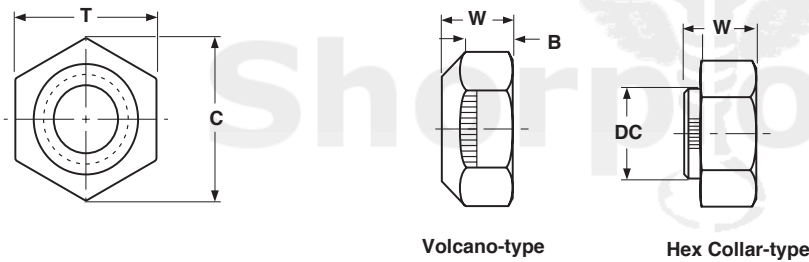


DIN 980V & ASME B18.16.3  
Prevailing Torque



| METRIC--PREVAILING-TORQUE TYPE STEEL HEX NUTS |              |                    |       |                      |                  |                 |           | DIN 980V |  |
|---|--------------|--------------------|-------|----------------------|------------------|-----------------|-----------|----------|--|
| Nominal Size                                  | Thread Pitch | T                  |       | C                    | B                | DC              | W         |          |  |
|   |              | Width Across Flats |       | Width Across Corners | Wrenching Height | Collar Diameter | Thickness |          |  |
|   |              | Max                | Min   | Min                  | Min              | Nom             | Min       |          |  |
| M6  | 1.00         | 10.00              | 9.78  | 11.05                | 3.3              | -               | 6         | 5.7      |  |
| M8  | 1.25         | 13.00              | 12.73 | 14.38                | 4.4              | -               | 8         | 7.5      |  |
| M10   | 1.25         | 17.00              | 16.73 | 18.90                | 5.5              | -               | 10        | 9        |  |
| M12   | 1.50         | 19.00              | 18.67 | 21.10                | 6.6              | -               | 12        | 11       |  |
| M20   | 2.50         | 30.00              | 29.16 | 32.95                | 11               | 27.5            | 20        | 18       |  |

| METRIC--PREVAILING-TORQUE TYPE STEEL HEX NUTS |              |                    |       |                      |       |           |       | ASME B18.16.3M |  |
|---|--------------|--------------------|-------|----------------------|-------|-----------|-------|----------------|--|
| Nominal Size                                  | Thread Pitch | T                  |       | C                    |       | W         |       |                |  |
|   |              | Width Across Flats |       | Width Across Corners |       | Thickness |       |                |  |
|   |              | Max                | Min   | Max                  | Min   | Max       | Min   |                |  |
| M6  | 1.00         | 10.00              | 9.78  | 11.55                | 11.05 | 5.9       | 5.4   |                |  |
| M8  | 1.25         | 13.00              | 12.73 | 15.01                | 14.38 | 7.10      | 6.44  |                |  |
| M10   | 1.50         | 16.00              | 15.73 | 18.48                | 17.77 | 9.00      | 8.04  |                |  |
| M12   | 1.75         | 18.00              | 17.73 | 20.78                | 20.03 | 11.60     | 10.37 |                |  |
| M24   | 3.00         | 36.00              | 35.00 | 41.57                | 39.55 | 23.00     | 20.20 |                |  |

|                                |  |
|--------------------------------|--|
| <b>Description</b>             | An all-metal, one-piece hex nut which derives its prevailing torque characteristics from controlled distortion of its top threads from their normal helical form to a more elliptical shape.   |
| <b>Applications/Advantages</b> | These nuts are reusable. Can withstand severe vibration and shock loads. Frequently used in farm machinery, plus the automotive and related metalworking industries.   |
| <b>Material</b>                | Nuts shall be made from a low-carbon steel which conforms to the following chemical composition requirements--<br><i>Carbon: 0.58% max.; Manganese: 0.27% min.; Phosphorus: 0.048% max.; Sulfur: 0.058% max. (0.24% max if milled from the bar).</i> |
| <b>Heat Treatment</b>          | Nuts are heat treated to meet the mechanical and performance requirements noted on this page.  |
| <b>Hardness</b>                | Rockwell C26 - C36   |
| <b>Proof Load</b>              | <i>M3 through M10: 1040 MPa<br/>M12 through M16: 1050 MPa<br/>M20 through M36: 1060 MPa</i>  |
| <b>Plating</b>                 | Parts are typically supplied with a cadmium and wax finish; see Appendix-A for additional information.   |