FREE CALCULATOR

Tap drill chart: inch and metric tap drill sizes

The drill to use before tapping any inch (UNC, UNF) or metric thread, with clearance drills for bolts, and a calculator for the drill at any thread percentage.

CHART

Inch tap drill chart (UNC, UNF, UNEF)

SIZE	THREADS PER INCH	MAJOR DIAMETER (IN)	TAP DRILL, 75% THREAD	TAP DRILL, 50% THREA
#0	80	0.0600	3/64 (0.0469)	55 (0.0520)
#1	64	0.0730	53 (0.0595)	1/16 (0.0625)
#1	72	0.0730	53 (0.0595)	52 (0.0635)
#2	56	0.0860	50 (0.0700)	49 (0.0730)
#2	64	0.0860	50 (0.0700)	48 (0.0760)
#3	48	0.0990	47 (0.0785)	44 (0.0860)
#3	56	0.0990	45 (0.0820)	43 (0.0890)
#4	40	0.1120	43 (0.0890)	41 (0.0960)
#4	48	0.1120	42 (0.0935)	40 (0.0980)
#5	40	0.125	38 (0.1015)	7/64 (0.1094)
#5	44	0.125	37 (0.1040)	35 (0.1100)
#6	32	0.138	36 (0.1065)	32 (0.1160)
#6	40	0.138	33 (0.1130)	31 (0.1200)
#8	32	0.1640	29 (0.1360)	27 (0.1440)
#8	36	0.1640	29 (0.1360)	26 (0.1470)

SIZE	THREADS PER INCH	MAJOR DIAMETER (IN)	TAP DRILL, 75% THREAD	TAP DRILL, 50% THREA
#10	24	0.1900	25 (0.1495)	20 (0.1610)
#10	32	0.1900	21 (0.1590)	18 (0.1695)
#12	24	0.2160	16 (0.1770)	12 (0.1890)
#12	28	0.2160	14 (0.1820)	10 (0.1935)
#12	32	0.2160	13 (0.1850)	9 (0.1960)
1/4 in	20	0.2500	7 (0.2010)	7/32 (0.2188)
1/4 in	28	0.2500	3 (0.2130)	1 (0.2280)
1/4 in	32	0.2500	7/32 (0.2188)	1 (0.2280)
5/16 in	18	0.3125	F (0.2570)	J (0.2770)
5/16 in	24	0.3125	I (0.2720)	9/32 (0.2812)
5/16 in	32	0.3125	9/32 (0.2812)	L (0.2900)
3/8 in	16	0.3750	5/16 (0.3125)	Q (0.3320)
3/8 in	24	0.3750	Q (0.3320)	S (0.3480)
3/8 in	32	0.3750	11/32 (0.3438)	T (0.3580)
7/16 in	14	0.4375	U (0.3680)	25/64 (0.3906)
7/16 in	20	0.4375	25/64 (0.3906)	13/32 (0.4062)
7/16 in	28	0.4375	Y (0.4040)	Z (0.4130)
1/2 in	13	0.5000	27/64 (0.4219)	29/64 (0.4531)
1/2 in	20	0.5000	29/64 (0.4531)	15/32 (0.4688)
1/2 in	28	0.5000	15/32 (0.4688)	15/32 (0.4688)
9/16 in	12	0.5625	31/64 (0.4844)	33/64 (0.5156)
9/16 in	18	0.5625	33/64 (0.5156)	17/32 (0.5312)
9/16 in	24	0.5625	33/64 (0.5156)	17/32 (0.5312)
5/8 in	11	0.6250	17/32 (0.5312)	9/16 (0.5625)

SIZE	THREADS PER INCH	MAJOR DIAMETER (IN)	TAP DRILL, 75% THREAD	TAP DRILL, 50% THREA
5/8 in	18	0.6250	37/64 (0.5781)	19/32 (0.5938)
5/8 in	24	0.6250	37/64 (0.5781)	19/32 (0.5938)
11/16 in	24	0.6875	41/64 (0.6406)	21/32 (0.6562)
3/4 in	10	0.7500	21/32 (0.6562)	11/16 (0.6875)
3/4 in	16	0.7500	11/16 (0.6875)	45/64 (0.7031)
3/4 in	20	0.7500	45/64 (0.7031)	23/32 (0.7188)
13/16 in	20	0.8125	49/64 (0.7656)	25/32 (0.7812)
7/8 in	9	0.8750	49/64 (0.7656)	51/64 (0.7969)
7/8 in	14	0.8750	13/16 (0.8125)	53/64 (0.8281)
7/8 in	20	0.8750	53/64 (0.8281)	27/32 (0.8438)
15/16 in	20	0.9375	57/64 (0.8906)	29/32 (0.9062)
1 in	8	1.000	7/8 (0.8750)	59/64 (0.9219)
1 in	12	1.000	15/16 (0.9375)	61/64 (0.9531)
1 in	20	1.000	61/64 (0.9531)	31/32 (0.9688)

CHART

Metric tap drill chart (coarse and fine)

SIZE	COARSE PITCH (MM)	TAP DRILL, COARSE (MM)	FINE PITCH (MM)	TAP DRILL, FINE (MM)
M2	0.4	1.6	0.25	1.75
M2.5	0.45	2.05	0.35	2.15
M3	0.5	2.5	0.35	2.65
M4	0.7	3.3	0.5	3.5
M5	0.8	4.2	0.5	4.5
M6	1	5	0.75	5.25

SIZE	COARSE PITCH (MM)	TAP DRILL, COARSE (MM)	FINE PITCH (MM)	TAP DRILL, FINE (MM)
M8	1.25	6.75	1 or 0.75	7 or 7.25
M10	1.5	8.5	1.25 or 1	8.75 or 9
M12	1.75	10.25	1.5 or 1.25	10.5 or 10.75
M14	2	12	1.5	12.5
M16	2	14	1.5	14.5
M18	2.5	15.5	2 or 1.5	16 or 16.5
M20	2.5	17.5	2 or 1.5	18 or 18.5
M22	2.5	19.5	2 or 1.5	20 or 20.5
M24	3	21	2	22
M27	3	24	2	25
M30	3.5	26.5	2	28

Tap drill = nominal diameter − pitch; use the nearest stock drill (6.8 mm for M8, 10.2 mm for M12). Where two fine pitches are common, both are listed.

Free chart from fleetzap.com/tools/tap-drill-chart