

Tap Drill Size Chart for Standard Threads

| American Standard Thread | ISO Metric Thread |
|----------------------------------|--------------------------------|
| Thread Size Tap Drill Size (in.) | Thread Size Tap Drill Size(mm) |
| 0-80 3/64 ----- | M1 x 0.25 0.75 |
| 1-64 53 ----- | M1.1 x 0.25 0.85 |
| 1-72 53 ----- | M1.2 x 0.25 0.95 |
| 2-56 51 ----- | M1.4 x 0.3 1.10 |
| 2-64 50 ----- | M1.6 x 0.35 1.25 |
| 3-48 5/64 ----- | M1.8 x 0.35 1.45 |
| 3-56 46 ----- | M2 x 0.4 1.60 |
| 4-40 43 ----- | M2.2 x 0.45 1.75 |
| 4-48 42 ----- | M2.5 x 0.45 2.05 |
| 5-40 39 ----- | M3 x 0.5 2.50 |
| 5-44 37 ----- | M3.5 x 0.6 2.90 |
| 6-32 36 ----- | M4 x 0.7 3.30 |
| 6-40 33 ----- | M4.5 x 0.75 3.70 |
| 8-32 29 ----- | M5 x 0.8 4.20 |
| 8-36 29 ----- | M6 x 1 5.00 |
| 10-24 25 ----- | M7 x 1 6.00 |
| 10-32 21 ----- | M8 x 1.25 6.80 |
| 12-24 17 ----- | M9 x 1.25 7.80 |
| 12-28 15 ----- | M10 x 1.5 8.50 |
| 1/4-20 7 ----- | M11 x 1.5 9.50 |
| 1/4-28 3 ----- | M12 x 1.75 10.20 |
| 5/16-18 F ----- | M14 x 2 12.00 |
| 5/16-24 I ----- | M16 x 2 14.00 |
| 3/8-16 5/16 ----- | M18 x 2.5 15.50 |
| 3/8-24 Q ----- | M20 x 2.5 17.50 |
| 7/16-14 U ----- | M22 x 2.5 19.50 |
| 7/16-20 W ----- | M24 x 3 21.00 |
| 1/2-13 27/64 ----- | M27 x 3 24.00 |
| 1/2-20 29/64 ----- | M30 x 3.5 26.50 |
| 9/16-12 31/64 ----- | M33 x 3.5 29.50 |
| 9/16-18 33/64 ----- | M36 x 4 32.00 |
| 5/8-11 17/32 ----- | M39 x 4 35.00 |
| 5/8-18 37/64 ----- | M42 x 4.5 37.50 |
| 3/4-10 21/32 ----- | M45 x 4.5 40.50 |
| 3/4-16 11/16 ----- | M48 x 5 43.00 |
| 7/8-9 49/64 ----- | M52 x 5 47.00 |
| 7/8-14 13/16 ----- | M56 x 5.5 50.50 |
| 1"-8 7/8 ----- | M60 x 5.5 54.50 |
| 1"-14 15/18 ----- | M64 x 6 58.00 |
| ----- | M68 x 6 62.00 |

| OD Fraction Inch | Threads per Inch |
|------------------|---------------------|
| 5/16 = 0.3125 | 1/16 0.2611 27 |
| 13/32 = 0.405 | 1/8 0.2639 27 |
| 35/64 = 0.540 | 1/4 0.4018 18 |
| 43/64 = 0.675 | 3/8 0.4078 18 |
| 27/32 = 0.840 | 1/2 0.5337 14 |
| 1-3/64 = 1.050 | 3/4 0.5457 14 |
| 1-5/16 = 1.315 | 1 0.6828 11-1/2 |
| 1-21/32 = 1.660 | 1-1/4 0.7068 11-1/2 |
| 1-29/32 = 1.900 | 1-1/2 0.7235 11-1/2 |
| 2-3/8 = 2.375 | 2 0.7565 11-1/2 |
| 2-7/8 = 2.875 | 2-1/2 1.1375 8 |
| 3-1/2 = 3.5 | 3 1.2000 8 |
| 4 4.0 = 3-1/2 | 1.2500 8 |
| 4-1/2 = 4.5 | 4 1.3000 8 |

Two common pipe thread sizes exist, the tapered National Pipe Thread (NPT) and the straight National Standard Free-Fitting Straight Mechanical Pipe Thread (NPSM).

The tapered threads are for joining and sealing, the straight threads are only for joining.

The Dry-seal thread (NPTF) allows for joining without sealants.

Three less common threads exist, the Garden Hose Thread (GHT), Fire Hose Coupling (NST) and British Standard Taper Pipe Thread (BSPT).

The NPT and NPTF threads are interchangeable with sealants such as PTFE tape.

None of the other thread standards are interchangeable.

Female NPT threads can be designated as "FPT" and male NPT threads can be designated as "MPT."

Pipe sizes do not refer to any physical dimensions. The outside diameter of each pipe or fitting must be measured and compared to the table for size identification.

For example, a 3/4" NPT pipe thread has an outside diameter of 1.050 inches.

Each thread size has a defined number of threads per inch (TPI).

The 3/4" NPT pipe thread has 14 threads per inch.

Both the TPI and OD of the thread are required for positive identification of thread size because several sizes have the same TPI.