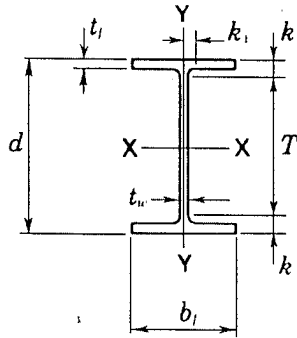


WIDE FLANGE BEAMS

ASTM A36 & A992

W SHAPES Dimensions

Designation	Area A	Depth d	Web			Flange			Distance				
			Thickness t _w	t _w 2	Width b _f	Thickness t _f	T	k	k ₁				
										In.	In.	In.	In.
W 24x 55	16.3	23.57	23%	0.395	3/8	3/8	7.005	7	0.505	1/2	20%	1 1/8	1
x 62	18.3	23.74	23%	0.430	3/8	3/8	7.040	7	0.590	3/8	20%	1 1/2	1 1/8
W 24x 68	20.1	23.73	23%	0.415	3/8	3/8	8.965	9	0.585	3/8	20%	1 1/2	1 1/8
x 76	22.4	23.92	23%	0.440	3/8	3/8	8.990	9	0.680	11/16	20%	1 3/8	1 1/8
x 84	24.7	24.10	24%	0.470	1/2	1/2	9.020	9	0.770	3/4	20%	1 11/16	1 1/8
x 94	27.7	24.31	24%	0.515	1/2	1/2	9.065	9 1/2	0.875	3/4	20%	1 3/4	1 1/8
x103	30.3	24.50	24%	0.550	3/4	3/4	9.00	9	0.980	1	20%	1 3/4	1 1/2
W 24x104	30.6	24.06	24	0.500	1/2	1/2	12.750	12 1/2	0.750	3/4	20%	1 3/4	1 1/8
x117	34.4	24.26	24%	0.550	3/4	3/4	12.800	12 1/2	0.850	3/4	20%	1 3/4	1 1/8
x131	38.5	24.48	24%	0.605	3/4	3/4	12.855	12 1/2	0.960	15/16	20%	1 3/4	1 1/2
x146	43.0	24.74	24%	0.650	3/4	3/4	12.900	12 1/2	1.090	1 1/8	20%	2	1 1/2
x162	47.7	25.00	25	0.705	1 1/8	3/4	12.955	13	1.220	1 1/4	20%	2 1/8	1 3/8
x176	51.7	25.20	25 1/2	0.750	1 1/8	3/4	12.9	12 1/2	1.34	1 1/4	20%	2 1/4	1 3/8
x192	56.3	25.50	25 1/2	0.810	1 3/8	1 1/8	13.0	13	1.46	1 1/2	20%	2 1/2	1 3/4
x207	60.7	25.70	25 1/2	0.870	1 3/8	1 1/8	13.0	13	1.57	1 1/2	20%	2 1/2	1 3/4
x229	67.2	26.00	26	0.960	1 1/2	1 1/8	13.1	13 1/2	1.73	1 1/2	20%	2 3/8	1 3/4
x250	73.5	26.30	26 1/2	1.040	1 1/2	1 1/8	13.2	13 1/2	1.89	1 1/2	20%	2 3/8	1 3/4
x279	82.0	26.70	26 1/2	1.160	1 3/8	1 1/8	13.3	13 1/2	2.09	2 1/8	20%	3	1 3/8
x306	89.8	27.10	27 1/2	1.260	1 3/8	1 1/8	13.4	13 1/2	2.28	2 1/4	20%	3 1/8	1 3/8
x335	98.4	27.50	27 1/2	1.380	1 3/8	1 1/8	13.5	13 1/2	2.48	2 1/4	20%	3 1/8	1 3/8
x370	109.0	28.00	28	1.520	1 1/2	1 1/8	13.7	13 1/2	2.72	2 1/2	20%	3 3/8	1 3/8
W 27x 84	24.8	26.71	26%	0.460	3/8	3/8	9.960	10	0.640	3/8	23%	1 3/8	1 1/8
x 94	27.7	26.92	26%	0.490	1/2	3/8	9.990	10	0.745	3/8	23%	1 3/4	1 1/8
x102	30.0	27.09	27%	0.515	1/2	3/8	10.015	10	0.830	13/16	23%	1 3/4	1 1/8
x114	33.5	27.29	27%	0.570	3/8	3/8	10.070	10 1/2	0.930	13/16	23%	1 3/4	1 1/2
x129	37.8	27.60	27%	0.610	3/8	3/8	10.0	10	1.10	1 1/8	23%	2	1 1/2
W 27x146	43.1	27.38	27%	0.605	3/8	3/8	13.965	14	0.975	1	23%	1 3/4	1 1/2
x161	47.6	27.59	27%	0.660	1 1/8	3/8	14.020	14	1.080	1 1/8	23%	2	1 3/8
x178	52.5	27.81	27%	0.725	3/8	3/8	14.085	14 1/2	1.190	1 3/8	23%	2 1/8	1 3/8
x194	57.2	28.10	28%	0.750	3/8	3/8	14.0	14	1.34	1 1/2	23%	2 1/4	1 3/8
x217	64.0	28.40	28%	0.830	1 3/8	3/8	14.1	14 1/2	1.50	1 1/2	23%	2 1/4	1 3/8
x235	69.4	28.70	28%	0.910	1 3/8	1/2	14.2	14 1/2	1.61	1 1/2	23%	2 1/2	1 3/8
x258	76	29.00	29	0.980	1	1/2	14.3	14 1/2	1.77	1 3/4	23%	2 3/8	1 3/8
W 27x281	82.9	29.3	29 1/4	1.06	1 3/8	3/8	14.4	14 1/2	1.930	1 3/4	23%	2 3/8	1 3/8
x307	90.4	29.6	29%	1.16	1 3/8	3/8	14.4	14 1/2	2.090	2 1/8	23%	3	1 3/8
x336	98.9	30.0	30	1.26	1 1/2	3/8	14.6	14 1/2	2.280	2 1/4	23%	3 1/8	1 3/8
x368	108	30.4	30%	1.38	1 1/2	1 1/8	14.7	14 1/2	2.480	2 1/2	23%	3 1/8	1 3/8
x539	159	32.5	32 1/2	1.97	2	1	15.3	15 1/2	3.54	3 1/8	23%	4 1/8	1 3/8
W 30x 90	26.4	29.5	29 1/2	0.470	1/2	3/8	10.4	10 1/2	0.610	3/8	26 1/2	1 1/2	1 1/8
x 99	29.1	29.65	29%	0.520	1/2	3/8	10.450	10 1/2	0.670	1 1/8	26 1/2	1 3/8	1 1/8
x108	31.7	29.83	29%	0.545	3/8	3/8	10.475	10 1/2	0.760	3/8	26 1/2	1 11/16	1 1/8
x116	34.2	30.1	30	0.565	3/8	3/8	10.495	10 1/2	0.850	3/8	26 1/2	1 1/4	1 1/8
x124	36.5	30.17	30%	0.585	3/8	3/8	10.515	10 1/2	0.930	3/8	26 1/2	1 1/4	1 1/8
x132	38.9	30.31	30 1/4	0.615	3/8	3/8	10.545	10 1/2	1.000	1	26 1/2	1 1/4	1 1/8
x148	43.5	30.7	30%	0.650	3/8	3/8	10.5	10 1/2	1.18	1 1/8	26 1/2	2 1/8	1 1/8



WIDE FLANGE BEAMS

ASTM A36 & A992

W SHAPES Dimensions

Designation	Area A	Depth d		Web			Flange				Distance		
				Thickness t _w	t _w 2	Width b _f		Thickness t _f		T	k	k ₁	
						In.	In.	In.	In.				In.
W 12x 14	4.16	11.91	11 1/8	0.200	3/16	3/8	3.970	4	0.225	1/4	10 3/8	3/4	3/16
x 16	4.71	11.99	12	0.220	1/4	1/2	3.990	4	0.265	1/4	10 3/8	13/16	3/16
x 19	5.57	12.16	12 1/2	0.235	1/4	1/2	4.005	4	0.350	3/8	10 3/8	7/8	3/16
x 22	6.48	12.31	12 1/2	0.260	1/4	1/2	4.030	4	0.425	7/16	10 3/8	15/16	5/8
W 12x 26	7.65	12.22	12 1/4	0.230	1/4	1/2	6.490	6 1/2	0.380	3/8	10 3/8	1 1/16	3/4
x 30	8.79	12.34	12 3/8	0.260	1/4	1/2	6.520	6 1/2	0.440	7/16	10 3/8	1 1/8	3/4
x 35	10.3	12.50	12 1/2	0.300	5/16	3/8	6.560	6 1/2	0.520	1/2	10 3/8	1 3/16	3/4
W 12x 40	11.7	11.94	12	0.295	5/16	3/8	8.005	8	0.515	1/2	9 3/4	1 3/8	7/8
x 45	13.1	12.06	12	0.335	5/16	3/8	8.045	8	0.575	5/16	9 3/4	1 3/8	15/16
x 50	14.6	12.19	12 1/4	0.370	3/8	3/8	8.080	8 1/2	0.640	5/8	9 3/4	1 1/2	15/16
W 12x 53	15.6	12.06	12	0.345	3/8	3/8	9.995	10	0.575	5/16	9 3/4	1 3/8	15/16
x 58	17.0	12.19	12 1/4	0.360	3/8	3/8	10.010	10	0.640	5/8	9 3/4	1 1/2	15/16
W 12x 65	19.1	12.12	12 1/2	0.390	3/8	3/8	12.000	12	0.605	3/8	9 3/4	1 1/2	1
x 72	21.1	12.25	12 1/4	0.430	7/16	1/2	12.040	12	0.670	1 1/16	9 3/4	1 3/8	1 1/16
x 79	23.2	12.38	12 3/8	0.470	1/2	1/2	12.080	12 1/2	0.735	3/4	9 3/4	1 5/8	1 1/16
x 87	25.6	12.53	12 3/8	0.515	1/2	1/2	12.125	12 1/2	0.810	13/16	9 3/4	1 11/16	1 1/16
x 96	28.2	12.71	12 3/4	0.550	5/16	3/8	12.160	12 1/2	0.900	7/8	9 3/4	1 13/16	1 1/8
x106	31.2	12.89	12 3/4	0.610	5/8	3/8	12.220	12 1/2	0.990	1	9 3/4	1 7/8	1 1/8
x120	35.3	13.12	13 1/8	0.710	1 1/16	3/8	12.320	12 3/4	1.105	1 1/8	9 3/4	2	1 3/16
x136	39.9	13.41	13 3/8	0.790	1 3/16	7/16	12.400	12 3/4	1.250	1 1/4	9 3/4	2 1/8	1 1/4
x152	44.7	13.71	13 3/4	0.870	7/8	7/16	12.480	12 1/2	1.400	1 1/2	9 3/4	2 5/16	1 1/4
x170	50.0	14.03	14	0.960	1 5/16	1/2	12.570	12 3/4	1.560	1 5/16	9 3/4	2 7/16	1 1/16
x190	55.8	14.38	14 1/2	1.060	1 7/16	5/8	12.670	12 3/4	1.735	1 3/4	9 3/4	2 5/8	1 3/8
x210	61.8	14.71	14 3/4	1.180	1 15/16	3/4	12.790	12 3/4	1.900	1 7/8	9 3/4	2 13/16	1 1/16
x230	67.7	15.05	15	1.285	1 7/8	1 1/16	12.895	12 3/4	2.070	2 1/16	9 3/4	2 15/16	1 1/2
x252	74.0	15.41	15 1/2	1.395	1 7/8	1 1/8	13.005	13	2.250	2 1/4	9 3/4	3 1/8	1 1/2
x279	81.9	15.85	15 3/4	1.530	1 7/8	3/4	13.140	13 1/4	2.470	2 1/2	9 3/4	3 3/8	1 5/8
x305	89.6	16.32	16 1/4	1.625	1 7/8	15/16	13.235	13 1/4	2.705	2 11/16	9 3/4	3 5/8	1 5/8
x336	98.8	16.82	16 3/4	1.775	1 7/8	7/8	13.385	13 3/4	2.955	2 15/16	9 3/4	3 7/8	1 11/16