



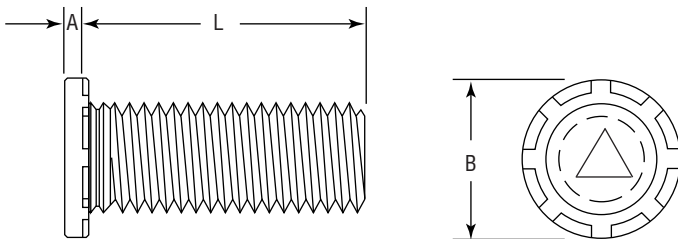
Self-Clinching Studs

Series TCH & TCHS

Non-Flush Studs



TCH non-flush studs are manufactured for use in sheets as thin as .020 inches (.5 mm) thick. The pushout and torque-out values are excellent for most applications. The head of the stud will project above the panel surface when installed properly. Do not over squeeze!



TCH 440-4

Part Number Structure:

- Length Code
- Thread Code
- Series

Series	Material	Finish
TCH	Heat-treated Carbon Steel	Zinc* Clear
TCHS	300 Series Stainless Steel	Passivated ASTM A967

*See Finish Spec. on Page 6.

Thread: External 2A, ANSI B1.1 (6g ANSI/ASME B1.13M).**

Use in: Cold-rolled Steel or 5052-H34 Aluminum with Rockwell Hardness as follows:

TCH - Materials with HRB 80 or less.

TCHS - Materials with HRB 70 or less.

**See Note 3 on Page 6 for Gauging Spec.

Dimensions & Specifications

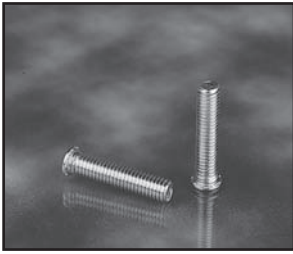
INCH (in.)	Thread Size	Thread Code	L Length ±.015 in.											Min.	+ .003 - .000	A Max.	B ±.015	Min.
			.250	.312	.375	.500	.625	.750	.875	1.00	1.25	1.50						
#4-40	440	-4	-5	-6	-8	-10	-12						.020	.111	.025	.176	.219	
#6-32	632	-4	-5	-6	-8	-10	-12	-14	-16	-20	-24†		.020	.137	.025	.203	.250	
#8-32	832	-4	-5	-6	-8	-10	-12	-14	-16	-20	-24†		.020	.163	.025	.234	.281	
#10-24	1024		-5†	-6	-8	-10	-12	-14	-16	-20	-24†		.020	.189	.025	.250	.281	
#10-32	1032		-5†	-6	-8	-10	-12	-14	-16	-20	-24†		.020	.189	.025	.250	.281	

†Not stocked, available on special order.

Dimensions & Specifications

METRIC (mm)	Thread Size	Thread Code	L Length ±.4 mm												Min.	+ .08 - .00	A Max.	B ±.4	Min.	
			6	8	10	12	15	18	20	22	25	28	30	35						38
M3 x 0.5	M3	-6	-8	-10	-12	-15	-18	-20		-25				.51	3.0	.64	4.5	5.6		
M4 x 0.7	M4			-10	-12	-15	-18	-20	-22	-25	-28	-30	-35	-38	.51	4.0	.64	5.8	7.2	
M5 x 0.8	M5			-10	-12	-15	-18	-20	-22	-25	-28	-30	-35	-38	.51	5.0	.64	6.4	7.2	

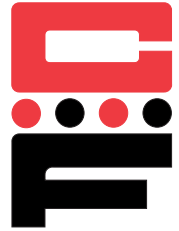




Self-Clinching Studs


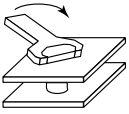
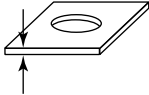

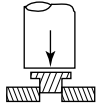

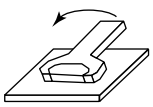
Series TCH & TCHS

Non-Flush Studs



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Note: Values based on stainless steel studs (steel stud values may be higher).

Installation & Performance Data							
INCH (in.)							
	Thread Code	Max. Nut Tight. Torque (in-lbs.)	Sheet Thickness & Material	Sheet Hardness HRB	Installation Force (lbs.)	Pushout (lbs.)	Torque-out (in.-lbs.)
440	5	.020 Aluminum	28	1200	40	6.9	
		.025 Steel	52	1500	95	7.8	
	9	.020 Aluminum	28	1500	45	7.9	
		.025 Steel	52	2500	105	15.8	
	17	.020 Aluminum	28	2100	55	9.8	
		.025 Steel	52	2700	115	25.7	
1024	24	.020 Aluminum	28	2500	60	13.8	
	27	.025 Steel	52	3000	135	27.7	
METRIC (mm)	Thread Code	Max. Nut Tight. Torque (N•m)	Sheet Thickness & Material	Sheet Hardness HRB	Installation Force (kN)	Pushout (N)	Torque-out (N•m)
	M3	.74	.5 Aluminum	28	5.3	190	.6
			.6 Steel	52	6.7	290	1.0
	M4	1.70	.5 Aluminum	28	9.8	245	.7
			.6 Steel	52	13.4	495	2.5
	M5	3.50	.5 Aluminum	28	13.4	265	1.2
.6 Steel			52	17.8	665	2.9	

