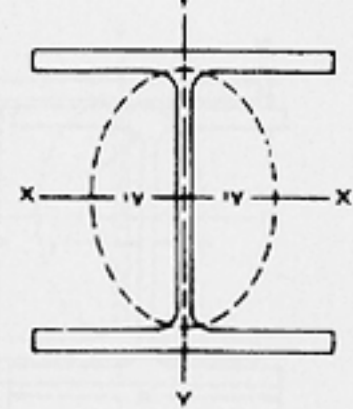


WIDE FLANGE SHAPES

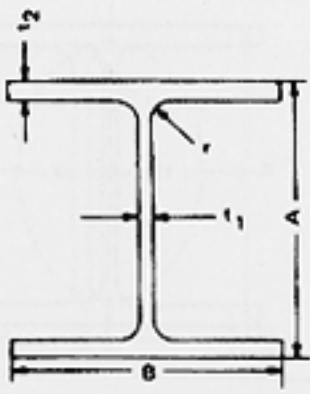
(UNIVERSAL BEAMS)

Size	Weight		Area of Section		Depth of Section (A)		Flange				Web Thickness (t ₁)	
	lbs/ft	kg/m	in ²	cm ²	in	mm	Width (B)		Thickness (t ₂)		in	mm
in							in	mm	in	mm		
W4 4 x 4	13	19.35	3.83	24.71	4.16	105.7	4.060	103.1	0.345	8.76	0.280	7.11
	19	28.28	5.56	35.87	5.15	130.8	5.030	127.8	0.430	10.92	0.270	6.86
W6 6 x 4	9	13.39	2.68	17.29	5.90	149.9	3.940	100.1	0.215	5.46	0.170	4.32
	12	17.86	3.55	22.90	6.03	153.2	4.000	101.6	0.280	7.11	0.230	5.84
	16	23.81	4.74	30.58	6.28	159.5	4.030	102.4	0.405	10.29	0.260	6.60
W6 6 x 6	15	22.32	4.43	28.58	5.99	152.1	5.990	152.1	0.260	6.60	0.230	5.81
	20	29.76	5.87	38.87	6.20	157.5	6.020	152.9	0.365	9.27	0.260	6.60
	25	37.20	7.34	47.35	6.38	162.1	6.080	154.4	0.455	11.56	0.320	8.13
W8 8 x 4	10	14.88	2.96	19.10	7.89	200.4	3.940	100.1	0.205	5.21	0.170	4.32
	13	19.35	3.84	24.77	7.99	202.9	4.000	101.6	0.255	6.48	0.230	5.84
	15	22.32	4.45	28.65	8.11	206.0	4.015	102.0	0.315	8.00	0.245	6.22
W8 8 x 5 1/2	18	26.79	5.26	33.94	8.14	206.8	5.250	133.4	0.330	8.38	0.230	5.84
	21	31.25	6.16	39.74	8.28	210.3	5.270	133.9	0.400	10.16	0.250	6.35
W8 8 x 6 1/2	24	35.72	7.08	45.68	7.93	201.4	6.495	165.0	0.400	10.16	0.245	6.22
	28	41.67	8.25	53.23	8.06	204.7	6.535	166.0	0.465	11.81	0.285	7.24
W8 8 x 8	31	46.13	9.13	58.90	8.00	203.2	7.995	203.1	0.435	11.05	0.285	7.24
	35	52.09	10.3	66.45	8.12	206.2	8.020	203.7	0.495	12.57	0.310	7.87
	40	59.53	11.7	75.48	8.25	209.6	8.070	205.0	0.560	14.22	0.360	9.14
	48	71.43	14.1	90.97	8.50	215.9	8.110	206.0	0.685	17.40	0.400	10.16
	58	86.31	17.1	110.3	8.75	222.2	8.220	208.8	0.810	20.57	0.510	12.95
	67	99.71	19.7	127.1	9.00	228.6	8.280	210.3	0.935	23.75	0.570	14.48
W10 10 x 4	12	17.86	3.54	22.84	9.87	250.7	3.960	100.6	0.210	5.33	0.190	4.83
	15	22.32	4.41	28.45	9.99	253.7	4.000	101.6	0.270	6.86	0.230	5.84
	17	25.30	4.99	32.19	10.11	256.8	4.010	101.9	0.330	8.38	0.240	6.10
	19	28.28	5.62	36.26	10.24	260.1	4.020	102.1	0.395	10.03	0.250	6.35



WIDE FLANGE SHAPES
(UNIVERSAL BEAMS)

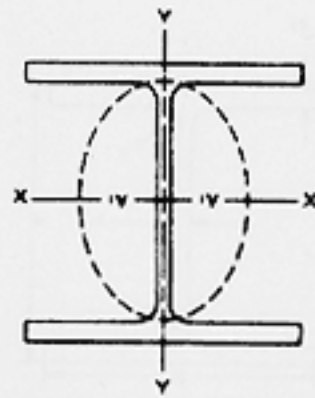
Corner Radius (r)		Moment of Inertia				Radius of Gyration				Modulus of Section				Size in
		Jx		Jy		ix		iy		Zx		Zy		
in	mm	in ⁴	cm ⁴	in ⁴	cm ⁴	in	cm	in	cm	in ³	cm ³	in ³	cm ³	in
0.25	6.4	11.3	470	3.86	161	1.72	4.37	1.00	2.54	5.46	89.5	1.90	31.1	W4 4 x 4
0.30	7.6	21.4	891	7.51	313	2.13	5.41	1.26	3.20	8.55	140	3.00	49.2	W5 5 x 5
		26.3	1,090	9.13	380	2.17	5.51	1.28	3.25	10.2	167	3.63	59.5	
0.25	6.4	16.4	683	2.20	91.6	2.47	6.27	0.905	2.30	5.56	91.1	1.11	18.2	W6 6 x 4
		22.1	900	2.99	124	2.49	6.32	0.918	2.33	7.31	120	1.50	24.6	
		32.1	1,340	4.43	184	2.60	6.60	0.967	2.46	10.2	167	2.20	36.1	
0.25	6.4	29.1	1,210	9.32	388	2.56	6.50	1.45	3.68	9.72	159	3.11	51.0	W6 6 x 6
		41.4	1,720	13.3	554	2.66	6.76	1.50	3.81	13.4	220	4.41	72.3	
		53.4	2,220	17.1	712	2.70	6.86	1.52	3.86	16.7	274	5.61	91.9	
0.30	7.6	30.8	1,280	2.09	87.0	3.22	8.18	0.841	2.14	7.81	128	1.06	17.4	W8 8 x 4
		39.6	1,650	2.73	114	3.21	8.15	0.843	2.14	9.91	162	1.37	22.5	
		48.0	2,000	3.41	142	3.29	8.36	0.876	2.23	11.8	193	1.70	27.9	
0.30	7.6	61.9	2,580	7.97	332	3.43	8.71	1.23	3.12	15.2	249	3.04	49.8	W8 8 x 5/4
		75.3	3,130	9.77	407	3.49	8.86	1.26	3.20	18.2	298	3.71	60.8	
0.40	10.2	82.8	3,450	18.3	762	3.42	8.69	1.61	4.09	20.9	342	5.63	92.3	W8 8 x 6/2
		98.0	4,080	21.7	903	3.45	8.76	1.62	4.11	24.3	398	6.63	109	
0.40	10.2	110	4,580	37.1	1,540	3.47	8.81	2.02	5.13	27.5	451	9.27	152	W8 8 x 8
		127	5,290	42.6	1,770	3.51	8.92	2.03	5.16	31.2	511	10.6	174	
		146	6,080	49.1	2,040	3.53	8.97	2.04	5.18	35.5	582	12.2	200	
		184	7,660	60.9	2,530	3.61	9.17	2.08	5.28	43.3	710	15.0	246	
		228	9,490	75.1	3,130	3.65	9.27	2.10	5.33	52.0	852	18.3	300	
		272	11,300	88.6	3,690	3.72	9.45	2.12	5.38	60.4	990	21.4	351	
0.30	7.6	53.8	2,240	2.18	90.7	3.90	9.91	0.785	1.99	10.9	179	1.10	18.0	W10 10 x 4
		68.9	2,870	2.89	120	3.95	10.0	0.810	2.06	13.8	226	1.45	23.8	
		81.9	3,410	3.56	148	4.05	10.3	0.845	2.15	16.2	265	1.78	29.2	
		96.3	4,010	4.29	179	4.14	10.5	0.874	2.22	18.8	308	2.14	35.1	



WIDE FLANGE SHAPES

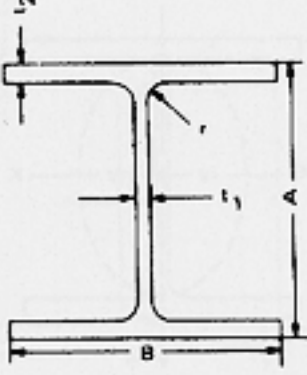
(UNIVERSAL BEAMS)

Size	Weight		Area of Section		Depth of Section (A)		Flange				Web Thickness (t ₁)			
	in	lbs/ft	kg/m	in ²	cm ²	in	mm	Width (B)		Thickness (t ₂)		in	mm	
							in	mm	in	mm	in	mm	in	mm
W10 10 x 5½	22	32.74	6.49	41.87	10.17	258.3	5.750	146.0	0.360	9.14	0.240	6.10		
	26	38.69	7.61	49.10	10.33	262.4	5.770	146.6	0.440	11.18	0.260	6.60		
	30	44.64	8.84	57.03	10.47	265.9	5.810	147.6	0.510	12.95	0.300	7.62		
W10 10 x 8	33	49.11	9.71	62.64	9.73	247.1	7.960	202.2	0.435	11.05	0.290	7.37		
	39	58.04	11.5	74.19	9.92	252.0	7.985	202.8	0.530	13.46	0.315	8.00		
	45	66.97	13.3	85.81	10.10	256.5	8.020	203.7	0.620	15.75	0.350	8.89		
W10 10 x 10	49	72.92	14.4	92.9	9.98	253.5	10.000	254.0	0.560	14.22	0.340	8.64		
	54	80.36	15.8	101.9	10.09	256.3	10.030	254.8	0.615	15.62	0.370	9.40		
	60	89.29	17.6	113.5	10.22	259.6	10.080	256.0	0.680	17.27	0.420	10.67		
	68	101.2	20.0	129.0	10.40	264.2	10.130	257.3	0.770	19.56	0.470	11.94		
	77	114.6	22.6	145.8	10.60	269.2	10.190	258.8	0.870	22.10	0.530	13.46		
	88	131.0	25.9	167.1	10.84	275.3	10.265	260.7	0.990	25.15	0.605	15.37		
	100	148.8	29.4	189.7	11.10	281.9	10.340	262.6	1.120	28.45	0.680	17.27		
W12 12 x 4	14	20.83	4.16	26.84	11.91	302.5	3.870	100.8	0.225	5.72	0.200	5.08		
	16	23.81	4.71	30.39	11.99	304.5	3.900	101.3	0.265	6.73	0.220	5.59		
	19	28.28	5.57	35.94	12.16	308.9	4.005	101.7	0.350	8.89	0.235	5.97		
	22	32.74	6.48	41.81	12.31	312.7	4.030	102.4	0.425	10.80	0.260	6.60		
W12 12 x 5	25	37	7.35	47.4	11.96	304	4.864	123	0.421	10.70	0.284	7.20		
	28	42	8.23	53.1	12.07	307	4.893	124	0.476	12.10	0.313	8.00		
	32	48	9.42	60.8	12.22	310	4.930	125	0.551	14.00	0.350	8.90		
W12 12 x 6½	26	38.69	7.65	49.35	12.22	310.4	6.490	164.8	0.380	9.65	0.230	5.84		
	30	44.64	8.79	56.71	12.34	313.4	6.520	165.6	0.440	11.18	0.260	6.60		
	35	52.09	10.3	66.45	12.50	317.5	6.560	166.6	0.520	13.21	0.300	7.62		
W12 12 x 8	40	59.53	11.8	76.13	11.94	303.3	8.005	203.3	0.515	13.08	0.295	7.49		
	45	66.97	13.2	85.16	12.06	306.3	8.045	204.3	0.575	14.60	0.335	8.51		
	50	74.41	14.7	94.84	12.19	309.6	8.080	205.2	0.640	16.26	0.370	9.40		



WIDE FLANGE SHAPES

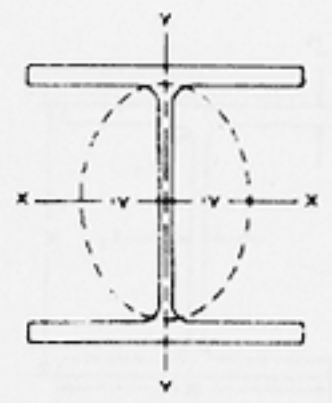
Corner Radius (r)		Moment of Inertia				Radius of Gyration				Modulus of Section				Size in
		Jx		Jy		ix		iy		Zx		Zy		
in	mm	in ⁴	cm ⁴	in ⁴	cm ⁴	in	cm	in	cm	in ³	cm ³	in ³	cm ³	
0.30	7.6	118	4,910	11.4	475	4.27	10.8	1.33	3.38	23.2	380	3.97	65.1	W10 10 x 5½
		144	5,990	14.1	587	4.35	11.0	1.36	3.45	27.9	457	4.89	801	
		170	7,080	16.7	695	4.38	11.1	1.37	3.48	32.4	531	5.75	94.2	
0.50	12.7	170	7,080	36.6	1,520	4.19	10.6	1.94	4.93	35.0	574	9.20	151	W10 10 x 8
		209	8,700	45.0	1,870	4.27	10.8	1.98	5.03	42.1	690	11.3	185	
		248	10,300	53.4	2,220	4.33	11.0	2.01	5.11	49.1	805	13.3	218	
0.50	12.7	272	11,300	93.4	3,890	4.35	11.0	2.54	6.45	54.6	895	18.7	306	W10 10 x 10
		303	12,600	103	4,290	4.37	11.1	2.56	6.50	60.0	983	20.6	338	
		341	14,200	116	4,830	4.39	11.2	2.57	6.53	66.7	1,090	23.0	377	
		394	16,400	134	5,580	4.44	11.3	2.59	6.58	75.7	1,240	26.4	433	
		455	18,900	154	6,410	4.49	11.4	2.60	6.60	85.9	1,410	30.1	493	
		534	22,200	179	7,450	4.54	11.5	2.63	6.68	98.5	1,610	34.8	570	
		623	25,900	207	8,620	4.60	11.7	2.65	6.73	112	1,840	40.0	655	
716	29,800	236	9,820	4.66	11.8	2.68	6.81	126	2,060	45.3	742			
0.30	7.6	88.6	3,690	2.36	98.2	4.62	11.7	0.753	1.91	14.9	244	1.19	19.5	W12 12 x 4
		103	4,290	2.82	117	4.67	11.9	0.773	1.96	17.1	280	1.41	23.1	
		130	5,410	3.76	157	4.82	12.2	0.822	2.09	21.3	349	1.88	30.8	
		156	6,490	4.66	194	4.91	12.5	0.848	2.15	25.4	416	2.31	37.9	
0.35	8.9	171.6	7,143	7.59	316	4.83	12.3	1.02	2.58	28.7	470.3	3.12	51.11	W12 12 x 5
		195.2	8,124	8.81	367	4.87	12.4	1.03	2.63	32.3	530.0	3.60	58.99	
		227.9	9,485	10.52	438	4.92	12.5	1.06	2.68	37.3	611.1	4.27	69.94	
0.30	7.6	204	8,400	17.3	720	5.17	13.1	1.51	3.84	33.4	547	5.34	87.5	W12 12 x 6½
		238	9,910	20.3	845	5.21	13.2	1.52	3.86	38.6	633	6.24	102	
		285	11,900	24.5	1,020	5.25	13.3	1.54	3.91	45.6	747	7.47	122	
0.60	15.2	310	12,900	44.1	1,840	5.13	13.0	1.93	4.90	51.9	850	11.0	180	W12 12 x 8
		350	14,600	50.0	2,060	5.15	13.1	1.94	4.93	58.1	952	12.4	203	
		394	16,400	56.3	2,340	5.18	13.2	1.96	4.98	64.7	1,060	13.9	228	



WIDE FLANGE SHAPES

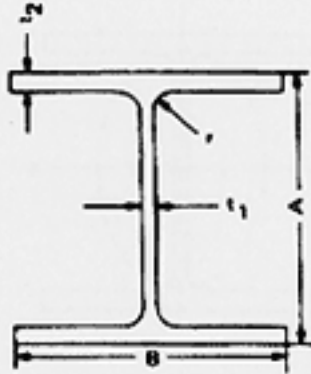
(UNIVERSAL BEAMS)

Size	Weight		Area of Section		Depth of Section (A)		Flange				Web Thickness (t ₁)			
	in	lbs/ft	kg/m	in ²	cm ²	in	mm	Width (B)		Thickness (t ₂)		in	mm	
							in	mm	in	mm	in	mm	in	mm
W12 12 x 10	53	78.87	15.6	100.6	12.06	306.3	9.995	253.9	0.575	14.60	0.345	8.76		
	58	86.31	17.0	109.7	12.19	309.6	10.010	254.3	0.640	16.26	0.360	9.14		
W12 12 x 12	65	96.73	19.1	123.2	12.12	307.8	12.000	304.8	0.605	15.37	0.390	9.91		
	72	107.1	21.1	136.1	12.25	311.2	12.040	305.8	0.670	17.02	0.430	10.92		
	79	117.6	23.2	149.7	12.38	314.5	12.080	306.8	0.735	18.67	0.470	11.94		
	87	129.5	25.6	165.2	12.53	318.3	12.125	308.0	0.810	20.57	0.515	13.08		
	96	142.9	28.2	181.9	12.71	322.8	12.160	308.9	0.900	22.86	0.550	13.97		
	106	157.7	31.2	201.3	12.89	327.4	12.220	310.4	0.990	25.15	0.610	15.49		
	120	178.6	35.3	227.7	13.12	333.2	12.320	312.9	1.105	28.07	0.710	18.03		
	136	202.4	39.9	257.4	13.41	340.6	12.400	315.0	1.250	31.75	0.790	20.07		
	152	226.2	44.7	288.4	13.71	348.2	12.480	317.0	1.400	35.56	0.870	22.10		
	170	253.0	50.0	322.6	14.03	356.4	12.570	319.3	1.560	39.62	0.960	24.38		
	190	282.8	55.8	360.0	14.38	365.3	12.670	321.8	1.735	44.07	1.060	26.92		
	210	312.5	61.8	398.7	14.71	373.6	12.790	324.9	1.900	48.26	1.180	29.97		
	230	342.3	67.7	436.8	15.05	382.3	12.895	327.5	2.070	52.58	1.285	32.64		
	252	375.0	74.1	478.1	15.41	391.4	13.005	330.3	2.250	57.15	1.395	35.43		
279	415.2	81.9	528.4	15.85	402.6	13.140	333.8	2.470	62.74	1.530	38.86			
305	453.9	89.6	578.1	16.32	414.5	13.235	336.2	2.705	68.71	1.625	41.28			
336	500.0	98.8	637.4	16.82	427.2	13.385	340.0	2.955	75.06	1.775	45.08			
W14 14 x 4	17.2	25.6	5.05	32.6	14.00	356	4.000	102	0.272	6.91	0.210	5.33		
W14 14 x 5	22	32.74	6.49	41.87	13.74	349.0	5.000	127.0	0.335	8.51	0.230	5.84		
	26	38.69	7.69	49.61	13.91	353.3	5.025	127.6	0.420	10.67	0.255	6.48		
W14 14 x 6 1/2	30	44.64	8.85	57.10	13.84	351.5	6.730	170.9	0.385	9.78	0.270	6.86		
	34	50.60	10.0	64.52	13.98	355.1	6.745	171.3	0.455	11.56	0.285	7.24		
	38	56.55	11.2	72.26	14.10	358.1	6.770	172.0	0.515	13.08	0.310	7.87		
W14 14 x 8	43	63.99	12.6	81.29	13.66	347.0	7.995	203.1	0.530	13.46	0.305	7.75		
	48	71.43	14.1	90.97	13.79	350.3	8.030	204.0	0.595	15.11	0.340	8.64		
	53	78.87	15.6	100.6	13.92	353.6	8.060	204.7	0.660	16.76	0.370	9.40		



WIDE FLANGE SHAPES
UNIVERSAL BEAMS

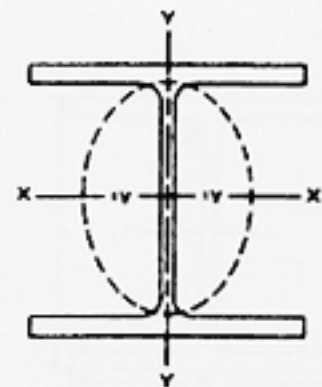
Corner Radius (r)		Moment of Inertia				Radius of Gyration				Modulus of Section				Size
		Jx		Jy		ix		iy		Zx		Zy		
in	mm	in ⁴	cm ⁴	in ⁴	cm ⁴	in	cm	in	cm	in ³	cm ³	in ³	cm ³	in
0.60	15.2	425	17,700	95.8	3,990	5.23	13.3	2.48	6.30	70.6	1,160	19.2	315	W12 12 x 10
		475	19,800	107	4,450	5.28	13.4	2.51	6.38	78.0	1,280	21.4	351	
0.60	15.2	533	22,200	174	7,240	5.28	13.4	3.02	7.67	87.9	1,440	29.1	477	W12 12 x 12
		597	24,800	195	8,120	5.31	13.5	3.04	7.72	97.4	1,600	32.4	531	
		662	27,600	216	8,990	5.34	13.6	3.05	7.75	107	1,750	35.8	587	
		740	30,800	241	10,000	5.38	13.7	3.07	7.80	118	1,930	39.7	651	
		833	34,700	270	11,200	5.44	13.8	3.09	7.85	131	2,150	44.4	728	
		933	38,800	301	12,500	5.47	13.9	3.11	7.90	145	2,380	49.3	808	
		1,070	44,500	345	14,400	5.51	14.0	3.13	7.95	163	2,670	56.0	918	
		1,240	51,600	398	16,600	5.58	14.2	3.16	8.03	186	3,050	64.2	1,050	
		1,430	59,500	454	18,900	5.66	14.4	3.19	8.10	209	3,420	72.8	1,190	
		1,650	68,700	517	21,500	5.74	14.6	3.22	8.18	235	3,850	82.3	1,350	
		1,890	78,700	589	24,500	5.82	14.8	3.25	8.26	263	4,310	93.0	1,520	
		2,140	89,100	664	27,600	5.89	15.0	3.28	8.33	292	4,790	104	1,700	
		2,440	101,000	742	30,900	5.97	15.2	3.31	8.41	321	5,260	115	1,880	
		2,720	113,000	828	34,500	6.06	15.4	3.34	8.48	353	5,780	127	2,080	
3,110	129,000	938	39,000	6.16	15.6	3.38	8.59	393	6,440	143	2,340			
3,550	148,000	1,050	43,700	6.29	16.0	3.42	8.69	435	7,130	159	2,610			
4,060	169,000	1,190	49,500	6.41	16.3	3.47	8.81	483	7,910	177	2,900			
0.30	7.62	147.3	6,131	2.65	110.3	5.40	13.72	0.72	1.83	21.0	344.2	1.32	21.63	W14 14 x 4
0.40	10.2	199	8,280	7.00	291	5.54	14.1	1.04	2.64	29.0	475	2.80	45.9	W14 14 x 5
		245	10,200	8.91	371	5.65	14.4	1.08	2.74	35.3	578	3.54	58.0	
0.40	10.2	291	12,100	19.6	816	5.73	14.6	1.49	3.78	42.0	688	5.82	95.4	W14 14 x 6 1/2
		340	14,200	23.3	970	5.83	14.8	1.53	3.89	48.6	796	6.91	113	
		385	16,000	26.7	1,110	5.88	14.9	1.55	3.94	54.6	895	7.88	129	
0.60	15.2	428	17,800	45.2	1,880	5.82	14.8	1.89	4.80	62.7	1,030	11.3	185	W14 14 x 8
		485	20,200	51.4	2,140	5.85	14.9	1.91	4.85	70.3	1,150	12.8	210	
		541	22,500	57.7	2,400	5.89	15.0	1.92	4.88	77.8	1,270	14.3	234	



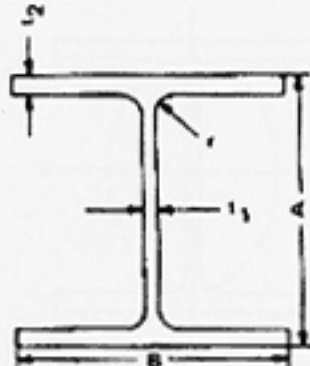
WIDE FLANGE SHAPES

(UNIVERSAL BEAMS)

Size	Weight		Area of Section		Depth of Section (A)		Flange				Web Thickness (t ₁)	
	in	lbs/ft	kg/m	in ²	cm ²	in	mm	Width (B)		Thickness (t ₂)		in
W14 14 x 10	61	90.78	17.9	115.5	13.89	352.8	9.995	253.9	0.645	16.38	0.375	9.52
	68	101.2	20.0	129.0	14.04	356.6	10.035	254.9	0.720	18.29	0.415	10.54
	74	110.1	21.8	140.6	14.17	359.9	10.070	255.8	0.785	19.94	0.450	11.43
	82	122.0	24.1	155.5	14.31	363.5	10.130	257.3	0.855	21.72	0.510	12.95
W14 14 x 12	78	116	22.94	148.0	14.06	357	12.000	305	0.713	18.24	0.428	11.87
	84	125	24.71	159.4	14.18	360	12.023	305	0.778	19.76	0.451	11.46
W14 14 x 14½	90	133.9	26.5	171.0	14.02	356.1	14.520	368.8	0.710	18.03	0.440	11.18
	99	147.3	29.1	187.7	14.16	359.7	14.565	370.0	0.780	19.81	0.485	12.32
	109	162.2	32.0	206.5	14.32	363.7	14.605	371.0	0.850	21.84	0.525	13.34
	120	178.6	35.3	227.7	14.48	367.8	14.670	372.6	0.940	23.88	0.590	14.99
	132	196.4	38.8	250.3	14.66	372.4	14.725	374.0	1.030	26.16	0.645	16.38
W14 14 x 16	145	215.8	42.7	275.5	14.78	375.4	15.500	393.7	1.090	27.69	0.680	17.27
	159	236.6	46.7	301.3	14.98	380.5	15.565	395.4	1.190	30.23	0.745	18.92
	176	261.9	51.8	334.2	15.22	386.6	15.650	397.5	1.310	33.27	0.830	21.08
	193	287.2	56.8	366.5	15.48	393.2	15.710	399.0	1.440	36.58	0.890	22.61
	211	314.0	62.0	400.0	15.72	399.3	15.800	401.3	1.560	39.62	0.980	24.89
	233	346.7	68.5	441.9	16.04	407.4	15.890	403.3	1.720	43.69	1.070	27.18
	257	382.5	75.6	487.7	16.38	416.1	15.995	406.3	1.890	48.01	1.175	29.84
	283	421.1	83.3	537.4	16.74	425.2	16.110	409.2	2.070	52.58	1.290	32.77
	311	462.8	91.4	589.7	17.12	434.8	16.230	412.2	2.260	57.40	1.410	35.81
	342	509.0	101	651.6	17.54	445.5	16.360	415.5	2.470	62.74	1.540	39.12
	370	550.6	109	703.2	17.92	455.2	16.475	418.5	2.660	67.56	1.655	42.04
	398	592.3	117	754.8	18.29	464.6	16.590	421.4	2.845	72.26	1.770	44.96
	426	634.0	125	806.4	18.67	474.2	16.695	424.1	3.035	77.09	1.875	47.62
	455	677.1	134	864.5	19.02	483.1	16.835	427.6	3.210	81.53	2.015	51.18
	500	744.1	147	948.4	19.60	497.8	17.010	432.1	3.500	88.90	2.190	55.63
	550	818.5	162	1,045	20.24	514.1	17.200	436.9	3.820	97.03	2.380	60.45
605	900.3	178	1,148	20.92	531.4	17.415	442.3	4.160	105.66	2.595	65.91	
665	989.6	196	1,265	21.64	549.7	17.650	448.3	4.520	114.81	2.830	71.88	
730	1,086	215	1,387	22.42	569.5	17.890	454.4	4.910	124.71	3.070	77.98	



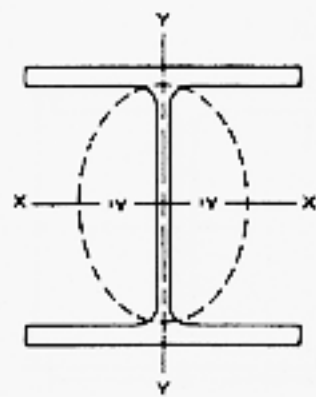
Corner Radius (r)		Moment of Inertia				Radius of Gyration				Modulus of Section				Size
		Jx		Jy		ix		iy		Zx		Zy		
in	mm	in ⁴	cm ⁴	in ⁴	cm ⁴	in	cm	in	cm	in ³	cm ³	in ³	cm ³	in
0.60	15.2	640	26,600	107	4,450	5.98	15.2	2.45	6.22	92.2	1,510	21.5	352	W14 14 x 10
		723	30,100	121	5,040	6.01	15.3	2.46	6.25	103	1,690	24.2	397	
		796	33,100	134	5,580	6.04	15.3	2.48	6.30	112	1,840	26.6	436	
		882	36,700	148	6,160	6.05	15.4	2.48	6.30	123	2,020	29.3	480	
0.60	15.2	851.2	35,430	206.9	8,613	6.09	15.47	3.00	7.62	121.1	1,984.8	34.5	565.4	W14 14 x 12
		928.4	38,650	225.5	9,387	6.13	15.57	3.02	7.67	130.9	2,145.4	37.5	614.6	
0.60	15.2	999	41,600	362	15,100	6.14	15.6	3.70	9.40	143	2,340	49.9	818	W14 14 x 14½
		1,110	46,200	402	16,700	6.17	15.7	3.71	9.42	157	2,570	55.2	905	
		1,240	51,600	447	18,600	6.22	15.8	3.73	9.47	173	2,830	61.2	1,000	
		1,380	57,400	495	20,600	6.24	15.8	3.74	9.50	190	3,110	67.5	1,110	
		1,530	63,700	548	22,800	6.28	16.0	3.76	9.55	209	3,420	74.5	1,220	
0.60	15.2	1,710	71,200	677	28,200	6.33	16.1	3.98	10.1	232	3,800	87.3	1,430	W14 14 x 16
		1,900	79,100	748	31,100	6.38	16.2	4.00	10.2	254	4,160	96.2	1,580	
		2,140	89,100	838	34,900	6.43	16.3	4.02	10.2	281	4,600	107	1,750	
		2,400	99,900	931	38,800	6.50	16.5	4.05	10.3	310	5,080	119	1,950	
		2,660	111,000	1,030	42,900	6.55	16.6	4.07	10.3	338	5,540	130	2,130	
		3,010	125,000	1,150	47,900	6.63	16.8	4.10	10.4	375	6,150	145	2,380	
		3,400	142,000	1,290	53,700	6.71	17.0	4.13	10.5	415	6,800	161	2,640	
		3,840	160,000	1,440	59,900	6.79	17.2	4.17	10.6	459	7,520	179	2,930	
		4,330	180,000	1,610	67,000	6.88	17.5	4.20	10.7	506	8,290	199	3,260	
		4,900	204,000	1,810	75,300	6.98	17.7	4.24	10.8	559	9,160	221	3,620	
		5,440	226,000	1,990	82,800	7.07	18.0	4.27	10.8	607	9,950	241	3,950	
		6,000	250,000	2,170	90,300	7.16	18.2	4.31	10.9	656	10,700	262	4,290	
		6,600	275,000	2,360	98,200	7.26	18.4	4.34	11.0	707	11,600	283	4,640	
		7,190	299,000	2,560	107,000	7.33	18.6	4.38	11.1	756	12,400	304	4,980	
		8,210	342,000	2,880	120,000	7.48	19.0	4.43	11.3	838	13,700	339	5,560	
		9,430	393,000	3,250	135,000	7.63	19.4	4.49	11.4	931	15,300	378	6,190	
10,800	450,000	3,680	153,000	7.80	19.8	4.55	11.6	1,040	17,000	423	6,930			
12,400	516,000	4,170	174,000	7.98	20.3	4.62	11.7	1,150	18,800	472	7,730			
14,300	595,000	4,720	196,000	8.17	20.8	4.69	11.9	1,280	21,000	527	8,640			



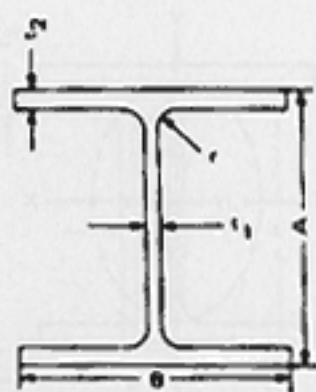
WIDE FLANGE SHAPES

(UNIVERSAL BEAMS)

Size	Weight		Area of Section		Depth of Section (A)		Flange				Web Thickness (t ₁)			
	in	lbs/ft	kg/m	in ²	cm ²	in	.mm	Width (B)		Thickness (t ₂)		in	mm	
							in	mm	in	mm	in	mm	in	mm
W16 16 x 5½	26	38.69	7.68	49.55	15.69	398.5	5.500	139.7	0.345	8.76	0.250	6.35		
	31	46.13	9.12	58.84	15.88	403.4	5.525	140.3	0.440	11.18	0.275	6.98		
W16 16 x 7	36	53.57	10.6	68.39	15.86	402.8	6.985	177.4	0.430	10.92	0.295	7.49		
	40	59.53	11.8	76.13	16.01	406.7	6.995	177.7	0.505	12.83	0.305	7.75		
	45	66.97	13.3	85.81	16.13	409.7	7.035	178.7	0.565	14.35	0.345	8.76		
	50	74.41	14.7	94.84	16.26	413.0	7.070	179.6	0.630	16.00	0.380	9.65		
	57	84.83	16.8	108.4	16.43	417.3	7.120	180.8	0.715	18.16	0.430	10.92		
W16 16 x 10½	67	99.71	19.7	127.1	16.33	414.8	10.235	260.0	0.665	16.89	0.395	10.03		
	77	114.6	22.6	145.8	16.52	419.6	10.295	261.5	0.760	19.30	0.455	11.56		
	89	132.4	26.2	169.0	16.75	425.4	10.365	263.3	0.875	22.22	0.525	13.33		
	100	148.8	29.4	189.7	16.97	431.0	10.425	264.8	0.985	25.02	0.585	14.86		
W18 18 x 6	35	52.09	10.3	66.45	17.70	449.6	6.000	152.4	0.425	10.80	0.300	7.62		
	40	59.53	11.8	76.13	17.90	454.7	6.015	152.8	0.525	13.34	0.315	8.00		
	46	68.46	13.5	87.10	18.06	458.7	6.060	153.9	0.605	15.37	0.360	9.14		
W18 18 x 7½	50	74.41	14.7	94.84	17.99	456.9	7.495	190.4	0.570	14.48	0.355	9.02		
	55	81.85	16.2	104.5	18.11	460.0	7.530	191.3	0.630	16.00	0.390	9.91		
	60	89.29	17.6	113.5	18.24	463.3	7.555	191.9	0.695	17.65	0.415	10.54		
	65	96.73	19.1	123.2	18.35	466.1	7.590	192.8	0.750	19.05	0.450	11.43		
	71	105.7	20.8	134.2	18.47	469.1	7.635	193.9	0.810	20.57	0.495	12.57		
W18 18 x 11	76	113.1	22.3	143.9	18.21	462.5	11.035	280.3	0.680	17.27	0.425	10.80		
	86	128.0	25.3	163.2	18.39	467.1	11.090	281.7	0.770	19.56	0.480	12.19		
	97	144.4	28.5	183.9	18.59	472.2	11.145	283.1	0.870	22.10	0.535	13.59		
	106	157.7	31.1	200.6	18.73	475.7	11.200	284.5	0.940	23.88	0.590	14.99		
	119	177.1	35.1	226.5	18.97	481.8	11.265	286.1	1.060	26.92	0.655	16.64		
W21 21 x 6½	44	65.48	13.0	83.87	20.66	524.8	6.500	165.1	0.450	11.43	0.350	8.89		
	50	74.41	14.7	94.84	20.83	529.1	6.530	165.9	0.535	13.59	0.380	9.65		
	57	84.83	16.7	107.7	21.06	534.9	6.555	166.5	0.650	16.51	0.405	10.29		



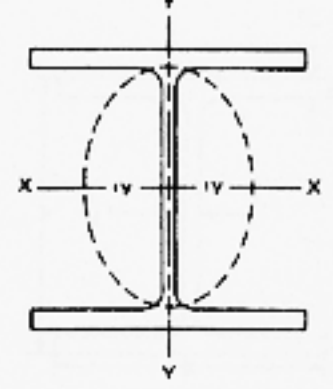
Corner Radius (r)		Moment of Inertia				Radius of Gyration				Modulus of Section				Size
		J _x		J _y		i _x		i _y		Z _x		Z _y		
in	mm	in ⁴	cm ⁴	in ⁴	cm ⁴	in	cm	in	cm	in ³	cm ³	in ³	cm ³	in
0.40	10.2	301	12,500	9.59	399	6.26	15.9	1.12	2.84	38.4	629	3.49	57.2	W16 16 x 5½
		375	15,600	12.4	516	6.41	16.3	1.17	2.97	47.2	773	4.49	73.6	
0.40	10.2	448	18,600	24.5	1,020	6.51	16.5	1.52	3.86	56.5	926	7.00	115	W16 16 x 7
		518	21,600	28.9	1,200	6.63	16.8	1.57	3.99	64.7	1,060	8.25	135	
		586	24,400	32.8	1,370	6.65	16.9	1.57	3.99	72.7	1,190	9.34	153	
		659	27,400	37.2	1,550	6.68	17.0	1.59	4.04	81.0	1,330	10.5	172	
		758	31,600	43.1	1,790	6.72	17.1	1.60	4.06	92.2	1,510	12.1	198	
0.40	10.2	954	39,700	119	4,950	6.96	17.7	2.46	6.25	117	1,920	23.2	380	W16 16 x 10½
		1,110	46,200	138	5,740	7.00	17.8	2.47	6.27	134	2,200	26.9	441	
		1,300	54,100	163	6,780	7.05	17.9	2.49	6.32	155	2,540	31.4	515	
		1,490	62,000	186	7,740	7.10	18.0	2.52	6.40	175	2,870	35.7	585	
0.40	10.2	510	21,200	15.3	637	7.04	17.9	1.22	3.10	57.6	944	5.12	84	W18 18 x 6
		612	25,500	19.1	795	7.21	18.3	1.27	3.23	68.4	1,120	6.35	104	
		712	29,600	22.5	937	7.25	18.4	1.29	3.28	78.8	1,290	7.43	122	
0.40	10.2	800	33,300	40.1	1,670	7.38	18.7	1.65	4.19	88.9	1,460	10.7	175	W18 18 x 7½
		890	37,000	44.9	1,870	7.41	18.8	1.67	4.24	98.3	1,610	11.9	195	
		984	41,000	50.1	2,090	7.47	19.0	1.69	4.29	108	1,770	13.3	218	
		1,070	44,500	54.8	2,280	7.49	19.0	1.69	4.29	117	1,920	14.4	236	
		1,170	48,700	60.3	2,510	7.50	19.0	1.70	4.32	127	2,080	15.8	259	
0.40	10.2	1,330	55,400	152	6,330	7.73	19.6	2.61	6.63	146	2,390	27.6	452	W18 18 x 11
		1,530	63,700	175	7,280	7.77	19.7	2.63	6.68	166	2,720	31.6	518	
		1,750	72,800	201	8,370	7.82	19.9	2.65	6.73	188	3,080	36.1	592	
		1,910	79,500	220	9,160	7.84	19.9	2.66	6.76	204	3,340	39.4	646	
		2,190	91,200	253	10,500	7.90	20.1	2.69	6.83	231	3,790	44.9	736	
0.50	12.7	843	35,100	20.7	862	8.06	20.5	1.26	3.20	81.6	1,340	6.36	104	W21 21 x 6½
		984	41,000	24.9	1,040	8.18	20.8	1.30	3.30	94.5	1,550	7.64	125	
		1,170	48,700	30.6	1,270	8.36	21.2	1.35	3.43	111	1,820	9.35	153	



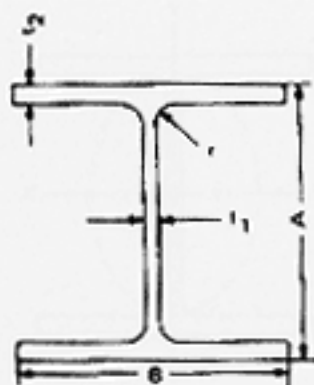
WIDE FLANGE SHAPES

(UNIVERSAL BEAMS)

Size	Weight		Area of Section		Depth of Section (A)		Flange				Web Thickness (t ₁)	
	lbs/ft	kg/m	in ²	cm ²	in	mm	Width (B)		Thickness (t ₂)		in	mm
in							in	mm	in	mm		
W21 21 x 8 1/2	62	92.27	18.3	118.1	20.99	533.1	8.240	209.3	0.615	15.62	0.400	10.16
	68	101.2	20.0	129.0	21.13	536.7	8.270	210.1	0.685	17.40	0.430	10.92
	73	108.6	21.5	138.7	21.24	539.5	8.295	210.7	0.740	18.80	0.455	11.56
	83	123.5	24.3	156.8	21.43	544.3	8.355	212.2	0.835	21.21	0.515	13.08
	93	138.4	27.3	176.1	21.62	549.1	8.420	213.9	0.930	23.62	0.590	14.73
W21 21 x 9	82	122	24.10	155.5	20.86	530	8.962	228	0.795	20.19	0.499	12.67
	96	143	28.21	182.0	21.14	537	9.038	230	0.935	23.75	0.575	14.61
W21 21 x 12 1/2	101	150.3	29.8	192.3	21.36	542.5	12.290	312.2	0.800	20.32	0.500	12.70
	111	165.2	32.7	211.0	21.51	546.4	12.340	313.4	0.875	22.22	0.550	13.97
	122	181.6	35.9	231.6	21.68	550.7	12.390	314.7	0.960	24.38	0.600	15.24
	132	196.4	38.8	250.3	21.83	554.5	12.440	316.0	1.035	26.29	0.650	16.51
	147	218.8	43.2	278.7	22.06	560.3	12.510	317.8	1.150	29.21	0.720	18.29
W24 24 x 7	55	81.85	16.2	104.5	23.57	598.7	7.005	177.9	0.505	12.83	0.395	10.03
	62	92.27	18.2	117.4	23.74	603.0	7.040	178.8	0.590	14.99	0.430	10.92
W24 24 x 9	68	101.2	20.1	129.7	23.73	602.7	8.965	227.7	0.585	14.86	0.415	10.54
	76	113.1	22.4	144.5	23.92	607.6	8.990	228.3	0.680	17.27	0.440	11.18
	84	125.0	24.7	159.4	24.10	612.1	9.020	229.1	0.770	19.56	0.470	11.94
	94	139.9	27.7	178.7	24.31	617.5	9.065	230.3	0.875	22.22	0.515	13.08
W24 24 x 12	100	149	29.43	189.9	24.00	610	12.000	305	0.775	19.69	0.468	11.89
	110	164	32.36	208.8	24.16	614	12.042	306	0.855	21.72	0.510	12.95
	120	179	35.29	227.7	24.31	617	12.088	307	0.930	23.62	0.556	14.12
	160	238	47.05	303.5	24.92	633	12.264	312	1.235	31.40	0.732	18.60
W24 24 x 12 1/2	104	154.8	30.6	197.4	24.06	611.1	12.750	323.8	0.750	19.05	0.500	12.70
	117	174.1	34.4	221.9	24.26	616.2	12.800	325.1	0.850	21.59	0.550	13.97
	131	194.9	38.5	248.4	24.48	621.8	12.855	326.5	0.960	24.38	0.605	15.37
	146	217.3	43.0	277.4	24.74	628.4	12.900	327.7	1.090	27.69	0.650	16.51
	162	241.1	47.7	307.7	25.00	635.0	12.955	329.1	1.220	30.99	0.705	17.91



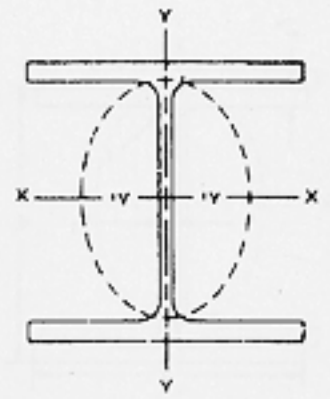
Corner Radius (r)		Moment of Inertia				Radius of Gyration				Modulus of Section				Size
		Jx		Jy		ix		iy		Zx		Zy		
in	mm	in ⁴	cm ⁴	in ⁴	cm ⁴	in	cm	in	cm	in ³	cm ³	in ³	cm ³	in
0.50	12.7	1,330	55,400	57.5	2,390	8.54	21.7	1.77	4.50	127	2,060	13.9	228	W21 21 x 8½
		1,480	61,600	64.7	2,690	8.60	21.8	1.80	4.57	140	2,290	15.7	257	
		1,600	66,600	70.6	2,940	8.64	21.9	1.81	4.60	151	2,470	17.0	279	
		1,830	76,200	81.4	3,390	8.67	22.0	1.83	4.65	171	2,800	19.5	320	
		2,070	86,200	92.9	3,870	8.70	22.1	1.84	4.67	192	3,150	22.1	362	
0.65	16.5	1,752.4	72,950	89.6	3,730	8.53	21.67	1.93	4.90	168.0	2,753.5	20.0	327.8	W21 21 x 9
		2,088.9	86,960	109.3	4,550	8.60	21.84	1.97	5.00	197.6	3,238.7	24.2	396.6	
0.50	12.7	2,420	101,000	248	10,300	9.02	22.9	2.89	7.34	227	3,720	40.3	660	W21 21 x 12½
		2,670	111,000	274	11,400	9.05	23.0	2.90	7.37	249	4,080	44.5	729	
		2,960	123,000	305	12,700	9.09	23.1	2.92	7.42	273	4,470	49.2	806	
		3,220	134,000	333	13,900	9.12	23.2	2.93	7.44	295	4,830	53.5	877	
		3,630	151,000	376	15,700	9.17	23.3	2.95	7.49	329	5,390	60.1	985	
0.50	12.7	1,350	56,200	29.1	1,210	9.11	23.1	1.34	3.40	114	1,870	8.30	136	W24 24 x 7
		1,550	64,500	34.5	1,440	9.23	23.4	1.38	3.51	131	2,150	9.80	161	
0.50	12.7	1,830	76,200	70.4	2,930	9.55	24.3	1.87	4.75	154	2,520	15.7	257	W24 24 x 9
		2,100	87,400	82.5	2,430	9.69	24.6	1.92	4.88	176	2,880	18.4	302	
		2,370	98,600	94.4	3,930	9.79	24.9	1.95	4.95	196	3,210	20.9	342	
		2,700	112,000	109	4,540	9.87	25.1	1.98	5.03	222	3,640	24.0	393	
0.70	17.8	2,987.3	124,400	203.5	8,471	10.08	25.60	2.63	6.68	248.9	4,079.5	33.9	555.6	W24 24 x 12
		3,315.0	138,000	229.1	9,537	10.12	25.70	2.66	6.76	274.4	4,497.4	38.0	622.8	
		3,635.3	151,300	254.0	10,570	10.15	25.78	2.68	6.81	299.1	4,902.2	42.0	688.4	
		4,979.2	207,252	359.7	14,973	10.29	26.10	2.77	7.02	399.6	6,549.0	58.7	961.3	
0.50	12.7	3,100	129,000	259	10,800	10.1	25.7	2.91	7.39	258	4,230	40.7	667	W24 24 x 12½
		3,540	147,000	297	12,400	10.1	25.7	2.94	7.47	291	4,770	46.5	762	
		4,020	167,000	340	14,200	10.2	25.9	2.97	7.54	329	5,390	53.0	869	
		4,580	191,000	391	16,300	10.3	26.2	3.01	7.65	371	6,080	60.5	991	
		5,170	215,000	443	18,400	10.4	26.4	3.05	7.75	414	6,780	68.4	1,120	



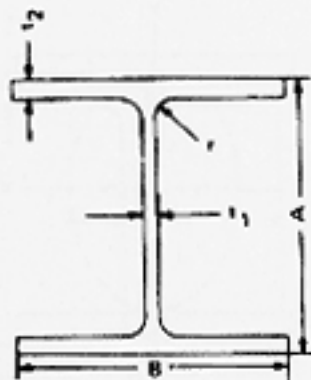
WIDE FLANGE SHAPES

(UNIVERSAL BEAMS)

Size	Weight		Area of Section		Depth of Section (A)		Flange				Web Thickness (t ₁)			
	in	lbs/ft	kg/m	in ²	cm ²	in	mm	Width (B)		Thickness (t ₂)		in	mm	
							in	mm	in	mm	in	mm	in	mm
W24 24 x 14	130	193	38.21	246.5	24.25	616	14.000	356	0.900	22.86	0.565	14.35		
	145	216	42.62	275.0	24.49	622	14.043	357	1.020	25.91	0.608	15.44		
	160	238	47.04	303.5	24.72	628	14.091	358	1.135	28.83	0.656	16.66		
W27 27 x 10	84	125.0	24.8	160.0	26.71	678.4	9.960	253.0	0.640	16.26	0.460	11.68		
	94	139.9	27.7	178.7	26.92	683.8	9.990	253.7	0.745	18.92	0.490	12.45		
	102	151.8	30.0	193.5	27.09	688.1	10.015	254.4	0.830	21.08	0.515	13.08		
	114	169.7	33.5	216.1	27.29	693.2	10.070	255.8	0.930	23.62	0.570	14.48		
W27 27 x 14	146	217.3	42.9	276.8	27.38	695.5	13.965	354.7	0.975	24.76	0.605	15.37		
	161	239.6	47.4	505.8	27.59	700.8	14.020	356.1	1.080	27.43	0.660	16.76		
	178	264.9	52.3	337.4	27.81	706.4	14.085	357.8	1.190	30.23	0.725	18.42		
W30 30 x 10½	99	147.3	29.1	187.7	29.85	753.1	10.450	265.4	0.670	17.02	0.520	13.21		
	108	160.7	31.7	204.5	29.83	757.7	10.475	266.1	0.760	19.30	0.545	13.84		
	116	172.6	34.2	220.6	30.01	762.3	10.495	266.6	0.850	21.59	0.565	14.35		
	124	184.5	36.5	235.5	30.17	766.3	10.515	267.1	0.930	23.62	0.585	14.86		
	132	196.4	38.9	251.0	30.31	769.9	10.545	267.8	1.000	25.40	0.615	15.62		
W30 30 x 15	173	257.5	50.8	327.7	30.44	773.2	14.985	380.6	1.065	27.05	0.655	16.64		
	191	284.2	56.1	361.9	30.68	779.2	15.040	382.0	1.185	30.10	0.710	18.03		
	211	314.0	62.0	400.0	30.94	785.9	15.105	383.7	1.315	33.40	0.775	19.68		
W33 33 x 11½	118	175.6	34.7	223.9	32.86	834.6	11.480	291.6	0.740	18.80	0.550	13.97		
	130	193.5	38.3	247.1	33.09	840.5	11.510	292.4	0.855	21.72	0.580	14.73		
	141	209.8	41.6	268.4	33.30	845.8	11.535	293.0	0.960	24.38	0.605	15.37		
	152	226.2	44.7	288.4	33.49	850.6	11.565	293.8	1.055	26.80	0.635	16.13		
W33 33 x 15½	201	299.1	59.1	381.3	33.68	855.5	15.745	399.9	1.150	29.21	0.715	18.16		
	221	328.9	65.0	419.4	33.93	861.8	15.805	401.4	1.275	32.38	0.775	19.68		
	241	358.6	70.9	457.4	34.18	868.2	15.860	402.8	1.400	35.56	0.830	21.08		



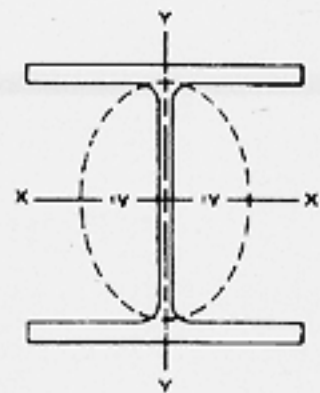
Corner Radius (r)		Moment of Inertia				Radius of Gyration				Modulus of Section				Size
		Jx		Jy		ix		iy		Zx		Zy		
in	mm	in ⁴	cm ⁴	in ⁴	cm ⁴	in	cm	in	cm	in ³	cm ³	in ³	cm ³	in
0.70	17.8	4,009.5	166,900	375.2	15,620	10.24	26.01	3.13	7.95	330.7	5,420.2	53.6	878.5	W24 24 x 14
		4,561.0	189,900	434.3	18,080	10.34	26.26	3.19	8.10	372.5	6,105.3	61.8	1,012.9	
		5,110.3	212,700	492.6	20,510	10.42	26.47	3.23	8.20	413.5	6,777.3	69.9	1,145.7	
0.60	15.2	2,850	119,000	106	4,410	10.7	27.2	2.07	5.26	213	3,490	21.2	347	W27 27 x 10
		3,270	136,000	124	5,160	10.9	27.7	2.12	5.38	243	3,980	24.8	406	
		3,620	151,000	139	5,790	11.0	27.9	2.15	5.46	267	4,380	27.8	456	
		4,090	170,000	159	6,620	11.0	27.9	2.18	5.54	299	4,900	31.5	516	
0.60	15.2	5,630	234,000	443	18,400	11.4	29.0	3.21	8.15	411	6,740	63.5	1,040	W27 27 x 14
		6,280	261,000	497	20,700	11.5	29.2	3.24	8.23	455	7,460	70.9	1,160	
		6,990	291,000	555	23,100	11.6	29.5	3.26	8.28	502	8,230	78.8	1,290	
0.65	16.5	3,990	166,000	128	5,330	11.7	29.7	2.10	5.33	269	4,410	24.5	401	W30 30 x 10½
		4,470	186,000	146	6,080	11.9	30.2	2.15	5.46	299	4,900	27.9	457	
		4,930	205,000	164	6,830	12.0	30.5	2.19	5.56	329	5,390	31.3	513	
		5,360	223,000	181	7,530	12.1	30.7	2.23	5.66	355	5,820	34.4	564	
		5,770	240,000	196	8,160	12.2	31.0	2.25	5.72	380	6,230	37.2	610	
0.65	16.5	8,200	341,000	598	24,900	12.7	32.3	3.43	8.71	539	8,830	79.8	1,310	W30 30 x 15
		9,170	382,000	673	28,000	12.8	32.5	3.46	8.79	598	9,800	89.5	1,470	
		10,300	429,000	757	31,500	12.9	32.8	3.49	8.86	663	10,900	100	1,640	
0.70	17.8	5,900	246,000	187	7,780	13.0	33.0	2.32	5.89	359	5,580	32.6	534	W33 33 x 11½
		6,710	279,000	218	9,070	13.2	33.5	2.39	6.07	406	6,650	37.9	621	
		7,450	310,000	246	10,200	13.4	34.0	2.43	6.17	448	7,340	42.7	700	
		8,160	340,000	273	11,400	13.5	34.3	2.47	6.27	467	7,980	47.2	773	
0.70	17.8	11,500	479,000	749	31,200	14.0	35.6	3.56	9.04	684	11,200	95.2	1,560	W33 33 x 15½
		12,800	533,000	840	35,000	14.1	35.8	3.59	9.12	757	12,400	106	1,740	
		14,200	591,000	932	38,800	14.1	35.8	3.63	9.22	829	13,600	118	1,930	



WIDE FLANGE SHAPES

(UNIVERSAL BEAMS)

Size	Weight		Area of Section		Depth of Section (A)		Flange				Web Thickness (t _w)	
	lbs/ft	kg/m	in ²	cm ²	in	mm	Width (B)		Thickness (t _f)		in	mm
in							in	mm	in	mm		
W36 36 x 12	135	200.9	39.7	256.1	35.55	903.0	11.950	303.5	0.790	20.07	0.600	15.24
	150	223.2	44.2	285.2	35.85	910.6	11.975	304.2	0.940	23.88	0.625	15.88
	160	238.1	47.0	303.2	36.01	914.7	12.000	304.8	1.020	25.91	0.650	16.51
	170	253.0	50.0	322.6	36.17	918.7	12.030	305.6	1.100	27.94	0.680	17.27
	182	270.8	53.6	345.8	36.33	922.8	12.075	306.7	1.180	29.97	0.725	18.42
	194	288.7	57.0	367.7	36.49	926.8	12.115	307.7	1.260	32.00	0.765	19.43
	210	312.5	61.8	398.7	36.69	931.9	12.180	309.4	1.360	34.54	0.830	21.08
W36 36 x 16½	230	342.3	67.6	436.1	35.90	911.9	16.470	418.3	1.260	32.00	0.760	19.30
	245	364.6	72.1	465.2	36.08	916.4	16.510	419.4	1.350	34.29	0.800	20.32
	260	386.9	76.5	493.5	36.26	921.0	16.550	420.4	1.440	36.58	0.840	21.34
	280	416.7	82.4	531.6	36.52	927.6	16.595	421.5	1.570	39.88	0.885	22.48
	300	446.4	88.3	569.7	36.74	933.2	16.655	423.0	1.680	42.67	0.945	24.00



Series

Corner Radius (r)		Moment of Inertia				Radius of Gyration				Modulus of Section				Size
		Jx		Jy		ix		iy		Zx		Zy		
in	mm	in ⁴	cm ⁴	in ⁴	cm ⁴	in	cm	in	cm	in ³	cm ³	in ³	cm ³	in
0.75	19.0	7,800	325,000	225	9,370	14.0	35.6	2.38	6.05	439	7,190	37.7	618	W36 36 x 12
		9,040	376,000	270	11,200	14.3	36.3	2.47	6.27	504	8,260	45.1	739	
		9,750	406,000	295	12,300	14.4	36.6	2.50	6.35	542	8,880	49.1	805	
		10,500	437,000	320	13,300	14.5	36.8	2.53	6.43	580	9,500	53.2	872	
		11,300	470,000	347	14,400	14.5	36.8	2.55	6.48	623	10,200	57.6	944	
		12,100	504,000	375	15,600	14.6	37.1	2.56	6.50	664	10,900	61.9	1,010	
		13,200	549,000	411	17,100	14.6	37.1	2.58	6.55	719	11,800	67.5	1,110	
0.95	24.1	15,000	624,000	940	39,100	14.9	37.8	3.73	9.47	837	13,700	114	1,870	W36 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	2,020	
		17,300	720,000	1,090	45,400	15.0	38.1	3.78	9.60	953	15,600	132	2,160	
		18,900	787,000	1,200	49,900	15.1	38.4	3.81	9.68	1,030	16,900	144	2,360	
		20,300	845,000	1,300	54,100	15.2	38.6	3.83	9.73	1,110	18,200	156	2,560	