## HEX NUT GRADE MARKINGS

| Grade Identification Marking | Specification | Material | Nominal Size in. | Proof Load Stress ksi | Hardness Rockwell |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Min | Max |
| $0$ | ASTM A563-Grade 0 | Carbon Steel | 1/4 thru $11 / 2$ | 69 | B55 | C32 |
|  | ASTM A563-Grade A | Carbon Steel | 1/4 thru $11 / 2$ | 90 | B68 | C32 |
|  | ASTM A563-Grade B | Carbon Steel | 1/4 thru 1 | 120 | B69 | C32 |
|  |  |  | over 1 thru 1 1/2 | 105 |  |  |
| (0) | ASTM A563-Grade C | Carbon Steel May be Quenched and Tempered | 1/4 thru 4 | 144 | B78 | C38 |
| $0$ | ASTM A563-Grade C3 | Atmospheric Corrosion Resistant Steel May be Quenched and Tempered | 1/4 thru 4 | 144 | B78 | C38 |
| $\bigcirc$ | ASTM A563-Grade D | Carbon Steel, May be Quenched and Tempered | 1/4 thru 4 | 150 | B84 | C38 |
| (1) | ASTM A563-Grade DH | Carbon Stee Quenched and Tempered | 1/4 thru 4 | 175 | C24 | C38 |
| 0 | ASTM A563-Grade DH3 | Atmospheric Corrosion Resistant Steel, Quenched and Tempered | 1/4 thru 4 | 175 | C24 | C38 |
| $\hat{O}$ | ASTM A194-Grade 1 | Carbon Steel | 1/4 thru 4130 | B70 | - | 7 |


| Grade Identification Marking | Specification | Material | Nominal Size in. | Proof Load Stress ksi | Hardness Rockwell |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Min | Max |
| $0$ | ASTM A194-Grade 2 | Medium Carbon Stee | 1/4 thru 4 | 150 | 159 | 352 |
| 0 | ASTM A194-Grade 2H | Medium Carbon Steel, Quenched and Tempered | 1/4 thru 4 | 175 | C24 | C38 |
| $0$ | ASTM A194-Grade 2HM | Medium Carbon Steel, Quenched and Tempered | 1/4 thru 4 | 150 | 159 | 237 |
| ( 0 | ASTM A194-Grade 4 | Medium Carbon Alloy Steel, Quenched and Tempered | 1/4 thru 4 | 175 | C24 | C38 |
| $\hat{0}$ | ASTM A194-Grade 7 | Medium Carbon Alloy steel, Quenched and Tempered | 1/4 thru 4 | 175 | C24 | C38 |
| $0$ | ASTM A194-Grade 7M | Medium Carbon Alloy Steel, Quenched and Tempered | $1 / 4$ thru 4 | 150 | 159 | 237 |
|  |  |  |  |  |  |  |



| Nominal Diameter |  | WF |  |  | WC |  | TF |  |  | TJ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Width <br> Across <br> Flats |  |  | Width <br> Across <br> Corners |  | Thickness Hex Full Nuts |  |  | Thickness Hex Jam Nuts |  |  |
| Fractional | Decimal | Basic | Max | Min | Max | Min | Basic | Max | Min | Basic | Max | Min |
| 1/4 | 0.2500 | 7/16 | 0.438 | 0.428 | 0.505 | 0.488 | 7/32 | 0.226 | 0.212 | 5/32 | 0.164 | 0.150 |
| 5/16 | 0.3125 | 1/2 | 0.500 | 0.489 | 0.577 | 0.557 | 17/64 | 0.273 | 0.258 | 3/16 | 0.195 | 0.180 |
| 3/8 | 0.3750 | 9/16 | 0.562 | 0.551 | 0.650 | 0.628 | 21/64 | 0.337 | 0.320 | 7/32 | 0.227 | 0.210 |
| 7/16 | 0.4375 | 11/16 | 0.688 | 0.675 | 0.794 | 0.768 | 3/8 | 0.385 | 0.365 | 1/4 | 0.260 | 0.240 |
| 1/2 | 0.5000 | 3/4 | 0.750 | 0.736 | 0.866 | 0.840 | 7/16 | 0.448 | 0.427 | 5/16 | 0.323 | 0.302 |
| 9/16 | 0.5625 | 7/8 | 0.875 | 0.861 | 1.010 | 0.982 | 31/64 | 0.496 | 0.473 | 5/16 | 0.324 | 0.301 |
| 5/8 | 0.6250 | 15/16 | 0.938 | 0.922 | 1.083 | 1.051 | 35/64 | 0.559 | 0.535 | 3/8 | 0.387 | 0.363 |
| 3/4 | 0.7500 | 1-1/8 | 1.125 | 1.088 | 1.299 | 1.240 | 41/64 | 0.665 | 0.617 | 27/64 | 0.446 | 0.398 |
| 7/8 | 0.8750 | 1-5/16 | 1.312 | 1.269 | 1.516 | 1.447 | 3/4 | 0.776 | 0.724 | 31/64 | 0.510 | 0.458 |
| 1 | 1.0000 | 1-1/2 | 1.500 | 1.450 | 1.732 | 1.653 | 55/64 | 0.887 | 0.831 | 35/64 | 0.575 | 0.519 |
| 1-1/8 | 1.1250 | 1-11/16 | 1.688 | 1.631 | 1.949 | 1.859 | 31/32 | 0.999 | 0.939 | 39/64 | 0.639 | 0.579 |
| 1-1/4 | 1.2500 | 1-7/8 | 1.875 | 1.812 | 2.165 | 2.066 | 1-1/16 | 1.094 | 1.030 | 23/32 | 0.751 | 0.687 |
| 1-3/8 | 1.3750 | 2-1/16 | 2.062 | 1.994 | 2.382 | 2.273 | 1-11/64 | 1.206 | 1.138 | 25/32 | 0.815 | 0.747 |
| 1-1/2 | 1.5000 | 2-1/4 | 2.250 | 2.175 | 2.598 | 2.480 | 1-9/32 | 1.317 | 1.245 | 27/32 | 0.880 | 0.808 |


|  |  | Runout of Bearing <br> Surface - FIR |  |
| :---: | :---: | :---: | :---: |
|  |  | Hex Nuts with <br> Specified Proof <br> Loads Equal to <br> 150,000 psi <br> and Greater |  |
| Fractional | Decimal | Max | Max |
| $1 / 4$ | 0.2500 | 0.015 | 0.010 |
| $5 / 16$ | 0.3125 | 0.016 | 0.011 |
| $3 / 8$ | 0.3750 | 0.017 | 0.012 |
| $7 / 16$ | 0.4375 | 0.018 | 0.013 |
| $1 / 2$ | 0.5000 | 0.019 | 0.014 |
| $9 / 16$ | 0.5625 | 0.020 | 0.015 |
| $5 / 8$ | 0.6250 | 0.021 | 0.016 |
| $3 / 4$ | 0.7500 | 0.023 | 0.018 |
| $7 / 8$ | 0.8750 | 0.025 | 0.020 |
| 1 | 1.0000 | 0.027 | 0.022 |
| $1-1 / 8$ | 1.1250 | 0.030 | 0.025 |
| $1-1 / 4$ | 1.2500 | 0.033 | 0.028 |
| $1-3 / 8$ | 1.3750 | 0.036 | 0.031 |
| $1-1 / 2$ | 1.5000 | 0.039 | 0.034 |

Note: Most hex nuts are manufactured without washer face bearing surface

## Dimensional Data

## HEAVY HEX NUTS AND HEAVY HEX JAM NUTS



| Nominal Diameter |  | WF |  |  | WC |  | TF |  |  | TJ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Width <br> Across Flats |  |  | Width <br> Across <br> Corners |  | Thickness Heavy Hex Nuts |  |  | Thickness Heavy Jam Nuts |  |  |
| Fractional | Decimal | Basic | Max | Min | Max | Min | Basic | Max | Min | Basic | Max | Min |
| 1/4 | 0.2500 | 1/2 | 0.500 | 0.488 | 0.577 | 0.556 | 15/64 | 0.250 | 0.218 | 11/64 | 0.188 | 0.156 |
| 5/16 | 0.3125 | 9/16 | 0.562 | 0.546 | 0.650 | 0.622 | 19/64 | 0.314 | 0.280 | 13/64 | 0.220 | 0.186 |
| 3/8 | 0.3750 | 11/16 | 0.688 | 0.669 | 0.794 | 0.763 | 23/64 | 0.377 | 0.341 | 15/64 | 0.252 | 0.216 |
| 7/16 | 0.4375 | 3/4 | 0.750 | 0.728 | 0.866 | 0.830 | 27/64 | 0.441 | 0.403 | 17/64 | 0.285 | 0.247 |
| 1/2 | 0.5000 | 7/8 | 0.875 | 0.850 | 1.010 | 0.969 | 31/64 | 0.504 | 0.464 | 19/64 | 0.317 | 0.277 |
| 9/16 | 0.5625 | 15/16 | 0.938 | 0.909 | 1.083 | 1.037 | 35/64 | 0.568 | 0.526 | 21/64 | 0.349 | 0.307 |
| 5/8 | 0.6250 | 1-1/16 | 1.062 | 1.031 | 1.227 | 1.175 | 39/64 | 0.631 | 0.587 | 23/64 | 0.381 | 0.337 |
| 3/4 | 0.7500 | 1-1/4 | 1.250 | 1.212 | 1.443 | 1.382 | 47/64 | 0.758 | 0.710 | 27/64 | 0.446 | 0.398 |
| 7/8 | 0.8750 | 1-7/16 | 1.438 | 1.394 | 1.660 | 1.589 | 55/64 | 0.885 | 0.833 | 31/64 | 0.510 | 0.458 |
| 1 | 1.0000 | 1-5/8 | 1.625 | 1.575 | 1.876 | 1.796 | 63/64 | 1.012 | 0.956 | 35/64 | 0.575 | 0.519 |
| 1-1/8 | 1.1250 | 1-13/16 | 1.812 | 1.756 | 2.093 | 2.002 | 1-7/64 | 1.139 | 1.079 | 39/64 | 0.639 | 0.579 |
| 1-1/4 | 1.2500 | 2 | 2.000 | 1.938 | 2.309 | 2.209 | 1-7/32 | 1.251 | 1.187 | 23/32 | 0.751 | 0.687 |
| 1-3/8 | 1.3750 | 2-3/16 | 2.188 | 2.119 | 2.526 | 2.416 | 1-11/32 | 1.378 | 1.310 | 25/32 | 0.815 | 0.747 |
| 1-1/2 | 1.5000 | 2-3/8 | 2.375 | 2.300 | 2.742 | 2.622 | 1-15/32 | 1.505 | 1.433 | 27/32 | 0.880 | 0.808 |
| 1-5/8 | 1.6250 | 2-9/16 | 2.562 | 2.481 | 2.959 | 2.828 | 1-19/32 | 1.632 | 1.556 | 29/32 | 0.944 | 0.868 |
| 1-3/4 | 1.7500 | 2-3/4 | 2.750 | 2.662 | 3.175 | 3.035 | 1-23/32 | 1.759 | 1.679 | 31/32 | 1.009 | 0.929 |
| 1-7/8 | 1.8750 | 2-15/16 | 2.938 | 2.844 | 3.392 | 3.242 | 1-27/32 | 1.886 | 1.802 | 1-1/32 | 1.073 | 0.989 |
| 2 | 2.0000 | 3-1/8 | 3.125 | 3.025 | 3.608 | 3.449 | 1-31/32 | 2.013 | 1.925 | 1-3/32 | 1.138 | 1.050 |
| 2-1/4 | 2.2500 | 3-1/2 | 3.500 | 3.388 | 4.041 | 3.862 | 2-13/64 | 2.251 | 2.155 | 1-13/64 | 1.251 | 1.155 |
| 2-1/2 | 2.5000 | 3-7/8 | 3.875 | 3.750 | 4.474 | 4.275 | 2-29/64 | 2.505 | 2.401 | 1-29/64 | 1.505 | 1.401 |
| 2-3/4 | 2.7500 | 4-1/4 | 4.250 | 4.112 | 4.907 | 4.688 | 2-45/64 | 2.759 | 2.647 | 1-37/64 | 1.634 | 1.522 |
| 3 | 3.0000 | 4-5/8 | 4.625 | 4.475 | 5.340 | 5.102 | 2-61/64 | 3.013 | 2.893 | 1-45/64 | 1.763 | 1.643 |
| 3-1/4 | 3.2500 | 5 | 5.000 | 4.838 | 5.774 | 5.515 | 3-3/16 | 3.252 | 3.124 | 1-13/16 | 1.876 | 1.748 |
| 3-1/2 | 3.5000 | 5-3/8 | 5.375 | 5.200 | 6.207 | 5.928 | 3-7/16 | 3.506 | 3.370 | 1-15/16 | 2.006 | 1.870 |
| 3-3/4 | 3.7500 | 5-3/4 | 5.750 | 5.562 | 6.640 | 6.341 | 3-11/16 | 3.760 | 3.616 | 2-1/16 | 2.134 | 1.990 |
| 4 | 4.0000 | 6-1/8 | 6.125 | 5.925 | 7.073 | 6.755 | 3-15/16 | 4.014 | 3.862 | 2-3/16 | 2.264 | 2.112 |

## HEX SLOTTED NUTS



| Nominal Diameter |  | WF |  |  | WC |  | T |  |  | UT |  | SW |  | Runout <br> of Bearing Surface FIR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Width <br> Across <br> Flats |  |  |  |  | Thickness |  |  | Unslotted Thickness |  | $\begin{gathered} \text { Width } \\ \text { of } \\ \text { Slot } \end{gathered}$ |  |  |
| Fractional | Decimal | Basic | Max | Min | Max | Min | Basic | Max | Min | Max | Min | Max | Min | Max |
| 1/4 | 0.2500 | 7/16 | 0.438 | 0.428 | 0.505 | 0.488 | 7/32 | 0.226 | 0.212 | 0.14 | 0.12 | 0.10 | 0.07 | 0.015 |
| 5/16 | 0.3125 | 1/2 | 0.500 | 0.489 | 0.577 | 0.557 | 17/64 | 0.273 | 0.258 | 0.18 | 0.16 | 0.12 | 0.09 | 0.016 |
| 3/8 | 0.3750 | 9/16 | 0.562 | 0.551 | 0.650 | 0.628 | 21/64 | 0.337 | 0.320 | 0.21 | 0.19 | 0.15 | 0.12 | 0.017 |
| 7/16 | 0.4375 | 11/16 | 0.688 | 0.675 | 0.794 | 0.768 | 3/8 | 0.385 | 0.365 | 0.23 | 0.21 | 0.15 | 0.12 | 0.018 |
| 1/2 | 0.5000 | 3/4 | 0.750 | 0.736 | 0.866 | 0.840 | 7/16 | 0.448 | 0.427 | 0.29 | 0.27 | 0.18 | 0.15 | 0.019 |
| 9/16 | 0.5625 | 7/8 | 0.875 | 0.861 | 1.010 | 0.982 | 31/64 | 0.496 | 0.473 | 0.31 | 0.29 | 0.18 | 0.15 | 0.020 |
| 5/8 | 0.6250 | 15/16 | 0.938 | 0.922 | 1.083 | 1.051 | 35/64 | 0.559 | 0.535 | 0.34 | 0.32 | 0.24 | 0.18 | 0.021 |
| 3/4 | 0.7500 | 1-1/8 | 1.125 | 1.088 | 1.299 | 1.240 | 41/64 | 0.665 | 0.617 | 0.40 | 0.38 | 0.24 | 0.18 | 0.023 |
| 7/8 | 0.8750 | 1-5/16 | 1.312 | 1.269 | 1.516 | 1.447 | 3/4 | 0.776 | 0.724 | 0.52 | 0.49 | 0.24 | 0.18 | 0.025 |
| 1 | 1.0000 | 1-1/2 | 1.500 | 1.450 | 1.732 | 1.653 | 55/64 | 0.887 | 0.831 | 0.59 | 0.56 | 0.30 | 0.24 | 0.027 |
| 1-1/8 | 1.1250 | 1-11/16 | 1.688 | 1.631 | 1.949 | 1.859 | 31/32 | 0.999 | 0.939 | 0.64 | 0.61 | 0.33 | 0.24 | 0.030 |
| 1-1/4 | 1.2500 | 1-7/8 | 1.875 | 1.812 | 2.165 | 2.066 | 1- 1/16 | 1.094 | 1.030 | 0.70 | 0.67 | 0.40 | 0.31 | 0.033 |
| 1-3/8 | 1.3750 | 2-1/16 | 2.062 | 1.994 | 2.382 | 2.273 | 1-11/64 | 1.206 | 1.138 | 0.82 | 0.78 | 0.40 | 0.31 | 0.036 |
| 1-1/2 | 1.5000 | 2-1/4 | 2.250 | 2.175 | 2.598 | 2.480 | 1-9/32 | 1.317 | 1.245 | 0.86 | 0.82 | 0.46 | 0.37 | 0.039 |

Note: Most hex slotted nuts are manufactured without washer face bearing surface

| Nominal Diameter |  | WF |  |  | WC |  | T |  |  | UT |  | SW |  | Runout of Bear-ing-Surface FIR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Width <br> Across <br> Flats |  |  | Width <br> Across <br> Corners |  | Thickness |  |  | Unslotted <br> Thickness |  | Width of Slot |  |  |
| Fractional | Decimal | Basic | Max | Min | Max | Min | Basic | Max | Min | Max | Min | Max | Min | Max |
| 1/4 | 0.2500 | 1/2 | 0.500 | 0.488 | 0.577 | 0.556 | 15/64 | 0.250 | 0.218 | 0.15 | 0.13 | 0.10 | 0.07 | 0.017 |
| 5/16 | 0.3125 | 9/16 | 0.562 | 0.546 | 0.650 | 0.622 | 19/64 | 0.314 | 0.280 | 0.21 | 0.19 | 0.12 | 0.09 | 0.020 |
| 3/8 | 0.3750 | 11/16 | 0.688 | 0.669 | 0.794 | 0.763 | 23/64 | 0.377 | 0.341 | 0.24 | 0.22 | 0.15 | 0.12 | 0.021 |
| 7/16 | 0.4375 | 3/4 | 0.750 | 0.728 | 0.866 | 0.830 | 27/64 | 0.441 | 0.403 | 0.28 | 0.26 | 0.15 | 0.12 | 0.022 |
| 1/2 | 0.5000 | 7/8 | 0.875 | 0.850 | 1.010 | 0.969 | 31/64 | 0.504 | 0.464 | 0.34 | 0.32 | 0.18 | 0.15 | 0.023 |
| 9/16 | 0.5625 | 15/16 | 0.938 | 0.909 | 1.083 | 1.037 | 35/64 | 0.568 | 0.526 | 0.37 | 0.35 | 0.18 | 0.15 | 0.024 |
| 5/8 | 0.6250 | 1-1/16 | 1.062 | 1.031 | 1.227 | 1.175 | 39/64 | 0.631 | 0.587 | 0.40 | 0.38 | 0.24 | 0.18 | 0.025 |
| 3/4 | 0.7500 | 1-1/4 | 1.250 | 1.212 | 1.443 | 1.382 | 47/64 | 0.758 | 0.710 | 0.49 | 0.47 | 0.24 | 0.18 | 0.027 |
| 7/8 | 0.8750 | 1-7/16 | 1.438 | 1.394 | 1.660 | 1.589 | 55/64 | 0.885 | 0.833 | 0.62 | 0.59 | 0.24 | 0.18 | 0.029 |
| 1 | 1.0000 | 1-5/8 | 1.625 | 1.575 | 1.876 | 1.796 | 63/64 | 1.012 | 0.956 | 0.72 | 0.69 | 0.30 | 0.24 | 0.031 |
| 1-1/8 | 1.1250 | 1-13/16 | 1.812 | 1.756 | 2.093 | 2.002 | 1-7/64 | 1.139 | 1.079 | 0.78 | 0.75 | 0.33 | 0.24 | 0.033 |
| 1-1/4 | 1.2500 | 2 | 2.000 | 1.938 | 2.309 | 2.209 | 1-7/32 | 1.251 | 1.187 | 0.86 | 0.83 | 0.40 | 0.31 | 0.035 |
| 1-3/8 | 1.3750 | 2-3/16 | 2.188 | 2.119 | 2.526 | 2.416 | 1-11/32 | 1.378 | 1.310 | 0.99 | 0.95 | 0.40 | 0.31 | 0.038 |
| 1-1/2 | 1.5000 | 2-3/8 | 2.375 | 2.300 | 2.742 | 2.622 | 1-15/32 | 1.505 | 1.433 | 1.05 | 1.01 | 0.46 | 0.37 | 0.041 |
| 1-3/4 | 1.7500 | 2-3/4 | 2.750 | 2.662 | 3.175 | 3.035 | 1-23/32 | 1.759 | 1.679 | 1.24 | 1.20 | 0.52 | 0.43 | 0.048 |
| 2 | 2.0000 | 3-1/8 | 3.125 | 3.025 | 3.608 | 3.449 | 1-31/32 | 2.013 | 1.925 | 1.43 | 1.38 | 0.52 | 0.43 | 0.055 |
| 2-1/4 | 2.2500 | 3-1/2 | 3.500 | 3.388 | 4.041 | 3.862 | 2-13/64 | 2.251 | 2.155 | 1.67 | 1.62 | 0.52 | 0.43 | 0.061 |
| 2-1/2 | 2.5000 | 3-7/8 | 3.875 | 3.750 | 4.474 | 4.275 | 2-29/64 | 2.505 | 2.401 | 1.79 | 1.74 | 0.64 | 0.55 | 0.068 |
| 2-3/4 | 2.7500 | 4-1/4 | 4.250 | 4.112 | 4.907 | 4.688 | 2-45/64 | 2.759 | 2.647 | 2.05 | 1.99 | 0.64 | 0.55 | 0.074 |
| 3 | 3.0000 | 4-5/8 | 4.625 | 4.475 | 5.340 | 5.102 | 2-61/64 | 3.013 | 2.893 | 2.23 | 2.17 | 0.71 | 0.62 | 0.081 |
| 3-1/4 | 3.2500 | 5 | 5.000 | 4.838 | 5.774 | 5.515 | 3-3/16 | 3.252 | 3.124 | 2.47 | 2.41 | 0.71 | 0.62 | 0.087 |
| 3-1/2 | 3.5000 | 5-3/8 | 5.375 | 5.200 | 6.207 | 5.928 | 3-7/16 | 3.506 | 3.370 | 2.72 | 2.65 | 0.71 | 0.62 | 0.094 |
| 3-3/4 | 3.7500 | 5-3/4 | 5.750 | 5.562 | 6.640 | 6.341 | 3-11/16 | 3.760 | 3.616 | 2.97 | 2.90 | 0.71 | 0.62 | 0.100 |
| 4 | 4.0000 | 6-1/8 | 6.125 | 5.925 | 7.073 | 6.755 | 3-15/16 | 4.014 | 3.862 | 3.22 | 3.15 | 0.71 | 0.62 | 0.107 |

Note: Most hex castle nuts are manufactured without washer face bearing surface


|  |  | WF |  |  | WC |  | T |  |  | UT |  |  | SW |  | R | U |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Nom Diam |  | Width <br> Across <br> Flats |  |  | Width Across Corners |  | Thickness |  |  | Unslotted Thickness and Height of Flats |  |  | Width of Slot |  | Radius of <br> Fillet | Dia. of Cylindrical Part |
| Fractional | Decimal | Basic | Max | Min | Max | Min | Basic | Max | Min | Nom | Max | Min | Max | Min | $\pm .010$ | Min |
| 1/4 | 0.2500 | 7/16 | 0.438 | 0.428 | 0.505 | 0.488 | 9/32 | 0.288 | 0.274 | 3/16 | 0.20 | 0.18 | 0.10 | 0.07 | 0.094 | 0.371 |
| 5/16 | 0.3125 | 1/2 | 0.500 | 0.489 | 0.577 | 0.557 | 21/64 | 0.336 | 0.320 | 15/64 | 0.24 | 0.22 | 0.12 | 0.09 | 0.094 | 0.425 |
| 3/8 | 0.3750 | 9/16 | 0.562 | 0.551 | 0.650 | 0.628 | 13/32 | 0.415 | 0.398 | 9/32 | 0.29 | 0.27 | 0.15 | 0.12 | 0.094 | 0.478 |
| 7/16 | 0.4375 | 11/16 | 0.688 | 0.675 | 0.794 | 0.768 | 29/64 | 0.463 | 0.444 | 19/64 | 0.31 | 0.29 | 0.15 | 0.12 | 0.094 | 0.582 |
| 1/2 | 0.5000 | 3/4 | 0.750 | 0.736 | 0.866 | 0.840 | 9/16 | 0.573 | 0.552 | 13/32 | 0.42 | 0.40 | 0.18 | 0.15 | 0.125 | 0.637 |
| 9/16 | 0.5625 | 7/8 | 0.875 | 0.861 | 1.010 | 0.982 | 39/64 | 0.621 | 0.598 | 27/64 | 0.43 | 0.41 | 0.18 | 0.15 | 0.156 | 0.744 |
| 5/8 | 0.6250 | 15/16 | 0.938 | 0.922 | 1.083 | 1.051 | 23/32 | 0.731 | 0.706 | 1/2 | 0.51 | 0.49 | 0.24 | 0.18 | 0.156 | 0.797 |
| 3/4 | 0.7500 | 1-1/8 | 1.125 | 1.088 | 1.299 | 1.240 | 13/16 | 0.827 | 0.798 | 9/16 | 0.57 | 0.55 | 0.24 | 0.18 | 0.188 | 0.941 |
| 7/8 | 0.8750 | 1-5/16 | 1.312 | 1.269 | 1.516 | 1.447 | 29/32 | 0.922 | 0.890 | 21/32 | 0.67 | 0.64 | 0.24 | 0.18 | 0.188 | 1.097 |
| 1 | 1.0000 | 1-1/2 | 1.500 | 1.450 | 1.732 | 1.653 | 1 | 1.018 | 0.982 | 23/32 | 0.73 | 0.70 | 0.30 | 0.24 | 0.188 | 1.254 |
| 1-1/8 | 1.1250 | 1-11/16 | 1.688 | 1.631 | 1.949 | 1,859 | 1-5/32 | 1.176 | 1.136 | 13/16 | 0.83 | 0.80 | 0.33 | 0.24 | 0.250 | 1.411 |
| 1-1/4 | 1.2500 | 1-7/8 | 1.875 | 1.812 | 2.165 | 2.066 | 1-1/4 | 1.272 | 1.228 | 7/8 | 0.89 | 0.86 | 0.40 | 0.31 | 0.250 | 1.570 |
| 1-3/8 | 1.3750 | 2-1/16 | 2.062 | 1.994 | 2.382 | 2.273 | 1-3/8 | 1.399 | 1.351 | 1 | 1.02 | 0.98 | 0.40 | 0.31 | 0.250 | 1.726 |
| 1-1/2 | 1.5000 | 2-1/4 | 2.250 | 2.175 | 2.598 | 2.480 | 1-1/2 | 1.526 | 1.474 | 1-1/16 | 1.08 | 1.04 | 0.46 | 0.37 | 0.250 | 1.881 |

Note: Most hex castle nuts are manufactured without washer face bearing surface

## SQUARE AND HEX <br> MACHINE SCREW NUTS



| Nominal Size or Basic Thread Diameter |  | F |  |  | G |  | G1 |  | H |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Width Across Flats |  |  | Width Across Corners |  |  |  | Thickness |  |
|  |  |  |  |  | Square |  | Hex |  |  |  |
|  |  | Basic | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. |
|  | $\begin{aligned} & 0.0860 \\ & 0.0990 \end{aligned}$ | $\begin{aligned} & 3 / 16 \\ & 3 / 16 \end{aligned}$ | $\begin{aligned} & 0.188 \\ & 0.188 \end{aligned}$ | $\begin{aligned} & 0.180 \\ & 0.180 \end{aligned}$ | $\begin{aligned} & 0.265 \\ & 0.265 \end{aligned}$ | $\begin{aligned} & 0.247 \\ & 0.247 \end{aligned}$ | $\begin{aligned} & 0.217 \\ & 0.217 \end{aligned}$ | $\begin{aligned} & 0.205 \\ & 0.205 \end{aligned}$ | $\begin{aligned} & 0.066 \\ & 0.066 \end{aligned}$ | $\begin{aligned} & 0.057 \\ & 0.057 \end{aligned}$ |
| $\begin{aligned} & 4 \\ & 5 \end{aligned}$ | $\begin{aligned} & \hline 0.1120 \\ & 0.1250 \\ & 0.1380 \end{aligned}$ | $\begin{aligned} & 1 / 4 \\ & 5 / 16 \\ & 5 / 16 \end{aligned}$ | $\begin{aligned} & \hline 0.250 \\ & 0.312 \\ & 0.312 \end{aligned}$ | $\begin{aligned} & 0.241 \\ & 0.302 \\ & 0.302 \end{aligned}$ | $\begin{aligned} & 0.354 \\ & 0.442 \\ & 0.442 \end{aligned}$ | $\begin{aligned} & 0.331 \\ & 0.415 \\ & 0.415 \end{aligned}$ | $\begin{aligned} & 0.289 \\ & 0.361 \\ & 0.361 \end{aligned}$ | $\begin{aligned} & 0.275 \\ & 0.344 \\ & 0.344 \end{aligned}$ | $\begin{aligned} & \hline 0.098 \\ & 0.114 \\ & 0.114 \\ & \hline \end{aligned}$ | $\begin{aligned} & 0.087 \\ & 0.102 \\ & 0.102 \end{aligned}$ |
| $\begin{aligned} & 8 \\ & 10 \\ & 12 \end{aligned}$ | $\begin{aligned} & 0.1640 \\ & 0.1900 \\ & 0.2160 \end{aligned}$ | $\begin{aligned} & 11 / 32 \\ & 3 / 8 \\ & 7 / 16 \end{aligned}$ | $\begin{aligned} & \hline 0.344 \\ & 0.375 \\ & 0.438 \end{aligned}$ | $\begin{aligned} & 0.332 \\ & 0.362 \\ & 0.423 \end{aligned}$ | $\begin{aligned} & 0.486 \\ & 0.530 \\ & 0.619 \end{aligned}$ | $\begin{aligned} & 0.456 \\ & 0.497 \\ & 0.581 \end{aligned}$ | $\begin{aligned} & 0.397 \\ & 0.433 \\ & 0.505 \end{aligned}$ | $\begin{aligned} & 0.378 \\ & 0.413 \\ & 0.482 \end{aligned}$ | $\begin{aligned} & 0.130 \\ & 0.130 \\ & 0.161 \end{aligned}$ | $\begin{aligned} & 0.117 \\ & 0.117 \\ & 0.148 \end{aligned}$ |
| $\begin{aligned} & \hline 1 / 4 \\ & 5 / 16 \end{aligned}$ | $\begin{aligned} & 0.2500 \\ & 0.3125 \end{aligned}$ $0.3750$ | $\begin{aligned} & 7 / 166 \\ & 9 / 16 \\ & 5 / 8 \end{aligned}$ | $\begin{aligned} & \hline 0.438 \\ & 0.562 \\ & 0.625 \end{aligned}$ | $\begin{aligned} & \hline 0.423 \\ & 0.545 \\ & 0.607 \end{aligned}$ | $\begin{aligned} & \hline 0.619 \\ & 0.795 \\ & 0.884 \end{aligned}$ | $\begin{aligned} & \hline 0.581 \\ & 0.748 \\ & 0.833 \end{aligned}$ | $\begin{aligned} & \hline 0.505 \\ & 0.650 \\ & 0.722 \end{aligned}$ | $\begin{aligned} & \hline 0.482 \\ & 0.621 \\ & 0.692 \end{aligned}$ | $\begin{aligned} & 0.193 \\ & 0.225 \\ & 0.257 \end{aligned}$ | $\begin{aligned} & 0.178 \\ & 0.208 \\ & 0.239 \end{aligned}$ |

## REGULAR SQUARE NUTS



| Nominal or Basic Major Dia. of Thread |  | F |  |  | G |  | H |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Width Across Flats |  |  | Width Across Corners |  | Thickness |  |  |
|  |  | Basic | Max. | Min. | Max. | Min. | Basic | Max. | Min. |
| 1/4 | 0.2500 | 7/16 | 0.438 | 0.425 | 0.619 | 0.584 | 7/32 | 0.235 | 0.203 |
| 5/16 | 0.3125 | 9/16 | 0.562 | 0.547 | 0.795 | 0.751 | 17/64 | 0.283 | 0.249 |
| 3/8 | 0.3750 | 5/8 | 0.625 | 0.606 | 0.884 | 0.832 | 21/64 | 0.346 | 0.310 |
| 7/16 | 0.4375 | 3/4 | 0.750 | 0.728 | 1.061 | 1.000 | 3/8 | 0.394 | 0.356 |
| 1/2 | 0.5000 | 13/16 | 0.812 | 0.788 | 1.149 | 1.082 | 7/16 | 0.458 | 0.418 |
| 5/8 | 0.6250 | 1 | 1.000 | 0.969 | 1.414 | 1.330 | 35/64 | 0.569 | 0.525 |
| 3/4 | 0.7500 | 1-1/8 | 1.125 | 1.088 | 1.591 | 1.494 | 21/32 | 0.680 | 0.632 |
| 7/8 | 0.8750 | 1-5/16 | 1.312 | 1.269 | 1.856 | 1.742 | 49/64 | 0.792 | 0.740 |
| 1 | 1.0000 | 1-1/2 | 1.500 | 1.450 | 2.121 | 1.991 | 7/8 | 0.903 | 0.847 |
| 1-1/4 | 1.2500 | 1-7/8 | 1.875 | 1.812 | 2.652 | 2.458 | 1-3/32 | 1.126 | 1.062 |
| 1-1/2 | 1.5000 | 2-1/4 | 2.250 | 2.175 | 3.182 | 2.956 | 1-5/16 | 1.348 | 1.276 |



# WING NUTS Cold Forged 

| Nominal Size or Basic Major Diameter of Thread |  | Threads per Inch | A |  | B |  | C |  | D |  | E |  | G |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Wing Spread | Wing Height |  | Wing Thickness |  | Between Wings |  | $\begin{gathered} \text { Boss } \\ \text { Diameter } \end{gathered}$ |  | Boss Height |  |
|  |  | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. |
| 6 | 0.1380 |  | 32 | 0.72 | 0.59 | 0.41 | 0.28 | 0.11 | 0.07 | 0.21 | 0.17 | 0.33 | 0.29 | 0.14 | 0.10 |
| 8 | 0.1640 |  | 32 | 0.91 | 0.78 | 0.47 | 0.34 | 0.14 | 0.10 | 0.27 | 0.22 | 0.43 | 0.39 | 0.18 | 0.14 |
| 10 | 0.1900 | 24 \& 32 | 0.91 | 0.78 | 0.47 | 0.34 | 0.14 | 0.10 | 0.27 | 0.22 | 0.45 | 0.39 | 0.18 | 0.14 |
| 1/4 | 0.2500 | 20 | 1.10 | 0.97 | 0.57 | 0.43 | 0.18 | 0.14 | 0.39 | 0.26 | 0.50 | 0.45 | 0.22 | 0.17 |
| 5/16 | 0.3125 | 18 | 1.25 | 1.12 | 0.66 | 0.53 | 0.21 | 0.17 | 0.39 | 0.32 | 0.58 | 0.51 | 0.25 | 0.20 |
| 3/8 | 0.3750 | 16 | 1.44 | 1.31 | 0.79 | 0.65 | 0.24 | 0.20 | 0.48 | 0.42 | 0.70 | 0.64 | 0.30 | 0.26 |
| 1/2 | 0.5000 | 13 | 1.94 | 1.81 | 1.00 | 0.87 | 0.33 | 0.26 | 0.65 | 0.54 | 0.93 | 0.86 | 0.39 | 0.35 |
| 5/8 | 0.6250 | 11 | 2.76 | 2.62 | 1.44 | 1.31 | 0.40 | 0.34 | 0.90 | 0.80 | 1.19 | 1.13 | 0.55 | 0.51 |
| 3/4 | 0.7500 | 10 | 2.76 | 2.62 | 1.44 | 1.31 | 0.40 | 0.34 | 0.90 | 0.80 | 1.19 | 1.13 | 0.55 | 0.51 |



## WING NUTS Stamped

| Nominal Size or Basic Major Diameter of Thread |  | ThreadsperInch | A |  | B |  | C |  | D | E |  | G | H | T |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Wing Spread | Wing Height |  | Wing Thickness |  | Between Wings | Boss Diameter |  | Boss <br> Height | Wall Height | Stock Thickness |  |
|  |  | Max. | Min. | Max. | Min. | Max. | Min. | Min. | Max. | Min. | Min. | Min. | Max. | Min. |
| 6 | 0.1380 |  | 32 | 0.78 | 0.72 | 0.40 | 0.34 | 0.18 | 0.14 | 0.25 | 0.41 | 0.35 | 0.08 | 0.12 | 0.04 | 0.03 |
| 8 | 0.1640 |  | 32 | 0.78 | 0.72 | 0.40 | 0.34 | 0.18 | 0.14 | 0.25 | 0.41 | 0.35 | 0.08 | 0.12 | 0.04 | 0.03 |
| 10 | 0.1900 | 24 \& 32 | 0.91 | 0.85 | 0.47 | 0.41 | 0.21 | 0.17 | 0.34 | 0.53 | 0.47 | 0.10 | 0.12 | 0.04 | 0.03 |
| 1/4 | 0.2500 | 20 | 1.11 | 1.05 | 0.50 | 0.44 | 0.25 | 0.21 | 0.34 | 0.62 | 0.56 | 0.11 | 0.12 | 0.05 | 0.04 |
| 5/16 | 0.3125 | 18 \& 24 | 1.30 | 1.24 | 0.59 | 0.53 | 0.30 | 0.26 | 0.46 | 0.73 | 0.67 | 0.14 | 0.18 | 0.06 | 0.05 |
| 3/8 | 0.3750 | 16 \& 24 | 1.41 | 1.34 | 0.67 | 0.61 | 0.34 | 0.30 | 0.69 | 0.83 | 0.77 | 0.16 | 0.18 | 0.06 | 0.05 |

## T-NUTS, STRAIGHT BARREL



| Part <br> Number | Thread <br> Size | G | Flange <br> Dia. | Barrel <br> Height | Barrel <br> Diam. | Prong <br> Height | T <br> Material <br> Thickness | Drill <br> Size |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| LBS <br> Per M <br> Pcs. |  |  |  |  |  |  |  |  |
| 1005NT3 | $10-24$ | $3 / 4$ | $5 / 16$ | .243 | $7 / 32$ | .040 | $1 / 4$ | 7 |
| 1005NT4 | $10-24$ | $3 / 4$ | $5 / 16$ | .243 | $7 / 32$ | .040 | $1 / 4$ | 7 |
| 1105NT3 | $10-32$ | $3 / 4$ | $5 / 16$ | .243 | $7 / 32$ | .040 | $1 / 4$ | 7 |
| 1105NT4 | $10-32$ | $3 / 4$ | $5 / 16$ | .243 | $7 / 32$ | .040 | $1 / 4$ | 7 |
| 1405NT3 | $1 / 4-20$ | $3 / 4$ | $5 / 16$ | .305 | $7 / 32$ | .047 | $5 / 16$ | 9 |
| 1405NT4 | $1 / 4-20$ | $3 / 4$ | $5 / 16$ | .305 | $7 / 32$ | .047 | $5 / 16$ | 9 |
| 1407NT3 | $1 / 4-20$ | $3 / 4$ | $7 / 16$ | .305 | $5 / 16$ | .047 | $5 / 16$ | 9 |
| 1407NT4 | $1 / 4-20$ | $3 / 4$ | $7 / 16$ | .305 | $1 / 4$ | .047 | $5 / 16$ | 9 |
| 3106NT3 | $5 / 16-18$ | $7 / 8$ | $3 / 8$ | .390 | $1 / 4$ | .063 | $25 / 64$ | 14 |
| 3106NT4 | $5 / 16-18$ | $7 / 8$ | $3 / 8$ | .390 | $1 / 4$ | .063 | $25 / 64$ | 14 |
| 3110NT3 | $5 / 16-18$ | $7 / 8$ | $5 / 8$ | .390 | $5 / 16$ | .063 | $25 / 64$ | 18 |
| 3707NT4 | $3 / 8-16$ | 1 | $7 / 16$ | .440 | $11 / 32$ | .063 | $29 / 64$ | 19 |

## TWO PIECE HEX CAP NUTS



| Part \# | Size | Across the Flats | Overall Hght. |
| :---: | :---: | :---: | :---: |
| 06NC | $6-32$ | $5 / 16$ | $1 / 4$ |
| 08NC | $8-32$ | $5 / 16$ | $1 / 4$ |
| 10NC | $10-24$ | $3 / 8$ | $9 / 32$ |
| 11NC | $10-32$ | $3 / 8$ | $11 / 32$ |
| 14NC | $1 / 4-20$ | $7 / 16$ | $21 / 64$ |
| 31NC | $5 / 16-18$ | $9 / 16$ | $3 / 8$ |
| 37NC | $3 / 8-16$ | $5 / 8$ | $27 / 64$ |
| 5ONC | $1 / 2-13$ | $3 / 4$ | $9 / 16$ |
| 62NC | $5 / 8-11$ | $15 / 16$ | $51 / 64$ |

## HEX COUPLING NUTS



Dimensions of Hex Coupling Nuts

| Nom <br> Size or <br> Basic Major Dia of Thread |  |  | F |  |  |  |  | H |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Width Across Flats |  |  | Width <br> Across <br> Corners |  | Length |  |  |
|  |  | Basic | Max | Min | Max | Min | Basic | Max | Min |
| 1/4 | 0.2500 | 3/8 | 0.375 | 0.365 | 0.433 | 0.416 | 3/4 | 0.76 | 0.74 |
| 5/16 | 0.3125 | 1/2 | 0.500 | 0.489 | 0.577 | 0.557 | 15/16 | 0.95 | 0.93 |
| 3/8 | 0.3750 | 9/16 | 0.562 | 0.551 | 0.650 | 0.628 | 1-1/8 | 1.13 | 1.11 |
| 1/2 | 0.5000 | 3/4 | 0.750 | 0.736 | 0.866 | 0.839 | 1-1/2 | 1.51 | 1.49 |
| 5/8 | 0.6250 | 15/16 | 0.938 | 0.922 | 1.083 | 1.051 | 1-7/8 | 1.89 | 1.86 |
| 3/4 | 0.7500 | 1-1/8 | 1.125 | 1.088 | 1.299 | 1.240 | 2-1/4 | 2.27 | 2.22 |
| 1 | 1.0000 | 1-1/2 | 1.500 | 1.450 | 1.732 | 1.653 | 3 | 3.03 | 2.97 |

## NYLON INSERT STOP NUTS



## NYLON INSERT STOP NUTS

Thin Pattern

| Nominal Size or Basic Thread Diameter |  | F |  |  | H |  | I | G |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Width Across Flats |  |  | Thickness |  | Side Height | Width <br> Across <br> Corners <br> Ref. |  |
|  |  | Basic | Max. | Min. | Max. | Min. | Ref. |  |  |
| 4 | . 1120 | 1/4 | . 251 | . 241 | . 124 | . 094 | . 075 | . 268 |  |
| 6 | . 1380 | 5/16 | . 313 | . 302 | . 140 | . 110 | . 090 | . 399 |  |
| 8 | . 1640 | 11/32 | . 345 | . 332 | . 187 | . 157 | . 110 | . 374 | $\square$ |
| 10 | . 1900 | 3/8 | . 376 | . 362 | . 187 | . 157 | . 110 | . 410 |  |
| 1/4 | . 2500 | 7/16 | . 439 | . 428 | . 218 | . 188 | . 125 | . 482 |  |
| 5/16 | . 3125 | 1/2 | . 502 | . 489 | . 265 | . 235 | . 158 | . 552 |  |
| 3/8 | . 3750 | 9/16 | . 565 | . 551 | . 281 | . 251 | . 150 | . 622 |  |
| 7/16 | . 4375 | 11/16 | . 690 | . 675 | . 328 | . 298 | . 190 | . 694 |  |
| 1/2 | . 5000 | 3/4 | . 752 | . 736 | . 328 | . 298 | . 225 | . 837 |  |
| 5/8 | . 6250 | 15/16 | . 940 | . 922 | . 406 | . 376 | . 264 | 1.051 |  |
| 3/4 | . 7500 | 1-1/8 | 1.127 | 1.088 | . 421 | . 391 | . 288 | 1.191 |  |

## Dimensional Data

# FINISHED HEX NUTS, HEX JAM AND TWO WAY REVERSIBLE LOCK NUTS 



| Nominal Or asic Major Dia of Thread |  | F |  |  | G |  | H |  |  | H1 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Width Across Flats |  |  | Width Across Corners |  | Thickness Hex Nuts \& Reversible Lock Nuts |  |  | Thickness Hex Jam Nuts |  |  |
|  |  | Basic | Max | Min | Max | Min | Basic | Max | Min | Basic | Max | Min |
| 8 | 0.1640 | 11/32 | 0.344 | 0.332 | 0.397 | 0.378 | - | 0.203 | 0.187 | - | - | - |
| 10 | 0.1900 | 3/8 | 0.375 | 0.362 | 0.433 | 0.413 | - | 0.203 | 0.187 | - | - | - |
| 1/4 | 0.2500 | 7/16 | 0.438 | 0.428 | 0.505 | 0.488 | 7/32 | 0.226 | 0.212 | 5/32 | 0.164 | 0.150 |
| 5/16 | 0.3125 | 1/2 | 0.500 | 0.489 | 0.577 | 0.557 | 17/64 | 0.273 | 0.258 | 3/16 | 0.195 | 0.180 |
| 3/8 | 0.3750 | 9/16 | 0.562 | 0.551 | 0.650 | 0.628 | 21/64 | 0.337 | 0.320 | 7/32 | 0.227 | 0.210 |
| 7/16 | 0.4375 | 11/16 | 0.688 | 0.675 | 0.794 | 0.768 | 3/8 | 0.385 | 0.365 | 1/4 | 0.260 | 0.240 |
| 1/2 | 0.5000 | 3/4 | 0.750 | 0.736 | 0.866 | 0.840 | 7/16 | 0.448 | 0.427 | 5/16 | 0.323 | 0.302 |
| 9/16 | 0.5625 | 7/8 | 0.875 | 0.861 | 1.010 | 0.982 | 31/64 | 0.496 | 0.473 | 5/16 | 0.324 | 0.301 |
| 5/8 | 0.6250 | 15/16 | 0.938 | 0.922 | 1.083 | 1.051 | 35/64 | 0.559 | 0.535 | 3/8 | 0.387 | 0.363 |
| 3/4 | 0.7500 | 1-1/8 | 1.125 | 1.088 | 1.299 | 1.240 | 41/64 | 0.665 | 0.617 | 27/64 | 0.446 | 0.398 |
| 7/8 | 0.8750 | 1-5/16 | 1.312 | 1.269 | 1.516 | 1.447 | 3/4 | 0.776 | 0.724 | 31/64 | 0.510 | 0.458 |
| 1 | 1.0000 | 1-1/2 | 1.500 | 1.450 | 1.732 | 1.653 | 55/64 | 0.887 | 0.831 | 35/64 | 0.575 | 0.519 |
| 1-1/8 | 1.1250 | 1-11/16 | 1.688 | 1.631 | 1.949 | 1.859 | 31/32 | 0.999 | 0.939 | 39/64 | 0.639 | 0.579 |
| 1-1/4 | 1.2500 | 1-7/8 | 1.875 | 1.812 | 2.165 | 2.066 | 1-1/6 | 1.094 | 1.030 | 23/32 | 0.751 | 0.687 |
| 1-3/8 | 1.3750 | 2-1/16 | 2.062 | 1.994 | 2.382 | 2.273 | 1-11/64 | 1.206 | 1.138 | 25/32 | 0.815 | 0.747 |
| 1-1/2 | 1.5000 | 2-1/4 | 2.250 | 2.175 | 2.598 | 2.480 | 1-9/32 | 1.317 | 1.245 | 27/32 | 0.880 | 0.808 |
| 1-5/8 | 1.6250 | 2-7/16 | 2.438 | 2.356 | 2.815 | 2.686 | 1-25/64 | 1.429 | 1.353 | 29/32 | 0.945 | 0.869 |
| 1-3/4 | 1.7500 | 2-5/8 | 2.625 | 2.538 | 3.031 | 2.893 | 1-1/2 | 1.540 | 1.460 | 31/32 | 1.009 | 0.929 |
| 2 | 2.0000 | 3 | 3.000 | 2.900 | 3.464 | 3.306 | 1-23/32 | 1.763 | 1.675 | 1-3/32 | 1.138 | 1.050 |
| 2-1/4 | 2.2500 | 3-3/8 | 3.375 | 3.263 | 3.897 | 3.719 | 1-15/16 | 1.986 | 1.890 | 1-7/32 | 1.267 | 1.171 |
| 2-1/2 | 2.5000 | 3-3/4 | 3.750 | 3.625 | 4.330 | 4.133 | 2-5/32 | 2.209 | 2.105 | 1-11/32 | 1.396 | 1.292 |
| 2-3/4 | 2.7500 | 4-1/8 | 4.125 | 3.988 | 4.763 | 4.546 | 2-3/8 | 2.431 | 2.319 | 1-15/32 | 1.525 | 1.413 |
| 3 | 3.0000 | 4-1/2 | 4.500 | 4.350 | 5.196 | 4.959 | 2-19/32 | 2.654 | 2.534 | 1-19/32 | 1.654 | 1.534 |

## SERRATED FLANGE LOCK NUTS



| Nominal Size or Basic Major Diameter of Thread |  | F |  | G |  | B |  | H |  | K | J |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Width <br> Across <br> Flats |  | Width Across Corners |  | Flange Diameter |  | Nut Thickness |  | Wrenching Length | Flange Thickness |
|  |  | Max. | Min. | Max. | Min. | Max. | Min. | Max. | Min. | Min. | Max. |
| 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 |
| 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 |

## "K" LOCK NUTS



| Nominal Size or Basic Thread Diameter |  | F |  |  | G |  | H |  | I |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Width Across Flats |  |  | Width Across Corners |  | Thickness |  | Washer Diameter |
|  |  |  |  |  | Hex |  |  |  |  |
|  |  | Basic | Max. | Min. | Max. | Min. | Max. | Min. | Ref. |
| 4 | 0.1120 | 1/4 | 0.250 | 0.241 | 0.289 | 0.275 | 0.098 | 0.087 | 0.281 |
| 6 | 0.1380 | 5/16 | 0.312 | 0.302 | 0.361 | 0.344 | 0.114 | 0.102 | 0.344 |
| 8 | 0.1640 | 11/32 | 0.344 | 0.332 | 0.397 | 0.378 | 0.130 | 0.117 | 0.375 |
| 10 | 0.1900 | 3/8 | 0.375 | 0.362 | 0.433 | 0.413 | 0.130 | 0.117 | 0.406 |
| 1/4 | 0.2500 | 7/16 | 0.438 | 0.423 | 0.505 | 0.482 | 0.193 | 0.178 | 0.500 |
|  | 0.3125 | 1/2 | 0.500 | 0.489 | 0.577 | 0.557 | 0.273 | 0.258 | 0.578 |
|  | 0.3750 | 9/16 | 0.562 | 0.551 | 0.650 | 0.628 | 0.385 | 0.365 | 0.656 |

 Grade C Automation Style

| Nom. <br> Size <br> In <br> Inches | T |  |  | W |  | B |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Width | Across | Flats | Overall Thickness |  | Hex <br> Height |
|  | Nom. | Max. | Min. | Max. | Min. | (Min.) |
| 1/4 | 7/16 | 0.4385 | 0.428 | 0.226 | 0.212 | 0.145 |
| 5/16 | 1/2 | 0.5020 | 0.489 | 0.273 | 0.258 | 0.166 |
| 3/8 | 9/16 | 0.5645 | 0.551 | 0.337 | 0.320 | 0.198 |
| 7/16 | 11/16 | 0.6895 | 0.675 | 0.385 | 0.365 | 0.223 |
| 1/2 | 3/4 | 0.7520 | 0.736 | 0.448 | 0.427 | 0.262 |
| 9/16 | 7/8 | 0.8770 | 0.861 | 0.496 | 0.473 | 0.286 |
| 5/8 | 15/16 | 0.9395 | 0.922 | 0.559 | 0.535 | 0.329 |
| 3/4 | 1-1/8 | 1.1270 | 1.088 | 0.665 | 0.617 | 0.382 |
| 7/8 | 1-5/16 | 1.3145 | 1.2690 | 0.776 | 0.724 | 0.450 |
| 1 | 1-1/2 | 1.5020 | 1.4500 | 0.887 | 0.831 | 0.513 |

## Grade GT Flange Style



| Nom. <br> Size <br> In | Width | F |  |  | Across | Flats | Flange <br> Diam. | Overall <br> Thickness |  | Hex <br> Height | Flange <br> Thick. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Nom. | Max. | Min. | (Max.) | Max. | Min. | (Min.) | (Min.) |  |  |  |
|  | $9 / 16$ | 0.5645 | 0.551 | 0.810 | 0.425 | 0.404 | 0.200 | 0.060 |  |  |  |
| $1 / 2$ | $3 / 4$ | 0.7520 | 0.736 | 1.070 | 0.555 | 0.528 | 0.260 | 0.080 |  |  |  |
| $5 / 8$ | $15 / 16$ | 0.9395 | 0.922 | 1.330 | 0.690 | 0.646 | 0.320 | 0.100 |  |  |  |
| $3 / 4$ | $1-1 / 8$ | 1.1270 | 1.088 | 1.585 | 0.825 | 0.742 | 0.380 | 0.110 |  |  |  |

