

SQUARE HOLLOW SECTION

Product Range

12mm X 12mm to 300mm X 300mm

Thickness

1mm to 12mm

SQUARE HOLLOW SECTION (SHS) IS : 4923 : 2017/EN 10219-1 : 2006*/ASTM A-500

Dimension	Weight	Area	Moment of Inertia		Radius of Gyration		Elastic Modulus		Plastic Modulus		Torsional Constants	
			I _{xx} cm ⁴	I _{yy} cm ⁴	R _{xx} cm	R _{yy} cm	Z _{xx} cm ³	Z _{yy} cm ³	S _{xx} cm ³	S _{yy} cm ³	J cm ⁴	C cm ³
12X12X1.6	0.47	0.60	0.10	0.10	0.41	0.41	0.17	0.17	0.22	0.22	0.12	0.18
12X12X2.0	0.55	0.70	0.11	0.11	0.40	0.40	0.19	0.19	0.25	0.25	0.07	0.13
15X15X1.6	0.62	0.79	0.23	0.23	0.54	0.54	0.31	0.31	0.39	0.39	0.32	0.38
15X15X2.0	0.74	0.94	0.25	0.25	0.52	0.52	0.34	0.34	0.44	0.44	0.28	0.35
15X15X2.2	0.79	1.00	0.25	0.25	0.50	0.50	0.34	0.34	0.46	0.46	0.24	0.32
20X20X1.6	0.87	1.11	0.61	0.61	0.74	0.74	0.61	0.61	0.75	0.75	0.95	0.84
20X20X2.0	1.05	1.34	0.69	0.69	0.72	0.72	0.69	0.69	0.88	0.88	1.01	0.90
20X20X2.2	1.13	1.44	0.73	0.73	0.71	0.71	0.73	0.73	0.93	0.93	1.00	0.90
20X20X2.6	1.29	1.64	0.78	0.78	0.69	0.69	0.78	0.78	1.02	1.02	0.92	0.85
25X25X1.6	1.12	1.43	1.28	1.28	0.95	0.95	1.03	1.03	1.24	1.24	2.05	1.46
25X25X2.0	1.37	1.74	1.48	1.48	0.92	0.92	1.19	1.19	1.47	1.47	2.32	1.64
25X25X2.2	1.48	1.88	1.57	1.57	0.91	0.91	1.26	1.26	1.57	1.57	2.40	1.70
25X25X2.6	1.70	2.16	1.72	1.72	0.89	0.89	1.38	1.38	1.76	1.76	2.47	1.76
25X25X2.9	1.84	2.35	1.81	1.81	0.88	0.88	1.45	1.45	1.88	1.88	2.41	1.75
30X30X1.6	1.37	1.75	2.31	2.31	1.15	1.15	1.54	1.54	1.84	1.84	3.73	2.24
30X30X2.0	1.68	2.14	2.72	2.72	1.13	1.13	1.82	1.82	2.21	2.21	4.35	2.59
30X30X2.2	1.82	2.32	2.91	2.91	1.12	1.12	1.94	1.94	2.37	2.37	4.60	2.72
30X30X2.6	2.10	2.68	3.23	3.23	1.10	1.10	2.16	2.16	2.68	2.68	4.96	2.93
30X30X2.9	2.30	2.93	3.44	3.44	1.08	1.08	2.30	2.30	2.89	2.89	5.09	3.02
30X30X3.0	2.36	3.01	3.50	3.50	1.08	1.08	2.34	2.34	2.96	2.96	5.11	3.03
30X30X3.2	2.49	3.17	3.62	3.62	1.07	1.07	2.42	2.42	3.08	3.08	5.10	3.05
30X30X4.0	2.94	3.75	3.97	3.97	1.03	1.03	2.65	2.65	3.50	3.50	4.52	2.84
30X30X5.0	3.42	4.36	4.16	4.16	0.98	0.98	2.78	2.78	3.84	3.84	2.69	1.98
30X30X6.0	3.79	4.83	4.12	4.12	0.92	0.92	2.75	2.75	4.01	4.01	0.69	0.76
32X32X1.6	1.48	1.88	2.84	2.84	1.23	1.23	1.78	1.78	2.12	2.12	4.59	2.60
32X32X2.0	1.81	2.30	3.36	3.36	1.21	1.21	2.10	2.10	2.54	2.54	5.40	3.02
32X32X2.2	1.96	2.50	3.60	3.60	1.20	1.20	2.25	2.25	2.74	2.74	5.74	3.19
32X32X2.6	2.26	2.88	4.02	4.02	1.18	1.18	2.52	2.52	3.11	3.11	6.26	3.47
32X32X2.9	2.48	3.16	4.30	4.30	1.17	1.17	2.69	2.69	3.36	3.36	6.51	3.60
32X32X3.2	2.68	3.42	4.54	4.54	1.15	1.15	2.84	2.84	3.59	3.59	6.62	3.68
38X38X1.6	1.77	2.26	4.92	4.92	1.48	1.48	2.59	2.59	3.06	3.06	7.93	3.82
38X38X2.0	2.18	2.78	5.88	5.88	1.45	1.45	3.10	3.10	3.70	3.70	9.49	4.51
38X38X2.2	2.38	3.03	6.32	6.32	1.44	1.44	3.33	3.33	4.00	4.00	10.19	4.81
38X38X2.6	2.76	3.51	7.14	7.14	1.43	1.43	3.76	3.76	4.57	4.57	11.39	5.33
38X38X2.9	3.03	3.86	7.68	7.68	1.41	1.41	4.05	4.05	4.97	4.97	12.10	5.65
38X38X3.2	3.29	4.19	8.18	8.18	1.40	1.40	4.31	4.31	5.34	5.34	12.64	5.89
38X38X3.6	3.63	4.62	8.76	8.76	1.38	1.38	4.62	4.62	5.80	5.80	13.07	6.10
40X40X1.6	1.88	2.39	5.79	5.79	1.56	1.56	2.90	2.90	3.41	3.41	9.32	4.28
40X40X2.0	2.31	2.94	6.94	6.94	1.54	1.54	3.47	3.47	4.13	4.13	11.20	5.07
40X40X2.2	2.51	3.20	7.47	7.47	1.53	1.53	3.74	3.74	4.48	4.48	12.05	5.42
40X40X2.6	2.92	3.72	8.45	8.45	1.51	1.51	4.23	4.23	5.12	5.12	13.54	6.04
40X40X2.9	3.21	4.09	9.11	9.11	1.49	1.49	4.56	4.56	5.58	5.58	14.46	6.42



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Dimension	Weight	Area	Moment of Inertia		Radius of Gyration		Elastic Modulus		Plastic Modulus		Torsional Constants	
mm	kg/m	cm ²	I _{xx} cm ⁴	I _{yy} cm ⁴	R _{xx} cm	R _{yy} cm	Z _{xx} cm ³	Z _{yy} cm ³	S _{xx} cm ³	S _{yy} cm ³	J cm ⁴	C cm ³
40X40X3.0	3.30	4.21	9.32	9.32	1.49	1.49	4.66	4.66	5.72	5.72	14.72	6.53
40X40X3.2	3.49	4.45	9.72	9.72	1.48	1.48	4.86	4.86	6.01	6.01	15.19	6.73
40X40X3.6	3.85	4.91	10.45	10.45	1.46	1.46	5.23	5.23	6.53	6.53	15.86	7.02
40X40X4.0	4.20	5.35	11.07	11.07	1.44	1.44	5.54	5.54	7.01	7.01	16.15	7.19
40X40X5.0	4.99	6.36	12.26	12.26	1.39	1.39	6.13	6.13	8.02	8.02	15.15	6.99
40X40X6.0	5.68	7.23	12.94	12.94	1.34	1.34	6.47	6.47	8.76	8.76	11.76	5.89
40X40X8.0	6.74	8.59	13.03	13.03	1.23	1.23	6.52	6.52	9.50	9.50	2.17	1.81
45X45X1.6	2.13	2.71	8.41	8.41	1.76	1.76	3.74	3.74	4.38	4.38	13.47	5.54
45X45X2.0	2.62	3.34	10.12	10.12	1.74	1.74	4.50	4.50	5.32	5.32	16.31	6.61
45X45X2.2	2.86	3.64	10.92	10.92	1.73	1.73	4.86	4.86	5.78	5.78	17.63	7.10
45X45X2.6	3.33	4.24	12.42	12.42	1.71	1.71	5.52	5.52	6.64	6.64	20.01	7.98
45X45X2.9	3.67	4.67	13.45	13.45	1.70	1.70	5.98	5.98	7.25	7.25	21.57	8.55
45X45X3.2	4.00	5.09	14.41	14.41	1.68	1.68	6.41	6.41	7.83	7.83	22.91	9.05
45X45X3.6	4.42	5.63	15.57	15.57	1.66	1.66	6.92	6.92	8.55	8.55	24.33	9.58
45X45X4.0	4.83	6.15	16.61	16.61	1.64	1.64	7.39	7.39	9.22	9.22	25.31	9.96
50X50X1.6	2.38	3.03	11.71	11.71	1.97	1.97	4.69	4.69	5.46	5.46	18.68	6.95
50X50X2.0	2.94	3.74	14.15	14.15	1.95	1.95	5.66	5.66	6.66	6.66	22.75	8.35
50X50X2.2	3.20	4.08	15.30	15.30	1.94	1.94	6.12	6.12	7.24	7.24	24.66	9.00
50X50X2.6	3.74	4.76	17.47	17.47	1.92	1.92	6.99	6.99	8.34	8.34	28.19	10.18
50X50X2.9	4.12	5.25	18.98	18.98	1.90	1.90	7.60	7.60	9.13	9.13	30.58	10.98
50X50X3.0	4.25	5.41	19.47	19.47	1.90	1.90	7.79	7.79	9.39	9.39	31.33	11.22
50X50X3.2	4.50	5.73	20.40	20.40	1.89	1.89	8.16	8.16	9.89	9.89	32.72	11.68
50X50X3.6	4.98	6.35	22.15	22.15	1.87	1.87	8.86	8.86	10.84	10.84	35.16	12.49
50X50X4.0	5.46	6.95	23.74	23.74	1.85	1.85	9.50	9.50	11.73	11.73	37.09	13.14
50X50X4.5	6.02	7.67	25.50	25.50	1.82	1.82	10.20	10.20	12.76	12.76	38.72	13.72
50X50X5.0	6.56	8.36	27.04	27.04	1.80	1.80	10.82	10.82	13.70	13.70	39.43	14.04
50X50X6.0	7.56	9.63	29.45	29.45	1.75	1.75	11.78	11.78	15.32	15.32	37.97	13.86
50X50X8.0	9.26	11.79	31.94	31.94	1.65	1.65	12.78	12.78	17.55	17.55	24.10	10.19
60X60X2.0	3.56	4.54	25.14	25.14	2.35	2.35	8.38	8.38	9.79	9.79	40.19	12.44
60X60X2.2	3.89	4.96	27.27	27.27	2.34	2.34	9.09	9.09	10.66	10.66	43.74	13.46
60X60X2.6	4.55	5.80	31.33	31.33	2.32	2.32	10.45	10.45	12.34	12.34	50.48	15.37
60X60X2.9	5.03	6.41	34.21	34.21	2.31	2.31	11.41	11.41	13.56	13.56	55.20	16.69
60X60X3.0	5.19	6.61	35.13	35.13	2.31	2.31	11.71	11.71	13.95	13.95	56.70	17.11
60X60X3.2	5.50	7.01	36.94	36.94	2.30	2.30	12.32	12.32	14.73	14.73	59.61	17.92
60X60X3.6	6.12	7.79	40.37	40.37	2.28	2.28	13.46	13.46	16.22	16.22	64.96	19.39
60X60X4.0	6.71	8.55	43.55	43.55	2.26	2.26	14.52	14.52	17.64	17.64	69.66	20.68
60X60X4.5	7.43	9.47	47.20	47.20	2.23	2.23	15.74	15.74	19.32	19.32	74.54	22.04
60X60X5.0	8.13	10.36	50.49	50.49	2.21	2.21	16.83	16.83	20.88	20.88	78.24	23.09
60X60X6.0	9.44	12.03	56.07	56.07	2.16	2.16	18.69	18.69	23.68	23.68	81.77	24.26
60X60X8.0	11.77	14.99	63.48	63.48	2.06	2.06	21.16	21.16	28.01	28.01	72.24	22.68
72X72X2.0	4.32	5.50	44.46	44.46	2.84	2.84	12.35	12.35	14.34	14.34	70.60	18.39
72X72X2.2	4.73	6.02	48.35	48.35	2.83	2.83	13.44	13.44	15.64	15.64	77.05	19.96

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mm	kg/m	cm ²	I _{xx}	I _{yy}	R _{xx}	R _{yy}	Z _{xx}	Z _{yy}	S _{xx}	S _{yy}	J	C
			cm ⁴	cm ⁴	cm	cm	cm ³	cm ³	cm ³	cm ³	cm ⁴	cm ³
72X72X2.6	5.53	7.04	55.82	55.82	2.82	2.82	15.51	15.51	18.17	18.17	89.49	22.96
72X72X2.9	6.12	7.80	61.18	61.18	2.80	2.80	17.00	17.00	20.01	20.01	98.39	25.08
72X72X3.2	6.70	8.54	66.32	66.32	2.79	2.79	18.43	18.43	21.80	21.80	106.90	27.08
72X72X3.6	7.47	9.52	72.86	72.86	2.77	2.77	20.24	20.24	24.11	24.11	117.58	29.57
72X72X4.0	8.22	10.47	79.03	79.03	2.75	2.75	21.96	21.96	26.32	26.32	127.44	31.84
72X72X4.5	9.13	11.63	86.24	86.24	2.72	2.72	23.96	23.96	28.97	28.97	138.51	34.38
72X72X5.0	10.02	12.76	92.91	92.91	2.70	2.70	25.81	25.81	31.47	31.47	148.08	36.58
72X72X6.0	11.70	14.91	104.71	104.71	2.65	2.65	29.09	29.09	36.08	36.08	162.23	39.90
72X72X8.0	14.78	18.83	122.48	122.48	2.55	2.55	34.03	34.03	43.72	43.72	168.14	42.04
75X75X2.0	4.51	5.74	50.49	50.49	2.97	2.97	13.47	13.47	15.61	15.61	80.04	20.06
75X75X2.2	4.93	6.28	54.93	54.93	2.96	2.96	14.65	14.65	17.03	17.03	87.39	21.79
75X75X2.6	5.78	7.36	63.48	63.48	2.94	2.94	16.93	16.93	19.81	19.81	101.62	25.09
75X75X2.9	6.40	8.15	69.62	69.62	2.92	2.92	18.57	18.57	21.82	21.82	111.84	27.44
75X75X3.0	6.60	8.41	71.62	71.62	2.92	2.92	19.10	19.10	22.49	22.49	115.16	28.19
75X75X3.2	7.01	8.93	75.53	75.53	2.91	2.91	20.15	20.15	23.79	23.79	121.65	29.66
75X75X3.6	7.81	9.95	83.06	83.06	2.89	2.89	22.15	22.15	26.32	26.32	134.02	32.44
75X75X4.0	8.60	10.95	90.19	90.19	2.87	2.87	24.06	24.06	28.76	28.76	145.52	34.99
75X75X4.5	9.55	12.17	98.55	98.55	2.85	2.85	26.28	26.28	31.68	31.68	158.59	37.87
75X75X5.0	10.49	13.36	106.33	106.33	2.82	2.82	28.36	28.36	34.46	34.46	170.06	40.40
75X75X6.0	12.27	15.63	120.16	120.16	2.77	2.77	32.05	32.05	39.58	39.58	187.76	44.34
80X80X2.0	4.82	6.14	61.70	61.70	3.17	3.17	15.43	15.43	17.85	17.85	97.58	23.00
80X80X2.2	5.28	6.72	67.17	67.17	3.16	3.16	16.80	16.80	19.49	19.49	106.61	25.01
80X80X2.6	6.19	7.88	77.75	77.75	3.14	3.14	19.44	19.44	22.68	22.68	124.17	28.86
80X80X2.9	6.85	8.73	85.36	85.36	3.13	3.13	21.34	21.34	25.02	25.02	136.85	31.60
80X80X3.2	7.51	9.57	92.71	92.71	3.11	3.11	23.18	23.18	27.29	27.29	149.08	34.21
80X80X3.6	8.38	10.67	102.11	102.11	3.09	3.09	25.53	25.53	30.23	30.23	164.62	37.50
80X80X4.0	9.22	11.75	111.04	111.04	3.07	3.07	27.76	27.76	33.07	33.07	179.21	40.56
80X80X4.5	10.26	13.07	121.58	121.58	3.05	3.05	30.40	30.40	36.48	36.48	196.03	44.05
80X80X5.0	11.27	14.36	131.44	131.44	3.03	3.03	32.86	32.86	39.74	39.74	211.11	47.16
80X80X6.0	13.21	16.83	149.18	149.18	2.98	2.98	37.30	37.30	45.79	45.79	235.58	52.23
91.5X91.5X2.0	5.54	7.06	93.52	93.52	3.64	3.64	20.45	20.45	23.57	23.57	147.16	30.52
91.5X91.5X2.2	6.07	7.73	101.95	101.95	3.63	3.63	22.29	22.29	25.76	25.76	160.99	33.24
91.5X91.5X2.6	7.12	9.07	118.32	118.32	3.61	3.61	25.87	25.87	30.04	30.04	188.04	38.49
91.5X91.5X2.9	7.90	10.06	130.18	130.18	3.60	3.60	28.46	28.46	33.18	33.18	207.73	42.27
91.5X91.5X3.2	8.67	11.04	141.69	141.69	3.58	3.58	30.98	30.98	36.25	36.25	226.89	45.90
91.5X91.5X3.6	9.67	12.32	156.49	156.49	3.56	3.56	34.21	34.21	40.24	40.24	251.52	50.52
91.5X91.5X4.0	10.67	13.59	170.68	170.68	3.54	3.54	37.31	37.31	44.12	44.12	275.03	54.88
91.5X91.5X4.5	11.88	15.14	187.57	187.57	3.52	3.52	41.00	41.00	48.79	48.79	302.71	59.96
91.5X91.5X5.0	13.08	16.66	203.55	203.55	3.50	3.50	44.50	44.50	53.29	53.29	328.34	64.62
91.5X91.5X6.0	15.38	19.59	232.81	232.81	3.45	3.45	50.89	50.89	61.76	61.76	372.82	72.65
100X100X2.0	6.08	7.74	123.01	123.01	3.99	3.99	24.61	24.61	28.30	28.30	192.95	36.76
100X100X2.2	6.66	8.48	134.20	134.20	3.98	3.98	26.84	26.84	30.95	30.95	211.23	40.07

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mm	kg/m	cm ²	I _{xx} cm ⁴	I _{yy} cm ⁴	R _{xx} cm	R _{yy} cm	Z _{xx} cm ³	Z _{yy} cm ³	S _{xx} cm ³	S _{yy} cm ³	J cm ⁴	C cm ³
100X100X2.6	7.82	9.96	156.01	156.01	3.96	3.96	31.21	31.21	36.15	36.15	247.10	46.50
100X100X2.9	8.67	11.05	171.86	171.86	3.94	3.94	34.38	34.38	39.95	39.95	273.33	51.14
100X100X3.0	8.96	11.41	177.05	177.05	3.94	3.94	35.41	35.41	41.21	41.21	281.94	52.65
100X100X3.2	9.52	12.13	187.28	187.28	3.93	3.93	37.46	37.46	43.69	43.69	298.95	55.63
100X100X3.6	10.64	13.55	207.19	207.19	3.91	3.91	41.44	41.44	48.56	48.56	332.08	61.37
100X100X4.0	11.74	14.95	226.35	226.35	3.89	3.89	45.27	45.27	53.30	53.30	363.96	66.82
100X100X4.5	13.09	16.67	249.29	249.29	3.87	3.87	49.86	49.86	59.04	59.04	401.89	73.25
100X100X5.0	14.41	18.36	271.10	271.10	3.84	3.84	54.22	54.22	64.59	64.59	437.53	79.22
100X100X6.0	16.98	21.63	311.47	311.47	3.79	3.79	62.30	62.30	75.10	75.10	501.21	89.77
100X100X8.0	21.82	27.79	379.77	379.77	3.70	3.70	75.96	75.96	93.83	93.83	593.41	105.11
110X110X2.6	8.64	11.00	209.69	209.69	4.37	4.37	38.13	38.13	44.05	44.05	330.92	56.88
110X110X2.9	9.58	12.21	231.26	231.26	4.35	4.35	42.05	42.05	48.73	48.73	366.47	62.65
110X110X3.2	10.53	13.41	252.31	252.31	4.34	4.34	45.88	45.88	53.33	53.33	401.33	68.25
110X110X3.6	11.77	14.99	279.58	279.58	4.32	4.32	50.84	50.84	59.34	59.34	446.64	75.46
110X110X4.0	12.99	16.55	305.94	305.94	4.30	4.30	55.63	55.63	65.21	65.21	490.52	82.35
110X110X4.5	14.50	18.47	337.63	337.63	4.28	4.28	61.39	61.39	72.35	72.35	543.21	90.54
110X110X5.0	15.98	20.36	367.95	367.95	4.25	4.25	66.90	66.90	79.27	79.27	593.30	98.24
110X110X6.0	18.86	24.03	424.57	424.57	4.20	4.20	77.20	77.20	92.46	92.46	684.89	112.13
110X110X8.0	24.33	30.99	522.39	522.39	4.11	4.11	94.98	94.98	116.29	116.29	828.32	133.69
120X120X2.6	9.45	12.04	274.44	274.44	4.77	4.77	45.74	45.74	52.73	52.73	431.73	68.30
120X120X2.9	10.50	13.37	302.98	302.98	4.76	4.76	50.50	50.50	58.37	58.37	478.54	75.32
120X120X3.2	11.53	14.69	330.88	330.88	4.75	4.75	55.15	55.15	63.93	63.93	524.57	82.16
120X120X3.6	12.90	16.43	367.12	367.12	4.73	4.73	61.19	61.19	71.21	71.21	584.63	90.98
120X120X4.0	14.25	18.15	402.28	402.28	4.71	4.71	67.05	67.05	78.33	78.33	643.08	99.48
120X120X4.5	15.91	20.27	444.70	444.70	4.68	4.68	74.12	74.12	87.01	87.01	713.71	109.63
120X120X5.0	17.55	22.36	485.47	485.47	4.66	4.66	80.92	80.92	95.45	95.45	781.43	119.26
120X120X6.0	20.75	26.43	562.16	562.16	4.61	4.61	93.70	93.70	111.61	111.61	907.27	136.89
120X120X8.0	26.84	34.19	696.82	696.82	4.51	4.51	116.14	116.14	141.14	141.14	1114.50	165.47
125X125X2.6	9.86	12.56	311.30	311.30	4.98	4.98	49.81	49.81	57.36	57.36	488.99	74.40
125X125X2.9	10.95	13.95	343.81	343.81	4.96	4.96	55.01	55.01	63.52	63.52	542.22	82.09
125X125X3.2	12.03	15.33	375.64	375.64	4.95	4.95	60.11	60.11	69.59	69.59	594.61	89.59
125X125X3.6	13.46	17.15	417.03	417.03	4.93	4.93	66.73	66.73	77.54	77.54	663.08	99.29
125X125X4.0	14.88	18.95	457.23	457.23	4.91	4.91	73.16	73.16	85.33	85.33	729.85	108.65
125X125X4.5	16.62	21.17	505.83	505.83	4.89	4.89	80.94	80.94	94.84	94.84	810.75	119.85
125X125X5.0	18.34	23.36	552.62	552.62	4.86	4.86	88.42	88.42	104.10	104.10	888.58	130.52
125X125X6.0	21.69	27.63	640.89	640.89	4.82	4.82	102.55	102.55	121.87	121.87	1034.09	150.16
125X125X8.0	28.10	35.79	796.96	796.96	4.72	4.72	127.52	127.52	154.47	154.47	1278.30	182.55
140X140X2.9	12.32	15.69	487.99	487.99	5.58	5.58	69.72	69.72	80.27	80.27	766.42	104.14
140X140X3.2	13.54	17.25	533.76	533.76	5.56	5.56	76.26	76.26	88.01	88.01	841.30	113.80
140X140X3.6	15.16	19.31	593.44	593.44	5.54	5.54	84.78	84.78	98.18	98.18	939.53	126.36
140X140X4.0	16.76	21.35	651.62	651.62	5.52	5.52	93.09	93.09	108.15	108.15	1035.76	138.54
140X140X4.5	18.74	23.87	722.24	722.24	5.50	5.50	103.18	103.18	120.37	120.37	1153.06	153.21

SQUARE HOLLOW SECTION (SHS) IS : 4923 : 2017/EN 10219-1 : 2006*/ASTM A-500

Dimension	Weight	Area	Moment of Inertia		Radius of Gyration		Elastic Modulus		Plastic Modulus		Torsional Constants	
mm	kg/m	cm ²	I _{xx}	I _{yy}	R _{xx}	R _{yy}	Z _{xx}	Z _{yy}	S _{xx}	S _{yy}	J	C
			cm ⁴	cm ⁴	cm	cm	cm ³	cm ³	cm ³	cm ³	cm ⁴	cm ³
140X140X5.0	20.69	26.36	790.56	790.56	5.48	5.48	112.94	112.94	132.30	132.30	1266.79	167.29
140X140X6.0	24.52	31.23	920.43	920.43	5.43	5.43	131.49	131.49	155.33	155.33	1482.50	193.59
140X140X8.0	31.86	40.59	1153.92	1153.92	5.33	5.33	164.85	164.85	198.05	198.05	1859.75	238.59
150X150X2.9	13.23	16.85	603.62	603.62	5.99	5.99	80.49	80.49	92.53	92.53	945.70	120.29
150X150X3.2	14.55	18.53	660.62	660.62	5.97	5.97	88.09	88.09	101.50	101.50	1038.64	131.55
150X150X3.6	16.29	20.75	735.09	735.09	5.95	5.95	98.02	98.02	113.28	113.28	1160.76	146.21
150X150X4.0	18.02	22.95	807.82	807.82	5.93	5.93	107.71	107.71	124.87	124.87	1280.69	160.46
150X150X4.5	20.15	25.67	896.30	896.30	5.91	5.91	119.51	119.51	139.08	139.08	1427.31	177.70
150X150X5.0	22.26	28.36	982.12	982.12	5.88	5.88	130.95	130.95	152.98	152.98	1570.02	194.30
150X150X6.0	26.40	33.63	1145.91	1145.91	5.84	5.84	152.79	152.79	179.88	179.88	1842.55	225.53
150X150X8.0	34.38	43.79	1443.00	1443.00	5.74	5.74	192.40	192.40	230.11	230.11	2328.39	279.93
150X150X10.0	41.93	53.42	1701.21	1701.21	5.64	5.64	226.83	226.83	275.67	275.67	2720.95	323.18
175X175X4.0	21.16	26.95	1303.12	1303.12	6.95	6.95	148.93	148.93	171.90	171.90	2053.97	222.27
175X175X4.5	23.68	30.17	1448.83	1448.83	6.93	6.93	165.59	165.59	191.75	191.75	2293.76	246.80
175X175X5.0	26.19	33.36	1590.86	1590.86	6.91	6.91	181.82	181.82	211.24	211.24	2528.72	270.58
175X175X6.0	31.11	39.63	1864.03	1864.03	6.86	6.86	213.04	213.04	249.15	249.15	2982.78	315.88
175X175X8.0	40.66	51.79	2367.89	2367.89	6.76	6.76	270.62	270.62	320.75	320.75	3818.44	397.28
175X175X10.0	49.78	63.42	2817.20	2817.20	6.66	6.66	321.97	321.97	386.83	386.83	4540.40	465.99
180X180X4.0	21.78	27.75	1421.74	1421.74	7.16	7.16	157.98	157.98	182.21	182.21	2238.61	235.83
180X180X4.5	24.39	31.07	1581.26	1581.26	7.13	7.13	175.70	175.70	203.30	203.30	2500.75	261.96
180X180X5.0	26.97	34.36	1736.87	1736.87	7.11	7.11	192.99	192.99	224.02	224.02	2757.85	287.33
180X180X6.0	32.05	40.83	2036.52	2036.52	7.06	7.06	226.28	226.28	264.35	264.35	3255.59	335.75
180X180X8.0	41.91	53.39	2590.73	2590.73	6.97	6.97	287.86	287.86	340.68	340.68	4175.84	423.14
180X180X10.0	51.35	65.42	3086.93	3086.93	6.87	6.87	343.00	343.00	411.31	411.31	4978.18	497.54
200X200X4.0	24.30	30.95	1968.13	1968.13	7.97	7.97	196.82	196.82	226.44	226.44	3087.18	294.08
200X200X4.5	27.22	34.67	2191.54	2191.54	7.95	7.95	219.16	219.16	252.86	252.86	3452.29	327.13
200X200X5.0	30.11	38.36	2410.09	2410.09	7.93	7.93	241.01	241.01	278.87	278.87	3811.54	359.35
200X200X6.0	35.82	45.63	2832.75	2832.75	7.88	7.88	283.28	283.28	329.67	329.67	4511.01	421.22
200X200X8.0	46.94	59.79	3621.63	3621.63	7.78	7.78	362.17	362.17	426.39	426.39	5823.37	534.59
200X200X10.0	57.63	73.42	4337.63	4337.63	7.69	7.69	433.77	433.77	516.73	516.73	7000.54	633.74
200X200X12.0	67.93	86.53	4983.59	4983.59	7.59	7.59	498.36	498.36	600.81	600.81	8019.34	718.18
220X220X4.5	30.04	38.27	2941.55	2941.55	8.77	8.77	267.42	267.42	307.83	307.83	4617.74	399.50
220X220X5.0	33.25	42.36	3238.02	3238.02	8.74	8.74	294.37	294.37	339.73	339.73	5102.67	439.36
220X220X6.0	39.59	50.43	3813.36	3813.36	8.70	8.70	346.67	346.67	402.18	402.18	6050.76	516.29
220X220X8.0	51.96	66.19	4894.99	4894.99	8.60	8.60	445.00	445.00	521.70	521.70	7848.38	658.83
220X220X10.0	63.91	81.42	5887.19	5887.19	8.50	8.50	535.20	535.20	634.16	634.16	9492.81	785.91
220X220X12.0	75.46	96.13	6793.08	6793.08	8.41	8.41	617.56	617.56	739.66	739.66	10958.24	897.07
225X225X4.5	30.75	39.17	3152.57	3152.57	8.97	8.97	280.23	280.23	322.41	322.41	4945.06	418.72
225X225X5.0	34.04	43.36	3471.05	3471.05	8.95	8.95	308.54	308.54	355.88	355.88	5465.36	460.61
225X225X6.0	40.53	51.63	4089.57	4089.57	8.90	8.90	363.52	363.52	421.43	421.43	6483.49	541.55
225X225X8.0	53.22	67.79	5254.21	5254.21	8.80	8.80	467.05	467.05	547.03	547.03	8418.11	691.89
225X225X10.0	65.48	83.42	6325.02	6325.02	8.71	8.71	562.23	562.23	665.39	665.39	10194.92	826.45

Dimension	Weight	Area	Moment of Inertia		Radius of Gyration		Elastic Modulus		Plastic Modulus		Torsional Constants	
			I _{xx}	I _{yy}	R _{xx}	R _{yy}	Z _{xx}	Z _{yy}	S _{xx}	S _{yy}	J	C
			cm ⁴	cm ⁴	cm	cm	cm ³	cm ³	cm ³	cm ³	cm ⁴	cm ⁴
mm	kg/m	cm ²										
225X225X120	77.35	98.53	7305.19	7305.19	8.61	8.61	649.36	649.36	776.62	776.62	11787.46	944.78
250X250X50	37.96	48.36	4805.01	4805.01	9.97	9.97	384.41	384.41	442.26	442.26	7573.06	574.38
250X250X250	45.24	57.63	5672.00	5672.00	9.92	9.92	453.76	453.76	524.45	524.45	8956.46	676.88
250X250X80	59.50	75.79	7315.65	7315.65	9.82	9.82	585.26	585.26	682.67	682.67	11677.65	869.16
250X250X100	73.33	93.42	8841.86	8841.86	9.73	9.73	707.35	707.35	832.79	832.79	14217.20	1044.1
250X250X120	86.77	110.53	10254.21	10254.21	9.63	9.63	820.34	820.34	974.94	974.94	16545.51	1201.32
275X275X50	41.89	53.36	6443.20	6443.20	10.99	10.99	468.60	468.60	538.02	538.02	10073.49	700.64
275X275X60	49.95	63.63	7617.53	7617.53	10.94	10.94	554.01	554.01	638.71	638.71	11986.16	827.20
275X275X80	65.83	83.79	9855.94	9855.94	10.85	10.85	716.80	716.80	833.31	833.31	15676.96	1066.43
275X275X100	81.18	103.42	11950.66	11950.66	10.75	10.75	869.14	869.14	1018.95	1018.95	19161.08	1286.77
275X275X120	96.19	122.53	13905.64	13905.64	10.65	10.65	1011.32	1011.32	1195.75	1195.75	22405.82	1487.80
300X300X60	54.66	69.63	9963.67	9963.67	11.96	11.96	664.25	664.25	764.23	764.23	15628.84	992.52
300X300X80	72.06	91.79	12925.07	12925.07	11.87	11.87	861.68	861.68	998.95	998.95	20491.03	1283.68
300X300X100	89.03	113.42	15713.90	15713.90	11.77	11.77	1047.60	1047.60	1223.86	1223.86	25120.26	1554.40
300X300X120	105.61	134.53	18334.49	18334.49	11.67	11.67	1222.30	1222.30	1439.07	1439.07	29480.79	1804.25
200X200X140	77.80	99.11	5562.26	5562.26	7.49	7.49	556.23	556.23	678.74	678.74	8857.57	787.40
250X250X140	99.78	127.11	11556.23	11556.23	9.53	9.53	924.50	924.50	1109.22	1109.22	18633.47	1340.24
300X300X140	121.76	155.11	20791.11	20791.11	11.58	11.58	1386.08	1386.08	1644.70	1644.70	33537.11	2032.77
300X300X160	137.51	175.17	23088.02	23088.02	11.48	11.48	1539.21	1539.21	1840.89	1840.89	37254.21	2239.48
300X300X180	152.84	194.70	25229.94	25229.94	11.38	11.38	1681.97	1681.97	2027.73	2027.73	40597.89	2423.87
300X300X200	167.75	213.70	27219.42	27219.42	11.29	11.29	1814.63	1814.63	2205.36	2205.36	43535.12	2585.43
350X350X60	64.08	81.63	16007.75	16007.75	14.00	14.00	914.73	914.73	1049.01	1049.01	24978.15	1368.15
350X350X80	84.62	107.79	20849.89	20849.89	13.91	13.91	1191.43	1191.43	1375.23	1375.23	32863.45	1778.17
350X350X100	104.73	133.42	25453.75	25453.75	13.81	13.81	1454.50	1454.50	1689.92	1689.92	40459.45	2164.61

SHS (Square Hollow Section) Size Range

S. No.	Grade	Tensile Strength	Yield Strength	Elongation	DIMENSIONAL TOLERANCE					
		Min MPa	Min MPa	Min Percent	Outside Dimensional	Thickness	Squareness	Corner radius	Weight Individual Lengths	On lot 10 M
1	YSt 210	330	210	20	+/-1% with a minimum of +/-0.50 min	±7.5%	90 deg. +/-2 deg.	3t max	10% -8%	±7%
2	YSt 240	410	240	15						
3	YSt 310	450	310	10						
4	YSt 355	490	355	10						

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SQUARE HOLLOW SECTION