

Cold Formed Rectangular Hollow Section

ASTM A - 500

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	M	A	I _x	I _y	i _x	i _y	Z _x	Z _y	S _x	S _y	J	C	As	L	Flange	Web
B × H	T	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
mm	mm																
200 × 300	4.5	34.280	43.67	5661.87	3051.65	11.39	8.36	377.46	305.17	448.70	340.84	6185.06	500.88	0.98	29.17	39.44	61.67
	5.0	37.960	48.36	6241.05	3360.92	11.36	8.34	416.07	336.09	495.65	376.37	6835.78	551.89	0.98	26.34	35.00	55.00
	6.0	45.242	57.63	7370.23	3962.19	11.31	8.29	491.35	396.22	587.83	446.07	8115.23	651.24	0.98	22.10	28.33	45.00
	6.3	47.407	60.39	7701.46	4138.12	11.29	8.28	513.43	413.81	615.04	466.62	8493.34	680.36	0.98	21.09	27.75	43.62
	8.0	59.497	75.79	9513.66	5097.04	11.20	8.20	634.24	509.70	765.35	579.99	10586.01	839.54	0.97	16.81	21.00	33.50
	9.0	66.470	84.67	10528.93	5631.42	11.15	8.16	701.93	563.14	850.72	644.25	11777.22	928.63	0.97	15.04	18.22	29.33
	10.0	73.339	93.42	11507.24	6144.30	11.10	8.11	767.15	614.43	933.86	706.73	12938.91	1024.48	0.97	13.64	16.00	26.00
	12.0	86.769	110.53	13354.97	7107.11	10.99	8.02	890.33	710.71	1093.47	826.41	15173.45	1176.60	0.96	11.52	13.67	22.00
	12.5	90.062	114.73	13794.58	7334.98	10.97	8.00	919.64	733.50	1131.99	855.24	15713.54	1213.19	0.96	11.10	13.00	21.00
16.0	112.389	143.17	16628.72	8791.69	10.78	7.84	1108.58	879.17	1386.49	1045.05	19285.47	1464.41	0.95	8.90	9.50	15.75	
200 × 400	4.5	41.345	52.67	11315.63	3911.76	14.66	8.62	565.78	391.18	689.55	428.81	9188.59	672.87	1.18	24.19	39.44	83.89
	5.0	45.810	58.36	12489.82	4311.75	14.63	8.60	624.49	431.18	762.43	473.87	10158.74	742.01	1.18	21.83	35.00	75.00
	6.0	54.662	69.63	14789.35	5091.63	14.57	8.55	739.47	509.16	905.99	562.47	12068.52	877.05	1.18	18.29	28.33	61.67
	6.3	57.298	72.99	15466.59	5320.41	14.56	8.54	773.33	532.04	948.49	588.65	12633.53	916.73	1.18	17.45	27.75	59.49
	8.0	72.057	91.79	19195.28	6572.45	14.46	8.46	959.76	657.25	1184.31	733.59	15766.03	1134.45	1.17	13.88	21.00	46.00
	9.0	80.600	102.67	21303.00	7274.28	14.40	8.42	1065.15	727.43	1319.09	816.15	17553.73	1256.98	1.17	12.41	18.22	40.44
	10.0	89.039	113.42	23348.08	7950.97	14.35	8.37	1167.40	795.10	1450.98	896.73	19300.70	1375.49	1.17	11.23	16.00	36.00
	12.0	105.609	134.53	27252.93	9230.63	14.23	8.28	1362.65	923.06	1706.13	1052.01	22672.41	1600.78	1.16	9.47	13.67	30.33
	12.5	109.687	139.73	28191.01	9535.50	14.20	8.26	1409.55	953.55	1768.13	1089.61	23489.86	1654.71	1.16	9.12	13.00	29.00
16.0	137.509	175.17	34339.42	11507.00	14.00	8.11	1716.97	1150.70	2182.32	1339.45	28926.44	2006.37	1.15	7.27	9.50	22.00	
250 × 350	6.0	54.662	69.63	12457.31	7458.44	13.38	10.35	711.85	596.68	842.61	670.85	14553.72	966.84	1.18	18.29	36.67	53.33
	6.3	57.298	72.99	13027.96	7797.37	13.36	10.34	744.45	623.79	882.15	702.23	15241.44	1010.98	1.18	17.45	35.68	51.56
	8.0	72.057	91.79	16170.48	9659.06	13.27	10.26	924.03	772.73	1101.63	876.27	19066.32	1253.96	1.17	13.88	27.25	39.75
	10.0	89.039	113.42	19672.08	11723.53	13.17	10.17	1124.12	937.88	1349.92	1072.79	23408.63	1524.56	1.17	11.23	21.00	31.00
	12.0	105.609	134.53	22966.89	13655.73	13.07	10.08	1312.39	1092.46	1587.60	1260.54	27580.05	1779.21	1.16	9.47	17.83	26.17
	12.5	109.687	139.73	23758.83	14118.57	13.04	10.05	1357.65	1129.49	1645.37	1306.12	28596.12	1840.44	1.16	9.12	17.00	25.00
16.0	137.509	175.17	28954.92	17138.71	12.86	9.89	1654.57	1371.10	2031.60	1610.17	35407.57	2242.77	1.15	7.27	12.63	18.88	
300 × 400	6.3	67.189	85.59	20349.49	13136.65	15.42	12.39	1017.47	875.78	1196.52	985.10	24778.66	1404.61	1.38	14.88	43.62	59.49
	8.0	84.617	107.79	25342.70	16336.49	15.33	12.31	1267.13	1089.10	1497.91	1232.55	31072.40	1748.39	1.37	11.82	33.50	46.00
	9.0	94.730	120.67	28183.86	18152.65	15.28	12.26	1409.19	1210.18	1670.99	1374.52	34696.32	1943.94	1.37	10.56	29.33	40.44
	10.0	104.739	133.42	30954.74	19920.57	15.23	12.22	1547.74	1328.04	1840.98	1513.86	38262.14	2134.64	1.37	9.55	26.00	36.00
	12.0	124.449	158.53	36288.45	23314.01	15.13	12.13	1814.42	1554.27	2171.73	1784.67	45219.08	2501.78	1.36	8.04	22.00	30.33
	12.5	129.312	164.73	37579.03	24133.12	15.10	12.10	1878.95	1608.87	2252.50	1850.74	46921.85	2590.65	1.36	7.73	21.00	29.00
	16.0	162.629	207.17	46142.73	29547.33	14.92	11.94	2307.14	1969.82	2796.72	2295.29	58431.43	3181.00	1.35	6.15	15.75	22.00