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## HI-TORQUE LOCKING FASTENERS

### Applications and Installations

#### Hi-Torque Fasteners Offer A Number Of Advantages In A Wide Variety Of Styles

- Wear and corrosion resistant
- Magnetic carbon and stainless steel for strong threads and maximum life
- Simplified design
- No loose nuts, washers or lock pins
- Easy to install with ordinary tools

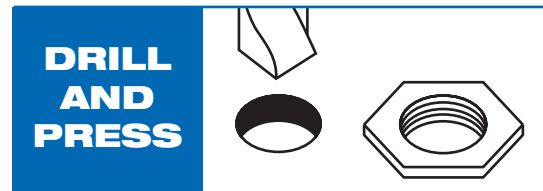
#### Hi-Torque Locking Fastener Applications Are Virtually Unlimited

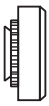

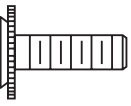

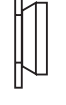
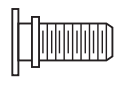
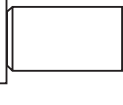
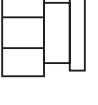
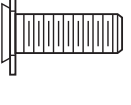
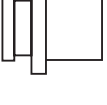
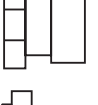

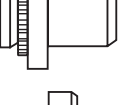


Their integral, captivated design speeds handling and assembly operations in a wide variety of applications in the electronic, instrument, aircraft and other industries. The ability of these fasteners to provide long-wearing stainless steel threads for aluminum, brass, mild steel, thermoplastic panels or chassis makes them ideal for fastening components, terminal boards, wire and cable harnesses, circuit boards, tube sockets and sub-

assemblies. Their extreme durability makes them a must where repeated fastening and unfastening takes place. The unified design of the Floating Nuts simplifies adjusting hole misalignments, particularly in difficult-to-reach places. Self-locking styles provide added resistance to vibration and shock in fastening applications.

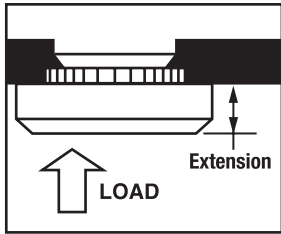
#### Installation

- No special tools or chassis preparations required
- Drilled or punched hole
- Insert into the prescribed size hole
- Press into place



STANDOFFS	NUTS	STUDS
 Miniature . . . . .93	 Flush Style I.....99	 Blind Press .....106
 Knurled . . . . .94-95	 Flush Style II.....100	 Flush .....107
 Flush . . . . .96	 Hex Extension.....101	 Concealed Head....108
 Reverse Flush . . . .97	 Round Extension...101	
 Blind . . . . .98	 Blind .....102-103	
	 Spline Press.....104	
	 Spline Press Extension.....105	

## MINIATURE STANDOFFS Hi-Torque Locking Fasteners



Superior fastening performance is provided by the miniature press nut through strong, permanent, wear-resistant threads for soft brass, aluminum, mild steel, or thermoplastic panels, part or chassis. Thread depth and load retention is made constant regardless of sheet material or thickness. Extension E provides additional threads for thin, brittle materials.

Threads provided are class 2B, MIL-S-7742 for materials of Rockwell hardness 70 or less (stainless steel nuts) and 85 or less (carbon steel nuts) for hole sizes .108 up to .150.

Typical retention forces are 150 lbs. push-out, and 25 inch lbs. torque-out in standard chassis aluminum.

Captive hardware facilitates easy one-side installing for assemblies in normally hard-to-reach places.

Steel Inserts: for use in low carbon steels that are 1/2 hard or softer and for stainless steel in the annealed condition.

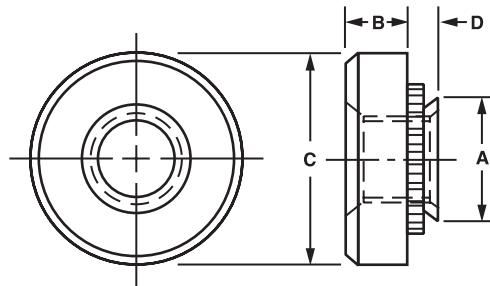
Stainless steel inserts: for use in most aluminums or in low carbon steels that are 1/4 hard or softer.

The Cadmium Plate Finish (7) for Carbon Steel and the Passivate Finish (12) for Stainless Steel is recommended.

Available Material (see page 275)	
S	Carbon Steel
SS	Stainless Steel

**ORDER EXAMPLE:**  
**66060 - SS - 12**

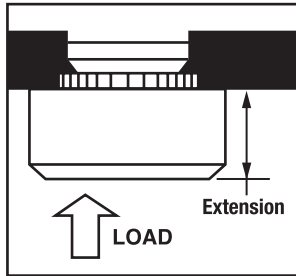
Basic Part Number: 66060  
 Material: See chart: SS  
 Finish: See page 277: 12



Tolerances (unless noted): Decimals ±.005, Frac ±1/64

Basic Part No.	Thread Size	D Max	Sheet Thickness	Hole Size in Sheet	A Max	C Dia	B Length
66060	0-80	.030	.032-.039	.109-.112	.108	11/64	3/64
66062	0-80	.038	.040-up				
66064	1-64	.030	.032-.039	.120-.123	.119	3/16	
66066	1-64	.038	.040-up				
66068	2-56	.030	.032-.039	.136-.139	.135	13/64	
66070	2-56	.038	.040-up				
66072	3-48	.030	.032-.039	.147-.150	.146	7/32	
66074	3-48	.038	.040-up				

## KNURLED STANDOFFS Hi-Torque Locking Fasteners



The Knurled Standoffs permit quick and neat fastening of components, terminal boards, brackets and sub-assemblies in hard-to-get at places without the need for nuts and wrenches, washers or lockpins.

Stainless steel inserts: for use in most aluminums or in low carbon steels that are 1/4 hard or softer.

Steel inserts: for use in low carbon steels that are 1/2 hard or softer and for stainless steel in the annealed condition.

Cadmium Plate Finish (7) for carbon steel and the Passivate Finish (12) for stainless steel is recommended.

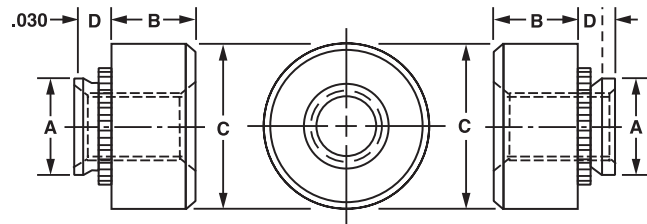
LOCKING FASTENERS

Available Material (see page 275)	
S	Carbon Steel
SS	Stainless Steel

**ORDER EXAMPLE:**

**66076 - SS - 12**

Basic Part Number: 66076      Material: SS      Finish: 12  
 See chart      See page 277

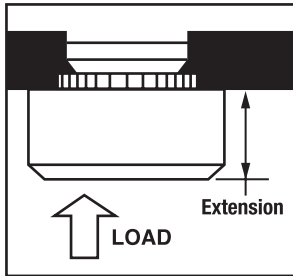


Part configuration for sheet thickness .032-.039

Undercut shape may vary.

Basic Part No.	Thread Size	D Max	Sheet Thickness	Hole Size in Sheet	A +.000 -.003	C Dia	B Length ± .010	Basic Part No.	Thread Size	D Max	Sheet Thickness	Hole Size in Sheet	A +.000 -.003	C Dia	B Length ± .010
66076	2-56	.030	.032-.039					66132	12-24	.038	.040-.055				
66078		.038	.040-.055					66134		.054	.056-.090				
66080		.054	.056-.090					66136		.087	.091-up				
66082		.087	.091-up					66138	.038	.040-.055					
66084	3-48	.030	.032-.039	.166	.165	1/4	.070	66140	12-28	.054	.056-.090	.277	.276	3/8	.130
66086		.038	.040-.055					66142		.087	.091-up				
66088		.054	.056-.090					66144		.054	.056-.090				
66090		.087	.091-up					66146	.087	.091-.124					
66092	4-40	.030	.032-.039					66148	1/4-20	.120	.125-up	.344	.343	7/16	.170
66094		.038	.040-.055					66150		.054	.056-.090				
66096		.054	.056-.090					66152		.087	.091-.124				
66098		.087	.091-up					66154	.120	.125-up					
66100	6-32	.030	.032-.039	.187	.187	9/32		66156	5/16-18	.054	.056-.090	.413	.411	1/2	.230
66102		.038	.040-.055					66158		.087	.091-.124				
66104		.054	.056-.090					66160		.120	.125-up				
66106		.087	.091-up					66162	.054	.056-.090					
66108	8-32	.030	.032-.039	.213	.212	5/16		66164	5/16-24	.087	.091-.124	.416	.498	9/16	.270
66110		.038	.040-.055					66166		.120	.125-up				
66112		.054	.056-.090					66168		.087	.091-.124				
66114		.087	.091-up					66170	.120	.125-.249					
66116	10-24	.030	.032-.039	.250	.249	11/32	.090	66172	3/8-16	.235	.250-up	.500	.498	9/16	.270
66118		.038	.040-.055					66174		.087	.091-.124				
66120		.054	.056-.090					66176		.120	.125-.249				
66122		.087	.091-up					66178	.235	.250-up					
66124	10-32	.030	.032-.039	.253				Tolerances (unless noted): Decimals ±.005, Frac ±1/64							
66126		.038	.040-.055												
66128		.054	.056-.090												
66130		.087	.091-up												

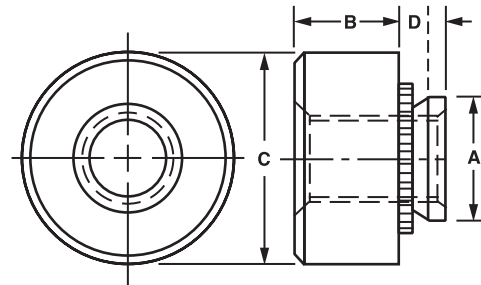
## KNURLED STANDOFFS Hi-Torque Locking Fasteners



This fastener provides durable threads for strong, uniform attachment at all points on panels and chassis of varying thickness and material. Extension E provides additional thread length for thin panel without restricting flush mounting at the panel front.

Knurled Standoffs permit quick and neat fastening of components, terminal boards, brackets and sub-assemblies in hard-to-reach places without the need for nuts and wrenches, washers or lockpins.

Available Material (see page 275)
Aluminum 2011 T3
<b>ORDER EXAMPLE:</b>
<b>66180 - 22</b>
Basic Part Number: 66180      Finish: 22 See page 277

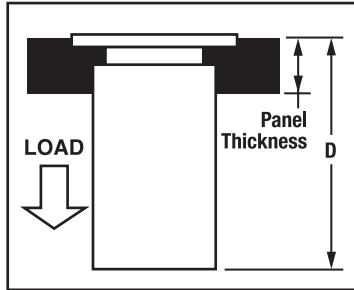


Undercut shape may vary.

Basic Part No.	Thread Size	D + .000 - .005	Sheet Thickness	Hole Size in Sheet	A + .000 - .003	C Dia	B Length ± .010	Basic Part No.	Thread Size	D + .000 - .005	Sheet Thickness	Hole Size in Sheet	A + .000 - .003	C Dia	B Length ± .010
66180	2-56	.038	.040 - .055	.166	.165	1/4	.070	66216	5/16-18	.054	.056 - .090	.413	.411	1/2	.230
66182		.054	.056 - up	.169				66218		.087	.091 - .124				
66184	4-40	.038	.040 - .055	.187	.187	9/32	.090	66220	5/16-24	.120	.125 - up	.416	.411	1/2	.230
66186		.054	.056 - up	.190				66222		.054	.056 - .090				
66188	6-32	.038	.040 - .055	.213	.212	5/16	.130	66224	3/8-16	.087	.091 - .124	.500	.498	9/16	.270
66190		.054	.056 - up	.216				66226		.120	.125 - up				
66192	8-32	.038	.040 - .055	.234	.233	3/8	.160	66228	3/8-24	.087	.091 - .124	.503	.498	9/16	.270
66194		.054	.056 - up	.237				66230		.120	.125 - .249				
66195	10-24	.038	.040 - .055	.296	.295	7/16	.170	66232	3/8-24	.235	.250 - up	.503	.498	9/16	.270
66196		.054	.056 - up	.299				66234		.087	.091 - .124				
66200	10-32	.038	.040 - .055	.296	.295	7/16	.170	66236	3/8-24	.120	.125 - .249	.503	.498	9/16	.270
66202		.054	.056 - up	.299				66238		.235	.250 - up				
66204	1/4-20	.054	.056 - .090	.344	.343	7/16	.170	Tolerances (unless noted): Decimals ±.005, Frac ±1/64							
66206		.087	.091 - .124	.347											
66208	.120	.125 - up													
66210	1/4-28	.054	.056 - .090												
66212		.087	.091 - .124												
66214		.120	.125 - up												

## FLUSH STANDOFFS

### Hi-Torque Locking Fasteners - Blind or Tapped Through



These fasteners have an extended section which provides additional securing thread length and also serves as a threaded standoff spacer for mounting panels or brackets to a chassis.

These blind-thread-seal press nuts protect against oil and moisture penetration without the need for sealing washers. Thru-threaded units permit two-ended mounting; extension on one end, flush-to-panel on the other.

Corrosion-proof stainless steel and light-weight aluminum press nuts provide non-magnetic hardware for mounting components and sub-assemblies in hard-to-reach places, without the need for nuts, wrenches, washers, or other extraneous hardware.

The reversed blind standoff is excellent for outdoor use, because it protects against climatic elements.

Maximum recommended panel hardness: Type NC nuts, Rockwell B-70, Type NA nuts, Rockwell B-60. Threads: Class 2B, MIL-S-7742.

Aluminum inserts: for use in grades of aluminum that are non-heat treatable or that have an O or H temper.

Stainless steel inserts: for use in most aluminums or in low carbon steels that are 1/4 hard or softer.

LOCKING FASTENERS

Material		Finish
A	Aluminum 7075-T6	None (1)
SS	300 Stainless Steel	Passivate (12)

**ORDER EXAMPLE:**

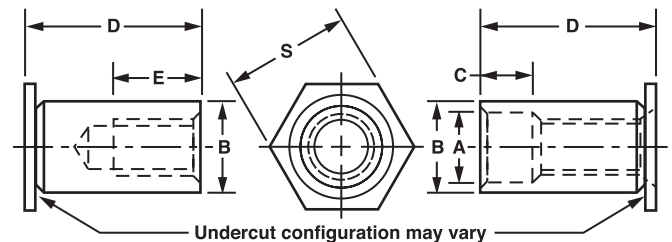
**66264 - 4 - SS - 12**

Basic Part Number: 66264  
 Length in 32nds: 4  
 Material: SS (See chart)  
 Finish: 12 (See page 277)

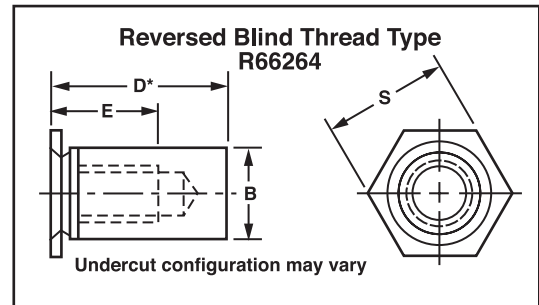
To reverse thread for Blind Standoffs 8 and up, add prefix R to part number. EXAMPLE: R-66264-8-SS-12

Blind Thread Type 66264

Through Thread Type 66276



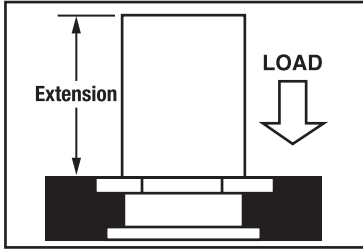
Blind Thread Part No.	Through Thread Part No.	Thread Size	B +.000 -.005	S	A Dia	Hole Size in Sheet
66264	66276	4-40	.165	3/16	.125	.166-.169
66266	66278	4-40	.212	1/4	.125	.213-.216
66268	66280	6-32	.212	1/4	.156	.213-.216
66270	66282	6-32	.280	5/16	.156	.281-.284
66272	66284	8-32	.280	5/16	.188	.281-.284
66274	66286	10-32	.280	5/16	.203	.281-.284



\*D dimension in 32nds  
 Recommended Use:  
 4-40 & 6-32 IN SHEET .040-UP  
 8-32 & 10-32 IN SHEET .050-UP

D = Length in 32nds	-4	-6	-8	-10	-12	-14	-16	-18	-20	-22	-24	-26	-28	-30	-32	-34
D = Length in Inches	1/8	3/16	1/4	5/16	3/8	7/16	1/2	9/16	5/8	11/16	3/4	13/16	7/8	15/16	1	1-1/16
C = Counterbore Depth	None				3/16			5/16			7/16					
E = Min Thread Depth	5/64	1/8	5/32		3/16	1/4 DP 16 - 20			3/8 DP 22 - 32							

## REVERSE FLUSH STANDOFFS Hi-Torque Locking Fasteners - Stainless Steel

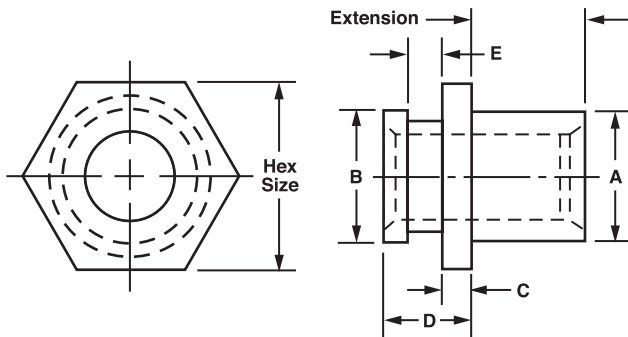


The round extension nuts are designed for standoff applications. These nuts have a round extension on the hex side which provides extra threads beyond the panel surface.

Stainless Steel Inserts: for use in most aluminums or in low carbon steels that are 1/4 hard or softer.

Passivate Finish (12) for Stainless Steel is recommended.

Extension Lengths beyond 3/8 available. Contact ASM for price and delivery.



**ORDER EXAMPLE:**

**66288 - 4 - .062 - 12**

Basic Part Number	Extension Length in 32nds: See chart	Panel Thickness: See chart	Finish: See page 277
-------------------------	---	----------------------------------	----------------------------

Extension Length in 32nds	
1 = 1/32	5 = 5/32
2 = 1/16	6 = 3/16
3 = 3/32	7 = 7/32
4 = 1/8	8 = 1/4

**CLEAR HOLE STANDOFFS**

Available ID and Appropriate Code	
ID <sup>+0.004</sup> / <sub>-0.003</sub>	Code Letter
.093	A
.116	B
.140	C
.171	D
.196	E

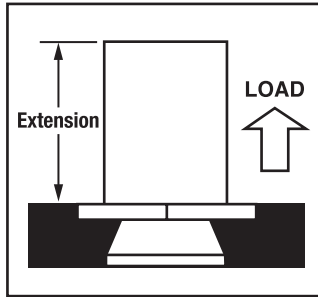
Prefix letter code to part number.  
**EXAMPLE: A66288-4-SS-062-12**  
 .093 - ID

Part Number	Thread	Mounting Hole $\pm .002$	B Diameter $\pm .002$	A Diameter $\pm .005$	Hex Size	Panel Thickness
66288	2-56	.161	.157	.156	3/16	See Chart 1
66290		.203	.199	.203	1/4	
66292	4-40	.161	.157	.156	3/16	
66294		.203	.199	.203	1/4	
66296	6-32	.203	.199	.218	1/4	
66298		.265	.261	.250	5/16	
66300	8-32	.265	.261	.250	5/16	
66302	10-32			.281		
66304	1/4-20	.386	.382	.344	7/16	See Chart 2
66306	1/4-28					

	Panel Thickness	D $\pm .004$	C $\pm .003$	E $\pm .003$
CHART 1	.040	.038	.012	.018
	1/16 (.062)	.058	.019	.029
	3/32 (.093)	.085	.029	.043
	1/8 (.125)	.117		
	5/32 (.156)	.147		
3/16 (.187)	.177			
CHART 2	1/8 (.125)	.117	.029	.043
	5/32 (.156)	.147		
	3/16 (.187)	.177		
	1/4 (.250)	.236		
	5/16 (.312)	.296		

## BLIND STANDOFFS

### Hi-Torque Locking Fasteners - Stainless Steel Type 303



The blind standoff is recommended for use in blind-hole applications such as plates, castings and behind front panels. This non-magnetic stainless steel standoff locks into aluminum, mild steel, soft brass and other materials of Rockwell Hardness RB 70

or less. Typical holding specifications for a type 66312 unit in standard chassis aluminum 5052 H34 are 150 lbs. pull-out, 30 lbs. torque-out; and for a type 66326 - unit are 200 lbs. pull-out and 40 lbs. torque-out. In addition to permitting mar-free panel surface, these standoffs present an inherent seal against external contaminants

such as dirt, oil and moisture. For DIRECT Stud mounting with inherent seal, use Blind Head Press Stud.

These are designed to provide permanent threads in blind hole applications such as front panels, plates and castings having a Rockwell hardness of RB 70 or less.

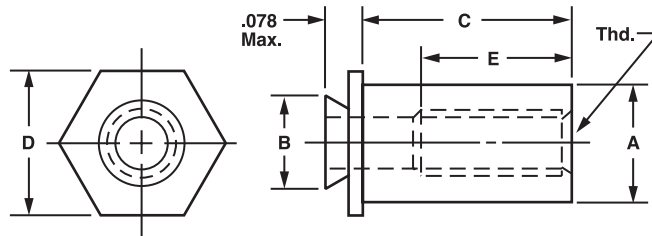
The Standoffs are available in thread sizes from 4-40 NC2B – 1/4-20 NC2B and lengths that are listed in the table.

This blind head standoff is easily fastened to the panel by placing it in a counterbored hole and pressing using an arbor press or other steady pressure device.

**ORDER EXAMPLE:**

**66312 - SS - 12**

Basic Part Number: 66312  
 Material: SS (See chart)  
 Finish: 12 (See page 277)



Part Number	Thread	C Length +.002 -.005	B Max	D Hex Size ± .005	A Max	E Full Thd Min Dpth	Mounting Hole
66312	4-40	3/16	.212	1/4	.165	3/16	.213-.216
66314		1/4					
66316		5/16					
66318	6-32	1/4	.289	5/16	.213	1/4	.290-.293
66320		5/16					
66322		3/8					
66324		1/2					
66326	8-32	5/16	.311	11/32	.245	1/4	.312-.315
66328		3/8					
66330		1/2					
66332	10-24	3/8	.343	3/8	.290	3/8	.344-.347
66334		1/2					
66336		5/8					
66338	10-32	3/8	.343	3/8	.290	3/8	.344-.347
66340		1/2					
66342		5/8					
66344	1/4-20	5/8	.389	7/16	.354	3/8	.390-.393
66346		3/4					
66348		1					

Typical pull-out values in aluminum 5052 H34 are:

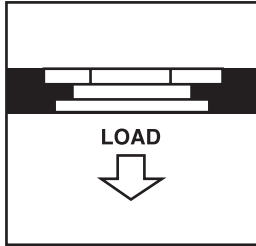
Thread	Pull-out	Torque-Out
4-40 thread	150#	30"#
8-32 thread	200#	40"#

Stainless steel inserts\*: for use in most aluminums or in low carbon steels that are 1/4 hard or softer.

Tolerances (unless noted):  
 Decimals +.005, Frac. +1/64

\*The Passivate Finish (12) for stainless steel is recommended.

## FLUSH NUT STYLE I Hi-Torque Locking Fasteners - Stainless Steel



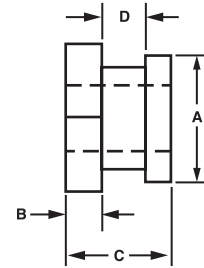
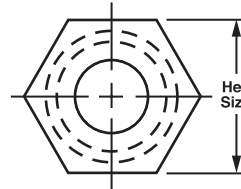
Hi-Torque Locking Fasteners are simply pressed into place in a drilled or punched hole, using an arbor press, hydraulic press, or other steady-pressure tool. Cold flow of panel material into channel grooves and knurls provides permanent push, pull and torque-resistant installation.

Flush Nut Style I non-magnetic stainless steel Hi-Torque Locking Fasteners fit flush on both surfaces of panel, replacing tapped holes, providing both the strength and wear resistance of a nut.

Stainless steel inserts\*: for use in most aluminums or in low carbon steels that are 1/4 hard or softer.

**ORDER EXAMPLE:**  
**66000 - .062 - 12**

Basic Part Number: 66000  
 Panel Thickness: .062 (See chart)  
 Finish: 12 (See page 277)



Part Number	Thread	Mounting Hole ± .002	Panel Thickness	A Dia ± .002	Hex Size
66000	2-56	.161	See Chart 1	.157	3/16
66002		.203		.199	1/4
66004	4-40	.161		.157	3/16
66006		.203		.199	1/4
66008	6-32	.203		.199	1/4
66010		.265		.261	5/16
66012	8-32	.265		.261	5/16
66014	10-32				
66016	1/4-20	.386	See Chart 2	.382	7/16
66018	1/4-28				

	Panel Thickness	C Dim ± .004	B Dim ± .003	D Dim ± .003
CHART 1	.040	.038	.012	.018
	1/16 (.062)	.058	.019	.029
	3/32 (.093)	.085	.029	.043
	1/8 (.125)	.117		
	5/32 (.156)	.147		
3/16 (.187)	.177			
CHART 2	1/8 (.125)	.117	.029	.043
	5/32 (.156)	.147		
	3/16 (.187)	.177		
	1/4 (.250)	.236		
	5/16 (.312)	.296		

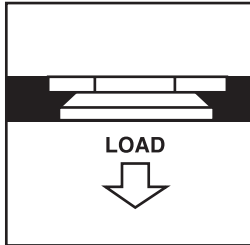
### TECH TIP

Parts go through a 5-stage cleaning process before plating.

\* The Passivate Finish (12) for Stainless Steel is recommended.

## FLUSH NUT STYLE II

### Hi-Torque Locking Fasteners - Stainless Steel



Flush Nut Style II non-magnetic stainless steel are recommended for use where mounting hardware protrusion above either mounting surface cannot be permitted.

Convenient hardware for mounting in hard-to reach places, Flush Nut Style II nuts provide hard, durable threads of Class 2B, MIL -S -7742 for soft brass, aluminum, mild steel or thermoplastic panels, parts or chassis of .061 sheet thickness or larger, where additional threads provided in extension type nut is not required. They eliminate the need for wrenches and nuts, washers and lockpins.

Typical retention values for 66024 nut in alloy 5052 H39 aluminum are 200 lbs. push-out, and 25-inch lbs. torque-out.

Maximum recommended panel hardness is: Rockwell B-70.

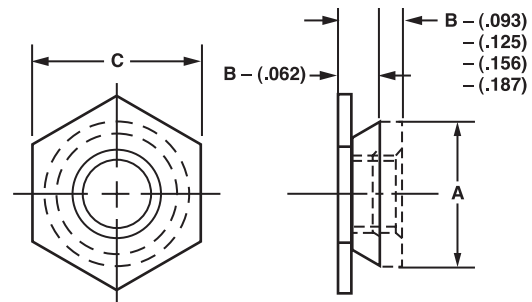
Stainless steel inserts: for use in most aluminums or in low carbon steels that are 1/4 hard or softer.

Tolerances (unless noted): Decimals  $\pm .005$ , Frac.  $\pm 1/64$

**ORDER EXAMPLE:**

**66024 - 12**

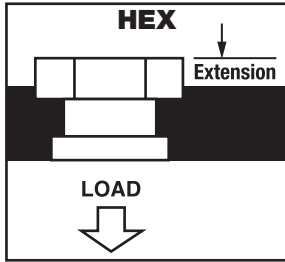
Basic Part Number: 66024  
 Finish: 12 (See page 277)



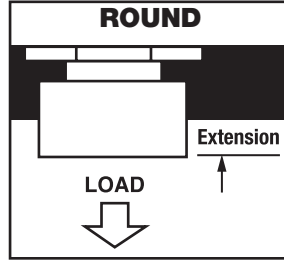
Undercut shape may vary.

Basic Part Number	Thread	B Max	Sheet Thickness	Mounting Hole	A		Hex Size-C
					+ .000	- .003	
66024	2-56	.060	.061-.090	.172	.171	3/16	
66026		.090	.091- up	.175			
66028	4-40	.060	.061-.090	.172	.212	1/4	
66030		.090	.091- up	.175			
66032	6-32	.060	.061-.090	.213	.289	5/16	
66034		.090	.091- up	.215			
66036	8-32	.060	.061-.090	.290	.311	11/32	
66038		.090	.091- up	.295			
66040	10-24	.060	.061-.090	.312	.343	3/8	
66042		.090	.091- up	.315			
66044	10-32	.060	.061-.090	.312	.343	3/8	
66046		.090	.091- up	.315			
66048	1/4-20	.120	.125-.155	.344	.343	3/8	
66050		.151	.156-.186	.344			
66052		.182	.187- up	.347			
66054	1/4-28	.120	.125-.155	.344	.343	3/8	
66056		.151	.156-.186	.344			
66058		.182	.187- up	.347			

## EXTENSION NUTS Hi-Torque Locking Fasteners - Stainless Steel



Hex Extensions Nuts are dimensionally the same as Flush style except for extension beyond the panel surface on the hex side. Recommended for thin panels as extension provides additional threads. Extension may be used as a spacer or standoff for mounting panels or brackets to chassis.



Round Extension Nuts are dimensionally similar to FL and Hex styles except that the nut opposite the hex is extended beyond the panel surface. Provides additional threads in thin panels and may be used as a standoff mounting.

Stainless steel inserts: for use in most aluminums or in low carbon steels that are 1/4 hard or softer.

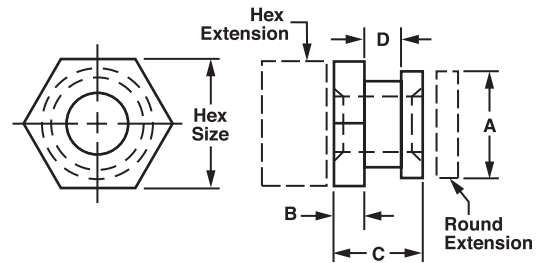
**ORDER EXAMPLE:**

**66240 - H - .062 - 2 - 12**

Basic Part Number	Hex (H), Round (R) or Square (S)	Panel Thickness: See chart	Optional Extension Length in 32nds: See note & chart	Finish: See page 277
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Dimensions are for flush type nuts. To convert to dimensions of Hex or Round styles, add extension lengths to C dimension.

Extension Length in 32nds*
1 = 1/32
2 = 1/16
3 = 3/32
4 = 1/8
5 = 5/32
6 = 3/16
7 = 7/32
8 = 1/4



Part Number	Thread	Mount Hole $\pm .002$	A Dia $\pm .002$	Hex Size	Panel Thickness
66240	2-56	.161	.157	3/16	See Chart 1
66242		.203	.199	1/4	
66244	4-40	.161	.157	3/16	
66246		.203	.199	1/4	
66248	6-32	.203	.199	1/4	
66250		.265	.261	5/16	
66252	8-32	.265	.261	5/16	See Chart 2
66254	10-32				
66256	1/4-20	.386	.382	7/16	
66258	1/4-28				

	Panel Thickness	C Dim $\pm .004$	B Dim $\pm .003$	D Dim $\pm .003$
CHART 1	.040	.038	.012	.018
	1/16 (.062)	.058	.019	.029
	3/32 (.093)	.085	.029	.043
	1/8 (.125)	.117		
	5/32 (.156)	.147		
3/16 (.187)	.177	.029	.043	
CHART 2	1/8 (.125)			.117
	5/32 (.156)			.147
	3/16 (.187)			.177
	1/4 (.250)			.236
5/16 (.312)	.296			

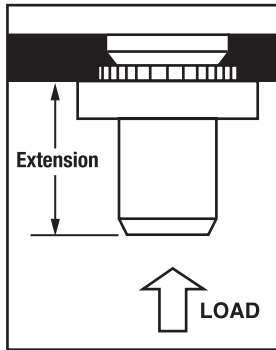
## TECH TIP

**Captive screw assemblies can be supplied with a variety of different flat and captive washers.**

\*Extension lengths beyond 3/8 available. Check factory for price and delivery.

## BLIND NUTS

### Hi-Torque Locking Fasteners - Stainless Steel - Carbon Steel



This non-magnetic stainless steel fastener is ideal for use in assemblies requiring a moisture seal and in corrosive atmospheres. It presents an inherent seal against entrance of dirt, oils and moisture, which cannot be supplied by nut and screw type hardware without elaborate seals and a time-consuming assembly procedure.

The fastener also provides the usual mounting capability for tight or normally inaccessible places. Extension E provides additional thread length for thin panels.

Our Extension Stainless Steel precision blind press nuts will provide strong threads of class 2B MIL-S-7742 for use in aluminum, mild steel and other materials of Rockwell Hardness 70 or less.

Typical push-out and torque-out maximums for a 66356-040-12 nut in standard chassis aluminum are 170 lbs., and 20 inch lbs. respectively.

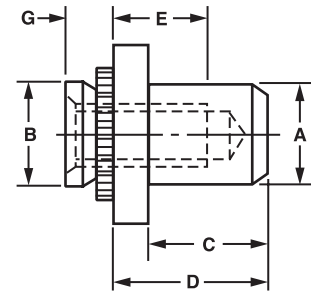
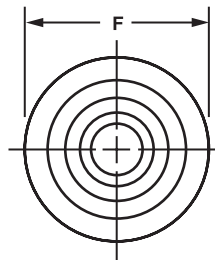
Steel inserts\*\*: for use in low carbon steels that are 1/2 hard or softer and for stainless steel in the annealed condition.

Stainless steel inserts\*\*: for use in most aluminums or in low carbon steels that are 1/4 hard or softer.

**ORDER EXAMPLE:**  
**66344 - .040 - 12**

Basic Part Number	Panel Thickness	Finish: See page 277
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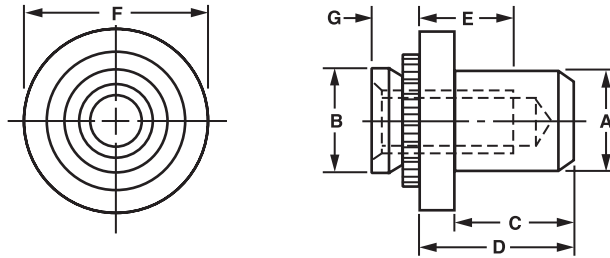
See page 103 for part numbers and dimension info.



## TECH TIP

**Our new in-house passivation process, certified to QQP35C-AMS2700B-MIL F 14072D, further improves our lead times.**

## BLIND NUTS Hi-Torque Locking Fasteners



### Stainless Steel

Basic Part Number	Thread	G Max	Sheet Thickness	Hole Size	B Max	F ± .010	A Max	D ± .010	C Max	E
66344 - 040	4-40	.038	.040-.055	.166	.165	1/4	.149	.38	.335	3/16
66346 - 056		.054	.056-.090	.169						
66348 - 091		.087	.091- up							
66350 - 040	6-32	.038	.040-.055	.187	.186	9/32	.169	.38	.335	3/16
66352 - 056		.054	.056-.090	.190						
66354 - 091		.087	.091- up							
66356 - 040	8-32	.038	.040-.055	.213	.212	5/16	.204	.44	.385	1/4
66358 - 056		.054	.056-.090	.216						
66360 - 091		.087	.091- up							
66362 - 040	10-24	.038	.040-.055	.250	.249	11/32	.235	.44	.385	1/4
66364 - 056		.054	.056-.090	.253						
66366 - 091		.087	.091- up							
66368 - 040	10-32	.038	.040-.055	.250	.249	11/32	.235	.44	.385	1/4
66370 - 056		.054	.056-.090	.253						
66372 - 091		.087	.091- up							
66374 - 056	1/4-20	.054	.056-.090	.344	.342	7/16	.305	.56	.500	5/16
66376 - 091		.087	.091-.124	.347						
66378 - 125		.120	.125- up							

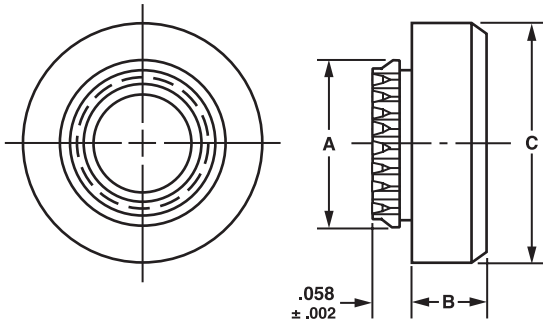
### Carbon Steel

Basic Part Number	Thread	G Max	Sheet Thickness	Hole Size	B Max	F ± .010	A Max	D ± .010	C Max	E
66380 - 040	4-40	.038	.040-.055	.166	.165	1/4	.149	.38	.335	3/16
66382 - 056		.054	.056-.090	.169						
66384 - 091		.087	.091- up							
66386 - 040	6-32	.038	.040-.055	.187	.186	9/32	.169	.38	.335	3/16
66380 - 056		.054	.056-.090	.190						
66390 - 091		.087	.091- up							
66392 - 040	8-32	.038	.040-.055	.213	.212	5/16	.204	.44	.385	1/4
66394 - 056		.054	.056-.090	.216						
66396 - 091		.087	.091- up							
66398 - 040	10-24	.038	.040-.055	.250	.249	11/32	.235	.44	.385	1/4
66400 - 056		.054	.056-.090	.253						
66402 - 091		.087	.091- up							
66404 - 040	10-32	.038	.040-.055	.250	.249	11/32	.235	.44	.385	1/4
66406 - 056		.054	.056-.090	.253						
66408 - 091		.087	.091- up							
66410 - 056	1/4-20	.054	.056-.090	.344	.342	7/16	.305	.56	.500	5/16
66412 - 091		.087	.091-.124	.347						
66414 - 125		.120	.125- up							

Tolerances (unless noted): Decimals ± .005, Frac. ± 1/64

## PRESS NUT-SPLINE

### Hi-Torque Locking Fasteners - Carbon Steel, Stainless Steel



Spline-Type press nuts (carbon-steel and non-magnetic stainless-steel) are designed to provide wear resistant, strong threads of class 2B MIL-S-7742 for plastic and non-ductile materials such as glass-composite boards, epoxies, polycarbonates, nylon and paper as well as for aluminum and zinc castings.

The torque resisting splines literally cut their way down into the mounting material, biting in for torque resistance and providing a holding collar against pull-out forces.

Push-out and torque-out values for a 66490 press nut in glass epoxy laminate are 100 lbs., and 20 inch lbs. respectively.

Steel inserts: for use in low carbon steels that are 1/2 hard or softer and for stainless steel in the annealed condition.

Stainless steel inserts: for use in most aluminums or in low carbon steels that are 1/4 hard or softer.

The Cadmium Plate Finish (7) for Carbon Steel and the Passivate Finish (12) for Stainless Steel is recommended.

Parts designed for material thickness .060 and up.

LOCKING FASTENERS

Available Material (see page 275)	
S	Carbon Steel
SS	Stainless Steel

Part Number	Thread	B	C Stock	A ±.003	Hole Size in Sheet
66472	2-56	1/16	7/32	.165	.146-.150
66474	3-48		15/64	.177	.158-.162
66476	4-40		7/32	.184	.166-.170
66478	6-32		9/32	.231	.213-.217
66480	8-32	3/32	11/32	.268	.250-.254
66482	10-24	1/8	3/8	.290	.272-.276
66484	10-32				
66486	1/4-20	15/64	7/16	.346	.328-.332

**ORDER EXAMPLE:**

**66472 - SS - 12**

Basic Part Number      Material: See chart      Finish: See page 277

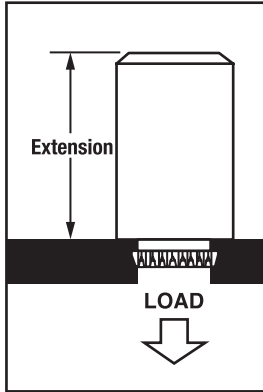


## TECH TIP

The specially engineered spline bevels minimize destructive compression forces normally developed on entry, which can fracture non-ductile brittle materials.

## SPLINE PRESS EXTENSION NUT

### Hi-Torque Locking Fasteners - Carbon Steel, Stainless Steel



Spline Press Extension Nuts are made of case-hardened carbon steel and non-magnetic stainless steel.

The torque resisting splines literally cut their way down into the mounting material, biting in for torque resistance and providing a holding collar against pull-out forces. The specially engineered spline levels minimize destructive compression forces normally encountered on entry,

which can fracture non-ductile substrate materials. The extension enables the user to space brackets and other associated hardware away from the chassis housing.

Typical push-out, and torque-out values in glass epoxy laminate are 100 lbs., and 20 inch lbs. respectively.

**Steel inserts\*:** for use in low carbon steels that are 1/2 hard or softer and for stainless steel in the annealed condition.

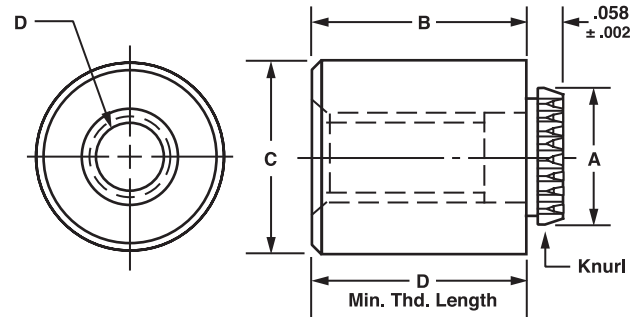
**Stainless steel inserts\*:** for use in most aluminums or in low carbon steels that are 1/4 hard or softer.

Available Material (see page 275)	
S	Carbon Steel
SS	Stainless Steel

**ORDER EXAMPLE:**

**66488 - SS - 16 - 12**

Basic Part Number	Material: See chart	Extension Length in 32nds: See chart	Finish: See page 277
-------------------	---------------------	--------------------------------------	----------------------



Part Number	D		C Stock	A ± .003	Mounting Hole Size
	Thread	Hole Size +.004 -.003			
66488	4-40	-	7/32	.184	.166-.170
66490	6-32	-	9/32	.231	.213-.217
66492	-	.116	7/32	.184	.166-.170
66494	-	.143	9/32	.231	.213-.217

B Length in 32nds	4	8	12	16	20	24	28	32
Length in inches	.125	.250	.375	.500	.625	.750	.875	1.00
D Minimum Thread Length	Tapped Thru			3/8 ± 1/64				

## TECH TIP

**Spline press extension nuts are designed for use in thin metal panels and brittle plastic parts where tapped holes are not satisfactory.**

\*The Cadmium Plate Finish (7) for Carbon Steel and the Passivate Finish (12) for Stainless Steel is recommended.

## BLIND PRESS STUD Hi-Torque Locking Fasteners

LOCKING FASTENERS

Type BSTK Press Studs are designed for fully-seated-knurl installation in .093 or thicker stock, to provide consistently superior torque and pull-out resistance. They are mounted in blind holes in panels, plates and castings of aluminum, soft brass, mild steel or thermoplastic panels and other materials of Rockwell Hardness B70 or less, (stainless); B50 (aluminum).

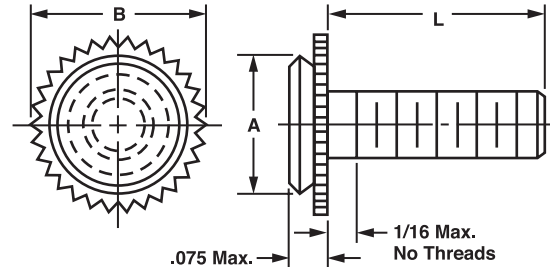
lightweight and can be anodized with the panel after assembly, eliminating the potential for scratching the front panel. For highly corrosive, and salt-spray environments, we recommend the use of stainless studs.

This fastener type is ideally suited for front panel work where no hardware can be visible. Aluminum studs are

Typical pull-out and torque-out maximum values for stainless steel stud in standard chassis aluminum are 100 lbs., 40 inch lbs., respectively.

All threads are Class 2A, MIL-S-7742.

Available Material (see page 275)	
A	Aluminum
SS	Stainless Steel



**ORDER EXAMPLE:**

**66568 - SS - 20 - 12**

Basic Part Number	Material: See chart	Extension Length in 32nds: See chart	Finish: See page 277
-------------------	---------------------	--------------------------------------	----------------------

Part Number	Thread	A Max	Mtg Hole Counterbore Dia	B Stock Size
66568	4-40	.171	.172-.175	13/64
66570	6-32	.212	.213-.216	1/4
66572	8-32	.289	.290-.293	21/64

L Dimension in 32nds*		
6 = 3/16	12 = 3/8	20 = 5/8
8 = 1/4	14 = 7/16	24 = 3/4
10 = 5/16	18 = 9/16	32 = 1

\*Other lengths available. Consult factory for price and delivery.

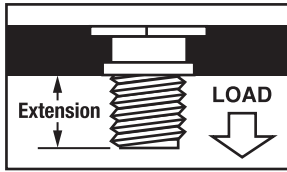
Thread Size	L Length in 32nds							
	1/4	3/8	1/2	5/8	3/4	1	1-1/4	1-1/2
4-40								
6-32	-8	-12	-16	-20	-24			
8-32								

Recommended Finishes	
Passivate (12)	Stainless Steel
None (1)	Aluminum

**INSTALLATION NOTE:** Minimum panel thickness .093  
 Counterbore flat bottom hole to depth .080 +.005 /-.000. Tolerances (unless noted): Decimals ± .005, Frac. ± 1/64.

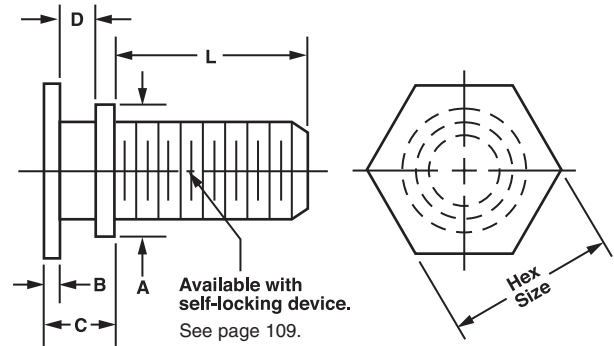
## FLUSH STUD

### Hi-Torque Locking Fasteners - Stainless Steel, Passivate Finish



These style studs provide mounting studs in soft materials, without any projection beyond the outside surface. With stud locked in panel, assembly of other parts

is easier and faster. Hex, major and minor diameters same as flush style.



#### ORDER EXAMPLE:

**66548 - .062 - 6 - 12**

Basic Part Number: 66548  
 Panel Thickness: .062 (See chart)  
 Extension Length in 32nds: 6 (See chart)  
 Finish: 12 (See page 277)

#### L Dimension in 32nds\*

6 = 3/16	12 = 3/8	20 = 5/8
8 = 1/4	14 = 7/16	24 = 3/4
10 = 5/16	18 = 9/16	32 = 1

\*Other lengths available. Consult factory for price and delivery.

Part Number	Thread	Mounting Hole ± .002	A Dia ± .002	Hex Size	Panel Thickness
66548	2-56	.161	.157	3/16	See Chart 1
66550		.203	.199	1/4	
66552	4-40	.161	.157	3/16	
66554		.203	.199	1/4	
66556	6-32	.203	.199	1/4	
66558		.265	.261	5/16	
66560	8-32	.265	.261	5/16	
66562	10-32				
66564	1/4-20	.386	.382	7/16	See Chart 2
66566	1/4-28				

	Panel Thickness	C ± .004	B ± .003	D ± .003
CHART 1	.040	.038	.012	.018
	1/16 (.062)	.058	.019	.029
	3/32 (.093)	.085	.029	.043
	1/8 (.125)	.117		
	5/32 (.156)	.147		
	3/16 (.187)	.177		
CHART 2	1/4 (.250)	.236	.029	.043
	1/8 (.125)	.117		
	5/32 (.156)	.147		
	3/16 (.187)	.177		
	1/4 (.250)	.236		
5/16 (.312)	.296			



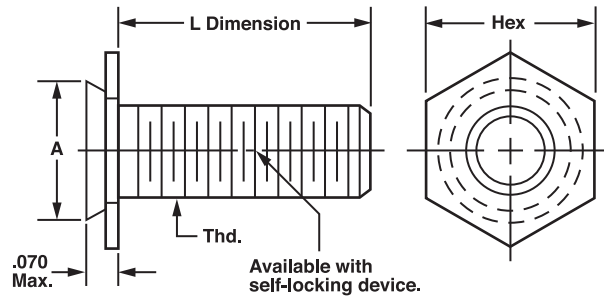
## TECH TIP

Visit [www accuratescrew.com](http://www accuratescrew.com)  
 for more Tech Tips!

## CONCEALED HEAD STUD Hi-Torque Locking Fasteners

These concealed head studs are designed for permanent installation in "blind holes". Studs are made of corrosion resistant stainless steel and are designed with a hex head that provides permanent installation in panels, chassis and aluminum die castings.

No special tooling is required. Quick and easy installation is achieved by pressing the concealed head stud into place in a counterbored hole with an arbor press or other pressure device. Cold flow of the displaced panel material captivates and locks the stud into place securely and positively. Parts are available in lengths of 1/4" up, thread sizes are from 4-40 to 5/16-18. All threads Class 2A.



LOCKING FASTENERS

### ORDER EXAMPLE:

**66580 - SS - 20 - 12**

Basic Part Number

Material: See chart

Stud Length in 32nds: See chart

Finish: See page 277

#### Available Material (see page 275)

S	Carbon Steel
SS	Stainless Steel

#### Recommended Finishes

Carbon Steel	Cadmium (7)
Stainless Steel	Passivate (12)

#### L Dimension in 32nds

Part Number	Thread	1/4	3/8	1/2	5/8	3/4	1	1-1/4	1-1/2	Mounting Hole Dia ± .003	A Dia Max	Hex Size
66580	4-40	-8	-12	-16	-20	-24	-32	-40	-48	.172	.171	3/16
66582	6-32									.213	.212	1/4
66584	8-32									.290	.289	5/16
66586	10-24									.312	.311	11/32
66588	10-32									.312	.311	11/32
66590	1/4-20									.344	.343	3/8



## TECH TIP

**Concealed head studs are designed for permanent installation in "blind holes".**

**NOTES:** The Cadmium Plate Finish (7) for Carbon Steel and the Passivate Finish (12) for Stainless Steel is recommended.  
 Minimum panel thickness 3/32"  
 Depth of counterbore in panel .080 +.005