

## Socket Head Shoulder Screws — Dimensioning Table

ASME B18.3-2012 (abridged)

| Nominal Shoulder Diameter | D — Shoulder Diameter |       | A — Head Diameter |       | H — Head Height |       | J — Hexagon Socket Size |       | T — Min. Key Engagement | Thread Size | E — Basic Thread Length |
|---------------------------|-----------------------|-------|-------------------|-------|-----------------|-------|-------------------------|-------|-------------------------|-------------|-------------------------|
|                           | Max.                  | Min.  | Max.              | Min.  | Max.            | Min.  | Nom.                    | Dec.  |                         |             |                         |
| 1/8"                      | 0.123                 | 0.121 | 0.250             | 0.235 | 0.125           | 0.115 | 5/64                    | 0.078 | 0.067                   | 4-40        | 0.157                   |
| 5/32"                     | 0.154                 | 0.152 | 0.281             | 0.266 | 0.125           | 0.115 | 3/32                    | 0.094 | 0.067                   | 6-32        | 0.187                   |
| 3/16"                     | 0.185                 | 0.183 | 0.312             | 0.296 | 0.156           | 0.146 | 3/32                    | 0.094 | 0.079                   | 8-32        | 0.189                   |
| 1/4"                      | 0.248                 | 0.246 | 0.375             | 0.357 | 0.188           | 0.177 | 1/8                     | 0.125 | 0.094                   | 10-24       | 0.375                   |
| 5/16"                     | 0.311                 | 0.309 | 0.438             | 0.419 | 0.219           | 0.209 | 5/32                    | 0.156 | 0.117                   | 1/4-20      | 0.438                   |
| 3/8"                      | 0.373                 | 0.371 | 0.562             | 0.543 | 0.250           | 0.240 | 3/16                    | 0.188 | 0.141                   | 5/16-18     | 0.500                   |
| 1/2"                      | 0.498                 | 0.496 | 0.750             | 0.729 | 0.312           | 0.302 | 1/4                     | 0.250 | 0.188                   | 3/8-16      | 0.625                   |
| 5/8"                      | 0.623                 | 0.621 | 0.875             | 0.853 | 0.375           | 0.365 | 5/16                    | 0.312 | 0.234                   | 1/2-13      | 0.750                   |
| 3/4"                      | 0.748                 | 0.746 | 1.000             | 0.977 | 0.500           | 0.490 | 3/8                     | 0.375 | 0.281                   | 5/8-11      | 0.875                   |
| 1"                        | 0.998                 | 0.996 | 1.312             | 1.287 | 0.625           | 0.610 | 1/2                     | 0.500 | 0.375                   | 3/4-10      | 1.000                   |
| 1-1/4"                    | 1.248                 | 1.246 | 1.750             | 1.723 | 0.750           | 0.735 | 5/8                     | 0.625 | 0.469                   | 7/8-9       | 1.125                   |
| 1-1/2"                    | 1.498                 | 1.496 | 2.125             | 2.095 | 1.000           | 0.980 | 7/8                     | 0.875 | 0.656                   | 1-1/8-7     | 1.500                   |
| 1-3/4"                    | 1.748                 | 1.746 | 2.375             | 2.345 | 1.125           | 1.105 | 1                       | 1.000 | 0.750                   | 1-1/4-7     | 1.750                   |
| 2"                        | 1.998                 | 1.996 | 2.750             | 2.720 | 1.250           | 1.230 | 1-1/4                   | 1.250 | 0.937                   | 1-1/2-6     | 2.000                   |

All dimensions in inches, per ASME B18.3-2012. Abridged — neck, fillet and thread-neck details are in the standard; complete data from our estimating team. Shoulder diameter runs to a close h8-class tolerance. Manufactured and stocked in Houston, TX — 832-446-3442 · info@innovationfasteners.com. ISO 9001:2015.