1/2-13 Tap Drill Chart

Unified National Coarse (UNC) · 13 threads per inch · ASME B1.1

TAP DRILL (78% THREAD)

27/64" = 0.4219 in = 10.72 mm

Drills for 1/2-13 (50–85% thread)

DRILL	INCH	MM	% THREAD	
7/16"	0.4375	11.11	63%	
27/64"	0.4219	10.72	78%	Recommended

Clearance hole (bolt passes through)

FIT	DRILL	INCH	MM
Close	35/64"	0.5469	13.89
Normal	9/16"	0.5625	14.29
Loose	39/64"	0.6094	15.48

Thread dimensions (basic)

DIMENSION	INCH	MM
Major diameter (basic)	0.5000	12.70
Pitch diameter (basic)	0.4500	11.43
Minor diameter, internal (basic)	0.4167	10.58
Pitch (1/13 in)	0.0769	1.95

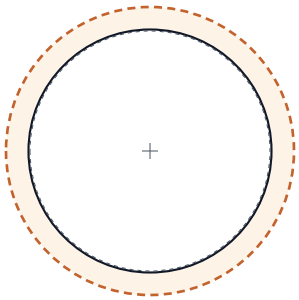
Actual size

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 3x:



Tap drill, actual size (10.72 mm):







Scan for the interactive version:

whatsizeis.com/tap-drill/1-2-13/

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/