

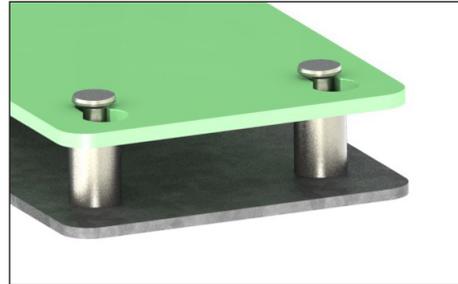


TJ

Key-Loc™ Self-Clinching Standoffs

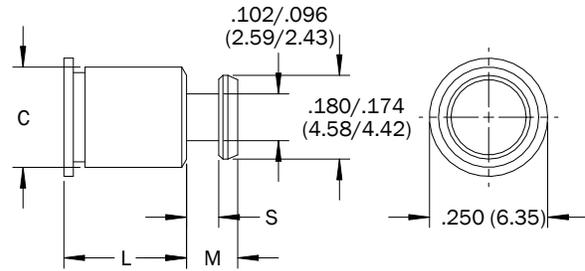
FEATURES

- Join two sheets together by simply sliding the top panel into place to precisely space removable components.
- Use several TJ Key-Loc™ Standoffs with one standard threaded standoff to prevent unwanted top sheet movement, and reduce installation time and excess hardware.
- Self-clinching design installs easily and permanently with a flush appearance on the back of thin panels
- Available in a wide variety of lengths.



PART DESCRIPTION EXAMPLE

TJSS — .212 — .060 — .375 — P
 T T T T T
 Material Code Body Diameter Code Panel Thickness Code Length Finish Code



Dimensions in inches (millimeters)

MATERIAL AND FINISH

300-Series Stainless Steel/ Passivated and/or Tested per ASTM A967.

(Other RoHS-compliant materials and finishes available by request.)

GENERAL

All dimensions in inches

INCH	Body Diameter Code	Panel Thickness Code	C Max.	S ±.003	M Max.
	.212	.060	.212	.068	.108
.212	.090	.212	.098	.138	

All dimensions in millimeters

METRIC	Body Diameter Code	Panel Thickness Code	C Max.	S ±0.08	M Max.
	5.39	1.52	5.39	1.73	2.75
5.39	2.29	5.39	2.49	3.51	

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LENGTH

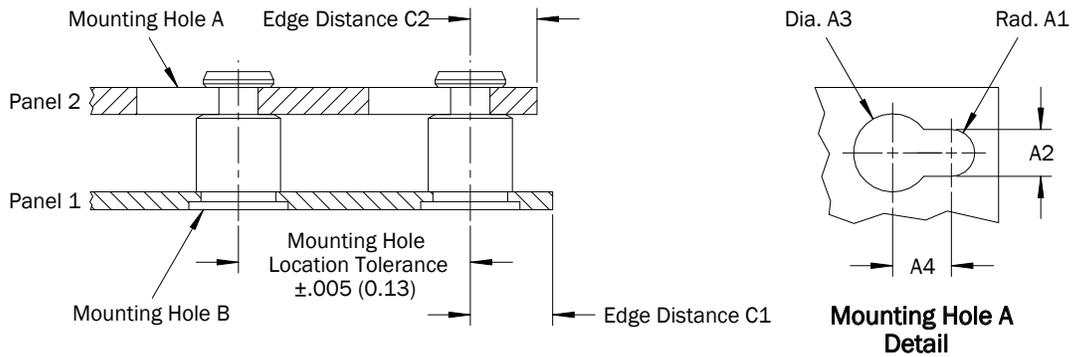
All dimensions in inches

INCH	L (Length) ±.005												
	.063	.125	.188	.250	.312	.375	.437	.500	.562	.625	.750	.875	1.000

All dimensions in millimeters

METRIC	L (Length) ±0.13												
	2	4	6	8	10	12	14	16	18	20	22	25	

APPLICATION



Dimensions in inches (millimeters)

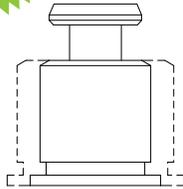
All dimensions in inches

INCH	Panel Thickness Code	Panel 1				Panel 2				Material	Thickness	Edge Distance C2 Min.
		Mounting Hole B +0.003 -0.000	Sheet Hardness Max.	Sheet Thickness Min.	Edge Distance C1 Min.	Mounting Hole A						
						A1 Nom.	A2 ±.003	A3 ±.003	A4 Min.			
.060	.213	HRB 70	.040	.260	.059	.118	.197	.148	Any	.057-.064	.160	
.090	.213	HRB 70	.040	.260	.059	.118	.197	.148	Any	.087-.094	.160	

All dimensions in millimeters

METRIC	Panel Thickness Code	Panel 1				Panel 2				Material	Thickness	Edge Distance C2 Min.
		Mounting Hole B +0.08 -0.00	Sheet Hardness Max.	Sheet Thickness Min.	Edge Distance C1 Min.	Mounting Hole A						
						A1 Nom.	A2 ±0.08	A3 ±0.08	A4 Min.			
1.52	5.41	HRB 70	1.02	6.60	1.50	3.00	5.00	3.75	Any	1.45-1.62	4.10	
2.29	5.41	HRB 70	1.02	6.60	1.50	3.00	5.00	3.75	Any	2.22-2.39	4.10	

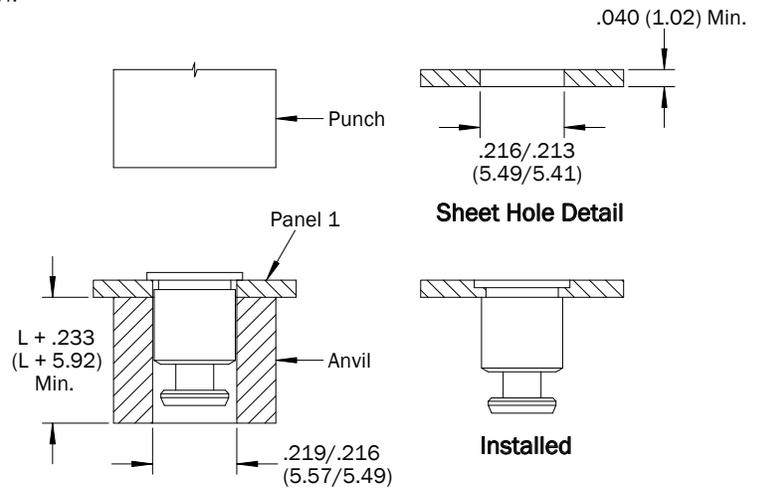
TJ Key-Loc™ Self-Clinching Standoffs



TJ Standoffs may be ordered with a larger body diameter for increased panel support area. Contact a PENCOM Technical Representative for more information.

INSTALLATION

1. Prepare correct sized hole in sheet. Do not deburr hole edges.
2. Insert standoff through punch side of hole in sheet and into the anvil as shown.
3. Squeeze the sheet and standoff head between parallel anvil and punch surfaces. Use only enough pressure to seat the standoff head flush with the sheet. Anvil and punch may be ordered using PENCOM part numbers TL1345 and TL1287, respectively, or made from hardened tool steel.



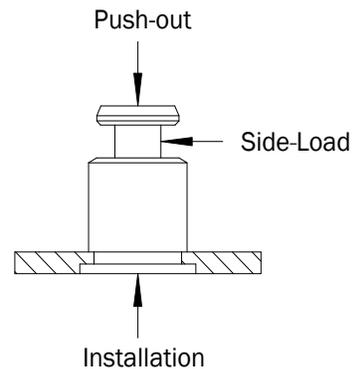
Dimensions in inches (millimeters)

PERFORMANCE (INSTALLATION AND PUSH-OUT)

INCH	Test Sheet Thickness and Material			
	.060" 5052-H34 Aluminum		.060" Cold-Rolled Steel	
	Installation (lbs)	Push-out (lbs)	Installation (lbs)	Push-out (lbs)
	1360-1840	215-290	2720-3680	510-690

METRIC	Test Sheet Thickness and Material			
	1.52 mm 5052-H34 Aluminum		1.52 mm Cold-Rolled Steel	
	Installation (kN)	Push-out (N)	Installation (kN)	Push-out (N)
	6.0-8.2	935-1270	12.1-16.3	2210-2990

(1) Performance data are shown in ranges and should be used for comparative purposes only as actual results may be affected by variations in installation and panel preparation equipment and procedures; and panel hardness, hole size, material and thickness. PENCOM strongly recommends testing in each application to determine actual loads.



TJ Key-Loc™ Self-Clinching Standoffs

PERFORMANCE (SIDE-LOAD)

INCH	Test Sheet Material .060" Thick 5052-H34 Aluminum												
	L (Length)												
	.063	.125	.188	.250	.312	.375	.437	.500	.562	.625	.750	.875	1.000
	Side-Load (lbs)												
	100-135	82-110	70-94	54-72	44-60	37-51	32-44	29-39	26-35	23-31	19-25	16-22	14-20

INCH	Test Sheet Material .060" Thick Cold-Rolled Steel												
	L (Length)												
	.063	.125	.188	.250	.312	.375	.437	.500	.562	.625	.750	.875	1.000
	Side-Load (lbs)												
	235-315	200-270	165-225	130-175	105-145	90-120	78-105	69-93	60-82	56-76	47-63	40-54	36-48

METRIC	Test Sheet Material 1.52 mm Thick 5052-H34 Aluminum											
	L (Length)											
	2	4	6	8	10	12	14	16	18	20	22	25
	Side-Load (N)											
	395-535	315-425	250-340	195-260	155-210	135-180	115-155	100-135	88-120	82-110	75-100	65-87

METRIC	Test Sheet Material 1.52 mm Thick Cold-Rolled Steel											
	L (Length)											
	2	4	6	8	10	12	14	16	18	20	22	25
	Side-Load (N)											
	920-1250	735-995	590-800	460-620	375-505	315-430	270-370	240-320	215-290	195-260	175-240	155-210

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