



Hole Size Information

Recommended pilot hole sizes for TAPTITE II®, DUO-TAPTITE® and TAPTITE® CA Screws and Bolts for steel nut member thicknesses

(Expressed in terms of screw diameters)

Metric Sizes (mm)

| Application Duty Class | Light 0.3 Diameter of Material | | | Medium-Light 0.5 Diameter of Material | | | Medium-Heavy 0.75 Diameter of Material | | | Full Strength 1.0 Diameter of Material | | | Extended 1.25 Diameter of Material | | |
|------------------------|-----------------------------------|------------|----------------|--|------------|--------------|---|------------|----------------|---|------------|----------------|---------------------------------------|------------|----------------|
| | 90% | | | 85% | | | 80% | | | 75% | | | 70% | | |
| Nominal Size | Material Thickness | Pilot Hole | Drill Size | Material Thickness | Pilot Hole | Drill Size | Material Thickness | Pilot Hole | Drill Size | Material Thickness | Pilot Hole | Drill Size | Material Thickness | Pilot Hole | Drill Size |
| M2.5 x 0.45 | 0.5-0.9 | 2.24 | 2.25 | 0.9-1.5 | 2.25 | 2.25 | 1.5-2.1 | 2.27 | #43 2.26 | 2.1-2.7 | 2.28 | #43 2.26 | 2.7-3.5 | 2.30 | 2.30 |
| M3 x 0.5 | 0.5-1.1 | 2.71 | #36 2.71 | 1.1-1.7 | 2.72 | #36 2.71 | 1.7-2.7 | 2.74 | 2.75 | 2.7-3.3 | 2.76 | 2.75 | 3.3-4.0 | 2.77 | 7/64" 2.78 |
| M3.5 x 0.6 | 0.6-1.4 | 3.15 | 1/8" 3.18 | 1.4-2.0 | 3.17 | 1/8" 3.18 | 2.0-2.9 | 3.19 | 3.2 | 2.9-3.8 | 3.21 | 3.2 | 3.8-4.5 | 3.23 | 3.25 |
| M4 x 0.7 | 0.8-1.4 | 3.59 | 3.6 | 1.4-2.4 | 3.61 | 3.60 | 2.4-3.3 | 3.64 | #27 3.66 | 3.3-4.4 | 3.66 | #27 3.66 | 4.4-5.5 | 3.68 | 3.7 |
| M4.5 x 0.75 | 0.9-1.7 | 4.06 | #21 4.04 | 1.7-2.7 | 4.09 | #20 4.09 | 2.7-3.9 | 4.11 | 4.1 | 3.9-4.9 | 4.13 | 4.1 | 4.9-6.4 | 4.16 | 4.2 |
| M5 x 0.8 | 1.0-2.1 | 4.53 | 4.5 | 2.1-2.9 | 4.56 | #15 4.57 | 2.9-4.4 | 4.58 | #15 4.57 | 4.4-5.9 | 4.61 | 4.6 | 5.9-7.1 | 4.64 | #14 4.62 |
| M6 x 1.0 | 1.2-2.4 | 5.42 | #3 5.41 | 2.4-3.6 | 5.45 | #3 5.41 | 3.6-4.9 | 5.48 | 5.5 | 4.9-6.9 | 5.51 | 5.5 | 6.9-8.1 | 5.55 | 7/32" 5.56 |
| M6.3 x 1.0 | 1.3-2.4 | 5.72 | 5.7 | 2.4-3.7 | 5.75 | 5.75 | 3.7-4.9 | 5.78 | 5.75 | 4.9-7.4 | 5.81 | 5.8 | 7.4-8.9 | 5.85 | 5.80 |
| M7 x 1.0 | 1.4-2.4 | 6.42 | 6.4 | 2.4-4.4 | 6.45 | 6.40 | 4.4-6.5 | 6.48 | 6.5 | 6.4-7.7 | 6.51 | 6.5 | 7.7-9.5 | 6.55 | F 6.53 |
| M8 x 1.25 | 1.6-3.1 | 7.27 | 7.25 | 3.1-4.9 | 7.31 | 7.30 | 4.6-6.9 | 7.35 | L 7.37 | 6.9-8.9 | 7.39 | L 7.4 | 8.9-10.9 | 7.43 | 7.4 |
| M10 x 1.50 | 1.9-3.9 | 9.12 | 23/64" 9.10 | 3.9-5.9 | 9.17 | 9.20 | 5.9-8.3 | 9.22 | 9.20 | 8.3-10.9 | 9.27 | 9.25 | 10.9-12.9 | 9.32 | 9.3 |
| M12 x 1.75 | 2.4-4.9 | 10.98 | 11.0 | 4.9-7.4 | 11.03 | 11.0 | 7.4-10.5 | 11.09 | 7/16" 11.11 | 10.5-14.5 | 11.15 | 7/16" 11.11 | 14.5-17.0 | 11.2 | 7/16" 11.11 |

Inch Sizes (in)

| Application Duty Class | Light 0.3 Diameter of Material | | | Medium-Light 0.5 Diameter of Material | | | Medium-Heavy 0.75 Diameter of Material | | | Full Strength 1.0 Diameter of Material | | | Extended 1.25 Diameter of Material | | |
|------------------------|-----------------------------------|------------|----------------|--|------------|-----------------|---|------------|-----------------|---|------------|-----------------|---------------------------------------|------------|----------------|
| | 90% | | | 85% | | | 80% | | | 75% | | | 70% | | |
| Nominal Size | Material Thickness | Pilot Hole | Drill Size | Material Thickness | Pilot Hole | Drill Size | Material Thickness | Pilot Hole | Drill Size | Material Thickness | Pilot Hole | Drill Size | Material Thickness | Pilot Hole | Drill Size |
| 2-56 | .017-.034 | .0756 | 1.9mm .0748 | .034-.052 | .0761 | #48 .076 | .052-.073 | .0767 | 1.95mm .0763 | .073-.095 | .0773 | 5/64 .0781 | .095-.169 | .0779 | 5/64 .0781 |
| 3-48 | .020-.040 | .0868 | 2.2mm .0866 | .040-.059 | .0875 | 2.2mm .0866 | .059-.084 | .0882 | #43 .089 | .084-.110 | .0888 | #43 .089 | .110-.141 | .0895 | #43 .089 |
| 4-40 | .022-.045 | .0974 | #40 .098 | .045-.067 | .0982 | #40 .098 | .067-.095 | .0990 | #39 .0995 | .095-.126 | .0998 | #39 .0995 | .126-.157 | .1006 | #39 .0995 |
| 5-40 | .025-.051 | .1104 | 2.8mm .1102 | .051-.075 | .1112 | #34 .111 | .075-.106 | .1120 | #33 .113 | .106-.141 | .1128 | #33 .113 | .141-.175 | .1136 | #33 .113 |
| 6-32 | .028-.066 | .1197 | #31 .120 | .066-.083 | .1207 | #31 .120 | .083-.117 | .1218 | 3.1mm .122 | .117-.152 | .1288 | 3.1mm .122 | .152-.193 | .1238 | 1/8 .125 |
| 8-32 | .033-.066 | .1457 | 3.7mm .1457 | .066-.098 | .1467 | #26 .147 | .098-.141 | .1478 | 3.75mm .1476 | .141-.180 | .1488 | 3.8mm .1496 | .180-.230 | .1498 | 3.8mm .1496 |
| 10-24 | .038-.079 | .1656 | #19 .166 | .079-.114 | .1670 | 4.25mm .1673 | .114-.162 | .1683 | #18 .1695 | .162-.209 | .1697 | #18 .1695 | .209-.266 | .1710 | 11/64 .1719 |
| 10-32 | .038-.079 | .1717 | 11/64 .1719 | .079-.114 | .1727 | #17 .173 | .114-.162 | .1738 | #17 .173 | .162-.209 | .1748 | 4.4mm .1732 | .209-.266 | .1758 | #16 .177 |
| 12-24 | .043-.086 | .1916 | #11 .191 | .086-.130 | .1930 | 4.9mm# .1929 | .130-.184 | .1943 | 9# .196 | .184-.238 | .1957 | 95 .196 | .238-.302 | .1970 | 5mm .1969 |
| 1/4-20 | .050-.100 | .2208 | #2 .221 | .100-.150 | .2224 | 5.7mm .2244 | .150-.213 | .2240 | 5.7mm .2244 | .213-.275 | .2256 | 5.75mm .2264 | .275-.350 | .2273 | #1 .228 |
| 5/16-18 | .062-.126 | .2800 | 7.1mm .2795 | .126-.188 | .2818 | 9/32 .2812 | .188-.266 | .2836 | 7.2mm .2835 | .266-.345 | .2854 | 7.25mm .2854 | .345-.438 | .2872 | 7.3mm .2874 |
| 3/8-16 | .075-.150 | .3384 | 8.6mm .3386 | .150-.225 | .3405 | 8.6mm .3386 | .225-.319 | .3425 | 8.7mm .3425 | .319-.413 | .3445 | 8.75mm .3455 | .413-.525 | .3466 | 8.8mm .3465 |
| 7/16-14 | .087-.174 | .3957 | X .397 | .174-.262 | .3980 | X .397 | .262-.371 | .4004 | X .397 | .371-.481 | .4027 | Y .404 | .481-.612 | .4050 | Y .404 |
| 1/2-13 | .100-.200 | .4550 | 29/64 .4531 | .200-.300 | .4575 | 29/64 .4531 | .300-.425 | .4600 | 29/64 .4531 | .425-.550 | .4625 | 15/32 .4688 | .550-.700 | .4650 | 15/32 .4688 |

Notes: This chart pertains to steel nut members

APPLICATION DUTY CLASS - A general term used here to group material thickness in terms of screw diameters. For example, the average material thickness listed under "medium-heavy" equals 75% of the screw diameter.