

TAPTITE 2000® Screws and Bolts



TORQUE PERFORMANCE

The thread body lobulation and Radius Profile™ thread design of TAPTITE 2000® fasteners provides torque-tension relationships similar to those that are achieved using machine screws.

Metric Sizes (mm)

| Screw Size | Plate Thickness | Hole Size | Nearest Drill Size | Thread Forming Torque | Prevailing First Removal Torque | Recommended Assembly Torque | Failure Torque |
|------------|-----------------|-----------|--------------------|-----------------------|---------------------------------|-----------------------------|----------------|
| M3 x 0.5 | 1.0 | 2.71 | #36 | 0.25 - 0.40 | 0.15 - 0.25 | 1.00 | 1.65 - 2.2* |
| | 2.0 | 2.77 | 7/64 | 0.30 - 0.50 | 0.15 - 0.25 | 1.00 | 1.75 - 2.75* |
| | 3.0 | 2.77 | 7/64 | 0.45 - 0.70 | 0.20 - 0.35 | 1.60 | 2.75 - 3.85*+ |
| M4 x 0.7 | 2.0 | 3.64 | #27 | 0.55 - 0.75 | 0.25 - 0.35 | 1.80 | 3.10 - 4.2* |
| | 3.0 | 3.68 | 3.7 | 0.80 - 1.15 | 0.45 - 0.60 | 3.30 | 6.05 - 8.25* |
| | 4.0 | 3.70 | 3.7 | 1.10 - 1.45 | 0.50 - 0.70 | 4.30 | 7.70 - 11*+ |
| M5 x 0.8 | 2.5 | 4.58 | #15 | 1.15 - 1.80 | 0.50 - 0.70 | 2.80 | 5.85 - 8.8* |
| | 3.5 | 4.64 | #14 | 1.35 - 2.45 | 0.75 - 1.30 | 6.00 | 11.0 - 13.2* |
| | 5.0 | 4.66 | 4.65mm | 1.80 - 2.70 | 0.75 - 1.30 | 7.00 | 12.1 - 15.4+ |
| M6 x 1.0 | 3.0 | 5.48 | 5.5mm | 1.80 - 2.50 | 0.50 - 1.00 | 5.00 | 9.90 - 14.3* |
| | 4.5 | 5.55 | 7/32 | 2.90 - 4.05 | 0.75 - 1.30 | 10.0 | 17.6 - 23.1* |
| | 6.0 | 5.58 | 5.6mm | 3.15 - 4.30 | 0.85 - 1.45 | 10.0 | 19.8 - 27.5*+ |
| M8 x 1.25 | 4.0 | 7.35 | L | 4.30 - 6.30 | 1.30 - 2.40 | 20.0 | 36.3 - 46.2* |
| | 6.0 | 7.43 | 7.4 | 4.95 - 8.55 | 1.85 - 3.05 | 28.0 | 47.3 - 58.3* |
| | 8.0 | 7.47 | M | 6.30 - 10.8 | 3.5 - 5.0 | 30.0 | 60.5 - 71.5+ |
| M10 x 1.5 | 5.0 | 9.22 | 9.2mm | 9.9 - 13.5 | 4.5 - 6.0 | 30.0 | 58.3 - 69.3* |
| | 8.0 | 9.32 | 9.3mm | 12.6 - 17.1 | 5.0 - 7.5 | 45.0 | 88.0 - 101* |
| | 10.0 | 9.37 | U | 13.5 - 19.8 | 6.0 - 10.0 | 55.0 | 101 - 112+ |
| M12 x 1.75 | 6.0 | 11.09 | 7/16 | 20.7 - 26.1 | 6.0 - 11.0 | 60.0 | 119 - 143* |
| | 9.0 | 11.20 | 7/16 | 22.5 - 27.9 | 7.5 - 13.0 | 65.0 | 127 - 149* |
| | 12.0 | 11.26 | 11.3 | 27.0 - 34.2 | 11.0 - 17.0 | 100 | 193 - 220+ |

Notes:

- All torque values - Nm
- Performance was developed using Hex Flange head screws, zinc plated plus wax, driven at low speed under laboratory conditions into cold rolled steel test plates with plain flat steel washers under screw head to absorb tightening.
- Values shown represent the above conditions only and should be used in lieu of proper application testing. Having a thicker or thinner nut member, harder or softer material, different hole, can all contribute to variations in the torque performance listed.
- Prevailing first removal torque, the torque necessary to remove the screw after the head has been unseated, is an indication of TAPTITE 2000® screws' inherent resistance to loosening under vibration, even without the screw head being seated.

* Indicates probability nut threads will strip
+ indicates probability screw will break.

TAPTITE 2000® Fastener
Torque Performance in Through Hole
M8 - 1.00 TAPTITE 2000® Fastener - 8.0mm Steel, 7.45mm Hole

