

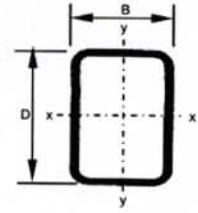
## rectangular hollow sections

Hollow Sections are rigid steel structures which have a high strength to weight ratio. Popular applications include stairway railings and overhead bridge constructions. Hollow Sections are also used extensively in building structures.

Hollow Sections usually come in 2 standard cross section shapes, mainly:

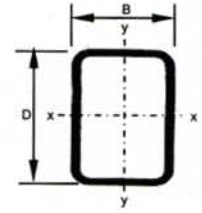
- Square Hollow Sections
- Rectangular Hollow Sections

## RECTANGULAR HOLLOW SECTIONS



(Metric units)									
Section Size	Wall Thickness	Unit Weight	Section Area	Moment of Inertia		Radius of Gyration		Modulus of Section	
D x B	t	M	A	$I_x$	$I_y$	$i_x$	$i_y$	$Z_x$	$Z_y$
mm	mm	kg/m	cm <sup>2</sup>	cm <sup>4</sup>	cm <sup>4</sup>	cm	cm	cm <sup>3</sup>	cm <sup>3</sup>
25 x 12	1.2	0.67	0.85	0.62	0.21	0.87	0.50	0.51	0.33
	1.6	0.86	1.08	0.75	0.25	0.85	0.46	0.61	0.39
38 x 19	1.0	0.78	1.10	2.10	0.78	1.37	0.81	1.37	0.80
	1.2	1.02	1.30	2.41	0.81	1.36	0.79	1.27	0.85
	1.6	1.34	1.70	3.09	1.02	1.35	0.77	1.62	1.07
	1.0	1.15	1.46	4.99	1.69	1.85	1.08	1.96	1.33
50 x 25	1.2	1.36	1.86	5.99	2.04	1.84	1.07	2.36	1.59
	1.6	1.79	2.48	7.78	2.58	1.83	1.05	3.06	2.05
	2.3	2.48	3.19	9.86	3.23	1.76	1.01	3.94	2.59
	3.0	3.13	4.04	11.86	3.87	1.73	0.99	4.67	3.06
75 x 38	1.6	2.70	3.30	24.97	8.69	2.72	1.60	6.55	4.57
	2.3	3.85	4.85	34.60	12.00	2.67	1.57	9.23	6.30
	3.0	4.92	6.35	45.20	15.15	2.66	1.54	11.86	7.95
	1.9	3.60	4.61	36.62	20.22	2.84	2.09	9.61	7.96
75 x 50	2.3	4.24	5.40	41.86	22.36	2.78	2.03	11.16	8.94
	3.0	5.42	6.90	52.06	27.67	2.74	2.00	13.88	11.06
	4.5	7.78	9.91	70.20	36.87	2.66	1.92	18.72	14.74
	6.0	10.56	13.47	91.98	47.86	2.62	1.88	24.09	18.85
100 x 50	1.9	4.36	5.48	73.67	25.47	3.65	2.15	14.50	10.02
	2.3	5.14	6.55	84.80	29.00	3.60	2.10	17.00	11.60
	3.0	6.60	8.40	106.33	35.95	3.55	2.06	21.26	14.38
	3.2	7.01	8.93	112.00	38.00	3.55	2.06	22.50	15.20
	4.5	9.55	12.16	146.18	48.51	3.46	1.99	29.23	19.40
	6.0	12.27	15.63	177.71	57.80	3.37	1.92	35.54	23.12
100 x 75	2.3	6.04	7.70	112.22	72.25	3.81	3.06	22.44	19.26
	3.0	7.77	9.90	141.61	90.94	3.78	3.02	28.32	24.25
	4.5	11.31	14.41	197.48	126.12	3.70	2.95	39.49	33.63
	6.0	14.72	18.63	243.98	154.91	3.61	2.88	48.79	41.31
125 x 50	2.3	6.04	7.70	148.17	35.44	4.38	2.14	23.70	14.17
	3.0	7.77	9.90	186.87	44.24	4.34	2.11	29.90	17.69
	4.5	11.31	14.41	260.18	60.16	4.24	2.04	41.62	24.06
	6.0	14.62	18.63	320.77	72.32	4.14	1.97	51.32	28.92
125 x 75	2.3	6.95	8.85	192.00	87.50	4.65	3.14	30.60	23.30
	3.0	8.95	11.40	242.69	110.38	4.61	3.11	38.83	29.43
	3.2	9.52	12.13	257	117	4.60	3.10	41.10	31.10
	4.5	13.08	16.66	341.86	154.08	4.52	3.04	54.69	41.08
	6.0	16.98	21.63	426.98	190.62	4.44	2.96	68.31	50.83

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mm	mm	kg/m	cm <sup>2</sup>	cm <sup>4</sup>	cm <sup>4</sup>	cm	cm	cm <sup>3</sup>	cm <sup>3</sup>
150 x 75	3.0	10.13	12.90	379.41	129.85	5.42	3.17	50.58	34.62
	3.2	10.80	13.73	402	137	5.41	3.16	53.60	36.60
	4.5	14.85	18.91	538.22	182.03	5.33	3.10	71.77	48.54
	6.0	19.33	24.63	677.58	226.32	5.24	3.03	90.34	60.35
	9.0	27.60	35.17	905	297	5.07	2.91	121.00	79.20
150 x 100	3.0	11.31	14.40	460.45	247.47	5.65	4.14	61.39	49.49
	3.2	12.00	15.33	488	262	5.64	4.14	65.10	52.50
	4.5	16.60	21.17	658	352	5.58	4.08	87.70	70.40
	6.0	21.70	27.63	835	444	5.50	4.01	111.08	88.80
	9.0	31.10	39.67	1,430	595	5.33	3.87	151	119
200 x 100	4.5	20.10	25.67	1,330	455	7.20	4.21	133	90.90
	6.0	26.40	33.63	1,700	577	7.12	4.14	170	115
	9.0	38.20	48.67	2,350	782	6.94	4.01	235	156
	12.0	49.10	62.53	2,860	939	6.76	3.87	286	188
200 x 150	6.0	31.10	39.63	2,270	1,460	7.56	6.06	227	194
	9.0	45.30	57.67	3,170	2,020	7.41	5.93	317	270
	12.0	58.50	74.53	3,920	2,500	7.25	5.79	392	330
250 x 150	6.0	35.80	45.63	3,890	1,770	9.23	6.23	311	236
	9.0	52.30	66.67	5,480	2,470	9.06	6.09	438	330
	12.0	67.90	86.53	6,850	3,070	8.90	5.95	548	409
300 x 200	6.0	45.20	57.63	7,370	3,960	11.30	8.29	491	396
	9.0	66.50	84.67	10,500	5,630	11.20	8.16	702	563
	12.0	86.80	110.50	13,400	7,110	11.00	8.02	890	711
400 x 200	6.0	54.70	69.63	14,800	5,090	14.60	8.55	739	509
	9.0	80.60	102.70	21,300	7,270	14.40	8.42	1,070	727
	12.0	106.00	134.50	27,300	9,230	14.20	8.28	1,360	923

Spec: ASTM A500 GR A, ASTM A500 GR B.....