1/16 NPT Tap Drill Chart

National Pipe Taper (NPT) · 27 threads per inch · ASME B1.20.1

TAP DRILL (NO REAMING)

1/4" = 0.2500 in = 6.35 mm

Drills near the tap drill

DRILL	INCH	MM	NOTE
9/32"	0.2813	7.14	larger
17/64"	0.2656	6.75	larger
1/4"	0.2500	6.35	Recommended
15/64"	0.2344	5.95	smaller
7/32"	0.2188	5.56	smaller

Pipe thread dimensions (ASME B1.20.1)

DIMENSION	INCH	MM
Pipe outside diameter (D)	0.3125	7.94
Threads per inch (pitch in mm)	27	0.94
Pitch diameter at pipe end (E0)	0.2712	6.89
Pitch diameter at gauge plane (E1)	0.2812	7.14
Hand-tight engagement (L1)	0.1600	4.06
Effective thread length (L2)	0.2611	6.63
Thread height (h = 0.8p)	0.0296	0.75
Minor diameter at gauge plane (E1 – h)	0.2516	6.39

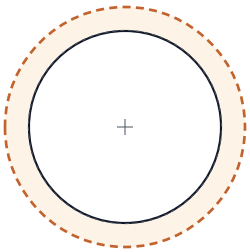
Actual size

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 4x:



Tap drill, actual size (6.35 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/1-16-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/