

## Tapping and Clearance Drills for **FRACTIONAL** Machine Screws

Screw Size				Tapping Drills			Clearance Drills			
Nominal Diam. (in)	Threads/Inch	Series	Dec. Equiv.	Drill Size (65-75% thread)	Equivalents		Close Fit		Free Fit	
					(decimal)	(mm)	Drill Size	Dec. Equiv.	Drill Size	Dec. Equiv.
1/16	64	NS	0.0625	3/64"	0.0469	1.1913	52	0.0635	51	0.0670
	72	NS		3/64"	0.0469	1.1913				
5/64	60	NS	0.0781	1/16"	0.0625	1.5875	46	0.0810	45	0.0820
	72	NS		52	0.0635	1.6129				
3/32	48	NS	0.0938	49	0.0730	1.8542	41	0.0960	40	0.0980
	50	NS		49	0.0730	1.8542				
7/64	48	NS	0.1094	43	0.0890	2.2606	34	0.1110	32	0.1160
1/8	32	NS	0.1250	3/32"	0.0938	2.3825	30	0.1285	29	0.1360
	40	NS		38	0.1015	2.5781				
9/64	40	NS	0.1406	32	0.1160	2.9464	27	0.1440	26	0.1470
5/32	32	NS	0.1563	1/8"	0.1250	3.1750	20	0.1610	19	0.1660
	36	NS		30	0.1285	3.2639				
11/64	32	NS	0.1719	9/64"	0.1406	3.5712	16	0.1770	15	0.1800
3/16	24	NS	0.1875	26	0.1470	3.7338	11	0.1910	9	0.1960
	32	NS		22	0.1570	3.9878				
13/64	24	NS	0.2031	20	0.1610	4.0894	4	0.2090	3	0.2130
7/32	24	NS	0.2188	16	0.1770	4.4958	2	0.2210	1	0.2280
	32	NS		12	0.1890	4.8006				
15/64	24	NS	0.2344	10	0.1935	4.9149	C	0.2420	D	0.2460
1/4	20	NC	0.2500	7	0.2010	5.1054	F	0.2570	H	0.2660
	24	NS		4	0.2090	5.3086				
	27	NS		3	0.2130	5.4102				
	28	NF		3	0.2130	5.4102				
5/16	32	NEF	0.3125	7/32"	0.2188	5.5575	P	0.3230	Q	0.3320
	18	NC		F	0.2570	6.5278				
	20	NS		17/64"	0.2656	6.7462				
	24	NF		I	0.2720	6.9088				
	27	NS		J	0.2770	7.0358				
3/8	32	NEF	0.3750	9/32"	0.2812	7.1425	W	0.3860	X	0.3970
	16	NC		5/16"	0.3125	7.9375				
	20	NS		21/64"	0.3281	8.3337				
	24	NF		Q	0.3320	8.4328				
7/16	27	NS	0.4375	R	0.3390	8.6106	29/64"	0.4531	15/32"	0.4687
	32	NEF		11/32"	0.3438"	8.7325				
	14	NC		U	0.3680	9.3472				
	20	NF		25/64"	0.3906	9.9212				
	24	NS		X	0.3970	10.0838				
1/2	27	NS	0.5000	Y	0.4040	10.2616	33/64"	0.5156	17/32"	0.5312
	28	NEF		15/32"	0.4688	11.9075				
	12	NS		27/64"	0.4219	10.7163				
	13	NC		27/64"	0.4219	10.7163				
	20	NF		29/64"	0.4531	11.5087				
	24	NS		29/64"	0.4531	11.5087				
9/16	27	NS	0.5625	15/32"	0.4688	11.9075	37/64"	0.5781	19/32"	0.5938
	12	NC		31/64"	0.4844	12.3038				
	18	NF		33/64"	0.5156	13.0962				
	24	NEF		33/64"	0.5156	13.0962				
5/8	27	NS	0.6250	17/32"	0.5313	13.4950	41/64"	0.6406	21/32"	0.6562
	11	NC		17/32"	0.5313	13.4950				
	12	NS		35/64"	0.5469	13.8913				
	18	NF		37/64"	0.5781	14.6837				
	24	NEF		37/64"	0.5781	14.6837				
11/16	27	NS	0.6875	19/32"	0.5937	15.0800	45/64"	0.7031	23/32"	0.7188
	11	NS		19/32"	0.5937	15.0800				
	16	NS		5/8"	0.6250	15.8750				
	24	NEF		41/64"	0.6406	16.4084				
3/4	10	NC	0.7500	21/32"	0.6562	16.6675	49/64"	0.7656	25/32"	0.7812
	12	NS		43/64"	0.6719	17.0663				
	16	NF		11/16"	0.6875	17.4625				
	20	NEF		45/64"	0.7031	17.8587				
	27	NS		23/32"	0.7187	18.2550				
13/16	10	NS	0.8125	23/32"	0.7187	18.2550	53/64"	0.8281	27/32"	0.8438
	20	NEF		49/64"	0.7656	19.4462				
7/8	9	NC	0.8750	49/64"	0.7656	19.4462	57/64"	0.8906	29/32"	0.9062
	12	NS		51/64"	0.7969	20.2413				
	14	NF		13/16"	0.8125	20.6375				
	18	NS		53/64"	0.8281	21.0337				
	20	NEF		53/64"	0.8281	21.0337				
15/16	27	NS	0.9375	27/32"	0.8437	21.4300	61/64"	0.9531	31/32"	0.9688
	9	NS		53/64"	0.8281	21.0337				
	20	NEF		57/64"	0.8906	22.6212				
1	8	NC	1.0000	7/8"	0.8750	22.2250	1-1/64"	1.0156	1-1/32"	1.0313
	12	NF		59/64"	0.9219	23.4163				
	14	NS		15/16"	0.9375	23.8125				
	20	NEF		61/64"	0.9531	24.2087				
	27	NS		31/32"	0.9687	24.6050				
	32	C-mount		31/32"	0.9687	24.6050				