

Size	1 ft	50 ft	100 ft	200 ft	300 ft	400 ft	500 ft	600 ft	700 ft	800 ft	1000 ft
Diameter	kilos	kilos	kilos	kilos	kilos	kilos	kilos	kilos	kilos	kilos	kilos
3/16"	.0428	2	4	9	13	17	21	26	30	34	43
7/32"	.0690	3	6	12	18	24	29	36	41	47	59
1/4"	.0757	4	8	16	23	30	38	46	53	61	76
5/16"	.0871	5	10	20	29	39	49	58	68	78	97
3/8"	.1154	6	12	24	35	47	59	71	83	94	118
11/32"	.1447	7	15	29	44	58	73	87	102	118	145
1/2"	.1708	8	17	34	51	68	85	103	119	136	171
5/8"	.2014	10	20	40	60	81	101	121	141	161	201
3/4"	.2318	12	23	46	69	93	116	139	162	185	232
7/8"	.2678	14	27	54	80	107	134	161	187	214	268
1 1/8"	.3030	15	30	61	91	121	152	181	212	242	303
1 1/4"	.3633	19	39	77	115	153	192	230	269	307	383
1 1/2"	.4731	24	47	95	142	189	237	284	331	378	473
1 3/4"	.5715	29	57	114	171	228	286	343	400	457	572
2"	.6804	34	68	136	204	272	340	408	476	544	680
2 1/8"	.7983	40	80	160	239	319	399	479	559	639	798
2 1/4"	.9253	46	93	185	278	370	463	556	648	740	925
2 1/2"	1.0659	54	107	213	320	426	533	640	748	853	1066
2 3/4"	1.2111	61	121	242	363	484	606	727	848	969	1211
3"	1.3653	68	137	273	410	548	693	839	986	1133	1395
3 1/8"	1.5331	77	153	307	460	613	767	920	1073	1227	1533
3 1/4"	1.7100	86	171	342	513	684	856	1028	1197	1369	1710
3 1/2"	1.8919	95	190	378	567	757	948	1136	1324	1513	1891
3 3/4"	2.0865	104	208	417	626	836	1043	1252	1461	1669	2087
4"	2.2906	115	229	458	687	916	1146	1374	1603	1833	2291
4 1/8"	2.5038	126	250	501	751	1002	1252	1502	1753	2003	2504
4 1/4"	2.7281	137	273	545	819	1090	1363	1636	1908	2181	2728
4 1/2"	2.9674	148	296	591	887	1183	1479	1774	2070	2366	2967
4 3/4"	3.1978	160	320	640	959	1278	1598	1919	2238	2556	3198
5"	3.4473	172	345	689	1034	1379	1724	2065	2413	2758	3447
5 1/8"	3.7104	186	371	742	1113	1484	1855	2226	2597	2968	3710
5 1/4"	3.9780	199	398	796	1193	1581	1989	2387	2785	3182	3978
5 1/2"	4.2602	213	426	852	1278	1704	2150	2556	2981	3407	4260
5 3/4"	4.5496	228	456	910	1365	1820	2275	2730	3195	3640	4549
6"	4.8444	242	484	969	1453	1938	2422	2907	3391	3876	4844
6 1/8"	5.1703	274	547	1084	1641	2188	2735	3282	3829	4376	5470
6 1/4"	5.1325	307	613	1227	1840	2453	3086	3680	4283	4906	6133
6 1/2"	5.8356	342	684	1367	2061	2734	3418	4101	4798	5469	6836
6 3/4"	6.7005	379	757	1514	2271	3028	3785	4542	5299	6066	7570
7"	6.5481	417	835	1669	2504	3336	4173	5008	5842	6677	8344
7 1/8"	6.1880	458	918	1822	2747	3663	4579	5486	6411	7328	9188
7 1/4"	10.0108	501	1001	2002	3003	4004	5005	6006	7008	8009	10011
7 1/2"	10.8998	545	1090	2180	3270	4360	5450	6540	7630	8720	10900
7 3/4"	11.8297	591	1183	2366	3549	4732	5915	7098	8281	9464	11830
8"	12.8004	640	1280	2560	3840	5120	6400	7680	8960	10240	12800
8 1/8"	13.7983	690	1380	2760	4139	5619	6999	8279	9659	11039	13798
8 1/4"	14.8370	742	1484	2967	4451	5935	7416	8902	10386	11870	14836

Size	1 ft	50 ft	100 ft	200 ft	300 ft	400 ft	500 ft	700 ft	800 ft	1000 ft
Square	kilos	kilos	kilos	kilos	kilos	kilos	kilos	kilos	kilos	kilos
3/16"	.0542	3	5	11	18	22	27	36	44	54
1/4"	.0861	5	10	19	29	36	46	61	76	96
5/16"	.1506	8	15	30	45	56	71	100	121	151
3/8"	.2168	11	22	44	65	87	108	152	173	217
7/16"	.2852	15	29	59	88	118	148	206	236	296
1/2"	.3655	20	39	77	116	154	193	270	308	386
5/8"	.4598	24	48	96	147	196	245	343	392	490
3/4"	.6033	30	60	121	181	241	302	422	483	603
7/8"	.8664	44	87	173	260	347	433	606	693	866
1"	1.1793	59	118	236	354	472	590	826	943	1179
1 1/8"	1.3662	68	136	271	407	542	678	949	1085	1366
1 1/4"	1.5422	77	154	308	463	617	771	1080	1234	1542
1 1/2"	1.8504	98	196	390	585	780	975	1365	1560	1950
1 3/4"	2.4085	121	241	482	723	963	1204	1686	1927	2409
1 7/8"	2.8186	146	292	583	875	1167	1458	2042	2333	2917
1 7/8"	3.4899	174	347	694	1041	1388	1735	2429	2776	3470
1 3/4"	4.0733	204	407	815	1222	1629	2037	2851	3266	4073
1 3/4"	4.7218	236	472	944	1417	1899	2381	3306	3778	4722
2"	6.1880	308	617	1234	1851	2468	3084	4318	4935	6189
2 1/8"	7.8109	391	781	1562	2343	3124	3905	5488	6249	7811
2 1/4"	8.6388	482	964	1928	2892	3855	4820	6747	7711	9639

Size A/F	Spanner	1 ft		50 ft		100 ft		200 ft		300 ft		400 ft		500 ft		600 ft		700 ft		800 ft		1000 ft	
		Size	kilos	kilos	kilos	kilos	kilos	kilos	kilos	kilos	kilos	kilos	kilos	kilos	kilos	kilos	kilos	kilos	kilos	kilos	kilos	kilos	kilos
.248"	48A	.0835	4	8	17	26	34	42	50	59	68	76	84	92	101	110	119	128	137	146	155	164	173
.282"	38A	.1067	5	10	21	32	43	54	64	75	85	95	105	115	125	135	145	155	165	175	185	195	205
.312"		.1306	6	13	26	39	52	65	78	91	104	117	130	143	156	169	182	195	208	221	234	247	260
.324"	28A	.1408	7	14	28	42	56	70	84	98	112	126	140	154	168	182	196	210	224	238	252	266	280
.338"	1/8"	.1524	8	15	30	46	62	78	94	110	126	142	158	174	190	206	222	238	254	270	286	302	318
.375"		.1889	10	19	37	56	75	93	112	131	150	169	188	207	226	245	264	283	302	321	340	359	378
.413"	3/32"	.2268	12	23	45	68	91	113	136	159	181	203	225	247	269	291	313	335	357	379	401	423	445
.437"		.2540	13	26	51	76	102	127	152	178	203	228	253	278	303	328	353	378	403	428	453	478	503
.445"	3/16"	.2681	14	27	54	80	107	134	161	187	214	241	268	295	322	349	376	403	430	457	484	511	538
.500"		.3387	17	34	67	101	134	168	201	235	269	303	337	371	405	439	473	507	541	575	609	643	677
.526"	1/4"	.3679	19	37	73	110	147	184	220	257	294	331	368	405	442	479	516	553	590	627	664	701	738
.562"		.4218	21	42	84	127	169	211	253	295	337	379	421	463	505	547	589	631	673	715	757	800	842
.600"	5/16"	.4828	24	48	97	145	193	241	289	338	386	434	482	530	578	626	674	722	770	818	866	914	962
.625"		.5216	26	52	104	156	209	261	313	365	417	469	521	573	625	677	729	781	833	885	937	989	1041
.687"		.6314	32	63	126	190	263	318	373	428	483	538	593	648	703	758	813	868	923	978	1033	1088	1143
.710"	3/8"	.6718	34	67	134	201	269	336	403	470	537	604	671	738	805	872	939	1006	1073	1140	1207	1274	1341
.760"		.7630	38	76	151	226	302	378	452	527	602	677	752	827	902	977	1052	1127	1202	1277	1352	1427	1502
.812"		.8618	44	88	176	264	353	441	529	617	705	793	881	969	1057	1145	1233	1321	1409	1497	1585	1673	1761
.820"	7/16"	.8990	45	90	180	270	360	450	540	630	720	810	900	990	1080	1170	1260	1350	1440	1530	1620	1710	1800
.878"		1.0208	51	102	204	306	408	511	612	714	816	918	1020	1122	1224	1326	1428	1530	1632	1734	1836	1938	2040
.920"	1/2"	1.1281	56	113	225	338	451	564	677	790	903	1016	1129	1242	1355	1468	1581	1694	1807	1920	2033	2146	2259
.937"		1.1702	58	117	234	351	468	585	702	819	936	1053	1170	1287	1404	1521	1638	1755	1872	1989	2106	2223	2340
1.000"	3/4"	1.3338	67	133	267	400	533	667	800	933	1067	1200	1333	1467	1600	1733	1867	2000	2133	2267	2400	2533	2667
1.010"		1.3649	68	137	273	410	543	676	809	942	1075	1208	1341	1474	1607	1740	1873	2006	2139	2272	2405	2538	2671
1.062"		1.5069	75	151	301	452	602	753	904	1054	1205	1356	1507	1658	1809	1960	2111	2262	2413	2564	2715	2866	3017
1.100"	5/8"	1.6184	81	162	324	485	647	809	971	1132	1294	1456	1618	1780	1942	2104	2266	2428	2590	2752	2914	3076	3238
1.126"		1.6619	85	169	338	508	677	846	1016	1185	1354	1523	1692	1861	2030	2200	2369	2538	2707	2876	3045	3214	3383
1.200"	1 1/16"	1.0289	98	195	390	585	779	974	1168	1363	1558	1753	1948	2143	2338	2533	2728	2923	3118	3313	3508	3703	3898
1.250"		2.0866	104	208	417	626	835	1044	1253	1462	1671	1880	2089	2298	2507	2716	2925	3134	3343	3552	3761	3970	4179
1.300"	3/4"	2.2612	113	226	452	678	904	1131	1357	1583	1809	2035	2261	2487	2713	2939	3165	3391	3617	3843	4069	4295	4521
1.312"		2.3008	115	230	460	690	920	1150	1381	1611	1841	2072	2303	2534	2765	2996	3227	3458	3689	3920	4151	4382	4613
1.378"	1 1/8"	2.5251	126	252	505	758	1010	1263	1515	1768	2021	2274	2527	2780	3033	3286	3539	3792	4045	4298	4551	4804	5057
1.390"		2.5690	128	256	512	774	1032	1290	1548	1806	2064	2322	2580	2838	3096	3354	3612	3870	4128	4386	4644	4902	5160
1.437"	1 1/4"	2.7533	138	276	551	831	1101	1371	1641	1911	2181	2451	2721	2991	3261	3531	3801	4071	4341	4611	4881	5151	5421
1.480"	7/8"	2.9202	146	292	584	878	1188	1498	1808	2118	2428	2738	3048	3358	3668	3978	4288	4598	4908	5218	5528	5838	6148
1.500"		3.0050	150	300	600	900	1200	1500	1800	2100	2400	2700	3000	3300	3600	3900	4200	4500	4800	5100	5400	5700	6000
1.626"		3.5267	176	353	706	1059	1411	1764	2116	2469	2821	3174	3527	3880	4233	4586	4939	5292	5645	5998	6351	6704	7057
1.670"	1"	3.7249	186	372	745	1118	1490	1862	2235	2608	2981	3354	3727	4100	4473	4846	5219	5592	5965	6338	6711	7084	7457
1.687"		3.8034	190	381	761	1141	1521	1902	2282	2663	3043	3424	3805	4186	4567	4948	5329	5710	6091	6472	6853	7234	7615
1.760"		4.0806	206	409	818	1227	1636	2045	2454	2863	3272	3681	4090	4499	4908	5317	5726	6135	6544	6953	7362	7771	8180
1.812"		4.3676	220	439	878	1316	1756	2194	2633	3071	3510	3949	4388	4827	5266	5705	6144	6583	7022	7461	7900	8339	8778
1.860"	1 1/8"	4.6226	231	462	924	1387	1849	2311	2773	3235	3697	4159	4621	5083	5545	5997	6459	6921	7383	7845	8307	8769	9231
1.878"		4.6982	236	470	940	1410	1880	2350	2820	3290	3760	4230	4700	5170	5640	6110	6580	7050	7520	7990	8460	8930	9400
2.000"		5.3433	267	534	1068	1603	2137	2672	3207	3742	4277	4812	5347	5882	6417	6952	7487	8022	8557	9092	9627	10162	10697
2.065"	1 1/4"	5.6019	280	560	1120	1681	2241	2801	3361	3921	4481	5041	5601	6161	6721	7281	7841	8401	8961	9521	10081	10641	11201
2.082"		5.6744	284	567	1136	1702	2270	2837	3405	3972	4540	5108	5676	6244	6812	7380	7948	8516	9084	9652	10220	10788	11356
2.126"		6.0328	302	603	1207	1810	2413	3016	3620	4223	4827	5430	6034	6637	7241	7844	8448	9051	9655	10258	10862	11465	12069
2.220"	1 3/8"	6.7368	337	674	1347	2021	2694	3368	4042	4716	5390	6064	6738	7412	8086	8760	9434	10108	10782	11456	12130	12804	13478
2.260"		6.7831	338	677	1356	2032	2705	3378	4052	4726	5400	6074	6748	7422	8096	8770	9444	10118	10792	11466	12140	12814	13488
2.375"		7.6387	377	754	1508	2262	3018	3774	4530	5286	6042	6798	7554	8310	9066	9822	10578	11334	12090	12846	13602	14358	15114
2.410"	1 1/2"	7.7618	388	776	1550	2326	3101	3876	4651	5426	6201	6976	7751	8526	9301	10076	10851	11626	12401	13176	13951	14726	15501
2.437"		7.8378	397	794	15																		

HARDENED AND TEMPERED ALLOY STEELS AND ALLOY REPLACEMENT STEELS									
Steel Group	Mills Steel Code	Quality	BS 970 Heat Treatment Range	Tonsile Tons per sq. ins.	Typical Surface Speed Range (Ft./Min.)		Average Relative Machinability		
					Coarse Feeds	Fine Feeds	General Datum Mills 1 - 100	Alloy Datum Mills 16T - 100	Group Datum T. Range - 100
Base Steels	15	En 15							
	16	En 16							
	17	En 17	Q	40/50	79	101	41	141	141
	18	En 18	R	45/55	69	89	36	124	124
	19	En 19	S	50/60	62	79	32	111	111
	24	En 24	T	55/65	86	72	29	100	100
	25	En 25	U	60/70	51	65	26	91	91
	100	En 100	V	65/75	46	59	24	83	83
110	En 110	W	70/80	43	55	22	76	76	
	GMK0	Alloy Replacement							
	GMK2	Alloy Replacement							
Leaded or Sulphurised Steels	L15	Ledloy En 15							
	L16	Ledloy En 16							
	L18	Ledloy En 18	Q	40/50	102	131	53	183	141
	L19	Ledloy En 19	R	45/55	90	115	47	162	124
	L24	Ledloy En 24	S	50/60	80	103	42	144	111
	15M	En 15M	T	55/65	73	93	38	130	100
	16M	En 16M	U	60/70	66	84	34	118	91
	GMK0A	Resulphurised Alloy replacement	V	65/75	60	77	31	108	83
GMK1	Resulphurised Alloy replacement	W	70/80	55	71	29	99	76	
	LGMM0	Ledloy Alloy replacement							
	LGMM2	Ledloy Alloy replacement							
Leaded and Sulphurised Steels	L15M	Ledloy En 15M	Q	40/50	133	170	69	238	141
	L16M	Ledloy En 16M	R	45/55	117	150	61	210	124
	LGMM0A	Ledloy resulphurised Alloy replacement	S	50/60	105	134	54	188	111
	LGMM1	Ledloy resulphurised Alloy replacement	T	55/65	94	121	49	169	100
			U	60/70	86	110	45	154	91
			V	65/75	78	100	40	140	83
			W	70/80	72	92	37	129	76
				40/50	143	183	74	257	141
Leaded and Tellurised Steels	TL16	Teled En 16	Q	40/50	143	183	74	257	141
			R	45/55	126	162	65	226	124
			S	50/60	113	144	58	202	111
			T	55/65	102	130	53	182	100
			U	60/70	92	118	48	166	91
			V	65/75	84	108	44	151	83
			W	70/80	78	100	40	139	76
				40/50	143	183	74	257	141

**MACHINING STEELS WITH H.S.S. TOOLS**

(Revised June 1968)

Telephone WOODLEY 2231  
(STD 061 WOO) Telex 86640  
Telegrams Mills Phone Woodley

CARBON AND FREE CUTTING STEELS									
Steel Group	Mills Steel Code	BS 970 Code	Mills Trade Name or Specification	Typical Surface Speed Range (Ft./Min.)		Average Relative Machinability		Approx. price ratio within each group	
				Coarse Feeds	Fine Feeds	General Datum Mills 1 = 100	Group Datum = 100	Wire	Bar
Free-Cutting Mild Steels	Mills 1	En 1A	Super Free Cutting	190	250	100	100	100	100
	Mills 1X		Super Free Cutting X	210	275	110	110	103	103
	Mills L1	En 1A	Ledloy Free Cutting	250	320	130	130	106	107
	Mills L1X		Ledloy Free Cutting X	275	350	143	143	109	109
	Mills L1B	En 1B	Ledloy Four-Five	310	400	162	162	115	115
Mills TL1X		Telstar	350	450	182	182	126	129	
Mild Steels	Mills 3	En 3B	En 3B	105	135	55	100	100	100
	Mills L3	En 3B	Ledloy En 3B	135	175	71	130	107	107
	Mills TL 3	En 3B	Teled En 3B	190	250	100	182	128	130
0.40% Carbon Steels	Mills 8	En 8	En 8	85	110	45	100	100	100
	Mills L8	En 8	Ledloy En 8	110	145	58	130	106	106
	Mills TL8	En 8	Teled En 8	155	200	82	182	126	127
Sulphurised 0.40% Carbon Steels	Mills 8M	En 8M	En 8M	110	145	58	130	124	116
	Mills L8M	En 8M	Ledloy En 8M	145	190	76	169	130	122
	Mills TL8M	En 8M	Teled En 8M	205	260	106	236	150	143

**NOTES:**

- The trade mark **LEDLOY** denotes that the steel contains an appropriate addition of lead.
- The trade marks **TELSTAR** and **TELED** denote that the steel contains lead and tellurium.
- The following are classed as wires: Rounds, any size under 17/32" dia.; Squares, any size under 1/2" sq. Hexagons, any size under .438" A/F. All greater sizes are classed as bars.
- Similar machining data for many other qualities can be obtained from our Technical Sales Department.
- Threading speeds: Tapping and Diehead, 1/2 to 1 above speeds, depending on pitch. Nut Tapping, 1/3 to 2/3 above speeds, depending on pitch.



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Nominal Size	MM Equivalent	Inch Equivalent	Nominal Size	MM Equivalent	Inch Equivalent	Nominal Size	MM Equivalent	Inch Equivalent
No 80	0.3429	0.0135	30	3.2639	0.1285	5/16"	7.9375	0.3125
79	0.3683	0.0145	29	3.4544	0.1360	O	8.0264	0.3160
1/64"	0.3962	0.0156	28	3.5687	0.1405	P	8.2042	0.3230
78	0.4064	0.0160	9/64"	3.5712	0.1406	21/64"	8.3337	0.3281
77	0.4572	0.0180	27	3.6576	0.1440	Q	8.4328	0.3320
76	0.5080	0.0200	26	3.7338	0.1470	R	8.6106	0.3390
75	0.5334	0.0210	25	3.7973	0.1495	11/32"	8.7325	0.3438
74	0.5715	0.0225	24	3.8608	0.1520	S	8.8392	0.3480
73	0.6096	0.0240	23	3.9116	0.1540	T	9.0932	0.3580
72	0.6350	0.0250	5/32"	3.9675	0.1562	23/64"	9.1288	0.3594
71	0.6604	0.0260	22	3.9878	0.1570	U	9.3472	0.3680
70	0.7112	0.0280	21	4.0386	0.1590	3/8"	9.5250	0.3750
69	0.7417	0.0292	20	4.0894	0.1610	V	9.5758	0.3770
68	0.7874	0.0310	19	4.2164	0.1660	W	9.8044	0.3860
1/32"	0.7925	0.0312	18	4.3053	0.1695	25/64"	9.9212	0.3906
67	0.8128	0.0320	11/64"	4.3663	0.1719	X	10.0838	0.3970
66	0.8382	0.0330	17	4.3942	0.1730	Y	10.2616	0.4040
65	0.8890	0.0350	16	4.4958	0.1770	13/32"	10.3175	0.4062
64	0.9144	0.0360	15	4.5720	0.1800	Z	10.4902	0.4130
63	0.9398	0.0370	14	4.6228	0.1820	27/64"	10.7163	0.4219
62	0.9652	0.0380	13	4.6990	0.1850	7/16"	11.1125	0.4375
61	0.9906	0.0390	12	4.7625	0.1875	29/64"	11.5087	0.4531
60	1.0160	0.0400	3/16"	4.8006	0.1890	15/32"	11.9075	0.4688
59	1.0414	0.0410	11	4.8514	0.1910	31/64"	12.3038	0.4844
58	1.0668	0.0420	10	4.9149	0.1935	1/2"	12.7000	0.5000
57	1.0922	0.0430	9	4.9784	0.1960	33/64"	13.0962	0.5156
56	1.1811	0.0465	8	5.0546	0.1990	17/32"	13.4925	0.5312
3/64"	1.1913	0.0469	7	5.1054	0.2010	35/64"	13.9813	0.5469
55	1.3208	0.0520	13/64"	5.1587	0.2031	9/16"	14.2875	0.5625
54	1.3970	0.0550				27/64"	14.6837	0.5781

53	1.5113	0.0595	13/64"	5.1587	0.2031	37/64"	14.6837	0.5781	
1/16"	1.5875	0.0625	6	5.1816	0.2040	19/32"	15.0825	0.5938	
52	1.6129	0.0635	5	5.2197	0.2055	39/64"	15.4788	0.6094	
51	1.7018	0.0670	4	5.3086	0.2090	5/8"	15.8750	0.6250	
50	1.7780	0.0700	3	5.4102	0.2130	41/64"	16.2712	0.6407	
49	1.8542	0.0730	7/32"	5.5575	0.2188	21/32"	16.6675	0.6562	
48	1.9304	0.0760	2	5.6134	0.2210	43/64"	17.0663	0.6719	
5/64"	1.9837	0.0781	1	5.7912	0.2280	11/16"	17.4625	0.6875	
47	1.9939	0.0785	A	5.9436	0.2340	45/64"	17.8587	0.7031	
46	2.0574	0.0810	15/64"	5.9538	0.2344	23/32"	18.2575	0.7188	
45	2.0828	0.0820	B	6.0542	0.2380	47/64"	18.6538	0.7344	
44	2.1844	0.0860	C	6.1468	0.2420	3/4"	19.0500	0.7500	
43	2.2606	0.0890	D	6.2484	0.2460	49/64"	19.4462	0.7656	
42	2.3749	0.0935	E 1/4"	6.3500	0.2500	25/32"	19.8425	0.7812	
3/32"	2.3825	0.0938	F	6.5278	0.2570	51/64"	20.2413	0.7969	
41	2.4384	0.0960	G	6.6294	0.2610	13/16"	20.6375	0.8125	
40	2.4892	0.0980	17/64"	6.7462	0.2656	53/64"	21.0337	0.8281	
39	2.5273	0.0995	H	6.7564	0.2660	27/32"	21.4325	0.8438	
38	2.5781	0.1015	I	6.9088	0.2720	55/64"	21.8288	0.8594	
37	2.6416	0.1040	J	7.0358	0.2770	7/8"	22.2250	0.8750	
36	2.7051	0.1065	K	7.1374	0.2810	57/64"	22.6212	0.8906	
7/64"	2.7788	0.1094	9/32"	7.1425	0.2812	29/32"	23.0175	0.9062	
35	2.7940	0.1100	L	7.3660	0.2900	59/64"	23.4163	0.9219	
34	2.8194	0.1110	M	7.4930	0.2950	15/16"	23.8125	0.9375	
33	2.8702	0.1130	19/64"	7.5413	0.2969	61/64"	24.2087	0.9531	
32	2.9464	0.1160	N	7.6708	0.3020	31/32"	24.6075	0.9688	
31	3.0480	0.1200	Letter & No sizes getting obsolete - should not be used in new designs				63/64"	25.0038	0.9844
1/8"	3.1750	0.1250					1"	25.400	1.0000

BRITISH STANDARD WHITWORTH FORM THREADS (55° angle)												
DIA.	BSW		BSF		BSB		BSP & BSPT		ME/WHITFORM		BSCon	
Sizes	TPI	Drill	TPI	Drill	TPI	Drill	TPI	Drill	TPI	Drill	TPI	Drill
1/16"	60	1.2										
3/32"	48	1.9										
1/8"	40	2.55					28	8.8	40	2.55		
5/32"	32	3.2							40	3.3		
3/16"	24	3.7	32	4.0					32, 40	4.0, 4.0		
7/32"	24	4.5	28	4.6					40	4.8		
1/4"	20	5.1	26	5.3	26	5.3	19	11.8	24,28,32,40	5.3,5.4,5.5,5.5		
9/32"	20	5.8	26	6.0	26	5.8			32	6.1		
5/16"	18	6.5	22	6.8	26	5.8			24, 32, 40	6.75, 7.0, 7.3		
3/8"	16	7.9	20	8.3	26	8.4	19	15.25	24, 32, 40	8.4, 8.6, 8.9		
7/16"	14	9.3	18	9.7	26	10.0			20,24,32,40	9.8,10,10.3,10.5		
1/2"	12	10.5	16	11.1	26	11.5	14	19.0	20,24,32,40	11.5,11.9,11.9,12	18	11.5
9/16"	12	12.1	16	12.7	26	13.1			20	13.1		
5/8"	11	13.5	14	14	26	14.7	14	21.0	20	14.5	18	14.2
11/16"	11	15.1	14	15.5	26	16.5			20	16.2		
3/4"	10	16.25	12	16.75	26	17.8	14	24.5	14, 20	17.1, 17.8	16	17.5

7/8"	9	19.25	11	19.75	26	21.0	14	28.25	14,16, 20	20.2, 20.6, 21.0	16	20.6
15/16"	9	20.6	11	21.5								
1"	8	22.0	10	22.75	26	24.2	11	30.75	12, 20	23.0, 24.0	16	23.8
1.1/8"	7	24.75	9	25.5	26	27.5						
1.1/4"	7	28.0	9	28.5	26	30.5	11	39.5			16	30.1
1.3/8"	6	30.1	8	31.5	26	33.7						
1.1/2"	6	33.5	8	34.5	26	36.9	11	45.00			14	36.1
1.5/8"	5	35.7	8	37.7	26	40.0						
1.3/4"	5	39	7	41.0	26	43.5	11	51.0				
1.7/8"	4.1/2	41.3	7	43.7	26	46.5						
2"	4.1/2	44.5	7	47.0	26	49.6	11	57.0				

BRITISH STD CYCLE (CEI)		
BSCy (60°)		
Sizes	TPI	Drill
1/8"	40	2.65
5/32"	32	3.3
3/16"	32	4.1
1/4"	26	5.6
5/16"	26	7.2
3/8"	26	8.7
7/16"	26	10.3
1/2"	26	11.9
9/16"	20	13.1
9/16"	26	13.5
5/8"	20	14.5
5/8"	26	15.0
3/4"	20	17.8
3/4"	26	18.2

MODEL ENGINEER THREADS (BA + ME + BSB)											
DIA		BA (47.1/2°)				DIA		ME (55°)		BSB (55°)	
Sizes	Dia	Pitch	TPI	Drill	Sizes	TPI	Drill	TPI	Drill		
0	6.0	1.0	25.4	5.1	1/8"	40	2.55				
1	5.3	0.9	28.2	4.5	5/32"	32	3.2				
2	4.7	0.81	31.4	4.0	5/32"	40	3.3				
3	4.1	0.73	34.8	3.4	3/16"	32	4.0				
4	3.6	0.66	38.5	3.0	3/16"	40	4.0				
5	3.2	0.59	43.0	2.65	7/32"	32					
6	2.8	0.53	47.9	2.3	7/32"	40	4.8				
7	2.5	0.48	52.9	2.05	1/4"	32	5.5	26	5.3		
8	2.2	0.43	59.1	1.8	1/4"	40	5.5				
9	1.9	0.39	65.1	1.55	9/32"	32	6.1	26	6.1		
10	1.7	0.35	72.6	1.4	9/32"	40					
11	1.5	0.31	81.9	1.2	5/16"	32	7.0	26	5.8		
12	1.3	0.28	90.9	1.05	5/16"	40	7.3				
13	1.2	0.25	102.0	0.98	3/8"	32	8.6	26	8.4		
14	1.0	0.23	109.9	0.80	3/8"	40	8.9				
15	0.9	0.21	120.5	0.70	7/16"	32	10.3	26	10		
16	0.79	0.19	133.3	0.60	7/16"	40	10.5				
					1/2"	32	11.9	26	11.5		
					9/16"			26	13.1		
					5/8"			26	14.7		
					3/4"			26	17.8		

AMERICAN NATIONAL FORM THREADS (60° angle)													
DIA.	UNC		UNF		NPT & NPS		UNS		DIA	UNC		UNF	
Sizes	TPI	Drill	TPI	Drill	TPI	Drill	TPI	Drill	Size No	TPI	Drill	TPI	Drill
1/16"					27	6.3	64	1.2	0			80	1.25
3/32"							48	1.85	1	64	1.55	72	1.55
1/8"					27	8.7	40	2.6	2	56	1.85	64	1.9
5/32"							32 & 40	3.2 & 3.3	3	48	2.1	56	2.15
3/16"							32 & 40	4.0 & 4.0	4	40	2.35	48	2.4

7/32"							24 & 32	4.5 & 4.8	5	40	2.65	44	2.7
1/4"	20	5.1	28	5.5	18	11.1	24 & 32	5.30 & 5.6	6	32	2.85	40	2.95
5/16"	18	6.6	24	6.9			20 & 32	6.7 & 7.2	8	32	3.5	36	3.5
3/8"	16	8.0	24	8.5	18	14.5	20	8.30	10	24	3.9	32	4.1
7/16"	14	9.4	20	9.9			24	10.0	12	24	4.5	28	4.70
1/2"	13	10.8	20	11.5	14	18.0	12 & 24	10.5 & 11.5					
9/16"	12	12.2	18	12.9									
5/8"	11	13.5	18	14.5			12	13.9					
11/16"							11 & 16	15.0 & 15.9					
3/4"	10	16.5	16	17.5	14	23.25	12	16.7					
7/8"	9	19.5	14	20.4			12	20.2					
1"	8	22.25	12	23.25	11.5	29.0	14	23.5					
1.1/8"	7	25.0	12	26.5									
1.1/4"	7	28.0	12	29.5	11.5	38.0							
1.3/8"	6	30.75	12	32.75									
1.1/2"	6	34.0	12	36.0									
1.3/4"	5	39.5											

METRIC FORM THREADS (60° angle)				
MM	Coarse		Fine-special	
Sizes	Pitch	Drill	Pitch	Drill
0.8	.19	0.6	(=16BA)	0.6
0.9	.21	0.7	(=15BA)	0.7
1	.25	0.8	(=14BA)	0.8
1.2	.25	1.0		
1.3	.28	1.05	(=12BA)	1.05
1.4	.3	1.1		
1.5	.3	1.2	(=11BA)	1.2
1.6	.35	1.25		
1.7	.35	1.35	(=10BA)	1.4
1.8	.35	1.45		
1.9	.39	1.55	(=9BA)	1.55
2	.4	1.60	.45	1.55
2.2			.45	1.75
2.3			.4	1.9
2.5	.45	2.05	.35, .4	2.15, 2.1
2.6			.45	2.15
3	.5	2.5	.35, .45	2.65, 2.55
3.5	.6	2.9	.35, .6	3.15, 2.9
4	.7	3.3	.5, .75	3.5, 3.25
4.5	.75	3.7	.5	4.0
5	.8	4.2	.5, .75, .9	4.5, 4.25, 4.1
6	1	5.0	.5, .75	5.5, 5.25
7	1	6.0	.75	6.25
8	1.25	6.8	.75, 1	7.2, 7.0

METRIC FORM THREADS (60° angle)				
MM	Coarse		Fine-special	
Sizes	Pitch	Drill	Pitch	Drill
10	1.5	8.5	1, 1.25	9, 8.75
11	1.5	9.5	1	10.0
12	1.75	10.2	1, 1.25, 1.5	11, 10.75, 10.5
14	2	12.0	1, 1.25, 1.5	13, 12.75, 12.5
16	2	14.0	1, 1.5	15.0, 14.5
18	2.5	15.5	1.0, 1.5	17.0, 16.5
20	2.5	17.5	1, 1.5	19.0, 18.5
22	2.5	19.5	1.5, 2	20.5, 20.0
24	3	21.0	1.5, 2	22.5, 22.0
25			1.5, 2	23.5, 23.0
27	3	24.0	2	25.0
30	3.5	26.5	1.5, 2	28.5, 28.0
32	3.5	30.5	1.5	30.5
33	3.5	29.5	1.5, 2	31.5, 31.0
36	4	32.0	1.5	34.5
39	4	35.0	1.5	37.5
40			1.5	38.5
42	4.5	37.5	1.5	40.5
45	4.5	40.5	1.5	43.5
48	5	43.0	1.5	46.5
50			1.5	48.5
52	5	47.0	1.5	50.5
56	5.5	50.5		
60	5.5	45.5		

9	1.25	7.75	1	8.0
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Spark plug taps = 10x1, 12x1.25, 14x1.25, 18x1.5
Conduit taps = 16x1.5, 20x1.5, 25x1.5, 32x1.5, 50x1.5