



# Threading Tables



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Source: <http://www.oldengine.org/members/diesel/front.htm>

**Chart No 1 - Whitworth Threads**

Whitworth Form Threads (55 Deg Thread Angle) Dimensions in Inches except where stated									
Thread Form Data								Tapping Drill	Clearance Drill
Diameter	O/Diameter	Core	Pitch	Depth	Radius	Effective Dia	T.P.I	Dec / Met / Frac	Dec / Met / Frac
1/8"	0.1250	0.0930	0.0250	0.0160	0.0034	0.1090	40	0.1004 - 2.55mm	0.1299 - 3.30mm
3/16"	0.1875	0.1341	0.0417	0.0267	0.0057	0.1608	24	0.1457 - 3.70mm	0.1968 - 5.00mm
1/4"	0.2500	0.1860	0.0500	0.0320	0.0069	0.2180	20	0.2008 - 5.10mm	0.2559 - 6.50mm
5/16"	0.3125	0.2414	0.0556	0.0076	0.0076	0.2769	18	0.2559 - 6.50mm	0.3150 - 8.00mm
3/8"	0.3750	0.2950	0.0625	0.0400	0.0086	0.3350	16	0.3125 - 5/16"	0.3858 - 9.80mm
7/16"	0.4375	0.3460	0.0714	0.0457	0.0098	0.3918	14	0.3642 - 9.25mm	0.4531 - 29/64"
1/2"	0.5000	0.3933	0.0833	0.0534	0.0114	0.4466	12	0.4134 - 10.50mm	0.5156 - 33/64"
9/16"	0.5625	0.4558	0.0833	0.0534	0.0114	0.5091	12	0.4764 - 12.10mm	0.5781 - 37/64"
5/8"	0.6250	0.5086	0.0909	0.0582	0.0125	0.5668	11	0.5315 - 13.50mm	0.6406 - 41/64"
3/4"	0.7500	0.6219	0.1000	0.0640	0.0137	0.6860	10	0.6406 - 41/64"	0.7656 - 49/64"
7/8"	0.8750	0.7327	0.1111	0.0711	0.0153	0.8039	9	0.7579 - 19.25mm	0.8906 - 57/64"
1"	1.0000	0.8399	0.1250	0.0800	0.0172	0.9200	8	0.8661 - 22.00mm	1.0156 - 1-1/64"
1-1/8"	1.1250	0.9420	0.1429	0.0915	0.0196	1.0335	7	0.9744 - 24.75mm	1.1405 - 1-9/64"
1-1/4"	1.2500	1.0670	0.1429	0.0915	0.0196	1.1585	7	1.0938 - 1-3/32"	1.2656 - 1-17/64"
1-1/2"	1.5000	1.2866	0.1667	0.1067	0.0229	1.3933	6	1.3189 - 33.50mm	1.5156 - 1-33/64"
1-3/4"	1.7500	1.4939	0.2000	0.1281	0.0275	1.6219	5	1.5354 - 39.00mm	1.8906 - 1-57/64"
2"	2.0000	1.7154	0.2222	0.1423	0.0305	1.8577	4½	1.7520 - 44.50mm	2.0156 - 2-1/64"

**Chart No 2 - British Standard Fine (BSF) Threads**

British Standard Fine Threads (55 Deg Thread Angle) Dimensions in Inches except where stated									
Thread Form Data								Tapping Drill	Clearance Drill
Diameter	O/Diameter	Core	Pitch	Depth	Radius	Effective Dia	T.P.I	Dec / Met / Frac	Dec / Met / Frac
3/16"	0.1875	0.1475	0.0312	0.0200	0.0046	0.1675	32	0.1562 - 5/32"	0.1929 - 4.90mm
7/32"	0.2188	0.1730	0.0357	0.0229	0.0049	0.1958	28	0.1831 - 4.65mm	0.2205 - 5.60mm
1/4"	0.2500	0.2008	0.0385	0.0246	0.0053	0.2254	26	0.2087 - 5.30mm	0.2559 - 6.50mm
5/16"	0.3125	0.2543	0.0454	0.0291	0.0062	0.2834	22	0.2657 - 6.75mm	0.3150 - 8.00mm
3/8"	0.3750	0.3110	0.0500	0.0320	0.0069	0.3430	20	0.3248 - 8.25mm	0.3858 - 9.80mm
7/16"	0.4375	0.3663	0.0555	0.0356	0.0076	0.4019	18	0.3819 - 9.70mm	0.4531 - 29/64"
1/2"	0.5000	0.4200	0.0625	0.0400	0.0086	0.4600	16	0.4375 - 7/16"	0.5156 - 35/64"
9/16"	0.5625	0.4825	0.0625	0.0400	0.0086	0.5225	16	0.5000 - 1/2"	0.5781 - 37/64"
5/8"	0.6250	0.5336	0.0714	0.0457	0.0098	0.5793	14	0.5512 - 14.00mm	0.6406 - 41/64"
3/4"	0.7500	0.6432	0.0833	0.0534	0.0114	0.6966	12	0.6594 - 16.75mm	0.7656 - 49/64"
7/8"	0.8750	0.7586	0.0909	0.0582	0.0125	0.8168	11	0.7812 - 25/32"	0.8906 - 57/64"
1"	1.0000	0.8720	0.1000	0.0640	0.0137	0.9360	10	0.8957 - 22.75mm	1.0156 - 1-1/64"
1-1/8"	1.1250	0.9828	0.1111	0.0711	0.0153	1.0539	9	1.0039 - 25.50mm	1.1406 - 1-9/64"
1-1/4"	1.2500	1.1078	0.1111	0.0711	0.0153	1.1789	9	1.1319 - 28.75	1.2656 - 1-17/64"
1-3/8"	1.3750	1.2150	0.1250	0.0800	0.0172	1.2950	8	1.2402 - 31.50	1.3906 - 1-25/64"
1-1/2"	1.5000	1.3400	0.1250	0.0800	0.0172	1.4200	8	1.3594 - 1-23/64"	1.5156 - 1-33/64"
1-5/8"	1.6250	1.4649	0.1250	0.0800	0.0172	1.5450	8	1-23/64"	--
1-3/4"	1.7500	1.5670	0.1429	0.0915	0.0196	1.6585	7	1-19/32"	--
2"	2.0000	1.8170	0.1429	0.0915	0.0196	1.9085	7	1-27/32"	--
2-1/4"	2.250	2.0366	0.1666	0.1067	0.0229	2.1433	6	2-1/16"	--
2-1/2"	2.500	2.2866	0.1666	0.1067	0.0229	2.3933	6	2-5/16"	--
2-3/4"	2.750	2.5366	0.1666	0.1067	0.0229	2.6433	6	2-9/16"	--
3"	3.0000	2.7439	0.2000	0.1280	0.0275	2.8719	5	2-3/4"	--

**Chart No 3- British Association (BA) Threads**

<b>British Association Threads</b> <b>Dimensions in Inches except where stated</b>									
Thread Form Data								Tapping Drill	Clearance Drill
Size	O/Diameter	Core	Pitch	Depth	Radius	Effective Dia	T.P.I	Dec / Met / Frac	Dec / Met / Frac
0BA	0.2362	0.1890	0.0394	0.0236	0.0072	--	25.38	0.2008 - 5.10mm	0.2362 - 6.00mm
1BA	0.2087	0.1663	0.0354	0.0212	0.0064	--	28.25	0.1772 - 4.50mm	0.2126 - 5.40mm
2BA	0.1850	0.1468	0.0319	0.0191	0.0058	--	31.35	0.1575 - 4.00mm	0.1890 - 4.80mm
3BA	0.1614	0.1270	0.0287	0.0172	0.0052	--	34.84	0.1358 - 3.45mm	0.1645 - 4.20mm
4BA	0.1417	0.1105	0.0260	0.0156	0.0047	--	38.46	0.1181 - 3.00mm	0.1457 - 3.70mm
5BA	0.1260	0.0980	0.0232	0.0139	0.0042	--	43.10	0.1043 - 2.65mm	0.1299 - 3.30mm
6BA	0.1102	0.0852	0.0209	0.0125	0.0038	--	47.85	0.0906 - 2.30mm	0.1122 - 2.85mm
7BA	0.0984	0.0758	0.0189	0.0113	0.0034	--	52.91	0.0807 - 2.05mm	0.1004 - 2.55mm
8BA	0.0866	0.0664	0.0169	0.0101	0.0031	--	59.17	0.0709 - 1.80mm	0.0886 - 2.25mm
9BA	0.0748	0.0564	0.0154	0.0092	0.0028	--	64.94	0.0610 - 1.55mm	0.0768 - 1.95mm
10BA	0.0669	0.0503	0.0138	0.0083	0.0025	--	72.46	0.0551 - 1.40mm	0.0709 - 1.80mm
11BA	0.0591	0.0445	0.0122	0.0073	0.0022	--	81.97	0.0472 - 1.20mm	0.0591 - 1.50mm
12BA	0.0511	0.0375	0.0110	0.0066	0.0020	--	90.91	0.0413 - 1.05mm	0.0512 - 1.30mm

**Chart No 4 - British Standard Pipe Threads**

<b>BSP Threads</b> <b>Dimensions in Inches except where stated</b>									
Thread Form Data								Tapping Drill	Clearance Drill
Diameter	O/Diameter	Core	Pitch	Depth	Radius	Effective Dia	T.P.I	Dec / Met / Frac	Dec / Met / Frac
1/8"	0.3830	0.3370	0.0357	0.0229	0.0049	0.3601	28	0.3445 - 8.75mm	0.3858 - 9.80mm
1/4"	0.5180	0.4510	0.0526	0.0335	0.0072	0.4845	19	0.4646 - 11.80mm	0.5312 - 17/32"
3/8"	0.6560	0.5890	0.0526	0.0335	0.0072	0.6225	19	0.6004 - 15.25mm	0.6719 - 43/64"
1/2"	0.8250	0.7340	0.0714	0.0457	0.0098	0.7793	14	0.7500 - 3/4"	0.8281 - 53/64"
5/8"	0.9020	0.8110	0.0714	0.0457	0.0098	0.8563	14	0.8281 - 53/64"	0.9062 - 29/32"
3/4"	1.0410	0.9500	0.0714	0.0457	0.0098	0.9953	14	0.9646 - 24.50mm	1.0469 - 1-3/64"
7/8"	1.1890	1.0980	0.0714	0.0457	0.0098	1.1433	14	1.1122 - 28.25mm	1.2031 - 1-13/64"
1"	1.3090	1.1930	0.0909	0.0582	0.0125	1.2508	11	1.2106 - 30.75mm	1.3125 - 1-5/16"
1-1/4"	1.6500	1.5340	0.0909	0.0582	0.0125	1.5918	11	1.5551 - 39.50mm	1.6562 - 1-21/32"
1-1/2"	1.8820	1.7660	0.0909	0.0582	0.0125	1.8238	11	1.7812 - 1-25/32"	1.8906 - 1-57/64"
1-3/4"	2.1160	2.0000	0.0909	0.0582	0.0125	2.0578	11	2.0079 - 51.00mm	2.1250 - 2-1/8"
2"	2.3470	2.2310	0.0909	0.0582	0.0125	2.2888	11	2.2500 - 2-1/4"	2.3594 - 2-23/64"

**Chart No 5 - SI Metric Threads (60 Deg Angle)**

<b>SI Metric Threads (60 Deg Angle) - Dimensions in Millimetres - Inch table below</b>									
Thread Form Data								Tapping Drill	Clearance Drill
Diameter	O/Diameter	Core	Pitch	Depth	Flat	Effective Dia	T.P.I	Dec / Met / Frac	Dec / Met / Frac
6mm	6.00mm	4.70mm	1.00mm	0.650mm	0.125mm	5.350mm	25.40	5.00mm	6.10mm
7mm	7.00mm	5.70mm	1.00mm	0.650mm	0.125mm	6.350mm	25.40	6.00mm	9/32"
8mm	8.00mm	6.376mm	1.25mm	0.812mm	0.156mm	7.188mm	20.32	17/64"	8.20mm
9mm	9.00mm	7.376mm	1.25mm	0.812mm	0.156mm	8.188mm	20.32	7.70mm	23/64"
10mm	10.00mm	8.052mm	1.50mm	0.974mm	0.187mm	9.026mm	16.933	8.40mm	10.30mm
11mm	11.00mm	9.052mm	1.50mm	0.974mm	0.187mm	10.026mm	16.933	9.50mm	7/16"
12mm	12.00mm	9.726mm	1.75mm	1.137mm	0.219mm	10.863mm	14.514	10.25mm	31/64"
14mm	14.00mm	11.402mm	2.00mm	1.299mm	0.250mm	12.701mm	12.70	12.00mm	9/16"
16mm	16.00mm	13.402mm	2.00mm	1.299mm	0.250mm	14.701mm	12.70	35/64"	41/64"
18mm	18.00mm	14.752mm	2.50mm	1.624mm	0.312mm	16.376mm	10.16	39/64"	23/32"
20mm	20.00mm	16.752mm	2.50mm	1.624mm	0.312mm	18.376mm	10.16	11/16"	51/64"
22mm	22.00mm	18.752mm	2.50mm	1.624mm	0.312mm	20.376mm	10.16	49/64"	7/8"
24mm	24.00mm	20.102mm	3.00mm	1.949mm	0.375mm	22.051mm	8.466	21.00mm	61/64"
27mm	27.00mm	23.102mm	3.00mm	1.949mm	0.375mm	25.051mm	8.466	24.00mm	1-5/64"
30mm	30.00mm	25.454mm	3.50mm	2.273mm	0.438mm	27.727mm	7.257	26.50mm	1-3/16"
33mm	33.00mm	28.454mm	3.50mm	2.273mm	0.438mm	30.727mm	7.257	29.50mm	1-5/16"
36mm	36.00mm	30.804mm	4.00mm	2.598mm	0.500mm	33.402mm	6.35	32.00mm	1-27/64"
39mm	39.00mm	33.804mm	4.00mm	2.598mm	0.500mm	36.402mm	6.35	35.00mm	1-35/64"

<b>SI Metric Threads (60 Deg Angle) - Dimensions in Inches - Metric table above</b>									
Thread Form Data								Tapping Drill	Clearance Drill
Diameter	O/Diameter	Core	Pitch	Depth	Flat	Effective Dia	T.P.I	Dec / Met / Frac	Dec / Met / Frac
6mm	0.2362	0.2244	0.0394	0.0256	0.0049	0.2106	25.40	0.1968"	0.2402"
7mm	0.2756	0.2510	0.0394	0.0256	0.0049	0.2500	25.40	0.2362"	0.2812"
8mm	0.3150	0.2510	0.0492	0.0320	0.0061	0.2830	20.32	0.2656"	0.3228"
9mm	0.3543	0.2904	0.0492	0.0320	0.0061	0.3223	20.32	0.3031"	0.3594"
10mm	0.3937	0.3170	0.0591	0.0383	0.0073	0.3553	16.933	0.3307"	0.4055"
11mm	0.4331	0.3564	0.0591	0.0383	0.0073	0.3947	16.933	0.3740"	0.4375"
12mm	0.4724	0.3829	0.0689	0.0448	0.0086	0.4277	14.514	0.4035"	0.4844"
14mm	0.5512	0.4488	0.0787	0.0512	0.0098	0.5000	12.70	0.4724"	0.5625"
16mm	0.6299	0.5276	0.0787	0.0512	0.0098	0.5787	12.70	0.5469"	0.6406"
18mm	0.7087	0.5808	0.0984	0.0639	0.0123	0.6447	10.16	0.6094"	0.7188"
20mm	0.7874	0.6596	0.0984	0.0639	0.0123	0.7234	10.16	0.6875"	0.7969"
22mm	0.8662	0.7383	0.0984	0.0639	0.0123	0.8021	10.16	0.7656"	0.8750"
24mm	0.9449	0.7914	0.1181	0.0767	0.0147	0.8682	8.466	0.8268"	0.9531"
27mm	1.0630	0.9095	0.1181	0.0767	0.0147	0.9863	8.466	0.9449"	1.0781"
30mm	1.1811	1.0021	0.1378	0.0895	0.0172	1.0916	7.257	1.0433"	1.1875"
33mm	1.2992	1.1202	0.1378	0.0895	0.0172	1.2097	7.257	1.1614"	1.3125"
36mm	1.4173	1.2128	0.1575	0.1023	0.0197	1.3150	6.35	1.2598"	1.4219"
39mm	1.5355	1.3309	0.1575	0.1023	0.0197	1.4331	6.35	1.3780"	1.5469"

## Chart No 7 - Cycle Engineer's Standard Threads

Cycle Engineer's Standard Threads (60 Deg) Dimensions in Inches except where stated								
Thread Form Data								
Diameter	O/Diameter	Core	Radius	Depth	Pitch	Effective Dia	T.P.I	Tapping Drill
17 IWG**	0.056	0.0388	0.002687	0.0086	0.01613	0.0474	62	No 61
16 IWG	0.064	0.0468	0.002687	0.0086	0.01613	0.0554	62	3/64"
15 IWG	0.072	0.0548	0.002687	0.0086	0.01613	0.0634	62	No 54
14 IWG	0.080	0.0628	0.002687	0.0086	0.01613	0.0714	62	1.60mm
13 IWG	0.092	0.0730	0.002982	0.0095	0.0179	0.0825	56	No 49
12 IWG	0.104	0.0798	0.00378	0.0121	0.0227	0.0919	44	No 46
1/8"	0.125	0.0984	0.004165	0.0133	0.0250	0.1117	40	2.5mm
0.154"	0.154	0.1274	0.004165	0.0133	0.0250	0.1407	40	No 30
0.175	0.175	0.1417	0.005214	0.0166	0.0313	0.1584	32	3.6mm
3/16"	0.1875	0.1542	0.005214	0.0166	0.0313	0.1709	32	5/32"
1/4"	0.250	0.2090	0.006414	0.0205	0.0385	0.2295	26	No 4
0.266"	0.266	0.2250	0.006414	0.0205	0.0385	0.2455	26	No 1
0.281"	0.281	0.2400	0.006414	0.0205	0.0385	0.2605	26	6.10mm
5/16"	0.3125	0.2715	0.006414	0.0205	0.0385	0.2920	26	7mm
3/8"	0.375	0.3340	0.006414	0.0205	0.0385	0.3545	26	8.50mm
9/16"	0.5625	0.5092	0.006414	0.0266	0.0385	0.5359	26	13mm
1"	1.00	0.9590	0.006414	0.0205	0.0385	0.9795	26	24.50mm
1.29"	1.290	1.2456	0.006947	0.0222	0.0417	1.2678	24	1.25"
1.37"	1.370	1.3256	0.006947	0.0222	0.0417	1.3478	24	1-21/64"
1-7/16"	1.4375	1.3931	0.006947	0.0222	0.0417	1.4153	24	35.50mm
1-1/2"	1.500	1.4556	0.006947	0.0222	0.0417	1.4778	24	37mm

**\*\*IWG = Imperial Wire Gauge** Wire gauge sizes are for spokes, larger sizes for hubs and pedals

**Chart No 8 - Model Engineer's and Admiralty Fine Threads**

<b>Model Engineer's Standard Threads (Whitworth Form)</b> <b>Dimensions in Inches except where stated</b>								
Thread Form Data								
Diameter	O/Diameter	Core	Radius	Depth	Pitch	Effective Dia	T.P.I	Tapping Drill
1/8"	0.125	0.0930	--	0.0160	0.0250	0.1090	40	No 40
5/32"	0.1563	0.1242	--	0.0160	0.0250	0.1403	40	No 30
3/16"	0.1875	0.1555	--	0.0160	0.0250	0.1715	40	5/32"
7/32"	0.2188	0.1867	--	0.0160	0.0250	0.2028	40	3/16"
1/4"	0.2500	0.2187	--	0.0160	0.0250	0.2340	40	7/32"
9/32"	0.2813	0.2412	--	0.0200	0.03125	0.2613	32	Letter C
5/16"	0.3125	0.2725	--	0.0200	0.03125	0.2925	32	Letter J
3/8"	0.375	0.3350	--	0.0200	0.03125	0.3550	32	Letter R
7/16"	0.4375	0.3833	--	0.0246	0.03846	0.4129	26	10mm
1/2"	0.5000	0.4508	--	0.0246	0.03846	0.4754	26	29/64"
<b>Admiralty Fine Threads (Whitworth Form)</b> <b>Dimensions in Inches except where stated</b>								
Thread Form Data								
Component Diameter	O/Diameter	Core	Radius	Depth	Pitch	Effective Dia	T.P.I	Tapping Drill
Under 1/2"	N/A	N/A	N/A	0.0267	0.04166	N/A	24	N/A
1/2" & under 3/4"	N/A	N/A	N/A	0.0320	0.05000	N/A	20	N/A
3/4" & under 1"	N/A	N/A	N/A	0.0457	0.07143	N/A	14	N/A
1" & under 2"	N/A	N/A	N/A	0.0533	0.08333	N/A	12	N/A
2" & under 4"	N/A	N/A	N/A	0.0800	0.12500	N/A	8	N/A
4" & over	N/A	N/A	N/A	0.1067	0.16666	N/A	6	N/A

**Used on pressure gauges and screwed glands on engines etc.**

## Chart No 10 - Small Whitworth Threads

Small Whitworth Form Threads (55 Deg Thread Angle) Dimensions in Inches except where stated								
Thread Form Data								Tapping Drill
Diameter	O/Diameter	Core	Pitch	Depth	Radius	Effective Dia	T.P.I	Dec / Met / Frac
1/16"	0.0625	0.0411	0.01666	0.0107	--	0.0518	60	No 56
5/64"	0.07813	0.0553	0.01786	0.0114	--	0.0667	56	1.5mm
3/32"	0.09375	0.0670	0.02083	0.01334	--	0.0804	48	No 48
7/64"	0.10938	0.0827	0.02083	0.01334	--	0.0960	48	No 44
1/8"	0.12500	0.0929	0.02500	0.01605	--	0.1085	40	No 40
9/64"	0.14063	0.1086	0.02500	0.01601	--	0.1246	40	No 33
5/32"	0.15625	0.1162	0.03125	0.02003	--	0.1362	32	No 31
11/64"	0.17188	0.1319	0.03125	0.01999	--	0.1519	32	No 29
3/16"	0.18750	0.1341	0.04166	0.0267	--	0.1608	24	No 28
13/64"	0.20313	0.1408	0.04166	0.0267	--	-0.1764	24	5/32"
7/32"	0.21875	0.1654	0.04166	0.0267	--	0.1921	24	11/64"
15/64"	0.23438	0.1811	0.04166	0.02664	--	0.2077	24	3/16"

## Chart No 6 - 'Continental' Whitworth Threads

'Continental' Whitworth Form Threads (55 Deg Thread Angle)							
Thread Form Data							
Diameter	O/Diameter	Core	Pitch	Depth	Radius	Effective Dia	T.P.I
1/4"	0.2425	0.1859	0.0500	0.0283	0.0069	0.2142	20
5/16"	0.3042	0.2413	0.0555	0.0314	0.0076	0.2769	18
3/8"	0.3657	0.2950	0.0625	0.0353	0.0086	0.3304	16
1/2"	0.4876	0.3932	0.0833	0.0472	0.0114	0.4404	12
5/8"	0.6115	0.5085	0.0909	0.0515	0.0125	0.5600	11
3/4"	0.7353	0.6218	0.1000	0.0567	0.0137	0.6786	10
7/8"	0.8586	0.7327	0.1111	0.0629	0.0153	0.7957	9
1"	0.9815	0.8400	0.1250	0.0708	0.0172	0.9107	8
1-1/8"	1.1039	0.9420	0.1429	0.0809	0.0196	1.0230	7
1-1/4"	1.2289	1.0670	0.1429	0.0809	0.0196	1.1480	7
1-3/8"	1.3504	1.1616	0.1666	0.0944	0.0229	1.2560	6
1-1/2"	1.4754	1.2866	0.1666	0.0944	0.0229	1.3810	6
1-5/8"	1.5955	1.3689	0.2000	0.1133	0.0275	1.4822	5
1-3/4"	1.7205	1.4939	0.2000	0.1133	0.0275	1.6072	5
2"	1.9671	1.7153	0.2222	0.1259	0.0305	1.8412	4½
2-1/4"	2.2130	1.9299	0.2500	0.1415	0.0343	2.0715	4
2-1/2"	2.4630	2.1799	0.2500	0.1415	0.0343	2.3215	4
3"	2.9576	2.6341	0.2857	0.1618	0.0392	2.7958	3½

## Chart No 12 - Copper Tube Threads

Copper Tube Screw Threads (Whitworth Form 55 Deg Thread Angle) Dimensions in Inches except where stated								
Thread Form Data								Tapping Hole
I/Diameter	Gauge O/D	Core	Pitch	Depth	Radius	Effective Dia	T.P.I	Dec / Met / Frac
1/8" Inside	0.248	0.202	0.0357	0.0230	--	0.2250	28	Number 4
1/4" Inside	0.389	0.325	0.0500	0.0320	--	0.3570	20	Letter Q
3/8" Inside	0.514	0.450	0.0500	0.0320	--	0.4820	20	15/32"
1/2" Inside	0.639	0.575	0.0500	0.0320	--	0.6070	20	15mm
5/8" Inside	0.764	0.700	0.0500	0.0320	--	0.7320	20	23/32"
3/4" Inside	0.889	0.825	0.0500	0.0320	--	0.8570	20	27/32"
7/8" Inside	1.014	0.950	0.0500	0.0320	--	1.0720	20	24.50mm
1" Inside	1.155	1.091	0.0500	0.0320	--	1.1230	20	26mm
1-1/4" Inside	1.405	1.341	0.0500	0.0320	--	1.3730	20	34.50mm
1-1/2" Inside	1.655	1.591	0.0500	0.0320	--	1.6230	20	1-39/64"
1-3/4" Inside	1.929	1.849	0.0625	0.0400	--	1.8890	16	1-55/64"
2" Inside	2.179	2.099	0.0625	0.0400	--	2.139	16	2.125"
2-1/4" Inside	2.429	2.349	0.0625	0.0400	--	2.389	16	2-23/64"
2-1/2" Inside	2.679	2.599	0.0625	0.0400	--	2.639	16	2-5/8"
2-3/4" Inside	2.929	2.849	0.0625	0.0400	--	2.8890	16	2-55/64"
3" Inside	3.203	3.123	0.0625	0.0400	--	3.1630	16	3"

## Chart No 13 - Brass Pipe Threads

Brass Pipe Screw Threads (Whitworth Form 55 Deg Thread Angle) Dimensions in Inches except where stated								
Thread Form Data								Tapping Hole
Diameter	O/D	Core	Pitch	Depth	Radius	Effective Dia	T.P.I	Dec / Met / Frac
1/8"	0.125	0.0757	0.03846	0.0246	--	0.1020	26	Number 47
1/4"	0.250	0.2007	0.03846	0.0246	--	0.2254	26	Number 6
3/8"	0.375	0.3257	0.03846	0.0246	--	0.3504	26	Letter Q
1/2"	0.500	0.4507	0.03846	0.0246	--	0.4754	26	29/64"
5/8"	0.625	0.5657	0.03846	0.0246	--	0.6004	26	37/64"
3/4"	0.750	0.7007	0.03846	0.0246	--	0.7254	26	45/64"
7/8"	0.875	0.8257	0.03846	0.0246	--	0.8504	26	53/64"
1"	1.000	0.9507	0.03846	0.0246	--	0.9754	26	61/64"
1-1/8"	1.125	1.0757	0.03846	0.0246	--	1.1004	26	1-5/64"
1-1/4"	1.250	1.2007	0.03846	0.0246	--	1.2254	26	1-13/64"
1-1/2"	1.500	1.4507	0.03846	0.0246	--	1.4754	26	1-29/64"



## Chart No 14 - B.S. Electrical Conduit Threads

Electrical Conduit Whitworth Form Threads (55 Deg Thread Angle) Dimensions in Inches except where stated									
Thread Form Data						Tapping Drill	Electrical Conduit Nut Sizes		
O/Diameter	Core	Pitch	Depth	Effective Dia	T.P.I	Dec / Met / Frac	Across Flats	Acr. Corners	Thickness
1/2"	0.4289	0.0555	0.0356	0.4644	18	7/16"	0.815"	0.950"	3/16"
5/8"	0.5539	0.0555	0.0356	0.5894	18	35/64"	0.915"	1.060"	3/16"
3/4"	0.6700	0.0625	0.0400	0.7100	16	11/16"	1.092"	1.270"	1/4"
1"	0.9200	0.0625	0.0400	0.9600	16	15/16"	1.472"	1.690"	1/4"
1-1/4"	1.1700	0.0625	0.0400	1.2100	16	1-3/16"	1.662"	2.040"	1/4"
1-1/2"	1.4085	0.0714	0.0400	1.4543	14	1-27/64"	2.040"	2.350"	5/16"
2"	1.9085	0.0714	0.0457	1.9543	14	1-59/64"	2.570"	2.960"	3/8"
2-1/2"	2.4085	0.0714	0.0457	2.4543	14	2-27/64"	3.150"	3.630"	3/8"

## Chart No 15 - British Standard Worm Threads

This thread is similar in form to the Acme Thread, in that the included angle is 29 degrees, but the depth of the thread is greater. The width of the flat at both top and bottom are therefore different. The table below gives full machining details.

Worm Threads (29 Deg Thread Angle) - NOT Acme Dimensions in Inches except where stated							
Thread Form Data							
T.P.I.	Pitch	Addendum	Thread Depth below pitch line	Total Thread Depth	Tooth Thickness at pitch line	Top Thread Width	Bottom Thread Width
1	1.000	0.3183	0.3683	0.6866	0.5000	0.3354	0.3100
1½	0.6677	0.2122	0.2455	0.4577	0.3333	0.2236	0.2066
2	0.5000	0.1592	0.1841	0.3433	0.2500	0.1677	0.1550
2½	0.4000	0.1273	0.1473	0.2746	0.2000	0.1341	0.1240
3	0.3333	0.1061	0.1228	0.2289	0.1667	0.1118	0.1033
3½	0.2857	0.0909	0.1053	0.1962	0.1429	0.0958	0.0886
4	0.2500	0.0796	0.0920	0.1716	0.1250	0.0838	0.0775
4½	0.2222	0.0707	0.0818	0.1526	0.1111	0.0745	0.0689
5	0.2000	0.0637	0.0736	0.1373	0.1000	0.0670	0.0620
6	0.1667	0.0531	0.0613	0.1144	0.0833	0.0559	0.0516
7	0.1429	0.0455	0.0526	0.0981	0.0714	0.0479	0.0443
8	0.1250	0.0398	0.0460	0.0858	0.0625	0.0419	0.0387
9	0.1111	0.0354	0.0409	0.0763	0.0556	0.0373	0.0344
10	0.1000	0.0318	0.0369	0.0687	0.0500	0.0335	0.0310
12	0.0833	0.0265	0.0307	0.0572	0.0416	0.0279	0.0258
14	0.0714	0.0227	0.0263	0.0490	0.0357	0.0239	0.0221
16	0.0625	0.0199	0.0230	0.0429	0.0312	0.0209	0.0194
18	0.0556	0.0177	0.0205	0.0382	0.0278	0.0186	0.0172

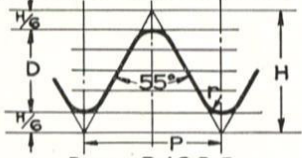

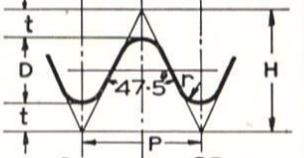
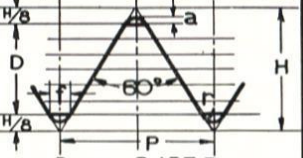
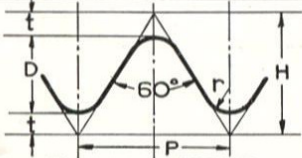
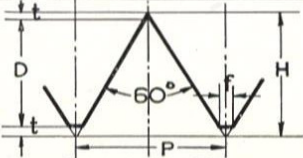
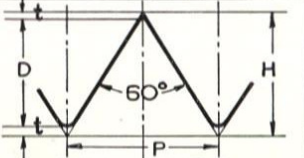
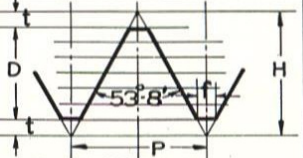
NOTES:-

Depth of Thread = 0.6866 X Pitch  
 Width of Space at Bottom of Thread = 0.310 X Pitch  
 Addendum = 0.3194 X Pitch

Width at Top of Thread = 0.335 X Pitch  
 Width of Thread at Pitch Line = 0.5 X Pitch

## Popular Thread Standard Forms

Selection of Screw Thread Forms, UK, Europe & USA, these are the older 1940's standards.

THREAD FORMS.			
<b>A. WHITWORTH</b>  $D = .6403 P$ $H = .9605 P$ $H/6 = .1600 P$ $r = .1373 P$	<b>B. SELLERS or U.S.S.</b>  $D = .6495 P$ $H = .8660 P$ $H/8 = .108 P$ $f = .125 P = P/8$	<b>C. B.A. British Ass'd</b>  $D = .6 P$ $H = 1.136 P$ $t = .268 P$ $r = .182 P$	<b>D. S.I. Système International.</b>  $D = .6495 P$ $H = .8660 P$ $H/8 = .108 P$ $a = .05 P$ $f = .125 P$ $r = .058 P$
<b>E. C.E.I. Cycle Eng'rs Institute.</b>  $D = .5327 P$ $H = .8660 P$ $t = P/6 = .166 P$ $r = P/6 = .166 P$	<b>F. VEE American Sharp Vee.</b>  $D = .8 P$ $H = .8660 P$ $t = .033 P$ $f = .04 P$	<b>G. BRIGGS PIPE.</b>  $D = .8 P$ $H = .8660 P$ $t = .033 P$ Taper = $3/4$ " per foot.	<b>H. LÖWENHERZ.</b>  $D = .75 P$ $H = P$ $t = P/8 = .125 P$ $f = P/8 = .125 P$

# Thread Comparison Tables

Includes Older Thread Standards

See Notes at end of Table - This is <b>Page 1</b> - Metric (Including BA) & Pipe are on <b>Page 3 &amp; 4</b>															
			British Threads						US Threads						
Thread System:			BSW	BSF	ADM Fine	CEI	Brass	Conduit	USS	SAE Regular	SAE Fine	ASME No.	ASME Standard	ASME Special	NC NF
Form*			A	A	A	E	A	A	B	B	B	--	B	B	B B
Angle			55	55	55	60	55	55	60	60	60	--	60	60	60 60
Full Thread Dia			Threads Per Inch						Threads Per Inch						
frac/swg	ins	mm**													
17	0.056	1.422	--	--	--	62	--	--	--	--	--	--	--	--	--
--	0.060	1.524	--	--	--	--	--	--	--	--	--	0	80	--	80
1/16"	0.0625	1.588	60	--	--	--	--	--	--	--	--	--	--	--	--
16	0.0640	1.626	--	--	--	62	--	--	--	--	--	--	--	--	--
15	0.0720	1.829	--	--	--	62	--	--	--	--	--	--	--	--	--
--	0.0730	1.855	--	--	--	--	--	--	--	--	--	1	72	64	64 72
5/64"	0.0781	1.984	56	--	--	--	--	--	--	--	--	--	--	--	--
14	0.0800	2.0325	--	--	--	62	--	--	--	--	--	--	--	--	--
--	0.0860	2.185	--	--	--	--	--	--	--	--	--	2	64	56	56 64
13	0.0920	2.337	--	--	--	56	--	--	--	--	--	--	--	--	--
3/32"	0.0937	2.38	48	--	--	--	--	--	--	--	--	--	--	--	--
--	0.0990	2.515	--	--	--	--	--	--	--	--	--	3	56	48	48 56
12	0.1040	2.642	--	--	--	44	--	--	--	--	--	--	--	--	--
7/64"	0.1094	2.779	48	--	--	--	--	--	--	--	--	--	--	--	--
--	0.1120	2.846	--	--	--	--	--	--	--	--	--	4	48	40/36	40 48
1/8"	0.1250	3.176	40	--	--	40	26	--	--	--	--	5	44	40/36	40 44
--	0.1380	3.506	--	--	--	--	--	--	--	--	--	6	40	36/32	32 40
9/64"	0.1406	3.572	40	--	--	--	--	--	--	--	--	--	--	--	--
--	0.1510	3.836	--	--	--	--	--	--	--	--	--	7	36	32/30	-- 32
--	0.1540	3.913	--	--	--	40	--	--	--	--	--	--	--	--	--
5/32"	0.1562	3.968	32	--	32	--	--	--	--	--	--	--	--	--	--
--	0.1640	4.166	--	--	--	--	--	--	--	--	--	8	36	32/30	32 36
11/64"	0.1719	4.367	32	--	--	--	--	--	--	--	--	--	--	--	--
--	0.1750	4.446	--	--	--	32	--	--	--	--	--	--	--	--	--
--	0.1770	4.497	--	--	--	--	--	--	--	--	--	9	32	30/24	-- 32
3/16"	0.1875	4.764	24	32	--	32	26	--	--	--	32	--	--	--	--
--	0.1900	4.827	--	--	--	--	--	--	--	--	--	10	30	32/24	24 32
--	0.2031	5.160	24	--	--	--	--	--	--	--	--	--	--	--	--
--	0.2160	5.488	--	--	--	--	--	--	--	--	--	12	28	24	24 28
7/32"	0.2187	5.556	24	28	--	26	--	--	--	--	--	--	--	--	--
15/64"	0.2344	5.955	24	--	--	--	--	--	--	--	--	--	--	--	--
--	0.2420	6.148	--	--	24	--	--	--	--	--	--	14	24	20	-- 24

1/4"	0.2500	6.352	20	26	24	26	26	--	20	28	36	--	--	--	20	28
--	0.2660	6.758	--	--	--	26	--	--	--	--	--	--	--	--	--	--
--	0.2680	6.809	--	--	--	--	--	--	--	--	--	16	22	20	--	--
9/32"	0.2813	7.147	--	26	24	26	26	--	--	--	--	--	--	--	--	--
--	0.2940	7.470	--	--	--	--	--	--	--	--	--	18	20	18	--	--
5/16"	0.3125	7.940	18	22	24	26	26	--	18	24	32	--	--	--	18	24
--	0.3200	8.130	--	--	--	--	26	--	--	--	--	20	20	18	--	--
--	0.3460	8.791	--	--	--	--	--	--	--	--	--	22	18	16	--	--
--	0.3720	9.451	--	--	--	--	--	--	--	--	--	24	16	18	--	--
3/8"	0.3750	9.527	16	20	24	26	26	--	16	24	32	--	--	--	16	24
--	0.3937	10.003	--	--	24	--	--	--	--	--	--	--	--	--	--	--
--	0.3980	10.112	--	--	--	--	--	--	--	--	--	26	16	14	--	--
--	0.4240	10.772	--	--	--	--	--	--	--	--	--	28	14	16	--	--
7/16"	0.4375	11.115	14	18	24	26	26	--	14	20	28	--	--	--	14	20
--	0.4500	11.433	--	--	--	--	--	--	--	--	--	30	14	16	--	--
--	0.4724	12.002	--	--	--	--	26	--	--	--	--	--	--	--	--	--
1/2"	0.5000	12.703	12	16	20	26	26	18	13	20	28	--	--	--	13	20
--	0.5512	14.004	--	--	20	26	26	--	--	--	--	--	--	--	--	--
9/16"	0.5625	14.291	12	16	20	20	26	--	12	18	24	--	--	--	12	18
5/8"	0.6250	15.879	11	14	20	--	26	18	11	18	24	--	--	--	11	18
11/16"	0.6875	17.467	11	14	20	--	26	16	--	16	24	--	--	--	--	--
3/4"	0.7500	19.06	10	12	14	--	26	16	10	16	20	--	--	--	10	16
13/16"	0.8125	20.642	10	12	14	--	26	16	--	--	--	--	--	--	--	--
--	0.8250	20.960	--	--	14	--	--	--	--	--	--	--	--	--	--	--
7/8"	0.8750	22.231	9	11	14	--	26	16	9	14	20	--	--	--	--	--
15/16"	0.9375	23.819	9	--	14	--	26	--	--	--	--	--	--	--	--	--
--	0.9675	24.581	--	--	--	30	--	--	--	--	--	--	--	--	--	--
1"	1.000	25.407	8	10	12	26	26	16	8	14	20	--	--	--	8	14

\* Thread Forms are shown in graphical format on a separate page (from the main menu or link below) The forms page is a slow download.

\*\*This is a conversion from the given Inch measurement. The inch dimension has not been changed from the printed paper table. An occasional but increasing error is present between the Inch figure in the left hand cloumn and the mm dimension converted from the original Inch figure .

## Thread Comparison Tables

Includes Older Thread Standards

See Notes at end of Table - This is <b>Page 2</b> - Metric (Including BA) & Pipe are on <b>Page 3 &amp; 4</b>																
			British Threads						US Threads							
Thread System:			BSW	BSF	ADM Fine	CEI	Brass	Conduit	USS	SAE Regular	SAE Fine	ASME No.	ASME Standard	ASME Special	NC	NF
Form*			A	A	A	E	A	A	B	B	B	--	B	B	B	B
Angle			55	55	55	60	55	55	60	60	60	--	60	60	60	60
Full Thread Dia			Threads Per Inch						Threads Per Inch							
frac/swg	ins	mm**														
1-1/8"	1.1250	28.582	7	9	12	--	26	--	7	12	18	--	--	--	7	12
1-1/4"	1.2500	31.758	7	9	12	--	26	16	7	12	18	--	--	--	7	12
--	1.2900	32.774	--	--	--	24	--	--	--	--	--	--	--	--	--	--
--	1.3700	34.807	--	--	--	24	--	--	--	--	--	--	--	--	--	--
1-3/8"	1.3750	34.934	6	8	12	24	26	16	6	12	18	--	--	--	6	12
1-7/16"	1.4375	36.522	--	--	12	24	26	--	--	--	--	--	--	--	--	--
1-1/2"	1.5000	38.110	6	8	12	24	26	14	6	12	18	--	--	--	6	12
1-5/8"	1.6250	41.286	5	8	12	--	--	--	5½	12	16	--	--	--	--	--
1-3/4"	1.7500	44.461	5	7	12	--	--	14	5	12	16	--	--	--	5	--
1-7/8"	1.8750	47.637	4½	7	12	--	--	--	5	12	16	--	--	--	--	--
2"	2.0000	50.813	4½	7	8	--	--	--	5	12	16	--	--	--	4½	--
2-1/8"	2.1250	53.989	4½	--	8	--	--	--	--	12	16	--	--	--	--	--
2-1/4"	2.2500	57.165	4	6	8	--	--	--	4½	12	16	--	--	--	4½	--
2-3/8"	2.3750	60.340	4	--	8	--	--	--	--	12	16	--	--	--	--	--
2-1/2"	2.5000	63.516	4	6	8	--	--	14	4	12	16	--	--	--	4	--
2-5/8"	2.6250	66.692	4	--	8	--	--	--	--	12	16	--	--	--	--	--
2-3/4"	2.7500	69.868	3½	6	8	--	--	--	4	12	16	--	--	--	4	--
2-7/8"	2.8750	73.044	3½	--	8	--	--	--	--	12	16	--	--	--	--	--
3"	3.0000	76.220	3½	5	8	--	--	--	3½	10	16	--	--	--	4	--
3-1/8"	3.1250	79.395	3½	--	8	--	--	--	3½	10	16	--	--	--	4	--
3-1/4"	3.2500	82.571	3¼	--	8	--	--	--	3½	10	16	--	--	--	4	--
3-1/2"	3.5000	88.923	3¼	--	8	--	--	--	3¼	10	16	--	--	--	4	--
3-5/8"	3.6250	92.099	3¼	--	8	--	--	--	--	10	16	--	--	--	--	--
3-3/4"	3.7500	95.274	3	--	8	--	--	--	3	10	16	--	--	--	--	--
3-7/8"	3.8750	98.450	3	--	8	--	--	--	--	10	16	--	--	--	--	--
4"	4.0000	101.626	3	--	6	--	--	--	3	10	16	--	--	--	4	--
4-1/8"	4.1250	104.802	3	--	6	--	--	--	--	10	16	--	--	--	--	--
4-1/4"	4.2500	107.978	2-7/8	--	6	--	--	--	--	10	16	--	--	--	--	--
4-3/8"	4.3750	111.153	2-7/8	--	6	--	--	--	--	10	16	--	--	--	--	--
4-1/2"	4.5000	114.329	2-7/8	--	6	--	--	--	2¾	10	16	--	--	--	--	--
4-5/8"	4.6250	117.505	2-7/8	--	6	--	--	--	--	10	16	--	--	--	--	--
4-3/4"	4.7500	120.681	2-3/4	--	6	--	--	--	2-5/8	10	16	--	--	--	--	--

4-7/8"	4.8750	123.857	2-3/4	--	6	--	--	--	--	10	16	--	--	--	--	--
5"	5.0000	127.033	2-3/4	--	6	--	--	--	2 1/2	10	16	--	--	--	--	--
--	5.1969	132.035	--	--	6	--	--	--	--	10	16	--	--	--	--	--
5-1/4"	5.2500	133.384	2-5/8	--	6	--	--	--	--	10	16	--	--	--	--	--
5-3/8"	5.3750	135.560	--	--	6	--	--	--	--	10	16	--	--	--	--	--
5-1/2"	5.5000	139.736	2-5/8	--	6	--	--	--	2-3/8	10	16	--	--	--	--	--

\* Thread Forms are shown in graphical format on a separate page (from the main menu or link below) The forms page is a slow download.

\*\*This is a conversion from the given Inch measurement. The inch dimension has not been changed from the printed paper table. An occasional but increasing error is present between the Inch figure in the left hand cloumn and the mm dimension converted from the original Inch figure .

# Thread Comparison Tables

Includes Older Thread Standards

See Notes at end of Table - This is <b>Page 3</b> - Imperial & US are on <b>Page 1 &amp; 2</b>																
			Metric Threads									Pipe Threads				
Thread System:			BA No	BA	S.I.	Metric Fine	Swiss Std	Swiss Fine	S.I. DIN	S.I. Fine Din	Lowen-hurz	Pipe Size.	BSP	Briggs	Copper	
Form*				C	D	D	D	D	F	F	H	--	A	G	A	
Angle				47½	60	60	60	60	60	60	53 8'	--	55	60	55	
Full Thread Dia				Pitch in mm									Threads Per Inch			
mm	ins	mm**														
--	0.0311	0.790	16	0.19	--	--	--	--	--	--	--	--	--	--	--	
--	0.0354	0.900	15	0.21	--	--	--	--	--	--	--	--	--	--	--	
1.00	0.0394	1.00	14	0.23	0.25	0.20	0.25	0.12	0.25	0.20	0.25	--	--	--	--	
--	0.0472	1.20	13	0.25	0.25	0.20	0.25	0.12	0.25	0.20	0.25	--	--	--	--	
--	0.0511	1.30	12	0.28	--	--	--	--	--	--	--	--	--	--	--	
--	0.0551	1.40	--	--	0.30	0.20	0.30	0.12	0.30	0.20	0.30	--	--	--	--	
--	0.0591	1.50	11	0.31	--	--	--	--	--	--	--	--	--	--	--	
--	0.0669	1.70	10	0.35	0.35	0.20	0.35	0.20	0.35	0.20	0.35	--	--	--	--	
--	0.0748	1.90	9	0.39	--	--	--	--	--	--	--	--	--	--	--	
2.00	0.0787	2.00	--	--	0.40	0.25	0.40	0.25	0.40	0.20	0.40	--	--	--	--	
--	0.0866	2.20	8	0.43	--	--	--	--	--	--	--	--	--	--	--	
--	0.0906	2.30	--	--	0.40	0.25	0.40	0.25	0.40	0.20	0.40	--	--	--	--	
--	0.0984	2.50	7	0.48	--	--	--	--	--	--	--	--	--	--	--	
--	0.1024	2.60	--	--	0.45	0.35	0.45	0.25	0.45	0.25	0.45	--	--	--	--	
--	0.1102	2.80	6	0.53	--	--	--	--	--	--	--	--	--	--	--	
--	0.1181	3.00	--	--	0.60	0.35	0.50	0.35	0.50	0.35	0.50	--	--	--	--	
--	0.1260	3.20	5	0.59	--	--	--	--	--	--	--	--	--	--	--	
--	0.1378	3.50	--	--	0.60	0.35	0.60	0.35	0.60	0.35	0.60	--	--	--	--	
--	0.1417	3.60	4	0.66	--	--	--	--	--	--	--	--	--	--	--	
--	0.1575	4.00	--	--	0.75	0.5	0.70	0.5	0.70	0.35	0.70	--	--	--	--	
--	0.1614	4.10	3	0.73	--	--	--	--	--	--	--	--	--	--	--	
--	0.1772	4.50	--	--	0.75	0.50	0.75	0.50	0.75	0.50	0.75	--	--	--	--	
--	0.1850	4.70	2	0.81	--	--	--	--	--	--	--	--	--	--	--	
--	0.1969	5.00	--	--	0.90	0.50	0.80	0.50	0.80	0.50	0.80	--	--	--	--	
--	0.2087	5.30	1	0.90	--	--	--	--	--	--	--	--	--	--	--	
--	0.2165	5.50	--	--	--	--	0.90	0.50	0.90	0.50	0.90	--	--	--	--	
--	0.2362	6.00	0	1.00	1.00	0.75	1.00	0.75	1.00	0.75	1.00	--	--	--	--	
--	0.2480	6.30	--	--	--	--	--	--	--	--	--	1/8"	--	--	28	
--	0.2756	7.00	--	--	1.00	0.75	1.00	0.75	1.00	0.75	1.10	--	--	--	--	
--	0.3150	8.00	--	--	1.25	1.00	1.25	1.00	1.25	0.75	1.20	--	--	--	--	
--	0.3543	9.00	--	--	1.25	1.00	1.25	1.00	1.25	1.00	1.30	--	--	--	--	

--	0.3830	9.73	--	--	--	--	--	--	--	--	--	1/8"	28	--	--
--	0.3890	9.88	--	--	--	--	--	--	--	--	--	1/4"	--	--	20
--	0.3937	10.00	--	--	1.50	1.00	1.50	1.00	1.50	1.00	1.40	--	--	--	--
--	0.4044	10.27	--	--	--	--	--	--	--	--	--	1/8"	--	27	--
--	0.4331	11.00	--	--	--	--	1.50	1.00	1.50	1.00	--	--	--	--	--
--	0.4724	12.00	--	--	1.75	1.50	1.75	1.25	1.75	1.50	1.60	--	--	--	--
--	0.5140	13.059	--	--	--	--	--	--	--	--	--	3/8"	--	--	20
--	0.5180	13.161	--	--	--	--	--	--	--	--	--	1/4"	19	--	--
--	0.5343	13.575	--	--	--	--	--	--	--	--	--	1/4"	--	18	--
14.00	0.5512	14.004	--	--	2.0	1.50	2.0	1.25	2.0	1.50	1.80	--	--	--	--
16.00	0.6299	16.004	--	--	2.0	1.50	2.0	1.25	2.0	1.5	2.0	--	--	--	--
--	0.6390	16.235	--	--	--	--	--	--	--	--	--	1/2"	--	--	20
--	0.6560	16.666	--	--	--	--	--	--	--	--	--	3/8"	19	--	--
--	0.6714	17.058	--	--	--	--	--	--	--	--	--	3/8"	--	18	--
18.00	0.7087	18.006	--	--	2.5	1.5	2.5	1.5	2.5	1.5	2.20	--	--	--	--
--	0.7640	19.411	--	--	--	--	--	--	--	--	--	5/8"	--	--	20
20.00	0.7874	20.005	--	--	2.5	1.5	2.5	1.5	2.5	1.5	2.40	--	--	--	--
--	0.8250	20.960	--	--	--	--	--	--	--	--	--	1/2"	14	--	--
--	0.8355	21.227	--	--	--	--	--	--	--	--	--	1/2"	--	14	--
22.00	0.8661	22.004	--	--	2.5	1.5	2.5	1.5	2.5	1.5	2.80	--	--	--	--
--	0.8890	22.586	--	--	--	--	--	--	--	--	--	3/4"	--	--	20
--	0.9020	22.917	--	--	--	--	--	--	--	--	--	5/8"	14	--	--
24.00	0.9449	24.007	--	--	3.0	2.0	3.0	1.5	3.0	1.5	2.80	--	--	--	--

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## Thread Comparison Tables

Includes Older Thread Standards

See Notes at end of Table - This is <b>Page 3</b> - Imperial & US are on <b>Page 1 &amp; 2</b>															
			Metric Threads									Pipe Threads			
Thread System:			BA No	BA	S.I.	Metric Fine	Swiss Std	Swiss Fine	S.I. DIN	S.I. Fine Din	Lowen-hurz	Pipe Size.	BSP	Briggs	Copper
Form*				C	D	D	D	D	F	F	H	--	A	G	A
Angle				47½	60	60	60	60	60	60	53 8'	--	55	60	55
Full Thread Dia				Pitch in mm								Threads Per Inch			
mm	ins	mm**													
--	1.0140	25.762	--	--	--	--	--	--	--	--	--	7/8"	--	--	20
--	1.0410	26.448	--	--	--	--	--	--	--	--	--	3/4"	14	--	--
--	1.0460	26.575	--	--	--	--	--	--	--	--	--	3/4"	--	--	14
27.00	1.0630	27.007	--	--	3.0	2.0	3.0	2.0	3.0	1.5	--	--	--	--	--
--	1.1024	28.008	--	--	--	--	--	--	--	--	3.20	--	--	--	--
--	1.1550	29.345	--	--	--	--	--	--	--	--	--	1"	--	--	20
30.00	1.1811	30.008	--	--	3.5	2.0	3.5	2.0	3.5	1.5	3.60	--	--	--	--
--	1.1890	30.208	--	--	--	--	--	--	--	--	--	7/8"	14	--	--
32.00	1.2598	32.007	--	--	--	--	--	--	--	--	3.60	--	--	--	--
33.00	1.2992	33.008	--	--	3.5	2.0	3.5	2.0	3.5	1.5	--	--	--	--	--
--	1.3082	33.237	--	--	--	--	--	--	--	--	--	1"	--	11½	--
--	1.3090	33.257	--	--	--	--	--	--	--	--	--	1"	11	--	--
--	1.4050	35.696	--	--	--	--	--	--	--	--	--	1¼"	--	--	20
36.00	1.4173	36.009	--	--	4.0	3.0	4.0	2.0	4.0	1.5	4.0	--	--	--	--
39.00	1.5354	39.009	--	--	4.0	3.0	4.0	2.0	4.0	--	--	--	--	--	--
40.00	1.5748	40.010	--	--	--	--	--	--	--	1.5	4.40	--	--	--	--
--	1.6500	41.921	--	--	--	--	--	--	--	--	--	1¼"	11	--	--
--	1.6530	41.997	--	--	--	--	--	--	--	--	--	1¼"	--	11½	--
42.00	1.6536	42.012	--	--	4.5	3.0	4.5	2.0	4.5	1.5	--	--	--	--	--
--	1.6550	42.048	--	--	--	--	--	--	--	--	--	1½"	--	--	20
45.00	1.7716	45.010	--	--	4.5	3.0	4.5	2.0	4.5	1.5	--	--	--	--	--
--	1.8820	47.815	--	--	--	--	--	--	--	--	--	1½"	11	--	--
48.00	1.8898	48.013	--	--	5.0	3.0	5.0	2.0	5.0	1.5	--	--	--	--	--
--	1.8919	48.067	--	--	--	--	--	--	--	--	--	1½"	--	11½	--
--	1.9290	49.009	--	--	--	--	--	--	--	--	--	1¾"	--	--	16
50.00	1.9685	50.013	--	--	--	--	--	--	--	1.5	--	--	--	--	--
52.00	2.0472	52.012	--	--	5.0	3.0	5.0	2.5	5.0	1.5	--	--	--	--	--
--	2.1160	53.760	--	--	--	--	--	--	--	--	--	1¾"	11	--	--
--	2.1790	55.361	--	--	--	--	--	--	--	--	--	2"	--	--	16
56.00	2.2047	56.014	--	--	5.5	4.0	5.5	2.5	5.5	2.0	--	--	--	--	--
--	2.3470	59.629	--	--	--	--	--	--	--	--	--	2"	11	--	--
60.00	2.3622	60.015	--	--	5.5	4.0	5.5	2.5	5.5	2.0	--	--	--	--	--

--	2.3659	60.109	--	--	--	--	--	--	--	--	--	2"	--	11½	--
--	2.4290	61.712	--	--	--	--	--	--	--	--	--	2¼"	--	--	16
64.00	2.5197	64.017	--	--	6.0	4.0	6.0	2.5	6.0	2.0	--	--	--	--	--
--	2.5870	65.727	--	--	--	--	--	--	--	--	--	2¼"	11	--	--
68.00	2.6772	68.018	--	--	6.0	--	6.0	2.5	6.0	2.0	--	--	--	--	--
--	2.6790	68.064	--	--	--	--	--	--	--	--	--	2½"	--	--	16
72	2.8347	72.020	--	--	6.0	4.0	6.0	2.5	6.0	2.0	--	--	--	--	--
--	2.8622	72.718	--	--	--	--	--	--	--	--	--	2½"	--	8	--
--	2.9290	74.416	--	--	--	--	--	--	--	--	--	2¾"	--	--	16
--	2.9600	75.203	--	--	--	--	--	--	--	--	--	2½"	11	--	--
76.00	2.9921	76.019	--	--	6.0	--	6.0	2.5	6.0	2.0	--	--	--	--	--
80.00	3.1496	80.020	--	--	6.0	4.0	6.0	2.5	6.0	2.0	--	--	--	--	--
--	3.2030	81.377	--	--	--	--	--	--	--	--	--	3"	--	--	16
--	3.2100	81.555	--	--	--	--	--	--	--	--	--	2¾"	11	--	--
84.00	3.3071	84.022	--	--	--	--	--	--	6.0	--	--	--	--	--	--
85.00	3.3465	85.023	--	--	--	--	--	--	--	2.0	--	--	--	--	--
--	3.4530	87.729	--	--	--	--	--	--	--	--	--	3¼"	--	--	16
--	3.4600	87.907	--	--	--	--	--	--	--	--	--	3"	11	--	--
--	3.4885	88.631	--	--	--	--	--	--	--	--	--	3"	--	8	--
89.00	3.5039	89.022	--	--	--	--	--	--	6.0	--	--	--	--	--	--
90.00	3.5433	90.023	--	--	--	--	--	--	--	2.0	--	--	--	--	--
--	3.7000	94.004	--	--	--	--	--	--	--	--	--	3¼"	11	--	--
94.00	3.7008	94.024	--	--	--	--	--	--	6.0	--	--	--	--	--	--
--	3.7270	94.690	--	--	--	--	--	--	--	--	--	3½"	--	--	16
95.00	3.7402	95.025	--	--	--	--	--	--	--	2.0	--	--	--	--	--
99.00	3.8976	99.024	--	--	--	--	--	--	6.0	--	--	--	--	--	--
100.00	3.9370	--	--	--	--	--	--	--	--	2.0	--	--	--	--	--
--	3.9500	100.356	--	--	--	--	--	--	--	--	--	3½"	11	--	--
--	3.9770	101.042	--	--	--	--	--	--	--	--	--	3¾"	--	--	16
--	3.9888	101.341	--	--	--	--	--	--	--	--	--	3½"	--	8	--
102.00	4.0158	102.027	--	--	--	--	--	--	--	3.0	--	--	--	--	--
104.00	4.0945	104.027	--	--	--	--	--	--	6.0	--	--	--	--	--	--
105.00	4.1339	105.028	--	--	--	--	--	--	--	3.0	--	--	--	--	--
--	4.2000	106.707	--	--	--	--	--	--	--	--	--	3¾"	11	--	--
--	4.2510	108.003	--	--	--	--	--	--	--	--	--	4"	--	--	16
108.00	4.2520	108.028	--	--	--	--	--	--	--	3.0	--	--	--	--	--
109.00	4.2913	109.027	--	--	--	--	--	--	6.0	--	--	--	--	--	--
110.00	4.3307	110.028	--	--	--	--	--	--	--	3.0	--	--	--	--	--
112.00	4.4094	112.027	--	--	--	--	--	--	--	3.0	--	--	--	--	--
--	4.4500	113.059	--	--	--	--	--	--	--	--	--	4"	11	--	--
--	4.4871	114.001	--	--	--	--	--	--	--	--	--	4"	--	8	--
114.00	4.4882	114.029	--	--	--	--	--	--	6.0	--	--	--	--	--	--
115.00	4.5276	115.030	--	--	--	--	--	--	--	3.0	--	--	--	--	--

118.00	4.6458	118.034	--	--	--	--	--	--	--	3.0	--	--	--	--	--
120.00	4.7244	120.030	--	--	--	--	--	--	--	3.0	--	--	--	--	--
122.00	4.8032	122.032	--	--	--	--	--	--	--	3.0	--	--	--	--	--
124.00	4.8820	124.035	--	--	--	--	--	--	6.0	--	--	--	--	--	--
125.00	4.9214	125.036	--	--	--	--	--	--	--	3.0	--	--	--	--	--
--	4.9500	125.762	--	--	--	--	--	--	--	--	--	4½"	11	--	--
--	4.9859	126.674	--	--	--	--	--	--	--	--	--	4½"	--	8	--
128.00	5.0395	128.036	--	--	--	--	--	--	--	3.0	--	--	--	--	--
129.00	5.0785	129.027	--	--	--	--	--	--	6.0	--	--	--	--	--	--
130.00	5.1182	130.036	--	--	--	--	--	--	--	3.0	--	--	--	--	--
132.00	5.1969	132.035	--	--	--	--	--	--	--	3.0	--	--	--	--	--
134.00	5.2757	134.037	--	--	--	--	--	--	6.0	--	--	--	--	--	--
135.00	5.3151	135.038	--	--	--	--	--	--	--	3.0	--	--	--	--	--
138.00	5.4332	138.039	--	--	--	--	--	--	--	3.0	--	--	--	--	--
--	5.4500	138.465	--	--	--	--	--	--	--	--	--	5"	11	--	--
139.00	5.4725	139.037	--	--	--	--	--	--	6.00	--	--	--	--	--	--

\* Thread Forms are shown in graphical format on a separate page (from the main menu or link below) The forms page is a slow download.

\*\*This is a conversion from the given Inch measurement. The inch dimension has not been changed from the printed paper table. An occasional but increasing error is present between the Inch figure in the left hand cloumn and the mm dimension converted from the original Inch figure .

# Steel Equivalent Table

En / BS to SAE - Page 1 of 20

En1A to En 7 - Page 1

General Information			Chemical Composition									Mechanical Properties						Related Specifications	
Spec BS970	Type of Steel	Condition	C	Si	Mn	Ni	Cr	Mo	Va	S	P	Tensile Strength	Yield Stress	0.2% Proof	Elongation	Izod	Brinell No:	BS	SAE
			%	%	%	%	%	%	%	%	%	Tons / Sq In Min	Tons / Sq In Min	Tons / Sq In Min	% Min	Ft Lb Min	No:-	No:-	No:-
En 1A	Free Cutting Mild Steel	Cold Rolled or Drawn	0.07 to 0.15 %	0.10 % max	0.80 to 1.20 %	--	--	--	--	0.20 to 0.30 %	0.07 % max	--	--	--	10 to 26 a)	--	--	32/4	--
En 1B	Free Cutting Mild Steel	Cold Rolled or Drawn	0.07 to 0.15 %	0.10 % max	1.00 to 1.40 %	--	--	--	--	0.30 to 0.60 %	0.06 % max	23 to 27 a)	--	--	10 to 24 a)	--	--	32/5	--
En 2 b)	G/Purp Cold Forming Steel	Rolled or Forged	0.20 % max	--	0.80 max	--	--	--	--	0.06 % max	0.06 % max	20	--	--	28	--	--	1449 1627 29	1016 1019
En 2A	Sp/Purp Cold Forming Steel	STCO c)	0.12 max	--	0.50 max	--	--	--	--	0.05 max	0.05 max	--	--	--	--	--	--	1449 1627	1006 1010
En 2A/1	Sp/Purp Cold Forming Steel	STCO c)	0.10 max	--	0.50 max	--	--	--	--	0.04 max	0.04 max	--	--	--	--	--	--	1449	1006 1008
En 2B	Sp/Purp Cold Forming Steel	STCO c)	0.15 max	--	0.50 max	--	--	--	--	0.05 max	0.05 max	--	--	--	--	--	--	1449 1627	1006 1012
En 2C	Sp/Purp Cold Forming Steel	As Rolled or Forged	0.15 to 0.25 max	--	0.40 to 0.60 max	--	--	--	--	0.05 max	0.05 max	--	--	--	--	--	--	1449	1017 1020
En 2D	Sp/Purp Cold Forming Steel	As Rolled or Forged	0.15 to 0.30 max	--	0.40 to 0.70 max	--	--	--	--	0.05 max	0.05 max	--	--	--	--	--	--	1449	1017 1020 1025
En 2E	Cold Forming Fully Killed	As Rolled or Forged	0.15 max	0.10 to 0.35 max	0.50 max	--	--	--	--	0.06 max	0.06 max	--	--	--	--	--	--	--	1009
En 3	'20' Carbon Steel	As Rolled or Forged	0.25 max	0.05 to 0.35 max	1.00 max	--	--	--	--	0.06 max	0.06 max	--	--	--	--	--	--	14, 29 400 1506/102	1017 1022
En 3A	'20' Carbon Steel	As Rolled/ Normalised	0.15 to 0.25	0.05 to 0.35	0.40 to 0.90	--	--	--	--	0.06 max	0.06 max	28	--	--	25	--	--	14,29 32/2 400 1506/101	1017 1022
En 3C	'20' Carbon Steel	As Rolled/ Normalised	0.17 to 0.23	0.05 to 0.35	0.60 to 1.00	--	--	--	--	0.05 max	0.05 max	28	--	--	25	--	--	14,29 400 1506/101	1022
En 3B	'20'	Cold	0.25	0.35	1.00	--	--	--	--	0.06	0.06	28	--	--	17	--	--	32/2	1017

	Carbon Steel	Drawn	max	max	max					max	max							1506/ 1022 121	
En 3D	'20' Carbon Steel	Cold Drawn	0.15 to 0.25	0.05 to 0.35	0.60 to 1.00	--	--	--	--	0.06 max	0.06 max	28 to 35 a)	--	--	15	--	--	14,29 32/2 400 1506/ 101 1022 1017	
En 4	'25' Carbon Steel	Normalised	0.30 max	0.05 to 0.35	1.00 max	--	--	--	--	0.06 max	0.06 max	28 to 38	--	--	25	--	126 to 179	1503/ 151 1025	
En 4A	'25' Carbon Steel	Cold Drawn	0.30 max	0.05 to 0.35	1.00 max	--	--	--	--	0.06 max	0.06 max	32 to 42	--	--	12	--	--	-- 1025 1026	
En 5	'30' Carbon Steel	Normalised	0.25 to 0.35	0.05 to 0.35	0.06 to 1.00	--	--	--	--	0.06 max	0.06 max	32	16	--	25	20	143 to 193	1449 29 1026 1030 1033	
En 5K d)	'30' Carbon Steel	Normalised	0.25 to 0.35	0.05 to 0.35	0.60 to 1.00	--	--	--	--	0.05 max	0.05 max	32	16	--	25	20	143 to 193	1449 1030	
En 5A	'30' Carbon Steel	STCO c)	0.25 to 0.30	0.05 to 0.35	0.70 to 0.90	--	--	--	--	0.06 max	0.06 max	--	--	--	25	20	--	1449 1026 1030	
En 5B	'30' Carbon Steel	STCO c)	0.28 to 0.33	0.05 to 0.35	0.70 to 0.90	--	--	--	--	0.06 max	0.06 max	--	--	--	--	--	--	1449 1030	
En 5C	'30' Carbon Steel	STCO c)	0.30 to 0.35	0.05 to 0.35	0.70 to 0.90	--	--	--	--	0.06 max	0.06 max	--	--	--	--	--	--	1449 1033	
En 5D	'30' Carbon Steel	Hardened Tempered +Cold Drawn	0.25 to 0.35	0.05 to 0.35	0.60 to 1.00	--	--	--	--	0.06 max	0.06 max	35 to 45 a)	--	--	15 to 20	10 to 40	229 to 255	1449 1026 1030 1033	
En 6	Med. Carbon Steel	Bright	0.40 max	0.05 to 0.35	0.50 to 0.90	--	--	--	--	0.06 max	0.06 max	38 to 48 a)	--	--	10 to 12 a)	15 to 20	--	-- 1035	
En 6K	Medium Carbon Steel	Bright	0.40 max	0.05 to 0.35	0.50 to 0.90	--	--	--	--	0.05 max	0.05 max	35 to 45 a)	--	--	12 to 15 a)	10	--	32/1 1035	
En 6A	Medium Carbon Steel	Bright	0.40 max	0.05 to 0.35	0.50 to 0.90	--	--	--	--	0.06 max	0.06 max	32 to 48 a)	--	--	10	--	--	32/1 46/1 1035	
En 7	Semi Free-Cutting C/Steel	Cold Drawn	0.10 to 0.30	0.25 max	0.70 to 1.30	--	--	--	--	0.10 to 0.18	0.06 max	30 to 50 a)	--	--	12 to 15 a)	--	--	32/1 46/1 11 15	

a) Depends on cross-sectional area

b) For plate, sheet and strip, the limits for Mn, S & P do not apply, see BS 1449

c) Supplied to Composition only

d) Available in Hardened and Tempered versions, Suffix letters P, Q, R, S, T, U, V, W, X, Y, Z.

## En Series Steels

### Bar End Codes

Carbon Steels				
Metal Series	Macreadys Brand Name	Properties	Related Specifications	Bar end Colour
--	NMC Usaflat	Commercial Engineering Steel	--	Blue
EN 1A	Usapead	Freecutting Steel	STA5 V 1A BS32 Grade 4	Green
EN 1A	Usaled	Leaded Freecutting	STA5 V 1A BS32 Grade 4	Magenta
EN 3B	Usamild	'20' Carbon Mild Steel	STA5 V 2/3 BS32 Grade 2	Red+Blue
EN 6	Usen 6	Medium Tensile Mild Steel	BS32 Grade 1	Red+Yellow
EN 6A	Usakey	Medium Tensile Mild Steel	BS32 Grade 1	Red+Yellow
EN 8	Usapead 40	'40' Carbon Steel Normalised	STA5 V 4A BS32 Grade 1	Yellow
EN32A EN32B	Usacase	Carbon Casehardening Steel	STA5 V 15	Red
EN 202	Usapead 202	Carbon Manganese Casehardening Semi-Freecutting	STA5 V 15AM	Red+Green
Alloy Steels				
EN 16(T)	Usapead '5565' Usaloy '16T'	Manganese Molybdenum Open Hearth Acid Steel	STA5 V 9A	White
EN 24	Usaloy '24'	1½% Nickel-Chromium Manganese Molybdenum Steel Electrically Melted	STA5 V 10	White+Blue
EN 24(T)	Usaloy '24T'	1½% Nickel-Chromium Molybdenum Steel	STA5 V 10	White+Brown
EN 33	Usaloy '33'	3% Nickel Casehardening Open Hearth Acid Steel	STA5 V 17	White+Green
EN 36A,B,C	Usaloy '36'	3% Nickel-Chromium Casehardening Open Hearth Acid Steel	STA5 V 18	White+Red
EN 56 AM (R)	KE 40A	Chromium Rust-Resisting Iron, Free-Cutting (Martensitic)	--	Brown
Tool Steels				
--	Usapead NSOH	Carbon Manganese Oil Hardening Alloy Tool Steel Electrically Melted	--	Blue
--	Usapead HCHC	High Carbon High Chromium Alloy Tool Steel Electrically melted	--	Green
--	Usapead 'Super'	18% Tungsten High Speed Steel Electrically Melted	--	Silver