

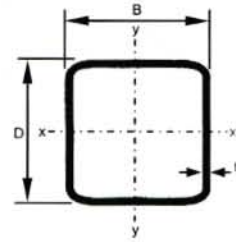
## square hollow sections

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:

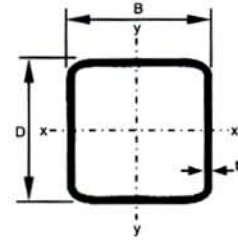
- Square Hollow Sections
- Rectangular Hollow Sections

## SQUARE 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>
13 x 13	1.2	0.40	0.51	0.10	0.10	0.45	0.45	0.16	0.16
	1.6	0.50	0.64	0.12	0.12	0.43	0.43	0.19	0.19
16 x 16	1.2	0.52	0.67	0.23	0.23	0.59	0.59	0.29	0.29
	1.6	0.67	0.85	0.27	0.27	0.57	0.57	0.34	0.34
19 x 19	1.2	0.64	0.81	0.41	0.41	0.71	0.71	0.44	0.44
	1.6	0.82	1.04	0.50	0.50	0.69	0.69	0.53	0.53
25 x 25	1.2	0.86	1.10	1.02	1.02	0.96	0.96	0.81	0.81
	1.6	1.12	1.43	1.26	1.26	0.94	0.94	1.01	1.01
	2.3	1.53	1.95	1.59	1.59	0.90	0.90	1.27	1.27
	3.0	1.93	2.48	1.96	1.96	0.89	0.89	1.54	1.54
32 x 32	1.2	1.12	1.42	2.16	2.16	1.24	1.24	1.38	1.38
	1.6	1.46	1.87	2.75	2.75	1.22	1.22	1.74	1.74
	2.3	2.02	2.68	3.93	3.93	1.21	1.21	2.46	2.46
	3.0	2.53	3.26	4.29	4.29	1.15	1.15	2.70	2.70
38 x 38	1.2	1.35	1.72	3.85	3.85	1.49	1.49	2.02	2.02
	1.6	1.77	2.26	4.91	4.91	1.47	1.47	2.58	2.58
	2.3	2.47	3.14	6.51	6.51	1.43	1.43	3.42	3.42
	3.0	3.13	4.04	7.99	7.99	1.41	1.41	4.26	4.26
50 x 50	1.6	2.38	3.03	11.70	11.70	1.96	1.96	4.68	4.68
	2.3	3.34	4.25	15.90	15.90	1.93	1.93	6.34	6.34
	3.0	4.24	5.40	19.39	19.39	1.89	1.89	7.75	7.75
	3.2	4.50	5.73	20.40	20.40	1.89	1.89	8.16	8.16
	4.5	6.01	7.66	25.22	25.22	1.81	1.81	10.09	10.09
65 x 65	6.0	7.56	9.63	28.76	28.76	1.72	1.72	11.50	11.50
	2.3	4.31	5.51	33.88	33.88	2.46	2.46	10.75	10.75
	3.0	5.52	7.16	42.46	42.46	2.44	2.44	13.44	13.44
	4.5	8.04	10.24	57.44	57.44	2.37	2.37	18.19	18.19
75 x 75	6.0	10.57	13.48	70.34	70.34	2.28	2.28	22.12	22.12
	2.3	5.14	6.55	57.10	57.10	2.95	2.95	15.20	15.20
	3.0	6.60	8.40	71.50	71.50	2.91	2.91	19.06	19.06
	3.2	7.01	8.92	75.50	75.50	2.91	2.91	20.10	20.10
	4.5	9.55	12.16	98.16	98.16	2.84	2.84	26.17	26.17
	6.0	12.27	15.63	119.20	119.20	2.76	2.76	31.78	31.78

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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>
<b>100 x 100</b>	2.3	6.95	8.85	140.00	140.00	3.97	3.97	27.90	27.90
	3.0	8.95	11.40	176.90	176.90	3.93	3.93	35.38	35.38
	3.2	9.52	12.13	187.00	187.00	3.93	3.93	37.50	37.50
	4.5	13.10	16.67	249.00	249.00	3.87	3.87	49.90	49.90
	6.0	17.00	21.63	311.00	311.00	3.79	3.79	62.30	62.30
	9.0	24.10	30.67	408.00	408.00	3.65	3.65	81.60	81.60
<b>125 x 125</b>	2.3	8.75	11.15	278.02	278.02	4.99	4.99	44.48	44.48
	3.0	11.31	14.40	354.32	354.32	4.95	4.95	56.69	56.69
	3.2	12.00	15.33	376	376	4.95	4.95	60.10	60.10
	4.5	16.61	21.17	506	506	4.89	4.89	80.90	80.90
	6.0	21.70	27.63	641	641	4.82	4.82	103	103
	9.0	31.10	39.67	865	865	4.67	4.67	108	108
<b>150 x 150</b>	4.5	20.10	25.67	896	896	5.91	5.91	120	120
	6.0	26.40	33.63	1,150	1,150	5.84	5.84	153	153
	9.0	38.20	48.67	1,580	1,580	5.69	5.69	210	210
<b>175 x 175</b>	6.0	31.10	39.63	1,860	1,860	6.86	6.86	213	213
	9.0	45.30	57.67	2,600	2,600	6.71	6.71	297	297
<b>200 x 200</b>	6.0	35.80	45.63	2,830	2,830	7.88	7.88	283	283
	8.0	46.90	59.79	3,620	3,620	7.78	7.78	362	362
	9.0	52.30	66.67	3,990	3,990	7.73	7.73	399	399
	12.0	67.90	86.53	4,980	4,980	7.59	7.59	498	498
<b>250 x 250</b>	6.0	45.20	57.63	5,670	5,670	9.92	9.92	454	454
	9.0	66.50	84.67	8,090	8,090	9.78	9.78	647	647
	12.0	86.80	110.50	10,300	10,300	9.63	9.63	820	820
<b>300 x 300</b>	6.0	54.70	69.63	9,960	9,960	12.00	12.00	664	664
	9.0	80.60	102.70	14,300	14,300	11.80	11.80	956	956
	12.0	106.00	134.50	18,300	18,300	11.70	11.70	1,220	1,220
	16.0	138.00	175.20	23,100	23,100	11.50	11.50	1,540	1,540
<b>350 x 350</b>	9.0	94.70	120.70	23,200	23,200	13.90	13.90	1,320	1,320
	12.0	124.00	158.50	29,800	29,800	13.70	13.70	1,700	1,700
	16.0	163.00	207.20	37,900	37,900	13.50	13.50	2,160	2,160
<b>400 x 400</b>	9.0	109.00	138.70	35,100	35,100	15.90	15.90	1,750	1,750
	12.0	143.00	182.50	45,300	45,300	15.80	15.80	2,270	2,270
	16.0	188.00	239.20	57,900	57,900	15.60	15.60	2,900	2,900

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