

Tap Drill Reference

Imperial Tap Drill Chart

Imperial Tap Drill Chart											
Machine Screw Size		Number of Threads Per Inch	Minor Dia.	Tap Drills				Clearance Hole Drills			
				Aluminum, Brass & Plastics		Stainless Steel, Steels & Iron		All Materials			
				75% Thread		50% Thread		Close Fit		Free Fit	
No. or Dia.	Major Dia.			Drill Size	Decimal Equiv.	Drill Size	Decimal Equiv.	Drill Size	Decimal Equiv.	Drill Size	Decimal Equiv.
0	.0600	80	.0447	3/64	.0469	55	.0520	52	.0635	50	.0700
1	.0730	64	.0538	53	.0595	1/16	.0625	48	.0760	46	.0810
		72	.0560	53	.0595	52	.0635				
2	.0860	56	.0641	50	.0700	49	.0730	43	.0890	41	.0960
		64	.0668	50	.0700	48	.0760				
3	.0990	48	.0734	47	.0785	44	.0860	37	.1040	35	.1100
		56	.0771	45	.0820	43	.0890				
4	.1120	40	.0813	43	.0890	41	.0960	32	.1160	30	.1285
		48	.0864	42	.0935	40	.0980				
5	.1250	40	.0943	38	.1015	7/64	.1094	30	.1285	29	.1360
		44	.0971	37	.1040	35	.1100				
6	.1380	32	.0997	36	.1065	32	.1160	27	.1440	25	.1495
		40	.1073	33	.1130	31	.1200				
8	.1640	32	.1257	29	.1360	27	.1440	18	.1695	16	.1770
		36	.1299	29	.1360	26	.1470				
10	.1900	24	.1389	25	.1495	20	.1610	9	.1960	7	.2010
		32	.1517	21	.1590	18	.1695				
12	.2160	24	.1649	16	.1770	12	.1890	2	.2210	1	.2280
		28	.1722	14	.1820	10	.1935				
		32	.1777	13	.1850	9	.1960				
1/4	.2500	20	.1887	7	.2010	7/32	.2188	F	.2570	H	.2660
		28	.2062	3	.2130	1	.2280				
		32	.2117	7/32	.2188	1	.2280				
5/16	.3125	18	.2443	F	.2570	J	.2770	P	.3230	Q	.3320
		24	.2614	I	.2720	9/32	.2812				
		32	.2742	9/32	.2812	L	.2900				
3/8	.3750	16	.2983	5/16	.3125	Q	.3320	W	.3860	X	.3970
		24	.3239	Q	.3320	S	.3480				
		32	.3367	11/32	.3438	T	.3580				
		14	.3499	U	.3680	25/64	.3906				

7/16	.4375	20	.3762	25/64	.3906	13/32	.4062	29/64	.4531	15/32	.4687
		28	.3937	Y	.4040	Z	.4130				
1/2	.5000	13	.4056	27/64	.4219	29/64	.4531	33/64	.5156	17/32	.5312
		20	.4387	29/64	.4531	15/32	.4688				
		28	.4562	15/32	.4688	15/32	.4688				
9/16	.5625	12	.4603	31/64	.4844	33/64	.5156	37/64	.5781	19/32	.5938
		18	.4943	33/64	.5156	17/32	.5312				
		24	.5114	33/64	.5156	17/32	.5312				
5/8	.6250	11	.5135	17/32	.5312	9/16	.5625	41/64	.6406	21/32	.6562
		18	.5568	37/64	.5781	19/32	.5938				
		24	.5739	37/64	.5781	19/32	.5938				
11/16	.6875	24	.6364	41/64	.6406	21/32	.6562	45/64	.7031	23/32	.7188
3/4	.7500	10	.6273	21/32	.6562	11/16	.6875	49/64	.7656	25/32	.7812
		16	.6733	11/16	.6875	45/64	.7031				
		20	.6887	45/64	.7031	23/32	.7188				
1-3/16	.8125	20	.7512	49/64	.7656	25/32	.7812	53/64	.8281	27/32	.8438
7/8	.8750	9	.7387	49/64	.7656	51/64	.7969	57/64	.8906	29/32	.9062
		14	.7874	13/16	.8125	53/64	.8281				
		20	.8137	53/64	.8281	27/32	.8438				
15/16	.9375	20	.8762	57/64	.8906	29/32	.9062	61/64	.9531	31/32	.9688
1	1.000	8	.8466	7/8	.8750	59/64	.9219	1-1/64	1.0156	1-1/32	1.0313
		12	.8978	15/16	.9375	61/64	.9531				
		20	.9387	61/64	.9531	31/32	.9688				
1-1/16	1.0625	18	.9943	1.000	1.000	1-1/64	1.0156	1-5/64	1.0781	1-3/32	1.0938
1-1/8	1.1250	7	.9497	63/64	.9844	1-1/32	1.0313	1-9/64	1.1406	1-5/32	1.1562
		12	1.0228	1-3/64	1.0469	1-5/64	1.0781				
		18	1.0568	1-1/16	1.0625	1-5/64	1.0781				
1-3/16	1.1875	18	1.1193	1-1/8	1.1250	1-9/64	1.1406	1-13/64	1.2031	1-7/32	1.2188
1-1/4	1.2500	7	1.0747	1-7/64	1.1094	1-5/32	1.1562	1-17/64	1.2656	1-9/32	1.2812
		12	1.1478	1-11/64	1.1719	1-13/64	1.2031				
		18	1.1818	1-3/16	1.1875	1-13/64	1.2031				
1-5/16	1.3125	18	1.2443	1-1/4	1.2500	1-17/64	1.2656	1-21/64	1.3281	1-11/32	1.3438
1-3/8	1.3750	6	1.1705	1-7/32	1.2187	1-17/64	1.2656	1-25/64	1.3906	1-13/32	1.4062
		12	1.2728	1-19/64	1.2969	1-21/64	1.3281				
		18	1.3068	1-5/16	1.3125	1-21/64	1.3281				
1-7/16	1.4375	18	1.3693	1-3/8	1.3750	1-25/64	1.3906	1-29/64	1.4531	1-15/32	1.4688
1-1/2	1.500	6	1.2955	1-11/32	1.3437	1-25/64	1.3906	1-33/64	1.5156	1-17/32	1.5312
		12	1.3978	1-27/64	1.4219	1-7/16	1.4375				
		18	1.4318	1-7/16	1.4375	1-29/64	1.4531				
1-9/16	1.5625	18	1.4943	1-12	1.500	1-33/64	1.5156	1-37/64	1.5781	1-19/32	1.5938
1-5/8	1.625	18	1.5568	1-9/16	1.5625	1-37/64	1.5781	1-41/64	1.6406	1-21/32	1.6562
1-11/16	1.6875	18	1.6193	1-5/8	1.6250	1-41/64	1.6406	1-45/64	1.7031	1-23/32	1.7188

1-3/4	1.750	5	1.5046	1-9/16	1.5625	1-5/8	1.6250	1-49/64	1.7659	1-25/32	1.7812
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Metric Tap Drill Chart						
Tap size	Major Dia (mm)	Threads per	Tap Drill (mm)	Tap Drill (inch)	Clearance (mm)	Clearance (inch)
M1.6x0.35	1.6	0.35	1.25	#55	1.8	#49
M2x0.4	2.0	0.40	1.60	#52	2.4	#41
M2.5x0.45	2.5	0.45	2.05	#46	2.9	#32
M3x.05	3.0	0.50	2.50	#39	3.4	#29
M3.5x0.6	3.5	0.60	2.90	#32	3.9	#23
M4x0.7	4.0	0.70	3.30	#30	4.5	#16
M5x0.8	5.0	0.80	4.20	#19	5.5	7/32
M6x1	6.0	1.00	5.0	#8	6.6	G
M8x1.25	8.0	1.25	6.8	H	9.0	T
M8x1	8.0	1.00	7.0	J	9.0	T
M10x1.5	10.0	1.50	8.5	R	12.0	31/64
M10x1.25	10.0	1.25	8.8	11/32	12.0	31/64
M12x1.75	12.0	1.75	10.2	13/32	14.0	35/64
M12x1.25	12.0	1.25	10.8	27/64	14.0	35/64
M14x2	14.0	2.00	12.0	15/32	16.0	5/8
M14x1.5	14.0	1.5	12.5	1/2	16.0	5/8
M16x2	16.0	2.00	14.0	35/64	18.0	45/64
M16x1.5	16.0	1.50	14.5	37/64	18.0	45/64
M18x2.5	18.0	2.50	15.5	39/64	20.0	51/64
M18x1.5	18.0	1.50	16.5	21/32	20.0	51/64
M20x2.5	20.0	2.50	17.5	11/16	22.0	7/8
M20x1.5	20.0	1.50	18.5	47/64	22.0	7/8
M22x2.5	22.0	2.50	19.5	49/64	25.0	1
M22x1.5	22.0	1.50	20.5	13/16	25.0	1
M24x3	24.0	3.00	21.0	53/64	27.0	1-5/64
M24x2	24.0	2.00	22.0	7/8	27.0	1-5/64
M27x3	27.0	3.00	24.0	15/16	30.0	1-3/16
M27x2	27.0	2.0	25.0	1	30.0	1-3/16

Pipe Threads					
-	American Standard			British Standard	
Nominal OD	Threads per inch	NPT	NPS	Threads per inch	Drill size
1/16	27	D	1/4	28	G
1/8	27	R	S	28	11/32

1/4	18	7/16	29/64	19	15/32
3/8	18	37/64	19/32	19	39/64
1/2	14	23/32	47/64	14	3/4
5/8	-	-	-	14	53/64
3/4	14	59/64	15/16	14	31/32
7/8	-	-	-	14	1-7/64
1	11.5	1-5/32	1-3/16	11	1-7/32

Drill Chart - Standard Drill Sizes / Millimeter Sizes

(See typical tolerances of drilled holes at bottom of page)

Drill (in.)	Decimal	Drill (in.)	Decimal	Drill (in.)	Decimal	Drill (mm)	Decimal (in.)	Drill (mm)	Decimal (in.)	Drill (mm)	Decimal (in.)
80	.0135	1/8	.1250	O	.3160	.35	.0138	3.4	.1339	8.0	.3150
79	.0145	30	.1285	P	.3230	.4	.0157	3.5	.1378	8.1	.3189
1/64	.0156	29	.1360	21/64	.3281	.45	.0177	3.6	.1417	8.2	.3228
78	.0160	28	.1405	Q	.3320	.5	.0197	3.7	.1457	8.25	.3248
77	.0180	9/64	.1406	R	.3390	.55	.0217	3.75	.1477	8.3	.3267
76	.0200	27	.1440	11/32	.3437	.6	.0236	3.8	.1496	8.4	.3307
75	.0210	26	.1470	S	.3480	.65	.0256	3.9	.1535	8.5	.3346
74	.0225	25	.1495	T	.3580	.7	.0276	4.0	.1575	8.6	.3386
73	.0240	24	.1520	23/64	.3594	.75	.0295	4.1	.1614	8.7	.3425
72	.0250	23	.1540	U	.3680	.8	.0315	4.2	.1654	8.75	.3445
71	.0260	5/32	.1562	3/8	.3750	.85	.0335	4.25	.1674	8.8	.3465
70	.0280	22	.1570	V	.3770	.9	.0355	4.3	.1693	8.9	.3504
69	.0292	21	.1590	W	.3860	.95	.0374	4.4	.1732	9.0	.3543
68	.0310	20	.1610	25/64	.3906	1.0	.0394	4.5	.1771	9.1	.3583
1/32	.0313	19	.1660	X	.3970	1.05	.0413	4.6	.1811	9.2	.3622
67	.0320	18	.1695	Y	.4040	1.1	.0433	4.7	.1850	9.25	.3642
66	.0330	11/64	.1719	13/32	.4062	1.15	.0453	4.75	.1870	9.35	.3661
65	.0350	17	.1730	Z	.4130	1.2	.0472	4.8	.1890	9.4	.3701
64	.0360	16	.1770	27/64	.4219	1.25	.0492	4.9	.1929	9.5	.3740
63	.0370	15	.1800	7/16	.4375	1.3	.0512	5.0	.1968	9.6	.3780
62	.0380	14	.1820	29/64	.4531	1.35	.0531	5.1	.2008	9.7	.3819
61	.0390	13	.1850	15/32	.4687	1.4	.0551	5.2	.2047	9.75	.3839
60	.0400	3/16	.1875	31/64	.4844	1.45	.0571	5.25	.2067	9.8	.3858
59	.0410	12	.1890	1/2	.5000	1.5	.0591	5.3	.2087	9.9	.3898
58	.0420	11	.1910	33/64	.5156	1.55	.0610	5.4	.2126	10.0	.3937
57	.0430	10	.1935	17/32	.5312	1.6	.0629	5.5	.2165	10.5	.4133
56	.0465	9	.1960	35/64	.5469	1.65	.0650	5.6	.2205	11.0	.4331
3/64	.0469	8	.1990	9/16	.5625	1.7	.0669	5.7	.2244	11.5	.4528
55	.0520	7	.2010	37/64	.5781	1.75	.0689	5.75	.2264	12.0	.4724
54	.0550	13/64	.2031	19/32	.5937	1.8	.0709	5.8	.2283	12.5	.4921
53	.0595	6	.2040	39/64	.6094	1.85	.0728	5.9	.2323	13.0	.5118
1/16	.0625	5	.2055	5/8	.6250	1.9	.0748	6.0	.2362	13.5	.5315
52	.0635	4	.2090	41/64	.6406	1.95	.0768	6.1	.2401	14.0	.5512
51	.0670	3	.2130	21/32	.6562	2.0	.0787	6.2	.2441	14.5	.5708

50	.0700	7/32	.2187	43/64	.6719	2.05	.0807	6.25	.2461	15.0	.5906
49	.0730	2	.2210	11/16	.6875	2.1	.0827	6.3	.2480	15.5	.6102
48	.0760	1	.2280	45/64	.7031	2.15	.0846	6.4	.2520	16.0	.6300
5/64	.0781	A	.2340	23/32	.7187	2.2	.0866	6.5	.2559	16.5	.6496
47	.0785	15/64	.2344	47/64	.7344	2.25	.0886	6.6	.2598	17.0	.6693
46	.0810	B	.2380	¾	.7500	2.3	.0905	6.7	.2638	17.5	.6889
45	.0820	C	.2420	49/64	.7656	2.35	.0925	6.75	.2658	18.0	.7087
44	.0860	D	.2460	25/32	.7812	2.4	.0945	6.8	.2677	18.5	.7283
43	.0890	E	.2500	51/64	.7969	2.45	.0965	6.9	.2716	19.0	.7480
42	.0935	¼	.2500	13/16	.8125	2.5	.0984	7.0	.2756	19.5	.7677
3/32	.0937	F	.2570	53/64	.8281	2.55	.1004	7.1	.2795	20.0	.7874
41	.0960	G	.2610	27/32	.8437	2.6	.1024	7.2	.2835	20.5	.8071
40	.0980	17/64	.2656	55/64	.8594	2.65	.1043	7.25	.2855	21.0	.8268
39	.0995	H	.2660	7/8	.8750	2.7	.1063	7.3	.2874	21.5	.8465
38	.1015	I	.2720	57/64	.8906	2.75	.1083	7.4	.2913	22.0	.8661
37	.1040	J	.2770	29/32	.9062	2.8	.1102	7.5	.2953	22.5	.8858
36	.1065	K	.2811	59/64	.9219	2.9	.1142	7.6	.2990	23.0	.9055
7/64	.1093	9/32	.2812	15/16	.9375	3.0	.1181	7.7	.3031	23.5	.9252
35	.1100	L	.2900	61/64	.9531	3.1	.1220	7.75	.3051	24.0	.9449
34	.1110	M	.2950	31/32	.9687	3.2	.1260	7.8	.3071	24.5	.9646
33	.1130	19/64	.2968	63/64	.9844	3.25	.1280	7.9	.3110	25.0	.9843
32	.1160	N	.3020	1	1.000	3.3	.1299				
31	.1200	5/16	.3125								

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