

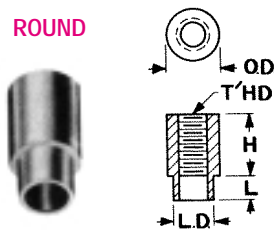
SWAGE/FORCE FIT STANDOFFS

Designers' Choice

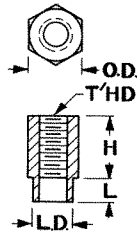


SWAGE THREADED STANDOFFS

ROUND



HEX



SPECIFICATIONS:

Brass: per ASTM-B16

Nickel Plate: QQ-N-290

ROUND CAT. NO.	H Height Above Panel	L Shank Length	For Panel Thickness	LD Shank Diameter	HEX CAT. NO.
2-56 THREAD × .156 O.D. (5/32")					
1589-2	.125	.109	1/16	.125	1731-2
1590-2	.187	.109	1/16	.125	1734-2
1591-2	.250	.109	1/16	.125	1740-2
1596-2	.375	.109	1/16	.125	1743-2
4-40 THREAD × .187 O.D. (3/16")					
2260-2	.125	.109	1/16	.139	2270-2
2261-2	.187	.109	1/16	.139	2271-2
2262-2	.250	.109	1/16	.139	2272-2
2263-2	.375	.109	1/16	.139	2273-2
2264-2	.500	.109	1/16	.139	2274-2
4-40 THREAD × .250 O.D. (1/4")					
1560 A	.125	.109	1/16	.187	1653-2
1560 F	.125	.140	3/32	.187	1653-3
1790-2	.187	.109	1/16	.187	1746-2
1790-3	.187	.140	3/32	.187	1746-3
1650-2	.250	.109	1/16	.187	1627-2
1650-3	.250	.140	3/32	.187	1627-3
1651-2	.375	.109	1/16	.187	1628-2
1651-3	.375	.140	3/32	.187	1628-3
1623-2	.500	.109	1/16	.187	1629-2
1623-3	.500	.140	3/32	.187	1629-3
1624-2	.625	.109	1/16	.187	1654-2
1624-3	.625	.140	3/32	.187	1654-3
1625-2	.750	.109	1/16	.187	1655-2
1625-3	.750	.140	3/32	.187	1655-3
1792-2	.875	.109	1/16	.187	1749-2
1792-3	.875	.140	3/32	.187	1749-3
1652-2	1.000	.109	1/16	.187	1630-2
1652-3	1.000	.140	3/32	.187	1630-3
6-32 THREAD × .250 O.D. (1/4")					
1560 B	.125	.109	1/16	.187	1620-2
1560 C	.125	.140	3/32	.187	1620-3
1612-2	.187	.109	1/16	.187	1752-2
1612-3	.187	.140	3/32	.187	1752-3
1546	.250	.109	1/16	.187	1621-2
1546 B	.250	.140	3/32	.187	1621-3
1546 D	.250	.171	1/8	.187	1621-4
1561 B	.375	.109	1/16	.187	1622-2
1561 C	.375	.140	3/32	.187	1622-3
1561 D	.375	.171	1/8	.187	1622-4
1604-2	.500	.109	1/16	.187	1758-2
1604-3	.500	.140	3/32	.187	1758-3
1604-4	.500	.171	1/8	.187	1758-4
1605-2	.625	.109	1/16	.187	1759-2
1605-3	.625	.140	3/32	.187	1759-3
1608-2	.750	.109	1/16	.187	1761-2
1608-3	.750	.140	3/32	.187	1761-3
1796-2	.875	.109	1/16	.187	1775-2
1796-3	.875	.140	3/32	.187	1775-3
1609-2	1.000	.109	1/16	.187	1784-2
1609-3	1.000	.140	3/32	.187	1784-3

STAKING TOOLS FOR SWAGE STANDOFFS

Precision made tools-heat treated and plater. Will give your job the professional appearance. Set of tools consists of: Top Staking Tool and Anvil.



CAT.NO.TL-19	For Bushing 5/32 OD with 2-56 Thd.
CAT.NO.TL-20	For Bushing 1/4 OD with 4-40 Thd.
CAT.NO.TL-21	For Bushing 1/4 OD with 6-32 Thd.

A broaching-type fastener/standoff for installation in panels and circuit boards .060 inch and thicker made of plastic and other non-ductile materials. Available threaded or with clearance holes. Easy to install, pressed into punched or drilled holes.

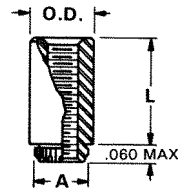
MATERIALS: Stainless Steel
per ASTM-A581/A582

Mounting Holes:

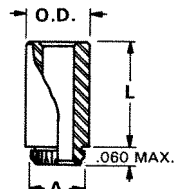
- .147 hole for 2-56.
- .166 hole for 4-40.
- .213 hole for 6-32.

Tolerance on Mounting Holes:

+ .003/- .000.



Threaded



Clear Hole

THREADED

CAT. NO.	THREAD	"L" LENGTH	O.D.	"A"
4860	2-56	.065	.219	.165
4861	4-40	.065	.219	.184
4862	4-40	.125	.219	.184
4863	4-40	.250	.219	.184
4864	4-40	.375	.219	.184
*4865	4-40	.500	.219	.184
4866	6-32	.065	.281	.231
4867	6-32	.125	.281	.231
4868	6-32	.250	.281	.231
4869	6-32	.375	.281	.231
*4870	6-32	.500	.281	.231

*Thread depth .375

CLEAR HOLE

CAT. NO.	I.D.	LENGTH	O.D.	"A"
4850	#4 (.116)	.065	.219	.184
4851	#4 (.116)	.125	.219	.184
4852	#4 (.116)	.250	.219	.184
4853	#4 (.116)	.375	.219	.184
4854	#4 (.116)	.500	.219	.184
4855	#6 (.143)	.065	.281	.231
4856	#6 (.143)	.125	.281	.231
4857	#6 (.143)	.250	.281	.231
4858	#6 (.143)	.375	.281	.231
4859	#6 (.143)	.500	.281	.231

CUSTOM SPACERS & STANDOFFS

Keystone is fully integrated to meet your total design & production needs.

Manufacturing custom designs & modifications of standard items is our specialty.

Quotations on special spacers & standoffs furnished promptly upon receipt of sample, sketch, print or CAD drawings.



Designers' Choice

SPACERS & STANDOFFS

ALUMINUM ECONOMY SPACERS

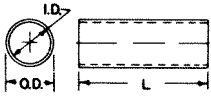
• PRECISION FORMED • NO BURRS

Made of flat strip aluminum and rolled on precision equipment. Assures maximum bearing surface, square ends.

Aluminum: Per 5052-H34 per QQ-A-250/8b



Tight Joint on Outside Diameter



Description and Tol.

SPACER FOR	I.D. ±.005	O.D. ±.007
#4	.125	.167
#6	.151	.193
#8	.178	.232

L Length	#4 Screw CAT. NO.	#6 Screw CAT. NO.	#8 Screw CAT. NO.
.187	397	—	—
.250	398	405	412
.312	399	406	413
.375	400	407	414
.437	401	408	415
.500	402	409	416
.625	403	410	417
.750	418	425	432
.875	419	426	433
1.000	420	427	434
1.250	421	428	435
1.500	422	429	436
1.750	—	430	437
2.000	—	—	438

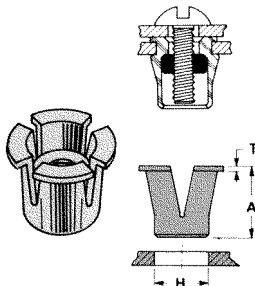
BLIND CAPTIVE NUTS — PRESS FIT

MOUNT CHASSIS, PANELS, HEAT SINKS, SOCKETS

MATERIAL: Molded Nylon with Brass threaded insert.

- EASY ASSEMBLY
- DAMPENS VIBRATION
- ELIMINATES INSULATING WASHER
- HI-DIELECTRIC STRENGTH

A unique reusable fastener made of NYLON which contains a threaded brass nut. Finger pressure or light tap seals it in a pre-drilled hole. The nut is drawn up causing a Nylon bulge behind the workpiece. Screw may be removed or replaced.

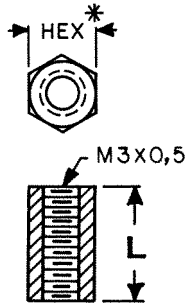


CAT. NO.	THREAD	"H" HOLE SIZE REQ/D.	IDEAL SHEET THICKNESS	A	T
4341	4-40	.250	.047	.312	.030
4342	6-32	.312	.078	.375	.030
4343	8-32	.406	.093	.500	.030

METRIC HEX THREADED STANDOFFS

A comprehensive range of precision made metric hex spacers.

MATERIAL: Brass, ASTM-B16, Nickel plated (QQ-N-290)



5mm HEX*	
CAT. NO.	"L"
4390	5mm
4391	10mm
4392	15mm
4393	20mm
4394	25mm

5.5mm HEX*	
CAT. NO.	"L"
4395	5mm
4396	10mm
4397	15mm
4398	20mm
4399	25mm

ROUND CLEAR SPACERS

BRASS OR ALUMINUM

MATERIALS:

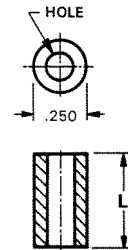
Brass: ASTM-B16, Nickel plate (QQ-N-290)

Aluminum: Iridite Finish (MIL-C-5541)

L LENGTH	HOLE	BRASS	ALUMINUM
		CAT. NO.	CAT. NO.
.125	.120	1909	2036
.250	.120	1454A	3457
.375	.120	1454B	3458
.500	.120	1454C	3459
.625	.120	1919	2314
.750	.120	1454D	3460
.875	.120	1920	3402
1.000	.120	1545E	3461
1.500	.120	1924	3462
2.000	.120	1925	3463
.125	.140	1934	3403
.250	.140	1457A	3464
.375	.140	1457B	3465
.500	.140	1457C	3466
.625	.140	1935	3429
.750	.140	1957D	3467
.875	.140	1936	3438
1.000	.140	1457E	3468
1.500	.140	1937	3469
2.000	.140	1938	3470
.125	.171	1942	4258
.250	.171	1480	3471
.375	.171	1481	3472
.500	.171	1482	3473
.625	.171	2032	4259
.750	.171	1483	3474
.875	.171	2033	4260
1.000	.171	1484	3475
1.500	.171	2034	3476
2.000	.171	2035	3477

CLEARANCE HOLE:

- .120 for #4 screw
- .140 for #6 screw
- .171 for #8 screw



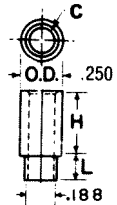
ROUND SWAGE CLEAR SPACERS

MATERIAL: Brass, ASTM-B16, Nickel plate (QQ-N-290)

CLEARANCE HOLE:

- .120 for #4 screw
- .140 for #6 screw

CAT. NO.	H HEIGHT	FOR PANEL THICKNESS	C HOLE	L
5060-2	.250	1/16	.120	.109
5060-3	.250	3/32	.120	.141
5061-2	.375	1/16	.120	.109
5061-3	.375	3/32	.120	.141
5062-2	.500	1/16	.120	.109
5062-3	.500	3/32	.120	.141
5063-2	.250	1/16	.140	.109
5063-3	.250	3/32	.140	.141
5064-2	.375	1/16	.140	.109
5064-3	.375	3/32	.140	.141
5065-2	.500	1/16	.140	.109
5065-3	.500	3/32	.140	.141



HEX STAINLESS THREADED STANDOFFS

MATERIAL: Stainless Steel per ASTM-A581/A582, Class 303

• Corrosion Resistant

L Length Inches	4-40 Thread CAT. NO.	6-32 Thread CAT. NO.	8-32 Thread CAT. NO.
1/4 (.250)	1921	1922	1923
3/8 (.375)	1921A	1922A	1923A
1/2 (.500)	1921B	1922B	1923B
3/4 (.750)	1921C	1922C	1923C
1 (1.000)	1921D	1922D	1923D
1 1/2 (1.500)	1921E	1922E	1923E
2 (2.000)	1921F	1922F	1923F

- 4-40 thread on 1/2" and over tapped 1/4" each end
- 6-32 & 8-32 thread on 1" and over tapped 3/8" each end

