

TAPPING SPEED GUIDE

MATERIALS	SPEED FEET PER MINUTE	MATERIALS	SPEED FEET PER MINUTE
Aluminum Alloys	90-100	(Steel, Cont.) Carbon Steel, Plain	Annealed 40-80
Brass	60-100		Tempered 15-40
Bronze	40-60	Cast, Carbon	Annealed 40-50
Copper	40-60		Tempered 30
High Temperature Alloys	Cobalt Base	Cast, Corrosion Resistant,	Annealed 20-30
	Iron Base	Heat Resistant,	as Cast 20-25
	Nickel Base	Low Alloy	Annealed 30-45
Iron	Ductile	Precipitation Hardening, Stainless	Tempered 15-25
			as Cast 30
			Tempered 15-20
	Gray,		Annealed 80
			As Cast 35-60
			Malleable
	Annealed 175	Free Machining, Tool Steels, High Speed	Annealed 45-75
		Water Hardening	Annealed 15-25
		Ultra High Strength Steels	Annealed 50
Magnesium Alloys			Annealed 35
Manganese			Normalized 20
Molybdenum Alloys	Stress Relieved		Tempered 3-7
Monel	Annealed	Maraging Steels	Annealed 20-15
Nickel Alloys	Annealed		Maraged 5-10
Plastics,	Reinforced	Tantalum Alloys, Stress Relieved	3
	Thermoplastics	Titanium Alloys, Commercial Pure,	Annealed 40-60
	Thermosetting Plastics	Alpha & Alpha Beta Alloys,	Annealed 10-25
		Tungsten Alloys, Pressed & Sintered	50
Steels,	Alloys, Annealed or Cold Drawn	Zinc Alloys	Die Cast 150
	Quenched & Tempered		
Armor Plate	10		

CONVERSION TABLE, SURFACE FEET PER MINUTE TO REVOLUTIONS PER MINUTE

SPEED FEET PER MINUTE	20	25	30	40	50	60	70	80	90	100	110	120	130	140	150
TAP SIZE	REVOLUTIONS PER MINUTE														
0	1273	1592	1910	2546	3183	3820	4456	5093	5730	6366	7003	7639	8276	8913	9549
1	1047	1308	1570	2093	2617	3140	3663	4186	4710	5233	5756	6279	6808	7326	7849
2	888	1110	1333	1777	2221	2665	3109	3554	3999	4442	4886	5330	5774	6218	6662
3	772	964	1157	1543	1929	2315	2701	3086	3472	3858	4244	4629	5015	5401	5787
4	682	853	1023	1364	1705	2046	2387	2728	3069	3411	3751	4092	4434	4775	5116
5	611	764	917	1222	1528	1833	2139	2445	2750	3056	3361	3667	3973	4278	4584
6	553	691	829	1106	1382	1658	1934	2211	2487	2764	3040	3316	3592	3869	4145
8	466	583	699	932	1165	1398	1631	1864	2097	2330	2563	2796	3029	3262	3495
10	401	502	603	804	1005	1205	1406	1607	1808	2009	2210	2411	2612	2813	3014
12	354	442	531	707	884	1061	1238	1415	1592	1769	1945	2122	2300	2476	2653
1/4	306	382	458	611	764	917	1070	1222	1375	1528	1681	1833	1986	2139	2292
5/16	245	306	367	489	611	733	856	978	1100	1222	1345	1467	1589	1711	1833
3/8	204	255	306	407	509	611	713	815	917	1019	1120	1222	1324	1426	1528
7/16	175	219	262	349	437	524	611	698	786	873	960	1048	1135	1222	1310
1/2	153	191	229	306	382	458	535	611	688	764	840	917	993	1070	1146
9/16	137	172	206	275	344	412	481	550	619	687	756	825	893	963	1031
5/8	122	153	183	244	306	367	428	489	550	611	672	733	794	856	917
3/4	102	128	153	203	255	306	357	407	458	509	560	611	662	713	764
7/8	87	109	131	175	218	262	306	350	392	437	480	524	568	611	655
1	76	96	115	153	191	230	268	306	344	382	420	458	497	535	573

THREAD FORMING TAPS MACHINE SCREW SIZES

LIST 16B

Plug
Bottom

Stocked with Nitride Surface Treatment



TAP SIZE	SERIES DESIGN.	STYLE	EDP NUMBER									
			H-2	H-3	H-4	H-5	H-6	H-7	H-8	H-9	H-10	
0 - 80	NF	PLUG	58022	58032	58042	58052	58062	58072				
0 - 80	NF	BOTT	58023	58033	58043	58053	58063	58073				
1 - 64	NC	PLUG	58122	58132	58142	58152	58162	58172				
1 - 64	NC	BOTT	58123	58133	58143	58153	58163	58173				
1 - 72	NF	PLUG	58222	58232	58242	58252	58262	58272				
1 - 72	NF	BOTT	58223	58233	58243	58253	58263	58273				
2 - 56	NC	PLUG	58322	58332	58342	58352	58362	58372				
2 - 56	NC	BOTT	58323	58333	58343	58353	58363	58373				
2 - 64	NF	PLUG	58422	58432	58442	58452	58462	58472				
2 - 64	NF	BOTT	58423	58433	58443	58453	58463	58473				
3 - 48	NC	PLUG	58522	58532	58542	58552	58562	58572				
3 - 48	NC	BOTT	58523	58533	58543	58553	58563	58573				
3 - 56	NF	PLUG	58622	58632	58642	58652	58662	58672				
3 - 56	NF	BOTT	58623	58633	58643	58653	58663	58673				
4 - 40	NC	PLUG	58722	58732	58742	58752	58762	58772				
4 - 40	NC	BOTT	58723	58733	58743	58753	58763	58773				
4 - 48	NF	PLUG	58822	58832	58842	58852	58862	58872				
4 - 48	NF	BOTT	58823	58833	58843	58853	58863	58873				
5 - 40	NC	PLUG	58922	58932	58942	58952	58962	58972				
5 - 40	NC	BOTT	58923	58933	58943	58953	58963	58973				
5 - 44	NF	PLUG	59022	59032	59042	59052	59062	59072				
5 - 44	NF	BOTT	59023	59033	59043	59053	59063	59073				
6 - 32	NC	PLUG	59122	59132	59142	59152	59162	59172	59182	59192	59194	
6 - 32	NC	BOTT	59123	59133	59143	59153	59163	59173	59183	59193	59195	
6 - 40	NF	PLUG	59222	59232	59242	59252	59262	59272	59282	59292	59294	
6 - 40	NF	BOTT	59223	59233	59243	59253	59263	59273	59283	59293	59295	
8 - 32	NC	PLUG	59322	59332	59342	59352	59362	59372	59382	59392	59394	
8 - 32	NC	BOTT	59323	59333	59343	59353	59363	59373	59383	59393	59395	
8 - 36	NF	PLUG	59422	59432	59442	59452	59462	59472	59482	59492	59494	
8 - 36	NF	BOTT	59423	59433	59443	59453	59463	59473	59483	59493	59495	
10 - 24	NC	PLUG	59522	59532	59542	59552	59562	59572	59582	59592	59594	
10 - 24	NC	BOTT	59523	59533	59543	59553	59563	59573	59583	59593	59595	
10 - 32	NF	PLUG	59622	59632	59642	59652	59662	59672	59682	59692	59694	
10 - 32	NF	BOTT	59623	59633	59643	59653	59663	59673	59683	59693	59695	
12 - 24	NC	PLUG	59722	59732	59742	59752	59762	59772	59782	59792	59794	
12 - 24	NC	BOTT	59723	59733	59743	59753	59763	59773	59783	59793	59795	
12 - 28	NF	PLUG	59822	59832	59842	59852	59862	59872	59882	59892	59894	
12 - 28	NF	BOTT	59823	59833	59843	59853	59863	59873	59883	59893	59895	

NOTE: No.'s 0-1-2-3-4-5 standard with no lube groove. No. 6 machine screw size taps and larger are furnished standard with a single vent groove. Vent grooves on No. 2 through No. 5 size taps and/or any additional vent grooves on larger taps, will be furnished for an added charge of 5% per groove up to a maximum charge of 15%.

NOTE: 48 pitch and finer offered with standard two thread chamfer only. Bottoming style with points removed, plug style with points left on.

THREAD FORMING TAPS FRACTIONAL SIZES

LIST 16B

Plug Bottom

Stocked with Nitride Surface Treatment



TAP SIZE	SERIES DES.	STYLE	EDP NUMBER									
			H-2	H-3	H-4	H-5	H-6	H-7	H-8	H-9	H-10	
1/4 - 20	NC	PLUG	59922	59932	59942	59952	59962	59972	59982	59992	59994	
1/4 - 20	NC	BOTT	59923	59933	59943	59953	59963	59973	59983	59993	59995	
1/4 - 28	NF	PLUG	60022	60032	60042	60052	60062	60072	60082	60092	60094	
1/4 - 28	NF	BOTT	60023	60033	60043	60053	60063	60073	60083	60093	60095	
5/16 - 18	NC	PLUG	60122	60132	60142	60152	60162	60172	60182	60192	60194	
5/16 - 18	NC	BOTT	60123	60133	60143	60153	60163	60173	60183	60193	60195	
5/16 - 24	NF	PLUG	60222	60232	60242	60252	60262	60272	60282	60292	60294	
5/16 - 24	NF	BOTT	60223	60233	60243	60253	60263	60273	60283	60293	60295	
			H-4	H-5	H-6	H-7	H-8	H-9	H-10	H-11	H-12	
3/8 - 16	NC	PLUG	60442	60452	60462	60472	60482	60492	60494	60496	60498	
3/8 - 16	NC	BOTT	60443	60453	60463	60473	60483	60493	60495	60497	60499	
3/8 - 24	NF	PLUG	60642	60652	60662	60672	60682	60692	60694	60696	60698	
3/8 - 24	NF	BOTT	60643	60653	60663	60673	60683	60693	60695	60697	60699	
7/16 - 14	NC	PLUG	60842	60852	60862	60872	60882	60892	60894	60896	60898	
7/16 - 14	NC	BOTT	60843	60853	60863	60873	60883	60893	60895	60897	60899	
7/16 - 20	NF	PLUG	61042	61052	61062	61072	61082	61092	61094	61096	61098	
7/16 - 20	NF	BOTT	61043	61053	61063	61073	61083	61093	61095	61097	61099	
1/2 - 13	NC	PLUG	61242	61252	61262	61272	61282	61292	61294	61296	61298	
1/2 - 13	NC	BOTT	61243	61253	61263	61273	61283	61293	61295	61297	61299	
1/2 - 20	NF	PLUG	61442	61452	61462	61472	61482	61492	61494	61496	61498	
1/2 - 20	NF	BOTT	61443	61453	61463	61473	61483	61493	61495	61497	61499	
9/16 - 12	NC	PLUG	61642	61652	61662	61672	61682	61692	61694	61696	61698	
9/16 - 12	NC	BOTT	61643	61653	61663	61673	61683	61693	61695	61697	61699	
9/16 - 18	NF	PLUG	61842	61852	61862	61872	61882	61892	61894	61896	61898	
9/16 - 18	NF	BOTT	61843	61853	61863	61873	61883	61893	61895	61897	61899	
5/8 - 11	NC	PLUG	62042	62052	62062	62072	62082	62092	62094	62096	62098	
5/8 - 11	NC	BOTT	62043	62053	62063	62073	62083	62093	62095	62097	62099	
5/8 - 18	NF	PLUG	62242	62252	62262	62272	62282	62292	62294	62296	62298	
5/8 - 18	NF	BOTT	62243	62253	62263	62273	62283	62293	62295	62297	62299	
3/4 - 10	NC	PLUG			62412	62422	62432	62442	62452		62472	
3/4 - 10	NC	BOTT			62413	62423	62433	62443	62453		62473	
3/4 - 16	NF	PLUG			62512	62522	62532	62542	62552		62572	
3/4 - 16	NF	BOTT			62513	62523	62533	62543	62553		62573	

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NOTE: 48 pitch and finer offered with standard two thread chamfer only. Bottoming style with points removed, plug style with points left on.

THREAD FORMER SELECTION CHART

TAP SIZE	SERIES DESIGN.	CLASS 2				CLASS 3				CLASS 2B				CLASS 3B			
		H LIMIT	HOLE SIZE			H LIMIT	HOLE SIZE			H LIMIT	HOLE SIZE			H LIMIT	HOLE SIZE		
			75%	65%	55%		75%	65%	55%		75%	65%	55%		75%	65%	55%
0 - 80	NF	H-3	.0539	.0545	.0551	H-2	.0537	.0543	.0549	H-3	.0542	.0548	.0554	H-3	.0539	.0545	.0551
1 - 64	NC	H-3	.0653	.0660	.0668	H-2	.0651	.0658	.0666	H-4	.0657	.0664	.0672	H-3	.0653	.0660	.0668
1 - 72	NF	H-3	.0662	.0668	.0675	H-2	.0659	.0665	.0672	H-4	.0665	.0671	.0678	H-3	.0662	.0668	.0675
2 - 56	NC	H-3	.0772	.0779	.0788	H-3	.0769	.0776	.0785	H-4	.0776	.0783	.0792	H-3	.0772	.0779	.0788
2 - 64	NF	H-3	.0783	.0790	.0798	H-2	.0781	.0788	.0796	H-4	.0787	.0794	.0802	H-3	.0784	.0791	.0799
3 - 48	NC	H-3	.0886	.0895	.0905	H-3	.0883	.0892	.0902	H-4	.0890	.0899	.0909	H-3	.0886	.0895	.0905
3 - 56	NF	H-3	.0901	.0909	.0918	H-3	.0898	.0906	.0915	H-4	.0905	.0913	.0922	H-3	.0901	.0909	.0918
4 - 40	NC	H-3	.0995	.1005	.1018	H-3	.0991	.1001	.1014	H-4	.0999	.1009	.1022	H-3	.0995	.1005	.1018
4 - 48	NF	H-3	.1016	.1025	.1035	H-3	.1013	.1022	.1032	H-4	.1020	.1029	.1039	H-3	.1016	.1025	.1035
5 - 40	NC	H-3	.1124	.1135	.1147	H-3	.1120	.1131	.1143	H-4	.1128	.1139	.1151	H-4	.1124	.1135	.1147
5 - 44	NF	H-3	.1136	.1144	.1156	H-3	.1133	.1141	.1153	H-4	.1141	.1149	.1161	H-3	.1137	.1145	.1157
6 - 32	NC	H-4	.1221	.1234	.1250	H-3	.1217	.1230	.1246	H-5	.1226	.1239	.1255	H-4	.1221	.1234	.1250
6 - 40	NF	H-3	.1254	.1264	.1277	H-3	.1250	.1260	.1273	H-4	.1259	.1269	.1282	H-4	.1254	.1264	.1277
8 - 32	NC	H-4	.1480	.1493	.1509	H-3	.1476	.1489	.1505	H-5	.1486	.1499	.1515	H-4	.1481	.1494	.1510
8 - 36	NF	H-4	.1498	.1510	.1524	H-3	.1495	.1507	.1521	H-5	.1504	.1516	.1530	H-4	.1499	.1511	.1525
10 - 24	NC	H-4	.1686	.1704	.1724	H-3	.1682	.1700	.1720	H-5	.1691	.1709	.1729	H-4	.1686	.1704	.1724
10 - 32	NF	H-4	.1739	.1753	.1769	H-3	.1735	.1749	.1765	H-5	.1745	.1759	.1775	H-4	.1740	.1754	.1770
12 - 24	NC	H-4	.1945	.1963	.1984	H-3	.1941	.1959	.1980	H-5	.1951	.1969	.1990	H-4	.1945	.1963	.1984
12 - 28	NF	H-4	.1977	.1992	.2010	H-3	.1973	.1988	.2006	H-5	.1983	.1998	.2016	H-4	.1977	.1992	.2010
1/4 - 20	NC	H-5	.2242	.2263	.2288	H-4	.2237	.2258	.2283	H-6	.2248	.2269	.2294	H-5	.2242	.2263	.2288
1/4 - 28	NF	H-4	.2316	.2331	.2350	H-3	.2312	.2327	.2346	H-5	.2322	.2337	.2356	H-4	.2317	.2332	.2351
5/16 - 18	NC	H-5	.2837	.2861	.2888	H-4	.2832	.2856	.2883	H-6	.2843	.2867	.2894	H-5	.2836	.2860	.2887
5/16 - 24	NF	H-4	.2908	.2926	.2947	H-3	.2904	.2922	.2943	H-6	.2916	.2934	.2955	H-5	.2910	.2928	.2949
3/8 - 16	NC	H-6	.3425	.3452	.3483	H-4	.3419	.3446	.3477	H-7	.3431	.3458	.3489	H-5	.3424	.3451	.3482
3/8 - 24	NF	H-4	.3532	.3550	.3572	H-3	.3528	.3546	.3568	H-6	.3540	.3558	.3580	H-5	.3534	.3552	.3574
7/16 - 14	NC	H-6	.4000	.4033	.4069	H-5	.3994	.4027	.4063	H-7	.4006	.4039	.4075	H-6	.3999	.4032	.4068
7/16 - 20	NF	H-5	.4113	.4135	.4160	H-4	.4108	.4130	.4155	H-6	.4122	.4144	.4169	H-5	.4115	.4137	.4162
1/2 - 13	NC	H-6	.4598	.4631	.4670	H-5	.4590	.4623	.4662	H-8	.4604	.4637	.4676	H-6	.4596	.4629	.4668
1/2 - 20	NF	H-5	.4737	.4759	.4785	H-4	.4732	.4754	.4780	H-7	.4747	.4769	.4795	H-5	.4740	.4762	.4788
9/16 - 12	NC	H-7	.5187	.5224	.5267	H-5	.5179	.5216	.5259	H-8	.5193	.5230	.5273	H-6	.5184	.5221	.5264
9/16 - 18	NF	H-5	.5333	.5358	.5386	H-4	.5328	.5353	.5381	H-7	.5342	.5367	.5395	H-5	.5335	.5360	.5388
5/8 - 11	NC	H-7	.5773	.5812	.5859	H-5	.5765	.5804	.5851	H-8	.5780	.5819	.5866	H-6	.5771	.5810	.5857
5/8 - 18	NF	H-5	.5958	.5982	.6011	H-4	.5953	.5977	.6006	H-7	.5968	.5992	.6021	H-6	.5960	.5984	.6013
3/4 - 10	NC	H-7	.6973	.7017	.7068	H-6	.6963	.7007	.7058	H-9	.6979	.7023	.7074	H-7	.6969	.7013	.7064
3/4 - 16	NF	H-6	.7171	.7198	.7231	H-4	.7165	.7192	.7225	H-8	.7181	.7208	.7241	H-6	.7173	.7200	.7233
14mm	1.25mm	H-5	.5253	.5275	.5301	H-4	.5248	.5270	.5296	H6	.5262	.5284	.5310	H-5	.5255	.5277	.5303