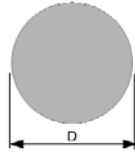
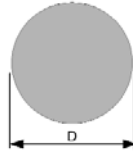


# Round Bar



Diameter D	Mass per Metre		Area of Section A	Second Moment of Area I	Radius of Gyration r	Elastic Modulus Z	Plastic Modulus S
	mm	kg/m      lb/ft					
6	0.222	0.149	0.283	63.6	1.50	21.2	36.0
7	0.302	0.203	0.385	118	1.75	33.7	57.2
8	0.395	0.265	0.503	201	2.00	50.3	85.3
9	0.499	0.336	0.636	322	2.25	71.6	121.5
10	0.617	0.414	0.785	491	2.50	98.2	166.7
11	0.746	0.501	0.950	719	2.75	131	222
12	0.888	0.597	1.13	1018	3.00	170	288
13	1.042	0.700	1.33	1402	3.25	216	366
14	1.208	0.812	1.54	1886	3.50	269	457
15	1.387	0.932	1.77	2485	3.75	331	563
16	1.578	1.061	2.01	3217	4.00	402	683
17	1.782	1.197	2.27	4100	4.25	482	819
18	1.998	1.342	2.54	5153	4.50	573	972
19	2.226	1.496	2.84	6397	4.75	673	1143
20	2.466	1.657	3.14	7854	5.00	785	1333
21	2.719	1.827	3.46	9547	5.25	909	1544
22	2.984	2.005	3.80	11499	5.50	1045	1775
23	3.261	2.192	4.15	13737	5.75	1194	2028
24	3.551	2.386	4.52	16286	6.00	1357	2304
25	3.853	2.589	4.91	19175	6.25	1534	2604
26	4.168	2.801	5.31	22432	6.50	1726	2929
27	4.495	3.020	5.73	26087	6.75	1932	3281
28	4.834	3.248	6.16	30172	7.00	2155	3659
29	5.185	3.484	6.61	34719	7.25	2394	4065
30	5.549	3.729	7.07	39761	7.50	2651	4500
31	5.925	3.982	7.55	45333	7.75	2925	4965
32	6.313	4.243	8.04	51472	8.00	3217	5461
34	7.127	4.789	9.08	65597	8.50	3859	6551
35	7.553	5.075	9.62	73662	8.75	4209	7146
36	7.990	5.369	10.2	82448	9.00	4580	7776
38	8.903	5.983	11.3	102354	9.50	5387	9145

# Round Bar



Diameter	Mass per Metre		Area of Section A	Second Moment of Area I	Radius of Gyration r	Elastic Modulus Z	Plastic Modulus S
D	kg/m	lb/ft	cm <sup>2</sup>	mm <sup>4</sup>	mm	mm <sup>3</sup>	mm <sup>3</sup>
40	9.865	6.629	12.6	125664	10.0	6283	10667
42	10.876	7.308	13.9	152745	10.5	7274	12348
44	11.936	8.021	15.2	183984	11.0	8363	14197
46	13.046	8.767	16.6	219787	11.5	9556	16223
48	14.205	9.546	18.1	260576	12.0	10857	18432
50	15.413	10.358	19.6	306796	12.5	12272	20833
55	18.650	12.533	23.8	449180	13.8	16334	27729
60	22.195	14.915	28.3	636173	15.0	21206	36000
65	26.049	17.505	33.2	876241	16.3	26961	45771
70	30.210	20.301	38.5	1178588	17.5	33674	57167
75	34.680	23.305	44.2	1553156	18.8	41417	70313
80	39.458	26.516	50.3	2010619	20.0	50265	85333
85	44.545	29.934	56.7	2562392	21.3	60292	102354
90	49.940	33.559	63.6	3220623	22.5	71569	121500
95	55.643	37.392	70.9	3998198	23.8	84173	142896
100	61.654	41.431	78.5	4908739	25.0	98175	166667
105	67.973	45.678	86.6	5966602	26.3	113650	192938
110	74.601	50.132	95.0	7186884	27.5	130671	221833
115	81.537	54.793	104	8585414	28.8	149312	253479
120	88.781	59.661	113	10178760	30.0	169646	288000
125	96.334	64.736	123	11984225	31.3	191748	325521
130	104.195	70.019	133	14019848	32.5	215690	366167
135	112.364	75.509	143	16304406	33.8	241547	410063
140	120.841	81.205	154	18857410	35.0	269392	457333
145	129.627	87.109	165	21699109	36.3	299298	508104
150	138.721	93.220	177	24850489	37.5	331340	562500
160	157.834	106.064	201	32169909	40.0	402124	682667
170	178.179	119.737	227	40998275	42.5	482333	818833
180	199.758	134.237	254	51529974	45.0	572555	972000
190	222.570	149.567	284	63971171	47.5	673381	1143167
200	246.615	165.725	314	78539816	50.0	785398	1333333