



| HEX CASTLE NUTS                                |        |                    |       |       |                      |       |           |       |       |  |      |      |               |      |                  |                           | ANSI B18.2.2 1970             |
|--|--------|--------------------|-------|-------|----------------------|-------|-----------|-------|-------|--|------|------|---------------|------|------------------|---------------------------|-------------------------------|
| Nominal Size or Basic Major Diameter of Thread |        | F                  |       |       | G                    |       | H         |       |       | T                                      |      |      | S             |      | R                | W                         | Runout of Bearing Surface FIR |
|  |        | Width Across Flats |       |       | Width Across Corners |       | Thickness |       |       | Unslotted Thickness and Height of Flat |      |      | Width of Slot |      | Radius of Fillet | Diam. of Cylindrical Part |                               |
|  |        | Basic              | Max   | Min   | Max                  | Min   | Basic     | Max   | Min   | Nom                                    | Max  | Min  | Max           | Min  | +0.010           | Min                       | Max                           |
| 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                     | 0.015                         |
| 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                     | 0.016                         |
| 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                     | 0.017                         |
| 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                     | 0.018                         |
| 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                     | 0.019                         |
| 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                     | 0.020                         |
| 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                     | 0.021                         |
| 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                     | 0.023                         |
| 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                     | 0.025                         |
| 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                     | 0.027                         |

|                                |  |
|--------------------------------|--|
| <b>Description</b>             | Similar to a slotted nut with the following exception: the slots are cut into a cylindrical portion that is equal in length to the slot depth and slightly smaller in diameter than the hex width.                 |
| <b>Applications/Advantages</b> | The slots are for the insertion of a cotter pin to secure the nut when used with a drilled shank fastener. The slotted and castle styles are both interchangeable with the slotted design now the preferred style. |
| <b>Material</b>                | Nuts shall be made from a low-carbon steel which conforms to the following chemical composition requirements--Carbon: 0.47% max.; Phosphorus: 0.12% max.; Sulfur: 0.23% max..                                      |
| <b>Hardness</b>                | Rockwell C32 maximum   |
| <b>Plating</b>                 | See Appendix-A for plating information.  |