

THREDSHAVER CUTTING TAP DRILL SIZES

THREDSHAVERS – MACHINE SCREW AND FRACTIONAL

SIZE	THEORETICAL HOLE SIZES FOR				CLASS 2B				CLASS 3B				UNJ3B			
	85% THREAD	75% THREAD	65% THREAD	55% THREAD	MINOR DIAMETER		RECOMMENDED DRILL SIZE		MINOR DIAMETER		RECOMMENDED DRIELL SIZE		MINOR DIAMETER		RECOMMENDED DRIELL SIZE	
					MIN	MAX			MIN	MAX			MIN	MAX		
0-80	.046	.048	.049	.051	.0465	.0514	3/64" (.0469)	.0465	.0514	3/64" (.0469)	.0479	.0511	1.25mm (.0492)			
1-64	.056	.058	.060	.062	.0561	.0623	#53 (.0595)	.0561	.0623	#53 (.0595)	.0578	.0619	#53 (.0595)			
1-72	.058	.059	.061	.063	.0580	.0635	#53 (.0595)	.0580	.0635	#53 (.0595)	.0595	.0631	1.55mm (.061)			
2-56	.066	.069	.071	.073	.0667	.0737	#50 (.070)	.0667	.0737	#50 (.070)	.0686	.0732	#50 (.070)			
2-64	.069	.071	.073	.075	.0691	.0753	#50 (.070)	.0691	.0753	#50 (.070)	.0708	.0749	#49 (.073)			
3-48	.076	.079	.081	.084	.0764	.0845	#47 (.0785)	.0764	.0845	#47 (.0785)	.0787	.0841	#45 (.082)			
3-56	.079	.082	.084	.086	.0797	.0865	#45 (.082)	.0797	.0865	#45 (.082)	.0816	.0862	2.15mm (.0846)			
4-40	.084	.088	.091	.094	.0849	.0939	#43 (.089)	.0849	.0939	#43 (.089)	.0877	.0942	2.35mm (.0925)			
4-48	.089	.092	.094	.097	.0894	.0968	#42 (.0935)	.0894	.0968	#42 (.0935)	.0917	.0971	3/32" (.0938)			
5-40	.097	.101	.104	.107	.0979	.1062	#38 (.1015)	.0979	.1062	#38 (.1015)	.1007	.1072	#37 (.104)			
5-44	.100	.103	.106	.109	.1004	.1079	#37 (.104)	.1004	.1079	#37 (.104)	.1029	.1088	#36 (.1065)			
6-32	.103	.108	.112	.116	.104	.114	#35 (.110)	.1040	.1140	#35 (.110)	.1076	.1157	#33 (.113)			
6-40	.110	.114	.117	.120	.111	.119	#33 (.113)	.1110	.1186	#33 (.113)	.1137	.1202	#32 (.116)			
8-32	.129	.134	.138	.142	.130	.139	#29 (.136)	.1300	.1389	#29 (.136)	.1336	.1417	#29 (.136)			
8-36	.133	.137	.141	.144	.134	.142	#29 (.136)	.1340	.1416	#29 (.136)	.1370	.1442	#28 (.1405)			
10-24	.144	.149	.155	.160	.145	.156	#24 (.152)	.1450	.1555	#24 (.152)	.1494	.1600	#23 (.154)			
10-32	.155	.160	.164	.168	.156	.164	#20 (.161)	.1560	.1641	#20 (.161)	.1596	.1675	#20 (.161)			
12-24	.170	.175	.181	.186	.171	.181	#16 (.177)	.1710	.1807	#16 (.177)	.1754	.1852	#15 (.180)			
12-28	.177	.181	.186	.190	.177	.186	#14 (.182)	.1770	.1857	#14 (.182)	.1812	.1896	#13 (.185)			
1/4-20	.195	.201	.208	.214	.196	.207	13/64" (.2031)	.1960	.2067	13/64" (.2031)	.2013	.2121	#5 (.2055)			
1/4-28	.211	.215	.220	.224	.211	.220	5.5mm (.2165)	.2110	.2190	5.5mm (.2165)	.2152	.2229	7/32" (.2188)			
5/16-18	.251	.258	.266	.273	.252	.265	G (.261)	.2520	.2630	F (.257)	.2584	.2690	G (.261)			
5/16-24	.266	.272	.277	.283	.267	.277	I (.272)	.2670	.2754	I (.272)	.2719	.2799	I (.272)			
3/8-16	.306	.314	.322	.330	.307	.321	O (.316)	.3070	.3182	5/16" (.3125)	.3141	.3250	O (.316)			
3/8-24	.329	.334	.340	.345	.330	.340	Q (.332)	.3300	.3372	Q (.332)	.3344	.3417	8.5mm (.3346)			
7/16-14	.359	.368	.377	.386	.360	.376	U (.368)	.3600	.3717	U (.368)	.3680	.3795	3/8" (.375)			
7/16-20	.382	.389	.395	.402	.383	.395	25/64" (.3906)	.3830	.3916	W (.386)	.3888	.3970	25/64" (.3906)			
1/2-13	.415	.425	.435	.445	.417	.434	27/64" (.4219)	.4170	.4284	27/64" (.4219)	.4251	.4368	11mm (.433)			
1/2-20	.445	.451	.458	.464	.446	.457	29/64" (.4531)	.4460	.4537	11.4mm (.4488)	.4513	.4591	29/64" (.4531)			
9/16-12	.470	.481	.492	.503	.472	.490	31/64" (.4844)	.4720	.4843	12.1mm (.4763)	.4814	.4914	31/64" (.4844)			
9/16-18	.501	.508	.516	.523	.502	.515	13mm (.5118)	.5020	.5106	12.9mm (.5079)	.5084	.5166	33/64" (.5156)			
5/8-11	.525	.536	.548	.560	.527	.546	17/32" (.5312)	.5270	.5391	17/32" (.5312)	.5365	.5474	13.7mm (.5394)			
5/8-18	.564	.571	.578	.585	.565	.578	14.5mm (.5709)	.5650	.5730	14.5mm (.5709)	.5709	.5788	14.5mm (.5709)			
3/4-10	.639	.652	.665	.678	.642	.663	21/32" (.6562)	.6420	.6545	16.5mm (.6496)	.6526	.6646	21/32" (.6562)			
3/4-16	.681	.689	.697	.705	.682	.696	11/16" (.6875)	.6820	.6908	11/16" (.6875)	.6892	.6977	17.5mm (.689)			
7/8-9	.752	.767	.781	.796	.755	.778	49/64" (.7656)	.7550	.7681	49/64" (.7656)	.7668	.7801	19.6mm (.7716)			
7/8-14	.796	.805	.815	.824	.798	.814	13/16" (.8125)	.7980	.8068	2.4mm (.8031)	.8055	.8152	13/16" (.8125)			
1-8	.862	.878	.894	.911	.865	.890	7/8" (.875)	.8650	.8797	7/8" (.875)	.8783	.8933	57/64" (.8906)			
1-12	.908	.919	.930	.940	.910	.928	59/64" (.9219)	.9100	.9198	23.2mm (.9134)	.9189	.9289	23.5mm (.9252)			

THRESHAVERS – METRIC

SIZE	THEORETICAL HOLE SIZES FOR				CLASS 6H						CLASS 4H					
	85% THREAD	75% THREAD	65% THREAD	55% THREAD	MINOR DIA. (mm)		MINOR DIA. (in.)		RECOMMENED DRILL SIZE		MINOR DIA. (mm)		MINOR DIA. (in.)		RECOMMENED DRILL SIZE	
M2 X 0.4	.061	.063	.065	.067	1.567	1.679	.0617	.0661	1.60mm	(.0630)	1.567	1.638	.0617	.0645	1/16"	(.0625)
M2.5 X 0.45	.079	.081	.083	.086	2.013	2.138	.0793	.0842	#45	(.0820)	2.013	2.093	.0793	.0824	2.05mm	(.0807)
M3 X 0.5	.096	.099	.101	.104	2.459	2.599	.0968	.1023	#39	(.0995)	2.459	2.549	.0968	.1004	#40	(.0980)
M3.5 X 0.6	.112	.115	.118	.121	2.850	3.010	.1122	.1185	2.9mm	(.1142)	2.850	2.950	.1122	.1161	#33	(.1130)
M4 X 0.7	.127	.131	.134	.138	3.242	3.422	.1276	.1347	3.3mm	(.1299)	3.242	3.354	.1276	.1320	#30	(.1285)
M5 X 0.8	.162	.166	.170	.174	4.134	4.334	.1628	.1706	#19	(.1660)	4.134	4.259	.1628	.1677	4.2mm	(.1654)
M6 X 1	.193	.198	.203	.208	4.917	5.153	.1936	.2029	5mm	(.1969)	4.917	5.067	.1936	.1995	#9	(.1960)
M8 X 1.25	.261	.267	.273	.280	6.647	6.912	.2617	.2721	H	(.2660)	6.647	6.817	.2617	.2684	17/64	(.2656)
M10 X 1.5	.328	.336	.344	.351	8.376	8.676	.3298	.3416	8.5mm	(.3346)	8.376	8.566	.3298	.3372	Q	(.3320)
M10 X 1.25	.339	.346	.352	.359	8.647	8.912	.3404	.3509	8.75mm	(.3445)	8.647	8.817	.3404	.3471	8.75mm	(.3445)
M12 X 1.75	.396	.405	.414	.423	10.106	10.441	.3979	.4111	13/32"	(.4063)	10.106	10.318	.3979	.4062	Y	(.4040)
M12 X 1.5	.407	.415	.423	.430	10.376	10.676	.4085	.4203	10.5mm	(.4134)	10.376	10.566	.4085	.4160	10.5mm	(.4134)
M12 X 1.25	.418	.424	.431	.437	10.647	10.912	.4192	.4296	10.75mm	(.4232)	10.647	10.817	.4192	.4259	10.75mm	(.4232)
M14 X 2	.464	.474	.485	.495	11.835	12.210	.4659	.4807	12mm	(.4724)	11.835	12.071	.4659	.4752	12mm	(.4724)
M14 X 1.5	.486	.494	.501	.509	12.376	12.676	.4872	.4991	12.5mm	(.4921)	12.376	12.566	.4872	.4947	12.5mm	(.4921)
M16 X 2	.543	.553	.563	.574	13.835	14.210	.5447	.5594	14mm	(.5512)	13.835	14.071	.5447	.5540	14mm	(.5512)
M16 X 1.5	.565	.572	.580	.588	14.376	14.676	.5660	.5778	14.5mm	(.5709)	14.376	14.566	.5660	.5735	14.5mm	(.5709)
M18 X 2.5	.600	.613	.625	.638	15.294	15.744	.6021	.6198	15.5mm	(.6102)	15.294	15.574	.6021	.6131	15.5mm	(.6102)
M18 X 1.5	.643	.651	.659	.666	16.376	16.676	.6447	.6565	16.5mm	(.6496)	16.376	16.566	.6447	.6522	16.5mm	(.6496)
M20 X 2.5	.679	.692	.704	.717	17.294	17.744	.6809	.6986	17.5mm	(.6890)	17.294	17.574	.6809	.6919	17.5mm	(.6890)
M20 X 1.5	.722	.730	.737	.745	18.376	18.676	.7235	.7353	18.5mm	(.7283)	18.376	18.566	.7235	.7309	18.5mm	(.7283)
M22 X 2.5	.757	.770	.783	.796	19.294	19.744	.7596	.7773	19.5mm	(.7677)	19.294	19.574	.7596	.7706	19.5mm	(.7677)
M22 X 1.5	.801	.809	.816	.824	20.376	20.676	.8022	.8140	20.5mm	(.8071)	20.376	20.566	.8022	.8097	20.5mm	(.8071)
M24 X 3	.814	.830	.845	.860	20.752	21.252	.8170	.8367	21mm	(.8268)	20.752	21.067	.8170	.8294	21mm	(.8268)
M24 X 2	.858	.868	.878	.889	21.835	22.210	.8596	.8744	22mm	(.8661)	21.835	22.071	.8596	.8689	22mm	(.8661)

THRESHAVER PIPE TAP DRILL SIZES – NPT, NPTF & NPSF

SIZE	NPT & NPTF DRILL ONLY		NPT & NPTF DRILL / TAPER REAM		NPSF STRAIGHT THREAD
	NPT DRILL SIZE	NPTF DRILL SIZE	DRILL SIZE	REAM DIAMETER LARGE END	SUGGESTED HOLE SIZE
1/16-27	D (.246)	D (.246)	15/64"	.2515	.250/.252
1/8-27	Q (.332)	R (.339)	21/64"	.3440	.343/.345
1/4-18	7/16"	7/16"	27/64"	.4472	.444/.447
3/8-18	9/16"	37/64"	9/16"	.5826	.580/.583
1/2-14	45/64"	45/64"	11/16"	.7213	.715/.719
3/4-14	29/32"	59/64"	57/64"	.9317	.926/.930