

Broaching Nuts

FEATURES

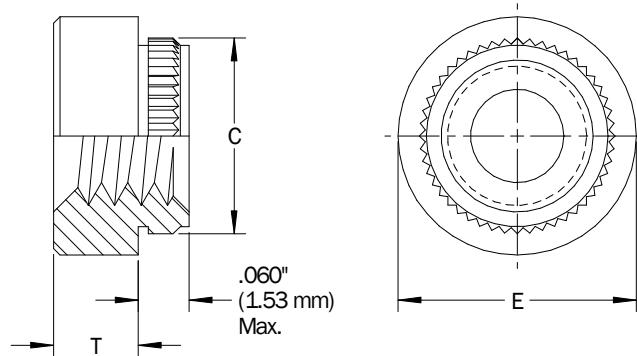
- Provide load bearing threads in soft metals, fiberglass and plastic sheets.
- Captive threaded fasteners that minimize assembly part quantities and the risk of loose hardware.
- Sharp knurls on fastener shanks form an interlocking fit in sheet materials and resist rotation and removal.



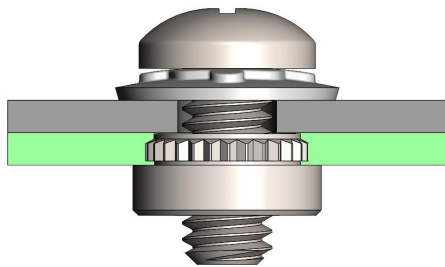
PART DESCRIPTION EXAMPLE

NJST - 440 - .060 - TIN - MATTE

Material Code Thread Code Finish Code



(Dimensions shown on page 2)



PENCOM carries a wide assortment of screw and washer assemblies and components. Contact a PENCOM Account Manager or visit www.pencomsf.com for more information.

GENERAL

All dimensions in inches

INCH	Thread	Thread Code	Sheet			C ±.003	E ±.005	T ±.005
			Minimum Thickness	Hole Size +.003 -.000	Minimum Distance Hole Center to Edge			
	2-56	256	.060	.147	.16	.165	.219	.065
	4-40	440	.060	.166	.17	.184	.219	.065
	6-32	632	.060	.213	.22	.231	.281	.065
	8-32	832	.060	.250	.25	.268	.344	.096
	10-32	1032	.060	.272	.28	.290	.375	.127

All dimensions in millimeters

METRIC	Thread	Thread Code	Sheet			C ±0.08	E ±0.13	T ±0.13
			Minimum Thickness	Hole Size +0.08 -0.00	Minimum Distance Hole Center to Edge			
	M2 x 0.4	M2	1.53	3.73	4.1	4.19	5.56	1.50
	M2.5 x 0.45	M2.5	1.53	4.22	4.3	4.67	5.56	1.50
	M3 x 0.5	M3	1.53	4.22	4.3	4.67	5.56	1.50
	M3.5 x 0.6	M3.5	1.53	5.41	5.6	5.87	7.14	1.65
	M4 x 0.7	M4	1.53	6.35	6.4	6.81	8.74	2.00
	M5 x 0.8	M5	1.53	6.91	7.1	7.37	9.53	3.00

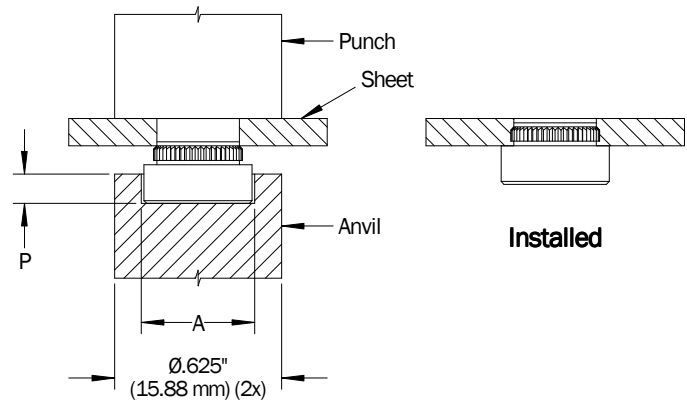
MATERIAL AND FINISH

Material Code	Material Description	Finish Code	Finish Description	For Use in Sheet Hardness	
				HRB 60 Max.	HRB 70 Max.
SS	300-Series Stainless Steel	P	Passivated and/or tested per ASTM A967		•
ST	Carbon Steel	TIN-MATTE	Electroplated matte tin per ASTM B545 Class B, annealed with clear preservative coating	•	

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INSTALLATION

1. Prepare properly sized mounting hole in sheet.
2. Insert nut in anvil recess and place sheet hole over nut shank as shown.
3. Squeeze nut and sheet between parallel anvil and punch surfaces until nut shoulder is flush with the sheet. Anvils and punches should be made from hardened tool steel.



ANVILS AND PUNCHES

INCH	Thread Code	Anvil Dimensions	
		A ±.005	P ±.005
	256	.239	.039
	440	.239	.039
	632	.301	.045
	832	.364	.059
	1032	.395	.098

All dimensions in inches

METRIC	Thread Code	Anvil Dimensions	
		A ±0.13	P ±0.13
	M2	6.07	0.99
	M2.5	6.07	0.99
	M3	6.07	0.99
	M3.5	7.65	1.14
	M4	9.25	1.50
	M5	10.03	2.49

All dimensions in millimeters

PERFORMANCE

INCH	Thread Code	Test Sheet Material .060" FR-4		
		Installation (lbs)	Push-out (lbs) (1)	Torque-out (in-lbs) (1)
	256	340-460	51-69	5.1-6.9
	440	340-460	55-75	13-17
	632	430-580	68-92	26-35
	832	600-800	81-110	30-40
	1032	600-800	85-115	34-46

- (1) Push-out and torque-out values are for NJ nuts only and not the mating fasteners.
- (2) Performance data are for sheets with drilled holes.
- (3) Performance data are shown in ranges and should be used for estimating 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.

METRIC	Thread Code	Test Sheet Material 1.53 mm FR-4		
		Installation (kN)	Push-out (N) (1)	Torque-out (N-m) (1)
	M2	1.9-2.5	225-305	0.58-0.78
	M2.5	1.9-2.5	245-335	1.44-1.95
	M3	1.9-2.5	245-335	1.44-1.95
	M3.5	1.9-2.5	300-410	2.89-3.91
	M4	1.9-2.5	355-485	2.89-3.91
	M5	2.5-3.3	375-505	3.82-5.2

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