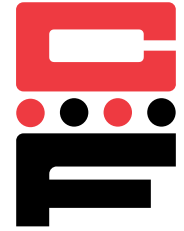




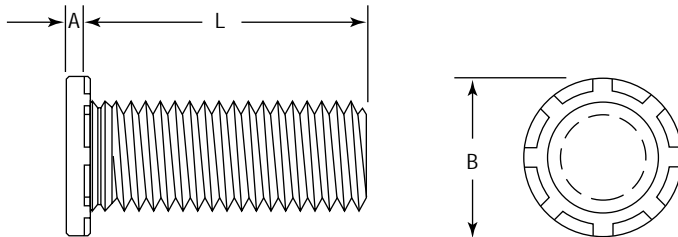
# Self-Clinching Studs

## 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!



Series	Material	Finish
TCH	Heat-treated Carbon Steel	Zinc* Clear
TCHS	300 Series Stainless Steel	Passivated ASTM A380

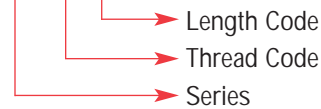
\*Spec. ASTM B633-85

Thread: Class 2A, MIL-S-7742; (6g ISO Metric).

Use in: Cold-rolled Steel or 5052-H34 Aluminum with Rockwell Hardness of B-70 or less.

Part Number Structure:

TCH 440-4



### Dimensions & Specifications

INCH (in.)	Thread Size	Thread Code	L Lengths ± .015 in.										Min.	+0.003 -0.000	A Max.	B ± .015	Min.
			.250	.3125	.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 <sup>†</sup>	.020	.137	.025	.203	.250
	#8-32	832	-4	-5	-6	-8	-10	-12	-14	-16	-20	-24 <sup>†</sup>	.020	.163	.025	.234	.281
	#10-24	1024		-5 <sup>†</sup>	-6	-8	-10	-12	-14	-16	-20	-24 <sup>†</sup>	.020	.189	.025	.250	.281
	#10-32	1032		-5 <sup>†</sup>	-6	-8	-10	-12	-14	-16	-20	-24 <sup>†</sup>	.020	.189	.025	.250	.281

<sup>†</sup>Not stocked, available on special order.

### Dimensions & Specifications

METRIC (mm)	Thread Size	Thread Code	L Lengths ± 0.4 mm												Min.	+0.08 -0.00	B ± 0.4	A Max.	Min.	
			6	8	10	12	15	18	20	22	25	28	30	35						38
	M3X0.5	M3	-6	-8	-10	-12	-15	-18							0.51	3.0	4.5	0.64	5.6	
	M4X0.7	M4			-10	-12	-15	-18	-20	-22	-25	-28	-30	-35	-38	0.51	4.0	5.8	0.64	7.2
	M5X0.8	M5			-10	-12	-15	-18	-20	-22	-25	-28	-30	-35	-38	0.51	5.0	6.4	0.64	7.2

Continued on next page.



# Self-Clinching Studs

## Series TCH & TCHS


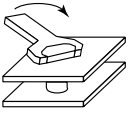
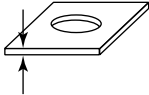
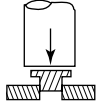

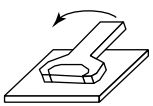
### Non-Flush Studs



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

#### Installation & Performance Data

							
	Thread Code	Max. Nut Tight. Torque (in-lbs.)	Sheet Material & Thickness	Sheet Hardness HRB	Installation Force (lbs.)	Pushout (lbs.)	Torque-out (in-lbs.)
INCH (in.)	440	5	.020 Aluminum	28	1200	60	8
			.025 Steel	52	1490	125	8
	632	9	.020 Aluminum	28	1500	60	9
			.025 Steel	52	2500	130	17
	832	17	.020 Aluminum	28	2200	70	12
			.025 Steel	52	2700	150	27
024	24	.020 Aluminum	28	2500	80	15	
032	27	.025 Steel	52	3000	160	30	
	Thread Code	Max. Nut Tight. Torque (N•m)	Sheet Material & Thickness	Sheet Hardness HRB	Installation Force (kN)	Pushout (N)	Torque-out (N•m)
METRIC (mm)	M3	0.74	.5 Aluminum	28	5.3	245	.8
			.6 Steel	52	6.7	490	1.0
	M4	1.70	.5 Aluminum	28	9.8	310	1.3
			.6 Steel	52	13.4	670	3.0
	M5	3.50	.5 Aluminum	28	13.4	350	1.7
			.6 Steel	52	17.8	710	3.4