

Nominal dimensions					
Section reference	Weight kg/m	Area cm <sup>2</sup>	Depth mm	Flange mm	t mm
152 C 13	2.85	3.63	152	55	1.3
152 C 14	3.06	3.90	152	55	1.4
152 C 15	3.28	4.17	152	55	1.5
152 C 16	3.49	4.44	152	55	1.6
152 C 18	3.90	4.97	152	55	1.8
152 C 20	4.32	5.50	152	55	2.0
172 C 13	3.26	4.15	172	55	1.3
172 C 14	3.50	4.46	172	55	1.4
172 C 15	3.75	4.77	172	55	1.5
172 C16	3.99	5.08	172	55	1.6
172 C 18	4.47	5.69	172	55	1.8
172 C 20	4.94	6.30	172	55	2.0
172 C 23	5.65	7.20	172	55	2.3
172 C 25	6.11	7.79	172	55	2.5
202 C 13	3.57	4.54	202	55	1.3
202 C 14	3.83	4.88	202	55	1.4
202 C 15	4.10	5.22	202	55	1.5
202 C16	4.36	5.56	202	55	1.6
202 C 18	4.89	6.23	202	55	1.8
202 C 20	5.41	6.90	202	55	2.0
202 C 23	6.19	7.89	202	55	2.3
202 C 27	7.21	9.19	202	55	2.7
232 C 14	4.16	5.30	232	55	1.4
232 C 15	4.45	5.67	232	55	1.5

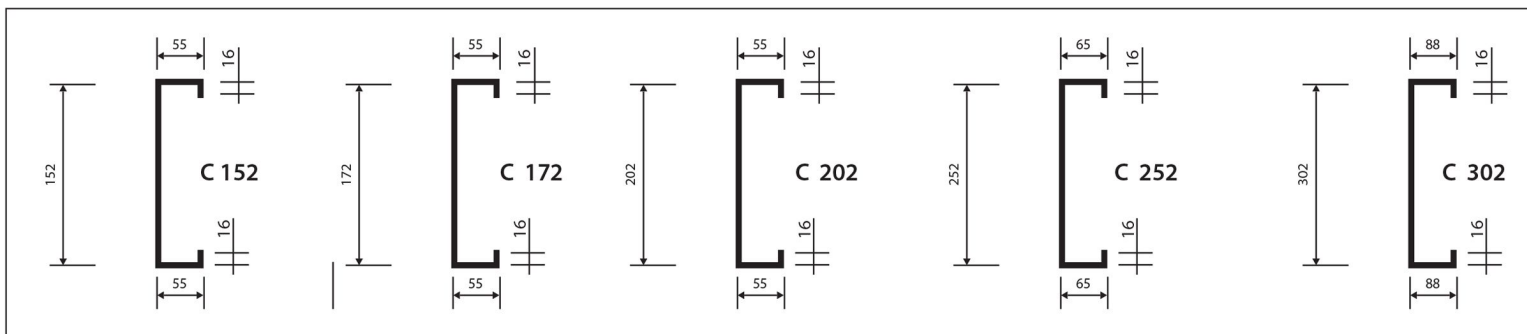
Section properties									
ly cm <sup>4</sup>	lz cm <sup>4</sup>	We1.y cm <sup>3</sup>	We1.z cm <sup>3</sup>	iy cm	iz cm	Cy cm	C cm	My,Rd kNm	Mz,Rd kNm
119.0	17.6	16.76	4.18	5.69	2.19	7.10	1.80	6.022	1.882
127.7	18.8	17.99	4.48	5.68	2.18	7.10	1.80	6.790	2.016
136.4	20.1	19.22	4.77	5.68	2.18	7.10	1.80	7.566	2.148
145.1	21.3	20.44	5.06	5.67	2.17	7.10	1.80	8.341	2.279
162.2	23.7	22.85	5.63	5.67	2.16	7.10	1.80	9.862	2.535
179.1	26.0	25.23	6.19	5.66	2.16	7.10	1.80	11.315	2.787
194.7	22.7	22.64	4.83	6.81	2.32	8.60	1.81	7.507	2.174
209.1	24.3	24.32	5.18	6.81	2.32	8.60	1.81	8.505	2.330
223.5	25.9	25.98	5.52	6.80	2.31	8.60	1.81	9.523	2.484
237.7	27.5	27.64	5.86	6.80	2.31	8.60	1.81	10.552	2.636
266.0	30.6	30.93	6.52	6.79	2.30	8.60	1.81	12.607	2.935
294.0	33.6	34.18	7.17	6.78	2.29	8.60	1.81	14.610	3.228
335.3	38.1	38.99	8.13	6.76	2.28	8.60	1.81	17.466	3.656
362.5	41.0	42.16	8.74	6.75	2.27	8.60	1.82	19.278	3.934
282.9	23.8	28.01	4.91	7.85	2.28	10.10	1.66	8.862	2.209
303.9	25.4	30.09	5.26	7.85	2.27	10.10	1.66	10.076	2.367
324.8	27.1	32.16	5.61	7.84	2.27	10.10	1.66	11.312	2.523
345.6	28.8	34.22	5.95	7.84	2.26	10.10	1.66	12.560	2.678
386.9	32.0	38.31	6.63	7.83	2.25	10.10	1.66	15.052	2.982
427.8	35.2	42.36	7.29	7.82	2.24	10.10	1.67	17.487	3.280
488.4	39.9	48.35	8.26	7.80	2.23	10.10	1.67	20.986	3.716
567.7	45.9	56.20	9.50	7.78	2.21	10.10	1.67	25.405	4.274
420.9	26.4	36.28	5.32	8.87	2.22	11.60	1.54	11.556	2.396
449.9	28.2	38.79	5.68	8.86	2.22	11.60	1.54	13.022	2.555

Nominal dimensions						Section properties									
Section reference	Weight kg/m	Area cm <sup>2</sup>	Depth mm	Flange mm	t mm	I <sub>y</sub> cm <sup>4</sup>	I <sub>z</sub> cm <sup>4</sup>	W <sub>e,y</sub> cm <sup>3</sup>	W <sub>e,z</sub> cm <sup>3</sup>	i <sub>y</sub> cm	i <sub>z</sub> cm	C <sub>y</sub> cm	C cm	My,Rd kNm	Mz,Rd kNm
232 C 16	4.74	6.04	232	55	1.6	478.8	29.9	41.28	6.03	8.86	2.21	11.60	1.54	14.499	2.711
232 C 18	5.32	6.77	232	55	1.8	536.3	33.3	46.23	6.71	8.85	2.20	11.60	1.54	17.448	3.020
232 C 20	5.89	7.50	232	55	2.0	593.1	36.6	51.13	7.38	8.83	2.19	11.60	1.54	20.340	3.322
232 C 23	6.73	8.58	232	55	2.3	677.5	41.4	58.40	8.36	8.82	2.18	11.60	1.55	24.524	3.763
232 C 25	7.29	9.29	232	55	2.5	733.0	44.6	63.19	9.00	8.81	2.17	11.60	1.55	27.220	4.049
252 C 15	4.81	6.12	252	65	1.5	600.8	29.1	45.86	5.73	9.86	2.17	13.10	1.43	14.612	2.580
252 C 16	5.12	6.52	252	65	1.6	639.5	30.8	48.82	6.09	9.85	2.16	13.10	1.43	16.330	2.739
252 C 18	5.74	7.31	252	65	1.8	716.4	34.3	54.69	6.78	9.84	2.15	13.10	1.43	19.760	3.050
252 C 20	6.36	8.10	252	65	2.0	792.7	37.8	60.51	7.46	9.83	2.15	13.10	1.44	23.134	3.356
252 C 23	7.27	9.27	252	65	2.3	905.8	42.7	69.15	8.45	9.82	2.13	13.10	1.44	28.047	3.801
252 C 25	7.88	10.04	252	65	2.5	980.4	46.0	74.84	9.09	9.80	2.12	13.10	1.44	31.231	4.091
252 C 29	9.08	11.57	252	65	2.9	1127.6	52.2	86.08	10.33	9.78	2.10	13.10	1.45	37.436	4.650
302 C 18	7.10	9.04	302	88	1.8	1228.5	84.4	81.36	12.66	11.60	3.04	15.10	2.14	25.256	5.698
302 C 20	7.86	10.02	302	88	2.0	1360.3	93.0	90.09	13.97	11.59	3.03	15.10	2.14	30.351	6.285
302 C 23	9.01	11.47	302	88	2.3	1556.4	105.8	103.07	15.89	11.58	3.02	15.10	2.14	38.110	7.149
302 C 25	9.76	12.44	302	88	2.5	1686.0	114.1	111.65	17.14	11.57	3.01	15.10	2.14	43.246	7.713
302 C 29	11.27	14.35	302	88	2.9	1942.4	130.3	128.63	19.59	11.55	2.99	15.10	2.15	53.219	8.816
342 C 20	8.49	10.82	342	88	2.0	1826.8	96.1	106.83	14.11	12.93	2.97	17.10	1.99	34.212	6.351
342 C 23	9.73	12.39	342	88	2.3	2090.8	109.3	122.27	16.05	12.92	2.95	17.10	1.99	43.256	7.224
342 C 25	10.55	13.44	342	88	2.5	2265.4	117.9	132.48	17.32	12.91	2.94	17.10	2.00	49.248	7.795
342 C 27	11.37	14.48	342	88	2.7	2438.8	126.3	142.62	18.57	12.90	2.93	17.10	2.00	55.149	8.357
342 C 30	2.58	6.03	342	88	3.0	2696.9	138.8	157.71	20.41	12.88	2.92	17.10	2.00	63.794	9.138
402 C 30	4.37	18.31	402	95	3.0	4167.4	178.4	207.33	23.92	14.99	3.10	20.10	2.04	78.846	10.765



### C-section Dimensions and Properties

The section reference of a C-section 232mm deep and 1.8mm thick would be 232 C 18. The first 3 digits of the section reference indicate the depth of the section in millimeters (i.e. 232 equals 232mm deep). The fourth digit is a letter that signifies the profile type (i.e C for C-section). The last two digits indicate the material thickness (i.e. 18 equals 1.8mm).



Nominal dimensions						
Section Reference	Weight kg/m	Area cm <sup>2</sup>	Depth mm	Top Flange mm	Bottom Flange mm	t mm
232 Z 16	4.73	6.02	232	65	60	1.6
232 Z 18	5.30	6.75	232	65	60	1.8
232 Z 20	5.87	7.48	232	65	60	2.0
232 Z 23	6.71	8.55	232	65	60	2.3
232 Z 25	7.27	9.26	232	65	60	2.5
252 Z 15	4.79	6.11	252	65	60	1.5
252 Z 16	5.11	6.50	252	65	60	1.6
252 Z 18	5.73	7.29	252	65	60	1.8
252 Z 20	6.34	8.08	252	65	60	2.0
252 Z 23	7.26	9.24	252	65	60	2.3
252 Z 25	7.86	10.01	252	65	60	2.5
252 Z 29	9.06	11.54	252	65	60	2.9
302 Z 18	7.10	9.04	302	90	82	1.8
302 Z 20	7.86	10.02	302	90	82	2.0
302 Z 23	9.01	11.47	302	90	82	2.3
302 Z 25	9.76	12.44	302	90	82	2.5
302 Z 29	11.27	14.35	302	90	82	2.9
342 Z 20	8.49	10.82	342	90	82	2.0
342 Z 23	9.73	12.39	342	90	82	2.3
342 Z 25	10.55	13.44	342	90	82	2.5
342 Z 27	11.37	14.48	342	90	82	2.7
342 Z 30	12.58	16.03	342	90	82	3.0
402 Z 30	14.37	18.31	402	97	89	3.0

Section properties									
ly cm <sup>4</sup>	Iz cm <sup>4</sup>	W <sub>e,y</sub> cm <sup>3</sup>	W <sub>e1,z</sub> cm <sup>3</sup>	i <sub>y</sub> cm	Iz cm	C <sub>y</sub> cm	C cm	My,Rd kNm	Mz,Rd kNm
474.8	41.0	40.59	6.45	8.83	2.59	11.70	5.99	14.500	2.903
531.7	45.6	45.45	7.19	8.82	2.58	11.70	5.98	17.450	3.234
588.1	50.1	50.27	7.91	8.81	2.57	11.70	5.97	20.342	3.558
671.8	56.6	57.42	8.96	8.79	2.55	11.70	5.95	24.526	4.031
726.8	60.8	62.13	9.64	8.78	2.54	11.70	5.94	27.221	4.338
596.2	38.6	45.16	6.07	9.83	2.50	13.20	5.99	14.614	2.733
634.6	41.0	48.07	6.45	9.83	2.50	13.20	5.98	16.333	2.901
710.9	45.6	53.85	7.18	9.82	2.49	13.20	5.97	19.763	3.231
786.6	50.1	59.58	7.90	9.81	2.47	13.20	5.96	23.138	3.555
898.9	56.6	68.08	8.95	9.79	2.46	13.20	5.95	28.051	4.028
972.9	60.8	73.69	9.63	9.78	2.45	13.20	5.94	31.236	4.335
1118.9	69.0	84.75	10.96	9.76	2.42	13.20	5.92	37.442	4.930
1224.4	120.6	80.11	13.74	11.59	3.64	15.29	8.24	25.234	6.181
1355.9	132.9	88.70	15.15	11.57	3.62	15.29	8.23	30.362	6.819
1551.3	150.9	101.49	17.24	11.56	3.61	15.29	8.21	38.205	7.758
1680.5	162.7	109.94	18.60	11.55	3.59	15.29	8.20	43.417	8.372
1936.1	185.6	126.66	21.27	11.53	3.57	15.29	8.18	53.561	9.573
1821.7	132.9	105.34	15.14	12.92	3.49	17.29	8.22	34.241	6.818
2085.0	151.0	120.56	17.22	12.90	3.47	17.29	8.20	43.380	7.750
2259.1	162.7	130.63	18.59	12.89	3.46	17.29	8.19	49.455	8.364
2432.1	174.3	140.63	19.93	12.88	3.45	17.29	8.18	55.447	8.968
2689.4	191.3	155.51	21.91	12.86	3.43	17.29	8.17	64.227	9.858
4158.1	241.1	204.83	25.54	14.98	3.61	20.30	8.86	79.277	11.494



Nominal dimensions						
Section Reference	Weight kg/m	Area cm <sup>2</sup>	Depth mm	Top Flange mm	Bottom Flange mm	t mm
152 Z 13	2.84	3.62	152	55	50	1.3
152 Z 14	3.05	3.89	152	55	50	1.4
152 Z 15	3.26	4.16	152	55	50	1.5
152 Z 16	3.47	4.42	152	55	50	1.6
152 Z 18	3.89	4.95	152	55	50	1.8
152 Z 20	4.30	5.48	152	55	50	2.0
172 Z 13	3.25	4.14	172	55	50	1.3
172 Z 14	3.49	4.45	172	55	50	1.4
172 Z 15	3.73	4.76	172	55	50	1.5
172 Z 16	3.98	5.06	172	55	50	1.6
172 Z 18	4.45	5.67	172	55	50	1.8
172 Z 20	4.93	6.28	172	55	50	2.0
172 Z 23	5.163	7.17	172	55	50	2.3
172 Z 25	6.09	7.76	172	55	50	2.5
202 Z 13	3.56	4.53	202	65	60	1.3
202 Z 14	3.82	4.87	202	65	60	1.4
202 Z 15	4.09	5.21	202	65	60	1.5
202 Z 16	4.35	5.54	202	65	60	1.6
202 Z 18	4.88	6.21	202	65	60	1.8
202 Z 20	5.40	6.88	202	65	60	2.0
202 Z 23	6.17	7.86	202	65	60	2.3
202 Z 27	7.19	9.16	202	65	60	2.7
232 Z 14	4.15	5.29	232	65	60	1.4
232 Z 15	4.44	5.66	232	65	60	1.5

Section properties									
I <sub>y</sub> cm <sup>4</sup>	I <sub>z</sub> cm <sup>4</sup>	W <sub>e,y</sub> cm <sup>3</sup>	W <sub>e1,z</sub> cm <sup>3</sup>	i <sub>y</sub> cm	i <sub>z</sub> cm	C <sub>y</sub> cm	C cm	M <sub>y,Rd</sub> kNm	M <sub>z,Rd</sub> kNm
117.4	27.2	16.34	4.65	5.66	2.72	7.19	5.52	6.007	2.091
126.1	29.1	17.54	4.98	5.66	2.72	7.19	5.52	6.776	2.240
34.6	31.0	18.74	5.31	5.65	2.71	7.19	5.51	7.554	2.388
143.2	32.9	19.93	5.63	5.65	2.71	7.19	5.51	8.330	2.534
160.1	36.5	22.28	6.27	5.64	2.69	7.19	5.49	9.850	2.821
176.8	40.1	24.60	6.89	5.63	2.68	7.19	5.48	11.302	3.101
192.6	33.9	22.17	5.33	6.79	2.85	8.69	6.01	7.497	2.397
206.9	36.3	23.81	5.71	6.78	2.84	8.69	6.01	8.498	2.569
221.1	38.6	25.44	6.09	6.78	2.83	8.69	6.00	9.517	2.739
235.2	41.0	27.07	6.46	6.77	2.83	8.69	6.00	10.547	2.908
263.1	45.6	30.29	7.20	6.76	2.81	8.69	5.99	12.603	3.239
290.8	50.1	33.47	7.92	6.75	2.80	8.69	5.98	14.606	3.564
331.7	56.6	38.18	8.97	6.74	2.78	8.69	5.96	17.460	4.038
358.6	60.8	41.28	9.66	6.73	2.77	8.69	5.95	19.271	4.346
280.2	33.9	27.49	5.32	7.83	2.72	10.19	6.01	8.854	2.395
301.0	36.3	29.53	5.70	7.82	2.71	10.19	6.00	10.072	2.567
321.7	38.6	31.56	6.08	7.82	2.71	10.19	6.00	11.310	2.737
342.4	41.0	33.58	6.46	7.81	2.70	10.19	5.99	12.559	2.905
383.3	45.6	37.60	7.19	7.80	2.69	10.19	5.98	15.051	3.236
423.8	50.1	41.57	7.91	7.79	2.68	10.19	5.97	17.486	3.560
483.8	56.6	47.45	8.96	7.78	2.66	10.19	5.96	20.984	4.034
562.3	64.9	55.16	10.32	7.76	2.64	10.19	5.94	25.403	4.642
417.3	36.3	35.67	5.70	8.84	2.61	11.70	6.00	11.554	2.565
4461.	38.6	38.14	6.08	8.84	2.60	11.70	5.99	13.022	2.734