



**THREADS FOR SELF-TAPPING SCREWS TYPE A**

ASME B18.6.4

| Nominal Size or Basic Screw Diameter | Threads Per Inch | D                     |      | d              |      | L  |           | Minimum Torsional Strength, lb.-in. (STEEL SCREWS ONLY) |     |
|--------------------------------------|------------------|-----------------------|------|----------------|------|--|-----------|---|-----|
|                                      |                  | Major Diameter        |      | Minor Diameter |      | These Lengths or Shorter Have AB Threads |           |   |     |
|                                      |                  | Max                   | Min  | Max            | Min  | 90° Heads                                | Csk Heads |   |     |
| 6                                    | 0.1380           | 18                    | .141 | .136           | .102 | .096                                     | 1/4       | 5/16  | 24  |
| 7                                    | 0.1510           | 16                    | .158 | .152           | .114 | .108                                     | 5/16      | 3/8   | 30  |
| 8                                    | 0.1640           | 15                    | .168 | .162           | .123 | .116                                     | 3/8       | 7/16  | 39  |
| 9*                                   | 0.1770           | 14                    | .181 | .170           | .130 | .120                                     | 3/8       | 7/16  | 47  |
| 10                                   | 0.1900           | 12                    | .194 | .188           | .133 | .126                                     | 3/8       | 1/2   | 48  |
| 12                                   | 0.2160           | 11                    | .221 | .215           | .162 | .155                                     | 7/16      | 9/16  | 83  |
| 14                                   | 0.2420           | 10                    | .254 | .248           | .185 | .178                                     | 1/2       | 5/8   | 125 |
| 20                                   | 0.3200           | 9                     | .333 | .327           | .234 | .226                                     | 11/16     | 13/16   | 250 |
| 24                                   | 0.3720           | 9                     | .390 | .383           | .291 | .282                                     | 3/4       | 1   | 492 |
| Tolerance on Length                  |                  | Up to 1" Incl.: ±0.03 |      |                |      | Over 1": ±0.05                           |           |   |     |

\* Dimensions for #9 diameter are independent of ASME B18.6.4

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| <b>Description</b>                     | A thread forming tapping screw with wider spaced threads than a Type-AB and a gimlet point.  |
| <b>Applications/ Advantages</b>        | For self starting in thin (.015-.050 thick) metal or resin-filled plywood. 18-8 Stainless steel tapping screws may be used in applications which require general atmospheric corrosion resistance. Fastening stainless steel parts to aluminum or steel can cause a type of corrosion known as a galvanic couple in some environments. |
| <b>Material</b>                        | <b>Steel:</b> AISI 1016 - 1024 or equivalent steel.<br><b>Stainless:</b> Austenitic 18-8 stainless steel   |
| <b>Heat Treatment (Steel only)</b>     | Screws shall be quenched in liquid and then tempered by reheating to 650°F minimum.  |
| <b>Surface Hardness</b>                | Steel: Rockwell C45 minimum  |
| <b>Case Depth (Steel only)</b>         | No. 6 diameter: .002 - .007<br>No. 8 thru 12 diameter: .004 - .009<br>1/4" and larger: .005 - .011   |
| <b>Core Hardness (after tempering)</b> | <b>Steel:</b> Rockwell C28 - 38  |
| <b>Plating</b>                         | See Appendix-A for information on plating of steel screws.   |