

INCH TAP & CLEARANCE DRILL SIZES UNC / UNF / UNEF • DECIMALS IN MILLIMETERS				TAP DRILL				CLEARANCE DRILL			
				75% thread for aluminum, brass & plastics		50% thread for steel, stainless & iron		Close fit		Free fit	
Screw size	Major dia.	Threads per inch	Minor dia.	Drill	Dec.	Drill	Dec.	Drill	Dec.	Drill	Dec.
#0	1.524	80	1.135	3/64	1.191	#55	1.321	#52	1.613	#50	1.778
#1	1.854	64	1.367	#53	1.511	1/16	1.587	#48	1.930	#46	2.057
		72	1.422	#53	1.511	#52	1.613				
#2	2.184	56	1.628	#50	1.778	#49	1.854	#43	2.261	#41	2.438
		64	1.697	#50	1.778	#48	1.930				
#3	2.515	48	1.864	#47	1.994	#44	2.184	#37	2.642	#35	2.794
		56	1.958	#45	2.083	#43	2.261				
#4	2.845	40	2.065	#43	2.261	#41	2.438	#32	2.946	#30	3.264
		48	2.195	#42	2.375	#40	2.489				
#5	3.175	40	2.395	#38	2.578	7/64	2.779	#30	3.264	#29	3.454
		44	2.466	#37	2.642	#35	2.794				
#6	3.505	32	2.532	#36	2.705	#32	2.946	#27	3.658	#25	3.797
		40	2.725	#33	2.870	#31	3.048				
#8	4.166	32	3.193	#29	3.454	#27	3.658	#18	4.305	#16	4.496
		36	3.299	#29	3.454	#26	3.734				
#10	4.826	24	3.528	#25	3.797	#20	4.089	#9	4.978	#7	5.105
		32	3.853	#21	4.039	#18	4.305				
#12	5.486	24	4.188	#16	4.496	#12	4.801	#2	5.613	#1	5.791
		28	4.374	#14	4.623	#10	4.915				
		32	4.514	#13	4.699	#9	4.978				
1/4"	6.350	20	4.793	#7	5.105	7/32	5.558	F	6.528	H	6.756
		28	5.237	#3	5.410	#1	5.791				
		32	5.377	7/32	5.558	#1	5.791				
5/16"	7.938	18	6.205	F	6.528	J	7.036	P	8.204	Q	8.433
		24	6.640	I	6.909	9/32	7.142				
		32	6.965	9/32	7.142	L	7.366				
3/8"	9.525	16	7.577	5/16	7.938	Q	8.433	W	9.804	X	10.084
		24	8.227	Q	8.433	S	8.839				
		32	8.552	11/32	8.733	T	9.093				
7/16"	11.112	14	8.887	U	9.347	25/64	9.921	29/64	11.509	15/32	11.905
		20	9.555	25/64	9.921	13/32	10.317				
		28	10.000	Y	10.262	Z	10.490				
1/2"	12.700	13	10.302	27/64	10.716	29/64	11.509	33/64	13.096	17/32	13.492
		20	11.143	29/64	11.509	15/32	11.908				
		28	11.587	15/32	11.908	15/32	11.908				
9/16"	14.287	12	11.692	31/64	12.304	33/64	13.096	37/64	14.684	19/32	15.083
		18	12.555	33/64	13.096	17/32	13.492				
		24	12.990	33/64	13.096	17/32	13.492				
5/8"	15.875	11	13.043	17/32	13.492	9/16	14.287	41/64	16.271	21/32	16.667
		18	14.143	37/64	14.684	19/32	15.083				
		24	14.577	37/64	14.684	19/32	15.083				
11/16"	17.462	24	16.165	41/64	16.271	21/32	16.667	45/64	17.859	23/32	18.258
3/4"	19.050	10	15.933	21/32	16.667	11/16	17.462	49/64	19.446	25/32	19.842
		16	17.102	11/16	17.462	45/64	17.859				
		20	17.493	45/64	17.859	23/32	18.258				
13/16"	20.637	20	19.080	49/64	19.446	25/32	19.842	53/64	21.034	27/32	21.433
7/8"	22.225	9	18.763	49/64	19.446	51/64	20.241	57/64	22.621	29/32	23.017
		14	20.000	13/16	20.637	53/64	21.034				
		20	20.668	53/64	21.034	27/32	21.433				
15/16"	23.813	20	22.255	57/64	22.621	29/32	23.017	61/64	24.209	31/32	24.608
1"	25.400	8	21.504	7/8	22.225	59/64	23.416	1-1/64	25.796	1-1/32	26.195
		12	22.804	15/16	23.813	61/64	24.209				
		20	23.843	61/64	24.209	31/32	24.608				

TAP & CLEARANCE
tapandclearance.com

75% thread engagement for aluminum, brass & plastics.
50% thread engagement for steel, stainless & cast iron.

Unified threads Class 2B (ASME B1.1); metric threads per ISO 261.
Verify against your tap manufacturer for critical work.



METRIC TAP & CLEARANCE DRILL SIZES ISO 261 COARSE & FINE • DECIMALS IN MILLIMETERS				TAP DRILL				CLEARANCE DRILL			
				75% thread for aluminum, brass & plastics		50% thread for steel, stainless & iron		Close fit		Free fit	
Screw size	Major dia.	Pitch (mm)	Minor dia.	Drill	Dec.	Drill	Dec.	Drill	Dec.	Drill	Dec.
M1.5	1.500	0.35	1.121	1.15 mm	1.150	1.25 mm	1.250	1.6 mm	1.600	1.65 mm	1.650
M1.6	1.600	0.35	1.221	1.25 mm	1.250	1.25 mm	1.250	1.7 mm	1.700	1.8 mm	1.800
M1.8	1.800	0.35	1.421	1.45 mm	1.450	1.55 mm	1.550	1.9 mm	1.900	2.0 mm	2.000
M2	2.000	0.4	1.567	1.6 mm	1.600	1.6 mm	1.600	2.2 mm	2.200	2.4 mm	2.400
		0.45	1.513	1.55 mm	1.550	1.7 mm	1.700				
M2.2	2.200	0.45	1.713	1.75 mm	1.750	1.9 mm	1.900	2.3 mm	2.300	2.4 mm	2.400
M2.5	2.500	0.45	2.013	2.05 mm	2.050	2.05 mm	2.050	2.7 mm	2.700	2.9 mm	2.900
M3	3.000	0.5	2.459	2.5 mm	2.500	2.5 mm	2.500	3.2 mm	3.200	3.4 mm	3.400
		0.6	2.351	2.4 mm	2.400	2.6 mm	2.600				
M3.5	3.500	0.6	2.851	2.9 mm	2.900	2.9 mm	2.900	3.7 mm	3.700	3.9 mm	3.900
M4	4.000	0.7	3.242	3.3 mm	3.300	3.3 mm	3.300	4.3 mm	4.300	4.5 mm	4.500
		0.75	3.188	3.25 mm	3.250	3.5 mm	3.500				
M4.5	4.500	0.75	3.688	3.75 mm	3.750	4.0 mm	4.000	4.75 mm	4.750	5.0 mm	5.000
M5	5.000	0.8	4.134	4.2 mm	4.200	4.2 mm	4.200	5.3 mm	5.300	5.5 mm	5.500
		1.0	3.917	4.0 mm	4.000	4.4 mm	4.400				
		0.9	4.026	4.1 mm	4.100	4.4 mm	4.400				
M5.5	5.500	0.9	4.526	4.6 mm	4.600	4.9 mm	4.900	5.8 mm	5.800	6.1 mm	6.100
M6	6.000	1.0	4.918	5.0 mm	5.000	5.0 mm	5.000	6.4 mm	6.400	6.6 mm	6.600
		0.75	5.188	5.25 mm	5.250	5.5 mm	5.500				
M7	7.000	1.0	5.918	6.0 mm	6.000	6.4 mm	6.400	7.4 mm	7.400	7.7 mm	7.700
		0.75	6.188	6.25 mm	6.250	6.5 mm	6.500				
M8	8.000	1.25	6.647	6.8 mm	6.800	6.8 mm	6.800	8.4 mm	8.400	9.0 mm	9.000
		1.0	6.918	7.0 mm	7.000	7.4 mm	7.400				
M9	9.000	1.25	7.647	7.8 mm	7.800	8.2 mm	8.200	9.5 mm	9.500	9.9 mm	9.900
		1.0	7.918	8.0 mm	8.000	8.4 mm	8.400				
M10	10.000	1.5	8.376	8.5 mm	8.500	8.5 mm	8.500	10.5 mm	10.500	11.0 mm	11.000
		1.25	8.647	8.8 mm	8.800	9.2 mm	9.200				
		1.0	8.918	9.0 mm	9.000	9.4 mm	9.400				
M11	11.000	1.5	9.376	9.5 mm	9.500	10.0 mm	10.000	11.6 mm	11.600	12.1 mm	12.100
M12	12.000	1.75	10.106	10.2 mm	10.200	10.2 mm	10.200	13.0 mm	13.000	13.5 mm	13.500
		1.5	10.376	10.5 mm	10.500	11.0 mm	11.000				
		1.25	10.647	10.8 mm	10.800	11.2 mm	11.200				
M14	14.000	2.0	11.835	12.1 mm	12.100	12.7 mm	12.700	14.75 mm	14.750	15.5 mm	15.500
		1.5	12.376	12.5 mm	12.500	13.0 mm	13.000				
		1.25	12.647	12.8 mm	12.800	13.2 mm	13.200				
M15	15.000	1.5	13.376	13.5 mm	13.500	14.0 mm	14.000	15.75 mm	15.750	16.5 mm	16.500
M16	16.000	2.0	13.835	14.0 mm	14.000	14.75 mm	14.750	16.75 mm	16.750	17.5 mm	17.500
		1.5	14.376	14.5 mm	14.500	15.0 mm	15.000				
M17	17.000	1.5	15.376	15.5 mm	15.500	16.0 mm	16.000	18.0 mm	18.000	18.5 mm	18.500
M18	18.000	2.5	15.294	15.5 mm	15.500	16.5 mm	16.500	19.0 mm	19.000	20.0 mm	20.000
		2.0	15.835	16.0 mm	16.000	16.75 mm	16.750				
		1.5	16.376	16.5 mm	16.500	17.0 mm	17.000				
M19	19.000	2.5	16.294	16.5 mm	16.500	17.5 mm	17.500	20.0 mm	20.000	21.0 mm	21.000
M20	20.000	2.5	17.294	17.5 mm	17.500	18.5 mm	18.500	21.0 mm	21.000	22.0 mm	22.000
		2.0	17.835	18.0 mm	18.000	18.5 mm	18.500				
		1.5	18.376	18.5 mm	18.500	19.0 mm	19.000				

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DRILL SIZE DECIMAL EQUIVALENTS

DECIMALS IN MILLIMETERS

NUMBER DRILLS						LETTER DRILLS				FRACTIONAL DRILLS			
Drill	Dec.	Drill	Dec.	Drill	Dec.	Drill	Dec.	Drill	Dec.	Drill	Dec.	Drill	Dec.
#1	5.791	#28	3.569	#55	1.321	A	5.944	N	7.671	1/64	0.397	17/64	6.747
#2	5.613	#29	3.454	#56	1.181	B	6.045	O	8.026	1/32	0.794	9/32	7.144
#3	5.410	#30	3.264	#57	1.092	C	6.147	P	8.204	3/64	1.191	19/64	7.541
#4	5.309	#31	3.048	#58	1.067	D	6.248	Q	8.433	1/16	1.587	5/16	7.938
#5	5.220	#32	2.946	#59	1.041	E	6.350	R	8.611	5/64	1.984	21/64	8.334
#6	5.182	#33	2.870	#60	1.016	F	6.528	S	8.839	3/32	2.381	11/32	8.731
#7	5.105	#34	2.819	#61	0.991	G	6.629	T	9.093	7/64	2.778	23/64	9.128
#8	5.055	#35	2.794	#62	0.965	H	6.756	U	9.347	1/8	3.175	3/8	9.525
#9	4.978	#36	2.705	#63	0.940	I	6.909	V	9.576	9/64	3.572	25/64	9.922
#10	4.915	#37	2.642	#64	0.914	J	7.036	W	9.804	5/32	3.969	13/32	10.319
#11	4.851	#38	2.578	#65	0.889	K	7.137	X	10.084	11/64	4.366	27/64	10.716
#12	4.801	#39	2.527	#66	0.838	L	7.366	Y	10.262	3/16	4.762	7/16	11.112
#13	4.699	#40	2.489	#67	0.813	M	7.493	Z	10.490	13/64	5.159	29/64	11.509
#14	4.623	#41	2.438	#68	0.787					7/32	5.556	15/32	11.906
#15	4.572	#42	2.375	#69	0.742					15/64	5.953	31/64	12.303
#16	4.496	#43	2.261	#70	0.711					1/4	6.350	1/2	12.700
#17	4.394	#44	2.184	#71	0.660								
#18	4.305	#45	2.083	#72	0.635								
#19	4.216	#46	2.057	#73	0.610								
#20	4.089	#47	1.994	#74	0.571								
#21	4.039	#48	1.930	#75	0.533								
#22	3.988	#49	1.854	#76	0.508								
#23	3.912	#50	1.778	#77	0.457								
#24	3.861	#51	1.702	#78	0.406								
#25	3.797	#52	1.613	#79	0.368								
#26	3.734	#53	1.511	#80	0.343								
#27	3.658	#54	1.397										

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