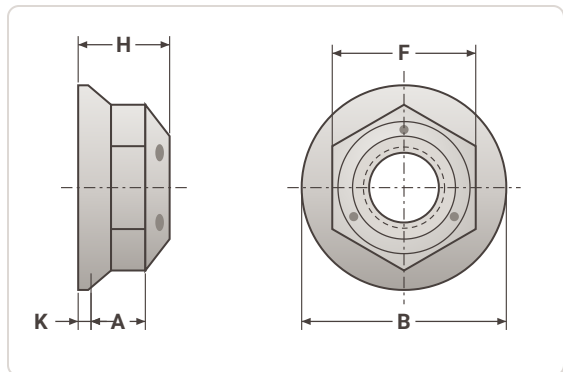




PRODUCT DATA SHEET

Grade 8 (G) Flange Torque (Stover) Lock Nuts

1.0 Dimensions As per IFI-100/107 (inches)



- **Also known as:** flange Stover nuts, flange top lock nuts or flange lock nuts.
- **Specification:** IFI-100/107 Grade G – the Grade 8 strength level (ASME B18.16.6 all-metal hex flange locknut).
- **Built-in washer:** the wide flange spreads the clamp load and replaces a separate washer. Often used with Grade 8 hex flange (frame) bolts.
- **F = across flats B = flange dia. H = overall thickness A = hex height K = flange thickness**
- **Stocked in:** black phosphate & oil, UNC (coarse) 1/4"–3/4" and UNF (fine) 1/2"–3/4".

Nominal Size	F – Width Across Flats			B – Flange Dia. Max	H – Overall Thickness		A – Hex Height Min	K – Flange Thick. Min	Stocked Thread Series
	Basic	Max	Min		Max	Min			
1/4	7/16	0.4385	0.428	0.560	0.300	0.265	0.140	0.040	UNC
5/16	1/2	0.5020	0.489	0.680	0.365	0.320	0.170	0.050	UNC
3/8	9/16	0.5645	0.551	0.810	0.425	0.404	0.200	0.060	UNC
7/16	11/16	0.6895	0.675	0.930	0.495	0.457	0.230	0.070	UNC
1/2	3/4	0.7520	0.736	1.070	0.555	0.528	0.260	0.080	UNC / UNF
5/8	15/16	0.9395	0.922	1.330	0.690	0.646	0.320	0.100	UNC / UNF
3/4	1-1/8	1.1270	1.088	1.585	0.825	0.742	0.380	0.110	UNC / UNF

Dimensions in inches. Sizes without a stocked thread series are available on request – call or email for pricing.



2.0 Material & Mechanical Properties

Property	Grade 8 (G) Flange Prevailing Torque Lock Nut
Material	Medium carbon steel, heat treated (quenched and tempered)
Specification	IFI-100/107 Grade G ASME B18.16.6 (all-metal prevailing torque hex flange nuts)
Proof load stress	150,000 psi (all sizes)
Hardness	1/4" – 5/8": Rockwell C24 to C32 3/4": Rockwell C26 to C34
Use with bolts of	Minimum tensile strength 120,000 to 150,000 psi (e.g. SAE J429 Grade 8 and Grade 5)
Locking element	All-metal – distorted (crimped) top threads
Thread class of fit	2B (UNC / UNF)

APPLICATION NOTES

- All-metal design: no nylon insert, so these nuts can be used where heat would damage a nylon insert lock nut – manufacturers rate them to about 450°F (232°C).
- Install with the flange against the work. The nut spins on freely by hand until it reaches the crimped threads, then must be wrenched to position.
- At least 2 full threads of the bolt should extend past the top of the nut so the locking threads are fully engaged.
- The flange gives a larger bearing surface and lower bearing stress than a plain hex nut, so a separate flat washer is usually not needed.
- Prevailing torque drops with each reuse. For critical joints, replace the nut rather than reusing it.

3.0 Surface Finish Black Phosphate & Oil

Properties	Black Phosphate & Oil
Coating	Phosphate conversion coating
Supplementary finish	Oil – gives light corrosion protection and helps the nut tighten consistently
Color	Black / dark grey
Corrosion resistance	Light – meant for indoor or protected use, or where the part will be painted

Disclaimer: The above is a compilation of data from various industry standards. The Nutty Company, Inc. has made every effort to present the data accurately. However, The Nutty Company, Inc. cannot be held liable for any claim traceable to any errors, typographical or otherwise, contained herein.



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