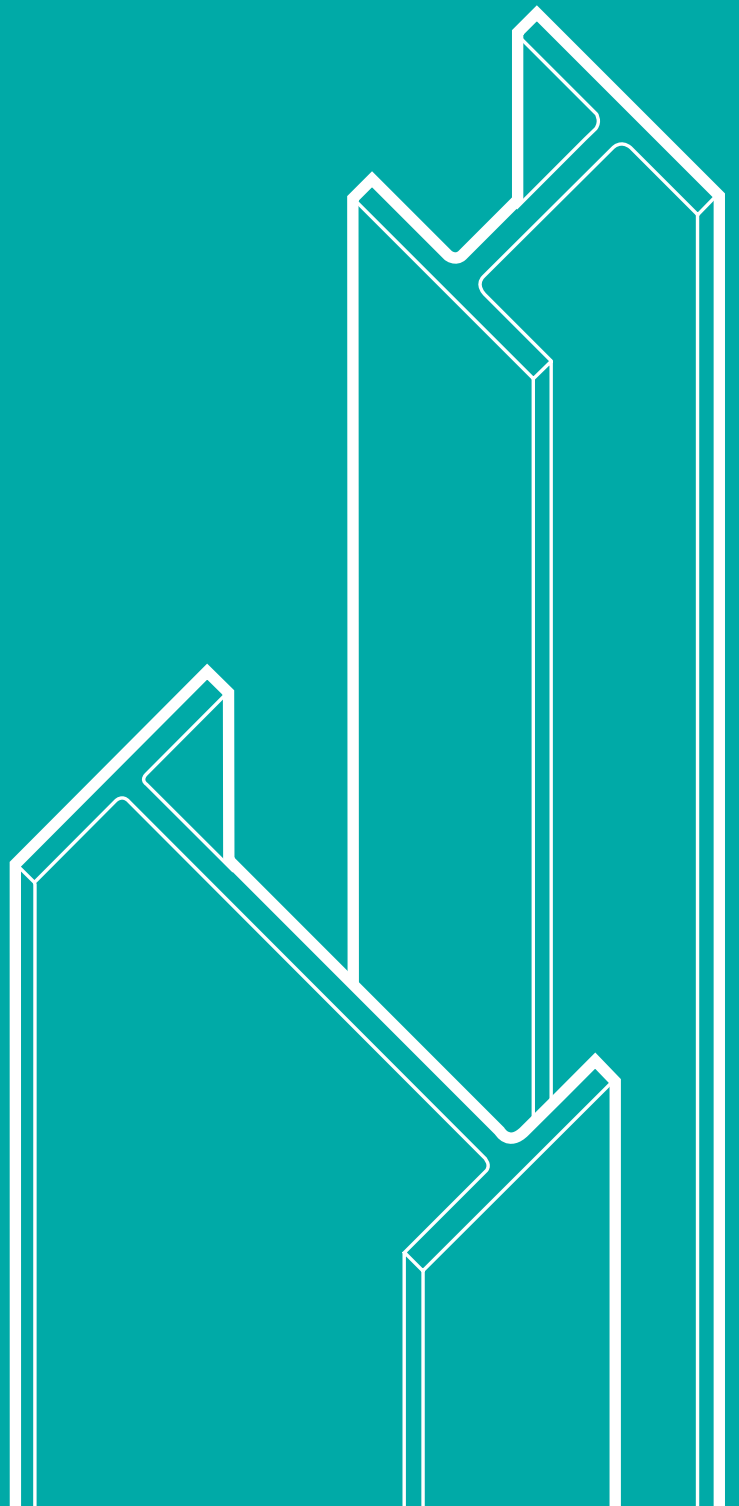


Structural sections - metric

in accordance with ASTM specifications



Contents

Dimensions and properties*		Page
	W40 x 12 – W33 x 15 ³ / ₄	2-3
	W33 x 11 ¹ / ₂ – W27 x 14	4-5
	W27 x 10 – W24 x 9	6-7
	W24 x 7 – W16 x 7	8-9
	W16 x 5 ¹ / ₂ – W14 x 6 ³ / ₄	10-11
	W14 x 5 – W12 x 4	12-13
	W10 x 10 – W5 x 3	14-15

*Properties are calculated from the metric dimensions shown.

Dimensions for detailing		
	W40 x 12 – W33 x 15 ³ / ₄	16
	W33 x 11 ¹ / ₂ – W27 x 14	17
	W27 x 10 – W24 x 9	18
	W24 x 7 – W16 x 7	19
	W16 x 5 ¹ / ₂ – W14 x 6 ³ / ₄	20
	W14 x 5 – W12 x 4	21
	W10 x 10 – W5 x 3	22

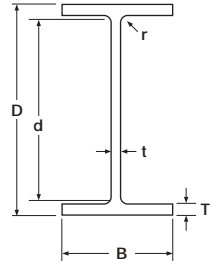
W/D Ratio		
	W40 x 12 – W33 x 15 ³ / ₄	23
	W33 x 11 ¹ / ₂ – W27 x 14	24
	W27 x 10 – W24 x 9	25
	W24 x 7 – W16 x 7	26
	W16 x 5 ¹ / ₂ – W14 x 6 ³ / ₄	27
	W14 x 5 – W12 x 4	28
	W10 x 10 – W5 x 3	29

Universal Bearing piling to ASTM A6/A6M & BS4: Part 1		
	HP14 x 14 ¹ / ₂ – UP8 x 8	30

W SHAPES in accordance with ASTM A6/A6M

Dimensions and Properties

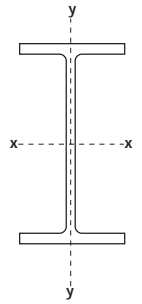
Supplemented by structural sections in accordance with BS4: Part 1



Serial Size in	Mass per foot lb	Serial size mm	Mass per metre kg	Depth of Section D mm	Width of Section B mm	Thickness of Web t mm	Thickness of Flange T mm	Root Radius r mm	Depth between fillets d mm	Ratios for Local Buckling		Second Moment of Area	
										Flange B/2T	Web d/t	Axis xx cm ⁴	Axis yy cm ⁴
W40 x 12	327	† 1016 x 305 x 487	486.6	1036.1	308.5	30.0	54.1	30.0	867.9	2.85	28.9	1021400	26720
W40 x 12	294	† 1016 x 305 x 437	436.9	1025.9	305.4	26.9	49.0	30.0	867.9	3.12	32.3	909900	23450
W40 x 12	264	† 1016 x 305 x 393	392.7	1016.0	303.0	24.4	43.9	30.0	868.2	3.45	35.6	807700	20500
W40 x 12	235	† 1016 x 305 x 349	349.4	1008.1	302.0	21.1	40.0	30.0	868.1	3.78	41.1	723100	18460
W40 x 12	211	† 1016 x 305 x 314	314.3	1000.0	300.0	19.1	35.9	30.0	868.2	4.18	45.5	644200	16230
W40 x 12	183	† 1016 x 305 x 272	272.3	990.1	300.0	16.5	31.0	30.0	868.1	4.84	52.6	554000	14000
W40 x 12	167	† 1016 x 305 x 249	248.7	980.2	300.0	16.5	26.0	30.0	868.2	5.77	52.6	481300	11750
W40 x 12	149	† 1016 x 305 x 222	222.0	970.3	300.0	16.0	21.1	30.0	868.1	7.11	54.3	408000	9546
W36 x 16½	359	† 914 x 419 x 534	533.8	950.0	424.9	28.4	51.1	24.1	799.6	4.16	28.2	1031100	65510
W36 x 16½	328	† 914 x 419 x 488	488.0	942.1	422.4	25.9	47.0	24.1	799.9	4.49	30.9	936400	59180
W36 x 16½	300	† 914 x 419 x 447	447.1	932.7	423.0	24.0	42.7	24.1	799.1	4.95	33.3	846300	53980
W36 x 16½	280	† 914 x 419 x 418	418.1	928.0	422.0	22.5	39.9	24.1	800.0	5.29	35.6	787600	50070
W36 x 16½	260	† 914 x 419 x 388	388.0	921.0	420.5	21.4	36.6	24.1	799.6	5.74	37.4	719600	45440
W36 x 16½	245	† 914 x 419 x 365	364.8	916.0	419.4	20.3	34.3	24.1	799.2	6.11	39.4	671100	42240
W36 x 16½	230	† 914 x 419 x 343	343.3	911.8	418.5	19.4	32.0	24.1	799.6	6.54	41.2	625800	39160
W36 x 12	386	† 914 x 305 x 576	575.4	992.9	321.8	36.1	65.0	19.1	824.7	2.48	22.8	1101000	36460
W36 x 12	349	† 914 x 305 x 521	520.8	980.7	318.8	33.0	58.9	19.1	824.7	2.71	25.0	981300	32080
W36 x 12	318	† 914 x 305 x 474	473.7	970.8	315.7	30.0	54.1	19.1	824.4	2.92	27.5	884600	28580
W36 x 12	285	† 914 x 305 x 425	425.3	960.9	312.8	26.9	49.0	19.1	824.7	3.19	30.7	787600	25140
W36 x 12	256	† 914 x 305 x 381	381.6	950.7	310.3	24.4	43.9	19.1	824.7	3.53	33.8	696900	21970
W36 x 12	232	† 914 x 305 x 345	345.1	942.9	307.9	22.1	39.9	19.1	824.9	3.86	37.3	625300	19500
W36 x 12	210	† 914 x 305 x 313	313.0	932.0	309.4	21.1	34.5	19.1	824.8	4.48	39.1	548900	17110
W36 x 12	194	† 914 x 305 x 289	289.1	926.6	307.7	19.5	32.0	19.1	824.4	4.81	42.3	504200	15600
W36 x 12	182	† 914 x 305 x 271	271.7	923.0	307.0	18.4	30.0	19.1	824.8	5.12	44.8	471600	14520
W36 x 12	170	† 914 x 305 x 253	253.4	918.4	305.5	17.3	27.9	19.1	824.4	5.47	47.7	436300	13300
W36 x 12	160	† 914 x 305 x 238	238.1	914.5	304.8	16.5	25.9	19.1	824.5	5.88	50.0	405800	12260
W36 x 12	150	† 914 x 305 x 224	224.2	910.4	304.1	15.9	23.9	19.1	824.4	6.36	51.8	376400	11240
W36 x 12	135	† 914 x 305 x 201	200.9	903.0	303.3	15.1	20.2	19.1	824.4	7.51	54.6	325300	9423
W33 x 15¾	387	† 838 x 400 x 576	576.0	913.0	411.0	32.0	57.9	17.8	761.6	3.55	23.8	1010700	67230
W33 x 15¾	354	† 838 x 400 x 527	527.6	903.0	409.0	29.5	53.1	17.8	761.2	3.85	25.8	914000	60730
W33 x 15¾	318	† 838 x 400 x 473	473.3	893.1	406.0	26.4	48.0	17.8	761.5	4.23	28.8	812300	53670
W33 x 15¾	291	† 838 x 400 x 433	433.3	885.0	404.0	24.4	43.9	17.8	761.6	4.60	31.2	735200	48350
W33 x 15¾	263	† 838 x 400 x 392	391.9	877.1	401.4	22.1	39.9	17.8	761.7	5.03	34.5	659300	43090
W33 x 15¾	241	† 838 x 400 x 359	359.4	868.0	403.0	21.1	35.6	17.8	761.2	5.66	36.1	590500	38900
W33 x 15¾	221	† 838 x 400 x 329	329.4	862.0	401.0	19.7	32.4	17.8	761.6	6.19	38.7	534700	34880
W33 x 15¾	201	† 838 x 400 x 299	299.3	855.4	399.9	18.2	29.2	17.8	761.4	6.85	41.8	479700	31170

† These sizes are in addition to the standard BS4 range.

W SHAPES in accordance with ASTM A6/A6M



Dimensions and Properties

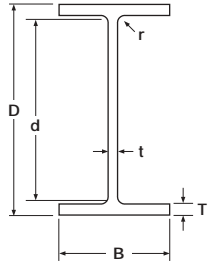
Supplemented by structural sections in accordance with BS4: Part 1

Radius of Gyration		Elastic Modulus		Plastic Modulus		Buckling Parameter u	Torsional Index x	Warping Constant H dm ⁶	Torsional Constant J cm ⁴	Area of Section cm ²	Mass per foot lb	Serial Size in
Axis xx cm	Axis yy cm	Axis xx cm ³	Axis yy cm ³	Axis xx cm ³	Axis yy cm ³							
40.6	6.57	19720	1732	23200	2799	0.867	21.1	64.4	4299	620	327	W40 x 12
40.4	6.49	17740	1535	20760	2467	0.868	23.1	55.9	3185	557	294	W40 x 12
40.2	6.40	15900	1353	18540	2167	0.868	25.5	48.4	2330	500	264	W40 x 12
40.3	6.44	14350	1223	16590	1940	0.872	27.9	43.3	1718	445	235	W40 x 12
40.1	6.37	12880	1082	14850	1712	0.872	30.7	37.7	1264	400	211	W40 x 12
40.0	6.35	11190	934	12830	1469	0.873	35.0	32.2	835	347	183	W40 x 12
39.0	6.09	9821	784	11350	1244	0.861	39.9	26.8	582	317	167	W40 x 12
38.0	5.81	8409	636	9808	1019	0.850	45.7	21.5	390	283	149	W40 x 12
38.9	9.82	21710	3084	24830	4793	0.887	19.7	132	4515	680	359	W36 x 16 1/2
38.8	9.76	19880	2802	22640	4344	0.887	21.3	119	3502	622	328	W36 x 16 1/2
38.5	9.73	18150	2552	20590	3950	0.887	23.2	107	2675	570	300	W36 x 16 1/2
38.5	9.70	16970	2373	19210	3668	0.887	24.8	98.7	2194	533	280	W36 x 16 1/2
38.2	9.59	15630	2161	17670	3340	0.885	26.7	88.9	1734	494	260	W36 x 16 1/2
38.0	9.53	14650	2015	16540	3111	0.884	28.3	82.1	1442	465	245	W36 x 16 1/2
37.8	9.46	13730	1871	15480	2889	0.883	30.1	75.8	1193	437	230	W36 x 16 1/2
38.8	7.05	22180	2266	26260	3653	0.871	16.8	78.5	7127	733	386	W36 x 12
38.5	6.95	20010	2012	23590	3234	0.871	18.4	68.1	5337	663	349	W36 x 12
38.3	6.88	18220	1810	21370	2896	0.872	19.9	60.0	4101	603	318	W36 x 12
38.1	6.81	16390	1608	19120	2559	0.873	21.8	52.3	3027	542	285	W36 x 12
37.9	6.72	14660	1416	17030	2247	0.872	24.1	45.2	2199	486	256	W36 x 12
37.7	6.66	13260	1266	15340	2001	0.872	26.4	39.7	1649	440	232	W36 x 12
37.1	6.55	11780	1106	13640	1752	0.866	29.7	34.4	1163	399	210	W36 x 12
37.0	6.51	10880	1014	12570	1601	0.867	31.9	31.2	926	368	194	W36 x 12
36.9	6.48	10220	946	11780	1491	0.866	33.9	28.9	770	346	182	W36 x 12
36.8	6.42	9501	871	10940	1370	0.866	36.2	26.4	626	323	170	W36 x 12
36.6	6.36	8874	805	10220	1265	0.864	38.6	24.2	514	303	160	W36 x 12
36.3	6.27	8269	739	9535	1163	0.861	41.3	22.1	422	286	150	W36 x 12
35.7	6.07	7204	621	8352	982	0.854	46.8	18.4	291	256	135	W36 x 12
37.1	9.57	22140	3271	25540	5100	0.887	16.7	123	6126	734	387	W33 x 15 3/4
36.9	9.51	20240	2970	23250	4620	0.887	18.1	110	4743	672	354	W33 x 15 3/4
36.7	9.43	18190	2644	20770	4099	0.888	19.9	95.8	3485	603	318	W33 x 15 3/4
36.5	9.36	16610	2394	18900	3705	0.887	21.6	85.5	2683	552	291	W33 x 15 3/4
36.3	9.29	15030	2147	17030	3316	0.888	23.6	75.5	2011	499	263	W33 x 15 3/4
35.9	9.22	13610	1931	15400	2983	0.884	26.1	67.4	1496	458	241	W33 x 15 3/4
35.7	9.12	12410	1739	14020	2686	0.882	28.4	60.0	1146	420	221	W33 x 15 3/4
35.5	9.04	11220	1559	12650	2404	0.881	31.2	53.2	855	381	201	W33 x 15 3/4

W SHAPES in accordance with ASTM A6/A6M

Dimensions and Properties

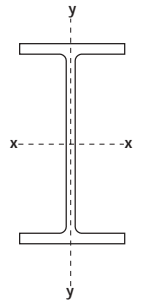
Supplemented by structural sections in accordance with BS4: Part 1



Serial Size in	Mass per foot lb	Serial size mm	Mass per metre kg	Depth of Section D mm	Width of Section B mm	Thickness of Web t mm	Thickness of Flange T mm	Root Radius r mm	Depth between fillets d mm	Ratios for Local Buckling		Second Moment of Area	
										Flange B/2T	Web d/t	Axis xx cm ⁴	Axis yy cm ⁴
W33 x 11½	219	† 838 x 292 x 326	326.6	877.1	297.2	22.1	39.9	17.8	761.7	3.72	34.5	513500	17540
W33 x 11½	204	† 838 x 292 x 304	303.3	871.2	295.7	20.6	37.1	17.8	761.4	3.99	37.0	473000	16050
W33 x 11½	187	† 838 x 292 x 278	278.6	865.1	294.1	19.1	34	17.8	761.5	4.33	39.9	430400	14470
W33 x 11½	169	† 838 x 292 x 251	250.7	859.0	292.1	17.0	31.0	17.8	761.4	4.71	44.8	386500	12910
W33 x 11½	152	838 x 292 x 226	226.5	850.9	293.8	16.1	26.8	17.8	761.7	5.48	47.3	339700	11360
W33 x 11½	141	† 838 x 292 x 210	210.8	846.1	293.0	15.4	24.4	17.8	761.7	6.00	49.5	310700	10260
W33 x 11½	130	838 x 292 x 194	193.8	840.7	292.4	14.7	21.7	17.8	761.7	6.74	51.8	279200	9066
W33 x 11½	118	838 x 292 x 176	175.9	834.9	291.7	14.0	18.8	17.8	761.7	7.76	54.4	246000	7799
W30 x 15	326	† 762 x 381 x 484	484.8	823.0	390.4	29.0	52.1	16.5	685.8	3.75	23.6	698000	51820
W30 x 15	292	† 762 x 381 x 434	433.9	813.1	387.4	25.9	47.0	16.5	686.1	4.12	26.5	618200	45650
W30 x 15	261	† 762 x 381 x 389	388.3	802.9	384.9	23.6	41.9	16.5	686.1	4.59	29.1	543500	39910
W30 x 15	235	† 762 x 381 x 350	349.4	795.0	382.0	21.1	38.1	16.5	685.8	5.01	32.5	485500	35460
W30 x 15	211	† 762 x 381 x 314	314.2	785.9	383.7	19.7	33.4	16.5	686.1	5.74	34.8	427100	31500
W30 x 15	191	† 762 x 381 x 284	283.9	779.0	382.0	18.0	30.1	16.5	685.8	6.35	38.1	381300	28000
W30 x 15	173	† 762 x 381 x 257	257.6	773.0	381.0	16.6	27.1	16.5	685.8	7.03	41.3	341700	25010
W30 x 10½	148	† 762 x 267 x 220	220.3	779.0	266.2	16.5	30.0	16.5	686.0	4.44	41.6	278200	9462
W30 x 10½	132	762 x 267 x 197	196.8	769.8	268.0	15.6	25.4	16.5	686.0	5.28	44.0	240000	8175
W30 x 10½	124	† 762 x 267 x 185	184.8	766.0	267.0	14.9	23.6	16.5	685.8	5.66	46.0	222800	7510
W30 x 10½	116	762 x 267 x 173	173.0	762.2	266.7	14.3	21.6	16.5	686.0	6.17	48.0	205300	6850
W30 x 10½	108	† 762 x 267 x 161	160.4	758.0	266.0	13.8	19.3	16.5	686.4	6.89	49.7	185900	6073
W30 x 10½	99	762 x 267 x 147	146.9	754.0	265.2	12.8	17.5	16.5	686.0	7.58	53.6	168500	5455
W30 x 10½	90	762 x 267 x 134	133.9	750.0	264.4	12.0	15.5	16.5	686.0	8.53	57.2	150700	4788
W27 x 14	307	† 686 x 356 x 457	457.0	752.0	366.9	29.5	53.1	15.2	615.4	3.45	20.9	545000	43860
W27 x 14	281	† 686 x 356 x 419	418.3	744.0	364.4	26.9	49.0	15.2	615.6	3.72	22.9	494400	39630
W27 x 14	258	† 686 x 356 x 384	383.9	736.1	362.4	24.9	45.0	15.2	615.7	4.03	24.7	448000	35780
W27 x 14	235	† 686 x 356 x 350	350.2	728.0	360.4	23.1	40.9	15.2	615.8	4.41	26.7	402300	31980
W27 x 14	217	† 686 x 356 x 323	323.0	722.1	358.5	21.1	38.1	15.2	615.5	4.70	29.2	369300	29310
W27 x 14	194	† 686 x 356 x 289	288.2	714.0	356.4	19.0	34.0	15.2	615.6	5.24	32.4	325100	25690
W27 x 14	178	† 686 x 356 x 265	264.5	706.4	357.8	18.4	30.2	15.2	615.6	5.92	33.5	290600	23090
W27 x 14	161	† 686 x 356 x 240	239.9	700.8	356.1	16.8	27.4	15.2	615.6	6.50	36.6	261100	20650
W27 x 14	146	† 686 x 356 x 217	217.8	695.0	355.0	15.4	24.8	15.2	615.0	7.16	39.9	234300	18510

† These sizes are in addition to the standard BS4 range.

W SHAPES in accordance with ASTM A6/A6M



Dimensions and Properties

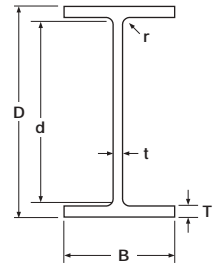
Supplemented by structural sections in accordance with BS4: Part 1

Radius of Gyration		Elastic Modulus		Plastic Modulus		Buckling Parameter u	Torsional Index x	Warping Constant H dm ⁶	Torsional Constant J cm ⁴	Area of Section cm ²	Mass per foot lb	Serial Size in
Axis xx cm	Axis yy cm	Axis xx cm ³	Axis yy cm ³	Axis xx cm ³	Axis yy cm ³							
35.1	6.49	11710	1180	13550	1863	0.874	24.4	30.7	1569	416	219	W33 x 11 1/2
35.0	6.45	10860	1086	12530	1710	0.874	26.1	27.9	1265	386	204	W33 x 11 1/2
34.8	6.38	9950	984	11450	1547	0.874	28.3	25.0	983	355	187	W33 x 11 1/2
34.8	6.36	8999	884	10300	1383	0.875	30.9	22.1	735	319	169	W33 x 11 1/2
34.3	6.27	7985	773	9155	1211	0.870	35.0	19.3	514	289	152	W33 x 11 1/2
34.0	6.18	7344	700	8429	1098	0.867	37.9	17.3	405	268	141	W33 x 11 1/2
33.6	6.06	6641	620	7640	974	0.862	41.6	15.2	306	247	130	W33 x 11 1/2
33.1	5.90	5893	535	6808	842	0.856	46.5	13.0	221	224	118	W33 x 11 1/2
33.6	9.16	16960	2655	19510	4126	0.888	16.7	77.0	4233	618	326	W30 x 15
33.4	9.09	15210	2357	17380	3651	0.889	18.3	67.0	3091	553	292	W30 x 15
33.2	8.98	13540	2074	15410	3207	0.888	20.3	57.8	2216	495	261	W30 x 15
33.0	8.93	12210	1856	13820	2863	0.889	22.2	50.8	1650	445	235	W30 x 15
32.7	8.87	10870	1642	12270	2531	0.886	25.0	44.6	1161	400	211	W30 x 15
32.5	8.80	9789	1466	11020	2257	0.885	27.5	39.3	858	362	191	W30 x 15
32.3	8.73	8841	1313	9929	2019	0.884	30.3	34.8	638	328	173	W30 x 15
31.5	5.81	7142	711	8197	1114	0.875	28.9	13.3	605	281	148	W30 x 10 1/2
30.9	5.71	6234	610	7167	958	0.869	33.2	11.3	404	251	132	W30 x 10 1/2
30.8	5.65	5817	563	6686	884	0.867	35.4	10.3	333	235	124	W30 x 10 1/2
30.5	5.58	5387	514	6198	807	0.864	38.1	9.4	267	220	116	W30 x 10 1/2
30.2	5.45	4904	457	5661	719	0.859	41.5	8.3	207	204	108	W30 x 10 1/2
30.0	5.40	4470	411	5156	647	0.858	45.2	7.4	159	187	99	W30 x 10 1/2
29.7	5.30	4018	362	4644	570	0.854	49.8	6.5	119	171	90	W30 x 10 1/2
30.6	8.68	14490	2391	16760	3718	0.889	14.8	53.6	4157	582	307	W27 x 14
30.5	8.62	13290	2175	15280	3373	0.890	15.9	47.9	3244	533	281	W27 x 14
30.3	8.55	12170	1975	13930	3058	0.889	17.2	42.7	2523	489	258	W27 x 14
30.0	8.47	11050	1775	12600	2745	0.888	18.8	37.7	1915	446	235	W27 x 14
30.0	8.44	10230	1635	11610	2523	0.890	20.1	34.3	1532	411	217	W27 x 14
29.8	8.37	9107	1442	10290	2220	0.889	22.3	29.7	1095	367	194	W27 x 14
29.4	8.28	8227	1291	9290	1990	0.885	24.7	26.4	811	337	178	W27 x 14
29.2	8.22	7452	1160	8387	1785	0.884	27.0	23.4	609	306	161	W27 x 14
29.1	8.17	6744	1043	7568	1603	0.884	29.6	20.8	456	277	146	W27 x 14

W SHAPES in accordance with ASTM A6/A6M

Dimensions and Properties

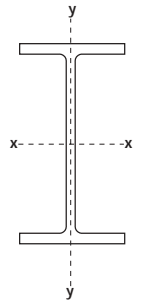
Supplemented by structural sections in accordance with BS4: Part 1



Serial Size in	Mass per foot lb	Serial size mm	Mass per metre kg	Depth of Section D mm	Width of Section B mm	Thickness of Web t mm	Thickness of Flange T mm	Root Radius r mm	Depth between fillets d mm	Ratios for Local Buckling		Second Moment of Area	
										Flange B/2T	Web d/t	Axis xx cm ⁴	Axis yy cm ⁴
W27 x 10	221	† 686 x 254 x 329	328.3	739.9	264.8	25.9	47	15.2	615.5	2.82	23.8	359400	14640
W27 x 10	201	† 686 x 254 x 299	299.8	732.0	262.8	23.9	42.9	15.2	615.8	3.06	25.8	323800	13060
W27 x 10	182	† 686 x 254 x 271	270.8	723.9	260.2	21.6	39.1	15.2	615.3	3.33	28.5	289300	11540
W27 x 10	159	† 686 x 254 x 237	236.0	714.0	257.8	19.1	34	15.2	615.6	3.79	32.2	247800	9750
W27 x 10	129	† 686 x 254 x 192	191.4	702.0	254.0	15.5	27.9	15.2	615.8	4.55	39.7	198000	7643
W27 x 10	114	686 x 254 x 170	170.2	692.9	255.8	14.5	23.7	15.2	615.1	5.40	42.4	170300	6630
W27 x 10	102	686 x 254 x 152	152.4	687.5	254.5	13.2	21.0	15.2	615.1	6.06	46.6	150400	5784
W27 x 10	94	686 x 254 x 140	140.1	683.5	253.7	12.4	19.0	15.2	615.1	6.68	49.6	136300	5183
W27 x 10	84	686 x 254 x 125	125.2	677.9	253.0	11.7	16.2	15.2	615.1	7.81	52.6	118000	4383
W24 x 12¼	306	† 610 x 324 x 455	455.0	689.4	340.0	32.0	57.9	16.5	540.6	2.94	16.9	445800	38090
W24 x 12¼	279	† 610 x 324 x 415	416.3	679.0	338.0	29.5	53.1	16.5	539.8	3.18	18.3	400500	34300
W24 x 12¼	250	† 610 x 324 x 372	373.0	669.0	334.9	26.4	48.0	16.5	540.0	3.49	20.5	353800	30140
W24 x 12¼	229	† 610 x 324 x 341	341.1	660.9	333.0	24.4	43.9	16.5	540.1	3.79	22.1	318900	27090
W24 x 12¼	207	† 610 x 324 x 307	308.2	653.0	330.4	22.1	39.9	16.5	540.2	4.14	24.4	284700	24040
W24 x 12¼	192	† 610 x 324 x 285	286.1	647.0	329.0	20.6	37.1	16.5	539.8	4.43	26.2	261400	22070
W24 x 12¼	176	† 610 x 324 x 262	261.9	641.0	327.0	19.0	34.0	16.5	540.0	4.81	28.4	236700	19850
W24 x 12¼	162	† 610 x 324 x 241	238.9	635.0	329.0	17.1	31.0	16.5	540.0	5.31	31.6	214900	18430
W24 x 12¼	146	† 610 x 324 x 217	218.6	628.0	328.0	16.5	27.7	16.5	539.6	5.92	32.7	191500	16320
W24 x 12¼	131	† 610 x 324 x 195	196.4	622.0	327.0	15.4	24.4	16.5	540.2	6.70	35.1	168600	14240
W24 x 12¼	117	† 610 x 324 x 174	175.0	616.0	325.0	14.0	21.6	16.5	539.8	7.52	38.6	147900	12370
W24 x 12¼	104	† 610 x 324 x 155	155.6	611.0	324.0	12.7	19.0	16.5	540.0	8.53	42.5	129700	10780
UB24 x 12	160	610 x 305 x 238	238.1	635.8	311.4	18.4	31.4	16.5	540.0	4.96	29.3	209500	15840
UB24 x 12	120	610 x 305 x 179	179.0	620.2	307.1	14.1	23.6	16.5	540.0	6.51	38.3	153000	11410
UB24 x 12	100	610 x 305 x 149	149.2	612.4	304.8	11.8	19.7	16.5	540.0	7.74	45.8	125900	9308
W24 x 9	198	† 610 x 229 x 295	295.1	667.0	240.5	25.9	47	12.7	547.6	2.56	21.1	259400	10980
W24 x 9	163	† 610 x 229 x 243	243.1	651.0	236.0	21.6	39.1	12.7	547.4	3.02	25.3	207900	8616
W24 x 9	146	† 610 x 229 x 217	218.2	643.1	234.1	19.6	35.1	12.7	547.5	3.33	27.9	183900	7543
W24 x 9	128	† 610 x 229 x 191	190.2	635.0	231.5	17	31	12.7	547.6	3.73	32.2	158800	6435
W24 x 9	114	† 610 x 229 x 171	171.6	628.9	230.0	15.5	27.9	12.7	547.7	4.12	35.3	141400	5677
W24 x 9	103	† 610 x 229 x 153	153.5	623.1	228.6	14.0	24.9	12.7	547.9	4.59	39.1	125000	4972
W24 x 9	94	610 x 229 x 140	139.9	617.2	230.2	13.1	22.1	12.7	547.6	5.21	41.8	111800	4505
W24 x 9	84	610 x 229 x 125	125.1	612.2	229.0	11.9	19.6	12.7	547.6	5.84	46.0	98610	3932
W24 x 9	76	610 x 229 x 113	113.0	608.0	228.2	11.1	17.3	12.7	548.0	6.60	49.4	87450	3434
W24 x 9	68	610 x 229 x 101	101.2	602.6	227.6	10.5	14.8	12.7	547.6	7.69	52.2	75780	2915

† These sizes are in addition to the standard BS4 range.

W SHAPES in accordance with ASTM A6/A6M



Dimensions and Properties

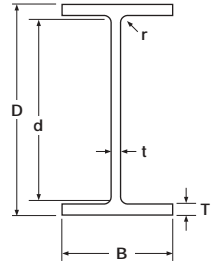
Supplemented by structural sections in accordance with BS4: Part 1

Radius of Gyration		Elastic Modulus		Plastic Modulus		Buckling Parameter u	Torsional Index x	Warping Constant H dm ⁶	Torsional Constant J cm ⁴	Area of Section cm ²	Mass per foot lb	Serial Size in
Axis xx cm	Axis yy cm	Axis xx cm ³	Axis yy cm ³	Axis xx cm ³	Axis yy cm ³							
29.3	5.92	9715	1106	11390	1759	0.877	17.2	17.6	2186	418	221	W27 x 10
29.1	5.85	8847	994	10330	1577	0.877	18.6	15.5	1675	382	201	W27 x 10
29.0	5.78	7993	887	9282	1402	0.878	20.3	13.5	1260	345	182	W27 x 10
28.7	5.69	6940	756	8017	1191	0.877	23.0	11.3	840	301	159	W27 x 10
28.5	5.60	5641	602	6459	941	0.878	27.7	8.68	462	244	129	W27 x 10
28.0	5.53	4916	518	5631	811	0.872	31.8	7.42	308	217	114	W27 x 10
27.8	5.46	4374	455	5001	710	0.871	35.5	6.42	220	194	102	W27 x 10
27.6	5.39	3987	409	4558	638	0.868	38.7	5.72	169	178	94	W27 x 10
27.2	5.24	3481	346	3994	542	0.862	43.9	4.80	116	159	84	W27 x 10
27.7	8.11	12930	2241	15130	3498	0.889	12.2	38.0	4940	580	306	W24 x 12 ^{3/4}
27.5	8.04	11800	2030	13720	3162	0.889	13.2	33.6	3824	530	279	W24 x 12 ^{3/4}
27.3	7.97	10580	1800	12220	2795	0.890	14.5	29.1	2808	475	250	W24 x 12 ^{3/4}
27.1	7.90	9650	1627	11090	2523	0.890	15.7	25.8	2162	435	229	W24 x 12 ^{3/4}
26.9	7.82	8719	1455	9964	2251	0.890	17.1	22.6	1619	393	207	W24 x 12 ^{3/4}
26.8	7.78	8081	1341	9200	2072	0.890	18.2	20.5	1305	364	192	W24 x 12 ^{3/4}
26.6	7.71	7385	1214	8374	1872	0.890	19.8	18.3	1008	334	176	W24 x 12 ^{3/4}
26.6	7.78	6768	1120	7630	1722	0.891	21.5	16.8	768	304	162	W24 x 12 ^{3/4}
26.2	7.65	6099	995	6873	1532	0.887	23.7	14.7	572	279	146	W24 x 12 ^{3/4}
26.0	7.54	5421	871	6099	1341	0.884	26.5	12.7	407	250	131	W24 x 12 ^{3/4}
25.8	7.45	4801	761	5387	1171	0.882	29.6	10.9	288	223	117	W24 x 12 ^{3/4}
25.6	7.38	4245	666	4753	1023	0.881	33.2	9.45	202	198	104	W24 x 12 ^{3/4}
26.3	7.23	6589	1017	7486	1574	0.886	21.3	14.5	785	303	160	UB24 x 12
25.9	7.07	4935	743	5548	1144	0.886	27.7	10.2	340	228	120	UB24 x 12
25.7	7.00	4111	611	4594	937	0.886	32.7	8.17	200	190	100	UB24 x 12
26.3	5.41	7778	913	9173	1457	0.878	15.4	10.6	1952	376	198	W24 x 9
25.9	5.27	6388	730	7457	1157	0.878	18.2	8.07	1124	310	163	W24 x 9
25.7	5.21	5718	644	6643	1018	0.877	20.0	6.97	819	278	146	W24 x 9
25.6	5.15	5001	556	5769	874	0.879	22.5	5.87	558	242	128	W24 x 9
25.4	5.10	4497	494	5169	774	0.878	24.8	5.13	411	219	114	W24 x 9
25.3	5.04	4012	435	4595	680	0.878	27.6	4.45	295	195	103	W24 x 9
25.0	5.03	3622	391	4142	611	0.875	30.6	3.99	216	178	94	W24 x 9
24.9	4.97	3221	343	3676	535	0.873	34.1	3.45	154	159	84	W24 x 9
24.6	4.88	2877	301	3284	469	0.870	38.0	3.00	111	144	76	W24 x 9
24.2	4.75	2515	256	2881	400	0.864	43.1	2.52	77.0	129	68	W24 x 9

W SHAPES in accordance with ASTM A6/A6M

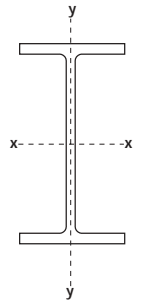
Dimensions and Properties

Supplemented by structural sections in accordance with BS4: Part 1



Serial Size in	Mass per foot lb	Serial size mm	Mass per metre kg	Depth of Section D mm	Width of Section B mm	Thickness of Web t mm	Thickness of Flange T mm	Root Radius r mm	Depth between fillets d mm	Ratios for Local Buckling		Second Moment of Area	
										Flange B/2T	Web d/t	Axis xx cm ⁴	Axis yy cm ⁴
W24 x 7	62	† 610 x 178 x 92	92.3	603.0	179.0	10.9	15.0	12.7	547.6	5.97	50.2	64630	1441
W24 x 7	55	† 610 x 178 x 82	81.9	599.0	178.0	10.0	12.8	12.7	548.0	6.95	54.8	55980	1209
W21 x 12¼	275	† 533 x 312 x 409	409.0	612.9	327.4	31	55.6	12.7	476.3	2.94	15.4	317100	32650
W21 x 12¼	248	† 533 x 312 x 370	369.4	603.0	324.4	28.2	50.5	12.7	476.6	3.21	16.9	281300	28830
W21 x 12¼	223	† 533 x 312 x 331	331.2	593.0	322.0	25.4	45.5	12.7	476.6	3.54	18.8	247700	25390
W21 x 12¼	201	† 533 x 312 x 300	299.5	585.0	319.0	23.1	41.4	12.7	476.8	3.85	20.6	220700	22450
W21 x 12¼	182	† 533 x 312 x 272	271.3	577.0	317.0	21.1	37.6	12.7	476.4	4.22	22.6	196700	20000
W21 x 12¼	166	† 533 x 312 x 248	246.6	571.0	315.0	19.0	34.5	12.7	476.6	4.57	25.1	177500	18000
W21 x 12¼	147	† 533 x 312 x 219	218.9	560.0	318.0	18.3	29.2	12.7	476.2	5.45	26.0	151000	15680
W21 x 12¼	132	† 533 x 312 x 196	196.5	554.0	316.0	16.5	26.3	12.7	476.0	6.01	28.8	134000	13850
W21 x 12¼	122	† 533 x 312 x 182	181.7	551.0	315.0	15.2	24.4	12.7	476.8	6.45	31.4	123500	12730
W21 x 12¼	111	† 533 x 312 x 165	165.3	546.0	313.0	14.0	22.2	12.7	476.2	7.05	34.0	111000	11360
W21 x 12¼	101	† 533 x 312 x 150	150.6	543.0	312.0	12.7	20.3	12.7	477.0	7.68	37.6	100800	10290
W21 x 8¼	93	† 533 x 210 x 138	138.3	549.0	214.0	14.7	23.6	12.7	476.4	4.53	32.4	86080	3870
W21 x 8¼	83	533 x 210 x 122	122.0	544.5	212.0	12.7	21.3	12.7	476.5	4.98	37.5	76070	3392
W21 x 8¼	73	533 x 210 x 109	109.0	539.5	210.8	11.6	18.8	12.7	476.5	5.61	41.1	66820	2943
W21 x 8¼	68	533 x 210 x 101	101.0	536.7	210.0	10.8	17.4	12.7	476.5	6.03	44.1	61520	2692
W21 x 8¼	62	533 x 210 x 92	92.1	533.1	209.3	10.1	15.6	12.7	476.5	6.71	47.2	55230	2389
UB21 x 8¼	55	533 x 210 x 82	82.2	528.3	208.8	9.6	13.2	12.7	476.5	7.91	49.6	47540	2007
W21 x 6½	57	† 533 x 165 x 85	84.7	535.0	166.0	10.3	16.5	12.7	476.6	5.03	46.3	48540	1263
W21 x 6½	50	† 533 x 165 x 74	74.7	529.0	166.0	9.7	13.6	12.7	476.4	6.10	49.1	41060	1042
W21 x 6½	44	† 533 x 165 x 66	65.7	525.0	165.0	8.9	11.4	12.7	476.8	7.24	53.6	35060	857
W18 x 7½	71	† 457 x 191 x 106	106.1	469.0	194.0	12.6	20.6	12.7	402.4	4.71	31.9	49040	2515
W18 x 7½	65	457 x 191 x 98	98.3	467.2	192.8	11.4	19.6	10.2	407.6	4.92	35.8	45730	2347
W18 x 7½	60	457 x 191 x 89	89.3	463.4	191.9	10.5	17.7	10.2	407.6	5.42	38.8	41020	2089
W18 x 7½	55	457 x 191 x 82	82.0	460.0	191.3	9.9	16.0	10.2	407.6	5.98	41.2	37050	1871
W18 x 7½	50	457 x 191 x 74	74.3	457.0	190.4	9.0	14.5	10.2	407.6	6.57	45.3	33320	1671
UB18 x 7½	45	457 x 191 x 67	67.1	453.4	189.9	8.5	12.7	10.2	407.6	7.48	48.0	29380	1452
W18 x 6	46	457 x 152 x 67	67.2	458.0	153.8	9.0	15.0	10.2	407.6	5.13	45.3	28930	913
W18 x 6	40	457 x 152 x 60	59.8	454.6	152.9	8.1	13.3	10.2	407.6	5.75	50.3	25500	795
W18 x 6	35	457 x 152 x 52	52.3	449.8	152.4	7.6	10.9	10.2	407.6	6.99	53.6	21370	645
W16 x 7	57	† 406 x 178 x 85	85.0	417.0	181.0	10.9	18.2	10.2	360.2	4.97	33.0	31540	1803
W16 x 7	50	406 x 178 x 74	74.2	412.8	179.5	9.5	16.0	10.2	360.4	5.61	37.9	27310	1545
W16 x 7	45	406 x 178 x 67	67.1	409.4	178.8	8.8	14.3	10.2	360.4	6.25	41.0	24330	1365
W16 x 7	40	406 x 178 x 60	60.1	406.4	177.9	7.9	12.8	10.2	360.4	6.95	45.6	21600	1203
W16 x 7	36	406 x 178 x 54	54.1	402.6	177.7	7.7	10.9	10.2	360.4	8.15	46.8	18720	1021

W SHAPES in accordance with ASTM A6/A6M



Dimensions and Properties

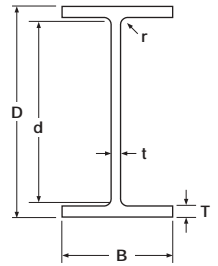
Supplemented by structural sections in accordance with BS4: Part 1

Radius of Gyration		Elastic Modulus		Plastic Modulus		Buckling Parameter u	Torsional Index x	Warping Constant H dm ⁶	Torsional Constant J cm ⁴	Area of Section cm ²	Mass per foot lb	Serial Size in
Axis xx cm	Axis yy cm	Axis xx cm ³	Axis yy cm ³	Axis xx cm ³	Axis yy cm ³							
23.4	3.50	2144	161	2513	258	0.848	42.8	1.25	71.0	118	62	W24 x 7
23.2	3.40	1869	136	2197	218	0.843	48.5	1.04	48.8	104	55	W24 x 7
24.7	7.92	10350	1994	12130	3103	0.890	11.2	25.4	4135	521	275	W21 x 12 1/4
24.4	7.83	9331	1777	10860	2759	0.890	12.2	22.0	3095	471	248	W21 x 12 1/4
24.2	7.76	8355	1577	9656	2442	0.890	13.4	19.0	2263	422	223	W21 x 12 1/4
24.1	7.67	7547	1408	8670	2175	0.890	14.6	16.6	1700	382	201	W21 x 12 1/4
23.9	7.61	6820	1262	7792	1947	0.890	15.9	14.6	1277	346	182	W21 x 12 1/4
23.8	7.57	6217	1143	7062	1759	0.891	17.2	13.0	977	314	166	W21 x 12 1/4
23.3	7.50	5394	986	6114	1520	0.884	19.8	11.0	642	279	147	W21 x 12 1/4
23.1	7.44	4837	877	5457	1349	0.884	21.8	9.64	470	250	132	W21 x 12 1/4
23.1	7.42	4484	808	5040	1241	0.885	23.4	8.82	374	231	122	W21 x 12 1/4
23.0	7.34	4064	726	4555	1113	0.885	25.6	7.79	283	211	111	W21 x 12 1/4
22.9	7.32	3714	659	4146	1009	0.885	27.9	7.03	216	192	101	W21 x 12 1/4
22.1	4.69	3136	362	3613	569	0.874	24.9	2.67	250	176	93	W21 x 8 1/4
22.1	4.67	2794	320	3197	500	0.877	27.6	2.32	178	155	83	W21 x 8 1/4
21.9	4.60	2477	279	2829	436	0.875	30.9	1.99	126	139	73	W21 x 8 1/4
21.9	4.57	2292	256	2612	399	0.874	33.2	1.81	101	129	68	W21 x 8 1/4
21.7	4.51	2072	228	2360	355	0.872	36.5	1.60	75.7	117	62	W21 x 8 1/4
21.3	4.38	1800	192	2059	300	0.864	41.6	1.33	51.5	105	55	UB21 x 8 1/4
21.2	3.42	1815	152	2104	242	0.862	35.5	0.849	73.7	108	57	W21 x 6 1/2
20.8	3.31	1552	125	1809	200	0.853	41.1	0.692	48.0	95.2	50	W21 x 6 1/2
20.5	3.20	1336	104	1562	166	0.847	47.0	0.565	32.0	83.7	44	W21 x 6 1/2
19.0	4.31	2091	259	2398	406	0.878	24.2	1.26	149	135	71	W18 x 7 1/2
19.1	4.33	1957	243	2232	379	0.881	25.7	1.18	121	125	65	W18 x 7 1/2
19.0	4.29	1770	218	2014	338	0.880	28.3	1.04	90.7	114	60	W18 x 7 1/2
18.8	4.23	1611	196	1831	304	0.877	30.9	0.922	69.2	104	55	W18 x 7 1/2
18.8	4.20	1458	176	1653	272	0.877	33.9	0.818	51.8	94.6	50	W18 x 7 1/2
18.5	4.12	1296	153	1471	237	0.872	37.9	0.705	37.1	85.5	45	UB18 x 7 1/2
18.4	3.27	1263	119	1453	187	0.869	33.6	0.448	47.7	85.6	46	W18 x 6
18.3	3.23	1122	104	1287	163	0.868	37.5	0.387	33.8	76.2	40	W18 x 6
17.9	3.11	950	84.6	1096	133	0.859	43.9	0.311	21.4	66.6	35	W18 x 6
17.1	4.08	1513	199	1725	310	0.881	24.4	0.717	92.6	108	57	W16 x 7
17.0	4.04	1323	172	1501	267	0.882	27.6	0.608	62.8	94.5	50	W16 x 7
16.9	3.99	1189	153	1346	237	0.880	30.5	0.533	46.1	85.5	45	W16 x 7
16.8	3.97	1063	135	1200	209	0.880	33.8	0.466	33.3	76.5	40	W16 x 7
16.5	3.85	930	115	1055	178	0.871	38.3	0.392	23.1	69.0	36	W16 x 7

W SHAPES in accordance with ASTM A6/A6M

Dimensions and Properties

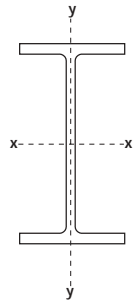
Supplemented by structural sections in accordance with BS4: Part 1



Serial Size in	Mass per foot lb	Serial size mm	Mass per metre kg	Depth of Section D mm	Width of Section B mm	Thickness of Web t mm	Thickness of Flange T mm	Root Radius r mm	Depth between fillets d mm	Ratios for Local Buckling		Second Moment of Area	
										Flange B/2T	Web d/t	Axis xx cm ⁴	Axis yy cm ⁴
W16 x 5½	31	406 x 140 x 46	46.0	403.2	142.2	6.8	11.2	10.2	360.4	6.35	53.0	15690	538
W16 x 5½	26	406 x 140 x 39	39.0	398.0	141.8	6.4	8.6	10.2	360.4	8.24	56.3	12510	410
W14 x 16	730	† 356 x 406 x 1086	1087.9	569.0	454.0	78.0	125.0	15.2	288.6	1.82	3.70	595700	196200
W14 x 16	665	† 356 x 406 x 990	991.0	550.0	448.0	71.9	115.0	15.2	289.6	1.95	4.03	518900	173400
W14 x 16	605	† 356 x 406 x 900	902.2	531.0	442.0	65.9	106.0	15.2	288.6	2.08	4.38	450200	153300
W14 x 16	550	† 356 x 406 x 818	819.0	514.0	437.0	60.5	97.0	15.2	289.6	2.25	4.79	392200	135500
W14 x 16	500	† 356 x 406 x 744	744.3	498.0	432.0	55.6	88.9	15.2	289.8	2.43	5.21	342100	119900
W14 x 16	455	† 356 x 406 x 677	677.8	483.0	428.0	51.2	81.5	15.2	289.6	2.63	5.66	299500	106900
W14 x 16	426	356 x 406 x 634	633.9	474.6	424.0	47.6	77.0	15.2	290.2	2.75	6.10	274800	98130
W14 x 16	398	† 356 x 406 x 592	592.6	465.0	421.0	45.0	72.3	15.2	290.0	2.91	6.44	250200	90170
W14 x 16	370	356 x 406 x 551	551.0	455.6	418.5	42.1	67.5	15.2	290.2	3.10	6.89	226900	82670
W14 x 16	342	† 356 x 406 x 509	509.5	446.0	416.0	39.1	62.7	15.2	290.2	3.32	7.42	204500	75400
W14 x 16	311	† 356 x 406 x 463	462.8	435.0	412.0	35.8	57.4	15.2	289.8	3.59	8.09	180200	67040
W14 x 16	283	† 356 x 406 x 421	421.7	425.0	409.0	32.8	52.6	15.2	289.4	3.89	8.82	159600	60080
UC14 x 16	264	356 x 406 x 393	393.0	419.0	407.0	30.6	49.2	15.2	290.2	4.14	9.48	146600	55370
W14 x 16	257	† 356 x 406 x 382	382.4	416.0	406.0	29.8	48.0	15.2	289.6	4.23	9.72	141300	53620
W14 x 16	233	† 356 x 406 x 347	347.0	407.0	404.0	27.2	43.7	15.2	289.2	4.62	10.6	125000	48090
UC14 x 16	228	356 x 406 x 340	339.9	406.4	403.0	26.6	42.9	15.2	290.2	4.70	10.9	122500	46850
W14 x 16	211	† 356 x 406 x 314	313.4	399.0	401.0	24.9	39.6	15.2	289.4	5.06	11.6	110200	42600
W14 x 16	193	356 x 406 x 287	287.1	393.6	399.0	22.6	36.5	15.2	290.2	5.47	12.8	99880	38680
W14 x 16	176	† 356 x 406 x 262	262.7	387.0	398.0	21.1	33.3	15.2	290.0	5.98	13.7	89420	35020
W14 x 16	159	356 x 406 x 235	235.1	381.0	394.8	18.4	30.2	15.2	290.2	6.54	15.8	79080	30990
W14 x 16	145	† 356 x 406 x 216	216.3	375.0	394.0	17.3	27.7	15.2	289.2	7.11	16.7	71150	28250
UC14 x 14½	136	356 x 368 x 202	201.9	374.6	374.7	16.5	27.0	15.2	290.2	6.94	17.6	66260	23690
W14 x 14½	132	† 356 x 368 x 196	196.5	372.0	374.0	16.4	26.2	15.2	289.2	7.14	17.6	63640	22860
W14 x 14½	120	† 356 x 368 x 179	179.2	368.0	373.0	15.0	23.9	15.2	289.8	7.80	19.3	57450	20680
W14 x 14½	109	† 356 x 368 x 162	162.0	364.0	371.0	13.3	21.8	15.2	290.0	8.51	21.8	51550	18560
UC14 x 14½	103	356 x 368 x 153	152.9	362.0	370.5	12.3	20.7	15.2	290.2	8.95	23.6	48590	17550
W14 x 14½	99	† 356 x 368 x 147	147.5	360.0	370.0	12.3	19.8	15.2	290.0	9.34	23.6	46300	16720
W14 x 14½	90	† 356 x 368 x 134	134.0	356.0	369.0	11.2	18.0	15.2	289.6	10.3	25.9	41520	15080
UC14 x 14½	87	356 x 368 x 129	129.0	355.6	368.6	10.4	17.5	15.2	290.2	10.5	27.9	40250	14610
UB14 x 6¾	45	356 x 171 x 67	67.1	363.4	173.2	9.1	15.7	10.2	311.6	5.52	34.2	19460	1362
W14 x 6¾	38	356 x 171 x 57	57.0	358.0	172.2	8.1	13.0	10.2	311.6	6.62	38.5	16040	1108
W14 x 6¾	34	356 x 171 x 51	51.0	355.0	171.5	7.4	11.5	10.2	311.6	7.46	42.1	14140	968
W14 x 6¾	30	356 x 171 x 45	45.0	351.4	171.1	7.0	9.7	10.2	311.6	8.82	44.5	12070	811

† These sizes are in addition to the standard BS4 range.

W SHAPES in accordance with ASTM A6/A6M



Dimensions and Properties

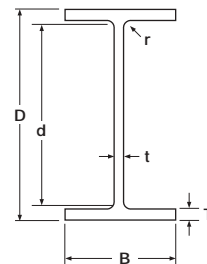
Supplemented by structural sections in accordance with BS4: Part 1

Radius of Gyration		Elastic Modulus		Plastic Modulus		Buckling Parameter u	Torsional Index x	Warping Constant H dm ⁶	Torsional Constant J cm ⁴	Area of Section cm ²	Mass per foot lb	Serial Size in
Axis xx cm	Axis yy cm	Axis xx cm ³	Axis yy cm ³	Axis xx cm ³	Axis yy cm ³							
16.4	3.03	778	75.7	888	118	0.871	38.9	0.207	19.0	58.6	31	W16 x 5½
15.9	2.87	629	57.8	724	90.8	0.858	47.5	0.155	10.7	49.7	26	W16 x 5½
20.7	11.9	20940	8645	27210	13380	0.851	3.80	96.7	60530	1386	730	W14 x 16
20.3	11.7	18870	7739	24280	11960	0.850	4.04	82.0	46940	1262	665	W14 x 16
19.8	11.6	16960	6938	21620	10710	0.848	4.27	69.2	36440	1149	605	W14 x 16
19.4	11.4	15260	6203	19260	9561	0.846	4.57	58.9	27860	1043	550	W14 x 16
19.0	11.2	13740	5552	17170	8549	0.845	4.88	50.2	21380	948	500	W14 x 16
18.6	11.1	12400	4994	15350	7680	0.843	5.21	43.1	16460	863	455	W14 x 16
18.4	11.0	11580	4629	14240	7108	0.843	5.46	38.8	13720	808	426	W14 x 16
18.2	10.9	10760	4284	13140	6574	0.842	5.73	34.8	11360	755	398	W14 x 16
18.0	10.9	9962	3951	12080	6058	0.841	6.05	31.1	9240	702	370	W14 x 16
17.8	10.8	9172	3625	11030	5552	0.840	6.43	27.7	7396	649	342	W14 x 16
17.5	10.7	8284	3254	9879	4978	0.839	6.90	23.9	5652	590	311	W14 x 16
17.2	10.6	7510	2938	8881	4489	0.837	7.42	20.8	4340	537	283	W14 x 16
17.1	10.5	6998	2721	8223	4154	0.837	7.86	18.9	3545	501	264	UC14 x 16
17.0	10.5	6795	2641	7966	4031	0.837	8.02	18.2	3286	487	257	W14 x 16
16.8	10.4	6140	2380	7140	3629	0.835	8.68	15.9	2482	442	233	W14 x 16
16.8	10.4	6031	2325	6999	3544	0.836	8.85	15.5	2343	433	228	UC14 x 16
16.6	10.3	5526	2125	6375	3236	0.834	9.45	13.8	1850	399	211	W14 x 16
16.5	10.3	5075	1939	5813	2949	0.835	10.2	12.3	1441	366	193	W14 x 16
16.3	10.2	4621	1760	5260	2676	0.833	11.0	11.0	1105	335	176	W14 x 16
16.3	10.2	4151	1570	4687	2383	0.834	12.1	9.5	812	299	159	W14 x 16
16.1	10.1	3795	1434	4263	2176	0.832	13.0	8.5	633	276	145	W14 x 16
16.1	9.60	3538	1264	3972	1919	0.844	13.4	7.16	558	257	136	UC14 x 14½
15.9	9.55	3422	1222	3838	1856	0.843	13.7	6.83	514	250	132	W14 x 14½
15.9	9.52	3122	1109	3483	1683	0.842	14.9	6.12	391	228	120	W14 x 14½
15.8	9.48	2833	1001	3140	1516	0.843	16.2	5.43	294	206	109	W14 x 14½
15.8	9.49	2684	948	2965	1435	0.844	17.0	5.11	251	195	103	UC14 x 14½
15.7	9.43	2572	904	2839	1369	0.843	17.7	4.84	223	188	99	W14 x 14½
15.6	9.40	2333	817	2563	1237	0.842	19.3	4.31	168	171	90	W14 x 14½
15.6	9.43	2264	793	2479	1199	0.844	19.9	4.18	153	164	87	UC14 x 14½
15.1	3.99	1071	157	1211	243	0.886	24.4	0.41	55.7	85.5	45	UB14 x 6¾
14.9	3.91	896	129	1010	199	0.882	28.8	0.33	33.4	72.6	38	W14 x 6¾
14.8	3.86	796	113	896	174	0.881	32.1	0.29	23.8	64.9	34	W14 x 6¾
14.5	3.76	687	94.8	775	147	0.874	36.8	0.24	15.8	57.3	30	W14 x 6¾

W SHAPES in accordance with ASTM A6/A6M

Dimensions and Properties

Supplemented by structural sections in accordance with BS4: Part 1

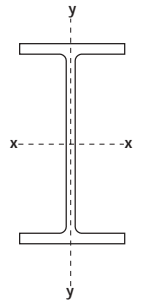


Serial Size in	Mass per foot lb	Serial size mm	Mass per metre kg	Depth of Section D mm	Width of Section B mm	Thickness of Web t mm	Thickness of Flange T mm	Root Radius r mm	Depth between fillets d mm	Ratios for Local Buckling		Second Moment of Area	
										Flange B/2T	Web d/t	Axis xx cm ⁴	Axis yy cm ⁴
W14 x 5	26	356 x 127 x 39	39.1	353.4	126.0	6.6	10.7	10.2	311.6	5.89	47.2	10170	358
W14 x 5	22	356 x 127 x 33	33.1	349.0	125.4	6.0	8.5	10.2	311.6	7.38	51.9	8249	280
W12 x 12	336	† 305 x 305 x 500	500.5	427.2	340.0	45.1	75.1	15.2	246.6	2.26	5.47	169000	49420
W12 x 12	305	† 305 x 305 x 454	454.0	415.0	336.0	41.3	68.7	15.2	247.2	2.45	5.99	148000	43610
W12 x 12	279	† 305 x 305 x 415	415.1	403.0	334.0	38.9	62.7	15.2	247.2	2.66	6.35	129900	39080
W12 x 12	252	† 305 x 305 x 375	374.8	391.0	330.0	35.4	57.2	15.2	246.2	2.88	6.95	112800	34370
W12 x 12	230	† 305 x 305 x 342	343.3	382.0	328.0	32.6	52.6	15.2	246.4	3.12	7.56	100500	31020
W12 x 12	210	† 305 x 305 x 313	313.2	373.6	324.9	30.0	48.3	15.2	246.6	3.36	8.22	89320	27680
W12 x 12	190	305 x 305 x 283	282.9	365.3	322.2	26.8	44.1	15.2	246.7	3.65	9.21	78870	24630
W12 x 12	170	† 305 x 305 x 253	252.9	356.0	319.0	24.4	39.6	15.2	246.4	4.03	10.1	68230	21460
UC12 x 12	161	305 x 305 x 240	240.0	352.5	318.4	23.0	37.7	15.2	246.7	4.22	10.7	64200	20310
W12 x 12	152	† 305 x 305 x 226	226.8	348.0	317.0	22.1	35.6	15.2	246.4	4.45	11.1	59570	18930
W12 x 12	136	† 305 x 305 x 202	202.6	341.0	315.0	20.1	31.8	15.2	247.0	4.95	12.3	51990	16590
UC12 x 12	133	† 305 x 305 x 198	198.1	339.9	314.5	19.1	31.4	15.2	246.7	5.01	12.9	50900	16300
W12 x 12	120	† 305 x 305 x 179	178.8	333.0	313.0	18.0	28.1	15.2	246.4	5.57	13.7	44540	14380
W12 x 12	106	305 x 305 x 158	158.1	327.1	311.2	15.8	25.0	15.2	246.7	6.22	15.6	38750	12570
W12 x 12	96	† 305 x 305 x 143	143.1	323.0	309.0	14.0	22.9	15.2	246.8	6.75	17.6	34770	11270
UC12 x 12	92	305 x 305 x 137	136.9	320.5	309.2	13.8	21.7	15.2	246.7	7.12	17.9	32810	10700
W12 x 12	87	† 305 x 305 x 129	129.6	318.0	308.0	13.1	20.6	15.2	246.4	7.48	18.8	30780	10040
W12 x 12	79	305 x 305 x 118	117.9	314.5	307.4	12.0	18.7	15.2	246.7	8.22	20.6	27670	9059
W12 x 12	72	† 305 x 305 x 107	106.9	311.0	306.0	10.9	17.0	15.2	246.6	9.00	22.6	24800	8123
W12 x 12	65	305 x 305 x 97	96.9	307.9	305.3	9.9	15.4	15.2	246.7	9.91	24.9	22250	7308
*UB12 x 6½	36	305 x 165 x 54	54.0	310.4	166.8	7.9	13.7	8.9	265.2	6.09	33.6	11690	1061
*UB12 x 6½	31	305 x 165 x 46	46.1	307.1	165.7	6.7	11.8	8.9	265.7	7.02	39.7	9935	896
*UB12 x 6½	27	305 x 165 x 40	40.3	303.4	165.1	6.0	10.2	8.9	265.2	8.09	44.2	8507	766
UB12 x 5	32	305 x 127 x 48	48.1	311.0	125.3	9.0	14.0	8.9	265.2	4.48	29.5	9575	461
UB12 x 5	28	305 x 127 x 42	41.9	307.2	124.3	8.0	12.1	8.9	265.2	5.14	33.2	8196	389
UB12 x 5	25	305 x 127 x 37	37.0	304.4	123.4	7.1	10.7	8.9	265.2	5.77	37.4	7171	336
W12 x 4	22	305 x 102 x 33	32.8	312.7	102.4	6.6	10.8	7.6	275.9	4.74	41.8	6501	194
W12 x 4	19	305 x 102 x 28	28.2	308.7	101.8	6.0	8.8	7.6	275.9	5.78	46.0	5366	155
W12 x 4	16	305 x 102 x 25	24.8	305.1	101.6	5.8	7.0	7.6	275.9	7.26	47.6	4455	123

† These sizes are in addition to the standard BS4 range.

* For the beam size 12 x 6½ the weights and dimensions shown are those in BS4: Part 1 and differ slightly from the W12 x 6½ section shown in ASTM A6/A6M.

W SHAPES in accordance with ASTM A6/A6M



Dimensions and Properties

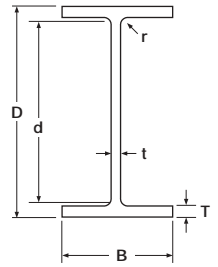
Supplemented by structural sections in accordance with BS4: Part 1

Radius of Gyration		Elastic Modulus		Plastic Modulus		Buckling Parameter u	Torsional Index x	Warping Constant H dm ⁶	Torsional Constant J cm ⁴	Area of Section cm ²	Mass per foot lb	Serial Size in
Axis xx cm	Axis yy cm	Axis xx cm ³	Axis yy cm ³	Axis xx cm ³	Axis yy cm ³							
14.3	2.68	576	56.8	659	89.0	0.871	35.2	0.105	15.1	49.8	26	W14 x 5
14.0	2.58	473	44.7	543	70.2	0.863	42.2	0.0812	8.79	42.1	22	W14 x 5
16.3	8.80	7913	2907	9883	4487	0.861	5.00	15.3	10110	638	336	W12 x 12
16.0	8.68	7130	2596	8816	4001	0.860	5.37	13.1	7716	578	305	W12 x 12
15.7	8.60	6448	2340	7903	3607	0.857	5.74	11.3	5950	529	279	W12 x 12
15.4	8.48	5769	2083	7005	3205	0.856	6.16	9.57	4491	477	252	W12 x 12
15.2	8.42	5263	1892	6334	2907	0.855	6.60	8.42	3494	437	230	W12 x 12
15.0	8.33	4781	1704	5707	2615	0.855	7.08	7.32	2700	399	210	W12 x 12
14.8	8.27	4318	1529	5105	2342	0.855	7.65	6.35	2034	360	190	W12 x 12
14.6	8.16	3833	1346	4491	2059	0.854	8.36	5.37	1477	322	170	W12 x 12
14.5	8.15	3643	1276	4247	1950	0.854	8.74	5.03	1271	306	161	UC12 x 12
14.4	8.10	3424	1194	3976	1825	0.853	9.16	4.62	1077	289	152	W12 x 12
14.2	8.02	3049	1053	3511	1608	0.852	10.1	3.96	774	258	136	W12 x 12
14.2	8.04	2995	1037	3440	1581	0.854	10.2	3.88	734	252	133	UC12 x 12
14.0	7.95	2675	919	3053	1401	0.851	11.2	3.34	538	228	120	W12 x 12
13.9	7.90	2369	808	2681	1230	0.851	12.5	2.87	378	201	106	W12 x 12
13.8	7.86	2153	729	2419	1109	0.853	13.5	2.54	287	182	96	W12 x 12
13.7	7.83	2048	692	2297	1052	0.851	14.2	2.39	249	174	92	UC12 x 12
13.7	7.80	1936	652	2165	991	0.851	14.8	2.22	213	165	87	W12 x 12
13.6	7.77	1760	589	1958	895	0.850	16.2	1.98	161	150	79	W12 x 12
13.5	7.72	1595	531	1765	806	0.850	17.6	1.76	122	136	72	W12 x 12
13.4	7.69	1445	479	1592	726	0.850	19.3	1.56	91.2	123	65	W12 x 12
13.0	3.93	753	127	846	195	0.889	23.6	0.234	34.8	68.7	36	*UB12 x 6½
13.0	3.90	647	108	722	166	0.891	27.2	0.195	22.2	58.8	31	*UB12 x 6½
12.9	3.86	561	92.8	623	142	0.889	31.0	0.165	14.7	51.3	27	*UB12 x 6½
12.5	2.74	616	73.6	711	116	0.873	23.3	0.102	31.8	61.2	32	UB12 x 5
12.4	2.70	534	62.6	614	98.4	0.872	26.5	0.0846	21.1	53.4	28	UB12 x 5
12.3	2.67	471	54.5	539	85.4	0.872	29.7	0.0725	14.8	47.2	25	UB12 x 5
12.5	2.15	416	37.9	481	60.0	0.866	31.6	0.0442	12.2	41.8	22	W12 x 4
12.2	2.08	348	30.5	403	48.4	0.859	37.4	0.0349	7.40	35.9	19	W12 x 4
11.9	1.97	292	24.2	342	38.8	0.846	43.4	0.0273	4.77	31.6	16	W12 x 4

W SHAPES in accordance with ASTM A6/A6M

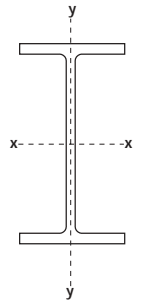
Dimensions and Properties

Supplemented by structural sections in accordance with BS4: Part 1



Serial Size in	Mass per foot lb	Serial size mm	Mass per metre kg	Depth of Section D mm	Width of Section B mm	Thickness of Web t mm	Thickness of Flange T mm	Root Radius r mm	Depth between fillets d mm	Ratios for Local Buckling		Second Moment of Area	
										Flange B/2T	Web d/t	Axis xx cm ⁴	Axis yy cm ⁴
W10 x 10	112	254 x 254 x 167	167.1	289.1	265.2	19.2	31.7	12.7	200.3	4.18	10.4	30000	9870
W10 x 10	100	† 254 x 254 x 149	148.9	282.0	263.0	17.3	28.4	12.7	199.8	4.63	11.5	25930	8622
W10 x 10	88	254 x 254 x 132	132.0	276.3	261.3	15.3	25.3	12.7	200.3	5.16	13.1	22530	7531
W10 x 10	77	† 254 x 254 x 115	114.8	269.0	259.0	13.5	22.1	12.7	199.4	5.86	14.8	18940	6405
UC10 x 10	72	254 x 254 x 107	107.1	266.7	258.8	12.8	20.5	12.7	200.3	6.31	15.6	17510	5928
W10 x 10	68	† 254 x 254 x 101	101.3	264.2	257.3	11.9	19.6	12.7	199.6	6.56	16.8	16410	5569
W10 x 10	60	254 x 254 x 89	88.9	260.3	256.3	10.3	17.3	12.7	200.3	7.41	19.4	14270	4857
W10 x 10	54	† 254 x 254 x 80	80.1	256.4	254.7	9.4	15.6	12.7	199.8	8.16	21.3	12600	4298
W10 x 10	49	254 x 254 x 73	73.1	254.1	254.6	8.6	14.2	12.7	200.3	8.96	23.3	11410	3908
W10 x 5 3/4	30	† 254 x 146 x 45	44.8	265.9	147.6	7.6	13.0	7.6	224.7	5.68	29.6	7085	698
UB10 x 5 3/4	29	254 x 146 x 43	43.0	259.6	147.3	7.2	12.7	7.6	219.0	5.80	30.4	6544	677
W10 x 5 3/4	26	† 254 x 146 x 39	38.6	262.4	146.6	6.6	11.2	7.6	224.8	6.54	34.1	6014	589
UB10 x 5 3/4	25	254 x 146 x 37	37.0	256.0	146.4	6.3	10.9	7.6	219.0	6.72	34.8	5537	571
W10 x 5 3/4	22	† 254 x 146 x 33	32.8	258.3	146.1	6.1	9.1	7.6	224.9	8.03	36.9	4903	474
UB10 x 5 3/4	21	254 x 146 x 31	31.1	251.4	146.1	6.0	8.6	7.6	219.0	8.49	36.5	4413	448
W10 x 4	19	254 x 102 x 28	28.3	260.4	102.2	6.3	10.0	7.6	225.2	5.11	35.7	4005	179
W10 x 4	17	254 x 102 x 25	25.2	257.2	101.9	6.0	8.4	7.6	225.2	6.07	37.5	3415	149
W10 x 4	15	254 x 102 x 22	22.0	254.0	101.6	5.7	6.8	7.6	225.2	7.47	39.5	2841	119
W8 x 8	67	† 203 x 203 x 100	99.6	228.6	210.3	14.5	23.7	10.2	160.8	4.44	11.1	11300	3679
W8 x 8	58	203 x 203 x 86	86.1	222.2	209.1	12.7	20.5	10.2	160.8	5.10	12.7	9449	3127
W8 x 8	48	203 x 203 x 71	71.0	215.8	206.4	10.0	17.3	10.2	160.8	5.97	16.1	7618	2537
W8 x 8	40	203 x 203 x 60	60.0	209.6	205.8	9.4	14.2	10.2	160.8	7.25	17.1	6125	2065
W8 x 8	35	203 x 203 x 52	52.0	206.2	204.3	7.9	12.5	10.2	160.8	8.17	20.4	5259	1778
W8 x 8	31	203 x 203 x 46	46.1	203.2	203.6	7.2	11.0	10.2	160.8	9.25	22.3	4568	1548
W8 x 5 1/4	21	† 203 x 133 x 31	31.4	210.0	134.0	6.4	10.2	7.6	174.4	6.57	27.3	3137	410
UB8 x 5 1/4	20	203 x 133 x 30	30.0	206.8	133.9	6.4	9.6	7.6	172.4	6.97	26.9	2896	385
W8 x 5 1/4	18	† 203 x 133 x 27	26.6	207.0	133.0	5.8	8.4	7.6	175.0	7.92	30.2	2580	330
UB8 x 5 1/4	17	203 x 133 x 25	25.1	203.2	133.2	5.7	7.8	7.6	172.4	8.54	30.2	2340	308
UB8 x 4	16	203 x 102 x 23	23.1	203.2	101.8	5.4	9.3	7.6	169.4	5.47	31.4	2105	164
UB7 x 4	13	178 x 102 x 19	19.0	177.8	101.2	4.8	7.9	7.6	146.8	6.41	30.6	1356	137
W6 x 6	25	152 x 152 x 37	37.0	161.8	154.4	8.0	11.5	7.6	123.6	6.71	15.5	2210	706
W6 x 6	20	152 x 152 x 30	30.0	157.6	152.9	6.5	9.4	7.6	123.6	8.13	19.0	1748	560
W6 x 6	15	152 x 152 x 23	23.0	152.4	152.2	5.8	6.8	7.6	123.6	11.2	21.3	1250	400
UB6 x 3 1/2	11	152 x 89 x 16	16.0	152.4	88.7	4.5	7.7	7.6	121.8	5.76	27.1	834	89.8
UB5 x 3	9	127 x 76 x 13	13.0	127.0	76.0	4.0	7.6	7.6	96.6	5.00	24.2	473	55.7

W SHAPES in accordance with ASTM A6/A6M



Dimensions and Properties

Supplemented by structural sections in accordance with BS4: Part 1

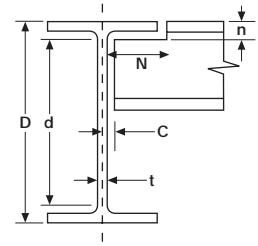
Radius of Gyration		Elastic Modulus		Plastic Modulus		Buckling Parameter u	Torsional Index x	Warping Constant H dm ⁶	Torsional Constant J cm ⁴	Area of Section cm ²	Mass per foot lb	Serial Size in
Axis xx cm	Axis yy cm	Axis xx cm ³	Axis yy cm ³	Axis xx cm ³	Axis yy cm ³							
11.9	6.81	2075	744	2424	1137	0.851	8.49	1.63	626	213	112	W10 x 10
11.7	6.74	1839	656	2129	1001	0.850	9.31	1.39	451	190	100	W10 x 10
11.6	6.69	1631	576	1869	878	0.850	10.3	1.19	319	168	88	W10 x 10
11.4	6.62	1408	495	1599	753	0.849	11.6	0.976	213	146	77	W10 x 10
11.3	6.59	1313	458	1485	697	0.848	12.4	0.898	172	136	72	UC10 x 10
11.3	6.57	1243	433	1399	658	0.849	12.9	0.833	149	129	68	W10 x 10
11.2	6.55	1096	379	1224	575	0.850	14.5	0.717	102	113	60	W10 x 10
11.1	6.49	983	338	1091	512	0.849	15.8	0.623	75.6	102	54	W10 x 10
11.1	6.48	898	307	992	465	0.849	17.3	0.562	57.6	93.1	49	W10 x 10
11.1	3.50	533	94.5	600	145	0.889	21.2	0.112	26.1	57.1	30	W10 x 5 3/4
10.9	3.52	504	92.0	566	141	0.891	21.2	0.103	23.9	54.8	29	UB10 x 5 3/4
11.1	3.46	458	80.3	513	123	0.889	24.3	0.0929	16.8	49.2	26	W10 x 5 3/4
10.8	3.48	433	78.0	483	119	0.890	24.3	0.0857	15.3	47.2	25	UB10 x 5 3/4
10.8	3.37	380	64.8	425	99.6	0.882	29.0	0.0735	9.86	41.7	22	W10 x 5 3/4
10.5	3.36	351	61.3	393	94.1	0.880	29.6	0.0660	8.55	39.7	21	UB10 x 5 3/4
10.5	2.22	308	34.9	353	54.8	0.874	27.5	0.0280	9.57	36.1	19	W10 x 4
10.3	2.15	266	29.2	306	46.0	0.866	31.5	0.0230	6.42	32.0	17	W10 x 4
10.1	2.06	224	23.5	259	37.3	0.856	36.4	0.0182	4.15	28.0	15	W10 x 4
9.44	5.39	988	350	1148	534	0.852	9.02	0.386	210	127	67	W8 x 8
9.28	5.34	850	299	977	456	0.850	10.2	0.318	137	110	58	W8 x 8
9.18	5.30	706	246	799	374	0.853	11.9	0.250	80.2	90.4	48	W8 x 8
8.96	5.20	584	201	656	305	0.846	14.1	0.197	47.2	76.4	40	W8 x 8
8.91	5.18	510	174	567	264	0.848	15.8	0.167	31.8	66.3	35	W8 x 8
8.82	5.13	450	152	497	231	0.847	17.7	0.143	22.2	58.7	31	W8 x 8
8.86	3.20	299	61.1	335	93.7	0.885	20.7	0.0409	11.9	40.0	21	W8 x 5 1/4
8.71	3.17	280	57.5	314	88.2	0.881	21.5	0.0374	10.3	38.2	20	UB8 x 5 1/4
8.73	3.12	249	49.6	279	76.1	0.880	24.5	0.0325	7.13	33.9	18	W8 x 5 1/4
8.56	3.10	230	46.2	258	70.9	0.877	25.6	0.0294	5.96	32.0	17	UB8 x 5 1/4
8.46	2.36	207	32.2	234	49.7	0.888	22.5	0.0154	7.02	29.4	16	UB8 x 4
7.48	2.37	153	27.0	171	41.6	0.888	22.6	0.0099	4.41	24.3	13	UB7 x 4
6.85	3.87	273	91.5	309	140	0.848	13.3	0.0399	19.2	47.1	25	W6 x 6
6.76	3.83	222	73.3	248	112	0.849	16.0	0.0308	10.5	38.3	20	W6 x 6
6.54	3.70	164	52.6	182	80.1	0.840	20.7	0.0212	4.63	29.2	15	W6 x 6
6.41	2.10	109	20.2	123	31.2	0.890	19.6	0.0047	3.56	20.3	11	UB6 x 3 1/2
5.35	1.84	74.6	14.7	84.2	22.6	0.895	16.3	0.0020	2.85	16.5	9	UB5 x 3

W SHAPES

in accordance with ASTM A6/A6M

Dimensions for Detailing

Supplemented by structural sections in accordance with BS4: Part 1



Serial Size in	Mass per foot lb	Serial size mm	End Clearance C mm	Notch		Surface Area		
				N mm	n mm	per metre m ²	per tonne m ²	two end faces m ²
W40 x 12	327	† 1016 x 305 x 487	17	150	86	3.19	6.56	0.124
W40 x 12	294	† 1016 x 305 x 437	15	150	80	3.17	7.25	0.111
W40 x 12	264	† 1016 x 305 x 393	14	150	74	3.14	8.00	0.100
W40 x 12	235	† 1016 x 305 x 349	13	152	70	3.13	8.96	0.0890
W40 x 12	211	† 1016 x 305 x 314	12	152	66	3.11	9.89	0.0800
W40 x 12	183	† 1016 x 305 x 272	10	152	62	3.10	11.4	0.0694
W40 x 12	167	† 1016 x 305 x 249	10	152	56	3.08	12.4	0.0634
W40 x 12	149	† 1016 x 305 x 222	10	152	52	3.06	13.8	0.0566
W36 x 16½	359	† 914 x 419 x 534	16	210	76	3.50	6.56	0.136
W36 x 16½	328	† 914 x 419 x 488	15	210	72	3.48	7.13	0.124
W36 x 16½	300	† 914 x 419 x 447	14	210	68	3.47	7.76	0.114
W36 x 16½	280	† 914 x 419 x 418	13	210	64	3.46	8.28	0.107
W36 x 16½	260	914 x 419 x 388	13	210	62	3.44	8.87	0.0988
W36 x 16½	245	† 914 x 419 x 365	12	210	60	3.43	9.40	0.0930
W36 x 16½	230	914 x 419 x 343	12	210	58	3.42	9.96	0.0874
W36 x 12	386	† 914 x 305 x 576	20	154	86	3.17	5.51	0.147
W36 x 12	349	† 914 x 305 x 521	19	154	78	3.14	6.03	0.133
W36 x 12	318	† 914 x 305 x 474	17	154	74	3.11	6.56	0.121
W36 x 12	285	† 914 x 305 x 425	15	154	70	3.09	7.27	0.108
W36 x 12	256	† 914 x 305 x 381	14	154	64	3.06	8.02	0.0972
W36 x 12	232	† 914 x 305 x 345	13	154	60	3.04	8.81	0.0880
W36 x 12	210	† 914 x 305 x 313	13	156	54	3.03	9.68	0.0798
W36 x 12	194	914 x 305 x 289	12	156	52	3.01	10.4	0.0736
W36 x 12	182	† 914 x 305 x 271	11	156	50	3.00	11.0	0.0692
W36 x 12	170	914 x 305 x 253	11	156	48	2.99	11.8	0.0646
W36 x 12	160	† 914 x 305 x 238	10	156	46	2.98	12.5	0.0606
W36 x 12	150	914 x 305 x 224	10	156	44	2.97	13.2	0.0572
W36 x 12	135	914 x 305 x 201	10	156	40	2.96	14.7	0.0512
W33 x 15¾	387	† 838 x 400 x 576	18	200	76	3.38	5.87	0.147
W33 x 15¾	354	† 838 x 400 x 527	17	200	72	3.35	6.35	0.134
W33 x 15¾	318	† 838 x 400 x 473	15	200	66	3.33	7.04	0.121
W33 x 15¾	291	† 838 x 400 x 433	14	200	62	3.31	7.64	0.110
W33 x 15¾	263	† 838 x 400 x 392	13	200	58	3.29	8.39	0.100
W33 x 15¾	241	† 838 x 400 x 359	13	202	54	3.28	9.13	0.0916
W33 x 15¾	221	† 838 x 400 x 329	12	202	52	3.26	9.90	0.0840
W33 x 15¾	201	† 838 x 400 x 299	11	202	48	3.24	10.8	0.0762

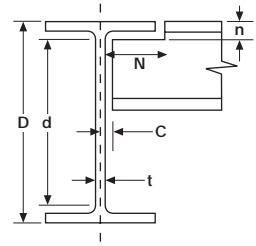
† These sizes are in addition to the standard BS4 range.

W SHAPES

in accordance with ASTM A6/A6M

Dimensions for Detailing

Supplemented by structural sections in accordance with BS4: Part 1



Serial Size in	Mass per foot lb	Serial size mm	End Clearance C mm	Notch		Surface Area		
				N mm	n mm	per metre m ²	per tonne m ²	two end faces m ²
W33 x 11½	219	† 838 x 292 x 326	13	148	58	2.87	8.79	0.0832
W33 x 11½	204	† 838 x 292 x 304	12	148	56	2.85	9.40	0.0772
W33 x 11½	187	† 838 x 292 x 278	12	148	52	2.84	10.2	0.0710
W33 x 11½	169	† 838 x 292 x 251	11	148	50	2.82	11.3	0.0638
W33 x 11½	152	838 x 292 x 226	10	150	46	2.81	12.4	0.0578
W33 x 11½	141	† 838 x 292 x 210	10	150	44	2.80	13.3	0.0536
W33 x 11½	130	838 x 292 x 194	9	150	40	2.79	14.4	0.0494
W33 x 11½	118	838 x 292 x 176	9	150	38	2.78	15.8	0.0448
W30 x 15	326	† 762 x 381 x 484	17	192	70	3.12	6.44	0.124
W30 x 15	292	† 762 x 381 x 434	15	192	64	3.10	7.14	0.111
W30 x 15	261	† 762 x 381 x 389	14	192	60	3.07	7.91	0.0990
W30 x 15	235	† 762 x 381 x 350	13	192	56	3.05	8.73	0.0890
W30 x 15	211	† 762 x 381 x 314	12	192	50	3.04	9.67	0.0800
W30 x 15	191	† 762 x 381 x 284	11	192	48	3.02	10.6	0.0724
W30 x 15	173	† 762 x 381 x 257	10	194	44	3.01	11.7	0.0656
W30 x 10½	148	† 762 x 267 x 220	10	136	48	2.56	11.6	0.0562
W30 x 10½	132	762 x 267 x 197	10	138	42	2.55	13.0	0.0502
W30 x 10½	124	† 762 x 267 x 185	9	138	42	2.54	13.7	0.0470
W30 x 10½	116	762 x 267 x 173	9	138	40	2.53	14.6	0.0440
W30 x 10½	108	† 762 x 267 x 161	9	138	36	2.52	15.7	0.0408
W30 x 10½	99	762 x 267 x 147	8	138	34	2.51	17.1	0.0374
W30 x 10½	90	762 x 267 x 134	8	138	32	2.51	18.7	0.0342
W27 x 14	307	† 686 x 356 x 457	17	180	70	2.89	6.32	0.116
W27 x 14	281	† 686 x 356 x 419	15	180	66	2.87	6.86	0.107
W27 x 14	258	† 686 x 356 x 384	14	180	62	2.85	7.42	0.0978
W27 x 14	235	† 686 x 356 x 350	14	180	58	2.83	8.08	0.0892
W27 x 14	217	† 686 x 356 x 323	13	180	54	2.81	8.70	0.0822
W27 x 14	194	† 686 x 356 x 289	12	180	50	2.79	9.68	0.0734
W27 x 14	178	† 686 x 356 x 265	11	180	46	2.78	10.5	0.0674
W27 x 14	161	† 686 x 356 x 240	10	180	44	2.77	11.5	0.0612
W27 x 14	146	† 686 x 356 x 217	10	180	40	2.75	12.6	0.0554

The Dimension $n = \frac{D-d}{2}$ to the nearest 2mm above. The Dimension $C = t/2 + 2$ mm to the nearest 1mm.

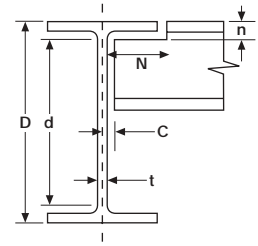
The Dimension N is based upon the outstand from web face to flange edge + 10mm, to the nearest 2mm above and makes due allowance for rolling tolerance.

W SHAPES

in accordance with ASTM A6/A6M

Dimensions for Detailing

Supplemented by structural sections in accordance with BS4: Part 1



Serial Size in	Mass per foot lb	Serial size mm	End Clearance C mm	Notch		Surface Area		
				N mm	n mm	per metre m ²	per tonne m ²	two end faces m ²
W27 x 10	221	† 686 x 254 x 329	15	130	64	2.46	7.49	0.0836
W27 x 10	201	† 686 x 254 x 299	14	130	60	2.44	8.14	0.0764
W27 x 10	182	† 686 x 254 x 271	13	130	56	2.42	8.94	0.0690
W27 x 10	159	† 686 x 254 x 237	12	130	50	2.39	10.1	0.0602
W27 x 10	129	† 686 x 254 x 192	10	130	44	2.36	12.3	0.0488
W27 x 10	114	686 x 254 x 170	9	132	40	2.35	13.8	0.0434
W27 x 10	102	686 x 254 x 152	9	132	38	2.34	15.4	0.0388
W27 x 10	94	686 x 254 x 140	8	132	36	2.33	16.6	0.0356
W27 x 10	84	686 x 254 x 125	8	132	32	2.32	18.5	0.0318
W24 x 12¾	306	† 610 x 324 x 455	18	164	76	2.65	5.82	0.116
W24 x 12¾	279	† 610 x 324 x 415	17	166	70	2.62	6.29	0.106
W24 x 12¾	250	† 610 x 324 x 372	15	166	66	2.60	6.97	0.0950
W24 x 12¾	229	† 610 x 324 x 341	14	166	62	2.58	7.56	0.0870
W24 x 12¾	207	† 610 x 324 x 307	13	166	58	2.56	8.30	0.0786
W24 x 12¾	192	† 610 x 324 x 285	12	166	54	2.54	8.88	0.0728
W24 x 12¾	176	† 610 x 324 x 262	12	164	52	2.52	9.62	0.0668
W24 x 12¾	162	† 610 x 324 x 241	11	166	48	2.52	10.5	0.0608
W24 x 12¾	146	† 610 x 324 x 217	10	166	46	2.51	11.5	0.0558
W24 x 12¾	131	† 610 x 324 x 195	10	166	42	2.49	12.7	0.0500
W24 x 12¾	117	† 610 x 324 x 174	9	166	40	2.48	14.2	0.0446
W24 x 12¾	104	† 610 x 324 x 155	8	166	36	2.46	15.8	0.0396
UB24 x 12	160	610 x 305 x 238	11	158	48	2.45	10.3	0.0606
UB24 x 12	120	610 x 305 x 179	9	158	42	2.41	13.5	0.0456
UB24 x 12	100	610 x 305 x 149	8	158	38	2.39	16.0	0.0380
W24 x 9	198	† 610 x 229 x 295	15	118	60	2.22	7.52	0.0752
W24 x 9	163	† 610 x 229 x 243	13	118	52	2.18	8.97	0.0620
W24 x 9	146	† 610 x 229 x 217	12	118	48	2.16	9.90	0.0556
W24 x 9	128	† 610 x 229 x 191	11	118	44	2.14	11.2	0.0484
W24 x 9	114	† 610 x 229 x 171	10	118	42	2.12	12.4	0.0438
W24 x 9	103	† 610 x 229 x 153	9	118	38	2.11	13.7	0.0390
W24 x 9	94	610 x 229 x 140	9	120	36	2.11	15.1	0.0356
W24 x 9	84	610 x 229 x 125	8	120	34	2.09	16.7	0.0318
W24 x 9	76	610 x 229 x 113	8	120	30	2.08	18.4	0.0288
W24 x 9	68	610 x 229 x 101	7	120	28	2.07	20.5	0.0258

The Dimension $n = \frac{D-d}{2}$ to the nearest 2mm above. The Dimension $C = t/2 + 2\text{mm}$ to the nearest 1mm.

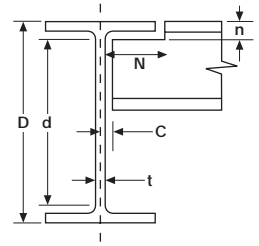
The Dimension N is based upon the outstand from web face to flange edge + 10mm, to the nearest 2mm above and makes due allowance for rolling tolerance.

W SHAPES

in accordance with ASTM A6/A6M

Dimensions for Detailing

Supplemented by structural sections in accordance with BS4: Part 1



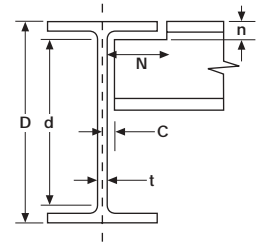
Serial Size in	Mass per foot lb	Serial size mm	End Clearance C mm	Notch		Surface Area		
				N mm	n mm	per metre m ²	per tonne m ²	two end faces m ²
W24 x 7	62	† 610 x 178 x 92	7	96	28	1.88	20.4	0.0236
W24 x 7	55	† 610 x 178 x 82	7	94	26	1.87	22.8	0.0208
W21 x 12¼	275	† 533 x 312 x 409	18	160	70	2.45	5.99	0.104
W21 x 12¼	248	† 533 x 312 x 370	16	160	64	2.43	6.58	0.0942
W21 x 12¼	223	† 533 x 312 x 331	15	160	60	2.40	7.25	0.0844
W21 x 12¼	201	† 533 x 312 x 300	14	158	56	2.38	7.95	0.0764
W21 x 12¼	182	† 533 x 312 x 272	13	158	52	2.36	8.70	0.0692
W21 x 12¼	166	† 533 x 312 x 248	12	158	48	2.34	9.49	0.0628
W21 x 12¼	147	† 533 x 312 x 219	11	160	42	2.33	10.6	0.0558
W21 x 12¼	132	† 533 x 312 x 196	10	160	40	2.32	11.8	0.0500
W21 x 12¼	122	† 533 x 312 x 182	10	160	38	2.31	12.7	0.0462
W21 x 12¼	111	† 533 x 312 x 165	9	160	36	2.29	13.9	0.0422
W21 x 12¼	101	† 533 x 312 x 150	8	160	34	2.29	15.2	0.0384
W21 x 8¼	93	† 533 x 210 x 138	9	110	38	1.90	13.7	0.0352
W21 x 8¼	83	533 x 210 x 122	8	110	34	1.89	15.5	0.0310
W21 x 8¼	73	533 x 210 x 109	8	110	32	1.88	17.2	0.0278
W21 x 8¼	68	533 x 210 x 101	7	110	32	1.87	18.5	0.0258
W21 x 8¼	62	533 x 210 x 92	7	110	30	1.86	20.2	0.0234
UB21 x 8¼	55	533 x 210 x 82	7	110	26	1.85	22.5	0.0210
W21 x 6½	57	† 533 x 165 x 85	7	88	30	1.69	20.0	0.0216
W21 x 6½	50	† 533 x 165 x 74	7	90	28	1.68	22.5	0.0190
W21 x 6½	44	† 533 x 165 x 66	6	90	26	1.67	25.4	0.0167
W18 x 7½	71	† 457 x 191 x 106	8	102	34	1.67	15.7	0.0270
W18 x 7½	65	457 x 191 x 98	8	102	30	1.67	17.0	0.0250
W18 x 7½	60	457 x 191 x 89	7	102	28	1.66	18.6	0.0228
W18 x 7½	55	457 x 191 x 82	7	102	28	1.65	20.1	0.0208
W18 x 7½	50	457 x 191 x 74	7	102	26	1.64	22.1	0.0189
UB18 x 7½	45	457 x 191 x 67	6	102	24	1.63	24.3	0.0171
W18 x 6	46	457 x 152 x 67	7	84	26	1.50	22.3	0.0171
W18 x 6	40	457 x 152 x 60	6	84	24	1.49	24.9	0.0152
W18 x 6	35	457 x 152 x 52	6	84	22	1.48	28.3	0.0133
W16 x 7	57	† 406 x 178 x 85	7	96	30	1.52	17.9	0.0216
W16 x 7	50	406 x 178 x 74	7	96	28	1.51	20.4	0.0189
W16 x 7	45	406 x 178 x 67	6	96	26	1.50	22.3	0.0171
W16 x 7	40	406 x 178 x 60	6	96	24	1.49	24.8	0.0153
W16 x 7	36	406 x 178 x 54	6	96	22	1.48	27.3	0.0138

W SHAPES

in accordance with ASTM A6/A6M

Dimensions for Detailing

Supplemented by structural sections in accordance with BS4: Part 1



Serial Size in	Mass per foot lb	Serial size mm	End Clearance C mm	Notch		Surface Area		
				N mm	n mm	per metre m ²	per tonne m ²	two end faces m ²
W16 x 5½	31	406 x 140 x 46	5	78	22	1.34	29.1	0.0117
W16 x 5½	26	406 x 140 x 39	5	78	20	1.33	34.1	0.0099
W14 x 16	730	† 356 x 406 x 1086	41	198	142	2.77	2.55	0.277
W14 x 16	665	† 356 x 406 x 990	38	200	132	2.72	2.74	0.252
W14 x 16	605	† 356 x 406 x 900	35	200	122	2.67	2.96	0.230
W14 x 16	550	† 356 x 406 x 818	32	200	114	2.63	3.21	0.209
W14 x 16	500	† 356 x 406 x 744	30	200	106	2.59	3.48	0.190
W14 x 16	455	† 356 x 406 x 677	28	200	98	2.55	3.76	0.173
W14 x 16	426	356 x 406 x 634	26	200	94	2.52	3.98	0.162
W14 x 16	398	† 356 x 406 x 592	25	198	88	2.50	4.22	0.151
W14 x 16	370	356 x 406 x 551	23	200	84	2.47	4.48	0.140
W14 x 16	342	† 356 x 406 x 509	22	200	78	2.45	4.81	0.130
W14 x 16	311	† 356 x 406 x 463	20	200	74	2.42	5.23	0.118
W14 x 16	283	† 356 x 406 x 421	18	200	68	2.39	5.67	0.107
UC14 x 16	264	356 x 406 x 393	17	200	66	2.38	6.06	0.100
W14 x 16	257	† 356 x 406 x 382	17	200	64	2.37	6.20	0.0974
W14 x 16	233	† 356 x 406 x 347	16	200	60	2.35	6.77	0.0884
UC14 x 16	228	356 x 406 x 340	15	200	60	2.35	6.91	0.0866
W14 x 16	211	† 356 x 406 x 314	14	200	56	2.33	7.44	0.0798
W14 x 16	193	356 x 406 x 287	13	200	52	2.31	8.05	0.0732
W14 x 16	176	† 356 x 406 x 262	13	200	50	2.30	8.76	0.0670
W14 x 16	159	356 x 406 x 235	11	200	46	2.28	9.70	0.0598
W14 x 16	145	† 356 x 406 x 216	11	200	44	2.27	10.5	0.0552
UC14 x 14½	136	356 x 368 x 202	10	190	44	2.19	10.8	0.0514
W14 x 14½	132	† 356 x 368 x 196	10	190	42	2.18	11.1	0.0500
W14 x 14½	120	† 356 x 368 x 179	10	190	40	2.17	12.1	0.0456
W14 x 14½	109	† 356 x 368 x 162	9	190	38	2.16	13.3	0.0412
UC14 x 14½	103	356 x 368 x 153	8	190	36	2.16	14.1	0.0390
W14 x 14½	99	† 356 x 368 x 147	8	190	36	2.15	14.6	0.0376
W14 x 14½	90	† 356 x 368 x 134	8	190	34	2.14	16.0	0.0342
UC14 x 14½	87	356 x 368 x 129	7	190	34	2.14	16.6	0.0328
UB14 x 6¾	45	356 x 171 x 67	7	94	26	1.38	20.6	0.0171
W14 x 6¾	38	356 x 171 x 57	6	94	24	1.37	24.1	0.0145
W14 x 6¾	34	356 x 171 x 51	6	94	22	1.36	26.7	0.0130
W14 x 6¾	30	356 x 171 x 45	6	94	20	1.36	30.2	0.0115

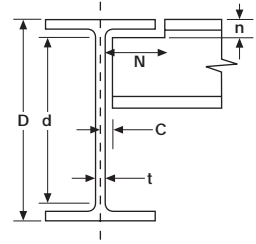
† These sizes are in addition to the standard BS4 range.

W SHAPES

in accordance with ASTM A6/A6M

Dimensions for Detailing

Supplemented by structural sections in accordance with BS4: Part 1



Serial Size in	Mass per foot lb	Serial size mm	End Clearance C mm	Notch		Surface Area		
				N mm	n mm	per metre m ²	per tonne m ²	two end faces m ²
W14 x 5	26	356 x 127 x 39	5	70	22	1.18	30.2	0.0100
W14 x 5	22	356 x 127 x 33	5	70	20	1.17	35.4	0.0084
W12 x 12	336	† 305 x 305 x 500	25	158	92	2.10	4.20	0.128
W12 x 12	305	† 305 x 305 x 454	23	158	84	2.07	4.56	0.116
W12 x 12	279	† 305 x 305 x 415	21	158	78	2.04	4.91	0.106
W12 x 12	252	† 305 x 305 x 375	20	158	74	2.01	5.36	0.0954
W12 x 12	230	† 305 x 305 x 342	18	158	68	1.98	5.77	0.0874
W12 x 12	210	† 305 x 305 x 313	17	158	64	1.96	6.26	0.0798
W12 x 12	190	305 x 305 x 283	15	158	60	1.94	6.86	0.0720
W12 x 12	170	† 305 x 305 x 253	14	158	56	1.91	7.55	0.0644
UC12 x 12	161	305 x 305 x 240	14	158	54	1.91	7.96	0.0612
W12 x 12	152	† 305 x 305 x 226	13	158	52	1.89	8.33	0.0578
W12 x 12	136	† 305 x 305 x 202	12	158	48	1.88	9.28	0.0516
UC12 x 12	133	† 305 x 305 x 198	12	158	48	1.87	9.44	0.0504
W12 x 12	120	† 305 x 305 x 179	11	158	44	1.86	10.4	0.0456
W12 x 12	106	305 x 305 x 158	10	158	42	1.84	11.6	0.0402
W12 x 12	96	† 305 x 305 x 143	9	158	40	1.83	12.8	0.0364
UC12 x 12	92	305 x 305 x 137	9	158	38	1.82	13.3	0.0348
W12 x 12	87	† 305 x 305 x 129	9	158	36	1.82	14.0	0.0330
W12 x 12	79	305 x 305 x 118	8	158	34	1.81	15.4	0.0300
W12 x 12	72	† 305 x 305 x 107	7	158	34	1.80	16.8	0.0272
W12 x 12	65	305 x 305 x 97	7	158	32	1.79	18.5	0.0246
*UB12 x 6½	36	305 x 165 x 54	6	90	24	1.26	23.4	0.0137
*UB12 x 6½	31	305 x 165 x 46	5	90	22	1.25	27.1	0.0118
*UB12 x 6½	27	305 x 165 x 40	5	90	20	1.24	30.8	0.0103
UB12 x 5	32	305 x 127 x 48	7	70	24	1.09	22.7	0.0122
UB12 x 5	28	305 x 127 x 42	6	70	22	1.08	25.8	0.0107
UB12 x 5	25	305 x 127 x 37	6	70	20	1.07	28.9	0.0094
W12 x 4	22	305 x 102 x 33	5	58	20	1.01	30.8	0.0084
W12 x 4	19	305 x 102 x 28	5	58	18	1.00	35.5	0.0072
W12 x 4	16	305 x 102 x 25	5	58	16	0.992	40.0	0.0063

The Dimension $n = \frac{D-d}{2}$ to the nearest 2mm above. The Dimension $C = t/2 + 2$ mm to the nearest 1mm.

The Dimension N is based upon the outstand from web face to flange edge + 10mm, to the nearest 2mm above and makes due allowance for rolling tolerance.

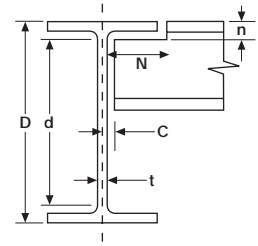
* For the beam size 12 x 6½ the weights and dimensions shown are those in BS4: Part 1 and differ slightly from the W12 x 6½ section shown in ASTM A6/A6M.

W SHAPES

in accordance with ASTM A6/A6M

Dimensions for Detailing

Supplemented by structural sections in accordance with BS4: Part 1

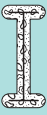





Serial Size in	Mass per foot lb	Serial size mm	End Clearance C mm	Notch		Surface Area		
				N mm	n mm	per metre m ²	per tonne m ²	two end faces m ²
W10 x 10	112	254 x 254 x 167	12	134	46	1.58	9.46	0.0426
W10 x 10	100	† 254 x 254 x 149	11	134	42	1.56	10.5	0.0380
W10 x 10	88	254 x 254 x 132	10	134	38	1.55	11.7	0.0336
W10 x 10	77	† 254 x 254 x 115	9	134	36	1.53	13.3	0.0292
UC10 x 10	72	254 x 254 x 107	8	134	34	1.52	14.2	0.0272
W10 x 10	68	† 254 x 254 x 101	8	134	34	1.51	14.9	0.0258
W10 x 10	60	254 x 254 x 89	7	134	30	1.50	16.9	0.0226
W10 x 10	54	† 254 x 254 x 80	7	134	30	1.49	18.6	0.0204
W10 x 10	49	254 x 254 x 73	6	134	28	1.49	20.4	0.0186
W10 x 5 ³ / ₄	30	† 254 x 146 x 45	6	80	22	1.09	24.3	0.0114
UB10 x 5 ³ / ₄	29	254 x 146 x 43	6	82	22	1.08	25.1	0.0110
W10 x 5 ³ / ₄	26	† 254 x 146 x 39	5	80	20	1.08	28.0	0.0098
UB10 x 5 ³ / ₄	25	254 x 146 x 37	5	82	20	1.07	28.9	0.0094
W10 x 5 ³ / ₄	22	† 254 x 146 x 33	5	80	18	1.08	33.0	0.0083
UB10 x 5 ³ / ₄	21	254 x 146 x 31	5	82	18	1.06	34.0	0.0079
W10 x 4	19	254 x 102 x 28	5	58	18	0.904	31.9	0.0072
W10 x 4	17	254 x 102 x 25	5	58	16	0.897	35.7	0.0064
W10 x 4	15	254 x 102 x 22	5	58	16	0.890	40.5	0.0056
W8 x 8	67	† 203 x 203 x 100	9	108	34	1.25	12.6	0.0254
W8 x 8	58	203 x 203 x 86	8	110	32	1.24	14.4	0.0220
W8 x 8	48	203 x 203 x 71	7	110	28	1.22	17.2	0.0181
W8 x 8	40	203 x 203 x 60	7	110	26	1.21	20.2	0.0153
W8 x 8	35	203 x 203 x 52	6	110	24	1.20	23.1	0.0133
W8 x 8	31	203 x 203 x 46	6	110	22	1.19	25.8	0.0117
W8 x 5 ¹ / ₄	21	† 203 x 133 x 31	5	74	18	0.930	29.6	0.0080
UB8 x 5 ¹ / ₄	20	203 x 133 x 30	5	74	18	0.923	30.8	0.0076
W8 x 5 ¹ / ₄	18	† 203 x 133 x 27	5	74	16	0.921	34.6	0.0068
UB8 x 5 ¹ / ₄	17	203 x 133 x 25	5	74	16	0.915	36.5	0.0064
UB8 x 4	16	203 x 102 x 23	5	60	18	0.790	34.2	0.0059
UB7 x 4	13	178 x 102 x 19	4	60	16	0.738	38.7	0.0049
W6 x 6	25	152 x 152 x 37	6	84	20	0.912	24.7	0.0094
W6 x 6	20	152 x 152 x 30	5	84	18	0.901	30.0	0.0077
W6 x 6	15	152 x 152 x 23	5	84	16	0.889	38.7	0.0058
UB6 x 3 ¹ / ₂	11	152 x 89 x 16	4	54	16	0.638	40.0	0.0041
UB5 x 3	9	127 x 76 x 13	4	46	16	0.537	41.4	0.0033

W SHAPES in accordance with ASTM A6/A6M

W/D Ratio





Supplemented by structural sections in accordance with BS4: Part 1

Serial Size in	Mass per foot lb	Serial size mm	W/D Ratio			
			 Profile 4 Sides	 Profile 3 Sides	 Box 4 Sides	 Box 3 Sides
W40 x 12	327	† 1016 x 305 x 487	2.60	2.87	3.08	3.48
W40 x 12	294	† 1016 x 305 x 437	2.35	2.60	2.80	3.16
W40 x 12	264	† 1016 x 305 x 393	2.13	2.36	2.54	2.87
W40 x 12	235	† 1016 x 305 x 349	1.90	2.11	2.27	2.57
W40 x 12	211	† 1016 x 305 x 314	1.72	1.91	2.06	2.33
W40 x 12	183	† 1016 x 305 x 272	1.50	1.66	1.80	2.04
W40 x 12	167	† 1016 x 305 x 249	1.38	1.53	1.66	1.88
W40 x 12	149	† 1016 x 305 x 222	1.24	1.37	1.49	1.69
W36 x 16½	359	† 914 x 419 x 534	2.60	2.96	3.31	3.91
W36 x 16½	328	† 914 x 419 x 488	2.39	2.72	3.05	3.61
W36 x 16½	300	† 914 x 419 x 447	2.20	2.50	2.81	3.33
W36 x 16½	280	† 914 x 419 x 418	2.06	2.35	2.64	3.13
W36 x 16½	260	914 x 419 x 388	1.92	2.19	2.46	2.92
W36 x 16½	245	† 914 x 419 x 365	1.81	2.07	2.33	2.76
W36 x 16½	230	914 x 419 x 343	1.71	1.95	2.20	2.61
W36 x 12	386	† 914 x 305 x 576	3.10	3.45	3.73	4.25
W36 x 12	349	† 914 x 305 x 521	2.83	3.15	3.42	3.89
W36 x 12	318	† 914 x 305 x 474	2.59	2.89	3.14	3.58
W36 x 12	285	† 914 x 305 x 425	2.35	2.61	2.85	3.24
W36 x 12	256	† 914 x 305 x 381	2.12	2.36	2.58	2.94
W36 x 12	232	† 914 x 305 x 345	1.93	2.15	2.35	2.68
W36 x 12	210	† 914 x 305 x 313	1.76	1.96	2.15	2.45
W36 x 12	194	914 x 305 x 289	1.64	1.82	2.00	2.28
W36 x 12	182	† 914 x 305 x 271	1.54	1.72	1.88	2.15
W36 x 12	170	914 x 305 x 253	1.44	1.61	1.76	2.02
W36 x 12	160	† 914 x 305 x 238	1.36	1.52	1.66	1.90
W36 x 12	150	914 x 305 x 224	1.29	1.43	1.57	1.80
W36 x 12	135	914 x 305 x 201	1.16	1.29	1.42	1.62
W33 x 15¾	387	† 838 x 400 x 576	2.91	3.31	3.71	4.39
W33 x 15¾	354	† 838 x 400 x 527	2.68	3.06	3.43	4.06
W33 x 15¾	318	† 838 x 400 x 473	2.42	2.76	3.10	3.68
W33 x 15¾	291	† 838 x 400 x 433	2.23	2.54	2.86	3.40
W33 x 15¾	263	† 838 x 400 x 392	2.03	2.32	2.61	3.10
W33 x 15¾	241	† 838 x 400 x 359	1.87	2.13	2.41	2.86
W33 x 15¾	221	† 838 x 400 x 329	1.72	1.97	2.22	2.64
W33 x 15¾	201	† 838 x 400 x 299	1.57	1.79	2.03	2.42

W SHAPES in accordance with ASTM A6/A6M

W/D Ratio

Supplemented by structural sections in accordance with BS4: Part 1

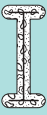



Serial Size in	Mass per foot lb	Serial size mm	W/D Ratio			
			 Profile 4 Sides	 Profile 3 Sides	 Box 4 Sides	 Box 3 Sides
W33 x 11½	219	† 838 x 292 x 326	1.94	2.17	2.37	2.71
W33 x 11½	204	† 838 x 292 x 304	1.81	2.02	2.21	2.54
W33 x 11½	187	† 838 x 292 x 278	1.67	1.87	2.05	2.35
W33 x 11½	169	† 838 x 292 x 251	1.51	1.69	1.86	2.13
W33 x 11½	152	838 x 292 x 226	1.37	1.53	1.69	1.93
W33 x 11½	141	† 838 x 292 x 210	1.28	1.43	1.58	1.81
W33 x 11½	130	838 x 292 x 194	1.18	1.32	1.46	1.67
W33 x 11½	118	838 x 292 x 176	1.08	1.21	1.33	1.53
W30 x 15	326	† 762 x 381 x 484	2.65	3.03	3.40	4.06
W30 x 15	292	† 762 x 381 x 434	2.39	2.73	3.08	3.67
W30 x 15	261	† 762 x 381 x 389	2.16	2.46	2.79	3.32
W30 x 15	235	† 762 x 381 x 350	1.95	2.23	2.53	3.02
W30 x 15	211	† 762 x 381 x 314	1.76	2.02	2.29	2.74
W30 x 15	191	† 762 x 381 x 284	1.60	1.83	2.08	2.49
W30 x 15	173	† 762 x 381 x 257	1.46	1.67	1.90	2.28
W30 x 10½	148	† 762 x 267 x 220	1.47	1.64	1.80	2.06
W30 x 10½	132	762 x 267 x 197	1.31	1.47	1.62	1.86
W30 x 10½	124	† 762 x 267 x 185	1.24	1.38	1.52	1.75
W30 x 10½	116	762 x 267 x 173	1.16	1.30	1.43	1.65
W30 x 10½	108	† 762 x 267 x 161	1.08	1.21	1.33	1.53
W30 x 10½	99	762 x 267 x 147	0.996	1.11	1.23	1.41
W30 x 10½	90	762 x 267 x 134	0.911	1.02	1.12	1.29
W27 x 14	307	† 686 x 356 x 457	2.70	3.09	3.48	4.16
W27 x 14	281	† 686 x 356 x 419	2.49	2.85	3.22	3.85
W27 x 14	258	† 686 x 356 x 384	2.30	2.63	2.98	3.57
W27 x 14	235	† 686 x 356 x 350	2.11	2.42	2.74	3.29
W27 x 14	217	† 686 x 356 x 323	1.96	2.25	2.55	3.05
W27 x 14	194	† 686 x 356 x 289	1.76	2.02	2.29	2.75
W27 x 14	178	† 686 x 356 x 265	1.62	1.86	2.12	2.55
W27 x 14	161	† 686 x 356 x 240	1.48	1.70	1.93	2.33
W27 x 14	146	† 686 x 356 x 217	1.35	1.55	1.77	2.13

† These sizes are in addition to the standard BS4 range.

W SHAPES in accordance with ASTM A6/A6M

W/D Ratio

Supplemented by structural sections in accordance with BS4: Part 1

Serial Size in	Mass per foot lb	Serial size mm	W/D Ratio			
			 Profile 4 Sides	 Profile 3 Sides	 Box 4 Sides	 Box 3 Sides
W27 x 10	221	† 686 x 254 x 329	2.27	2.55	2.78	3.21
W27 x 10	201	† 686 x 254 x 299	2.09	2.35	2.57	2.96
W27 x 10	182	† 686 x 254 x 271	1.91	2.14	2.34	2.70
W27 x 10	159	† 686 x 254 x 237	1.68	1.88	2.07	2.39
W27 x 10	129	† 686 x 254 x 192	1.38	1.55	1.71	1.97
W27 x 10	114	686 x 254 x 170	1.23	1.38	1.53	1.77
W27 x 10	102	686 x 254 x 152	1.11	1.24	1.38	1.59
W27 x 10	94	686 x 254 x 140	1.02	1.15	1.27	1.47
W27 x 10	84	686 x 254 x 125	0.920	1.03	1.15	1.33
W24 x 12¾	306	† 610 x 324 x 455	2.93	3.36	3.77	4.51
W24 x 12¾	279	† 610 x 324 x 415	2.71	3.11	3.49	4.18
W24 x 12¾	250	† 610 x 324 x 372	2.45	2.81	3.17	3.80
W24 x 12¾	229	† 610 x 324 x 341	2.26	2.59	2.92	3.51
W24 x 12¾	207	† 610 x 324 x 307	2.06	2.36	2.67	3.21
W24 x 12¾	192	† 610 x 324 x 285	1.92	2.20	2.50	3.00
W24 x 12¾	176	† 610 x 324 x 262	1.77	2.03	2.31	2.77
W24 x 12¾	162	† 610 x 324 x 241	1.61	1.86	2.11	2.55
W24 x 12¾	146	† 610 x 324 x 217	1.49	1.71	1.95	2.35
W24 x 12¾	131	† 610 x 324 x 195	1.34	1.55	1.76	2.13
W24 x 12¾	117	† 610 x 324 x 174	1.20	1.39	1.58	1.92
W24 x 12¾	104	† 610 x 324 x 155	1.08	1.24	1.42	1.72
UB24 x 12	160	610 x 305 x 238	1.66	1.90	2.14	2.56
UB24 x 12	120	610 x 305 x 179	1.27	1.45	1.65	1.97
UB24 x 12	100	610 x 305 x 149	1.06	1.22	1.39	1.66
W24 x 9	198	† 610 x 229 x 295	2.26	2.54	2.77	3.19
W24 x 9	163	† 610 x 229 x 243	1.90	2.13	2.34	2.69
W24 x 9	146	† 610 x 229 x 217	1.72	1.93	2.12	2.45
W24 x 9	128	† 610 x 229 x 191	1.51	1.70	1.87	2.16
W24 x 9	114	† 610 x 229 x 171	1.38	1.54	1.70	1.97
W24 x 9	103	† 610 x 229 x 153	1.24	1.39	1.54	1.77
W24 x 9	94	610 x 229 x 140	1.13	1.27	1.41	1.63
W24 x 9	84	610 x 229 x 125	1.02	1.14	1.27	1.47
W24 x 9	76	610 x 229 x 113	0.924	1.04	1.15	1.33
W24 x 9	68	610 x 229 x 101	0.832	0.935	1.04	1.20

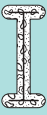



† These sizes are in addition to the standard BS4 range.

Any enquiries, with regards to volume and production, should be referred to the Account Manager.

W SHAPES in accordance with ASTM A6/A6M

W/D Ratio

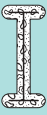



Supplemented by structural sections in accordance with BS4: Part 1

Serial Size in	Mass per foot lb	Serial size mm	W/D Ratio			
			 Profile 4 Sides	 Profile 3 Sides	 Box 4 Sides	 Box 3 Sides
W24 x 7	62	† 610 x 178 x 92	0.837	0.925	1.01	1.14
W24 x 7	55	† 610 x 178 x 82	0.747	0.826	0.898	1.01
W21 x 12¼	275	† 533 x 312 x 409	2.84	3.28	3.71	4.49
W21 x 12¼	248	† 533 x 312 x 370	2.60	3.00	3.39	4.11
W21 x 12¼	223	† 533 x 312 x 331	2.35	2.71	3.08	3.74
W21 x 12¼	201	† 533 x 312 x 300	2.15	2.48	2.82	3.43
W21 x 12¼	182	† 533 x 312 x 272	1.96	2.27	2.59	3.14
W21 x 12¼	166	† 533 x 312 x 248	1.79	2.07	2.37	2.88
W21 x 12¼	147	† 533 x 312 x 219	1.60	1.85	2.12	2.59
W21 x 12¼	132	† 533 x 312 x 196	1.45	1.67	1.92	2.35
W21 x 12¼	122	† 533 x 312 x 182	1.34	1.55	1.79	2.19
W21 x 12¼	111	† 533 x 312 x 165	1.23	1.42	1.64	2.01
W21 x 12¼	101	† 533 x 312 x 150	1.12	1.30	1.50	1.84
W21 x 8¼	93	† 533 x 210 x 138	1.24	1.40	1.54	1.80
W21 x 8¼	83	533 x 210 x 122	1.10	1.24	1.37	1.60
W21 x 8¼	73	533 x 210 x 109	0.990	1.11	1.24	1.44
W21 x 8¼	68	533 x 210 x 101	0.921	1.04	1.15	1.34
W21 x 8¼	62	533 x 210 x 92	0.844	0.951	1.06	1.23
UB21 x 8¼	55	533 x 210 x 82	0.757	0.853	0.950	1.11
W21 x 6½	57	† 533 x 165 x 85	0.853	0.946	1.03	1.17
W21 x 6½	50	† 533 x 165 x 74	0.758	0.841	0.916	1.04
W21 x 6½	44	† 533 x 165 x 66	0.670	0.744	0.811	0.922
W18 x 7½	71	† 457 x 191 x 106	1.09	1.23	1.36	1.60
W18 x 7½	65	457 x 191 x 98	1.01	1.14	1.27	1.49
W18 x 7½	60	457 x 191 x 89	0.919	1.04	1.16	1.36
W18 x 7½	55	457 x 191 x 82	0.848	0.960	1.07	1.26
W18 x 7½	50	457 x 191 x 74	0.772	0.873	0.978	1.15
UB18 x 7½	45	457 x 191 x 67	0.701	0.793	0.889	1.04
W18 x 6	46	457 x 152 x 67	0.765	0.853	0.935	1.07
W18 x 6	40	457 x 152 x 60	0.686	0.764	0.839	0.960
W18 x 6	35	457 x 152 x 52	0.604	0.673	0.740	0.848
W16 x 7	57	† 406 x 178 x 85	0.954	1.08	1.21	1.43
W16 x 7	50	406 x 178 x 74	0.839	0.952	1.07	1.26
W16 x 7	45	406 x 178 x 67	0.764	0.867	0.973	1.15
W16 x 7	40	406 x 178 x 60	0.687	0.780	0.876	1.03
W16 x 7	36	406 x 178 x 54	0.622	0.707	0.795	0.939

W SHAPES in accordance with ASTM A6/A6M

W/D Ratio

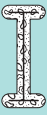



Supplemented by structural sections in accordance with BS4: Part 1

Serial Size in	Mass per foot lb	Serial size mm	W/D Ratio			
			 Profile 4 Sides	 Profile 3 Sides	 Box 4 Sides	 Box 3 Sides
W16 x 5½	31	406 x 140 x 46	0.584	0.653	0.719	0.827
W16 x 5½	26	406 x 140 x 39	0.498	0.558	0.615	0.708
W14 x 16	730	† 356 x 406 x 1086	6.69	8.00	9.06	11.6
W14 x 16	665	† 356 x 406 x 990	6.21	7.43	8.46	10.9
W14 x 16	605	† 356 x 406 x 900	5.75	6.89	7.90	10.2
W14 x 16	550	† 356 x 406 x 818	5.31	6.37	7.34	9.53
W14 x 16	500	† 356 x 406 x 744	4.90	5.89	6.82	8.88
W14 x 16	455	† 356 x 406 x 677	4.53	5.45	6.34	8.29
W14 x 16	426	356 x 406 x 634	4.28	5.15	6.01	7.87
W14 x 16	398	† 356 x 406 x 592	4.04	4.86	5.70	7.48
W14 x 16	370	356 x 406 x 551	3.79	4.57	5.37	7.06
W14 x 16	342	† 356 x 406 x 509	3.54	4.27	5.04	6.64
W14 x 16	311	† 356 x 406 x 463	3.26	3.93	4.66	6.15
W14 x 16	283	† 356 x 406 x 421	3.00	3.62	4.31	5.71
UC14 x 16	264	356 x 406 x 393	2.82	3.40	4.05	5.38
W14 x 16	257	† 356 x 406 x 382	2.75	3.32	3.96	5.26
W14 x 16	233	† 356 x 406 x 347	2.52	3.04	3.65	4.86
UC14 x 16	228	356 x 406 x 340	2.47	2.98	3.58	4.77
W14 x 16	211	† 356 x 406 x 314	2.30	2.77	3.34	4.45
W14 x 16	193	356 x 406 x 287	2.12	2.56	3.09	4.12
W14 x 16	176	† 356 x 406 x 262	1.95	2.36	2.85	3.82
W14 x 16	159	356 x 406 x 235	1.76	2.13	2.58	3.46
W14 x 16	145	† 356 x 406 x 216	1.63	1.97	2.40	3.22
UC14 x 14½	136	356 x 368 x 202	1.57	1.90	2.30	3.06
W14 x 14½	132	† 356 x 368 x 196	1.54	1.85	2.25	3.00
W14 x 14½	120	† 356 x 368 x 179	1.41	1.70	2.06	2.75
W14 x 14½	109	† 356 x 368 x 162	1.28	1.54	1.88	2.51
UC14 x 14½	103	356 x 368 x 153	1.21	1.46	1.78	2.38
W14 x 14½	99	† 356 x 368 x 147	1.17	1.41	1.72	2.31
W14 x 14½	90	† 356 x 368 x 134	1.07	1.29	1.57	2.11
UC14 x 14½	87	356 x 368 x 129	1.03	1.24	1.52	2.04
UB14 x 6¾	45	356 x 171 x 67	0.827	0.945	1.07	1.27
W14 x 6¾	38	356 x 171 x 57	0.708	0.810	0.915	1.09
W14 x 6¾	34	356 x 171 x 51	0.637	0.728	0.825	0.985
W14 x 6¾	30	356 x 171 x 45	0.566	0.647	0.734	0.878

W SHAPES in accordance with ASTM A6/A6M

W/D Ratio

Supplemented by structural sections in accordance with BS4: Part 1

Serial Size in	Mass per foot lb	Serial size mm	W/D Ratio			
			 Profile 4 Sides	 Profile 3 Sides	 Box 4 Sides	 Box 3 Sides
W14 x 5	26	356 x 127 x 39	0.564	0.632	0.694	0.800
W14 x 5	22	356 x 127 x 33	0.482	0.540	0.594	0.685
W12 x 12	336	† 305 x 305 x 500	4.07	4.85	5.56	7.14
W12 x 12	305	† 305 x 305 x 454	3.75	4.47	5.15	6.64
W12 x 12	279	† 305 x 305 x 415	3.47	4.15	4.80	6.21
W12 x 12	252	† 305 x 305 x 375	3.19	3.81	4.43	5.74
W12 x 12	230	† 305 x 305 x 342	2.95	3.53	4.12	5.36
W12 x 12	210	† 305 x 305 x 313	2.72	3.26	3.82	4.98
W12 x 12	190	305 x 305 x 283	2.49	2.98	3.51	4.58
W12 x 12	170	† 305 x 305 x 253	2.25	2.70	3.19	4.18
UC12 x 12	161	305 x 305 x 240	2.15	2.58	3.05	4.00
W12 x 12	152	† 305 x 305 x 226	2.04	2.45	2.91	3.82
W12 x 12	136	† 305 x 305 x 202	1.84	2.21	2.63	3.46
UC12 x 12	133	† 305 x 305 x 198	1.80	2.17	2.58	3.40
W12 x 12	120	† 305 x 305 x 179	1.64	1.97	2.36	3.11
W12 x 12	106	305 x 305 x 158	1.46	1.76	2.11	2.79
W12 x 12	96	† 305 x 305 x 143	1.33	1.61	1.93	2.55
UC12 x 12	92	305 x 305 x 137	1.28	1.54	1.85	2.46
W12 x 12	87	† 305 x 305 x 129	1.22	1.47	1.76	2.34
W12 x 12	79	305 x 305 x 118	1.11	1.34	1.62	2.15
W12 x 12	72	† 305 x 305 x 107	1.01	1.22	1.48	1.96
W12 x 12	65	305 x 305 x 97	0.922	1.11	1.35	1.79
*UB12 x 6½	36	305 x 165 x 54	0.732	0.844	0.964	1.17
*UB12 x 6½	31	305 x 165 x 46	0.630	0.726	0.832	1.01
*UB12 x 6½	27	305 x 165 x 40	0.554	0.639	0.733	0.890
UB12 x 5	32	305 x 127 x 48	0.752	0.849	0.939	1.10
UB12 x 5	28	305 x 127 x 42	0.661	0.747	0.828	0.967
UB12 x 5	25	305 x 127 x 37	0.588	0.665	0.738	0.862
W12 x 4	22	305 x 102 x 33	0.555	0.617	0.674	0.769
W12 x 4	19	305 x 102 x 28	0.480	0.535	0.585	0.667
W12 x 4	16	305 x 102 x 25	0.426	0.475	0.520	0.594

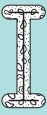



† These sizes are in addition to the standard BS4 range.

* For the beam size 12 x 6½ the weights and dimensions shown are those in BS4: Part 1 and differ slightly from the W12 x 6½ section shown in ASTM A6/A6M.

W SHAPES in accordance with ASTM A6/A6M

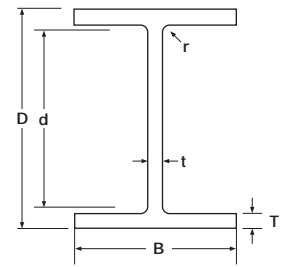
W/D Ratio

Supplemented by structural sections in accordance with BS4: Part 1

Serial Size in	Mass per foot lb	Serial size mm	W/D Ratio			
			 Profile 4 Sides	 Profile 3 Sides	 Box 4 Sides	 Box 3 Sides
W10 x 10	112	254 x 254 x 167	1.80	2.17	2.57	3.38
W10 x 10	100	† 254 x 254 x 149	1.63	1.96	2.33	3.07
W10 x 10	88	254 x 254 x 132	1.46	1.75	2.09	2.76
W10 x 10	77	† 254 x 254 x 115	1.28	1.54	1.85	2.45
UC10 x 10	72	254 x 254 x 107	1.20	1.45	1.74	2.30
W10 x 10	68	† 254 x 254 x 101	1.14	1.38	1.66	2.20
W10 x 10	60	254 x 254 x 89	1.01	1.22	1.47	1.95
W10 x 10	54	† 254 x 254 x 80	0.915	1.10	1.34	1.78
W10 x 10	49	254 x 254 x 73	0.837	1.01	1.22	1.63
W10 x 5 ³ / ₄	30	† 254 x 146 x 45	0.698	0.807	0.924	1.12
UB10 x 5 ³ / ₄	29	254 x 146 x 43	0.678	0.785	0.900	1.10
W10 x 5 ³ / ₄	26	† 254 x 146 x 39	0.606	0.701	0.804	0.980
UB10 x 5 ³ / ₄	25	254 x 146 x 37	0.589	0.682	0.784	0.958
W10 x 5 ³ / ₄	22	† 254 x 146 x 33	0.519	0.601	0.690	0.843
UB10 x 5 ³ / ₄	21	254 x 146 x 31	0.500	0.579	0.668	0.818
W10 x 4	19	254 x 102 x 28	0.534	0.602	0.666	0.775
W10 x 4	17	254 x 102 x 25	0.478	0.539	0.597	0.696
W10 x 4	15	254 x 102 x 22	0.421	0.475	0.527	0.615
W8 x 8	67	† 203 x 203 x 100	1.36	1.63	1.93	2.54
W8 x 8	58	203 x 203 x 86	1.18	1.43	1.70	2.24
W8 x 8	48	203 x 203 x 71	0.992	1.19	1.43	1.90
W8 x 8	40	203 x 203 x 60	0.847	1.02	1.23	1.63
W8 x 8	35	203 x 203 x 52	0.741	0.894	1.08	1.44
W8 x 8	31	203 x 203 x 46	0.661	0.798	0.966	1.29
W8 x 5 ¹ / ₄	21	† 203 x 133 x 31	0.575	0.672	0.777	0.965
UB8 x 5 ¹ / ₄	20	203 x 133 x 30	0.554	0.648	0.750	0.934
W8 x 5 ¹ / ₄	18	† 203 x 133 x 27	0.492	0.575	0.666	0.828
UB8 x 5 ¹ / ₄	17	203 x 133 x 25	0.468	0.547	0.636	0.793
UB8 x 4	16	203 x 102 x 23	0.498	0.572	0.645	0.774
UB7 x 4	13	178 x 102 x 19	0.440	0.510	0.582	0.711
W6 x 6	25	152 x 152 x 37	0.691	0.832	0.997	1.32
W6 x 6	20	152 x 152 x 30	0.568	0.685	0.824	1.09
W6 x 6	15	152 x 152 x 23	0.440	0.531	0.642	0.856
UB6 x 3 ¹ / ₂	11	152 x 89 x 16	0.426	0.495	0.564	0.691
UB5 x 3	9	127 x 76 x 13	0.412	0.479	0.544	0.670

UNIVERSAL BEARING PILING

in accordance with ASTM A6/A6M and BS4: Part 1



Serial Size in	Mass per foot lb	Serial size mm	Mass per metre kg	Depth of Section D mm	Width of Section B mm	Thickness of Web t mm	Thickness of Flange T mm	Root Radius r mm	Depth between fillets d mm	Ratios for Local Buckling		Second Moment of Area	
										Flange B/2T	Web d/t	Axis xx cm ⁴	Axis yy cm ⁴
HP14 x 14½	117	356 x 368 x 174	173.9	361.4	378.5	20.3	20.4	15.2	290.2	9.28	14.3	51010	18460
HP14 x 14½	102	356 x 368 x 152	152.0	356.4	376.0	17.8	17.9	15.2	290.2	10.5	16.3	43970	15880
HP14 x 14½	89	356 x 368 x 133	133.0	352.0	373.8	15.6	15.7	15.2	290.2	11.9	18.6	37980	13680
HP14 x 14½	73	356 x 368 x 109	108.9	346.4	371.0	12.8	12.9	15.2	290.2	14.4	22.7	30630	10990
UP12 x 12	150	305 x 305 x 223	222.9	337.9	325.7	30.3	30.4	15.2	246.7	5.36	8.14	52700	17580
UP12 x 12	125	305 x 305 x 186	186.0	328.3	320.9	25.5	25.6	15.2	246.7	6.27	9.67	42610	14140
UP12 x 12	100	305 x 305 x 149	149.1	318.5	316.0	20.6	20.7	15.2	246.7	7.63	12.0	33070	10910
HP12 x 12	84	305 x 305 x 126	126.1	312.3	312.9	17.5	17.6	15.2	246.7	8.89	14.1	27410	9002
HP12 x 12	74	305 x 305 x 110	110.0	307.9	310.7	15.3	15.4	15.2	246.7	10.1	16.1	23560	7709
HP12 x 12	63	305 x 305 x 95	94.9	303.7	308.7	13.3	13.3	15.2	246.7	11.6	18.5	20040	6529
UP12 x 12	59	305 x 305 x 88	88.0	301.7	307.8	12.4	12.3	15.2	246.7	12.5	19.9	18420	5984
HP12 x 12	53	305 x 305 x 79	78.9	299.3	306.4	11.0	11.1	15.2	246.7	13.8	22.4	16440	5326
HP10 x 10	57	254 x 254 x 85	85.1	254.3	260.4	14.4	14.3	12.7	200.3	9.10	13.9	12280	4215
UP10 x 10	48	254 x 254 x 71	71.0	249.7	258.0	12.0	12.0	12.7	200.3	10.8	16.7	10070	3439
HP10 x 10	42	254 x 254 x 63	63.0	247.1	256.6	10.6	10.7	12.7	200.3	12.0	18.9	8860	3016
HP8 x 8	36	203 x 203 x 54	53.9	204.0	207.7	11.3	11.4	10.2	160.8	9.11	14.2	5027	1705
UP8 x 8	30	203 x 203 x 45	44.9	200.2	205.9	9.5	9.5	10.2	160.8	10.8	16.9	4100	1384

Radius of Gyration		Elastic Modulus		Plastic Modulus		Buckling Parameter u	Torsional Index x	Warping Constant H dm ⁶	Torsional Constant J cm ⁴	Area of Section cm ²	Mass per foot lb	Serial Size in
Axis xx cm	Axis yy cm	Axis xx cm ²	Axis yy cm ²	Axis xx cm ²	Axis yy cm ²							
15.2	9.13	2823	976	3186	1497	0.821	15.8	5.37	330	221	117	HP14 x 14½
15.1	9.05	2468	845	2767	1293	0.821	17.8	4.55	223	194	102	HP14 x 14½
15.0	8.99	2158	732	2406	1118	0.822	20.1	3.87	151	169	89	HP14 x 14½
14.9	8.90	1769	592	1956	903	0.823	24.2	3.05	84.6	139	73	HP14 x 14½
13.6	7.87	3119	1079	3653	1680	0.826	9.55	4.15	943	284	150	UP12 x 12
13.4	7.73	2596	881	3003	1366	0.827	11.1	3.24	560	237	125	UP12 x 12
13.2	7.58	2076	691	2370	1065	0.828	13.5	2.42	295	190	100	UP12 x 12
13.1	7.49	1755	575	1986	885	0.829	15.7	1.95	182	161	84	HP12 x 12
13.0	7.42	1531	496	1720	762	0.830	17.7	1.65	122	140	74	HP12 x 12
12.9	7.35	1320	423	1475	648	0.830	20.2	1.38	80.0	121	63	HP12 x 12
12.8	7.31	1221	389	1361	595	0.830	21.6	1.25	64.2	112	59	UP12 x 12
12.8	7.28	1099	348	1218	531	0.832	23.9	1.11	46.9	100	53	HP 12 x 12
10.6	6.24	966	324	1092	498	0.825	15.6	0.607	81.8	108	57	HP10 x 10
10.6	6.17	807	267	904	409	0.826	18.4	0.486	48.4	90.4	48	UP10 x 10
10.5	6.13	717	235	799	360	0.827	20.5	0.421	34.3	80.2	42	HP 10 x 10
8.55	4.98	493	164	557	252	0.827	15.8	0.158	32.7	68.7	36	HP8 x 8
8.46	4.92	410	134	459	206	0.827	18.6	0.126	19.2	57.2	30	UP8 x 8