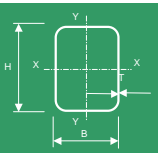


Celsius 355

EN 10210:2006 S355J2H Rectangular Sections



Celsius EN10210: 2006: S355J2H Hot Finished RHS Properties

Size	Thickness	Mass	Sectional area	Moment of inertia		Radius of gyration		Elastic modulus		Plastic modulus		Torsional constants		Superficial area /m	Approx. length /tonne
H x B mm	T mm	M kg/m	A cm ²	I _{xx} cm ⁴	I _{yy} cm ⁴	i _{xx} cm	i _{yy} cm	W _{elxx} cm ³	W _{elyy} cm ³	W _{plxx} cm ³	W _{plyy} cm ³	I _t cm ⁴	C _t cm ³	A _s m ² /m	m/t
150 x 100	4.0	15.1	19.2	607	324	5.63	4.11	81.0	64.8	97.4	73.6	660	105	0.490	66.4
	5.0	18.6	23.7	739	392	5.58	4.07	98.5	78.5	119	90.1	807	127	0.487	53.7
	6.3	23.1	29.5	898	474	5.52	4.01	120	94.8	147	110	986	153	0.484	43.2
	8.0	28.9	36.8	1087	569	5.44	3.94	145	114	180	135	1203	183	0.479	34.7
	10.0	35.3	44.9	1282	665	5.34	3.85	171	133	216	161	1432	214	0.474	28.4
	12.5	42.8	54.6	1488	763	5.22	3.74	198	153	256	190	1679	246	0.468	23.3
160 x 80	4.0	14.4	18.4	612	207	5.77	3.35	76.5	51.7	94.7	58.3	493	88.1	0.470	69.3
	5.0	17.8	22.7	744	249	5.72	3.31	93.0	62.3	116	71.1	600	106	0.467	56.0
	6.3	22.2	28.2	903	299	5.66	3.26	113	74.8	142	86.8	730	127	0.464	45.1
	8.0	27.6	35.2	1091	356	5.57	3.18	136	89.0	175	106	883	151	0.459	36.2
	10.0	33.7	42.9	1284	411	5.47	3.10	161	103	209	125	1041	175	0.454	29.7
	12.5	40.9	52.1	1485	465	5.34	2.99	186	116	247	146	1204	198	0.448	24.5
200 x 100	5.0	22.6	28.7	1495	505	7.21	4.19	149	101	185	114	1204	172	0.587	44.3
	6.3	28.1	35.8	1829	613	7.15	4.14	183	123	228	140	1475	208	0.584	35.6
	8.0	35.1	44.8	2234	739	7.06	4.06	223	148	282	172	1804	251	0.579	28.5
	10.0	43.1	54.9	2664	869	6.96	3.98	266	174	341	206	2156	295	0.574	23.2
	12.5	52.7	67.1	3136	1004	6.84	3.87	314	201	408	245	2541	341	0.568	19.0
	16.0	r	65.2	83.0	3678	1147	6.66	3.72	368	229	491	290	2982	391	0.559
200 x 120	5.0	24.1	30.7	1685	762	7.40	4.98	168	127	205	144	1648	210	0.627	41.5
	6.3	30.1	38.3	2065	929	7.34	4.92	207	155	253	177	2028	255	0.624	33.3
	8.0	37.6	48.0	2529	1128	7.26	4.85	253	188	313	218	2495	310	0.619	26.6
	10.0	46.3	58.9	3026	1337	7.17	4.76	303	223	379	263	3001	367	0.614	21.6
	12.5	56.6	72.1	3576	1562	7.04	4.66	358	260	455	314	3569	428	0.608	17.7
	16.0	70.2	89.4	4221	1813	6.87	4.50	422	302	550	377	4247	497	0.599	14.2
200 x 150	5.0	26.5	33.7	1970	1265	7.64	6.12	197	169	234	192	2386	267	0.687	37.8
	6.3	33.0	42.1	2420	1549	7.58	6.07	242	207	289	237	2947	326	0.684	30.3
	8.0	41.4	52.8	2971	1894	7.50	5.99	297	253	359	294	3643	398	0.679	24.1
	10.0	51.0	64.9	3568	2264	7.41	5.91	357	302	436	356	4409	475	0.674	19.6
	12.5	62.5	79.6	4236	2673	7.30	5.80	424	356	525	428	5287	559	0.668	16.0
	16.0	77.7	99.0	5036	3152	7.13	5.64	504	420	638	518	6370	658	0.659	12.9
250 x 100	5.0	26.5	33.7	2610	618	8.80	4.28	209	124	263	138	1617	217	0.687	37.8
	6.3	33.0	42.1	3207	751	8.73	4.22	257	150	326	169	1983	264	0.684	30.3
	8.0	41.4	52.8	3940	909	8.64	4.15	315	182	404	209	2430	319	0.679	24.1
	10.0	51.0	64.9	4733	1072	8.54	4.06	379	214	491	251	2908	376	0.674	19.6
	12.5	62.5	79.6	5622	1245	8.41	3.96	450	249	592	299	3436	438	0.668	16.0
	16.0	77.7	99.0	6686	1433	8.22	3.80	535	287	719	358	4050	505	0.659	12.9
250 x 150	5.0	30.4	38.7	3360	1527	9.31	6.28	269	204	324	228	3278	337	0.787	32.9
	6.3	38.0	48.4	4143	1874	9.25	6.22	331	250	402	283	4054	413	0.784	26.3
	8.0	47.7	60.8	5111	2298	9.17	6.15	409	306	501	350	5021	506	0.779	21.0
	10.0	58.8	74.9	6174	2755	9.08	6.06	494	367	611	426	6090	605	0.774	17.0
	12.5	72.3	92.1	7387	3265	8.96	5.96	591	435	740	514	7326	717	0.768	13.8
	16.0	90.3	115	8879	3873	8.79	5.80	710	516	906	625	8868	849	0.759	11.1
260 x 140	5.0	30.4	38.7	3532	1354	9.55	5.91	272	193	331	216	3078	326	0.787	32.9
	6.3	38.0	48.4	4355	1660	9.49	5.86	335	237	411	267	3803	399	0.784	26.3
	8.0	47.7	60.8	5373	2032	9.40	5.78	413	290	511	331	4704	488	0.779	21.0
	10.0	58.8	74.9	6490	2432	9.31	5.70	499	347	624	402	5698	584	0.774	17.0
	12.5	72.3	92.1	7767	2876	9.18	5.59	597	411	756	485	6841	690	0.768	13.8
	16.0	90.3	115	9337	3400	9.01	5.44	718	486	925	588	8257	815	0.759	11.1
300 x 100	5.0	30.4	38.7	4146	731	10.3	4.34	276	146	354	161	2040	262	0.787	32.9
	6.3	38.0	48.4	5111	890	10.3	4.29	341	178	439	199	2504	319	0.784	26.3
	8.0	47.7	60.8	6305	1078	10.2	4.21	420	216	546	245	3069	387	0.779	21.0
	10.0	58.8	74.9	7613	1275	10.1	4.13	508	255	666	296	3676	458	0.774	17.0
	12.5	72.3	92.1	9103	1486	9.94	4.02	607	297	806	354	4350	534	0.768	13.8
	16.0	90.3	115	10931	1719	9.75	3.87	729	344	986	425	5138	619	0.759	11.1
300 x 150	10.0	66.7	84.9	9716	3246	10.7	6.18	648	433	811	496	7839	736	0.874	15.0
	12.5	82.1	105	11688	3858	10.6	6.07	779	514	986	600	9445	874	0.868	12.2
	16.0	100.0	127	13800	4500	10.4	5.88	900	580	1100	680	10800	1000	0.850	10.0
300 x 200	5.0	38.3	48.7	6322	3396	11.4	8.35	421	340	501	380	6824	552	0.987	26.1
	6.3	47.9	61.0	7829	4193	11.3	8.29	522	419	624	472	8476	681	0.984	20.9
	8.0	60.3	76.8	9717	5184	11.3	8.22	648	518	779	589	10562	840	0.979	16.6
	10.0	74.5	94.9	11819	6278	11.2	8.13	788	628	956	721	12908	1015	0.974	13.4
	12.5	91.9	117	14273	7537	11.0	8.02	952	754	1165	877	15677	1217	0.968	10.9
	16.0	115	147	17390	9109	10.9	7.87	1159	911	1441	1080	19252	1468	0.959	8.67
300 x 250	6.3	52.8	67.3	9188	6950	11.7	10.2	613	556	716	633	12155	862	1.08	18.9
	8.0	66.5	84.8	11422	8627	11.6	10.1	761	690	896	791	15187	1067	1.08	15.0
	10.0	82.4	105	13923	10496	11.5	10.0	928	840	1101	971	18620	1295	1.07	12.1
	12.5	102	130	16857	12680	11.4	9.89	1124	1014	1345	1185	22711	1560	1.07	9.83
	16.0	128	163	20620	15460	11.2	9.74	1375	1237	1668	1467	28064	1896	1.06	7.81
350 x 150	5.0	38.3	48.7	7655	2053	12.5	6.49	437	274	543	301	5161	477	0.987	26.1
	6.3	47.9	61.0	9481	2525	12.5	6.43	542	337	676	373	6389	586	0.984	20.9
	8.0	60.3	76.8	11770	3105	12.4	6.36	673	414	844	464	7926	721	0.979	16.6
	10.0	74.5	94.9	14320	3737	12.3	6.27	818	498	1035	566	9633	867	0.974	13.4
	12.5	91.9	117	17297	4450	12.2	6.17	988	593	1263	686	11619	1032	0.968	10.9
	16.0	115	147	21079	5317	12.0	6.01	1205	709	1561	840	14124	1233	0.959	8.67
350 x 250	6.3	57.8	73.6	13203	7885	13.4	10.4	754	631	892	709	15215	1011	1.18	17.3
	8.0	72.8	92.8	16449	9798	13.3	10.3	940	784	1118	888	19027	1254	1.18	13.7
	10.0	90.2	115	20102	11937	13.2	10.2	1149	955	1375	1091	23354	1525	1.17	11.1
	12.5	112	142	24419	14444	13.1	10.1	1395	1156	1685	1334	28526	1842	1.17	8.97
	16.0	141	179	30011	17654	12.9	9.93	1715	1412	2095	1655	35325	2246	1.16	7.12
	400 x 150	6.3	52.8	67.3	13255	2851	14.0	6.51	663	380	836	418	7595	673	1.08
8.0		66.5	84.8	16488	3509	13.9	6.43	824	468	1046	521	9424	828	1.08	15.0
10.0		82.4	105	20111	4227	13.8	6.35	1006	564	1285	636	11460	998	1.07	12.1
12.5		102	130	24369	5043	13.7	6.24	1218	672	1571	772	13831	1190	1.07	9.83
16.0		128	163	29836	6038	13.5	6.09	1492	805	1948	947	16829	1426	1	

	12.5	131	167	45026	17973	16.4	10.4	2001	1438	2458	1631	40719	2406	1.37	7.62
	16.0	166	211	55705	22041	16.2	10.2	2476	1763	3070	2029	50545	2947	1.36	6.04
500 x 200	8.0	85.4	109	34045	8135	17.7	8.65	1362	814	1707	896	21124	1430	1.38	11.7
	10.0	106	135	41755	9891	17.6	8.56	1670	989	2105	1101	25872	1737	1.37	9.44
	12.5	131	167	50956	11938	17.5	8.45	2038	1194	2586	1346	31514	2096	1.37	7.62
	16.0	166	211	63036	14539	17.3	8.30	2521	1454	3231	1669	38872	2552	1.36	6.04
500 x 300	8.0	97.9	125	43728	19951	18.7	12.6	1749	1330	2100	1480	42563	2203	1.58	10.2
	10.0	122	155	53762	24439	18.6	12.6	2150	1629	2595	1826	52450	2696	1.57	8.22
	12.5	151	192	65813	29780	18.5	12.5	2633	1985	3196	2244	64389	3281	1.57	6.63
	16.0	191	243	81783	36768	18.3	12.3	3271	2451	4005	2804	80329	4044	1.56	5.24
	20.0	#1	235	98777	44078	18.2	12.1	3951	2939	4885	3408	97447	4842	1.55	4.25

	Non-regular production sizes
	Special production sizes
#1	SAW Process (single longitudinal seam weld, slightly proud)
r	External corner radius >2T but <=3T

CT06:2000:UK:04/08