1-1/4 NPT Tap Drill Chart

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

TAP DRILL (NO REAMING)

1-1/2" = 1.5000 in = 38.10 mm

Drills near the tap drill

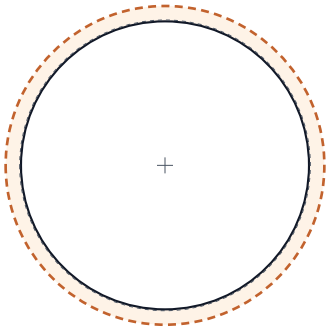
DRILL	INCH	MM	NOTE
1-17/32"	1.5313	38.89	larger
1-33/64"	1.5156	38.50	larger
1-1/2"	1.5000	38.10	Recommended
1-31/64"	1.4844	37.70	smaller
1-15/32"	1.4688	37.31	smaller

Pipe thread dimensions (ASME B1.20.1)

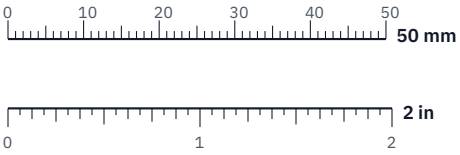
DIMENSION	INCH	MM
Pipe outside diameter (D)	1.6600	42.16
Threads per inch (pitch in mm)	11.5	2.21
Pitch diameter at pipe end (E0)	1.5571	39.55
Pitch diameter at gauge plane (E1)	1.5834	40.22
Hand-tight engagement (L1)	0.4200	10.67
Effective thread length (L2)	0.7068	17.95
Thread height (h = 0.8p)	0.0696	1.77
Minor diameter at gauge plane (E1 − h)	1.5138	38.45

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/1-1-4-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/