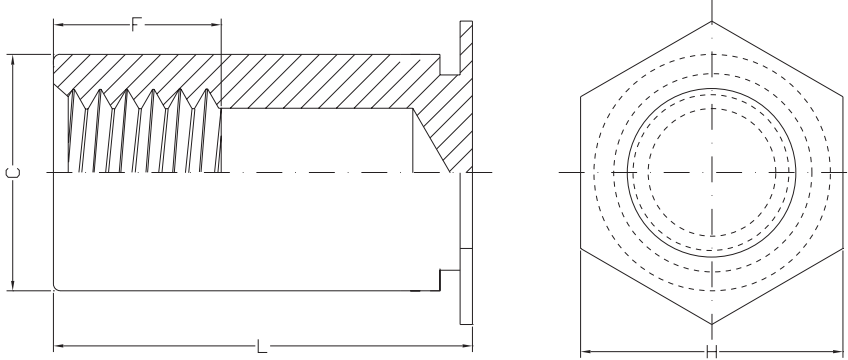
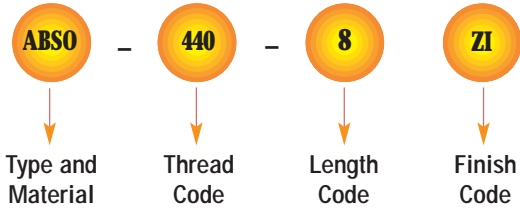


SELF-CLINCHING STANDOFFS

TYPES ABSO, ABSON, ABSOA, ABSOS BLIND
THREADED STANDOFFS - UNIFIED & METRIC



Part Number Designation



GENERAL DIMENSIONAL DATA

UNIFIED (inch)	Thread Code	Min. Sheet Thickness	Hole Size In Sheet +.003 -.000	C +.000 -.005	H Nom.	Min. Dist. Hole C/L To Edge
	440	.040	.166	.165	.187	.23
	6440	.040	.213	.212	.250	.27
	632	.040	.213	.212	.250	.27
	8632	.050	.281	.280	.312	.31
	832	.050	.281	.280	.312	.31
	032	.050	.281	.280	.312	.31

METRIC (mm)	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 AND LENGTH SELECTION DATA

UNIFIED (inch)	Thread Size	Type				Thread Code	Length "L" +.002 -.005 (Length Code in 32nds of an inch)												
		Steel	Steel Non Heat-treated	Stainless Steel	Aluminum		.312	.375	.437	.500	.562	.625	.687	.750	.812	.875	.937	1.00	1.062
	.112-40 (#4-40)	ABSO	ABSON	ABSOS	ABSOA	440 6440 ⁽¹⁾	10	12	14	16	18	20	22	24	26	28	30	32	34
.138-32 (#6-32)	ABSO	ABSON	ABSOS	ABSOA	632 8632 ⁽¹⁾	10	12	14	16	18	20	22	24	26	28	30	32	34	
.164-32 (#8-32)	ABSO	ABSON	ABSOS	ABSOA	832	10	12	14	16	18	20	22	24	26	28	30	32	34	
.190-32 (#10-32)					032														
F Dimension Min.							.156	.187	.250			.375							

(1) Standoffs with thread codes 6440 and 8632 offer greater wall thickness for thread sizes 440 and 632, respectively

METRIC (mm)	Thread Size x Pitch	Type				Thread Code	Length "L" +0.05 -0.13 (Length Code in millimeters)										
		Steel	Steel Non Heat-treated	Stainless Steel	Aluminum		6	8	10	12	14	16	18	20	22	25	
	M3 X 0.5	ABSO	ABSON	ABSOS	ABSOA	M3	6	8	10	12	14	16	18	20	22	25	
3.5M3 ⁽¹⁾																	
M3.5 X 0.6	ABSO	ABSON	ABSOS	ABSOA	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					

(1) Standoffs with thread codes 3.5M3 offer greater wall thickness for M3 thread size.

SELF-CLINCHING STANDOFFS

TYPES ABSO, ABSON, ABSOA, ABSOS BLIND
THREADED STANDOFFS - UNIFIED & METRIC



MATERIAL & FINISH SPECIFICATIONS

Type	Threads ⁽¹⁾	Fastener Materials					Standard Finishes			For Use In Sheet Hardness:				
	Internal, ANSI B1.1 2B ANSI/ASME B1.13M, 6H	Heat-treated Carbon Steel	Non-heat Treated Carbon Steel	7075-T6 Aluminum	303 Stainless Steel	400 Series Stainless Steel	Zinc Per ASTM B 633 SC1 (5µm) Type III, Colorless	Passivated and/or Tested Per ASTM A380	None	88 or less on the Rockwell "B" Scale	80 or less on the Rockwell "B" Scale	70 or less on the Rockwell "B" Scale	60 or less on the Rockwell "B" Scale	50 or less on the Rockwell "B" Scale
ABSO	•	•					•				•			
ABSOA	•			•										•
ABSOS	•				•			•						
ABSON*	•		•				•						•	
Part Number Codes For Finishes							ZI	None	None					

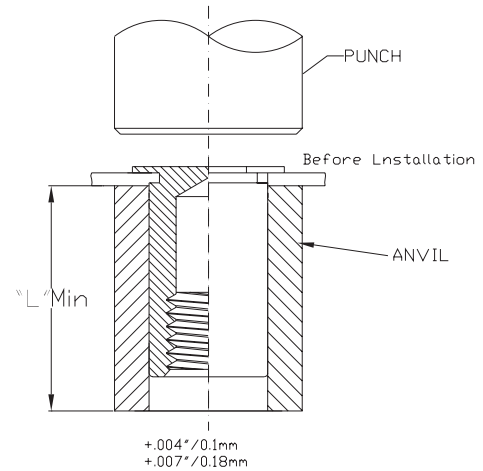
(1) Where applicable.

*Available on special order only.

INSTALLATION

Types ABSO, ABSOS, ABSOA, and ABSON

1. Punch or drill properly sized mounting hole in sheet. Do not perform any secondary operation such as deburring.
2. Insert standoff through mounting hole of sheet and into anvil as shown in drawing.
3. 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.



PERFORMANCE DATA⁽¹⁾

Types ASO, ASOS, ASOA, ASON, ABSO, ABSOS, ABSOA, and ABSON

UNIFIED (inch)	Thread Code	Standoff Material	Max. Rec. Tightening Torque For Mating Screw (in. lbs.)	Test Sheet Material							
				.060" 5052-H34 Aluminum				.060" Cold-rolled Steel			
				Installation (lbs.)	Pushout (lbs.)	Torque-out (in. lbs.)	Pull-thru ⁽²⁾ (lbs.)	Installation (lbs.)	Pushout (lbs.)	Torque-out (in. lbs.)	Pull-thru ⁽²⁾ (lbs.)
440	Steel	4.75	1100	160	11	280	2200	225	19	330	
	Stainless Steel	3.8	1100	160	11	224	2200	225	19	264	
	Aluminum	2.85	1100	160	11	168	(3)	(3)	(3)	(3)	
	Steel	4.75	1700	300	11	280	3300	420	19	330	
	Stainless Steel	3.8	1700	300	11	224	3300	420	19	264	
	Aluminum	2.85	1700	300	11	168	(3)	(3)	(3)	(3)	
6440	Steel	8.75	1700	300	25	310	3300	420	35	380	
	Stainless Steel	7	1700	300	25	248	3300	420	35	304	
	Aluminum	5.25	1700	300	25	186	(3)	(3)	(3)	(3)	
632	Steel	8.75	2400	400	25	310	4000	560	35	380	
	Stainless Steel	7	2400	400	25	248	4000	560	35	304	
	Aluminum	5.25	2400	400	25	186	(3)	(3)	(3)	(3)	
8632	Steel	18, 32	2400	400	45	580	4000	560	75	700	
	Stainless Steel	14.4, 25.6	2400	400	45	464	4000	560	75	560	
	Aluminum	11, 19	2400	400	45	348	(3)	(3)	(3)	(3)	

METRIC (mm)	Thread Code	Standoff Material	Max. Rec. Tightening Torque For Mating Screw (N·m)	Test Sheet Material							
				1.5 mm 5052-H34 Aluminum				1.5 mm Cold-rolled Steel			
				Installation (kN)	Pushout (N)	Torque-out (N·m)	Pull-thru ⁽²⁾ (N)	Installation (kN)	Pushout (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	
	Aluminum	0.33	4.9	710	1.24	747	(3)	(3)	(3)	(3)	
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	
	Aluminum	0.33	7.6	1330	1.24	747	(3)	(3)	(3)	(3)	
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	
	Aluminum	0.55	7.6	1330	2.82	825	(3)	(3)	(3)	(3)	
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	
	Aluminum	1.2, 2.16	10.7	1780	5.08	1545	(3)	(3)	(3)	(3)	