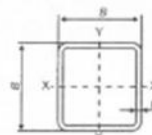


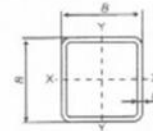
# Cold Formed Square Hollow Sections



BS EN 10219

Designation		Weight	Cross Sectional Area	Second Moment of Area	Radius of Gyration	Elastic Modulus	Plastic Modulus	Torsional inertia constant	Torsional modulus constant	Superficial Area per metre length	Superficial Area per metre length	Nominal Length per tonne	Ratio for Local Buckling
Size	Thickness												
B × B	T	M	A	I	i	W <sub>el</sub>	W <sub>pl</sub>	L <sub>t</sub>	C <sub>t</sub>	As	As	L	Flange
mm	mm	Kg/m	cm <sup>2</sup>	cm <sup>4</sup>	cm	cm <sup>3</sup>	cm <sup>3</sup>	cm <sup>4</sup>	cm <sup>3</sup>	m <sup>2</sup> /m	m <sup>2</sup> /m	m	B/T
19 × 19	1.6	0.822	1.05	0.51	0.70	0.54	0.67	0.88	0.82	0.07	0.07	1215.92	6.88
20 × 20	1.6	0.873	1.11	0.61	0.74	0.61	0.75	1.03	0.92	0.07	0.08	1145.92	7.50
20 × 20	2.0	1.050	1.34	0.69	0.72	0.69	0.88	1.21	1.06	0.07	0.07	952.80	5.00
25 × 25	1.6	1.160	1.43	1.28	0.94	1.02	1.24	2.12	1.54	0.09	0.10	889.79	10.63
25 × 25	2.0	1.364	1.74	1.48	0.92	1.19	1.47	2.53	1.80	0.09	0.09	733.39	7.50
25 × 25	2.3	1.600	1.95	1.61	0.91	1.29	1.62	2.80	1.97	0.09	0.09	652.55	5.87
25 × 25	2.5	1.640	2.09	1.69	0.90	1.35	1.71	2.97	2.07	0.09	0.09	609.79	5.00
25 × 25	3.0	2.010	2.41	1.84	0.87	1.47	1.91	3.33	2.27	0.09	0.09	528.97	3.33
30 × 30	1.6	1.410	1.75	2.31	1.15	1.54	1.84	3.77	2.32	0.11	0.12	727.24	13.75
30 × 30	2.0	1.678	2.14	2.72	1.13	1.81	2.21	4.54	2.75	0.11	0.11	596.11	10.00
30 × 30	2.3	1.970	2.41	2.99	1.11	2.00	2.45	5.07	3.03	0.11	0.11	528.11	8.04
30 × 30	2.5	2.032	2.59	3.16	1.10	2.10	2.61	5.40	3.20	0.11	0.11	492.03	7.00
30 × 30	3.0	2.480	3.01	3.50	1.08	2.34	2.96	6.15	3.58	0.11	0.11	423.47	5.00
32 × 32	1.6	1.510	1.88	2.84	1.23	1.78	2.12	4.62	2.68	0.12	0.12	677.72	15.00
32 × 32	1.8	1.690	2.09	3.11	1.22	1.95	2.33	5.11	2.94	0.12	0.12	609.23	12.78
32 × 32	2.0	1.860	2.30	3.36	1.21	2.10	2.54	5.58	3.18	0.12	0.12	554.59	11.00
32 × 32	2.3	2.110	2.60	3.71	1.20	2.32	2.84	6.24	3.52	0.12	0.12	490.68	8.91
32 × 32	2.5	2.189	2.79	3.92	1.19	2.45	3.02	6.66	3.72	0.12	0.12	456.75	7.80
32 × 32	3.0	2.670	3.25	4.38	1.16	2.74	3.44	7.62	4.18	0.12	0.12	392.18	5.67
32 × 32	3.2	2.830	3.42	4.54	1.15	2.84	3.59	7.96	4.34	0.12	0.12	372.19	5.00
35 × 35	1.6	1.626	2.07	3.79	1.35	2.16	2.57	6.11	3.26	0.13	0.14	614.91	16.88
35 × 35	2.0	1.992	2.54	4.51	1.33	2.58	3.09	7.41	3.89	0.13	0.13	502.12	12.50
35 × 35	2.3	2.255	2.87	4.99	1.32	2.85	3.46	8.31	4.32	0.13	0.13	443.53	10.22
35 × 35	2.5	2.425	3.09	5.29	1.31	3.02	3.69	8.89	4.58	0.13	0.13	412.39	9.00
35 × 35	3.0	2.832	3.61	5.95	1.28	3.40	4.23	10.22	5.18	0.13	0.13	353.05	6.67
38 × 38	1.6	1.810	2.26	4.92	1.47	2.59	3.06	7.90	3.90	0.15	0.15	562.75	18.75
38 × 38	2.0	2.230	2.78	5.88	1.46	3.10	3.70	9.60	4.67	0.15	0.15	458.73	14.00
38 × 38	2.3	2.540	3.15	6.54	1.44	3.44	4.15	10.80	5.20	0.14	0.14	404.64	11.52
38 × 38	2.5	2.660	3.39	6.94	1.43	3.65	4.44	11.56	5.53	0.14	0.14	375.88	10.20
38 × 38	3.0	3.240	3.97	7.85	1.41	4.13	5.10	13.35	6.28	0.14	0.14	321.02	7.67
38 × 38	4.0	3.947	5.03	9.26	1.36	4.87	6.22	16.38	7.48	0.14	0.14	253.36	4.50
40 × 40	1.6	1.877	2.39	5.79	1.56	2.90	3.41	9.27	4.36	0.15	0.16	532.63	20.00
40 × 40	1.9	2.200	2.80	6.66	1.54	3.33	3.96	10.79	5.02	0.15	0.15	454.53	16.05
40 × 40	2.0	2.306	2.94	6.94	1.54	3.47	4.13	11.28	5.23	0.15	0.15	433.74	15.00
40 × 40	2.3	2.616	3.33	7.73	1.52	3.86	4.64	12.70	5.83	0.15	0.15	382.30	12.39
40 × 40	2.5	2.817	3.59	8.22	1.51	4.11	4.97	13.61	6.21	0.15	0.15	354.94	11.00
40 × 40	3.0	3.303	4.21	9.32	1.49	4.66	5.72	15.75	7.07	0.15	0.15	302.71	8.33
40 × 40	4.0	4.198	5.35	11.07	1.44	5.54	7.01	19.44	8.48	0.15	0.15	238.20	5.00
50 × 50	1.6	2.410	3.03	11.71	1.96	4.68	5.46	18.48	7.03	0.19	0.20	420.19	26.25
50 × 50	1.9	2.797	3.56	13.55	1.95	5.42	6.37	21.61	8.15	0.19	0.19	357.57	21.32
50 × 50	2.0	2.934	3.74	14.15	1.95	5.66	6.66	22.63	8.51	0.19	0.19	340.89	20.00
50 × 50	2.3	3.410	4.25	15.86	1.93	6.34	7.52	25.61	9.55	0.19	0.19	299.58	16.74
50 × 50	2.5	3.602	4.59	16.94	1.92	6.78	8.07	27.53	10.22	0.19	0.19	277.59	15.00
50 × 50	3.0	4.245	5.41	19.47	1.90	7.79	9.39	32.13	11.76	0.19	0.19	235.55	11.67
50 × 50	4.0	5.454	6.95	23.74	1.85	9.49	11.73	40.42	14.43	0.19	0.19	183.35	7.50
50 × 50	4.5	6.020	7.67	25.50	1.82	10.20	12.76	44.09	15.56	0.18	0.19	166.12	6.11
50 × 50	5.0	6.560	8.36	27.04	1.80	10.82	13.70	47.46	16.56	0.18	0.18	152.45	5.00
50 × 50	6.0	7.562	9.63	29.45	1.75	11.78	15.32	53.23	18.20	0.18	0.18	132.24	3.33
60 × 60	1.6	2.882	3.67	20.68	2.37	6.89	7.99	32.38	10.35	0.23	0.24	346.95	32.50
60 × 60	2.3	4.060	5.17	28.31	2.34	9.44	11.09	45.16	14.19	0.23	0.23	246.30	21.09
60 × 60	2.5	4.387	5.59	30.34	2.33	10.11	11.93	48.66	15.22	0.23	0.23	227.93	19.00
60 × 60	3.0	5.187	6.61	35.13	2.31	11.71	13.95	57.09	17.65	0.23	0.23	192.77	15.00
60 × 60	4.0	6.710	8.55	43.55	2.26	14.52	17.64	72.64	21.97	0.23	0.23	149.03	10.00
60 × 60	4.5	7.433	9.47	47.20	2.23	15.73	19.32	79.76	23.87	0.22	0.23	134.54	8.33

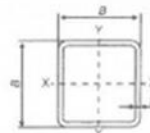
# Cold Formed Square Hollow Sections



BS EN 10219

Designation		Weight	Cross Sectional Area	Second Moment of Area	Radius of Gyration	Elastic Modulus	Plastic Modulus	Torsional inertia constant	Torsional modulus constant	Superficial Area per metre length	Superficial Area per metre length	Nominal Length per tonne	Ratio for Local Buckling
Size	Thickness												
B × B	T	M	A	I	i	W <sub>el</sub>	W <sub>pl</sub>	L <sub>t</sub>	C <sub>t</sub>	A <sub>s</sub>	A <sub>s</sub>	L	Flange
mm	mm	Kg/m	cm <sup>2</sup>	cm <sup>4</sup>	cm	cm <sup>3</sup>	cm <sup>3</sup>	cm <sup>4</sup>	cm <sup>3</sup>	m <sup>2</sup> /m	m <sup>2</sup> /m	m	B/T
64 × 64	2.3	4.349	5.54	34.71	2.50	10.85	12.71	55.15	16.31	0.25	0.25	229.94	22.83
64 × 64	3.0	5.564	7.09	43.22	2.47	13.51	16.03	69.88	20.34	0.25	0.25	179.72	16.33
64 × 64	4.0	7.213	9.19	53.84	2.42	16.82	20.34	89.22	25.44	0.24	0.24	138.65	11.00
64 × 64	4.5	7.998	10.19	58.50	2.40	18.28	22.32	98.14	27.70	0.24	0.24	125.03	9.22
64 × 64	5.0	8.758	11.16	62.75	2.37	19.61	24.17	106.55	29.79	0.24	0.24	114.19	7.80
64 × 64	6.0	10.199	12.99	70.07	2.32	21.90	27.52	121.85	33.45	0.24	0.24	98.04	5.67
65 × 65	1.6	3.133	3.99	26.52	2.58	8.16	9.44	41.38	12.25	0.25	0.26	319.14	35.63
65 × 65	2.0	3.876	4.94	32.31	2.56	9.94	11.58	50.92	14.93	0.25	0.25	258.03	27.50
65 × 65	2.3	4.421	5.63	36.45	2.54	11.21	13.13	57.86	16.86	0.25	0.25	226.18	23.26
65 × 65	2.5	4.780	6.09	39.10	2.53	12.03	14.14	62.39	18.10	0.25	0.25	209.21	21.00
65 × 65	3.0	5.658	7.21	45.42	2.51	13.97	16.57	73.35	21.05	0.25	0.25	176.73	16.67
65 × 65	4.0	7.338	9.35	56.64	2.46	17.43	21.05	93.72	26.34	0.25	0.25	136.27	11.25
65 × 65	4.5	8.139	10.37	61.59	2.44	18.95	23.10	103.14	28.70	0.24	0.25	122.86	9.44
65 × 65	5.0	8.915	11.36	66.10	2.41	20.34	25.03	112.03	30.88	0.24	0.24	112.18	8.00
65 × 65	6.0	10.388	13.23	73.91	2.36	22.74	28.53	128.23	34.72	0.24	0.24	96.27	5.83
70 × 70	2.5	5.172	6.59	49.41	2.74	14.12	16.54	78.49	21.22	0.27	0.27	193.33	23.00
70 × 70	3.0	6.129	7.81	57.53	2.71	16.44	19.42	92.42	24.74	0.27	0.27	163.15	18.33
70 × 70	4.0	7.966	10.15	72.12	2.67	20.61	24.76	118.52	31.11	0.27	0.27	125.53	12.50
70 × 70	5.0	9.700	12.36	84.63	2.62	24.18	29.56	142.21	36.65	0.26	0.26	103.10	9.00
70 × 70	6.0	11.330	14.43	95.17	2.57	27.19	33.83	163.49	41.41	0.26	0.26	88.26	6.67
70 × 70	6.3	11.531	14.69	93.77	2.53	26.79	33.80	168.14	42.10	0.25	0.25	86.72	6.11
75 × 75	1.6	3.636	4.63	41.29	2.99	11.01	12.69	64.09	16.52	0.29	0.30	275.04	41.88
75 × 75	2.3	5.143	6.55	57.10	2.95	15.23	17.74	89.98	22.88	0.29	0.29	194.42	27.61
75 × 75	2.5	5.565	7.09	61.38	2.94	16.37	19.12	97.13	24.60	0.29	0.29	179.70	25.00
75 × 75	3.0	6.600	8.41	71.62	2.92	19.10	22.49	114.54	28.73	0.29	0.29	151.50	20.00
75 × 75	4.0	8.594	10.95	90.19	2.87	24.05	28.76	147.32	36.28	0.29	0.29	116.36	13.75
75 × 75	4.5	9.552	12.17	98.55	2.85	26.28	31.68	162.68	39.71	0.28	0.29	104.69	11.67
75 × 75	5.0	10.485	13.36	106.33	2.82	28.35	34.46	177.35	42.92	0.28	0.28	95.38	10.00
75 × 75	6.0	12.272	15.63	120.16	2.77	32.04	39.58	204.62	48.70	0.28	0.28	81.49	7.50
80 × 80	2.3	5.505	7.01	69.86	3.16	17.46	20.30	109.74	26.23	0.31	0.31	181.67	29.78
80 × 80	3.0	7.071	9.01	87.84	3.12	21.96	25.78	139.93	33.02	0.31	0.31	141.41	21.67
80 × 80	4.0	9.222	11.75	111.04	3.07	27.76	33.07	180.44	41.84	0.31	0.31	108.43	15.00
80 × 80	4.5	10.259	13.07	121.58	3.05	30.40	36.48	199.52	45.88	0.30	0.31	97.48	12.78
80 × 80	5.0	11.270	14.36	131.44	3.03	32.86	39.74	217.83	49.68	0.30	0.30	88.73	11.00
80 × 80	6.0	13.214	16.83	149.18	2.98	37.29	45.79	252.07	56.59	0.30	0.30	75.68	8.33
89 × 89	3.0	7.919	10.09	122.89	3.49	27.62	32.28	194.59	41.50	0.35	0.35	126.27	24.67
89 × 89	4.0	10.353	13.19	156.25	3.44	35.11	41.58	251.87	52.87	0.34	0.34	96.59	17.25
89 × 89	4.5	11.530	14.69	171.59	3.42	38.56	45.97	279.07	58.13	0.34	0.34	86.73	14.78
89 × 89	5.0	12.683	16.16	186.07	3.39	41.81	50.18	305.30	63.11	0.34	0.34	78.85	12.80
89 × 89	6.0	14.909	18.99	212.50	3.34	47.75	58.09	354.87	72.30	0.34	0.34	67.07	9.83
90 × 90	2.3	6.227	7.93	100.79	3.56	22.40	25.93	157.53	33.63	0.35	0.35	160.60	34.13
90 × 90	3.0	8.013	10.21	127.28	3.53	28.29	33.04	201.42	42.51	0.35	0.35	124.79	25.00
90 × 90	4.0	10.478	13.35	161.92	3.48	35.98	42.58	260.80	54.17	0.35	0.35	95.44	17.50
90 × 90	4.5	11.672	14.87	177.87	3.46	39.53	47.09	289.02	59.58	0.34	0.35	85.68	15.00
90 × 90	5.0	12.840	16.36	192.93	3.43	42.87	51.41	316.26	64.70	0.34	0.34	77.88	13.00
90 × 90	6.0	15.098	19.23	220.48	3.39	48.99	59.54	367.76	74.16	0.34	0.34	66.23	10.00
90 × 90	6.3	15.488	19.73	221.13	3.35	49.14	60.30	382.33	76.21	0.33	0.33	64.57	9.29
90 × 90	8.0	18.873	24.04	254.59	3.25	56.58	71.27	455.59	88.83	0.33	0.33	52.98	6.25
100 × 100	2.3	6.949	8.85	139.73	3.97	27.95	32.26	217.48	41.95	0.39	0.39	143.91	38.48
100 × 100	3.0	8.955	11.41	177.05	3.94	35.41	41.21	278.68	53.19	0.39	0.39	111.66	28.33
100 × 100	4.0	11.734	14.95	226.35	3.89	45.27	53.30	362.01	68.10	0.39	0.39	85.22	20.00
100 × 100	4.5	13.085	16.67	249.29	3.87	49.86	59.04	401.87	75.07	0.38	0.39	76.42	17.22
100 × 100	5.0	14.410	18.36	271.10	3.84	54.22	64.59	440.52	81.72	0.38	0.38	69.40	15.00
100 × 100	6.0	16.982	21.63	311.47	3.79	62.29	75.10	514.16	94.12	0.38	0.38	58.89	11.67
100 × 100	6.3	17.466	22.25	314.17	3.76	62.83	76.38	536.02	97.02	0.37	0.37	57.25	10.87
100 × 100	8.0	21.385	27.24	365.94	3.67	73.19	91.05	644.51	114.23	0.37	0.37	46.76	7.50
100 × 100	9.0	23.533	29.98	390.56	3.61	78.11	98.56	700.28	122.75	0.36	0.36	42.49	6.11

# Cold Formed Square Hollow Sections

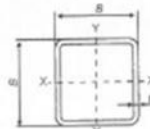


BS EN 10219

Designation		Weight	Cross Sectional Area	Second Moment of Area	Radius of Gyration	Elastic Modulus	Plastic Modulus	Torsional inertia constant	Torsional modulus constant	Superficial Area per metre length	Superficial Area per metre length	Nominal Length per tonne	Ratio for Local Buckling
Size	Thickness												
B × B	T	M	A	I	i	W <sub>el</sub>	W <sub>pl</sub>	L <sub>t</sub>	C <sub>t</sub>	A <sub>s</sub>	A <sub>s</sub>	L	Flange
mm	mm	Kg/m	cm <sup>2</sup>	cm <sup>4</sup>	cm	cm <sup>3</sup>	cm <sup>3</sup>	cm <sup>4</sup>	cm <sup>3</sup>	m <sup>2</sup> /m	m <sup>2</sup> /m	m	B/T
120 × 120	2.3	8.393	10.69	245.28	4.79	40.88	46.99	379.43	61.34	0.47	0.47	119.14	47.17
120 × 120	3.0	10.839	13.81	312.35	4.76	52.06	60.24	487.72	78.15	0.47	0.47	92.26	35.00
120 × 120	4.0	14.246	18.15	402.28	4.71	67.05	78.33	636.57	100.75	0.47	0.47	70.19	25.00
120 × 120	4.5	15.911	20.27	444.70	4.68	74.12	87.01	708.40	111.45	0.46	0.47	62.85	21.67
120 × 120	5.0	17.550	22.36	485.47	4.66	80.91	95.45	778.50	121.75	0.46	0.46	56.98	19.00
120 × 120	6.0	20.750	26.43	562.16	4.61	93.69	111.61	913.46	141.22	0.46	0.46	48.19	15.00
120 × 120	6.3	21.422	27.29	571.55	4.58	95.26	114.22	955.49	146.19	0.45	0.45	46.68	14.05
120 × 120	8.0	26.409	33.64	676.88	4.49	112.81	137.81	1162.95	174.58	0.45	0.45	37.87	10.00
120 × 120	9.0	29.185	37.18	729.99	4.43	121.66	150.31	1273.93	189.28	0.44	0.44	34.26	8.33
125 × 125	3.0	11.310	14.41	354.50	4.96	56.72	65.56	552.66	85.14	0.49	0.49	88.41	36.67
125 × 125	4.0	14.874	18.95	457.23	4.91	73.16	85.33	721.99	109.92	0.49	0.49	67.23	26.25
125 × 125	4.5	16.617	21.17	505.83	4.89	80.93	94.84	803.85	121.67	0.48	0.49	60.18	22.78
125 × 125	5.0	18.335	23.36	552.62	4.86	88.42	104.10	883.82	133.01	0.48	0.48	54.54	20.00
125 × 125	6.0	21.692	27.63	640.89	4.82	102.54	121.87	1038.10	154.49	0.48	0.48	46.10	15.83
125 × 125	6.3	22.411	28.55	652.59	4.78	104.41	124.86	1086.46	160.05	0.47	0.47	44.62	14.84
125 × 125	8.0	27.665	35.24	775.32	4.69	124.05	151.00	1325.35	191.66	0.47	0.47	36.15	10.63
125 × 125	9.0	30.598	38.98	837.82	4.64	134.05	164.94	1453.99	208.15	0.46	0.46	32.68	8.89
140 × 140	4.0	16.758	21.35	651.62	5.52	93.09	108.15	1023.32	139.80	0.55	0.55	59.67	30.00
140 × 140	5.0	20.690	26.36	790.56	5.48	112.94	132.30	1255.76	169.78	0.54	0.54	48.33	23.00
140 × 140	6.0	24.518	31.23	920.43	5.43	131.49	155.33	1478.77	197.90	0.54	0.54	40.79	18.33
140 × 140	6.3	25.379	32.33	940.82	5.39	134.40	159.62	1549.60	205.42	0.53	0.53	39.40	17.22
140 × 140	8.0	31.433	40.04	1126.77	5.30	160.97	194.18	1900.84	247.69	0.53	0.53	31.81	12.50
140 × 140	10.0	38.125	48.57	1311.67	5.20	187.38	230.38	2273.90	290.85	0.52	0.52	26.23	9.00
140 × 140	12.0	43.379	55.26	1398.33	5.03	199.76	252.87	2566.92	321.66	0.50	0.50	23.05	6.67
140 × 140	12.5	44.779	57.04	1425.23	5.00	203.60	259.25	2634.22	328.99	0.50	0.50	22.33	6.20
150 × 150	3.0	13.665	17.41	622.73	5.98	83.03	95.53	964.61	124.60	0.59	0.59	73.18	45.00
150 × 150	4.0	18.014	22.95	807.82	5.93	107.71	124.87	1264.76	161.73	0.59	0.59	55.51	32.50
150 × 150	4.5	20.150	25.67	896.30	5.91	119.51	139.08	1410.79	179.51	0.58	0.59	49.63	28.33
150 × 150	5.0	22.260	28.36	982.12	5.89	130.95	152.98	1554.13	196.79	0.58	0.58	44.92	25.00
150 × 150	6.0	26.402	33.63	1145.91	5.84	152.79	179.88	1832.69	229.84	0.58	0.58	37.88	20.00
150 × 150	6.3	27.357	34.85	1173.71	5.80	156.49	185.15	1921.60	238.81	0.57	0.57	36.55	18.81
150 × 150	8.0	33.945	43.24	1411.83	5.71	188.24	225.96	2364.08	289.03	0.57	0.57	29.46	13.75
150 × 150	9.0	37.663	47.98	1537.39	5.66	204.99	248.20	2607.94	315.95	0.56	0.56	26.55	11.67
150 × 150	12.5	48.704	62.04	1817.44	5.41	242.33	305.58	3320.84	389.30	0.54	0.54	20.53	7.00
160 × 160	4.0	19.270	24.55	987.17	6.34	123.40	142.78	1541.45	185.25	0.63	0.63	51.89	35.00
160 × 160	5.0	23.830	30.36	1202.36	6.29	150.29	175.16	1896.32	225.79	0.62	0.62	41.96	27.00
160 × 160	6.0	28.286	36.03	1405.48	6.25	175.69	206.24	2238.90	264.18	0.62	0.62	35.35	21.67
160 × 160	6.3	29.335	37.37	1442.13	6.21	180.27	212.57	2348.60	274.71	0.61	0.61	34.09	20.40
160 × 160	8.0	36.457	46.44	1741.23	6.12	217.65	260.14	2896.58	333.56	0.61	0.61	27.43	15.00
160 × 160	10.0	44.405	56.57	2047.67	6.02	255.96	310.95	3490.29	395.10	0.60	0.60	22.52	11.00
160 × 160	12.0	50.915	64.86	2224.36	5.86	278.05	346.05	3996.72	443.13	0.58	0.58	19.64	8.33
160 × 160	12.5	52.629	67.04	2275.04	5.83	284.38	355.66	4113.99	454.58	0.58	0.58	19.00	7.80
160 × 160	16.0	63.720	81.17	2546.40	5.60	318.30	412.67	4798.78	519.73	0.56	0.56	15.69	5.00
178 × 178	4.0	21.531	27.43	1373.47	7.08	154.32	178.05	2135.96	231.62	0.70	0.70	46.44	39.50
178 × 178	4.5	24.106	30.71	1527.36	7.05	171.61	198.64	2386.01	257.64	0.70	0.70	41.48	34.56
178 × 178	5.0	26.656	33.96	1677.44	7.03	188.48	218.86	2632.27	283.05	0.69	0.70	37.52	30.60
178 × 178	6.0	31.677	40.35	1966.30	6.98	220.93	258.22	3113.39	332.03	0.69	0.69	31.57	24.67
178 × 178	9.0	45.576	58.06	2689.90	6.81	302.24	361.49	4479.68	463.32	0.67	0.67	21.94	14.78
180 × 180	4.0	21.782	27.75	1421.74	7.16	157.97	182.21	2210.16	237.10	0.71	0.71	45.91	40.00
180 × 180	4.5	24.389	31.07	1581.26	7.13	175.70	203.30	2469.10	263.77	0.70	0.71	41.00	35.00
180 × 180	5.0	26.970	34.36	1736.87	7.11	192.99	224.02	2724.16	289.81	0.70	0.70	37.08	31.00
180 × 180	6.0	32.054	40.83	2036.52	7.06	226.28	264.35	3222.65	340.05	0.70	0.70	31.20	25.00
180 × 180	6.3	33.292	42.41	2095.65	7.03	232.85	273.09	3382.71	354.08	0.69	0.69	30.04	23.57
180 × 180	8.0	41.481	52.84	2545.86	6.94	282.87	335.70	4188.56	432.21	0.69	0.69	24.11	17.50
180 × 180	9.0	46.141	58.78	2789.12	6.89	309.90	370.39	4639.77	474.93	0.68	0.68	21.67	15.00



# Cold Formed Square Hollow Sections



BS EN 10219

Designation		Weight	Cross Sectional Area	Second Moment of Area	Radius of Gyration	Elastic Modulus	Plastic Modulus	Torsional inertia constant	Torsional modulus constant	Superficial Area per metre length	Superficial Area per metre length	Nominal Length per tonne	Ratio for Local Buckling
Size	Thickness												
B × B	T	M	A	I	i	W <sub>el</sub>	W <sub>pl</sub>	L <sub>t</sub>	C <sub>t</sub>	As	As	L	Flange
mm	mm	Kg/m	cm <sup>2</sup>	cm <sup>4</sup>	cm	cm <sup>3</sup>	cm <sup>3</sup>	cm <sup>4</sup>	cm <sup>3</sup>	m <sup>2</sup> /m	m <sup>2</sup> /m	m	B/T
200 × 200	4.0	24.294	30.95	1968.13	7.97	196.81	226.44	3048.66	295.34	0.79	0.79	41.16	45.00
200 × 200	4.5	27.215	34.67	2191.54	7.95	219.15	252.86	3408.36	328.93	0.78	0.79	36.74	39.44
200 × 200	5.0	30.110	38.36	2410.09	7.93	241.01	278.87	3763.30	361.82	0.78	0.78	33.21	35.00
200 × 200	6.0	35.822	45.63	2832.75	7.88	283.27	329.67	4458.81	425.51	0.78	0.78	27.92	28.33
200 × 200	6.3	37.248	47.45	2921.53	7.85	292.15	341.16	4682.19	443.52	0.77	0.77	26.85	26.75
200 × 200	8.0	46.505	59.24	3566.25	7.76	356.63	420.86	5815.18	543.64	0.77	0.77	21.50	20.00
200 × 200	9.0	51.793	65.98	3918.45	7.71	391.85	465.35	6453.98	598.88	0.76	0.76	19.31	17.22
200 × 200	10.0	56.965	72.57	4251.06	7.65	425.11	508.08	7071.73	651.48	0.76	0.76	17.55	15.00
200 × 200	12.0	65.987	84.06	4730.22	7.50	473.02	575.61	8230.10	743.42	0.74	0.74	15.15	11.67
200 × 200	12.5	68.329	87.04	4859.42	7.47	485.94	593.50	8501.74	765.47	0.74	0.74	14.64	11.00
200 × 200	16.0	83.816	106.77	5624.95	7.26	562.50	705.57	10210.20	900.76	0.72	0.72	11.93	7.50
220 × 220	5.0	33.250	42.36	3238.02	8.74	294.37	339.73	5037.71	441.83	0.86	0.86	30.08	39.00
220 × 220	6.0	39.590	50.43	3813.36	8.70	346.67	402.18	5976.18	520.57	0.86	0.86	25.26	31.67
220 × 220	6.3	41.204	52.49	3939.93	8.66	358.18	416.80	6277.27	543.03	0.85	0.85	24.27	29.92
220 × 220	8.0	51.529	65.64	4828.01	8.58	438.91	515.62	7814.84	667.86	0.85	0.85	19.41	22.50
220 × 220	10.0	63.245	80.57	5782.46	8.47	525.68	624.65	9532.77	803.62	0.84	0.84	15.81	17.00
220 × 220	12.0	73.523	93.66	6486.85	8.32	589.71	711.99	11148.81	922.28	0.82	0.82	13.60	13.33
220 × 220	12.5	76.179	97.04	6673.98	8.29	606.73	734.92	11529.63	950.82	0.82	0.82	13.13	12.60
220 × 220	16.0	93.864	119.57	7812.23	8.08	710.20	880.83	13970.87	1129.44	0.80	0.80	10.65	8.75
250 × 250	5.0	37.960	48.36	4805.01	9.97	384.40	442.26	7443.01	576.84	0.98	0.98	26.34	45.00
250 × 250	6.0	45.242	57.63	5672.00	9.92	453.76	524.45	8842.52	681.15	0.98	0.98	22.10	36.67
250 × 250	6.3	47.139	60.05	5872.62	9.89	469.81	544.43	9290.29	711.19	0.97	0.97	21.21	34.68
250 × 250	8.0	59.065	75.24	7229.20	9.80	578.34	675.77	11597.77	878.18	0.97	0.97	16.93	26.25
250 × 250	9.0	65.923	83.98	7983.75	9.75	638.70	750.00	12913.31	971.70	0.96	0.96	15.17	22.78
250 × 250	10.0	72.665	92.57	8706.67	9.70	696.53	822.00	14197.22	1061.80	0.96	0.96	13.76	20.00
250 × 250	12.0	84.827	108.06	9859.42	9.55	788.75	943.56	16691.33	1226.49	0.94	0.94	11.79	15.83
250 × 250	12.5	87.954	112.04	10161.31	9.52	812.91	975.17	17282.65	1266.25	0.94	0.94	11.37	15.00
250 × 250	16.0	108.936	138.77	12047.13	9.32	963.77	1179.70	21146.30	1520.26	0.92	0.92	9.18	10.63
260 × 260	6.0	47.126	60.03	6404.54	10.33	492.66	568.80	9969.77	739.48	1.02	1.02	21.22	38.33
260 × 260	6.3	49.117	62.57	6634.95	10.30	510.38	590.75	10475.19	772.29	1.01	1.01	20.36	36.27
260 × 260	8.0	61.577	78.44	8178.02	10.21	629.08	733.95	13086.86	954.68	1.01	1.01	16.24	27.50
260 × 260	10.0	75.805	96.57	9864.65	10.11	758.82	893.78	16035.47	1155.85	1.00	1.00	13.19	21.00
260 × 260	12.0	88.595	112.86	11199.50	9.96	861.50	1027.95	18878.16	1337.48	0.98	0.98	11.29	16.67
260 × 260	12.5	91.879	117.04	11547.88	9.93	888.30	1062.76	19553.31	1381.37	0.98	0.98	10.88	15.80
260 × 260	16.0	113.960	145.17	13738.77	9.73	1056.83	1288.93	23985.66	1663.29	0.96	0.96	8.77	11.25
300 × 300	6.0	54.662	69.63	9963.67	11.96	664.24	764.23	15433.82	996.78	1.18	1.18	18.29	45.00
300 × 300	6.3	57.030	72.65	10341.99	11.93	689.47	794.94	16218.39	1041.86	1.17	1.17	17.53	42.62
300 × 300	9.0	80.053	101.98	14183.28	11.79	945.55	1102.14	22660.93	1434.44	1.16	1.16	12.49	28.33
300 × 300	12.0	103.667	132.06	17767.35	11.60	1184.49	1401.51	29514.02	1829.36	1.14	1.14	9.65	20.00
300 × 300	12.5	107.579	137.04	18348.13	11.57	1223.21	1450.60	30600.78	1891.80	1.14	1.14	9.30	19.00
300 × 300	16.0	134.056	170.77	22075.97	11.37	1471.73	1773.84	37836.71	2299.23	1.12	1.12	7.46	13.75
350 × 350	6.0	64.082	81.63	16007.75	14.00	914.73	1049.01	24682.71	1372.40	1.38	1.38	15.61	53.33
350 × 350	6.3	66.921	85.25	16644.63	13.97	951.12	1092.71	25939.00	1435.51	1.37	1.37	14.94	50.56
350 × 350	8.0	84.185	107.24	20680.70	13.89	1181.75	1365.58	32557.38	1787.14	1.37	1.37	11.88	38.75
350 × 350	9.0	94.183	119.98	22967.05	13.84	1312.40	1521.79	36371.83	1987.15	1.36	1.36	10.62	33.89
350 × 350	10.0	104.065	132.57	25189.14	13.78	1439.38	1674.83	40127.03	2182.18	1.36	1.36	9.61	30.00
350 × 350	12.0	122.507	156.06	29054.04	13.64	1660.23	1949.46	47598.08	2552.11	1.34	1.34	8.16	24.17
350 × 350	12.5	127.204	162.04	30044.88	13.62	1716.85	2019.77	49393.49	2642.20	1.34	1.34	7.86	23.00
350 × 350	16.0	159.176	202.77	36511.46	13.42	2086.37	2487.97	61480.98	3237.86	1.32	1.32	6.28	16.88

NOTE: The calculation of sectional properties is based on BS EN 10219 with the following corner geometry:

Size Range	Inside Corner radii mm	Outside Corner radii mm
Thickness ≤ 6mm	1 T	2 T
6mm < Thickness ≤ 10mm	1.5 T	2.5 T
Thickness > 10mm	2 T	3.0 T

\* Please check with manufacturer the availability of the highlighted sizes.