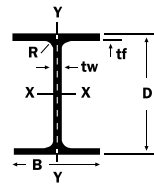


1 BEAMS AND COLUMNS

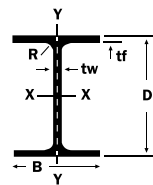
1.1 Universal Beams and Columns - Imperial Units



Section Number and Nominal Size	Unit Weight (M)		Section Area (A)		Section Depth (D)		Flange				Web Thickness (tw)		Corner Radius (r)	
							Width (B)		Thickness (T)					
mm (in.)	lb/ft	kg/m	in. ²	cm ²	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm
W4 102 x 102 (4 x 4)	16.30	24.00	4.79	30.90	4.21	107.0	3.937	100.0	0.472	12.00	0.311	7.90	0.236	6.00
	13.80	21.00	4.05	26.10	4.02	102.0	4.016	102.0	0.370	9.40	0.315	8.00	0.236	6.00
	13.00	19.35	3.83	24.71	4.16	105.7	4.060	103.1	0.345	8.76	0.280	7.11	0.250	6.35
W5 127 x 76 (5 x 3)	9.00	13.00	2.60	16.80	5.00	127.0	3.000	76.2	0.299	7.60	0.165	4.20	0.300	6.35
W5 127 x 127 (5 x 5)	19.00	28.28	5.56	35.87	5.15	130.8	5.030	127.8	0.430	10.90	0.270	6.86	0.300	7.62
	16.00	23.81	4.71	30.39	5.01	127.3	5.000	127.0	0.360	9.14	0.240	6.10	0.300	7.62
W6 152 x 76 (6 x 3)	12.00	18.00	3.35	21.60	6.10	155.0	2.953	75.0	0.335	8.50	0.236	6.00	0.315	8.00
	9.00	14.00	2.76	17.80	5.91	150.0	2.953	75.0	0.276	7.00	0.197	5.00	0.315	8.00
W6 152 x 89 (6 x 3 ½)	11.00	16.00	3.18	20.50	6.00	152.4	3.500	88.9	0.303	7.70	0.181	4.60	0.250	6.35
W6 152 x 102 (6 x 4)	16.00	23.81	4.74	30.58	6.28	159.5	4.030	102.4	0.405	10.20	0.260	6.60	0.250	6.35
	12.00	17.86	3.55	22.90	6.03	153.2	4.000	101.6	0.280	7.11	0.230	5.48	0.250	6.35
	9.00	13.39	2.68	17.29	5.90	149.9	3.940	100.1	0.245	5.46	0.170	4.32	0.250	6.35
W6 152 x 152 (6 x 6)	25.00	37.20	7.34	47.35	6.38	162.1	6.080	154.4	0.455	11.50	0.320	8.13	0.250	6.35
	20.00	30.00	5.87	37.87	6.20	157.5	6.020	152.9	0.365	9.27	0.260	6.60	0.250	6.35
	15.70	23.00	4.62	29.80	6.00	152.4	6.000	152.4	0.269	6.80	0.240	6.10	0.250	6.35
	15.00	22.50	4.43	28.58	5.99	152.1	5.990	152.1	0.260	6.60	0.230	5.84	0.250	6.35
W7 178 x 89 (7 x 3 ½)	15.00	22.20	4.37	28.20	7.05	179.0	3.543	90.0	0.394	10.00	0.236	6.00	0.350	8.90
	12.00	18.10	3.56	23.00	6.89	175.0	3.543	90.0	0.315	8.00	0.197	5.00	0.350	8.90
	11.00	16.10	3.16	20.40	6.81	173.0	3.543	90.0	0.276	7.00	0.177	4.50	0.350	8.90
W7 178 x 102 (7 x 4)	13.00	19.00	3.75	24.20	7.00	177.8	4.000	101.6	0.311	7.900	0.185	4.70	0.300	7.62
W8 203 x 102 (8 x 4)	15.50	23.00	4.50	29.00	8.00	203.2	4.000	101.6	0.368	9.30	0.205	5.20	0.300	7.62
	15.00	22.32	4.44	28.65	8.11	206.0	4.015	102.0	0.315	8.00	0.245	6.55	0.300	7.62
	13.00	19.35	3.84	24.77	7.99	202.9	4.000	101.6	0.255	6.48	0.230	5.84	0.300	7.62
	10.00	14.88	2.96	19.10	7.89	200.4	3.940	100.1	0.205	5.21	0.170	4.32	0.300	7.62
W8 203 x 133 (8 x 5 ¼)	21.00	31.30	6.16	39.74	8.28	210.3	5.270	133.9	0.400	10.10	0.250	6.35	0.300	7.62
	20.00	30.00	5.89	38.00	8.14	206.8	5.268	133.8	0.378	9.60	0.248	6.30	0.300	7.62
	18.00	26.79	5.26	33.94	8.14	206.8	5.250	133.3	0.330	8.38	0.230	5.84	0.300	7.62
	17.00	25.30	5.01	32.30	8.00	203.2	5.250	133.4	0.308	7.80	0.230	5.84	0.300	7.62
	15.00	22.30	4.45	28.70	7.95	202.0	5.236	133.0	0.276	7.00	0.197	5.00	0.310	8.00
	14.00	21.00	4.20	27.10	7.99	203.0	5.236	133.0	0.252	6.40	0.197	5.00	0.310	8.00
W8 203 x 165 (8 x 6 ½)	28.00	41.67	8.25	53.23	8.06	204.7	6.535	166.0	0.465	11.80	0.285	7.24	0.400	10.20
	24.00	35.72	7.08	45.68	7.93	201.1	6.495	165.0	0.400	10.10	0.245	6.22	0.400	10.20
W8 203 x 203 (8 x 8)	67.00	100.00	19.70	127.10	9.00	228.6	8.280	210.3	0.935	23.75	0.570	14.48	0.400	10.20
	58.00	86.31	17.10	110.30	8.75	222.2	8.220	208.8	0.810	20.57	0.510	12.95	0.400	10.20
	48.00	71.43	14.10	90.97	8.50	215.9	8.110	206.0	0.685	17.40	0.400	10.16	0.400	10.20
	40.00	60.00	11.70	75.48	8.25	209.5	8.070	205.0	0.560	14.20	0.360	9.14	0.400	10.20
	35.00	52.09	10.30	66.45	8.12	206.2	8.020	203.7	0.495	12.50	0.310	7.87	0.400	10.20
	31.00	46.13	9.12	58.84	8.00	203.2	7.995	203.1	0.435	11.00	0.285	7.24	0.400	10.20
W10 254 x 102 (10 x 4)	19.00	28.28	5.62	36.26	10.24	260.1	4.020	102.1	0.395	10.00	0.250	6.35	0.300	7.62
	17.00	25.30	4.99	32.19	10.11	256.8	4.010	101.9	0.330	8.38	0.240	6.10	0.300	7.62
	15.00	22.32	4.41	28.45	9.99	253.7	4.000	101.6	0.270	6.86	0.230	5.84	0.300	7.62
	12.00	17.86	3.54	22.84	9.87	250.7	3.960	100.6	0.210	5.33	0.190	4.83	0.300	7.62
W10 254 x 146 (10 x 5 ¾)	30.00	44.80	8.85	57.10	10.47	265.9	5.819	147.8	0.510	12.90	0.300	7.62	0.300	7.62
	29.00	43.00	8.54	55.10	10.22	259.6	5.799	147.3	0.500	12.70	0.289	7.30	0.300	7.62
	26.00	28.69	7.61	49.10	10.33	262.4	5.770	146.6	0.440	11.10	0.260	6.60	0.300	7.62
	25.00	37.20	7.36	47.50	10.08	256.0	5.762	146.4	0.430	10.90	0.252	6.40	0.300	7.62
	22.00	32.74	6.49	41.87	10.17	258.3	5.750	146.0	0.360	9.14	0.240	6.10	0.300	7.62
	21.00	31.25	6.20	40.00	9.90	251.5	5.750	146.1	0.340	8.60	0.240	6.10	0.300	7.62
	16.00	24.00	4.82	31.10	9.96	253.0	5.709	145.0	0.252	6.40	0.197	5.00	0.300	7.60
W10 254 x 203 (10 x 8)	57.00	84.80	16.74	108.00	8.15	207.0	8.135	211.3	0.650	16.50	0.650	16.50	0.500	12.70
	45.00	66.97	13.30	85.87	10.10	256.5	8.020	203.7	0.620	15.70	0.350	8.89	0.500	12.70
	42.00	62.50	12.29	79.30	9.89	249.4	8.150	207.0	0.480	12.20	0.480	12.20	0.500	12.70
	39.00	58.04	11.50	74.19	9.92	252.0	7.985	202.8	0.530	13.40	0.315	8.00	0.500	12.70
	33.00	49.11	9.71	62.64	9.73	247.1	7.960	202.2	0.435	11.00	0.290	7.37	0.500	12.70
W10 254 x 254 (10 x 10)	112.00	167.00	32.90	212.30	11.36	288.5	10.415	264.5	1.250	31.75	0.755	19.18	0.500	12.70
	100.00	149.00	29.40	189.70	11.11	282.2	10.340	262.6	1.120	28.45	0.680	17.27	0.500	12.70
	89.00	132.00	26.20	168.90	10.88	276.4	10.275	261.0	0.998	25.30	0.615	15.60	0.500	12.70

1 BEAMS AND COLUMNS

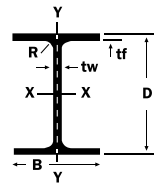
1.1 Universal Beams and Columns - Imperial Units



Section Number and Nominal Size	Moment of Inertia				Radius of Gyration				Modulus of Section			
	I_x		I_y		i_x		i_y		Z_x		Z_y	
mm (in.)	in. ⁴	cm ⁴	in. ⁴	cm ⁴	in.	cm	in.	cm	in. ³	cm ³	in. ³	cm ³
W4 102 x 102 (4 x 4)	14.14	587	4.80	200.00	1.72	4.36	1.000	2.55	6.71	110.00	2.45	40.10
	11.00	456	4.01	167.00	1.65	4.18	1.000	2.53	5.46	89.40	2.00	32.70
	11.30	470	3.86	161.00	1.72	4.37	1.000	2.54	5.46	89.50	1.90	31.10
W5 127 x 76 (5 x 3)	11.50	477	1.30	56.00	2.10	5.33	0.720	1.83	4.60	75.00	0.90	15.00
W5 127 x 127 (5 x 5)	26.30	1,090	9.13	380.00	2.17	5.51	1.200	3.25	10.2	167.00	3.63	59.50
	21.40	891	7.51	313.00	2.13	5.41	1.260	3.20	8.55	140.00	3.00	49.20
W6 152 x 76 (6 x 3)	20.20	841	1.45	60.20	2.46	6.24	0.660	1.67	6.65	109.00	0.98	16.00
	16.00	666	1.19	49.50	2.41	6.11	0.660	1.67	5.42	88.80	0.81	13.20
W6 152 x 89 (6 x 3 1/2)	20.10	838	2.20	90.00	2.52	6.40	0.830	2.10	6.70	110.00	1.20	20.00
W6 152 x 102 (6 x 4)	32.10	1,340	4.43	184.00	2.60	6.60	0.966	2.45	10.20	167.00	2.20	36.10
	22.10	920	2.99	124.00	2.49	6.32	0.918	2.33	7.31	120.00	1.50	24.60
	16.40	683	2.20	91.60	2.47	6.27	0.905	2.30	5.56	91.10	1.11	18.20
W6 152 x 152 (6 x 6)	53.40	2,220	17.10	712.00	2.70	6.86	1.520	3.86	16.70	274.00	5.61	91.90
	41.40	1,720	13.30	554.00	2.66	6.76	1.500	3.81	13.40	220.00	4.41	72.30
	30.30	1,263	9.70	403.00	2.56	6.51	1.450	3.68	10.10	165.70	3.20	52.95
	29.10	1,210	9.32	388.00	2.56	6.50	1.450	3.68	9.72	159.00	3.11	51.00
W7 178 x 89 (7 x 3 1/2)	36.70	1,529	2.93	122.00	2.90	7.36	0.820	2.08	10.43	171.00	1.65	27.10
	29.10	1,213	2.34	97.60	2.86	7.26	0.810	2.06	8.48	139.00	1.32	21.70
	25.50	1,060	2.05	85.40	2.83	7.20	0.800	2.04	7.51	123.00	1.16	19.00
W7 178 x 102 (7 x 4)	32.60	1,357	3.30	138.00	2.95	7.49	0.940	2.39	9.30	153.00	1.60	27.00
W8 203 x 102 (8 x 4)	50.20	2,091	3.90	163.00	3.34	8.49	0.930	2.37	12.60	206.00	2.00	32.00
	48.00	2,000	3.41	142.00	3.29	8.36	0.876	2.22	11.80	193.00	1.70	27.90
	39.60	1,650	2.73	114.00	3.21	8.16	0.843	2.14	9.91	162.00	1.37	22.40
	30.80	1,280	2.09	87.00	3.22	8.18	0.841	2.14	7.81	128.00	1.06	17.40
W8 203 x 133 (8 x 5 1/4)	75.30	3,130	9.77	407.00	3.49	8.86	1.260	3.20	18.20	298.00	3.71	60.80
	69.20	2,981	8.50	354.00	3.43	8.71	1.200	3.05	17.00	279.00	3.20	52.40
	61.90	2,580	7.97	332.00	3.43	8.71	1.230	3.12	15.20	249.00	3.04	49.80
	56.40	2,348	6.72	280.00	3.36	8.53	1.160	2.95	14.10	231.00	2.60	42.60
	50.60	2,105	6.61	275.00	1.22	8.56	1.220	3.09	12.70	208.00	2.52	41.30
	47.60	1,980	6.03	251.00	1.20	8.55	1.200	3.05	11.90	195.00	2.31	37.80
W8 203 x 165 (8 x 6 1/2)	98.00	4,080	21.70	903.00	3.45	8.76	1.620	4.11	24.30	398.00	6.63	109.00
	82.80	3,450	18.30	762.00	3.42	8.69	1.610	4.09	20.90	342.00	5.63	92.30
W8 203 x 203 (8 x 8)	272.00	11,300	88.60	3,690.00	3.72	9.45	2.120	5.38	60.40	990.00	21.40	351.00
	228.00	9,480	75.10	3,130.00	3.65	9.27	2.100	5.33	52.00	852.00	18.30	300.00
	184.00	7,660	60.90	2,530.00	3.61	9.17	2.080	5.28	43.30	710.00	15.00	246.00
	146.00	6,080	49.10	2,040.00	3.53	8.97	2.040	5.18	35.50	582.00	12.20	200.00
	127.00	5,290	42.60	1,770.00	3.51	8.92	2.030	5.16	31.20	511.00	10.60	174.00
	110.00	4,580	37.10	1,540.00	3.47	8.81	2.020	5.13	27.50	451.00	9.27	152.00
	96.30	4,010	4.29	176.00	4.14	10.50	0.874	2.22	18.80	308.00	2.14	35.10
W10 254 x 102 (10 x 4)	81.90	3,410	3.56	148.00	4.05	10.30	0.845	2.15	16.20	265.00	1.78	29.20
	68.90	2,870	2.89	120.00	3.95	10.00	0.810	2.06	13.80	226.00	1.45	23.80
	53.80	2,240	2.18	90.70	3.90	9.91	0.785	1.99	10.90	179.00	1.10	18.00
	170.00	7,080	16.80	699.00	4.38	11.10	1.380	3.51	32.50	533.00	5.76	94.40
W10 254 x 146 (10 x 5 3/4)	157.00	6,548	15.20	633.00	4.29	10.90	1.340	3.40	30.80	505.00	5.20	85.20
	144.00	5,990	14.10	587.00	4.35	11.00	1.360	3.45	27.90	457.00	4.89	80.10
	133.00	5,545	12.70	529.00	4.26	10.80	1.310	3.33	26.40	433.00	4.40	72.10
	118.00	4,910	11.40	471.00	4.27	10.80	1.330	3.38	23.20	380.00	3.97	65.10
	106.00	4,425	9.70	404.00	4.14	10.50	1.250	3.18	21.50	352.00	3.40	55.70
	83.50	3,477	7.83	326.00	4.17	10.60	1.270	3.23	16.78	275.00	2.74	44.90
W10 254 x 203 (10 x 8)	286.50	11,930	62.61	2,606.00	4.13	10.50	1.970	4.91	56.44	905.00	15.07	247.00
	248.00	10,300	53.40	2,220.00	4.32	11.00	2.010	5.11	49.10	805.00	13.30	218.00
	202.50	8,430	43.41	1,807.00	4.06	10.30	1.880	4.77	41.25	676.00	10.68	175.00
	209.00	8,700	45.00	1,870.00	4.27	10.80	1.980	5.03	42.10	690.00	11.30	185.00
	170.00	7,080	36.60	1,520.00	4.19	10.60	1.940	4.93	35.00	574.00	9.20	151.00
W10 254 x 254 (10 x 10)	716.00	29,800	236.00	9,820.00	4.66	11.80	2.680	6.81	126.00	2,060.00	45.30	742.00
	625.00	26,000	207.00	8,620.00	4.61	11.70	2.650	6.73	112.00	1,840.00	40.00	655.00
	542.00	22,580	181.00	7,518.00	4.55	11.60	2.630	6.68	99.70	1,634.00	35.20	577.00

1 BEAMS AND COLUMNS

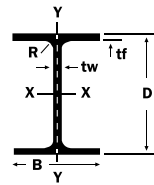
1.1 Universal Beams and Columns - Imperial Units



Section Number and Nominal Size	Unit Weight (M)		Section Area (A)		Section Depth (D)		Flange				Web Thickness (tw)		Corner Radius (r)	
							Width (B)		Thickness (T)					
mm (in.)	lb/ft	kg/m	in. ²	cm ²	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm
W10 254 x 254 (10 x 10)	88.00	131.00	25.9	167.10	10.84	275.30	10.265	260.70	0.990	25.15	0.605	15.37	0.50	12.70
	77.00	115.00	22.6	145.80	10.60	269.20	10.190	258.80	0.870	22.10	0.530	13.46	0.50	12.70
	72.00	107.00	21.2	136.60	10.50	266.70	10.170	258.30	0.808	20.50	0.510	13.00	0.50	12.70
	68.00	101.20	20.00	129.00	10.40	264.20	10.130	257.30	0.770	19.56	0.470	11.94	0.50	12.70
	60.00	89.29	17.60	113.50	10.22	259.60	10.080	256.00	0.680	17.27	0.420	10.67	0.50	12.70
	54.00	80.36	15.80	101.90	10.09	256.30	10.030	254.80	0.615	15.60	0.370	9.40	0.50	12.70
	49.00	73.00	14.40	92.90	9.98	253.50	10.000	254.00	0.560	14.20	0.340	8.64	0.50	12.70
W12 305 x 102 (12 x 4)	22.00	33.00	6.48	41.81	12.31	312.70	4.030	102.40	0.425	10.80	0.260	6.60	0.30	7.62
	19.00	28.28	5.57	35.94	12.16	308.90	4.005	101.70	0.350	8.89	0.235	5.97	0.30	7.62
	16.50	25.00	4.87	31.40	12.00	304.80	4.000	101.60	0.269	6.80	0.230	5.80	0.30	7.62
	16.00	23.81	4.71	30.39	11.99	304.50	3.990	101.30	0.265	6.73	0.220	5.59	0.30	7.62
	14.00	20.83	4.16	26.84	11.91	302.50	3.970	100.80	0.225	5.71	0.200	5.08	0.30	7.62
W12 305 x 127 (12 x 5)	32.00	48.00	9.42	60.80	12.22	310.40	4.930	125.20	0.551	14.00	0.350	8.90	0.30	7.62
	28.00	42.00	8.25	53.20	12.07	306.60	4.893	124.30	0.476	12.10	0.313	8.00	0.30	7.62
	25.00	37.00	7.36	47.50	11.96	303.80	4.864	123.50	0.421	10.70	0.284	7.20	0.30	7.62
W12 305 x 165 (12 x 6 ½)	36.00	54.00	10.60	68.40	12.24	310.90	6.565	166.80	0.540	13.70	0.305	7.70	0.30	7.62
	35.00	52.09	10.30	66.45	12.50	317.50	6.560	166.60	0.520	13.20	0.300	7.62	0.30	7.62
	31.00	46.00	9.13	58.90	12.09	307.10	6.525	165.70	0.465	11.80	0.265	6.70	0.30	7.62
	30.00	44.64	8.79	56.71	12.34	313.40	6.520	165.60	0.440	11.10	0.260	6.60	0.30	7.62
	27.00	40.00	7.98	51.50	11.96	303.80	6.500	165.10	0.400	10.20	0.240	6.10	0.30	7.62
	26.00	38.70	7.65	49.35	12.22	310.40	6.490	164.80	0.380	9.65	0.230	5.84	0.30	7.62
	21.00	31.00	6.11	39.40	12.05	306.00	6.460	164.00	0.290	7.400	0.196	5.00	0.30	7.62
W12 305 x 203 (12 x 8)	50.00	74.41	14.70	94.84	12.19	309.60	8.080	205.20	0.640	16.200	0.370	9.40	0.60	15.20
	45.00	66.97	13.20	85.16	12.06	306.30	8.045	204.30	0.575	14.60	0.335	8.51	0.60	15.20
	40.00	59.53	11.80	76.13	11.94	303.30	8.005	203.30	0.515	13.00	0.295	7.49	0.60	15.20
W12 305 x 254 (12 x 10)	58.00	86.31	17.00	109.70	12.19	309.60	10.010	254.30	0.640	16.20	0.360	9.14	0.60	15.20
	53.00	78.87	15.60	100.60	12.06	306.30	9.995	253.90	0.575	14.60	0.345	8.76	0.60	15.20
W12 305 x 305 (12 x 12)	336.00	500.00	98.80	637.40	16.82	427.20	13.385	340.00	2.955	75.06	1.775	45.08	0.60	15.20
	305.00	453.90	89.60	578.10	16.32	414.50	13.235	336.20	2.705	68.71	1.625	41.27	0.60	15.20
	278.00	413.70	81.90	528.40	15.85	402.60	13.140	333.80	2.470	62.74	1.530	38.86	0.60	15.20
	242.00	375.00	74.00	477.40	15.41	391.40	13.005	330.30	2.250	57.15	1.395	35.43	0.60	15.20
	230.00	342.30	67.70	436.80	15.05	382.30	12.895	327.50	2.070	52.58	1.285	32.64	0.60	15.20
	210.00	312.50	61.80	398.70	14.71	373.60	12.790	324.90	1.900	48.26	1.180	29.97	0.60	15.20
	190.00	283.00	55.80	360.00	14.38	365.30	12.670	321.80	1.735	44.07	1.060	26.92	0.60	15.20
	170.00	253.00	50.00	322.60	14.03	356.40	12.570	319.30	1.560	39.62	0.960	24.38	0.60	15.20
	161.00	240.00	47.40	305.60	13.88	352.60	12.515	317.90	1.486	37.70	0.905	23.00	0.60	15.20
	152.00	226.20	44.70	288.40	13.71	348.20	12.480	317.00	1.400	35.56	0.870	22.10	0.60	15.20
	136.00	202.40	39.90	257.40	13.41	340.60	12.400	315.00	1.250	31.75	0.790	20.07	0.60	15.20
	133.00	198.00	39.10	252.30	13.38	339.90	12.365	314.10	1.235	31.40	0.755	19.20	0.60	15.20
	120.00	179.00	34.30	227.70	13.12	333.20	12.320	312.90	1.100	28.07	0.710	18.03	0.60	15.20
	106.00	158.00	31.20	201.30	12.89	327.40	12.220	310.40	0.990	24.14	0.610	15.48	0.60	15.20
	96.00	143.00	28.20	182.00	12.71	322.80	12.160	308.90	0.900	22.86	0.550	13.97	0.60	15.20
	92.00	137.00	27.10	174.60	12.62	320.40	12.155	308.70	0.856	21.70	0.545	13.80	0.60	15.20
	87.00	129.50	25.60	165.20	12.53	318.30	12.125	308.00	0.810	20.57	0.515	13.08	0.60	15.20
	79.00	118.00	23.20	149.70	12.38	314.50	12.080	306.80	0.735	18.67	0.470	11.94	0.60	15.20
	72.00	107.10	21.20	136.10	12.25	311.10	12.040	305.80	0.670	17.02	0.430	10.92	0.60	15.20
	65.00	97.00	19.10	123.20	12.12	307.80	12.000	304.80	0.605	15.30	0.390	9.91	0.60	15.20
W14 356 x 127 (14 x 5)	26.00	39.00	7.69	49.61	13.91	353.30	5.025	127.60	0.420	10.60	0.255	6.48	0.40	10.20
	22.00	33.00	6.49	41.87	13.74	349.00	5.000	127.00	0.335	8.51	0.230	5.84	0.40	10.20
W14 356 x 171 (14 x 6 ¾)	45.00	67.00	13.20	85.40	14.33	364.00	6.820	173.20	0.618	15.70	0.357	9.10	0.40	10.20
	38.00	57.00	11.20	72.26	14.10	358.10	6.770	172.00	0.515	13.00	0.310	7.87	0.40	10.20
	34.00	51.00	10.00	64.52	13.98	355.10	6.745	171.30	0.455	11.50	0.285	7.24	0.40	10.20
	30.00	45.00	8.85	57.10	13.84	351.50	6.730	170.90	0.385	9.78	0.270	6.86	0.40	10.20

1 BEAMS AND COLUMNS

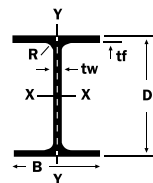
1.1 Universal Beams and Columns - Imperial Units



Section Number and Nominal Size	Moment of Inertia				Radius of Gyration				Modulus of Section			
	I_x		I_y		i_x		i_y		Z_x		Z_y	
mm (in.)	in. ⁴	cm ⁴	in. ⁴	cm ⁴	in.	cm	in.	cm	in. ³	cm ³	in. ³	cm ³
W10 254 x 254 (10 x 10)	534.00	22,200	179.00	7,450.00	4.54	11.50	2.630	6.68	98.50	1,610	34.80	570.00
	455.00	18,900	154.00	6,410.00	4.49	11.40	2.600	6.60	85.90	1,410	30.10	493.00
	421.00	17,510	142.00	5,903.00	4.46	11.30	2.590	6.58	80.10	1,312	27.90	457.00
	394.00	16,400	134.00	5,580.00	4.44	11.30	2.580	6.55	75.70	1,240	26.40	433.00
	341.00	14,200	116.00	4,830.00	4.39	11.20	2.570	6.53	66.70	1,090	23.00	377.00
	303.00	12,600	103.00	4,290.00	4.37	11.10	2.560	6.50	60.00	983	20.60	338.00
	272.00	11,300	93.40	3,890.00	4.35	11.00	2.540	6.45	54.60	895	18.70	306.00
W12 305 x 102 (12 x 4)	156.00	6,490	4.66	194.00	4.91	12.50	0.848	2.15	25.40	416	2.31	37.90
	130.00	5,410	3.76	156.00	4.82	12.20	0.822	2.09	21.30	349	1.88	30.80
	105.40	4,387	2.90	120.00	4.65	11.80	0.770	1.96	17.60	288	1.40	23.60
	103.00	4,290	2.82	117.00	4.67	11.90	0.773	1.96	17.10	280	1.41	23.10
	88.60	3,690	2.36	98.20	4.62	11.70	0.753	1.91	14.90	244	1.19	19.50
W12 305 x 127 (12 x 5)	228.30	9,504	11.10	460.00	4.92	12.50	1.080	2.75	37.40	612	4.50	73.50
	195.60	8,143	9.30	388.00	4.87	12.40	1.060	2.70	32.40	531	3.80	62.50
	172.00	7,162	8.10	337.00	4.83	12.30	1.050	2.67	28.80	472	3.30	54.60
W12 305 x 165 (12 x 6 1/2)	285.00	11,900	24.50	1,020.00	5.25	13.30	1.540	3.91	45.60	747	7.47	122.00
	280.80	11,690	23.70	986.60	5.15	13.10	1.500	3.81	45.90	752	7.20	118.00
	238.40	9,924	19.80	824.00	5.11	12.90	1.470	3.73	39.40	646	6.10	100.00
	238.00	9,910	20.30	845.00	5.21	13.20	1.520	3.86	38.60	633	6.24	102.00
	204.10	8,496	16.60	691.00	5.06	12.80	1.440	3.66	34.10	559	5.10	83.60
	204.00	8,490	17.30	720.00	5.17	13.10	1.510	3.84	33.40	547	5.34	87.50
	157.50	6,554	13.10	544.00	5.08	12.90	1.460	3.72	26.10	428	4.05	66.40
W12 305 x 203 (12 x 8)	394.00	16,400	56.30	2,340.00	5.18	13.20	1.960	4.98	64.70	1,060	13.90	228.00
	350.00	14,600	50.00	2,080.00	5.15	13.10	1.940	4.93	58.10	952	12.40	203.00
	310.00	12,900	44.10	1,840.00	5.13	13.00	1.940	4.93	51.90	850	11.00	180.00
W12 305 x 254 (12 x 10)	475.00	19,800	107.00	4,450.00	5.28	13.40	2.510	6.38	78.00	1,280	21.40	351.00
	425.00	17,700	95.80	3,990.00	5.23	13.30	2.480	6.30	70.60	1,160	19.20	315.00
W12 305 x 305 (12 x 12)	4,060.00	16,900	1,190.00	49,500.00	6.41	16.30	3.470	8.81	483.00	7,910	177.00	2,900.00
	3,550.00	148,000	1,050.00	43,700.00	6.29	16.00	3.420	8.69	435.00	7,130	159.00	2,610.00
	3,110.00	129,000	937.00	39,000.00	6.16	15.60	3.380	8.59	393.00	6,440	143.00	2,340.00
	2,720.00	113,000	828.00	34,500.00	6.06	15.40	3.340	8.48	353.00	5,780	127.00	2,080.00
	2,420.00	101,000	742.00	30,900.00	5.97	15.20	3.310	8.41	321.00	5,260	115.00	1,880.00
	2,140.00	89,100	664.00	27,600.00	5.89	15.00	3.280	8.33	292.00	4,780	104.00	1,700.00
	1,890.00	78,700	589.00	24,500.00	5.82	14.80	3.250	8.25	263.00	4,310	93.00	1,520.00
	1,542.00	64,180	486.00	20,240.00	5.70	14.50	3.200	8.13	222.00	3,641	77.10	1,273.00
	1,540.00	68,700	517.00	21,500.00	5.74	14.60	3.220	8.18	235.00	3,850	82.30	1,350.00
	1,430.00	59,500	454.00	18,900.00	5.66	14.40	3.190	8.10	209.00	3,420	72.80	1,190.00
	1,240.00	51,600	398.00	16,600.00	5.58	14.20	3.160	8.03	186.00	3,050	64.20	1,050.00
	1,221.00	50,840	390.00	16,230.00	5.59	14.20	3.160	8.03	183.00	2,991	63.10	1,034.00
	1,070.00	44,500	345.00	14,400.00	5.51	14.00	3.130	7.95	163.00	2,670	56.00	918.00
	933.00	38,800	301.00	12,500.00	5.47	13.90	3.110	7.90	145.00	2,380	49.30	808.00
	833.00	34,700	270.00	11,200.00	5.44	13.80	3.090	7.85	131.00	2,150	44.40	728.00
	789.00	32,840	256.00	10,670.00	5.40	13.70	3.080	7.82	125.00	2,048	42.20	691.00
	740.00	30,800	241.00	10,000.00	5.38	13.70	3.070	7.80	118.00	1,930	39.70	651.00
	662.00	27,600	216.00	8,990.00	5.34	13.60	3.050	7.75	107.00	1,750	35.80	587.00
	597.00	24,800	195.00	8,120.00	5.31	13.50	3.040	7.72	97.40	1,600	32.40	531.00
	533.00	22,200	174.00	7,240.00	5.28	13.40	3.020	7.67	87.90	1,440	29.10	477.00
W14 356 x 127 (14 x 5)	245.00	10,200	8.91	371.00	5.65	14.40	1.080	2.74	35.30	578	3.55	58.20
	199.00	8,280	7.00	291.00	5.54	14.10	1.040	2.64	29.00	475	2.80	45.90
W14 356 x 171 (14 x 6 3/4)	469.00	19,522	32.70	1,362.00	5.95	15.10	1.570	3.99	54.40	1,073	9.60	157.00
	385.00	16,000	26.70	1,110.00	5.88	14.90	1.550	3.94	54.60	895	7.88	129.00
	340.00	14,200	23.30	970.00	5.83	14.80	1.530	3.89	48.60	796	6.91	113.00
	291.00	12,100	19.60	816.00	5.73	14.60	1.490	3.78	42.00	688	5.82	95.40

1 BEAMS AND COLUMNS

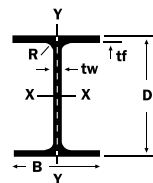
1.1 Universal Beams and Columns - Imperial Units



Section Number and Nominal Size	Unit Weight (M)		Section Area (A)		Section Depth (D)		Flange				Web Thickness (tw)		Corner Radius (r)	
							Width (B)		Thickness (T)					
mm (in.)	lb/ft	kg/m	in. ²	cm ²	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm
W14 356 x 203 (14 x 8)	53	78.87	15.60	100.60	13.92	353.60	8.060	204.70	0.660	16.70	0.370	9.40	0.60	15.2
	48	71.43	14.10	90.97	13.78	350.30	8.030	204.00	0.595	15.10	0.340	8.64	0.60	15.2
	43	63.99	12.60	81.29	13.66	347.00	7.995	203.10	0.530	13.40	0.305	7.75	0.60	15.2
W14 356 x 254 (14 x 10)	82	122.00	24.10	155.50	14.31	363.50	10.130	257.30	0.855	21.72	0.510	12.95	0.60	15.2
	74	110.10	21.80	140.60	14.17	359.90	10.070	255.80	0.785	19.94	0.450	11.43	0.60	15.2
	68	101.20	20.00	129.00	14.04	356.60	10.035	254.90	0.723	18.36	0.415	10.54	0.60	15.2
	61	90.78	17.90	115.50	13.89	352.80	9.995	253.90	0.645	16.30	0.375	9.52	0.60	15.2
W14 356 x 368 (14 x 14 ½)	136	202.00	40.00	257.90	14.75	374.70	14.740	374.40	1.063	27.00	0.660	16.80	0.60	15.2
	132	196.40	38.80	250.30	14.66	372.40	14.725	374.00	1.030	26.16	0.645	16.38	0.60	15.2
	120	179.00	35.30	227.70	14.48	367.80	14.670	372.60	0.940	23.88	0.590	14.99	0.60	15.2
	119	177.00	35.00	225.70	14.50	368.30	14.550	372.10	0.938	23.80	0.570	14.50	0.60	15.2
	109	162.20	32.00	206.50	14.32	363.70	14.605	371.00	0.860	21.84	0.525	13.33	0.60	15.2
	103	153.00	30.30	195.20	14.25	362.00	14.575	370.20	0.813	20.70	0.495	12.60	0.60	15.2
	99	147.30	29.10	187.70	14.16	359.70	14.565	370.00	0.780	19.81	0.485	12.32	0.60	15.2
	90	134.00	26.50	171.00	14.02	356.10	14.520	368.80	0.710	18.03	0.440	11.18	0.60	15.2
	87	129.00	25.60	164.90	14.00	355.60	14.500	368.30	0.688	17.50	0.420	10.70	0.60	15.2
	W14 356 x 406 (14 x 16)	730	1,086.00	215.00	1,387.00	22.42	569.50	17.890	454.40	4.910	124.70	3.070	77.98	0.60
665		989.60	196.00	1,265.00	21.64	549.70	17.650	448.30	4.520	114.80	2.830	71.88	0.60	15.2
605		900.30	178.00	1,148.00	20.92	531.40	17.415	442.30	4.160	105.60	2.595	65.91	0.60	15.2
550		818.50	162.00	1,045.00	20.24	514.10	17.200	436.90	3.820	97.03	2.380	60.45	0.60	15.2
500		744.10	147.00	948.40	19.60	497.80	17.010	432.10	3.500	88.90	2.190	55.63	0.60	15.2
455		677.10	134.00	864.50	19.02	483.10	16.835	427.60	3.210	81.53	2.015	51.18	0.60	15.2
426		634.00	125.00	806.40	18.67	474.20	16.695	424.10	3.035	77.09	1.875	47.62	0.60	15.2
398		592.30	117.00	754.80	18.29	464.60	16.590	421.40	2.845	72.26	1.770	44.96	0.60	15.2
370		551.00	109.00	703.20	17.92	455.20	16.475	418.50	2.660	67.56	1.655	42.04	0.60	15.2
342		509.00	101.00	651.60	17.54	445.50	16.360	415.50	2.470	62.74	1.540	39.12	0.60	15.2
314		467.00	92.30	595.50	17.19	436.60	16.235	412.40	2.283	58.00	1.415	35.90	0.60	15.2
311		463.00	91.40	589.70	17.12	434.80	16.230	412.20	2.260	57.40	1.410	35.81	0.60	15.2
283		421.10	83.30	537.40	16.74	458.20	16.110	409.20	2.070	52.58	1.290	32.77	0.60	15.2
264		393.00	77.60	500.90	16.50	419.10	16.025	407.00	1.938	49.20	1.205	30.60	0.60	15.2
257		382.50	75.60	487.70	16.38	416.10	15.995	406.30	1.890	48.01	1.175	29.84	0.60	15.2
233		347.00	68.50	441.90	16.04	407.40	15.890	403.60	1.720	43.69	1.070	27.18	0.60	15.2
228		340.00	67.10	432.70	16.00	406.40	15.865	403.00	1.688	42.90	1.045	26.50	0.60	15.2
211		314.00	62.00	400.00	15.72	399.90	15.800	401.30	1.560	39.62	0.980	24.89	0.60	15.2
193		287.20	56.80	366.40	15.48	393.20	15.710	399.00	1.440	36.58	0.890	22.61	0.60	15.2
176		262.00	51.80	334.20	15.22	386.60	15.650	397.50	1.310	33.27	0.830	21.08	0.60	15.2
159		237.00	46.70	301.30	14.98	380.50	15.565	395.40	1.190	30.23	0.745	18.92	0.60	15.2
158		235.00	46.50	299.80	15.00	381.00	15.550	395.00	1.188	30.20	0.730	18.50	0.60	15.2
145		216.00	42.70	275.50	14.78	375.40	15.500	393.70	1.090	27.69	0.680	17.27	0.60	15.2
118		175.60	34.70	224.00	14.17	360.00	15.590	396.00	0.787	20.00	0.780	20.00	0.59	15.0
W16 406 x 140 (16 x 5 ½)		31	46.13	9.12	58.84	15.88	403.40	5.525	140.30	0.440	11.10	0.275	6.98	0.40
	26	39.00	7.68	49.55	15.69	398.50	5.500	139.70	0.345	8.76	0.250	6.35	0.40	10.2
W16 406 x 178 (16 x 7)	57	85.00	16.80	108.40	16.43	417.30	7.120	180.80	0.715	18.16	0.430	10.92	0.40	10.2
	50	74.41	14.70	94.84	16.26	413.00	7.070	179.60	0.630	16.00	0.380	9.65	0.40	10.2
	45	67.00	13.30	85.81	16.13	409.70	7.035	178.70	0.565	14.30	0.345	8.76	0.40	10.2
	40	60.00	11.80	76.31	16.01	406.70	6.995	177.70	0.505	12.80	0.305	7.75	0.40	10.2
	36	54.00	10.60	68.39	15.86	402.80	6.985	177.40	0.430	10.90	0.295	7.49	0.40	10.2
W16 406 x 260 (16 x 10 ¼)	100	148.80	29.40	189.70	16.97	431.00	10.425	264.80	0.985	25.02	0.585	14.86	0.40	10.2
	89	132.40	26.20	169.00	16.75	425.40	10.365	263.30	0.875	22.22	0.525	13.33	0.40	10.2
	77	114.60	22.60	145.80	16.52	419.60	10.295	261.50	0.760	19.30	0.455	11.56	0.40	10.2
	67	99.71	19.70	127.10	16.33	414.80	10.235	260.00	0.665	16.89	0.395	10.03	0.40	10.2

1 BEAMS AND COLUMNS

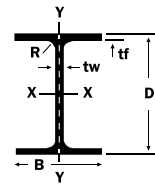
1.1 Universal Beams and Columns - Imperial Units



Section Number and Nominal Size	Moment of Inertia				Radius of Gyration				Modulus of Section			
	I_x		I_y		i_x		i_y		Z_x		Z_y	
mm (in.)	in. ⁴	cm ⁴	in. ⁴	cm ⁴	in.	cm	in.	cm	in. ³	cm ³	in. ³	cm ³
W14 356 x 203 (14 x 8)	542	22,600	57.70	2,400	5.89	15.0	1.92	4.88	77.8	1,270	14.30	234.0
	485	20,200	51.40	2,140	5.85	14.9	1.91	4.85	70.3	1,150	12.80	210.0
	428	17,800	45.20	1,880	5.82	14.8	1.89	4.80	62.7	1,030	11.30	185.0
W14 356 x 254 (14 x 10)	882	36,700	148.00	6,160	6.05	15.4	2.48	6.30	123.0	2,020	29.30	480.0
	796	33,100	134.00	5,580	6.04	15.3	2.48	6.30	112.0	1,840	26.60	436.0
	725	30,200	122.00	5,080	6.01	15.3	2.47	6.27	103.0	1,690	24.30	398.0
	640	26,600	107.00	4,450	5.98	15.2	2.45	6.22	92.2	1,510	21.50	352.0
W14 356 x 368 (14 x 14 1/2)	1,593	63,310	568.00	23,630	6.31	16.0	3.77	9.58	216.0	3,540	77.00	1,262.0
	1,530	63,700	548.00	22,800	6.28	16.0	3.76	9.55	209.0	3,420	74.50	1,220.0
	1,380	57,400	495.00	20,600	6.24	15.8	3.74	9.50	190.0	3,110	67.50	1,110.0
	1,373	57,160	492.00	20,470	6.26	15.9	3.75	9.52	189.0	3,104	67.10	1,099.0
	1,240	51,600	447.00	18,600	6.22	15.8	3.73	9.47	173.0	2,830	61.20	1,000.0
	1,166	48,530	420.00	17,470	6.21	15.8	3.72	9.45	164.0	2,681	57.60	944.0
	1,110	46,200	402.00	16,700	6.17	15.7	3.71	9.42	157.0	2,570	55.20	905.0
	999	41,600	362.00	15,100	6.14	15.6	3.70	9.40	143.0	2,340	49.90	818.0
W14 356 x 406 (14 x 16)	966	40,250	350.00	14,560	6.15	15.6	3.70	9.40	1,380.0	2,263	48.20	790.0
	14,300	595,000	4,720.00	196,000	8.17	20.8	4.69	11.90	1,280.0	21,000	627.00	8,640.0
	12,400	516,000	4,170.00	174,000	7.98	20.3	4.62	11.70	1,150.0	18,800	472.00	7,730.0
	10,800	450,000	3,680.00	153,000	7.80	19.8	4.55	11.60	1,040.0	17,000	423.00	6,930.0
	9,430	392,000	3,250.00	135,000	7.63	19.4	4.49	11.40	931.0	15,300	378.00	6,190.0
	8,210	342,000	2,880.00	120,000	7.48	19.0	4.43	11.30	838.0	13,700	339.00	5,560.0
	7,190	299,000	2,560.00	107,000	7.33	18.6	4.38	11.10	756.0	12,400	304.00	4,980.0
	6,600	275,000	2,360.00	98,200	7.26	18.4	4.34	11.00	706.0	11,600	283.00	4,640.0
	6,000	250,000	2,170.00	90,300	7.16	18.2	4.31	10.90	656.0	10,700	262.00	4,290.0
	5,440	226,000	1,990.00	82,800	7.07	18.0	4.27	10.80	607.0	9,950	241.00	3,950.0
	4,900	204,000	1,810.00	75,300	6.98	17.7	4.24	10.80	559.0	9,160	221.00	3,620.0
	4,399	183,100	1,631.00	67,910	6.90	17.5	4.20	10.70	512.0	8,390	201.00	3,294.0
	4,330	180,000	1,610.00	67,000	6.88	17.5	4.20	10.70	506.0	8,290	199.00	3,260.0
	3,840	160,000	1,440.00	59,900	6.79	17.2	4.17	10.60	459.0	7,520	179.00	2,930.0
	3,526	146,800	1,331.00	55,420	6.74	17.1	4.14	10.50	427.0	7,005	166.00	2,772.0
	3,400	142,000	1,290.00	53,700	6.71	17.0	4.13	10.50	415.0	6,800	161.00	2,640.0
	3,010	125,000	1,150.00	47,900	6.63	16.8	4.10	10.40	375.0	6,150	145.00	2,380.0
	2,942	122,500	1,124.00	46,820	6.62	16.8	4.10	10.40	368.0	6,028	141.00	2,324.0
	2,660	111,000	1,030.00	42,900	6.55	16.6	4.07	10.30	338.0	5,540	130.00	2,130.0
	2,400	99,900	931.00	38,800	6.50	16.5	4.05	10.30	310.0	5,080	119.00	1,950.0
	2,140	89,100	838.00	34,900	6.43	16.3	4.02	10.20	281.0	4,600	107.00	1,750.0
	1,900	79,100	748.00	31,100	6.38	16.2	4.00	10.20	254.0	4,160	96.20	1,580.0
	1,900	79,100	745.00	31,010	6.40	16.2	4.00	10.20	253.0	4,153	95.80	1,570.0
	1,710	71,200	677.00	28,200	6.33	16.1	3.98	10.10	232.0	3,800	87.30	1,430.0
	1,244	51,770	498.00	20,730	5.98	15.2	3.78	9.61	175.0	2,876	63.90	1,047.0
W16 406 x 140 (16 x 5 1/2)	375	15,600	12.40	515	6.26	16.3	1.17	2.97	47.2	773	4.49	73.6
	301	12,500	9.59	399	6.26	15.9	1.12	2.84	38.4	629	3.49	57.2
W16 406 x 178 (16 x 7)	758	31,600	43.10	1,790	6.72	17.1	1.60	4.06	92.2	1,510	12.10	198.0
	659	27,400	37.20	1,550	6.68	17.0	1.59	4.04	81.0	1,330	10.50	172.0
	586	24,400	32.80	1,370	6.65	16.9	1.57	3.99	72.7	1,190	9.34	153.0
	518	21,600	28.90	1,200	6.63	16.8	1.57	3.99	64.7	1,060	8.25	135.0
W16 406 x 260 (16 x 10 1/4)	448	18,600	24.50	1,020	6.51	16.5	1.52	3.86	56.6	926	7.00	115.0
	1,490	62,000	186.00	7,740	7.10	18.0	2.51	6.38	175.0	2,870	35.70	585.0
	1,300	54,400	163.00	6,780	7.05	17.9	2.49	6.32	155.0	2,540	31.40	515.0
	1,100	46,200	138.00	5,740	7.00	17.8	2.47	6.27	134.0	2,200	26.90	441.0
	954	39,700	119.00	4,956	6.96	17.7	2.46	6.25	117.0	1,920	23.20	380.0

1 BEAMS AND COLUMNS

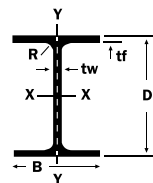
1.1 Universal Beams and Columns - Imperial Units



Section Number and Nominal Size	Unit Weight (M)		Section Area (A)		Section Depth (D)		Flange				Web Thickness (tw)		Corner Radius (r)	
							Width (B)		Thickness (T)					
mm (in.)	lb/ft	kg/m	in. ²	cm ²	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm
W18 457 X 152 (18 X 6)	55	82.00	16.2	104.50	18.31	465.1	6.042	153.5	0.744	18.90	0.420	10.70	0.40	10.2
	50	74.00	14.7	95.00	18.16	461.3	6.011	152.7	0.669	17.00	0.389	9.90	0.40	10.2
	46	68.46	13.5	87.10	18.06	458.7	6.060	153.9	0.605	15.30	0.360	9.14	0.40	10.2
	45	67.00	13.2	85.40	18.00	457.2	5.982	151.9	0.589	15.00	0.360	9.10	0.40	10.2
	40	60.00	11.8	76.13	17.90	454.7	6.015	152.8	0.525	13.30	0.315	8.00	0.40	10.2
W18 457 X 191 (18 X 7 ½)	35	52.09	10.3	66.45	17.70	449.6	6.000	152.4	0.425	10.80	0.300	7.62	0.40	10.2
	71	106.00	20.8	134.20	18.47	469.1	7.635	193.9	0.810	20.57	0.495	12.57	0.40	10.2
	66	98.00	19.4	125.30	18.40	467.4	7.592	192.8	0.770	19.60	0.450	11.40	0.40	10.2
	65	97.00	19.1	123.20	18.35	466.1	7.590	192.8	0.750	19.05	0.450	11.43	0.40	10.2
	60	89.29	17.6	113.50	18.24	463.3	7.555	191.9	0.695	17.65	0.415	10.54	0.40	10.2
	55	82.00	16.2	104.50	18.11	460.0	7.530	191.3	0.630	16.00	0.390	9.91	0.40	10.2
	50	74.41	14.7	94.84	17.99	456.9	7.495	190.4	0.570	14.40	0.355	9.02	0.40	10.2
W18 457 X 279 (18 X 11)	45	67.00	13.2	85.40	17.86	453.6	7.476	189.9	0.500	12.70	0.334	8.50	0.40	10.2
	41	61.00	11.8	76.00	17.72	450.0	7.441	189.0	0.425	10.80	0.319	8.10	0.40	10.2
	175	260.00	51.3	331.00	20.04	509.0	11.378	289.0	1.591	40.40	0.890	22.60	0.40	10.2
	119	177.10	35.1	226.50	18.97	481.8	11.265	286.1	1.060	26.92	0.655	16.64	0.40	10.2
	106	157.70	31.1	200.60	18.73	475.7	11.200	284.5	0.940	23.88	0.590	14.99	0.40	10.2
W21 533 X 165 (21 X 6 ½)	97	144.40	28.5	183.90	18.59	472.2	11.145	283.1	0.870	22.10	0.535	13.59	0.40	10.2
	86	128.00	25.3	163.20	18.39	467.1	11.090	281.7	0.770	19.56	0.480	12.19	0.40	10.2
	76	113.10	22.3	143.90	18.21	462.5	11.035	280.3	0.680	17.27	0.425	10.80	0.40	10.2
W21 533 X 210 (21 X 8 ¼)	57	85.00	16.7	107.70	21.06	534.9	6.555	166.5	0.650	16.51	0.405	10.29	0.50	12.7
	50	74.41	14.7	94.84	20.83	529.1	6.530	165.9	0.583	13.50	0.380	9.65	0.50	12.7
	44	66.00	13.0	83.87	20.66	524.8	6.500	165.1	0.450	11.40	0.350	8.89	0.50	12.7
	93	138.40	27.3	176.10	21.62	549.1	8.420	213.9	0.930	23.62	0.580	14.73	0.50	12.7
	83	123.50	24.3	156.80	21.43	544.3	8.355	212.2	0.835	21.21	0.515	13.08	0.50	12.7
	82	122.00	24.1	155.80	21.44	544.6	8.342	211.9	0.840	21.30	0.502	12.80	0.50	12.7
	73	109.00	21.5	138.70	21.24	539.5	8.295	210.7	0.740	18.80	0.455	11.56	0.50	12.7
	68	101.20	20.0	129.00	21.13	536.7	8.270	210.1	0.685	17.40	0.430	10.92	0.50	12.7
W21 533 X 311 (21 X 12 ¼)	62	92.27	18.3	118.10	20.99	533.1	8.240	209.3	0.615	15.62	0.400	10.16	0.50	12.7
	55	82.00	16.2	104.40	20.80	528.3	8.216	208.7	0.520	13.20	0.376	9.60	0.50	12.7
	48	71.40	14.1	91.00	20.60	523.2	8.142	206.8	0.429	10.90	0.350	8.90	0.50	12.7
	147	218.80	43.2	278.70	22.06	560.3	12.510	317.8	1.150	29.21	0.720	18.29	0.50	12.7
	132	196.40	38.8	250.30	21.83	554.4	12.440	316.0	1.030	26.29	0.650	16.51	0.50	12.7
	122	181.60	35.9	231.60	21.68	550.7	12.390	314.7	0.960	24.38	0.600	15.24	0.50	12.7
	111	165.20	32.7	211.00	21.51	546.4	12.340	313.4	0.875	22.22	0.550	13.97	0.50	12.7
W24 610 X 178 (24 X 7)	101	150.30	29.8	192.30	21.36	542.5	12.290	312.2	0.800	20.32	0.500	12.70	0.50	12.7
	62	92.27	18.2	117.40	23.74	603.0	7.040	178.8	0.590	14.99	0.430	10.92	0.50	12.7
	61	91.00	17.9	116.50	23.72	602.5	7.023	178.4	0.591	15.00	0.419	10.60	0.50	12.7
W24 610 X 229 (24 X 9)	55	82.00	16.2	104.50	23.57	598.7	7.005	177.9	0.505	12.83	0.395	10.03	0.50	12.7
	146	217.00	43.1	278.00	25.32	643.1	9.217	234.1	1.382	35.10	0.772	19.60	0.50	12.7
	128	191.00	37.5	242.00	25.00	635.0	9.114	231.5	1.216	30.90	0.669	17.00	0.50	12.7
	114	171.00	33.8	218.00	24.76	628.9	9.051	229.9	1.098	27.90	0.610	15.50	0.50	12.7
	103	153.00	30.2	195.00	24.53	623.1	9.000	228.6	0.980	24.90	0.551	14.00	0.50	12.7
	94	140.00	27.7	178.70	24.31	598.7	9.065	230.2	0.875	22.22	0.515	13.08	0.50	12.7
	84	125.00	24.7	159.40	24.10	617.5	9.020	229.1	0.770	19.56	0.470	11.94	0.50	12.7
	76	113.10	22.4	144.50	23.92	612.1	8.990	228.3	0.680	17.27	0.440	11.18	0.50	12.7
W24 610 X 305 (24 X 12)	68	101.20	20.1	129.70	23.73	607.6	8.965	227.7	0.585	14.86	0.415	10.54	0.50	12.7
	160	238.00	47.0	303.80	24.92	636.0	12.264	311.5	1.235	31.40	0.732	18.60	0.50	17.8
	120	179.00	35.3	227.90	24.31	617.5	12.088	307.0	0.930	23.60	0.556	14.10	0.50	17.8
W24 610 X 324 (24 X 12 ¾)	100	149.00	29.4	190.10	24.00	609.6	12.000	304.8	0.775	19.70	0.468	11.90	0.70	17.8
	192	285.70	56.3	363.00	25.86	656.9	12.949	328.9	1.461	37.10	0.811	20.60	0.50	12.7
	176	261.90	51.6	333.00	25.24	641.1	12.890	327.4	1.339	34.00	0.752	19.10	0.50	12.7
	162	241.10	47.7	307.70	25.00	635.0	12.955	329.1	1.220	30.99	0.705	17.91	0.50	12.7
	146	217.30	43.0	277.40	24.74	628.4	12.900	327.7	1.090	27.69	0.650	16.51	0.50	12.7
	131	194.90	38.5	248.40	24.48	621.8	12.855	326.5	0.960	24.38	0.605	15.37	0.50	12.7
	117	174.10	34.4	221.90	24.26	616.2	12.800	325.1	0.850	21.59	0.550	13.97	0.50	12.7
	104	154.80	30.6	197.40	24.06	611.1	12.750	323.8	0.750	19.05	0.500	12.70	0.50	12.7

1 BEAMS AND COLUMNS

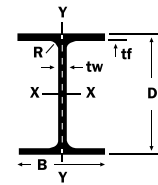
1.1 Universal Beams and Columns - Imperial Units



Section Number and Nominal Size	Moment of Inertia				Radius of Gyration				Modulus of Section			
	I_x		I_y		r_x		r_y		Z_x		Z_y	
mm (in.)	in. ⁴	cm ⁴	in. ⁴	cm ⁴	in.	cm	in.	cm	in. ³	cm ³	in. ³	cm ³
W18 457 X 152 (18 X 6)	870.0	36,215	27.5	1,143	7.33	18.60	1.30	3.31	95.0	1,557.0	31.50	149.0
	779.0	32,435	24.3	1,012	7.28	18.50	1.28	3.26	85.8	1,406.0	8.10	133.0
	712.0	29,600	22.5	937	7.25	18.40	1.29	3.28	78.8	1,290.0	7.43	122.0
	686.0	28,577	21.1	878	7.20	18.30	1.26	3.21	76.3	1,250.0	7.00	116.0
	612.0	25,500	19.1	795	7.21	18.30	1.27	3.23	68.4	1,120.0	6.35	104.0
	510.0	21,200	15.3	637	7.04	17.90	1.22	3.10	57.6	944.0	5.12	83.9
W18 457 X 191 (18 X 7 1/2)	1,170.0	48,700	60.3	2,510	7.50	19.00	1.70	4.32	127.0	2,080.0	15.80	259.0
	1,098.0	25,717	56.3	2,343	7.52	19.10	1.70	4.33	119.0	1,956.0	14.80	243.0
	1,070.0	44,500	54.8	2,280	7.49	19.00	1.69	4.29	117.0	1,920.0	14.40	236.0
	984.0	41,000	50.1	2,090	7.47	19.00	1.68	4.27	108.0	1,770.0	13.30	128.0
	890.0	37,000	44.9	1,870	7.41	18.80	1.67	4.24	98.3	1,610.0	11.90	195.0
	800.0	33,300	40.1	1,670	7.38	18.70	1.65	4.19	88.9	1,460.0	10.70	175.0
	704.0	29,330	31.9	1,328	7.30	18.50	1.55	3.94	78.9	1,293.0	8.50	139.0
W18 457 X 279 (18 X 11)		25,380		1,218		18.20		3.99		1,128.0		129.0
	3,452.0	143,700	392.0	16,300	8.19	20.80	2.76	7.01	345.0	5,646.0	68.30	1,128.0
	2,190.0	91,200	253.0	10,500	7.90	20.10	2.69	6.83	231.0	3,790.0	44.90	736.0
	1,910.0	79,500	220.0	6,170	7.84	19.90	2.66	6.76	204.0	3,340.0	39.40	646.0
	1,750.0	72,800	201.0	8,370	7.82	19.90	2.65	6.72	188.0	3,080.0	36.10	592.0
	1,530.0	63,700	175.0	7,280	7.77	19.70	2.63	6.68	166.0	2,720.0	31.60	518.0
W21 533 X 165 (21 X 6 1/2)	1,330.0	55,400	152.0	6,330	7.73	19.60	2.61	6.63	146.0	2,390.0	27.60	452.0
	1,170.0	48,700	30.6	1,270	8.36	21.20	1.65	3.43	111.0	1,820.0	9.35	153.0
	984.0	41,000	24.9	1,040	8.17	20.80	1.30	3.30	94.5	1,550.0	7.64	125.0
W21 533 X 210 (21 X 8 1/4)	843.0	35,100	20.7	862	8.06	20.50	1.26	3.20	81.6	1,340.0	6.37	104.0
	2,070.0	86,200	92.9	3,870	8.70	22.10	1.84	4.67	192.0	3,150.0	22.10	362.0
	1,830.7	76,207	81.5	3,393	8.71	22.10	1.84	4.67	171.0	2,800.0	19.50	320.2
	1,830.0	76,200	81.4	3,390	8.67	22.00	1.83	4.65	170.8	2,799.0	19.60	320.0
	1,600.0	66,600	70.6	2,940	8.64	21.90	1.81	4.60	151.0	2,470.0	17.00	279.0
	1,480.0	61,600	64.7	2,690	8.60	21.80	1.80	4.57	140.0	2,290.0	15.70	257.0
	1,330.0	55,400	57.5	2,390	8.54	21.70	1.77	4.50	127.0	2,080.0	14.00	229.0
W21 533 X 311 (21 X 12 1/4)	1,140.7	47,490	44.0	1,832	8.40	21.30	1.65	4.19	109.7	1,798.0	10.70	175.4
	959.0	39,917	38.7	1,611	8.23	20.90	1.65	4.20	93.0	1,524.0	9.50	156.0
	3,630.0	151,000	376.0	15,600	9.17	23.30	2.95	7.49	329.0	5,390.0	60.10	985.0
	3,220.0	134,000	333.0	13,900	9.12	23.20	2.93	7.44	295.0	4,830.0	53.50	877.0
	2,960.0	123,000	305.0	12,700	9.09	23.10	2.92	7.42	273.0	4,470.0	49.20	806.0
W24 610 X 178 (24 X 7)	2,670.0	111,000	274.0	11,400	9.05	23.00	2.90	7.37	249.0	4,080.0	44.50	729.0
	2,420.0	101,000	248.0	10,300	9.02	22.90	2.89	7.34	227.0	3,720.0	40.30	660.0
	1,550.0	64,500	34.5	1,440	9.23	23.40	1.38	3.51	131.0	2,150.0	9.80	161.0
W24 610 X 229 (24 X 9)	1,540.0	64,085	34.3	1,432	9.25	23.50	1.38	3.51	130.0	2,124.0	9.76	159.5
	1,350.0	56,200	29.1	1,210	9.11	23.10	1.34	3.40	114.0	1,870.0	8.30	136.0
	1,830.0	76,200	70.4	2,930	9.55	24.30	1.87	4.75	154.0	2,520.0	15.70	157.0
	2,100.0	87,400	82.5	3,430	9.69	24.60	1.92	4.88	176.0	2,880.0	18.40	302.0
	2,370.0	98,600	94.4	3,930	9.79	24.90	1.95	4.95	196.0	3,210.0	20.90	342.0
	2,700.0	112,000	109.0	4,540	9.87	25.10	1.98	5.03	222.0	3,640.0	24.00	393.0
	4,418.0	183,900	181.2	7,544	10.12	25.70	2.05	5.21	349.0	5,718.0	39.30	644.0
	3,806.0	158,400	154.1	6,415	10.08	25.60	2.03	5.15	304.0	4,990.0	33.80	554.0
W24 610 X 305 (24 X 12)	3,397.0	141,400	136.2	5,670	10.00	25.40	2.00	5.09	274.0	4,495.0	30.10	493.0
	3,003.0	125,000	119.4	4,972	9.96	25.30	1.98	5.04	245.0	4,012.0	26.50	435.0
	4,986.3	207,571	380.5	15,838	10.28	26.10	2.84	7.22	400.2	6,559.0	62.00	1,017.0
W24 610 X 324 (24 X 12 3/4)	3,635.3	151,300	254.0	10,570	10.15	25.78	2.68	6.81	299.1	4,902.2	42.00	688.4
	2,987.3	124,400	203.5	8,471	10.08	25.60	2.63	6.68	248.9	4,079.5	33.90	555.6
	6,256.0	260,400	529.0	22,030	10.60	26.80	3.07	7.79	491.0	8,050.0	81.80	1,340.0
	5,660.0	236,600	479.0	19,950	10.50	26.60	3.04	7.73	450.0	7,380.0	74.30	1,218.00
	5,170.0	215,000	443.0	18,400	10.40	26.40	3.05	7.75	414.0	6,780.0	68.40	1,120.00
	4,580.0	191,000	391.0	16,300	10.30	26.20	3.01	7.65	371.0	6,080.0	60.50	991.00
	4,020.0	167,000	340.0	14,200	10.20	25.90	2.97	7.54	329.0	5,390.0	53.00	869.00
W24 610 X 324 (24 X 12 3/4)	3,540.0	147,000	297.0	12,400	10.10	25.70	2.94	7.47	291.0	4,770.0	46.50	762.00
	3,100.0	129,000	259.0	10,800	10.10	25.70	2.91	7.39	258.0	4,320.0	40.70	667.00

1 BEAMS AND COLUMNS

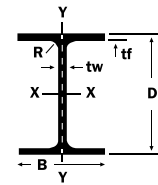
1.1 Universal Beams and Columns - Imperial Units



Section Number and Nominal Size	Unit Weight (M)		Section Area (A)		Section Depth (D)		Flange				Web Thickness (tw)		Corner Radius (r)	
							Width (B)		Thickness (T)					
mm (in.)	lb/ft	kg/m	in. ²	cm ²	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm
W27 686 x 254 (27 x 10)	182	271.0	53.5	345.0	28.50	723.9	10.244	260.2	1.539	39.10	0.850	21.60	0.60	15.2
	159	237.0	46.7	301.0	28.11	714.0	10.150	257.8	1.339	34.00	0.752	19.10	0.60	15.2
	143	213.0	41.8	270.0	27.87	707.9	10.071	255.8	1.220	31.00	0.669	17.00	0.60	15.2
	129	192.0	37.8	244.0	27.63	701.8	10.012	254.3	1.098	27.90	0.610	15.50	0.60	15.2
	114	170.0	33.5	216.1	27.29	693.2	10.070	255.8	0.930	23.62	0.570	14.48	0.60	15.2
	102	152.0	30.0	193.5	27.09	688.1	10.015	254.4	0.830	21.08	0.515	13.08	0.60	15.2
	94	140.0	27.7	178.7	26.92	683.8	9.990	253.7	0.745	18.92	0.490	12.45	0.60	15.2
84	125.0	24.8	160.0	26.71	678.4	9.960	253.0	0.640	16.26	0.460	11.68	0.60	15.2	
W27 686 x 356 (27 x 14)	217	322.9	63.7	411.0	28.43	722.1	14.114	358.5	1.500	38.10	0.831	21.10	0.60	15.2
	194	288.7	57.0	368.0	28.11	714.0	14.031	356.4	1.339	34.00	0.752	19.10	0.60	15.2
	178	264.9	52.3	337.4	27.81	706.4	14.085	357.8	1.190	30.23	0.725	18.41	0.60	15.2
	161	239.6	47.4	305.8	28.59	700.8	14.020	356.1	1.080	27.43	0.660	16.76	0.60	15.2
	146	217.3	42.9	276.8	27.38	695.5	13.965	354.7	0.975	24.76	0.605	15.37	0.60	15.2
W30 762 x 267 (30 x 10 ½)	185	275.0	54.4	351.0	31.22	793.0	10.634	270.1	1.461	37.10	0.811	20.60	0.65	16.5
	165	246.0	48.4	312.0	30.91	785.1	10.555	268.1	1.299	33.00	0.728	18.50	0.65	16.5
	148	220.0	43.6	281.0	30.67	779.0	10.480	266.2	1.181	30.00	0.650	16.50	0.65	16.5
	132	197.0	38.9	251.0	30.31	769.9	10.545	267.8	1.000	25.40	0.615	15.62	0.65	16.5
	124	185.0	36.5	235.5	30.17	766.3	10.515	267.1	0.930	23.62	0.585	14.86	0.65	16.5
	116	173.0	34.2	220.6	30.01	762.3	10.495	266.6	0.850	21.59	0.565	14.35	0.65	16.5
	108	161.0	31.7	204.5	29.83	757.7	10.475	266.1	0.760	19.30	0.545	13.84	0.65	16.5
	99	147.3	29.1	187.7	29.65	753.1	10.450	265.4	0.670	17.02	0.520	13.21	0.65	16.5
	90	133.9	26.5	171.0	29.53	750.0	10.409	264.4	0.610	15.50	0.472	12.00	0.65	16.5
W30 762 x 381 (30 x 15)	261	388.4	76.7	495.0	31.61	802.9	15.154	384.9	1.650	41.90	0.929	23.60	0.65	16.5
	235	349.7	69.0	445.0	31.30	795.0	15.055	382.4	1.500	38.10	0.831	21.10	0.65	16.5
	211	314.0	62.0	400.0	30.94	785.9	15.015	383.7	1.310	33.40	0.775	19.68	0.65	16.5
	191	284.2	56.1	361.9	30.68	779.3	10.040	382.0	1.180	30.10	0.710	18.03	0.65	16.5
	173	157.5	50.8	327.7	30.44	773.2	14.985	380.6	1.060	27.05	0.655	16.64	0.65	16.5
W33 838 x 292 (33 x 11 ½)	204	304.0	59.8	386.0	34.30	871.2	11.642	295.7	1.461	37.10	0.811	20.60	0.70	17.8
	187	278.0	55.0	355.0	34.06	865.1	11.579	294.1	1.339	34.00	0.752	19.10	0.70	17.8
	169	252.0	49.4	319.0	33.82	859.0	11.500	292.1	1.220	31.00	0.669	17.00	0.70	17.8
	152	226.2	44.7	288.4	33.49	850.6	11.565	293.8	1.050	26.80	0.635	16.13	0.70	17.8
	141	210.0	41.6	268.4	33.30	845.8	11.535	293.0	0.960	24.38	0.605	15.37	0.70	17.8
	130	194.0	38.3	247.1	33.09	840.5	11.510	292.4	0.855	24.72	0.580	14.73	0.70	17.8
	118	176.0	34.7	223.9	32.86	834.6	11.480	291.6	0.740	18.80	0.550	13.97	0.70	17.8
W33 838 x 400 (33 x 15 ¾)	291	433.1	58.6	552.0	34.84	884.9	15.906	404.0	1.728	43.90	0.961	24.40	0.70	17.8
	263	391.4	77.3	499.0	34.53	877.1	15.803	401.4	1.571	39.90	0.870	22.10	0.70	17.8
	241	358.6	70.9	457.4	34.18	868.2	15.860	402.8	1.400	35.56	0.830	21.08	0.70	17.8
	221	328.9	65.0	419.4	33.93	861.8	15.805	401.4	1.270	32.38	0.775	19.68	0.70	17.8
	201	299.1	59.1	381.3	33.68	855.5	15.745	399.9	1.150	29.21	0.715	18.16	0.70	17.8
W36 914 x 305 (36 x 12)	256	381.0	75.3	486.0	37.43	950.7	12.217	310.3	1.728	43.90	0.961	24.40	0.80	19.1
	232	345.0	68.2	440.0	37.12	942.9	12.118	307.8	1.571	39.90	0.870	22.10	0.80	19.1
	210	313.0	61.8	398.7	36.69	931.9	12.180	309.4	1.360	34.54	0.830	21.08	0.75	19.0
	194	289.0	57.0	367.7	36.49	926.8	12.115	307.7	1.260	32.00	0.765	19.43	0.75	19.0
	182	271.0	53.6	345.8	36.33	922.8	12.075	306.7	1.180	29.97	0.725	18.41	0.75	19.0
	170	253.0	50.5	322.6	36.17	918.7	12.030	305.6	1.100	27.94	0.680	17.27	0.75	19.0
	160	238.1	47.0	303.2	36.01	914.7	12.000	304.8	1.020	25.91	0.650	16.51	0.75	19.0
	150	224.0	44.2	285.2	35.85	910.6	11.975	304.2	0.940	23.88	0.625	15.87	0.75	19.0
	135	201.0	39.7	256.1	35.55	903.0	11.950	303.3	0.790	20.07	0.600	15.24	0.75	19.0
W36 914 x 419 (36 x 16 ½)	359	534.2	105.4	680.0	37.40	950.0	16.728	424.9	2.012	51.10	1.122	28.50	0.95	24.1
	328	488.1	96.4	622.0	37.10	942.1	16.630	422.4	1.850	47.00	1.020	25.90	0.95	24.1
	300	447.0	88.3	569.7	36.74	933.2	16.655	423.0	1.680	42.67	0.945	24.00	0.95	24.1
	280	417.0	82.4	531.6	36.52	927.6	16.595	421.5	1.570	39.88	0.885	22.48	0.95	24.1
	260	388.0	76.5	493.5	36.26	921.0	16.550	420.4	1.440	36.54	0.840	21.34	0.95	24.1
	245	365.0	72.1	465.2	36.08	916.4	16.510	419.4	1.350	34.29	0.800	20.32	0.95	24.1
	230	343.0	67.6	436.1	35.90	911.9	16.470	418.3	1.260	32.00	0.760	19.30	0.95	24.1

1 BEAMS AND COLUMNS

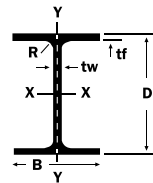
1.1 Universal Beams and Columns - Imperial Units



Section Number and Nominal Size	Moment of Inertia				Radius of Gyration				Modulus of Section			
	I_x		I_y		i_x		i_y		Z_x		Z_y	
mm (in.)	in. ⁴	cm ⁴	in. ⁴	cm ⁴	in.	cm	in.	cm	in. ³	cm ³	in. ³	cm ³
W27 686 x 254 (27 x 10)	6,950	289,300	277	11,540	11.4	29.0	2.28	5.78	488	7,993	54.4	887
	5,953	247,800	234	9,750	11.3	28.7	2.57	5.69	423	6,940	46.1	756
	5,333	222,000	208	8,678	11.3	28.7	2.23	5.67	383	6,272	41.4	678
	4,757	198,000	184	7,670	11.2	28.5	2.21	5.61	344	5,644	36.8	603
	4,090	170,000	159	6,620	11.0	27.9	2.18	5.54	299	4,900	31.5	516
	3,620	151,000	139	5,790	11.0	27.9	2.15	5.46	267	4,380	27.8	456
	3,270	136,000	124	5,160	10.9	27.7	2.12	5.38	243	3,980	24.8	406
W27 686 x 356 (27 x 14)	8,870	369,200	704	29,310	11.8	30.0	3.32	8.44	624	10,230	99.8	1,635
	7,820	325,500	618	25,720	11.7	29.8	3.29	8.36	556	9,118	88.1	1,444
	6,990	291,000	555	23,100	11.6	29.5	3.26	8.28	502	8,230	78.8	1,290
	6,280	261,000	497	20,700	11.5	29.2	3.24	8.23	455	7,460	70.9	1,160
	5,630	234,000	443	18,400	11.4	29.0	3.21	8.15	411	6,740	63.5	1,040
W30 762 x 267 (30 x 10 1/2)	8,486	353,200	294	12,240	12.5	31.7	2.33	5.91	544	8,909	55.3	906
	7,464	310,700	256	10,640	12.4	31.5	2.30	5.84	483	7,914	48.4	794
	6,684	278,200	227	9,463	12.4	31.5	2.29	5.81	436	7,142	43.4	711
	5,770	240,000	196	8,160	12.2	31.0	2.25	5.71	380	6,230	37.2	610
	5,360	223,000	181	7,530	12.1	30.7	2.23	5.66	355	5,820	34.4	564
	4,930	205,000	164	6,830	12.0	30.5	2.19	5.56	329	5,390	31.3	513
	4,470	186,000	146	6,080	11.9	30.2	2.15	5.46	299	4,900	27.9	457
	4,000	166,000	128	5,330	11.7	29.7	2.10	5.33	269	4,410	24.5	401
W30 762 x 381 (30 x 15)	3,621	150,700	115	4,788	11.7	29.7	2.09	5.30	245	4,018	22.1	362
	13,062	543,700	959	39,920	13.0	33.1	3.54	8.98	826	13,540	126.6	2,074
	11,674	485,900	855	35,570	13.0	33.0	3.52	8.94	746	12,220	113.5	1,860
	10,300	429,000	757	31,500	12.9	32.8	3.49	8.86	663	10,900	100.0	1,640
	9,170	382,000	673	28,000	12.8	32.5	3.46	8.79	598	9,800	89.5	1,470
W33 838 x 292 (33 x 11 1/2)	8,200	341,000	598	24,000	12.7	32.3	3.43	8.71	539	8,830	79.8	1,310
	11,364	473,000	386	16,050	13.8	35.0	2.54	6.45	663	10,860	66.3	1,086
	10,340	430,400	348	14,470	13.7	34.8	2.51	6.38	607	9,950	60.0	984
	9,286	386,500	310	12,920	13.7	34.8	2.50	6.36	549	8,999	54.0	884
	8,160	340,000	273	11,400	13.5	34.3	2.47	6.27	487	7,980	47.2	773
	7,450	310,000	246	10,200	13.4	34.0	2.43	6.17	448	7,340	41.7	700
	6,710	279,000	218	9,070	13.2	33.5	2.38	6.05	406	6,640	37.9	621
W33 838 x 400 (33 x 15 3/4)	5,900	246,000	187	7,780	13.0	33.0	2.32	5.89	359	5,880	32.6	534
	17,668	735,400	1,163	48,390	14.4	36.5	3.69	9.36	1,104	16,620	146.2	2,396
	15,832	659,000	1,035	43,070	14.3	36.3	3.66	9.26	917	15,030	131.0	2,146
	14,200	591,000	932	38,800	14.1	35.8	3.63	9.22	829	13,600	118.0	1,930
	12,800	533,000	840	35,000	14.1	35.8	3.59	9.12	757	12,400	106.0	1,740
W36 914 x 305 (36 x 12)	11,500	479,000	749	31,200	14.0	35.6	3.56	9.04	684	11,200	95.2	1,560
	16,743	696,900	528	21,980	14.9	37.9	2.65	6.72	895	14,660	86.4	1,416
	15,020	625,200	468	19,480	14.8	37.7	2.62	6.66	809	13,260	77.3	1,266
	13,200	549,000	411	17,100	14.6	37.1	2.58	6.55	719	11,800	67.5	1,110
	12,100	504,000	375	15,600	14.6	37.1	2.56	6.50	664	10,900	61.9	1,010
	11,300	470,000	347	14,400	14.5	36.8	2.55	6.48	623	10,200	57.6	944
	10,500	437,000	320	13,300	14.5	36.8	2.53	6.43	580	9,500	53.2	872
	9,760	406,000	295	12,300	14.4	36.6	2.50	6.35	542	8,880	49.1	805
W36 914 x 419 (36 x 16 1/2)	9,040	376,000	270	11,200	14.3	36.3	2.47	6.27	504	8,260	45.1	739
	7,800	325,000	225	9,370	14.0	35.6	2.38	6.04	439	7,190	37.7	618
	24,772	1,031,000	1,572	65,450	15.3	38.9	3.86	9.81	1,324	21,700	188.0	3,081
	22,497	936,400	1,422	59,170	15.3	38.8	3.84	9.76	1,213	19,880	171.0	2,801
	20,300	845,000	1,300	54,100	15.2	38.6	3.83	9.73	1,110	18,200	156.0	2,560
	18,900	787,900	1,200	49,900	15.1	38.4	3.81	9.68	1,030	16,900	144.0	2,360
	17,300	720,000	1,090	45,400	15.0	38.1	3.78	9.60	953	15,600	132.0	2,160
W36 914 x 419 (36 x 16 1/2)	16,100	670,000	1,010	42,000	15.0	38.1	3.75	9.52	895	14,700	123.0	2,020
	15,000	624,000	940	39,100	14.9	37.8	3.73	9.47	837	13,700	114.0	1,870

1 BEAMS AND COLUMNS

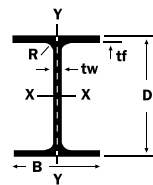
1.2 Universal Beams and Columns - Metric Units



Section Size	Unit Weight (W)	Section Depth (D)	Flange Width (B)	Thickness		Corner Radius (r)	Section Area (A)	Moment of Inertia		Radius of Gyration		Modulus of Section	
				tw	tf			I _x	I _y	I _x	I _y	Z _x	Z _y
mm	kg/m	mm	mm	mm	mm	mm	cm ²	cm ⁴	cm ⁴	cm	cm	cm ³	cm ³
100 x 50	9.3	100	50	5.0	7.0	8	11.85	187	14.8	3.98	1.12	37.5	5.91
100 x 100	14.8	100	100	5.0	7.0	10	19.20	344	117.0	4.20	2.47	69.0	23.00
	16.9	100	100	8.0	6.0	8	21.60	378	134.0	4.18	2.49	75.6	26.70
	17.2	100	100	6.0	8.0	10	21.90	333	134.0	4.18	2.47	76.5	26.70
125 x 60	13.2	125	60	6.0	8.0	9	16.84	413	29.2	4.95	1.32	66.1	9.73
125 x 125	23.6	125	125	6.5	9.0	8	30.00	840	293.0	5.29	3.13	134.0	46.90
	28.3	125	125	6.5	9.0	10	30.31	847	293.0	5.29	3.11	136.0	47.00
150 x 75	14.0	150	75	5.0	7.0	8	17.85	666	49.5	6.11	1.66	88.8	13.20
150 x 100	20.7	148	100	6.0	9.0	8	26.30	1,003	150.0	6.17	2.39	135.0	30.10
	21.1	148	100	6.0	9.0	11	26.84	1,020	151.0	6.17	2.37	138.0	30.10
150 x 150	31.1	150	150	7.0	10.0	8	39.60	1,623	563.0	6.40	3.77	216.0	75.10
	31.5	150	150	7.0	10.0	11	40.14	1,640	563.0	6.39	3.75	219.0	75.10
	37.4	154	151	8.0	12.0	11	47.70	2,018	690.0	6.51	3.80	262.0	91.40
175 x 90	18.0	175	90	5.0	8.0	8	22.90	1,205	97.5	7.26	2.06	138.0	21.70
	18.1	175	90	5.0	8.0	9	23.04	1,210	97.5	7.26	2.06	139.0	21.70
175 x 125	23.3	169	125	5.5	8.0	12	29.65	1,530	261.0	7.18	2.97	181.0	41.80
175 x 175	32.8	171	174	6.0	9.0	12	41.70	2,304	791.0	7.43	4.35	269.0	90.90
	40.2	175	175	7.5	11.0	13	51.20	2,880	984.0	7.50	4.38	330.0	112.00
	40.4	175	175	7.5	11.0	12	51.40	2,895	984.0	7.50	4.37	331.0	112.00
200 x 100	17.8	198	99	4.5	7.0	8	22.70	1,543	113.0	8.25	2.24	156.0	22.90
	18.2	198	99	7.0	4.5	11	23.20	1,582	114.0	8.26	2.22	160.0	23.00
	20.9	200	100	5.5	8.0	8	26.70	1,806	134.0	8.23	2.24	181.0	26.70
	21.3	200	100	5.5	8.0	11	27.16	1,840	134.0	8.24	2.22	184.0	26.80
200 x 150	29.9	194	150	6.0	9.0	8	38.10	2,625	507.0	8.30	3.65	271.0	67.60
	30.6	194	150	6.0	9.0	13	39.01	2,690	507.0	8.30	3.61	277.0	67.60
	36.9	198	151	7.0	11.0	13	47.00	3,331	633.0	8.42	3.67	336.0	83.80
200 x 200	41.4	196	199	6.5	10.0	13	52.70	3,846	1,315.0	8.54	5.00	392.0	132.00
	49.9	200	200	8.0	12.0	13	63.53	4,720	1,600.0	8.62	5.02	472.0	160.00
	56.2	200	204	12.0	12.0	13	71.53	4,980	1,700.0	8.35	4.88	498.0	167.00
	57.8	204	201	9.0	14.0	13	73.60	5,603	1,897.0	5.70	5.08	549.0	189.00
	65.7	208	202	16.0	10.0	13	83.69	6,530	2,200.0	8.83	5.13	628.0	218.00
250 x 125	25.1	248	124	5.0	8.0	8	32.00	3,450	255.0	10.40	2.82	278.0	41.10
	25.7	248	124	5.0	8.0	12	32.68	3,540	255.0	10.40	2.79	285.0	41.10
	29.0	250	125	6.0	9.0	8	37.00	3,965	294.0	10.40	2.82	317.0	47.00
	29.6	250	125	6.0	9.0	12	37.66	4,050	294.0	10.40	2.79	324.0	47.00
250 x 175	43.6	244	175	7.0	11.0	13	55.50	6,037	984.0	10.40	4.21	495.0	112.00
	44.1	244	175	7.0	11.0	16	56.24	6,120	985.0	10.40	4.19	502.0	113.00
	51.6	248	176	8.0	13.0	16	65.70	7,308	1,184.0	10.50	4.24	589.0	135.00
	59.1	252	177	9.0	15.0	16	75.30	8,541	1,390.0	10.70	4.30	678.0	157.00

1 BEAMS AND COLUMNS

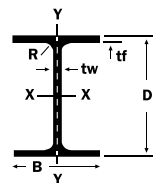
1.2 Universal Beams and Columns - Metric Units



Section Size	Unit Weight (W)	Section Depth (D)	Flange Width (B)	Thickness		Corner Radius (r)	Section Area (A)	Moment of Inertia		Radius of Gyration		Modulus of Section	
				tw	tf			I _x	I _y	I _x	I _y	Z _x	Z _y
mm	kg/m	mm	mm	mm	mm	mm	cm ²	cm ⁴	cm ⁴	cm	cm	cm ³	cm ³
250 x 250	64,4	244	252	11,0	11	16	82,06	8,780	2,940	10,30	5,98	720	233,0
	66,5	248	249	8,0	13	16	84,70	9,930	3,350	10,80	6,29	801	269,0
	71,8	250	250	9,0	14	13	91,40	10,750	3,648	10,80	6,32	860	292,0
	72,4	250	250	9,0	14	16	92,18	10,800	3,650	10,80	6,29	867	292,0
	82,8	250	255	14,0	14	16	104,70	11,500	3,880	10,50	6,09	919	304,0
	98,1	260	253	12,0	19	16	125,00	15,340	5,134	11,10	6,41	1,180	406,0
300 x 150	25,0	294	148	4,5	6	16	32,60	4,940	326	12,30	3,16	336	44,0
	32,0	298	149	5,5	8	13	40,80	6,320	442	12,40	3,29	424	59,3
	36,7	300	150	6,5	9	13	46,78	7,210	508	12,40	3,29	481	67,7
	41,4	304	150	6,5	11	13	52,80	8,578	620	12,70	3,43	564	82,7
	46,2	306	151	7,5	12	13	58,80	9,514	691	12,70	3,43	622	91,5
	69,0	318	154	11,0	18	13	87,90	14,820	1,100	13,00	3,54	932	143,0
300 x 200	48,3	290	199	7,0	10	18	61,50	9,431	1,317	12,40	4,63	650	132,0
	55,8	294	200	8,0	12	13	71,10	11,110	1,602	12,50	4,75	756	160,0
	56,8	294	200	8,0	12	18	72,38	11,300	1,600	12,50	4,71	771	160,0
	65,4	298	201	9,0	14	18	83,36	13,300	1,900	12,60	4,77	893	189,0
	77,3	304	202	10,0	17	18	98,50	16,280	2,341	12,90	4,88	1,071	232,0
300 x 300	84,5	294	302	12,0	12	18	107,70	16,900	5,520	12,50	7,16	1,150	365,0
	87,0	298	299	9,0	14	18	110,80	18,800	6,750	13,10	7,51	1,270	450,0
	93,0	300	300	10,0	15	13	118,00	20,190	6,753	13,10	7,55	1,346	450,0
	94,0	300	300	10,0	15	18	119,80	20,400	6,750	13,10	7,51	1,360	450,0
	105,0	300	305	15,0	15	13	133,50	21,311	7,102	12,60	7,26	1,421	466,0
	106,0	304	301	11,0	17	18	134,80	23,400	7,730	13,20	7,57	1,540	514,0
	125,0	310	303	20,0	13	18	159,00	28,130	9,282	13,30	7,64	1,815	613,0
	130,0	310	305	15,0	20	18	165,00	28,630	9,470	13,20	7,57	1,847	621,0
	147,0	312	310	20,0	21	18	187,00	31,370	10,450	13,00	7,48	2,011	674,0
350 x 175	41,2	346	174	6,0	9	13	52,50	11,040	792	14,50	3,88	638	91,0
	41,4	346	174	6,0	9	14	52,68	11,100	798	14,50	3,88	641	91,0
	49,4	350	175	7,0	11	13	62,90	13,500	984	14,60	3,96	771	113,0
	49,6	350	175	7,0	11	14	63,14	13,600	984	14,70	3,95	775	112,0
	57,8	354	176	8,0	13	14	73,70	16,100	1,184	14,80	4,01	909	135,0
	66,2	358	177	9,0	15	14	84,30	18,710	1,390	14,90	4,06	1,045	157,0
	71,8	360	178	10,0	16	14	91,40	20,240	1,508	14,90	4,06	1,124	169,0
	79,7	364	177	11,0	18	14	101,00	22,760	1,669	15,00	4,06	1,250	189,0
350 x 250	69,2	336	249	8,0	12	20	88,15	18,500	3,090	14,50	5,92	1,100	248,0
	78,1	340	250	9,0	14	13	100,00	21,230	3,649	14,60	6,05	1,249	292,0
	79,7	340	250	9,0	14	20	102,00	21,700	3,650	14,60	6,00	1,280	292,0
	94,2	346	251	10,0	17	20	120,00	26,440	4,488	14,80	6,12	1,528	358,0
	108,0	350	253	12,0	19	20	137,00	30,190	5,138	14,80	6,12	1,725	406,0

1 BEAMS AND COLUMNS

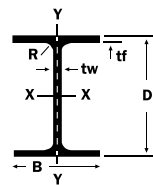
1.2 Universal Beams and Columns - Metric Units



Section Size	Unit Weight (W)	Section Depth (D)	Flange Width (B)	Thickness		Corner Radius (r)	Section Area (A)	Moment of Inertia		Radius of Gyration		Modulus of Section	
				tw	tf			I _x	I _y	I _x	I _y	Z _x	Z _y
mm	kg/m	mm	mm	mm	mm	mm	cm ²	cm ⁴	cm ⁴	cm	cm	cm ³	cm ³
350 x 350	106,0	338	351	13	13	20	135,30	28,200	9,380	14,4	8,33	1,670	534
	113,0	344	348	10	16	13	144,00	23,850	11,240	15,1	8,84	1,910	646
	115,0	344	348	10	16	20	146,00	33,810	11,840	15,1	8,95	1,966	646
	131,0	344	354	16	16	20	166,60	35,300	11,800	14,6	8,43	2,050	669
	135,0	350	350	12	19	13	172,00	39,847	11,840	15,2	8,89	2,277	776
	137,0	350	350	12	19	20	173,90	40,300	13,583	15,2	8,84	2,303	776
	156,0	350	357	19	19	20	198,40	42,500	14,400	14,7	8,53	2,450	809
	159,0	356	352	14	22	20	202,00	47,600	16,000	15,3	8,90	2,674	909
	181,0	362	354	16	25	20	230,00	55,190	18,500	15,5	8,96	3,049	1045
400 x 200	56,1	396	199	7	11	13	71,40	19,770	1,447	16,6	4,50	999	145
	56,5	396	199	7	11	16	72,16	20,020	1,450	16,7	4,48	1,011	145
	65,4	400	200	13	8	13	83,40	23,460	1,736	16,8	4,56	1,173	174
	66,0	400	200	13	8	16	84,12	23,710	1,740	16,8	4,54	1,185	174
	75,5	404	201	9	15	16	96,20	27,490	2,035	16,9	4,60	1,361	202
	88,2	410	202	10	18	16	112,00	33,060	2,478	17,2	4,70	1,612	245
	140,0	430	208	16	28	16	179,00	54,850	4,216	17,5	4,86	2,551	405
400 x 300	94,3	386	299	9	14	22	120,10	33,700	6,240	16,7	7,21	1,740	418
	105,0	390	300	10	16	13	133,00	37,860	7,204	16,9	7,35	1,942	480
	107,0	390	300	10	16	22	136,00	38,680	7,210	16,9	7,28	1,983	481
	127,0	896	302	12	19	22	162,00	46,660	8,735	17,0	7,35	2,357	578
400 x 400	140,0	388	402	15	15	22	178,50	48,930	16,260	16,6	9,55	2,524	809
	147,0	394	398	11	18	22	186,80	56,150	18,930	17,3	10,10	2,850	951
	168,0	394	405	18	18	22	214,40	49,700	20,000	16,7	9,65	3,030	985
	172,0	400	400	13	21	22	218,70	66,620	22,420	17,5	10,10	3,331	1,120
	197,0	400	408	21	21	22	250,70	70,900	23,800	16,8	9,75	3,540	1,170
	200,0	406	403	16	24	22	254,90	78,040	26,200	17,5	10,10	3,844	1,300
	232,0	414	405	18	28	22	295,50	92,770	31,030	17,7	10,20	4,482	1,532
	283,0	428	407	20	35	22	360,70	119,000	39,360	18,2	10,40	5,570	1,934
	415,0	458	417	30	50	22	528,60	187,100	60,530	18,8	10,70	8,172	2,903
	605,0	598	432	45	70	22	770,10	297,900	94,360	19,7	11,10	12,000	4,370
450 x 200	65,1	446	199	8	12	13	83,00	28,130	1,579	18,4	4,36	1,262	159
	66,2	446	199	8	12	18	84,30	28,700	1,580	18,5	4,33	1,287	159
	74,9	450	200	9	14	13	95,40	32,890	1,870	18,6	4,43	1,462	187
	76,0	450	200	9	14	18	96,76	33,500	1,872	18,6	4,40	1,487	187
	88,9	456	201	10	17	18	113,00	40,400	2,308	18,9	4,51	1,772	230
	98,9	460	202	11	19	18	126,00	45,430	2,619	19,0	4,56	1,975	259
	110,0	460	205	14	19	18	140,00	47,860	2,742	18,5	4,43	2,081	268
450 x 300	106,0	434	299	10	15	24	135,00	46,800	6,690	18,6	7,04	2,160	448
	121,0	440	300	11	18	13	154,00	54,730	8,106	18,9	7,26	2,488	540
	124,0	440	300	11	18	24	157,40	56,100	8,110	18,9	7,18	2,550	541
	145,0	446	302	13	21	24	184,00	66,380	9,658	19,0	7,24	2,977	640

1 BEAMS AND COLUMNS

1.2 Universal Beams and Columns - Metric Units

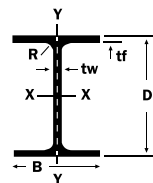


Section Size	Unit Weight (W)	Section Depth (D)	Flange Width (B)	Thickness		Corner Radius (r)	Section Area (A)	Moment of Inertia		Radius of Gyration		Modulus of Section	
				tw	tf			I _x	I _y	I _x	I _y	Z _x	Z _y
mm	kg/m	mm	mm	mm	mm	mm	cm ²	cm ⁴	cm ⁴	cm	cm	cm ³	cm ³
500 x 200	77.9	496	199	9	14	13	99.0	40,840	1,843	20.3	4.31	1,647	185
	79.5	496	199	9	14	20	101.3	41,900	1,846	20.3	4.27	1,690	186
	88.2	500	200	10	16	13	112.0	468,100	2,138	20.4	4.36	1,872	214
	89.6	500	200	10	16	20	114.2	47,800	2,142	20.5	4.33	1,917	214
	102	506	201	11	19	13	129.0	55,480	2,578	20.7	4.47	2,193	257
	103	506	201	11	19	20	131.3	56,520	2,582	20.7	4.43	2,234	257
	117	512	202	12	22	20	148.0	65,450	3,035	21.0	4.52	2,557	300
500 x 300	111	482	300	11	15	13	141.0	58,270	6,756	20.3	6.92	2,418	450
	114	482	300	11	15	26	145.5	60,400	6,768	20.4	6.82	2,505	451
	125	488	300	11	18	13	159.0	68,860	8,106	20.8	7.14	2,822	540
	128	488	300	11	18	26	163.5	71,000	8,118	20.8	7.05	2,910	541
	150	494	302	13	21	26	191.0	83,810	9,663	20.9	7.11	3,393	640
600 x 200	79.0	592	197	8	13	22	101.0	58,240	1,665	24.1	4.07	1,968	169
	92.6	596	199	10	15	13	118.0	66,640	1,976	23.8	4.10	2,236	199
	94.6	596	199	10	15	22	120.5	68,720	1,982	23.9	4.05	2,310	199
	103	600	200	11	17	13	132.0	75,560	2,274	24.0	4.16	2,519	227
	106	600	200	11	17	22	134.4	77,630	2,280	24.0	4.12	2,588	228
	118	606	201	12	20	13	150.0	88,320	2,716	24.3	4.26	2,915	270
	120	606	201	12	20	22	152.5	90,400	2,723	24.3	4.23	2,983	271
	134	612	202	13	23	22	171.7	103,500	3,180	24.6	4.32	3,382	315
600 x 300	133	582	300	12	17	13	169.0	98,950	7,659	24.2	6.73	3,400	511
	137	582	300	12	17	28	174.5	102,700	7,675	24.3	6.63	3,530	512
	147	588	300	12	20	13	187.0	114,400	9,009	24.7	6.94	3,889	601
	151	588	300	12	20	28	192.5	118,100	9,025	24.8	6.85	4,020	602
	170	594	302	14	23	13	217.0	133,650	10,570	24.8	9.98	4,497	700
	175	594	302	14	23	28	222.4	137,300	10,590	24.9	6.90	4,624	701
	203	602	304	16	27	28	259.0	162,600	12,680	25.1	7.00	5,401	834
	217	608	304	16	30	28	277.0	179,300	14,090	25.4	7.13	5,896	927
700 x 300	166	692	300	13	20	28	211.5	172,400	9,030	28.6	6.53	4,980	602
	182	700	300	13	24	18	232.0	197,500	10,820	29.2	6.83	5,643	721
	185	700	300	13	24	28	235.5	201,500	10,830	29.3	6.78	5,760	722
	215	708	302	15	28	28	273.6	237,100	12,900	29.5	6.86	6,700	854
800 x 300	191	792	300	14	22	28	243.4	254,000	9,936	23.3	6.39	6,410	662
	207	800	300	14	26	18	264.0	286,400	11,720	33.0	6.67	7,159	781
	210	800	300	14	26	28	267.4	291,700	11,740	33.0	6.62	7,292	782
	241	808	302	16	30	28	307.6	339,200	13,820	33.2	6.70	8,400	915
	267	816	303	17	34	28	340.0	383,600	15,820	33.6	6.82	9,402	1,044
900 x 300	210	890	299	15	23	18	267.0	338,500	10,280	35.6	6.20	7,608	687
	213	890	299	15	23	28	270.9	345,300	10,290	35.7	6.16	7,760	688
	240	900	300	16	28	18	306.0	404,500	12,630	36.4	6.43	8,989	842
	243	900	300	16	28	28	309.8	411,300	12,650	36.4	6.39	9,140	843
	283	912	302	18	34	18	360.0	491,000	15,660	36.9	6.59	10,770	1,037
	286	912	302	18	34	28	364.0	497,800	15,670	37.0	6.56	10,920	1,038
	304	918	303	19	37	18	387.0	535,400	17,210	37.2	6.67	11,660	1,136
	307	918	303	19	37	28	391.0	542,200	17,230	37.2	6.63	11,810	1,137

US Term	Serial Size	Weight Per ft	Depth of Section (D)	Width of Section (B)	Thickness Web and Flange	Area of Section
	in.	lb	in.	in.	in.	in. ²
HP 14	14 x 14 ½	117	14.234	14.885	0.805	34.40
		102	14.032	14.784	0.704	30.00
		89	13.856	14.696	0.616	26.10
		73	13.636	14.586	0.506	21.40
No Imperial Equivalent						
HP 12	12 x 12	150	13.308	12.810	1.200	44.17
		125	12.928	12.620	1.010	36.73
		100	12.528	12.420	0.810	29.40
		85	12.308	12.310	0.700	24.60
		74	12.122	12.217	0.607	21.80
		64	11.960	12.136	0.526	18.40
		59	11.878	12.095	0.485	17.36
		53	11.780	12.046	0.436	15.50
No Imperial Equivalent						
HP 10	10 x 10	57	10.012	10.224	0.564	16.80
		48	9.838	10.137	0.477	14.10
		42	9.720	10.078	0.418	12.40
No Imperial Equivalent						
HP 8	8 x 8	36	8.026	81.58	0.446	10.60
		30	7.880	8.085	0.373	8.83
No Imperial Equivalent						

1 BEAMS AND COLUMNS

1.3 Universal Bearing Piles - Metric / Imperial Sizes



Serial Size	Mass	Depth Section (D)	Width of Section (B)	Thickness Web and Flange	Area of Section
mm	kg/m	mm	mm	mm	cm ²
400 x 400	235.0	408.0	412.0	25.0	300.00
	197.0	400.0	408.0	21.0	251.00
	168.0	394.0	405.0	18.0	214.00
	140.0	388.0	402.0	15.0	178.00
356 x 368	174.0	361.5	378.1	20.4	222.20
	152.0	356.4	375.5	17.9	193.60
	133.0	351.9	373.3	15.6	169.00
	109.0	346.4	370.5	12.9	138.40
350 x 350	156.0	350.0	357.0	19.0	198.40
	131.0	344.0	354.0	16.0	166.60
	106.0	338.0	351.0	13.0	135.30
305 x 305	223.0	338.0	325.4	30.5	285.00
	186.0	328.4	320.5	25.7	237.00
	154.0	350.0	357.0	19.0	169.00
	149.0	318.2	315.5	20.6	190.00
	129.0	344.0	354.0	16.0	165.00
	126.0	312.6	312.7	17.8	161.00
	110.0	307.9	310.3	15.4	140.40
	105.0	338.0	351.0	13.0	133.00
	95.0	303.8	308.3	13.4	121.00
	88.0	301.7	307.2	12.3	112.00
	79.0	299.2	306.0	11.1	100.40
	142.0	310.0	310.0	20.0	181.00
300 x 300	106.0	300.0	305.0	15.0	134.80
	84.5	294.0	302.0	12.0	107.70
	83.4	294.0	302.0	12.0	106.00
	85.0	254.3	259.7	14.3	108.10
254 x 254	71.0	249.9	257.5	12.1	91.00
	63.0	246.9	256.0	10.6	79.70
	82.2	250.0	255.0	14.0	104.70
250 x 250	64.4	244.0	252.0	11.0	82.06
	63.8	244.0	252.0	11.0	81.30
	54.0	203.9	207.2	11.3	68.40
203 x 203	45.0	202.2	205.4	9.5	57.00
	56.2	200.0	204.0	12.0	71.53