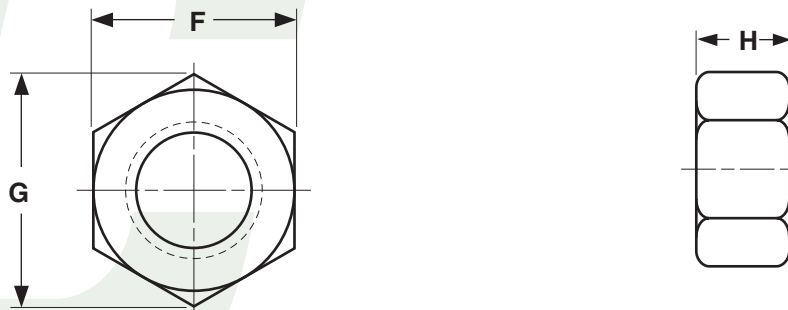


NUTS

HEAVY HEX

For Use With Structural Bolts



| HEAVY HEX NUTS FOR USE WITH STRUCTURAL BOLTS | | | | | | | | | | ASME B18.2.6 |
|---|--------|--------------------|-------|-------|----------------------|-------|-----------|-------|-------|-----------------|
| Nominal Size or Basic Major Diameter of Thread | | F | | | G | | H | | | |
| | | Width Across Flats | | | Width Across Corners | | Thickness | | | |
| | | Basic | Max | Min | Max | Min | Basic | Max | Min | |
| 1/2 | 0.5000 | 7/8 | 0.875 | 0.850 | 1.010 | 0.969 | 31/64 | 0.504 | 0.464 | |
| 5/8 | 0.6250 | 1-1/16 | 1.062 | 1.031 | 1.227 | 1.175 | 39/64 | 0.631 | 0.587 | |
| 3/4 | 0.7500 | 1-1/4 | 1.250 | 1.212 | 1.443 | 1.382 | 47/64 | 0.758 | 0.710 | |
| 7/8 | 0.8750 | 1-7/16 | 1.438 | 1.394 | 1.660 | 1.589 | 55/64 | 0.885 | 0.833 | |
| 1 | 1.0000 | 1-5/8 | 1.625 | 1.575 | 1.876 | 1.796 | 63/64 | 1.012 | 0.956 | |

| | |
|-------------------------------------|---|
| Description | A six-sided internally threaded fastener which is both thicker and wider across the flats than a same-sized finished hex nut. Nuts in sizes 7/16 & smaller shall be double chamfered. Larger sizes are either double chamfered or chamfered on top with a washer faced bearing surface. |
| Applications/ Advantages | This is the strongest of all comparably-graded nuts because of its greater length of thread engagement and greater resistance to dilation (widening or stretching). Grade-C nuts are recommended for use with A-325 structural bolts. Grade-2H nuts are recommended for use with bolts in high-pressure and high-temperature service. Grade-DH nuts are recommended for use with A-490, Type-1 structural bolts and Grade-DH3 nuts for use with A-490, Type-3 structural bolts. |
| Material | Nuts shall be made from a steel which conforms to the following chemical composition requirements (heat analysis)-- Grade C-- Carbon: 0.55% maximum; Phosphorus: 0.12% maximum; Sulfur: 0.023% maximum. A 194 Grade-2H-- Carbon: 0.40% min; Manganese: 1.00% max; Phosphorus: 0.04% max; Sulfur: 0.05% max; Silicon: 0.40% max. A 563 Grade-DH-- Carbon: 0.20-0.55%; Manganese: 0.60% minimum; Phosphorus: 0.04% maximum; Sulfur: 0.05% maximum. Grade-DH3-- Carbon: 0.20-0.53%; Manganese: 0.40% minimum; Phosphorus: 0.046% maximum; Sulfur: 0.050% maximum; Copper: 0.20% minimum; Chromium: 0.45% minimum; (Either Nickel: 0.20% minimum or Molybdenum: 0.15% minimum, may be used). |
| Heat Treatment | Grade-2H: Nuts are heat treated by quenching in a liquid medium from a temp above the transformation temp and tempering at a temp of at least 850°F. Grades-C, DH & DH3: Nuts are heat treated by quenching in a liquid medium from a temp above the transformation temp and tempering at a temp of at least 800°F. |
| Core Hardness | Grade-C: Rockwell B78 - C38 A 194 Grade-2H, A 563 Grades DH & DH3: Rockwell C24 - C38 |
| Proof Load | Grade-C: 144,000 psi. Grade-2H: 150,000 psi. Grades-DH & DH3: 175,000 psi. |
| Plating | See Appendix-A for plating information. |