

EN 10210 S355J2H Properties hot formed square hollow sections												
Size		Thickness	Mass	Sectional	Moment	Radius	Elastic	Plastic	Torsional	Constants	Superficial	Approx.
D	B	T	M	area	of inertia	of gyration	modulus	modulus	I_t	C_t	area/m	length
mm	mm	mm	kg/m	cm ²	cm ⁴	cm	cm ³	cm ³	cm ⁴	cm ³	m ² /m	m
40	40	3,0	3.41	4.34	9.78	1.50	4.89	5.97	15.7	7.10	0.152	293
40	40	3,2	3.61	4.60	10.2	1.49	5.11	6.28	16.5	7.42	0.152	277
40	40	4,0	4.39	5.59	11.8	1.45	5.91	7.44	19.5	8.54	0.150	228
40	40	5,0	5.28	6.73	13.4	1.41	6.68	8.66	22.5	9.60	0.147	189
50	50	3,0	4.35	5.54	20.2	1.91	8.08	9.70	32.1	11.8	0.192	230
50	50	3,2	4.62	5.88	21.2	1.90	8.49	10.2	33.8	12.4	0.192	217
50	50	4,0	5.64	7.19	25.0	1.86	9.99	12.3	40.4	14.5	0.190	177
50	50	5,0	6.85	8.73	28.9	1.82	11.6	14.5	47.6	16.7	0.187	146
50	50	6,3	8.31	10.6	32.8	1.76	13.1	17.0	55.2	18.8	0.184	120
60	60	3,0	5.29	6.74	36.2	2.32	12.1	14.3	56.9	17.7	0.232	189
60	60	3,2	5.62	7.16	38.2	2.31	12.7	15.2	60.2	18.6	0.232	178
60	60	4,0	6.90	8.79	45.4	2.27	15.1	18.3	72.5	22.0	0.230	145
60	60	5,0	8.42	10.7	53.3	2.23	17.8	21.9	86.4	25.7	0.227	119
60	60	6,3	10.3	13.1	61.6	2.17	20.5	26.0	102	29.6	0.224	97.2
60	60	8,0	12.5	16.0	69.7	2.09	23.2	30.4	118	33.4	0.219	79.9
70	70	3,6	7.40	9.42	68.6	2.70	19.6	23.3	108	28.7	0.271	135
70	70	5,0	9.99	12.7	88.5	2.64	25.3	30.8	142	36.8	0.267	100
70	70	6,3	12.3	15.6	104	2.58	29.7	36.9	169	42.9	0.264	81.5
70	70	8,0	15.0	19.2	120	2.50	34.2	43.8	200	49.2	0.259	66.5
80	80	3,6	8.53	10.9	105	3.11	26.2	31.0	164	38.5	0.311	117
80	80	4,0	9.41	12.0	114	3.09	28.6	34.0	180	41.9	0.310	106
80	80	5,0	11.6	14.7	137	3.05	34.2	41.1	217	49.8	0.307	86.5
80	80	6,3	14.2	18.1	162	2.99	40.5	49.7	262	58.7	0.304	70.2
80	80	8,0	17.5	22.4	189	2.91	47.3	59.5	312	68.3	0.299	57.0
90	90	3,6	9.66	12.3	152	3.52	33.8	39.7	237	49.7	0.351	104
90	90	4,0	10.7	13.6	166	3.50	37.0	43.6	260	54.2	0.350	93.7
90	90	5,0	13.1	16.7	200	3.45	44.4	53.0	316	64.8	0.347	76.1
90	90	6,3	16.2	20.7	238	3.40	53.0	64.3	382	77.0	0.344	61.6
90	90	8,0	20.1	25.6	281	3.32	62.6	77.6	459	90.5	0.339	49.9
100	100	4,0	11.9	15.2	232	3.91	46.4	54.4	361	68.2	0.390	83.9
100	100	5,0	14.7	18.7	279	3.86	55.9	66.4	439	81.8	0.387	68.0

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Size		Thickness	Mass	Sectional area	Moment of inertia	Radius of gyration	Elastic modulus	Plastic modulus	Torsional	Constants	Superficial area/m	Approx. length /tonne
D	B	T	M	A	I	i	W_{el}	W_{pl}	I_t	C_t	A_s	
mm	mm	mm	kg/m	cm ²	cm ⁴	cm	cm ³	cm ³	cm ⁴	cm ³	m ² /m	m
100	100	6,3	18.2	23.2	336	3.80	67.1	80.9	534	97.8	0.384	54.9
100	100	8,0	22.6	28.8	400	3.73	79.9	98.2	646	116	0.379	44.3
100	100	10,0	27.4	34.9	462	3.64	92.4	116	761	133	0.374	36.5
120	120	5,0	17.8	22.7	498	4.68	83.0	97.6	777	122	0.467	56.0
120	120	6,3	22.2	28.2	603	4.62	100	120	950	147	0.464	45.1
120	120	8,0	27.6	35.2	726	4.55	121	146	1160	176	0.459	36.2
120	120	10,0	33.7	42.9	852	4.46	142	175	1382	206	0.454	29.7
120	120	12,5	40.9	52.1	982	4.34	164	207	1623	236	0.448	24.5
140	140	5,0	21.0	26.7	807	5.50	115	135	1253	170	0.547	47.7
140	140	6,3	26.1	33.3	984	5.44	141	166	1540	206	0.544	38.3
140	140	8,0	32.6	41.6	1195	5.36	171	204	1892	249	0.539	30.7
140	140	10,0	40.0	50.9	1416	5.27	202	246	2272	294	0.534	25.0
140	140	12,5	48.7	62.1	1653	5.16	236	293	2696	342	0.528	20.5
150	150	5,0	22.6	28.7	1002	5.90	134	156	1550	197	0.587	44.3
150	150	6,3	28.1	35.8	1223	5.85	163	192	1909	240	0.584	35.6
150	150	8,0	35.1	44.8	1491	5.77	199	237	2351	291	0.579	28.5
150	150	10,0	43.1	54.9	1773	5.68	236	286	2832	344	0.574	23.2
150	150	12,5	52.7	67.1	2080	5.57	277	342	3375	402	0.568	19.0
150	150	16,0	65.2	83.0	2430	5.41	324	411	4026	467	0.559	15.3
160	160	5,0	24.1	30.7	1225	6.31	153	178	1892	226	0.627	41.5
160	160	6,3	30.1	38.3	1499	6.26	187	220	2333	275	0.624	33.3
160	160	8,0	37.6	48.0	1831	6.18	229	272	2880	335	0.619	26.6
160	160	10,0	46.3	58.9	2186	6.09	273	329	3478	398	0.614	21.6
160	160	12,5	56.6	72.1	2576	5.98	322	395	4158	467	0.608	17.7
180	180	6,3	34.0	43.3	2168	7.07	241	281	3361	355	0.704	29.4
180	180	8,0	42.7	54.4	2661	7.00	296	349	4162	434	0.699	23.4
180	180	10,0	52.5	66.9	3193	6.91	355	424	5048	518	0.694	19.0
180	180	12,5	64.4	82.1	3790	6.80	421	511	6070	613	0.688	15.5
180	180	16,0	80.2	102	4504	6.64	500	621	7343	724	0.679	12.5
200	200	5,0	30.4	38.7	2445	7.95	245	283	3756	362	0.787	32.9
200	200	6,3	38.0	48.4	3011	7.89	301	350	4653	444	0.784	26.3

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D	B	T	M	A	I	i	W_{el}	W_{pl}	I_t	C_t	A_s	
mm	mm	mm	kg/m	cm ²	cm ⁴	cm	cm ³	cm ³	cm ⁴	cm ³	m ² /m	m
200	200	8,0	47.7	60.8	3709	7.81	371	436	5778	545	0.779	21.0
200	200	10,0	58.8	74.9	4471	7.72	447	531	7031	655	0.774	17.0
200	200	12,5	72.3	92.1	5336	7.61	534	643	8491	778	0.768	13.8
200	200	16,0	90.3	115	6394	7.46	639	785	10340	927	0.759	11.1
250	250	6,3	47.9	61.0	6014	9.93	481	556	9238	712	0.984	20.9
250	250	8,0	60.3	76.8	7455	9.86	596	694	11525	880	0.979	16.6
250	250	10,0	74.5	94.9	9055	9.77	724	851	14106	1065	0.974	13.4
250	250	12,5	91.9	117	10915	9.66	873	1037	17164	1279	0.968	10.9
250	250	16,0	115	147	13267	9.50	1061	1280	21138	1546	0.959	8.67
300	300	6,3	57.8	73.6	10547	12.0	703	809	16136	1043	1.18	17.3
300	300	8,0	72.8	92.8	13128	11.9	875	1013	20194	1294	1.18	13.7
300	300	10,0	90.2	115	16026	11.8	1068	1246	24807	1575	1.17	11.1
300	300	12,5	112	142	19442	11.7	1296	1525	30333	1904	1.17	8.97
300	300	16,0	141	179	23850	11.5	1590	1895	37622	2325	1.16	7.12
350	350	8,0	85.4	109	21129	13.9	1207	1392	32384	1789	1.38	11.7
350	350	10,0	106	135	25884	13.9	1479	1715	39886	2185	1.37	9.44
350	350	12,5	131	167	31541	13.7	1802	2107	48934	2654	1.37	7.62
350	350	16,0	166	211	38942	13.6	2225	2630	60990	3264	1.36	6.04
400	400	10,0	122	155	39128	15.9	1956	2260	60092	2895	1.57	8.22
400	400	12,5	151	192	47839	15.8	2392	2782	73906	3530	1.57	6.63
400	400	16,0	191	243	59344	15.6	2967	3484	92442	4362	1.56	5.24
400	400	20,0	235	300	71535	15.4	3577	4247	112489	5237	1.55	4.25