

Tapping drill size chart

Metric coarse / M2 to M24

CUTTING TAPS ONLY. Guhring approximate 75% theoretical-thread column. Pre-drill diameters, not clearance holes. Follow the tap maker's application guidance.

Thread designation	Pitch (mm)	Specified drill	Drill dia. (mm)
M2 x 0.40	0.40	1.60 mm	1.600
M2.5 x 0.45	0.45	#46	2.057
M3 x 0.50	0.50	2.50 mm	2.500
M3.5 x 0.60	0.60	2.90 mm	2.900
M4 x 0.70	0.70	3.30 mm	3.300
M4.5 x 0.75	0.75	#25	3.797
M5 x 0.80	0.80	4.20 mm	4.200
M6 x 1.00	1.00	5.00 mm	5.000
M7 x 1.00	1.00	6.00 mm	6.000
M8 x 1.25	1.25	Letter H	6.756
M10 x 1.50	1.50	8.50 mm	8.500
M12 x 1.75	1.75	10.30 mm	10.300
M14 x 2.00	2.00	12.00 mm	12.000
M16 x 2.00	2.00	14.00 mm	14.000
M18 x 2.50	2.50	15.50 mm	15.500
M20 x 2.50	2.50	17.50 mm	17.500
M22 x 2.50	2.50	19.50 mm	19.500
M24 x 3.00	3.00	53/64 in	21.034

Use the specified drill. # means a number drill; Letter means a letter drill. Converted diameters are reference values, not a recommendation to use the nearest metric or inch drill. mm conversions round to 0.001; in conversions to 0.0001.

75% is a target, not a guarantee. Available drill sizes approximate it; these rows calculate to about 70.5-78.8% using the source formulas. Runout changes the actual hole size and thread percentage. Material, tap type and required fit can call for a different pre-drill.

Sources checked 14 October 2026: Guhring Decimal Equivalents / Tap Drill Sizes pocket chart, PDF p.2, CUT TAPS 75% column; drill designations checked against p.1. Forming/roll taps need different holes. No BSW, BSF, BA, pipe-thread, tolerance or hole-depth data. Source links and scope: online guide.

Tapping drill size chart

Unified National Coarse / #2 to 1 inch

CUTTING TAPS ONLY. Guhring approximate 75% theoretical-thread column. Pre-drill diameters, not clearance holes. Follow the tap maker's application guidance.

Thread designation	TPI	Specified drill	Drill dia. (in)	Drill dia. (mm)
#2-56 UNC	56	1.73 mm	0.0681	1.730
#3-48 UNC	48	2.00 mm	0.0787	2.000
#4-40 UNC	40	2.20 mm	0.0866	2.200
#5-40 UNC	40	#39	0.0995	2.527
#6-32 UNC	32	#36	0.1065	2.705
#8-32 UNC	32	3.40 mm	0.1339	3.400
#10-24 UNC	24	#25	0.1495	3.797
#12-24 UNC	24	4.45 mm	0.1752	4.450
1/4-20 UNC	20	#7	0.2010	5.105
5/16-18 UNC	18	Letter F	0.2570	6.528
3/8-16 UNC	16	5/16 in	0.3125	7.938
7/16-14 UNC	14	Letter U	0.3680	9.347
1/2-13 UNC	13	27/64 in	0.4219	10.716
9/16-12 UNC	12	12.20 mm	0.4803	12.200
5/8-11 UNC	11	13.60 mm	0.5354	13.600
3/4-10 UNC	10	16.50 mm	0.6496	16.500
7/8-9 UNC	9	19.50 mm	0.7677	19.500
1-8 UNC	8	22.25 mm	0.8760	22.250

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Tapping drill size chart

Unified National Fine / #2 to 1 inch

CUTTING TAPS ONLY. Guhring approximate 75% theoretical-thread column. Pre-drill diameters, not clearance holes. Follow the tap maker's application guidance.

Thread designation	TPI	Specified drill	Drill dia. (in)	Drill dia. (mm)
#2-64 UNF	64	1.80 mm	0.0709	1.800
#3-56 UNF	56	#46	0.0810	2.057
#4-48 UNF	48	2.32 mm	0.0913	2.320
#5-44 UNF	44	2.60 mm	0.1024	2.600
#6-40 UNF	40	#33	0.1130	2.870
#8-36 UNF	36	#29	0.1360	3.454
#10-32 UNF	32	#21	0.1590	4.039
#12-28 UNF	28	4.60 mm	0.1811	4.600
1/4-28 UNF	28	5.45 mm	0.2146	5.450
5/16-24 UNF	24	Letter I	0.2720	6.909
3/8-24 UNF	24	8.50 mm	0.3346	8.500
7/16-20 UNF	20	9.95 mm	0.3917	9.950
1/2-20 UNF	20	11.40 mm	0.4488	11.400
9/16-18 UNF	18	12.90 mm	0.5079	12.900
5/8-18 UNF	18	14.50 mm	0.5709	14.500
3/4-16 UNF	16	17.50 mm	0.6890	17.500
7/8-14 UNF	14	20.40 mm	0.8031	20.400
1-12 UNF	12	23.30 mm	0.9173	23.300

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