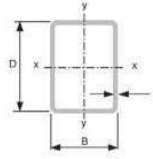


Hot Finished Hollow Sections

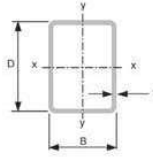
Dimensions — Rectangular



Section size D x B	Thickness t	Unit weight M	Section area A	Moment of inertia		Radius of gyration r		Elastic modulus Z		Plastic modulus S		Torsional Constants J C		Superficial area per m	Approx. length per tonne
				x-x	y-y	x-x	y-y	x-x	y-y	x-x	y-y	x-x	y-y		
mm	mm	kg/m	cm ²	cm ⁴	cm ⁴	cm	cm	cm ³	cm ³	cm ³	cm ³	cm ⁴	cm ³	m ²	m
50 x 25	2.5 *	2.72	3.47	10.5	3.44	1.75	1.00	4.25	2.75	5.41	3.25	8.41	4.62	0.145	368
	3.0 *	3.22	4.10	12.2	3.89	1.73	0.98	4.88	3.11	6.30	3.77	9.64	5.21	0.144	311
	3.2 *	3.41	4.34	12.8	4.05	1.72	0.97	5.11	3.24	6.64	3.96	10.1	5.42	0.143	294
50 x 30	2.5 *	2.92	3.72	12.0	5.30	1.80	1.19	4.81	3.53	6.01	4.16	11.7	5.74	0.155	343
	3.0 *	3.45	4.40	13.9	6.04	1.78	1.17	5.54	4.03	7.01	4.83	13.5	6.52	0.154	290
	3.2	3.66	4.66	14.5	6.31	1.77	1.16	5.82	4.21	7.39	5.08	14.2	6.81	0.153	274
	4.0 *	4.46	5.68	17.0	7.25	1.73	1.13	6.80	4.83	8.81	6.01	16.6	7.79	0.151	224
	5.0 *	5.40	6.88	19.5	8.13	1.68	1.09	7.79	5.42	10.4	6.98	19.0	8.71	0.149	185
60 x 40	2.5 *	3.71	4.72	23.1	12.2	2.21	1.61	7.71	6.10	9.43	7.09	25.0	9.74	0.195	270
	3.0 *	4.39	5.60	26.9	14.1	2.19	1.59	8.96	7.04	11.1	8.29	29.2	11.2	0.194	228
	3.2	4.66	5.94	28.3	14.8	2.18	1.58	9.44	7.39	11.7	8.75	30.8	11.8	0.193	215
	4.0	5.72	7.28	33.6	17.3	2.15	1.54	11.2	8.67	14.1	10.5	36.6	13.7	0.191	175
	5.0 *	6.97	8.88	39.2	20.0	2.10	1.50	13.1	10.0	16.8	12.4	43.0	15.8	0.189	143
	6.0 *	8.15	10.4	43.9	22.1	2.06	1.46	14.6	11.0	19.2	14.1	48.3	17.3	0.187	129
	6.3 *	8.49	10.8	45.1	22.6	2.04	1.45	15.0	11.3	19.9	14.6	49.7	17.7	0.186	118
80 x 40	3.0 *	5.34	6.80	55.0	18.2	2.85	1.64	13.8	9.10	17.3	10.5	43.7	15.3	0.234	188
	3.2	5.67	7.22	58.1	19.1	2.84	1.63	14.5	9.56	18.3	11.1	46.1	16.1	0.233	177
	4.0	6.97	8.88	69.6	22.6	2.80	1.59	17.4	11.3	22.2	13.4	55.1	18.9	0.231	144
	5.0 *	8.54	10.9	82.4	26.2	2.75	1.55	20.6	13.1	26.7	15.9	65.0	21.9	0.229	117
	6.0	10.0	12.8	93.5	29.1	2.70	1.51	23.4	14.5	30.8	18.2	73.5	24.3	0.227	100
	6.3 *	10.5	13.3	96.5	29.8	2.69	1.50	24.1	14.9	31.9	18.8	75.8	24.9	0.226	95.2
	8.0 *	12.8	16.3	111	33.1	2.61	1.42	27.7	16.6	37.8	21.8	86.3	27.6	0.223	78.1
90 x 50	3.0 *	6.28	8.0	85.4	33.8	3.27	2.05	19.0	13.5	23.4	15.5	76.4	22.4	0.274	160
	3.6	7.46	9.5	99.8	39.1	3.24	2.03	22.2	15.6	27.6	18.1	89.3	25.9	0.272	135
	5.0	10.1	12.9	130	50.0	3.18	1.97	28.9	20.0	36.6	23.9	116	32.9	0.269	99.1
	6.0	11.9	15.2	149	56.4	3.13	1.93	33.1	22.6	42.5	27.5	133	37.0	0.267	84
	6.3 *	12.5	15.9	154	58.1	3.12	1.91	34.2	23.3	44.2	28.5	138	38.2	0.266	80
	8.0 *	15.3	19.5	180	66.3	3.04	1.84	40.0	26.5	53.0	33.7	161	43.4	0.263	65.4
100 x 50	3.0 *	6.75	8.60	111	37.1	3.59	2.08	22.2	14.8	27.6	16.9	88.3	25.0	0.294	149
	3.2	7.18	9.14	117	39.1	3.58	2.07	23.5	15.6	29.2	17.9	93.3	26.4	0.293	140
	4.0	8.86	11.3	142	46.7	3.55	2.03	28.4	18.7	35.7	21.7	113	31.4	0.291	113
	5.0	10.9	13.9	170	55.1	3.50	1.99	34.0	22.0	43.3	26.1	135	37.0	0.289	91.8
	6.0	12.9	16.4	195	62.3	3.45	1.95	39.0	24.9	50.4	30.2	154	41.7	0.287	77.5
	6.3 *	13.4	17.1	202	64.2	3.44	1.94	40.5	25.7	52.5	31.3	160	43.0	0.286	74.7
100 x 60	8.0 *	16.6	21.1	238	73.5	3.36	1.86	47.6	29.4	63.1	37.1	187	49.1	0.283	60.2
	3.0 *	7.22	9.2	125	56.2	3.36	2.47	25.0	18.7	30.5	21.3	121	30.7	0.314	139
	3.6 *	8.59	10.9	147	65.4	3.66	2.45	29.3	21.8	36.0	25.1	142	35.6	0.312	117
	5.0	11.7	14.9	192	84.7	3.60	2.39	38.5	28.2	48.1	33.3	187	45.9	0.309	85.5
	6.0	13.8	17.6	222	96.6	3.55	2.34	44.4	32.2	56.1	38.6	216	52.2	0.307	72.5
	6.3	14.4	18.4	230	99.9	3.54	2.33	46.0	33.3	58.4	40.2	224	53.9	0.306	69.5
120 x 60	8.0 *	17.8	22.7	272	116	3.46	2.26	54.4	38.7	70.5	48.1	266	62.4	0.303	56.2
	3.6	9.72	12.4	230	76.9	4.31	2.49	38.3	25.6	47.6	29.2	183	43.3	0.352	103
	5.0	13.3	16.9	304	99.9	4.24	2.43	50.7	33.3	63.9	38.8	242	56.0	0.349	75.2
	6.0	15.7	20.0	352	114	4.20	2.39	58.7	38.1	74.8	45.1	279	63.9	0.347	63.7
	6.3	16.4	20.9	366	118	4.18	2.38	61.0	39.4	78.0	46.9	290	66.0	0.346	61
	8.0 *	20.4	25.9	437	138	4.10	2.31	72.8	45.9	94.8	56.4	344	76.8	0.343	49

Hot Finished Hollow Sections

Dimensions — Rectangular



Section size D x B	Thickness t	Unit weight M	Section area A	Moment of inertia		Radius of gyration r		Elastic modulus Z		Plastic modulus S		Torsional Constants J C		Superficial area per m	Approx. length per tonne
				x-x	y-y	x-x	y-y	x-x	y-y	x-x	y-y				
mm	mm	kg/m	cm ²	cm ⁴	cm ⁴	cm	cm	cm ³	cm ³	cm ³	cm ³	cm ⁴	cm ³	m ²	m
120 x 80	5.0	14.8	18.9	370	195	4.43	3.21	61.7	48.8	75.4	56.7	401	77.9	0.389	67.6
	6.0	17.6	22.4	430	225	4.38	3.17	71.7	56.3	88.5	66.3	467	89.7	0.387	56.8
	6.3	18.4	23.4	447	234	4.37	3.16	74.6	58.4	92.3	69.1	486	93.0	0.386	54.4
	8.0	22.9	29.1	537	278	4.29	3.09	89.5	69.4	113	83.9	586	110	0.383	43.7
	10.0	27.9	35.5	628	320	4.20	3.00	105	80.0	134	99.4	688	126	0.379	35.9
150 x 100	5.0	18.7	23.9	747	396	5.59	4.07	99.5	79.1	121	90.8	806	127	0.489	53.5
	6.0	22.3	28.4	873	461	5.55	4.03	116	92.1	142	107	945	147	0.487	44.8
	6.3	23.3	29.7	910	479	5.53	4.02	121	95.9	148	111	985	153	0.486	43.0
	8.0	29.1	37.1	1,106	577	5.46	3.94	147	115	183	137	1,202	184	0.483	34.4
	10.0	35.7	45.5	1,312	678	5.37	3.86	175	136	220	164	1,431	215	0.479	28.1
	12.5 *†	43.6	55.5	1,532	781	5.25	3.75	204	156	263	194	1,680	246	0.473	22.9
160 x 80	5.0	18.0	22.9	753	251	5.74	3.31	94.1	62.8	117	71.7	599	106	0.469	55.6
	6.0	21.3	27.2	880	291	5.69	3.27	110	72.8	138	84.1	700	123	0.467	46.9
	6.3	22.3	28.5	917	302	5.68	3.26	115	75.6	144	87.7	729	127	0.466	44.9
	8.0	27.9	35.5	1,113	361	5.60	3.19	139	90.2	177	107	882	151	0.463	35.9
	10.0	34.2	43.5	1,318	419	5.50	3.10	165	105	213	127	1,041	175	0.459	29.3
	12.5 *†	41.6	53.0	1,536	476	5.38	3.00	192	119	254	150	1,206	199	0.453	24.0
200 x 100	5.0	22.7	28.9	1,509	509	7.23	4.20	151	102	186	115	1,202	172	0.589	44.1
	6.0	27.0	34.4	1,774	593	7.18	4.15	177	119	221	135	1,412	200	0.587	37.0
	6.3	28.3	36.0	1,851	618	7.17	4.14	185	124	231	141	1,473	208	0.586	35.4
	8.0	35.4	45.1	2,269	747	7.09	4.07	227	149	286	147	1,802	251	0.583	28.3
	10.0	43.6	55.5	2,718	881	7.00	3.98	272	176	346	209	2,154	296	0.579	23.0
	12.5	53.4	68.0	3,218	1,022	6.88	3.88	322	204	417	249	2,541	342	0.573	18.8
250 x 150	6.0	36.4	46.4	3,997	1,807	9.28	6.24	320	241	387	272	3,873	396	0.787	27.5
	6.3	38.2	48.6	4,178	1,886	9.27	6.23	334	252	405	284	4,049	413	0.786	26.2
	8.0	48.0	61.1	5,167	2,317	9.19	6.16	413	309	505	353	5,014	506	0.783	20.9
	10.0	59.3	75.5	6,259	2,784	9.10	6.07	501	371	618	430	6,082	606	0.779	16.9
	12.5	73.0	93.0	7,518	3,310	8.99	5.97	601	441	751	520	7,317	717	0.773	13.7
	16.0	91.5	117	9,089	3,943	8.83	5.82	727	526	924	635	8,863	851	0.766	11.0
300 x 200	6.0	45.8	58.4	7,532	4,033	11.4	8.31	502	403	599	453	8,091	651	0.987	21.8
	6.3	48.1	61.2	7,880	4,216	11.3	8.30	525	422	627	475	8,468	681	0.986	20.8
	8.0	60.5	77.1	9,798	5,219	11.3	8.23	653	522	785	593	10,549	840	0.983	16.6
	10.0	75.0	95.5	11,940	6,331	11.2	8.14	796	633	964	726	12,890	1,016	0.979	13.4
	12.5	92.6	118	14,460	7,619	11.1	8.04	964	762	1,179	866	15,654	1,217	0.973	10.8
	16.0	117	149	17,700	9,239	10.9	7.89	1,180	924	1,462	1,094	19,227	1,469	0.966	8.55
400 x 200	10.0	90.7	116	24,140	8,138	14.5	8.39	1,207	814	1,492	916	19,236	1,377	1.18	11.1
	12.5	112	143	29,410	9,820	14.3	8.29	1,471	982	1,831	1,120	23,408	1,657	1.17	8.93
	16.0	142	181	36,300	11,950	14.2	8.14	1,815	1,195	2,285	1,388	28,835	2,011	1.17	7.05
450 x 250	10.0	106	136	37,180	14,900	16.6	10.5	1,653	1,192	2,013	1,338	33,247	1,986	1.38	9.44
	12.5	132	168	45,470	18,100	16.5	10.4	2,021	1,448	2,478	1,642	40,668	2,407	1.37	7.58
	16.0	167	213	56,420	22,250	16.3	10.2	2,508	1,780	3,103	2,047	50,478	2,948	1.37	5.99
500 x 300	10.0 *	122	156	54,118	24,564	18.7	12.6	2,165	1,638	2,609	1,834	52,396	2,696	1.58	8.20
	12.5 *	152	193	66,363	29,972	18.5	12.5	2,655	1,998	3,218	2,257	64,313	3,282	1.57	6.58
	16.0 *	192	245	83,673	37,076	18.4	12.3	3,307	2,472	4,042	2,825	80,223	4,046	1.57	5.21