

Hot Finished Rectangular Hollow Sections

BS EN 10210

Designation		Weight	Cross Sectional Area	Second Moment of Area	Second Moment of Area	Radius of Gyration	Radius of Gyration	Elastic Modulus	Elastic Modulus	Plastic Modulus	Plastic Modulus	Torsional inertia constant	Torsional modulus constant	Superficial Area per metre length	Nominal Length per tonne	Ratio for Local Buckling	Ratio for Local Buckling
Size	Thickness																
$B \times H$	T	M	A	I_{yy}	I_{zz}	i_{yy}	i_{zz}	W_{elyy}	W_{elzz}	W_{plyy}	W_{plzz}	L_t	C_t	A_s	L	Flange	Web
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	m	B/T	H/T
200 x 300	4.5	34.519	43.97	5727.93	3080.49	11.41	8.37	381.86	308.05	453.19	343.80	6175.34	500.96	0.99	28.97	40.44	62.67
	5.0	38.254	48.73	6322.27	3396.31	11.39	8.35	421.48	339.63	501.18	380.02	6824.16	551.99	0.99	26.14	36.00	56.00
	6.0	45.666	58.17	7486.26	4012.54	11.34	8.31	499.08	401.25	595.75	451.28	8099.60	651.41	0.98	21.90	29.33	46.00
	6.3	47.874	60.99	7829.08	4193.44	11.33	8.29	521.94	419.34	623.76	472.36	8476.47	680.56	0.98	20.89	28.75	44.62
	8.0	60.251	76.75	9716.68	5184.43	11.25	8.22	647.78	518.44	779.32	589.15	10562.12	839.96	0.98	16.60	22.00	34.50
	9.0	67.424	85.89	10783.84	5740.70	11.21	8.18	718.92	574.07	868.33	655.77	11749.45	929.25	0.98	14.83	19.22	30.33
	10.0	74.518	94.93	11819.43	6277.58	11.16	8.13	787.96	627.76	955.50	720.87	12907.66	1015.31	0.97	13.42	17.00	27.00
	12.0	88.465	112.69	13797.37	7294.43	11.06	8.05	919.82	729.44	1124.38	846.51	15137.15	1178.05	0.97	11.30	14.17	22.50
	12.5	91.903	117.07	14272.69	7537.01	11.04	8.02	951.51	753.70	1165.47	876.98	15676.50	1216.83	0.97	10.88	13.50	21.50
16.0	115.405	147.01	17390.25	9108.84	10.88	7.87	1159.35	910.88	1440.54	1079.87	19251.64	1467.93	0.96	8.67	10.00	16.25	
200 x 400	4.5	41.584	52.97	11434.11	3940.60	14.69	8.62	571.71	394.06	695.55	431.77	9176.30	672.94	1.19	24.05	40.44	84.89
	5.0	46.104	58.73	12635.66	4347.14	14.67	8.60	631.78	434.71	769.83	477.52	10144.00	742.11	1.19	21.69	36.00	76.00
	6.0	55.086	70.17	14998.11	5141.98	14.62	8.56	749.91	514.20	916.62	567.68	12048.54	877.22	1.18	18.15	29.33	62.67
	6.3	57.765	73.59	15696.33	5375.73	14.60	8.55	784.82	537.57	960.19	594.39	12611.90	916.92	1.18	17.31	28.75	60.49
	8.0	72.811	92.75	19562.02	6659.84	14.52	8.47	978.10	665.98	1203.08	742.75	15734.90	1134.86	1.18	13.73	22.00	47.00
	9.0	81.554	103.89	21764.38	7383.56	14.47	8.43	1088.22	738.36	1342.78	827.67	17517.10	1257.57	1.18	12.26	19.22	41.44
	10.0	90.218	114.93	23914.29	8084.25	14.43	8.39	1195.71	808.43	1480.14	910.87	19258.89	1376.31	1.17	11.08	17.00	37.00
	12.0	107.305	136.69	28058.57	9417.95	14.33	8.30	1402.93	941.80	1747.86	1072.11	22621.99	1602.22	1.17	9.32	14.17	30.83
	12.5	111.528	142.07	29062.56	9737.53	14.30	8.28	1453.13	973.75	1813.34	1111.35	23437.79	1656.34	1.17	8.97	13.50	29.50
16.0	140.525	179.01	35737.62	11824.15	14.13	8.13	1786.88	1182.42	2255.60	1374.27	28871.29	2009.86	1.16	7.12	10.00	22.50	
250 x 350	6.0	55.086	70.17	12616.32	7538.26	13.41	10.36	720.93	603.06	851.88	677.42	14528.89	967.01	1.18	18.15	37.67	54.33
	6.3	57.765	73.59	13202.92	7885.11	13.39	10.35	754.45	630.81	892.37	709.46	15214.51	1011.18	1.18	17.31	36.68	52.56
	8.0	72.811	92.75	16449.35	9798.26	13.32	10.28	939.96	783.86	1118.00	887.83	19026.91	1254.38	1.18	13.73	28.25	40.75
	10.0	90.218	114.93	20101.90	11936.88	13.23	10.19	1148.68	954.95	1375.32	1090.68	23354.44	1525.38	1.17	11.08	22.00	32.00
	12.0	107.305	136.69	23577.38	13957.08	13.13	10.10	1347.28	1116.57	1623.92	1286.05	27512.62	1780.64	1.17	9.32	18.33	26.67
	12.5	111.528	142.07	24418.99	14443.97	13.11	10.08	1395.37	1155.52	1684.72	1333.72	28525.82	1842.06	1.17	8.97	17.50	25.50
16.0	140.525	179.01	30010.76	17654.02	12.95	9.93	1714.90	1412.32	2095.27	1654.60	35325.18	2246.24	1.16	7.12	13.13	19.38	
300 x 400	6.3	67.656	86.19	20579.24	13264.27	15.45	12.41	1028.96	884.28	1208.22	993.82	24739.51	1404.81	1.38	14.78	44.62	60.49
	8.0	85.371	108.75	25709.43	16539.51	15.38	12.33	1285.47	1102.63	1516.68	1246.52	31014.00	1748.80	1.38	11.71	34.50	47.00
	9.0	95.684	121.89	28645.24	18407.56	15.33	12.29	1432.26	1227.17	1694.68	1392.13	34625.93	1944.52	1.38	10.45	30.33	41.44
	10.0	105.918	134.93	31520.95	20232.76	15.28	12.25	1576.05	1348.85	1870.14	1535.50	38179.57	2135.45	1.37	9.44	27.00	37.00
	12.0	126.145	160.69	37094.09	23756.41	15.19	12.16	1854.70	1583.76	2213.46	1815.58	45112.66	2503.20	1.37	7.93	22.50	30.83
	12.5	131.153	167.07	38450.58	24611.23	15.17	12.14	1922.53	1640.75	2297.71	1884.22	46809.76	2592.25	1.37	7.62	21.50	29.50
	16.0	165.645	211.01	47540.93	30308.87	15.01	11.98	2377.05	2020.59	2870.00	2349.34	58286.43	3184.42	1.36	6.04	16.25	22.50