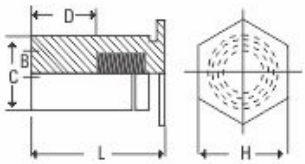
SELF CLINCHING STANDOFFS

TYPES SE-SO, SE-SOA, SE-SOS THRU-HOLE THREADED STANDOFFS

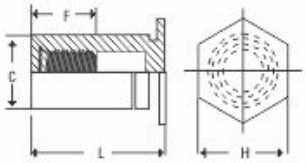


Thread Code	Min. Sheet Thickness	Hole Size in Sheet ±0.08	B Counter Bore Dia. ±0.13	C ±0.13	H Nom.	Min. Dist. Hole C/L to Edge
M3	1.02	4.22	3.2	4.2	4.8	6
3.5M3	1.02	5.41	3.2	5.39	6.4	6.8
M3.5	1.02	5.41	3.9	5.39	6.4	6.8
M4	1.27	7.14	4.8	7.12	7.9	8
M5	1.27	7.14	5.35	7.12	7.9	8

Thread Size x Pitch	Type			Thread Code	Length "L" +0.05-0.13 (Length Code in millimeters)											
	Steel	Stainless Steel	Aluminium													
M3 x 0.5	SE-SO	SE-SOS	SE-SOA	M3	3	4	6	8	10	12	14	16	18	N/A	N/A	N/A
				3.5M 3												
M3.5 x 0.6 M4 x 0.7 M5 x 0.8	SE-SO	SE-SOS	SE-SOA	M3.5	3	4	6	8	10	12	14	16	18	20	22	25
				M4												
				M5												
Dimension +0.25						NONE				4			8			11

SELF CLINCHING STANDOFFS

TYPES SE- BSO, SE-BSOA, SE-BSOS BLIND THREADED STANDOFFS

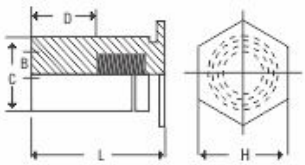


Thread Code	Min Sheet Thickness	Hole Size In Sheet+0.08	C -0.13	H Nom	Min. Dist. Hole C/L To Edge
M3	1.02	4.22	4.2	4.8	6
3.5M3	1.02	5.41	5.39	6.4	6.8
M3.5	1.02	5.41	5.39	6.4	6.8
M4	1.27	7.14	7.12	7.9	8
M5	1.27	7.14	7.12	7.9	8

Thread Size x Pitch	Type			Thread Code	Length "L" +0.05-0.13 (Length Code in millimeters)										
	Steel	Stainless Steel	Aluminium												
M3 x 0.5	SE-BSO	SE-BSOS	SE-BSOA	M3	6	8	10	12	14	16	18	20	22	25	
				3.5M3											
M3.5 x 0.6 M4 x 0.7 M5 x 0.8	SE-BSO	SE-BSOS	SE-BSOA	M3.5	6	8	10	12	14	16	18	20	22	25	
				M4											
				M5											
F Dimension Min.						3.2	4	5	6.5			9.5			

SELF CLINCHING STANDOFFS

TYPES SE-SO4 THRU-HOLE THREADED STANDOFFS
(for installation into stainless steel)

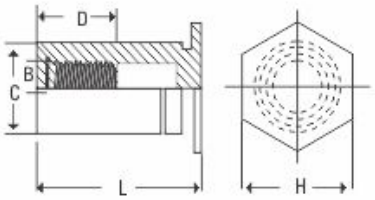


Thread Code	Min. Sheet Thickness	Hole Size in Sheet +0.08	B Counter Bore Dia. +0.13	C +0.13	H Nom.	Min. Dist. Hole C/L to Edge
M3	1.02	4.22	3.25	4.2	4.8	6
3.5M3	1.02	5.41	3.25	5.39	6.4	7.1
M3.5	1.02	5.41	3.9	5.39	6.4	7.1
M4	1.27	7.14	4.8	7.12	7.9	8.4
M5	1.27	7.14	5.35	7.12	7.9	8.4

Thread Size x Pitch	Type	Thread Code	Length "L" +0.05-0.13 (Length Code in millimeters)											
M3 x 0.5	SE-SO4	M3	3	4	6	8	10	12	14	16	18	N/A	N/A	N/A
		3.5M3												
M3.5 x 0.6 M4 x 0.7 M5 x 0.8	SE-SO4	M3.5	3	4	6	8	10	12	14	16	18	20	22	25
		M4												
		M5												
D Dimension +0.25					None			4		8			11	

TYPE SE-BS04 BLIND THREADED STANDOFFS

FOR INSTALLATION INTO STAINLESS STEEL



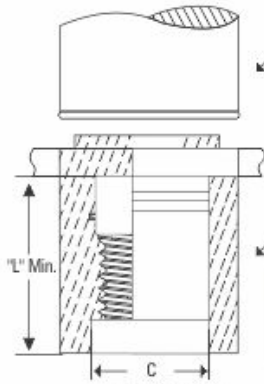
Thread Code	Min. Sheet Thickness	Hole Size in Sheet +0.08	C +0.13	H Nom.	Min. Dist. Hole C/L to Edge
M3	1.02	4.22	4.2	4.8	6
3.5M3	1.02	5.41	5.39	6.4	7.1
M3.5	1.02	5.41	5.39	6.4	7.1
M4	1.27	7.14	7.12	7.9	8.4
M5	1.27	7.14	7.12	7.9	8.4

Thread Size x Pitch	Type	Thread Code	Length "L" +0.05-0.13 (Length Code in millimeters)									
M3 x 0.5	SE-BS04	M3	6	8	10	12	14	16	18	20	22	25
		3.5M3										
M3.5 x 0.6	SE-BS04	M3.5	6	8	10	12	14	16	18	20	22	25
M4 x 0.7		M4										
M5 x 0.8		M5										
F Dimension Min			3.2	4		5	6.5		9.5			

INSTALLATION

Type SE-S0, SE-S0S, SE-S0A, SE-S04 SE-BS0, SE-BS0S SE-BS0A, and SE-BS04

- Punch or drill properly size mounting hole in sheet. Do not perform any secondary operation such as deburring
- Insert standoff through mounting hole of sheet and into anvil as shown in drawing.
- With punch and anvil surfaces parallel, apply only enough squeezing force to embed the standoff's head flush in the sheet. Drawing at right shows suggested tooling for applying these forces.



Standoff "C" Dimensions	Anvil Dimensions A	Anvil Dimensions B
4.19	4.24-4.32	4.75-4.93
5.39	5.41-5.49	6.35-6.53

PERFORMANCE DATA

Type SE-S0, SE-S0S, SE-S0A, SE-BS0, SE-BS0S, and SE-BS0A

Thread code	Standoff Material	Max.Rec. Tightening Torque for Mating screw(N.M)	Test sheet Material: 1.5 mm 5052-H34 Aluminium				1.5 mm Cold Rollud Sheet			
			Installation (K N)	Pushout (N)	Torque out (N.M)	Pull thru[1] (N)	Installation (K N)	Purshout (N)	Torque out (N.M)	Pull thru[2] (N)
M3	Steel	0.55	4.9	710	1.24	1245	9.8	1000	2.15	1465
	Stainless steel	0.44	4.9	710	1.24	996	9.8	1000	2.15	1172
	Aluminium	0.33	4.9	710	1.24	747	-	-	-	-
3.5M3	Steel	0.55	7.6	1330	1.24	1245	14.7	1860	2.15	1465
	Stainless steel	0.44	7.6	1330	1.24	996	14.7	1860	2.15	1172
	Aluminium	0.33	7.6	1330	1.24	747	-	-	-	-
M3.5	Steel	0.91	7.6	1330	2.82	1375	14.7	1860	3.95	1690
	Stainless steel	0.73	7.6	1330	2.82	1100	14.7	1860	3.95	1352
	Aluminium	0.55	7.6	1330	2.82	825	-	-	-	-
M4 M5	Steel	2, 3.6	10.7	1780	5.08	2575	17.8	2490	8.47	3110
	Stainless steel	1.6, 2.88	10.7	1780	5.08	2060	17.8	2490	8.47	2488
	Aluminim	1.2, 2.16	10.7	1780	5.08	1545	-	-	-	-

Type SE-S04 and SE-BS04

Thread code	Max. Rec. Tightening Torque for Mating Screw (N.M)	Test Sheet Material: 1.3 mm 300 Series Stainless Steel			
		Installation (K N)	Pushout (N)	Torque-Nut (N.M)	Pull-Thru (N)
M3	0.55	24.5	1493	2.36	2650
3.5M3	0.55	42.3	2877	2.36	3025
M3.5	0.91	42.3	2877	3.06	3025
M4	2	46.7	4003	6.34	6458
M5	3.6	46.7	4003	8.89	6226