



SQUARE HOLLOW SECTION (SHS) IS 4923:1997/ EN 10219/ASTM A500

S. no.	Designation/ Size	Thickness	Weight	Area of Section	Moment of Inertia	Radius of Gyration	Elastic Modulus	Plastic Modulus
	mm	mm	kg/m	cm ²	cm ⁴	cm	cm ³	cm ³
1	20 × 20 × 1.2	1.2	0.68	0.87	0.50	0.76	0.50	0.60
2	20 × 20 × 2.0	2.0	1.05	1.34	0.69	0.72	0.69	0.88
3	25 × 25 × 1.2	1.2	0.87	1.11	1.03	0.96	0.82	0.97
4	25 × 25 × 1.6	1.6	1.12	1.43	1.28	0.94	1.02	1.24
5	25 × 25 × 1.8	1.8	1.25	1.59	1.38	0.93	1.11	1.35
6	25 × 25 × 2.0	2.0	1.36	1.74	1.48	0.92	1.19	1.47
7	25 × 25 × 2.5	2.5	1.64	2.09	1.69	0.90	1.35	1.71
8	25 × 25 × 2.9	2.9	1.84	2.35	1.81	0.88	1.45	1.88
9	32 × 32 × 1.2	1.2	1.13	1.44	2.25	1.25	1.41	1.65
10	32 × 32 × 1.6	1.6	1.48	1.88	2.84	1.23	1.78	2.12
11	32 × 32 × 1.8	1.8	1.64	2.09	3.11	1.22	1.95	2.33
12	32 × 32 × 2.0	2.0	1.80	2.30	3.36	1.21	2.10	2.54
13	32 × 32 × 2.5	2.5	2.19	2.79	3.92	1.19	2.45	3.02
14	32 × 32 × 2.9	2.9	2.48	3.16	4.30	1.17	2.68	3.36
15	32 × 32 × 3.2	3.2	2.69	3.42	4.54	1.15	2.83	3.59
16	32 × 32 × 3.6	3.6	2.95	3.76	4.81	1.13	3.00	3.87
17	40 × 40 × 1.6	1.6	1.88	2.39	5.79	1.56	2.90	3.41
18	40 × 40 × 1.8	1.8	2.09	2.67	6.38	1.55	3.19	3.78
19	40 × 40 × 2.0	2.0	2.31	2.94	6.94	1.54	3.47	4.13
20	40 × 40 × 2.5	2.5	2.82	3.59	8.21	1.51	4.11	4.97
21	40 × 40 × 2.9	2.9	3.21	4.09	9.11	1.49	4.56	5.58
22	40 × 40 × 3.2	3.2	3.49	4.45	9.72	1.48	4.86	6.00
23	40 × 40 × 3.6	3.6	3.85	4.91	10.44	1.46	5.22	6.53
24	40 × 40 × 4.0	4.0	4.20	5.35	11.07	1.44	5.54	7.01
25	50 × 50 × 1.8	1.8	2.66	3.39	12.9	1.96	5.18	6.07
26	50 × 50 × 2.0	2.0	2.93	3.74	14.1	1.95	5.66	6.66
27	50 × 50 × 2.5	2.5	3.60	4.59	16.9	1.92	6.78	8.07
28	50 × 50 × 2.9	2.9	4.12	5.25	19.0	1.90	7.59	9.13
29	50 × 50 × 3.2	3.2	4.50	5.73	20.4	1.89	8.16	9.89
30	50 × 50 × 3.6	3.6	4.98	6.35	22.1	1.87	8.86	10.84
31	50 × 50 × 4.0	4.0	5.45	6.95	23.7	1.85	9.49	11.73
32	60 × 60 × 2.5	2.5	4.39	5.59	30.3	2.33	10.11	11.93
33	60 × 60 × 2.9	2.9	5.03	6.41	34.2	2.31	11.40	13.56
34	60 × 60 × 3.2	3.2	5.50	7.01	36.9	2.30	12.31	14.73
35	60 × 60 × 3.6	3.6	6.11	7.79	40.4	2.28	13.45	16.22
36	60 × 60 × 4.0	4.0	6.71	8.55	43.5	2.26	14.52	17.64
37	60 × 60 × 4.8	4.8	7.85	10.00	49.2	2.22	16.40	20.27
38	72 × 72 × 2.5	2.5	5.33	6.79	54.0	2.82	15.00	17.55
39	72 × 72 × 2.9	2.9	6.12	7.80	61.2	2.80	16.99	20.01
40	72 × 72 × 3.2	3.2	6.71	8.54	66.32	2.79	18.42	21.80
41	72 × 72 × 3.6	3.6	7.47	9.52	72.85	2.77	20.24	24.11
42	72 × 72 × 4.0	4.0	8.22	10.47	79.02	2.75	21.95	26.32

43	72 x 72 x 4.8	4.8	9.66	12.31	90.30	2.71	25.08	30.48
44	80 x 80 x 2.5	2.5	5.96	7.59	75.1	3.15	18.79	21.89
45	80 x 80 x 2.9	2.9	6.85	8.73	85.4	3.13	21.34	25.01
46	80 x 80 x 3.2	3.2	7.51	9.57	92.7	3.11	23.18	27.29
47	80 x 80 x 4.0	4.0	9.22	11.75	111.0	3.07	27.76	33.07
48	80 x 80 x 4.8	4.8	10.87	13.84	127.6	3.04	31.89	38.45
49	80 x 80 x 6.0	6.0	13.21	16.83	149.2	2.98	37.29	45.78
50	91.5 x 91.5 x 2.5	2.5	6.86	8.74	114.3	3.62	24.98	28.98
51	91.5 x 91.5 x 3.2	3.2	8.66	11.04	141.7	3.58	30.97	36.25
52	91.5 x 91.5 x 4.0	4.0	10.67	13.59	170.67	3.54	37.31	44.11
53	91.5 x 91.5 x 4.8	4.8	12.60	16.05	197.25	3.51	43.12	51.51
54	100 x 100 x 2.9	2.9	8.67	11.05	171.85	3.94	34.37	39.95
55	100 x 100 x 3.2	3.2	9.52	12.13	187.27	3.93	37.45	43.69
56	100 x 100 x 3.6	3.6	10.63	13.55	207.17	3.91	41.43	48.56
57	100 x 100 x 4.0	4.0	11.73	14.95	226.34	3.89	45.27	53.30
58	100 x 100 x 5.0	5.0	14.41	18.36	271.08	3.84	54.22	64.59
59	100 x 100 x 6.0	6.0	16.98	21.63	311.45	3.79	62.29	75.09
60	113.5 x 113.5 x 4.0	4.0	13.43	17.11	337.65	4.44	59.50	69.66
61	113.5 x 113.5 x 5.4	5.4	17.74	22.60	432.55	4.38	76.22	90.54
62	113.5 x 113.5 x 6.0	6.0	19.52	24.87	469.78	4.35	82.78	98.95
63	120 x 120 x 3.6	3.6	12.90	16.43	367.1	4.73	61.18	71.20
64	120 x 120 x 4.0	4.0	14.25	18.15	402.3	4.71	67.04	78.32
65	120 x 120 x 6.0	6.0	20.75	26.43	562.1	4.61	93.69	111.61
66	125 x 125 x 4.0	4.0	14.87	18.95	457.2	4.91	73.15	85.33
67	125 x 125 x 5.0	5.0	18.33	23.36	552.58	4.86	88.41	104.09
68	125 x 125 x 6.0	6.0	21.69	27.63	640.84	4.82	102.53	121.86
69	132 x 132 x 4.0	4.0	15.75	20.07	542.22	5.20	82.16	95.64
70	132 x 132 x 4.8	4.8	18.70	23.83	634.36	5.16	96.11	112.68
71	132 x 132 x 6.0	6.0	23.01	29.31	762.93	5.10	115.60	136.97
72	150 x 150 x 3.2	3.2	14.54	18.53	660.6	5.97	88.08	101.49
73	150 x 150 x 4.0	4.0	18.01	22.95	807.8	5.93	107.70	124.86
74	150 x 150 x 5.0	5.0	22.26	28.36	982.07	5.89	130.94	152.97
75	150 x 150 x 6.0	6.0	26.40	33.63	1145.84	5.84	152.78	179.87
76	150 x 150 x 8.0	8.0	34.37	43.79	1442.89	5.74	192.39	230.09
77	180 x 180 x 5.0	5.0	26.97	34.36	1736.79	7.11	192.98	224.01
78	180 x 180 x 6.0	6.0	32.05	40.83	2036.42	7.06	226.27	264.34
79	180 x 180 x 8.0	8.0	41.91	53.39	2590.56	6.97	287.84	340.66
80	180 x 180 x 9.0	9.0	46.68	59.47	2845.72	6.92	316.19	376.67
81	180 x 180 x 10	10.0	51.35	65.42	3086.69	6.87	342.97	411.27
82	180 x 180 x 12	12.0	60.39	76.92	3527.32	6.77	391.92	476.31
83	200 x 200 x 6.0	6.0	35.82	45.63	2832.6	7.88	283.26	329.65
84	200 x 200 x 8.0	8.0	46.93	59.79	3621.4	7.78	362.14	426.36
85	200 x 200 x 10	10.0	57.63	73.42	4337.3	7.69	433.73	516.69
86	200 x 200 x 12	12.0	67.92	86.52	4983.2	7.59	498.32	600.76
87	220 x 220 x 6.0	6.0	39.59	50.43	3813.19	8.70	346.65	402.16
88	220 x 220 x 8.0	8.0	51.96	66.19	4894.72	8.60	444.97	521.67
89	220 x 220 x 10	10.0	63.91	81.42	5886.79	8.50	535.16	634.11
90	220 x 220 x 12	12.0	75.46	96.12	6792.56	8.41	617.51	739.60
91	250 x 250 x 6.0	6.0	45.24	57.63	5671.78	9.92	453.74	524.43
92	250 x 250 x 8.0	8.0	59.49	75.79	7315.29	9.82	585.22	682.64
93	250 x 250 x 10	10.0	73.33	93.42	8841.33	9.73	707.31	832.74
94	250 x 250 x 12	12.0	86.76	110.52	10253.50	9.63	820.28	974.87