



SERRATED HEX FLANGE LOCK NUTS

ASME B18.16.4-2008

| Nominal Size or Basic Major Diameter of Thread | F | | G | | B | | H | | K | J | |
|--|--------------------|-------|-------------------------|-------|-----------------|-------|---------------|-------|---------------------|---------------------|------|
| | Width Across Flats | | Width Across Corners | | Flange Diameter | | Nut Thickness | | Wrenching Height | Flange Thickness | |
| | Max | Min | Max | Min | Max | Min | Max | Min | Min | Min | |
| 4 | 0.1120 | 0.250 | 0.241 | 0.289 | 0.275 | 0.386 | 0.370 | 0.160 | 0.147 | - | 0.02 |
| 6 | 0.1380 | 0.312 | 0.302 | 0.361 | 0.342 | 0.422 | 0.406 | 0.171 | 0.156 | 0.10 | 0.02 |
| 8 | 0.1640 | 0.344 | 0.334 | 0.397 | 0.381 | 0.469 | 0.452 | 0.203 | 0.187 | 0.13 | 0.02 |
| 10 | 0.1900 | 0.375 | 0.365 | 0.433 | 0.416 | 0.500 | 0.480 | 0.219 | 0.203 | 0.13 | 0.03 |
| 12 | 0.2160 | 0.438 | 0.428 | 0.505 | 0.488 | 0.594 | 0.574 | 0.236 | 0.222 | 0.14 | 0.04 |
| 1/4 | 0.2500 | 0.438 | 0.428 | 0.505 | 0.488 | 0.594 | 0.574 | 0.236 | 0.222 | 0.14 | 0.04 |
| 5/16 | 0.3125 | 0.500 | 0.489 | 0.577 | 0.557 | 0.680 | 0.660 | 0.283 | 0.268 | 0.17 | 0.04 |
| 3/8 | 0.3750 | 0.562 | 0.551 | 0.650 | 0.628 | 0.750 | 0.728 | 0.347 | 0.330 | 0.23 | 0.04 |
| 7/16 | 0.4375 | 0.688 | 0.675 | 0.794 | 0.768 | 0.937 | 0.910 | 0.395 | 0.375 | 0.26 | 0.04 |
| 1/2 | 0.5000 | 0.750 | 0.736 | 0.866 | 0.840 | 1.031 | 1.000 | 0.458 | 0.437 | 0.31 | 0.05 |
| 9/16 | 0.5625 | 0.875 | 0.861 | 1.010 | 0.982 | 1.188 | 1.155 | 0.506 | 0.483 | 0.35 | 0.05 |
| 5/8 | 0.6250 | 0.938 | 0.922 | 1.083 | 1.051 | 1.281 | 1.248 | 0.569 | 0.545 | 0.40 | 0.05 |
| 3/4 | 0.7500 | 1.125 | 1.088 | 1.299 | 1.240 | 1.500 | 1.460 | 0.675 | 0.627 | 0.46 | 0.06 |
| 7/8 | 0.8750 | 1.179 | 1.166 | 1.361 | 1.295 | 1.682 | - | 0.786 | 0.742 | - | 0.11 |

*ASME specification applies to #6 through 3/4" diameters.

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|-------------------------------------|--|--|
| Description | Hex nut with an enlarged circular base flaring out from the bottom of the nut. The bearing surface of the flange has serrations which displace material on the mating surface when the nut is wrenched into place, forming a connection which resists loosening. | |
| Applications/ Advantages | Requires a greater amount of torque to loosen than to tighten the nut. Will span oversized or poorly aligned holes. Flange provides a more uniform bearing-stress to clamp-force ratio than other low carbon lock nuts. Does not gall screw threads. | |
| Material | <i>Steel</i> Nuts shall be made from a carbon steel which conforms to the following chemical composition requirements-- Carbon: 0.47% max.; Phosphorus: 0.12% max.; Sulfur: 0.23% max. | <i>Stainless</i> 18-8 stainless steel |
| Heat Treatment | Nuts are case hardened to the proper hardness to ensure the serrations will have sufficient gripping strength. | - |
| Case Hardness | Rockwell HR15N 78 - 90 | - |
| Plating | Steel flange nuts are supplied in various finishes, including clear zinc, black zinc and black oxide. | Stainless flange nuts are usually provided without any additional plating. |