		AHF(†)-18-(*)-HB90-36	
AHF(†)-0936-(*)-EX(+)		AHF(†)-12-(*)-VTU36		AHF(†)-18-(*)-HB90-48	
AHF(†)-12-(*)-(+)30-12		AHF(†)-12-(*)-VTU48		AHF(†)-18-(*)-HT12	
AHF(†)-12-(*)-(+)30-24		AHF(†)-12-06-(*)-HLR		AHF(†)-18-(*)-HT24	
AHF(†)-12-(*)-(+)30-36		AHF(†)-12-06-(*)-HRR		AHF(†)-18-(*)-HT36	
AHF(†)-12-(*)-(+)30-48		AHF(†)-12-06-(*)-HSR		AHF(†)-18-(*)-HT48	
AHF-(†)-12-(*)-(+)45-12	D-290	AHF-(†)-1206-(*)-RT(+)	D-2ŏ I	AHF(†)-18-(*)-HX12	D-2/9





Catalog Number Index

CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.
AHF(†)-18-(*)-HX24		AHF(†)-24-(*)-HB30-36		AHF(†)-30-(*)-(+)30-24	
AHF(†)-18-(*)-HX36		AHF(†)-24-(*)-HB30-48		AHF(†)-30-(*)-(+)30-36	
AHF(†)-18-(*)-HX48		AHF(†)-24-(*)-HB45-12		AHF(†)-30-(*)-(+)30-48	
AHF-(†)-18-(*)-HYL		AHF(†)-24-(*)-HB45-24		AHF-(†)-30-(*)-(+)45-12	
AHF-(†)-18-(*)-HYR		AHF(†)-24-(*)-HB45-36		AHF-(†)-30-(*)-(+)45-24	
AHF(†)-18-(*)-VTD12		AHF(†)-24-(*)-HB45-48		AHF-(†)-30-(*)-(+)45-36	
AHF(†)-18-(*)-VTD24		AHF(†)-24-(*)-HB60-12		AHF-(†)-30-(*)-(+)45-48	
AHF(†)-18-(*)-VTD36		AHF(†)-24-(*)-HB60-24		AHF-(†)-30-(*)-(+)60-12	
AHF(†)-18-(*)-VTD48		AHF(†)-24-(*)-HB60-36		AHF-(†)-30-(*)-(+)60-24	
AHF(†)-18-(*)-VTU12		AHF(†)-24-(*)-HB60-48		AHF-(†)-30-(*)-(+)60-36	
AHF(†)-18-(*)-VTU24		AHF(†)-24-(*)-HB90-12		AHF-(†)-30-(*)-(+)60-48	
AHF(†)-18-(*)-VTU36		AHF(†)-24-(*)-HB90-24		AHF-(†)-30-(*)-(+)90-12	
AHF(†)-18-(*)-VTU48		AHF(†)-24-(*)-HB90-36		AHF-(†)-30-(*)-(+)90-24	
AHF(†)-18-06-(*)-HLR		AHF(†)-24-(*)-HB90-48		AHF-(†)-30-(*)-(+)90-36	
AHF(†)-18-06-(*)-HRR		AHF(†)-24-(*)-HT12		AHF-(†)-30-(*)-(+)90-48	
AHF(†)-18-06-(*)-HSR		AHF(†)-24-(*)-HT24		AHF(†)-30-(*)-CS12	
AHF-(†)-1806-(*)-RT(+)		AHF(†)-24-(*)-HT36		AHF(†)-30-(*)-CS24	
AHF(†)-18-09-(*)-HLR		AHF(†)-24-(*)-HT48	B-279	AHF(†)-30-(*)-CS36	
AHF(†)-18-09-(*)-HRR	B-287	AHF(†)-24-(*)-HX12	B-279	AHF(†)-30-(*)-CS48	B-301
AHF(†)-18-09-(*)-HSR		AHF(†)-24-(*)-HX24	B-279	AHF(†)-30-(*)-HB30-12	
AHF-(†)-1809-(*)-RT(+)	B-281	AHF(†)-24-(*)-HX36	B-279	AHF(†)-30-(*)-HB30-24	
AHF(†)-18-12-(*)-HLR	B-287	AHF(†)-24-(*)-HX48	B-279	AHF(†)-30-(*)-HB30-36	
AHF(†)-18-12-(*)-HRR	B-287	AHF-(†)-24-(*)-HYL	B-289	AHF(†)-30-(*)-HB30-48	B-277
AHF(†)-18-12-(*)-HSR	B-287	AHF-(†)-24-(*)-HYR	B-289	AHF(†)-30-(*)-HB45-12	B-277
AHF-(†)-1812-(*)-RT(+)	B-281	AHF(†)-24-(*)-VTD12		AHF(†)-30-(*)-HB45-24	B-277
AHF(†)-1824-(*)-ET(+)	B-283	AHF(†)-24-(*)-VTD24	B-299	AHF(†)-30-(*)-HB45-36	B-277
AHF(†)-1824-(*)-EX(+)	B-285	AHF(†)-24-(*)-VTD36	B-299	AHF(†)-30-(*)-HB45-48	B-277
AHF(†)-1830-(*)-ET(+)	B-283	AHF(†)-24-(*)-VTD48	B-299	AHF(†)-30-(*)-HB60-12	B-275
AHF(†)-1830-(*)-EX(+)	B-285	AHF(†)-24-(*)-VTU12	B-299	AHF(†)-30-(*)-HB60-24	B-275
AHF(†)-1836-(*)-ET(+)	B-283	AHF(†)-24-(*)-VTU24	B-299	AHF(†)-30-(*)-HB60-36	B-275
AHF(†)-1836-(*)-EX(+)	B-285	AHF(†)-24-(*)-VTU36	B-299	AHF(†)-30-(*)-HB60-48	B-275
AHF(†)-24-(*)-(+)30-12	B-297	AHF(†)-24-(*)-VTU48	B-299	AHF(†)-30-(*)-HB90-12	B-275
AHF(†)-24-(*)-(+)30-24	B-297	AHF(†)-24-06-(*)-HLR	B-287	AHF(†)-30-(*)-HB90-24	B-275
AHF(†)-24-(*)-(+)30-36	B-297	AHF(†)-24-06-(*)-HRR	B-287	AHF(†)-30-(*)-HB90-36	
AHF(†)-24-(*)-(+)30-48	B-297	AHF(†)-24-06-(*)-HSR	B-287	AHF(†)-30-(*)-HB90-48	B-275
AHF-(†)-24-(*)-(+)45-12		AHF-(†)-2406-(*)-RT(+)	B-281	AHF(†)-30-(*)-HT12	
AHF-(†)-24-(*)-(+)45-24	B-295	AHF(†)-24-09-(*)-HLR	B-287	AHF(†)-30-(*)-HT24	
AHF-(†)-24-(*)-(+)45-36	B-295	AHF(†)-24-09-(*)-HRR	B-287	AHF(†)-30-(*)-HT36	B-279
AHF-(†)-24-(*)-(+)45-48	B-295	AHF(†)-24-09-(*)-HSR	B-287	AHF(†)-30-(*)-HT48	
AHF-(†)-24-(*)-(+)60-12	B-293	AHF(†)-2409-(*)-RT(+)	B-281	AHF(†)-30-(*)-HX12	B-279
AHF-(†)-24-(*)-(+)60-24	B-293	AHF(†)-24-12-(*)-HLR	B-287	AHF(†)-30-(*)-HX24	B-279
AHF-(†)-24-(*)-(+)60-36		AHF(†)-24-12-(*)-HRR	B-287	AHF(†)-30-(*)-HX36	B-279
AHF-(†)-24-(*)-(+)60-48		AHF(†)-24-12-(*)-HSR		AHF(†)-30-(*)-HX48	B-279
AHF-(†)-24-(*)-(+)90-12	B-291	AHF-(†)-2412-(*)-RT(+)	B-281	AHF-(†)-30-(*)-HYL	B-289
AHF-(†)-24-(*)-(+)90-24	B-291	AHF(†)-24-18-(*)-HLR	B-287	AHF-(†)-30-(*)-HYR	B-289
AHF-(†)-24-(*)-(+)90-36	B-291	AHF(†)-24-18-(*)-HRR	B-287	AHF(†)-30-(*)-VTD12	
AHF-(†)-24-(*)-(+)90-48		AHF(†)-24-18-(*)-HSR		AHF(†)-30-(*)-VTD24	
AHF(†)-24-(*)-CS12		AHF-(†)-2418-(*)-RT(+)		AHF(†)-30-(*)-VTD36	
AHF(†)-24-(*)-CS24		AHF(†)-2430-(*)-ET(+)		AHF(†)-30-(*)-VTD48	
AHF(†)-24-(*)-CS36		AHF(†)-2430-(*)-EX(+)		AHF(†)-30-(*)-VTU12	
AHF(†)-24-(*)-CS48		AHF(†)-2436-(*)-ET(+)		AHF(†)-30-(*)-VTU24	
AHF(†)-24-(*)-HB30-12		AHF(†)-2436-(*)-EX(+)		AHF(†)-30-(*)-VTU36	
AHF(†)-24-(*)-HB30-24		AHF(†)-30-(*)-(+)30-12		AHF(†)-30-(*)-VTU48	
, . ,		., ., .,		***	

CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.
AHF(†)-30-06-(*)-HLR	B-287	AHF(†)-36-(*)-HB60-48	B-275	ALT-F 01-S-HB45-24	B-363
AHF(†)-30-06-(*)-HRR	B-287	AHF(†)-36-(*)-HB90-12	B-275	ALT-F 01-S-HB60-12	B-362
AHF(†)-30-06-(*)-HSR		AHF(†)-36-(*)-HB90-24		ALT-F 01-S-HB60-24	B-362
AHF-(†)-3006-(*)-RT(+)	B-281	AHF(†)-36-(*)-HB90-36	B-275	ALT-F 01-S-HB90-12	B-362
AHF(†)-30-09-(*)-HLR		AHF(†)-36-(*)-HB90-48	B-275	ALT-F 01-S-HB90-24	
AHF(†)-30-09-(*)-HRR	B-287	AHF(†)-36-(*)-HT12	B-279	ALT-F 01-S-HT-12	B-364
AHF(†)-30-09-(*)-HSR		AHF(†)-36-(*)-HT24		ALT-F 01-S-HT-24	B-364
AHF-(†)-3009-(*)-RT(+)		AHF(†)-36-(*)-HT36		ALT-F 01-S-HX-12	
AHF(†)-30-12-(*)-HLR		AHF(†)-36-(*)-HT48		ALT-F 01-S-HX-24	
AHF(†)-30-12-(*)-HRR		AHF(†)-36-(*)-HX12		ALT-F 01-S-VI30-12	
AHF(†)-30-12-(*)-HSR		AHF(†)-36-(*)-HX24		ALT-F 01-S-VI30-24	
AHF-(†)-3012-(*)-RT(+)		AHF(†)-36-(*)-HX36		ALT-F 01-S-VI45-12	
AHF(†)-30-18-(*)-HLR		AHF(†)-36-(*)-HX48		ALT-F 01-S-VI45-24	
AHF(†)-30-18-(*)-HRR		AHF-(†)-36-(*)-HYL		ALT-F 01-S-VI60-12	
AHF(†)-30-18-(*)-HSR		AHF-(†)-36-(*)-HYR		ALT-F 01-S-VI60-24	
AHF-(†)-3018-(*)-RT(+)		AHF(†)-36-(*)-VTD12		ALT-F 01-S-VI90-12	
AHF(†)-30-24-(*)-HLR		AHF(†)-36-(*)-VTD24		ALT-F 01-S-VI90-24	
AHF(†)-30-24-(*)-HRR		AHF(†)-36-(*)-VTD36		ALT-F 01-S-V030-12	
AHF(†)-30-24-(*)-HSR		AHF(†)-36-(*)-VTD48		ALT-F 01-S-V030-24	
AHF-(†)-3024-(*)-RT(+)		AHF(†)-36-(*)-VTU12		ALT-F 01-S-V045-12	
AHF(†)-3036-(*)-ET(+)		AHF(†)-36-(*)-VTU24		ALT-F 01-S-V045-24	
AHF(†)-3036-(*)-EX(+)		AHF(†)-36-(*)-VTU36		ALT-F 01-S-V060-12	
AHF(†)-36-(*)-(+)30-12		AHF(†)-36-(*)-VTU48		ALT-F 01-S-V060-24	
AHF(†)-36-(*)-(+)30-24		AHF(†)-36-06-(*)-HLR		ALT-F 01-S-V090-12	
AHF(†)-36-(*)-(+)30-36		AHF(†)-36-06-(*)-HRR		ALT-F 01-S-V090-24	
AHF(†)-36-(*)-(+)30-48		AHF(†)-36-06-(*)-HSR		ALT-F 03-S-HB30-12	
AHF-(†)-36-(*)-(+)45-12		AHF-(†)-3606-(*)-RT(+)		ALT-F 03-S-HB30-24	
AHF-(†)-36-(*)-(+)45-24		AHF(†)-36-09-(*)-HLR		ALT-F 03-S-HB45-12	
AHF-(†)-36-(*)-(+)45-36		AHF(†)-36-09-(*)-HRR		ALT-F 03-S-HB45-24	
AHF-(†)-36-(*)-(+)45-48		AHF(†)-36-09-(*)-HSR		ALT-F 03-S-HB60-12	
AHF-(†)-36-(*)-(+)60-12		AHF-(†)-3609-(*)-RT(+)		ALT-F 03-S-HB60-24	
AHF-(†)-36-(*)-(+)60-24		AHF(†)-36-12-(*)-HLR		ALT-F 03-S-HB90-12	
AHF-(†)-36-(*)-(+)60-36		AHF(†)-36-12-(*)-HRR		ALT-F 03-S-HB90-24	
AHF-(†)-36-(*)-(+)60-48		AHF(†)-36-12-(*)-HSR		ALT-F 03-S-HT-12	
AHF-(†)-36-(*)-(+)90-12		AHF-(†)-3612-(*)-RT(+)		ALT-F 03-S-HT-24	
AHF-(†)-36-(*)-(+)90-24		AHF(†)-36-18-(*)-HLR		ALT-F 03-S-HX-12	
AHF-(†)-36-(*)-(+)90-36		AHF(†)-36-18-(*)-HRR		ALT-F 03-S-HX-24	
AHF-(†)-36-(*)-(+)90-48		AHF(†)-36-18-(*)-HSR		ALT-F 03-S-VI30-12	
AHF(†)-36-(*)-CS12	R_201	AHF-(†)-3618-(*)-RT(+)		ALT-F 03-S-VI30-24	
AHF(†)-36-(*)-CS24	R_201	AHF(†)-36-24-(*)-HLR		ALT-F 03-S-VI45-12	
AHF(†)-36-(*)-CS36	R_201	AHF(†)-36-24-(*)-HRR		ALT-F 03-S-VI45-24	
AHF(†)-36-(*)-CS48		AHF(†)-36-24-(*)-HSR		ALT-F 03-S-VI60-12	
AHF(†)-36-(*)-HB30-12		AHF-(†)-3624-(*)-RT(+)		ALT-F 03-S-VI60-24	
				ALT-F 03-S-VI90-12	
AHF(†)-36-(*)-HB30-24 AHF(†)-36-(*)-HB30-36		AHF(†)-36-30-(*)-HLR AHF(†)-36-30-(*)-HRR		ALT-F 03-S-VI90-24	
AHF(†)-36-(*)-HB30-48		AHF(†)-36-30-(*)-HSR	D-201 D 207	ALT-F 03-S-V030-12	
AHF(†)-36-(*)-HB45-12				ALT-F 03-S-V030-24	
		AHF-(†)-3630-(*)-RT(+)			
AHF(†)-36-(*)-HB45-24		AHW(*)VIB-(*)-(+)		ALT-F 03-S-V045-12	
AHF(†)-36-(*)-HB45-36		AHW(*)VOB-(*)-(+)		ALT-F 03-S-V045-24	
AHF(†)-36-(*)-HB45-48		ALT COL C UPOC 12	B-36U	ALT-F 03-S-V060-12	
AHF(†)-36-(*)-HB60-12		ALT-F 01-S-HB30-12		ALT-F 03-S-V060-24	
AHF(†)-36-(*)-HB60-24		ALT-F 01-S-HB30-24		ALT-F 03-S-V090-12	
AHF(†)-36-(*)-HB60-36	D-2/0	ALT-F 01-S-HB45-12	D-პ0პ	ALT-F 03-S-V090-24	ɒ-აღე

Catalog Number Index

CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.
CAT. NO. ALT-F 04-S-HB30-12	B-363	CAT. NO. ALT-F 06-S-V060-24	B-366	CAT. NO. ALT-W-06-CEG	B-372
ALT-F 04-S-HB30-24		ALT-F 06-S-V090-12	B-365	ALT-W-06-CEP	B-371
ALT-F 04-S-HB45-12	B-363	ALT-F 06-S-V090-24	B-365	ALT-W-06-CHA	B-370
ALT-F 04-S-HB45-24		ALT-W-01-ACS		ALT-W-06-ESP	
ALT-F 04-S-HB60-12		ALT-W-01-CBP		ALT-W-06-HCC	
ALT-F 04-S-HB60-24		ALT-W-01-CCC		ALT-W-06-SHC	
ALT-F 04-S-HB90-12		ALT-W-01-CCS		ALT-W-06-WAV	
ALT-F 04-S-HB90-24		ALT-W-01-CCT		ALU12	
ALT-F 04-S-HT-12		ALT-W-01-CCV		ALU13	
ALT-F 04-S-HT-24		ALT-W-01-CEG		ALU16	
ALT-F 04-S-HX-12		ALT-W-01-CEP		ALUF-(†)-06-(*)-(+)30-12	
ALT-F 04-S-HX-24		ALT-W-01-CHA		ALUF-(†)-06-(*)-(+)30-24	B-346
ALT-F 04-S-VI30-12		ALT-W-01-HCC		ALUF-(†)-06-(*)-(+)30-36	
ALT-F 04-S-VI30-24		ALT-W-01-SHC		ALUF-(†)-06-(*)-(+)45-12	
ALT-F 04-S-VI45-12		ALT-W-01-WAV		ALUF-(†)-06-(*)-(+)45-24	
ALT-F 04-S-VI45-24		ALT-W-03-01-RSP		ALUF-(†)-06-(*)-(+)45-36	
ALT-F 04-S-VI60-12		ALT-W-03-ACS		ALUF-(†)-06-(*)-(+)60-12	
ALT-F 04-S-VI60-24		ALT-W-03-CBP		ALUF-(†)-06-(*)-(+)60-24	
ALT-F 04-S-VI90-12		ALT-W-03-CCC		ALUF-(†)-06-(*)-(+)60-36	
ALT-F 04-S-VI90-24		ALT-W-03-CCS		ALUF-(†)-06-(*)-(+)90-12	
ALT-F 04-S-V030-12 ALT-F 04-S-V030-24		ALT-W-03-CCT ALT-W-03-CCV		ALUF-(†)-06-(*)-(+)90-24 ALUF-(†)-06-(*)-(+)90-36	
ALT-F 04-S-V030-24		ALT-W-03-CEG		ALUF-(†)-06-(*)-CS12	D-343
ALT-F 04-S-V045-24		ALT-W-03-CEP		ALUF-(†)-06-(*)-CS24	
ALT-F 04-S-V060-12		ALT-W-03-CHA		ALUF-(†)-06-(*)-CS36	
ALT-F 04-S-V060-24		ALT-W-03-ESP		ALUF-(†)-06-(*)-HB30-12	
ALT-F 04-S-V090-12		ALT-W-03-LGI		ALUF-(†)-06-(*)-HB30-24	
ALT-F 04-S-V090-24		ALT-W-03-NCC		ALUF-(†)-06-(*)-HB30-36	
ALT-F 06-S-HB30-12		ALT-W-03-WAV		ALUF-(†)-06-(*)-HB45-12	
ALT-F 06-S-HB30-24		ALT-W-04-01-RSP		ALUF-(†)-06-(*)-HB45-24	
ALT-F 06-S-HB45-12		ALT-W-04-03-RSP		ALUF-(†)-06-(*)-HB45-36	
ALT-F 06-S-HB45-24		ALT-W-04-ACS		ALUF-(†)-06-(*)-HB60-12	
ALT-F 06-S-HB60-12		ALT-W-04-CBP		ALUF-(†)-06-(*)-HB60-24	
ALT-F 06-S-HB60-24		ALT-W-04-CCC		ALUF-(†)-06-(*)-HB60-36	
ALT-F 06-S-HB90-12		ALT-W-04-CCS		ALUF-(†)-06-(*)-HB90-12	
ALT-F 06-S-HB90-24		ALT-W-04-CCT		ALUF-(†)-06-(*)-HB90-24	
ALT-F 06-S-HT-12	B-364	ALT-W-04-CCV	B-370	ALUF-(†)-06-(*)-HB90-36	
ALT-F 06-S-HT-24		ALT-W-04-CEG		ALUF-(†)-06-(*)-HT12	
ALT-F 06-S-HX-12	B-364	ALT-W-04-CEP		ALUF-(†)-06-(*)-HT24	B-338
ALT-F 06-S-HX-24	B-364	ALT-W-04-CHA	B-370	ALUF-(†)-06-(*)-HT36	B-338
ALT-F 06-S-VI30-12	B-368	ALT-W-04-ESP	B-370	ALUF-(†)-06-(*)-HX12	B-339
ALT-F 06-S-VI30-24	B-368	ALT-W-04-HCC		ALUF-(†)-06-(*)-HX24	B-339
ALT-F 06-S-VI45-12	B-367	ALT-W-04-SHC		ALUF-(†)-06-(*)-HX36	B-339
ALT-F 06-S-VI45-24		ALT-W-04-WAV		ALUF-(†)-06-(*)-HYL	
ALT-F 06-S-VI60-12		ALT-W-06-01-RSP		ALUF-(†)-06-(*)-HYR	B-348
ALT-F 06-S-VI60-24		ALT-W-06-03-RSP		ALUF-(†)-06-(*)-VTD12	B-349
ALT-F 06-S-VI90-12		ALT-W-06-04-RSP		ALUF-(†)-06-(*)-VTD24	
ALT-F 06-S-VI90-24		ALT-W-06-ACS		ALUF-(†)-06-(*)-VTD36	
ALT-F 06-S-V030-12		ALT-W-06-CBP		ALUF-(†)-06-(*)-VTU12	
ALT-F 06-S-V030-24		ALT-W-06-CCC		ALUF-(†)-06-(*)-VTU24	
ALT-F 06-S-V045-12		ALT-W-06-CCS		ALUF-(†)-06-(*)-VTU36	
ALT-F 06-S-V045-24		ALT-W-06-CCT		ALUF-(†)-0612-(*)-ET(+)	
ALT-F 06-S-V060-12	B-366	ALT-W-06-CCV	В-370	ALUF-(†)-0612-(*)-EX-(+)	В-342

United States

CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.
ALUF-(†)-0618-(*)-ET(+)		ALUF-(†)-1218-(*)-ET(+)	B-341	ALUF-(†)-18-12-(*)-HLR	
ALUF-(†)-0618-(*)-EX-(+)		ALUF-(†)-1218-(*)-EX-(+)		ALUF-(†)-18-12-(*)-HRR	
ALUF-(†)-0624-(*)-ET(+)		ALUF-(†)-1224-(*)-ET(+)		ALUF-(†)-18-12-(*)-HSR	
ALUF-(†)-0624-(*)-EX-(+)		ALUF-(†)-1224-(*)-EX-(+)		ALUF-(†)-1812-(*)-RT(+)	
ALUF-(†)-0630-(*)-ET(+)	B-341	ALUF-(†)-1230-(*)-ET(+)	B-341	ALUF-(†)-1824-(*)-ET(+)	B-341
ALUF-(†)-0630-(*)-EX-(+)		ALUF-(†)-1230-(*)-EX-(+)		ALUF-(†)-1824-(*)-EX-(+)	
ALUF-(†)-0636-(*)-ET(+)		ALUF-(†)-1236-(*)-ET(+)		ALUF-(†)-1830-(*)-ET(+)	
ALUF-(†)-0636-(*)-EX-(+)		ALUF-(†)-1236-(*)-EX-(+)		ALUF-(†)-1830-(*)-EX-(+)	
ALUF-(†)-12-(*)-(+)30-12		ALUF-(†)-18-(*)-(+)30-12	B-346	ALUF-(†)-1836-(*)-ET(+)	
ALUF-(†)-12-(*)-(+)30-24		ALUF-(†)-18-(*)-(+)30-24	B-346	ALUF-(†)-1836-(*)-EX-(+)	B-342
ALUF-(†)-12-(*)-(+)30-36		ALUF-(†)-18-(*)-(+)30-36 ALUF-(†)-18-(*)-(+)45-12		ALUF-(†)-24-(*)-(+)30-12	
ALUF-(†)-12-(*)-(+)45-12 ALUF-(†)-12-(*)-(+)45-24		ALUF-(†)-18-(*)-(+)45-24		ALUF-(†)-24-(*)-(+)30-24 ALUF-(†)-24-(*)-(+)30-36	
ALUF-(†)-12-(*)-(+)45-36		ALUF-(†)-18-(*)-(+)45-36		ALUF-(†)-24-(*)-(+)45-12	
ALUF-(†)-12-(*)-(+)60-12		ALUF-(†)-18-(*)-(+)60-12		ALUF-(†)-24-(*)-(+)45-24	
ALUF-(†)-12-(*)-(+)60-24	D-344 R_3//	ALUF-(†)-18-(*)-(+)60-24	R-344	ALUF-(†)-24-(*)-(+)45-36	
ALUF-(†)-12-(*)-(+)60-36		ALUF-(†)-18-(*)-(+)60-36	R_3//	ALUF-(†)-24-(*)-(+)60-12	R-3//
ALUF-(†)-12-(*)-(+)90-12		ALUF-(†)-18-(*)-(+)90-12		ALUF-(†)-24-(*)-(+)60-24	R-344
ALUF-(†)-12-(*)-(+)90-24		ALUF-(†)-18-(*)-(+)90-24		ALUF-(†)-24-(*)-(+)60-36	
ALUF-(†)-12-(*)-(+)90-36		ALUF-(†)-18-(*)-(+)90-36		ALUF-(†)-24-(*)-(+)90-12	
ALUF-(†)-12-(*)-CS12		ALUF-(†)-18-(*)-CS12		ALUF-(†)-24-(*)-(+)90-24	
ALUF-(†)-12-(*)-CS24		ALUF-(†)-18-(*)-CS24		ALUF-(†)-24-(*)-(+)90-36	
ALUF-(†)-12-(*)-CS36		ALUF-(†)-18-(*)-CS36		ALUF-(†)-24-(*)-CS12	
ALUF-(†)-12-(*)-HB30-12		ALUF-(†)-18-(*)-HB30-12		ALUF-(†)-24-(*)-CS24	
ALUF-(†)-12-(*)-HB30-24		ALUF-(†)-18-(*)-HB30-24		ALUF-(†)-24-(*)-CS36	
ALUF-(†)-12-(*)-HB30-36		ALUF-(†)-18-(*)-HB30-36		ALUF-(†)-24-(*)-HB30-12	
ALUF-(†)-12-(*)-HB45-12	B-337	ALUF-(†)-18-(*)-HB45-12	B-337	ALUF-(†)-24-(*)-HB30-24	B-337
ALUF-(†)-12-(*)-HB45-24	B-337	ALUF-(†)-18-(*)-HB45-24	B-337	ALUF-(†)-24-(*)-HB30-36	B-337
ALUF-(†)-12-(*)-HB45-36		ALUF-(†)-18-(*)-HB45-36	B-337	ALUF-(†)-24-(*)-HB45-12	B-337
ALUF-(†)-12-(*)-HB60-12		ALUF-(†)-18-(*)-HB60-12		ALUF-(†)-24-(*)-HB45-24	
ALUF-(†)-12-(*)-HB60-24		ALUF-(†)-18-(*)-HB60-24		ALUF-(†)-24-(*)-HB45-36	
ALUF-(†)-12-(*)-HB60-36		ALUF-(†)-18-(*)-HB60-36		ALUF-(†)-24-(*)-HB60-12	
ALUF-(†)-12-(*)-HB90-12		ALUF-(†)-18-(*)-HB90-12		ALUF-(†)-24-(*)-HB60-24	
ALUF-(†)-12-(*)-HB90-24		ALUF-(†)-18-(*)-HB90-24		ALUF-(†)-24-(*)-HB60-36	
ALUF-(†)-12-(*)-HB90-36		ALUF-(†)-18-(*)-HB90-36		ALUF-(†)-24-(*)-HB90-12	
ALUF-(†)-12-(*)-HT12		ALUF-(†)-18-(*)-HT12		ALUF-(†)-24-(*)-HB90-24	
ALUF-(†)-12-(*)-HT24		ALUF-(†)-18-(*)-HT24		ALUF-(†)-24-(*)-HB90-36	
ALUF-(†)-12-(*)-HT36		ALUF-(†)-18-(*)-HT36		ALUF-(†)-24-(*)-HT12	
ALUF-(†)-12-(*)-HX12		ALUF-(†)-18-(*)-HX12		ALUF-(†)-24-(*)-HT24	
ALUF-(†)-12-(*)-HX24		ALUF-(†)-18-(*)-HX24		ALUF-(†)-24-(*)-HT36	
ALUF-(†)-12-(*)-HX36		ALUF-(†)-18-(*)-HX36		ALUF-(†)-24-(*)-HX12	
ALUF-(†)-12-(*)-HYL ALUF-(†)-12-(*)-HYR		ALUF-(†)-18-(*)-HYL		ALUF-(†)-24-(*)-HX24	
ALUF-(†)-12-(*)-VTD12		ALUF-(†)-18-(*)-HYR ALUF-(†)-18-(*)-VTD12		ALUF-(†)-24-(*)-HX36 ALUF-(†)-24-(*)-HYL	
ALUF-(†)-12-(*)-VTD24		ALUF-(†)-18-(*)-VTD24		ALUF-(†)-24-(*)-HYR	
ALUF-(†)-12-(*)-VTD36		ALUF-(†)-18-(*)-VTD36		ALUF-(†)-24-(*)-VTD12	
ALUF-(†)-12-(*)-VTU12		ALUF-(†)-18-(*)-VTU12		ALUF-(†)-24-(*)-VTD24	
ALUF-(†)-12-(*)-VTU24		ALUF-(†)-18-(*)-VTU24		ALUF-(†)-24-(*)-VTD36	
ALUF-(†)-12-(*)-VTU36		ALUF-(†)-18-(*)-VTU36		ALUF-(†)-24-(*)-VTU12	
ALUF-(†)-12-06-(*)-HLR		ALUF-(†)-18-06-(*)-HLR		ALUF-(†)-24-(*)-VTU24	
ALUF-(†)-12-06-(*)-HRR		ALUF-(†)-18-06-(*)-HRR		ALUF-(†)-24-(*)-VTU36	
ALUF-(†)-12-06-(*)-HSR		ALUF-(†)-18-06-(*)-HSR		ALUF-(†)-24-06-(*)-HLR	
ALUF-(†)-1206-(*)-RT(+)		ALUF-(†)-1806-(*)-RT(+)		ALUF-(†)-24-06-(*)-HRR	
(1)		(1)		(1)	

Catalog Number Index

CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.
ALUF-(†)-24-06-(*)-HSR		ALUF-(†)-30-(*)-VTU36		ALUF-(†)-36-(*)-HYR	
ALUF-(†)-2406-(*)-RT(+)		ALUF-(†)-30-06-(*)-HLR		ALUF-(†)-36-(*)-VTD12 ALUF-(†)-36-(*)-VTD24	
ALUF-(†)-24-12-(*)-HLR ALUF-(†)-24-12-(*)-HRR		ALUF-(†)-30-06-(*)-HRR ALUF-(†)-30-06-(*)-HSR		ALUF-(1)-36-(1)-VTD36	
ALUF-(†)-24-12-(*)-HSR		ALUF-(†)-3006-(*)-RT(+)		ALUF-(†)-36-(*)-VTU12	
ALUF-(†)-2412-(*)-RT(+)	R-340	ALUF-(†)-30-12-(*)-HLR		ALUF-(†)-36-(*)-VTU24	
ALUF-(†)-24-18-(*)-HLR		ALUF-(†)-30-12-(*)-HRR		ALUF-(†)-36-(*)-VTU36	
ALUF-(†)-24-18-(*)-HRR		ALUF-(†)-30-12-(*)-HSR		ALUF-(†)-36-06-(*)-HLR	
ALUF-(†)-24-18-(*)-HSR		ALUF-(†)-3012-(*)-RT(+)		ALUF-(†)-36-06-(*)-HRR	
ALUF-(†)-2418-(*)-RT(+)		ALUF-(†)-30-18-(*)-HLR		ALUF-(†)-36-06-(*)-HSR	
ALUF-(†)-2430-(*)-ET(+)		ALUF-(†)-30-18-(*)-HRR		ALUF-(†)-3606-(*)-RT(+)	
ALUF-(†)-2430-(*)-EX-(+)		ALUF-(†)-30-18-(*)-HSR		ALUF-(†)-36-12-(*)-HLR	
ALUF-(†)-2436-(*)-ET(+)	B-341	ALUF-(†)-3018-(*)-RT(+)	B-340	ALUF-(†)-36-12-(*)-HRR	B-347
ALUF-(†)-2436-(*)-EX-(+)		ALUF-(†)-30-24-(*)-HLR		ALUF-(†)-36-12-(*)-HSR	
ALUF-(†)-30-(*)-(+)30-12		ALUF-(†)-30-24-(*)-HRR		ALUF-(†)-3612-(*)-RT(+)	
ALUF-(†)-30-(*)-(+)30-24		ALUF-(†)-30-24-(*)-HSR		ALUF-(†)-36-18-(*)-HLR	
ALUF-(†)-30-(*)-(+)30-36		ALUF-(†)-3024-(*)-RT(+)		ALUF-(†)-36-18-(*)-HRR	
ALUF-(†)-30-(*)-(+)45-12		ALUF-(†)-3036-(*)-ET(+)		ALUF-(†)-36-18-(*)-HSR	
ALUF-(†)-30-(*)-(+)45-24		ALUF-(†)-3036-(*)-EX-(+)		ALUF-(†)-3618-(*)-RT(+)	
ALUF-(†)-30-(*)-(+)45-36		ALUF-(†)-36-(*)-(+)30-12		ALUF-(†)-36-24-(*)-HLR	
ALUF-(†)-30-(*)-(+)60-12		ALUF-(†)-36-(*)-(+)30-24		ALUF-(†)-36-24-(*)-HRR	
ALUF-(†)-30-(*)-(+)60-24 ALUF-(†)-30-(*)-(+)60-36		ALUF-(†)-36-(*)-(+)30-36 ALUF-(†)-36-(*)-(+)45-12		ALUF-(†)-36-24-(*)-HSR ALUF-(†)-3624-(*)-RT(+)	
ALUF-(†)-30-(*)-(+)90-24		ALUF-(†)-36-(*)-(+)45-24		ALUF-(†)-36-30-(*)-HLR	
ALUF-(†)-30-(*)-(+)90-36		ALUF-(†)-36-(*)-(+)45-36		ALUF-(†)-36-30-(*)-HRR	
ALUF-(†)-30-(*)-CS12		ALUF-(†)-36-(*)-(+)60-12		ALUF-(†)-36-30-(*)-HSR	
ALUF-(†)-30-(*)-CS24		ALUF-(†)-36-(*)-(+)60-24		ALUF-(†)-3630-(*)-RT(+)	
ALUF-(†)-30-(*)-CS36		ALUF-(†)-36-(*)-(+)60-36		ALUW-(*)06HAP	B-353
ALUF-(†)-30-(*)-HB30-12		ALUF-(†)-36-(*)-(+)90-12		ALUW-(*)09HAP	
ALUF-(†)-30-(*)-HB30-24		ALUF-(†)-36-(*)-(+)90-24		ALUW-(*)12HAP	
ALUF-(†)-30-(*)-HB30-36	B-337	ALUF-(†)-36-(*)-(+)90-36		ALUW-(*)18HAP	B-353
ALUF-(†)-30-(*)-HB45-12	B-337	ALUF-(†)-36-(*)-CS12	B-350	ALUW-(*)24HAP	
ALUF-(†)-30-(*)-HB45-24		ALUF-(†)-36-(*)-CS24		ALUW-(*)30HAP	
ALUF-(†)-30-(*)-HB45-36		ALUF-(†)-36-(*)-CS36		ALUW-(*)36HAP	
ALUF-(†)-30-(*)-HB60-12		ALUF-(†)-36-(*)-HB30-12		ALUW-(*)-DOS	B-357
ALUF-(†)-30-(*)-HB60-24		ALUF-(†)-36-(*)-HB30-24		ALUW-2-(*)-CEP	
ALUF-(†)-30-(*)-HB60-36		ALUF-(†)-36-(*)-HB30-36		ALUW-2-(*)-HCC	
ALUF-(†)-30-(*)-HB90-12		ALUF-(†)-36-(*)-HB45-12		ALUW-2-(*)-HTB	
ALUF-(†)-30-(*)-HB90-24	B-336	ALUF-(†)-36-(*)-HB45-24		ALUW-2-(*)-RSP ALUW-2-(*)-VSP	
ALUF-(†)-30-(*)-HB90-36 ALUF-(†)-30-(*)-HT12		ALUF-(†)-36-(*)-HB45-36 ALUF-(†)-36-(*)-HB60-12		ALUW-2-()-VSP ALUW-2-ESP	
ALUF-(†)-30-(*)-HT24		ALUF-(†)-36-(*)-HB60-24		ALUW-2-SB-3	
ALUF-(†)-30-(*)-HT36		ALUF-(†)-36-(*)-HB60-36		ALUW-2-SBH-72	
ALUF-(†)-30-(*)-HX12		ALUF-(†)-36-(*)-HB90-12		ALUW-2-SSP	
ALUF-(†)-30-(*)-HX24		ALUF-(†)-36-(*)-HB90-24		ALUW-2-VIB-(*)-(*)	
ALUF-(†)-30-(*)-HX36		ALUF-(†)-36-(*)-HB90-36		ALUW-2-VOB-(*)-(*)	
ALUF-(†)-30-(*)-HYL		ALUF-(†)-36-(*)-HT12		ALUW-3-(*)-CEP	
ALUF-(†)-30-(*)-HYR		ALUF-(†)-36-(*)-HT24		ALUW-3-(*)-HCC	
ALUF-(†)-30-(*)-VTD12		ALUF-(†)-36-(*)-HT36		ALUW-3-(*)-HTB	
ALUF-(†)-30-(*)-VTD24	B-349	ALUF-(†)-36-(*)-HX12		ALUW-3-(*)-VSP	
ALUF-(†)-30-(*)-VTD36		ALUF-(†)-36-(*)-HX24	B-339	ALUW-3-ESP	
ALUF-(†)-30-(*)-VTU12		ALUF-(†)-36-(*)-HX36		ALUW-3-RSP	
ALUF-(†)-30-(*)-VTU24	B-349	ALUF-(†)-36-(*)-HYL	B-348	ALUW-3-SB-3	B-357

CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.
ALUW-3-SBH-72	B-357	APT-C60	D-22	AUF(†)-06-(*)-HT48	B-278
ALUW-3-SSP	B-353	APT-C61	D-22	AUF(†)-06-(*)-HX12	B-278
ALUW-3-VIB-(*)-(*)	B-357	APT-D12A	D-21	AUF(†)-06-(*)-HX24	B-278
ALUW-3-V0B-(*)-(*)	B-357	APT-D15A	D-21	AUF(†)-06-(*)-HX36	
ALUW-6-(*)-CEP	B-354	APT-D16A	D-21	AUF(†)-06-(*)-HX48	B-278
ALUW-6-(*)-HCC	B-355	APT-D19A	D-21	AUF-(†)-06-(*)-HYL	B-288
ALUW-6-(*)-HTB		APT-D20A	D-21	AUF-(†)-06-(*)-HYR	
ALUW-6-(*)-VSP		APT-D27A	D-21	AUF(†)-06-(*)-VTD12	
ALUW-6-ÈŚP		APT-D28A	D-21	AUF(†)-06-(*)-VTD24	
ALUW-6-RSP		APT-D34A		AUF(†)-06-(*)-VTD36	
ALUW-6-SB-3		APT-D48A		AUF(†)-06-(*)-VTD48	
ALUW-6-SBH-72		APT-D5A		AUF(†)-06-(*)-VTU12	
ALUW-6-SSP		APT-D6A		AUF(†)-06-(*)-VTU24	
ALUW-6-VIB-(*)-(*)		APT-D8A		AUF(†)-06-(*)-VTU36	
ALUW-6-VOB-(*)-(*)		AUF(†)-06-(*)-(+)30-12		AUF(†)-06-(*)-VTU48	
AN211		AUF(†)-06-(*)-(+)30-24		AUF(†)-0609-(*)-ET(+)	
AN-270		AUF(†)-06-(*)-(+)30-36		AUF(†)-0609-(*)-EX(+)	
AN-270-1		AUF(†)-06-(*)-(+)30-48		AUF(†)-0612-(*)-ET(+)	
AN-270-2		AUF-(†)-06-(*)-(+)45-12		AUF(†)-0612-(*)-EX(+)	
AN-270-3		AUF-(†)-06-(*)-(+)45-24		AUF(†)-0618-(*)-ET(+)	
AN-270-4		AUF-(†)-06-(*)-(+)45-36		AUF(†)-0618-(*)-EX(+)	
AN-270-5		AUF-(†)-06-(*)-(+)45-48		AUF(†)-0624-(*)-ET(+)	
A04-12		AUF-(†)-06-(*)-(+)60-12		AUF(†)-0624-(*)-EX(+)	
A04-34		AUF-(†)-06-(*)-(+)60-24		AUF(†)-0630-(*)-ET(+)	
A0-51		AUF-(†)-06-(*)-(+)60-36		AUF(†)-0630-(*)-EX(+)	
AP-206				AUF(†)-0636-(*)-ET(+)	
		AUF-(†)-06-(*)-(+)60-48			
AP-231		AUF-(†)-06-(*)-(+)90-12		AUF(†)-0636-(*)-EX(+)	
AP-231FL		AUF-(†)-06-(*)-(+)90-24		AUF(†)-09-(*)-(+)30-12	
AP-231SQ		AUF-(†)-06-(*)-(+)90-36		AUF(†)-09-(*)-(+)30-24	
AP-232B-122, B-19		AUF-(†)-06-(*)-(+)90-48		AUF(†)-09-(*)-(+)30-36	
AP-232FL		AUF(†)-06-(*)-CS12		AUF(†)-09-(*)-(+)30-48	
AP-232SQB-122, B-19		AUF(†)-06-(*)-CS24		AUF-(†)-09-(*)-(+)45-12	
AP-234		AUF(†)-06-(*)-CS36		AUF-(†)-09-(*)-(+)45-24	
AP-234FL		AUF(†)-06-(*)-CS48		AUF-(†)-09-(*)-(+)45-36	B-294
AP-234SQ	B-122	AUF(†)-06-(*)-HB30-12		AUF-(†)-09-(*)-(+)45-48	
AP-235B-122, B-19		AUF(†)-06-(*)-HB30-24		AUF-(†)-09-(*)-(+)60-12	
AP-235FL	B-122	AUF(†)-06-(*)-HB30-36		AUF-(†)-09-(*)-(+)60-24	
AP-235SQB-122, B-19		AUF(†)-06-(*)-HB30-48		AUF-(†)-09-(*)-(+)60-36	
APT-BC77		AUF(†)-06-(*)-HB45-12		AUF-(†)-09-(*)-(+)60-48	B-292
APT-BD74		AUF(†)-06-(*)-HB45-24		AUF-(†)-09-(*)-(+)90-12	
APT-BD75		AUF(†)-06-(*)-HB45-36		AUF-(†)-09-(*)-(+)90-24	
APT-BD76		AUF(†)-06-(*)-HB45-48		AUF-(†)-09-(*)-(+)90-36	
APT-BD79		AUF(†)-06-(*)-HB60-12		AUF-(†)-09-(*)-(+)90-48	
APT-BD80		AUF(†)-06-(*)-HB60-24		AUF(†)-09-(*)-CS12	
APT-BD81		AUF(†)-06-(*)-HB60-36	B-274	AUF(†)-09-(*)-CS24	
APT-BD82	D-23	AUF(†)-06-(*)-HB60-48		AUF(†)-09-(*)-CS36	
APT-BN78	D-23	AUF(†)-06-(*)-HB90-12		AUF(†)-09-(*)-CS48	
APT-C54	D-22	AUF(†)-06-(*)-HB90-24	B-274	AUF(†)-09-(*)-HB30-12	B-276
APT-C55		AUF(†)-06-(*)-HB90-36		AUF(†)-09-(*)-HB30-24	
APT-C56	D-22	AUF(†)-06-(*)-HB90-48		AUF(†)-09-(*)-HB30-36	
APT-C57	D-22	AUF(†)-06-(*)-HT12		AUF(†)-09-(*)-HB30-48	B-276
APT-C58		AUF(†)-06-(*)-HT24		AUF(†)-09-(*)-HB45-12	
APT-C59		AUF(†)-06-(*)-HT36		AUF(†)-09-(*)-HB45-24	
		.,,		.,, ,,	

Catalog Number Index

CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.
AUF(†)-09-(*)-HB45-36		AUF-(†)-12-(*)-(+)60-48		AUF(†)-1224-(*)-ET(+)	
AUF(†)-09-(*)-HB45-48		AUF-(†)-12-(*)-(+)90-12		AUF(†)-1224-(*)-EX(+)	
AUF(†)-09-(*)-HB60-12		AUF-(†)-12-(*)-(+)90-24		AUF(†)-1230-(*)-ET(+)	
AUF(†)-09-(*)-HB60-24		AUF-(†)-12-(*)-(+)90-36		AUF(†)-1230-(*)-EX(+)	
AUF(†)-09-(*)-HB60-36		AUF-(†)-12-(*)-(+)90-48		AUF(†)-1236-(*)-ET(+)	
AUF(†)-09-(*)-HB60-48		AUF(†)-12-(*)-CS12		AUF(†)-1236-(*)-EX(+)	
AUF(†)-09-(*)-HB90-12		AUF(†)-12-(*)-CS24		AUF(†)-18-(*)-(+)30-12	
AUF(†)-09-(*)-HB90-24		AUF(†)-12-(*)-CS36		AUF(†)-18-(*)-(+)30-24	
AUF(†)-09-(*)-HB90-36		AUF(†)-12-(*)-CS48		AUF(†)-18-(*)-(+)30-36	
AUF(†)-09-(*)-HB90-48		AUF(†)-12-(*)-HB30-12		AUF(†)-18-(*)-(+)30-48	
AUF(†)-09-(*)-HT12		AUF(†)-12-(*)-HB30-24		AUF-(†)-18-(*)-(+)45-12	
AUF(†)-09-(*)-HT24		AUF(†)-12-(*)-HB30-36		AUF-(†)-18-(*)-(+)45-24	
AUF(†)-09-(*)-HT36		AUF(†)-12-(*)-HB30-48		AUF-(†)-18-(*)-(+)45-36	
AUF(†)-09-(*)-HT48		AUF(†)-12-(*)-HB45-12		AUF-(†)-18-(*)-(+)45-48	
AUF(†)-09-(*)-HX12		AUF(†)-12-(*)-HB45-24		AUF-(†)-18-(*)-(+)60-12	
AUF(†)-09-(*)-HX24		AUF(†)-12-(*)-HB45-36		AUF-(†)-18-(*)-(+)60-24	
AUF(†)-09-(*)-HX36		AUF(†)-12-(*)-HB45-48		AUF-(†)-18-(*)-(+)60-36	
AUF(†)-09-(*)-HX48		AUF(†)-12-(*)-HB60-12		AUF-(†)-18-(*)-(+)60-48	
AUF-(†)-09-(*)-HYL		AUF(†)-12-(*)-HB60-24		AUF-(†)-18-(*)-(+)90-12	
AUF-(†)-09-(*)-HYR		AUF(†)-12-(*)-HB60-36		AUF-(†)-18-(*)-(+)90-24	
AUF(†)-09-(*)-VTD12		AUF(†)-12-(*)-HB60-48		AUF-(†)-18-(*)-(+)90-36	
AUF(†)-09-(*)-VTD24		AUF(†)-12-(*)-HB90-12		AUF-(†)-18-(*)-(+)90-48	
AUF(†)-09-(*)-VTD36		AUF(†)-12-(*)-HB90-24		AUF(†)-18-(*)-CS12	
AUF(†)-09-(*)-VTD48		AUF(†)-12-(*)-HB90-36		AUF(†)-18-(*)-CS24	
AUF(†)-09-(*)-VTU12		AUF(†)-12-(*)-HB90-48		AUF(†)-18-(*)-CS36	
AUF(†)-09-(*)-VTU24		AUF(†)-12-(*)-HT12		AUF(†)-18-(*)-CS48	
AUF(†)-09-(*)-VTU36		AUF(†)-12-(*)-HT24		AUF(†)-18-(*)-HB30-12	
AUF(†)-09-(*)-VTU48		AUF(†)-12-(*)-HT36		AUF(†)-18-(*)-HB30-24	
AUF(†)-09-06-(*)-HLR		AUF(†)-12-(*)-HT48		AUF(†)-18-(*)-HB30-36	
AUF(†)-09-06-(*)-HRR		AUF(†)-12-(*)-HX12		AUF(†)-18-(*)-HB30-48	
AUF(†)-09-06-(*)-HSR		AUF(†)-12-(*)-HX24		AUF(†)-18-(*)-HB45-12	
AUF-(†)-0906-(*)-RT(+)		AUF(†)-12-(*)-HX36		AUF(†)-18-(*)-HB45-24	
AUF(†)-0912-(*)-ET(+)		AUF(†)-12-(*)-HX48		AUF(†)-18-(*)-HB45-36	
AUF(†)-0912-(*)-EX(+)		AUF-(†)-12-(*)-HYL		AUF(†)-18-(*)-HB45-48	
AUF(†)-0918-(*)-ET(+)		AUF-(†)-12-(*)-HYR		AUF(†)-18-(*)-HB60-12	
AUF(†)-0918-(*)-EX(+)		AUF(†)-12-(*)-VTD12	B-298	AUF(†)-18-(*)-HB60-24	
AUF(†)-0924-(*)-ET(+)		AUF(†)-12-(*)-VTD24		AUF(†)-18-(*)-HB60-36	
AUF(†)-0924-(*)-EX(+)		AUF(†)-12-(*)-VTD36		AUF(†)-18-(*)-HB60-48	
AUF(†)-0930-(*)-ET(+)		AUF(†)-12-(*)-VTD48		AUF(†)-18-(*)-HB90-12	
AUF(†)-0930-(*)-EX(+)		AUF(†)-12-(*)-VTU12		AUF(†)-18-(*)-HB90-24	
AUF(†)-0936-(*)-ET(+)	B-282	AUF(†)-12-(*)-VTU24		AUF(†)-18-(*)-HB90-36	
AUF(†)-0936-(*)-EX(+)		AUF(†)-12-(*)-VTU36		AUF(†)-18-(*)-HB90-48	
AUF(†)-12-(*)-(+)30-12		AUF(†)-12-(*)-VTU48		AUF(†)-18-(*)-HT12	
AUF(†)-12-(*)-(+)30-24		AUF(†)-12-06-(*)-HLR		AUF(†)-18-(*)-HT24	
AUF(†)-12-(*)-(+)30-36		AUF(†)-12-06-(*)-HRR		AUF(†)-18-(*)-HT36	
AUF (†) 12-(*)-(+)30-48		AUF(†)-12-06-(*)-HSR		AUF(†)-18-(*)-HT48	
AUF-(†)-12-(*)-(+)45-12		AUF-(†)-1206-(*)-RT(+)		AUF(†)-18-(*)-HX12	
AUF-(†)-12-(*)-(+)45-24		AUF(†)-12-09-(*)-HLR		AUF(†)-18-(*)-HX24	
AUF-(†)-12-(*)-(+)45-36		AUF(†)-12-09-(*)-HRR		AUF(†)-18-(*)-HX36	
AUF-(†)-12-(*)-(+)45-48		AUF (†)-12-09-(*)-HSR		AUF(†)-18-(*)-HX48	
AUF-(†)-12-(*)-(+)60-12		AUF-(†)-1209-(*)-RT(+)		AUF-(†)-18-(*)-HYL	
AUF-(†)-12-(*)-(+)60-24		AUF(†)-1218-(*)-ET(+) AUF(†)-1218-(*)-EX(+)		AUF-(†)-18-(*)-HYR AUF(†)-18-(*)-VTD12	
AUF-(†)-12-(*)-(+)60-36	D-Z9Z	AUF([]-1210-()-EA(+)	D-204	AUI-()-10-()-VID12	D-ZAQ

CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.
AUF(†)-18-(*)-VTD24		AUF(†)-24-(*)-HB60-12		AUF-(†)-30-(*)-(+)45-48	
AUF(†)-18-(*)-VTD36		AUF(†)-24-(*)-HB60-24		AUF-(†)-30-(*)-(+)60-12	
AUF(†)-18-(*)-VTD48		AUF(†)-24-(*)-HB60-36		AUF-(†)-30-(*)-(+)60-24	
AUF(†)-18-(*)-VTU12		AUF(†)-24-(*)-HB60-48		AUF-(†)-30-(*)-(+)60-36	
AUF(†)-18-(*)-VTU24		AUF(†)-24-(*)-HB90-12		AUF-(†)-30-(*)-(+)60-48	
AUF(†)-18-(*)-VTU36		AUF(†)-24-(*)-HB90-24		AUF-(†)-30-(*)-(+)90-12	
AUF(†)-18-(*)-VTU48		AUF(†)-24-(*)-HB90-36	B-274	AUF-(†)-30-(*)-(+)90-24	B-290
AUF(†)-18-06-(*)-HLR	B-286	AUF(†)-24-(*)-HB90-48	B-274	AUF-(†)-30-(*)-(+)90-36	B-290
AUF(†)-18-06-(*)-HRR		AUF(†)-24-(*)-HT12	B-278	AUF-(†)-30-(*)-(+)90-48	B-290
AUF(†)-18-06-(*)-HSR		AUF(†)-24-(*)-HT24		AUF(†)-30-(*)-CS12	
AUF-(†)-1806-(*)-RT(+)		AUF(†)-24-(*)-HT36		AUF(†)-30-(*)-CS24	
AUF(†)-18-09-(*)-HLR		AUF(†)-24-(*)-HT48		AUF(†)-30-(*)-CS36	
AUF(†)-18-09-(*)-HRR		AUF(†)-24-(*)-HX12		AUF(†)-30-(*)-CS48	
AUF(†)-18-09-(*)-HSR		AUF(†)-24-(*)-HX24		AUF(†)-30-(*)-HB30-12	
AUF-(†)-1809-(*)-RT(+)		AUF(†)-24-(*)-HX36		AUF(†)-30-(*)-HB30-24	
AUF(†)-18-12-(*)-HLR		AUF(†)-24-(*)-HX48		AUF(†)-30-(*)-HB30-36	
AUF(†)-18-12-(*)-HRR		AUF-(†)-24-(*)-HYL		AUF(†)-30-(*)-HB30-48	
AUF(†)-18-12-(*)-HSR		AUF-(†)-24-(*)-HYR		AUF(†)-30-(*)-HB45-12	
AUF-(†)-1812-(*)-RT(+)		AUF(†)-24-(*)-VTD12		AUF(†)-30-(*)-HB45-24	B-276
AUF(†)-1824-(*)-ET(+)		AUF(†)-24-(*)-VTD24		AUF(†)-30-(*)-HB45-36	B-276
AUF(†)-1824-(*)-EX(+)		AUF(†)-24-(*)-VTD36		AUF(†)-30-(*)-HB45-48	
AUF(†)-1830-(*)-ET(+)		AUF(†)-24-(*)-VTD48		AUF(†)-30-(*)-HB60-12	
AUF(†)-1830-(*)-EX(+)		AUF(†)-24-(*)-VTU12		AUF(†)-30-(*)-HB60-24	
AUF(†)-1836-(*)-ET(+)		AUF(†)-24-(*)-VTU24		AUF(†)-30-(*)-HB60-36	
AUF(†)-1836-(*)-EX(+)		AUF(†)-24-(*)-VTU36		AUF(†)-30-(*)-HB60-48	
AUF(†)-24-(*)-(+)30-12		AUF(†)-24-(*)-VTU48		AUF(†)-30-(*)-HB90-12	
AUF(†)-24-(*)-(+)30-24		AUF(†)-24-06-(*)-HLR		AUF(†)-30-(*)-HB90-24	
AUF(†)-24-(*)-(+)30-36		AUF(†)-24-06-(*)-HRR		AUF(†)-30-(*)-HB90-36	
AUF(†)-24-(*)-(+)30-48		AUF(†)-24-06-(*)-HSR		AUF(†)-30-(*)-HB90-48	
AUF-(†)-24-(*)-(+)45-12		AUF-(†)-2406-(*)-RT(+)		AUF(†)-30-(*)-HT12	
AUF-(†)-24-(*)-(+)45-24		AUF(†)-24-09-(*)-HLR		AUF(†)-30-(*)-HT24	
AUF-(†)-24-(*)-(+)45-36		AUF(†)-24-09-(*)-HRR		AUF(†)-30-(*)-HT36	B-2/8
AUF-(†)-24-(*)-(+)45-48		AUF(†)-24-09-(*)-HSR		AUF(†)-30-(*)-HT48	
AUF-(†)-24-(*)-(+)60-12		AUF-(†)-2409-(*)-RT(+)		AUF(†)-30-(*)-HX12	B-2/8
AUF-(†)-24-(*)-(+)60-24		AUF(†)-24-12-(*)-HLR		AUF(†)-30-(*)-HX24	B-278
AUF-(†)-24-(*)-(+)60-36		AUF(†)-24-12-(*)-HRR		AUF(†)-30-(*)-HX36	
AUF-(†)-24-(*)-(+)60-48		AUF(†)-24-12-(*)-HSR		AUF(†)-30-(*)-HX48	
AUF-(†)-24-(*)-(+)90-12		AUF-(†)-2412-(*)-RT(+)		AUF-(†)-30-(*)-HYL	
AUF-(†)-24-(*)-(+)90-24	B-290	AUF(†)-24-18-(*)-HLR		AUF-(†)-30-(*)-HYR	
AUF-(†)-24-(*)-(+)90-36		AUF(†)-24-18-(*)-HRR		AUF(†)-30-(*)-VTD12	B-298
AUF-(†)-24-(*)-(+)90-48		AUF(†)-24-18-(*)-HSR		AUF(†)-30-(*)-VTD24	B-298
AUF(†)-24-(*)-CS12		AUF-(†)-2418-(*)-RT(+)		AUF(†)-30-(*)-VTD36	
AUF(†)-24-(*)-CS24		AUF(+) -2430-(*)-ET(+)		AUF(†)-30-(*)-VTD48	
AUF(†)-24-(*)-CS36		AUF(+) -2430-(*)-EX(+)		AUF(†)-30-(*)-VTU12	
AUF(†)-24-(*)-CS48		AUF(+) -2436-(*)-ET(+)		AUF(†)-30-(*)-VTU24	
AUF(†)-24-(*)-HB30-12		AUF(†)-2436-(*)-EX(+)		AUF(†)-30-(*)-VTU36	
AUF(†)-24-(*)-HB30-24		AUF(†)-30-(*)-(+)30-12		AUF(†)-30-(*)-VTU48	
AUF(†)-24-(*)-HB30-36		AUF(†)-30-(*)-(+)30-24	D-290	AUF(†)-30-06-(*)-HLR	
AUF(†)-24-(*)-HB30-48		AUF(†)-30-(*)-(+)30-36		AUF(†)-30-06-(*)-HRR	
AUF(†)-24-(*)-HB45-12		AUF(†)-30-(*)-(+)30-48		AUF(†)-30-06-(*)-HSR	
AUF(†)-24-(*)-HB45-24		AUF-(†)-30-(*)-(+)45-12		AUF-(†)-3006-(*)-RT(+)	
AUF(†)-24-(*)-HB45-36		AUF-(†)-30-(*)-(+)45-24		AUF(†)-30-09-(*)-HLR AUF(†)-30-09-(*)-HRR	
AUF(†)-24-(*)-HB45-48	ט-210	AUF-(†)-30-(*)-(+)45-36	บ-294	MUF()-3U-U3-()-NNN	D-200

CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.
AUF(†)-30-09-(*)-HSR	B-286	AUF(†)-36-(*)-HT24		AZ-1100	D-39
AUF-(†)-3009-(*)-RT(+)		AUF(†)-36-(*)-HT36	B-278	AZ-1102	D-39
AUF(†)-30-12-(*)-HLR	B-286	AUF(†)-36-(*)-HT48	B-278	AZ-1303	
AUF(†)-30-12-(*)-HRR		AUF(†)-36-(*)-HX12		AZ-2104	
AUF(†)-30-12-(*)-HSR		AUF(†)-36-(*)-HX24		AZ-2106	
AUF-(†)-3012-(*)-RT(+)		AUF(†)-36-(*)-HX36		AZ-3108	
AUF(†)-30-18-(*)-HLR		AUF(†)-36-(*)-HX48		AZ-3110	D-39
AUF(†)-30-18-(*)-HRR		AUF-(†)-36-(*)-HYL		В	
AUF (+) -30-18-(*) -HSR		AUF-(†)-36-(*)-HYR		B 804 NEOP WH	B-198
AUF-(†)-3018-(*)-RT(+)		AUF(†)-36-(*)-VTD12		B 900 10	
AUF(†)-30-24-(*)-HLR		AUF(†)-36-(*)-VTD24		B 902 10	B-10
AUF(†)-30-24-(*)-HRR AUF(†)-30-24-(*)-HSR		AUF(†)-36-(*)-VTD36 AUF(†)-36-(*)-VTD48		B 903HS 10	
AUF-(†)-3024-(*)-RT(+)		AUF(†)-36-(*)-VTU12		B 905 10	
AUF(†)-3036-(*)-ET(+)		AUF(†)-36-(*)-VTU24		B 905HS 10	
AUF(†)-3036-(*)-EX(+)		AUF(†)-36-(*)-VTU36		B 906 10	
AUF(†)-36-(*)-(+)30-12		AUF(†)-36-(*)-VTU48		B 907HS 10	
AUF(†)-36-(*)-(+)30-24		AUF(†)-36-06-(*)-HLR		B 909 10	
AUF(†)-36-(*)-(+)30-36		AUF(†)-36-06-(*)-HRR		B 910 1/4	
AUF(†)-36-(*)-(+)30-48		AUF(†)-36-06-(*)-HSR		B 911 1/4	
AUF-(†)-36-(*)-(+)45-12		AUF-(†)-3606-(*)-RT(+)		B 911 3/8 SN1	
AUF-(†)-36-(*)-(+)45-24		AUF(†)-36-09-(*)-HLR		B 912 1/4 B 914 1/4	
AUF-(†)-36-(*)-(+)45-36		AUF(†)-36-09-(*)-HRR	B-286	В 915	
AUF-(†)-36-(*)-(+)45-48	B-294	AUF(†)-36-09-(*)-HSR	B-286	В 916	
AUF-(†)-36-(*)-(+)60-12		AUF-(†)-3609-(*)-RT(+)		B 917	
AUF-(†)-36-(*)-(+)60-24		AUF(†)-36-12-(*)-HLR		B 918	
AUF-(†)-36-(*)-(+)60-36		AUF(†)-36-12-(*)-HRR		B 920	
AUF-(†)-36-(*)-(+)60-48		AUF(†)-36-12-(*)-HSR		B 921	
AUF-(†)-36-(*)-(+)90-12		AUF-(†)-3612-(*)-RT(+)		B 922	
AUF-(†)-36-(*)-(+)90-24		AUF(†)-36-18-(*)-HLR	B-286	B 923	
AUF-(†)-36-(*)-(+)90-36		AUF(†)-36-18-(*)-HRR		B 924	
AUF-(†)-36-(*)-(+)90-48 AUF(†)-36-(*)-CS12		AUF(†)-36-18-(*)-HSR AUF-(†)-3618-(*)-RT(+)		B 924FL	
AUF(†)-36-(*)-CS24		AUF(†)-36-24-(*)-HLR		B 924SQ	B-18
AUF(†)-36-(*)-CS36		AUF(†)-36-24-(*)-HRR		B 926	
AUF(†)-36-(*)-CS48		AUF(†)-36-24-(*)-HSR		B 927	
AUF(†)-36-(*)-HB30-12		AUF-(†)-3624-(*)-RT(+)		B 928	
AUF(†)-36-(*)-HB30-24		AUF(†)-36-30-(*)-HLR		B 929	
AUF(†)-36-(*)-HB30-36		AUF(†)-36-30-(*)-HRR		B 930	
AUF(†)-36-(*)-HB30-48	B-276	AUF(†)-36-30-(*)-HSR	B-286	B 932	
AUF(†)-36-(*)-HB45-12		AUF-(†)-3630-(*)-RT(+)		B 933 B 934	
AUF(†)-36-(*)-HB45-24	B-276	AUW(*)VIB-(*)-(+)	B-306	В 935	
AUF(†)-36-(*)-HB45-36		AUW(*)VOB-(*)-(+)		В 936	
AUF(†)-36-(*)-HB45-48		AW204B-1		В 937	
AUF(†)-36-(*)-HB60-12		AW205 LB-12		B 938	
AUF(†)-36-(*)-HB60-24		AW205-RB-12		B 939	
AUF(†)-36-(*)-HB60-36		AW214		B 940 1	
AUF(†)-36-(*)-HB60-48		AW219B-1		B 941	
AUF(†)-36-(*)-HB90-12		AW220		B 942	
AUF(†)-36-(*)-HB90-24		AW224 AW226		B 943	B-21
AUF(†)-36-(*)-HB90-36 AUF(†)-36-(*)-HB90-48		AW228		B 944	
AUF(†)-36-(*)-HT12		AW-239		B 945	
//or (1) 00 () 11112	ט 210	/\\\ 200	0 122	B 946	B-22

CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO
	B-22		A-199	B-902-10-EG	
	B-22		B-126	B-902-10HD	
	B-13		A-73	B-902-20	
	B-115, B-192		A-73	B-902-20-EG	
	A-71		A-76	B-902-20HD	
	A-75		A-74	B-903	
	A-106		A-74	B-903-10	
	A-75		A-74	B-903-10-EG	
	A-75		A-74	B-903-20	
	A-70		A-76	B-903-20-EG	
B118B-UPC	A-71		A-87	B-903HD	
	B-110, B-183, B-190,		A-87	B-903HS-10-EG	
	B-199, B-201, B-203,		A-87	B-903HS-20	
	B-205, B-207, B-211		A-87	B-903HS-20-EG	
	B-191		A-91	B-904 10	
	B-192		A-91	B-904HD	
B-1200_T316SS	B-192	B620DC	A-89	B-905	
B1200AL	B-183		A-89	B-905-10-316SS	
B-1200-HS	B-111	B620H-UPC	A-89	B-905-10-EG	B-11
B-1200-P	B-111	B620K	A-89	B-905-10GR	B-11
	B-111	B620KG-UPC	A-89	B-905-10HD	B-11
B-1202	B-199, B-202, B-204,	B620L-UPC	A-87	B-905-10PG	B-11
	B-206, B-208, B-210		A-241	B-905-10SS	B-25
	B-191		A-87	B-905-20	
	A-70		B-186	B-905-20-EG	
	A-75		B-126, B-186	B-905-20GR	
	A-70		B-186	B-905-20HD	
	A-199	B-900	B-9, B-58, B-95, B-96	B-905-20PG	
	A-199		B-25	B-905-AL	
	A-199		B-9	B-905HS-10-EG	
	A-199		B-9	B-905HS-20	
	A-71		B-9	B-905HS-20-EG	
	B-110, B-183, B-196,		B-9	B-905HS-M-10	
	B-199, B-201, B-203,		B-25	B-905HS-M-10-EG	
	5, B-207, B-211, B-218		B-9	B-905HS-M-20	
	B-192		B-9	B-905HS-M-20-EG	
	B-192		B-9	B-905-M	
B-1400_131000 R-1400_HS	B-111, B-196		B-9	B-905-M-10	
	B-192		B-9	B-905-M-10-EG	
	B-192		B-26		R-11
-	B-111		B-9, B-58, B-95, B-96	B-905-M-20-EG	
	B-111		B-9, D-30, D-33, D-30	B-906	
	B-199, B-202, B-204,		B-9	B-906-10-EG	
	B-199, B-202, B-204, 6, B-208, B-210, B-218		B-9	B-906-20	
				B-906-20-EG	
	A-106	B-900-IVI-20-EG	B-9		
	B-120		B-9, B-58, B-95, B-96	B-907	
	B-121		B-9	B-907-10	
	A-76		B-9	B-907-10316SS	
	A-72		B-9	B-907-10-EG	
	A-72		B-9	B-907-10GR	
	A-72		B-9	B-907-10HD	
	A-72		.B-10, B-58, B-95, B-96	B-907-10PG	
B234BFBB	A-199	в-902-10	B-10	B-907-10SS	B-25

Catalog Number Index

CAT. NO. B-907-20	PAGE NO.	CAT. NO. B-927EG	PAGE NO.	CAT. NO.	PAGE NO. A-77
B-907-20-EG		B-935-EG			A-77
					A-77
B-907-20GR B-907-20HD		B-935-GR			
		B-936EG			A-78
B-907-20PG		B-936GR			A-78
B-907-AL		B-940-2			A-78
B-907HS-10-EG		B-940-3			A-79
B-907HS-20		B948			A-79
B-907HS-20-EG		B-951			A-79
B-909		B-952			A-79
B-909-10-EG		B-953			A-79
B-909-20		B-954			A-79
B-909-20-EG		B-957			A-79
B-909HD		B-958L			A-79
B-910-1/2		B-958R			A-263
B-910-3/8		B-960			D-49
B-910-5/16		B-961			D-49
B-911-1/2		B-962		BL-113	D-49
B-911-1/2-SN1	B-15	B-964	B-23		D-49
B-911-1/2-SN2	B-15	B-965	B-23	BL-115	D-49
B-911-1/2-SS	B-25	B-966	B-23		D-49
B-911-1/4	B-58	B-967	B-23	BZ-1100	D-39
B-911-3/8	B-15	B-995-10-EG	B-13	BZ-1102	D-39
B-911-3/8-SN2	B-15	B-995-20	B-13	BZ-1303	D-39
B-911-3/8-SS		B-995-20-EG			D-39
B-911-5/16		B-995-M-10			D-39
B-911-D-1/2	B-15	B-995-M-10-EG	B-13		
B-911-D-3/8		B-995-M-20			С
B-912-1/2		B-995-M-20-EG		0.400.4	D 04 D 444
B-912-3/8		B998			B-34, B-141
B-912-5/16		B998EG		C 109 1 1/2	B-34, B-141
B-914-1/2		B999			B-34, B-141
B-914-1/2P		B999EG			B-34, B-141
B-914-3/4		BA-1121			B-34, B-141
B-914-3/8		BA-1122			B-34, B-141
B-914-3/8P		BA-1123			B-34, B-141
B-914-5/8		BA-1124			B-34, B-141
B-914-7/8		BA-1125			B-34, B-141
B-915EG		BA-1126			B-34, B-141
B-915HD		BA-1127			B-34, B-141
B-916HD		BA-1128			B-34, B-141
B-917EG		BA-1129			B-34, B-141
B-917HD		BA-1130		C 109 3 1/2	B-34, B-141
		BA-1131		C 109 3 1/2 EG	B-34, B-141
B-918EGB				C 109 3 EG	B-34, B-141
B-924-EG		BC1-TB		C 109 3/4	B-34, B-141
B-924-FLEG		BC2-TB			B-34, B-141
B-924SQEG		BC910 1/2			B-34, B-141
B-925		BC910 1/4			B-34, B-141
B-925-EG	D 10		ט ז ב		
D COFFI		BC910 3/8		C 109R 1	B-34. B-141
B-925FL	B-18	BH118R	A-78	C 109R 1 C 109R 1 1/2	B-34, B-141 B-34, B-141
B-925FLEG	B-18 B-18	BH118R BH122A-UPC	A-78 A-77	C 109R 1 1/2	B-34, B-141
	B-18 B-18 B-18	BH118R	A-78 A-77 A-77	C 109R 1 1/2 C 109R 1 1/2 EG	B-34, B-141 B-34, B-141 B-34, B-141 B-34, B-141

CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.
C 109R 1 EG			B-207, B-209, B-211		B-36, B-143
C 109R 1/2			B-111		B-36, B-143
C 109R 1/2 EG			B-199, B-202, B-204,		B-36, B-143
C 109R 2			B-206, B-208, B-210		B-36, B-143
C 109R 2 EG			B-37		B-36, B-143
C 109R 3/4			B-37		B-45, B-180, B-195, B-219
C 109R 3/4 EG	,		B-37		B-38, B-151
C-105-1			B-37		B-38, B-151
C-105-1/2			B-37		B-38, B-151
C-105-1/2SS			B-37		B-38, B-151
C-105-10			B-37		B-38, B-151
C-105-1-1/2			B-37		B-38, B-151
C-105-1-1/2SS			B-37		B-38, B-151
C-105-1-1/4			B-37		B-38, B-151
C-105-1-1/4SS			B-30		B-38, B-151
C-105-12			B-34		B-38, B-151
C-105-1SS			B-34		B-38, B-151
C-105-2			B-34		B-38, B-151
C-105-2-1/2			B-34		B-38, B-151
C-105-2-1/2SS			B-34		B-38, B-151
C-105-2SS			B-34		B-38, B-151
C-105-3			A-287		B-38, B-151
C-105-3/4			A-287		B-38, B-151
C-105-3/4SS			A-287		B-151
C-105-3/8			B-120		B-38, B-151
C-105-3-1/2	B-35	C210	B-121		B-38, B-151
C-105-3-1/2SS	B-25	C2420A4	A-287	C-710-6	B-38, B-151
C-105-3SS	B-25		A-287		B-38, B-151
C-105-4	B-35		A-287		B-38, B-151
C-105-4-1/2			B-39, B-135		B-45, B-219
C-105-4SS			B-39, B-135		B-38, B-154
C-105-5	B-35	C-249	B-39, B-135	C-711-1/2	B-38, B-154
C-105-6			B-126		B-38, B-154
C-105-8	B-35		A-287		B-38, B-154
C-105AL-1			A-287		B-38, B-154
C-105AL-1/2			A-287		B-38, B-154
C-105AL-1-1/2	B-26		B-127		B-38, B-154
C-105AL-1-1/4			B-127		B-38, B-154
C-105AL-2			B-127		B-38, B-154
C-105AL-2-1/2	B-26		B-127		B-38, B-154
C-105AL-3			B-127		B-38, B-154
C-105AL-3/4			B-127	C-711-6	B-38, B-154
C-105AL-3-1/2	B-26		B-127	C-711-8	B-38, B-154
C-105AL-4			B-220		B-143
C-106-1			B-39		B-143
C-106-1/2			B-36		B-143
C-106-1-1/2			B-36, B-143		B-143
C-106-1-1/4			B-143		B-143
C-106-2			2B-36, B-143		B-143
C-106-3/4			B-36, B-143		B-143
C-106-3/8			B-36, B-143		B-143
C-1200B-1		C-708-U-2-1/2	B-36, B-143	C-716-3-1/2	B-143
B-2	201, B-203, B-205,	C-708-U-3	B-36, B-143	C-716-4	B-143

CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.
C-720		C-724-4		C-727-3	
C720 10		C-724-6		C-727-3/4	
C-720-1		C-724-8		C-727-3-1/2	
C-720-1/2		C-725		C-727-4	
C-720-1-1/2		C725 1/2		C-727-5	
C-720-1-1/4		C-725-1		C-727-6	
C-720-12		C-725-10		C-727-8	
C-720-14		C-725-1-1/2		C-727-NFPA-1	B-156
C-720-16		C-725-1-1/4		C-727-NFPA-1/2	
C-720-18	B-146	C-725-12		C-727-NFPA-1-1/2	
C-720-2	B-39, B-146	C-725-14		C-727-NFPA-1-1/4	
C-720-20		C-725-16		C-727-NFPA-2	
C-720-2-1/2		C-725-18		C-727-NFPA-2-1/2	
C-720-24		C-725-2		C-727-NFPA-3	
C-720-3		C-725-20		C-727-NFPA-3/4	
C-720-3/4		C-725-2-1/2		C-727-NFPA-3-1/2	
C-720-3-1/2		C-725-24		C-727-NFPA-4	
C-720-4		C-725-3		C-727-NFPA-5	
C-720-5		C-725-3/4		C-727-NFPA-6	
C-720-6		C-725-30		C-727-NFPA-8	
C-720-8		C-725-4		C727P 1/2	
C-720L-1		C-725-5		C-727-P-1	
C-720L-1/2		C-725-6		C-727-P-1-1/2	
C-720L-10		C-725-8		C-727-P-1-1/4	
C-720L-1-1/2		C-726		C-727-P-2	
C-720L-1-1/4		C-726-1		C-727-P-2-1/2	
C-720L-12		C-726-1/2		C-727-P-3	
C-720L-2		C-726-1/4		C-727-P-3/4	
C-720L-2-1/2		C-726-10		C-727-P-3-1/2	
C-720L-3		C-726-12		C-727-P-4	
C-720L-3/4		C-726-1-3/4		C-727-P-5	
C-720L-4		C-726-14		C-727-P-6	
C-720L-5		C-726-16		C-727-P-8	
C-720L-6		C-726-18		C728	
C-720L-8		C-726-2		C728H	
C-720P-1		C-726-20		C-729	
C720P-1/2		C-726-2-3/4		C-729-10	
C-720P-1-1/2		C-726-24		C-729-12	
C-720P-1-1/4		C-726-3		C-729-14	
C-720P-2		C-726-3/4		C-729-16	
C-720P-2-1/2		C-726-30		C-729-18	
C-720P-3		C-726-36		C-729-2	
C-720P-3/4		C-726-4		C-729-20	
C-720P-4		C-726-5		C-729-2-1/2	
C-724-10		C-726-6		C-729-24	
C-724-12		C-726-8		C-729-3	
C-724-14		C-727		C-729-3-1/2	
C-724-16		C-727-1		C-729-4	
C-724-18		C-727-1/2		C-729-5	
C-724-20		C-727-1-1/2		C-729-6	
C-724-24		C-727-1-1/4		C-729-7	
C-724-3		C-727-2		C-729-8	
C-724-30	В-148	C-727-2-1/2	B-155	C-736	B-220

CAT. NO. C-736-1	PAGE NO.	CAT. NO.	PAGE NO. B-40, B-145	CAT. NO.	PAGE NO.
					B-133
C-736-2			B-41, B-145, B-167		B-133
C-736-3			B-41, B-145		B-133
C-736-SIDE CLIP-1			B-40, B-145		B-134
C-736-SIDE CLIP-2			B-41, B-145		B-134
C-739-H			B-40, B-145		B-134
C-739-H-0		C-755-4C	B-41, B-145		B-134
C-739-H-1			B-40, B-145		B-219
C-739-H-2			B-40, B-145		B-166
C-739-H-3			B-41, B-145, B-167		B-166
C-739-H-4			B-41, B-145		B-166
C-739-H-5			B-40, B-145		B-166
C-747-1/2B		C-755-5B	B-41, B-145		B-166
C-747-3/4B			B-40, B-145		B-166
C-747-3/8B			B-41, B-145		B-166
C-747-5/8B			B-40, B-145		B-166
C-747-7/8B			B-40, B-145		B-166
C749N			B-41, B-145, B-167		B-166
C749N 5/8			B-41, B-145		B-166
C749N 7/8			B-40, B-145		B-166
C-749-N-1-1/8	B-159		B-41, B-145		B-166
C750 2	B-39		B-40, B-145	C-780-3-1/4	B-166
C750 6	B-39	C-755-6C	B-41, B-145	C-780-5/8	B-166
C-750-1	B-39		B-40, B-145	C-780-7/8	B-166
C-750-3	B-39	C-755-6-TP	B-40, B-145	C-785-A	B-220
C-750-4	B-39		B-41, B-145, B-167	C-786	B-220
C-750-5	B-39	C-755-7A	B-41, B-145	C-786-10	B-175
C-750-7	B-39	C-755-7A-TP	B-40, B-145	C-786-1-1/2	B-175
C-750-8	B-39		B-41, B-145	C-786-12	B-175
C-750-9	B-39	C-755-7B-TP	B-40, B-145	C-786-14	B-175
C755 1ATP	B-40, B-145	C-755-7C	B-41, B-145	C-786-16	B-175
C-755 T			B-40, B-145	C-786-18	B-175
C-755-1			B-40, B-145		B-175
C-755-1A	B-41, B-145		B-41, B-145		B-175
C-755-1B	B-41. B-145		B-40, B-145		B-175
C-755-1B-TP			B-41, B-145		B-175
C-755-1C			B-40, B-145	C-786-3	B-175
C-755-1C-TP			B-41, B-145		B-175
C-755-2B-41,			B-40, B-145	C-786-36	B-175
C-755-2A			B-41, B-145		B-175
C-755-2A-TP			B-40, B-145	C-786-5	B-175
C-755-2B			B-41, B-145		B-175
C-755-2B-TP			B-40, B-145		B-175
C-755-2C			B-41, B-145		B-170, B-171,
C-755-2C-TP	R-40 R-145		B-40, B-145		B-173, B-174, B-220
C-755-2-TP			B-41, B-145		B-176
C-755-3B-41,			B-40, B-145		B-177
C-755-3A			B-41		B-176
C-755-3A-TP			B-41		B-176
C-755-3B			B-219		B-177
C-755-3B-TP	R-40 R-145		B-193, B-219		B-178
C-755-3C			B-133		B-178
C-755-3C-TP			B-133		B-178
0 700 00 11	5 70, 5-140	0 110L 1/L	D-100	0 700 10	

Catalog Number Index

CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.
C-789-2			B-177		B-179
C-789-20			B-178		B-179
C-789-2-1/2			B-178		B-179
C-789-24			B-178		B-179
C-789-3			B-176		B-179
C-789-3/4			B-178		B-180
C-789-4			B-176		B-180
C-789-5			B-178		B-179
C-789-6			B-177		B-180
C-789-8			B-177		B-180
C-789A B-170, B-171,			B-177		B-180
C-789A-1			B-177		B-179
C-789A-10			B-177		B-180
C-789A-1-1/2		C-789DB-17	0, B-171, B-173, B-174		B-179
C-789A-1-1/4			B-177		B-180
C-789A-12	B-177		B-177		B-179
C-789A-14	B-178	C-789D-14	B-178	C-790-6	B-180
C-789A-16			B-178		B-179
C-789A-18			B-178		B-179
C-789A-2	B-176	C-789D-2	B-176	C-790-8	B-180
C-789A-20	B-178	C-789D-20	B-178	C-790-8A	B-179
C-789A-2-1/2	B-176	C-789D-2-1/2	B-176	C-790-9A	B-179
C-789A-24	B-178	C-789D-24	B-178	C-804	B-126, B-186
C-789A-3	B-177	C-789D-3	B-177	C-822	B-186
C-789A-3/4	B-176	C-789D-4	B-177	C861G	A-335
C-789A-4	B-177	C-789D-5	B-177	C979DFN	A-271
C-789A-5	B-177	C-789D-6	B-177	C979EFN	A-271
C-789A-6	B-177	C-789D-8	B-177	C979FFN	A-271
C-789A-8		C-789EB-17	0, B-171, B-173, B-174	C9801-347	A-272
C-789-AL	B-220	C-789E-10	B-177	C9801DN	A-272
C-789B B-170, B-171,	B-173, B-174	C-789E-12	B-177	C9801EN	A-272
C-789B-1	B-176	C-789E-14	B-178	C9801FN	A-272
C-789B-10	B-177	C-789E-16	B-178	C9802F	A-273
C-789B-1-1/2	B-176	C-789E-18	B-178	C980DFN-CTN	A-271
C-789B-1-1/4	B-176	C-789E-20	B-178	C980EFN-CTN	A-271
C-789B-12	B-177	C-789E-24	B-178	C980FFN-CTN	A-271
C-789B-14	B-178	C-789E-4	B-177	C9811DN	A-272
C-789B-16			B-177	C9811EN	A-272
C-789B-18	B-178	C-789E-6	B-177	C9811FN	A-272
C-789B-2	B-176		B-177		A-273
C-789B-20			B-220		A-271
C-789B-2-1/2			B-180		A-271
C-789B-24			B-180		A-271
C-789B-3			B-180		A-271
C-789B-3/4			B-179		A-271
C-789B-4			B-180		A-271
C-789B-5			B-180		D-39
C-789B-6			B-179		D-39
C-789B-8			B-180		D-39
C-789CB-170, B-171,			B-179		D-39
C-789C-10			B-179		D-39
C-789C-1-1/2			B-180		D-39
C-789C-1-1/4			B-179		D-39
3 . 000 1 1/1		5 7 00 T 10	173	U. (L.	5 00

CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.
CA-1128			A-218		A-340
CA-1129			A-218		A-339
CA-1130			A-217		A-339
CA-1131			A-354		B-153
CB118-047PG			A-339		B-153
CB118-055PG			A-340		B-153
CB118-070PG		CDLE-25			B-153
CB118-090PG		CDOW			B-153
CB118-110PG		CDOWTG-25			B-153
CB118-140PG		CDV-25			B-153
CB118-175PG			A-339		B-153
CB118-200PG		CE4X1-1000S			B-153
CB118-250PG			A-340		B-153
CB118-300PG			A-340		B-257
CBA			A-354		B-257
CBP			A-339		B-251
CBP 3/8		CE9801-CTN			B-251
CBTW 4	A-58	CE9802			A-285
CBTW 6			A-273		A-285
CBTW 8			A-273		A-285
CC1085			A-273		A-285
CC120B			A-273		A-340
CC12106			A-340		A-339
CC122		CF4X1-250			A-354
CC125			A-340		A-340
CC14126			A-354		A-339
CC16147			A-340		A-339
CC665		CF4X1C-1000			A-339
CC863		CF4X1C-1500			A-339
CCB		CF4X1C-250			A-339
CCB-FS			A-339		A-285
CCD			A-339		A-285
CCD-FS			A-339		A-295
CCD-L			A-339		A-295
CCDV		CF-710			A-215
CCDV-L		CFB-12			A-215
CCG		CFB-16			A-215
CCG-FS			A-85		A-228
CCGV			A-35		A-228
0001 L	A-218	CG4X1-200S		oranna manninin	A-227
CCK			A-339		A-227
CCMB			A-339		A-227
CCPO			A-354		A-227
CCPO-L			A-339		A-221
CCRB		CG4X1C-200			A-221
CCRSB		CG4X1C-3200			A-221
CCS			A-339		A-215
CCSK			A-339		A-354
CCSV		CG4X1C-900			A-339
CCSV-L		CH208			B-180, B-219
CCSV-TL		CH4X1-150S			B-152
CCT		CH4X1C			B-152
CCT-1	A-218	UH4X1U-1200	A-339	UL-/10-1-1/2	B-152



Catalog Number Index

CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.
CL-710-1-1/4			B-172		B-157
CL-710-2			B-172		B-157
CL-710-2-1/2			B-170		B-157
CL-710-3			B-170		D-51
CL-710-3/4			B-172		D-51
CL-710-3-1/2			B-172		D-51
CL-710-4			B-170		A-27
CM-100			B-172		D-51
CP-1			B-170		B-378
CP100N			B-172		B-152
CP100NB			B-170		B-152
CP200N			B-172		B-152
CP200NB			B-170		B-152
CP300N			B-172		B-152
CP300NB			A-286		B-152
CP900			A-286		B-152
CPC025	B-33, B-138	CS14126	A-286		B-152
CPC025SS6			A-286		B-152
CPC050			A-286		B-152
CPC050SS6		CS841BR	A-248		B-152
CPC075			A-286		B-152
CPC075SS6	B-25, B-193	CSB1	A-16	CTQ	D-51
CPC100	B-33, B-138	CSS-100	C-28	CV1085	A-286
CPC100SS6		CSS-135	B-254, C-28	CV12106	A-286
CPC125		CSS-160	C-28	CV14126	A-286
CPC125SS6	B-25, B-193	CSS-270	B-254, C-28	CV16147	A-286
CPC150	B-33, B-138	CSS-50R	C-29	CV665	A-286
CPC150SS6	B-25, B-193	CSS-B	C-29	CV863	A-286
CPC200	B-33, B-138	CSS-H	B-254, C-29	CW 1/2	A-21
CPC200SS6	B-25, B-193		C-29	CW3/4-25	A-21
CPC250	B-33, B-138	CT-720	B-219	CWLE 3/4	A-21
CPC250SS6	B-25, B-193	CT720 1	B-148	CWLE1/2-25	A-21
CPC300	B-33, B-138	CT-720-1/2	B-148	CWN-25	A-20
CPC300SS6	B-25, B-193	CT-720-1-1/2	B-148	CWNLE	A-20
CPC350	B-33, B-138	CT-720-1-1/4	B-148	CWNV-25	A-20
CPC350SS6	B-25, B-193	CT-720-2	B-148	CWV 1/2	A-21
CPC400	B-33, B-138	CT-720-2-1/2	B-148	CWX-25	A-22
CPC400SS6	B-25, B-193	CT-720-3	B-148	CWXV-25	A-22
CPC4WH	A-105		B-148	CX	A-22
CR-729	B-170	CT-720-3-1/2	B-148	CX-725-1	B-147
CR-729-10	B-170	CT-720-4	B-148	CX-725-1/2	B-147
CR-729-10A	B-172	CT-720-5	B-148	CX-725-10	B-147
CR-729-12	B-170	CT-720-6	B-148	CX-725-1-1/2	B-147
CR-729-12A	B-172	CT-727	B-219	CX-725-1-1/4	B-147
CR-729-14			B-157		B-147
CR-729-14A			B-157		B-147
CR-729-16			B-157		B-147
CR-729-16A			B-157	CX-725-2-1/2	B-147
CR-729-18A			B-157		B-147
CR-729-2			B-157		B-147
CR-729-20A			B-157		B-147
CR-729-2-1/2			B-157		B-147
CR-729-2-1/2A			B-157		B-147
<u>-</u>		- · · - · · · // - · · · · · · · · · · ·			

CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.
CX-725-6		DCCG-BR			A-231
CX-725-8		DCCGV			A-231
CXLE-SSX		DCCGV-BR			A-231
CXP		DCCGV-WH			A-231
CXV		DCCG-WH			A-342
CXWLE		DCCRB			A-354
CXWOW		DCCU			A-342
CXW0WP		DCCU-BR			A-341
CXWV		DCCU-WH			A-341
CXWVP		DE4X1-1000			A-341
CY 1/2		DE4X1-350			C-80
CY 3/4		DE4X1C			A-354
CYLE 1/2	A-21	DF4X1-250	A-342	DL4X1C-250	A-342
CYLE 3/4	A-21	DF4X1-250S	A-342	DL4X1C-750	A-341
CZ-1100	D-39	DF4X1C	A-354	DL-80	A-241
CZ-1102	D-39	DF4X1C-1000	A-341	DL-80-BR	A-241
CZ-1303	D-39	DF4X1C-125	A-342	DL-80-WH	A-241
CZ209		DF4X1C-1500			A-240
CZ-2104		DF4X1C-250			A-240
CZ-3108		DF4X1C-2700			A-240
CZ-3110		DF4X1C-500			
		DF4X1C-500R			A-232
U		DF4X1C-5200			A-232
D-255	B-42	DF4X1C-6500			A-232
D-256-2		DF4X1C-7000			A-232
D-256-5	B-42	DF4X1C-9400			A-234
D2CCB	A-219				
D2IH3-1	A-231	DG4X1-200			A-234
D2L80S3	A-241	DG4X1-200S			A-234
D-982		DG4X1C			A-234
D-988		DG4X1C-1500			A-234
D-990		DG4X1C-1600			A-234
D-996		DG4X1C-200			A-234
DAS250		DG4X1C-3200			A-234
DB118-047PG		DG4X1C-4500			A-240
DB118-055PG		DG4X1C-500			A-235, A-240
DB118-070PG		DG4X1C-500R			A-235, A-240
DB118-090PG		DG4X1C-5600			A-240
DBBI		DG4X1C-6500			A-235, A-240
DC-125TB		DG4X1C-900			A-235, A-240
DC-1231B		DGP	A-53	DTSW14	B-24
DCCB-BR		DH4X1-150S	A-342	DX-1	D-51
	······· — · •	DH4X1C	A-354	DX-5	D-51
DCCB-WH		DH4X1C-1200			
DCCD		DH4X1C-150			E
DCCD-BR		DH4X1C-4000		5.4.0.04.40	
DCCD-P		DH4X1C-4500			B-74, B-116
DCCDS0		DIH3-1-LM			B-110, B-183,
DCCDS0-BR		DIH3-1-LM-BR			B-199, B-201, B-203,
DCCDSO-WH		DIH3-1-LM-WH			05, B-207, B-209, B-211
DCCDV		DIH3-2-LM			B-111
DCCDV-BR		DIH3-2-LIVI		E-1202	B-199, B-202, B-204,
DCCDV-WH	A-218				B-206, B-208, B-210
DCCD-WH		DIH4-1-LM		E-120-A	B-219
DCCG		DIH4-1-LM-BR	A-231	E-120-A-1	B-182

E-120-A-1-1/2 B-182 E147 1/4 B-177 E-788 B-53 E-120-A-1-1/2 B-182 E147 3/4 B-177 E-781 B-53 E-120-A-1-1/4 B-177 E-782 B-53 E-120-A-1-1/4 B-177 E-782 B-53 E-120-A-1-1/4 B-182 E147 3/8 B-77 E-802 B-183 E-120-A-1-3/4 B-182 E147 5/8 B-77 E-802 B-186 E-120-A-2-1/2 B-182 E147 5/8 B-77 E-804 B-186 E-120-A-2-1/2 B-182 E147 5/8 B-177 E-802 B-186 E-120-A-2-1/2 B-182 E147 5/8 B-177 E-804 B-186 E-120-A-2-1/2 B-182 E147 5/8 B-177 E-802 B-186 E-120-A-3-4 B-182 E148 B-115 E8800/M A-288 E-120-A-3/4 B-182 E148 1/4 B-77 E92CSJ A-338 E-120-A-5/8 B-182 E148 3/4 B-77 E92CSJ A-338 E-120-A-5/8 B-182 E148 3/4 B-77 E92CSJ A-338 E1212-0-7/8 B-182 E148 3/8 B-77 E92CSJ A-338 E1212-0-7/8 B-182 E148 5/8 B-77 E92CSJ A-338 E1212-0-7/8 B-182 E148 5/8 B-77 E92CSJ A-338 E1212-0-7/8 B-182 E148 5/8 B-77 E92CSJ A-338 E1212-0-7/8 B-182 E148 5/8 B-77 E92CSJ A-338 E1212-0-7/8 B-182 E148 5/8 B-77 E92CSJ A-338 E1212-0-7/8 B-182 E148 5/8 B-77 E92CSJ A-338 E1212-0-7/8 B-182 E148 5/8 B-77 E92CSJ A-338 E1212-0-7/8 B-182 E148 5/8 B-77 E92CSJ A-338 E1212-0-7/8 B-182 E149 3/8 11/4 B-77 E92CSJ A-338 E1212-0-7/8 B-183 B-76 B-116 E-151-0-S B-115 E9400 A-334 A-349 E130 1/2 B-74 B-116 E-151-1/2 B-17, B-100 B-334 A-349 E131 1/2 B-76, B-116 E-151-1/3 B-117, B-180 E940F A-334 A-349 E142 1/2 1 1/4 B-76 E-160-1/2-12 B-76, B-116 E-151-10 B-117, B-180 E940B A-334 A-349 E142 1/2 1 1/4 B-76 E-160-1/2-12 B-74 B-183 E943B A-334 A-349 E142 1/2 1 1/4 B-76 E-160-1/2-12 B-74 B-183 E943B A-334 A-349 E142 1/2 1 1/4 B-76 E-160-1/2-12 B-78 B-78 E943B A-334 A-349 E142 1/2 1 1/4 B-76 E-160-1/2-12 B-78 B-78 E943B A-334 A-349 E142 1/2 1 1/4 B-76 E-231-1/2 B-76 B-160 E-160-1/2-12 B-74 B-183 E943B A-334 A-349 E142 1/2 1 1/4 B-76 E-231-1/2 B-76 B-160-1/2-12 B-77 B-78 B-78 E943B A-334 A-349 E142 1/2 1 1/4 B-76 E-231-1/2 B-78 B-78 E943B A-334 A-349 E142 1/2 1 1/4 B-76 E-231-1/2 B-78 B-78 E943B A-334 A-349 E142 1/2 1 1/4 B-76 E-231-1/2 B-78 B-78 E943B A-334 B-338 E-70 B-77 E943B B-78 E943B A-334 A-349 E142 1/2 1 1/4 B-76 E-231-1/2 B-78 B-78 B-78 B-78 B-78 B-78 B-78 B-78	CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.
E-120-A-1-1/4						
E-120-A-2-142 B-182 E147 3/18 B-172 E-804 B-185 E120-A-2-172 B-182 E147 5/16 B-177 E-804 B-185 E120-A-2-172 B-182 E147 5/16 B-177 E88C24 A-268 E-120-A-2-174 B-182 E148 B-B-B-B-B-B-B-B-B-B-B-B-B-B-B-B-B-B-B-						
E-120-A-2-1/2						
E-120-A-2-1/4. B-182 E-148 B-8-15 E88DV. A-268 E-120-A-2-14. B-182 E148 1/2. B-77 E88L24. A-268 E-120-A-394. B-182 E148 1/2. B-77 E88L24. A-268 E-120-A-394. B-182 E148 1/4. B-77 E92CSI. A-338 E-120-A-7/8. B-182 E148 3/4. B-77 E92CSI. A-338 E-120-A-7/8. B-182 E148 3/8. B-77 E92CSI. A-338 E-120-A-7/8. B-182 E148 3/8. B-77 E92CSI. A-338 E-120-D-A-7/8. B-182 E148 5/6. B-77 E92CSI. A-338 E-1212C24. A-268 E148 5/6. B-77 E92CSI. A-338 E1212DW. A-268 E148 5/6. B-77 E92CSI. A-338 E1212DW. A-268 E148 5/6. B-77 E92CSI. A-338 E122 100 A-268 E-149. B-115 E92CSR. A-338 E122 100 A-268 E-149. B-115 E94CD. A-268 E-149. B-115 E94CD. A-334 A-349 E123 3/8. B-76. B-116 E-159-1/2. B-117, B-180 E940C. A-334, A-349 E133 3/8. B-76. B-116 E-151-5/8. B-117, B-180 E940C. A-334, A-349 E133 3/8. B-76. B-116 E-151-5/8. B-117, B-180 E940C. A-334, A-349 E133 3/8. B-76. B-116 E-151-5/8. B-180 E940C. A-334, A-349 E142 1/2 1/1/2. B-76. B-160 -1/2-12. B-8-18. B-1940. A-334, A-349 E142 1/2 1/1/4. B-76 E-160-1/2-12. B-8-17, B-180 E940C. A-334, A-349 E142 1/2 1/1/4. B-76 E-160-1/2-12. B-8-47, B-133 E94SE. A-334 A-349 E142 1/2 1/1/4. B-76 E-160-1/2-12. B-8-47, B-133 E94SE. A-334 A-349 E142 1/2 2 1/1/4. B-76 E-160-1/2-12. B-76 E-160-1/2-12. B-77 B-78 B-78 B-78 B-78 B-78 B-78 B-78						
E-120-A-21/4 B-182 E-148 B-15 E8BDW. A-268 E-120-A-3/4 B-182 E148 1/4 B-77 E8BL24 A-268 E-120-A-3/3 B-182 E148 1/4 B-77 E8BL24 A-268 E-120-A-3/8 B-182 E148 3/4 B-77 E92CSL A-338 E-120-A-7/8 B-182 E148 3/4 B-77 E92CSL A-338 E121 C2C4 A-268 E-182 E148 3/4 B-77 E92CSL A-338 E121 C2C4 A-268 E-148 5/16 B-77 E92CSL A-338 E1212CD4 A-268 E-148 5/16 B-77 E92CSL A-338 E1212DD A-268 E-148 5/16 B-77 E92CSL A-338 E1212DD A-268 E-148 5/16 B-77 E92CSL A-338 E1212DD A-268 E-148 5/16 B-77 E92CSL A-338 E122 1/2 B-76 B-116 E149 3/8 1 1/4 B-77 E92CSL A-338 E122 1/2 B-76 B-116 E149 3/8 1 1/4 B-77 E94DD A-334 A-349 E122 3/8 B-76 B-116 E-150-SL B-115 E94DG A-334, A-349 E130 1/2 B-74 B-116 E-151-3/8 B-117, B-180 E94DC A-334, A-349 E130 1/2 B-76 B-116 E-151-3/8 B-117, B-180 E94DC A-334, A-349 E130 1/2 B-76 B-116 E-151-3/8 B-117, B-180 E94DC A-334, A-349 E131 3/8 B-76 B-16 E-151-D B-115 E94DJ A-334, A-349 E142 1/2 B-76 B-16 E-160-1/2-C B-47, B-130 E94DJ A-334, A-349 E142 1/2 1/17 B-76 E-160-1/2-C B-47, B-131 E94SD A-334, A-349 E142 1/2 1/17 B-76 E-160-1/2-C B-47, B-131 E94SD A-334, A-349 E142 1/2 1/17 B-76 E-160-1/2-C B-47, B-131 E94SD A-334, A-349 E142 1/2 1/17 B-76 E-160-1/2-C B-47, B-131 E94SD A-334, A-349 E142 1/2 1/17 B-76 E-160-1/2-C B-47, B-131 E94SD A-334, A-349 E142 1/2 1/14 B-76 E-160-1/2-C B-47, B-131 E94SD A-334, A-349 E142 1/2 1/14 B-76 E-160-1/2-D B-47, B-131 E94SD A-334, A-349 E142 1/2 1/4 B-76 E-160-1/2-D B-47, B-131 E94SD A-334, A-349 E142 1/2 1/4 B-76 E-160-1/2-D B-47, B-131 E94SD A-334, A-349 E142 1/2 1/4 B-76 E-18-4 D-4 A-34 B-47 E94SD A-334, A-349 E142 1/2 1/4 B-76 E-18-4 D-4 B-47 B-131 E94SD A-334, A-349 E142 1/2 1/4 B-76 E-18-4 D-4 B-47 B-131 E94SD A-334, A-349 E142 1/2 1/4 B-76 E-231 3/B B-48 B-312 E94SD A-334, A-349 E142 1/4 1 1/4 B-76 E-231 3/B B-48 B-312 E94SD A-334, A-349 E142 1/4 1 1/4 B-76 E-231 3/B B-48 B-312 E94SD A-334, A-349 E142 1/4 1 1/4 B-76 E-231 3/B B-48 B-312 E94SD A-334, A-349 E142 1/4 1 1/4 B-76 E-231 3/B B-48 B-312 E94SD A-334 A-349 E142 1/4 1 1/4 B-76 E-231 3/B B-48 B-32 E94SD A-334 A-349 E142						
E-120-A-3/4 B-182 E-148 1/2 B-77 E-88124 A-288 E-120-A-3/8 B-182 E-148 1/4 B-77 E-92CSJ A-338 E-120-A-7/8 B-182 E-148 1/4 B-77 E-92CSJ A-338 E-120-A-7/8 B-182 E-148 3/4 B-77 E-92CSJ A-338 E-120-A-7/8 B-182 E-148 3/8 B-77 E-92CSJ A-338 E-120-CA-7/8 B-182 E-148 3/8 B-77 E-92CSJ A-338 E-120 E-120 A-268 E-148 5/16 B-77 E-92CSJ A-338 E-1212 DDV A-268 E-148 5/16 B-77 E-92CSJ A-338 E-1212 DDV A-268 E-148 5/16 B-77 E-92CSJ A-338 E-1212 DDV A-268 E-148 5/16 B-77 E-92CSJ A-338 E-122 1/2 B-76 B-116 E-150-S B-115 E-940D A-334 A-349 E-122 3/8 B-76 B-116 E-150-S B-115 E-940D A-334 A-349 E-130 3/8 B-16 E-151-3/8 B-117, B-180 E-940F A-334, A-349 E-130 3/8 B-16 E-151-3/8 B-117, B-180 E-940D A-334 A-349 E-130 3/8 B-76 B-116 E-151-3/8 B-118 E-940D A-334 A-349 E-142 D-12 B-76 B-116 E-151-3/8 B-180 E-940D A-334 A-349 E-142 D-12 B-76 E-160-1/2-D B-113 E-940D A-334 A-349 E-142 D-12 B-76 E-160-1/2-D B-115 E-940D A-334 A-349 E-142 D-12 B-76 E-160-1/2-D B-115 E-940D A-334 A-349 E-142 D-12 B-76 E-160-1/2-D B-17 B-180 E-940D A-334 A-349 E-142 D-12 B-76 E-160-1/2-D B-17 B-180 E-940D A-334 A-349 E-142 D-12 B-76 E-160-1/2-D B-17 B-181 E-940D A-334 A-349 E-142 D-12 B-76 E-160-1/2-D B-17 B-181 E-940D A-334 A-349 E-142 D-12 B-76 E-160-1/2-D B-17 B-181 E-940D A-334 A-349 E-142 D-12 B-76 E-160-1/2-D B-47 B-133 E-94SE A-334 A-349 E-142 D-12 B-76 E-160-1/2-D B-47 B-133 E-94SE A-334 A-349 E-142 D-12 B-76 E-160-1/2-D B-47 B-133 E-94SE A-334 A-349 E-142 D-12 B-76 E-160-1/2-D B-47 B-133 E-94SE A-334 A-349 E-142 D-12 D-14 B-76 E-160-1/2-D B-47 B-133 E-94SE A-334 A-349 E-142 D-12 D-14 B-76 E-160-1/2-D B-47 B-133 E-94SE A-334 A-349 E-142 D-12 D-14 B-12 E-94SE A-334 B-349 B-34 B-34 B-34 B-34 B-34 B-34 B-34 B-34						
E-120-A-5/8 B-182 E148 1/4 B-77 E92CSI A-338 E-120-A-5/8 B-182 E148 3/4 B-77 E92CSI A-338 E-120-A-5/8 B-182 E148 3/8 B-77 E92CSI A-338 E-120-A-7/8 B-182 E148 3/8 B-77 E92CSI A-338 E-120-A-7/8 B-182 E148 3/8 B-77 E92CSI A-338 E1212CV A-268 E148 5/6 B-77 E92CSI A-338 E1212CV A-268 E148 5/6 B-77 E92CSI A-338 E1212L24 A-268 E-149 B-115 E92CSI A-338 E1212L24 B-268 E-149 B-115 E92CSI A-338 E122 1/2 B-76, B-116 E149 3/8 I 1/4 B-77 E940D A-334 E122 3/8 B-76, B-116 E-150-S. B-115 E94CSI A-334 A-349 E130 1/2 B-74, B-116 E-151-1/2 B-117, B-180 E940F A-334, A-349 E130 1/2 B-74, B-116 E-151-5/8 B-117, B-180 E940F A-334, A-349 E131 1/2 B-76, B-116 E-151-5/8 B-117, B-180 E940F A-334, A-349 E131 1/2 B-76, B-116 E-151-5/8 B-117, B-180 E940F A-334, A-349 E131 1/2 B-76, B-116 E-151-1/2 B-115 E940L A-334, A-349 E142 1/2 I 1/2 B-76 E-160-1/2-12 B-47, B-181 E943D A-334, A-349 E142 1/2 I 1/4 B-76 E-160-1/2-12 B-47, B-133 E943E A-334, A-349 E142 1/2 I 1/4 B-76 E-160-1/2-1 B-47, B-133 E943E A-334, A-349 E142 1/2 I 5/16 B-76 E-160-1/2-9 B-47, B-133 E943E A-334, A-349 E142 1/2 I 5/16 B-76 E-166-1/2-9 B-47, B-133 E943E A-334, A-349 E142 1/2 I 1/4 B-76 E-166-1/2-9 B-47, B-133 E943E A-334, A-349 E142 1/2 I 1/4 B-76 E-168-1/2 B-177 B-47 E943G A-334, A-349 E142 1/2 I 1/4 B-76 E-18-4 D-77 B-47 E943G A-334, A-349 E142 1/2 I 1/4 B-76 E-18-4 D-77 B-47 E943G A-334, A-349 E142 1/2 I 1/4 B-76 E-18-4 D-77 B-47 E943G A-334, A-349 E142 1/4 B-76 E-18-4 D-77 B-47 E943G A-334, A-349 E142 1/4 B-76 E-18-4 D-77 B-47 E943G A-334, A-349 E142 1/4 B-76 E-231-1/2 B-48, B-132 E943G A-334, A-349 E142 1/4 B-76 E-231-1/2 B-48, B-132 E943G A-334, A-349 E142 1/4 B-76 E-231-1/2 B-48, B-132 E943G A-334, A-349 E142 1/4 B-76 E-231-1/2 B-48, B-132 E943G A-334, A-349 E142 1/4 B-76 E-231-1/2 B-48, B-132 E943G A-334, A-349 E142 1/4 B-76 E-231-1/2 B-48, B-132 E943G A-334, A-349 E142 1/4 B-76 E-231-1/2 B-48, B-132 E943G A-237 E943G A-237 E943G A-237 E943G A-237 E943G A-237 E943G A-237 E943G A-237 E943G A-237 E943G A-237 E943G A-237 E943G A-237 E943G A-237 E943G A-237 E943G A-237						
E-120-A-5/8. B-182 E148 3/4 B-77 E92CSL A-338 E1212C24 A-268 E148 5/16 B-77 E92CSL A-338 E1212CDV A-268 E148 5/16 B-77 E92CSCS A-338 E1212CDV A-268 E148 5/16 B-77 E92CSCS A-338 E1212CDV A-268 E148 5/16 B-77 E92CSCS A-338 E122 1/2 B-76 B-116 E149 3/8 I 1/4 B-77 E94CDD A-338 E122 1/2 B-76 B-116 E149 3/8 I 1/4 B-77 E94CDD A-334 E122 3/8 B-76 B-116 E149 3/8 I 1/4 B-77 E94CD A-334 A-349 E123 3/8 B-76 B-116 E-151-1/2 B-117, B-180 E940F A-334, A-349 E130 3/8 B-116 E-151-3/8 B-117, B-180 E940F A-334, A-349 E130 3/8 B-116 E-151-3/8 B-117, B-180 E940F A-334, A-349 E131 3/2 B-76, B-116 E-151-5/8 B-115 E94DL A-334, A-349 E131 3/8 B-76, B-116 E-151-10 B-115 E94DL A-334, A-349 E142 1/2 1 1/2 B-76 E-160-1/2-12 B-47, B-181 E943D A-334, A-349 E142 1/2 1 1/4 B-76 E-160-1/2-12 B-47, B-131 E943D A-334, A-349 E142 1/2 1 1/4 B-76 E-160-1/2-12 B-47, B-131 E943D A-334, A-349 E142 1/2 1 1/4 B-76 E-160-1/2-10 B-47, B-131 E943D A-334, A-349 E142 1/2 2 1/2 B-76 E-160-1/2-10 B-47, B-47 E943G A-334, A-349 E142 1/2 2 1/2 B-76 E-160-1/2-10 B-47, B-47 E943G A-334, A-349 E142 1/2 2 1/2 B-76 E-160-1/2 B-47, B-47 E943G A-334, A-349 E142 1/2 2 1/2 B-76 E-16-8 A-75 E943FW A-349 E142 1/2 3 B-76 E-18-4 A-75 E943FW A-349 E142 1/2 3 B-76 E-18-4 A-75 E943G A-334, A-349 E142 1/2 3 B-76 E-18-4 A-75 E943FW A-349 E142 1/2 3 B-76 E-18-4 A-75 E943G A-334, A-349 E142 1/4 B-76 E-231-1/2 B-76 E-18-4 D-76 E-231-1/2 B-48, B-132 E960FB A-334, A-349 E142 1/4 1 1/4 B-76 E-231-1/2 B-48, B-132 E960FB A-334, A-349 E142 1/4 1 1/4 B-76 E-231-1/2 B-48, B-132 E960FB A-237 E142 3/8 1 B-76 E-233-1/2-10 B-132 E971FD A-207 E142 3/8 1 B-76 E-233-1/2-10 B-48, B-132 E971FD B-2 A-207 E142 3/8 1 B-76 E-233-1/2-10 B-48, B-132 E971FD B-2 A-207 E142 3/8 1 B-76 E-233-1/2-10 B-48, B-132 E971FD B-2 A-207 E142 3/8 1 B-76 E-233-1/2-10 B-48, B-132 E971FD B-2 A-207 E145 3/4 B-76 E-233-1/2-10 B-48, B-132 E971FD B-2 A-207 E145 3/4 B-76 E-233-1/2-10 B-48, B-132 E971FD B-2 A-207 E145 3/4 B-76 E-233-1/2-10 B-48, B-132 E971FD B-2 A-207 E145 1/4 B-77 E331D-CAR A-237 E976BB A-235 E976B A-205 E146 1/4						
E-120-A-7/8						
E1212DV A-288 E148 5/6 B-77 E92CSN A-338 E1212D4 A-288 E148 5/8 B-77 E92CSP A-338 E1212D2V A-288 E148 5/8 B-78 E92CSP A-338 E122D2V B-76 B-116 E149 3/8 11/4 B-77 E940D A-334 A-349 E122 3/8 B-76 B-116 E149 3/8 11/4 B-77 E940D A-334 A-349 E130 1/2 B-76 B-116 E150-S B-115 E940E A-334 A-349 E130 1/2 B-74 B-116 E-151-1/2 B-117, B-180 E940E A-334, A-349 E130 3/8 B-16 E-151-5/8 B-116 E-151-5/8 B-116 E940E A-334, A-349 E131 1/2 B-76 B-116 E-151-5/8 B-116 E940B A-334, A-349 E131 1/2 B-76 E-160-1/2-12 B-76 B-116 E940D A-334, A-349 E142 1/2 1 1/4 B-76 E-160-1/2-6 B-47, B-133 E94SE A-334, A-349 E142 1/2 1 1/4 B-76 E-160-1/2-6 B-47, B-133 E94SE A-334, A-349 E142 1/2 1 1/4 B-76 E-160-1/2-9 B-47, B-133 E94SE A-334, A-349 E142 1/2 2 B-76 E-16-8 A-75 E943FW A-349 E142 1/2 2 B-76 E-16-8 A-75 E943FW A-349 E142 1/2 2 B-76 E-16-8 A-75 E943FW A-349 E142 1/2 3 B-76 E-18-4 A-75 E943FW A-349 E142 1/2 3 B-76 E-18-4 A-75 E943FW A-349 E142 1/2 3 B-76 E-18-4 A-75 E943FW A-349 E142 1/2 1/4 B-76 E-18-4 A-75 E943FW A-349 E142 1/2 1/4 B-76 E-18-4 A-75 E943FW A-349 E142 1/2 1/2 B-76 E-18-4 A-75 E943FW A-349 E142 1/2 1/3 B-76 E-18-4 A-75 E943FW A-349 E142 1/2 1/3 B-76 E-18-4 A-75 E943FW A-349 E142 1/2 1/3 B-76 E-18-4 A-75 E943FW A-349 E142 1/4 B-76 E-231 B-45 E943 W-349 E142 1/4 B-76 E-231 B-46 E-231 B-45 E943 W-349 E142 1/4 B-76 E-231 B-46 E-231 B-47 E943 B-47 E943 W-349 E142 1/4 B-76 E-231 B-46 E-231 B-47 E943 B-47 E943 B-47 E943 B-47 E943 B-47 E943 B-47 E943 B-47 E943 B-47 E943 B-47 E943 B-47 E-231 B-47 E943 B-47						
E1212DW. A. 268 E148 5/8 B-77 E92CSP. A. 338 E122 1/2 B-76, B-116 E149 3/8 1 1/4 B-77 E940D A. 338 E122 3/8 B-76, B-116 E149 3/8 1 1/4 B-77 E940D A. 334 E122 3/8 B-76, B-116 E-150 S. B-115 E940E A. 334, A-349 E130 3/8 B-78, B-116 E-151-1/2 B-117, B-180 E940E A. 334, A-349 E130 3/8 B-116 E-151-3/8 B-117, B-180 E940E A. 334, A-349 E131 1/2 B-76, B-116 E-151-5/8 B-116 D-10, A-334, A-349 E131 1/2 B-76, B-116 E-151-5/8 B-180 E940H A. 334, A-349 E131 1/2 B-76, B-116 E-151-5/8 B-180 E940H A. 334, A-349 E131 1/2 B-76, B-116 E-151-5/8 B-180 E940H A. 334, A-349 E142 1/2 1 1/2 B-76 E-160-1/2-12 B-47, B-131 E943D A. 334, A-349 E142 1/2 1 1/4 B-76 E-160-1/2-12 B-47, B-131 E943D A. 334, A-349 E142 1/2 1 1/4 B-76 E-160-1/2-9 B-47, B-133 E945EW A. 3-49 E142 1/2 2 1/2 B-76 E-160-1/2-9 B-47, B-133 E945EW A. 3-49 E142 1/2 2 1/2 B-76 E-160-1/2-9 B-47, B-133 E945EW A. 3-49 E142 1/2 2 1/2 B-76 E-160-1/2-9 B-47, B-133 E945EW A. 3-49 E142 1/2 2 1/2 B-76 E-160-1/2-9 B-47, B-133 E945EW A. 3-49 E142 1/2 2 1/2 B-76 E-168-1/2 D-18 B-47, B-133 E945EW A. 3-49 E142 1/2 2 1/2 B-76 E-168-1/2 D-18 B-47, B-133 E945EW A. 3-49 E142 1/2 2 1/2 B-76 E-168-1 A. A-75 E943FW A. 3-49 E142 1/2 2 1/2 B-76 E-168-1 D-17 B-47 E943GW A. 3-49 E142 1/2 2 1/4 B-76 E-168-1 D-17 B-47 E943GW A. 3-49 E142 1/2 1/4 B-76 E-184-DV A-111 E943H A. 3-34, A-349 E142 1/4 1 1/2 B-76 E-184-DV A-111 E943H A. 3-34, A-349 E142 1/4 1 1/2 B-76 E-231-1/2 B-48, B-132 E945GW A. 3-34, A-349 E142 1/4 1 1/4 B-76 E-231-1/2 B-48, B-132 E945GW A. 3-34, A-349 E142 1/4 1 1/4 B-76 E-231-1/2 B-48, B-132 E943FW A. 3-34, A-349 E142 1/4 1 1/4 B-76 E-231-1/2 B-48, B-132 E943FW A. 3-34, A-349 E142 1/4 1 1/4 B-76 E-231-1/2 B-48, B-132 E943FW A. 3-34, A-349 E142 1/4 1 1/4 B-76 E-231-1/2 B-48, B-132 E943FW A. 3-34, A-349 E142 1/4 1 1/4 B-76 E-231-1/2 B-48, B-132 E943FW A. 3-34, A-349 E142 1/4 1 1/4 B-76 E-231-1/2 B-48, B-132 E943FW A. 3-34, A-349 E142 1/4 1 1/4 B-76 E-231-1/2 B-48, B-132 E943FW A. 3-34, A-349 E142 1/4 1 1/4 B-76 E-231-3/8 B-48, B-132 E943FW A. 3-34 B-34 B-34 B-34 B-34 B-34 B-34 B-34						
E1212 2						
E122 1/2 B-76, B-116 E-149 3/8 1 1/4 B-77 E940D A-334, A-349 E130 1/2 B-74, B-116 E-150-S. B-115 E940E A-334, A-349 E130 1/2 B-76, B-116 E-151-3/8 B-117, B-180 E940F A-334, A-349 E130 1/2 B-76, B-116 E-151-3/8 B-117, B-180 E940G A-334, A-349 E131 1/2 B-76, B-116 E-151-3/8 B-117, B-180 E940H A-334, A-349 E131 1/2 B-76, B-116 E-151-D B-115 E940J A-334, A-349 E142 1/2 1/12 B-76 E-160-1/2-12 B-47, B-133 E943E A-334, A-349 E142 1/2 1 1/2 B-76 E-160-1/2-12 B-47, B-133 E943E A-334, A-349 E142 1/2 1 1/4 B-76 E-160-1/2-9 B-47, B-133 E943EW A-349 E142 1/2 2 1/2 B-76 E-160-1/2-9 B-47, B-133 E943FW A-349 E142 1/2 2 1/2 B-76 E-160-1/2-9 B-47, B-133 E943FW A-349 E142 1/2 1/2 1/2 B	E1212DIV	A-268	E148 5/8	B-77	E92CSP	A-338
E122 3/8 B-76, B-116 E-150-S B-115 E940E A-334, A-349			E-149	B-115	E92CSR	A-338
E130 1/2	E122 1/2	B-76, B-116	E149 3/8 1 1/4	B-77	E940D	A-334
F130 3/8	E122 3/8	B-76, B-116	E-150-S	B-115	E940E	A-334, A-349
F130 3/8	E130 1/2	B-74, B-116	E-151-1/2	B-117, B-180	E940F	A-334, A-349
E131 1/2						
E131 3/8 B-76, B-116 E-157 D B-115 E940J A-334, A-349 E-142 2 B-115, B-192 E-157 B-8181 E943D A-334 E142 1/2 1 1/2 B-76 E-160-1/2-12 B-47, B-133 E943E A-334, A-349 E142 1/2 1 1/4 B-76 E-160-1/2-9 B-47, B-133 E943EW A-349 E142 1/2 2 1/2 B-76 E-160-1/2-9 B-47, B-133 E943FW A-349 E142 1/2 2 1/2 B-76 E-16-8 A-75 E943FW A-349 E142 1/2 2 1/2 B-76 E-177 B-47 E943GW A-334, A-349 E142 1/2 2 1/4 B-76 E-18-4 A-75 E943GW A-349 E142 1/2 4 B-76 E-18-4 DV A-111 E943HW A-349 E142 1/4 1 1/2 B-76 E-210 B-121 E943JW A-349 E142 1/4 1 1/2 B-76 E-231-1/2 B-48, B-132 E943JW A-349 E142 1/4 1 1/2 B-76 E-231-1/2 B-48, B-132 E960GLB						
E-142 B-115, B-192 E-157 B-181 E943D A-334 E142 1/2 1 1/4 B-76 E-160-1/2-12 B-47, B-133 E943E A-334, A-349 E142 1/2 15/16 B-76 E-160-1/2-9 B-47, B-133 E943FW A-349 E142 1/2 2 1/2 B-76 E-160-1/2-9 B-47, B-133 E943FW A-334, A-349 E142 1/2 2 1/2 B-76 E-16-8 A-75 E943FW A-349 E142 1/2 2 1/2 B-76 E-16-8 A-75 E943GW A-349 E142 1/2 2 1/4 B-76 E-18-4 A-75 E943GW A-349 E142 1/2 3 B-76 E-18-4 A-75 E943GW A-349 E142 1/2 4 B-76 E-18-4-DV A-111 E943HW A-349 E142 1/4 1 B-76 E-231 B-45 E943HW A-349 E142 1/4 1 1/2 B-76 E-231 B-48 B-932 E943HW A-349 E142 1/4 1 1/2 B-76 E-231-1/2 B-48, B-132 E943JW A-						
E142 1/2 1 1/2 B-76 E-160-1/2-6 B-47, B-133 E943E A-344, A-349 E142 1/2 15/16 B-76 E-160-1/2-6 B-47, B-133 E943EW A-344, A-349 E142 1/2 15/16 B-76 E-160-1/2-9 B-47, B-133 E943FW A-334, A-349 E142 1/2 2 1/2 B-76 E-16-8 A-75 E943FW A-349 E142 1/2 2 1/2 B-76 E-177 B-47 E943GW A-349 E142 1/2 3 B-76 E-18-4-DV A-111 E943HW A-334, A-349 E142 1/2 4 B-76 E-18-4-DV A-111 E943HW A-344, A-349 E142 1/4 1 B-76 E-18-4-DV A-111 E943HW A-344, A-349 E142 1/4 1 1/2 B-76 E-210 B-121 E943HW A-349 E142 1/4 1 1/2 B-76 E-231 B-45 E943JW A-349 E142 1/4 1 1/2 B-76 E-231-1/2 B-48, B-132 E960GLB A-237 E142 1/4 1 1/2 B-76 E-231-3/8 B-48, B-132 E	F-142	B-115, B-192				,
E142 1/2 1 1/4 B-76 E-160-1/2-6 B-47, B-133 E943EW A-349 E142 1/2 15/16 B-76 E-160-1/2-9 B-47, B-133 E943F A-334, A-349 E142 1/2 2 B-76 E-16-8 A-75 E943FW A-349 E142 1/2 2 1/2 B-76 E-177 B-47 E943G A-334, A-349 E142 1/2 2 1/4 B-76 E-18-4 A-75 E943GW A-349 E142 1/2 3 B-76 E-18-4-DV A-111 E943HW A-349 E142 1/2 4 B-76 E-210 B-121 E943HW A-349 E142 1/4 1 B-76 E-231 B-45 E943J A-349, A-349 E142 1/4 1 1/2 B-76 E-231-1/2 B-48, B-132 E943JW A-349 E142 1/4 1 1/2 B-76 E-231-1/2 B-48, B-132 E960GLB A-237 E142 3/8 1 B-76 E-231-3/8 B-48, B-132 E960GLB A-237 E142 3/8 1 1/2 B-76 E-232-3/8 B-48, B-132 E960FGL A-237<						
E142 1/2 15/16 B-76 E-160-1/2-9 B-47, B-133 E943F A-334, A-349 E142 1/2 2 B-76 E-16-8 A-75 E9437W A-349 E142 1/2 2 1/2 B-76 E-177 B-47 E9436W A-334, A-349 E142 1/2 2 1/4 B-76 E-18-4 A-75 E9436W A-334, A-349 E142 1/2 3 B-76 E-18-4-DV A-111 E943H A-334, A-349 E142 1/2 4 B-76 E-231 B-85 E-231 B-48 E943H A-344, A-349 E142 1/4 1 B-86 E-231 B-48 E943HW A-349 E142 1/4 1 1/2 B-76 E-231-1/2 B-48, B-132 E943JW A-349 E142 1/4 1 1/4 B-76 E-231-1/2 B-48, B-132 E960ElB A-237 E142 3/8 1 B-76 E-231-1/2 B-48, B-132 E960ElB A-237 E142 3/8 1 1/2 B-76 E-233-1/2-10 B-48, B-132 E971C A-237 E142 3/8 2 1/4 B-76 E-233-1/2-6						
E142 1/2 2 B-76 E-16-8 A-75 E943FW A-349 E142 1/2 2 1/2 B-76 E-177 B-47 E943G A-334, A-349 E142 1/2 2 1/4 B-76 E-18-4 A-75 E943GW A-349 E142 1/2 3 B-76 E-18-4-DV A-111 E943H A-334, A-349 E142 1/2 4 B-76 E210 B-121 E943HW A-349 E142 1/4 1 B-76 E-231 B-8 E943J A-334, A-349 E142 1/4 1 1/2 B-76 E-231-1/2 B-8B, B-132 E940GLB A-237 E142 1/4 1 1/4 B-76 E-231-1/2 B-8B, B-132 E960GLB A-237 E142 3/8 1 B-76 E-232-1/2 B-8B, B-132 E960PGL A-237 E142 3/8 1 1/2 B-76 E-232-1/2 B-8B, B-132 E960PGL A-237 E142 3/8 1 1/4 B-76 E-233-1/2-6 B-8B, B-132 E971FD A-207 E142 3/8 3/4 B-76 E-233-3/8-10 B-848, B-132 E971FADI-2 A-2						
E142 1/2 2 1/2 B-76 E-177 B-47 E943G A-334, A-349 E142 1/2 2 1/4 B-76 E-18-4 A-75 E943GW A-349 E142 1/2 3 B-76 E-18-4-DV A-111 E943HW A-344, A-349 E142 1/2 4 B-76 E210 B-121 E943HW A-344, A-349 E142 1/4 1 B-76 E-231 B-45 E943J A-344, A-349 E142 1/4 1 1/2 B-76 E-231-1/2 B-48, B-132 E960GLB A-237 E142 1/4 1 1/4 B-76 E-231-3/8 B-48, B-132 E960GLB A-237 E142 3/8 1 1/2 B-76 E-232-1/2 B-48, B-132 E960FGL A-237 E142 3/8 1 1/2 B-76 E-232-1/2 B-48, B-132 E960FGL A-237 E142 3/8 1 1/2 B-76 E-231-1/2-10 B-132 E971C A-207 E142 3/8 2/4 B-76 E-233-1/2-6 B-48, B-132 E971D A-207 E142 3/8 3/4 B-76 E-233-3/8-10 B-48, B-132 E971FADI-2 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
E142 1/2 2 1/4 B-76 E-18-4 A-75 E943GW A-349 E142 1/2 3 B-76 E-18-4-DV A-111 E943H A-334, A-349 E142 1/2 4 B-76 E210 B-121 E943HW A-334, A-349 E142 1/4 1 B-76 E231 B-85 E943J A-334, A-349 E142 1/4 1 1/2 B-76 E-231-1/2 B-84, B-132 E943JW A-349 E142 1/4 1 1/4 B-76 E-231-1/2 B-84, B-132 E960GLB A-237 E142 3/8 1 B-76 E-232-1/2 B-84, B-132 E960GL A-237 E142 3/8 1 1/2 B-76 E-232-1/2 B-84, B-132 E960FL A-237 E142 3/8 1 1/2 B-76 E-232-3/8 B-84, B-132 E960FL A-237 E142 3/8 1 1/2 B-76 E-232-3/8-10 B-84, B-132 E971C A-207 E142 3/8 3/4 B-76 E-233-3/8-10 B-84, B-132 E971FADI-2 A-202 E142-1/4X100EG B-258 E-235-1/2-HD B-48, B-132 E						
E142 1/2 3 B-76 E-18-4-DV A-111 E943HW A-334, A-349 E142 1/2 4 B-76 E210 B-121 E943HW A-349 E142 1/4 1 B-76 E-231 B-85 E943J A-334, A-349 E142 1/4 1 1/2 B-76 E-231-1/2 B-848, B-132 E943JW A-349 E142 1/4 1 1/4 B-76 E-231-3/8 B-48, B-132 E960GLB A-237 E142 3/8 1 B-76 E-232-1/2 B-48, B-132 E960FGL A-237 E142 3/8 1 1/2 B-76 E-232-3/8 B-48, B-132 E962E A-237 E142 3/8 1 1/4 B-76 E-233-1/2-10 B-132 E971C A-207 E142 3/8 2 1/4 B-76 E-233-1/2-6 B-48, B-132 E971D A-207 E142 3/8 3/4 B-76 E-233-3/8-10 B-48, B-132 E971FADI-2 A-202 E142-1/4X075EG B-258 E-233-3/8-6 B-48, B-132 E971FADI-2 A-202 E142-1/4X100EG B-258 E-235-3/8-HD B-49						
E142 1/2 4 B-76 E210 B-121 E943HW A-349 E142 1/4 1 B-76 E-231 B-45 E943J A-334, A-349 E142 1/4 1 1/2 B-76 E-231-1/2 B-48, B-132 E960GLB A-237 E142 1/4 1 1/4 B-76 E-231-3/8 B-48, B-132 E960GLB A-237 E142 3/8 1 B-76 E-232-1/2 B-48, B-132 E960FGL A-237 E142 3/8 1 1/2 B-76 E-232-3/8 B-48, B-132 E962E A-237 E142 3/8 1 1/4 B-76 E-233-1/2-10 B-132 E971C A-207 E142 3/8 2 1/4 B-76 E-233-1/2-6 B-48, B-132 E971FD A-207 E142 3/8 3/4 B-76 E-233-3/8-10 B-48, B-132 E971FADI-2 A-202 E142-1/4X075EG B-258 E-233-3/8-6 B-48, B-132 E971FADI-2 A-202 E142-1/4X100EG B-258 E-235-1/2-HD B-48, B-132 E971FBDIB-2 A-202 E-145 B-15, B-192 E365D-CAR A-237						
E142 1/4 1 B-76 E-231 B-45 E943J A-334, A-349 E142 1/4 1 1/2 B-76 E-231-1/2 B-48, B-132 E943JW A-349 E142 1/4 1 1/4 B-76 E-231-3/8 B-48, B-132 E960GLB A-237 E142 3/8 1 B-76 E-232-1/2 B-48, B-132 E960PGL A-237 E142 3/8 1 1/2 B-76 E-232-3/8 B-48, B-132 E960PGL A-237 E142 3/8 1 1/4 B-76 E-232-1/2-10 B-132 E971C A-207 E142 3/8 2 1/4 B-76 E-233-1/2-6 B-48, B-132 E971D A-207 E142 3/8 3/4 B-76 E-233-3/8-10 B-48, B-132 E971FADI-2 A-202 E142-1/4X075EG B-258 E-233-3/8-6 B-48, B-132 E971FADI-2 A-202 E142-1/4X150EG B-258 E-235-1/2-HD B-49 E971FBDI-2 A-202 E145-1/2 B-71 E365D-CAR A-237 E971FBDI-2 A-202 E145 1/2 B-77 E365D-CAR A-237 <						
E142 1/4 1 1/2 B-76 E-231-1/2 B-48, B-132 E943JW A-349 E142 1/4 1 1/4 B-76 E-231-3/8 B-48, B-132 E960GLB A-237 E142 3/8 1 B-76 E-232-1/2 B-48, B-132 E960PGL A-237 E142 3/8 1 1/2 B-76 E-232-3/8 B-48, B-132 E962E A-237 E142 3/8 1 1/4 B-76 E-233-1/2-10 B-132 E971C A-207 E142 3/8 2 1/4 B-76 E-233-1/2-6 B-48, B-132 E971D A-207 E142 3/8 3/4 B-76 E-233-3/8-10 B-48, B-132 E971FADI-2 A-202 E142-1/4X075EG B-258 E-233-3/8-6 B-48, B-132 E971FADI-2 A-202 E142-1/4X150EG B-258 E-235-1/2-HD B-49 E971FBDI-2 A-202 E-145 B-115, B-192 E365D-CAR A-237 E971FBDI-2 A-202 E-145 B-115, B-192 E365D-CAR A-237 E971FBDIB-2 A-202 E-145 B-77 E365D-CAR A-237						
E142 1/4 1 1/4 B-76 E-231-3/8 B-48, B-132 E960GLB A-237 E142 3/8 1 B-76 E-232-1/2 B-48, B-132 E960PGL A-237 E142 3/8 1 1/2 B-76 E-232-3/8 B-48, B-132 E962E A-237 E142 3/8 1 1/4 B-76 E-233-1/2-10 B-182 E971C A-207 E142 3/8 3/4 B-76 E-233-1/2-6 B-48, B-132 E971D A-207 E142 3/8 3/4 B-76 E-233-3/8-10 B-88, B-132 E971FADI-2 A-202 E142-1/4X075EG B-258 E-233-3/8-6 B-48, B-132 E971FADI-2 A-202 E142-1/4X100EG B-258 E-235-1/2-HD B-49 E971FB A-206 E142-1/4X150EG B-258 E-235-3/8-HD B-49 E971FBDI-2 A-202 E-145 B-115, B-192 E365D-CAR A-237 E971FBDIB-2 A-202 E-145 B-115, B-192 E365D-CAR A-237 E9761BR A-205 E145 1/2 B-7 E381D-CAR A-237						•
E142 3/8 1 B-76 E-232-1/2 B-48, B-132 E960PGL A-237 E142 3/8 1 1/2 B-76 E-232-3/8 B-48, B-132 E962E A-237 E142 3/8 1 1/4 B-76 E-233-1/2-10 B-132 E971C A-207 E142 3/8 3/4 B-76 E-233-1/2-6 B-48, B-132 E971PD A-207 E142 3/8 3/4 B-76 E-233-3/8-10 B-48, B-132 E971FADI-2 A-202 E142-1/4X075EG B-258 E-233-3/8-6 B-48, B-132 E971FADI-2 A-202 E142-1/4X100EG B-258 E-233-3/8-10 B-48, B-132 E971FADI-2 A-202 E142-1/4X100EG B-258 E-233-3/8-10 B-49 E971FBDI-2 A-202 E142-1/4X150EG B-258 E-235-3/8-HD B-49 E971FBDI-2 A-202 E-145 B-15, B-192 E365D-CAR A-237 E971FBDIB-2 A-202 E-145 B-715, B-192 E365D-CAR A-237 E9761B A-205 E145 1/2 B-77 E365D-CAR A-237 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
E142 3/8 1 1/2 B-76 E-232-3/8 B-48, B-132 E962E A-237 E142 3/8 1 1/4 B-76 E-233-1/2-10 B-132 E971C A-207 E142 3/8 3/4 B-76 E-233-1/2-6 B-48, B-132 E971D A-207 E142 3/8 3/4 B-76 E-233-3/8-10 B-48, B-132 E971FADI-2 A-202 E142-1/4X075EG B-258 E-233-3/8-6 B-48, B-132 E971FADI-2 A-202 E142-1/4X100EG B-258 E-235-3/8-HD B-49 E971FBDI-2 A-202 E142-1/4X150EG B-258 E-235-3/8-HD B-49 E971FBDI-2 A-202 E-145 B-115, B-192 E365D-CAR A-237 E971FBDI-2 A-202 E-145 B-115, B-192 E365D-CAR A-237 E971FBDIB-2 A-202 E145 1/2 B-77 E365D-CAR A-237 E9761B A-207 E145 3/8 B-77 E381DW-CAR A-237 E9761B A-205 E145 5/16 B-78 E382DEW A-237 E9761C A-205 E145 -1/4EG B-258 E382DEW A-237 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
E142 3/8 1 1/4 B-76 E-233-1/2-10 B-132 E971C A-207 E142 3/8 2 1/4 B-76 E-233-1/2-6 B-48, B-132 E971D A-207 E142 3/8 3/4 B-76 E-233-3/8-10 B-48, B-132 E971FADI-2 A-202 E142-1/4X075EG B-258 E-233-3/8-6 B-48, B-132 E971FADIB-2 A-202 E142-1/4X100EG B-258 E-235-1/2-HD B-49 E971FBDI-2 A-206 E142-1/4X150EG B-258 E-235-3/8-HD B-49 E971FBDI-2 A-202 E-145 B-115, B-192 E365D-CAR A-237 E971FBDIB-2 A-202 E145 1/2 B-77 E365D-CAR A-237 E9761B A-207 E145 1/4 B-77 E381D-CAR A-237 E9761B A-205 E145 5/16 B-77 E382DE A-237 E9761B A-205 E145 5/16 B-77 E382DE A-237 E9761C A-205 E-146 B-15 E460R-CAR A-237 E9761S A-205 E-146 B-15 E460R-CAR A-337 E9761S						
E142 3/8 2 1/4 B-76 E-233-1/2-6 B-48, B-132 E971D A-207 E142 3/8 3/4 B-76 E-233-3/8-10 B-48, B-132 E971FADI-2 A-202 E142-1/4X075EG B-258 E-233-3/8-6 B-48, B-132 E971FADIB-2 A-202 E142-1/4X100EG B-258 E-235-1/2-HD B-49 E971FB A-206 E142-1/4X150EG B-258 E-235-3/8-HD B-49 E971FBDI-2 A-202 E-145 B-115, B-192 E365D-CAR A-237 E971FBDIB-2 A-202 E145 1/2 B-77 E365D-CAR A-237 E973K A-207 E145 1/4 B-77 E381D-CAR A-237 E9761B A-205 E145 3/8 B-77 E381DW-CAR A-237 E9761B A-205 E145 5/16 B-77 E382DE A-237 E9761C A-205 E-146 B-15 E460R-CAR A-237 E9761S A-205 E-146 B-15 E460R-CAR A-337 E9761S A-205 E146 1/2 B-77 E460R-CAR A-105 E9762B A-205						
E142 3/8 3/4 B-76 E-233-3/8-10 B-48, B-132 E971FADI-2 A-202 E142-1/4X075EG B-258 E-233-3/8-6 B-48, B-132 E971FADIB-2 A-202 E142-1/4X100EG B-258 E-235-1/2-HD B-49 E971FB A-206 E142-1/4X150EG B-258 E-235-3/8-HD B-49 E971FBDI-2 A-202 E-145 B-115, B-192 E365D-CAR A-237 E971FBDIB-2 A-202 E145 1/2 B-77 E365D-CAR A-237 E973K A-207 E145 1/4 B-77 E381D-CAR A-237 E9761B A-205 E145 3/8 B-77 E381DW-CAR A-237 E9761BR A-205 E145 5/16 B-77 E382DE A-237 E9761C A-205 E145-1/4EG B-258 E382DEW A-237 E9761S A-205 E-146 B-715 E460R-CAR A-337 E9761SS A-205 E146 1/2 B-77 E460R-CAR A-105 E9762B A-205 E146 3/8 B-77 E-761 B-45 E9762BR A-205						
E142-1/4X075EG B-258 E-233-3/8-6 B-48, B-132 E971FADIB-2 A-202 E142-1/4X100EG B-258 E-235-1/2-HD B-49 E971FB A-206 E142-1/4X150EG B-258 E-235-3/8-HD B-49 E971FBDI-2 A-202 E-145 B-115, B-192 E365D-CAR A-237 E971FBDIB-2 A-202 E145 1/2 B-77 E365D-CAR A-237 E973K A-207 E145 1/4 B-77 E381D-CAR A-237 E9761B A-205 E145 3/8 B-77 E381DW-CAR A-237 E9761BR A-205 E145 5/16 B-77 E382DE A-237 E9761C A-205 E145-1/4EG B-258 E382DEW A-237 E9761S A-205 E-146 B-115 E460R-CAR A-337 E9761S A-205 E-146 B-77 E460R-CAR A-337 E9761SS A-205 E146 1/2 B-77 E-761 B-45 E9762B A-205 E146 3/8 B-77 E-763 B-46 E9762C A-205 E						
E142-1/4X100EG B-258 E-235-1/2-HD. B-49 E971FB. A-206 E142-1/4X150EG B-258 E-235-3/8-HD. B-49 E971FBDI-2 A-202 E-145 B-115, B-192 E365D-CAR A-237 E971FBDIB-2 A-202 E145 1/2 B-77 E365D-CAR A-237 E973K. A-207 E145 1/4 B-77 E381D-CAR A-237 E9761B A-205 E145 3/8 B-77 E381DW-CAR A-237 E9761BR A-205 E145 5/16 B-77 E382DE A-237 E9761C A-205 E145-1/4EG B-258 E382DEW A-237 E9761S A-205 E-146 B-115 E460R-CAR A-337 E9761SS A-205 E146 1/2 B-77 E460R-CAR A-337 E9762B A-205 E146 3/8 B-77 E-761 B-45 E9762BR A-205 E146 5/16 B-77 E-764 B-52 E9762S A-205 E146 5/8 B-77 E-765 B-52 E9762SS A-205						
E142-1/4X150EG B-258 E-235-3/8-HD B-49 E971FBDI-2 A-202 E-145 B-115, B-192 E365D-CAR A-237 E971FBDIB-2 A-202 E145 1/2 B-77 E365D-CAR A-237 E973K A-207 E145 1/4 B-77 E381D-CAR A-237 E9761B A-205 E145 3/8 B-77 E381DW-CAR A-237 E9761BR A-205 E145 5/16 B-77 E382DE A-237 E9761C A-205 E145-1/4EG B-258 E382DEW A-237 E9761S A-205 E-146 B-115 E460R-CAR A-337 E9761SS A-205 E146 1/2 B-77 E460R-CAR A-337 E9761SS A-205 E146 1/4 B-77 E-761 B-45 E9762B A-205 E146 3/8 B-77 E-763 B-46 E9762C A-205 E146 5/16 B-77 E-764 B-52 E9762S A-205 E146 5/8 B-77 E-765 B-52 E9762S A-205						
E-145 B-115, B-192 E365D-CAR A-237 E971FBDIB-2 A-202 E145 1/2 B-77 E365D-CAR A-237 E973K A-207 E145 1/4 B-77 E381D-CAR A-237 E9761B A-205 E145 3/8 B-77 E381DW-CAR A-237 E9761BR A-205 E145 5/16 B-77 E382DE A-237 E9761C A-205 E145-1/4EG B-258 E382DEW A-237 E9761S A-205 E-146 B-115 E460R-CAR A-337 E9761SS A-205 E146 1/2 B-77 E460R-CAR A-105 E9762B A-205 E146 1/4 B-77 E-761 B-45 E9762BR A-205 E146 3/8 B-77 E-763 B-46 E9762C A-205 E146 5/16 B-77 E-764 B-52 E9762S A-205 E146 5/8 B-77 E-765 B-52 E9762SS A-205						
E145 1/2 B-77 E365D-CAR A-237 E973K A-207 E145 1/4 B-77 E381D-CAR A-237 E9761B A-205 E145 3/8 B-77 E381DW-CAR A-237 E9761BR A-205 E145 5/16 B-77 E382DE A-237 E9761C A-205 E145-1/4EG B-258 E382DEW A-237 E9761S A-205 E-146 B-115 E460R-CAR A-337 E9761SS A-205 E146 1/2 B-77 E460R-CAR A-105 E9762B A-205 E146 1/4 B-77 E-761 B-45 E9762BR A-205 E146 3/8 B-77 E-763 B-46 E9762C A-205 E146 5/16 B-77 E-764 B-52 E9762S A-205 E146 5/8 B-77 E-765 B-52 E9762S A-205	E142-1/4X150EG	B-258				
E145 1/4 B-77 E381D-CAR A-237 E9761B A-205 E145 3/8 B-77 E381DW-CAR A-237 E9761BR A-205 E145 5/16 B-77 E382DE A-237 E9761C A-205 E145-1/4EG B-258 E382DEW A-237 E9761S A-205 E-146 B-115 E460R-CAR A-337 E9761SS A-205 E146 1/2 B-77 E460R-CAR A-105 E9762B A-205 E146 1/4 B-77 E-761 B-45 E9762BR A-205 E146 3/8 B-77 E-763 B-46 E9762C A-205 E146 5/16 B-77 E-764 B-52 E9762S A-205 E146 5/8 B-77 E-765 B-52 E9762S A-205						
E145 3/8 B-77 E381DW-CAR A-237 E9761BR A-205 E145 5/16 B-77 E382DE A-237 E9761C A-205 E145-1/4EG B-258 E382DEW A-237 E9761S A-205 E-146 B-115 E460R-CAR A-337 E9761SS A-205 E146 1/2 B-77 E460R-CAR A-105 E9762B A-205 E146 1/4 B-77 E-761 B-45 E9762BR A-205 E146 3/8 B-77 E-763 B-46 E9762C A-205 E146 5/16 B-77 E-764 B-52 E9762S A-205 E146 5/8 B-77 E-765 B-52 E9762S A-205						
E145 5/16 B-77 E382DE A-237 E9761C A-205 E145-1/4EG B-258 E382DEW A-237 E9761S A-205 E-146 B-115 E460R-CAR A-337 E9761SS A-205 E146 1/2 B-77 E460R-CAR A-105 E9762B A-205 E146 1/4 B-77 E-761 B-45 E9762BR A-205 E146 3/8 B-77 E-763 B-46 E9762C A-205 E146 5/16 B-77 E-764 B-52 E9762S A-205 E146 5/8 B-77 E-765 B-52 E9762S A-205						
E145-1/4EG B-258 E382DEW A-237 E9761S A-205 E-146 B-115 E460R-CAR A-337 E9761SS A-205 E146 1/2 B-77 E460R-CAR A-105 E9762B A-205 E146 1/4 B-77 E-761 B-45 E9762BR A-205 E146 3/8 B-77 E-763 B-46 E9762C A-205 E146 5/16 B-77 E-764 B-52 E9762S A-205 E146 5/8 B-77 E-765 B-52 E9762S A-205						
E-146 B-115 E460R-CAR A-337 E9761SS A-205 E146 1/2 B-77 E460R-CAR A-105 E9762B A-205 E146 1/4 B-77 E-761 B-45 E9762BR A-205 E146 3/8 B-77 E-763 B-46 E9762C A-205 E146 5/16 B-77 E-764 B-52 E9762S A-205 E146 5/8 B-77 E-765 B-52 E9762S A-205						
E146 1/2 B-77 E460R-CAR A-105 E9762B A-205 E146 1/4 B-77 E-761 B-45 E9762BR A-205 E146 3/8 B-77 E-763 B-46 E9762C A-205 E146 5/16 B-77 E-764 B-52 E9762S A-205 E146 5/8 B-77 E-765 B-52 E9762S A-205						
E146 1/4 B-77 E-761 B-45 E9762BR A-205 E146 3/8 B-77 E-763 B-46 E9762C A-205 E146 5/16 B-77 E-764 B-52 E9762S A-205 E146 5/8 B-77 E-765 B-52 E9762S A-205						
E146 3/8 B-77 E-763 B-46 E9762C A-205 E146 5/16 B-77 E-764 B-52 E9762S A-205 E146 5/8 B-77 E-765 B-52 E9762S A-205	E146 1/2	B-77	E460R-CAR	A-105	E9762B	A-205
E146 5/16 B-77 E-764 B-52 E9762S A-205 E146 5/8 B-77 E-765 B-52 E9762S A-205	E146 1/4	B-77	E-761	B-45	E9762BR	A-205
E146 5/16 B-77 E-764 B-52 E9762S A-205 E146 5/8 B-77 E-765 B-52 E9762S A-205	E146 3/8	B-77	E-763	B-46	E9762C	A-205
E146 5/8	E146 5/16	B-77				

CAT. NO. E9763BR	PAGE NO. Δ-205	CAT. NO. Egrafin	PAGE NO. A-271	CAT. NO. FC-2-1/2	PAGE NO. B-135, B-225
E9763C			A-271		B-135, B-225
E9763S			A-269		B-135, B-225
E9763SS			A-269		D-50
E976AK2			A-269		D-50
E976RFB			A-269		
E979DFN-CAR			A-269		
E979EFN-CAR			A-269		B-192
E979FFN			A-269		B-116
E97ABR2			A-269		B-116
E97BR			A-269		B-116
E97BR2			A-269		
E97BR2D		E98DHGN-CAR	A-224		
E97BRG		E98G20N	A-223		
E97CCR	A-207	E98G30N-CAR	A-223	EGCER	
E97DSB	A-207	E98G5FN-CAR	A-223	EGCIJ	
E97DSC	A-207	E98GDRN-CAR	A-223	EGCIL	
E97DSI	A-207	E98GFCN-CAR	A-223	EGCIN	
E97DSS	A-207		A-224	EGFCJ	
E97DST	A-207		A-223		
E97SS			A-223		
E97SS2			A-223		
E97SS2D			A-224		
E97SSG			A-224		
E97SSRB			A-224		
E97SSRC			A-224		
E97SSRS			A-224		
E9801			A-226 A-226		C-89
E9801DN			A-226		
E9801EN			A-226		
E9801FN			A-226		
E9802			A-226		
E9802CN-CAR			A-226		
E9802D			A-226		
E9802E			A-226		
E9802F			A-226		
E980CM-CAR			A-226		C-89
E980CN-CAR			A-226		
E980DFN			B-144		
E980EFN		LD 1 10 0001 011111111111	B-144	_0000	
E980FFN			B-144		
E980FFN-CAR	A-271	EB118-090PG	B-144	EGSBN	
E9811DN	A-272	EB118-110PG	B-144	EGSBR	
E9811EN	A-272	EB118-140PG	B-144	EGSEJ	
E9811FN	A-272	EB118-175PG	B-144	EGSEL	
E9812D	A-273	EB118-200PG	B-144	EGSEN	
E9812E	A-273	EB118-250PG	B-144	EGSER	
E9812F			B-144		
E981DFN			B-135, B-225		
E981EFN			B-135, B-225		
E981FFN			B-135, B-225		
E981FFN-CAR			B-135, B-225		
E982DFN			B-135, B-225		
:					





Catalog Number Index

CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.
EGTFN			C-38, D-26	F-112-1-3/4	
EGTFR			C-38, D-26	F-112-2	
EP12128			C-47	F-112-2-1/2	
EP181812			D-46	F-112-2-1/4	
EP201808		ERG50		F-112-3/4	
EP202008	A-270	ERG50P		F-112-3/8	B-165
EP241808		ES-142		F-112-5/8	
EP242008	A-270	ES-145	B-115	F-112-7/8	
EP242408			A-270	F-715	
EP302408	A-270	ET727 1/2		F-716-3	
EP362408		ET-727-1	B-157	F720 6	B-55
ER010	C-39, D-26	ET-727-1-1/2	B-157	F-720-12	B-55
ER011	C-39, D-26	ET-727-1-1/4	B-157	F-720-18	B-55
ER012		ET-727-2	B-157	F-720-24	B-55
ER013		ET-727-2-1/2		F-720-9	
ER014		ET-727-3	B-157	F721 18	B-56
ER015		ET-727-3/4		F-721-24	B-56
ER016		ET-727-3-1/2		F-721-30	
ER017		ET-727-4		F-721-36	
ER018		ET-727-5		F-735	
ER019		ET-727-6		F-736	
ER020		ETL710 1/2		F-737	
ER021		ETL-710-1		F-739-10-1/2	
ER022		ETL-710-1-1/2		F-739-13-1/2	
ER023			B-153	F-739-18	
ER024		ETL-710-2		F-739-4-1/2	
ER025		ETL-710-2-1/2		F-739-7-1/2	
ER026		ETL-710-3		FBC-1	
ER027				FBC-2	
		ETL-710-3/4			
ER028		ETL-710-3-1/2		FBC-3	
ER029		ETL-710-4		FBD12-1	
ER030		ETL-710-5		FBD16-1	
ER031		ETL-710-6		FBE12-1	
ER032		EZ209	B-120	FBE16-1	
ER033			F 010	FBG12-1	
ER034		F-111	B-219	FBG16-1	
ER035			B-182	FFPT3	
ER036			B-182	FFPT3-ALM	
ER037			B-182	FFPT3-BLK	
	C-39, D-26	F-111-1-1/4		FFPT3-BRS	
ER039		F-111-1-3/4		FFPT3-CVR-ALM	
ER040	C-39, D-26	F-111-2		FFPT3-CVR-BGE	A-181
ER041	C-39, D-26		B-182	FFPT3-CVR-BLK	A-181
ER042	C-39, D-26		B-182	FFPT3-CVR-BRN	A-181
ER043	C-38, D-26	F-111-2-1/4 F-111-3/4		FFPT3-CVR-BRS	A-181
ER044	C-38, D-26	F-111-3/8		FFPT3-CVR-GRY	A-181
ER045	C-38, D-26			FFPT4	A-180
ER046		F-111-5/8		FFPT4-ALM	
ER047		F-111-7/8		FFPT4-BLK	
ER048			B-219	FFPT4-BRS	
ER049		F-112-1		FFPT4-C	
ER050		F-112-1/2		FFPT4-CVR-ALM	
ER051		F-112-1-1/2		FFPT4-CVR-BGE	
	0 00, 5 20	F-112-1-1/4	B-165	OTT DOLL IIIIIII	

FFPT4-CVR-BIK A-180 FPT4-CVR-BRN A-180 FPT4-41-SW-BGE A-179 FSC-53 A-104 FPT14-CVR-BRN A-180 FPT-441-SW-BUK A-179 FSC-53 A-104 FPT14-CVR-BRN A-180 FPT-441-SW-BUK A-179 FSC-53 A-104 FPT14-CVR-GRY A-180 FPT-441-SW-BUK A-179 FSC-55 A-104 FPT4-CVR-GRY A-180 FPT-441-SW-BRN A-179 FSC-55 A-104 FPT4-CVR-GRY A-180 FPT4-41-SW-BUK A-182 FPT4-28-SW-BUK A-182 FPT4-28-SW-BUK A-182 FPT4-28-SW-BUK A-182 FPT4-28-SW-BUK A-182 FPT4-28-SW-BUK A-182 FPT4-28-SW-BUK A-182 FPT-48-SW-BUK A-187 FPT8-CVR-BRN A-182 FPT4-28-SW-BUK A-179 FSC-55 A-104 FPT4-28-SW-BUK A-182 FPT4-28-SW-BUK A-182 FPT4-28-SW-BUK A-1879 FRUP A-8A, A-85 FPT-448-SW-BUK A-179 FSC-56 FPT-48-SW-BUK A-179 FSC-56 FPT-48-SW-BUK A-179 FSC-56 FPT-48-SW-BUK A-1879 FSC-56 FPT-48-SW-BUK A-1879 FSC-56 FPT-48-SW-BUK A-1879 FSC-56 FPT-48-SW-BUK A-182 FSC-56 FPT-48-SW-BUK A-182 FSC-56 F	CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.	CAT. NO.	PAG	GE NO.
FFPT4-CVR-BRN A-180 FPT-441 SW-BGE A-179 FSC-53 A-104 FFPT4-CVR-BRS A-180 FPT-441 SW-BRN A-179 FSC-55 A-104 FFPT4-CVR-CRV A-180 FPT-441 SW-BRN A-179 FSC-55 A-104 FFPT4-CVR-CRV A-180 FPT-441 SW-BRN A-179 FSC-55 A-104 FFPT4-CVR-CRV A-180 FPT-442 SW-BRN A-179 FSC-55 A-104 FFPT4-CVR-CRV A-184 FPT-442 SW-BRE A-182 G G-1012 B-65 FRV-660-V A-84 FPT-442 SW-BRN A-182 G G-1012 B-65 FRV-660-V A-84 FPT-442 SW-BRN A-182 G G-1012 B-65 FRV-660-V A-84 FPT-442 SW-BRN A-182 G G-1012 B-65 FRV-660-V A-84 FPT-442 SW-BRN A-179 G-1013 SW B-66 FRV A-184 FPT-445 SW-BR A-187 G-1013 SW B-66 FRV A-184 FRV-1445 SW-BR A-187 G-1013 SW B-66 FRV A-184 SW-BRN A-179 G-1013 SW B-66 FRV A-184 SW-BRN A-179 G-1013 SW B-66 FRV A-184 SW-BRN A-179 G-1013 SW B-66 FRV A-184 SW-BRN A-179 G-1013 SW B-66 FRV A-184 SW-BRN A-184 G-1014 B-65 FRV-145 SW-BRN A-184	FFPT4-CVR-BLK	A-180	FPT4-2P-RPL	A-177	FSC-51	A-	-104
FFPT4-CWR-GRY							
FFPT4-CWR-GRY A-180 FFT-441-SW-GRY A-179 FSC-55 A-104 FN-236-V. A-84 FPT-442-SW-BGE A-182 G FN-236-V. A-84 FPT-442-SW-BGE A-182 G FN-236-V. A-84 FPT-442-SW-BGE A-182 G FN-236-V. A-84 FPT-442-SW-BGE A-182 G FN-260-V. A-84 FPT-442-SW-BRN. A-182 G FN-460-V. A-84 FPT-442-SW-BRN. A-182 G FN-460-V. A-84 FPT-442-SW-BRN. A-182 G FN-460-V. A-84 FPT-442-SW-BRN. A-182 G FN-10-CPT-44-SW-BGE A-179 G FN-10-CPT-45-SW-BGE A-182 G FN-1	FFPT4-CVR-BRS	A-180	FPT-441-SW-BLK	A-179	FSC-54	A-	-104
FN-23e-V A-84 FPT-442-SW-BE A-182 FN-35e-V A-84 FPT-442-SW-BE A-182 FN-35e-V A-84 FPT-442-SW-BEN A-182 FN-35e-V A-84 FPT-442-SW-BEN A-182 FN-45e-V A-84 FPT-442-SW-BEN A-182 FN-460-V A-84 FPT-442-SW-BEN A-182 FN-460-V A-84 FPT-442-SW-BEN A-182 FN-260-V A-84 FPT-443-SW-BEN A-182 FN-260-V A-84 FPT-443-SW-BEN A-183 FN-260-V A-84 FPT-443-SW-BEN A-175 FN-260-V A-84 FPT-443-SW-BEN A-175 FN-260-V A-84 FPT-443-SW-BEN A-183 FN-260-V A-84 FPT-443-SW-BEN A-183 FN-260-V A-84 FPT-443-SW-BEN A-183 FN-260-V A-84 FPT-443-SW-BEN A-183 FN-260-V A-84 FPT-443-SW-BEN A-183 FN-260-V A-84 FPT-443-SW-BEN A-183 FN-260-V A-84 FPT-443-SW-BEN A-183 FN-260-V A-84 FPT-443-SW-BEN A-183 FN-260-V A-84 FPT-443-SW-BEN A-183 FN-260-V A-84 FPT-443-SW-BEN A-183 FN-260-V A-84 FPT-443-SW-BEN A-183 FN-260-V A-84 FPT-443-SW-BEN A-183 FN-260-V A-84 FPT-443-SW-BEN A-183 FN-260-V A-84 FPT-					FSC-55	A-	-104
FN-256-V A-84 FPT-442-SW-86E A-182 G1007 B-65 FN-460-V A-84 FPT-442-SW-8RN A-182 FN-460-V A-84 FPT-442-SW-8RN A-182 FN-460-V A-84 FPT-442-SW-8RN A-182 FN-60-C A-84 FPT-442-SW-8RN A-182 FN-60-C C-45 FPT-445-SW-86E A-179 FN-200-40-O C-45 FPT-445-SW-8RN A-179 FN-200-40-O C-45 FPT-445-SW-8RN A-179 FN-200-40-O C-45 FPT-445-SW-8RN A-179 FN-200-40-O C-45 FPT-485-SW-8RN A-179 FN-350-40 B-255 FPT-485-SW-8RN A-182 FN-350-40-O C-45 FPT-485-SW-8RN A-182 FN-350-40-O C-45 FPT-485-SW-8RN A-182 FN-350-0-O C-45 FPT-485-SW-8RN A-182 FN-300-0-O C-45 FPT-485-SW-8RN A-182 FN-300-0-O C-45 FPT-448-SW-8RN A-182 FN-300-0-O C-45 FPT-485-SW-8RN A-175 FN-300-0							
FN-354-V A.84 FPT-442-SW-BIX A.182 G 1007 B.655 FN-460-V A.84 FPT-442-SW-GRY A.182 G 1012 B.665 FN-CFB A.84 FPT-445-SW-BIX A.182 G 1012 B.665 FN-CFB A.84 FPT-445-SW-BIX A.179 G 1017 B.666 F0200-40-0 C.45 FPT-445-SW-BIX A.179 G 1017 B.666 F0200-40-0 C.45 FPT-445-SW-BIX A.179 G 1017 B.666 F0200-50-0 C.45 FPT-445-SW-BIX A.179 G 1017 B.666 F0220-40 B.255 FPT-48-SW-BIX A.179 G 1017 B.666 F0250-40 B.255 FPT-48-SW-BIX A.182 G 1022 B.677 F0350-40 B.255 FPT-48-SW-BIX A.182 G 1021 B.676 F0350-40 C.45 FPT-448-SW-BIX A.182 G 1021 B.676 F0350-50-0 C.45 FPT-48-SW-BIX A.182 G 1032 B.677 F0350-40-0 C.45 FPT-48-SW-BIX A.182 G 1032 B.677 F0350-40-0 C.45 FPT-48-SW-BIX A.182 G 1033 B.676 F0350-50-0 C.45 FPT-48-SW-BIX A.179 G 1033 B.676 F0350-50-0 C.45 FPT-48-SW-BIX A.179 G 1033 B.667 F0350-50-0 C.45 FPT-48-SW-BIX A.179 G 1033 B.668 F03500-50-0 C.45 FPT-48-C-C. A.184 G 1033 B.688 B.688 F03520-50-0 C.45 FPT-48-C-C. A.184 G 1033 B.688 B.688 F03520-50-0 C.45 FPT-48-C-C. A.184 G 1033 B.688 B.688 F03520-50-0 C.45 FPT-48-C-TIXIM A.175 G 1038 C. B.688 FPT-2P-2C A.178 A.185 FPT-450 A.179 G 1038 C. B.688 FPT-2P-2C A.178 A.185 FPT-450 A.179 G 1038 C. B.688 FPT-2P-2C A.178 A.185 FPT-450 A.179 G 1038 C. B.688 FPT-3P-2P-2C-BIX A.178 FPT-450 A.179 G 1038 C. B.688 FPT-3P-2P-2C-BIX A.178 FPT-450 A.179 G 1038 C. B.688 FPT-3P-2P-2C-BIX A.178 FPT-450 A.178 FPT-450 A.179 G 1038 C. B.688 FPT-3P-2P-2C-BIX A.178 FPT-4C-BIX A.176 G 1038 C. B.688 G 1038 C. B.688 FPT-3P-2P-2C-BIX A.178 FPT-4C-BIX A.176 G 1038 C. B.688 G 103							
Fil-460-V					0.4007		0.05
FN-460-V A-84 FPT-442-SW-GRY A-182 G1012 D B-66 FNP A-84, A-85 FPT-445-SW-B6E A-179 G1013 3/8 B-66 FNP A-84, A-85 FPT-445-SW-BLK A-179 G1013 3/8 B-66 F0200-40-0 C-45 FPT-445-SW-BK A-179 G1016 B-66 F0200-50-0 C-45 FPT-445-SW-BK A-179 G1017 B-66 F0200-50-0 C-45 FPT-485-SW-BK A-179 G1017 B-66 F0200-50-0 C-45 FPT-485-SW-BK A-182 G102 B-67 F0350-40-0 C-45 FPT-485-SW-BK A-182 G102 B-67 F0350-40-0 C-45 FPT-485-SW-BK A-182 G102 B-67 F0350-50-0 C-45 FPT-485-SW-BK A-182 G102 B-67 F0350-50-0 C-45 FPT-485-SW-BK A-182 G103 B-67 F0350-50-0 C-45 FPT-485-SW-BK A-182 G103 B-67 F01300-50-0 C-45 FPT-48-SW-BK A-175 G103 B-68 F01300-50-0 C-45 FPT-48-SW-BK A-175 G103 B-68 F01300-50-0 C-45 FPT-48-C-TAIM A-175 G103 B-68 F03500-50-0 C-45 FPT-48-C-TAIM A-175 G103 C-B-68 F03500-50-0 C-45					G 1007	t	B-65
FN-CFB. A-84 A-84 FPT-445-SW-BGE A-179 G1013 3/8 B-66 F0200-40-0 C-45 FPT-445-SW-BRN A-179 G1016 B-66 F0200-50-0 C-45 FPT-445-SW-BRN A-179 G1017 B-66 F0200-50-0 C-45 FPT-445-SW-BRN A-179 G1017 B-66 F0200-60-0 C-45 FPT-445-SW-BRN A-179 G1017 B-66 F0200-60-0 B-255 FPT-448-SW-BRN A-182 G1020 B-67 F0350-40 B-255 FPT-448-SW-BRN A-182 G1032 B-67 F0350-40-0 C-45 FPT-448-SW-BRN A-182 G1033 B-67 F0350-50-0 C-45 FPT-448-SW-BRN A-182 G1033 B-67 F0350-50-0 C-45 FPT-448-SW-BRN A-182 G1033 B-67 F0350-50-0 C-45 FPT-449-W-C-A-175, A-185 G1038 B-68 F01.500-50-0 C-45 FPT-449-40-C A-175, A-185 G1038 B-68 F08180-50-0 C-45 FPT-449-40-C A-18-184 G1038 B-68 F08180-50-0 C-45 FPT-449-40-C A-18-184 G1038 B-68 F08180-50-0 C-45 FPT-449-40-C A-18-184 G1038 B-68 F08500-50-0 C-45 FPT-449-40-FBRS A-175 G1038 CA-B-68 F08500-50-0 C-45 FPT-449-40-FBRS A-175 G1038 CA-B-68 F08500-50-0 C-45 FPT-49-40-CBRS A-175 G1038 CA-B-68 FPT-32-P-2C-A-178, A-185 FPT-450 A-176 G1038 C-B-68 FPT-32-P-2C-A-18-A-178 FPT-450 A-176 G1008 E-B-69 FPT-32-P-2C-BRS A-178 FPT-450 A-176 G1000 B-69 FPT-32-P-2C-BRS A-178 FPT-450 A-176 G1000 B-71 FPT-3-CVR-BRS A-178 FPT-4-CC-BRS A-176 G1000 B-71 FPT-3-CVR-BRN A-178 FPT-4-CRA-1WAPP A-177 G2000 B-71 FPT-3-CVR-BRN A-178 FPT-4-CPA-1WAPP A-177 G2000 B-71 FPT-3-CVR-BRN A-178 FPT-4-CPA-2-SWAPP A-177 G2000 B-71 FPT-3-CVR-BRN A-178 FPT-4-CPA-2-SWAPP A-177 G2000 B-71 FPT-3-CVR-BRN A-178 FPT-4-CPB-2-SWAPP A-177 G2000 B-72 FPT-4-000 B-179 A-182 A-183 FPT-4-CPB-2-SWAPP A-177 G2000 B-60 FPT-4-100 B-179 A-182 A-183 FPT-4-CPB-2-SWAPP A-177 G2000 B-60 FPT-4-100 B-179 A-182							
FNP							
F0200-40-0 C-45 FPT-445-SW-BRN A-179 G 1010 B-66 F0220-40 B-255 FPT-448-SW-BGE A-182 G 1021 B-67 F0350-40-0 C-45 FPT-448-SW-BRN A-182 G 1021 B-67 F0350-40-0 C-45 FPT-448-SW-BRN A-182 G 1032 B-67 F0350-50-0 C-45 FPT-448-SW-BRN A-182 G 1033 B-67 F0350-50-0 C-45 FPT-448-SW-BRN A-182 G 1033 B-67 F0350-50-0 C-45 FPT-448-SW-BRN A-182 G 1033 B-68 F01300-50-0 C-45 FPT-448-SW-GRY A-182 G 1033 B-68 F01300-50-0 C-45 FPT-449-C A-175 A-185 F01300-50-0 C-45 FPT-449-C A-175 A-185 F01300-50-0 C-45 FPT-449-C A-175 A-186 F01308 A B-68 F01810-50-0 C-45 FPT-449-C A-175 A-186 F01308 C B-68 F05320-50-0 C-45 FPT-449-C A-175 A-185 F01308 C B-68 F05320-50-0 C-45 FPT-449-C A-176 A-186 F05320-50-0 C-45 FPT-449-C A-176 A-186 F05320-50-0 C-45 FPT-449-C A-176 A-186 F05320-50-0 C-45 FPT-449-C A-176 A-186 F05320-50-0 C-45 FPT-449-C A-176 A-186 F05320-50-0 C-45 FPT-449-C A-176 A-185 FPT-32P-2C A-176 A-186 FPT-32P-2C A-176 A-186 FPT-32P-2C-BLK A-176 FPT-32P-2C-BLK A-176 FPT-32P-2C-BLK A-176 FPT-32P-2C-BLK A-176 FPT-32P-2C-BLK A-176 FPT-32P-2C-BLK A-176 FPT-32P-2C-BLK A-176 FPT-3-CVR-BLK A-176 FPT-3							
F0220-50-0							
F0220_40_							
F0350-40-0							
FOSSO-50-0							
F0350-50-0 C-45							
FOLSIO-50-0							
FOLSO-50-0. C-45 FPT4-4P-4C. A-175, A-185 G 1038 B B-68 FOS105-50-0 C-45 FPT4-4P-4C-C A-184 G 1038 C B-68 FOS105-50-0 C-45 FPT4-4P-4C-TALM A-175 G 1038 C A-68 FOS202-50-0 C-45 FPT4-4P-4C-TALM A-175 G 1038 C A-68 FOS202-50-0 C-45 FPT4-4P-4C-TBLK A-175 G 1038 C A-68 FOS202-50-0 C-45 FPT4-4P-4C-TBLK A-175 G 1038 C A-68 FOS202-50-0 C-45 FPT4-4P-4C-TBLK A-175 G 1038 C A-68 FOS202-50-0 C-45 FPT4-4P-4C-TBLK A-175 G 1038 C A-68 FOS202-50-0 C-45 FPT4-4P-4C-TBLK A-175 G 1038 C A-68 FOS202-50-0 C-45 FPT4-4P-4C-TBLK A-175 G 1038 C A-68 FOS202-50-0 C-45 FPT4-4P-4C-TBLK A-175 G 1038 C A-68 FOS202-50-0 C-45 FPT4-4P-4C-TBLK A-175 G 1038 C A-68 FOS202-50-0 C-45 FPT4-4P-4C-TBLK A-176 G 1038 C A-68 FOS202-50-0 C-45 FPT4-4P-4C-TBLK A-178 FPT4-5C A-176 G 1050 C A-176 G 1501 T B-69 FPT3-2P-2C-BLK A-178 FPT4-CCH-6C A-176 G 1501 T B-69 FPT3-2P-2C-C A-184 FPT4-CCH-6C A-176 G 1503 S B-9, B-70 FPT3-CVR-ALM A-178 FPT4-CCH-8C A-176 G 2000 B-71 FPT3-CVR-BE A-178 FPT4-CPA-1MAP A-177 G 2000 B-71 FPT3-CVR-BE A-178 FPT4-CPA-1MAP A-177 G 2000 B-71 FPT3-CVR-BEN A-178 FPT4-CPA-4KEY A-177 G 2003 B-72 FPT3-CVR-BRS A-178 FPT4-CPA-4KEY A-177 G 2003 B-72 FPT3-CVR-BRS A-178 FPT4-CPA-4KEY A-177 G 9950 B-59 FPT3-CVR-BRS A-178 FPT4-CPA-4KEY A-177 G 9950 B-59 FPT4-008 A-179, A-182 A-183 FPT4-CPA-4KEY A-177 G 9950 B-59 FPT4-008 A-179, A-182 A-183 FPT4-CPA-BLMK A-177 G 9950 B-60 FPT-408A A-183 FPT4-CPA-BLMK A-177 G 9950 B-60 FPT-408A A-183 FPT4-CPB-BLMAP A-177 G 9960 B-60 FPT4-1112-12-C A-176 FPT4-CPB-2VEY A-177 G 9960 B-60 FPT4-1112-12-C A-176 FPT4-CPB-2VEY A-177 G 9960 B-60 FPT4-1112-12-C A-176 FPT4-CPB-2VEY A-177 G 9960 B-60 FPT4-1112-12-C A-176 FPT4-CPB-2VEY A-177 G 9960 B-60 FPT4-1112-12-C A-176 FPT4-CPB-2VEY A-177 G 9960 B-60 FPT4-1112-12-C A-176 FPT4-CPB-2VEY A-177 G 9960 B-60 FPT4-1112-12-C A-184 FPT4-CPB-2VEY A-177 G 9960 B-60 FPT4-1112-12-C A-184 FPT4-CPB-1VER A-175 G 972 II 1/2 B-63 FPT4-1112-2-C A-184 FPT4-CPB-1VER A-175 G 972 II 1/2 B-63 FPT4-1112-2-C A-184 FPT4-CVB-1VER A-175 G 972 II 1/2 B-63 FPT4-1112-2-C A-184 FPT4-CVB-1VER A-175 G 972 II 1/4							
FORTISD-50-0 C-45 FPT4-4P-4C-C A-184 G 1038 C B-68 F0S150-50-0 C-45 FPT4-4P-4C-TALM A-175 G 1038 CA B-68 F0S320-50-0 C-45 FPT4-4P-4C-TBLK A-175 G 1038 CX B-68 F0S320-50-0 C-45 FPT4-4P-4C-TBLK A-175 G 1038 CX B-68 F0S500-50-0 C-45 FPT4-4P-4C-TBLK A-175 G 1038 CX B-68 F0S500-50-0 C-45 FPT4-4P-4C-TBLK A-175 G 1038 CX B-68 FPT3-2P-2C-ALM A-178 A-185 FPT4-50 A-176 G 1038 E B-68 FPT3-2P-2C-ALM A-178 FPT4-8C A-176, A-185 G 1500 X B-69 FPT3-2P-2C-BLK A-178 FPT4-8C A-176, A-185 G 1500 X B-69 FPT3-2P-2C-BLK A-178 FPT4-8C-C A-184 G 1501 T B-69 FPT3-2P-2C-C A-184 FPT4-CCH-2P A-176 G 1502 L B-70 FPT3-2P-2C-C A-184 FPT4-CCH-2P A-176 G 1503 S B-9, B-70 FPT3-2P-2C-C A-184 FPT4-CCH-8C A-175 G 2000 B-71 FPT3-CVR-BLK A-178 FPT4-CPA-1MAP A-176 G 2000 B-71 FPT3-CVR-BLK A-178 FPT4-CPA-3PAN A-177 G 2002 B-71 FPT3-CVR-BLK A-178 FPT4-CPA-3PAN A-177 G 2002 B-71 FPT3-CVR-BLK A-178 FPT4-CPA-4NEY A-177 G 2002 B-71 FPT3-CVR-BLK A-178 FPT4-CPA-4NEY A-177 G 2004 B-72 FPT3-CVR-BLK A-178 FPT4-CPA-4NEY A-177 G 2004 B-72 FPT3-CVR-BLS A-178 FPT4-CPA-4NEY A-177 G 2004 B-72 FPT3-CVR-BLS A-178 FPT4-CPA-4SYS A-177 G 2005 B-59 FPT-401A A-183 FPT4-CPA-4SYS A-177 G 955 B-60 FPT-401A A-183 FPT4-CPA-BLMAP A-177 G 955 B-60 FPT-401A A-183 FPT4-CPA-BLMAP A-177 G 959 B-60 FPT-401A A-183 FPT4-CPA-BLMAP A-177 G 960 B-60 FPT-401A A-183 FPT4-CPB-2NEY A-178 G 966 B-9, B-60 FPT4-11121-2C A-166 FPT4-CPB-2NEY A-176 G 966 B-9, B-60 FPT4-11121-2C A-166 FPT4-CPB-2NEX A-177 G 966 B-9, B-61 FPT4-11121-2C A-166 FPT4-CPB-2NEX A-177 G 966 B-9, B-61 FPT4-11121-2C A-166 FPT4-CPB-2NEX A-177 G 966 B-9, B-61 FPT4-11121-2C A-166 FPT4-CPB-2NEX A-177 G 967 B-9 B-62 FPT4-11121-2C A-166 FPT4-CPB-2NEX A-177 G 966 B-9, B-61 FPT4-11121-2C A-166 FPT4-CPB-2NEX A-177 G 967 B-9 B-62 FPT4-11121-2C A-168 FPT4-CPB-2NEX A-177 G 967 B-9 B-62 FPT4-11121-2C A-168 FPT4-CPB-2NEX A-177 G 967 B-9 B-62 FPT4-11121-2C A-168 FPT4-CPB-2NEX A-177 G 967 B-9 B-62 FPT4-11121-2C A-168 FPT4-CPB-2NEX A-177 G 967 B-9 B-62 FPT4-11121-2C A-168 FPT4-CPB-2NEX A-177 G 967 B-9 B-62 FPT4-11121-2C A-168 FPT4-CPB-2NEX A-177							
FOSTS0-50-0					G 1038 B	E	B-68
FOS320-50-0					G 1038 C	E	B-68
FOSS00-50-0					G 1038 CA		B-68
FPT3-2P-2C					G 1038 CX		B-68
FPT3-2P-2C-ALM					G 1038 E	[B-68
FPT3-2P-2C-BLK					G 1500 X		B-69
PTP3-2P-2C-BRS. A-178 FPT4-CCH-2P A-176 G 1503 S B-9 B-70 FPT3-2P-2C-C. A-184 FPT4-CCH-6C A-175 G 2000 B-71 FPT3-CVR-ALM A-178 FPT4-CCH-8C A-176 G 2000 B-71 FPT3-CVR-BGE A-178 FPT4-CCH-8C A-176 G 2000 B-71 FPT3-CVR-BGE A-178 FPT4-CPA-1MAAP A-177 G 2002 B-71 FPT3-CVR-BRN A-178 FPT4-CPA-3PAN A-177 G 2003 B-72 FPT3-CVR-BRN A-178 FPT4-CPA-4KEY A-177 G 2003 B-72 FPT3-CVR-BRN A-178 FPT4-CPA-4KEY A-177 G 2004 B-72 FPT3-CVR-BRS A-178 FPT4-CPA-4VRT A-177 G 2004 B-72 FPT3-CVR-BRS A-178 FPT4-CPA-4VRT A-177 G 2004 B-72 FPT3-CVR-BRS A-178 FPT4-CPA-4VRT A-177 G 950 B-59 FPT4-00B A-179, A-182, A-183 FPT4-CPA-2VRAP A-177 G 957 B-60 FPT-40BA A-178 FPT4-CPA-BLANK A-177 G 958 B-60 FPT-40BA A-183 FPT4-CPA-BLANK A-177 G 959 B-60 FPT-416 A-183 FPT4-CPB-1MAAP A-177 G 960 B-60 FPT4-1TL21-2C A-184 FPT4-CPB-2VRT A-177 G 966 B-9, B-61 FPT4-1TL21-2C A-184 FPT4-CPB-2VRN A-177 G 966 B-9, B-61 FPT4-1TL21-2C A-184 FPT4-CPB-2VRN A-177 G 966 B-9, B-61 FPT4-1TL22-2C A-176 FPT4-CPB-BLANK A-177 G 966 B-9, B-62 FPT4-1TL22-2C A-176 FPT4-CPB-2VRN A-177 G 966 B-9, B-62 FPT4-1TL22-2C A-176 FPT4-CPB-2VRN A-177 G 968 B-9, B-62 FPT4-1TL21-2C A-184 FPT4-CPB-2VRN A-177 G 966 B-9, B-62 FPT4-1TL22-2C A-176 FPT4-CPB-2VRN A-177 G 966 B-9, B-62 FPT4-1TL22-2C A-176 FPT4-CPB-2VRN A-177 G 966 B-9, B-62 FPT4-1TL22-2C A-176 FPT4-CPB-2VRN A-177 G 966 B-9, B-62 FPT4-1TL22-2C A-176 FPT4-CPR-2VRN A-177 G 967 B-9, B-62 FPT4-1TL22-2C A-176 FPT4-CPR-2VRN A-177 G 967 B-9, B-62 FPT4-1TL22-2C A-176 FPT4-CPR-BLANK A-177 G 969A B-62 FPT4-1TL31-2C A-184 FPT4-CPR-BLANK A-177 G 967 B-9, B-63 FPT4-1TL31-2C A-176 FPT4-CPR-BLANK A-175 G 973 1 1/2 B-63 FPT4-CPR-1VR-BRN A-175 G 973 1 1/2 B-63 FPT4-CPR-1VR-BRN A-175 G 973 1 1/2 B-63 FPT4-CPR-1VR-BRN A-175 G 975 1 1/2 B-63 FPT4-CPR-1VR-BRN A-175 G 975 1 1/2 B-63 FPT4-CPR-1VR-BRN A-175 G 975 1 1/2 B-63 FPT4-CPR-1VR-BRN A-175 G 975 1 1/2 B-63 FPT4-CPR-1VR-BRN A-175 G 975 1 1/2 B-63 FPT4-CPR-1VR-BRN A-175 G 975 1 1/2 B-63 FPT4-CPR-1VR-BRN A-175 G 975 1 1/2 B-63 FPT4-CPR-1VR-BRN A-175 G 975 1 1/2 B-63 FPT4-CPR-1VR-BRN A-175 G 975 1 1/2 B-63 F					G 1501 T		B-69
PPT3-2P-2C-SHS. A-178							
FPT3-CVR-ALM			FPT4-CCH-2P	A-1/6			
PPT3-CVR-BGE							
PT13-CVR-BLK							
PT3-CVR-BRN							
FPT3-CVR-BRN							
PFT3-CVR-GRY							
FPT-400B							
FPT-4018			FPT4-CPA-4SYS	A-177			
FPT-40IA							
FPT-408A A-183 FPT4-CPB-IMMAP A-177 G 960 B-60 FPT-4-16 A-183 FPT4-CPB-2KEY A-177 G 962 1 B-61 FPT4-1TL21-2C A-176 FPT4-CPB-2PAN A-177 G 966 B-9, B-61 FPT4-1TL21-2C-C A-184 FPT4-CPB-2PAN A-177 G 967 B-9, B-62 FPT4-1TL22-2C-C A-176 FPT4-CPB-BLANK A-177 G 968 B-62 FPT4-1TL22-2C-C A-184 FPT4-CPB-BLANK A-177 G 969A B-62 FPT4-1TL2C-C A-185 FPT4-CPB-BLANK A-175 G 969A B-62 FPT4-1TL31-2C A-185 FPT4-CPB-BLANK A-175 G 972 1/2 B-58, B-62 FPT4-1TL31-2C A-176 FPT4-CPR-TALM A-175 G 972 1/2 B-58, B-62 FPT4-1TL31-2C-C A-184 FPT4-CVR-TBEK A-175 G 972 L 1/2 B-63 FPT4-1TL32-2C-C A-184 FPT4-CVR-TBEN A-175 G 973 1 1/2 B-63 FPT-421 A-184 FPT-CACP-AL A-17							
FPT-4-16							
FPT4-1TL21-2C-C							
FPT4-1TL21-ZC-C			FPT4-CPB-20RT	A-177			
FPT4-1TL22-2C-C	FPT4-1TL21-2C-C	A-184	FPT4-CPB-2PAN	A-177	C 067	D-岁, [D O I	D-01
FPT4-1TL2C			FPT4-CPB-2SYS	A-177			
FPT4-1TL-2C	FPT4-1TL22-2C-C	A-184	FPT4-CPB-BLANK	A-177			
FPT4-1TL31-2C-C			FPT4-CVR-TALM	A-175			
FPT4-1TL31-2C-C A-184 FPT4-CVR-TBLK A-175 G 972 L 1/2 B-63 FPT4-1TL32-2C A-176 FPT4-CVR-TBRN A-175 G 973 L 1/2 B-62 FPT4-1TL32-2C-C A-184 FPT4-CVR-TBRS A-175 G 973 L 1/2 B-63 FPT-421 A-183 FPT-CACP A-179 G 973 L 1/4 B-63 FPT-422A A-183 FPT-CACP-AL A-179 G 974 L 1/4 B-63 FPT-424 A-183 FRPV-1000-8-C C-52 G 975 L 0 B-64 FPT-425 A-183 FRPV-1000-8-D C-52 G 975 M 10 B-64 FPT4-2P-6C A-175, A-185 FSC-12 A-104 G 975 M 20 B-64 FPT4-2P-6C A-184 FSC-12 A-104 G 975 M 20 B-64	FPT4-1TL31-2C	A-176	FPT4-CVR-TBGE	A-175	G 972 1/2	B-၁४, t	B-02
FPT4-1TL32-2C-C							
FPT4-1TL32-2C-C A-184 FPT4-CVR-TBRS A-175 G 973 1 1/2 B-63 FPT-421 A-183 FPT-CACP A-179 G 973 2 1/4 B-63 FPT-422A A-183 FPT-CACP-AL A-179 G 974 1 1/4 B-63 FPT-424 A-183 FRPV-1000-8-C C-52 G 975 10 B-64 FPT-425 A-183 FRPV-1000-8-D C-52 G 975 20 B-64 FPT4-2P-6C A-175, A-185 FSC-12 A-104 G 975 M 10 B-64 FPT4-2P-6C A-184 FSC-12 A-104 G 975 M 20 B-64	FPT4-1TL32-2C	A-176	FPT4-CVR-TBRN	A-175			
FPT-421 A-183 FPT-CACP A-179 G 973 2 174 B-63 FPT-422A A-183 FPT-CACP-AL A-179 G 974 1 1/4 B-63 FPT-424 A-183 FRPV-1000-8-C C-52 G 975 10 B-64 FPT-425 A-183 FRPV-1000-8-D C-52 G 975 20 B-64 FPT4-2P-6C A-175, A-185 FSC-12 A-104 G 975 M 10 B-64 FPT4-2P-6C A-184 FSC-24 A-104 G 975 M 20 B-64							
FPT-422A A-183 FPT-CACP-AL A-179 G 974 1 74 B-63 FPT-424 A-183 FRPV-1000-8-C C-52 G 975 10 B-64 FPT-425 A-183 FRPV-1000-8-D C-52 G 975 20 B-64 FPT4-2P-6C A-175, A-185 FSC-12 A-104 G 975 M 10 B-64 FPT4-2P-6C A-184 FSC-24 A-104 G 975 M 20 B-64							
FPT-424							
FPT-425							
FPT4-2P-6C							
EDTA 2D 6C C A 10A EQC 2A A 10A G 9/3 W 2U							
G 976B-64							
	1117 21 00 0	104	100 07	A 104	G 976	E	B-64

CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.
G 977			B-64		B-377
G 978			B-65		B-377
G 978A			A-125, A-195		B-377
G 979 1/2			A-125, A-195		B-377
G1			A-125, A-195		A-57
G-1012			A-55		A-57
G-1013-1/2			A-55		A-58
G-1016			A-55		A-57
G-1038-D			A-55		A-57
G-1060			A-55		A-57
G-1870X			A-55		A-57
G-1871T			A-55		A-57
G-1872L			A-55	GW 435 G	A-57
G-1873S			A-55		A-57
G2005			A-62		A-57
G2006		GO-23	A-80		A-57
G2007			A-80		A-57
G2008			C-58		Н
G-3000X			C-58	H 122 1/2	B-14, B-75, B-112
G-3001T			C-58	H 199 1/2 FC	B-14, B-75, B-112
G-3002L	B-70	GRNY-052-9-C	C-58	11 122 1/2 EU	B-14, B-75, B-112
G3003S	B-10	GRNY-062-0-C	C-58		B-14, B-75, B-112
G-3003S	B-10, B-70	GRNY-062-9-C	C-58		
G-953	B-58, B-59	GRNY-085-0-C	C-58		B-14, B-75, B-112
G-955	B-58, B-59	GRNY-085-9-C	C-58		B-14, B-75, B-112
G-956	B-58, B-59	GRNY-100-0-C	C-58	П 122 3/0	B-14, B-75, B-112
G957	B-10	GRNY-100-9-C	C-58		B-14, B-75, B-112
G-962-2			C-58		B-14, B-75, B-112
G-962-3	B-61	GRNY-125-9-C	C-58		B-115
G-962-4	B-61	GRNY-187-0-C	C-58		B-73, B-117
G-962-D-1	B-46, B-61	GRNY-187-9-C	C-58		B-73, B-117
G-962-D-2	B-46, B-61	GRNY-250-0-C	C-58		B-73, B-117
G-962-D-3		GRNY-250-9-C	C-58		B-73, B-117
G-962-D-4			C-58		B-73, B-117
G-963-1			C-58		B-73, B-117
G-963-2		GRPE-062-9-C	C-58		B-73, B-117
G-965		GRPE-085-9-C	C-58		B-73, B-117
G-969AP					B-73, B-117
G-972-3/4					B-73, B-117
G-973-2-1/4			C-58		B-73, B-117
G-974-1			C-58		B-73, B-117
G-974-1/2			A-62		B-73, B-117
G-974-1-1/2			A-62		B-73, B-117
G-974-1-1/4			A-62		B-73, B-117
G-974-3/4			A-62		B-73, B-117
G-975			A-62		B-73, B-117
G-975-M			A-62		B-73, B-117
G978			A-62		B-73, B-117
G978A			A-62		B-73, B-117
G-978-AL					B-73, B-117
G978C					B-73, B-117
G978-D					B-73, B-117
G-978-D					B-73, B-117
5 57 5 IIIIIIIIIII		3311 102 0 0 111111111	0 01	H-104-1	B-193

CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.
	B-193		B-74		A-301
	B-193		B-74		A-301
	B-193		A-52		A-301
	B-193		A-52		A-301
	B-193		A-52		A-301
H-104-7/8	B-193		A-56		A-301
H-111-B	B-58	H-54561-3/4	A-56	HH4X4C-2000	A-343
H-115	B-219	H-550	B-45, B-77		A-301
H115 5	B-74		A-52		A-301
	B-74	H6BD 3/4 1	A-52	HJ4X4C-2000	A-343
	B-74	H-802	B-186	HLA2020	A-311
H-115-1	B-74, B-163	H-804	B-186	HLA2030	A-311
	B-74, B-163	H804 NEOP WH	B-198	HLA3020	A-311
	B-74, B-163	H-805	B-186	HLA3030	A-311
H-115-1-1/4	B-74, B-163	H-809	B-186	HLA30402	A-311
	B-74, B-163	HAR 1224	B-374		A-311
	B-74, B-163		B-374		A-311
	B-74, B-163		A-106		A-311
H-115-3/4	B-74, B-163		A-106		A-311
	B-74, B-163		A-106		A-311
	B-74, B-163		A-106		A-311
	B-58		A-56		A-311
	B-30		A-56		A-313
	B-58		A-56		A 313
	B-193		C-54		A-313
	B-74		C-54		A-313
	B-74		C-54		A-313
	B-74		C-54		A-313
	B-74		A-305		A-315
	B-117 B-117		A-305		A-315 A-315
			A-305		
	B-117		A-305		A-315
	B-117		A-305		A-315
	B-117		A-343		A-315
	B-117		A-343		A-315
	B-117		A-301		A-315
	B-117		A-301		A-315
	B-117		A-301		A-315
	B-117		A-301		A-315
111 10 0/011111111111111	B-117		A-301		A-315
	B-117		A-301		A-315
	B-117		A-301		A-315
	B-74		A-301		A-311
	B-110, B-183, B-199,		A-301		A-311
	B-201, B-203, B-205,		A-301		A-311
	B-207, B-209, B-211		A-301		A-311
	B-111		A-301		A-311
	B-111		A-301		A-311
	B-199, B-202, B-204,		A-301		A-311
	B-206, B-208, B-210		A-301		A-311
H-134-S	B-76	HH15C9C	A-301	HLS40502	A-311
H16V18S	A-13	HH15D9	A-301	HLS5020	A-311
H-193-1/4	B-30	HH15D9C	A-301	HLS5030	A-311

CAT. NO. HLS50402	PAGE NO. A-311	CAT. NO. HS11A9C	PAGE NO. A-301	CAT. NO. IH3-2-LM	PAGE NO. A-231
	A-305–A-308		A-301, A-302		A-231
	A-305–A-308		A-301		A-231
	A-307		A-301		A-231
	A-305–A-308		A-301		A-231
	A-305–A-308		A-301		A-231
	A-305–A-308		A-301, A-302		A-231
	A-307		A-301		A-231
	A-307		A-301		A-231
	A-309		A 301		A-231
	A-307		A-301		A 231
	A-307		A-301, A-302		A 231
	A-307		A-301, A-301		A-231
	A-308		A-301		A-233
	A-308		A-301		A-233
	A-308		A-301		A-232
			A-301, A-302		A-232
	A-308 A-308				A-232
			A-301		
	A-308		A-301		A-232 A-232
	A-308		A-301, A-302		
	A-308		A-301		A-232
	A-308		A-301		A-232
	A-308		A-301		A-232
	A-308		A-301		A-232
	A-308		A-301, A-302		A-232
	A-307		A-301		A-232
	A-307		A-301		A-233
	A-307		A-301, A-302		A-233
	A-307		A-301		A-233
	A-309		A-301		A-233
	A-307		A-301, A-302		A-231
	A-309		B-146		J
	A-309		B-146	.1 800 8	B-79
	A-308		B-146		B-84
HPTPLM	A-309		B-146		B-80
	A-297, A-303, A-308, A-313		B-146		B-80
	A-297, A-303, A-309, A-313		B-146		B-80
HPVM35	A-297, A-303, A-309, A-313		B-146		B-80
	A-307		B-146		B-81
HS100	B-146	HS909	B-146		B-81
	B-146		B-146		B-81
HS102	B-146	HSCH	A-302		B-84
HS103	B-146	HSMFSS	A-302		B-82
HS104	B-146	HSMFZ	A-302		B-82
HS105	B-146	HSTS4	A-302		
HS106	B-146	HSTS6	A-302		B-82
HS107	B-146	HVM27	. A-297, A-303, A-309, A-313		B-83
	B-146		I		B-83
	B-146	III. 4	-		B-83
	B-146		A-233		A-292
	A-301		A-233		A-288
	A-301		A-231		A-292
	A-301		A-231		A-288
		IH3-2	A-231	J14126P	A-292

CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.
J16147P			A-276–A-283, A-296	KCPC250	
J665P	A-292		A-276–A-283, A-296	KCPC300	
J665W			A-276–A-283, A-285,	KCPC350	
J-800-10			A-286, A-292, A-296	KCPC400	B-33, B-138
J-800-12		JP108P	A-276–A-283, A-285,	KPR-15G-BRS	A-209
J-800-14	B-79	A-28	6, A-288, A-292, A-296	KPR-15G-BRZ	A-209
J-800-16	B-79		A-276–A-283, A-285,	KPR-15G-NKL	A-209
J-800-18	B-79	A-28	6, A-288, A-292, A-296	L L-11-120-0-C	
J-800-20	B-79	JP1210P	A-276–A-283, A-285,	- I 11 100 0 C	C CO
J-800-22	B-79	A-28	6, A-288, A-292, A-296	L-11-120-9-C	
J-800-24	B-79	JP1212	A-276–A-283, A-296	L-11-40-0-C	
J-800-26	B-79	JP1212P	A-276–A-283, A-296		
J-800-28			A-276–A-283, A-285,	L-11-40-0-M	
J-800-30	B-79		6, A-288, A-292, A-296	L-11-40-9-C	
J-800-32			A-276–A-283, A-285,	L-11-40-9-M	
J-800-34			6, A-288, A-292, A-296	L-11-50-0-C	
J-800-36			A-277, A-279	L-11-50-0-D	
J-800-38			A-276–A-283, A-285,	L-11-50-9-C	
J-800-40			6, A-288, A-292, A-296	L-11-50-9-D	
J-800-42			A-276–A-283, A-285,	L-14-120-0-C	
J-800-44		Δ-28	6, A-288, A-292, A-296	L-14-120-9-C	
J-800-46			A-276–A-283, A-296	L-14-40-0-C	
J-800-48			A-276–A-283, A-296	L-14-40-0-M	
J-800-50			A-276–A-283, A-285,	L-14-40-9-C	
				L-14-40-9-M	C-63
J-800-52			6, A-288, A-292, A-296	L-14-50-0-C	C-63
J-800-54			A-276–A-283, A-285,	L-14-50-0-D	C-63
J-800-56			6, A-288, A-292, A-296	L-14-50-9-C	C-63
J-800-58			A-276–A-283, A-285,	L-14-50-9-D	C-63
J-800-60			6, A-288, A-292, A-296	L-18-120-0-L	
J-800-62			A-276–A-283, A-285,	L-18-120-9-L	
J-800-64			6, A-288, A-292, A-296	L-24-120-0-L	
J-800-68			A-276–A-283, A-296	L-24-120-0-Q	
J-800-72		JP88P	A-276–A-283, A-296	L-24-120-2-L	
J-800-76			K	L-24-120-9-L	
J-800-80		K330	A-245	L-24-120-9-Q	
J-800-84			A 245	L-24-175-0-L	
J-860-12			A-245	L-24-175-9-L	
J-860-9			A-245	L-28-120-0-L	
J-861-12			A-241	L-28-120-9-L	
J-861-14	B-81		A-241	L-28-250-0-L	
J-861-15	B-81			L-36-175-0-L	
J-861-16	B-81		A-241		
J-861-18			A-248	L-36-175-9-L	
J-863-12			A-248	L-4-18-0-C	
J-863-15			A-249	L-4-18-0-M	
J-863-18			A-249	L-4-18-9-C	
J-863-9			A-249	L-4-18-9-M	
J863P			A-249	L-48-175-0-L	
J863W			B-33, B-138	L-48-175-8-L	
J-867-2			B-33, B-138	L-48-175-9-L	
J-867-3			B-33, B-138	L-5-30-0-C	
J-870-2			B-33, B-138	L-5-30-0-M	
J-870-3			B-33, B-138	L-5-30-9-C	
U-U1 U-U	ม-ขง	KCPC200	B-33, B-138	L-5-30-9-M	C-63



Catalog Number Index

CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.
L-6-18-9-M		LKCPC150			D-24
L-7-50-0-C		LKCPC200			D-24
L-7-50-0-M		LKCPC250			D-24
L-7-50-9-C		LKCPC300			D-24
L-7-50-9-M		LKCPC350			D-24
L-7-50MH-0-C		LKCPC400		LT-56A	D-24
L-7-50MH-0-M	C-64	LL2506	B-378	LT-57A	D-24
L-7-50MH-9-C	C-64	LL306	B-378	LT-58A	D-24
L-7-50MH-9-M	C-64	LM	A-232	LT-59A	D-24
L-80	A-241	LP2020BP	A-312	LT9E	A-119
L-800	A-241	LP3020BP	A-312	LT9F	A-119
L-80-D	A-241	LP3030BP			A-28
L-8-120-0-C		LP4020BP			A-261, A-262
L-8-18-0-C		LP4030BP			A-261, A-262
L-8-18-0-M		LP40402BP			A-22
L-8-18-9-C		LP40502BP			A-22
L-8-18-9-M		LP5020BP			A-19
L-8-40-0-C		LP5030BP			A-19
L-8-40-0-M		LP50402BP			A-22
L-8-40-9-C		LS-4.6-200A			A-22
L-8-40-9-M					A-6, A-22
		LS-4.6-200B			
LA1412BP		LS-4.6-200-C			A-19
LA1816BP		LS-4.6-260A			A-19
LA1916BP		LS-4.6-260B			A-19
LA2020BP		LS-4.6-260-C			A-6, A-19
LA2725BP		LS-4.6-360A			A-19
LA3020BP	Λ-312	1 C 1 E 2 E D D	C 00 C 10	1 V\\\\\\ \\\	Λ ΛΛ
			C-32, C-40		A-20
LA3030BP	A-312	LS-4.6-360-C			A-20
LA3030BP LA30402BP	A-312 A-312	LS-4.6-360-C LS-4.6-520A	C-31, C-40 C-32, C-40	LXWV-25	A-19
LA3030BP	A-312 A-312	LS-4.6-360-C LS-4.6-520A LS-4.6-520B	C-31, C-40 C-32, C-40 C-32, C-40	LXWV-25	A-19 M
LA3030BP LA30402BP LA4020BP LA4030BP	A-312 A-312 A-312 A-312	LS-4.6-520A LS-4.6-520B LS-4.6-520-C		LXWV-25 M-117	M A-19 B-219
LA3030BP LA30402BP LA4020BP	A-312 A-312 A-312 A-312	LS-4.6-360-C LS-4.6-520A LS-4.6-520B LS-4.6-520-C LS-4.6-680A		M-117 M-117-1/2	M B-219 B-179
LA3030BP LA30402BP LA4020BP LA4030BP	A-312 A-312 A-312 A-312	LS-4.6-520A LS-4.6-520B LS-4.6-520-C		M-117 M-117-1/2 M-117-1/4	M B-219 B-179 B-179
LA3030BP LA30402BP LA4020BP LA4030BP LA40402BP		LS-4.6-360-C LS-4.6-520A LS-4.6-520B LS-4.6-520-C LS-4.6-680A		M-117 M-117-1/2 M-117-1/4 M-117-3/4	M B-219 B-179 B-179 B-179 B-179
LA3030BP	A-312 A-312 A-312 A-312 A-312 A-312 A-312 A-312	LS-4.6-360-C		M-117 M-117-1/2 M-117-1/4 M-117-3/4 M-117-3/8	M B-219 B-179 B-179 B-179 B-179 B-179
LA3030BP	A-312 A-312 A-312 A-312 A-312 A-312 A-312 A-312 A-312	LS-4.6-360-C		M-117 M-117-1/2 M-117-1/4 M-117-3/4 M-117-3/8 M-117-5/8	M B-219 B-179 B-179 B-179 B-179 B-179 B-179 B-179
LA3030BP	A-312 A-312 A-312 A-312 A-312 A-312 A-312 A-312 A-312 A-312 A-312	LS-4.6-360-C		M-117 M-117-1/2 M-117-1/4 M-117-3/4 M-117-3/8 M-117-5/8 M-117-7/8	M B-219 B-179 B-179 B-179 B-179 B-179 B-179 B-179 B-179
LA3030BP	A-312 A-312 A-312 A-312 A-312 A-312 A-312 A-312 A-312 A-312 D-30	LS-4.6-360-C		M-117 M-117-1/2 M-117-1/4 M-117-3/4 M-117-5/8 M-117-7/8 M-129-1/2	M B-219 B-179 B-179 B-179 B-179 B-179 B-179 B-179 B-179 B-179 B-165
LA3030BP LA30402BP LA4020BP LA4030BP LA40402BP LA40502BP LA5020BP LA5030BP LA50402BP LB86860	A-312 A-312 A-312 A-312 A-312 A-312 A-312 A-312 A-312 D-30 D-30	LS-4.6-360-C		M-117 M-117-1/2 M-117-1/4 M-117-3/4 M-117-3/8 M-117-5/8 M-117-7/8 M-129-1/2	M B-219 B-179 B-179 B-179 B-179 B-179 B-179 B-179 B-179 B-165 B-165
LA3030BP LA30402BP LA4020BP LA4030BP LA40402BP LA40502BP LA5020BP LA5030BP LA50402BP LB86860 LB86861 LB86871	A-312 A-312 A-312 A-312 A-312 A-312 A-312 A-312 A-312 D-30 D-30 D-30	LS-4.6-360-C		M-117 M-117-1/2 M-117-1/4 M-117-3/4 M-117-3/8 M-117-5/8 M-117-7/8 M-129-1/2 M-129-3/4	M B-219 B-179 B-179 B-179 B-179 B-179 B-179 B-179 B-165 B-165 B-165
LA3030BP LA30402BP LA4020BP LA4030BP LA4030BP LA40502BP LA5020BP LA5030BP LA50402BP LB86860 LB86861 LB86871 LB86877	A-312 A-312 A-312 A-312 A-312 A-312 A-312 A-312 A-312 D-30 D-30 D-30 D-30	LS-4.6-360-C		M-117	A-19 M B-219 B-179 B-179 B-179 B-179 B-179 B-165 B-165 B-165 B-165
LA3030BP LA30402BP LA4020BP LA4030BP LA4030BP LA40502BP LA5020BP LA5030BP LA50402BP LB86860 LB86861 LB86871 LB86877 LC-11	A-312 A-312 A-312 A-312 A-312 A-312 A-312 A-312 A-312 D-30 D-30 D-30 D-30 A-240	LS-4.6-360-C		M-117	M B-219 B-179 B-179 B-179 B-179 B-179 B-179 B-165 B-165 B-165 B-165 B-165 B-165
LA3030BP LA30402BP LA4020BP LA4030BP LA40402BP LA40502BP LA5020BP LA5030BP LA50402BP LB86860 LB86861 LB86871 LB86877 LC-11 LC-21	A-312 A-312 A-312 A-312 A-312 A-312 A-312 A-312 A-312 D-30 D-30 D-30 D-30 A-240 A-240 A-240	LS-4.6-360-C		M-117	M B-219 B-179 B-179 B-179 B-179 B-179 B-179 B-165 B-165 B-165 B-165 B-165 B-165 B-165 B-165 B-165 B-165 B-165 B-165 B-165 B-165 B-165
LA3030BP LA30402BP LA4020BP LA4030BP LA40402BP LA40502BP LA5020BP LA5030BP LA50402BP LB86860 LB86861 LB86871 LB86877 LC-11 LC-21 LC-31	A-312 A-312 A-312 A-312 A-312 A-312 A-312 A-312 A-312 D-30 D-30 D-30 D-30 A-240 A-240 A-240 A-240	LS-4.6-360-C		M-117 M-117-1/2 M-117-1/4 M-117-3/4 M-117-5/8 M-117-7/8 M-129-1/2 M-129-3/4 M-129-3/8 M-129-5/8 M-129-7/8 M-718-1	A-19 M B-219 B-179 B-179 B-179 B-179 B-179 B-179 B-165 B-165 B-165 B-165 B-165 B-165 B-165 B-165 B-165 B-165 B-165 B-165 B-165 B-165 B-165 B-165 B-165 B-165
LA3030BP LA30402BP LA4020BP LA4030BP LA40402BP LA40502BP LA5020BP LA5030BP LA50402BP LB86860 LB86861 LB86871 LB86877 LC-11 LC-21 LC-21 LC-31 LCLE-25	A-312 A-312 A-312 A-312 A-312 A-312 A-312 A-312 A-312 D-30 D-30 D-30 D-30 A-240 A-240 A-240 A-19	LS-4.6-360-C		M-117 M-117-1/2	A-19 M B-219 B-179 B-179 B-179 B-179 B-179 B-179 B-165 B-165 B-165 B-165 B-165 B-165 B-165 B-165 B-165 B-165 B-165 B-165 B-165 B-165 B-165 B-165 B-165
LA3030BP LA30402BP LA4020BP LA4030BP LA40402BP LA40502BP LA5020BP LA5030BP LA50402BP LB86860 LB86861 LB86871 LB86877 LC-11 LC-21 LC-31 LCLE-25 LCN0W-25	A-312 A-312 A-312 A-312 A-312 A-312 A-312 A-312 A-312 D-30 D-30 D-30 D-30 A-240 A-240 A-240 A-19 A-19	LS-4.6-360-C		M-117 M-117-1/2	M B-219 B-179 B-179 B-179 B-179 B-179 B-179 B-179 B-165 B-165 B-165 B-165 B-165 B-165 B-165 B-165 B-165 B-165 B-165 B-165 B-165 B-165 B-165 B-165
LA3030BP LA30402BP LA4020BP LA4030BP LA40402BP LA40502BP LA5020BP LA5030BP LA50402BP LB86860 LB86861 LB86871 LC-11 LC-21 LC-31 LCLE-25 LCN0W-25 LC0W-25	A-312 A-312 A-312 A-312 A-312 A-312 A-312 A-312 A-312 D-30 D-30 D-30 D-30 A-240 A-240 A-240 A-19 A-19 A-19	LS-4.6-360-C		M-117	M B-219 B-179 B-179 B-179 B-179 B-179 B-179 B-179 B-165 B-165 B-165 B-165 B-165 B-165 B-165 B-165 B-165 B-165 B-165 B-165 B-165 B-165 B-165 B-165 B-165
LA3030BP LA30402BP LA4020BP LA4030BP LA40402BP LA40502BP LA5020BP LA5030BP LA50402BP LB86860 LB86861 LB86871 LB86877 LC-11 LC-21 LC-31 LCLE-25 LCNOW-25 LCOWC	A-312 A-312 A-312 A-312 A-312 A-312 A-312 A-312 A-312 A-312 A-312 A-310 D-30 D-30 D-30 D-30 A-240 A-240 A-240 A-240 A-19 A-19 A-19 A-19 A-19	LS-4.6-360-C		M-117 M-117-1/2	M B-219 B-179 B-179 B-179 B-179 B-179 B-179 B-179 B-165 B-165 B-165 B-165 B-165 B-165 B-165 B-165 B-165 B-165 B-165 B-165 B-165 B-165 B-165 B-165 B-165 B-165
LA3030BP LA30402BP LA4020BP LA4030BP LA40402BP LA40502BP LA5020BP LA5030BP LA50402BP LB86860 LB86861 LB86871 LB86877 LC-11 LC-21 LC-31 LCLE-25 LCNOW-25 LCOWC LCV-25	A-312 A-312 A-312 A-312 A-312 A-312 A-312 A-312 A-312 A-312 A-310 D-30 D-30 D-30 D-30 A-240 A-240 A-240 A-240 A-19 A-19 A-19 A-19 A-19 A-19 A-19	LS-4.6-360-C		M-117	M B-219 B-179 B-179 B-179 B-179 B-179 B-179 B-179 B-165 B-165 B-165 B-165 B-165 B-165 B-165 B-158 B-158 B-158 B-158 B-158 B-158 B-158 B-158 B-158 B-158
LA3030BP LA30402BP LA4020BP LA4030BP LA40402BP LA40502BP LA5020BP LA5030BP LA50402BP LB86860 LB86861 LB86871 LB86877 LC-11 LC-21 LC-31 LCLE-25 LCNOW-25 LCOWC LCV-25 LG-80	A-312 A-312 A-312 A-312 A-312 A-312 A-312 A-312 A-312 D-30 D-30 D-30 D-30 A-240 A-240 A-240 A-19 A-19 A-19 A-19 A-19 A-19 A-19 A-241	LS-4.6-360-C		M-117	M B-219 B-179 B-179 B-179 B-179 B-179 B-179 B-179 B-165 B-165 B-165 B-165 B-165 B-165 B-165 B-158 B-158 B-158 B-158 B-158 B-158 B-158 B-158 B-158 B-158 B-158 B-158 B-158
LA3030BP LA30402BP LA4020BP LA4030BP LA4030BP LA40502BP LA5020BP LA5030BP LA50402BP LB86860 LB86861 LB86871 LC-11 LC-21 LC-31 LCLE-25 LCN0W-25 LCOWC LCV-25 LG-80 LKCPC050	A-312 A-312 A-312 A-312 A-312 A-312 A-312 A-312 A-312 A-312 D-30 D-30 D-30 D-30 A-240 A-240 A-240 A-19 A-19 A-19 A-19 A-19 A-19 A-19 A-19	LS-4.6-360-C		M-117	M B-219 B-179 B-179 B-179 B-179 B-179 B-179 B-179 B-165 B-165 B-165 B-165 B-165 B-165 B-165 B-158 B-158 B-158 B-158 B-158 B-158 B-158 B-158 B-158 B-158
LA3030BP LA30402BP LA4020BP LA4030BP LA40402BP LA40502BP LA5030BP LA5030BP LA50402BP LB86860 LB86861 LB86871 LC-11 LC-21 LC-31 LCLE-25 LCN0W-25 LCOWC LCV-25 LG-80 LKCPC050 LKCPC075	A-312 A-312 A-312 A-312 A-312 A-312 A-312 A-312 A-312 A-312 A-312 A-310 D-30 D-30 D-30 D-30 A-240 A-240 A-240 A-19 A-19 A-19 A-19 A-19 A-19 A-19 A-19	LS-4.6-360-C		M-117	M B-219 B-179 B-179 B-179 B-179 B-179 B-179 B-179 B-165 B-165 B-165 B-165 B-165 B-165 B-165 B-158 B-158 B-158 B-158 B-158 B-158 B-158 B-158 B-158 B-158 B-158 B-158 B-158
LA3030BP LA30402BP LA4020BP LA4030BP LA40402BP LA40502BP LA5030BP LA5030BP LA50402BP LB86860 LB86861 LB86871 LC-11 LC-21 LC-31 LCLE-25 LCN0W-25 LCOWC LCV-25 LG-80 LKCPC050 LKCPC075 LKCPC100	A-312 A-312 A-312 A-312 A-312 A-312 A-312 A-312 A-312 A-312 D-30 D-30 D-30 D-30 A-240 A-240 A-240 A-19 A-19 A-19 A-19 A-19 A-19 A-19 A-19	LS-4.6-360-C LS-4.6-520A LS-4.6-520B LS-4.6-520B LS-4.6-680A LS-4.6-680B LS-4.6-680B LS-4.6-840A LS-4.6-840B LS-7.9-1010A LS-7.9-1010B LS-7.9-200A LS-7.9-200B LS-7.9-200B LS-7.9-360A LS-7.9-360B LS-7.9-360B LS-7.9-520A LS-7.9-520B LS-7.9-520B LS-7.9-520B LS-7.9-520B LS-7.9-520B LS-7.9-520B LS-7.9-680A LS-7.9-680B LS-7.9-680B LS-7.9-680B LS-7.9-680B LS-7.9-680B LS-7.9-680B LS-7.9-840B		M-117	M B-219 B-179 B-179 B-179 B-179 B-179 B-179 B-179 B-165 B-165 B-165 B-165 B-165 B-165 B-158
LA3030BP LA30402BP LA4020BP LA4030BP LA4030BP LA40502BP LA5020BP LA5030BP LA50402BP LB86860 LB86861 LB86871 LC-11 LC-21 LC-31 LCLE-25 LCN0W-25 LCOWC LCV-25 LG-80 LKCPC050 LKCPC075	A-312 A-312 A-312 A-312 A-312 A-312 A-312 A-312 A-312 A-312 D-30 D-30 D-30 D-30 A-240 A-240 A-240 A-19 A-19 A-19 A-19 A-19 A-19 A-19 A-19	LS-4.6-360-C		M-117	M B-219 B-179 B-179 B-179 B-179 B-179 B-179 B-179 B-165 B-165 B-165 B-165 B-165 B-158

CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.
M-732 EXT		MGR12JT-2500		N6NY-004C-0-M	
M-732-EXT-1/2	B-169	MGR12JT-5000	A-347	N6NY-004C-9-M	
M-732-EXT-3/4	B-169	MGR12RJT	A-347	N6NY-005C-0-M	C-53
M-732-EXT-3/8	B-169	MPNY-1000-0-C	C-65	N6NY-005C-9-M	C-53
M-732-EXT-5/8	B-169	MPNY-1000-9-C	C-65	N6NY-006C-0-M	
M-732-EXT-7/8		MPNY-750-9-C		N6NY-006C-9-M	C-53
M-732-H		MPNY-750-9-D		N6NY-007C-0-M	
M-732-H-1		MSNY-166-0-M		N6NY-007C-9-M	
M-732-H-2		MSNY-187-0-M		N6NY-008C-0-M	
M-732-H-3		MT-718		N6NY-008C-9-M	
M-732-H-4		MT-718-1		N6NY-009-0-M	
M-732-H-5		MT-718-1/2		N6NY-009-9-M	
M-732-H-6		MT718-1/4		N6NY-010-0-M	
M-732-H-7		MT-718-1-1/2		N6NY-010-9-M	
M-732-H-8		MT-718-1-1/4		N6NY-011-0-M	
M-742-R-1/2		MT-718-2		N6NY-011-9-M	
M-742-R-3/8		MT-718-2-1/2		N6NY-012-0-M	
M-750		MT-718-3		N6NY-012-9-M	
M-750-1/2		MT-718-3/4		N6NY-013-0-M	
				N6NY-013-9-M	
M-750-3/8		MT-718-3/8			
M-750-5/8		MT-718-5/8		N6NY-014-0-M	
M-762-1/2			N .	N6NY-014-9-M	
M-762-1/4		N1-710-M	A-70	N6NY-016-0-M	
M-762-3/8		N-205		N6NY-016-9-M	
M-775-L		N2-1614-MNC		N6NY-018-0-D	
M-775L-1/2		N2-1614-RNC	A-72	N6NY-018-9-D	
M-775L-3/4		N-219	B-119, B-197	N6NY-019-0-D	
M-775L-3/8		N-321-C		N6NY-019-9-D	
M-775L-5/8		N-321-C-94		N6NY-020-0-D	
M-777		N-321-C-95		N6NY-020-9-D	
M-778		N-321-GC		N6NY-022-0-D	
MA2GC		N-321-GC-94		N6NY-022-9-D	
MB120ADJ		N-321-GC-95		N6NY-024-0-D	
MB-18	A-71	N-423-C-94-V		N6NY-024-9-D	C-53
MB-18-FS		N-423-C-95-V		NA-0200	
MB238ADJ	A-18	N-423-C-V		NA-0201	D-40
MBP	A-58	N-423-GC-94-V		NA-0202	D-40
MBPS	A-57			NA-0203	D-40
MCNY-1250-9-C	C-65	N-423-GC-95-V		NA-0204	D-40
MCNY-1250-9-D		N-423-GC-V		NA-0250	D-40
MGP08MT-1000		N4NY-002-0-M		NA-0253	
MGP08MT-2500		N4NY-002-9-M		NA-0254	
MGP08MT-5000		N4NY-003-0-M		NA-0256	
MGP08RMT		N4NY-003-9-M		NA-0257	
MGP12MT-1000		N4NY-004-0-M		NA-0258	
MGP12MT-2500		N4NY-004-9-M		NA-0261	
MGP12MT-5000		N4NY-005-0-M		NA-0267	
MGP12RMT		N4NY-005-9-M		NA-0365	
MGR08JT-1000		N4NY-006-0-M		NA-0600	
MGR08JT-2500		N4NY-006-9-M		NA-0601	
MGR08JT-5000		N4NY-007-0-M		NA-0602	
MGR08RJT		N4NY-007-9-M	C-53	NA-0603	
MGR12JT-1000		N4NY-008-0-M	C-53	NA-0605	
IVIUN 1 2 J 1 - 1 UUU	A-347	N4NY-008-9-M	C-53	NA-0000	



Catalog Number Index

CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.
NA-0606			B-92		A-280–A-282
NA-0608			B-92		A-280, A-282
NA-0609			B-92		A-106
NA-0700			B-92		B-93
NA-0701			B-92		B-93
NA-0702			B-92		A-85
NA-0703			B-92		A-85
NA-0706			B-92		A-85
NA-0708			B-92		B-91
NA-0709			B-93		A-278, A-279, A-283
NA-1121			A-293		A-278, A-283
NA-1122			A-293		A-278, A-283
NA-1123			A-293		A-278, A-279, A-283
NA-1124			A-280–A-282		A-278, A-279, A-283
NA-1125			A-280, A-282		A-278, A-283
NA-1126			B-92		A-278, A-283
NA-1127			B-92		B-93
NA-1128			B-92		B-93
NA-1129	D-39		B-92	NH-113-P	B-93
NA-1130	D-39	NC-105-2	B-92	NH-113-U	B-93
NA-1131	D-39	NC-105-3	B-92	NH-114C	B-93
NAF-0600	D-40	NC-105-3/4	B-92	NH-114-D	B-93
NAF-0601	D-40	NC-105-4	B-92	NH-116C	B-93
NAF-0602	D-40	NC-105-6	B-92	NH-116-D	B-93
NAF-0603			A-280–A-282		B-93
NAF-0604		NC1086	A-280–A-282	NH-117-C	B-93
NAF-0605	D-40	NC108L	A-280, A-282	NH-117-D	B-93
NAF-0606	D-40		A-280 ⁻ A-282		B-93
NAF-0607	D-40	NC12126	A-280–A-282		B-93
NAF-0608	D-40	NC1212L	A-280, A-282	NH-119-D	B-93
NAF-0609			A-280–A-282		B-93
NAF-0700			A-280, A-282		A-278, A-279, A-283
NAF-0701			B-92		A-278, A-283
NAF-0702			B-92		A-278, A-283
NAF-0703			B-92	NH12126	A-278, A-279, A-283
NAF-0704			B-92		A-278, A-283
NAF-0705			B-92		A-278, A-283
NAF-0706			B-92		A-278, A-279, A-283
NAF-0707			B-92		A-278, A-283
NAF-0708			B-92		A-278, A-283
NAF-0709			B-92		A-278, A-279, A-283
NB 900 10 P			B-92		A-278, A-283
NB 900 10 -P			B-92		A-278, A-283
NB-900-10-V			B-92		B-93
NB-900-2A-10-P			B-92		B-93
NB-900-2A-10-V			A-280–A-282		B-93
NB-910-1/2			A-280, A-282		B-93
NB-910-1/2 HD			A-281, A-282		B-93
NB-910-3/8			A-201, A-202		B-93
NB-910-3/8 HD			A-282 A-280–A-282		B-93
NB-918					B-94 В-94
			A-280, A-282		A-278, A-279, A-283
NB-924			A-280–A-282		
NB-925	B-92	NUQDL	A-280, A-282	N∏04U	A-278, A-283

800.816.7809 Fax: 901.252.1354

CAT. NO.		PAGE NO.	CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.
NH64L	A-278	, A-283	NJ1614L	A-280, A-282	NM-FCCNP-06-120	B-421
NH664	A-278, A-279	, A-283	NJ644	A-281, A-282	NM-FCCNP-06-240	B-421
NH66C			NJ64L	,	NM-FCCNP-06-45HB 12	B-422
NH66L			NJ664		NM-FCCNP-06-45V 12	
NH864			NJ66L		NM-FCCNP-06-90HB 12	
NH86C			NJ864		NM-FCCNP-06-90V 12	
NH86L			NJ86L		NM-FCCNP-06-HT12	
NH884			NJ884		NM-FCCNP-06-HX12	
NH88C			NJ88L		NM-FCCNP-08-120	
NH88L			NL1010B		NM-FCCNP-08-240	
NI10106			NL1084B		NM-FCCNP-08-45HB 12	
NI1010L			NL1086B		NM-FCCNP-08-45V 12	
NI1010W			NL1000B		NM-FCCNP-08-90HB 12	
NI1084			NL1210B NL1212B		NM-FCCNP-08-90V 12	
NI1086			NL1212B NL1412B		NM-FCCNP-08-HT12	
NI1086			NL1412B NL1614B		NM-FCCNP-08-HX12	
NI108W NI12106	A 070 A 070	. A-298	NL644B		NM-FCCNV-02-120	
	,	,	NL664B		NM-FCCNV-02-240	
NI1210L			NL864B	,	NM-FCCNV-03-120	
NI1210W			NL884B		NM-FCCNV-03-240	
NI12126			NM-BS03P-120		NM-FCCNV-04-120	
NI1212L			NM-BS03P-90HBFL		NM-FCCNV-04-240	
NI1212W			NM-BS03V-120		NM-FCCNV-06-120	
NI14126			NM-BS03V-90HBFL		NM-FCCNV-06-240	
NI1412L			NM-BS04P-120		NM-FCCNV-08-240	
NI1412W			NM-BS04P-90HBFL		NM-FCCNV-09-120	
NI16146			NM-BS04V-120		NM-FCCVP-02-120	
NI1614L			NM-BS04V-90HBFL		NM-FCCVP-02-240	
NI1614W			NM-BS06P(X)VI/VO(†)		NM-FCCVP-03-120	
NI644			NM-BS06P-120		NM-FCCVP-03-240	
NI64L			NM-BS06P-90HBFL		NM-FCCVP-04-120	
NI64W			NM-BS06V(X)VI/VO(†)		NM-FCCVP-04-240	
NI664			NM-BS06V-120		NM-FCCVP-06-120	
NI66L			NM-BS06V-90HBFL		NM-FCCVP-06-240	
NI66W			NM-CLEAR-1215		NM-FCCVP-08-120	
NI864			NM-FCCNP-02-120		NM-FCCVP-08-240	
NI86L			NM-FCCNP-02-240		NM-FCCVV-02-120	
NI86W			NM-FCCNP-03-120		NM-FCCVV-02-24	
NI884			NM-FCCNP-03-240		NM-FCCVV-03-120	
NI88L			NM-FCCNP-03-45HB 12		NM-FCCVV-03-240	
NI88W			NM-FCCNP-03-45V 12		NM-FCCVV-04-120	
NJ10106			NM-FCCNP-03-90HB 12		NM-FCCVV-04-240	
NJ1010L			NM-FCCNP-03-90V 12		NM-FCCVV-06-120	
NJ1084			NM-FCCNP-03-HT12		NM-FCCVV-06-240	
NJ1086			NM-FCCNP-03-HX12		NM-FCCVV-08-120	
NJ108L			NM-FCCNP-04-120		NM-FCCVV-08-240	
NJ12106			NM-FCCNP-04-240		NMK10VA-282, A-283	
NJ1210L			NM-FCCNP-04-45HB 12		NMK12V A-282, A-283	
NJ12126			NM-FCCNP-04-45V 12		NMK14V A-282, A-283	
NJ1212L			NM-FCCNP-04-90HB 12	B-422	NMK4V A-282, A-283	
NJ14126			NM-FCCNP-04-90V 12	B-422	NMK6V A-282, A-283	3, A-293
NJ1412L			NM-FCCNP-04-HT12		NMK8V A-282, A-283	
NJ16146	A-280	–A-282	NM-FCCNP-04-HX12	B-422	NM-M3-(MATL)-06-(*)12	

Catalog Number Index

CAT. NO.	DACE NO	CAT. NO.	DACE NO	CAT. NO.	DACE NO
NM-M3-(MATL)-06-09-HT12	PAGE NO. B-400	NM-M3-(MATL)-18-90HB12	PAGE NO. B-394	NM-M4-(MATL)-06-18-HT	PAGE NO. B-402
NM-M3-(MATL)-06-18-HT12		NM-M3-(MATL)-18-HT12		NM-M4-(MATL)-06-18-HT36	
NM-M3-(MATL)-06-24-HT12		NM-M3-(MATL)-18-HX36		NM-M4-(MATL)-06-18-HX	
NM-M3-(MATL)-06-45(*)12		NM-M3-(MATL)-18-LR06		NM-M4-(MATL)-06-18-HX36	
NM-M3-(MATL)-06-45HB12		NM-M3-(MATL)-18-LR09		NM-M4-(MATL)-06-24-HT	
NM-M3-(MATL)-06-45HX12		NM-M3-(MATL)-18-LR12	B-408	NM-M4-(MATL)-06-24-HT36	
NM-M3-(MATL)-06-90(*)12		NM-M3-(MATL)-18-RR06	B-408	NM-M4-(MATL)-06-24-HX	B-406
NM-M3-(MATL)-06-90HB12	B-394	NM-M3-(MATL)-18-RR09	B-408	NM-M4-(MATL)-06-24-HX36	B-406
NM-M3-(MATL)-06-HT12	B-397	NM-M3-(MATL)-18-RR12	B-408	NM-M4-(MATL)-06-30-HT	B-402
NM-M3-(MATL)-09-(*)12		NM-M3-(MATL)-18-SR06		NM-M4-(MATL)-06-30-HT36	
NM-M3-(MATL)-09-06-HT12		NM-M3-(MATL)-18-SR09		NM-M4-(MATL)-06-30-HX	
NM-M3-(MATL)-09-06-HX12		NM-M3-(MATL)-18-SR12		NM-M4-(MATL)-06-30-HX36	
NM-M3-(MATL)-09-12-HT12		NM-M3-(MATL)-24-(*)12		NM-M4-(MATL)-06-36-HT	
NM-M3-(MATL)-09-18-HT12		NM-M3-(MATL)-24-06-HT12		NM-M4-(MATL)-06-36-HT36	
NM-M3-(MATL)-09-24-HT12		NM-M3-(MATL)-24-06-HX12		NM-M4-(MATL)-06-36-HX	
NM-M3-(MATL)-09-45(*)12		NM-M3-(MATL)-24-09-HT12		NM-M4-(MATL)-06-36-HX36	
NM-M3-(MATL)-09-45HB12		NM-M3-(MATL)-24-09-HX12		NM-M4-(MATL)-06-45(*)12	
NM-M3-(MATL) -09-45HX12		NM-M3-(MATL)-24-12-HT12		NM-M4-(MATL)-06-45(*)24	B-412
NM-M3-(MATL)-09-90(*)12		NM-M3-(MATL)-24-12-HX12		NM-M4-(MATL)-06-45(*)36	
NM-M3-(MATL)-09-90HB12		NM-M3-(MATL)-24-18-HT12		NM-M4-(MATL)-06-45HB12	
NM-M3-(MATL)-09-HT12 NM-M3-(MATL)-09-LR06		NM-M3-(MATL)-24-18-HX12		NM-M4-(MATL)-06-45HB24 NM-M4-(MATL)-06-45HB36	
NM-M3-(MATL)-09-RR06		NM-M3-(MATL)-24-45(*)12 NM-M3-(MATL)-24-45HB12		NM-M4-(MATL)-06-90(*)12	
NM-M3-(MATL)-09-SR06		NM-M3-(MATL)-24-45HX12		NM-M4-(MATL)-06-90(*)24	
NM-M3-(MATL)-12-(*)12		NM-M3-(MATL)-24-90(*)12		NM-M4-(MATL)-06-90(*)36	
NM-M3-(MATL)-12-06-HT12		NM-M3-(MATL)-24-90HB12		NM-M4-(MATL)-06-90HB12	
NM-M3-(MATL)-12-06-HX12		NM-M3-(MATL)-24-HT12		NM-M4-(MATL)-06-90HB24	
NM-M3-(MATL)-12-09-HT12		NM-M3-(MATL)-24-HX36		NM-M4-(MATL)-06-90HB36	
NM-M3-(MATL)-12-09-HX12		NM-M3-(MATL)-24-LR06		NM-M4-(MATL)-06-HT12	
NM-M3-(MATL)-12-12-HT12		NM-M3-(MATL)-24-LR09		NM-M4-(MATL)-06-HT24	
NM-M3-(MATL)-12-18-HT12		NM-M3-(MATL)-24-LR12		NM-M4-(MATL)-06-HT36	
NM-M3-(MATL)-12-24-HT12		NM-M3-(MATL)-24-LR18		NM-M4-(MATL)-06-HX12	
NM-M3-(MATL)-12-45(*)12	B-411	NM-M3-(MATL)-24-RR06	B-408	NM-M4-(MATL)-06-HX24	B-398
NM-M3-(MATL)-12-45HB12	B-394	NM-M3-(MATL)-24-RR09	B-408	NM-M4-(MATL)-06-HX36	B-398
NM-M3-(MATL)-12-45HX12		NM-M3-(MATL)-24-RR12		NM-M4-(MATL)-09-(*)12	
NM-M3-(MATL)-12-90(*)12		NM-M3-(MATL)-24-RR18		NM-M4-(MATL)-09-(*)24	
NM-M3-(MATL)-12-90HB12		NM-M3-(MATL)-24-SR06		NM-M4-(MATL)-09-(*)36	
NM-M3-(MATL)-12-HT12		NM-M3-(MATL)-24-SR09		NM-M4-(MATL)-09-06-HT	
NM-M3-(MATL)-12-LR09		NM-M3-(MATL)-24-SR12		NM-M4-(MATL)-09-06-HT36	
NM-M3-(MATL)-12-RR09		NM-M3-(MATL)-24-SR18		NM-M4-(MATL)-09-12-HT	
NM-M3-(MATL)-12-SR09		NM-M3-(MATL) -30-HX36		NM-M4-(MATL)-09-12-HT36	
NM-M3-(MATL)-18-(*)12		NM-M3-(MATL) -36-HX36		NM-M4-(MATL)-09-12-HX	
NM-M3-(MATL)-18-06-HT12		NM-M4-(MATL) -06-(*)12		NM-M4-(MATL)-09-12-HX36	
NM-M3-(MATL)-18-06-HX12 NM-M3-(MATL)-18-09-HT12		NM-M4-(MATL)-06-(*)24		NM-M4-(MATL)-09-18-HT	
NM-M3-(MATL)-18-09-HX12		NM-M4-(MATL)-06-(*)36 NM-M4-(MATL)-06-09-HT		NM-M4-(MATL)-09-18-HT36 NM-M4-(MATL)-09-18-HX	
NM-M3-(MATL)-18-12-HT12		NM-M4-(MATL)-06-09-HT36		NM-M4-(MATL)-09-18-HX36	
NM-M3-(MATL)-18-12-HX12		NM-M4-(MATL)-06-09-HX		NM-M4-(MATL)-09-16-11/30	
NM-M3-(MATL)-18-24-HT12		NM-M4-(MATL)-06-09-HX36		NM-M4-(MATL)-09-24-HT36	
NM-M3-(MATL)-18-45(*)12		NM-M4-(MATL)-06-12-HT		NM-M4-(MATL)-09-24-HX	
NM-M3-(MATL)-18-45HB12		NM-M4-(MATL)-06-12-HT36		NM-M4-(MATL)-09-24-HX36	
NM-M3-(MATL)-18-45HX12		NM-M4-(MATL)-06-12-HX		NM-M4-(MATL)-09-30-HT	
NM-M3-(MATL)-18-90(*)12		NM-M4-(MATL)-06-12-HX36		NM-M4-(MATL)-09-30-HT36	
- (, (,		, , , , , , , , , , , , , , , , , , , ,		, , , , , , , , , , , , , , , , , , , ,	- ·- -

800.816.7809 Fax: 901.252.1354

CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.
NM-M4-(MATL)-09-30-HX	B-406	NM-M4-(MATL)-12-45HB24		NM-M4-(MATL)-18-HX36	
NM-M4-(MATL)-09-30-HX36		NM-M4-(MATL)-12-45HB36		NM-M4-(MATL)-18-LR06	B-409
NM-M4-(MATL)-09-36-HT	B-402	NM-M4-(MATL)-12-90(*)12		NM-M4-(MATL)-18-LR09	B-409
NM-M4-(MATL)-09-36-HT36	B-402	NM-M4-(MATL)-12-90(*)24	B-412	NM-M4-(MATL)-18-LR12	B-409
NM-M4-(MATL)-09-36-HX	B-406	NM-M4-(MATL)-12-90(*)36	B-412	NM-M4-(MATL)-24-(*)12	B-414
NM-M4-(MATL)-09-36-HX36	B-406	NM-M4-(MATL)-12-90HB12	B-395	NM-M4-(MATL)-24-(*)24	B-414
NM-M4-(MATL)-09-45(*)12	B-412	NM-M4-(MATL)-12-90HB24	B-395	NM-M4-(MATL)-24-(*)36	B-414
NM-M4-(MATL)-09-45(*)24		NM-M4-(MATL)-12-90HB36	B-395	NM-M4-(MATL)-24-06-HT	B-401
NM-M4-(MATL)-09-45(*)36	B-412	NM-M4-(MATL)-12-HT12	B-398	NM-M4-(MATL)-24-06-HT36	B-401
NM-M4-(MATL)-09-45HB12	B-395	NM-M4-(MATL)-12-HT36	B-398	NM-M4-(MATL)-24-09-HT	B-401
NM-M4-(MATL)-09-45HB24	B-395	NM-M4-(MATL)-12-HX12	B-398	NM-M4-(MATL)-24-09-HT36	B-401
NM-M4-(MATL)-09-45HB36	B-395	NM-M4-(MATL)-12-HX24	B-398	NM-M4-(MATL)-24-12-HT	B-401
NM-M4-(MATL)-09-90(*)12	B-412	NM-M4-(MATL)-12-HX36	B-398	NM-M4-(MATL)-24-12-HT36	B-401
NM-M4-(MATL)-09-90(*)24	B-412	NM-M4-(MATL)-12-LR06	B-409	NM-M4-(MATL)-24-18-HT	B-401
NM-M4-(MATL)-09-90(*)36	B-412	NM-M4-(MATL)-12-LR09	B-409	NM-M4-(MATL)-24-18-HT36	B-401
NM-M4-(MATL)-09-90HB12	B-395	NM-M4-(MATL)-18-(*)12	B-414	NM-M4-(MATL)-24-30-HT	B-402
NM-M4-(MATL)-09-90HB24	B-395	NM-M4-(MATL)-18-(*)24	B-414	NM-M4-(MATL)-24-30-HT36	B-402
NM-M4-(MATL)-09-90HB36	B-395	NM-M4-(MATL)-18-(*)36	B-414	NM-M4-(MATL)-24-30-HX	B-406
NM-M4-(MATL)-09-HT12	B-398	NM-M4-(MATL)-18-06-HT	B-401	NM-M4-(MATL)-24-30-HX36	B-406
NM-M4-(MATL)-09-HT24	B-398	NM-M4-(MATL)-18-06-HT36	B-401	NM-M4-(MATL)-24-36-HT	B-402
NM-M4-(MATL)-09-HT36	B-398	NM-M4-(MATL)-18-09-HT	B-401	NM-M4-(MATL)-24-36-HT36	B-402
NM-M4-(MATL)-09-HX12	B-398	NM-M4-(MATL)-18-09-HT36	B-401	NM-M4-(MATL)-24-36-HX	B-406
NM-M4-(MATL)-09-HX24	B-398	NM-M4-(MATL)-18-12-HT	B-401	NM-M4-(MATL)-24-36-HX36	B-406
NM-M4-(MATL)-09-HX36	B-398	NM-M4-(MATL)-18-12-HT36	B-401	NM-M4-(MATL)-24-45(*)12	B-412
NM-M4-(MATL)-09-LR06	B-409	NM-M4-(MATL)-18-24-HT	B-402	NM-M4-(MATL)-24-45(*)24	
NM-M4-(MATL)-12-(*)12	B-414	NM-M4-(MATL)-18-24-HT36		NM-M4-(MATL)-24-45(*)36	B-412
NM-M4-(MATL)-12-(*)24		NM-M4-(MATL)-18-24-HX	B-406	NM-M4-(MATL)-24-45HB12	B-395
NM-M4-(MATL)-12-(*)36		NM-M4-(MATL)-18-24-HX36	B-406	NM-M4-(MATL)-24-45HB24	B-395
NM-M4-(MATL)-12-06-HT	B-401	NM-M4-(MATL)-18-30-HT		NM-M4-(MATL)-24-45HB36	
NM-M4-(MATL)-12-06-HT36		NM-M4-(MATL)-18-30-HT36		NM-M4-(MATL)-24-90(*)12	
NM-M4-(MATL)-12-09-HT		NM-M4-(MATL)-18-30-HX		NM-M4-(MATL)-24-90(*)24	
NM-M4-(MATL)-12-09-HT36		NM-M4-(MATL)-18-30-HX36		NM-M4-(MATL)-24-90(*)36	
NM-M4-(MATL)-12-18-HT		NM-M4-(MATL)-18-36-HT		NM-M4-(MATL)-24-90HB12	
NM-M4-(MATL)-12-18-HT36		NM-M4-(MATL)-18-36-HT36		NM-M4-(MATL)-24-90HB24	
NM-M4-(MATL)-12-18-HX		NM-M4-(MATL)-18-36-HX		NM-M4-(MATL)-24-90HB36	
NM-M4-(MATL)-12-18-HX36		NM-M4-(MATL)-18-36-HX36		NM-M4-(MATL)-24-HT12	
NM-M4-(MATL)-12-1-M4		NM-M4-(MATL)-18-45(*)12		NM-M4-(MATL)-24-HT24	
NM-M4-(MATL)-12-24-HT		NM-M4-(MATL)-18-45(*)24		NM-M4-(MATL)-24-HT36	
NM-M4-(MATL)-12-24-HT36		NM-M4-(MATL)-18-45(*)36		NM-M4-(MATL)-24-HX12	
NM-M4-(MATL)-12-24-HX		NM-M4-(MATL)-18-45HB12		NM-M4-(MATL)-24-HX24	
NM-M4-(MATL)-12-24-HX36		NM-M4-(MATL)-18-45HB24		NM-M4-(MATL)-24-HX36	
NM-M4-(MATL)-12-30-HT		NM-M4-(MATL)-18-45HB36		NM-M4-(MATL)-24-LR06	
NM-M4-(MATL)-12-30-HT36		NM-M4-(MATL)-18-90(*)12		NM-M4-(MATL)-24-LR09	
NM-M4-(MATL)-12-30-HX		NM-M4-(MATL)-18-90(*)24		NM-M4-(MATL)-24-LR12	
NM-M4-(MATL)-12-30-HX36		NM-M4-(MATL)-18-90(*)36		NM-M4-(MATL)-24-LR18	
NM-M4-(MATL)-12-36-HT		NM-M4-(MATL)-18-90HB12		NM-M4-(MATL)-30-(*)12	
NM-M4-(MATL)-12-36-HT36		NM-M4-(MATL)-18-90HB24		NM-M4-(MATL)-30-(*)24	
NM-M4-(MATL)-12-36-HX		NM-M4-(MATL)-18-90HB36		NM-M4-(MATL) -30-(*)36	
NM-M4-(MATL)-12-36-HX36		NM-M4-(MATL)-18-HT12		NM-M4-(MATL) 30-06-HT	
NM-M4-(MATL) 12-45(*)12		NM-M4-(MATL) 18-HT24		NM-M4-(MATL) 30-06-HT36	
NM-M4-(MATL) 12-45(*)24		NM-M4-(MATL) 18-HT36		NM-M4-(MATL) -30-09-HT	
NM-M4-(MATL) 12-45(*)36		NM-M4-(MATL) 18-HX12		NM-M4-(MATL) 30-09-HT36	
NM-M4-(MATL)-12-45HB12	ឋ-ᲙᲧ๖	NM-M4-(MATL)-18-HX24	ช-ᲙᲧ୪	NM-M4-(MATL)-30-12-HT	B-4U I

Catalog Number Index

CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.
NM-M4-(MATL)-30-12-HT36	B-401	NM-M4-(MATL)-36-90(*)24	B-412	NM-M6-(MATL)-09-06HT	B-403
NM-M4-(MATL)-30-18-HT	B-401	NM-M4-(MATL)-36-90(*)36	B-412	NM-M6-(MATL)-09-06-HT12.	B-403
NM-M4-(MATL)-30-18-HT36	B-401	NM-M4-(MATL)-36-90HB12	B-395	NM-M6-(MATL)-09-06-HX12.	B-407
NM-M4-(MATL)-30-24-HT	B-401	NM-M4-(MATL)-36-90HB24	B-395	NM-M6-(MATL)-09-12-HT	B-404, B-407
NM-M4-(MATL)-30-24-HT36	B-401	NM-M4-(MATL)-36-90HB36	B-395	NM-M6-(MATL)-09-12-HT12.	
NM-M4-(MATL)-30-36-HT	B-402	NM-M4-(MATL)-36-HT12	B-398	NM-M6-(MATL)-09-18-HT	B-404, B-407
NM-M4-(MATL)-30-36-HT36	B-402	NM-M4-(MATL)-36-HT24	B-398	NM-M6-(MATL)-09-18-HT12.	B-404
NM-M4-(MATL)-30-36-HX	B-406	NM-M4-(MATL)-36-HT36	B-398	NM-M6-(MATL)-09-24-HT	B-404, B-407
NM-M4-(MATL)-30-36-HX36		NM-M4-(MATL)-36-HX12		NM-M6-(MATL)-09-24-HT12.	B-404
NM-M4-(MATL)-30-45(*)12	B-412	NM-M4-(MATL)-36-HX24		NM-M6-(MATL)-09-30-HT	
NM-M4-(MATL)-30-45(*)24		NM-M4-(MATL)-36-HX36		NM-M6-(MATL)-09-30-HT12.	
NM-M4-(MATL)-30-45(*)36		NM-M4-(MATL)-36-LP24		NM-M6-(MATL)-09-36-HT	,
NM-M4-(MATL)-30-45HB12		NM-M4-(MATL)-36-LR06		NM-M6-(MATL)-09-36-HT12.	
NM-M4-(MATL)-30-45HB24		NM-M4-(MATL)-36-LR09		NM-M6-(MATL)-09-45(*)24	
NM-M4-(MATL)-30-45HB36		NM-M4-(MATL)-36-LR12		NM-M6-(MATL)-09-45(*)36	
NM-M4-(MATL)-30-90(*)12		NM-M4-(MATL)-36-LR18		NM-M6-(MATL)-09-45HB24	
NM-M4-(MATL)-30-90(*)24		NM-M4-(MATL)-36-LR30		NM-M6-(MATL)-09-45HB36	
NM-M4-(MATL)-30-90(*)36		NM-M6-(MATL)-06-(*)12		NM-M6-(MATL)-09-90(*)12	
NM-M4-(MATL)-30-90HB12		NM-M6-(MATL)-06-(*)24		NM-M6-(MATL)-09-90(*)24	
NM-M4-(MATL)-30-90HB24		NM-M6-(MATL)-06-(*)36		NM-M6-(MATL)-09-90(*)36	
NM-M4-(MATL)-30-90HB36		NM-M6-(MATL)-06-09-HT		NM-M6-(MATL)-09-90HB12	
NM-M4-(MATL)-30-HT12		NM-M6-(MATL)-06-09-HT12		NM-M6-(MATL)-09-90HB24	
NM-M4-(MATL)-30-HT24		NM-M6-(MATL)-06-12-HT		NM-M6-(MATL)-09-90HB36	
NM-M4-(MATL)-30-HT36		NM-M6-(MATL)-06-12-HT12		NM-M6-(MATL)-09-HT12	
NM-M4-(MATL)-30-HX12		NM-M6-(MATL)-06-18-HT		NM-M6-(MATL)-09-HT24	
NM-M4-(MATL)-30-HX24		NM-M6-(MATL)-06-18-HT12		NM-M6-(MATL)-09-HT36	
NM-M4-(MATL)-30-HX36 NM-M4-(MATL)-30-LR06		NM-M6-(MATL)-06-24-HT NM-M6-(MATL)-06-24-HT12		NM-M6-(MATL)-09-HX12 NM-M6-(MATL)-09-HX24	
NM-M4-(MATL)-30-LR09		NM-M6-(MATL)-06-30-HT		NM-M6-(MATL)-09-HX36	
NM-M4-(MATL)-30-LR12		NM-M6-(MATL)-06-30-HT12		NM-M6-(MATL)-12-(*)12	
NM-M4-(MATL)-30-LR18		NM-M6-(MATL)-06-36-HT		NM-M6-(MATL)-12-(*)24	
NM-M4-(MATL)-30-LR24		NM-M6-(MATL)-06-36-HT12		NM-M6-(MATL)-12-(*)36	
NM-M4-(MATL)-36-(*)12		NM-M6-(MATL)-06-45(*)24		NM-M6-(MATL)-12-06HT	
NM-M4-(MATL)-36-(*)24		NM-M6-(MATL)-06-45(*)36		NM-M6-(MATL)-12-06-HT12.	
NM-M4-(MATL)-36-06-HT		NM-M6-(MATL)-06-45HB12		NM-M6-(MATL)-12-06-HX12.	
NM-M4-(MATL)-36-06-HT36		NM-M6-(MATL)-06-45HB24		NM-M6-(MATL)-12-09HT	
NM-M4-(MATL)-36-09-HT		NM-M6-(MATL)-06-45HB36	B-396	NM-M6-(MATL)-12-09-HT12.	
NM-M4-(MATL)-36-09-HT36	B-401	NM-M6-(MATL)-06-90(*)12	B-413	NM-M6-(MATL)-12-09-HX12.	
NM-M4-(MATL)-36-12-HT		NM-M6-(MATL)-06-90(*)24		NM-M6-(MATL)-12-18-HT	B-404, B-407
NM-M4-(MATL)-36-12-HT36		NM-M6-(MATL)-06-90(*)36		NM-M6-(MATL)-12-18-HT12.	
NM-M4-(MATL)-36-18-HT		NM-M6-(MATL)-06-90HB12		NM-M6-(MATL)-12-24-HT	
NM-M4-(MATL)-36-18-HT36		NM-M6-(MATL)-06-90HB24		NM-M6-(MATL)-12-24-HT12.	
NM-M4-(MATL)-36-24-HT		NM-M6-(MATL)-06-90HB36		NM-M6-(MATL)-12-30-HT	
NM-M4-(MATL)-36-24-HT36		NM-M6-(MATL)-06-HT12		NM-M6-(MATL)-12-30-HT12.	
NM-M4-(MATL)-36-30-HT		NM-M6-(MATL)-06-HT24		NM-M6-(MATL)-12-36-HT	
NM-M4-(MATL)-36-30-HT36		NM-M6-(MATL)-06-HT36		NM-M6-(MATL)-12-36-HT12.	
NM-M4-(MATL)-36-45(*)12		NM-M6-(MATL)-06-HX12		NM-M6-(MATL)-12-45(*)24	
NM-M4-(MATL)-36-45(*)24		NM-M6-(MATL)-06-HX24		NM-M6-(MATL)-12-45(*)36	
NM-M4-(MATL)-36-45(*)36		NM-M6-(MATL)-06-HX36 NM-M6-(MATL)-09 45HB12		NM-M6-(MATL)-12-45HB12	
NM-M4-(MATL)-36-45HB12 NM-M4-(MATL)-36-45HB24		NM-M6-(MATL)-09-(*)12		NM-M6-(MATL)-12-45HB24 NM-M6-(MATL)-12-45HB36	
NM-M4-(MATL)-36-45HB36		NM-M6-(MATL)-09-(*)24		NM-M6-(MATL)-12-90(*)12	
NM-M4-(MATL)-36-90(*)12		NM-M6-(MATL)-09-(*)36		NM-M6-(MATL)-12-90(*)24	
14141 1417 (1417-11) 00-30()12	D 412	14147 1410 (1417-112)-03-()30	דוד⁻עד	14141 1410 (141A1 L)-12-30()24	U-713

CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.
NM-M6-(MATL)-12-90(*)36		NM-M6-(MATL)-24-12HT		NM-M6-(MATL)-30-90(*)12	
NM-M6-(MATL)-12-90H812		NM-M6-(MATL)-24-12-HT12		NM-M6-(MATL)-30-90(*)24	
NM-M6-(MATL)-12-90HB24		NM-M6-(MATL)-24-12-HX12		NM-M6-(MATL)-30-90(*)36	
NM-M6-(MATL)-12-90HB36		NM-M6-(MATL)-24-18HT		NM-M6-(MATL)-30-90HB12	
NM-M6-(MATL)-12-HT12		NM-M6-(MATL)-24-18-HT12		NM-M6-(MATL)-30-90HB24	
NM-M6-(MATL)-12-HT24		NM-M6-(MATL)-24-18-HX12		NM-M6-(MATL)-30-90HB36	
NM-M6-(MATL)-12-HT36		NM-M6-(MATL)-24-30-HTB-4		NM-M6-(MATL)-30-HT12	
NM-M6-(MATL)-12-HX12		NM-M6-(MATL)-24-30-HT12		NM-M6-(MATL)-30-HT24	
NM-M6-(MATL)-12-HX24		NM-M6-(MATL)-24-36-HTB-4		NM-M6-(MATL)-30-HT36	
NM-M6-(MATL)-12-HX36		NM-M6-(MATL)-24-36-HT12		NM-M6-(MATL)-30-HX12	
NM-M6-(MATL)-18-(*)12		NM-M6-(MATL)-24-45(*)12		NM-M6-(MATL)-30-HX24	
NM-M6-(MATL)-18-(*)24		NM-M6-(MATL)-24-45(*)24		NM-M6-(MATL)-36-(*)24	
NM-M6-(MATL)-18-(*)36		NM-M6-(MATL)-24-45(*)36		NM-M6-(MATL)-36-(*)36	
NM-M6-(MATL)-18-06HT		NM-M6-(MATL)-24-45HB12		NM-M6-(MATL)-36-06HT	
NM-M6-(MATL)-18-06-HT12		NM-M6-(MATL)-24-45HB24		NM-M6-(MATL)-36-06-HT12	
NM-M6-(MATL)-18-06-HX12		NM-M6-(MATL)-24-45HB36		NM-M6-(MATL)-36-06-HX12	
NM-M6-(MATL)-18-09HT		NM-M6-(MATL)-24-90(*)12		NM-M6-(MATL)-36-09HT	
NM-M6-(MATL)-18-09-HT12		NM-M6-(MATL)-24-90(*)24		NM-M6-(MATL)-36-09-HT12	
NM-M6-(MATL)-18-09-HX12		NM-M6-(MATL)-24-90(*)36		NM-M6-(MATL)-36-09-HX12	
NM-M6-(MATL)-18-12HT		NM-M6-(MATL)-24-90HB12		NM-M6-(MATL)-36-12HT	
NM-M6-(MATL)-18-12-HT12		NM-M6-(MATL)-24-90HB24		NM-M6-(MATL)-36-12-HT12	
NM-M6-(MATL)-18-12-HX12		NM-M6-(MATL)-24-90HB36		NM-M6-(MATL)-36-12-HX12	
NM-M6-(MATL)-18-24-HTB-40		NM-M6-(MATL)-24-HT12		NM-M6-(MATL)-36-18HT	
NM-M6-(MATL)-18-24-HT12		NM-M6-(MATL)-24-HT24		NM-M6-(MATL)-36-18-HT12	
NM-M6-(MATL)-18-30-HTB-40		NM-M6-(MATL)-24-HT36		NM-M6-(MATL)-36-18-HX12	
NM-M6-(MATL)-18-30-HT12		NM-M6-(MATL)-24-HX12		NM-M6-(MATL)-36-24HT	
NM-M6-(MATL)-18-36-HTB-40		NM-M6-(MATL)-24-HX24		NM-M6-(MATL)-36-24-HT12	
NM-M6-(MATL)-18-36-HT12		NM-M6-(MATL)-30-(*)12		NM-M6-(MATL)-36-24-HX12	
NM-M6-(MATL)-18-45(*)24		NM-M6-(MATL)-30-(*)24		NM-M6-(MATL)-36-30HT	
NM-M6-(MATL)-18-45(*)36		NM-M6-(MATL)-30-(*)36		NM-M6-(MATL)-36-30-HT12	
NM-M6-(MATL)-18-45HB12		NM-M6-(MATL)-30-06HT		NM-M6-(MATL)-36-30-HX12	
NM-M6-(MATL)-18-45HB24		NM-M6-(MATL)-30-06-HT12		NM-M6-(MATL)-36-45(*)12	
NM-M6-(MATL)-18-45HB36		NM-M6-(MATL)-30-06-HX12		NM-M6-(MATL)-36-45(*)24	
NM-M6-(MATL)-18-90(*)12		NM-M6-(MATL)-30-09HT		NM-M6-(MATL)-36-45(*)36	
NM-M6-(MATL)-18-90(*)24		NM-M6-(MATL)-30-09-HT12		NM-M6-(MATL)-36-45HB12	
NM-M6-(MATL)-18-90(*)36		NM-M6-(MATL)-30-09-HX12		NM-M6-(MATL)-36-45HB24	
NM-M6-(MATL)-18-90HB12		NM-M6-(MATL)-30-12HT		NM-M6-(MATL)-36-45HB36	
NM-M6-(MATL)-18-90HB24		NM-M6-(MATL)-30-12-HT12		NM-M6-(MATL)-36-90(*)12	
NM-M6-(MATL)-18-90HB36		NM-M6-(MATL)-30-12-HX12		NM-M6-(MATL)-36-90(*)24	
NM-M6-(MATL)-18-HT12		NM-M6-(MATL)-30-18HT		NM-M6-(MATL)-36-90(*)36	
NM-M6-(MATL)-18-HT24		NM-M6-(MATL)-30-18-HT12		NM-M6-(MATL)-36-90HB12	
NM-M6-(MATL)-18-HT36		NM-M6-(MATL)-30-18-HX12		NM-M6-(MATL)-36-90HB24	
NM-M6-(MATL)-18-HX12		NM-M6-(MATL)-30-24HT		NM-M6-(MATL)-36-90HB36	
NM-M6-(MATL)-18-HX24		NM-M6-(MATL)-30-24-HT12		NM-M6-(MATL)-36-HT12	
NM-M6-(MATL)-24-(*)12		NM-M6-(MATL)-30-24-HX12		NM-M6-(MATL)-36-HT24	
NM-M6-(MATL)-24-(*)24		NM-M6-(MATL)-30-36-HTB-4		NM-M6-(MATL)-36-HT36	
NM-M6-(MATL)-24-(*)36		NM-M6-(MATL)-30-36-HT12		NM-M6-(MATL)-36-HX12	
NM-M6-(MATL)-24-06HT		NM-M6-(MATL)-30-45(*)12		NM-M6-(MATL)-36-HX24	
NM-M6-(MATL)-24-06-HT12		NM-M6-(MATL)-30-45(*)24		NM-PK-BAC	
NM-M6-(MATL)-24-06-HX12		NM-M6-(MATL)-30-45(*)36		NM-RSK-05	
NM-M6-(MATL)-24-09HT		NM-M6-(MATL)-30-45HB12		NM-RSK-10	
NM-M6-(MATL)-24-09-HT12		NM-M6-(MATL)-30-45HB24		NM-XBE1083W	
NM-M6-(MATL)-24-09-HX12		NM-M6-(MATL)-30-45HB36		NM-XBE1084W	
,		,			

Catalog Number Index

CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.
NM-XBE1086W	B-416	NM-XSS-4903V	B-417	NS16146 A	-276, A-277, A-282
NM-XCC-P-9013		NM-XSS-4904H		NS1614L	
NM-XCC-P-9014		NM-XSS-4904V		NS644 A	
NM-XCC-P-9016		NM-XSS-8006		NS64L	
NM-XCC-V-9013		NM-XSS-8016		NS664A	
NM-XCC-V-9014		NM-XSS-8026		NS66L	
NM-XCC-V-9016		NM-XSS-8036		NS864A	-276 A-277 A-282
NM-XF-1104-W		NM-XSS8056		NS86L	
NM-XFP-1001-SS6		NM-XSS-8063		NS884 A	
NM-XFP-1011-SS6		NM-XSS-8064		NS88L	
NM-XFP-1208		NM-XSS-8306H		NV10106A	
NM-XFP-130IH-SS6		NM-XSS-8306V		NV1010L	
NM-XFP-130IV-SS6		NM-XSS-8456H		NV1084 A	
NM-XFP-145IH-SS6		NM-XSS-8456V		NV1086 A	
NM-XFP-145IV-SS6		NM-XSS-8906H		NV108L	
NM-XFP-190IH-SS6		NM-XSS-8906V		NV12106A	
NM-XFP-190IV-SS6		NM-XWC-C-W-9034		NV1210L	
NM-XFV-1001-SS6		NM-XWC-C-W-9044		NV12126 A	
NM-XFV-1011-SS6		NM-XWC-C-W-9064		NV1212L	
NM-XFV-130IH-SS6		NM-XWC-P-W-9034		NV14126 A	
NM-XFV-130IV-SS6		NM-XWC-P-W-9044		NV1412LA	
NM-XFV-145IH-SS6		NM-XWC-P-W-9064		NV1412LA	
		NP1010BA-276, A-28			
NM-XFV-145IV-SS6				NV1614L	
NM-XFV-190IH-SS6		NP1084B A-276, A-28		NV644A	
NM-XFV-190IV-SS6		NP1086BA-276, A-28	32, A-283	NV64L	
NM-XSS-1001-SS6		NP1210B A-276, A-28		NV664 A	
NM-XSS-1011-SS6		NP1212B A-276, A-28		NV66L	
NM-XSS-130IH-SS6		NP1412B A-276, A-28		NV864 A	
NM-XSS-130IV-SS6		NP1614B A-276, A-28		NV86L	
NM-XSS-145IH-SS6		NP2016A-28		NV884A	
NM-XSS-145IV-SS6		NP2016PA-28		NV88L	A-276, A-282
NM-XSS-190IH-SS6		NP2420A-28		0	
NM-XSS-190IV-SS6		NP2420PA-28		OPA35-WH	A-140
NM-XSS-4003		NP3024A-28		OPAB-WH	
NM-XSS-4004		NP3024PA-28		OPAFR	
NM-XSS-4013		NP644B A-276, A-28		OPAHDMI-WH	
NM-XSS-4014		NP664B A-276, A-278, A-28		OPARCAR	
NM-XSS-4023		NP864B A-276, A-278, A-28		OPARCAW	
NM-XSS-4024		NP884B A-276, A-278, A-28		OPARCAY	
NM-XSS-4033		NPL1L		OPAS-WH	
NM-XSS-4034		NPL1S		OPJDU5EL-WH	
NM-XSS-4043		NPLISA-27		OPJDU6L-WH	
NM-XSS4053		NS10106 A-276, A-27		OPJV6CL-WH	
NM-XSS4054		NS1010LA-27		OPOD4-WH	
NM-XSS-4303H		NS1084 A-276, A-27		OPODEC1-WH	Λ-140, Α-105
NM-XSS-4303V		NS1086 A-276, A-27		OPODEC2-WH	
NM-XSS-4304H		NS108LA-27		OPODEC3-WH	
NM-XSS-4304V		NS12106 A-276, A-27	7, A-282	OPODEC4-WH	
NM-XSS-4453H	B-417	NS1210LA-27		OPODEC6-WH	
NM-XSS-4453V	R-417	NS12126 A-276, A-27	7, A-282	OPODEC6-WH	
NM-XSS-4454H					
INIVI-799-4404U		NS1212LA-27	'6, A-282		
NM-XSS-4454V	B-417		'6, A-282	OPODEC-VGA-WH	A-140
	B-417 B-417	NS1212LA-27	76, A-282 77, A-282		A-140 A-140

OAT NO	DAGE NO
CAT. NO.	PAGE NO. A-28, A-37
	A-20, A-37
	P
P30402BP	A-312
P-60-1	A-127, A-149, A-153
P-60-1 1/4	
P-60-1 1/4-AL	
P-60-1/2	
P-60-1/2-2	
P-60-1/2-2-AL	
P-60-1/2-AL	
P-60-1-1/4	
P-60-1-1/4-AL	
P-60-1-AL	
P-60-2	
P-60-2-5/8	
P-60-2-5/8-AL	A-127, A-149, A-153
P-60-2-AL	A-127, A-149, A-153
P-60-3/4	
P-60-3/4-2	
P-60-3/4-2-AL	A-127, A-149, A-153
P-60-3/4-2-CACP	A-127, A-148, A-152
P-60-3/4-2-CACP-AL	A-127, A-148, A-152
P-60-3/4-AL	A-127, A-149, A-153
P-60-3B1	A-129
P-60-CACP	A-127, A-148, A-152
P-60-CACP-AL	A-127, A-148, A-152
P-60-CACP-GFCI	A-127, A-148, A-152
P-60-CACP-GFCI-AL	
	A-129, A-148, A-152
P-60-CP-AL	
P-60-DR	
P-60-DR-AL	A-127, A-149, A-153
P-60-DS	
P-60-DS-AL	
P-60-DU	
P-60-DU-AL	
P-60-GFCI	
P-60-GFCI-AL	A-149, A-153
P-60-LCP	
P-60-Q	
P-60-QB	
P-60-Q-GFCI	
P-62-CP-AS2	
P-62-CP-BRN2	
P-62-CP-G2	
P-62-TAR	
P-62-TAR-AL	A-129
P-64-1 A-127	
P-64-1 1/4	
P-64-1 1/4AL	
P-64-1/2	
	A-163, A-166

CAT. NO. P-64-1/2-2		. A- 1	127,	PAGE A-1	NO 59,
P-64-1/2-2-AL					
		A-	163	, A-1	66
P-64-1/2-AL					
P-64-1-1/4	.A-159	, A-	163	, A-1	66
P-64-1-1/4-AL P-64-1-AL					
		A-	163	, A-1	66
P-64-2 P-64-2-5/8					
		A-	163	, A-1	66
P-64-2-5/8-AL					
P-64-2-AL	.A-159	, A-	163	, A-1	66
P64-2G-CP P64-2G-CP-AL					
P-64-3/4		. A- 1	127,	A-1	59,
P-64-3/4-2		A- .A-1	163 127.	, A-1 !A-1	66 59.
		A-	163	, A-1	66
P-64-3/4-2-AL					
P-64-3/4-AL		. A- 1	127,	A-1	59,
P64-3G-CP					
P64-3G-CP-AL				. A-1	60
P64-4G-CP					
P64-CP				. A-1	60
P-64-D8					
P-64-DS	.A-159	, A-	163	, A-1	66
P-64-DS-AL A-127					
P-64-DU-AL A-127	, A-159	, A-	163	, A-1	66
P-64-GFCI A-127 P-64-GFCI-AL					
P64P-2G-CP-BGE				. A-1	60
P64P-2G-CP-BLK P64P-2G-CP-GRY					
P64P-3G-CP-BGE				. A-1	60
P64P-3G-CP-BLK P64P-3G-CP-GRY				. A-1 . A-1	60
P-64P-BP				. A-1	27
P64P-BP-BGE P64P-BP-BLK					
P64P-BP-GRY	.A-161	, A-	163	, A-1	67
P64P-CP-BGE P64P-CP-BLK					
P64P-CP-GRY				. A-1	60
P-64P-URC				. A-1	2/

CAT. NO.			PAGE NO.
P64P-URC-BGEA-161,			
P64P-URC-BLKA-161,			
P64P-URC-GRYA-161,	Α-	163,	A-167
P-67-1	.A-	127,	A-156
P-67-1 1/4			A-127
P-67-1/2	.A-	127.	A-156
P-67-1/2-2			
P-67-1-1/4		,	A-156
P-67-1-AL	Δ_	127	Δ-156
P-67-2	.Λ _	127, 127	Λ-156
P-67-2-AL			
P-67-3/4			
P-67-3/4-2			
P-67-3/4-AL			
P-67-F			A-15/
P-68-DRC-BGE	.A-	127,	A-152
P-68-DRC-BLK			
P-68-DRC-BRN	.A-	127,	A-152
P-68-DRC-GRY	.A-	127,	A-152
P-68-FSC-BGE	.A-	127,	A-152
P-68-FSC-BLK			A-152
P-68-FSC-BRN	Α-	127.	A-152
P-68-FSC-GRY			
P-68-SRC-BGE			
P-68-SRC-BLK			
P-68-SRC-BRN	Δ-	127	Δ-152
P-68-SRC-GRY	.Λ 	127, 197	Λ-152
P-716-1			
P-716-1/2			
P-716-1/4			
P-716-1-1/2			
P-716-1-1/4			
P-716-2			
P716-2-1/2			
P-716-3			
P-716-3/4			
P-716-3/8			
P-716-3-1/2			
P-716-4			
P7701W-CAR			A-244
P7801W-CAR			A-244
P7901W-CAR			A-244
P8001W-CAR			
P8005W-CAR			
P8010W-CAR			
P8060W-CAR			
P-90-1			
P-90-1 1/4	./\-	121,	Λ-100
P-90-1 1/4AL	•••••		Λ-12 <i>1</i>
P-90-1/2	۰۰۰۰۰	 197	M-12/
P-90-1/2-2			
P-90-1/2-2AL			
P-90-1/2AL			A-127

Catalog Number Index

CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.
P-90-1-1/4			B-135, B-225		D-34
P-90-1-1/4-AL			C-51		D-34
P-90-1AL			C-51		D-34
P-90-2			C-51		D-34
P-90-2AL			C-51		D-34
P-90-3/4			B-160		D-34
P-90-3/4-2			B-163		D-34
P-90-3/4-2AL			A-57		D-34
P-90-3/4AL			A-57		D-34
P-90-CP			A-305		D-34
P-90-CP-AL			A-305		A-263
PB-502			A-305		A-263
PB-508			A-305		A-263
PB-900-10			A-305		A-263
PB-905-10			A-232		A-263
PB-907-10			A-232		A-263
PB-910-1/2			A-232		A-263
PB-910-3/8	B-28		A-354		A-263
PB-915	B-28		A-344		A-290
PB-923	B-28	PLM100T-250B2	A-344		A-290
PB-927			A-344		A-290
PB-943			A-344	PX0011	A-290
PBC-105-1	B-28	PLM100T-8000	A-344		Q
PBC-105-1-1/2	B-28	PLM125T	A-354	0202	B-123
PBC-105-1-1/4	B-28	PLM125T-1000	A-344		B-123
PBC-105-2	B-28	PLM125T-250B4	A-344		B-123
PBC-105-2-1/2		PLM125T-500	A-344		B-123
PBC-105-3	B-28	PLM125T-5000	A-344		B-123
PBC-105-3/4	B-28	PLM125T-6000	A-344		B-123
PBC-105-3-1/2	B-28	PLM150T	A-354	Q230	
PBC-105-4	B-28	PLM150T-2000	A-344		R
PBE-760-2	B-28	PLM150T-4000	A-344		B-258
PBE-763		PLM200T	A-354		B-258
PBF-720-18	B-28	PLM200T-2000	A-344	R1048-10 FT	B-258
PBF-721-18	B-28	PMB1612	A-306		A-263
PBH-119C-3/8	B-28	PMB2016	A-306		B-258
PBH-119D-1/2	B-28	PMB2416	A-306		B-258
PBH-120	B-28	PMB3020	A-306		B-258
PBH-193-1/2-10	B-27	PMB3325	A-306	RA 160	B-90
PBH-193-1/2-6	B-27	PMM1612	A-306	RA 225	B-90
PBH-193-3/8-10	B-27	PMM2016	A-306		B-90
PBH-193-3/8-6	B-27	PMM2416	A-306		B-86, B-189
PBVC-100C	A-263	PMM3020	A-306	RA BN 3/4	B-87, B-189
PC 1/2	B-135, B-225		A-306	RA BN 5/8	B-87, B-189
PC-1	B-135, B-225	PMNY-185-9-D	C-66	RA C	B-87, B-189
PC-1-1/2			C-66		B-87, B-189
PC-1-1/4	B-135, B-225	PMNY-254-9-C	C-66	RA RC	B-87, B-189
PC-2			A-306		B-87, B-189
PC-2-1/2			A-306		B-86, B-189
PC-3		PMR2416	A-306		B-86, B-189
PC-3/4			A-306		B-86, B-189
PC-3/8		PMR3325	A-306	RA-225-12	B-86, B-189
PC-3-1/2		PN-3-1	A-61	RA-300-12	B-86, B-189

CAT. NO. RANY-280-9-D	PAGE NO. C-51	CAT. NO. RCS-1/2	PAGE NO. R-135 R-225	CAT. NO. RWSR	PAGE NO. A-210
RANY-530-9-D		RCS-1-1/2		1111011	C C
RANY-620-9-D		RCS-1-1/4			\$ A-235, A-242
RC-1		RCS-2		S-1	A-235, A-242
RC-1/2		RCS-3/4			A-235, A-240, A-242
RC-1-1/2		RD-30			
RC-1-1/4		RHF100T-5000			
RC-2-1/2		RHF125T-4000			
RC-2-SC		RHF150T-2000			
RC-3		RHF200T-2000			
RC-3/4		RIS100T			
RC-3/8		RIS100T-5000			A-235, A-240, A-242
RC-3-1/2		RIS125T			
RC-4-SC		RIS125T-4000			C-60
RC-729-10		RIS150T			B-124
RC-729-1-1/2		RIS150T-2000			B-124
RC-729-1-1/4		RIS200T			B-124
RC-729-12		RIS200T-2000			B-124
RC-729-14		RN-18-FS		S201-L16	B-124
		RN-21-FS		S201-L18	B-124
RC-729-16					B-124
RC-729-18		RN-23		S201-L6	B-124
RC-729-2		RN-23-FS		S-201-R	B-124
RC-729-20		RS 1		S201R10	B-124
RC-729-2-1/2		RS 10			B-124
RC-729-24		RS 11		S201-R14	B-124
RC-729-3		RS 12			B-124
RC-729-30		RS 13			B-124
RC-729-3-1/2		RS 14			B-124
RC-729-4		RS 15			B-124
RC-729-5		RS 2			B-124
RC-729-6		RS 3			B-376
RC-729-8		RS 4			B-376
RC-729A		RS 5			B-376
RC-729A-1		RS 8			B-376
RC-729A-10		RS 9			B-376
RC-729A-1-1/2		RS-16-CC			B-376
RC-729A-1-1/4		RS-17-CC			B-376
RC-729A-12	B-173	RS-18-CC			B-376
RC-729A-14		RS-19-CC			B-376
RC-729A-16	B-173	RSL 11	A-48		B-376
RC-729A-18	B-173	RSL 12	A-48		
RC-729A-2	B-173	RSL 13	A-48		B-376 B-376
RC-729A-20	B-173	RSL 14	A-48		
RC-729A-2-1/2	B-173	RSL 15	A-48		B-124
RC-729A-24		RSL 16	A-48		B-124
RC-729A-3		RSL 17			B-124
RC-729A-30		RSL 18			B-124
RC-729A-4		RSL 19			B-125
RC-729A-5		RSL 2			B-125
RC-729A-6		RSL 4			B-125
RC-729A-7		RSL 5			B-125
RC-729A-8		RSL 8			B-125
RCS-1		RSL 9			B-125, B-195
				S250 6	B-125

Catalog Number Index

CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.
	C-60		B-174		A-119, A-349
S-250-12	B-125		B-174		A-119, A-349
	B-125		B-174		A-119, A-349
S-250-24	B-125	S-730-D	B-220	SCE943G	A-119, A-349
S250PM-0		S750PC-0		SCE943H	A-119, A-349
S250PT-0	C-60	S750PK-0		SCE943J	A-119, A-349
	B-125				A-120
	B-125		A-55		A-120
	B-125		A-264		A-120
	B-125		A-264		A-120
	B-125		A-264		A-120
	B-125		A-204		A-120
	B-125		A-111		A-118
	B-125		A-72		A-118
	B-125		A-73		A-118
	B-125		A-55		A-118
	B-125		A-73		A-118
	C-27	SB-4	A-55		. A-232, A-234, A-235, A-242
S-3	A-235, A-242	SB-5	A-55	SE-48	. A-232, A-234, A-235, A-242
S375PC-0	C-60	SB-6	A-55	SF100-18	C-25
	A-235, A-240	SB-7	A-55	SF100-18X	C-25
	A-234, A-235, A-242		A-55) C-25
	A-234		A-55		
S-48	A-234, A-235, A-242		A-27		
	A-234		A-14		
	C-27		A-14		
			A-111, A-350		C-25
	C-60				
	C-60		A-112, A-350		
			A-114, A-200		
	B-131		A-114, A-200		
	B-51		A-114, A-200		A-170
	A-240		A-113		A-125
	C-27		A-112, A-350		A-170
	A-235		A-120		A-170
	B-143		A-120		A-125
S720 3/4	B-159	SC200A	A-111, A-350	SFH-50-2RG	A-170
S-720-1	B-159	SC200ADJC	A-112, A-350	SFH-51	A-170
S-720-1-1/2	B-159	SC200DV	A-111, A-350	SFL-10	A-170
S-720-1-1/4	B-159	SC200RR	A-113	SFL-10 SERIES	A-125
	B-159	SC300A	A-111, A-350	SF-SFA	A-61
	B-159	SC300PRB	A-117		A-53
	B-159		A-117		A-46
	B-159		A-120		B-310
	B-159		A-119, A-348		13 B-437
	B-159		A-119, A-348		B-310
	B-159		A-119, A-348		14B-437
	B-159		A-119, A-348		B-311
	B-220		A-119, A-348		16B-437
	B-174		A-119, A-348		B-311
	B-174		A-113		25 B-437
	B-174		A-113		B-310
	B-174		A-118		34 B-437
S-730-C-4	B-174	SCE4X1-1000	A-118	SH3-6	B-311

Catalog Number Index

CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.
SH36/SP36/SS36	B-437	SHF-(†)-06-(*)-HYL	B-324	SHF-(†)-09-(*)-HB60-48	
SH3-7		SHF-(†)-06-(*)-HYR		SHF-(†)-09-(*)-HB90-12	
SH37/SP37/		SHF-(†)-06-(*)-VTD-12		SHF-(†)-09-(*)-HB90-24	
SH4-5	B-311	SHF-(†)-06-(*)-VTD-24	B-325	SHF-(†)-09-(*)-HB90-36	B-313
SH45/SP45/SS45	B-437	SHF-(†)-06-(*)-VTD-36	B-325	SHF-(†)-09-(*)-HB90-48	B-313
SH4-6		SHF-(†)-06-(*)-VTD-48	B-325	SHF-(†)-09-(*)-HT12	
SH46/SP46/		SHF-(†)-06-(*)-VTU-12		SHF-(†)-09-(*)-HT24	
SH5-5		SHF-(†)-06-(*)-VTU-24		SHF-(†)-09-(*)-HT36	
SH55/SP55/		SHF-(†)-06-(*)-VTU-36		SHF-(†)-09-(*)-HT48	
SHF-(†)-06-(*)-(+)30-12		SHF-(†)-06-(*)-VTU-48		SHF-(†)-09-(*)-HX12	
SHF-(†)-06-(*)-(+)30-24		SHF-(†)-0609-(*)-ET(+)		SHF-(†)-09-(*)-HX24	
SHF-(†)-06-(*)-(+)30-36		SHF-(†)-0609-(*)-EX(+)		SHF-(†)-09-(*)-HX36	
SHF-(†)-06-(*)-(+)30-48		SHF-(†)-0612-(*)-ET(+)		SHF-(†)-09-(*)-HX48	
SHF-(†)-06-(*)-(+)45-12		SHF-(†)-0612-(*)-EX(+)		SHF-(†)-09-(*)-HYL	
SHF-(†)-06-(*)-(+)45-24		SHF-(†)-0618-(*)-ET(+)		SHF-(†)-09-(*)-HYR	
SHF-(†)-06-(*)-(+)45-36	B-321	SHF-(†)-0618-(*)-EX(+)		SHF-(†)-09-(*)-VTD-12	
SHF-(†)-06-(*)-(+)45-48		SHF-(†)-0624-(*)-ET(+)		SHF-(†)-09-(*)-VTD-24	
SHF-(†)-06-(*)-(+)60-12		SHF-(†)-0624-(*)-EX(+)		SHF-(†)-09-(*)-VTD-36	
SHF-(†)-06-(*)-(+)60-24		SHF-(†)-0630-(*)-ET(+)		SHF-(†)-09-(*)-VTD-48	
SHF-(†)-06-(*)-(+)60-36		SHF-(†)-0630-(*)-EX(+)		SHF-(†)-09-(*)-VTU-12	
SHF-(†)-06-(*)-(+)60-48		SHF-(†)-0636-(*)-ET(+)	B-317	SHF-(†)-09-(*)-VTU-24	
SHF-(†)-06-(*)-(+)90-12		SHF-(†)-0636-(*)-EX(+)		SHF-(†)-09-(*)-VTU-36	
SHF-(†)-06-(*)-(+)90-24		SHF-(†)-09-(*)-(+)30-12		SHF-(†)-09-(*)-VTU-48	
SHF-(†)-06-(*)-(+)90-36		SHF-(†)-09-(*)-(+)30-24		SHF(†)-09-06-(*)-HLR	
SHF-(†)-06-(*)-(+)90-48		SHF-(†)-09-(*)-(+)30-36		SHF(†)-09-06-(*)-HRR	
SHF-(†)-06-(*)-CS-12		SHF-(†)-09-(*)-(+)30-48		SHF(†)-09-06-(*)-HSR	
SHF-(†)-06-(*)-CS-24		SHF-(†)-09-(*)-(+)45-12		SHF-(†)-0906-(*)-RT(+)	
SHF-(†)-06-(*)-CS-36		SHF-(†)-09-(*)-(+)45-24		SHF-(†)-0912-(*)-ET(+)	
SHF-(†)-06-(*)-CS-48		SHF-(†)-09-(*)-(+)45-36		SHF-(†)-0912-(*)-EX(+)	
SHF-(†)-06-(*)-HB30-12		SHF-(†)-09-(*)-(+)45-48		SHF-(†)-0918-(*)-ET(+)	
SHF-(†)-06-(*)-HB30-24		SHF-(†)-09-(*)-(+)60-12		SHF-(†)-0918-(*)-EX(+)	
SHF-(†)-06-(*)-HB30-36		SHF-(†)-09-(*)-(+)60-24		SHF-(†)-0924-(*)-ET(+)	
SHF-(†)-06-(*)-HB30-48		SHF-(†)-09-(*)-(+)60-36		SHF-(†)-0924-(*)-EX(+)	
SHF-(†)-06-(*)-HB45-12		SHF-(†)-09-(*)-(+)60-48		SHF-(†)-0930-(*)-ET(+)	
SHF-(†)-06-(*)-HB45-24		SHF-(†)-09-(*)-(+)90-12		SHF-(†)-0930-(*)-EX(+)	
SHF-(†)-06-(*)-HB45-36		SHF-(†)-09-(*)-(+)90-24		SHF-(†)-0936-(*)-ET(+)	
SHF-(†)-06-(*)-HB45-48		SHF-(†)-09-(*)-(+)90-36		SHF-(†)-0936-(*)-EX(+)	
SHF-(†)-06-(*)-HB60-12		SHF-(†)-09-(*)-(+)90-48		SHF-(†)-12-(*)-(+)30-12	
SHF-(†)-06-(*)-HB60-24	B-313	SHF-(†)-09-(*)-CS-12		SHF-(†)-12-(*)-(+)30-24	
SHF-(†)-06-(*)-HB60-36		SHF-(†)-09-(*)-CS-24		SHF-(†)-12-(*)-(+)30-36	
SHF-(†)-06-(*)-HB60-48		SHF-(†)-09-(*)-CS-36		SHF-(†)-12-(*)-(+)30-48	
SHF-(†)-06-(*)-HB90-12		SHF-(†)-09-(*)-CS-48		SHF-(†)-12-(*)-(+)45-12	
SHF-(†)-06-(*)-HB90-24		SHF-(†)-09-(*)-HB30-12		SHF-(†)-12-(*)-(+)45-24	
SHF-(†)-06-(*)-HB90-36		SHF-(†)-09-(*)-HB30-24		SHF-(†)-12-(*)-(+)45-36	
SHF-(†)-06-(*)-HB90-48		SHF-(†)-09-(*)-HB30-36		SHF-(†)-12-(*)-(+)45-48	B-321
SHF-(†)-06-(*)-HT12		SHF-(†)-09-(*)-HB30-48		SHF-(†)-12-(*)-(+)60-12	
SHF-(†)-06-(*)-HT24		SHF-(†)-09-(*)-HB45-12		SHF-(†)-12-(*)-(+)60-24	
SHF-(†)-06-(*)-HT36		SHF-(†)-09-(*)-HB45-24		SHF-(†)-12-(*)-(+)60-36	
SHF-(†)-06-(*)-HT48		SHF-(†)-09-(*)-HB45-36		SHF-(†)-12-(*)-(+)60-48	
SHF-(†)-06-(*)-HX12		SHF-(†)-09-(*)-HB45-48		SHF-(†)-12-(*)-(+)90-12	
SHF-(†)-06-(*)-HX24		SHF-(†)-09-(*)-HB60-12		SHF-(†)-12-(*)-(+)90-24	
SHF-(†)-06-(*)-HX36		SHF-(†)-09-(*)-HB60-24		SHF-(†)-12-(*)-(+)90-36	
SHF-(†)-06-(*)-HX48	B-315	SHF-(†)-09-(*)-HB60-36	B-313	SHF-(†)-12-(*)-(+)90-48	B-319



Catalog Number Index

CAT NO	DAGE NO	CAT NO	DAGE NO	CAT NO	DACE NO
CAT. NO. SHF-(†)-12-(*)-CS-12	PAGE NO. B-326	CAT. NO. SHF-(†)-1236-(*)-EX(+)	PAGE NO. B-318	CAT. NO. SHF-(†)-18-(*)-VTU-36	PAGE NO. B-325
SHF-(†)-12-(*)-CS-24		SHF-(†)-18-(*)-(+)30-12		SHF-(†)-18-(*)-VTU-48	
SHF-(†)-12-(*)-CS-36		SHF-(†)-18-(*)-(+)30-24		SHF(†)-18-06-(*)-HLR	
SHF-(†)-12-(*)-CS-48		SHF-(†)-18-(*)-(+)30-36		SHF(†)-18-06-(*)-HRR	
SHF-(†)-12-(*)-HB30-12	B-314	SHF-(†)-18-(*)-(+)30-48	B-322	SHF(†)-18-06-(*)-HSR	
SHF-(†)-12-(*)-HB30-24	B-314	SHF-(†)-18-(*)-(+)45-12	B-321	SHF-(†)-1806-(*)-RT(+)	
SHF-(†)-12-(*)-HB30-36		SHF-(†)-18-(*)-(+)45-24		SHF(†)-18-09-(*)-HLR	
SHF-(†)-12-(*)-HB30-48		SHF-(†)-18-(*)-(+)45-36		SHF(†)-18-09-(*)-HRR	
SHF-(†)-12-(*)-HB45-12		SHF-(†)-18-(*)-(+)45-48		SHF(†)-18-09-(*)-HSR	
SHF-(†)-12-(*)-HB45-24		SHF-(†)-18-(*)-(+)60-12		SHF-(†)-1809-(*)-RT(+)	
SHF-(†)-12-(*)-HB45-36		SHF-(†)-18-(*)-(+)60-24		SHF(†)-18-12-(*)-HLR	
SHF-(†)-12-(*)-HB45-48		SHF-(†)-18-(*)-(+)60-36		SHF(†)-18-12-(*)-HRR SHF(†)-18-12-(*)-HSR	
SHF-(†)-12-(*)-HB60-12 SHF-(†)-12-(*)-HB60-24		SHF-(†)-18-(*)-(+)60-48 SHF-(†)-18-(*)-(+)90-12		SHF-(†)-1812-(*)-RT(+)	
SHF-(†)-12-(*)-HB60-36		SHF-(†)-18-(*)-(+)90-24		SHF-(†)-1824-(*)-ET(+)	
SHF-(†)-12-(*)-HB60-48		SHF-(†)-18-(*)-(+)90-36		SHF-(†)-1824-(*)-EX(+)	
SHF-(†)-12-(*)-HB90-12		SHF-(†)-18-(*)-(+)90-48		SHF-(†)-1830-(*)-ET(+)	
SHF-(†)-12-(*)-HB90-24		SHF-(†)-18-(*)-CS-12		SHF-(†)-1830-(*)-EX(+)	
SHF-(†)-12-(*)-HB90-36		SHF-(†)-18-(*)-CS-24		SHF-(†)-1836-(*)-ET(+)	
SHF-(†)-12-(*)-HB90-48		SHF-(†)-18-(*)-CS-36		SHF-(†)-1836-(*)-EX(+)	
SHF-(†)-12-(*)-HT12		SHF-(†)-18-(*)-CS-48	B-326	SHF-(†)-24-(*)-(+)30-12	B-322
SHF-(†)-12-(*)-HT24	B-315	SHF-(†)-18-(*)-HB30-12		SHF-(†)-24-(*)-(+)30-24	
SHF-(†)-12-(*)-HT36		SHF-(†)-18-(*)-HB30-24		SHF-(†)-24-(*)-(+)30-36	
SHF-(†)-12-(*)-HT48		SHF-(†)-18-(*)-HB30-36		SHF-(†)-24-(*)-(+)30-48	
SHF-(†)-12-(*)-HX12		SHF-(†)-18-(*)-HB30-48		SHF-(†)-24-(*)-(+)45-12	
SHF-(†)-12-(*)-HX24		SHF-(†)-18-(*)-HB45-12		SHF-(†)-24-(*)-(+)45-24	
SHF-(†)-12-(*)-HX36		SHF-(†)-18-(*)-HB45-24		SHF-(†)-24-(*)-(+)45-36	
SHF-(†)-12-(*)-HX48 SHF-(†)-12-(*)-HYL		SHF-(†)-18-(*)-HB45-36 SHF-(†)-18-(*)-HB45-48		SHF-(†)-24-(*)-(+)45-48 SHF-(†)-24-(*)-(+)60-12	
SHF-(†)-12-(*)-HYR		SHF-(†)-18-(*)-HB60-12		SHF-(†)-24-(*)-(+)60-24	
SHF-(†)-12-(*)-VTD-12	B-325	SHF-(†)-18-(*)-HB60-24		SHF-(†)-24-(*)-(+)60-36	
SHF-(†)-12-(*)-VTD-24		SHF-(†)-18-(*)-HB60-36		SHF-(†)-24-(*)-(+)60-48	
SHF-(†)-12-(*)-VTD-36		SHF-(†)-18-(*)-HB60-48		SHF-(†)-24-(*)-(+)90-12	
SHF-(†)-12-(*)-VTD-48		SHF-(†)-18-(*)-HB90-12		SHF-(†)-24-(*)-(+)90-24	
SHF-(†)-12-(*)-VTU-12	B-325	SHF-(†)-18-(*)-HB90-24	B-313	SHF-(†)-24-(*)-(+)90-36	
SHF-(†)-12-(*)-VTU-24		SHF-(†)-18-(*)-HB90-36		SHF-(†)-24-(*)-(+)90-48	
SHF-(†)-12-(*)-VTU-36		SHF-(†)-18-(*)-HB90-48		SHF-(†)-24-(*)-CS-12	
SHF-(†)-12-(*)-VTU-48		SHF-(†)-18-(*)-HT12		SHF-(†)-24-(*)-CS-24	
SHF(†)-12-06-(*)-HLR	B-323	SHF-(†)-18-(*)-HT24	B-315	SHF-(†)-24-(*)-CS-36	
SHF(†)-12-06-(*)-HRR		SHF-(†)-18-(*)-HT36		SHF-(†)-24-(*)-CS-48	
SHF(†)-12-06-(*)-HSR		SHF-(†)-18-(*)-HT48		SHF-(†)-24-(*)-HB30-12 SHF-(†)-24-(*)-HB30-24	
SHF-(†)-1206-(*)-RT(+) SHF(†)-12-09-(*)-HLR		SHF-(†)-18-(*)-HX12 SHF-(†)-18-(*)-HX24		SHF-(†)-24-(*)-HB30-36	
SHF(†)-12-09-(*)-HRR		SHF-(†)-18-(*)-HX36		SHF-(†)-24-(*)-HB30-48	
SHF(†)-12-09-(*)-HSR		SHF-(†)-18-(*)-HX48		SHF-(†)-24-(*)-HB45-12	
SHF-(†)-1209-(*)-RT(+)	B-316	SHF-(†)-18-(*)-HYL		SHF-(†)-24-(*)-HB45-24	
SHF-(†)-1218-(*)-ET(+)	B-317	SHF-(†)-18-(*)-HYR		SHF-(†)-24-(*)-HB45-36	
SHF-(†)-1218-(*)-EX(+)		SHF-(†)-18-(*)-VTD-12		SHF-(†)-24-(*)-HB45-48	
SHF-(†)-1224-(*)-ET(+)		SHF-(†)-18-(*)-VTD-24		SHF-(†)-24-(*)-HB60-12	
SHF-(†)-1224-(*)-EX(+)		SHF-(†)-18-(*)-VTD-36		SHF-(†)-24-(*)-HB60-24	
SHF-(†)-1230-(*)-ET(+)		SHF-(†)-18-(*)-VTD-48		SHF-(†)-24-(*)-HB60-36	
SHF-(†)-1230-(*)-EX(+)		SHF-(†)-18-(*)-VTU-12		SHF-(†)-24-(*)-HB60-48	B-313
SHF-(†)-1236-(*)-ET(+)	В-317	SHF-(†)-18-(*)-VTU-24	B-325	SHF-(†)-24-(*)-HB90-12	B-313

CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.
SHF-(†)-24-(*)-HB90-24		SHF-(†)-30-(*)-(+)90-12		SHF-(†)-3012-(*)-RT(+)	
SHF-(†)-24-(*)-HB90-36		SHF-(†)-30-(*)-(+)90-24		SHF(†)-30-18-(*)-HLR	
SHF-(†)-24-(*)-HB90-48		SHF-(†)-30-(*)-(+)90-36		SHF(†)-30-18-(*)-HRR	
SHF-(†)-24-(*)-HT12		SHF-(†)-30-(*)-(+)90-48		SHF(†)-30-18-(*)-HSR	
SHF-(†)-24-(*)-HT24		SHF-(†)-30-(*)-CS-12		SHF-(†)-3018-(*)-RT(+)	
SHF-(†)-24-(*)-HT36		SHF-(†)-30-(*)-CS-24		SHF(†)-30-24-(*)-HLR	
SHF-(†)-24-(*)-HT48		SHF-(†)-30-(*)-CS-36		SHF(†)-30-24-(*)-HRR	
SHF-(†)-24-(*)-HX12		SHF-(†)-30-(*)-CS-48		SHF(†)-30-24-(*)-HSR	
SHF-(†)-24-(*)-HX24		SHF-(†)-30-(*)-HB30-12		SHF-(†)-3024-(*)-RT(+)	
SHF-(†)-24-(*)-HX36		SHF-(†)-30-(*)-HB30-24		SHF-(†)-3036-(*)-ET(+)	
SHF-(†)-24-(*)-HX48		SHF-(†)-30-(*)-HB30-36		SHF-(†)-3036-(*)-EX(+)	
SHF-(†)-24-(*)-HYL		SHF-(†)-30-(*)-HB30-48		SHF-(†)-36-(*)-(+)30-12	
SHF-(†)-24-(*)-HYR		SHF-(†)-30-(*)-HB45-12		SHF-(†)-36-(*)-(+)30-24	
SHF-(†)-24-(*)-VTD-12		SHF-(†)-30-(*)-HB45-24		SHF-(†)-36-(*)-(+)30-36	
SHF-(†)-24-(*)-VTD-24		SHF-(†)-30-(*)-HB45-36		SHF-(†)-36-(*)-(+)30-48	
SHF-(†)-24-(*)-VTD-36		SHF-(†)-30-(*)-HB45-48		SHF-(†)-36-(*)-(+)45-12	
SHF-(†)-24-(*)-VTD-48		SHF-(†)-30-(*)-HB60-12		SHF-(†)-36-(*)-(+)45-24	
SHF-(†)-24-(*)-VTU-12		SHF-(†)-30-(*)-HB60-24		SHF-(†)-36-(*)-(+)45-36	
SHF-(†)-24-(*)-VTU-24		SHF-(†)-30-(*)-HB60-36		SHF-(†)-36-(*)-(+)45-48	
SHF-(†)-24-(*)-VTU-36		SHF-(†)-30-(*)-HB60-48		SHF-(†)-36-(*)-(+)60-12	
SHF-(†)-24-(*)-VTU-48		SHF-(†)-30-(*)-HB90-12		SHF-(†)-36-(*)-(+)60-24	
SHF(†)-24-06-(*)-HLR		SHF-(†)-30-(*)-HB90-24		SHF-(†)-36-(*)-(+)60-36	
SHF(†)-24-06-(*)-HRR		SHF-(†)-30-(*)-HB90-36		SHF-(†)-36-(*)-(+)60-48	
SHF(†)-24-06-(*)-HSR		SHF-(†)-30-(*)-HB90-48		SHF-(†)-36-(*)-(+)90-12	
SHF-(†)-2406-(*)-RT(+)		SHF-(†)-30-(*)-HT12		SHF-(†)-36-(*)-(+)90-24	
SHF(†)-24-09-(*)-HLR		SHF-(†)-30-(*)-HT24		SHF-(†)-36-(*)-(+)90-36	
SHF(†)-24-09-(*)-HRR		SHF-(†)-30-(*)-HT36		SHF-(†)-36-(*)-(+)90-48	
SHF(†)-24-09-(*)-HSR		SHF-(†)-30-(*)-HT48		SHF-(†)-36-(*)-CS-12	
SHF-(†)-2409-(*)-RT(+)		SHF-(†)-30-(*)-HX12		SHF-(†)-36-(*)-CS-24	
SHF(†)-24-12-(*)-HLR		SHF-(†)-30-(*)-HX24		SHF-(†)-36-(*)-CS-36	
SHF(†)-24-12-(*)-HRR		SHF-(†)-30-(*)-HX36		SHF-(†)-36-(*)-CS-48 SHF-(†)-36-(*)-HB30-12	
SHF(†)-24-12-(*)-HSR		SHF-(†)-30-(*)-HX48		SHF-(†)-36-(*)-HB30-24	
SHF-(†)-2412-(*)-RT(+) SHF(†)-24-18-(*)-HLR		SHF-(†)-30-(*)-HYL SHF-(†)-30-(*)-HYR		SHF-(†)-36-(*)-HB30-36	
SHF(†)-24-18-(*)-HRR				SHF-(†)-36-(*)-HB30-48	
SHF(†)-24-18-(*)-HSR		SHF-(†)-30-(*)-VTD-12 SHF-(†)-30-(*)-VTD-24		SHF-(†)-36-(*)-HB45-12	
SHF-(†)-2418-(*)-RT(+)		SHF-(†)-30-(*)-VTD-36		SHF-(†)-36-(*)-HB45-24	
SHF-(†)-2430-(*)-ET(+)		SHF-(†)-30-(*)-VTD-48		SHF-(†)-36-(*)-HB45-36	
SHF-(†)-2430-(*)-EX(+)		SHF-(†)-30-(*)-VTU-12		SHF-(†)-36-(*)-HB45-48	
SHF-(†)-2436-(*)-ET(+)		SHF-(†)-30-(*)-VTU-24		SHF-(†)-36-(*)-HB60-12	
SHF-(†)-2436-(*)-EX(+)		SHF-(†)-30-(*)-VTU-36		SHF-(†)-36-(*)-HB60-24	
SHF-(†)-30-(*)-(+)30-12		SHF-(†)-30-(*)-VTU-48		SHF-(†)-36-(*)-HB60-36	
SHF-(†)-30-(*)-(+)30-24		SHF(†)-30-06-(*)-HLR		SHF-(†)-36-(*)-HB60-48	
SHF-(†)-30-(*)-(+)30-36		SHF(†)-30-06-(*)-HRR		SHF-(†)-36-(*)-HB90-12	
SHF-(†)-30-(*)-(+)30-48		SHF(†)-30-06-(*)-HSR		SHF-(†)-36-(*)-HB90-24	
SHF-(†)-30-(*)-(+)45-12		SHF-(†)-3006-(*)-RT(+)		SHF-(†)-36-(*)-HB90-36	
SHF-(†)-30-(*)-(+)45-24		SHF(†)-30-09-(*)-HLR		SHF-(†)-36-(*)-HB90-48	
SHF-(†)-30-(*)-(+)45-36		SHF(†)-30-09-(*)-HRR		SHF-(†)-36-(*)-HT12	
SHF-(†)-30-(*)-(+)45-48		SHF(†)-30-09-(*)-HSR		SHF-(†)-36-(*)-HT24	
SHF-(†)-30-(*)-(+)60-12		SHF-(†)-3009-(*)-RT(+)		SHF-(†)-36-(*)-HT36	
SHF-(†)-30-(*)-(+)60-24		SHF(†)-30-12-(*)-HLR		SHF-(†)-36-(*)-HT48	
SHF-(†)-30-(*)-(+)60-36		SHF(†)-30-12-(*)-HRR		SHF-(†)-36-(*)-HX12	
SHF-(†)-30-(*)-(+)60-48		SHF(†)-30-12-(*)-HSR		SHF-(†)-36-(*)-HX24	
(I) 00 () (T)00 TO	5 020	5111 (1) 50 12 () Holt	0 020	5111 (1) 00 () 11/12 T	0 010

Catalog Number Index

CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.
SHF-(†)-36-(*)-HX36	B-315	CAT. NO. SHT-F 01-S-VI30-24	B-368	CAT. NO. SHT-F 04-S-HX-12	B-364
SHF-(†)-36-(*)-HX48	B-315	SHT-F 01-S-VI45-12	B-367	SHT-F 04-S-HX-24	B-364
SHF-(†)-36-(*)-HYL		SHT-F 01-S-VI45-24		SHT-F 04-S-VI30-12	
SHF-(†)-36-(*)-HYR		SHT-F 01-S-VI60-12		SHT-F 04-S-VI30-24	
SHF-(†)-36-(*)-VTD-12		SHT-F 01-S-VI60-24		SHT-F 04-S-VI45-12	
SHF-(†)-36-(*)-VTD-24		SHT-F 01-S-VI90-12		SHT-F 04-S-VI45-24	
SHF-(†)-36-(*)-VTD-36		SHT-F 01-S-VI90-24		SHT-F 04-S-VI60-12	
SHF-(†)-36-(*)-VTD-48		SHT-F 01-S-V030-12		SHT-F 04-S-VI60-24	
SHF-(†)-36-(*)-VTU-12		SHT-F 01-S-V030-24		SHT-F 04-S-VI90-12	
SHF-(†)-36-(*)-VTU-24		SHT-F 01-S-V045-12		SHT-F 04-S-VI90-24	
SHF-(†)-36-(*)-VTU-36		SHT-F 01-S-V045-24		SHT-F 04-S-V030-12	
SHF-(†)-36-(*)-VTU-48		SHT-F 01-S-V060-12		SHT-F 04-S-V030-24	
SHF(†)-36-06-(*)-HLR		SHT-F 01-S-V060-24		SHT-F 04-S-V045-12	
SHF(†)-36-06-(*)-HRR		SHT-F 01-S-V090-12		SHT-F 04-S-V045-24	
SHF(†)-36-06-(*)-HSR		SHT-F 01-S-V090-24		SHT-F 04-S-V060-12	
SHF-(†)-3606-(*)-RT(+)		SHT-F 03-S-HB30-12		SHT-F 04-S-V060-24	
SHF(†)-36-09-(*)-HLR		SHT-F 03-S-HB30-24		SHT-F 04-S-V090-12	
SHF(†)-36-09-(*)-HRR		SHT-F 03-S-HB45-12		SHT-F 04-S-V090-24	
SHF(†)-36-09-(*)-HSR		SHT-F 03-S-HB45-24		SHT-F 06-S-HB30-12	
SHF-(†)-3609-(*)-RT(+)		SHT-F 03-S-HB60-12		SHT-F 06-S-HB30-24	
SHF(†)-36-12-(*)-HLR		SHT-F 03-S-HB60-24		SHT-F 06-S-HB45-12	
SHF(†)-36-12-(*)-HRR		SHT-F 03-S-HB90-12		SHT-F 06-S-HB45-24	
SHF(†)-36-12-(*)-HSR		SHT-F 03-S-HB90-24		SHT-F 06-S-HB60-12	
SHF-(†)-3612-(*)-RT(+)		SHT-F 03-S-HT-12		SHT-F 06-S-HB60-24	
SHF(†)-36-18-(*)-HLR		SHT-F 03-S-HT-24		SHT-F 06-S-HB90-12	
SHF(†)-36-18-(*)-HRR		SHT-F 03-S-HX-12		SHT-F 06-S-HB90-24	
SHF(†)-36-18-(*)-HSR		SHT-F 03-S-HX-24		SHT-F 06-S-HT-12	
SHF-(†)-3618-(*)-RT(+)		SHT-F 03-S-VI30-12 SHT-F 03-S-VI30-24		SHT-F 06-S-HT-24 SHT-F 06-S-HX-12	
SHF(†)-36-24-(*)-HLR		SHT-F 03-S-VI45-12		SHT-F 06-S-HX-24	
SHF(†)-36-24-(*)-HRR SHF(†)-36-24-(*)-HSR		SHT-F 03-S-VI45-12		SHT-F 06-S-VI30-12	
SHF-(†)-3624-(*)-RT(+)		SHT-F 03-S-VI60-12		SHT-F 06-S-VI30-24	
SHF(†)-36-30-(*)-HLR		SHT-F 03-S-VI60-24		SHT-F 06-S-VI45-12	
SHF(†)-36-30-(*)-HRR		SHT-F 03-S-VI90-12		SHT-F 06-S-VI45-24	
SHF(†)-36-30-(*)-HSR		SHT-F 03-S-VI90-24		SHT-F 06-S-VI60-12	
SHF-(†)-3630-(*)-RT(+)	R-316	SHT-F 03-S-V030-12		SHT-F 06-S-VI60-24	
SHHF 1/2 3/4	Δ-46	SHT-F 03-S-V030-24		SHT-F 06-S-VI90-12	
SHHFR 1/2 3/4		SHT-F 03-S-V045-12		SHT-F 06-S-VI90-24	
SHR 1/2 & 3/4		SHT-F 03-S-V045-24		SHT-F 06-S-V030-12	
SHTC		SHT-F 03-S-V060-12		SHT-F 06-S-V030-24	
SHT-F 01-S-HB30-12		SHT-F 03-S-V060-24		SHT-F 06-S-V045-12	
SHT-F 01-S-HB30-24		SHT-F 03-S-V090-12		SHT-F 06-S-V045-24	
SHT-F 01-S-HB45-12		SHT-F 03-S-V090-24		SHT-F 06-S-V060-12	
SHT-F 01-S-HB45-24		SHT-F 04-S-HB30-12		SHT-F 06-S-V060-24	
SHT-F 01-S-HB60-12		SHT-F 04-S-HB30-24		SHT-F 06-S-V090-12	
SHT-F 01-S-HB60-24		SHT-F 04-S-HB45-12		SHT-F 06-S-V090-24	
SHT-F 01-S-HB90-12		SHT-F 04-S-HB45-24		SHT-W-01-ACS	
SHT-F 01-S-HB90-24		SHT-F 04-S-HB60-12		SHT-W-01-CBP	
SHT-F 01-S-HT-12		SHT-F 04-S-HB60-24		SHT-W-01-CCB	
SHT-F 01-S-HT-24		SHT-F 04-S-HB90-12		SHT-W-01-CCC	
SHT-F 01-S-HX-12		SHT-F 04-S-HB90-24		SHT-W-01-CCS	
SHT-F 01-S-HX-24		SHT-F 04-S-HT-12		SHT-W-01-CCT	
SHT-F 01-S-VI30-12		SHT-F 04-S-HT-24		SHT-W-01-CCV	

Catalog Number Index

CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.
SHT-W-01-CEG		SHT-W-06-CHA		SHUF-(†)-0618-(*)-ET(+)	B-341
SHT-W-01-CEP	B-371	SHT-W-06-DCH	B-373	SHUF-(†)-0618-(*)-EX-(+)	B-342
SHT-W-01-CHA	B-370	SHT-W-06-ESP	B-370	SHUF-(†)-0624-(*)-ET(+)	B-341
SHT-W-01-HCC		SHT-W-06-HCC		SHUF-(†)-0624-(*)-EX-(+)	B-342
SHT-W-01-SHC	B-372	SHT-W-06-SHC	B-372	SHUF-(†)-0630-(*)-ET(+)	B-341
SHT-W-01-TCB	B-373	SHT-W-06-TCB	B-373	SHUF-(†)-0630-(*)-EX-(+)	B-342
SHT-W-01-WAV	B-370	SHT-W-06-WAV	B-370	SHUF-(†)-0636-(*)-ET(+)	
SHT-W-03-01-RSP	B-371	SHU12	B-334	SHUF-(†)-0636-(*)-EX-(+)	B-342
SHT-W-03-ACS	B-370	SHU13	B-334	SHUF-(†)-12-(*)-(+)30-12	B-346
SHT-W-03-CBP	B-371	SHU16	B-335	SHUF-(†)-12-(*)-(+)30-24	B-346
SHT-W-03-CCB	B-373	SHUF-(†)-06-(*)-(+)30-12	B-346	SHUF-(†)-12-(*)-(+)30-36	B-346
SHT-W-03-CCC	B-372	SHUF-(†)-06-(*)-(+)30-24	B-346	SHUF-(†)-12-(*)-(+)45-12	B-345
SHT-W-03-CCS	B-370	SHUF-(†)-06-(*)-(+)30-36	B-346	SHUF-(†)-12-(*)-(+)45-24	B-345
SHT-W-03-CCT	B-371	SHUF-(†)-06-(*)-(+)45-12		SHUF-(†)-12-(*)-(+)45-36	
SHT-W-03-CCV	B-370	SHUF-(†)-06-(*)-(+)45-24		SHUF-(†)-12-(*)-(+)60-12	B-344
SHT-W-03-CEG	B-372	SHUF-(†)-06-(*)-(+)45-36		SHUF-(†)-12-(*)-(+)60-24	
SHT-W-03-CEP	B-371	SHUF-(†)-06-(*)-(+)60-12	B-344	SHUF-(†)-12-(*)-(+)60-36	B-344
SHT-W-03-CHA	B-370	SHUF-(†)-06-(*)-(+)60-24		SHUF-(†)-12-(*)-(+)90-12	
SHT-W-03-ESP		SHUF-(†)-06-(*)-(+)60-36		SHUF-(†)-12-(*)-(+)90-24	
SHT-W-03-HCC	B-372	SHUF-(†)-06-(*)-(+)90-12		SHUF-(†)-12-(*)-(+)90-36	
SHT-W-03-SHC		SHUF-(†)-06-(*)-(+)90-24		SHUF-(†)-12-(*)-CS12	
SHT-W-03-TCB		SHUF-(†)-06-(*)-(+)90-36		SHUF-(†)-12-(*)-CS24	
SHT-W-03-WAV		SHUF-(†)-06-(*)-CS12		SHUF-(†)-12-(*)-CS36	
SHT-W-04-01-RSP		SHUF-(†)-06-(*)-CS24		SHUF-(†)-12-(*)-HB30-12	
SHT-W-04-03-RSP		SHUF-(†)-06-(*)-CS36		SHUF-(†)-12-(*)-HB30-24	
SHT-W-04-ACS		SHUF-(†)-06-(*)-HB30-12		SHUF-(†)-12-(*)-HB30-36	
SHT-W-04-CBP		SHUF-(†)-06-(*)-HB30-24		SHUF-(†)-12-(*)-HB45-12	
SHT-W-04-CCB		SHUF-(†)-06-(*)-HB30-36		SHUF-(†)-12-(*)-HB45-24	
SHT-W-04-CCC		SHUF-(†)-06-(*)-HB45-12		SHUF-(†)-12-(*)-HB45-36	
SHT-W-04-CCS		SHUF-(†)-06-(*)-HB45-24		SHUF-(†)-12-(*)-HB60-12	
SHT-W-04-CCT		SHUF-(†)-06-(*)-HB45-36		SHUF-(†)-12-(*)-HB60-24	
SHT-W-04-CCV		SHUF-(†)-06-(*)-HB60-12		SHUF-(†)-12-(*)-HB60-36	
SHT-W-04-CEG		SHUF-(†)-06-(*)-HB60-24		SHUF-(†)-12-(*)-HB90-12	
SHT-W-04-CEP		SHUF-(†)-06-(*)-HB60-36		SHUF-(†)-12-(*)-HB90-24	
SHT-W-04-CHA		SHUF-(†)-06-(*)-HB90-12		SHUF-(†)-12-(*)-HB90-36	
SHT-W-04-ESP		SHUF-(†)-06-(*)-HB90-24		SHUF-(†)-12-(*)-HT12	
SHT-W-04-HCC		SHUF-(†)-06-(*)-HB90-36		SHUF-(†)-12-(*)-HT24	
SHT-W-04-SHC		SHUF-(†)-06-(*)-HT12		SHUF-(†)-12-(*)-HT36	
SHT-W-04-TCB		SHUF-(†)-06-(*)-HT24		SHUF-(†)-12-(*)-HX12	
SHT-W-04-WAV		SHUF-(†)-06-(*)-HT36		SHUF-(†)-12-(*)-HX24	
SHT-W-06-01-RSP	B-371	SHUF-(†)-06-(*)-HX12		SHUF-(†)-12-(*)-HX36	
SHT-W-06-03-RSP		SHUF-(†)-06-(*)-HX24		SHUF-(†)-12-(*)-HYL	
SHT-W-06-04-RSP		SHUF-(†)-06-(*)-HX36		SHUF-(†)-12-(*)-HYR	
SHT-W-06-ACS		SHUF-(†)-06-(*)-HYL		SHUF-(†)-12-(*)-VTD12	
SHT-W-06-CBP		SHUF-(†)-06-(*)-HYR		SHUF-(†)-12-(*)-VTD24	
SHT-W-06-CCB		SHUF-(†)-06-(*)-VTD12		SHUF-(†)-12-(*)-VTD36	
SHT-W-06-CCC	B-372	SHUF-(†)-06-(*)-VTD24		SHUF-(†)-12-(*)-VTU12	
SHT-W-06-CCH		SHUF-(†)-06-(*)-VTD36		SHUF-(†)-12-(*)-VTU24	
SHT-W-06-CCS		SHUF-(†)-06-(*)-VTU12		SHUF-(†)-12-(*)-VTU36	
SHT-W-06-CCT		SHUF-(†)-06-(*)-VTU24		SHUF-(†)-12-06-(*)-HLR	B-347
SHT-W-06-CCV		SHUF-(†)-06-(*)-VTU36		SHUF-(†)-12-06-(*)-HRR	B-347
SHT-W-06-CEG		SHUF-(†)-0612-(*)-ET(+)		SHUF-(†)-12-06-(*)-HSR	
SHT-W-06-CEP		SHUF-(†)-0612-(*)-EX-(+)		SHUF-(†)-1206-(*)-RT(+)	
- -	•	- (// (// (//	- · -	- (// (//(//	•





Catalog Number Index

CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.
SHUF-(†)-1218-(*)-ET(+)	B-341	SHUF-(†)-18-12-(*)-HLR	B-347	SHUF-(†)-24-06-(*)-HSR	B-347
SHUF-(†)-1218-(*)-EX-(+)		SHUF-(†)-18-12-(*)-HRR		SHUF-(†)-2406-(*)-RT(+)	
SHUF-(†)-1224-(*)-ET(+)		SHUF-(†)-18-12-(*)-HSR		SHUF-(†)-24-12-(*)-HLR	
SHUF-(†)-1224-(*)-EX-(+)		SHUF-(†)-1812-(*)-RT(+)		SHUF-(†)-24-12-(*)-HRR	B-347
SHUF-(†)-1230-(*)-ET(+)	B-341	SHUF-(†)-1824-(*)-ET(+)		SHUF-(†)-24-12-(*)-HSR	B-347
SHUF-(†)-1230-(*)-EX-(+)	B-342	SHUF-(†)-1824-(*)-EX-(+)		SHUF-(†)-2412-(*)-RT(+)	
SHUF-(†)-1236-(*)-ET(+)		SHUF-(†)-1830-(*)-ET(+)		SHUF-(†)-24-18-(*)-HLR	
SHUF-(†)-1236-(*)-EX-(+)		SHUF-(†)-1830-(*)-EX-(+)		SHUF-(†)-24-18-(*)-HRR	
SHUF-(†)-18-(*)-(+)30-12		SHUF-(†)-1836-(*)-ET(+)		SHUF-(†)-24-18-(*)-HSR	
SHUF-(†)-18-(*)-(+)30-24 SHUF-(†)-18-(*)-(+)30-36		SHUF-(†)-1836-(*)-EX-(+) SHUF-(†)-24-(*)-(+)30-12		SHUF-(†)-2418-(*)-RT(+) SHUF-(†)-2430-(*)-ET(+)	
SHUF-(†)-18-(*)-(+)45-12		SHUF-(†)-24-(*)-(+)30-24		SHUF-(†)-2430-(*)-EX-(+)	
SHUF-(†)-18-(*)-(+)45-24		SHUF-(†)-24-(*)-(+)30-36		SHUF-(†)-2436-(*)-ET(+)	
SHUF-(†)-18-(*)-(+)45-36		SHUF-(†)-24-(*)-(+)45-12		SHUF-(†)-2436-(*)-EX-(+)	
SHUF-(†)-18-(*)-(+)60-12		SHUF-(†)-24-(*)-(+)45-24		SHUF-(†)-30-(*)-(+)30-12	
SHUF-(†)-18-(*)-(+)60-24		SHUF-(†)-24-(*)-(+)45-36		SHUF-(†)-30-(*)-(+)30-24	
SHUF-(†)-18-(*)-(+)60-36	B-344	SHUF-(†)-24-(*)-(+)60-12		SHUF-(†)-30-(*)-(+)30-36	
SHUF-(†)-18-(*)-(+)90-12		SHUF-(†)-24-(*)-(+)60-24	B-344	SHUF-(†)-30-(*)-(+)45-12	B-345
SHUF-(†)-18-(*)-(+)90-24		SHUF-(†)-24-(*)-(+)60-36		SHUF-(†)-30-(*)-(+)45-24	
SHUF-(†)-18-(*)-(+)90-36		SHUF-(†)-24-(*)-(+)90-12		SHUF-(†)-30-(*)-(+)45-36	
SHUF-(†)-18-(*)-CS12		SHUF-(†)-24-(*)-(+)90-24		SHUF-(†)-30-(*)-(+)60-12	
SHUF-(†)-18-(*)-CS24		SHUF-(†)-24-(*)-(+)90-36		SHUF-(†)-30-(*)-(+)60-24	
SHUF-(†)-18-(*)-CS36		SHUF-(†)-24-(*)-CS12		SHUF-(†)-30-(*)-(+)60-36	
SHUF-(†)-18-(*)-HB30-12 SHUF-(†)-18-(*)-HB30-24		SHUF-(†)-24-(*)-CS24 SHUF-(†)-24-(*)-CS36		SHUF-(†)-30-(*)-(+)90-24 SHUF-(†)-30-(*)-(+)90-36	
SHUF-(†)-18-(*)-HB30-36		SHUF-(†)-24-(*)-HB30-12		SHUF-(†)-30-(*)-CS12	
SHUF-(†)-18-(*)-HB45-12		SHUF-(†)-24-(*)-HB30-24		SHUF-(†)-30-(*)-CS24	
SHUF-(†)-18-(*)-HB45-24		SHUF-(†)-24-(*)-HB30-36		SHUF-(†)-30-(*)-CS36	
SHUF-(†)-18-(*)-HB45-36		SHUF-(†)-24-(*)-HB45-12		SHUF-(†)-30-(*)-HB30-12	
SHUF-(†)-18-(*)-HB60-12		SHUF-(†)-24-(*)-HB45-24		SHUF-(†)-30-(*)-HB30-24	
SHUF-(†)-18-(*)-HB60-24		SHUF-(†)-24-(*)-HB45-36		SHUF-(†)-30-(*)-HB30-36	
SHUF-(†)-18-(*)-HB60-36	B-336	SHUF-(†)-24-(*)-HB60-12	B-336	SHUF-(†)-30-(*)-HB45-12	B-337
SHUF-(†)-18-(*)-HB90-12		SHUF-(†)-24-(*)-HB60-24		SHUF-(†)-30-(*)-HB45-24	
SHUF-(†)-18-(*)-HB90-24		SHUF-(†)-24-(*)-HB60-36		SHUF-(†)-30-(*)-HB45-36	
SHUF-(†)-18-(*)-HB90-36		SHUF-(†)-24-(*)-HB90-12		SHUF-(†)-30-(*)-HB60-12	
SHUF-(†)-18-(*)-HT12		SHUF-(†)-24-(*)-HB90-24		SHUF-(†)-30-(*)-HB60-24	
SHUF-(†)-18-(*)-HT24		SHUF-(†)-24-(*)-HB90-36		SHUF-(†)-30-(*)-HB60-36	
SHUF-(†)-18-(*)-HT36 SHUF-(†)-18-(*)-HX12		SHUF-(†)-24-(*)-HT12 SHUF-(†)-24-(*)-HT24	D-330 R_338	SHUF-(†)-30-(*)-HB90-12 SHUF-(†)-30-(*)-HB90-24	
SHUF-(†)-18-(*)-HX24	D-339 R-330	SHUF-(†)-24-(*)-HT36		SHUF-(†)-30-(*)-HB90-36	R-336
SHUF-(†)-18-(*)-HX36		SHUF-(†)-24-(*)-HX12		SHUF-(†)-30-(*)-HT12	
SHUF-(†)-18-(*)-HYL		SHUF-(†)-24-(*)-HX24		SHUF-(†)-30-(*)-HT24	
SHUF-(†)-18-(*)-HYR		SHUF-(†)-24-(*)-HX36		SHUF-(†)-30-(*)-HT36	
SHUF-(†)-18-(*)-VTD12		SHUF-(†)-24-(*)-HYL		SHUF-(†)-30-(*)-HX12	
SHUF-(†)-18-(*)-VTD24	B-349	SHUF-(†)-24-(*)-HYR		SHUF-(†)-30-(*)-HX24	
SHUF-(†)-18-(*)-VTD36		SHUF-(†)-24-(*)-VTD12		SHUF-(†)-30-(*)-HX36	
SHUF-(†)-18-(*)-VTU12		SHUF-(†)-24-(*)-VTD24		SHUF-(†)-30-(*)-HYL	
SHUF-(†)-18-(*)-VTU24		SHUF-(†)-24-(*)-VTD36		SHUF-(†)-30-(*)-HYR	
SHUF-(†)-18-(*)-VTU36		SHUF-(†)-24-(*)-VTU12		SHUF-(†)-30-(*)-VTD12	
SHUF-(†)-18-06-(*)-HLR		SHUF-(†)-24-(*)-VTU24		SHUF-(†)-30-(*)-VTD24	
SHUF-(†)-18-06-(*)-HRR		SHUF-(†)-24-(*)-VTU36		SHUF-(†)-30-(*)-VTD36	
SHUF-(†)-18-06-(*)-HSR SHUF-(†)-1806-(*)-RT(+)		SHUF-(†)-24-06-(*)-HLR SHUF-(†)-24-06-(*)-HRR		SHUF-(†)-30-(*)-VTU12 SHUF-(†)-30-(*)-VTU24	
3110F-(1)-1000-()-K1(+)	D-34U	SHUF-()-24-00-()-ANN	D-341	31101-(1)-30-()-11024	D-349

800.816.7809 Fax: 901.252.1354

CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.
SHUF-(†)-30-(*)-VTU36		SHUF-(†)-36-(*)-HYR		SHW-3-(*)-RSP	
SHUF-(†)-30-06-(*)-HLR	B-347	SHUF-(†)-36-(*)-VTD12	B-349	SHW30CSB	
SHUF-(†)-30-06-(*)-HRR	B-347	SHUF-(†)-36-(*)-VTD24	B-349	SHW-3-BSPB-	
SHUF-(†)-30-06-(*)-HSR		SHUF-(†)-36-(*)-VTD36		SHW-3-ESPB-	
SHUF-(†)-3006-(*)-RT(+)	B-340	SHUF-(†)-36-(*)-VTU12		SHW-3-RSP	
SHUF-(†)-30-12-(*)-HLR	B-347	SHUF-(†)-36-(*)-VTU24	B-349	SHW-3-SB	
SHUF-(†)-30-12-(*)-HRR		SHUF-(†)-36-(*)-VTU36		SHW-3-SBH-72	
SHUF-(†)-30-12-(*)-HSR		SHUF-(†)-36-06-(*)-HLR		SHW-3-SSPB-	
SHUF-(†)-3012-(*)-RT(+)		SHUF-(†)-36-06-(*)-HRR		SHW-3-VIB-(*)-(+)	
SHUF-(†)-30-18-(*)-HLR		SHUF-(†)-36-06-(*)-HSR		SHW-3-V0B-(*)-(+)	
SHUF-(†)-30-18-(*)-HRR		SHUF-(†)-3606-(*)-RT(+)		SHW-3-VSP	
SHUF-(†)-30-18-(*)-HSR		SHUF-(†)-36-12-(*)-HLR		SHW-4-(*)-CEP	B-330
SHUF-(†)-3018-(*)-RT(+)		SHUF-(†)-36-12-(*)-HRR		SHW-4-(*)-HCC	B-329
SHUF-(†)-30-24-(*)-HLR		SHUF-(†)-36-12-(*)-HSR		SHW-4-(*)-HPC	
SHUF-(†)-30-24-(*)-HRR	B-347	SHUF-(†)-3612-(*)-RT(+)		SHW-4-(*)-RSP	
SHUF-(†)-30-24-(*)-HSR		SHUF-(†)-36-18-(*)-HLR		SHW-4-BSPB-	
SHUF-(†)-3024-(*)-RT(+)		SHUF-(†)-36-18-(*)-HRR		SHW-4-ESP	
SHUF-(†)-3036-(*)-ET(+)		SHUF-(†)-36-18-(*)-HSR		SHW-4-SB	
SHUF-(†)-3036-(*)-EX-(+)	B-342	SHUF-(†)-3618-(*)-RT(+)		SHW-4-SBH-72	
SHUF-(†)-36-(*)-(+)30-12		SHUF-(†)-36-24-(*)-HLR		SHW-4-SSP	
SHUF-(†)-36-(*)-(+)30-24		SHUF-(†)-36-24-(*)-HRR		SHW-4-VIB-(*)-(+)	
SHUF-(†)-36-(*)-(+)30-36		SHUF-(†)-36-24-(*)-HSR		SHW-4-V0B-(*)-(+)	B-333
SHUF-(†)-36-(*)-(+)45-12		SHUF-(†)-3624-(*)-RT(+)		SHW-4-VSP	
SHUF-(†)-36-(*)-(+)45-24	B-345	SHUF-(†)-36-30-(*)-HLR		SHW-5-(*)-CEP	B-330
SHUF-(†)-36-(*)-(+)45-36		SHUF-(†)-36-30-(*)-HRR		SHW-5-(*)-HCC	
SHUF-(†)-36-(*)-(+)60-12	B-344	SHUF-(†)-36-30-(*)-HSR		SHW-5-(*)-HPC	
SHUF-(†)-36-(*)-(+)60-24	B-344	SHUF-(†)-3630-(*)-RT(+)		SHW-5-(*)-RSP	
SHUF-(†)-36-(*)-(+)60-36		SHUW-2-ESP		SHW-5-BSPB-	
SHUF-(†)-36-(*)-(+)90-12	B-343	SHUW-2-SSP	B-353	SHW-5-ESP	
SHUF-(†)-36-(*)-(+)90-24		SHW-(*)-(*)-FBP		SHW-5-SB	
SHUF-(†)-36-(*)-(+)90-36	B-343	SHW-(*)-(*)-SDS		SHW-5-SBH-72	
SHUF-(†)-36-(*)-CS12		SHW-(*)-(*)-WPS		SHW-5-SSP	
SHUF-(†)-36-(*)-CS24		SHW-(*)06HAP		SHW-5-VIB-(*)-(+)	
SHUF-(†)-36-(*)-CS36		SHW-(*)09HAP		SHW-5-V0B-(*)-(+)	
SHUF-(†)-36-(*)-HB30-12	B-337	SHW-(*)12HAP		SHW-5-VSP	
SHUF-(†)-36-(*)-HB30-24		SHW-(*)18HAP		SHW-6-(*)-CEPB-	330, B-354
SHUF-(†)-36-(*)-HB30-36		SHW-(*)24HAP		SHW-6-(*)-HCCB-	329, B-355
SHUF-(†)-36-(*)-HB45-12		SHW-(*)30HAP		SHW-6-(*)-HPC	B-329
SHUF-(†)-36-(*)-HB45-24		SHW-(*)36HAP		SHW-6-(*)-RSP	
SHUF-(†)-36-(*)-HB45-36		SHW-(*)42HAP		SHW-6-BSPB-	
SHUF-(†)-36-(*)-HB60-12		SHW-(*)-D0		SHW-6-ESPB-	
SHUF-(†)-36-(*)-HB60-24		SHW-(*)-DOS		SHW-6-RSP	
SHUF-(†)-36-(*)-HB60-36		SHW-(*)-HRC		SHW-6-SB	
SHUF-(†)-36-(*)-HB90-12		SHW(*)PEC		SHW-6-SBH-72	
SHUF-(†)-36-(*)-HB90-24		SHW-(*)-TPK		SHW-6-SSPB-	
SHUF-(†)-36-(*)-HB90-36		SHW-(*)-VTH		SHW-6-VIB-(*)-(+)	
SHUF-(†)-36-(*)-HT12		SHW18CSB		SHW-6-V0B-(*)-(+)	
SHUF-(†)-36-(*)-HT24		SHW-2-(*)-CEP		SHW-6-VSP	
SHUF-(†)-36-(*)-HT36		SHW-2-(*)-HCC		SHW-7-(*)-CEP	
SHUF-(†)-36-(*)-HX12		SHW-2-(*)-RSP		SHW-7-(*)-HCC	
SHUF-(†)-36-(*)-HX24		SHW-3-(*)-CEPB-33		SHW-7-(*)-HPC	
SHUF-(†)-36-(*)-HX36		SHW-3-(*)-HCCB-32		SHW-7-(*)-RSP	
SHUF-(†)-36-(*)-HYL	В-348	SHW-3-(*)-HPC	В-329	SHW-7-BSPB-	330, B-353

Catalog Number Index

CAT. NO.	PAGE NO.	CAT. NO. SMMK196-9	PAGE NO.	CAT. NO. SPAB-844-PC	PAGE NO.
SHW-7-ESP				SPAB-844-PC	B-198
SHW-7-SB		SMNY-000-9-D		SPF-(†)-06-(*)-(+)30-12	
SHW-7-SBH-72		SMNY-001-9-D		SPF-(†)-06-(*)-(+)30-24	
SHW-7-SSP		SMNY-220-9-D		SPF-(†)-06-(*)-(+)30-36	
SHW-7-VIB-(*)-(+)		SMOH07-0		SPF-(†)-06-(*)-(+)30-48	
SHW-7-VOB-(*)-(+)		SMOH12-0		SPF-(†)-06-(*)-(+)45-12	
SHW-7-VSP		SMOH18-0		SPF-(†)-06-(*)-(+)45-24	
SHW-CTC		SM0H30-0		SPF-(†)-06-(*)-(+)45-36	
SHW-CTG		SMR118-4		SPF-(†)-06-(*)-(+)45-48	
SHW-HEC SJ-11	D-331	SMR118-9		SPF-(†)-06-(*)-(+)60-12	
		SMR196-4		SPF-(†)-06-(*)-(+)60-24	
SJ-21		SMR196-9		SPF-(†)-06-(*)-(+)60-36	
SJ-31		SMS118-4		SPF-(†)-06-(*)-(+)60-48	
SJ-B		SMS118-9		SPF-(†)-06-(*)-(+)90-12	
SL-5 SLK11		SMS196-4 SMS196-9		SPF-(†)-06-(*)-(+)90-24	
				SPF-(†)-06-(*)-(+)90-36	
SLK12 SLK21		SMS394-4		SPF-(†)-06-(*)-(+)90-48	
SLK21		SMS394-9 SMS630-4		SPF-(†)-06-(*)-CS-12	
SLK22 SLK31		SMS630-9		SPF-(†)-06-(*)-CS-24	
SLK32		SMY079-4		SPF-(†)-06-(*)-CS-36	
SM0256-4		SMY079-9		SPF-(†)-06-(*)-CS-48	
SM0256-9		SN-21-DV		SPF-(†)-06-(*)-HB30-12	
SMAT118		SN-236		SPF-(†)-06-(*)-HB30-24 SPF-(†)-06-(*)-HB30-36	
SMAT196		SN-236-FS		SPF-(†)-06-(*)-HB30-48	
SMC118-4		SN-236-V		SPF-(†)-06-(*)-HB45-12	
SMC118-9		SN-241		SPF-(†)-06-(*)-HB45-24	
SMC157-4		SN-241-FS		SPF-(†)-06-(*)-HB45-36	
SMC157-9		SN-357		SPF-(†)-06-(*)-HB45-48	
SMC197-4		SN-357-FS		SPF-(†)-06-(*)-HB60-12	
SMC197-9		SNO-18		SPF-(†)-06-(*)-HB60-24	
SMC244-4		SNO-18-M		SPF-(†)-06-(*)-HB60-36	
SMC244-9		SP1-3		SPF-(†)-06-(*)-HB60-48	
SMD118-4		SP1-4		SPF-(†)-06-(*)-HB90-12	
SMD118-9		SP1-6		SPF-(†)-06-(*)-HB90-24	
SMD196-4		SP2-5		SPF-(†)-06-(*)-HB90-36	
SMD196-9		SP3-4		SPF-(†)-06-(*)-HB90-48	
SMD394-4		SP3-6		SPF-(†)-06-(*)-HT12	
SMD394-9		SP3-7		SPF-(†)-06-(*)-HT24	
SMDP394-9		SP4-5		SPF-(†)-06-(*)-HT36	B-315
SMK244-4		SP4-6		SPF-(†)-06-(*)-HT48	
SMK244-9		SP5-5		SPF-(†)-06-(*)-HX12	
SMKH10-0		SP-60-DS-P3		SPF-(†)-06-(*)-HX24	
SMKH20-0		SP-620-MA		SPF-(†)-06-(*)-HX36	
SMMDT118-4-0-9		SP-621		SPF-(†)-06-(*)-HX48	
SMMDT118-9-0-9		SP-641-1-AL		SPF-(†)-06-(*)-HYL	
SMMDT118-E		SP-642-1-AL		SPF-(†)-06-(*)-HYR	
SMMDT196-4-0-9		SP-643-1		SPF-(†)-06-(*)-VTD-12	R-325
SMMDT196-9-0-9		SP-643-1-AL		SPF-(†)-06-(*)-VTD-24	
SMMDT196-E		SP-644-AL		SPF-(†)-06-(*)-VTD-36	
SMMK118-4		SP650		SPF-(†)-06-(*)-VTD-48	
SMMK118-9		SP651		SPF-(†)-06-(*)-VTU-12	
SMMK196-4		SPAB-227		SPF-(†)-06-(*)-VTU-24	
			100	(1) 50 () 110 2 7	5 020

800.816.7809 Fax: 901.252.1354

CAT. NO. PAGE NO. CAT. NO. PAGE NO.
SPF-(†)-06-(*)-VTU-48
SPF-(†)-0609-(*)-ET(+) B-317 SPF-(†)-09-(*)-HX24 B-315 SPF-(†)-12-(*)-HB45-36 B-31 SPF-(†)-0609-(*)-EX(+) B-318 SPF-(†)-09-(*)-HX36 SPF-(†)-12-(*)-HB45-48 SPF-(†)-12-(*)-HB45-48
SPF-(†)-0609-(*)-EX(+)
SPF-(†)-0612-(*)-EX(+)
SPF-(†)-0618-(*)-ET(+)
SPF-(†)-0618-(*)-EX(+)
SPF-(†)-0624-(*)-ET(+)
SPF-(†)-0624-(*)-EX(+)
SPF-(†)-0630-(*)-ET(+)
SPF-(†)-0630-(*)-EX(+)
SPF-(†)-0636-(*)-ET(+)B-317 SPF-(†)-09-(*)-VTU-24B-325 SPF-(†)-12-(*)-HT12B-31
SPF-(†)-0636-(*)-EX(+)
SPF-(†)-09-(*)-(+)30-12
SPF-(†)-09-(*)-(+)30-24
SPF-(†)-09-(*)-(+)30-36
SPF-(†)-09-(*)-(+)30-48
SPF-(†)-09-(*)-(+)45-12
SPF-(†)-09-(*)-(+)45-24
SPF-(†)-09-(*)-(+)45-36
SPF-(†)-09-(*)-(+)45-48
SPF-(†)-09-(*)-(+)60-12
SPF-(†)-09-(*)-(+)60-24
SPF-(†)-09-(*)-(+)60-36
SPF-(†)-09-(*)-(+)60-48
SPF-(†)-09-(*)-(+)90-12
SPF-(†)-09-(*)-(+)90-24
SPF-(†)-09-(*)-(+)90-36
SPF-(†)-09-(*)-(+)90-48
SPF-(†)-09-(*)-CS-12B-326 SPF-(†)-12-(*)-(+)30-24B-322 SPF(†)-12-06-(*)-HLRB-32
SPF-(†)-09-(*)-CS-24
SPF-(†)-09-(*)-CS-36
SPF-(†)-09-(*)-CS-48B-326 SPF-(†)-12-(*)-(+)45-12B-321 SPF-(†)-1206-(*)-RT(+)B-31
SPF-(†)-09-(*)-HB30-12 B-314 SPF-(†)-12-(*)-(+)45-24 B-321 SPF(†)-12-09-(*)-HLR B-32
SPF-(†)-09-(*)-HB30-24 B-314 SPF-(†)-12-(*)-(+)45-36 B-321 SPF(†)-12-09-(*)-HRR B-32
SPF-(†)-09-(*)-HB30-36
SPF-(†)-09-(*)-HB30-48 B-314 SPF-(†)-12-(*)-(+)60-12 B-320 SPF-(†)-1209-(*)-RT(+) B-31
SPF-(†)-09-(*)-HB45-12
SPF-(†)-09-(*)-HB45-24
SPF-(†)-09-(*)-HB45-36
SPF-(†)-09-(*)-HB45-48
SPF-(†)-09-(*)-HB60-12
SPF-(†)-09-(*)-HB60-24
SPF-(†)-09-(*)-HB60-36
SPF-(†)-09-(*)-HB60-48
SPF-(†)-09-(*)-HB90-12
SPF-(†)-09-(*)-HB90-24
SPF-(†)-09-(*)-HB90-36 B-313 SPF-(†)-12-(*)-CS-48 B-326 SPF-(†)-18-(*)-(+)30-36 B-32 SPF-(†)-09-(*)-HB90-48 SPF-(†)-12-(*)-HB30-12 B-314 SPF-(†)-18-(*)-(+)30-48 SPF-(†)-18-(*)-(+)30-48
SPF-(†)-09-(*)-HT12B-315 SPF-(†)-12-(*)-HB30-24B-314 SPF-(†)-18-(*)-(+)45-12B-32 SPF-(†)-09-(*)-HT24B-315 SPF-(†)-12-(*)-HB30-36B-314 SPF-(†)-18-(*)-(+)45-24B-32
SPF-(1)-09-(1)-0124
017 (1) 00 () 11100



Catalog Number Index

CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.
SPF-(†)-18-(*)-(+)45-48	B-321	SPF(†)-18-09-(*)-HSR	B-323	SPF-(†)-24-(*)-HX24	B-315
SPF-(†)-18-(*)-(+)60-12		SPF-(†)-1809-(*)-RT(+)		SPF-(†)-24-(*)-HX36	
SPF-(†)-18-(*)-(+)60-24		SPF(†)-18-12-(*)-HLR		SPF-(†)-24-(*)-HX48	
SPF-(†)-18-(*)-(+)60-36		SPF(†)-18-12-(*)-HRR		SPF-(†)-24-(*)-HYL	
SPF-(†)-18-(*)-(+)60-48		SPF(†)-18-12-(*)-HSR		SPF-(†)-24-(*)-HYR	
SPF-(†)-18-(*)-(+)90-12		SPF-(†)-1812-(*)-RT(+)		SPF-(†)-24-(*)-VTD-12	
SPF-(†)-18-(*)-(+)90-24		SPF-(†)-1824-(*)-ET(+)		SPF-(†)-24-(*)-VTD-24	
SPF-(†)-18-(*)-(+)90-36		SPF-(†)-1824-(*)-EX(+)		SPF-(†)-24-(*)-VTD-36	
SPF-(†)-18-(*)-(+)90-48	B-319	SPF-(†)-1830-(*)-ET(+)		SPF-(†)-24-(*)-VTD-48	
SPF-(†)-18-(*)-CS-12		SPF-(†)-1830-(*)-EX(+)		SPF-(†)-24-(*)-VTU-12	B-325
SPF-(†)-18-(*)-CS-24	B-326	SPF-(†)-1836-(*)-ET(+)		SPF-(†)-24-(*)-VTU-24	B-325
SPF-(†)-18-(*)-CS-36	B-326	SPF-(†)-1836-(*)-EX(+)	B-318	SPF-(†)-24-(*)-VTU-36	B-325
SPF-(†)-18-(*)-CS-48	B-326	SPF-(†)-24-(*)-(+)30-12		SPF-(†)-24-(*)-VTU-48	
SPF-(†)-18-(*)-HB30-12	B-314	SPF-(†)-24-(*)-(+)30-24	B-322	SPF(†)-24-06-(*)-HLR	B-323
SPF-(†)-18-(*)-HB30-24	B-314	SPF-(†)-24-(*)-(+)30-36	B-322	SPF(†)-24-06-(*)-HRR	B-323
SPF-(†)-18-(*)-HB30-36	B-314	SPF-(†)-24-(*)-(+)30-48	B-322	SPF(†)-24-06-(*)-HSR	
SPF-(†)-18-(*)-HB30-48	B-314	SPF-(†)-24-(*)-(+)45-12	B-321	SPF-(†)-2406-(*)-RT(+)	
SPF-(†)-18-(*)-HB45-12	B-314	SPF-(†)-24-(*)-(+)45-24	B-321	SPF(†)-24-09-(*)-HLR	B-323
SPF-(†)-18-(*)-HB45-24		SPF-(†)-24-(*)-(+)45-36	B-321	SPF(†)-24-09-(*)-HRR	B-323
SPF-(†)-18-(*)-HB45-36		SPF-(†)-24-(*)-(+)45-48		SPF(†)-24-09-(*)-HSR	
SPF-(†)-18-(*)-HB45-48		SPF-(†)-24-(*)-(+)60-12		SPF-(†)-2409-(*)-RT(+)	
SPF-(†)-18-(*)-HB60-12	B-313	SPF-(†)-24-(*)-(+)60-24		SPF(†)-24-12-(*)-HLR	
SPF-(†)-18-(*)-HB60-24		SPF-(†)-24-(*)-(+)60-36		SPF(†)-24-12-(*)-HRR	
SPF-(†)-18-(*)-HB60-36		SPF-(†)-24-(*)-(+)60-48		SPF(†)-24-12-(*)-HSR	
SPF-(†)-18-(*)-HB60-48		SPF-(†)-24-(*)-(+)90-12		SPF-(†)-2412-(*)-RT(+)	
SPF-(†)-18-(*)-HB90-12		SPF-(†)-24-(*)-(+)90-24		SPF(†)-24-18-(*)-HLR	
SPF-(†)-18-(*)-HB90-24		SPF-(†)-24-(*)-(+)90-36		SPF(†)-24-18-(*)-HRR	
SPF-(†)-18-(*)-HB90-36		SPF-(†)-24-(*)-(+)90-48		SPF(†)-24-18-(*)-HSR	
SPF-(†)-18-(*)-HB90-48		SPF-(†)-24-(*)-CS-12		SPF-(†)-2418-(*)-RT(+)	
SPF-(†)-18-(*)-HT12		SPF-(†)-24-(*)-CS-24		SPF-(†)-2430-(*)-ET(+)	
SPF-(†)-18-(*)-HT24		SPF-(†)-24-(*)-CS-36		SPF-(†)-2430-(*)-EX(+)	
SPF-(†)-18-(*)-HT36		SPF-(†)-24-(*)-CS-48		SPF-(†)-2436-(*)-ET(+)	
SPF-(†)-18-(*)-HT48		SPF-(†)-24-(*)-HB30-12		SPF-(†)-2436-(*)-EX(+)	
SPF-(†)-18-(*)-HX12		SPF-(†)-24-(*)-HB30-24		SPF-(†)-30-(*)-(+)30-12	
SPF-(†)-18-(*)-HX24		SPF-(†)-24-(*)-HB30-36		SPF-(†)-30-(*)-(+)30-24	
SPF-(†)-18-(*)-HX36 SPF-(†)-18-(*)-HX48		SPF-(†)-24-(*)-HB30-48 SPF-(†)-24-(*)-HB45-12		SPF-(†)-30-(*)-(+)30-36	
SPF-(†)-18-(*)-HYL		SPF-(†)-24-(*)-HB45-24		SPF-(†)-30-(*)-(+)30-48 SPF-(†)-30-(*)-(+)45-12	
SPF-(†)-18-(*)-HYR		SPF-(†)-24-(*)-HB45-36		SPF-(†)-30-(*)-(+)45-24	
SPF-(†)-18-(*)-VTD-12	R-325	SPF-(†)-24-(*)-HB45-48		SPF-(†)-30-(*)-(+)45-36	R_321
SPF-(†)-18-(*)-VTD-24		SPF-(†)-24-(*)-HB60-12		SPF-(†)-30-(*)-(+)45-48	
SPF-(†)-18-(*)-VTD-36		SPF-(†)-24-(*)-HB60-24		SPF-(†)-30-(*)-(+)60-12	
SPF-(†)-18-(*)-VTD-48		SPF-(†)-24-(*)-HB60-36		SPF-(†)-30-(*)-(+)60-24	
SPF-(†)-18-(*)-VTU-12		SPF-(†)-24-(*)-HB60-48		SPF-(†)-30-(*)-(+)60-36	
SPF-(†)-18-(*)-VTU-24		SPF-(†)-24-(*)-HB90-12		SPF-(†)-30-(*)-(+)60-48	
SPF-(†)-18-(*)-VTU-36		SPF-(†)-24-(*)-HB90-24		SPF-(†)-30-(*)-(+)90-12	
SPF-(†)-18-(*)-VTU-48		SPF-(†)-24-(*)-HB90-36		SPF-(†)-30-(*)-(+)90-24	
SPF(†)-18-06-(*)-HLR		SPF-(†)-24-(*)-HB90-48		SPF-(†)-30-(*)-(+)90-36	B-319
SPF(†)-18-06-(*)-HRR		SPF-(†)-24-(*)-HT12		SPF-(†)-30-(*)-(+)90-48	
SPF(†)-18-06-(*)-HSR		SPF-(†)-24-(*)-HT24		SPF-(†)-30-(*)-CS-12	
SPF-(†)-1806-(*)-RT(+)		SPF-(†)-24-(*)-HT36		SPF-(†)-30-(*)-CS-24	
SPF(†)-18-09-(*)-HLR		SPF-(†)-24-(*)-HT48		SPF-(†)-30-(*)-CS-36	
SPF(†)-18-09-(*)-HRR		SPF-(†)-24-(*)-HX12		SPF-(†)-30-(*)-CS-48	
		•		•	

CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.
SPF-(†)-30-(*)-HB30-12		SPF-(†)-3024-(*)-RT(+)	B-316	SPF-(†)-36-(*)-VTU-12	
SPF-(†)-30-(*)-HB30-24		SPF-(†)-3036-(*)-ET(+)		SPF-(†)-36-(*)-VTU-24	
SPF-(†)-30-(*)-HB30-36		SPF-(†)-3036-(*)-EX(+)		SPF-(†)-36-(*)-VTU-36	
SPF-(†)-30-(*)-HB30-48		SPF-(†)-36-(*)-(+)30-12		SPF-(†)-36-(*)-VTU-48	
SPF-(†)-30-(*)-HB45-12		SPF-(†)-36-(*)-(+)30-24		SPF(†)-36-06-(*)-HLR	
SPF-(†)-30-(*)-HB45-24		SPF-(†)-36-(*)-(+)30-36	B-322	SPF(†)-36-06-(*)-HRR	
SPF-(†)-30-(*)-HB45-36		SPF-(†)-36-(*)-(+)30-48		SPF(†)-36-06-(*)-HSR	
SPF-(†)-30-(*)-HB45-48		SPF-(†)-36-(*)-(+)45-12		SPF-(†)-3606-(*)-RT(+) SPF(†)-36-09-(*)-HLR	
SPF-(†)-30-(*)-HB60-12 SPF-(†)-30-(*)-HB60-24		SPF-(†)-36-(*)-(+)45-24 SPF-(†)-36-(*)-(+)45-36		SPF(†)-36-09-(*)-HRR	
SPF-(†)-30-(*)-HB60-36		SPF-(†)-36-(*)-(+)45-48		SPF(†)-36-09-(*)-HSR	
SPF-(†)-30-(*)-HB60-48		SPF-(†)-36-(*)-(+)60-12		SPF-(†)-3609-(*)-RT(+)	
SPF-(†)-30-(*)-HB90-12		SPF-(†)-36-(*)-(+)60-24		SPF(†)-36-12-(*)-HLR	
SPF-(†)-30-(*)-HB90-24		SPF-(†)-36-(*)-(+)60-36		SPF(†)-36-12-(*)-HRR	
SPF-(†)-30-(*)-HB90-36		SPF-(†)-36-(*)-(+)60-48		SPF(†)-36-12-(*)-HSR	
SPF-(†)-30-(*)-HB90-48		SPF-(†)-36-(*)-(+)90-12		SPF-(†)-3612-(*)-RT(+)	
SPF-(†)-30-(*)-HT12		SPF-(†)-36-(*)-(+)90-24		SPF(†)-36-18-(*)-HLR	
SPF-(†)-30-(*)-HT24		SPF-(†)-36-(*)-(+)90-36		SPF(†)-36-18-(*)-HRR	
SPF-(†)-30-(*)-HT36		SPF-(†)-36-(*)-(+)90-48		SPF(†)-36-18-(*)-HSR	B-323
SPF-(†)-30-(*)-HT48	B-315	SPF-(†)-36-(*)-CS-12	B-326	SPF-(†)-3618-(*)-RT(+)	B-316
SPF-(†)-30-(*)-HX12	B-315	SPF-(†)-36-(*)-CS-24		SPF(†)-36-24-(*)-HLR	
SPF-(†)-30-(*)-HX24	B-315	SPF-(†)-36-(*)-CS-36		SPF(†)-36-24-(*)-HRR	
SPF-(†)-30-(*)-HX36		SPF-(†)-36-(*)-CS-48		SPF(†)-36-24-(*)-HSR	B-323
SPF-(†)-30-(*)-HX48		SPF-(†)-36-(*)-HB30-12		SPF-(†)-3624-(*)-RT(+)	
SPF-(†)-30-(*)-HYL		SPF-(†)-36-(*)-HB30-24		SPF(†)-36-30-(*)-HLR	
SPF-(†)-30-(*)-HYR		SPF-(†)-36-(*)-HB30-36		SPF(†)-36-30-(*)-HRR	
SPF-(†)-30-(*)-VTD-12		SPF-(†)-36-(*)-HB30-48		SPF(†)-36-30-(*)-HSR	
SPF-(†)-30-(*)-VTD-24		SPF-(†)-36-(*)-HB45-12		SPF-(†)-3630-(*)-RT(+)	
SPF-(†)-30-(*)-VTD-36		SPF-(†)-36-(*)-HB45-24		SPJ-3 SPJ-5	
SPF-(†)-30-(*)-VTD-48 SPF-(†)-30-(*)-VTU-12		SPF-(†)-36-(*)-HB45-36 SPF-(†)-36-(*)-HB45-48		SPJ-MB	
SPF-(†)-30-(*)-VTU-24		SPF-(†)-36-(*)-HB60-12		SPJ-SR	
SPF-(†)-30-(*)-VTU-36		SPF-(†)-36-(*)-HB60-24		SPL111	
SPF-(†)-30-(*)-VTU-48		SPF-(†)-36-(*)-HB60-36		SPL122	
SPF(†)-30-06-(*)-HLR		SPF-(†)-36-(*)-HB60-48		SPL211	
SPF(†)-30-06-(*)-HRR		SPF-(†)-36-(*)-HB90-12		SPL222	
SPF(†)-30-06-(*)-HSR		SPF-(†)-36-(*)-HB90-24		SP-P64-DS-P2	
SPF-(†)-3006-(*)-RT(+)		SPF-(†)-36-(*)-HB90-36		SPP-64-DS-P2	A-171
SPF(†)-30-09-(*)-HLR	B-323	SPF-(†)-36-(*)-HB90-48	B-313	SPTC	B-360
SPF(†)-30-09-(*)-HRR	B-323	SPF-(†)-36-(*)-HT12	B-315	SPT-F 01-S-HB30-12	B-363
SPF(†)-30-09-(*)-HSR		SPF-(†)-36-(*)-HT24		SPT-F 01-S-HB30-24	
SPF-(†)-3009-(*)-RT(+)		SPF-(†)-36-(*)-HT36		SPT-F 01-S-HB45-12	
SPF(†)-30-12-(*)-HLR		SPF-(†)-36-(*)-HT48		SPT-F 01-S-HB45-24	
SPF(†)-30-12-(*)-HRR		SPF-(†)-36-(*)-HX12		SPT-F 01-S-HB60-12	
SPF(†)-30-12-(*)-HSR		SPF-(†)-36-(*)-HX24		SPT-F 01-S-HB60-24	
SPF-(†)-3012-(*)-RT(+)		SPF-(†)-36-(*)-HX36		SPT-F 01-S-HB90-12	
SPF(†)-30-18-(*)-HLR		SPF-(†)-36-(*)-HX48		SPT-F 01-S-HB90-24	
SPF(†)-30-18-(*)-HRR		SPF-(†)-36-(*)-HYL		SPT-F 01-S-HT-12	
SPF(†)-30-18-(*)-HSR		SPF-(†)-36-(*)-HYR SPF-(†)-36-(*)-VTD-12		SPT-F 01-S-HT-24	
SPF-(†)-3018-(*)-RT(+) SPF(†)-30-24-(*)-HLR		SPF-(†)-36-(*)-VTD-24		SPT-F 01-S-HX-12 SPT-F 01-S-HX-24	
SPF(†)-30-24-(*)-HRR		SPF-(†)-36-(*)-VTD-36		SPT-F 01-S-VI30-12	
SPF(†)-30-24-(*)-HSR		SPF-(†)-36-(*)-VTD-48		SPT-F 01-S-VI30-24	
011 ([<i>]</i> -00-2 1 -(<i>]</i> -11011	⊔⁻⊍∠⊍	011 -([]-00-(]-VID-40		01 1-1 01-0-VI00-24	J00

Catalog Number Index

CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.
CAT. NO. SPT-F 01-S-VI45-12	B-367	CAT. NO. SPT-F 04-S-HX-24	B-364	CAT. NO. SPT-W-01-CEP	B-371
SPT-F 01-S-VI45-24	B-367	SPT-F 04-S-VI30-12		SPT-W-01-CHA	
SPT-F 01-S-VI60-12	B-366	SPT-F 04-S-VI30-24	B-368	SPT-W-01-HCC	B-372
SPT-F 01-S-VI60-24	B-366	SPT-F 04-S-VI45-12	B-367	SPT-W-01-SHC	B-372
SPT-F 01-S-VI90-12	B-365	SPT-F 04-S-VI45-24	B-367	SPT-W-01-TCB	B-373
SPT-F 01-S-VI90-24		SPT-F 04-S-VI60-12	B-366	SPT-W-01-WAV	
SPT-F 01-S-V030-12	B-368	SPT-F 04-S-VI60-24	B-366	SPT-W-03-01-RSP	B-371
SPT-F 01-S-V030-24		SPT-F 04-S-VI90-12	B-365	SPT-W-03-ACS	
SPT-F 01-S-V045-12	B-367	SPT-F 04-S-VI90-24	B-365	SPT-W-03-CBP	B-371
SPT-F 01-S-V045-24	B-367	SPT-F 04-S-V030-12	B-368	SPT-W-03-CCB	B-373
SPT-F 01-S-V060-12	B-366	SPT-F 04-S-V030-24	B-368	SPT-W-03-CCC	B-372
SPT-F 01-S-V060-24	B-366	SPT-F 04-S-V045-12		SPT-W-03-CCS	B-370
SPT-F 01-S-V090-12	B-365	SPT-F 04-S-V045-24	B-367	SPT-W-03-CCT	
SPT-F 01-S-V090-24	B-365	SPT-F 04-S-V060-12	B-366	SPT-W-03-CCV	B-370
SPT-F 03-S-HB30-12	B-363	SPT-F 04-S-V060-24	B-366	SPT-W-03-CEG	B-372
SPT-F 03-S-HB30-24	B-363	SPT-F 04-S-V090-12	B-365	SPT-W-03-CEP	B-371
SPT-F 03-S-HB45-12		SPT-F 04-S-V090-24	B-365	SPT-W-03-CHA	B-370
SPT-F 03-S-HB45-24	B-363	SPT-F 06-S-HB30-12	B-363	SPT-W-03-ESP	B-370
SPT-F 03-S-HB60-12	B-362	SPT-F 06-S-HB30-24	B-363	SPT-W-03-HCC	B-372
SPT-F 03-S-HB60-24	B-362	SPT-F 06-S-HB45-12	B-363	SPT-W-03-SHC	B-372
SPT-F 03-S-HB90-12	B-362	SPT-F 06-S-HB45-24	B-363	SPT-W-03-TCB	B-373
SPT-F 03-S-HB90-24	B-362	SPT-F 06-S-HB60-12	B-362	SPT-W-03-WAV	
SPT-F 03-S-HT-12	B-364	SPT-F 06-S-HB60-24	B-362	SPT-W-04-01-RSP	
SPT-F 03-S-HT-24	B-364	SPT-F 06-S-HB90-12	B-362	SPT-W-04-03-RSP	B-371
SPT-F 03-S-HX-12	B-364	SPT-F 06-S-HB90-24	B-362	SPT-W-04-ACS	
SPT-F 03-S-HX-24	B-364	SPT-F 06-S-HT-12	B-364	SPT-W-04-CBP	
SPT-F 03-S-VI30-12	B-368	SPT-F 06-S-HT-24	B-364	SPT-W-04-CCB	B-373
SPT-F 03-S-VI30-24		SPT-F 06-S-HX-12		SPT-W-04-CCC	B-372
SPT-F 03-S-VI45-12		SPT-F 06-S-HX-24		SPT-W-04-CCS	
SPT-F 03-S-VI45-24		SPT-F 06-S-VI30-12		SPT-W-04-CCT	
SPT-F 03-S-VI60-12		SPT-F 06-S-VI30-24		SPT-W-04-CCV	
SPT-F 03-S-VI60-24	B-366	SPT-F 06-S-VI45-12	B-367	SPT-W-04-CEG	
SPT-F 03-S-VI90-12		SPT-F 06-S-VI45-24		SPT-W-04-CEP	
SPT-F 03-S-VI90-24		SPT-F 06-S-VI60-12		SPT-W-04-CHA	
SPT-F 03-S-V030-12		SPT-F 06-S-VI60-24		SPT-W-04-ESP	
SPT-F 03-S-V030-24		SPT-F 06-S-VI90-12		SPT-W-04-HCC	
SPT-F 03-S-V045-12		SPT-F 06-S-VI90-24		SPT-W-04-SHC	
SPT-F 03-S-V045-24		SPT-F 06-S-V030-12		SPT-W-04-TCB	
SPT-F 03-S-V060-12		SPT-F 06-S-V030-24		SPT-W-04-WAV	
SPT-F 03-S-V060-24		SPT-F 06-S-V045-12		SPT-W-06-01-RSP	
SPT-F 03-S-V090-12		SPT-F 06-S-V045-24		SPT-W-06-03-RSP	
SPT-F 03-S-V090-24		SPT-F 06-S-V060-12		SPT-W-06-04-RSP	
SPT-F 04-S-HB30-12		SPT-F 06-S-V060-24		SPT-W-06-ACS	
SPT-F 04-S-HB30-24		SPT-F 06-S-V090-12		SPT-W-06-CBP	
SPT-F 04-S-HB45-12		SPT-F 06-S-V090-24		SPT-W-06-CCB	
SPT-F 04-S-HB45-24		SPT-W-01-ACS		SPT-W-06-CCC	
SPT-F 04-S-HB60-12		SPT-W-01-CBP		SPT-W-06-CCH	
SPT-F 04-S-HB60-24		SPT-W-01-CCB		SPT-W-06-CCS	
SPT-F 04-S-HB90-12		SPT-W-01-CCC		SPT-W-06-CCT	
SPT-F 04-S-HB90-24		SPT-W-01-CCS		SPT-W-06-CCV	
SPT-F 04-S-HT-12		SPT-W-01-CCT		SPT-W-06-CEG	
SPT-F 04-S-HT-24		SPT-W-01-CCV		SPT-W-06-CEP	
SPT-F 04-S-HX-12	B-364	SPT-W-01-CEG	B-372	SPT-W-06-CHA	B-370

CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.
SPT-W-06-DCH	B-373	SPUF-(†)-0618-(*)-EX-(+)	B-342	SPUF-(†)-1218-(*)-EX-(+)	B-342
SPT-W-06-ESP	B-370	SPUF-(†)-0624-(*)-ET(+)	B-341	SPUF-(†)-1224-(*)-ET(+)	B-341
SPT-W-06-HCC	B-372	SPUF-(†)-0624-(*)-EX-(+)	B-342	SPUF-(†)-1224-(*)-EX-(+)	B-342
SPT-W-06-SHC	B-372	SPUF-(†)-0630-(*)-ET(+)	B-341	SPUF-(†)-1230-(*)-ET(+)	
SPT-W-06-TCB	B-373	SPUF-(†)-0630-(*)-EX-(+)	B-342	SPUF-(†)-1230-(*)-EX-(+)	B-342
SPT-W-06-WAV	B-370	SPUF-(†)-0636-(*)-ET(+)	B-341	SPUF-(†)-1236-(*)-ET(+)	
SPU12	B-334	SPUF-(†)-0636-(*)-EX-(+)	B-342	SPUF-(†)-1236-(*)-EX-(+)	B-342
SPU13	B-334	SPUF-(†)-12-(*)-(+)30-12	B-346	SPUF-(†)-18-(*)-(+)30-12	B-346
SPU16		SPUF-(†)-12-(*)-(+)30-24	B-346	SPUF-(†)-18-(*)-(+)30-24	B-346
SPUF-(†)-06-(*)-(+)30-12	B-346	SPUF-(†)-12-(*)-(+)30-36	B-346	SPUF-(†)-18-(*)-(+)30-36	B-346
SPUF-(†)-06-(*)-(+)30-24	B-346	SPUF-(†)-12-(*)-(+)45-12	B-345	SPUF-(†)-18-(*)-(+)45-12	B-345
SPUF-(†)-06-(*)-(+)30-36	B-346	SPUF-(†)-12-(*)-(+)45-24	B-345	SPUF-(†)-18-(*)-(+)45-24	B-345
SPUF-(†)-06-(*)-(+)45-12	B-345	SPUF-(†)-12-(*)-(+)45-36	B-345	SPUF-(†)-18-(*)-(+)45-36	B-345
SPUF-(†)-06-(*)-(+)45-24	B-345	SPUF-(†)-12-(*)-(+)60-12	B-344	SPUF-(†)-18-(*)-(+)60-12	B-344
SPUF-(†)-06-(*)-(+)45-36	B-345	SPUF-(†)-12-(*)-(+)60-24	B-344	SPUF-(†)-18-(*)-(+)60-24	B-344
SPUF-(†)-06-(*)-(+)60-12	B-344	SPUF-(†)-12-(*)-(+)60-36	B-344	SPUF-(†)-18-(*)-(+)60-36	B-344
SPUF-(†)-06-(*)-(+)60-24	B-344	SPUF-(†)-12-(*)-(+)90-12	B-343	SPUF-(†)-18-(*)-(+)90-12	
SPUF-(†)-06-(*)-(+)60-36	B-344	SPUF-(†)-12-(*)-(+)90-24	B-343	SPUF-(†)-18-(*)-(+)90-24	B-343
SPUF-(†)-06-(*)-(+)90-12	B-343	SPUF-(†)-12-(*)-(+)90-36	B-343	SPUF-(†)-18-(*)-(+)90-36	B-343
SPUF-(†)-06-(*)-(+)90-24	B-343	SPUF-(†)-12-(*)-CS12	B-350	SPUF-(†)-18-(*)-CS12	B-350
SPUF-(†)-06-(*)-(+)90-36	B-343	SPUF-(†)-12-(*)-CS24	B-350	SPUF-(†)-18-(*)-CS24	B-350
SPUF-(†)-06-(*)-CS12	B-350	SPUF-(†)-12-(*)-CS36	B-350	SPUF-(†)-18-(*)-CS36	B-350
SPUF-(†)-06-(*)-CS24	B-350	SPUF-(†)-12-(*)-HB30-12	B-337	SPUF-(†)-18-(*)-HB30-12	B-337
SPUF-(†)-06-(*)-CS36	B-350	SPUF-(†)-12-(*)-HB30-24	B-337	SPUF-(†)-18-(*)-HB30-24	B-337
SPUF-(†)-06-(*)-HB30-12		SPUF-(†)-12-(*)-HB30-36	B-337	SPUF-(†)-18-(*)-HB30-36	
SPUF-(†)-06-(*)-HB30-24	B-337	SPUF-(†)-12-(*)-HB45-12	B-337	SPUF-(†)-18-(*)-HB45-12	B-337
SPUF-(†)-06-(*)-HB30-36	B-337	SPUF-(†)-12-(*)-HB45-24	B-337	SPUF-(†)-18-(*)-HB45-24	B-337
SPUF-(†)-06-(*)-HB45-12	B-337	SPUF-(†)-12-(*)-HB45-36	B-337	SPUF-(†)-18-(*)-HB45-36	B-337
SPUF-(†)-06-(*)-HB45-24	B-337	SPUF-(†)-12-(*)-HB60-12	B-336	SPUF-(†)-18-(*)-HB60-12	B-336
SPUF-(†)-06-(*)-HB45-36	B-337	SPUF-(†)-12-(*)-HB60-24	B-336	SPUF-(†)-18-(*)-HB60-24	B-336
SPUF-(†)-06-(*)-HB60-12	B-336	SPUF-(†)-12-(*)-HB60-36		SPUF-(†)-18-(*)-HB60-36	B-336
SPUF-(†)-06-(*)-HB60-24	B-336	SPUF-(†)-12-(*)-HB90-12	B-336	SPUF-(†)-18-(*)-HB90-12	B-336
SPUF-(†)-06-(*)-HB60-36	B-336	SPUF-(†)-12-(*)-HB90-24		SPUF-(†)-18-(*)-HB90-24	
SPUF-(†)-06-(*)-HB90-12		SPUF-(†)-12-(*)-HB90-36		SPUF-(†)-18-(*)-HB90-36	
SPUF-(†)-06-(*)-HB90-24		SPUF-(†)-12-(*)-HT12		SPUF-(†)-18-(*)-HT12	
SPUF-(†)-06-(*)-HB90-36		SPUF-(†)-12-(*)-HT24		SPUF-(†)-18-(*)-HT24	
SPUF-(†)-06-(*)-HT12		SPUF-(†)-12-(*)-HT36		SPUF-(†)-18-(*)-HT36	
SPUF-(†)-06-(*)-HT24		SPUF-(†)-12-(*)-HX12		SPUF-(†)-18-(*)-HX12	
SPUF-(†)-06-(*)-HT36		SPUF-(†)-12-(*)-HX24		SPUF-(†)-18-(*)-HX24	
SPUF-(†)-06-(*)-HX12		SPUF-(†)-12-(*)-HX36		SPUF-(†)-18-(*)-HX36	
SPUF-(†)-06-(*)-HX24		SPUF-(†)-12-(*)-HYL		SPUF-(†)-18-(*)-HYL	
SPUF-(†)-06-(*)-HX36		SPUF-(†)-12-(*)-HYR		SPUF-(†)-18-(*)-HYR	
SPUF-(†)-06-(*)-HYL		SPUF-(†)-12-(*)-VTD12		SPUF-(†)-18-(*)-VTD12	
SPUF-(†)-06-(*)-HYR		SPUF-(†)-12-(*)-VTD24		SPUF-(†)-18-(*)-VTD24	
SPUF-(†)-06-(*)-VTD12		SPUF-(†)-12-(*)-VTD36		SPUF-(†)-18-(*)-VTD36	
SPUF-(†)-06-(*)-VTD24		SPUF-(†)-12-(*)-VTU12		SPUF-(†)-18-(*)-VTU12	
SPUF-(†)-06-(*)-VTD36		SPUF-(†)-12-(*)-VTU24		SPUF-(†)-18-(*)-VTU24	
SPUF-(†)-06-(*)-VTU12		SPUF-(†)-12-(*)-VTU36		SPUF-(†)-18-(*)-VTU36	
SPUF-(†)-06-(*)-VTU24		SPUF-(†)-12-06-(*)-HLR		SPUF-(†)-18-06-(*)-HLR	
SPUF-(†)-06-(*)-VTU36		SPUF-(†)-12-06-(*)-HRR		SPUF-(†)-18-06-(*)-HRR	
SPUF-(†)-0612-(*)-ET(+)		SPUF-(†)-12-06-(*)-HSR		SPUF-(†)-18-06-(*)-HSR	
SPUF-(†)-0612-(*)-EX-(+)		SPUF-(†)-1206-(*)-RT(+)		SPUF-(†)-1806-(*)-RT(+)	
SPUF-(†)-0618-(*)-ET(+)	B-341	SPUF-(†)-1218-(*)-ET(+)	B-341	SPUF-(†)-18-12-(*)-HLR	B-347



Catalog Number Index

CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.
SPUF-(†)-18-12-(*)-HRR	B-347	SPUF-(†)-2406-(*)-RT(+)	B-340	SPUF-(†)-30-06-(*)-HLR	B-347
SPUF-(†)-18-12-(*)-HSR		SPUF-(†)-24-12-(*)-HLR		SPUF-(†)-30-06-(*)-HRR	
SPUF-(†)-1812-(*)-RT(+)	B-340	SPUF-(†)-24-12-(*)-HRR	B-347	SPUF-(†)-30-06-(*)-HSR	B-347
SPUF-(†)-1824-(*)-ET(+)		SPUF-(†)-24-12-(*)-HSR		SPUF-(†)-3006-(*)-RT(+)	
SPUF-(†)-1824-(*)-EX-(+)		SPUF-(†)-2412-(*)-RT(+)		SPUF-(†)-30-12-(*)-HLR	
SPUF-(†)-1830-(*)-ET(+)		SPUF-(†)-24-18-(*)-HLR		SPUF-(†)-30-12-(*)-HRR	
SPUF-(†)-1830-(*)-EX-(+)		SPUF-(†)-24-18-(*)-HRR		SPUF-(†)-30-12-(*)-HSR	
SPUF-(†)-1836-(*)-ET(+)		SPUF-(†)-24-18-(*)-HSR		SPUF-(†)-3012-(*)-RT(+)	
SPUF-(†)-1836-(*)-EX-(+)		SPUF-(†)-2418-(*)-RT(+)		SPUF-(†)-30-18-(*)-HLR	
SPUF-(†)-24-(*)-(+)30-12		SPUF-(†)-2430-(*)-ET(+)	B-341	SPUF-(†)-30-18-(*)-HRR	
SPUF-(†)-24-(*)-(+)30-24		SPUF-(†)-2430-(*)-EX-(+)		SPUF-(†)-30-18-(*)-HSR	
SPUF-(†)-24-(*)-(+)30-36		SPUF-(†)-2436-(*)-ET(+)	B-341	SPUF-(†)-3018-(*)-RT(+)	
SPUF-(†)-24-(*)-(+)45-12		SPUF-(†)-2436-(*)-EX-(+)		SPUF-(†)-30-24-(*)-HLR	
SPUF-(†)-24-(*)-(+)45-24 SPUF-(†)-24-(*)-(+)45-36		SPUF-(†)-30-(*)-(+)30-12 SPUF-(†)-30-(*)-(+)30-24		SPUF-(†)-30-24-(*)-HRR SPUF-(†)-30-24-(*)-HSR	
SPUF-(†)-24-(*)-(+)60-12		SPUF-(†)-30-(*)-(+)30-36		SPUF-(†)-3024-(*)-RT(+)	
SPUF-(†)-24-(*)-(+)60-24		SPUF-(†)-30-(*)-(+)45-12		SPUF-(†)-3036-(*)-ET(+)	
SPUF-(†)-24-(*)-(+)60-36		SPUF-(†)-30-(*)-(+)45-24		SPUF-(†)-3036-(*)-EX-(+)	
SPUF-(†)-24-(*)-(+)90-12		SPUF-(†)-30-(*)-(+)45-36		SPUF-(†)-36-(*)-(+)30-12	
SPUF-(†)-24-(*)-(+)90-24		SPUF-(†)-30-(*)-(+)60-12		SPUF-(†)-36-(*)-(+)30-24	
SPUF-(†)-24-(*)-(+)90-36		SPUF-(†)-30-(*)-(+)60-24		SPUF-(†)-36-(*)-(+)30-36	
SPUF-(†)-24-(*)-CS12		SPUF-(†)-30-(*)-(+)60-36		SPUF-(†)-36-(*)-(+)45-12	
SPUF-(†)-24-(*)-CS24		SPUF-(†)-30-(*)-(+)90-24		SPUF-(†)-36-(*)-(+)45-24	
SPUF-(†)-24-(*)-CS36		SPUF-(†)-30-(*)-(+)90-36		SPUF-(†)-36-(*)-(+)45-36	B-345
SPUF-(†)-24-(*)-HB30-12	B-337	SPUF-(†)-30-(*)-CS12		SPUF-(†)-36-(*)-(+)60-12	
SPUF-(†)-24-(*)-HB30-24	B-337	SPUF-(†)-30-(*)-CS24	B-350	SPUF-(†)-36-(*)-(+)60-24	B-344
SPUF-(†)-24-(*)-HB30-36		SPUF-(†)-30-(*)-CS36		SPUF-(†)-36-(*)-(+)60-36	
SPUF-(†)-24-(*)-HB45-12		SPUF-(†)-30-(*)-HB30-12		SPUF-(†)-36-(*)-(+)90-12	
SPUF-(†)-24-(*)-HB45-24		SPUF-(†)-30-(*)-HB30-24		SPUF-(†)-36-(*)-(+)90-24	B-343
SPUF-(†)-24-(*)-HB45-36		SPUF-(†)-30-(*)-HB30-36		SPUF-(†)-36-(*)-(+)90-36	
SPUF-(†)-24-(*)-HB60-12		SPUF-(†)-30-(*)-HB45-12		SPUF-(†)-36-(*)-CS12	
SPUF-(†)-24-(*)-HB60-24		SPUF-(†)-30-(*)-HB45-24		SPUF-(†)-36-(*)-CS24	
SPUF-(†)-24-(*)-HB60-36		SPUF-(†)-30-(*)-HB45-36		SPUF-(†)-36-(*)-CS36	
SPUF-(†)-24-(*)-HB90-12 SPUF-(†)-24-(*)-HB90-24		SPUF-(†)-30-(*)-HB60-12 SPUF-(†)-30-(*)-HB60-24		SPUF-(†)-36-(*)-HB30-12 SPUF-(†)-36-(*)-HB30-24	
SPUF-(†)-24-(*)-HB90-36		SPUF-(†)-30-(*)-HB60-36		SPUF-(†)-36-(*)-HB30-36	
SPUF-(†)-24-(*)-HT12		SPUF-(†)-30-(*)-HB90-12		SPUF-(†)-36-(*)-HB45-12	
SPUF-(†)-24-(*)-HT24		SPUF-(†)-30-(*)-HB90-24		SPUF-(†)-36-(*)-HB45-24	
SPUF-(†)-24-(*)-HT36		SPUF-(†)-30-(*)-HB90-36		SPUF-(†)-36-(*)-HB45-36	
SPUF-(†)-24-(*)-HX12	B-339	SPUF-(†)-30-(*)-HT12		SPUF-(†)-36-(*)-HB60-12	
SPUF-(†)-24-(*)-HX24		SPUF-(†)-30-(*)-HT24		SPUF-(†)-36-(*)-HB60-24	
SPUF-(†)-24-(*)-HX36		SPUF-(†)-30-(*)-HT36		SPUF-(†)-36-(*)-HB60-36	
SPUF-(†)-24-(*)-HYL		SPUF-(†)-30-(*)-HX12		SPUF-(†)-36-(*)-HB90-12	
SPUF-(†)-24-(*)-HYR	B-348	SPUF-(†)-30-(*)-HX24	B-339	SPUF-(†)-36-(*)-HB90-24	B-336
SPUF-(†)-24-(*)-VTD12	B-349	SPUF-(†)-30-(*)-HX36		SPUF-(†)-36-(*)-HB90-36	B-336
SPUF-(†)-24-(*)-VTD24		SPUF-(†)-30-(*)-HYL		SPUF-(†)-36-(*)-HT12	
SPUF-(†)-24-(*)-VTD36		SPUF-(†)-30-(*)-HYR	B-348	SPUF-(†)-36-(*)-HT24	
SPUF-(†)-24-(*)-VTU12		SPUF-(†)-30-(*)-VTD12		SPUF-(†)-36-(*)-HT36	
SPUF-(†)-24-(*)-VTU24		SPUF-(†)-30-(*)-VTD24		SPUF-(†)-36-(*)-HX12	
SPUF-(†)-24-(*)-VTU36		SPUF-(†)-30-(*)-VTD36		SPUF-(†)-36-(*)-HX24	
SPUF-(†)-24-06-(*)-HLR		SPUF-(†)-30-(*)-VTU12		SPUF-(†)-36-(*)-HX36	
SPUF-(†)-24-06-(*)-HRR		SPUF-(†)-30-(*)-VTU24		SPUF-(†)-36-(*)-HYL	
SPUF-(†)-24-06-(*)-HSR	D-34/	SPUF-(†)-30-(*)-VTU36	B-349	SPUF-(†)-36-(*)-HYR	B-348

CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.
SPUF-(†)-36-(*)-VTD12	B-349	SPUW-6-SBH-72	B-357	SPW-4-BSP	B-330, B-353
SPUF-(†)-36-(*)-VTD24	B-349	SPUW-6-VIB-(*)-(*)	B-357		B-355
SPUF-(†)-36-(*)-VTD36		SPUW-6-VOB-(*)-(*)	B-357	SPW-4-ESP	B-330
SPUF-(†)-36-(*)-VTU12	B-349	SPW-(*)-(*)-FBP	B-332	SPW-4-HDC	B-331
SPUF-(†)-36-(*)-VTU24	B-349	SPW-(*)-(*)-SDS	B-330		B-333
SPUF-(†)-36-(*)-VTU36	B-349	SPW-(*)-(*)-WPS	B-332	SPW-4-SBH-72	B-333
SPUF-(†)-36-06-(*)-HLR	B-347	SPW-(*)06HAP	B-330	SPW-4-SSP	B-330
SPUF-(†)-36-06-(*)-HRR	B-347	SPW-(*)09HAP	B-330	SPW-4-VIB-(*)-(+)	B-333
SPUF-(†)-36-06-(*)-HSR	B-347	SPW-(*)12HAP	B-330	SPW-4-V0B-(*)-(+)	B-333
SPUF-(†)-3606-(*)-RT(+)	B-340	SPW-(*)18HAP	B-330	SPW-4-VSP	B-330
SPUF-(†)-36-12-(*)-HLR	B-347	SPW-(*)24HAP	B-330	SPW-5-(*)-CEP	B-330
SPUF-(†)-36-12-(*)-HRR	B-347	SPW-(*)30HAP	B-330	SPW-5-(*)-HCC	B-329
SPUF-(†)-36-12-(*)-HSR	B-347	SPW-(*)36HAP	B-330	SPW-5-(*)-HPC	B-329
SPUF-(†)-3612-(*)-RT(+)	B-340	SPW-(*)42HAP	B-330	SPW-5-(*)-RSP	B-330
SPUF-(†)-36-18-(*)-HLR	B-347		B-329	SPW-5-BSP	B-330, B-353
SPUF-(†)-36-18-(*)-HRR	B-347		B-332		B-355
SPUF-(†)-36-18-(*)-HSR	B-347	SPW-(*)-DOS	B-332, B-357	SPW-5-ESP	B-330
SPUF-(†)-3618-(*)-RT(+)	B-340		B-375	SPW-5-HDC	B-331
SPUF-(†)-36-24-(*)-HLR	B-347	SPW(*)PEC	B-329	SPW-5-SB	B-333
SPUF-(†)-36-24-(*)-HRR	B-347		B-329		B-333
SPUF-(†)-36-24-(*)-HSR	B-347		B-329		B-330
SPUF-(†)-3624-(*)-RT(+)	B-340	SPW-(*)-TPK	B-375	SPW-5-VIB-(*)-(+)	B-333
SPUF-(†)-36-30-(*)-HLR	B-347	SPW-(*)-VTH	B-331	SPW-5-V0B-(*)-(+)	B-333
SPUF-(†)-36-30-(*)-HRR	B-347	SPW(+)RCC	B-329	SPW-5-VSP	B-330
SPUF-(†)-36-30-(*)-HSR	B-347	SPW-1/4-CB	B-308, B-331, B-356	SPW-6-(*)-CEP	B-330, B-354
SPUF-(†)-3630-(*)-RT(+)	B-340		B-308, B-331, B-356	SPW-6-(*)-HCC	B-329, B-355
SPUW-(*)06HAP	B-353	SPW-10-SCR	B-308, B-331	SPW-6-(*)-HPC	B-329
SPUW-(*)09HAP	B-353	SPW-2-(*)-CEP	B-354	SPW-6-(*)-RSP	B-330
SPUW-(*)12HAP	B-353	SPW-2-(*)-HCC	B-355	SPW-6-BSP	B-330, B-353
SPUW-(*)18HAP	B-353		B-354		B-355
SPUW-(*)24HAP	B-353		B-355		B-330, B-353
SPUW-(*)30HAP			B-330, B-354		B-331
SPUW-(*)36HAP		SPW-3-(*)-HCC	B-329, B-355		B-354
SPUW-2-(*)-HTB			B-329		B-333
SPUW-2-(*)-VSP		SPW-3-(*)-RSP	B-330		B-333
SPUW-2-ESP			B-308, B-331, B-356		B-355
SPUW-2-HDC			B-308, B-331, B-356		B-330, B-353
SPUW-2-SB-3			B-330, B-353		B-333
SPUW-2-SBH-72			B-355		B-333
SPUW-2-SSP			B-330, B-353	0 0 .0	B-330
SPUW-2-VIB-(*)-(*)		SPW-3-HDC			B-330
SPUW-2-V0B-(*)-(*)			B-354		B-329
SPUW-3-(*)-HTB			B-333		B-329
SPUW-3-(*)-VSP		SPW-3-SBH-72			B-330
SPUW-3-HDC		SPW-3-SCC			B-330, B-353
SPUW-3-SB-3		SPW-3-SSP			B-355
SPUW-3-SBH-72			B-333		B-330
SPUW-3-VIB-(*)-(*)		SPW-3-V0B-(*)-(+)			B-331
SPUW-3-V0B-(*)-(*)		SPW-3-VSP			B-333
SPUW-6-(*)-HTB			B-330		B-333
SPUW-6-(*)-VSP		SPW-4-(*)-HCC			B-330
SPUW-6-HDC		SPW-4-(*)-HPC			B-333
SPUW-6-SB-3	В-357	SPW-4-(*)-RSP	B-330	SPW-/-VUB-(*)-(+)	B-333



CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.
SPW-7-VSP	B-330	SS3-4	B-310	SSF-(†)-06-(*)-HYL	B-324
SPW-BSC	B-306, B-333	SS35-250		SSF-(†)-06-(*)-HYR	B-324
SPW-CTC	B-309, B-331	SS3-6	B-311	SSF-(†)-06-(*)-VTD-12	
SPW-CTG	B-309, B-331	SS3-7	B-312	SSF-(†)-06-(*)-VTD-24	B-325
SPW-HEC	B-331	SS4-5	B-311	SSF-(†)-06-(*)-VTD-36	
SPW-SHC	B-308, B-331	SS4-6	B-311	SSF-(†)-06-(*)-VTD-48	
SPW-SHC-HDW	B-331	SS5-5	B-311	SSF-(†)-06-(*)-VTU-12	
SRNY-187-9-C		SS7-180		SSF-(†)-06-(*)-VTU-24	
SRPE-1000-0-C		SS-B		SSF-(†)-06-(*)-VTU-36	
SRPE-1000-9-C	C-55	SSF-(†)-06-(*)-(+)30-12		SSF-(†)-06-(*)-VTU-48	
SRPE-1000F-0-C	C-56	SSF-(†)-06-(*)-(+)30-24		SSF-(†)-0609-(*)-ET(+)	
SRPE-1000F-9-C		SSF-(†)-06-(*)-(+)30-36		SSF-(†)-0609-(*)-EX(+)	
SRPE-125-0-C		SSF-(†)-06-(*)-(+)30-48		SSF-(†)-0612-(*)-ET(+)	
SRPE-125-9-C		SSF-(†)-06-(*)-(+)45-12		SSF-(†)-0612-(*)-EX(+)	
SRPE-125F-0-C		SSF-(†)-06-(*)-(+)45-24		SSF-(†)-0618-(*)-ET(+)	
SRPE-125F-9-C		SSF-(†)-06-(*)-(+)45-36		SSF-(†)-0618-(*)-EX(+)	
SRPE-187-0-C		SSF-(†)-06-(*)-(+)45-48		SSF-(†)-0624-(*)-ET(+)	
SRPE-187-9-C		SSF-(†)-06-(*)-(+)60-12		SSF-(†)-0624-(*)-EX(+)	
SRPE-187F-0-C		SSF-(†)-06-(*)-(+)60-24		SSF-(†)-0630-(*)-ET(+)	
SRPE-187F-9-C		SSF-(†)-06-(*)-(+)60-36		SSF-(†)-0630-(*)-EX(+)	
SRPE-250-0-C		SSF-(†)-06-(*)-(+)60-48		SSF-(†)-0636-(*)-ET(+)	
SRPE-250-9-C		SSF-(†)-06-(*)-(+)90-12		SSF-(†)-0636-(*)-EX(+)	
SRPE-250F-0-C		SSF-(†)-06-(*)-(+)90-24		SSF-(†)-09-(*)-(+)30-12	
SRPE-250F-9-C		SSF-(†)-06-(*)-(+)90-36		SSF-(†)-09-(*)-(+)30-24	
SRPE-375-0-C		SSF-(†)-06-(*)-(+)90-48		SSF-(†)-09-(*)-(+)30-36	
SRPE-375-9-C		SSF-(†)-06-(*)-CS-12		SSF-(†)-09-(*)-(+)30-48	
SRPE-375F-0-C		SSF-(†)-06-(*)-CS-24		SSF-(†)-09-(*)-(+)45-12	
SRPE-375F-9-C		SSF-(†)-06-(*)-CS-36		SSF-(†)-09-(*)-(+)45-24	
SRPE-500-0-C		SSF-(†)-06-(*)-CS-48		SSF-(†)-09-(*)-(+)45-36	B-321
SRPE-500-9-C		SSF-(†)-06-(*)-HB30-12		SSF-(†)-09-(*)-(+)45-48	
SRPE-500F-0-C		SSF-(†)-06-(*)-HB30-24		SSF-(†)-09-(*)-(+)60-12	
SRPE-500F-9-C		SSF-(†)-06-(*)-HB30-36		SSF-(†)-09-(*)-(+)60-24	
SRPE-625-0-C		SSF-(†)-06-(*)-HB30-48		SSF-(†)-09-(*)-(+)60-36	
SRPE-625-9-C		SSF-(†)-06-(*)-HB45-12		SSF-(†)-09-(*)-(+)60-48	
SRPE-625F-0-C		SSF-(†)-06-(*)-HB45-24		SSF-(†)-09-(*)-(+)90-12	
SRPE-625F-9-C		SSF-(†)-06-(*)-HB45-36		SSF-(†)-09-(*)-(+)90-24	
SRPE-750-0-C		SSF-(†)-06-(*)-HB45-48		SSF-(†)-09-(*)-(+)90-36	
SRPE-750-9-C		SSF-(†)-06-(*)-HB60-12		SSF-(†)-09-(*)-(+)90-48	
SRPE-750F-0-C		SSF-(†)-06-(*)-HB60-24		SSF-(†)-09-(*)-CS-12	B-326
SRPE-750F-9-C		SSF-(†)-06-(*)-HB60-36		SSF-(†)-09-(*)-CS-24	
SS10-180		SSF-(†)-06-(*)-HB60-48		SSF-(†)-09-(*)-CS-36	
SS10-250		SSF-(†)-06-(*)-HB90-12		SSF-(†)-09-(*)-CS-48	
SS1-3		SSF-(†)-06-(*)-HB90-24		SSF-(†)-09-(*)-HB30-12	
SS1-4		SSF-(†)-06-(*)-HB90-36		SSF-(†)-09-(*)-HB30-24	
SS1-6		SSF-(†)-06-(*)-HB90-48		SSF-(†)-09-(*)-HB30-36	
SS16-180		SSF-(†)-06-(*)-HT12		SSF-(†)-09-(*)-HB30-48	
SS17-250		SSF-(†)-06-(*)-HT24		SSF-(†)-09-(*)-HB45-12	
SS1-TB		SSF-(†)-06-(*)-HT36		SSF-(†)-09-(*)-HB45-24	
SS23-180		SSF-(†)-06-(*)-HT48		SSF-(†)-09-(*)-HB45-36	
SS23-250		SSF-(†)-06-(*)-HX12		SSF-(†)-09-(*)-HB45-48	B-314
SS2-5		SSF-(†)-06-(*)-HX24		SSF-(†)-09-(*)-HB60-12	
SS29-180		SSF-(†)-06-(*)-HX36		SSF-(†)-09-(*)-HB60-24	
SS29-250		SSF-(†)-06-(*)-HX48		SSF-(†)-09-(*)-HB60-36	
	2 ., 0 .0	(1) ()		(1) == ()=== ==	

CAT. NO. SSF-(†)-09-(*)-HB60-48	PAGE NO.	CAT. NO. SSF-(†)-12-(*)-CS-12	PAGE NO.	CAT. NO. SSF-(†)-1236-(*)-EX(+)	PAGE NO.
SSF-(†)-09-(*)-HB90-12		SSF-(†)-12-(*)-CS-24		SSF-(†)-18-(*)-(+)30-12	
SSF-(†)-09-(*)-HB90-24		SSF-(†)-12-(*)-CS-36		SSF-(†)-18-(*)-(+)30-24	R_322
SSF-(†)-09-(*)-HB90-36		SSF-(†)-12-(*)-CS-48		SSF-(†)-18-(*)-(+)30-36	
SSF-(†)-09-(*)-HB90-48		SSF-(†)-12-(*)-HB30-12		SSF-(†)-18-(*)-(+)30-48	
SSF-(†)-09-(*)-HT12		SSF-(†)-12-(*)-HB30-24		SSF-(†)-18-(*)-(+)45-12	
SSF-(†)-09-(*)-HT24		SSF-(†)-12-(*)-HB30-36		SSF-(†)-18-(*)-(+)45-24	
SSF-(†)-09-(*)-HT36		SSF-(†)-12-(*)-HB30-48		SSF-(†)-18-(*)-(+)45-36	
SSF-(†)-09-(*)-HT48		SSF-(†)-12-(*)-HB45-12		SSF-(†)-18-(*)-(+)45-48	
SSF-(†)-09-(*)-HX12	B-315	SSF-(†)-12-(*)-HB45-24		SSF-(†)-18-(*)-(+)60-12	
SSF-(†)-09-(*)-HX24		SSF-(†)-12-(*)-HB45-36	B-314	SSF-(†)-18-(*)-(+)60-24	
SSF-(†)-09-(*)-HX36		SSF-(†)-12-(*)-HB45-48		SSF-(†)-18-(*)-(+)60-36	
SSF-(†)-09-(*)-HX48		SSF-(†)-12-(*)-HB60-12		SSF-(†)-18-(*)-(+)60-48	
SSF-(†)-09-(*)-HYL		SSF-(†)-12-(*)-HB60-24		SSF-(†)-18-(*)-(+)90-12	
SSF-(†)-09-(*)-HYR		SSF-(†)-12-(*)-HB60-36		SSF-(†)-18-(*)-(+)90-24	
SSF-(†)-09-(*)-VTD-12		SSF-(†)-12-(*)-HB60-48		SSF-(†)-18-(*)-(+)90-36	
SSF-(†)-09-(*)-VTD-24		SSF-(†)-12-(*)-HB90-12		SSF-(†)-18-(*)-(+)90-48	
SSF-(†)-09-(*)-VTD-36		SSF-(†)-12-(*)-HB90-24		SSF-(†)-18-(*)-CS-12	
SSF-(†)-09-(*)-VTD-48		SSF-(†)-12-(*)-HB90-36		SSF-(†)-18-(*)-CS-24	
SSF-(†)-09-(*)-VTU-12		SSF-(†)-12-(*)-HB90-48 SSF-(†)-12-(*)-HT12		SSF-(†)-18-(*)-CS-36	
SSF-(†)-09-(*)-VTU-24 SSF-(†)-09-(*)-VTU-36		(.,		SSF-(†)-18-(*)-CS-48 SSF-(†)-18-(*)-HB30-12	
SSF-(†)-09-(*)-VTU-48		SSF-(†)-12-(*)-HT24 SSF-(†)-12-(*)-HT36		SSF-(†)-18-(*)-HB30-24	
SSF(†)-09-06-(*)-HLR		SSF-(†)-12-(*)-HT48		SSF-(†)-18-(*)-HB30-36	
SSF(†)-09-06-(*)-HRR		SSF-(†)-12-(*)-HX12		SSF-(†)-18-(*)-HB30-48	
SSF(†)-09-06-(*)-HSR		SSF-(†)-12-(*)-HX24		SSF-(†)-18-(*)-HB45-12	
SSF-(†)-0906-(*)-RT(+)		SSF-(†)-12-(*)-HX36		SSF-(†)-18-(*)-HB45-24	
SSF-(†)-0912-(*)-ET(+)		SSF-(†)-12-(*)-HX48		SSF-(†)-18-(*)-HB45-36	
SSF-(†)-0912-(*)-EX(+)		SSF-(†)-12-(*)-HYL		SSF-(†)-18-(*)-HB45-48	
SSF-(†)-0918-(*)-ET(+)		SSF-(†)-12-(*)-HYR		SSF-(†)-18-(*)-HB60-12	
SSF-(†)-0918-(*)-EX(+)	B-318	SSF-(†)-12-(*)-VTD-12		SSF-(†)-18-(*)-HB60-24	B-313
SSF-(†)-0924-(*)-ET(+)	B-317	SSF-(†)-12-(*)-VTD-24	B-325	SSF-(†)-18-(*)-HB60-36	B-313
SSF-(†)-0924-(*)-EX(+)		SSF-(†)-12-(*)-VTD-36		SSF-(†)-18-(*)-HB60-48	
SSF-(†)-0930-(*)-ET(+)		SSF-(†)-12-(*)-VTD-48		SSF-(†)-18-(*)-HB90-12	
SSF-(†)-0930-(*)-EX(+)		SSF-(†)-12-(*)-VTU-12		SSF-(†)-18-(*)-HB90-24	
SSF-(†)-0936-(*)-ET(+)		SSF-(†)-12-(*)-VTU-24		SSF-(†)-18-(*)-HB90-36	
SSF-(†)-0936-(*)-EX(+)		SSF-(†)-12-(*)-VTU-36		SSF-(†)-18-(*)-HB90-48	
SSF-(†)-12-(*)-(+)30-12		SSF-(†)-12-(*)-VTU-48		SSF-(†)-18-(*)-HT12	
SSF-(†)-12-(*)-(+)30-24		SSF(†)-12-06-(*)-HLR		SSF-(†)-18-(*)-HT24	
SSF-(†)-12-(*)-(+)30-36 SSF-(†)-12-(*)-(+)30-48		SSF(†)-12-06-(*)-HRR SSF(†)-12-06-(*)-HSR		SSF-(†)-18-(*)-HT36 SSF-(†)-18-(*)-HT48	
SSF-(†)-12-(*)-(+)45-12		SSF-(†)-1206-(*)-RT(+)		SSF-(†)-18-(*)-HX12	
SSF-(†)-12-(*)-(+)45-24	R-321	SSF(†)-12-09-(*)-HLR		SSF-(†)-18-(*)-HX24	
SSF-(†)-12-(*)-(+)45-36		SSF(†)-12-09-(*)-HRR		SSF-(†)-18-(*)-HX36	
SSF-(†)-12-(*)-(+)45-48		SSF(†)-12-09-(*)-HSR		SSF-(†)-18-(*)-HX48	
SSF-(†)-12-(*)-(+)60-12		SSF-(†)-1209-(*)-RT(+)		SSF-(†)-18-(*)-HYL	
SSF-(†)-12-(*)-(+)60-24		SSF-(†)-1218-(*)-ET(+)		SSF-(†)-18-(*)-HYR	B-324
SSF-(†)-12-(*)-(+)60-36		SSF-(†)-1218-(*)-EX(+)		SSF-(†)-18-(*)-VTD-12	B-325
SSF-(†)-12-(*)-(+)60-48		SSF-(†)-1224-(*)-ET(+)	B-317	SSF-(†)-18-(*)-VTD-24	
SSF-(†)-12-(*)-(+)90-12		SSF-(†)-1224-(*)-EX(+)	B-318	SSF-(†)-18-(*)-VTD-36	
SSF-(†)-12-(*)-(+)90-24		SSF-(†)-1230-(*)-ET(+)		SSF-(†)-18-(*)-VTD-48	
SSF-(†)-12-(*)-(+)90-36		SSF-(†)-1230-(*)-EX(+)		SSF-(†)-18-(*)-VTU-12	
SSF-(†)-12-(*)-(+)90-48	B-319	SSF-(†)-1236-(*)-ET(+)	B-317	SSF-(†)-18-(*)-VTU-24	B-325

CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.
SSF-(†)-18-(*)-VTU-36	B-325	SSF-(†)-24-(*)-HB90-24	B-313	SSF-(†)-30-(*)-(+)90-12	B-319
SSF-(†)-18-(*)-VTU-48		SSF-(†)-24-(*)-HB90-36		SSF-(†)-30-(*)-(+)90-24	
SSF(†)-18-06-(*)-HLR		SSF-(†)-24-(*)-HB90-48		SSF-(†)-30-(*)-(+)90-36	
SSF(†)-18-06-(*)-HRR		SSF-(†)-24-(*)-HT12		SSF-(†)-30-(*)-(+)90-48	
SSF(†)-18-06-(*)-HSR		SSF-(†)-24-(*)-HT24		SSF-(†)-30-(*)-CS-12	
SSF-(†)-1806-(*)-RT(+)		SSF-(†)-24-(*)-HT36		SSF-(†)-30-(*)-CS-24	
SSF(†)-18-09-(*)-HLR		SSF-(†)-24-(*)-HT48		SSF-(†)-30-(*)-CS-36	
SSF(†)-18-09-(*)-HRR		SSF-(†)-24-(*)-HX12		SSF-(†)-30-(*)-CS-48	
SSF(†)-18-09-(*)-HSR		SSF-(†)-24-(*)-HX24		SSF-(†)-30-(*)-HB30-12	
SSF-(†)-1809-(*)-RT(+)		SSF-(†)-24-(*)-HX36		SSF-(†)-30-(*)-HB30-24	
SSF(†)-18-12-(*)-HLR		SSF-(†)-24-(*)-HX48		SSF-(†)-30-(*)-HB30-36	B-314
SSF(†)-18-12-(*)-HRR	B-323	SSF-(†)-24-(*)-HYL		SSF-(†)-30-(*)-HB30-48	B-314
SSF(†)-18-12-(*)-HSR	B-323	SSF-(†)-24-(*)-HYR		SSF-(†)-30-(*)-HB45-12	
SSF-(†)-1812-(*)-RT(+)	B-316	SSF-(†)-24-(*)-VTD-12	B-325	SSF-(†)-30-(*)-HB45-24	B-314
SSF-(†)-1824-(*)-ET(+)	B-317	SSF-(†)-24-(*)-VTD-24	B-325	SSF-(†)-30-(*)-HB45-36	B-314
SSF-(†)-1824-(*)-EX(+)		SSF-(†)-24-(*)-VTD-36	B-325	SSF-(†)-30-(*)-HB45-48	B-314
SSF-(†)-1830-(*)-ET(+)	B-317	SSF-(†)-24-(*)-VTD-48	B-325	SSF-(†)-30-(*)-HB60-12	B-313
SSF-(†)-1830-(*)-EX(+)	B-318	SSF-(†)-24-(*)-VTU-12	B-325	SSF-(†)-30-(*)-HB60-24	B-313
SSF-(†)-1836-(*)-ET(+)	B-317	SSF-(†)-24-(*)-VTU-24		SSF-(†)-30-(*)-HB60-36	B-313
SSF-(†)-1836-(*)-EX(+)	B-318	SSF-(†)-24-(*)-VTU-36		SSF-(†)-30-(*)-HB60-48	
SSF-(†)-24-(*)-(+)30-12		SSF-(†)-24-(*)-VTU-48	B-325	SSF-(†)-30-(*)-HB90-12	B-313
SSF-(†)-24-(*)-(+)30-24	B-322	SSF(†)-24-06-(*)-HLR		SSF-(†)-30-(*)-HB90-24	
SSF-(†)-24-(*)-(+)30-36		SSF(†)-24-06-(*)-HRR		SSF-(†)-30-(*)-HB90-36	
SSF-(†)-24-(*)-(+)30-48		SSF(†)-24-06-(*)-HSR		SSF-(†)-30-(*)-HB90-48	
SSF-(†)-24-(*)-(+)45-12		SSF-(†)-2406-(*)-RT(+)		SSF-(†)-30-(*)-HT12	
SSF-(†)-24-(*)-(+)45-24		SSF(†)-24-09-(*)-HLR		SSF-(†)-30-(*)-HT24	
SSF-(†)-24-(*)-(+)45-36		SSF(†)-24-09-(*)-HRR		SSF-(†)-30-(*)-HT36	
SSF-(†)-24-(*)-(+)45-48		SSF(†)-24-09-(*)-HSR		SSF-(†)-30-(*)-HT48	
SSF-(†)-24-(*)-(+)60-12		SSF-(†)-2409-(*)-RT(+)		SSF-(†)-30-(*)-HX12	
SSF-(†)-24-(*)-(+)60-24		SSF(†)-24-12-(*)-HLR		SSF-(†)-30-(*)-HX24	B-315
SSF-(†)-24-(*)-(+)60-36		SSF(†)-24-12-(*)-HRR		SSF-(†)-30-(*)-HX36	
SSF-(†)-24-(*)-(+)60-48		SSF(†)-24-12-(*)-HSR		SSF-(†)-30-(*)-HX48	
SSF-(†)-24-(*)-(+)90-12		SSF-(†)-2412-(*)-RT(+)		SSF-(†)-30-(*)-HYL	
SSF-(†)-24-(*)-(+)90-24		SSF(†)-24-18-(*)-HLR		SSF-(†)-30-(*)-HYR	
SSF-(†)-24-(*)-(+)90-36		SSF(†)-24-18-(*)-HRR		SSF-(†)-30-(*)-VTD-12	
SSF-(†)-24-(*)-(+)90-48		SSF(†)-24-18-(*)-HSR		SSF-(†)-30-(*)-VTD-24	
SSF-(†)-24-(*)-CS-12 SSF-(†)-24-(*)-CS-24		SSF-(†)-2418-(*)-RT(+)		SSF-(†)-30-(*)-VTD-36 SSF-(†)-30-(*)-VTD-48	
SSF-(†)-24-(*)-CS-36		SSF-(†)-2430-(*)-ET(+) SSF-(†)-2430-(*)-EX(+)		SSF-(†)-30-(*)-VTU-12	
SSF-(†)-24-(*)-CS-48	D-320	SSF-(†)-2436-(*)-ET(+)		SSF-(†)-30-(*)-VTU-24	
SSF-(†)-24-(*)-HB30-12		SSF-(†)-2436-(*)-EX(+)		SSF-(†)-30-(*)-VTU-36	
SSF-(†)-24-(*)-HB30-24		SSF-(†)-30-(*)-(+)30-12		SSF-(†)-30-(*)-VTU-48	
SSF-(†)-24-(*)-HB30-36		SSF-(†)-30-(*)-(+)30-24		SSF(†)-30-06-(*)-HLR	
SSF-(†)-24-(*)-HB30-48		SSF-(†)-30-(*)-(+)30-36		SSF(†)-30-06-(*)-HRR	
SSF-(†)-24-(*)-HB45-12		SSF-(†)-30-(*)-(+)30-48		SSF(†)-30-06-(*)-HSR	
SSF-(†)-24-(*)-HB45-24		SSF-(†)-30-(*)-(+)45-12		SSF-(†)-3006-(*)-RT(+)	
SSF-(†)-24-(*)-HB45-36		SSF-(†)-30-(*)-(+)45-24		SSF(†)-30-09-(*)-HLR	
SSF-(†)-24-(*)-HB45-48		SSF-(†)-30-(*)-(+)45-36		SSF(†)-30-09-(*)-HRR	
SSF-(†)-24-(*)-HB60-12		SSF-(†)-30-(*)-(+)45-48		SSF(†)-30-09-(*)-HSR	
SSF-(†)-24-(*)-HB60-24		SSF-(†)-30-(*)-(+)60-12		SSF-(†)-3009-(*)-RT(+)	
SSF-(†)-24-(*)-HB60-36		SSF-(†)-30-(*)-(+)60-24		SSF(†)-30-12-(*)-HLR	
SSF-(†)-24-(*)-HB60-48		SSF-(†)-30-(*)-(+)60-36		SSF(†)-30-12-(*)-HRR	
SSF-(†)-24-(*)-HB90-12		SSF-(†)-30-(*)-(+)60-48		SSF(†)-30-12-(*)-HSR	
***		, ., .,		· · · · · · · · · · · · · · · · · · ·	

CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.
SSF-(†)-3012-(*)-RT(+)		SSF-(†)-36-(*)-HX36			B-224
SSF(†)-30-18-(*)-HLR		SSF-(†)-36-(*)-HX48			B-224
SSF(†)-30-18-(*)-HRR		SSF-(†)-36-(*)-HYL			B-224
SSF(†)-30-18-(*)-HSR		SSF-(†)-36-(*)-HYR			B-224
SSF-(†)-3018-(*)-RT(+)		SSF-(†)-36-(*)-VTD-12			B-224
SSF(†)-30-24-(*)-HLR		SSF-(†)-36-(*)-VTD-24			B-224
SSF(†)-30-24-(*)-HRR		SSF-(†)-36-(*)-VTD-36			B-224 B-227, B-257
SSF(†)-30-24-(*)-HSR		SSF-(†)-36-(*)-VTD-48			B-227, B-257
SSF-(†)-3024-(*)-RT(+) SSF-(†)-3036-(*)-ET(+)		SSF-(†)-36-(*)-VTU-12			B-227
SSF-(†)-3036-(*)-EX(+)		SSF-(†)-36-(*)-VTU-24 SSF-(†)-36-(*)-VTU-36			B-227, B-257
SSF-(†)-36-(*)-(+)30-12		SSF-(†)-36-(*)-VTU-48			B-227
SSF-(†)-36-(*)-(+)30-24		SSF(†)-36-06-(*)-HLR			B-227
SSF-(†)-36-(*)-(+)30-36		SSF(†)-36-06-(*)-HRR			B-227
SSF-(†)-36-(*)-(+)30-48		SSF(†)-36-06-(*)-HSR			B-227
SSF-(†)-36-(*)-(+)45-12		SSF-(†)-3606-(*)-RT(+)			B-227
SSF-(†)-36-(*)-(+)45-24		SSF(†)-36-09-(*)-HLR			B-227
SSF-(†)-36-(*)-(+)45-36		SSF(†)-36-09-(*)-HRR			B-227
SSF-(†)-36-(*)-(+)45-48	R-321	SSF(†)-36-09-(*)-HSR			B-227
SSF-(†)-36-(*)-(+)60-12		SSF-(†)-3609-(*)-RT(+)			B-227
SSF-(†)-36-(*)-(+)60-24		SSF(†)-36-12-(*)-HLR			B-227
SSF-(†)-36-(*)-(+)60-36		SSF(†)-36-12-(*)-HRR			B-229
SSF-(†)-36-(*)-(+)60-48		SSF(†)-36-12-(*)-HSR			B-229
SSF-(†)-36-(*)-(+)90-12		SSF-(†)-3612-(*)-RT(+)			B-229
SSF-(†)-36-(*)-(+)90-24		SSF(†)-36-18-(*)-HLR			B-229
SSF-(†)-36-(*)-(+)90-36		SSF(†)-36-18-(*)-HRR			B-229
SSF-(†)-36-(*)-(+)90-48		SSF(†)-36-18-(*)-HSR		SSF-BV1/4-B1/4	B-229
SSF-(†)-36-(*)-CS-12		SSF-(†)-3618-(*)-RT(+)			B-229
SSF-(†)-36-(*)-CS-24	B-326	SSF(†)-36-24-(*)-HLR	B-323	SSF-BV1/4-B8	B-229
SSF-(†)-36-(*)-CS-36		SSF(†)-36-24-(*)-HRR	B-323		B-228
SSF-(†)-36-(*)-CS-48	B-326	SSF(†)-36-24-(*)-HSR	B-323		B-229
SSF-(†)-36-(*)-HB30-12	B-314	SSF-(†)-3624-(*)-RT(+)		SSF-BZ1-A3/8	B-229
SSF-(†)-36-(*)-HB30-24		SSF(†)-36-30-(*)-HLR			B-229
SSF-(†)-36-(*)-HB30-36		SSF(†)-36-30-(*)-HRR			B-229
SSF-(†)-36-(*)-HB30-48		SSF(†)-36-30-(*)-HSR			B-229
SSF-(†)-36-(*)-HB45-12		SSF-(†)-3630-(*)-RT(+)			B-229
SSF-(†)-36-(*)-HB45-24		SSF-BA1/4			B-228
SSF-(†)-36-(*)-HB45-36		SSF-BA1/4-A1/4T			B-229
SSF-(†)-36-(*)-HB45-48	B-314	SSF-BA1/4-A3/8	B-228		B-229
SSF-(†)-36-(*)-HB60-12		SSF-BA1/4-A3/8T			B-229
SSF-(†)-36-(*)-HB60-24		SSF-BA1/4-B1/4			B-229
SSF-(†)-36-(*)-HB60-36		SSF-BA1/4-B3/8			B-229
SSF-(†)-36-(*)-HB60-48		SSF-BA1/4-B8			B-229
SSF-(†)-36-(*)-HB90-12		SSF-BBC			B-229
SSF-(†)-36-(*)-HB90-24		SSF-BBC-C1 1/2H			B-233
SSF-(†)-36-(*)-HB90-36		SSF-BBC-C1 1/2V			B-236
SSF-(†)-36-(*)-HB90-48		SSF-BBC-C1 1/4H			B-236
SSF-(†)-36-(*)-HT12		SSF-BBC-C1 1/4V			B-234
SSF-(†)-36-(*)-HT24		SSF-BBC-C1/2 3/4H			B-232
SSF-(†)-36-(*)-HT36		SSF-BBC-C1/2 3/4V SSF-BBC-C1H			B-232 B-233
SSF-(†)-36-(*)-HT48					
SSF-(†)-36-(*)-HX12		SSF-BBC-C1VSSF-BBC-C2H			B-233 B-233
SSF-(†)-36-(*)-HX24	D-313	JJΓ-DDU-U∠Π	D-224	JJF-UU1 1/2-∏J/4	D-233

CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.
SSF-CC1 1/2T		SSF-CES437		SSF-CS3/4-F1/4	
SSF-CC1 1/4		SSF-CES562	B-236	SSF-CS3/4-F3/4	
SSF-CC1 1/4-H1/2		SSF-CES718		SSF-CS3/4-FB	
SSF-CC1 1/4-H1/4		SSF-CES937		SSF-CS3/4-H1/2	
SSF-CC1 1/4-H3/4	B-233	SSF-CF1/8	B-236	SSF-CS3/4-H1/4	B-233
SSF-CC1 1/4T		SSF-CF3/8	B-236	SSF-CS3/4-H3/4	B-233
SSF-CC1/2 3/4		SSF-CK1	B-235	SSF-CS3/4-0B	B-240
SSF-CC1/2 3/4-C1/2 3/4	B-237	SSF-CK1/2	B-235	SSF-CS3/4-S1	
SSF-CC1/2 3/4-FB	B-240	SSF-CK3/4	B-235	SSF-CS3/4-S3/4	B-237
SSF-CC1/2 3/4-H1/2	B-233	SSF-CK535	B-235	SSF-CS3/4T	
SSF-CC1/2 3/4-H1/4	B-233	SSF-CM535	B-236	SSF-CT-A1/4	B-240
SSF-CC1/2 3/4-H3/4	B-233	SSF-CR1	B-239	SSF-CT-AB	B-240
SSF-CC1/2 3/4T	B-232	SSF-CR1-BCH	B-239	SSF-CT-BC	B-240
SSF-CC1-C1	B-237	SSF-CR1-CV	B-239	SSF-CT-CH	B-240
SSF-CC1-C1 1/2	B-237	SSF-CR1-F1/2	B-239	SSF-CT-F1/2	B-240
SSF-CC1-C1 1/4	B-237	SSF-CR1-F1/4	B-239	SSF-CT-F1/4	B-240
SSF-CC1-C1/2 3/4	B-237	SSF-CR1-UC	B-239	SSF-CT-UC	B-240
SSF-CC1-C2	B-237	SSF-CR2	B-239	SSF-CT-V1/4	
SSF-CC1-C3/8	B-237	SSF-CR2-AB		SSF-CUC	
SSF-CC1-H1/2	B-233	SSF-CR2-BCH	B-239	SSF-CUC-C1	B-234
SSF-CC1-H1/4	B-233	SSF-CR2-BCV	B-239	SSF-CUC-C1/2 3/4	B-234
SSF-CC1-H3/4	B-233	SSF-CR2-F1/2	B-239	SSF-CUC-S1	B-234
SSF-CC1T	B-232	SSF-CR2-F1/4	B-239	SSF-CUC-S1/2	B-234
SSF-CC2	B-232	SSF-CR2-H1/2	B-239	SSF-CUC-S3/4	B-234
SSF-CC2-H1/2	B-233	SSF-CR2-H1/4	B-239	SSF-CW3	B-237
SSF-CC2-H1/4	B-233	SSF-CR2-UC	B-239	SSF-CW6	
SSF-CC2-H3/4	B-233	SSF-CR2-V1/4	B-239	SSF-CX18-C1	B-238
SSF-CC2T	B-232	SSF-CR2-Z2	B-239	SSF-CX18-C1/2 3/4	
SSF-CC3/8		SSF-CR4	B-239	SSF-CX18-C1/2 3/4-H1/2	B-238
SSF-CC3/8-H1/2	B-233	SSF-CS1	B-232	SSF-CX18-C1/2 3/4-H1/4	B-238
SSF-CC3/8-H1/4		SSF-CS1/2	B-232	SSF-CX18-C1/2 3/4S	B-238
SSF-CC3/8-H3/4	B-233	SSF-CS1/2-F1/2	B-233	SSF-CX18-C1/2 3/4UC	B-238
SSF-CC3/8T	B-232	SSF-CS1/2-F1/4	B-233	SSF-CX18-C1-H1/2	B-238
SSF-CEL1250	B-236	SSF-CS1/2-F3/4	B-233	SSF-CX18-C1-H1/4	B-238
SSF-CEL218	B-236	SSF-CS1/2-FB		SSF-CX18-C1S	B-238
SSF-CEL281	B-236	SSF-CS1/2-H1/2	B-233	SSF-CX18-C1UC	B-238
SSF-CEL375	B-236	SSF-CS1/2-H1/4	B-233	SSF-CX18-C3/8	B-238
SSF-CEL437	B-236	SSF-CS1/2-H3/4	B-233	SSF-CX18-C3/8H1/2	
SSF-CEL562		SSF-CS1/2-0B	B-240	SSF-CX18-C3/8H1/4	B-238
SSF-CEL718		SSF-CS1/2-S1	B-237	SSF-CX18-C3/8S	B-238
SSF-CEL937		SSF-CS1/2-S1/2		SSF-CX18-C3/8UC	
SSF-CEM1250	B-236	SSF-CS1/2-S3/4	B-237	SSF-HA1/4-ABT	B-231
SSF-CEM218	B-236	SSF-CS1/2T		SSF-HA1/4-F1/2T	
SSF-CEM281		SSF-CS1-F1/4		SSF-HA1/4-F1/4T	
SSF-CEM375		SSF-CS1-F3/4		SSF-HA1/4-F3/4T	
SSF-CEM437		SSF-CS1-H1/2		SSF-HA1/4-0BT	
SSF-CEM562		SSF-CS1-H1/4		SSF-HA1/4T	
SSF-CEM718		SSF-CS1-H3/4		SSF-HA3/8	
SSF-CEM937		SSF-CS1-0B		SSF-HA3/8-AB	
SSF-CES1250		SSF-CS1-S1		SSF-HA3/8-ABT	
SSF-CES218		SSF-CS1T		SSF-HA3/8-F1/2	
SSF-CES281		SSF-CS3/4		SSF-HA3/8-F1/2T	
SSF-CES375		SSF-CS3/4-F1/2		SSF-HA3/8-F1/4	
	*		= ==•		= ===

CAT. NO. SSF-HA3/8-F1/4T	PAGE NO. R-230	CAT. NO. SSF-SF3/4	PAGE NO. Λ_61 R_2/3	CAT. NO. SSF-T9T8-7/16	PAGE NO. R_251
SSF-HA3/8-F3/4		SSF-SF3/8		SSF-TA7	R-250 R-257
SSF-HA3/8-F3/4T		SSF-SF5/8		SSF-TA7-S1	
SSF-HA3/8-0B		SSF-SFA		SSF-TA7-S1/2	
SSF-HA3/8-0BT		SSF-SF-C1		SSF-TA7-S3/4	D 250
SSF-HA3/8T	D-Z31 D 221 D 257	SSF-SF-C1/2 3/4		SSF-TCH	
				SSF-TCH-C1/2 3/4	
SSF-HAB		SSF-SF-C3/8			
SSF-HB1/4		SSF-SF-S1		SSF-TCH-S1	
SSF-HB1/4-AB		SSF-SF-S1/2		SSF-TCH-S1/2	
SSF-HB1/4-F1/2		SSF-SF-S3/4		SSF-TCH-S3/4	
SSF-HB1/4-F1/4		SSF-SFT		SSF-TCHT	
SSF-HB1/4-F3/4		SSF-SG1-16		SSF-TCV	
SSF-HB1/4-0B		SSF-SG1-24		SSF-TCV-C1/2 3/4	
SSF-HB3/8		SSF-SG16A		SSF-TCV-S1	
SSF-HB3/8-AB		SSF-SG2-16		SSF-TCV-S1/2	
SSF-HB3/8-F1/2		SSF-SG2-24		SSF-TCV-S3/4	
SSF-HB3/8-F1/4		SSF-SG24A		SSF-TCVT	
SSF-HB3/8-F3/4		SSF-SH2346		SSF-TCVYL	
SSF-HB3/8-0B		SSF-SH2346-CS	A-11	SSF-TCVYL-FBUC	
SSF-HB8	B-231, B-257	SSF-SH4		SSF-TFC	
SSF-HB8-AB		SSF-SH6	B-243	SSF-TH12	B-248
SSF-HB8-F1/2	B-230	SSF-SHSB	B-245	SSF-TH20	B-248
SSF-HB8-F1/4	B-230	SSF-SK	A-61, B-242	SSF-TH24	B-248
SSF-HB8-F3/4	B-230	SSF-SK-C1	A-64, B-242	SSF-TH24A	B-248
SSF-HB8-0B		SSF-SK-C1/2 3/4	A-64, B-242	SSF-TH30	B-248
SSF-HFB		SSF-SK-S1		SSF-THC	
SSF-H0B		SSF-SK-S1/2		SSF-TL24	
SSF-HR		SSF-SK-S3/4		SSF-TS1 1/2	
SSF-HR-F1/2		SSF-SLV		SSF-TS2	
SSF-HR-F1/4		SSF-SMX		SSF-TS5/8	
SSF-HR-F3/4		SSF-SP1		SSF-TV	
SSF-HS		SSF-SR		SSF-TWN1/4	
SSF-HSAB		SSF-SS1/2 3/4		SSF-VB10	
SSF-HS-F1/2		SSF-SS1/2 3/4D		SSF-VJ1 5/16	
SSF-HS-F1/4		SSF-ST66		SSF-VJ1 5/16-A1/4	
SSF-HS-F3/4		SSF-SV12		SSF-VJ1 5/16-A7	
SSF-MA7		SSF-SV18		SSF-VJ1 5/16-AB	
SSF-MH1/4-3/8		SSF-SX		SSF-VJ1 5/16-BC	
SSF-MNH		SSF-T15T1 1/2		SSF-VJ1 5/16-BC-AB	
SSF-MPS		SSF-T15T1 1/2 SSF-T15T1 1/2WH		SSF-V.I1 5/16C	
001 1111 0 1111111111111111111111111111	2 20.	001 11011 1/211111111	2 20.	001 101 0/100	2 202
SSF-S6X		SSF-T15T2		SSF-VJ1 5/16-F1/2	
SSF-SAB-C1/2 3/4		SSF-T15T3		SSF-VJ1 5/16-F1/4	
SSF-SAB-C3/8		SSF-T15T5/8		SSF-VJ1 5/16-F3/4	
SSF-SAB-S1/2		SSF-T15T5/8WH		SSF-VJ1 5/16-H1/2-AB	
SSF-SAB-S3/4		SSF-T15T8-5/8		SSF-VJ1 5/16-H1/4-AB	
SSF-SB16		SSF-T15T8-5/8WH		SSF-VJ1 5/16-H3/4-AB	
SSF-SB16F		SSF-T15T8-7/16		SSF-VJ1 5/16-UC	
SSF-SB24		SSF-T15T8-7/16WH		SSF-VJ1 5/16-V1/4	
SSF-SB24F		SSF-T15TSH		SSF-VJ2	
SSF-SC6		SSF-T9T5/8		SSF-VJ2-A1/4	
SSF-SF0		SSF-T9T5/8WH		SSF-VJ2-A7	
SSF-SF1/2	,	SSF-T9T8-5/8		SSF-VJ2-AB	
SSF-SF1/4	A-61, B-243	SSF-T9T8-5/8WH	B-251	SSF-VJ2-BC	B-252

CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.	CAT. NO. SST-F 01-S-V060-24	PAGE NO.
SSF-VJ2-BC-AB		SSH27-250		SST-F 01-S-V060-24	B-366
SSF-VJ2C		SSH31-500		SST-F 01-S-V090-12	
SSF-VJ2-F1/2		SSH34-250		SST-F 01-S-V090-24	
SSF-VJ2-F1/4		SSH37-750		SST-F 03-S-HB30-12	
SSF-VJ2-F3/4		SSH44-375	C-36, C-42	SST-F 03-S-HB30-24	
SSF-VJ2-H1/2-AB		SSH50-750		SST-F 03-S-HB45-12	
SSF-VJ2-H1/4-AB		SSH56-625		SST-F 03-S-HB45-24	
SSF-VJ2-H3/4-AB		SSH62-750		SST-F 03-S-HB60-12	
SSF-VJ2-UC		SSH69-625		SST-F 03-S-HB60-24	B-362
SSF-VJ2-V1/4		SSID100		SST-F 03-S-HB90-12	
SSF-VJ4		SSID101		SST-F 03-S-HB90-24	
SSF-VL13-A1/4		SSID102		SST-F 03-S-HT-12	
SSF-VL13-AB		SSLL	A-294	SST-F 03-S-HT-24	
SSF-VL13-BC	B-255	SSLS		SST-F 03-S-HX-12	
SSF-VL13-CH		SSQV		SST-F 03-S-HX-24	
SSF-VL13-F1/2	B-255	SSR12-250C		SST-F 03-S-VI30-12	
SSF-VL13-F1/4	B-255	SSR12-375C		SST-F 03-S-VI30-24	
SSF-VL13-UC		SSR18-250C		SST-F 03-S-VI45-12	B-367
SSF-VL13-V1/4	B-255	SSR18-375C		SST-F 03-S-VI45-24	B-367
SSF-VR 2B	B-256	SSR24-250C		SST-F 03-S-VI60-12	B-366
SSF-VR 4B	B-256	SSR24-375C		SST-F 03-S-VI60-24	B-366
SSF-VR1 1/4A	B-256	SSR30-375C		SST-F 03-S-VI90-12	B-365
SSF-VR1 1/4B	B-256	SSR36-375C		SST-F 03-S-VI90-24	B-365
SSF-VR1 1/4D		SSR6-250C		SST-F 03-S-V030-12	B-368
SSF-VR1 3/4A	B-256	SSR6-375C		SST-F 03-S-V030-24	B-368
SSF-VR1 5/8B	B-256	SSR9-250C		SST-F 03-S-V045-12	B-367
SSF-VR1 5/8D	B-256	SSR9-375C		SST-F 03-S-V045-24	B-367
SSF-VR3/4A	B-256	SSTC		SST-F 03-S-V060-12	B-366
SSF-VR3E		SST-F 01-S-HB30-12	B-363	SST-F 03-S-V060-24	B-366
SSF-VR7/8C	B-256	SST-F 01-S-HB30-24	B-363	SST-F 03-S-V090-12	
SSF-VT13-A1/4	B-254	SST-F 01-S-HB45-12	B-363	SST-F 03-S-V090-24	B-365
SSF-VT13-A7	B-254	SST-F 01-S-HB45-24	B-363	SST-F 04-S-HB30-12	B-363
SSF-VT13-AB	B-254	SST-F 01-S-HB60-12	B-362	SST-F 04-S-HB30-24	B-363
SSF-VT13-BC	B-254	SST-F 01-S-HB60-24	B-362	SST-F 04-S-HB45-12	B-363
SSF-VT13-F1/2	B-254	SST-F 01-S-HB90-12	B-362	SST-F 04-S-HB45-24	B-363
SSF-VT13-F1/4	B-254	SST-F 01-S-HB90-24	B-362	SST-F 04-S-HB60-12	B-362
SSF-VT13-UC	B-254	SST-F 01-S-HT-12	B-364	SST-F 04-S-HB60-24	B-362
SSF-VT13-V1/4	B-254	SST-F 01-S-HT-24		SST-F 04-S-HB90-12	B-362
SSF-VT27-A1/4		SST-F 01-S-HX-12	B-364	SST-F 04-S-HB90-24	B-362
SSF-VT27-A7	B-254	SST-F 01-S-HX-24	B-364	SST-F 04-S-HT-12	B-364
SSF-VT27-AB	B-254	SST-F 01-S-VI30-12	B-368	SST-F 04-S-HT-24	B-364
SSF-VT27-BC	B-254	SST-F 01-S-VI30-24	B-368	SST-F 04-S-HX-12	B-364
SSF-VT27-F1/2	B-254	SST-F 01-S-VI45-12	B-367	SST-F 04-S-HX-24	B-364
SSF-VT27-F1/4	B-254	SST-F 01-S-VI45-24	B-367	SST-F 04-S-VI30-12	B-368
SSF-VT27-UC	B-254	SST-F 01-S-VI60-12	B-366	SST-F 04-S-VI30-24	B-368
SSF-VT27-V1/4	B-254	SST-F 01-S-VI60-24	B-366	SST-F 04-S-VI45-12	B-367
SSH10-250		SST-F 01-S-VI90-12	B-365	SST-F 04-S-VI45-24	B-367
SSH16-250		SST-F 01-S-VI90-24		SST-F 04-S-VI60-12	B-366
SSH16-375		SST-F 01-S-V030-12	B-368	SST-F 04-S-VI60-24	B-366
SSH18-500		SST-F 01-S-V030-24		SST-F 04-S-VI90-12	B-365
SSH19-250		SST-F 01-S-V045-12		SST-F 04-S-VI90-24	B-365
SSH21-625		SST-F 01-S-V045-24		SST-F 04-S-V030-12	
SSH24-750		SST-F 01-S-V060-12		SST-F 04-S-V030-24	
	•				

CAT NO	PAGE NO.	CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.
CAT. NO. SST-F 04-S-V045-12	B-367	SST-W-03-CEG	R-372	SSUF-(†)-06-(*)-CS12	B-350
SST-F 04-S-V045-24	B-367	SST-W-03-CEP		SSUF-(†)-06-(*)-CS24	
SST-F 04-S-V060-12		SST-W-03-CHA		SSUF-(†)-06-(*)-CS36	B-350
SST-F 04-S-V060-24		SST-W-03-ESP		SSUF-(†)-06-(*)-HB30-12	
SST-F 04-S-V090-12		SST-W-03-HCC		SSUF-(†)-06-(*)-HB30-24	
SST-F 04-S-V090-24		SST-W-03-SHC		SSUF-(†)-06-(*)-HB30-36	
SST-F 06-S-HB30-12	B-363	SST-W-03-WAV		SSUF-(†)-06-(*)-HB45-12	
SST-F 06-S-HB30-24		SST-W-04-01-RSP		SSUF-(†)-06-(*)-HB45-24	
SST-F 06-S-HB45-12	B-363	SST-W-04-03-RSP	B-371	SSUF-(†)-06-(*)-HB45-36	B-337
SST-F 06-S-HB45-24	B-363	SST-W-04-ACS	B-370	SSUF-(†)-06-(*)-HB60-12	B-336
SST-F 06-S-HB60-12	B-362	SST-W-04-CBP		SSUF-(†)-06-(*)-HB60-24	B-336
SST-F 06-S-HB60-24	B-362	SST-W-04-CCC		SSUF-(†)-06-(*)-HB60-36	B-336
SST-F 06-S-HB90-12		SST-W-04-CCS		SSUF-(†)-06-(*)-HB90-12	
SST-F 06-S-HB90-24		SST-W-04-CCT		SSUF-(†)-06-(*)-HB90-24	
SST-F 06-S-HT-12		SST-W-04-CCV		SSUF-(†)-06-(*)-HB90-36	
SST-F 06-S-HT-24		SST-W-04-CEG		SSUF-(†)-06-(*)-HT12	B-338
SST-F 06-S-HX-12	B-364	SST-W-04-CEP		SSUF-(†)-06-(*)-HT24	
SST-F 06-S-HX-24		SST-W-04-CHA		SSUF-(†)-06-(*)-HT36	
SST-F 06-S-VI30-12		SST-W-04-ESP		SSUF-(†)-06-(*)-HX12	
SST-F 06-S-VI30-24	B-368	SST-W-04-HCC		SSUF-(†)-06-(*)-HX24	
SST-F 06-S-VI45-12		SST-W-04-SHC	B-372	SSUF-(†)-06-(*)-HX36	B-339
SST-F 06-S-VI45-24	B-367	SST-W-04-WAV		SSUF-(†)-06-(*)-HYL	
SST-F 06-S-VI60-12		SST-W-06-01-RSP		SSUF-(†)-06-(*)-HYR	
SST-F 06-S-VI60-24		SST-W-06-03-RSP		SSUF-(†)-06-(*)-VTD12	
SST-F 06-S-VI90-12	B-365	SST-W-06-04-RSP	B-371	SSUF-(†)-06-(*)-VTD24	B-349
SST-F 06-S-VI90-24	B-365	SST-W-06-ACS	B-370	SSUF-(†)-06-(*)-VTD36	B-349
SST-F 06-S-V030-12	B-368	SST-W-06-CBP	B-371	SSUF-(†)-06-(*)-VTU12	
SST-F 06-S-V030-24	B-368	SST-W-06-CCC	B-372	SSUF-(†)-06-(*)-VTU24	
SST-F 06-S-V045-12	B-367	SST-W-06-CCS	B-370	SSUF-(†)-06-(*)-VTU36	B-349
SST-F 06-S-V045-24		SST-W-06-CCT	B-371	SSUF-(†)-0612-(*)-ET(+)	B-341
SST-F 06-S-V060-12	B-366	SST-W-06-CCV	B-370	SSUF-(†)-0612-(*)-EX-(+)	B-342
SST-F 06-S-V060-24	B-366	SST-W-06-CEG	B-372	SSUF-(†)-0618-(*)-ET(+)	B-341
SST-F 06-S-V090-12	B-365	SST-W-06-CEP	B-371	SSUF-(†)-0618-(*)-EX-(+)	B-342
SST-F 06-S-V090-24	B-365	SST-W-06-CHA	B-370	SSUF-(†)-0624-(*)-ET(+)	B-341
SST-W-01-ACS		SST-W-06-ESP		SSUF-(†)-0624-(*)-EX-(+)	B-342
SST-W-01-CBP	B-371	SST-W-06-HCC	B-372	SSUF-(†)-0630-(*)-ET(+)	B-341
SST-W-01-CCC	B-372	SST-W-06-SHC	B-372	SSUF-(†)-0630-(*)-EX-(+)	B-342
SST-W-01-CCS	B-370	SST-W-06-WAV		SSUF-(†)-0636-(*)-ET(+)	B-341
SST-W-01-CCT		SSU12		SSUF-(†)-0636-(*)-EX-(+)	B-342
SST-W-01-CCV	B-370	SSU13	B-334	SSUF-(†)-12-(*)-(+)30-12	B-346
SST-W-01-CEG		SSU16	B-335	SSUF-(†)-12-(*)-(+)30-24	B-346
SST-W-01-CEP	B-371	SSUF-(†)-06-(*)-(+)30-12	B-346	SSUF-(†)-12-(*)-(+)30-36	B-346
SST-W-01-CHA	B-370	SSUF-(†)-06-(*)-(+)30-24		SSUF-(†)-12-(*)-(+)45-12	B-345
SST-W-01-HCC	B-372	SSUF-(†)-06-(*)-(+)30-36	B-346	SSUF-(†)-12-(*)-(+)45-24	B-345
SST-W-01-SHC	B-372	SSUF-(†)-06-(*)-(+)45-12		SSUF-(†)-12-(*)-(+)45-36	B-345
SST-W-01-WAV	B-370	SSUF-(†)-06-(*)-(+)45-24	B-345	SSUF-(†)-12-(*)-(+)60-12	B-344
SST-W-03-01-RSP	B-371	SSUF-(†)-06-(*)-(+)45-36		SSUF-(†)-12-(*)-(+)60-24	
SST-W-03-ACS		SSUF-(†)-06-(*)-(+)60-12		SSUF-(†)-12-(*)-(+)60-36	
SST-W-03-CBP	B-371	SSUF-(†)-06-(*)-(+)60-24		SSUF-(†)-12-(*)-(+)90-12	
SST-W-03-CCC	B-372	SSUF-(†)-06-(*)-(+)60-36		SSUF-(†)-12-(*)-(+)90-24	B-343
SST-W-03-CCS	B-370	SSUF-(†)-06-(*)-(+)90-12		SSUF-(†)-12-(*)-(+)90-36	
SST-W-03-CCT	B-371	SSUF-(†)-06-(*)-(+)90-24		SSUF-(†)-12-(*)-CS12	B-350
SST-W-03-CCV	B-370	SSUF-(†)-06-(*)-(+)90-36		SSUF-(†)-12-(*)-CS24	B-350

Catalog Number Index

CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.
SSUF-(†)-12-(*)-CS36	B-350	SSUF-(†)-18-(*)-CS36	B-350	SSUF-(†)-24-(*)-CS12	B-350
SSUF-(†)-12-(*)-HB30-12		SSUF-(†)-18-(*)-HB30-12		SSUF-(†)-24-(*)-CS24	
SSUF-(†)-12-(*)-HB30-24		SSUF-(†)-18-(*)-HB30-24	B-337	SSUF-(†)-24-(*)-CS36	B-350
SSUF-(†)-12-(*)-HB30-36		SSUF-(†)-18-(*)-HB30-36		SSUF-(†)-24-(*)-HB30-12	
SSUF-(†)-12-(*)-HB45-12		SSUF-(†)-18-(*)-HB45-12		SSUF-(†)-24-(*)-HB30-24	
SSUF-(†)-12-(*)-HB45-24		SSUF-(†)-18-(*)-HB45-24		SSUF-(†)-24-(*)-HB30-36	
SSUF-(†)-12-(*)-HB45-36		SSUF-(†)-18-(*)-HB45-36		SSUF-(†)-24-(*)-HB45-12	
SSUF-(†)-12-(*)-HB60-12		SSUF-(†)-18-(*)-HB60-12		SSUF-(†)-24-(*)-HB45-24	
SSUF-(†)-12-(*)-HB60-24 SSUF-(†)-12-(*)-HB60-36		SSUF-(†)-18-(*)-HB60-24 SSUF-(†)-18-(*)-HB60-36		SSUF-(†)-24-(*)-HB45-36 SSUF-(†)-24-(*)-HB60-12	
SSUF-(†)-12-(*)-HB90-12		SSUF-(†)-18-(*)-HB90-12		SSUF-(†)-24-(*)-HB60-24	
SSUF-(†)-12-(*)-HB90-24		SSUF-(†)-18-(*)-HB90-24		SSUF-(†)-24-(*)-HB60-36	
SSUF-(†)-12-(*)-HB90-36		SSUF-(†)-18-(*)-HB90-36		SSUF-(†)-24-(*)-HB90-12	
SSUF-(†)-12-(*)-HT12		SSUF-(†)-18-(*)-HT12		SSUF-(†)-24-(*)-HB90-24	
SSUF-(†)-12-(*)-HT24		SSUF-(†)-18-(*)-HT24		SSUF-(†)-24-(*)-HB90-36	
SSUF-(†)-12-(*)-HT36		SSUF-(†)-18-(*)-HT36		SSUF-(†)-24-(*)-HT12	
SSUF-(†)-12-(*)-HX12	B-339	SSUF-(†)-18-(*)-HX12	B-339	SSUF-(†)-24-(*)-HT24	
SSUF-(†)-12-(*)-HX24		SSUF-(†)-18-(*)-HX24		SSUF-(†)-24-(*)-HT36	
SSUF-(†)-12-(*)-HX36		SSUF-(†)-18-(*)-HX36		SSUF-(†)-24-(*)-HX12	
SSUF-(†)-12-(*)-HYL		SSUF-(†)-18-(*)-HYL		SSUF-(†)-24-(*)-HX24	
SSUF-(†)-12-(*)-HYR		SSUF-(†)-18-(*)-HYR		SSUF-(†)-24-(*)-HX36	
SSUF-(†)-12-(*)-VTD12		SSUF-(†)-18-(*)-VTD12		SSUF-(†)-24-(*)-HYL	
SSUF-(†)-12-(*)-VTD24 SSUF-(†)-12-(*)-VTD36		SSUF-(†)-18-(*)-VTD24 SSUF-(†)-18-(*)-VTD36		SSUF-(†)-24-(*)-HYR SSUF-(†)-24-(*)-VTD12	
SSUF-(†)-12-(*)-VTU12		SSUF-(†)-18-(*)-VTU12		SSUF-(†)-24-(*)-VTD24	
SSUF-(†)-12-(*)-VTU24		SSUF-(†)-18-(*)-VTU24		SSUF-(†)-24-(*)-VTD36	
SSUF-(†)-12-(*)-VTU36		SSUF-(†)-18-(*)-VTU36		SSUF-(†)-24-(*)-VTU12	
SSUF-(†)-12-06-(*)-HLR		SSUF-(†)-18-06-(*)-HLR		SSUF-(†)-24-(*)-VTU24	
SSUF-(†)-12-06-(*)-HRR		SSUF-(†)-18-06-(*)-HRR		SSUF-(†)-24-(*)-VTU36	
SSUF-(†)-12-06-(*)-HSR		SSUF-(†)-18-06-(*)-HSR	B-347	SSUF-(†)-24-06-(*)-HLR	B-347
SSUF-(†)-1206-(*)-RT(+)		SSUF-(†)-1806-(*)-RT(+)		SSUF-(†)-24-06-(*)-HRR	
SSUF-(†)-1218-(*)-ET(+)		SSUF-(†)-18-12-(*)-HLR		SSUF-(†)-24-06-(*)-HSR	
SSUF-(†)-1218-(*)-EX-(+)		SSUF-(†)-18-12-(*)-HRR		SSUF-(†)-2406-(*)-RT(+)	
SSUF-(†)-1224-(*)-ET(+)		SSUF-(†)-18-12-(*)-HSR		SSUF-(†)-24-12-(*)-HLR	
SSUF-(†)-1224-(*)-EX-(+)		SSUF-(†)-1812-(*)-RT(+)		SSUF-(†)-24-12-(*)-HRR	
SSUF-(†)-1230-(*)-ET(+)		SSUF-(†)-1824-(*)-ET(+) SSUF-(†)-1824-(*)-EX-(+)		SSUF-(†)-24-12-(*)-HSR SSUF-(†)-2412-(*)-RT(+)	
SSUF-(†)-1230-(*)-EX-(+) SSUF-(†)-1236-(*)-ET(+)		SSUF-(†)-1830-(*)-ET(+)		SSUF-(†)-24-18-(*)-HLR	
SSUF-(†)-1236-(*)-EX-(+)		SSUF-(†)-1830-(*)-EX-(+)		SSUF-(†)-24-18-(*)-HRR	
SSUF-(†)-18-(*)-(+)30-12		SSUF-(†)-1836-(*)-ET(+)		SSUF-(†)-24-18-(*)-HSR	B-347
SSUF-(†)-18-(*)-(+)30-24		SSUF-(†)-1836-(*)-EX-(+)		SSUF-(†)-2418-(*)-RT(+)	
SSUF-(†)-18-(*)-(+)30-36		SSUF-(†)-24-(*)-(+)30-12		SSUF-(†)-2430-(*)-ET(+)	B-341
SSUF-(†)-18-(*)-(+)45-12		SSUF-(†)-24-(*)-(+)30-24		SSUF-(†)-2430-(*)-EX-(+)	B-342
SSUF-(†)-18-(*)-(+)45-24	B-345	SSUF-(†)-24-(*)-(+)30-36	B-346	SSUF-(†)-2436-(*)-ET(+)	
SSUF-(†)-18-(*)-(+)45-36		SSUF-(†)-24-(*)-(+)45-12		SSUF-(†)-2436-(*)-EX-(+)	
SSUF-(†)-18-(*)-(+)60-12		SSUF-(†)-24-(*)-(+)45-24		SSUF-(†)-30-(*)-(+)30-12	
SSUF-(†)-18-(*)-(+)60-24		SSUF-(†)-24-(*)-(+)45-36		SSUF-(†)-30-(*)-(+)30-24	
SSUF-(†)-18-(*)-(+)60-36		SSUF-(†)-24-(*)-(+)60-12		SSUF-(†)-30-(*)-(+)30-36	
SSUF-(†)-18-(*)-(+)90-12		SSUF-(†)-24-(*)-(+)60-24		SSUF-(†)-30-(*)-(+)45-12	
SSUF-(†)-18-(*)-(+)90-24 SSUF-(†)-18-(*)-(+)90-36		SSUF-(†)-24-(*)-(+)60-36 SSUF-(†)-24-(*)-(+)90-12		SSUF-(†)-30-(*)-(+)45-24 SSUF-(†)-30-(*)-(+)45-36	
SSUF-(†)-18-(*)-CS12		SSUF-(†)-24-(*)-(+)90-12		SSUF-(†)-30-(*)-(+)60-12	
SSUF-(†)-18-(*)-CS24		SSUF-(†)-24-(*)-(+)90-36		SSUF-(†)-30-(*)-(+)60-24	
0001 (j) 10 (j 002 T	5 000	0001 (1) Z+ () (+)00 00	טדט ט	3331 (1) 30 () (±)00 24	0 074

CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.
SSUF-(†)-30-(*)-(+)60-36		SSUF-(†)-36-(*)-(+)45-12		SSUF-(†)-3624-(*)-RT(+)	
SSUF-(†)-30-(*)-(+)90-24		SSUF-(†)-36-(*)-(+)45-24		SSUF-(†)-36-30-(*)-HLR	
SSUF-(†)-30-(*)-(+)90-36		SSUF-(†)-36-(*)-(+)45-36		SSUF-(†)-36-30-(*)-HRR	
SSUF-(†)-30-(*)-CS12		SSUF-(†)-36-(*)-(+)60-12		SSUF-(†)-36-30-(*)-HSR	
SSUF-(†)-30-(*)-CS24		SSUF-(†)-36-(*)-(+)60-24		SSUF-(†)-3630-(*)-RT(+)	
SSUF-(†)-30-(*)-CS36		SSUF-(†)-36-(*)-(+)60-36	B-344	SSUW-(*)06HAP	
SSUF-(†)-30-(*)-HB30-12	B-337	SSUF-(†)-36-(*)-(+)90-12		SSUW-(*)09HAP	B-353
SSUF-(†)-30-(*)-HB30-24	B-337	SSUF-(†)-36-(*)-(+)90-24	B-343	SSUW-(*)12HAP	
SSUF-(†)-30-(*)-HB30-36	B-337	SSUF-(†)-36-(*)-(+)90-36	B-343	SSUW-(*)18HAP	B-353
SSUF-(†)-30-(*)-HB45-12	B-337	SSUF-(†)-36-(*)-CS12	B-350	SSUW-(*)24HAP	B-353
SSUF-(†)-30-(*)-HB45-24	B-337	SSUF-(†)-36-(*)-CS24	B-350	SSUW-(*)30HAP	B-353
SSUF-(†)-30-(*)-HB45-36	B-337	SSUF-(†)-36-(*)-CS36	B-350	SSUW-(*)36HAP	
SSUF-(†)-30-(*)-HB60-12	B-336	SSUF-(†)-36-(*)-HB30-12	B-337	SSUW-2-(*)-HTB	
SSUF-(†)-30-(*)-HB60-24	B-336	SSUF-(†)-36-(*)-HB30-24	B-337	SSUW-2-(*)-VSP	B-354
SSUF-(†)-30-(*)-HB60-36	B-336	SSUF-(†)-36-(*)-HB30-36		SSUW-2-ESP	
SSUF-(†)-30-(*)-HB90-12	B-336	SSUF-(†)-36-(*)-HB45-12	B-337	SSUW-2-HDC	
SSUF-(†)-30-(*)-HB90-24		SSUF-(†)-36-(*)-HB45-24	B-337	SSUW-2-SB-3	
SSUF-(†)-30-(*)-HB90-36	B-336	SSUF-(†)-36-(*)-HB45-36	B-337	SSUW-2-SBH-72	
SSUF-(†)-30-(*)-HT12	B-338	SSUF-(†)-36-(*)-HB60-12	B-336	SSUW-2-SSP	
SSUF-(†)-30-(*)-HT24	B-338	SSUF-(†)-36-(*)-HB60-24		SSUW-2-VIB-(*)-(*)	
SSUF-(†)-30-(*)-HT36	B-338	SSUF-(†)-36-(*)-HB60-36	B-336	SSUW-2-V0B-(*)-(*)	
SSUF-(†)-30-(*)-HX12	B-339	SSUF-(†)-36-(*)-HB90-12		SSUW-3-(*)-HTB	
SSUF-(†)-30-(*)-HX24		SSUF-(†)-36-(*)-HB90-24	B-336	SSUW-3-(*)-VSP	B-354
SSUF-(†)-30-(*)-HX36		SSUF-(†)-36-(*)-HB90-36	B-336	SSUW-3-HDC	
SSUF-(†)-30-(*)-HYL	B-348	SSUF-(†)-36-(*)-HT12	B-338	SSUW-3-SB-3	B-357
SSUF-(†)-30-(*)-HYR	B-348	SSUF-(†)-36-(*)-HT24	B-338	SSUW-3-SBH-72	
SSUF-(†)-30-(*)-VTD12	B-349	SSUF-(†)-36-(*)-HT36		SSUW-3-VIB-(*)-(*)	B-357
SSUF-(†)-30-(*)-VTD24	B-349	SSUF-(†)-36-(*)-HX12		SSUW-3-VOB-(*)-(*)	
SSUF-(†)-30-(*)-VTD36		SSUF-(†)-36-(*)-HX24	B-339	SSUW-6-(*)-HTB	
SSUF-(†)-30-(*)-VTU12		SSUF-(†)-36-(*)-HX36		SSUW-6-(*)-VSP	
SSUF-(†)-30-(*)-VTU24		SSUF-(†)-36-(*)-HYL		SSUW-6-HDC	
SSUF-(†)-30-(*)-VTU36		SSUF-(†)-36-(*)-HYR		SSUW-6-SB-3	
SSUF-(†)-30-06-(*)-HLR		SSUF-(†)-36-(*)-VTD12		SSUW-6-SBH-72	
SSUF-(†)-30-06-(*)-HRR		SSUF-(†)-36-(*)-VTD24		SSUW-6-VIB-(*)-(*)	B-357
SSUF-(†)-30-06-(*)-HSR		SSUF-(†)-36-(*)-VTD36		SSUW-6-V0B-(*)-(*)	
SSUF-(†)-3006-(*)-RT(+)		SSUF-(†)-36-(*)-VTU12		SSV	
SSUF-(†)-30-12-(*)-HLR		SSUF-(†)-36-(*)-VTU24		SSW-(*)-(*)-FBP	
SSUF-(†)-30-12-(*)-HRR	B-347	SSUF-(†)-36-(*)-VTU36		SSW-(*)-(*)-SDS	B-330
SSUF-(†)-30-12-(*)-HSR	B-347	SSUF-(†)-36-06-(*)-HLR		SSW-(*)-(*)-WPS	
SSUF-(†)-3012-(*)-RT(+)		SSUF-(†)-36-06-(*)-HRR		SSW-(*)06HAP	
SSUF-(†)-30-18-(*)-HLR		SSUF-(†)-36-06-(*)-HSR		SSW-(*)09HAP	
SSUF-(†)-30-18-(*)-HRR		SSUF-(†)-3606-(*)-RT(+)		SSW-(*)12HAP	
SSUF-(†)-30-18-(*)-HSR		SSUF-(†)-36-12-(*)-HLR		SSW-(*)18HAP	
SSUF-(†)-3018-(*)-RT(+)		SSUF-(†)-36-12-(*)-HRR		SSW-(*)24HAP	
SSUF-(†)-30-24-(*)-HLR		SSUF-(†)-36-12-(*)-HSR		SSW-(*)30HAP	
SSUF-(†)-30-24-(*)-HRR		SSUF-(†)-3612-(*)-RT(+)		SSW-(*)36HAP	
SSUF-(†)-30-24-(*)-HSR		SSUF-(†)-36-18-(*)-HLR		SSW-(*)42HAP	
SSUF-(†)-3024-(*)-RT(+)		SSUF-(†)-36-18-(*)-HRR		SSW-(*)-CCC	
SSUF-(†)-3036-(*)-ET(+)		SSUF-(†)-36-18-(*)-HSR		SSW-(*)-D0	
SSUF-(†)-3036-(*)-EX-(+)		SSUF-(†)-3618-(*)-RT(+)		SSW-(*)-DOSB-332	
SSUF-(†)-36-(*)-(+)30-12		SSUF-(†)-36-24-(*)-HLR		SSW-(*)-HRC	
SSUF-(†)-36-(*)-(+)30-24		SSUF-(†)-36-24-(*)-HRR		SSW(*)PEC	
SSUF-(†)-36-(*)-(+)30-36	ឋ-340	SSUF-(†)-36-24-(*)-HSR	ฮ-34/	SSW-(*)-SCC	b-329

Catalog Number Index

CAT. NO.	PAGE NO. B-375	CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.
\ /		SSW-5-VIB-(*)-(+)			
55W-(")-VIH	B-331	SSW-5-VOB-(*)-(+)			
55W(+)HUU	B-329	SSW-5-VSP			
	B-308, B-331	SSW-6-(*)-CEP			
	B-308, B-331	SSW-6-(*)-HCC			
	B-354	SSW-6-(*)-HPC			
	B-355	SSW-6-(*)-RSP	B-330		
	B-354	SSW-6-BSP	B-330, B-353		
	B-355	SSW-6-CCC	B-355		
SSW-3-(^)-UEP	B-330, B-354	SSW-6-ESP			
	B-329, B-355	SSW-6-HDC			
	B-329	SSW-6-RSP			
SSW-3-(^)-RSP	B-330	SSW-6-SB			
SSW-3/8-UB	B-308, B-331, B-356	SSW-6-SBH-72			
	B-308, B-331, B-356	SSW-6-SCC	B-355		
	B-308, B-331, B-356	SSW-6-SSP			
	B-330, B-353	SSW-6-VIB-(*)-(+)			C-20
	B-355	SSW-6-V0B-(*)-(+)			C-20
	B-330, B-353	SSW-6-VSP			C-21
	B-331	SSW-7-(*)-CEP			C-21
	B-354	SSW-7-(*)-HCC			C-21
	B-333	SSW-7-(*)-HPC			C-21
	B-333	SSW-7-(*)-RSP			A-36
	B-355	SSW-7-BSP			C-22
	B-330, B-353	SSW-7-CCC	B-355		A-36
	B-333	SSW-7-ESP			A-36
	B-333	SSW-7-HDC			
	B-330	SSW-7-SB			
	B-330	SSW-7-SBH-72			C-14
	B-329	SSW-7-SSP			
	B-329	SSW-7-VIB-(*)-(+)			C-14
	B-330	SSW-7-V0B-(*)-(+)			
	B-330, B-353	SSW-7-VSP	B-330		
	B-355	SSW-BSC			
	B-330	SSW-CTC			C-17
	B-331	SSW-CTG			C-17
	B-333	SSW-HEC			C-17
	B-333	SSW-SHC			C-17
	B-330	SSW-SHC-HDW			C-17
	B-333	•••	A-218		C-17
	B-333	SW2			C-17
	B-330	SW20-1/710			C-22
	B-330	SW20-2			C-14
	B-329	SW20-2/710			C-14
	B-329	SWB-25			C-14
	B-330	SX-25TB	C-80		C-14
	B-330, B-353	7	ſ		C-14
	B-355	TB-12-50RLDH	C-25		C-14
	B-330	TC050X050A			C-14
	B-331	TC050X050A			C-14
	B-333	TC101			C-18
SSW-5-SBH-72	B-333	TC102			C-16
SSW-5-SSP	B-330	TC103		TC342A	C-16
		10100			

CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.
TC342A-FR		TC722A-FA		TY15X3WHW6	
TC342AH-TFR		TC723A-FA		TY15X3WP[_]6	
TC342A-X		TC804-TB		TY15X4NP[_]6	
TC342X		TC812-TB		TY15X4WHW6	
TC344		TC814-TB		TY15X4WP[_]6	
TC344A		TC815-TB		TY1D[_]P[_]6	
TC344AX	C-17	TC817-TB		TY1DSHW6	C-77
TC345		TC823-TB		TY1MC	
TC345A		TC824-TB		TY1X15NP[_]6	C-75
TC345AFR		TC826-TB	C-21	TY1X15WHW6	
TC345AX	C-17	TC828-TB	C-21	TY1X15WP[_]6	C-73
TC347	C-17	TC86	C-54	TY1X1NP[_]6	C-75
TC347A	C-17	TC87	C-54	TY1X1WHW6	C-77
TC347FR	C-17	TC88	C-54	TY1X1WP[_]6	C-73
TC347X		TC92		TY1X2NP[_]6	C-75
TC349A-TB	C-18	TC95	C-54	TY1X2WHW6	
TC350A-TB		TCH121		TY1X2WP[_]6	
TC353A		TCH121-0		TY1X3NP[_]6	
TC368		TCP360		TY1X3WHW6	
TC368A		TCP5255		TY1X3WP[_]6	
TC375		TCS25		TY1X4NP[_]6	
TC375X		TK121A-FA		TY1X4WHW6	
TC376		TK122A-FA		TY1X4WP[_]6	
TC502		TK123A-FA		TY232M	
TC503		TL14505		TY232MFR	
TC5141		TL14510		TY232MX	
TC5142		TL38203		TY234M	
TC523		TL38210		TY234MX	
		TL38265		TY23M	
TC524					
TC525		TPDR		TY23MFR	
TC5339		TR292		TY23MX	
TC5342A		TR294		TY23MX-A	
TC5344		TS-272		TY242M	
TC5344A		TS273		TY242MX	
TC5344AX		TT-11-30-0-L		TY244M	
TC5345A		TT-11-30-9-L		TY244MX	
TC5345AHTFR		TT-14-30-0-L		TY24M	
TC5345AX		TT-14-30-9-L		TY24MFR	
TC5347A		TT-7-30-0-L		TY24MX	
TC5347AX	C-17	11 7 00 0 =	C-62	TY24MX-A	C-6
TC5349A-TB	C-18	TY1.5D[_]P[_]6		TY253M	
TC5350A-TB	C-18	TY1.5DSHW6		TY253MX	
TC5350-TB		TY153M	C-13	TY25M	
TC5353A	C-18	TY153MFR	C-8	TY25M-1	C-3
TC5355	C-23	TY15MC	C-79	TY25M-2	C-3
TC5356	C-23	TY15X15NP[_]6	C-75	TY25M-22	C-3
TC5357		TY15X15WHW6		TY25M-3	C-3
TC5358		TY15X15WP[_]6		TY25M-35	
TC5359		TY15X1NP[_]6		TY25M-4	
TC5363X		TY15X2NP[_]6		TY25M-5	
TC5823		TY15X2WHW6		TY25M-6	
TC5828		TY15X2WP[_]6		TY25M-7	
TC721A-FA		TY15X3NP[_]6		TY25M-8	
		· · · · · · · · · · · · · · · · · · ·			

Catalog Number Index

CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.
TY25M-9		TY34MX		TY5234MX	
TY25MFR		TY354M		TY523M	
TY25MX		TY354MX		TY523M-NDT	
TY25M-X		TY35M		TY523M-PDT	
TY25MX-A		TY35MX	C-15	TY523MX	
TY25X2NP[_]6	C-75	TY37M	C-15	TY5242M	C-3
TY25X2WP[_]6		TY37MX	C-15	TY5242MX	C-4
TY25X3NP[_]6		TY38M		TY5244M	C-3
TY25X3WP[_]6		TY3D[_]P[_]6		TY5244MX	
TY25X4NP[_]6		TY3DSHW6		TY524M	
TY25X4WP[_]6		TY3MC		TY524M-NDT	
TY26M		TY3X1NP[_]6		TY524MX	
TY26MX		TY3X1WHW6		TY5253M	
TY272M		TY3X1WP[_]6		TY5253MX	
TY272MFR		TY3X2NP[]6		TY525M	
TY272MX		TY3X2WHW6		TY525M-2	
TY275M		TY3X2WP[_]6		TY525M-35	
TY275MX		TY3X3NP[_]6		TY525M-5	
TY277M		TY3X3WHW6		TY525M-6	
TY277MX	• •	TY3X3WP[_]6		TY525M-CLRS	
=	•			TY525M-NDT	
TY27M		TY3X4NP[_]6			
TY27MFR		TY3X4WHW6		TY525M-PDT	
TY27MX		TY3X4WP[_]6		TY525MX	
TY27MX-A		TY3X5NP[_]6		TY526M	
TY28M		TY3X5WHW6		TY526MX	
TY28MFR		TY3X5WP[_]6		TY5272M	
TY28MX		TY409		TY5272MX	
TY28MX-A		TY41M		TY5275M	
TY29M		TY46M		TY5275MX	
TY29MX		TY46MD		TY5277M	
TY2D[_]P[_]6	C-78	TY46MF		TY5277MX	
TY2D[SP][G]6		TY46MT		TY527M	
TY2DSHW6		TY48M		TY527M-NDT	
TY2MC		TY4D[_]P[_]6		TY527M-PDT	
TY2X15NP[_]6		TY4DSHW6		TY527MX	
TY2X15WP[_]6		TY4X2NP[_]6		TY528M	
TY2X1NP[_]6	C-75	TY4X2WHW6	C-77	TY528M-NDT	C-5
TY2X1WHW6	C-77	TY4X3NP[_]6	C-75	TY528M-PDT	C-5
TY2X1WP[_]6	C-73	TY4X3WHW6	C-77	TY528MX	C-4
TY2X2NP[_]6	C-75	TY4X3WP[_]6	C-73	TY529M	C-3
TY2X2WHW6	C-77	TY4X4NP[]6		TY529MX	C-4
TY2X2WP[]6	C-73	TY4X4WHW6		TY532M	C-13
TY2X3NP[_]6		TY4X4WP[_]6		TY533M	C-15
TY2X3WHW6		TY4X5NP[_]6		TY533MX	
TY2X3WP[_]6		TY4X5WHW6		TY53418PX	
TY2X4NP[_]6		TY4X5WP[_]6		TY534M	
TY2X4WHW6		TY512M		TY534MX	
TY2X4WP[_]6		TY51M		TY53510M	
TY2X5NP[_]6		TY52315M		TY53510MX	
TY2X5WP[_]6		TY52315MX		TY5354M	
TY33M		TY5232M		TY5354MX	
TY33MX		TY5232MX		TY535M	
TY34M		TY5234M		TY535MX	
1 1 UTIVI	0-13	1 1 J L J T I V I	ს-ა	1 1 JJJIVI/\	

CAT. NO. TY537M	PAGE NO.	CAT. NO.	PAGE NO. 	CAT. NO.	PAGE NO.
TY537MX			C-6		C-8
TY538M					C-8 C-8
TY53M					
TY53MFR					
TY5409			C-6		
TY5418PX					
TY541M			C-6		
TY5424PX					
TY54407X			C-26		
TY54413X			C-26	1YZ528M	
TY5442PX			C-26		U
TY54513M			C-26	U501	B-51, B-128, B-193
TY54513MX			C-26		B-51
TY5460PX			C-26	11502	B-51, B-128, B-193
TY546M			C-26	1150255	B-51
TY546MD			C-26		B-54, B-128
TY546MF			C-26		B-54, B-128
TY546MT	C-13	TYP23MX	C-7		B-128
TY548M	C-13	TYP25MX	C-7		B-53, B-129
TY5512M	C-13	TYP27MX	C-7		B-33, B-129
TY551M	C-13	TYP28MX	C-7		B-129
TY5532M	C-13	TYR505	C-25		
TY553M	C-13	TYR508	C-25		B-129
TY554M	C-15				B-129
TY5D[_]P[_]6					B-129
TY5DSHW6			C-33, C-40		B-129
TY635M			C-33, C-40		B-131
TY6X4WP[_]6			C-33, C-40		B-131
TY75CP[_]6			C-36		B-131
TY75X15NP[_]6	C-75				B-131
TY75X15WP[_]6			C-33, C-40		B-130
TY75X15WP[W]6			C-33, C-40		B-130
TY75X1WP[G]6NM					B-131
TY75X2WP[_]6			C-36		B-49, B-131
TY75X2WP[W]6					B-49
TYB2315M			C-33, C-40		B-130
TYB2315MX			C-33, C-40	U568 1	B-133
TYC25MX			C-33, C-40	U-568-2	B-133
TYC272MX			C-36	U-568-3	B-133
				U-568-4	B-133
TYC27MX				U-568-5	B-133
TYC28MX				U-568-6	B-49, B-133
TYC29MX					B-133
TYC525MX			C-33, C-40		B-49, B-133
TYC527MX			C-36		B-133
TYF35M					B-133
TYF535M					B-117
TYH232M			C-33, C-40		B-117
TYH23M					B-47, B-131
TYH242M			C-4	U-579-1/2	B-50
TYH24M					B-50
TYH253M			C-4		B-142
TYH25M	C-6	TYV23M	C-8		B-142
				5 7 10 1 mmmm	



Catalog Number Index

CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.
U-716-1/2			A-261, A-263		A-260, A-262
U-716-1-1/2			A-245, A-261		A-261
U-716-1-1/4			A-263		A-261
U-716-1-1/8			A-261		A-261
U-716-1-3/4			A-263		A-261
U-716-1-3/8	B-142	VGL-075	A-245		A-261, A-262
U-716-1-5/8			A-261		A-261, A-262
U-716-1-7/8	B-142	VGLA-A1	A-261, A-263		A-261, A-262
U-716-2	B-142		A-261, A-263	VXWG-12-C	A-261, A-262
U-716-2-1/8	B-142	VGLB-01	A-261	VXWG-21	A-261, A-262
U-716-2-3/8	B-142	VGLG-01	A-261	VXWG-21-C	A-261, A-262
U-716-3/4	B-142	VGLH-01	A-261	VXWG-22	A-261, A-262
U-716-3/8	B-142	VGLH-02	A-261		A-261, A-262
U-716-5/8	B-142		A-261, A-263		W
U-716-7/8			A-261, A-263	IMAT FOLO	
U-717-1			A-261		D-29
U-717-1-1/4			A-261		D-29
U-717-3/4			A-261, A-263		D-29
UC-100			A-261, A-263		D-29
ULNY-013-8-C			B-374		D-29
ULNY-018-8-C			A-260		D-29
ULNY-023-8-C			A-260		D-29
UMC			A-260	WAT-5017	D-29
US562			A-260		D-29
US563			A-260, A-262		D-29
			A-260, A-262		D-29
V			A-260, A-262	WAT-5021	D-29
VA-01	A-260			WAT-5022	D-29
VA-02	A-260		A-260, A-262	WAT-5023	D-29
VAFB			A-260, A-262	WAT-5024	
VAG-01	A-260, A-262		A-260, A-262	WAT-5025	
VAG-01-C			A-260, A-262	WAT-5026	
VAG-02			A-260, A-262	WAT-5027	D-29
VAG-02-C			A-65, B-247, B-256		D-29
V-B	,		A-65, B-247, B-256		D-29
VBC-1			A-261		D-29
VC9902			A-261		D-29
VC9903		VW1	A-65, B-247, B-256		D-29
VC9961P			A-65, B-247, B-256		D-29
VC9962			A-261, A-262		D-29
VC9963			A-261, A-262		D-29
VC9963SC			A-261, A-262		D-29
VC9964			A-261, A-262		D-29
VC9981P		VX-11	A-260		
VC9982		VX-12	A-260		
		VX-21	A-260		D-29
VC9983		VX-22	A-260		
VC9984			A-260, A-262		D-29
VC9992			A-260, A-262		D-29
VC9LV2			A-260, A-262		D-29
VC9LV3			A-260, A-262		D-29
VC9LV4-24			A-260, A-262		D-29
VG-3			A-260, A-262		D-29
VG-4			A-260, A-262		D-29
VGD-01	A-261, A-263		200, 11 202	WA1-5048	D-29

CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.
WAT-5050	D-29	WC230VS	D-10	WCBKA-ZS	D-9
WAT-5051	D-29	WC240VS	D-10	WCBL100-124S	D-8
WAT-5052	D-29	WC24VS	D-10	WCBL1-33S	D-8
WAT-5053	D-29	WC270VS	D-10	WCBL1S-WCBL50S	D-8
WAT-5054		WC280VS			D-8
WAT-5055		WC2L1S			D-8
WAT-5056		WC2L2S			D-9
WAT-5057		WC2L3S—WC6L1S	D-11		D-13
WAT-5058		WC2PHS			D-13
WAT-5059		WC2S—WC99S			D-13
WAT-5060		WC2T1S			D-8
WBF-1A		WC2T2S			D-10
WC0009S		WC2T3S—WC7T1S			D-10
WC0053		WC2US			D-12
WC0—10S		WC2VS			D-8
WC0—103		WC2WS			D-8
WC02S—WC09S		WC33—48PS			
WC0-49MIN		WC34—66S			
WC100—124S		WC3PHS			
WC100-132MIN		WC3VS			D-13
WC100MIN—WC250MIN		WC440VS			
WC101S		WC460VS			D-14
WC110VS		WC463-495MIN			D-14
WC1—12S		WC480VS			D-14
WC115VS		WC49-96TM			D-14
WC1—16PS		WC4T1-6T3S			D-14
WC1—18S		WC50-99MIN			D-14
WC120VS		WC67—99S			D-14
WC125—149S		WC6L2S			D-14
WC125VS		WC6L3S			D-14
WC12VS		WC6VS			D-14
WC133-165MIN	D-12	WC7T1-9T3S	D-11	WCC1S—WCC5S	D-9
WC1—33S	D-8	WC7T2S	D-11	WCCBS	D-11
WC1—3S	D-8	WC7T3S	D-11	WCCM01-09S	D-13
WC1-48TM	D-12	WC974—999S		WCCM1-18S	D-13
WC1—4S	D-8	WCA1-S2S	D-11	WCCM19-36S	D-13
WC1—5S	D-8	WCA1S-WCA5S	D-9	WCCM1-9S	D-13
WC17—32PS		WCACS		WCCM37-54S	D-13
WC180VS		WCAMIN	D-12		D-13
WC19—36S		WCAMINS			D-13
WC1L1S		WCAPLSS			D-13
WC1L2S		WCAS			D-13
WC1L3S		WCAZ09S			D-13
WC1PHS		WCAZAJS			D-13
WC1S		WCAZMIN			D-13
WC1T1-3T3S		WCA-ZTM			D-13
WC1T1S		WCB1S—WCB5S			D-13
WC1T2S		WCBATS			
WC1T3S		WCBBS			
WC1US		WCBK100-124S			
WC1VS		WCBK1-33S			
WC1WS		WCBK34-66S			D-10
WC220VS	บ-10	WCBK67-99S	D-8	WCCTS	

Catalog Number Index

CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.
WCCYSS		WCMP26		WCPOSS	
WCD1S—WCD5S		WCMP3		WCPRIS	
WCDCS		WCMP4		WCPSS	
WCDGRS		WCMP5		WCPURS	
WCE1S—WCE5S		WCMP6		WCPUS	
WCF1S-WCF4S		WCMP7		WCR1S—WCR5S	
WCG1S—WCG4S		WCMP75		WCRD100-124S	
WCGENS		WCMP9		WCRD1-33S	
WCGR100-124S		WCNEGS		WCRD1S—WCRD50S	
WCGR1-33S		WCNEUTS		WCRD34-66S	
WCGR1S-WCGR50S		WCNL00309		WCRD67-99S	
WCGR34-66S		WCNL0031-WCNL0039		WCRDA-ZS	
WCGR67-99S	D-8	WCNL003A—WCNL003Z	D-33	WCRDZEROS	
WCGRA-ZS		WCNL003AZ		WCREDS	
WCGRCS		WCNL003ZER0		WCS1S—WCS5S	
WCGRDS		WCNL06309		WCSECS	D-11
WCGRLS	D-13	WCNL0631-WCNL0639		WCSIGS	D-11
WCGRSS	D-11	WCNL063A-WCNL063Z	D-33	WCSPARES	D-11
WCGRYS	D-13	WCNL063AZ	D-33	WCSSS	
WCGRZEROS	D-8	WCNL063ZER0	D-33	WCT0S-WCT9S	D-9
WCH1S-WCH5S	D-9	WCNL10009	D-33	WCT10S-WCT15S	D-9
WCH0TS		WCNL1001-WCNL1009	D-33	WCTANS	
WCIGNS		WCNL100AJ		WCTBS	
WCINS		WCNL100A—WCNL100Z		WCU1S—WCU2S	
WCJ1S—WCJ4S		WCNL100KT		WCV1S—WCV2S	
WCK1S—WCK4S		WCNL100UZ		WCW1S—WCW2S	
WCL1S—WCL5S		WCNL100ZER0		WCWHIS	
WCLAS		WCNL20009		WCX1S—WCX4S	
WCLAZAJS		WCNL20005		WCY1S—WCY4S	
WCLBS—WCLZS		WCNL200AJ		WCYELS	
WCLINES		WCNL200A—WCNL200Z		WCYL100-124S	
WCLL1-LL3S		WCNL200KT		WCYL1-33S	
WCLL1S		WCNL200UZ		WCYL1S—WCYL50S	
WCLL2S		WCNL200ZER0		WCYL34-66S	
WCLL3S		WCOLIS		WCYL67-99S	
WCLMIS		WCOR100-124S		WCYLA-ZS	
WCLOADS		WCOR1-33S		WCYLZEROS	
WCLPLS		WCOR1S—WCOR50S		WCZ1S—WCZ4S	
WCM1S—WCM5S		WCOR34-66S		WCZEROMIN—WC99MIN	
WCMARS		WCOR67-99S		WCZEROSWC99WIN	
				WDFP	
WCMB-0-9		WCORAS			
WCMB-LC		WCORA-ZS		WDFP-0-9	
WCMINS		WCORZEROS		WDFP-NEMA	
WCMP1		WCOUTS		WDFPR-0	
WCMP16		WCP1S—WCP4S		WDFPR-0-9	
WCMP18		WCPENS		WDFPR-10-19	
WCMP19		WCPES		WDFPR-1—WDFPR-9	
WCMP2		WCPHAS		WDFPR-A—WDFPR-Z	
WCMP20		WCPHBS		WDFPR-BLU	
WCMP21		WCPHCS		WDFPR-BRN	
WCMP22		WCPHS		WDFPR-GRN	
WCMP24		WCPINS		WDFPR-L1	
WCMP25	D-32	WCPLSS	D-10, D-11	WDFPR-L2	D-6

CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.	CAT. NO.	PAGE NO.
WDFPR-L3			D-29		D-29
WDFPRL-BLK					D-29
WDFPR-MIN					D-29
WDFPR-PLS			D-29		D-29
WDFPR-RED			D-29		D-29
WDFPR-T1					D-29
WDFPR-T2			D-29		D-29
WDFPR-T3			D-3		D-29
WDFPR-WHT			D-3		D-29
WDFPR-YEL			D-3		D-29
WDT-5010			D-3		D-29
WDT-5011			D-3		D-29
WDT-5012			D-3		D-29
WDT-5013			D-3		D-29
WDT-5014			D-3		D-29
WDT-5015			D-3		
WDT-5016	D-29		D-3	WJT-5056	D-29
WDT-5017	D-29	WES-2512	D-3	WJT-5057	D-29
WDT-5018	D-29	WH90	A-239	WJT-5058	D-29
WDT-5019	D-29	WHG-1	A-239	WJT-5059	D-29
WDT-5020	D-29	WHUP-1	A-239, A-241	WJT-5060	D-29
WDT-5021	D-29		A-239	WLP-1112	D-3
WDT-5022	D-29	WJA-0076	D-30	WLP-12112	D-3
WDT-5023			D-30	WLP-1214	D-3
WDT-5024			D-29		D-3
WDT-5025			D-29		D-3
WDT-5026			D-29		D-3
WDT-5027					D-3
WDT-5028			D-29		D-3
WDT-5029					D-3
WDT-5030					D-3
WDT-5031					D-3
WDT-5032					D-4
WDT-5033					D-4
WDT-5034					D-4
WDT-5035			D-29		D-4
WDT-5036			D-29		D-4
WDT-5037					D-4
WDT-5038			D-29		D-4
WDT-5039			D-29		D-4
WDT-5040	20	1101 0020	D-29	••••	D-4
WDT-5041			D-29		D-4
WDT-5042			D-29		D-4
WDT-5043			D-29		
WDT-5045			D-29		
WDT-5045			D-29		D-4
					D-4
WDT-5046			D-29		
WDT-5047			D-29		D-4
WDT-5048			D-29		D-4
WDT-5050			D-29		D-4
WDT-5051			D-29		D-4
WDT-5052			D-29		D-4
WDT-5053	D-29	WJ1-5038	D-29	WW-A-33	D-4





Catalog Number Index

CAT. NO.	DAGE NO.	CAT NO	D4.0F.110
WM-A-90	PAGE NO.	CAT. NO. WSBW14X112S	PAGE NO
WM-ABC		WSBW1X112S	
WM-A-Z		WSBW34X112S	
WM-B		WSBW38X112S	
WM-BW12		WSLM123	
WM-BW14		WSLM125	
WM-BW3		WSLM23	
WM-BW34		WSLM25	
WM-BW5	D-5	WSLM33	D-14
WM-C	D-4	WSLM35	
WM-COL1	D-5	WSLM410	D-14
WM-C0L14	D-5	WSLM415	D-14
WM-D	D-4	WSLM48	D-14
WM-E		WSLM95	D-14
WM-F		WSZEROS	
WM-G		WT163M-1	
WM-GRD		WT193A	
WM-L		WT197	
WM-L3		WT199	
WM-LAM		WT1-TB	
WMLC-1		WT2-TB	
WM-N		WT3D	
WM-P			
		WT3S	,
WM-R		WTA250	
WM-S		WTA290	
WMSL 1-33		WTAE200	
WMSL A-G		WTAE201	
WMSL-0-45		WTBM	
WMSL-0-9		WTC001	
WMSL-46-90		WTC075	
WMSL-A-90		WTID200	
WMSL-A-Z		WTID204	
WM-T		WTID281	
WM-T3		WTID283	
WM-X		WTID290	,
WQA-0076		WTJ020	
WQA-1100		WTMP-11B	
WR281-CBR		WTMP-16B	
WR281-C-WH	A-219	WTMP-18B	
WR74-81-C	A-219	WTMP-19B	0 02
WR81-CN	A-218	WTMP-1B	
WRB1	D-51	WTMP-20B	D-32
WRH80-C	A-218	WTMP-21B	D-32
WRLUM	D-33	WTMP-22B	D-32
WRSUM	D-33	WTMP-24B	D-32
WRUM	D-33	WTMP-25B	D-32
WS100S		WTMP-26B	
WS101S—WS600S		WTMP-2B	
WS1S-WS99S		WTMP-3B	
WSAS		WTMP-4B	
WSBS—WSZS		WTMP-52B	
WSBW112X112S		WTMP-53B	
WSBW12X112S		WTMP-55B	

CAT. NO.	PAGE NO
WTMP-5B	D-32
WTMP-6B	D-32
WTMP-7B	D-32
WTMP-8B	D-32
WTMP-9B	D-32
WTXM	C-24
WUT-0366	D-30
WUT-0367	D-30
WUT-0368	D-30
WUT-0369	
WWB1	D-51
)	(
X1-1/2 & 3/4	A-40
X201	
X201 AL	
X204	
X207	
X208	, ,
X289	
X299	
XMNY-375-0-D	
XMNY-500-0-D	
XMNY-625-0-D	
XMNY-750-0-D	
	1
Y2-PL	A-235

Product Index

0–9			
600 Series Round Floor Boxes	A-147–A-149	Box Support Covers	
60W Series Floor Boxes		Brackets — Box Mounting	
640 Series Multi-Gang Floor Boxes	A-158–A-161	Bridle Rings	B-256
640P Series Non-Metallic Floor Boxes	A-162–A-163	Brown Phenolic Boxes	A-92–A-104 C
663 Series Floor Boxes	A-129	C	
664 Series Floor Boxes	A-130–A-131	Cable and Conduit	
665 Series Floor Boxes		Support Accessories	.A-64-A-66. B-232-B-240
667 Series Floor Boxes	A-138–A-140	Cable and Mounting Systems	
668 Series Floor Boxes		Cable Clips — Non-Metallic	
671 Series Round Floor Boxes		Cable Support Brackets	
672 Series Round Floor Boxes		Cable Tie Installation Tools	
68 Series Round Floor Boxes		Cable Ties — Catamount®	
68-HP Series Round Floor Boxes	A-143–A-146	General-Purpose Nylon	
68-P Round Floor Boxes		Cable Ties — Color Coding	
68R Series Recessed Covers for Floor Boxes	A-141–A-142	Cable Ties — Engineered-	
740 Series Floor Boxes		Performance Material	
78 Series Round Floor Boxes	A-154–A-155	Cable Ties — Hook-and-Loop	
840 Series Multi-Gang Floor Boxes	A-158–A-161	Cable Ties — Identification	
88 Series Round Floor Boxes	A-154–A-155	Cable Ties — Mounting	
Α		Cable Ties — Safety,	, , , , , , , , , , , , , , , , , , , ,
Above-Floor Service Fittings	A-170	Reusable and Double-Loop	
Access Floor Modules	A-186–A-196	Cable Ties — Stainless Steel	
Acoustical Tee Supports, Clips and Brackets		Cable Ties — Twist Tail®	
Adjustable Mud Rings		Cable Ties — Ty-Rap®	
Adjust-A-Box® Metallic Boxes		High-Performance Nylon	
Adjust-A-Box® Non-Metallic Boxes		Cable Tray — Aluminum	
Adjust-A-Box® Residential Floor Boxes		Cable Tray — Channel Tray	
AFM-2 Series Access Floor Modules		Cable Tray — Non-Metallic	
AFM-4 Series Access Floor Modules		Cable Tray — One-Piece	
AFM-4R Series Round Access Floor Modules		Cable Tray — Steel	
AFM-6 Series Access Floor Modules		Cable Tray Accessories	B-374–B-376
AFM-8 Series Access Floor Modules		Cable Tray Grounding	
Aluminum Cable Tray		and Bonding Accessories	B-377 – B-379
Aluminum Framing Systems B-		Carlon® Electrical Non-Metallic	
Angler® Pipe and Conduit Clamps		Tubing (ENT) System	A-327–A-354
В	•	Carlon® Enclosures and Junction Bo	
_	D 00 D 00	Carlon® Floor Boxes	
Bantam Channels		Carlon® Non-Metallic Boxes	A-68–A-120
Bar Hangers		Carlon® Wire Safe® Wireway	
Barricade and Burial Tapes	D-40	and Wiring Trough	
Beam Clamps B-28, I	3-44-B-54, B-77,	Catamount® Electrician's Supplies	
B-128–B-1		Catamount® General-Purpose Cable	
Black Polycarbonate Boxes		Ceiling Fan/Fixture Boxes — Metalli	cA-34–A-35
Blue™ PVC Boxes		Ceiling Fan/Fixture Boxes —	
Box Extensions — MetallicA-27,		Non-MetallicA-79,	
Box PartitionsA-41,	A-48, A-53, A-5/	Channel Bars	A-63

Brackets — Box MountingA-11–A-16
Bridle RingsB-256
Brown Phenolic Boxes
C
Cable and Conduit
Support Accessories
Cable and Mounting SystemsB-78–B-84
Cable Clips — Non-MetallicA-120
Cable Support Brackets
Cable Tie Installation Tools
Cable Ties — Catamount®
General-Purpose Nylon
Cable Ties — Color Coding
Cable Ties — Engineered-
Performance Material
Cable Ties — Hook-and-Loop
Cable Ties — Identification C-13–C-14, C-38–C-39
Cable Ties — Mounting
Cable Ties — Safety,
Reusable and Double-Loop
Cable Ties — Stainless Steel
Cable Ties — Twist Tail®
Cable Ties — Ty-Rap®
High-Performance Nylon
Cable Tray — AluminumB-262–B-309
Cable Tray — Channel TrayB-358–B-373
Cable Tray — Non-MetallicB-386–B-423
Cable Tray — One-Piece
Cable Tray — Steel
Cable Tray Accessories B-374–B-376
Cable Tray Grounding
and Bonding AccessoriesB-377–B-379
Carlon® Electrical Non-Metallic
Tubing (ENT) System
Carlon® Enclosures and Junction Boxes
Carlon® Floor Boxes
Carlon® Non-Metallic Boxes
Carlon® Wire Safe® Wireway
and Wiring Trough
Catamount® Electrician's Supplies
Catamount® General-Purpose Cable Ties
Ceiling Fan/Fixture Boxes — Metallic
Ceiling Fan/Fixture Boxes — Non-Metallic
Channel Bars
Unamer fillings — Kindons B-10-6-23, 6-28, 6-92

Product Index

Channel Fittings — Superstrut®B-118–B-125 Channel Nuts — Kindorf®B-14–B-15, B-25, B-28, B-93
Channel Nuts — Superstrut®B-115–B-116 Channel TrayB-358–B-373
Channels for Framing — Kindorf®B-9–B-13,B-25–B-27, B-84, B-91
Channels for Framing — Superstrut®B-110–B-111
Circuit Safe® JIC Enclosures
Circuit Safe® Pushbutton Enclosures A-289–A-292 City of Chicago Approved
Poke Through SystemsA-184 Clevis HangersB-38, B-92, B-152–B-153, B-182
Cobra® Clamps B-25, B-33, B-138 Code Keeper® Weatherproof
While-in-Use Covers
Concrete Boxes — Metallic
Concrete Inserts for Access Floor ModulesA-195 Concrete Inserts for
Metal Framing Systems B-42-B-43, B-126-B-127
Conduit and Cable SupportsA-64–A-66, B-232–B-240
Conduit ClampsB-39–B-41, B-136–B-182 Conduit Clamps — Non-MetallicA-120
Conduit, Cable and Pipe Supports for Metal FramingB-31-B-41
Control MarkersD-31–D-32
Cutters for Non-Metallic Conduit, Raceway and Wiring DuctA-120, A-338, C-57, C-80–C-81
D
DAS250 Installation Tool
for Stainless Steel Cable Ties
Detectable Cable Ties
Device Covers — Metallic A-41—A-44, A-48—A-51, A-54—A-55 Device Covers — Non-Metallic
Drop-In Residential Floor Boxes
Drywall and Stud Wall Supports, Clips and BracketsA-62–A-66, B-241–B-247
Dual-Voltage Boxes and Brackets
Duct Seal
E Electrical Non-Metallic Tubing (ENT) System A-327–A-354
Electricians' Hand Tools

EL 12 Southboll on
Electricians' Hardware
and Rough-In ProductsD-47–D-52
Enclosures — Non-Metallic
ENT and Accessories
ERG50 and ERG120
Cable Tie Installation Tools
ERG50P Pneumatic
Cable Tie Installation Tool
Extensions for Metallic BoxesA-27, A-33, A-42, A-47
Extensions for Non-Metallic BoxesA-106
EZCODE® Identification ProductsD-1–D-40
F
Fast Set Beam Clamps
Fastener Accessories and HardwareB-257–B-258
Fasteners for Boxes and Channel
FFPT3 Series Furniture-Feed
Poke Through SystemsA-181
FFPT4 Series Furniture-Feed
Poke Through SystemsA-180
Fiberglass Sealant for
Non-Metallic Modular FramingB-94
Fire Alarm BoxesA-17, A-36
Fire Alarm FittingsA-36
Flame-Retardant Cable Ties
Flexible Raceway SystemsA-118–A-120, A-339–A-352
Flex-Plus® ENT
Floor Boxes
Flush Service Floor Boxes
FPT Series Above-Floor
Pedestal Poke Through SystemsA-183
FPT Series Flush Poke Through Systems
FPT Series Furniture-Feed
Poke Through SystemsA-182
FPT3 Series Flush
Poke Through SystemsA-178
FPT4 Series Flush
Poke Through Systems
Framing Channels
B-84, B-91
G
Gang Boxes — MetallicA-52–A-55
Gangable Floor Boxes — Non-Metallic
Gangable Switch Boxes — Metallic
Garden Lights A-241, A-245–A-258
GO Box® Outlet BoxesA-80
Grommeting
,

Product Index

Grommets for Metal Stud Holes	A-64, B-246
Grounding and Bonding	D 077 D 070
Accessories for Cable Tray	
Grounding Devices for Boxes	
Grounding Screws	D-4/
Н	
Handy Boxes — Metallic	A-51-A-52
Handy Boxes — Non-Metallic	
Hanger Rod	
	B-117, B-258
Hangers for Metallic Boxes	,
Hardware and	
Threaded Components	R-73_R-77 R-112_R-117
High-Temperature Cable Ties	
Himeline® Enclosures	
Hook-and-Loop Fasteners	
·	0-44-0-43
I	
Identification Cable Ties and Access	
Identification Markers, Tags,	
Labels, Signs and Tape	D-1–D-40
Industrial Vaportight Lighting	A-259–A-263
Innerduct	A-354
J	
J-Royas	
J-Boxes	A-268
J-Boxes J-Hangers	A-268 B-38, B-154, B-252–B-253
J-Boxes J-Hangers JIC Enclosures	A-268 B-38, B-154, B-252–B-253 A-284–A-288
J-Boxes J-Hangers JIC Enclosures Junction Boxes — Non-Metallic	A-268 B-38, B-154, B-252–B-253 A-284–A-288 A-266–A-274
J-Boxes J-Hangers JIC Enclosures Junction Boxes — Non-Metallic Junction Boxes for Surface Racewa	A-268 B-38, B-154, B-252–B-253 A-284–A-288 A-266–A-274 by SystemsB-71–B-72,
J-Boxes	A-268 B-38, B-154, B-252–B-253 A-284–A-288 A-266–A-274 ay SystemsB-71–B-72, B-186–B-187
J-Boxes	A-268 B-38, B-154, B-252–B-253 A-284–A-288 A-266–A-274 ay SystemsB-71–B-72, B-186–B-187
J-Boxes J-Hangers JIC Enclosures Junction Boxes — Non-Metallic Junction Boxes for Surface Racewa Junction Boxes for Swimming Pools K	A-268 B-38, B-154, B-252–B-253A-284–A-288A-266–A-274 ay SystemsB-71–B-72,B-186–B-187 s and SpasA-264
J-Boxes J-Hangers JIC Enclosures Junction Boxes — Non-Metallic Junction Boxes for Surface Racewa Junction Boxes for Swimming Pools K Kindorf® Modular Metal Framing Sy	
J-Boxes J-Hangers JIC Enclosures Junction Boxes — Non-Metallic Junction Boxes for Surface Racewa Junction Boxes for Swimming Pools K	
J-Boxes J-Hangers JIC Enclosures Junction Boxes — Non-Metallic Junction Boxes for Surface Racewa Junction Boxes for Swimming Pools K Kindorf® Modular Metal Framing Sy	
J-Boxes	
J-Boxes	
J-Boxes	
J-Boxes	
J-Boxes	
J-Boxes	
J-Boxes	
J-Boxes	
J-Boxes	
J-Boxes	

Lockout TagsLow-Smoke Cable Ties	D-24
Low-Voltage Structured	0-0
Cable Management System	۸_107_۸_120
Low-Voltage/Datacomm Hooks,	A-101-A-120
Hangers and BracketsA-111-A	_111 R_252_R_256
	1-11 4 , D-232-D-230
M	
Markers for Wire and Cable	
Masonry Boxes — Metallic	
Messenger Ties	
Metal Framing	
Metallic Boxes and Covers	
Micro-Gard® Plenum and Riser Duct	A-346–A-347
Modular Metal Framing	
Systems — Kindorf®	B-1–B-104
Mounting Bases	
for Cable Ties	24, C-45, C-65–C-66
Mounting Brackets for Boxes	
Mud Box Assemblies	
Mud Rings — Adjustable	
Multi-Color UV-Resistant Nylon Cable Ties	
N	
	A 270
NEMA 4X Junction Boxes	
NEMA Enclosures	
Non-Metallic Box Accessories	
Non-Metallic Box Covers	
Non-Metallic BoxesA-68	
Non-Metallic Cable Tray	B-386–B-423
Non-Metallic Cable Tray Non-Metallic Enclosures	B-386–B-423
Non-Metallic Cable Tray Non-Metallic Enclosures Non-Metallic Modular Framing	B-386–B-423 A-275–A-317
Non-Metallic Cable Tray	B-386–B-423 A-275–A-317
Non-Metallic Cable Tray	B-386–B-423 A-275–A-317
Non-Metallic Cable Tray Non-Metallic Enclosures Non-Metallic Modular Framing Channels and Accessories 0	B-386–B-423 A-275–A-317 B-91–B-94
Non-Metallic Cable Tray	B-386-B-423 A-275-A-317 B-91-B-94
Non-Metallic Cable Tray Non-Metallic Enclosures Non-Metallic Modular Framing Channels and Accessories O Octagon Boxes — Metallic Old Work Box Supports — Metallic	B-386-B-423 A-275-A-317 B-91-B-94 A-29-A-33, A-56 A-28, B-247
Non-Metallic Cable Tray Non-Metallic Enclosures Non-Metallic Modular Framing Channels and Accessories O Octagon Boxes — Metallic Old Work Box Supports — Metallic Old Work Boxes — Metallic	B-386–B-423 A-275–A-317 B-91–B-94 A-29–A-33, A-56 A-28, B-247
Non-Metallic Cable Tray Non-Metallic Enclosures Non-Metallic Modular Framing Channels and Accessories O Octagon Boxes — Metallic Old Work Box Supports — Metallic Old Work Boxes — Metallic Old Work Boxes — Non-Metallic	B-386–B-423 A-275–A-317 B-91–B-94 A-29–A-33, A-56 A-28, B-247 A-37 A-83, A-91, A-102
Non-Metallic Cable Tray Non-Metallic Enclosures Non-Metallic Modular Framing Channels and Accessories O Octagon Boxes — Metallic Old Work Box Supports — Metallic Old Work Boxes — Metallic Old Work Boxes — Non-Metallic Old Work Face Plates — Non-Metallic	B-386–B-423 A-275–A-317 B-91–B-94 A-29–A-33, A-56 A-28, B-247 A-37 A-83, A-91, A-102 A-115–A-117
Non-Metallic Cable Tray Non-Metallic Enclosures Non-Metallic Modular Framing Channels and Accessories O Octagon Boxes — Metallic Old Work Box Supports — Metallic Old Work Boxes — Metallic Old Work Boxes — Non-Metallic Old Work Face Plates — Non-Metallic One-Piece Cable Tray	B-386–B-423 A-275–A-317 B-91–B-94 A-29–A-33, A-56 A-28, B-247 A-37 A-83, A-91, A-102 A-115–A-117 B-334–B-357
Non-Metallic Cable Tray Non-Metallic Enclosures Non-Metallic Modular Framing Channels and Accessories O Octagon Boxes — Metallic Old Work Box Supports — Metallic Old Work Boxes — Metallic Old Work Boxes — Non-Metallic Old Work Face Plates — Non-Metallic One-Piece Cable Tray Orange Structured Cable Management Sys	B-386-B-423
Non-Metallic Cable Tray Non-Metallic Enclosures Non-Metallic Modular Framing Channels and Accessories O Octagon Boxes — Metallic Old Work Box Supports — Metallic Old Work Boxes — Metallic Old Work Boxes — Non-Metallic Old Work Face Plates — Non-Metallic One-Piece Cable Tray	B-386-B-423
Non-Metallic Cable Tray Non-Metallic Enclosures Non-Metallic Modular Framing Channels and Accessories O Octagon Boxes — Metallic Old Work Box Supports — Metallic Old Work Boxes — Metallic Old Work Boxes — Non-Metallic Old Work Face Plates — Non-Metallic One-Piece Cable Tray Orange Structured Cable Management Sys Outdoor Lighting	
Non-Metallic Cable Tray Non-Metallic Enclosures Non-Metallic Modular Framing Channels and Accessories O Octagon Boxes — Metallic Old Work Box Supports — Metallic Old Work Boxes — Metallic Old Work Boxes — Non-Metallic Old Work Face Plates — Non-Metallic One-Piece Cable Tray Orange Structured Cable Management Sys Outdoor Lighting P Pancake Boxes — Metallic	B-386-B-423
Non-Metallic Cable Tray Non-Metallic Enclosures Non-Metallic Modular Framing Channels and Accessories O Octagon Boxes — Metallic Old Work Box Supports — Metallic Old Work Boxes — Metallic Old Work Boxes — Non-Metallic Old Work Face Plates — Non-Metallic One-Piece Cable Tray Orange Structured Cable Management Sys Outdoor Lighting P Pancake Boxes — Metallic Phenolic Boxes	B-386-B-423
Non-Metallic Cable Tray Non-Metallic Enclosures Non-Metallic Modular Framing Channels and Accessories O Octagon Boxes — Metallic Old Work Box Supports — Metallic Old Work Boxes — Metallic Old Work Boxes — Non-Metallic Old Work Face Plates — Non-Metallic One-Piece Cable Tray Orange Structured Cable Management Sys Outdoor Lighting P Pancake Boxes — Metallic Phenolic Boxes Pipe Nailers	B-386–B-423
Non-Metallic Cable Tray Non-Metallic Enclosures Non-Metallic Modular Framing Channels and Accessories O Octagon Boxes — Metallic Old Work Box Supports — Metallic Old Work Boxes — Metallic Old Work Boxes — Non-Metallic Old Work Face Plates — Non-Metallic One-Piece Cable Tray Orange Structured Cable Management Sys Outdoor Lighting P Pancake Boxes — Metallic Phenolic Boxes	B-386–B-423



Product Index

Plenum-Gard® Raceway	A-339–A-340
Poke Through Systems	
Polycarbonate Boxes	
Pre-Fab Components and Assemblies	A-6–A-16
Pulling Lubricants	D-45
Pulling Tape	A-338
Purlin Clips	
Pushbutton Enclosures	
PVC CementsA-120, A-33	
PVC-Coated Steel Framing Systems	B-27 – B-28
Q	
Quick-Connect Adapters and Couplings for EN	ГА-334
R	
Raceway Junction Boxes	B-71–B-72
Raceway Outlets	
Raceway Systems — Flexible	A-118–A-120,
Radiation-Resistant Cable Ties	
Raised-Floor Access Modules	A-186–A-196
Receptacles for Counters	
and Work Surfaces	
Recessed Pop-Up Receptacle	A-209
Recessed Service Floor Boxes	
Red Boxes	
Red-Dot® Weatherproof Boxes and Covers	A-166–A-264
Replacement Parts and	
Accessories for Floor Boxes	
Residential Floor BoxesA-16	
Resi-Gard® Flexible Raceway System	
Retractable Work Surface Receptacle	A-210
Right Angle Slotted	
Angle Systems B-85–B-9	
Riser Duct	
Riser-Gard® Raceway	
Rod Hangers	
Round Boxes — MetallicA-29–A-3	,
Round Boxes — Non-Metallic	
Round Floor Boxes — Non-Metallic	
A-150–A-15	3, A-200–A-208
S	D 00 D 00
Safety Tags, Labels and Signs	
Seismic Bracing for Metal Framing Systems	B-159
Service Fittings — Above-Floor	
Signs	D-36-D-38
SiteLight® Landscape Lights	
Slack and Splice Enclosures	A-310–A-31/

Sleeve MarkersD-15–D-19
Slotted Angle Systems B-85–B-90, B-188–B-189
Snap-On Box ClipsA-61
Solar Panel Grounding WashersB-24
Solar Panel Hold-Down ClampsB-24
Spiral Wrap
Square Boxes — MetallicA-17, A-36–A-49
Stainless Steel Cable Ties
Stainless Steel Cable TrayB-310–B-333
Stainless Steel Framing SystemsB-25, B-192–B-195
Steel Cable TrayB-310-B-333
Steel City® Floor Boxes
Steel City® Hangers,
Clamps and FastenersB-221–B-258
Ctaal City® Matallia
Boxes and Covers
Straps for Pipe and ConduitB-25, B-28, B-31, B-35-B-37,
B-79–B-83, B-92, B-136–B-182
Striped Cable Ties
Strut SystemsB-1-B-220
Stub Downs for ENT
Stud Wall and Drywall
Supports, Clips and BracketsA-62–A-66, B-241–B-247
Superangle Slotted Angle Metal FramingB-188–B-189
SuperBlue® PVC Boxes
Superstrut® Metal Framing SystemB-105–B-220
Supports for Metallic Boxes
Surface Raceway Systems B-57–B-72, B-183–B-187
Swimming Pool
and Spa Junction Boxes
Switch Boxes — Metallic
Swivel Hangers
•
T T&B® Cable TrayB-259–B-446
T&B® Cable TrayB-259–B-446
Tags
Threaded RodB-27, B-73, B-93, B-117, B-258
Tools — Cable Tie Installation
Tools — CuttingA-120, A-338, C-57, C-80–C-81, D-46
Tools — Electricians' D-46
Transition Adapters for ENTA-332
Transition Adapters for ENTA-332
Transition Adapters for ENT
Transition Adapters for ENT
Transition Adapters for ENT
$ \begin{array}{llllllllllllllllllllllllllllllllllll$
Transition Adapters for ENT

Product Index

U		
Universal Mounting Clips for Wiring Duct		
Utility Boxes — Metallic	A-50–A-51	
UV-Resistant Multi-Color Nylon Cable Ties		
v		
Vaportight Boxes — Metallic	A-39	
Vaportight Boxes — Non-Metallic	A-84	
Vaportight Lighting	A-259–A-263	
Voltage Markers	D-29	
W		
Wall and Support Brackets		
for Metal Framing Systems		
Warning Tapes	D-39–D-40	
Weatherproof Box Covers — Metallic	A-213–A-220	
Weatherproof Box Covers — Non-Metallic		
Weatherproof Boxes — Metallic	A-230–A-235	
Weatherproof Boxes — Non-Metallic	A-235–A-237	
Weatherproof Boxes and Covers	A-166–A-264	
Weatherproof Device Boxes		
and Covers — Metallic	A-230–A-233	
Weatherproof Device Boxes		
and Covers — Non-Metallic	A-104	
Weatherproof Lamp		
Holders — Metallic	A-238–A-242	
Weatherproof Lamp		
Holders — Non-Metallic	A-243–A-244	
Weather-Resistant Cable Ties C-	4, C-7, C-26–C-29	
White-Painted Framing Systems	B-196–B-198	
Wire and Cable Markers		
Wire Connectors		
Wire Management Clips and Clamps		
Wire Protection Sleeving		
Wire Pulling Lubricants	D-45	
Wire Testing Equipment	D-52	
Wiring Duct		
Wiring Trough		





A Global Leader in Innovative...



Wire & Cable Management

Carlon Catamount **EZCODE Kindorf** red dot. **Steel City Superstrut T&B Cable Tray Ty-Duct Ty-Rap**



Cable Protection Systems

Adaptafier Carlon <u>Harnessflex</u> **KOPEX-EX Ocal**PMA reductor Steel City T&B Fittings



Power Connection & Control



Safety Technology

AMERACE Current Technology EMERGI-LITE

Hazlux OSLYN Lightalarms





Visit our world of electrical product solutions

Visit the "Electrical World" section of our web site at www.tnb.com for more information on Thomas & Betts solutions including our newest products, plus userfriendly catalog and competitive part number search, application and technical support and other useful information. Click on the Electrical World icon or go to: tnbelectricalworld.tnb.com.

Industry codes and specifications

All Thomas & Betts products meet or exceed applicable industry specifications or codes which are detailed in the appropriate T&B product literature.







Online CAD library

Thomas & Betts offers free download of two- and threedimensional CAD models of many of its products in more than 90 native CAD formats at: www.tnb.com/cadlibrary

Thomas & Betts Corporation

8155 T&B Boulevard Memphis, TN 38125 901.252.8000

www.tnb.com

United States

Thomas & Betts Corporation **Electrical Division Headquarters** 8155 T&B Boulevard Memphis, TN 38125 Phone: 901.252.8000 Fax: 901.252.1354 **Technical Services:** 888.862.3289

Canada

Thomas & Betts Ltd 700 Avenue Thomas St.-Jean-sur-Richelieu Quebec J2X 2M9 Phone: 450.347.5318 Fax: 450.347.1976

Latin America

Mexico: 01-800-TNB-HELP Central America & Caribbean: +52.81.8329.7707 South America: +52.81.8329.7643 Email: servicioaclientes@tnb.com

Europe/Africa

T&B European Centre 200 Chaussée de Waterloo B-1640 Rhode-St-Genèse Belgium

Phone: +32.235.98200 Email: europe_inquiry@tnb.com

Middle East

Thomas & Betts Ltd PO Box 54567 Office 107 5EA East Wing **Dubai Airport Free Zone** Dubai **United Arab Emirates** Phone: +9714.609.1635

Fax: +9714.609.1636

Asia Pacific

Thomas & Betts Asia Pte Ltd 10 Ang Mo Kio Street 65 #06-07 Techpoint Singapore 569059 Phone: +65.6720.8828 Fax: +65.6720.8780

Email: asia_inquiry@tnb.com





1-800-453-1692

American Recovery and Reinvestment Act (ARRA)



Get certification letters for compliant products online at:

www.tnb.com/ARRA

