



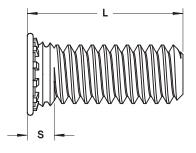
Flush Head Self-Clinching Studs

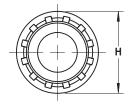
FEATURES

- Provide permanent male threads in sheets as thin as .040" (1.00mm).
- Ribbed self-clinching design mounts flush on the back of the sheet while transferring excellent push-out and torque-out resistance.
- Available in a wide variety of materials, finishes and sizes.
- Options include: thread locking, anti-cross threading, lubricated threads, and dog point.



PART DESCRIPTION EXAMPLE







Flush-head studs join mating panels with a standard nut and washer. PENCOM also carries an assortment of nut and washer assemblies (shown).



GENERAL - MATERIAL CODES ST, SS & AL

All dimensions in inches

				Sheet		Maximum		
	Thread	Thread Code	Minimum Thickness	Hole Size +.003 000	Minimum Distance Hole Center to Edge	Hole Size in Attached Parts	H ±.015	S Max. (2)
	2-56 ¹	256	.040	.085	.187	.105	.144	.075
INCH	4-40	440	.040	.111	.219	.135	.176	.085
ž	6-32	632	.040	.137	.250	.160	.206	.090
	8-32	832	.040	.163	.281	.185	.237	.090
	10-24	1024	.040	.189	.281	.210	.256	.100
	10-32	1032	.040	.189	.281	.210	.256	.100
	1/4-20	2520	.062	.249	.312	.270	.337	.135
	5/16-18¹	3118	.093	.311	.375	.333	.376	.160

All dimensions in millimeters

				Sheet		Maximum		
	Thread	Thread Code	Minimum Thickness	Hole Size +0.08 -0.00	Minimum Distance Hole Center to Edge	Hole Size in Attached Parts	H ±0.4	S Max. (2)
ျ	M2.5 x 0.45	M2.5	1.0	2.50	5.4	3.1	4.1	1.95
METRIC	M3 x 0.5	МЗ	1.0	3.00	5.6	3.6	4.6	2.10
Ī	M3.5 x 0.6	M3.5	1.0	3.50	6.4	4.1	5.3	2.25
	M4 x 0.7	M4	1.0	4.00	7.2	4.6	5.9	2.40
	M5 x 0.8	M5	1.0	5.00	7.2	5.6	6.5	2.70
	M6 x 1.0	M6	1.6	6.00	7.9	6.6	8.2	3.00
	M8 x 1.25 ¹	M8	2.4	8.00	9.6	8.6	9.6	3.70

⁽¹⁾ Thread size not available for AL material code.

GENERAL - MATERIAL CODE S4

All dimensions in inches

				Sheet		Maximum		
	Thread	Thread Code	Thickness (1)	Hole Size +.003 000	Minimum Distance Hole Center to Edge	Hole Size in Attached Parts	H ±.015	S Max. (2)
INCH	4-40	440	.040095	.111	.219	.131	.176	.085
=	6-32	632	.040095	.137	.250	.157	.206	.090
	8-32	832	.040095	.163	.281	.183	.237	.090
	10-32	1032	.040095	.189	.281	.209	.256	.100
	1/4-20	2520	.062117	.249	.312	.269	.337	.135

⁽¹⁾ Performance may be reduced for studs installed into thicker sheets.

⁽²⁾ Threads are gaugeable to within two pitches of the "S max." dimension. A class 3B/5H maximum material commercial nut shall pass up to the "S Max." dimension.

⁽²⁾ Threads are gaugeable to within two pitches of the "S max." dimension. A class 3B/5H maximum material commercial nut shall pass up to the "S Max." dimension.



GENERAL - MATERIAL CODE S4 (CONTINUED) A

All dimensions in millimeters

		-		Sheet		Maximum		
TRIC	Thread	Thread Code	Thickness (1)	Hole Size +0.08 -0.00	Minimum Distance Hole Center to Edge	Hole Size in Attached Parts	H ±0.4	S Max. (2)
MET	M3 x 0.5	МЗ	1.0 - 2.4	3.00	5.6	3.3	4.6	2.1
	M4 x 0.7	M4	1.0 - 2.4	4.00	7.2	4.7	5.9	2.4
	M5 x 0.8	M5	1.0 - 2.4	5.00	7.2	5.3	6.5	2.7
	M6 x 1.0	M6	1.6 - 3.0	6.00	7.9	6.8	8.2	3.0

- (1) Performance may be reduced for studs installed into thicker sheets.
- (2) Threads are gaugeable to within two pitches of the "S max." dimension. A class 3B/5H maximum material commercial nut shall pass up to the "S Max." dimension.

LENGTH - MATERIAL CODES ST, SS & AL

All dimensions in inches

	Thread Code	L (Length) ±.015													
	256	.250	.312	.375	.500	.625	.750								
	440	.250	.312	.375	.500	.625	.750	.875	1.000	1.250					
ᇤ	632	.250	.312	.375	.500	.625	.750	.875	1.000	1.250	1.500				
INC	832	.250	.312	.375	.500	.625	.750	.875	1.000	1.250	1.500				
	1024		.312	.375	.500	.625	.750	.875	1.000	1.250	1.500				
	1032		.312	.375	.500	.625	.750	.875	1.000	1.250	1.500				
	2520			.375	.500	.625	.750	.875	1.000	1.250	1.500				
	3118	_	_	_	.500	.625	.750	.875	1.000	1.250	1.500				

	Thread Code	L (Length) ±0.4													
	M2.5	6	8	10	12	15	18	_	_	_					
ပ	МЗ	6	8	10	12	15	18	20	25						
TRI	M3.5	6	8	10	12	15	18	20	25	30	<u> </u>				
ME	M4	6	8	10	12	15	18	20	25	30	35				
	M5	_	8	10	12	15	18	20	25	30	35				
	M6		_	10	12	15	18	20	25	30	35				
	M8	_	_	_	12	15	18	20	25	30	35				



LENGTH - MATERIAL CODE S4

All dimensions in inches

	Thread Code					L (Lengt	h) ±.015				
_	440	.250	.312	.375	.500	.625	.750	.875	1.000	_	_
INCH	632	.250	.312	.375	.500	.625	.750	.875	1.000	1.250	1.500
=	832	.250	.312	.375	.500	.625	.750	.875	1.000	1.250	1.500
	1032		.312	.375	.500	.625	.750	.875	1.000	1.250	1.500
	2520	_	_	.375	.500	.625	.750	.875	1.000	1.250	1.500

All dimensions in millimeters

	Thread Code					L (Leng	th) ±0.4				
RIC	МЗ	6	8	10	12	15	18	20	25	_	
	M4	6	8	10	12	15	18	20	25	30	35
Σ	M5	_	8	10	12	15	18	20	25	30	35
	M6			10	12	15	18	20	25	30	35

MATERIAL & FINISH

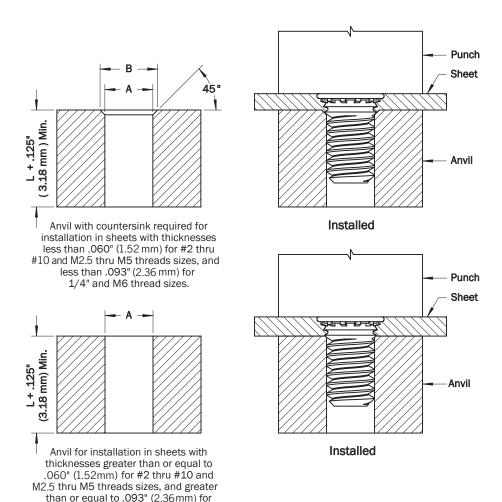
Motorial	Material	Finish	Finish	ı	or Use in St	neet Hardnes	S
Material Code	Description	Code	Description	HRB 50 Max.	HRB 70 Max.	HRB 80 Max.	HRB 92 Max.
ST	Heat Treated Carbon Steel	Z	Zinc (SC1) with Type III Clear Chromate per ASTM B633			•	
SS	300-Series Stainless Steel	Р	Passivated and/or tested per ASTM A967		•		
AL	Aluminum	PLN	Plain	•			
S4	400–Series Heat Treated Stainless Steel	Р	Passivated and/or tested per ASTM A967				•



INSTALLATION - MATERIAL CODES ST, SS & AL

- 1. Prepare correct sized mounting hole in sheet. Do not deburr edges.
- 2. Insert stud through punch side of hole in sheet and into the anvil as shown below.
- 3. Squeeze the sheet and stud head between parallel anvil and punch surfaces. Use only enough pressure to seat the stud head flush with the sheet.
- 4. Anvil with countersink is required for installation in sheets with thicknesses less than .060" (1.52mm) for #2 thru #10 and M2.5 thru M5 thread sizes, and less than .093" (2.36mm) for 1/4" and M6 thread sizes. Anvil with countersink is not required for installation in sheets with thicknesses greater than or equal to .060" (1.52mm) for #2 thru #10 and M2.5 thru M5 thread sizes, and greater than or equal to .093" (2.36mm) for 1/4", 5/16", M6 and M8 thread sizes. Anvils and punches may be ordered using the part numbers shown in the tables on page 6, or made from hardened tool steel.

1/4", 5/16", M6 and M8 thread sizes.





ANVIL DIMENSIONS - MATERIAL CODES ST, SS & AL

	Thomas			Anvil Par	t Number	Punch
	Thread Code	Α	В	For Sheets < .060"	For Sheets ≥ .060"	Part Number
	256	.090/.087	.114/.110	TL1706	TL1720	TL1695
	440	.116/.113	.140/.136	TL1707	TL1721	TL1695
Ę	632	.142/.139	.166/.162	TL1708	TL1722	TL1695
INCH	832	.168/.165	.192/.188	TL1709	TL1723	TL1695
	1024, 1032	.194/.191	.220/.216	TL1710	TL1724	TL1695
				For Sheets < .093"	For Sheets ≥ .093"	
	2520	.253/.250	.300/.295	TL1711	TL1725	TL1695
	3118	.3155/.3125	.338/.334		TL1726	TL1695

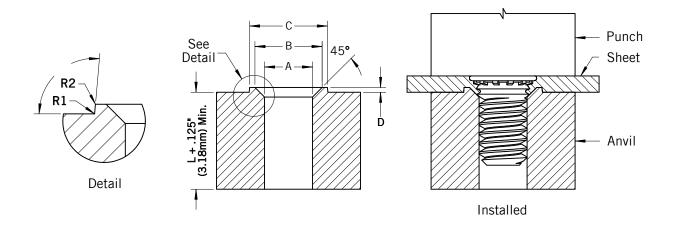
All dimensions in inches

	Thomas			Anvil Par	t Number	Punch
	Thread Code	A	В	For Sheets < 1.52mm	For Sheets ≥ 1.52mm	Part Number
	M2.5	2.61/2.53	3.2/3.1	TL1713	TL1727	TL1695
	M3	3.11/3.03	3.7/3.6	TL1714	TL1728	TL1695
RIC	M3.5	3.61/3.53	4.2/4.1	TL1715	TL1729	TL1695
MET	M4	4.11/4.03	4.7/4.6	TL1716	TL1730	TL1695
≥	M5	5.11/5.03	5.7/5.6	TL1717	TL1731	TL1695
				For Sheets < 2.36mm	For Sheets ≥ 2.36mm	
	M6	6.11/6.03	6.7/6.6	TL1718	TL1732	TL1695
	M8	8.11/8.03	8.7/8.6		TL1733	TL1695



INSTALLATION - MATERIAL CODE S4

- 1. Prepare correct sized mounting hole in sheet. Do not deburr edges.
- 2. Insert stud through punch side of hole in sheet and into the anvil as shown below.
- 3. Squeeze the sheet and stud head between parallel anvil and punch surfaces. Use only enough pressure to seat the stud head flush with the sheet.
- 4. An anvil with raised ring is required to properly displace the stainless steel sheet material and create the self-clinching union. Anvils and punches may be ordered using the part numbers shown in the tables on page 7, or made from hardened tool steel with anvil having a minimum hardness of HRC 55. The anvil "D" dimension should be measured after every 5,000 installations to ensure conformity with specifications.





ANVIL DIMENSIONS - MATERIAL CODE S4

All dimensions in inches

	Thread Code	A +.003 000	B ±.002	C ±.002	D ±.001	R1 Max.	R2 Max.	Anvil Part Number	Punch Part Number
၂	440	.113	.144	.174	.010	.003	.005	TL1734	TL1695
INC INC	632	.140	.170	.200	.010	.003	.005	TL1735	TL1695
	832	.166	.202	.236	.010	.003	.005	TL1736	TL1695
	1032	.191	.235	.275	.010	.003	.005	TL1737	TL1695
	2520	.252	.324	.360	.020	.003	.005	TL1738	TL1695

IC	Thread Code	A +0.08 -0.00	B ±0.05	C ±0.05	D ±0.025	R1 Max.	R2 Max.	Anvil Part Number	Punch Part Number
ETR	M3	3.05	3.81	4.57	0.25	0.08	0.13	TL1739	TL1695
Σ	M4	4.04	4.95	5.82	0.25	0.08	0.13	TL1740	TL1695
	M5	5.08	6.15	7.16	0.25	0.08	0.13	TL1741	TL1695
	M6	6.05	7.87	8.79	0.51	0.08	0.13	TL1742	TL1695



PENCOM supplies a wide variety of self-clinching and press-in studs for installation in thin metallic and non-metallic sheets. Visit **www.pencomsf. com** for more information.



PERFORMANCE - MATERIAL CODES ST & SS

All dimensions in inches

			Rec. Nut		Test Sheet					
	Thread Code	Stud Material Code	Tightening Torque (in-lbs) (1)	Material	Thickness	Hardness (HRB)	Installation (Ibs)	Push-out (Ibs)	Torque-out (in-lbs)	Pull-thru (lbs)
	256	ST	4.0	Aluminum	.062	29	2000	100	5.0	425
		51	4.0	Carbon Steel	.060	59	2500	180	5.0	425
	236	SS	2.5	Aluminum	.062	29	2000	100	4.5	300
		33	2.5	Carbon Steel	.060	59	2500	180	4.5	300
		ST	6.0	Aluminum	.064	29	3800	170	10	650
	440	31	6.0	Carbon Steel	.060	59	4300	275	10	650
	440	00	5.2	Aluminum	.064	29	3200	170	8.0	500
		SS	3.2	Carbon Steel	.060	59	4700	275	8.0	500
		ST	12	Aluminum	.064	29	3800	180	17	850
INCH	632	31		Carbon Steel	.060	59	4700	300	20	850
Ž		SS	9.6	Aluminum	.064	29	3500	180	16	775
		33	3.0	Carbon Steel	.060	59	5000	300	16	775
		ST	21	Aluminum	.064	29	4800	220	28	1000
	832	31		Carbon Steel	.060	59	6800	375	40	1270
	032	SS	20	Aluminum	.064	29	4500	220	28	940
		33	20	Carbon Steel	.060	59	5500	375	28	1130
		ST	32	Aluminum	.064	29	5500	270	30	1220
	1024	31	32	Carbon Steel	.060	59	7500	450	60	1410
	1024	SS	23	Aluminum	.064	29	5500	270	30	1220
		33	23	Carbon Steel	.060	59	6800	450	50	1410
		ST	36	Aluminum	.064	29	5500	270	30	1220
	1032)) i	30	Carbon Steel	.060	59	7500	450	60	1410
	1032	SS	32	Aluminum	.064	29	5500	270	30	1220
		JJ	JZ	Carbon Steel	.060	59	6800	450	50	1410

⁽¹⁾ Recommended tightening torques for carbon steel studs are based on theoretical calculations using a standard bolt torque calculation formula. Torque values for stainless steel threaded fasteners cannot be calculated accurately due to unpredictable elasticity of the material and changes in surface friction during installation. Stainless steel stud data shown are results of publicly available laboratory testing not endorsed or witnessed by PENCOM. All values are for reference and should be considered estimates only with actual values determined through testing in the application. Contact PENCOM for additional information or questions.

⁽²⁾ Performance data represents the average destructive result when all installation specifications are strictly followed. Variations in panel hole size, thickness, material and installation method will affect the loads. PENCOM strongly encourages testing in the application.



PERFORMANCE - MATERIAL CODES ST & SS (CONTINUED)

All dimensions in inches

			Rec. Nut Tightening Torque (in-lbs) (1)		Test Sheet					
	Thread Code	Stud Material Code		Material	Thickness	Hardness (HRB)	Installation (lbs)	Push-out (Ibs)	Torque-out (in-lbs)	Pull-thru (lbs)
		ST	76	Aluminum	.093	28	6500	310	65	2300
품	2520	31	76	Carbon Steel	.088	46	9500	575	100	2550
INCH		SS	75	Aluminum	.093	28	6500	310	65	2100
				Carbon Steel	.088	46	10000	575	100	2550
		ST	156	Aluminum	.093	28	6500	430	100	2260
	3118	51	156	Carbon Steel	.093	46	10000	650	175	3475
	2110	SS	132	Aluminum	.093	28	6700	430	100	2260
		33		Carbon Steel	.093	46	11200	650	175	3120

⁽¹⁾ Recommended tightening torques for carbon steel studs are based on theoretical calculations using a standard bolt torque calculation formula. Torque values for stainless steel threaded fasteners cannot be calculated accurately due to unpredictable elasticity of the material and changes in surface friction during installation. Stainless steel stud data shown are results of publicly available laboratory testing not endorsed or witnessed by PENCOM. All values are for reference and should be considered estimates only with actual values determined through testing in the application. Contact PENCOM for additional information or questions.

⁽²⁾ Performance data represents the average destructive result when all installation specifications are strictly followed. Variations in panel hole size, thickness, material and installation method will affect the loads. PENCOM strongly encourages testing in the application.



PERFORMANCE - MATERIAL CODES ST & SS (CONTINUED)

			Rec. Nut		Test Sheet					
	Thread Code	Stud Material Code	Tightening Torque (N-m) (1)	Material	Thickness	Hardness (HRB)	Installation (kN)	Push-out (N)	Torque-out (N-m)	Pull-thru (N)
		ST	0.58	Aluminum	1.6	29	8.9	465	1.0	2600
	M2.5	31	0.58	Carbon Steel	1.5	59	11.1	740	1.0	2800
	C.SIVI	CC		Aluminum	1.6	29	11.6	465	0.8	1820
		SS		Carbon Steel	1.5	59	13.8	740	0.8	1820
		ST	1.02	Aluminum	1.6	29	12.9	600	1.7	3150
	M3	31	1.02	Carbon Steel	1.5	59	14.7	820	1.7	3840
	IVIS	00	1.00	Aluminum	1.6	29	12.9	600	1.3	2570
		SS	1.00	Carbon Steel	1.5	59	14.7	820	1.3	2440
		ST	1.60	Aluminum	1.6	29	15.6	800	1.7	3780
	M3.5	31	1.00	Carbon Steel	1.5	59	22.3	1335	2.8	3780
, ,	IVIS.S	cc	1.08	Aluminum	1.6	29	15.6	800	1.7	3445
METRIC		SS	1.08	Carbon Steel	1.5	59	22.3	1335	2.0	3445
MET	M4	ST	2.35	Aluminum	1.6	29	20.0	975	2.9	4448
-		31	2.55	Carbon Steel	1.5	59	28.9	1780	4.2	5650
		SS	2.60	Aluminum	1.6	29	22.3	975	2.9	4180
		33		Carbon Steel	1.5	59	26.7	1780	2.9	4775
		ST	4.80	Aluminum	1.6	29	24.5	1070	3.5	5170
	M5	31	4.80	Carbon Steel	1.5	59	33.4	2000	6.5	6270
	IVIS	SS	5.10	Aluminum	1.6	29	24.5	1070	3.5	4760
		33	5.10	Carbon Steel	1.5	59	32.5	2000	6.3	6000
		ST	8.15	Aluminum	2.4	28	28.9	1660	7.3	10200
	M6	31	6.13	Carbon Steel	2.2	46	44.5	2560	11.3	11300
	IVIO	SS	8.70	Aluminum	2.4	28	28.9	1660	7.3	9090
		J.J.	0.70	Carbon Steel	2.2	46	44.5	2560	10.1	10600
		ST	19.8	Aluminum	2.4	28	29.8	1910	11.3	10500
	M8	31	13.0	Carbon Steel	2.4	46	44.5	2890	19.2	15450
	IVIO	SS	21.2	Aluminum	2.4	28	29.8	1910	11.3	9540
		33	21.2	Carbon Steel	2.4	46	49.8	2890	17.5	13630

⁽¹⁾ Recommended tightening torques for carbon steel studs are based on theoretical calculations using a standard bolt torque calculation formula. Torque values for stainless steel threaded fasteners cannot be calculated accurately due to unpredictable elasticity of the material and changes in surface friction during installation. Stainless steel stud data shown are results of publicly available laboratory testing not endorsed or witnessed by PENCOM. All values are for reference and should be considered estimates only with actual values determined through testing in the application. Contact PENCOM for additional information or questions.

⁽²⁾ Performance data represents the average destructive result when all installation specifications are strictly followed. Variations in panel hole size, thickness, material and installation method will affect the loads. PENCOM strongly encourages testing in the application.



PERFORMANCE - MATERIAL CODE AL

All dimensions in inches

		Rec. Nut	Test S							
	Thread Code	Tightening Torque (in-Ibs) (1)	Material	Thickness	Hardness (HR15T)	Installation (Ibs)	Push-out (Ibs)	Torque-out (in-lbs)	Pull-thru (lbs)	
NC.	440	2.9	5052-H34 Aluminum	.061	75	2500	155	4.0	270	
=	632	5.3	5052-H34 Aluminum	.061	75	2600	180	8.0	380	
	832	10.8	5052-H34 Aluminum	.061	73	3200	190	15	500	
	1032	19.2	5052-H34 Aluminum	.061	75	3200	220	28	600	
	2520	45.6	5052-H34 Aluminum	.062	75	5500	300	55	1050	

- (1) Recommended tightening torques for aluminum threaded fasteners cannot be calculated accurately due to unpredictable elasticity of the material and changes in surface friction during installation. Data shown are results of publicly available laboratory testing not endorsed or witnessed by PENCOM. All values are for reference and should be considered estimates only with actual values determined through testing in the application. Contact PENCOM for additional information or questions.
- (2) Performance data represents the average destructive result when all installation specifications are strictly followed. Variations in panel hole size, thickness, material and installation method will affect the loads. PENCOM strongly encourages testing in the application.

All dimensions in millimeters

		Rec. Nut	Test S	Test Sheet						
RIC	Thread Code	Tightening Torque (N-m)	Material	Thickness (HR15T)		Installation (kN)	Push-out (N)	Torque-out (N-m)	Pull-thru (N)	
MET	M3		5052-H34 Aluminum	1.55	74	10.7	575	0.5	1500	
-	M4		5052-H34 Aluminum	1.55	75	14.3	775	1.35	2000	
	M5		5052-H34 Aluminum	1.55	75	15.2	900	2.6	2500	
	M6		5052-H34 Aluminum	1.60	75	24.5	1500	5.3	4500	

(1) Performance data represents the average destructive result when all installation specifications are strictly followed. Variations in panel hole size, thickness, material and installation method will affect the loads. PENCOM strongly encourages testing in the application.



PERFORMANCE - MATERIAL CODE S4

All dimensions in inches

			Test Sheet					
_	Thread Code	Material	Thickness (2)	Hardness (HRB)	Installation (lbs)	Push-out (Ibs)	Torque-out (in-lbs)	Pull-thru (lbs)
INCH	440	Stainless Steel	.060	87	9000	450	16	800
=	632	Stainless Steel	.060	87	9500	540	27	1350
	832	Stainless Steel	.060	86	11200	780	58	1800
	1032	Stainless Steel	.060	86	12000	800	95	2250
	2520	Stainless Steel	.062	88	23000	1600	156	3900

			Test Sheet					
RIC	Thread Code	Material	Thickness (2)	Hardness (HRB)	Installation (kN)	Push-out (N)	Torque-out (N-m)	Pull-thru (N)
MET	МЗ	Stainless Steel	1.50	87	40	2220	1.8	3500
	M4	Stainless Steel	1.50	86	50	3210	6.5	8000
	M5	Stainless Steel	1.50	86	53	3560	10.7	10000
	M6	Stainless Steel	1.60	88	100	4200	15.9	14900

⁽¹⁾ Performance data represents the average destructive result when all installation specifications are strictly followed. Variations in panel hole size, thickness, material and installation method will affect the loads. PENCOM strongly encourages testing in the application.

⁽²⁾ Performance may be reduced if installed into thicker sheets.



OPTIONS

Thread Locking Element

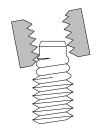
A nylon thread locking element can be applied to the stud threads to prevent loosening due to vibration. To specify, insert **PATCH** at the end of the part description. Other locking elements such as micro-encapsulated epoxy available by request.

Ex. SBST-632-1.250-Z-PATCH



Anti-Cross Thread Feature

PENCOM can provide most studs with the MAThread® Anti–Cross Thread Technology. This unique thread design significantly reduces or eliminates thread assembly damage while improving assembly times. Contact your PENCOM Account Representative for ordering information.



When the misaligned threads contact, the MAThread® ball bearing—shaped lead threads reduce friction with internal threads and prevent jamming.



The threads actively force themselves into alignment with little resistance improving assembly times and reducing operator fatigue.

MAThread is a registered trademark of MAThread, Inc.



Thread Lubricating and Masking

Studs can be supplied with a variety of thread lubricating and masking materials. Available coatings reduce friction, heat buildup and galling during installation and prevent paint, weld spatter and electro—deposited undercoatings from adhering to stud threads. Contact a PENCOM Account Representative to discuss your application.



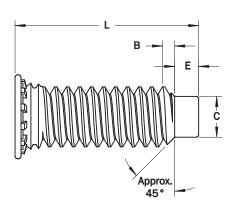


OPTIONS (CONTINUED)

DOG POINT

A dog point lead—in improves location of the mating fastener and protects the beginning threads during engagement. To specify, insert **DOG** at the end of the part description.

Ex. SBST-632-1.250-Z-**DOG**





All dimensions in inches

	Thread Code	C ±.005 (2)	E ±.010	B Nom. Transitional Length to Full Thread
INCH	632	.086	.050	.098
Ž	832	.111	.055	.099
	1024	.124	.065	.127
	1032	.138	.065	.098
	2520	.173	.085	.149
	3118	.228	.105	.164

- (1) For "L" refer to stud length tables.
- (2) Maximum dog point diameter is .003" less than minimum minor diameter of 2B nut threads.

All dimensions in millimeters

IC	Thread Code	C ±0.13 (2)	E ±0.25	B Nom. Transitional Length to Full Thread	
METRIC	M3.5	2.40	1.27	1.88	
Σ	M4	2.79	1.40	2.26	
	M5	3.66	1.78	2.48	
	M6	4.37	2.03	3.05	
	M8	6.05	2.67	3.73	

- (1) For "L" refer to stud length tables.
- (2) Maximum dog point diameter is 0.08 mm less than minimum minor diameter of 6H nut threads.