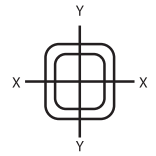


SQUARE HOLLOW SECTIONS

ASTM A 500 GRADES A AND B/MANUFACTURER'S STANDARD

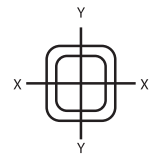


SIZE		DIMENSION						AREA	MOMENT OF INERTIA		SECTION MODULUS		RADIUS GYRATION		PLASTIC MODULUS	
NOMINAL	ACTUAL	WALL THICKNESS		CALCULATED WEIGHT					I _x	I _y	Z _x	Z _y	i _x	i _y	S _x	S _y
mm	in	mm	in	kg/m	kg/6m	kg/ft	lb/ft	cm ²	cm ⁴	cm ⁴	cm ³	cm ³	cm	cm	cm ³	cm ³
12 x 12	1/2 X 1/2	1.0	0.039	0.357	2.142	0.109	0.240	0.455	0.104	0.104	0.163	0.163	0.478	0.478	0.198	0.198
		1.2	0.047	0.421	2.526	0.128	0.283	0.537	0.118	0.118	0.185	0.185	0.470	0.470	0.231	0.231
		1.6	0.063	0.540	3.240	0.165	0.363	0.690	0.141	0.141	0.223	0.223	0.452	0.452	0.285	0.285
16 x 16	5/8 X 5/8	1.0	0.039	0.456	2.736	0.139	0.306	0.581	0.214	0.214	0.269	0.269	0.607	0.607	0.323	0.323
		1.2	0.047	0.540	3.249	0.165	0.363	0.690	0.246	0.246	0.310	0.310	0.597	0.597	0.377	0.377
		1.6	0.063	0.699	4.194	0.213	0.470	0.890	0.301	0.301	0.380	0.380	0.582	0.582	0.475	0.475
19 x 19	3/4 X 3/4	1.0	0.039	0.555	3.330	0.169	0.373	0.710	0.383	0.383	0.401	0.401	0.737	0.737	0.477	0.477
		1.2	0.047	0.659	3.954	0.201	0.443	0.839	0.445	0.445	0.467	0.467	0.726	0.726	0.560	0.560
		1.6	0.063	0.859	5.154	0.262	0.577	1.097	0.554	0.554	0.580	0.580	0.711	0.711	0.713	0.713
25 x 25	1 x 1	1.0	0.039	0.752	4.512	0.229	0.505	0.961	0.949	0.949	0.747	0.747	0.996	0.996	0.875	0.875
		1.2	0.047	0.897	5.382	0.273	0.603	1.142	1.111	1.111	0.877	0.877	0.986	0.986	1.036	1.036
		1.6	0.063	1.18	7.080	0.359	0.791	1.503	1.411	1.411	1.111	1.111	0.970	0.970	1.334	1.334
		2.3	0.091	1.54	9.240	0.470	1.05	2.135	1.844	1.844	1.458	1.458	0.942	0.942	1.780	1.780
		3.0	0.120	2.07	12.420	0.632	1.39	2.645	2.198	2.198	1.737	1.737	0.912	0.912	2.196	2.196
		3.2	0.125	2.15	12.900	0.654	1.44	2.735	2.248	2.248	1.770	1.770	0.907	0.907	2.261	2.261
32 x 32	1 1/4 X 1 1/4	1.2	0.047	1.13	6.780	0.346	0.762	1.445	2.243	2.243	1.414	1.414	1.245	1.245	1.655	1.655
		1.6	0.063	1.50	9.000	0.456	1.01	1.910	2.880	2.880	1.819	1.819	1.229	1.229	2.147	2.147
		2.3	0.091	2.02	12.120	0.616	1.36	2.671	3.838	3.838	2.425	2.425	1.199	1.199	2.933	2.933
		3.0	0.120	2.68	16.080	0.817	1.80	3.419	4.662	4.662	2.950	2.950	1.168	1.168	3.654	3.654
		3.2	0.125	2.78	16.680	0.847	1.87	3.542	4.787	4.787	3.032	3.032	1.163	1.163	3.769	3.769
38 x 38	1 1/2 X 1 1/2	1.2	0.047	1.37	8.220	0.418	0.922	1.748	3.963	3.963	2.081	2.081	1.504	1.504	2.409	2.409
		1.6	0.063	1.81	10.860	0.553	1.22	2.316	5.120	5.120	2.687	2.687	1.488	1.488	3.163	3.163
		2.3	0.091	2.48	14.880	0.756	1.67	3.258	6.909	6.909	3.622	3.622	1.455	1.455	4.195	4.195
		3.0	0.120	3.29	19.740	1.000	2.21	4.194	8.533	8.533	4.490	4.490	1.427	1.427	5.490	5.490
		3.2	0.125	3.41	20.460	1.040	2.29	4.348	8.782	8.782	4.621	4.621	1.422	1.422	5.670	5.670
50 x 50	2 x 2	1.6	0.063	2.45	14.700	0.747	1.65	3.129	12.570	12.570	4.949	4.949	2.007	2.007	5.752	5.752
		2.3	0.091	3.40	20.400	1.04	2.28	4.445	17.315	17.315	6.817	6.817	1.974	1.974	8.095	8.095
		3.0	0.120	4.38	26.280	1.33	2.94	5.581	20.728	20.728	8.161	8.161	1.928	1.928	9.849	9.849
		3.2	0.125	4.54	27.240	1.38	3.05	5.787	21.353	21.353	8.407	8.407	1.920	1.920	10.176	10.176
		4.0	0.156	5.50	33.000	1.68	3.70	7.032	24.891	24.891	9.799	9.799	1.882	1.882	12.077	12.077
		4.5	0.177	6.11	36.654	1.86	4.10	7.806	26.805	26.805	10.553	10.553	1.854	1.854	13.224	13.224
65 x 65	2 1/2 X 2 1/2	2.3	0.091	4.31	25.878	1.32	2.90	5.548	34.131	34.131	10.750	10.750	2.479	2.479	14.109	14.109
		3.0	0.120	5.59	33.540	1.70	3.76	7.161	42.872	42.872	13.437	13.437	2.446	2.446	15.977	15.977
		3.2	0.125	5.80	34.800	1.77	3.90	7.419	44.121	44.121	13.880	13.880	2.441	2.441	16.551	16.551
		4.0	0.156	7.08	47.480	2.16	4.76	9.032	52.029	52.029	16.387	16.387	2.403	2.403	19.828	19.828
		4.5	0.177	7.88	47.271	2.40	5.30	10.064	56.607	56.607	17.862	17.862	2.375	2.375	21.467	21.467
		6.0	0.236	10.10	60.590	3.08	6.77	12.839	71.592	71.592	22.450	22.450	2.357	2.357	28.186	28.186
75 x 75	3 x 3	2.3	0.091	5.23	31.386	1.59	3.52	6.645	59.937	59.937	15.732	15.732	3.023	3.023	20.484	20.484
		3.0	0.120	6.81	40.860	2.07	4.57	8.710	76.170	76.170	19.992	19.992	2.972	2.972	23.597	23.597
		3.2	0.125	7.07	42.420	2.15	4.75	9.032	79.084	79.084	20.648	20.648	2.946	2.946	24.417	24.417
		4.0	0.156	8.66	51.960	2.64	5.82	11.302	94.068	94.068	24.744	24.744	2.921	2.921	29.497	29.497
		4.5	0.177	9.70	58.191	2.95	6.52	12.387	103.225	103.225	27.039	27.039	2.896	2.896	32.774	32.774
		5.0	0.197	10.76	64.555	3.26	7.21	13.742	113.215	113.215	29.661	29.661	2.870	2.870	35.724	35.724
		6.0	0.236	12.78	76.678	3.87	8.56	16.323	129.864	129.864	34.085	34.085	2.819	2.819	41.951	41.951



SQUARE HOLLOW SECTIONS

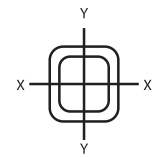
ASTM A 500 GRADES A AND B/MANUFACTURER'S STANDARD



SIZE		DIMENSION						AREA	MOMENT OF INERTIA		SECTION MODULUS		RADIUS GYRATION		PLASTIC MODULUS	
NOMINAL	ACTUAL	WALL THICKNESS		CALCULATED WEIGHT					I _x	I _y	Z _x	Z _y	i _x	i _y	S _x	S _y
mm	in	mm	in	kg/m	kg/6m	kg/ft	lb/ft	cm ²	cm ⁴	cm ⁴	cm ³	cm ³	cm	cm	cm ³	cm ³
90 x 90	3 1/2 x 3 1/2	3.0	0.120	8.02	48.120	2.44	5.39	10.26	124.04	124.04	27.86	27.86	3.48	3.48	32.61	32.61
		3.2	0.125	8.33	49.980	2.54	5.60	10.65	128.62	128.62	28.84	28.84	3.48	3.48	33.92	33.92
		4.0	0.156	10.20	61.200	3.12	6.88	13.03	154.42	154.42	34.74	34.74	3.43	3.43	41.13	41.13
		4.5	0.177	11.50	68.984	3.50	7.70	14.65	170.65	170.65	38.35	38.35	3.40	3.40	45.72	45.72
		5.0	0.197	12.76	76.582	3.88	8.55	16.26	187.72	187.72	42.28	42.28	3.40	3.40	50.14	50.14
		6.0	0.236	14.88	89.273	4.54	9.98	18.97	213.11	213.11	47.85	47.85	3.35	3.35	61.94	61.94
100 x 100	4 x 4	3.0	0.120	9.23	55.38	2.81	6.21	11.81	188.55	188.55	37.20	37.20	4.01	4.01	43.26	43.26
		3.2	0.125	9.60	57.600	2.93	6.45	12.26	195.63	195.63	38.51	38.51	3.99	3.99	44.90	44.90
		4.0	0.156	11.8	70.800	3.60	7.94	15.10	236.00	236.00	46.54	46.54	3.96	3.96	54.73	54.73
		4.5	0.177	13.3	79.874	4.06	8.95	16.97	261.39	261.39	51.46	51.46	3.94	3.94	60.96	60.96
		5.0	0.197	14.7	88.295	4.48	9.89	18.77	286.78	286.78	56.37	56.37	3.91	3.91	66.20	66.20
		6.0	0.236	17.2	103.110	5.22	11.50	21.87	325.49	325.49	64.07	64.07	3.86	3.86	76.86	76.86
125 x 125	5 x 5	4.5	0.177	16.9	101.400	5.15	11.4	21.48	528.61	528.61	83.25	83.25	5.00	5.00	97.67	97.67
		5.0	0.197	18.7	112.260	5.71	12.6	23.87	582.72	582.72	91.93	91.93	4.95	4.95	106.68	106.68
		6.0	0.236	22.1	132.420	6.73	14.8	28.00	665.97	665.97	105.20	105.20	4.88	4.88	125.03	125.03
150 x 150	6 x 6	4.5	0.177	20.5	122.940	6.25	13.8	26.06	936.52	936.52	122.90	122.90	5.99	5.99	143.06	143.06
		5.0	0.197	22.7	135.970	6.90	15.21	28.90	1036.42	1036.42	136.01	136.01	5.99	5.99	156.99	156.99
		6.0	0.236	26.9	161.000	8.19	18.0	34.06	1194.58	1194.58	156.99	156.99	5.92	5.92	185.17	185.17

SQUARE HOLLOW SECTIONS

ASTM A 500 GRADES A AND B/MANUFACTURER'S STANDARD



ACTUAL SIZE	DIMENSION						AREA	MOMENT OF INERTIA		SECTION MODULUS		RADIUS GYRATION		PLASTIC MODULUS	
	WALL THICKNESS	CALCULATED WEIGHT				I _x		I _y	Z _x	Z _y	i _x	i _y	S _x	S _y	
mm	mm	kg/m	kg/6m	kg/ft	lb/ft	cm ²	cm ⁴	cm ⁴	cm ³	cm ³	cm	cm	cm ³	cm ³	
100 x 100	9.0	24.1	144.5	7.34	16.1	30.65	407.9	407.9	85.05	85.05	3.66	3.66	105.5	105.5	
125 x 125	9.0	31.1	186.87	9.49	20.9	39.68	865.8	865.8	138.0	138.0	4.70	4.70	171.2	171.2	
150 x 150	9.0	38.2	229.26	11.64	25.6	48.65	1582	1582	209.8	209.8	5.69	5.69	252.4	252.4	
175 x 175	4.5	23.7	142.1	7.22	15.9	30.19	1386	1386	158.3	158.3	6.78	6.78	191.7	191.7	
	6.0	31.1	186.9	9.49	20.9	39.61	1798	1798	204.8	204.8	6.73	6.73	242.5	242.5	
	9.0	45.3	271.6	13.8	30.4	57.68	2560	2560	293.3	293.3	6.65	6.65	350.7	350.7	
	12.0	58.5	351.1	17.8	39.2	74.84	3242	3242	370.3	370.3	6.60	6.60	450.6	450.6	
200 x 200	4.5	27.2	163.3	8.30	18.2	34.65	2189	2189	219.6	219.6	7.95	7.95	242.5	242.5	
	6.0	35.8	214.9	10.9	24.0	45.61	2830	2830	283.5	283.5	7.87	7.87	329.4	329.4	
	9.0	52.3	313.8	16.0	35.1	66.45	3992	3992	398.2	398.2	7.72	7.72	471.9	471.9	
	12.0	67.9	407.6	20.7	45.6	86.45	4978	4978	498.2	498.2	7.59	7.59	601.4	601.4	
250 x 250	6.0	45.2	271.5	13.8	30.3	57.61	5669	5669	453.9	453.9	9.93	9.93	606.3	606.3	
	9.0	66.5	398.8	20.3	44.6	84.52	8092	8092	647.3	647.3	9.78	9.78	758.7	758.7	
	12.0	86.8	520.6	26.4	58.2	110.3	10302	10302	819.4	819.4	9.63	9.63	975.0	975.0	