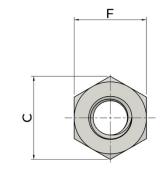


## **Finished Hex Nuts - Inch Series**

### 1.0 Dimensions: As Per ASME B18.2.2.

|                                   | F                  |       | С                    |       | т         |       |
|-----------------------------------|--------------------|-------|----------------------|-------|-----------|-------|
|                                   |                    |       |                      |       |           |       |
| Nominal                           |                    |       |                      |       |           |       |
| Size or                           | Width Across Flats |       | Width Across Corners |       | Thickness |       |
| Basic Major<br>Diameter of Thread | Max                | Min   | Мах                  | Min   | Max       | Min   |
| Diameter of Thread                | 0.438              | 0.428 | 0.505                | 0.488 | 0.226     | 0.212 |
| 5/16                              | 0.438              | 0.428 | 0.505                | 0.488 | 0.220     | 0.212 |
| 3/8                               | 0.563              | 0.551 | 0.650                | 0.628 | 0.273     | 0.320 |
| 7/16                              | 0.585              | 0.675 | 0.794                | 0.768 | 0.385     | 0.365 |
| 1/2                               | 0.888              | 0.875 | 0.794                | 0.768 | 0.385     | 0.305 |
| •                                 |                    |       |                      | 0.840 |           |       |
| 9/16                              | 0.875              | 0.861 | 1.010<br>1.083       |       | 0.496     | 0.473 |
| 5/8                               | 0.938              | 0.922 |                      | 1.051 | 0.559     | 0.535 |
| 3/4                               | 1.125              | 1.088 | 1.299                | 1.240 | 0.665     | 0.617 |
| 7/8                               | 1.312              | 1.269 | 1.516                | 1.447 | 0.776     | 0.724 |
| 1                                 | 1.500              | 1.450 | 1.732                | 1.653 | 0.887     | 0.831 |
| 1-1/8                             | 1.688              | 1.631 | 1.949                | 1.859 | 0.999     | 0.939 |
| 1-1/4                             | 1.875              | 1.812 | 2.165                | 2.066 | 1.094     | 1.030 |
| 1-3/8                             | 2.062              | 1.994 | 2.382                | 2.273 | 1.206     | 1.138 |
| 1-1/2                             | 2.250              | 2.175 | 2.598                | 2.480 | 1.317     | 1.245 |
| 1-5/8                             | 2.430              | 2.350 | 2.805                | 2.679 | 1.416     | 1.364 |
| 1-3/4                             | 2.625              | 2.538 | 3.031                | 2.893 | 1.540     | 1.460 |
| 1-7/8                             | 2.813              | 2.722 | 3.247                | 3.103 | 1.651     | 1.567 |
| 2                                 | 3.000              | 2.900 | 3.464                | 3.306 | 1.763     | 1.675 |
| 2-1/4                             | 3.375              | 3.263 | 3.897                | 3.719 | 1.986     | 1.890 |
| 2-1/2                             | 3.750              | 3.625 | 4.330                | 4.133 | 2.209     | 2.105 |
| 3                                 | 4.500              | 4.350 | 5.196                | 4.959 | 2.654     | 2.534 |



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Notes: Thread Class of Fit: 2B

Disclaimer: The above is a compilation of data, from various industry standards. Fastener Depot has taken every effort to present the data accurately. However Fastener Depot cannot be held liable for any claim traceable to any errors typographical or otherwise contained herein.



# **Finished Hex Nuts - Inch Series**

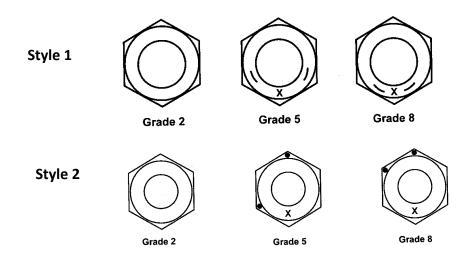
### **2.0 Mechanical Properties:**

#### 2.1 Steel - SAE J995

| Classification      |                         |                                  |                            |                   |  |
|---------------------|-------------------------|----------------------------------|----------------------------|-------------------|--|
| Grade               | Nominal Size            | Hardness                         | Proof Load Strength        |                   |  |
|                     | 1 / All Thurs 1 1 /2 (( |                                  | UNC & 8UN                  | UNF, 12UN & Finer |  |
| 2                   | 2 1/4" Thru 1-1/2 "     | 32 HRC Maximum                   | 90,000 PSI                 | 80,000 PSI        |  |
|                     | 5 1/4" Thru 1-1/2 "     |                                  | 1/4 " Thru 1 "             |                   |  |
|                     |                         |                                  | UNC & 8UN                  | UNF, 12UN & Finer |  |
| _                   |                         |                                  | 120,000 PSI                | 109,000 PSI       |  |
| 5                   |                         | 32 HRC Maximum                   | Over 1 " Thru 1-1/2 "      |                   |  |
|                     |                         |                                  | UNC & 8UN                  | UNF, 12UN & Finer |  |
|                     |                         |                                  | 105,000 PSI                | 94,000 PSI        |  |
| 8 1/4" Thru 1-1/2 ' |                         | 1/4" Thru 5/8 ": 24 -32 HRC      |                            | Thursd Ditches    |  |
|                     | 1/4" Thru 1-1/2 "       | Over 5/8" Thru 1 " : 26 -34 HRC  | All Sizes and All<br>150.0 |                   |  |
|                     |                         | Over 1" Thru 1-1/2 ": 26 -36 HRC | 130,0                      |                   |  |

Note : For sizes above 1-1/2 " mechanical properties may be derived from SAE J995

#### 2.2 Steel Grade Marking:



Notes: The nuts will also have manufacturer's marking, in addition to the grade marking as shown above.

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## **Finished Hex Nuts - Inch Series**

#### 2.3 Stainless Steel - ASTM F594

| Classification |                        |           |                         |                   |               |  |
|----------------|------------------------|-----------|-------------------------|-------------------|---------------|--|
| Туре           | Nominal Size           | Condition | Proof Load Strength ksi | Rockwell Hardness | Grade Marking |  |
| 204 (19.9)     | 1 / 4 to 5 /8 incl     | CW1       | 100 Minimum             | B95 to C35        | F594C         |  |
| 304 (18-8)     | 3 / 4 to 1 -1 / 2 incl | CW2       | 85 Minimum              | B80 to C35        | F594D         |  |
| 316            | 1 / 4 to 5 /8 incl     | CW1       | 100 Minimum             | B95 to C35        | F594G         |  |
|                | 3 / 4 to 1 -1 / 2 incl | CW2       | 85 Minimum              | B80 to C35        | F594H         |  |

(1Ksi = 1000 PSI)

**Notes:** The nuts will also have manufacturer's marking, in addition to the grade marking as shown above.

### **3.0 Surface Finish: Plain / Zinc. Zinc plating details given in table below.**

| Properties                | Zinc   | Zinc Yellow                                   | Zinc Yellow                                     |
|---------------------------|--|---|---|
| Туре                      | Trivalent (Cr+3)   | Hexavalent (Cr+6)                             | Trivalent (Cr+3)                                |
| Color                     | Clear  | Yellow  | Yellow  |
| Minimum Coating Thickness | 0.0001" / 3 Microns or<br>0.0002" / 5 Microns                                | 0.0001 " /3 Microns or<br>0.0002" / 5 Microns | 0.0001 " /3 Microns or<br>0.0002" / 5 Microns   |
| Specification             | ASTM F1941 / F1941M.<br>Fe/Zn 3AN or<br>Fe/Zn 5AN.<br>ASTM B633 SC1 Type III | ASTM F1941 / F1941M.<br>Fe/Zn 3C or Fe/Zn 5C  | ASTM F1941 /F1941M<br>Fe/Zn 3CN or<br>Fe/Zn 5CN |