

TAP DRILL SIZES

Probable percentage of full thread produced in tapped hole using stock sizes of drills.

Tap	Tap Drill	Decimal Equivalent of Tap Drill	Theoretical Percentage of Thread	Probable Oversize (Mean)	Probable Hole Size	Percentage of Thread
0-80	56	.0465	83	.0015	.0480	74
	3/64	.0469	81	.0015	.0484	71
1-64	54	.0550	89	.0015	.0565	81
	53	.0595	67	.0015	.0610	59
1-72	53	.0595	75	.0015	.0610	67
	1/16	.0625	58	.0015	.0640	50
2-56	51	.0670	82	.0017	.0687	74
	50	.0700	69	.0017	.0717	62
2-64	50	.0700	79	.0017	.0717	70
	49	.0730	64	.0017	.0747	56
3-48	48	.0760	85	.0019	.0779	78
	5/64	.0781	77	.0019	.0800	70
	47	.0785	76	.0019	.0804	69
	46	.0810	67	.0019	.0829	60
	45	.0820	63	.0019	.0839	56
3-56	46	.0810	78	.0019	.0829	69
	45	.0820	73	.0019	.0839	65
4-40	44	.0860	80	.0020	.0880	74
	43	.0890	71	.0020	.0910	65
4-48	42	.0935	68	.0020	.0955	61
	3/32	.0938	68	.0020	.0958	60
5-40	40	.0980	83	.0023	.1003	76
	39	.0995	79	.0023	.1018	71
	38	.1015	72	.0023	.1038	65
5-44	38	.1015	79	.0023	.1038	72
	37	.1040	71	.0023	.1063	63
6-32	37	.1040	84	.0023	.1063	78
	36	.1065	78	.0023	.1088	72
	7/64	.1094	70	.0026	.1120	64
	35	.1100	69	.0026	.1126	63
	34	.1110	67	.0026	.1136	60
6-40	34	.1110	83	.0026	.1136	75
	33	.1130	77	.0026	.1156	69
	32	.1160	68	.0026	.1186	60
8-32	29	.1360	69	.0029	.1389	62
8-36	29	.1360	78	.0029	.1389	70
10-24	27	.1140	85	.0032	.1472	79
	26	.1470	79	.0032	.1502	74
	25	.1495	75	.0032	.1527	69
	24	.1520	70	.0032	.1152	64
10-32	5/32	.1653	83	.0032	.1595	75
	22	.1570	81	.0032	.1602	73
	21	.1590	76	.0032	.1622	68
12-24	11/64	.1719	82	.0035	.1754	75
	17	.1730	79	.0035	.1765	73
	16	.1770	72	.0035	.1805	66
12-28	16	.1770	84	.0035	.1805	77
	15	.1800	78	.0035	.1835	70
	14	.1820	73	.0035	.1855	66

Suggested Pipe Tap Drill Sizes

Drill Size	Tap Size		1/16	1/8	1/4	3/8	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	3-1/2	4	
	Taper Pipe Tap		C	Q	7/16	9/16	45/64	29/32	1-9/64	1-31/64	1-23/32	2-3/16	2-39/64	3-15/64	—	—	—
	Straight Pipe Tap		1/4	11/32	7/16	37/64	23/32	59/64	1-5/32	1-1/2	1-3/4	2-7/32	2-21/32	—	—	—	—

For Dryseal Straight Pipe Threads suggested drill sizes are as shown, except: 1/4" pipe, .444 drill size.

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1/4-20	9	.1960	83	.0038	.1998	77
	8	.1990	79	.0038	.2028	73
	7	.2010	75	.0038	.2048	70
	13/64	.2031	72	.0038	.2069	66
1/4-28	3	.2130	80	.0038	.2168	72
5/16-18	F	.2570	77	.0038	.2608	72
	G	.2610	71	.0041	.2651	66
5/16-24	H	.2660	86	.0041	.2701	78
	I	.2720	75	.0041	.2761	67
3/8-16	5/16	.3125	77	.0044	.3169	72
	O	.3160	73	.0044	.3204	68
3/8-24	21/64	.3281	87	.0044	.3325	79
	Q	.3320	79	.0044	.3364	71
7/16-14	T	.3580	86	.0046	.3626	81
	23/64	.3594	84	.0046	.3640	79
	U	.3680	75	.0046	.3726	70
7/16-2	W	.3860	79	.0046	.3906	72
	25/64	.3906	72	.0046	.3952	65
1/2-13	27/64	.4219	78	.0047	.4266	73
1/2-20	29/64	.4531	72	.0047	.4578	65
9/16-12	15/32	.4688	87	.0048	.4736	82
	31/64	.4844	72	.0048	.4892	68
9/16-18	1/2	.500	87	.0048	.5048	80
5/8-11	17/32	.5313	79	.0049	.5362	75
5/8-18	9/16	.5625	87	.0049	.5674	80
3/4-10	41/64	.6406	84	.0050	.6456	80
	21/32	.6563	72	.0050	.6613	68
3/4-16	11/16	.6875	77	.0050	.6925	71
7/8-9	49/64	.7656	76	.0052	.7708	72
7/8-14	51/64	.7969	84	.0052	.8021	79
1-8	55/64	.8594	87	.0059	.8653	83
	7/8	.875	77	.0059	.8809	73
1-12	29/32	.9063	87	.0059	.9122	81
	59/64	.9219	72	.0060	.9279	67
1-14	59/64	.9219	84	.0060	.9279	78
1-1/8-7	31/32	.9688	84	.0062	.9750	81
	63/64	.9844	76	.0067	.9911	72
	1-1/64	1.0156	59	.0070	1.0226	55
1-1/8-12	1-1/32	1.0313	87	.0071	1.0384	80
1-1/4-7	1-3/32	1.0938	84	Reaming Recommended		
	1-7/64	1.1094	76			
1-1/4-12	1-11/64	1.1719	72			
1-3/8-6	1-13/64	1.2031	79			
	1-7/32	1.2188	72			
1-3/8-12	1-19/64	1.2969	72			
1-1/2-6	1-21/64	1.3281	79			
	1-11/32	1.3438	72			
1-1/2-12	1-27/64	1.4219	72			