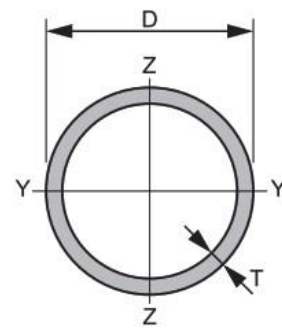


# Steel structure calculation table

## Round Tubes



Specified outside diameter	Specified thickness	Mass per unit length	Cross-sectional area	Second moment of inertia	Radius of gyration	Elastic section modulus	Plastic section module	Torsional inertia constant	Torsional modulus constant	Superficial area per meter length	Nominal length per ton
<b>D</b>	<b>T</b>	<b>M</b>	<b>A</b>	<b>I</b>	<b>i</b>	<b>W<sub>el</sub></b>	<b>W<sub>pl</sub></b>	<b>I<sub>t</sub></b>	<b>C<sub>t</sub></b>	<b>A<sub>s</sub></b>	
mm	mm	kg/m	cm <sup>2</sup>	cm <sup>4</sup>	cm	cm <sup>3</sup>	cm <sup>3</sup>	cm <sup>4</sup>	cm <sup>3</sup>	m <sup>2</sup> /m	m/t
168.3	4.0	16.1	20.6	697	5.81	83	108	1394	166	0.529	62.1
168.3	5.0	20.0	25.7	856	5.78	102	133	1712	203	0.529	50.0
168.3	6.0	23.9	30.6	1009	5.74	120	158	2017	240	0.529	41.9
168.3	8.0	31.4	40.3	1297	5.67	154	206	2595	308	0.529	31.8
168.3	10.0	38.8	49.7	1564	5.61	186	251	3128	372	0.529	25.8
193.7	4.0	18.6	23.8	1073	6.71	111	144	2146	222	0.609	53.8
193.7	5.0	23.1	29.6	1320	6.67	136	178	2640	273	0.609	43.3
193.7	6.0	27.6	35.4	1560	6.64	161	211	3119	322	0.609	36.2
193.7	8.0	36.4	46.7	2016	6.57	208	276	4031	416	0.609	27.5
193.7	10.0	45.0	57.7	2442	6.50	252	338	4883	504	0.609	22.2
219.1	4.0	21.1	27.0	1564	7.61	143	185	3128	286	0.688	47.4
219.1	5.0	26.2	33.6	1928	7.57	176	229	3856	352	0.688	38.1
219.1	6.0	31.3	40.2	2282	7.54	208	273	4564	417	0.688	31.9
219.1	8.0	41.4	53.1	2960	7.47	270	357	5919	540	0.688	24.2
219.1	10.0	51.2	65.7	3598	7.40	328	438	7197	657	0.688	19.5
244.5	4.0	23.6	30.2	2186	8.50	179	231	4371	358	0.768	42.4
244.5	5.0	29.3	37.6	2699	8.47	221	287	5397	441	0.768	34.1
244.5	6.0	35.1	45.0	3199	8.43	262	341	6397	523	0.768	28.5
244.5	8.0	46.4	59.4	4160	8.37	340	448	8321	681	0.768	21.6
244.5	10.0	57.5	73.7	5073	8.30	415	550	10146	830	0.768	17.4
273.0	5.0	32.8	42.1	3781	9.48	277	359	7562	554	0.858	30.5
273.0	6.0	39.3	50.3	4487	9.44	329	428	8974	657	0.858	25.5
273.0	8.0	51.9	66.6	5852	9.37	429	562	11703	857	0.858	19.2
273.0	10.0	64.4	82.6	7154	9.31	524	692	14308	1048	0.858	15.5
273.0	12.0	76.7	98.4	8396	9.24	615	818	16792	1230	0.858	13.0
323.9	5.0	39.1	50.1	6369	11.28	393	509	12739	787	1.018	25.6
323.9	6.0	46.7	59.9	7572	11.24	468	606	15145	935	1.018	21.4
323.9	8.0	61.9	79.4	9910	11.17	612	799	19820	1224	1.018	16.1
323.9	10.0	76.9	98.6	12158	11.10	751	986	24317	1501	1.018	13.0
323.9	12.0	91.7	117.6	14320	11.04	884	1168	28639	1768	1.018	10.9
355.6	5.0	43.0	55.1	8464	12.40	476	615	16927	952	1.117	23.3
355.6	6.0	51.4	65.9	10071	12.36	566	733	20141	1133	1.117	19.5
355.6	8.0	68.1	87.4	13201	12.29	742	967	26403	1485	1.117	14.7
355.6	10.0	84.7	108.6	16223	12.22	912	1195	32447	1825	1.117	11.8
355.6	12.0	101.0	129.5	19139	12.16	1076	1417	38279	2153	1.117	9.9
355.6	14.0	117.2	150.2	21952	12.09	1235	1635	43904	2469	1.117	8.5
381.0	5.0	46.1	59.1	10439	13.29	548	707	20879	1096	1.197	21.7
381.0	6.0	55.1	70.7	12428	13.26	652	844	24857	1305	1.197	18.1
381.0	8.0	73.1	93.7	16311	13.19	856	1113	32622	1712	1.197	13.7
381.0	10.0	90.9	116.6	20068	13.12	1053	1377	40135	2107	1.197	11.0
381.0	12.0	108.5	139.1	23702	13.05	1244	1635	47403	2488	1.197	9.2
381.0	14.0	125.9	161.4	27216	12.98	1429	1887	54431	2857	1.197	7.9
381.0	16.0	143.1	183.5	30612	12.92	1607	2133	61224	3214	1.197	7.0
406.4	5.0	49.2	63.1	12701	14.19	625	806	25402	1250	1.277	20.3
406.4	6.0	58.9	75.5	15128	14.16	745	962	30257	1489	1.277	17.0
406.4	8.0	78.1	100.1	19874	14.09	978	1270	39748	1956	1.277	12.8
406.4	10.0	97.1	124.5	24476	14.02	1205	1572	48952	2409	1.277	10.3
406.4	12.0	116.0	148.7	28937	13.95	1424	1867	57874	2848	1.277	8.6
406.4	14.0	134.6	172.6	33260	13.88	1637	2157	66521	3274	1.277	7.4
406.4	16.0	153.1	196.2	37449	13.81	1843	2440	74898	3686	1.277	6.5