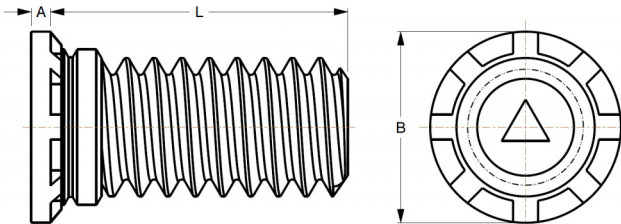


Self-Clinching Studs Thin Sheets

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!



Part Number Structure:

TCH 440-4



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

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 Finish Spec. on Page 6.

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

Dimensions & Specifications

INCH (in.)	Thread Size	Thread Code	L Length $\pm .015$ in.											Min.	+0.03 -.000	A Max.	B $\pm .015$	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.

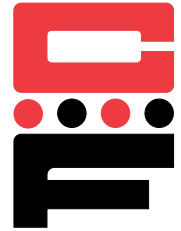
Dimensions & Specifications

METRIC (mm)	Thread Size	Thread Code	L Length $\pm .4$ mm												Min.	+0.8 -.00	A Max.	B $\pm .4$	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

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Self-Clinching Studs Thin Sheets


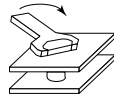
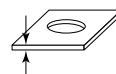


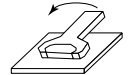


Series TCH & TCHS Non-Flush Studs

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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.)
INCH (in.)	440	5	.020 Aluminum	28	1200	45	7
			.025 Steel	52	1500	100	8
	632	9	.020 Aluminum	28	1500	50	8
			.025 Steel	52	2500	110	16
	832	17	.020 Aluminum	28	2200	60	11
			.025 Steel	52	2700	120	26
	1024	24	.020 Aluminum	28	2500	65	14
	1032	27	.025 Steel	52	3000	130	28
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	195	6
			.6 Steel	52	6.7	300	1
	M4	1.70	.5 Aluminum	28	9.8	250	.7
			.6 Steel	52	13.4	500	2.5
	M5	3.50	.5 Aluminum	28	13.4	270	1.3
			.6 Steel	52	17.8	670	3