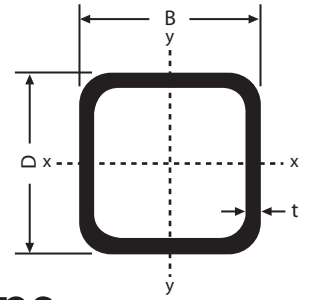


# Hollow Sections

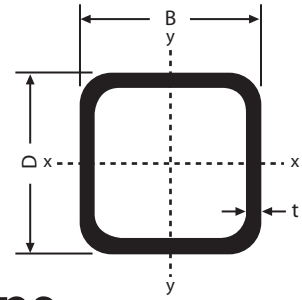




# Cold Formed Square Hollow Sections

(Metric units)

Section Size	Wall Thickness	Unit Weight	Section Area	Moment of Inertia		Radius of Gyration		Moment of Inertia	
				$I_x$	$I_y$	$i_x$	$i_y$	$Z_x$	$Z_y$
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
	6.0	7.56	9.63	28.76	28.76	1.72	1.72	11.50	11.50
65 x 65	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
	6.0	10.57	13.48	70.34	70.34	2.28	2.28	22.12	22.12
75 x 75	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

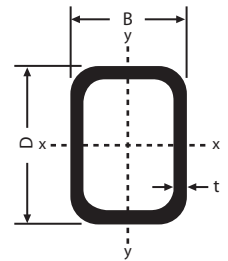


# Cold Formed Square Hollow Sections

(Metric units)

Section Size	Wall Thickness	Unit Weight	Section Area	Moment of Inertia		Radius of Gyration		Moment of Inertia	
				$I_x$	$I_y$	$i_x$	$i_y$	$Z_x$	$Z_y$
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>
100 x 100	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
125 x 125	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
150 x 150	9.0	24.10	30.67	408.00	408.00	3.65	3.65	81.60	81.60
	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
175 x 175	12.0	47.10	60.10	1,780	1,780	5.44	5.44	237	237
	6.0	31.10	39.63	1,860	1,860	6.86	6.86	213	213
200 x 200	9.0	45.30	57.67	2,600	2,600	6.71	6.71	297	297
	6.0	35.80	45.63	2,830	2,830	7.88	7.88	283	283
250 x 250	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
	6.0	45.20	57.63	5,670	5,670	9.92	9.92	454	454
300 x 300	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
	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
350 x 350	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
	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
400 x 400	16.0	163.00	207.20	37,900	37,900	13.50	13.50	2,160	2,160
	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

**Material Spec:** ASTM A500 Gr A  
 ASTM A500 Gr B  
 EN10219 S275JR / JØ / J2H  
 EN10219 S355JR / JØ / J2H

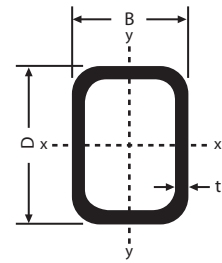


# Cold Formed Rectangular Hollow Sections

(Metric units)

Section Size	Wall Thickness	Unit Weight	Section Area	Moment of Inertia		Radius of Gyration		Modulus of Section	
				$I_x$	$I_y$	$i_x$	$i_y$	$Z_x$	$Z_y$
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	1.20	0.67	0.85	0.62	0.21	0.87	0.50	0.51	0.33
	1.60	0.86	1.08	0.75	0.25	0.85	0.46	0.61	0.39
38 x 19	1.00	0.78	1.10	2.10	0.78	1.37	0.81	1.37	0.80
	1.20	1.02	1.30	2.41	0.81	1.36	0.79	1.27	0.85
	1.60	1.34	1.70	3.09	1.02	1.35	0.77	1.62	1.07
50 x 25	1.00	1.15	1.46	4.99	1.69	1.85	1.08	1.96	1.33
	1.20	1.36	1.86	5.99	2.04	1.84	1.07	2.36	1.59
	1.60	1.79	2.48	7.78	2.58	1.83	1.05	3.06	2.05
	2.30	2.48	3.19	9.86	3.23	1.76	1.01	3.94	2.59
	3.00	3.13	4.04	11.86	3.87	1.73	0.99	4.67	3.06
75 x 38	1.60	2.70	3.30	24.97	8.69	2.72	1.60	6.55	4.57
	2.30	3.85	4.85	34.60	12.00	2.67	1.57	9.23	6.30
	3.00	4.92	6.35	45.20	15.15	2.66	1.54	11.86	7.95
75 x 50	1.90	3.60	4.61	36.62	20.22	2.84	2.09	9.61	7.96
	2.30	4.24	5.40	41.86	22.36	2.78	2.03	11.16	8.94
	3.00	5.42	6.90	52.06	27.67	2.74	2.00	13.88	11.06
	4.50	7.78	9.91	70.20	36.87	2.66	1.92	18.72	14.74
	6.00	10.56	13.47	91.98	47.86	2.62	1.88	24.09	18.85
100 x 50	1.90	4.36	5.48	73.67	25.47	3.65	2.15	14.50	10.02
	2.30	5.14	6.55	84.80	29.00	3.60	2.10	17.00	11.60
	3.00	6.60	8.40	106.33	35.95	3.55	2.06	21.26	14.38
	3.20	7.01	8.93	112.00	38.00	3.55	2.06	22.50	15.20
	4.50	9.55	12.16	146.18	48.51	3.46	1.99	29.23	19.40
	6.00	12.27	15.63	177.71	57.80	3.37	1.92	35.54	23.12
100 x 75	2.30	6.04	7.70	112.22	72.25	3.81	3.06	22.44	19.26
	3.00	7.77	9.90	141.61	90.94	3.78	3.02	28.32	24.25
	4.50	11.31	14.41	197.48	126.12	3.70	2.95	39.49	33.63
	6.00	14.72	18.63	243.98	154.91	3.61	2.88	48.79	41.31
125 x 50	2.30	6.04	7.70	148.17	35.44	4.38	2.14	23.70	14.17
	3.00	7.77	9.90	186.87	44.24	4.34	2.11	29.90	17.69
	4.50	11.31	14.41	260.18	60.16	4.24	2.04	41.62	24.06
	6.00	14.62	18.63	320.77	72.32	4.14	1.97	51.32	28.92
125 x 75	2.30	6.95	8.85	192.00	87.50	4.65	3.14	30.60	23.30
	3.00	8.95	11.40	242.69	110.38	4.61	3.11	38.83	29.43
	3.20	9.52	12.13	257.00	117.00	4.60	3.10	41.10	31.10
	4.50	13.08	16.66	341.86	154.08	4.52	3.04	54.69	41.08
	6.00	16.98	21.63	426.98	190.62	4.44	2.96	68.31	50.83





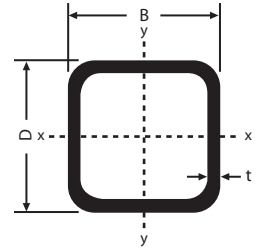
# Cold Formed Rectangular Hollow Sections

(Metric units)

Section Size	Wall Thickness	Unit Weight	Section Area	Moment of Inertia		Radius of Gyration		Modulus of Section	
				$I_x$	$I_y$	$i_x$	$i_y$	$Z_x$	$Z_y$
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>
150 x 75	3.00	10.13	12.90	379.41	129.85	5.42	3.17	50.58	34.62
	3.20	10.80	13.73	402.00	137.00	5.41	3.16	53.60	36.60
	4.50	14.85	18.91	538.22	182.03	5.33	3.10	71.77	48.54
	6.00	19.33	24.63	677.58	226.32	5.24	3.03	90.34	60.35
	9.00	27.60	35.17	905.00	297.00	5.07	2.91	121.00	79.20
150 x 100	3.00	11.31	14.40	460.45	247.47	5.65	4.14	61.39	49.49
	3.20	12.00	15.33	488.00	262.00	5.64	4.14	65.10	52.50
	4.50	16.60	21.17	658.00	352.00	5.58	4.08	87.70	70.40
	6.00	21.70	27.63	835.00	444.00	5.50	4.01	111.08	88.80
	9.00	31.10	39.67	1,430.00	595.00	5.33	3.87	151.00	119.00
200 x 100	4.50	20.10	25.67	1,330.00	455.00	7.20	4.21	133.00	90.90
	6.00	26.40	33.63	1,700.00	577.00	7.12	4.14	170.00	115.00
	9.00	38.20	48.67	2,350.00	782.00	6.94	4.01	235.00	156.00
	12.00	49.10	62.53	2,860.00	939.00	6.76	3.87	286.00	188.00
200 x 150	6.00	31.10	39.63	2,270.00	1,460.00	7.56	6.06	227.00	194.00
	9.00	45.30	57.67	3,170.00	2,020.00	7.41	5.93	317.00	270.00
	12.00	58.50	74.53	3,920.00	2,500.00	7.25	5.79	392.00	330.00
250 x 150	6.00	35.80	45.63	3,890.00	1,770.00	9.23	6.23	311.00	236.00
	9.00	52.30	66.67	5,480.00	2,470.00	9.06	6.09	438.00	330.00
	12.00	67.90	86.53	6,850.00	3,070.00	8.90	5.95	548.00	409.00
300 x 200	6.00	45.20	57.63	7,370.00	3,960.00	11.30	8.29	491.00	396.00
	9.00	66.50	84.67	10,500.00	5,630.00	11.20	8.16	702.00	563.00
	12.00	86.80	110.50	13,400.00	7,110.00	11.00	8.02	890.00	711.00
400 x 200	6.00	54.70	69.63	14,800.00	5,090.00	14.60	8.55	739.00	509.00
	9.00	80.60	102.70	21,300.00	7,270.00	14.40	8.42	1,070.00	727.00
	12.00	106.00	134.50	27,300.00	9,230.00	14.20	8.28	1,360.00	923.00

**Material Spec:** ASTM A500 Gr A  
 ASTM A500 Gr B  
 EN10219 S275JR / JØ / J2H  
 EN10219 S355JR / JØ / J2H

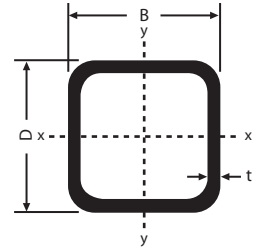
# Hot Finished Square Hollow Sections



(Metric units)

Section Size	Wall Thickness	Unit Weight	Section Area	Second Moment of Area	Radius of Gyration	Elastic Modulus	Plastic Modulus	Torsional Constants		Surface Area Per Metre
								J	C	
D x B	t	M	A	I	r	Z	S	J	C	
mm	mm	kg/m	cm <sup>2</sup>	cm <sup>4</sup>	cm <sup>4</sup>	cm <sup>3</sup>	cm <sup>3</sup>	cm <sup>4</sup>	cm <sup>3</sup>	m <sup>2</sup> /m
20 x 20	2.00	1.12	1.40	0.74	0.73	0.74	0.93	1.22	1.07	0.07
	2.50	1.35	1.68	0.84	0.71	0.84	1.08	1.41	1.20	0.07
25 x 25	2.00	1.41	1.80	1.56	0.93	1.25	1.53	2.52	1.81	0.09
	2.50	1.74	2.18	1.81	0.91	1.44	1.82	2.97	2.08	0.09
	3.00	2.00	2.54	2.00	0.89	1.60	2.06	3.35	2.30	0.09
	3.20	2.15	2.68	2.06	0.88	1.65	2.15	3.48	2.37	0.09
30 x 30	2.50	2.14	2.68	3.33	1.11	2.22	2.74	5.40	3.22	0.11
	3.00	2.47	3.14	3.74	1.09	2.50	3.14	6.16	3.60	0.11
	3.20	2.65	3.32	3.89	1.08	2.59	3.29	6.44	3.74	0.11
35 x 35	4.00	3.76	4.79	7.48	1.25	4.28	5.47	12.50	6.16	0.13
	6.00	5.16	6.57	8.81	1.16	5.03	6.91	15.40	7.19	0.13
40 x 40	2.50	2.92	3.68	8.54	1.52	4.27	5.14	13.60	6.22	0.15
	3.00	3.45	4.34	9.78	1.50	4.89	5.97	15.70	7.10	0.15
	3.20	3.66	4.60	10.20	1.49	5.11	6.28	16.50	7.42	0.15
	4.00	4.46	5.59	11.80	1.45	5.91	7.44	19.50	8.54	0.15
	5.00	5.40	6.73	13.40	1.41	6.68	8.66	22.50	9.60	0.15
45 x 45	4.00	5.01	6.39	17.60	1.66	7.82	9.71	28.70	11.30	0.17
	5.00	6.07	7.73	20.10	1.61	8.95	11.41	33.50	12.90	0.17
50 x 50	2.50	3.71	4.68	17.50	1.93	6.99	8.29	27.50	10.20	0.19
	3.00	4.39	5.54	20.20	1.91	8.08	9.70	32.10	11.80	0.19
	3.20	4.66	5.88	21.20	1.90	8.49	10.20	33.80	12.40	0.19
	4.00	5.72	7.19	25.00	1.86	9.99	12.30	40.40	14.50	0.19
	5.00	6.97	8.73	28.90	1.82	11.60	14.50	47.60	16.70	0.19
	6.00	8.15	10.20	32.00	1.77	12.80	16.50	53.60	18.40	0.19
	6.30	8.49	10.60	32.80	1.76	13.10	17.00	55.20	18.80	0.18
	8.00	10.31	12.70	35.20	1.70	14.10	19.20	60.90	20.10	0.18
10.00	11.70	14.90	37.60	1.59	15.00	21.40	66.70	21.40	0.17	
60 x 60	3.00	5.39	6.74	36.20	2.32	12.10	14.30	56.90	17.70	0.23
	3.20	5.67	7.16	38.20	2.31	12.70	15.20	60.20	18.60	0.23
	4.00	6.97	8.79	45.40	2.27	15.10	18.30	72.50	22.00	0.23
	5.00	8.54	10.70	53.30	2.23	17.80	21.90	86.40	25.70	0.23
	6.00	10.00	12.60	59.90	2.18	20.00	25.10	98.60	28.80	0.23
	6.30	10.50	13.10	61.60	2.17	20.50	26.00	102.00	29.60	0.22
	8.00	12.80	16.00	69.70	2.09	23.20	30.40	118.00	33.40	0.22
	10.00	14.90	18.90	75.50	2.00	25.20	34.40	131.00	36.00	0.21
70 x 70	3.00	6.28	7.94	59.00	2.73	16.90	19.90	92	24.80	0.27
	3.60	7.46	9.42	68.60	2.70	19.60	23.30	108	28.70	0.27
	5.00	10.10	12.70	88.50	2.64	25.30	30.80	142	36.80	0.27
	6.00	11.90	15.00	101.00	2.59	28.70	35.50	163	41.60	0.27
	6.30	12.50	15.60	104.00	2.58	29.70	36.90	169	42.90	0.26
	8.00	15.30	19.20	120.00	2.50	34.20	43.80	200	49.20	0.26

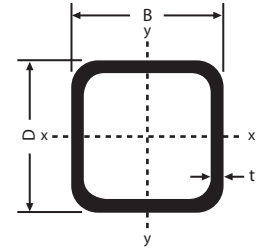
# Hot Finished Square Hollow Sections



(Metric units)

Section Size	Wall Thickness	Unit Weight	Section Area	Second Moment of Area	Radius of Gyration	Elastic Modulus	Plastic Modulus	Torsional Constants		Surface Area Per Metre
								J	C	
D x B	t	M	A	I	r	Z	S	J	C	
mm	mm	kg/m	cm <sup>2</sup>	cm <sup>4</sup>	cm <sup>4</sup>	cm <sup>3</sup>	cm <sup>3</sup>	cm <sup>4</sup>	cm <sup>3</sup>	m <sup>2</sup> /m
75 x 75	3.20	7.25	9.08	77.50	2.92	20.70	24.30	121	30.30	0.29
	4.00	8.93	11.20	93.20	2.89	24.80	29.60	147	36.30	0.29
	5.00	11.00	13.70	111.00	2.84	29.60	35.80	177	43.00	0.29
	6.00	12.90	16.20	126.00	2.80	33.70	41.40	204	48.90	0.29
	6.30	13.50	16.90	131.00	2.78	34.90	43.00	212	50.50	0.28
	8.00	16.60	20.80	152.00	2.71	40.50	51.30	252	58.40	0.28
	10.00	19.60	24.90	170.00	2.61	45.40	59.40	289	65.10	0.27
80 x 80	3.00	7.18	9.14	89.80	3.13	22.50	26.30	140	33.00	0.31
	3.60	8.59	10.90	105.00	3.11	26.20	31.00	164	38.50	0.31
	5.00	11.70	14.70	137.00	3.05	34.20	41.10	217	49.80	0.31
	6.00	13.80	17.40	156.00	3.00	39.10	47.80	252	56.80	0.31
	6.30	14.40	18.10	162.00	2.99	40.50	49.70	262	58.70	0.30
	8.00	17.80	22.40	189.00	2.91	47.30	59.50	312	68.30	0.30
	10.00	21.10	26.90	214.00	2.82	53.50	69.30	360	76.80	0.29
90 x 90	3.60	9.72	12.30	152	3.52	33.80	39.70	237	49.70	0.35
	5.00	13.30	16.70	200	3.45	44.40	53.00	316	64.80	0.35
	6.00	15.70	19.80	230	3.41	51.10	61.80	367	74.30	0.35
	6.30	16.40	20.70	238	3.40	53.00	64.30	382	77.00	0.34
	8.00	20.40	25.60	281	3.32	62.60	77.60	459	90.50	0.34
	10.00	24.30	30.90	322	3.23	71.60	91.30	536	103.00	0.33
100 x 100	4.00	12.00	15.20	232	3.91	46.40	54.40	361	68.20	0.39
	5.00	14.80	18.70	279	3.86	55.90	66.40	439	81.80	0.39
	6.00	17.60	22.20	323	3.82	64.60	77.60	513	94.30	0.39
	6.30	18.40	23.20	336	3.80	67.10	80.90	534	97.80	0.38
	8.00	22.90	28.80	400	3.73	79.90	98.20	646	116.00	0.38
	10.00	27.90	34.90	462	3.64	92.40	116.00	761	133.00	0.37
	12.00	31.90	40.70	512	3.55	102.00	132.00	858	147.00	0.37
120 x 120	5.00	18.00	22.70	498	4.68	83.00	97.60	777	122	0.47
	6.00	21.30	27.00	579	4.63	96.60	115.00	911	141	0.47
	6.30	22.30	28.20	603	4.62	100.00	120.00	950	147	0.46
	8.00	27.90	35.20	726	4.55	121.00	146.00	1,160	176	0.46
	10.00	34.20	42.90	852	4.46	142.00	175.00	1,382	206	0.45
	12.50	41.60	52.10	982	4.34	164.00	207.00	1,623	236	0.45
140 x 140	5.00	21.10	26.70	807	5.50	115.00	135	1,253	170	0.55
	6.00	25.10	31.80	944	5.45	135.00	159	1,475	198	0.55
	8.00	32.90	41.60	1,195	5.36	171.00	204	1,892	249	0.54
	10.00	40.40	50.90	1,416	5.27	202.00	246	2,272	294	0.53
	12.50	49.50	62.10	1,653	5.16	236.00	293	2,696	342	0.53
150 x 150	5.00	22.70	28.70	1,002	5.90	134	156	1,550	197	0.59
	6.00	27.00	34.20	1,174	5.86	156	184	1,828	230	0.59
	6.30	28.30	35.80	1,223	5.85	163	192	1,909	240	0.58
	8.00	35.40	44.80	1,491	5.77	199	237	2,351	291	0.58
	10.00	43.60	54.90	1,773	5.68	236	286	2,832	344	0.57
	12.50	52.40	67.10	2,080	5.57	277	342	3,375	402	0.57
	16.00	66.40	83.00	2,430	5.41	324	411	4,026	467	0.56

# Hot Finished Square Hollow Sections

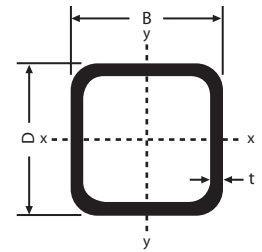


(Metric units)

Section Size	Wall Thickness	Unit Weight	Section Area	Second Moment of Area	Radius of Gyration	Elastic Modulus	Plastic Modulus	Torsional Constants		Surface Area Per Metre
								J	C	
D x B	t	M	A	I	r	Z	S	J	C	
mm	mm	kg/m	cm <sup>2</sup>	cm <sup>4</sup>	cm <sup>4</sup>	cm <sup>3</sup>	cm <sup>3</sup>	cm <sup>4</sup>	cm <sup>3</sup>	m <sup>2</sup> /m
160 x 160	12.50	57.30	72.10	2,576	5.98	322	395	4,158	467	0.61
	16.00	70.20	89.40	3,028	5.82	379	476	4,988	546	0.60
180 x 180	6.00	32.60	41.40	2,077	7.09	231	269	3,215	340	0.71
	6.30	34.20	43.30	2,168	7.07	241	281	3,361	355	0.70
	8.00	43.00	54.40	2,661	7.00	296	349	4,162	434	0.70
	10.00	53.00	66.90	3,193	6.91	355	424	5,048	518	0.69
	12.50	65.20	82.10	3,790	6.80	421	511	6,070	613	0.69
	16.00	81.40	102.00	4,504	6.64	500	621	7,343	724	0.68
200 x 200	5.00	30.50	38.70	2,445	7.95	245	283	3,756	362	0.79
	6.00	36.40	46.20	2,883	7.90	288	335	4,449	426	0.79
	6.30	38.20	48.40	3,011	7.89	301	350	4,653	444	0.78
	8.00	48.00	60.80	3,709	7.81	371	436	5,778	545	0.78
	10.00	59.30	74.90	4,471	7.72	447	531	7,031	655	0.77
	12.50	73.00	92.10	5,336	7.61	534	643	8,491	778	0.77
	16.00	91.50	115.00	6,394	7.46	639	785	10,340	927	0.76
220 x 220	5.00	33.50	42.70	3,281	8.76	298	344	5,028	442	0.87
	6.00	40.00	51.00	3,875	8.72	352	408	5,963	521	0.87
	8.00	52.70	67.20	5,002	8.63	455	532	7,765	669	0.86
	10.00	65.10	82.90	6,050	8.54	550	650	9,473	807	0.85
	12.00	77.20	98.30	7,023	8.45	638	762	11,090	933	0.85
	14.00	88.90	113.00	7,922	8.36	720	868	12,620	1,049	0.84
250 x 250	6.00	45.80	58.20	5,752	9.94	460	531	8,825	681	0.99
	6.30	48.10	61.00	6,014	9.93	481	556	9,238	712	0.98
	8.00	60.50	76.80	7,455	9.86	596	694	11,530	880	0.98
	10.00	75.00	94.90	9,055	9.77	724	851	14,110	1,065	0.97
	12.50	92.60	117.00	10,920	9.66	873	1,037	17,160	1,279	0.97
	16.00	117.00	147.00	13,270	9.50	1,061	1,280	21,140	1,546	0.96
260 x 260	6.00	47.60	60.60	6,491	10.40	499	576	9,951	740	1.02
	6.30	49.90	63.50	6,788	10.30	522	603	10,420	773	1.02
	8.00	62.80	80.00	8,423	10.30	648	753	13,010	956	1.02
	10.00	77.70	98.90	10,240	10.20	788	924	15,930	1,159	1.01
	12.00	92.20	117.00	11,950	10.10	920	1,087	18,730	1,348	1.01
	12.50	95.80	122.00	12,370	10.10	951	1,127	19,410	1,394	1.01
	14.00	106.00	136.00	13,560	10.00	1,043	1,244	21,400	1,525	1.00
	14.20	108.00	137.00	13,710	9.99	1,055	1,259	21,660	1,542	1.00
	16.00	120.00	153.00	15,060	9.91	1,159	1,394	23,940	1,689	1.00
	300 x 300	6.00	55.10	70.00	10,080	12.00	672	772	15,407	997
6.30		57.95	73.60	10,550	12.00	703	809	16,140	1,043	1.18
8.00		73.10	92.80	13,130	11.90	875	1,013	20,190	1,294	1.18
9.00		81.93	104.00	14,600	11.90	973	1,130	22,520	1,437	1.18
10.00		90.70	115.00	16,030	11.80	1,068	1,246	24,810	1,575	1.17
12.00		107.97	137.00	18,780	11.70	1,252	1,470	29,250	1,840	1.17
12.50		112.00	142.00	19,440	11.70	1,296	1,525	30,330	1,904	1.17
16.00		142.00	179.00	23,850	11.50	1,590	1,895	37,620	2,325	1.16



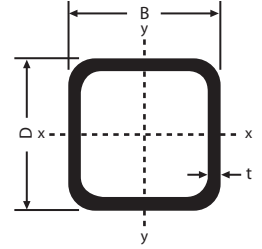
# Hot Finished Square Hollow Sections



(Metric units)

Section Size	Wall Thickness	Unit Weight	Section Area	Second Moment of Area	Radius of Gyration	Elastic Modulus	Plastic Modulus	Torsional Constants		Surface Area Per Metre
								J	C	
D x B	t	M	A	I	r	Z	S	J	C	
mm	mm	kg/m	cm <sup>2</sup>	cm <sup>4</sup>	cm <sup>4</sup>	cm <sup>3</sup>	cm <sup>3</sup>	cm <sup>4</sup>	cm <sup>3</sup>	m <sup>2</sup> /m
350 x 350	6.00	64.50	82.20	16,170	14.00	924	1,058	24,650	1,373	1.38
	8.00	85.70	109.00	21,130	13.90	1,207	1,392	32,380	1,789	1.38
	10.00	106.00	135.00	25,880	13.90	1,479	1,715	39,890	2,185	1.37
	12.00	127.00	161.00	30,440	13.80	1,739	2,030	47,150	2,563	1.37
	12.50	132.00	167.00	31,540	13.70	1,802	2,107	48,930	2,654	1.37
	14.00	146.00	186.00	34,790	13.70	1,988	2,334	54,190	2,922	1.36
	14.20	148.00	189.00	35,210	13.70	2,012	2,364	54,880	2,957	1.36
	16.00	167.00	211.00	38,940	13.60	2,225	2,630	60,990	3,264	1.36
	19.00	190.00	248.00	44,820	13.50	2,561	3,055	70,760	3,744	1.35
	22.00	217.00	283.00	50,270	13.30	2,873	3,460	80,010	4,187	1.34
	25.00	242.00	318.00	55,320	13.20	3,161	3,845	88,750	4,595	1.34
400 x 400	8.00	97.90	125	31,860	16.00	1,593	1,830	48,700	2,363	1.58
	10.00	122.00	155	39,130	15.90	1,956	2,260	60,090	2,895	1.57
	12.00	145.00	185	46,130	15.80	2,306	2,679	71,180	3,405	1.57
	12.50	152.00	192	47,840	15.80	2,392	2,782	73,910	3,530	1.57
	14.00	168.00	214	52,870	15.70	2,643	3,087	81,960	3,894	1.56
	14.20	170.00	217	53,530	15.70	2,676	3,127	83,030	3,942	1.56
	16.00	192.00	243	59,340	15.60	2,967	3,484	92,440	4,362	1.56
	20.00	237.00	300	71,540	15.40	3,577	4,247	112,500	5,237	1.55
	22.00	251.00	327	77,260	15.40	3,863	4,612	122,100	5,646	1.54
	25.00	282.00	368	85,380	15.20	4,269	5,141	135,900	6,223	1.54
450 x 450	12.00	162	209	66,460	17.80	2,954	3,419	102,200	4,368	1.77
	16.00	213	275	85,860	17.70	3,816	4,459	133,200	5,620	1.76
	19.00	250	324	99,540	17.50	4,424	5,208	155,400	6,497	1.75
	22.00	286	371	112,500	17.40	5,000	5,929	176,700	7,324	1.74
	25.00	321	418	124,700	17.30	5,544	6,624	197,200	8,101	1.74
	28.00	355	464	136,300	17.10	6,058	7,292	216,800	8,832	1.73
	32.00	399	524	150,700	17.00	6,696	8,143	241,700	9,735	1.72
500 x 500	12.00	181	233	92,030	19.89	3,681	4,248	141,200	5,451	1.97
	16.00	238	307	119,300	19.71	4,771	5,554	184,400	7,038	1.96
	19.00	280	362	138,600	19.58	5,545	6,498	215,500	8,159	1.95
	22.00	320	415	157,100	19.44	6,283	7,411	245,600	9,222	1.94
	25.00	360	468	174,600	19.31	6,986	8,295	274,600	10,230	1.94
	28.00	399	520	191,300	19.18	7,653	9,149	302,600	11,180	1.93
	32.00	450	588	212,300	19.00	8,491	10,242	338,200	12,370	1.92
	36.00	498	654	231,700	18.82	9,269	11,283	372,000	13,470	1.91
550 x 550	16.00	263	339	160,400	21.75	5,833	6,769	247,300	8,616	2.16
	19.00	309	400	186,800	21.62	6,793	7,930	289,500	10,010	2.15
	22.00	355	459	212,100	21.49	7,714	9,058	330,400	11,340	2.14
	25.00	399	518	236,300	21.35	8,594	10,150	370,100	12,610	2.14
	28.00	443	576	259,500	21.22	9,436	11,220	408,400	13,810	2.13
	32.00	500	652	288,700	21.04	10,500	12,580	457,500	15,330	2.12
	36.00	555	726	316,100	20.86	11,500	13,890	504,400	16,740	2.11
	40.00	608	799	341,800	20.68	12,430	15,140	549,000	18,060	2.10

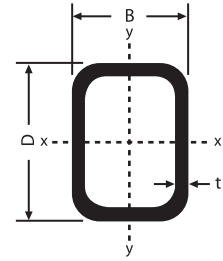
# Hot Finished Square Hollow Sections



(Metric units)

Section Size	Wall Thickness	Unit Weight	Section Area	Second Moment of Area	Radius of Gyration	Elastic Modulus	Plastic Modulus	Torsional Constants		Surface Area Per Metre
								J	C	
D x B	t	M	A	I	r	Z	S	J	C	
mm	mm	kg/m	cm <sup>2</sup>	cm <sup>4</sup>	cm <sup>4</sup>	cm <sup>3</sup>	cm <sup>3</sup>	cm <sup>4</sup>	cm <sup>3</sup>	m <sup>2</sup> /m
600 x 600	25.00	438	568	311,100	23.40	10,370	12,200	485,300	15,230	2.34
	28.00	487	632	342,100	23.26	11,410	13,490	536,300	16,720	2.33
	32.00	550	716	381,600	23.08	12,720	15,160	601,900	18,600	2.32
	36.00	611	798	418,800	22.91	13,960	16,770	664,900	20,370	2.31
	40.00	671	879	453,900	22.73	15,130	18,310	725,100	22,030	2.30
700 x 700	25.00	517	668	504,700	27.48	14,420	16,850	782,900	21,240	2.74
	28.00	575	744	556,600	27.35	15,900	18,670	867,000	23,380	2.73
	32.00	651	844	623,100	27.17	17,800	21,040	975,800	26,110	2.72
	36.00	724	942	686,500	26.99	19,610	23,330	1,081,000	28,700	2.71
	40.00	797	1,039	746,900	26.81	21,340	25,540	1,182,000	31,160	2.70

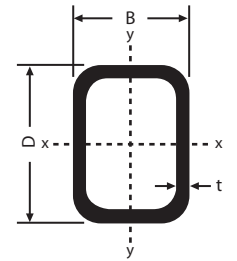
**Material Spec:** EN100219 S275JR / J2H  
EN100219 S355JR / J2H



# Hot Finished Rectangular Hollow Sections

(Metric units)

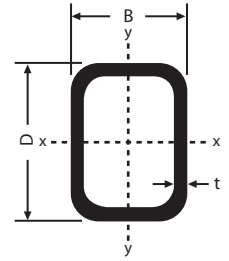
Section Size	Wall Thickness	Unit Weight	Section Area	Second Moment of Area		Radius of Gyration		Elastic Modulus		Plastic Modulus		Torsional Constants		Surface Area Per Metre
				Axis x-x	Axis y-y	Axis x-x	Axis y-y	Axis x-x	Axis y-y	Axis x-x	Axis y-y	J	C	
D x B	t	M	A	cm <sup>4</sup>	cm <sup>4</sup>	cm	cm	cm <sup>3</sup>	cm <sup>3</sup>	cm <sup>3</sup>	cm <sup>3</sup>	cm <sup>4</sup>	cm <sup>3</sup>	m <sup>2</sup> /m
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>	cm <sup>3</sup>	cm <sup>3</sup>	cm <sup>4</sup>	cm <sup>3</sup>	m <sup>2</sup> /m
50 x 25	2.50	2.72	3.43	10.40	3.39	1.74	0.99	4.16	2.71	5.33	3.22	8.42	4.61	0.14
	3.00	3.22	4.04	11.90	3.83	1.72	0.97	4.76	3.06	6.18	3.71	9.64	5.20	0.14
	3.20	3.41	4.28	12.50	3.98	1.71	0.96	4.98	3.18	6.50	3.89	10.10	5.41	0.14
	4.00	4.07	5.19	14.40	4.48	1.66	0.93	5.75	3.59	7.67	4.54	11.60	6.11	0.14
50 x 30	2.50	2.92	3.68	11.80	5.22	1.79	1.19	4.73	3.48	5.92	4.11	11.70	5.73	0.15
	3.00	3.45	4.34	13.60	5.94	1.77	1.17	5.43	3.96	6.88	4.76	13.50	6.51	0.15
	3.20	3.66	4.60	14.20	6.20	1.76	1.16	5.68	4.13	7.25	5.00	14.20	6.80	0.15
	4.00	4.46	5.59	16.50	7.08	1.72	1.13	6.60	4.72	8.59	5.88	16.60	7.77	0.15
	5.00	5.40	6.73	18.70	7.89	1.67	1.08	7.49	5.26	10.00	6.80	19.00	8.67	0.15
60 x 40	2.50	3.71	4.68	22.80	12.10	2.21	1.60	7.61	6.03	9.32	7.02	25.10	9.73	0.19
	3.00	4.39	5.54	26.50	13.90	2.18	1.58	8.82	6.95	10.90	8.19	29.20	11.20	0.19
	3.20	4.66	5.88	27.80	14.60	2.18	1.57	9.27	7.29	11.50	8.64	30.80	11.70	0.19
	4.00	5.72	7.19	32.80	17.00	2.14	1.54	10.90	8.52	13.80	10.30	36.70	13.70	0.19
	5.00	6.97	8.73	38.10	19.50	2.09	1.50	12.70	9.77	16.40	12.20	43.00	15.70	0.19
	6.00	8.15	10.20	42.30	21.40	2.04	1.45	14.10	10.70	18.60	13.70	48.20	17.30	0.19
	6.30	8.49	10.60	43.40	21.90	2.02	1.44	14.50	11.00	19.20	14.20	49.50	17.60	0.18
	8.00	10.00	12.80	47.90	23.70	1.94	1.36	16.00	11.90	22.10	16.10	55.40	19.20	0.18
80 x 40	3.00	5.34	6.74	54.20	18.00	2.84	1.63	13.60	9.00	17.10	10.40	43.80	15.30	0.23
	3.20	5.67	7.16	57.20	18.90	2.83	1.63	14.30	9.46	18.00	11.00	46.20	16.10	0.23
	4.00	6.97	8.79	68.20	22.20	2.79	1.59	17.10	11.10	21.80	13.20	55.20	18.90	0.23
	5.00	8.54	10.70	80.30	25.70	2.74	1.55	20.10	12.90	26.10	15.70	65.10	21.90	0.23
	6.00	10.00	12.60	90.50	28.50	2.68	1.50	22.60	14.20	30.00	17.80	73.40	24.20	0.23
	6.30	10.50	13.10	93.30	29.20	2.67	1.49	23.30	14.60	31.10	18.40	75.60	24.80	0.22
	8.00	12.80	16.00	106.00	32.10	2.58	1.42	26.50	16.10	36.50	21.20	85.80	27.40	0.22
	10.00	14.90	18.90	115.00	33.70	2.47	1.33	28.80	16.90	41.30	23.50	92.50	28.90	0.21
80 x 50	3.00	5.81	7.34	63.10	30.20	2.93	2.03	15.80	12.10	19.40	13.90	64.80	19.70	0.25
	4.00	7.53	9.59	79.80	37.70	2.88	1.98	19.90	15.10	24.90	17.80	82.60	24.60	0.25
	5.00	9.33	11.70	94.40	44.10	2.84	1.94	23.60	17.70	29.90	21.30	98.40	28.80	0.25
	6.00	11.00	13.80	107.00	49.50	2.79	1.90	26.80	19.80	34.40	24.40	112.00	32.30	0.25
	8.00	14.11	17.60	127.00	57.40	2.69	1.81	31.70	23.00	42.20	29.60	135.00	37.50	0.24
	10.00	16.40	20.90	140.00	62.10	2.59	1.72	35.00	24.80	48.30	33.40	150.00	40.60	0.23
90 x 50	3.00	6.28	7.94	84.40	33.50	3.26	2.05	18.80	13.40	23.20	15.30	76.50	22.40	0.27
	3.20	6.63	8.44	89.10	35.30	3.25	2.04	19.80	14.10	24.60	16.20	80.90	23.60	0.27
	3.60	7.46	9.42	98.30	38.70	3.23	2.03	21.80	15.50	27.20	18.00	89.40	25.90	0.27
	4.00	8.15	10.40	107.00	41.90	3.21	2.01	23.80	16.80	29.80	19.60	97.50	28.00	0.27
	5.00	10.10	12.70	127.00	49.20	3.16	1.97	28.30	19.70	36.00	23.50	116.00	32.90	0.27
	6.00	11.90	15.00	145.00	55.40	3.11	1.92	32.20	22.10	41.60	27.00	133.00	37.00	0.27
	6.30	12.50	15.60	150.00	57.00	3.10	1.91	33.30	22.80	43.20	28.00	138.00	38.10	0.26
	8.00	15.30	19.20	174.00	64.60	3.01	1.84	38.60	25.80	51.40	32.90	160.00	43.20	0.26
	10.00	18.00	22.90	194.00	70.20	2.91	1.75	43.00	28.10	59.30	37.40	179.00	47.10	0.25



# Hot Finished Rectangular Hollow Sections

(Metric units)

Section Size	Wall Thickness	Unit Weight	Section Area	Second Moment of Area		Radius of Gyration		Elastic Modulus		Plastic Modulus		Torsional Constants		Surface Area Per Metre
				Axis x-x	Axis y-y	Axis x-x	Axis y-y	Axis x-x	Axis y-y	Axis x-x	Axis y-y	J	C	
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>	cm <sup>3</sup>	cm <sup>3</sup>	cm <sup>4</sup>	cm <sup>3</sup>	m <sup>2</sup> /m
100 x 50	3.00	6.75	8.54	110	36.80	3.58	2.08	21.90	14.70	27.30	16.80	88.40	25.00	0.29
	3.20	7.18	9.08	116	38.80	3.57	2.07	23.20	15.50	28.90	17.70	93.40	26.40	0.29
	4.00	8.86	11.20	140	46.20	3.53	2.03	27.90	18.50	35.20	21.50	113.00	31.40	0.29
	5.00	10.90	13.70	167	54.30	3.48	1.99	33.30	21.70	42.60	25.80	135.00	36.90	0.29
	6.00	12.90	16.20	190	61.20	3.43	1.95	38.10	24.50	49.40	29.70	154.00	41.60	0.29
	6.30	13.40	16.90	197	63.00	3.42	1.93	39.40	25.20	51.30	30.80	160.00	42.90	0.28
	8.00	16.60	20.80	230	71.70	3.33	1.86	46.00	28.70	61.40	36.30	186.00	48.90	0.28
	10.00	19.60	24.90	259	78.40	3.22	1.77	51.80	31.40	71.20	41.40	209.00	53.60	0.27
100 x 60	3.00	7.22	9.14	124	55.70	3.68	2.47	24.70	18.60	30.20	21.20	121	30.70	0.31
	3.60	8.59	10.90	145	64.80	3.65	2.44	28.90	21.60	35.60	24.90	142	35.60	0.31
	5.00	11.70	14.70	189	83.60	3.58	2.38	37.80	27.90	47.40	32.90	188	45.90	0.31
	6.00	13.80	17.40	217	95.00	3.53	2.34	43.40	31.70	55.10	38.10	216	52.10	0.31
	6.30	14.40	18.10	225	98.10	3.52	2.33	45.00	32.70	57.30	39.50	224	53.80	0.30
	8.00	17.80	22.40	264	113.00	3.44	2.25	52.80	37.80	68.70	47.10	265	62.20	0.30
120 x 60	3.60	9.72	12.30	227	76.30	4.30	2.49	37.90	25.40	47.20	28.90	183	43.30	0.35
	4.00	10.70	13.60	249	83.10	4.28	2.47	41.50	27.70	51.90	31.70	201	47.10	0.35
	5.00	13.30	16.70	299	98.80	4.23	2.43	49.90	32.90	63.10	38.40	242	56.00	0.35
	6.00	15.70	19.80	345	113.00	4.18	2.39	57.50	37.50	73.60	44.50	279	63.80	0.35
	6.30	16.40	20.70	358	116.00	4.16	2.37	59.70	38.80	76.70	46.30	290	65.90	0.34
	8.00	20.40	25.60	425	135.00	4.08	2.30	70.80	45.00	92.70	55.40	344	76.60	0.34
	10.00	24.30	30.90	488	152.00	3.97	2.21	81.40	50.50	109.20	64.40	396	86.10	0.33
	120 x 80	5.00	14.80	18.70	365	193	4.42	3.21	60.90	48.20	74.60	56.10	401	77.90
6.00		17.60	22.20	423	222	4.37	3.17	70.60	55.60	87.30	65.50	468	89.60	0.39
6.30		18.40	23.20	440	230	4.36	3.15	73.30	57.60	91.00	68.20	487	92.90	0.38
8.00		22.90	28.80	525	273	4.27	3.08	87.50	68.10	111.00	82.60	587	110.00	0.38
10.00		27.90	34.90	609	313	4.18	2.99	102.00	78.10	131.00	97.30	688	126.00	0.37
150 x 100	5.00	18.70	23.70	739	392	5.58	4.07	98.50	78.50	119	90.10	807	127	0.49
	6.00	22.30	28.20	862	456	5.53	4.02	115.00	91.20	141	106.00	946	147	0.49
	6.30	23.30	29.50	898	474	5.52	4.01	120.00	94.80	147	110.00	986	153	0.48
	8.00	29.10	36.80	1,087	569	5.44	3.94	145.00	114.00	180	135.00	1,203	183	0.48
	10.00	35.70	44.90	1,282	665	5.34	3.85	171.00	133.00	216	161.00	1,432	214	0.47
	12.00	41.40	52.70	1,450	745	5.25	3.76	193.00	149.00	249	185.00	1,633	240	0.47
	12.50	42.80	54.60	1,488	763	5.22	3.74	198.00	153.00	256	190.00	1,679	246	0.47
160 x 80	4.50	16.24	20.60	679	229	5.75	3.33	84.90	57.10	106	64.80	547	97	0.47
	5.00	18.00	22.70	744	249	5.72	3.31	93.00	62.30	116	71.10	600	106	0.47
	6.00	21.30	27.00	868	288	5.67	3.27	108.00	72.00	136	83.30	701	122	0.47
	6.30	22.30	28.20	903	299	5.66	3.26	113.00	74.80	142	86.80	730	127	0.46
	8.00	27.90	35.20	1,091	356	5.57	3.18	136.00	89.00	175	106.00	883	151	0.46
	10.00	34.20	42.90	1,284	411	5.47	3.10	161.00	103.00	209	125.00	1,041	175	0.45
	12.00	39.50	50.30	1,449	455	5.37	3.01	181.00	114.00	240	142.00	1,175	194	0.45
	12.50	41.60	52.10	1,485	465	5.34	2.99	186.00	116.00	247	146.00	1,204	198	0.45

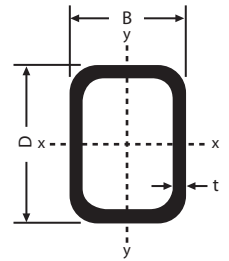


# Hot Finished Rectangular Hollow Sections

(Metric units)

Section Size	Wall Thickness	Unit Weight	Section Area	Second Moment of Area		Radius of Gyration		Elastic Modulus		Plastic Modulus		Torsional Constants		Surface Area Per Metre
				Axis x-x	Axis y-y	Axis x-x	Axis y-y	Axis x-x	Axis y-y	Axis x-x	Axis y-y	J	C	
D x B	t	M	A	cm <sup>4</sup>	cm <sup>4</sup>	cm	cm	cm <sup>3</sup>	cm <sup>3</sup>	cm <sup>3</sup>	cm <sup>3</sup>	cm <sup>4</sup>	cm <sup>3</sup>	m <sup>2</sup> /m
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>	cm <sup>3</sup>	cm <sup>3</sup>	cm <sup>4</sup>	cm <sup>3</sup>	m <sup>2</sup> /m
200 x 100	5.00	22.70	28.70	1,495	505	7.21	4.19	149	101	185	114	1,204	172	0.59
	6.00	27.00	34.20	1,754	589	7.16	4.15	175	118	218	134	1,414	200	0.59
	6.30	28.30	35.80	1,829	613	7.15	4.14	183	123	228	140	1,475	208	0.58
	8.00	35.40	44.80	2,234	739	7.06	4.06	223	148	282	172	1,804	251	0.58
	10.00	43.60	54.90	2,664	869	6.96	3.98	266	174	341	206	2,156	295	0.57
	12.00	50.80	64.70	3,047	979	6.86	3.89	305	196	395	237	2,469	333	0.57
	12.50	53.40	67.10	3,136	1,004	6.84	3.87	314	201	408	245	2,541	341	0.57
	16.00	66.40	83.00	3,678	1,147	6.66	3.72	368	229	491	290	2,982	391	0.56
200 x 120	5.00	24.10	30.70	1,690	762	7.40	4.98	168	127	205	144	1,650	210	0.63
	6.30	30.10	38.30	2,070	929	7.34	4.92	207	155	253	177	2,030	255	0.62
	8.00	37.60	48.00	2,530	1,130	7.26	4.85	253	188	313	218	2,490	310	0.62
	10.00	46.30	58.90	3,030	1,340	7.17	4.76	303	223	379	263	3,000	367	0.61
	12.50	55.70	71.70	3,468	1,524	6.99	4.63	347	254	444	308	3,568	426	0.61
	16.00	71.38	89.40	4,221	1,813	6.87	4.50	422	302	550	377	4,247	497	0.60
200 x 150	6.00	31.70	40.20	2,318	1,485	7.60	6.08	232	198	277	227	2,820	313	0.69
	6.30	33.22	42.10	2,420	1,549	7.58	6.07	242	207	289	237	2,947	326	0.68
	8.00	41.70	52.80	2,971	1,894	7.50	5.99	297	253	359	294	3,643	398	0.68
	9.00	46.60	58.90	3,276	2,084	7.46	5.95	328	278	398	325	4,033	437	0.68
	10.00	51.40	64.90	3,568	2,264	7.41	5.91	357	302	436	356	4,409	475	0.67
	12.00	60.90	76.70	4,109	2,596	7.32	5.82	411	346	508	414	5,119	543	0.67
	12.50	63.20	79.60	4,236	2,673	7.30	5.80	424	356	525	428	5,287	559	0.67
250 x 150	6.00	36.40	46.20	3,965	1,796	9.27	6.24	317	239	385	270	3,877	396	0.79
	6.30	38.00	48.40	4,143	1,874	9.25	6.22	331	250	402	283	4,054	413	0.78
	8.00	48.00	60.80	5,111	2,298	9.17	6.15	409	306	501	350	5,021	506	0.78
	10.00	59.30	74.90	6,174	2,755	9.08	6.06	494	367	611	426	6,090	605	0.77
	12.50	73.00	92.10	7,387	3,265	8.96	5.96	591	435	740	514	7,326	717	0.77
	16.00	91.50	115.00	8,879	3,873	8.79	5.80	710	516	906	625	8,868	849	0.76
300 x 100	5.00	30.52	38.70	4,146	731	10.30	4.34	276	146	354	161	2,040	262	0.79
	6.00	36.20	46.20	4,893	854	10.30	4.30	326	171	419	190	2,399	306	0.79
	6.30	38.00	48.40	5,111	890	10.30	4.29	341	178	439	199	2,504	319	0.78
	8.00	48.00	61.10	6,386	1,087	10.20	4.22	426	217	551	247	3,066	387	0.78
	10.00	58.80	74.90	7,613	1,275	10.10	4.13	508	255	666	296	3,676	458	0.77
	12.00	70.30	88.70	8,818	1,447	9.97	4.04	588	289	779	343	4,223	520	0.77
	16.00	91.50	117.00	11,240	1,747	9.82	3.87	749	349	1,008	431	5,142	620	0.77
300 x 200	6.00	45.80	58.20	7,486	4,013	11.30	8.31	499	401	596	451	8,100	651	0.99
	6.30	48.10	61.00	7,829	4,193	11.30	8.29	522	419	624	472	8,476	681	0.98
	8.00	60.50	76.80	9,717	5,184	11.30	8.22	648	518	779	589	10,560	840	0.98
	10.00	75.00	94.90	11,820	6,278	11.20	8.13	788	628	956	721	12,910	1,015	0.97
	12.00	89.15	113.00	13,800	7,294	11.10	8.05	920	729	1,124	847	15,140	1,178	0.97
	12.50	92.60	117.00	14,270	7,537	11.00	8.02	952	754	1,165	877	15,680	1,217	0.97
	16.00	117.00	147.00	17,390	9,109	10.90	7.87	1,159	911	1,441	1,080	19,250	1,468	0.96
300 x 250	6.30	53.00	67.50	9,239	6,984	11.70	10.20	616	559	720	636	12,140	862	1.08
	8.00	66.80	85.10	11,500	8,682	11.60	10.10	767	695	902	796	15,170	1,067	1.08
	10.00	82.80	106.00	14,050	10,580	11.50	10.00	937	847	1,109	978	18,600	1,295	1.07
	12.50	102.00	130.00	17,050	12,810	11.40	9.91	1,137	1,025	1,358	1,196	22,680	1,561	1.07
	16.00	129.00	165.00	20,930	15,670	11.30	9.76	1,395	1,254	1,689	1,485	28,020	1,898	1.06





# Hot Finished Rectangular Hollow Sections

(Metric units)

Section Size	Wall Thickness	Unit Weight	Section Area	Second Moment of Area		Radius of Gyration		Elastic Modulus		Plastic Modulus		Torsional Constants		Surface Area Per Metre
				Axis x-x	Axis y-y	Axis x-x	Axis y-y	Axis x-x	Axis y-y	Axis x-x	Axis y-y	J	C	
D x B	t	M	A	cm <sup>4</sup>	cm <sup>4</sup>	cm	cm	cm <sup>3</sup>	cm <sup>3</sup>	cm <sup>3</sup>	cm <sup>3</sup>	cm <sup>4</sup>	cm <sup>3</sup>	m <sup>2</sup> /m
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>	cm <sup>3</sup>	cm <sup>3</sup>	cm <sup>4</sup>	cm <sup>3</sup>	m <sup>2</sup> /m
350 x 150	6.30	48.10	61.00	9,551	2,537	12.50	6.44	546	338	680	375	6,383	587	0.97
	8.00	60.50	77.00	11,880	3,125	12.40	6.36	679	417	851	467	7,917	721	0.97
	10.00	75.00	94.90	14,320	3,737	12.30	6.27	818	498	1,035	566	9,633	867	0.97
	12.50	92.60	117.00	17,300	4,450	12.20	6.17	988	593	1,263	686	11,620	1,032	0.97
	16.00	117.00	149.00	21,500	5,386	12.00	6.02	1,229	718	1,586	850	14,110	1,235	0.97
350 x 250	8.00	73.10	93.00	16,560	9,854	13.30	10.30	946	788	1,124	892	19,010	1,255	1.18
	10.00	90.70	116.00	20,270	12,020	13.20	10.20	1,158	963	1,385	1,098	23,330	1,526	1.18
	12.50	112.00	143.00	24,680	14,580	13.10	10.10	1,410	1,166	1,700	1,345	28,490	1,843	1.18
	16.00	142.00	181.00	30,440	17,860	13.00	9.95	1,739	1,429	2,121	1,672	35,280	2,248	1.18
400 x 120	6.30	50.00	63.70	11,880	1,752	13.70	5.24	594	292	766	322	5,035	527	1.03
	8.00	63.10	80.30	14,790	2,146	13.60	5.17	740	358	960	399	6,212	645	1.02
	10.00	78.10	99.50	18,050	2,569	13.50	5.08	903	428	1,180	486	7,501	771	1.02
	12.50	96.60	123.00	21,900	3,040	13.30	4.97	1,095	507	1,444	588	8,973	912	1.01
400 x 150	6.30	53.00	67.50	13,350	2,863	14.10	6.51	667	382	841	420	7,588	673	1.09
	8.00	66.80	85.10	16,630	3,528	14.00	6.44	832	470	1,054	524	9,415	828	1.08
	10.00	82.80	106.00	20,340	4,257	13.90	6.35	1,017	568	1,297	640	11,450	998	1.08
	12.50	102.00	130.00	24,720	5,087	13.80	6.24	1,236	678	1,589	778	13,820	1,191	1.07
	16.00	129.00	165.00	30,400	6,108	13.60	6.09	1,520	814	1,978	957	16,810	1,427	1.06
400 x 200	6.30	57.90	73.60	15,700	5,376	14.60	8.55	785	538	960	594	12,610	917	1.18
	8.00	73.10	92.80	19,560	6,660	14.50	8.47	978	666	1,203	743	15,740	1,135	1.18
	10.00	90.70	115.00	23,910	8,084	14.40	8.39	1,196	808	1,480	911	19,260	1,376	1.17
	12.50	112.00	142.00	29,060	9,738	14.30	8.28	1,453	974	1,813	1,111	23,440	1,656	1.17
	16.00	142.00	179.00	35,740	11,820	14.10	8.13	1,787	1,182	2,256	1,374	28,870	2,010	1.16
400 x 300	8.00	85.70	109.00	25,860	16,620	15.40	12.30	1,293	1,108	1,524	1,252	30,980	1,749	1.37
	10.00	106.00	136.00	31,750	20,360	15.30	12.30	1,587	1,357	1,882	1,544	38,140	2,136	1.37
	12.50	132.00	168.00	38,800	24,800	15.20	12.20	1,940	1,654	2,316	1,898	46,750	2,593	1.37
	16.00	167.00	213.00	48,100	30,620	15.00	12.00	2,405	2,041	2,899	2,371	58,200	3,186	1.37
450 x 250	8.00	85.40	109.00	30,080	12,140	16.60	10.60	1,337	971	1,622	1,081	27,080	1,629	1.38
	10.00	106.00	135.00	36,900	14,820	16.50	10.50	1,640	1,185	2,000	1,331	33,280	1,986	1.37
	12.50	132.00	167.00	45,030	17,970	16.40	10.40	2,001	1,438	2,458	1,631	40,720	2,406	1.37
	16.00	167.00	211.00	55,710	22,040	16.20	10.20	2,476	1,763	3,070	2,029	50,550	2,947	1.36
500 x 200	8.00	85.70	109.00	34,270	8,170	17.70	8.70	1,371	817	1,716	900	21,100	1,430	1.37
	10.00	106.00	135.00	41,760	9,891	17.60	8.60	1,670	989	2,105	1,101	25,870	1,737	1.37
	12.50	132.00	168.00	51,510	12,020	17.50	8.50	2,060	1,202	2,609	1,354	31,480	2,097	1.37
	16.00	167.00	213.00	63,930	14,670	17.30	8.31	2,557	1,467	3,267	1,683	38,830	2,554	1.37
500 x 300	10.00	122.00	155.00	53,760	24,440	18.60	12.60	2,150	1,629	2,595	1,826	52,450	2,696	1.57
	12.50	152.00	192.00	65,810	29,780	18.50	12.50	2,633	1,985	3,196	2,244	64,390	3,281	1.57
	16.00	192.00	243.00	81,780	36,770	18.30	12.30	3,271	2,451	4,005	2,804	80,330	4,044	1.56
	20.00	237.00	302.00	100,100	44,550	18.20	12.10	4,006	2,970	4,942	3,442	97,310	4,845	1.56

**Material Spec:** EN100219 S275JR / JØ / J2H  
EN100219 S355JR / JØ / J2H