1 NPT Tap Drill Chart

National Pipe Taper (NPT) · 11.5 threads per inch · ASME B1.20.1

TAP DRILL (NO REAMING)

1-5/32" = 1.1563 in = 29.37 mm

Drills near the tap drill

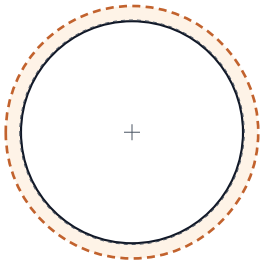
DRILL	INCH	MM	NOTE
1-3/16"	1.1875	30.16	larger
1-11/64"	1.1719	29.77	larger
1-5/32"	1.1563	29.37	Recommended
1-9/64"	1.1406	28.97	smaller
1-1/8"	1.1250	28.58	smaller

Pipe thread dimensions (ASME B1.20.1)

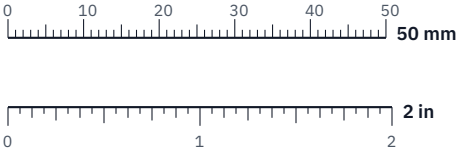
DIMENSION	INCH	MM
Pipe outside diameter (D)	1.3150	33.40
Threads per inch (pitch in mm)	11.5	2.21
Pitch diameter at pipe end (E0)	1.2136	30.83
Pitch diameter at gauge plane (E1)	1.2386	31.46
Hand-tight engagement (L1)	0.4000	10.16
Effective thread length (L2)	0.6828	17.34
Thread height (h = 0.8p)	0.0696	1.77
Minor diameter at gauge plane (E1 – h)	1.1691	29.69

Actual size

Print at 100% scale ("Actual size", not "Fit to page"). Check with the rulers below.



Dashed copper circle: pipe OD; solid: tap drill hole; dotted: minor diameter at the gauge plane.



Pipe tap drill charts vary by up to 1/32 in for sizes over 1 in. Reaming the drilled hole with a taper pipe reamer before tapping lowers tapping torque.

Scan for the interactive version:

whatsizeis.com/tap-drill/1-npt/

Values from the ASME B1.1, ISO 261/68-1 and ASME B1.20.1 thread formulas; drill sizes per ASME B94.11M; clearance holes per ISO 273. Method: whatsizeis.com/how-we-calculate/