12-24 Tap Drill Chart

Unified National Coarse (UNC) · 24 threads per inch · ASME B1.1

TAP DRILL (72% THREAD)

#16 = 0.1770 in = 4.50 mm

Drills for 12-24 (50–85% thread)

DRILL	INCH	MM	% THREAD	
3/16"	0.1875	4.76	53%	
#13	0.1850	4.70	57%	
#14	0.1820	4.62	63%	
#15	0.1800	4.57	67%	
#16	0.1770	4.50	72%	Recommended
#17	0.1730	4.39	79%	
11/64"	0.1719	4.37	82%	

Clearance hole (bolt passes through)

FIT	DRILL	INCH	MM
Close	A	0.2340	5.94
Normal	B	0.2380	6.05
Loose	F	0.2570	6.53

Thread dimensions (basic)

DIMENSION	INCH	MM
Major diameter (basic)	0.2160	5.49
Pitch diameter (basic)	0.1889	4.80
Minor diameter, internal (basic)	0.1709	4.34
Pitch (1/24 in)	0.0417	1.06

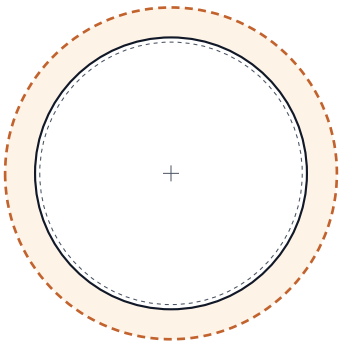
Actual size

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

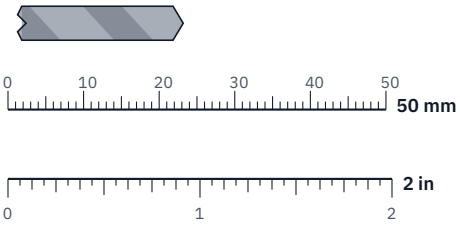


Dashed copper circle: thread major diameter; solid: tap drill hole; dotted: basic minor diameter.

Enlarged 8x:



Tap drill, actual size (4.50 mm):



Scan for the interactive version:

whatsizeis.com/tap-drill/12-24/

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/