3/8 NPT Tap Drill Chart

National Pipe Taper (NPT) · 18 threads per inch · ASME B1.20.1

TAP DRILL (NO REAMING)

37/64" = 0.5781 in = 14.68 mm

Drills near the tap drill

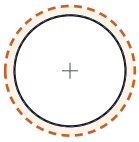
DRILL	INCH	MM	NOTE
39/64"	0.6094	15.48	larger
19/32"	0.5938	15.08	larger
37/64"	0.5781	14.68	Recommended
9/16"	0.5625	14.29	smaller
35/64"	0.5469	13.89	smaller

Pipe thread dimensions (ASME B1.20.1)

DIMENSION	INCH	MM
Pipe outside diameter (D)	0.6750	17.15
Threads per inch (pitch in mm)	18	1.41
Pitch diameter at pipe end (E0)	0.6120	15.55
Pitch diameter at gauge plane (E1)	0.6270	15.93
Hand-tight engagement (L1)	0.2400	6.10
Effective thread length (L2)	0.4078	10.36
Thread height (h = 0.8p)	0.0444	1.13
Minor diameter at gauge plane (E1 – h)	0.5826	14.80

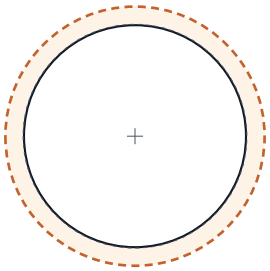
Actual size

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

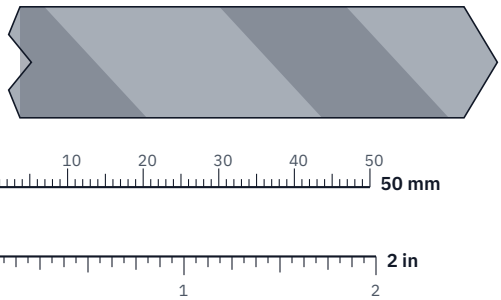


Dashed copper circle: pipe OD; solid: tap drill hole; dotted: minor diameter at the gauge plane.

Enlarged 2x:



Tap drill, actual size (14.68 mm):



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/3-8-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/