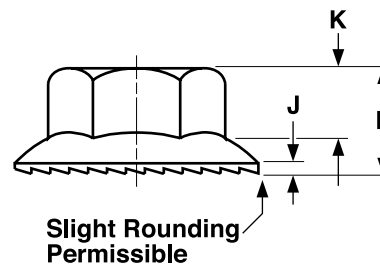
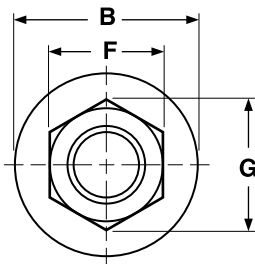


SERRATED HEX FLANGE

CASE HARDENED STEEL / 18-8 & 316 STAINLESS



SERRATED HEX FLANGE LOCK NUTS

ASME B18.16.4-2008

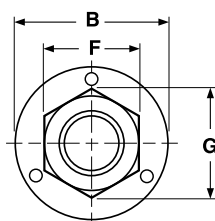
| Nominal Size or Basic Major Diameter of Thread | | F | | G | | B | | H | | K | J |
|--|-------|--------------------|-------|----------------------|-------|-----------------|-------|---------------|-------|------------------|------------------|
| | | Width Across Flats | | Width Across Corners | | Flange Diameter | | Nut Thickness | | Wrenching Height | Flange Thickness |
| | | Max | Min | Max | Min | Max | Min | Max | Min | Min | Min |
| 4 | 0.112 | 0.250 | 0.241 | 0.289 | 0.275 | 0.386 | 0.370 | 0.160 | 0.147 | - | 0.02 |
| 6 | 0.138 | 0.312 | 0.302 | 0.361 | 0.342 | 0.422 | 0.406 | 0.171 | 0.156 | 0.10 | 0.02 |
| 8 | 0.164 | 0.344 | 0.334 | 0.397 | 0.381 | 0.469 | 0.452 | 0.203 | 0.187 | 0.13 | 0.02 |
| 10 | 0.190 | 0.375 | 0.365 | 0.433 | 0.416 | 0.500 | 0.480 | 0.219 | 0.203 | 0.13 | 0.03 |
| 12 | 0.216 | 0.438 | 0.428 | 0.505 | 0.488 | 0.594 | 0.574 | 0.236 | 0.222 | 0.14 | 0.04 |
| 1/4 | 0.250 | 0.438 | 0.428 | 0.505 | 0.488 | 0.594 | 0.574 | 0.236 | 0.222 | 0.14 | 0.04 |
| 5/16 | 0.313 | 0.500 | 0.489 | 0.577 | 0.557 | 0.680 | 0.660 | 0.283 | 0.268 | 0.17 | 0.04 |
| 3/8 | 0.375 | 0.562 | 0.551 | 0.650 | 0.628 | 0.750 | 0.728 | 0.347 | 0.330 | 0.23 | 0.04 |
| 7/16 | 0.438 | 0.688 | 0.675 | 0.794 | 0.768 | 0.937 | 0.910 | 0.395 | 0.375 | 0.26 | 0.04 |
| 1/2 | 0.500 | 0.750 | 0.736 | 0.866 | 0.840 | 1.031 | 1.000 | 0.458 | 0.437 | 0.31 | 0.05 |
| 9/16 | 0.563 | 0.875 | 0.861 | 1.010 | 0.982 | 1.188 | 1.155 | 0.506 | 0.483 | 0.35 | 0.05 |
| 5/8 | 0.625 | 0.938 | 0.922 | 1.083 | 1.051 | 1.281 | 1.248 | 0.569 | 0.545 | 0.40 | 0.05 |
| 3/4 | 0.750 | 1.125 | 1.088 | 1.299 | 1.240 | 1.500 | 1.460 | 0.675 | 0.627 | 0.46 | 0.06 |
| 7/8 | 0.875 | 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.

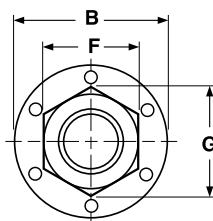
| | | | |
|--------------------------|--|--|---------------------|
| Description | Hex nut with an enlarged circular base flaring out from the bottom of the nut. The bearing surface of the flange has serrations which displace material on the mating surface when the nut is wrenched into place, forming 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. | Stainless serrated flange nuts are typically used in environments subject to corrosive elements. | |
| Material | Steel | Stainless | |
| | 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. | 18-8 stainless steel | 316 stainless steel |
| Heat Treatment | Nuts are case hardened to the proper hardness to ensure the serrations will have sufficient gripping strength. | - | - |
| Hardness | Case Hardness: Rockwell HR15N 78 - 90 | Rockwell B 70-85 | Rockwell B95 max |
| 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. | |

SERRATED HEX FLANGE

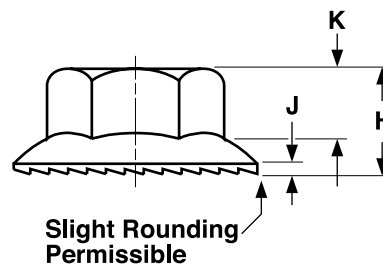
CASE HARDENED STEEL / 18-8 & 316 STAINLESS



Grade 5



Grade 8



SERRATED HEX FLANGE LOCK NUTS - GRADES 5 & 8

ASME B18.16.4 &
SAE J995*

| 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 |
| 10 | 0.190 | 0.375 | 0.365 | 0.433 | 0.416 | 0.500 | 0.480 | 0.219 | 0.203 | 0.13 | 0.03 |
| 1/4 | 0.250 | 0.438 | 0.428 | 0.505 | 0.488 | 0.594 | 0.574 | 0.236 | 0.222 | 0.14 | 0.04 |
| 5/16 | 0.313 | 0.500 | 0.489 | 0.577 | 0.557 | 0.680 | 0.660 | 0.283 | 0.268 | 0.17 | 0.04 |
| 3/8 | 0.375 | 0.562 | 0.551 | 0.650 | 0.628 | 0.750 | 0.728 | 0.347 | 0.330 | 0.23 | 0.04 |
| 7/16 | 0.438 | 0.688 | 0.675 | 0.794 | 0.768 | 0.937 | 0.910 | 0.395 | 0.375 | 0.26 | 0.04 |
| 1/2 | 0.500 | 0.750 | 0.736 | 0.866 | 0.840 | 1.031 | 1.000 | 0.458 | 0.437 | 0.31 | 0.05 |
| 9/16 | 0.563 | 0.875 | 0.861 | 1.010 | 0.982 | 1.188 | 1.155 | 0.506 | 0.483 | 0.35 | 0.05 |
| 5/8 | 0.625 | 0.938 | 0.922 | 1.083 | 1.051 | 1.281 | 1.248 | 0.569 | 0.545 | 0.40 | 0.05 |
| 3/4 | 0.750 | 1.125 | 1.088 | 1.299 | 1.240 | 1.500 | 1.460 | 0.675 | 0.627 | 0.46 | 0.06 |

| | | |
|--|--|---|
| 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 wrenching 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. Grade 5 nuts are designed to be used with Grade 5 screws and bolts; Grade 8 nuts are designed to be used with Grade 8 screws and bolts. | |
| Material | Grade 5 Nuts shall be made from a carbon steel which conforms to the following chemical composition requirements-- Carbon: 0.55% max.; Manganese: 0.30% min.; Phosphorus: 0.05% max.; Sulfur: 0.15% max. | Grade 8 Nuts shall be made from a carbon steel which conforms to the following chemical composition requirements-- Carbon: 0.55% max.; Manganese: 0.30% min.; Phosphorus: 0.04% max.; Sulfur: 0.05% max. |
| Proof Load | Coarse thread: 120,000 psi.; Fine thread: 109,000 psi. | Coarse thread: 150,000 psi.; Fine thread: 150,000 psi. |
| Hardness | Rockwell 32 HRC max | 1/4 thru 5/8" diameters: 24 - 32 HRC Over 5/8 thru 1" diameters: 26 - 34 HRC |
| Plating | Grade 5 Flange Nuts are usually supplied in zinc finish | Grade 8 Flange Nuts are usually supplied in zinc yellow finish |
| *Dimensions are to ASME B18.16.4; material and performance requirements are to SAE J995. | | |