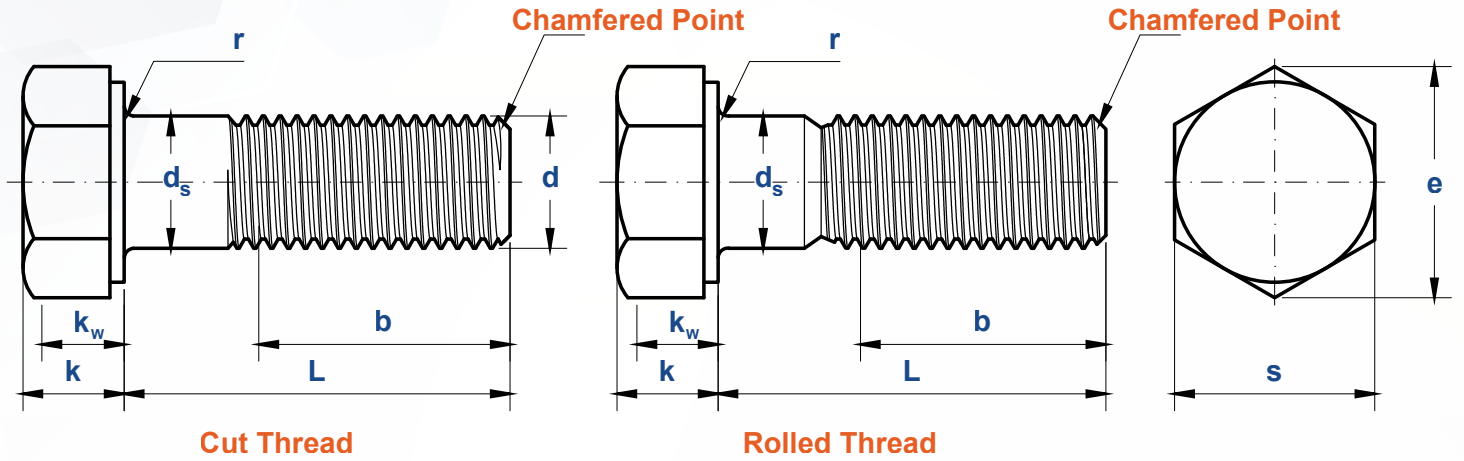




| Thread Size<br>d |       | 3/8   | 1/2   | 5/8   | 3/4   | 7/8   | 1     | 1-1/8 | 1-1/4 | 1-3/8 | 1-1/2 | 1-5/8 | 1-3/4 | 1-7/8 | 2     | 2-1/4 |
|------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| $d_s$            | max   | 0.375 | 0.500 | 0.625 | 0.75  | 0.875 | 1     | 1.125 | 1.25  | 1.375 | 1.5   | 1.625 | 1.75  | 1.875 | 2     | 2.25  |
|                  | min   | 0.36  | 0.482 | 0.605 | 0.729 | 0.852 | 0.976 | 1.098 | 1.223 | 1.345 | 1.47  | 1.591 | 1.716 | 1.839 | 1.964 | 2.214 |
| s                | max   | 0.688 | 0.875 | 1.062 | 1.25  | 1.438 | 1.625 | 1.812 | 2     | 2.188 | 2.375 | 2.562 | 2.75  | 2.938 | 3.125 | 3.5   |
|                  | min   | 0.669 | 0.850 | 1.031 | 1.212 | 1.394 | 1.575 | 1.756 | 1.938 | 2.119 | 2.3   | 2.481 | 2.662 | 2.844 | 3.025 | 3.388 |
| e                | max   | 0.794 | 1.01  | 1.227 | 1.443 | 1.66  | 1.876 | 2.093 | 2.309 | 2.526 | 2.742 | 2.959 | 3.175 | 3.392 | 3.608 | 4.041 |
|                  | min   | 0.763 | 0.969 | 1.175 | 1.383 | 1.589 | 1.796 | 2.002 | 2.209 | 2.416 | 2.622 | 2.829 | 3.035 | 3.242 | 3.449 | 3.862 |
| k                | max   | 0.243 | 0.323 | 0.403 | 0.483 | 0.563 | 0.627 | 0.718 | 0.813 | 0.878 | 0.974 | 1.038 | 1.134 | 1.198 | 1.263 | 1.423 |
|                  | min   | 0.226 | 0.302 | 0.378 | 0.455 | 0.531 | 0.591 | 0.658 | 0.749 | 0.81  | 0.902 | 0.962 | 1.054 | 1.114 | 1.175 | 1.327 |
| $k_w$            | min   | 0.160 | 0.215 | 0.269 | 0.324 | 0.378 | 0.416 | 0.461 | 0.530 | 0.569 | 0.640 | 0.694 | 0.748 | 0.802 | 0.825 | 0.933 |
| b                | Ref.  |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
|                  | L ≤ 6 | 1     | 1.25  | 1.5   | 1.75  | 2     | 2.25  | 2.5   | 2.75  | 3     | 3.25  | 3.5   | 3.75  | 4     | 4.25  | -     |
|                  | L > 6 | 1.25  | 1.5   | 1.75  | 2     | 2.25  | 2.5   | 2.75  | 3     | 3.25  | 3.5   | 3.75  | 4     | 4.25  | 4.5   | 5     |

| Thread Size<br>d |       | 2-1/2 | 2-3/4 | 3     | 3-1/4 | 3-1/2 | 3-3/4  | 4      | 4-1/4  | 4-1/2  | 4-3/4  | 5      | 5-1/4  | 5-1/2  | 5-3/4  | 6      |
|------------------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| $d_s$            | max   | 2.5   | 2.75  | 3     | 3.25  | 3.5   | 3.75   | 4      | 4.25   | 4.5    | 4.75   | 5      | 5.25   | 5.5    | 5.75   | 6      |
|                  | min   | 2.461 | 2.711 | 2.961 | 3.21  | 3.461 | 3.7109 | 3.9609 | 4.2228 | 4.4727 | 4.7227 | 4.9726 | 5.2226 | 5.4726 | 5.7225 | 5.9725 |
| s                | max   | 3.875 | 4.25  | 4.625 | 5     | 5.375 | 5.75   | 6.125  | 6.5    | 6.875  | 7.25   | 7.625  | 8      | 8.375  | 8.75   | 9.125  |
|                  | min   | 3.75  | 4.112 | 4.475 | 4.838 | 5.2   | 5.562  | 5.925  | 6.288  | 6.65   | 7.012  | 7.375  | 7.738  | 8.1    | 8.462  | 8.825  |
| e                | max   | 4.474 | 4.907 | 5.34  | 5.774 | 6.207 | 6.64   | 7.073  | 7.506  | 7.939  | 8.372  | 8.805  | 9.238  | 9.671  | 10.104 | 10.537 |
|                  | min   | 4.275 | 4.688 | 5.102 | 5.515 | 5.928 | 6.341  | 6.755  | 7.168  | 7.581  | 7.994  | 8.408  | 8.821  | 9.234  | 9.647  | 10.060 |
| k                | max   | 1.583 | 1.744 | 1.935 | 2.126 | 2.256 | 2.447  | 2.576  | 2.768  | 2.896  | 3.088  | 3.217  | 3.408  | 3.538  | 3.729  | 3.858  |
|                  | min   | 1.479 | 1.632 | 1.815 | 1.998 | 2.12  | 2.303  | 2.424  | 2.608  | 2.728  | 2.912  | 3.033  | 3.216  | 3.338  | 3.521  | 3.642  |
| $k_w$            | min   | 1.042 | 1.151 | 1.290 | 1.399 | 1.484 | 1.612  | 1.697  | 1.826  | 1.910  | 2.038  | 2.123  | 2.251  | 2.337  | 2.465  | 2.549  |
| b                | Ref.  |       |       |       |       |       |        |        |        |        |        |        |        |        |        |        |
|                  | L ≤ 6 | -     | -     | -     | -     | -     | -      | -      | -      | -      | -      | -      | -      | -      | -      | -      |
|                  | L > 6 | 5.5   | 6     | 6.5   | 7     | 7.5   | 8      | 8.5    | 9      | 9.5    | 10     | 10.5   | 11     | 11.5   | 12     | 12.5   |

①. Thickness of the washer face shall be not less than 0.015 in. nor greater than 0.025 in. for screw sizes 3/4 in. and smaller, and not less than 0.015 in. nor greater than 0.035 in. for screw sizes larger than 3/4 in. The washer face is not applicable to hex flange or lobed head screws. The washer face diameter shall be equal to the maximum width across flats with a tolerance of -10%. Measurement of the washer face diameter shall be taken 0.004 in. below the bearing surface plane toward the head of the screw.

②. b is a reference dimension intended for calculation purposes only. When screw length  $L \leq 6$  in.,  $b=2d+0.25$ ; when  $L > 6$  in.,  $b=2d+0.5$ .