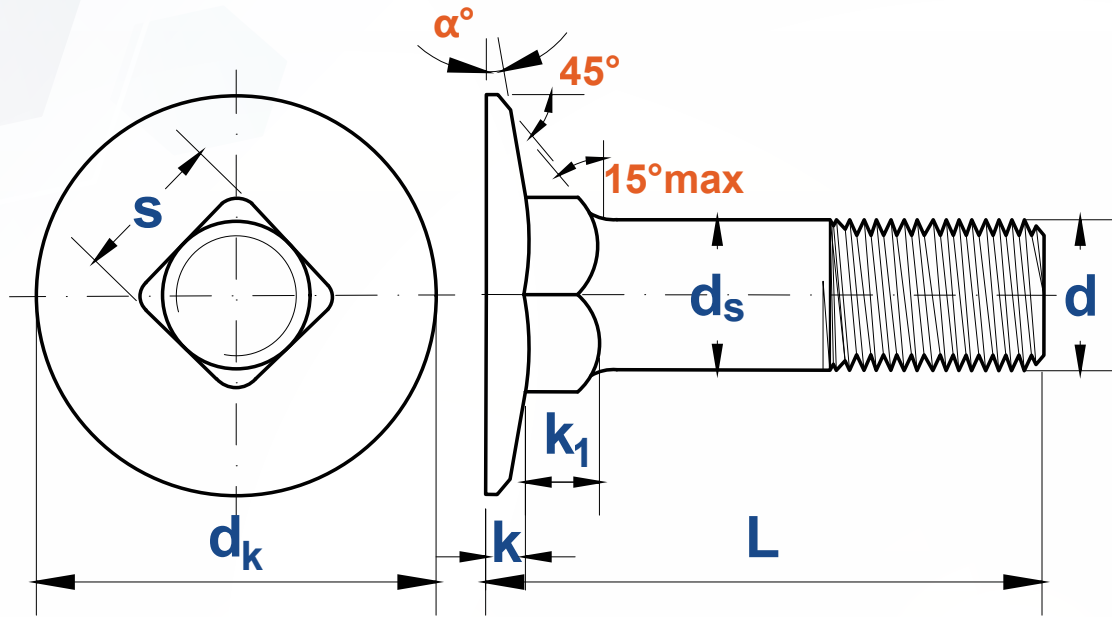




| Thread Size<br>$d$ |      | 10#   | 1/4   | 5/16  | 3/8   | 7/16  | 1/2   |
|--------------------|------|-------|-------|-------|-------|-------|-------|
| PP                 | UNC  | 24    | 20    | 18    | 16    | 14    | 13    |
|                    |      |       |       |       |       |       |       |
| $d_s$              | max  | 0.199 | 0.260 | 0.324 | 0.388 | 0.452 | 0.515 |
|                    | min  | 0.182 | 0.237 | 0.298 | 0.360 | 0.421 | 0.483 |
| $d_k$              | max  | 0.790 | 1.008 | 1.227 | 1.352 | 1.477 | 1.602 |
|                    | min  | 0.750 | 0.969 | 1.188 | 1.312 | 1.438 | 1.562 |
| $k$                | max  | 0.082 | 0.098 | 0.114 | 0.145 | 0.176 | 0.176 |
|                    | min  | 0.062 | 0.078 | 0.094 | 0.125 | 0.156 | 0.156 |
| $s$                | max  | 0.210 | 0.280 | 0.342 | 0.405 | 0.468 | 0.530 |
|                    | min  | 0.185 | 0.245 | 0.307 | 0.368 | 0.431 | 0.492 |
| $k_1$              | max  | 0.125 | 0.219 | 0.250 | 0.250 | 0.281 | 0.281 |
|                    | min  | 0.094 | 0.188 | 0.219 | 0.219 | 0.250 | 0.250 |
| $a$                | Ref. | 9°    | 9°    | 9°    | 11°   | 13°   | 12°   |

①, Minimum Thread Length:

The minimum length of thread shall be equal to twice the basic bolt diameter plus 0.25 in. for nominal bolt lengths of 6 in. or shorter, and twice the basic bolt diameter plus 0.50 in. for longer nominal lengths.

Bolts of nominal lengths too short to accommodate the minimum thread lengths shall be threaded full length. The length from the head or neck to the first complete (full form) thread shall not exceed the length of 2-1/2 threads for sizes up to and including 1 in., and 3-1/2 threads for sizes over 1 in.