



# Steel Wide Flange I-Beam

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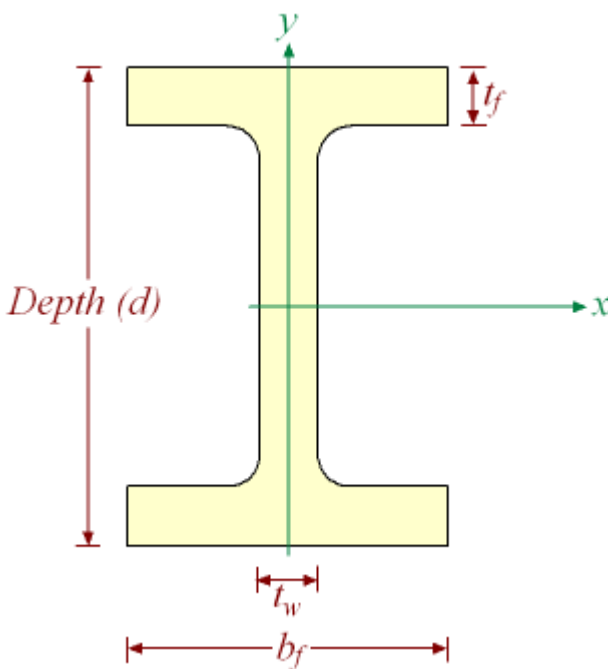
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## Steel Wide Flange I-Beams



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in × lbf/ft	Area (in <sup>2</sup> )	d (in)	b <sub>f</sub> (in)	t <sub>f</sub> (in)	t <sub>w</sub> (in)	I <sub>xx</sub> (in <sup>4</sup> )	Z <sub>xx</sub> (in <sup>3</sup> )	k <sub>xx</sub> (in)	I <sub>yy</sub> (in <sup>4</sup> )	Z <sub>yy</sub> (in <sup>3</sup> )	k <sub>yy</sub> (in)
W27 × 178	52.3	27.81	14.085	1.190	0.725	6990	502	11.6	555	78.8	3.1
W27 × 161	47.4	27.59	14.020	1.080	0.660	6280	455	11.5	497	70.9	3.1
W27 × 146	42.9	27.38	13.965	0.975	0.605	5630	411	11.4	443	63.5	3.1
W27 × 114	33.5	27.29	10.070	0.930	0.570	4090	299	11.0	159	31.5	2.1
W27 × 102	30.0	27.09	10.015	0.830	0.515	3620	267	11.0	139	27.8	2.1
W27 × 94	27.7	26.92	9.990	0.745	0.490	3270	243	10.9	124	24.8	2.1
W27 × 84	24.8	26.71	9.960	0.640	0.460	2850	213	10.7	106	21.2	2.1
W24 × 162	47.7	25.00	12.955	1.220	0.705	5170	414	10.4	443	68.4	3.1
W24 × 146	43.0	24.74	12.900	1.090	0.650	4580	371	10.3	391	60.5	3.1
W24 × 131	38.5	24.48	12.855	0.960	0.605	4020	329	10.2	340	53.0	2.1
W24 × 117	34.4	24.26	12.800	0.850	0.550	3540	291	10.1	297	46.5	2.1
W24 × 104	30.6	24.06	12.750	0.750	0.500	3100	258	10.1	259	40.7	2.1
W24 × 94	27.7	24.31	9.065	0.875	0.515	2700	222	9.87	109	24.0	1.1

W24 × 84	24.7	24.10	9.020	0.770	0.470	2370	196	9.79	94.4	20.9	1.1
W24 × 76	22.4	23.92	8.990	0.680	0.440	2100	176	9.69	82.5	18.4	1.1
W24 × 68	20.1	23.73	8.965	0.585	0.415	1830	154	9.55	70.4	15.7	1.1
W24 × 62	18.2	23.74	7.040	0.590	0.430	1550	131	9.23	34.5	9.80	1.1
W24 × 55	16.2	23.57	7.005	0.505	0.395	1350	114	9.11	29.1	8.30	1.1
W21 × 147	43.2	22.06	12.510	1.150	0.720	3630	329	9.17	376	60.1	2.1
W21 × 132	38.8	21.83	12.440	1.035	0.650	3220	295	9.12	333	53.5	2.1
W21 × 122	35.9	21.68	12.390	0.960	0.600	2960	273	9.09	305	49.2	2.1
W21 × 111	32.7	21.51	12.340	0.875	0.550	2670	249	9.05	274	44.5	2.1
W21 × 101	29.8	21.36	12.290	0.800	0.500	2420	227	9.02	248	40.3	2.1
W21 × 93	27.3	21.62	8.420	0.930	0.580	2070	192	8.70	92.9	22.1	1.1
W21 × 83	24.3	21.43	8.355	0.835	0.515	1830	171	8.67	81.4	19.5	1.1
W21 × 73	21.5	21.24	8.295	0.740	0.455	1600	151	8.64	70.6	17.0	1.1
W21 × 68	20.0	21.13	8.270	0.685	0.430	1480	140	8.60	64.7	15.7	1.1
W21 × 62	18.3	20.99	8.240	0.615	0.400	1330	127	8.54	57.5	13.9	1.1
W21 × 57	16.7	21.06	6.555	0.650	0.405	1170	111	8.36	30.6	9.35	1.1
W21 × 50	14.7	20.83	6.530	0.535	0.380	984	94.5	8.18	24.9	7.64	1.1
W21 × 44	13.0	20.66	6.500	0.450	0.350	843	81.6	8.06	20.7	6.36	1.1
W18 × 119	35.1	18.97	11.265	1.060	0.655	2190	231	7.90	253	44.9	2.1
W18 × 106	31.1	18.73	11.200	0.940	0.590	1910	204	7.84	220	39.4	2.1
W18 × 97	28.5	18.59	11.145	0.870	0.535	1750	188	7.82	201	36.1	2.1
W18 × 86	25.3	18.39	11.090	0.770	0.480	1530	166	7.77	175	31.6	2.1
W18 × 76	22.3	18.21	11.035	0.680	0.425	1330	146	7.73	152	27.6	2.1
W18 × 71	20.8	18.47	7.635	0.810	0.495	1170	127	7.50	60.3	15.8	1.1
W18 × 65	19.1	18.35	7.590	0.750	0.450	1070	117	7.49	54.8	14.4	1.1
W18 × 60	17.6	18.24	7.555	0.695	0.415	984	108	7.47	50.1	13.3	1.1
W18 × 55	16.2	18.11	7.530	0.630	0.390	890	98.3	7.41	44.9	11.9	1.1
W18 × 50	14.7	17.99	7.495	0.570	0.355	800	88.9	7.38	40.1	10.7	1.1
W18 × 46	13.5	18.06	6.060	0.605	0.360	712	78.8	7.25	22.5	7.43	1.1
W18 × 40	11.8	17.90	6.015	0.525	0.315	612	68.4	7.21	19.1	6.35	1.1
W18 × 35	10.3	17.70	6.000	0.425	0.300	510	57.6	7.04	15.3	5.12	1.1
W16 × 100	29.4	16.97	10.425	0.985	0.585	1490	175	7.10	186	35.7	2.1
W16 × 89	26.2	16.75	10.365	0.875	0.525	1300	155	7.05	163	31.4	2.1
W16 × 77	22.6	16.52	10.295	0.760	0.455	1110	134	7.00	138	26.9	2.1
W16 × 67	19.7	16.33	10.235	0.665	0.395	954	117	6.96	119	23.2	2.1
W16 × 57	16.8	16.43	7.120	0.715	0.430	758	92.2	6.72	43.1	12.1	1.1
W16 × 50	14.7	16.26	7.070	0.630	0.380	659	81.0	6.68	37.2	10.5	1.1
W16 × 45	13.3	16.13	7.035	0.565	0.345	586	72.7	6.65	32.8	9.34	1.1
W16 × 40	11.8	16.01	6.995	0.505	0.305	518	64.7	6.63	28.9	8.25	1.1
W16 × 36	10.6	15.86	6.985	0.430	0.295	448	56.5	6.51	24.5	7.00	1.1
W16 × 31	9.12	15.88	5.525	0.440	0.275	375	47.2	6.41	12.4	4.49	1.1
W16 × 26	7.68	15.69	5.500	0.345	0.250	301	38.4	6.26	9.59	3.49	1.1
W14 × 730	215.0	22.42	17.890	4.910	3.070	14300	1280	8.17	4720	527	4.1
W14 × 665	196.0	21.64	17.650	4.520	2.830	12400	1150	7.98	4170	472	4.1
W14 × 605	178.0	20.92	17.415	4.160	2.595	10800	1040	7.80	3680	423	4.1
W14 × 550	162.0	20.24	17.200	3.820	2.380	9430	931	7.63	3250	378	4.1
W14 × 500	147.0	19.60	17.010	3.500	2.190	8210	838	7.48	2880	339	4.1
W14 × 455	134.0	19.02	16.835	3.210	2.015	7190	756	7.33	2560	304	4.1
W14 × 426	125.0	18.67	16.695	3.035	1.875	6600	707	7.26	2360	283	4.1
W14 × 398	117.0	18.29	16.590	2.845	1.770	6000	656	7.16	2170	262	4.1
W14 × 370	109.0	17.92	16.475	2.660	1.655	5440	607	7.07	1990	241	4.1
W14 × 342	101.0	17.54	16.360	2.470	1.540	4900	559	6.98	1810	221	4.1
W14 × 311	91.4	17.12	16.230	2.260	1.410	4330	506	6.88	1610	199	4.1
W14 × 283	83.3	16.74	16.110	2.070	1.290	3840	459	6.79	1440	179	4.1
W14 × 257	75.6	16.38	15.995	1.890	1.175	3400	415	6.71	1290	161	4.1

W14 × 233	68.5	16.04	15.890	1.720	1.070	3010	375	6.63	1150	145	4.
W14 × 211	62.0	15.72	15.800	1.560	0.980	2660	338	6.55	1030	130	4.
W14 × 193	56.8	15.48	15.710	1.440	0.890	2400	310	6.50	931	119	4.
W14 × 176	51.8	15.22	15.650	1.310	0.830	2140	281	6.43	838	107	4.
W14 × 159	46.7	14.98	15.565	1.190	0.745	1900	254	6.38	748	96.2	4.
W14 × 145	42.7	14.78	15.500	1.090	0.680	1710	232	6.33	677	87.3	3.
W14 × 132	38.8	14.66	14.725	1.030	0.645	1530	209	6.28	548	74.5	3.
W14 × 120	35.3	14.48	14.670	0.940	0.590	1380	190	6.24	495	67.5	3.
W14 × 109	32.0	14.32	14.605	0.860	0.525	1240	173	6.22	447	61.2	3.
W14 × 99	29.1	14.16	14.565	0.780	0.485	1110	157	6.17	402	55.2	3.
W14 × 90	26.5	14.02	14.520	0.710	0.440	999	143	6.14	362	49.9	3.
W14 × 82	24.1	14.31	10.130	0.855	0.510	882	123	6.05	148	29.3	2.
W14 × 74	21.8	14.17	10.070	0.785	0.450	796	112	6.04	134	26.6	2.
W14 × 68	20.0	14.04	10.035	0.720	0.415	723	103	6.01	121	24.2	2.
W14 × 61	17.9	13.89	9.995	0.645	0.375	640	92.2	5.98	107	21.5	2.
W14 × 53	15.6	13.92	8.060	0.660	0.370	541	77.8	5.89	57.7	14.3	1.
W14 × 48	14.1	13.79	8.030	0.595	0.340	485	70.3	5.85	51.4	12.8	1.
W14 × 43	12.6	13.66	7.995	0.530	0.305	428	62.7	5.82	45.2	11.3	1.
W14 × 38	11.2	14.10	6.770	0.515	0.310	385	54.6	5.87	26.7	7.88	1.
W14 × 34	10.0	13.98	6.745	0.455	0.285	340	48.6	5.83	23.3	6.91	1.
W14 × 30	8.85	13.84	6.730	0.385	0.270	291	42.0	5.73	19.6	5.82	1.
W14 × 26	7.69	13.91	5.025	0.420	0.255	245	35.3	5.65	8.91	3.54	1.
W14 × 22	6.49	13.74	5.000	0.335	0.230	199	29.0	5.54	7.00	2.80	1.
W12 × 336	98.8	16.82	13.385	2.955	1.775	4060	483	6.41	1190	177	3.
W12 × 305	89.6	16.32	13.235	2.705	1.625	3550	435	6.29	1050	159	3.
W12 × 279	81.9	15.85	13.140	2.470	1.530	3110	393	6.16	937	143	3.
W12 × 252	74.1	15.41	13.005	2.250	1.395	2720	353	6.06	828	127	3.
W12 × 230	67.7	15.05	12.895	2.070	1.285	2420	321	5.97	742	115	3.
W12 × 210	61.8	14.71	12.790	1.900	1.180	2140	292	5.89	664	104	3.
W12 × 190	55.8	14.38	12.670	1.735	1.060	1890	263	5.82	589	93.0	3.
W12 × 170	50.0	14.03	12.570	1.560	0.960	1650	235	5.74	517	82.3	3.
W12 × 152	44.7	13.71	12.480	1.400	0.870	1430	209	5.66	454	72.8	3.
W12 × 136	39.9	13.41	12.400	1.250	0.790	1240	186	5.58	398	64.2	3.
W12 × 120	35.3	13.12	12.320	1.105	0.710	1070	163	5.51	345	56.0	3.
W12 × 106	31.2	12.89	12.220	0.990	0.610	933	145	5.47	301	49.3	3.
W12 × 96	28.2	12.71	12.160	0.900	0.550	833	131	5.44	270	44.4	3.
W12 × 87	25.6	12.53	12.125	0.810	0.515	740	118	5.38	241	39.7	3.
W12 × 79	23.2	12.38	12.080	0.735	0.470	662	107	5.34	216	35.8	3.
W12 × 72	21.1	12.25	12.040	0.670	0.430	597	97.4	5.31	195	32.4	3.
W12 × 65	19.1	12.12	12.000	0.605	0.390	533	87.9	5.28	174	29.1	3.
W12 × 58	17.0	12.19	10.010	0.640	0.360	475	78.0	5.28	107	21.4	2.
W12 × 53	15.6	12.06	9.995	0.575	0.345	425	70.6	5.23	95.8	19.2	2.
W12 × 50	14.7	12.19	8.080	0.640	0.370	394	64.7	5.18	56.3	13.9	1.
W12 × 45	13.2	12.06	8.045	0.575	0.335	350	58.1	5.15	50.0	12.4	1.
W12 × 40	11.8	11.94	8.005	0.515	0.295	310	51.9	5.13	44.1	11.0	1.
W12 × 35	10.3	12.50	6.560	0.520	0.300	285	45.6	5.25	24.5	7.47	1.
W12 × 30	8.79	12.34	6.520	0.440	0.260	238	38.6	5.21	20.3	6.24	1.
W12 × 26	7.65	12.22	6.490	0.380	0.230	204	33.4	5.17	17.3	5.34	1.
W12 × 22	6.48	12.31	4.030	0.425	0.260	156	25.4	4.91	4.66	2.31	0.
W12 × 19	5.57	12.16	4.005	0.350	0.235	130	21.3	4.82	3.76	1.88	0.
W12 × 16	4.71	11.99	3.990	0.265	0.220	103	17.1	4.67	2.82	1.41	0.
W12 × 14	4.16	11.91	3.970	0.225	0.200	88.6	14.9	4.62	2.36	1.19	0.
W10 × 112	32.9	11.36	10.415	1.250	0.755	716	126	4.66	236	45.3	2.
W10 × 100	29.4	11.10	10.340	1.120	0.680	623	112	4.60	207	40.0	2.
W10 × 88	25.9	10.84	10.265	0.990	0.605	534	98.5	4.54	179	34.8	2.

W10 × 77	22.6	10.60	10.190	0.870	0.530	455	85.9	4.49	154	30.1	2.
W10 × 68	20.0	10.40	10.130	0.770	0.470	394	75.7	4.44	134	26.4	2.
W10 × 60	17.6	10.22	10.080	0.680	0.420	341	66.7	4.39	116	23.0	2.
W10 × 54	15.8	10.09	10.030	0.615	0.370	303	60.0	4.37	103	20.6	2.
W10 × 49	14.4	9.98	10.000	0.560	0.340	272	54.6	4.35	93.4	18.7	2.
W10 × 45	13.3	10.10	8.020	0.620	0.350	248	49.1	4.32	53.4	13.3	2.
W10 × 39	11.5	9.92	7.985	0.530	0.315	209	42.1	4.27	45.0	11.3	1.
W10 × 33	9.71	9.73	7.960	0.435	0.290	170	35.0	4.19	36.6	9.20	1.
W10 × 30	8.84	10.47	5.810	0.510	0.300	170	32.4	4.38	16.7	5.75	1.
W10 × 26	7.61	10.33	5.770	0.440	0.260	144	27.9	4.35	14.1	4.89	1.
W10 × 22	6.49	10.17	5.750	0.360	0.240	118	23.2	4.27	11.4	3.97	1.
W10 × 19	5.62	10.24	4.020	0.395	0.250	96.3	18.8	4.14	4.29	2.14	0.
W10 × 17	4.99	10.11	4.010	0.330	0.240	81.9	16.2	4.05	3.56	1.78	0.
W10 × 15	4.41	9.99	4.000	0.270	0.230	68.9	13.8	3.95	2.89	1.45	0.
W10 × 12	3.54	9.87	3.960	0.210	0.190	53.8	10.9	3.90	2.18	1.10	0.
W8 × 67	19.7	9.00	8.280	0.935	0.570	272	60.4	3.72	88.6	21.4	2.
W8 × 58	17.1	8.75	8.220	0.810	0.510	228	52.0	3.65	75.1	18.3	2.
W8 × 48	14.1	8.50	8.110	0.685	0.400	184	43.3	3.61	60.9	15.0	2.
W8 × 40	11.7	8.25	8.070	0.560	0.360	146	35.5	3.53	49.1	12.2	2.
W8 × 35	10.3	8.12	8.020	0.495	0.310	127	31.2	3.51	42.6	10.6	2.
W8 × 31	9.13	8.00	7.995	0.435	0.285	110	27.5	3.47	37.1	9.27	2.
W8 × 28	8.25	8.06	6.535	0.465	0.285	98.0	24.3	3.45	21.7	6.63	1.
W8 × 24	7.08	7.93	6.495	0.400	0.245	82.8	20.9	3.42	18.3	5.63	1.
W8 × 21	6.16	8.28	5.270	0.400	0.250	75.3	18.2	3.49	9.77	3.71	1.
W8 × 18	5.26	8.14	5.250	0.330	0.230	61.9	15.2	3.43	7.97	3.04	1.
W8 × 15	4.44	8.11	4.015	0.315	0.245	48.0	11.8	3.29	3.41	1.70	0.
W8 × 13	3.84	7.99	4.000	0.255	0.230	39.6	9.91	3.21	2.73	1.37	0.
W8 × 10	2.96	7.89	3.940	0.205	0.170	30.8	7.81	3.22	2.09	1.06	0.
W6 × 25	7.34	6.38	6.080	0.455	0.320	53.4	16.7	2.70	17.10	5.61	1.
W6 × 20	5.87	6.20	6.020	0.365	0.260	41.4	13.4	2.66	13.30	4.41	1.
W6 × 16	4.74	6.28	4.030	0.405	0.260	32.1	10.2	2.60	4.43	2.20	0.
W6 × 15	4.43	5.99	5.990	0.260	0.230	29.1	9.72	2.56	9.32	3.11	1.
W6 × 12	3.55	6.03	4.000	0.280	0.230	22.1	7.31	2.49	2.99	1.50	0.
W6 × 9	2.68	5.90	3.940	0.215	0.170	16.4	5.56	2.47	2.19	1.11	0.
W5 × 19	5.54	5.15	5.030	0.430	0.270	26.2	10.2	2.17	9.13	3.63	1.
W5 × 16	4.68	5.01	5.000	0.360	0.240	21.3	8.51	2.13	7.51	3.00	1.
W4 × 13	3.83	4.16	4.060	0.345	0.280	11.3	5.46	1.72	3.86	1.90	1.

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