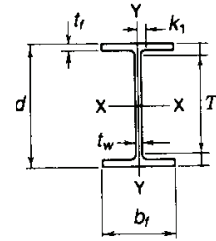


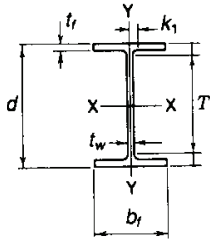
# Wide Flange Beams

## 4" to 44" Sections

## W Shapes Dimensions



Shapes	Area A	Depth d		Web		Flange				Distance		
				Thickness t <sub>w</sub>		Width b <sub>f</sub>		Thickness t <sub>f</sub>		k <sub>1</sub>	T	Work-able Gage
	in. <sup>2</sup>	in.		in.		in.		in.		in.	in.	in.
W 4 x 13	3.83	4.16	4 1/8	0.280	1/4	4.06	4	0.345	3/8	1/2	2 5/8	2 1/4
W 5 x 16 x 19	4.71	5.01	5	0.240	1/4	5.00	5	0.360	3/8	7/16	3 1/2	2 3/4
	5.56	5.15	5 1/8	0.270	1/4	5.03	5	0.430	7/16	7/16	3 1/2	2 3/4
W 6 x 9 x 12 x 16	2.68	5.90	5 7/8	0.170	3/16	3.94	4	0.215	3/16	1/2	4 1/2	2 1/4
	3.55	6.03	6	0.230	1/4	4.00	4	0.280	1/4	9/16	↓	↓
	4.74	6.28	6 1/4	0.260	1/4	4.03	4	0.405	3/8	9/16	↓	↓
W 6 x 15 x 20 x 25	4.43	5.99	6	0.230	1/4	5.99	6	0.260	1/4	9/16	4 1/2	3 1/2
	5.87	6.20	6 1/4	0.260	1/4	6.02	6	0.365	3/8	9/16	↓	↓
	7.34	6.38	6 3/8	0.320	5/16	6.08	6 1/8	0.455	7/16	9/16	↓	↓
W 8 x 10 x 13 x 15	2.96	7.89	7 7/8	0.170	3/16	3.94	4	0.205	3/16	1/2	6 1/2	2 1/4
	3.84	7.99	8	0.230	1/4	4.00	4	0.255	1/4	9/16	↓	↓
	4.44	8.11	8 1/8	0.245	1/4	4.02	4	0.315	5/16	9/16	↓	↓
W 8 x 18 x 21	5.26	8.14	8 1/8	0.230	1/4	5.25	5 1/4	0.330	5/16	9/16	6 1/2	2 3/4
	6.16	8.28	8 1/4	0.250	1/4	5.27	5 1/4	0.400	3/8	9/16	6 1/2	2 3/4
W 8 x 24 x 28	7.08	7.93	7 7/8	0.245	1/4	6.50	6 1/2	0.400	3/8	9/16	6 1/8	4
	8.24	8.06	8	0.285	5/16	6.54	6 1/2	0.465	7/16	5/8	6 1/8	4
W 8 x 31 x 35 x 40 x 48 x 58 x 67	9.12	8.00	8	0.285	5/16	8.00	8	0.435	7/16	3/4	5 3/4	5 1/2
	10.3	8.12	8 1/8	0.310	5/16	8.02	8	0.495	1/2	13/16	↓	↓
	11.7	8.25	8 1/4	0.360	3/8	8.07	8 1/8	0.560	9/16	13/16	↓	↓
	14.1	8.50	8 1/2	0.400	3/8	8.11	8 1/8	0.685	1 1/16	13/16	↓	↓
	17.1	8.75	8 3/4	0.510	1/2	8.22	8 1/4	0.810	1 3/16	7/8	↓	↓
	19.7	9.00	9	0.570	9/16	8.28	8 1/4	0.935	1 5/16	1 5/16	↓	↓



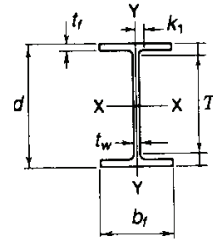
# W Shapes

## Dimensions

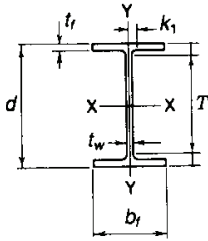
Shapes	Area A	Depth d		Web		Flange				Distance		
				Thickness t <sub>w</sub>		Width b <sub>f</sub>		Thickness t <sub>f</sub>		k <sub>1</sub>	T	Work-able Gage
				in.		in.		in.		in.		in.
W 10 x 12	3.54	9.87	9 <sup>7</sup> / <sub>8</sub>	0.190	<sup>3</sup> / <sub>16</sub>	3.96	4	0.210	<sup>3</sup> / <sub>16</sub>	<sup>9</sup> / <sub>16</sub>	8 <sup>3</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>4</sub>
x 15	4.41	10.0	10	0.230	<sup>1</sup> / <sub>4</sub>	4.00	4	0.270	<sup>1</sup> / <sub>4</sub>	<sup>9</sup> / <sub>16</sub>	↓	↓
x 17	4.99	10.1	10 <sup>1</sup> / <sub>8</sub>	0.240	<sup>1</sup> / <sub>4</sub>	4.01	4	0.330	<sup>5</sup> / <sub>16</sub>	<sup>9</sup> / <sub>16</sub>	↓	↓
x 19	5.62	10.2	10 <sup>1</sup> / <sub>4</sub>	0.250	<sup>1</sup> / <sub>4</sub>	4.02	4	0.395	<sup>3</sup> / <sub>8</sub>	<sup>5</sup> / <sub>8</sub>	↓	↓
W 10 x 22	6.49	10.2	10 <sup>1</sup> / <sub>8</sub>	0.240	<sup>1</sup> / <sub>4</sub>	5.75	5 <sup>3</sup> / <sub>4</sub>	0.360	<sup>3</sup> / <sub>8</sub>	<sup>5</sup> / <sub>8</sub>	8 <sup>1</sup> / <sub>4</sub>	2 <sup>3</sup> / <sub>4</sub>
x 26	7.61	10.3	10 <sup>3</sup> / <sub>8</sub>	0.260	<sup>1</sup> / <sub>4</sub>	5.77	5 <sup>3</sup> / <sub>4</sub>	0.440	<sup>7</sup> / <sub>16</sub>	<sup>11</sup> / <sub>16</sub>	↓	↓
x 30	8.84	10.5	10 <sup>1</sup> / <sub>2</sub>	0.300	<sup>5</sup> / <sub>16</sub>	5.81	5 <sup>3</sup> / <sub>4</sub>	0.510	<sup>1</sup> / <sub>2</sub>	<sup>11</sup> / <sub>16</sub>	↓	↓
W 10 x 33	9.71	9.73	9 <sup>3</sup> / <sub>4</sub>	0.290	<sup>5</sup> / <sub>16</sub>	7.96	8	0.435	<sup>7</sup> / <sub>16</sub>	<sup>3</sup> / <sub>4</sub>	7 <sup>1</sup> / <sub>2</sub>	5 <sup>1</sup> / <sub>2</sub>
x 39	11.5	9.92	9 <sup>7</sup> / <sub>8</sub>	0.315	<sup>5</sup> / <sub>16</sub>	7.99	8	0.530	<sup>1</sup> / <sub>2</sub>	<sup>13</sup> / <sub>16</sub>	↓	↓
x 45	13.3	10.1	10 <sup>1</sup> / <sub>8</sub>	0.350	<sup>3</sup> / <sub>8</sub>	8.02	8	0.620	<sup>5</sup> / <sub>8</sub>	<sup>13</sup> / <sub>16</sub>	↓	↓
W 10 x 49	14.4	10.0	10	0.340	<sup>5</sup> / <sub>16</sub>	10.0	10	0.560	<sup>9</sup> / <sub>16</sub>	<sup>13</sup> / <sub>16</sub>	7 <sup>1</sup> / <sub>2</sub>	5 <sup>1</sup> / <sub>2</sub>
x 54	15.8	10.1	10 <sup>1</sup> / <sub>8</sub>	0.370	<sup>3</sup> / <sub>8</sub>	10.0	10	0.615	<sup>5</sup> / <sub>8</sub>	<sup>13</sup> / <sub>16</sub>	↓	↓
x 60	17.6	10.2	10 <sup>1</sup> / <sub>4</sub>	0.420	<sup>7</sup> / <sub>16</sub>	10.1	10 <sup>1</sup> / <sub>8</sub>	0.680	<sup>11</sup> / <sub>16</sub>	<sup>13</sup> / <sub>16</sub>	↓	↓
x 68	20.0	10.4	10 <sup>3</sup> / <sub>8</sub>	0.470	<sup>1</sup> / <sub>2</sub>	10.1	10 <sup>1</sup> / <sub>8</sub>	0.770	<sup>3</sup> / <sub>4</sub>	<sup>7</sup> / <sub>8</sub>	↓	↓
x 77	22.6	10.6	10 <sup>5</sup> / <sub>8</sub>	0.530	<sup>1</sup> / <sub>2</sub>	10.2	10 <sup>1</sup> / <sub>4</sub>	0.870	<sup>7</sup> / <sub>8</sub>	<sup>7</sup> / <sub>8</sub>	↓	↓
x 88	25.9	10.8	10 <sup>7</sup> / <sub>8</sub>	0.605	<sup>5</sup> / <sub>8</sub>	10.3	10 <sup>1</sup> / <sub>4</sub>	0.990	1	<sup>15</sup> / <sub>16</sub>	↓	↓
x100	29.4	11.1	11 <sup>1</sup> / <sub>8</sub>	0.680	<sup>11</sup> / <sub>16</sub>	10.3	10 <sup>3</sup> / <sub>8</sub>	1.12	<sup>1</sup> / <sub>8</sub>	1	↓	↓
x112	32.9	11.4	11 <sup>3</sup> / <sub>8</sub>	0.755	<sup>3</sup> / <sub>4</sub>	10.4	10 <sup>3</sup> / <sub>8</sub>	1.25	<sup>1</sup> / <sub>4</sub>	1	↓	↓
W 12 x 14	4.16	11.9	11 <sup>7</sup> / <sub>8</sub>	0.200	<sup>3</sup> / <sub>16</sub>	3.97	4	0.225	<sup>1</sup> / <sub>4</sub>	<sup>9</sup> / <sub>16</sub>	10 <sup>3</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>4</sub>
x 16	4.71	12.0	12	0.220	<sup>1</sup> / <sub>4</sub>	3.99	4	0.265	<sup>1</sup> / <sub>4</sub>	<sup>9</sup> / <sub>16</sub>	↓	↓
x 19	5.57	12.2	12 <sup>1</sup> / <sub>8</sub>	0.235	<sup>1</sup> / <sub>4</sub>	4.01	4	0.350	<sup>3</sup> / <sub>8</sub>	<sup>9</sup> / <sub>16</sub>	↓	↓
x 22	6.48	12.3	12 <sup>1</sup> / <sub>4</sub>	0.260	<sup>1</sup> / <sub>4</sub>	4.03	4	0.425	<sup>7</sup> / <sub>16</sub>	<sup>5</sup> / <sub>8</sub>	↓	↓
W 12 x 26	7.65	12.2	12 <sup>1</sup> / <sub>4</sub>	0.230	<sup>1</sup> / <sub>4</sub>	6.49	6 <sup>1</sup> / <sub>2</sub>	0.380	<sup>3</sup> / <sub>8</sub>	<sup>3</sup> / <sub>4</sub>	10 <sup>1</sup> / <sub>8</sub>	3 <sup>1</sup> / <sub>2</sub>
x 30	8.79	12.3	12 <sup>3</sup> / <sub>8</sub>	0.260	<sup>1</sup> / <sub>4</sub>	6.52	6 <sup>1</sup> / <sub>2</sub>	0.440	<sup>7</sup> / <sub>16</sub>	<sup>3</sup> / <sub>4</sub>	↓	↓
x 35	10.3	12.5	12 <sup>1</sup> / <sub>2</sub>	0.300	<sup>5</sup> / <sub>16</sub>	6.56	6 <sup>1</sup> / <sub>2</sub>	0.520	<sup>1</sup> / <sub>2</sub>	<sup>3</sup> / <sub>4</sub>	↓	↓
W 12 x 40	11.7	11.9	12	0.295	<sup>5</sup> / <sub>16</sub>	8.01	8	0.515	<sup>1</sup> / <sub>2</sub>	<sup>7</sup> / <sub>8</sub>	9 <sup>1</sup> / <sub>4</sub>	5 <sup>1</sup> / <sub>2</sub>
x 45	13.1	12.1	12	0.335	<sup>5</sup> / <sub>16</sub>	8.05	8	0.575	<sup>9</sup> / <sub>16</sub>	<sup>15</sup> / <sub>16</sub>	↓	↓
x 50	14.6	12.2	12 <sup>1</sup> / <sub>4</sub>	0.370	<sup>3</sup> / <sub>8</sub>	8.08	8 <sup>1</sup> / <sub>8</sub>	0.640	<sup>5</sup> / <sub>8</sub>	<sup>15</sup> / <sub>16</sub>	↓	↓
W 12 x 53	15.6	12.1	12	0.345	<sup>3</sup> / <sub>8</sub>	10.0	10	0.575	<sup>9</sup> / <sub>16</sub>	<sup>15</sup> / <sub>16</sub>	9 <sup>1</sup> / <sub>4</sub>	5 <sup>1</sup> / <sub>2</sub>
x 58	17.0	12.2	12 <sup>1</sup> / <sub>4</sub>	0.360	<sup>3</sup> / <sub>8</sub>	10.0	10	0.640	<sup>5</sup> / <sub>8</sub>	<sup>15</sup> / <sub>16</sub>	9 <sup>1</sup> / <sub>4</sub>	5 <sup>1</sup> / <sub>2</sub>

# W Shapes

## Dimensions



Shapes	Area A	Depth d		Web		Flange				Distance		
				Thickness t <sub>w</sub>		Width b <sub>f</sub>		Thickness t <sub>f</sub>		k <sub>1</sub>	T	Work-able Gage
	in. <sup>2</sup>	in.		in.		in.		in.		in.	in.	in.
W 12 x 65	19.1	12.1	12 <sup>1</sup> / <sub>8</sub>	0.390	<sup>3</sup> / <sub>8</sub>	12.0	12	0.605	<sup>5</sup> / <sub>8</sub>	1	9 <sup>1</sup> / <sub>8</sub>	5 <sup>1</sup> / <sub>2</sub>
x 72	21.1	12.3	12 <sup>1</sup> / <sub>4</sub>	0.430	<sup>7</sup> / <sub>16</sub>	12.0	12	0.670	<sup>11</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>16</sub>	↓	↓
x 79	23.2	12.4	12 <sup>3</sup> / <sub>8</sub>	0.470	<sup>1</sup> / <sub>2</sub>	12.1	12 <sup>1</sup> / <sub>8</sub>	0.735	<sup>3</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>16</sub>	↓	↓
x 87	25.6	12.5	12 <sup>1</sup> / <sub>2</sub>	0.515	<sup>1</sup> / <sub>2</sub>	12.1	12 <sup>1</sup> / <sub>8</sub>	0.810	<sup>13</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>16</sub>	↓	↓
x 96	28.2	12.7	12 <sup>3</sup> / <sub>4</sub>	0.550	<sup>9</sup> / <sub>16</sub>	12.2	12 <sup>1</sup> / <sub>8</sub>	0.900	<sup>7</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>8</sub>	↓	↓
x 106	31.2	12.9	12 <sup>7</sup> / <sub>8</sub>	0.610	<sup>5</sup> / <sub>8</sub>	12.2	12 <sup>1</sup> / <sub>4</sub>	0.990	1	1 <sup>1</sup> / <sub>8</sub>	↓	↓
x 120	35.3	13.1	13 <sup>1</sup> / <sub>8</sub>	0.710	<sup>11</sup> / <sub>16</sub>	12.3	12 <sup>3</sup> / <sub>8</sub>	1.11	1 <sup>1</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>16</sub>	↓	↓
x 136	39.9	13.4	13 <sup>3</sup> / <sub>8</sub>	0.790	<sup>13</sup> / <sub>16</sub>	12.4	12 <sup>3</sup> / <sub>8</sub>	1.25	1 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>4</sub>	↓	↓
x 152	44.7	13.7	13 <sup>3</sup> / <sub>4</sub>	0.870	<sup>7</sup> / <sub>8</sub>	12.5	12 <sup>1</sup> / <sub>2</sub>	1.40	1 <sup>3</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>4</sub>	↓	↓
x 170	50.0	14.0	14	0.960	<sup>15</sup> / <sub>16</sub>	12.6	12 <sup>5</sup> / <sub>8</sub>	1.56	<sup>19</sup> / <sub>16</sub>	1 <sup>5</sup> / <sub>16</sub>	↓	↓
x 190	55.8	14.4	14 <sup>3</sup> / <sub>8</sub>	1.060	1 <sup>1</sup> / <sub>6</sub>	12.7	12 <sup>5</sup> / <sub>8</sub>	1.74	1 <sup>3</sup> / <sub>4</sub>	1 <sup>3</sup> / <sub>8</sub>	↓	↓
x 210	61.8	14.7	14 <sup>3</sup> / <sub>4</sub>	1.180	<sup>13</sup> / <sub>16</sub>	12.8	12 <sup>3</sup> / <sub>4</sub>	1.90	1 <sup>7</sup> / <sub>8</sub>	1 <sup>7</sup> / <sub>16</sub>	↓	↓
x 230	67.7	15.1	15	1.290	<sup>15</sup> / <sub>16</sub>	12.9	12 <sup>7</sup> / <sub>8</sub>	2.07	<sup>21</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>2</sub>	↓	↓
x 252	74.0	15.4	15 <sup>3</sup> / <sub>8</sub>	1.400	1 <sup>3</sup> / <sub>8</sub>	13.0	13	2.25	2 <sup>1</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>2</sub>	↓	↓
x 279	81.9	15.9	15 <sup>7</sup> / <sub>8</sub>	1.530	1 <sup>1</sup> / <sub>2</sub>	13.1	13 <sup>1</sup> / <sub>8</sub>	2.47	2 <sup>1</sup> / <sub>2</sub>	1 <sup>5</sup> / <sub>8</sub>	↓	↓
x 305	89.6	16.3	16 <sup>3</sup> / <sub>8</sub>	1.630	1 <sup>5</sup> / <sub>8</sub>	13.2	13 <sup>1</sup> / <sub>4</sub>	2.71	2 <sup>11</sup> / <sub>16</sub>	1 <sup>5</sup> / <sub>8</sub>	↓	↓
x 336	98.8	16.8	16 <sup>7</sup> / <sub>8</sub>	1.780	1 <sup>3</sup> / <sub>4</sub>	13.4	13 <sup>3</sup> / <sub>8</sub>	2.96	2 <sup>15</sup> / <sub>16</sub>	1 <sup>11</sup> / <sub>16</sub>	↓	↓
W 14 x 22	6.49	13.7	13 <sup>3</sup> / <sub>4</sub>	0.230	<sup>1</sup> / <sub>4</sub>	5.00	5	0.335	<sup>5</sup> / <sub>16</sub>	<sup>3</sup> / <sub>4</sub>	11 <sup>5</sup> / <sub>8</sub>	2 <sup>3</sup> / <sub>4</sub>
x 26	7.69	13.9	13 <sup>7</sup> / <sub>8</sub>	0.255	<sup>1</sup> / <sub>4</sub>	5.03	5	0.420	<sup>7</sup> / <sub>16</sub>	<sup>3</sup> / <sub>4</sub>	11 <sup>5</sup> / <sub>8</sub>	2 <sup>3</sup> / <sub>4</sub>
W 14 x 30	8.85	13.8	13 <sup>7</sup> / <sub>8</sub>	0.270	<sup>1</sup> / <sub>4</sub>	6.73	6 <sup>3</sup> / <sub>4</sub>	0.385	<sup>3</sup> / <sub>8</sub>	<sup>3</sup> / <sub>4</sub>	11 <sup>5</sup> / <sub>8</sub>	3 <sup>1</sup> / <sub>2</sub>
x 34	10.0	14.0	14	0.285	<sup>5</sup> / <sub>16</sub>	6.75	6 <sup>3</sup> / <sub>4</sub>	0.455	<sup>7</sup> / <sub>16</sub>	<sup>3</sup> / <sub>4</sub>	↓	↓
x 38	11.2	14.1	14 <sup>1</sup> / <sub>8</sub>	0.310	<sup>5</sup> / <sub>16</sub>	6.77	6 <sup>3</sup> / <sub>4</sub>	0.515	<sup>1</sup> / <sub>2</sub>	1 <sup>3</sup> / <sub>16</sub>	↓	↓
W 14 x 43	12.6	13.7	13 <sup>5</sup> / <sub>8</sub>	0.305	<sup>5</sup> / <sub>16</sub>	8.00	8	0.530	<sup>1</sup> / <sub>2</sub>	1	10 <sup>7</sup> / <sub>8</sub>	5 <sup>1</sup> / <sub>2</sub>
x 48	14.1	13.8	13 <sup>3</sup> / <sub>4</sub>	0.340	<sup>5</sup> / <sub>16</sub>	8.03	8	0.595	<sup>5</sup> / <sub>8</sub>	1	↓	↓
x 53	15.6	13.9	13 <sup>7</sup> / <sub>8</sub>	0.370	<sup>3</sup> / <sub>8</sub>	8.06	8	0.660	1 <sup>1</sup> / <sub>16</sub>	1	↓	↓
W 14 x 61	17.9	13.9	13 <sup>7</sup> / <sub>8</sub>	0.375	<sup>3</sup> / <sub>8</sub>	10.0	10	0.645	<sup>5</sup> / <sub>8</sub>	1	10 <sup>7</sup> / <sub>8</sub>	5 <sup>1</sup> / <sub>2</sub>
x 68	20.0	14.0	14	0.415	<sup>7</sup> / <sub>16</sub>	10.0	10	0.720	<sup>3</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>16</sub>	↓	↓
x 74	21.8	14.2	14 <sup>1</sup> / <sub>8</sub>	0.450	<sup>7</sup> / <sub>16</sub>	10.1	10 <sup>1</sup> / <sub>8</sub>	0.785	<sup>13</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>16</sub>	↓	↓
x 82	24.0	14.3	14 <sup>1</sup> / <sub>4</sub>	0.510	<sup>1</sup> / <sub>2</sub>	10.1	10 <sup>1</sup> / <sub>8</sub>	0.855	<sup>7</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>16</sub>	↓	↓
W 14 x 90	26.5	14.0	14	0.440	<sup>7</sup> / <sub>16</sub>	14.5	14 <sup>1</sup> / <sub>2</sub>	0.710	1 <sup>1</sup> / <sub>16</sub>	1 <sup>7</sup> / <sub>16</sub>	10	5 <sup>1</sup> / <sub>2</sub>
x 99	29.1	14.2	14 <sup>1</sup> / <sub>8</sub>	0.485	<sup>1</sup> / <sub>2</sub>	14.6	14 <sup>5</sup> / <sub>8</sub>	0.780	<sup>3</sup> / <sub>4</sub>	1 <sup>7</sup> / <sub>16</sub>	↓	↓
x 109	32.0	14.3	14 <sup>3</sup> / <sub>8</sub>	0.525	<sup>1</sup> / <sub>2</sub>	14.6	14 <sup>5</sup> / <sub>8</sub>	0.860	<sup>7</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>2</sub>	↓	↓
x 120	35.3	14.5	14 <sup>1</sup> / <sub>2</sub>	0.590	<sup>9</sup> / <sub>16</sub>	14.7	14 <sup>5</sup> / <sub>8</sub>	0.940	<sup>15</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>2</sub>	↓	↓
x 132	38.8	14.7	14 <sup>5</sup> / <sub>8</sub>	0.645	<sup>5</sup> / <sub>8</sub>	14.7	14 <sup>3</sup> / <sub>4</sub>	1.03	1	1 <sup>9</sup> / <sub>16</sub>	↓	↓



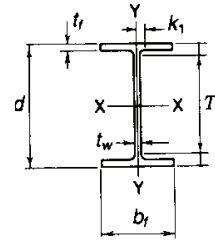
# W Shapes

## Dimensions

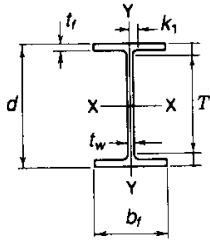
Shapes	Area A	Depth d		Web		Flange				Distance		
				Thickness t <sub>w</sub>		Width b <sub>f</sub>		Thickness t <sub>f</sub>		k <sub>1</sub>	T	Workable Gage
				in.		in.		in.		in.		in.
W 14 x 145	42.7	14.8	14 <sup>3</sup> / <sub>4</sub>	0.680	1 <sup>1</sup> / <sub>16</sub>	15.5	15 <sup>1</sup> / <sub>2</sub>	1.09	1 <sup>1</sup> / <sub>16</sub>	1 <sup>9</sup> / <sub>16</sub>	10	3-7 <sup>1</sup> / <sub>2</sub> -3
x 159	46.7	15.0	15	0.745	<sup>3</sup> / <sub>4</sub>	15.6	15 <sup>5</sup> / <sub>8</sub>	1.19	1 <sup>3</sup> / <sub>16</sub>	1 <sup>9</sup> / <sub>16</sub>	↓	↓
x 176	51.8	15.2	15 <sup>1</sup> / <sub>4</sub>	0.830	<sup>13</sup> / <sub>16</sub>	15.7	15 <sup>5</sup> / <sub>8</sub>	1.31	1 <sup>5</sup> / <sub>16</sub>	1 <sup>5</sup> / <sub>8</sub>	↓	↓
x 193	56.8	15.5	15 <sup>1</sup> / <sub>2</sub>	0.890	<sup>7</sup> / <sub>8</sub>	15.7	15 <sup>3</sup> / <sub>4</sub>	1.44	1 <sup>7</sup> / <sub>16</sub>	1 <sup>11</sup> / <sub>16</sub>	↓	↓
x 211	62.0	15.7	15 <sup>3</sup> / <sub>4</sub>	0.980	1	15.8	15 <sup>3</sup> / <sub>4</sub>	1.56	1 <sup>9</sup> / <sub>16</sub>	1 <sup>11</sup> / <sub>16</sub>	↓	↓
x 233	68.5	16.0	16	1.070	1 <sup>1</sup> / <sub>16</sub>	15.9	15 <sup>7</sup> / <sub>8</sub>	1.72	1 <sup>3</sup> / <sub>4</sub>	1 <sup>3</sup> / <sub>4</sub>	↓	↓
x 257	75.6	16.4	16 <sup>3</sup> / <sub>8</sub>	1.180	1 <sup>3</sup> / <sub>16</sub>	16.0	16	1.89	1 <sup>7</sup> / <sub>8</sub>	1 <sup>13</sup> / <sub>16</sub>	↓	↓
x 283	83.3	16.7	16 <sup>3</sup> / <sub>4</sub>	1.290	1 <sup>5</sup> / <sub>16</sub>	16.1	16 <sup>1</sup> / <sub>8</sub>	2.07	2 <sup>1</sup> / <sub>16</sub>	1 <sup>7</sup> / <sub>8</sub>	↓	↓
x 311	91.4	17.1	17 <sup>1</sup> / <sub>8</sub>	1.410	1 <sup>7</sup> / <sub>16</sub>	16.2	16 <sup>1</sup> / <sub>4</sub>	2.26	2 <sup>1</sup> / <sub>4</sub>	1 <sup>15</sup> / <sub>16</sub>	↓	↓
x 342	101.0	17.5	17 <sup>1</sup> / <sub>2</sub>	1.540	1 <sup>9</sup> / <sub>16</sub>	16.4	16 <sup>3</sup> / <sub>8</sub>	2.47	2 <sup>1</sup> / <sub>2</sub>	2	↓	↓
x 370	109.0	17.9	17 <sup>7</sup> / <sub>8</sub>	1.660	1 <sup>5</sup> / <sub>8</sub>	16.5	16 <sup>1</sup> / <sub>2</sub>	2.66	2 <sup>1</sup> / <sub>16</sub>	2 <sup>1</sup> / <sub>16</sub>	↓	↓
x 398	117.0	18.3	18 <sup>1</sup> / <sub>4</sub>	1.770	1 <sup>3</sup> / <sub>4</sub>	16.6	16 <sup>5</sup> / <sub>8</sub>	2.85	2 <sup>7</sup> / <sub>8</sub>	2 <sup>1</sup> / <sub>8</sub>	↓	↓
x 426	125.0	18.7	18 <sup>5</sup> / <sub>8</sub>	1.880	1 <sup>7</sup> / <sub>8</sub>	16.7	16 <sup>3</sup> / <sub>4</sub>	3.04	3 <sup>1</sup> / <sub>16</sub>	2 <sup>1</sup> / <sub>8</sub>	↓	↓
x 455	134.0	19.0	19	2.020	2	16.8	16 <sup>7</sup> / <sub>8</sub>	3.21	3 <sup>3</sup> / <sub>16</sub>	2 <sup>1</sup> / <sub>4</sub>	↓	↓
x 500	147.0	19.6	19 <sup>5</sup> / <sub>8</sub>	2.190	2 <sup>3</sup> / <sub>16</sub>	17.0	17	3.50	3 <sup>1</sup> / <sub>2</sub>	2 <sup>5</sup> / <sub>16</sub>	↓	↓
x 550	162.0	20.2	20 <sup>1</sup> / <sub>4</sub>	2.380	2 <sup>3</sup> / <sub>8</sub>	17.2	17 <sup>1</sup> / <sub>4</sub>	3.82	3 <sup>13</sup> / <sub>16</sub>	2 <sup>3</sup> / <sub>8</sub>	↓	↓
x 605	178.0	20.9	20 <sup>7</sup> / <sub>8</sub>	2.600	2 <sup>5</sup> / <sub>8</sub>	17.4	17 <sup>3</sup> / <sub>8</sub>	4.16	4 <sup>3</sup> / <sub>16</sub>	2 <sup>1</sup> / <sub>12</sub>	↓	↓
x 665	196.0	21.6	21 <sup>5</sup> / <sub>8</sub>	2.830	2 <sup>13</sup> / <sub>16</sub>	17.7	17 <sup>5</sup> / <sub>8</sub>	4.52	4 <sup>1</sup> / <sub>2</sub>	2 <sup>5</sup> / <sub>8</sub>	↓	↓
x 730	215.0	22.4	22 <sup>3</sup> / <sub>8</sub>	3.070	3 <sup>1</sup> / <sub>16</sub>	17.9	17 <sup>7</sup> / <sub>8</sub>	4.91	4 <sup>15</sup> / <sub>16</sub>	2 <sup>3</sup> / <sub>4</sub>	↓	↓
W 16 x 26	7.68	15.7	15 <sup>3</sup> / <sub>4</sub>	0.250	<sup>1</sup> / <sub>4</sub>	5.50	5 <sup>1</sup> / <sub>2</sub>	0.345	<sup>3</sup> / <sub>8</sub>	<sup>3</sup> / <sub>4</sub>	13 <sup>5</sup> / <sub>8</sub>	3 <sup>1</sup> / <sub>2</sub>
x 31	9.13	15.9	15 <sup>7</sup> / <sub>8</sub>	0.275	<sup>1</sup> / <sub>4</sub>	5.53	5 <sup>1</sup> / <sub>2</sub>	0.440	<sup>7</sup> / <sub>16</sub>	<sup>3</sup> / <sub>4</sub>	13 <sup>5</sup> / <sub>8</sub>	3 <sup>1</sup> / <sub>2</sub>
W 16 x 36	10.6	15.9	15 <sup>7</sup> / <sub>8</sub>	0.295	<sup>5</sup> / <sub>16</sub>	6.99	7	0.430	<sup>7</sup> / <sub>16</sub>	<sup>3</sup> / <sub>4</sub>	13 <sup>5</sup> / <sub>8</sub>	3 <sup>1</sup> / <sub>2</sub>
x 40	11.8	16.0	16	0.305	<sup>5</sup> / <sub>16</sub>	7.00	7	0.505	<sup>1</sup> / <sub>2</sub>	1 <sup>3</sup> / <sub>16</sub>	↓	↓
x 45	13.3	16.1	16 <sup>1</sup> / <sub>8</sub>	0.345	<sup>3</sup> / <sub>8</sub>	7.04	7	0.565	<sup>9</sup> / <sub>16</sub>	1 <sup>3</sup> / <sub>16</sub>	↓	↓
x 50	14.7	16.3	16 <sup>1</sup> / <sub>4</sub>	0.380	<sup>3</sup> / <sub>8</sub>	7.07	7 <sup>1</sup> / <sub>8</sub>	0.630	<sup>5</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>16</sub>	↓	↓
x 57	16.8	16.4	16 <sup>3</sup> / <sub>8</sub>	0.430	<sup>7</sup> / <sub>16</sub>	7.12	7 <sup>1</sup> / <sub>8</sub>	0.715	1 <sup>1</sup> / <sub>16</sub>	<sup>7</sup> / <sub>8</sub>	↓	↓
W 16 x 67	19.7	16.3	16 <sup>3</sup> / <sub>8</sub>	0.395	<sup>3</sup> / <sub>8</sub>	10.2	10 <sup>1</sup> / <sub>4</sub>	0.665	1 <sup>1</sup> / <sub>16</sub>	1	13 <sup>1</sup> / <sub>4</sub>	5 <sup>1</sup> / <sub>2</sub>
x 77	22.6	16.5	16 <sup>1</sup> / <sub>2</sub>	0.455	<sup>7</sup> / <sub>16</sub>	10.3	10 <sup>1</sup> / <sub>4</sub>	0.760	<sup>3</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>16</sub>	↓	↓
x 89	26.2	16.8	16 <sup>3</sup> / <sub>4</sub>	0.525	<sup>1</sup> / <sub>2</sub>	10.4	10 <sup>3</sup> / <sub>8</sub>	0.875	<sup>7</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>16</sub>	↓	↓
x 100	29.5	17.0	17	0.585	<sup>9</sup> / <sub>16</sub>	10.4	10 <sup>3</sup> / <sub>8</sub>	0.985	1	1 <sup>1</sup> / <sub>8</sub>	↓	↓

# W Shapes

## Dimensions



Shapes	Area A	Depth d		Web		Flange				Distance		
				Thickness t <sub>w</sub>		Width b <sub>f</sub>		Thickness t <sub>f</sub>		k <sub>1</sub>	T	Work-able Gage
	in. <sup>2</sup>	in.		in.		in.		in.		in.	in.	in.
W 18 x 35	10.3	17.7	17 <sup>3</sup> / <sub>4</sub>	0.300	5/16	6.00	6	0.425	7/16	3/4	15 <sup>1</sup> / <sub>2</sub>	3 <sup>1</sup> / <sub>2</sub>
x 40	11.8	17.9	17 <sup>7</sup> / <sub>8</sub>	0.315	5/16	6.02	6	0.525	1/2	13/16	↓	↓
x 46	13.5	18.1	18	0.360	3/8	6.06	6	0.605	5/8	13/16	↓	↓
W 18 x 50	14.7	18.0	18	0.355	3/8	7.50	7 <sup>1</sup> / <sub>2</sub>	0.570	9/16	13/16	15 <sup>1</sup> / <sub>2</sub>	3 <sup>1</sup> / <sub>2</sub>
x 55	16.2	18.1	18 <sup>1</sup> / <sub>8</sub>	0.390	3/8	7.53	7 <sup>1</sup> / <sub>2</sub>	0.630	5/8	13/16	↓	↓
x 60	17.6	18.2	18 <sup>1</sup> / <sub>4</sub>	0.415	7/16	7.56	7 <sup>1</sup> / <sub>2</sub>	0.695	1 <sup>1</sup> / <sub>16</sub>	13/16	↓	↓
x 65	19.1	18.4	18 <sup>3</sup> / <sub>8</sub>	0.450	7/16	7.59	7 <sup>5</sup> / <sub>8</sub>	0.750	3/4	7/8	↓	↓
x 71	20.8	18.5	18 <sup>1</sup> / <sub>2</sub>	0.495	1/2	7.64	7 <sup>5</sup> / <sub>8</sub>	0.810	13/16	7/8	↓	↓
W 18 x 76	22.3	18.2	18 <sup>1</sup> / <sub>4</sub>	0.425	7/16	11.0	11	0.680	1 <sup>1</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>16</sub>	15 <sup>1</sup> / <sub>8</sub>	5 <sup>1</sup> / <sub>2</sub>
x 86	25.3	18.4	18 <sup>3</sup> / <sub>8</sub>	0.480	1/2	11.1	11 <sup>1</sup> / <sub>8</sub>	0.770	3/4	1 <sup>1</sup> / <sub>16</sub>	↓	↓
x 97	28.5	18.6	18 <sup>5</sup> / <sub>8</sub>	0.535	9/16	11.1	11 <sup>1</sup> / <sub>8</sub>	0.870	7/8	1 <sup>1</sup> / <sub>8</sub>	↓	↓
x 106	31.1	18.7	18 <sup>3</sup> / <sub>4</sub>	0.590	9/16	11.2	11 <sup>1</sup> / <sub>4</sub>	0.940	15/16	1 <sup>1</sup> / <sub>8</sub>	↓	↓
x 119	35.1	19.0	19	0.655	5/8	11.3	11 <sup>1</sup> / <sub>4</sub>	1.06	1 <sup>1</sup> / <sub>16</sub>	13/16	↓	↓
x 130	38.2	19.3	19 <sup>1</sup> / <sub>4</sub>	0.670	1 <sup>1</sup> / <sub>16</sub>	11.2	11 <sup>1</sup> / <sub>8</sub>	1.20	13/16	13/16	↓	↓
x 143	42.1	19.5	19 <sup>1</sup> / <sub>2</sub>	0.730	3/4	11.2	11 <sup>1</sup> / <sub>4</sub>	1.32	15/16	13/16	↓	↓
x 158	46.3	19.7	19 <sup>3</sup> / <sub>4</sub>	0.810	13/16	11.3	11 <sup>1</sup> / <sub>4</sub>	1.44	17/16	1 <sup>1</sup> / <sub>4</sub>	↓	↓
x 175	51.3	20.0	20	0.890	7/8	11.4	11 <sup>3</sup> / <sub>8</sub>	1.59	19/16	1 <sup>1</sup> / <sub>4</sub>	↓	↓
x 192	56.4	20.4	20 <sup>3</sup> / <sub>8</sub>	0.960	15/16	11.5	11 <sup>1</sup> / <sub>2</sub>	1.75	13/4	1 <sup>1</sup> / <sub>8</sub>	↓	↓
x 211	62.1	20.7	20 <sup>5</sup> / <sub>8</sub>	1.060	1 <sup>1</sup> / <sub>16</sub>	11.6	11 <sup>1</sup> / <sub>2</sub>	1.91	1 <sup>15</sup> / <sub>16</sub>	13/16	15 <sup>1</sup> / <sub>2</sub>	5 <sup>1</sup> / <sub>2</sub>
x 234	68.8	21.1	21	1.160	13/16	11.7	11 <sup>5</sup> / <sub>8</sub>	2.11	2 <sup>1</sup> / <sub>8</sub>	13/16	↓	↓
x 258	75.9	21.5	21 <sup>1</sup> / <sub>2</sub>	1.280	1 <sup>1</sup> / <sub>4</sub>	11.8	11 <sup>3</sup> / <sub>4</sub>	2.30	2 <sup>5</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>4</sub>	↓	↓
x 283	83.3	21.9	21 <sup>7</sup> / <sub>8</sub>	1.400	1 <sup>3</sup> / <sub>8</sub>	11.9	11 <sup>7</sup> / <sub>8</sub>	2.50	2 <sup>1</sup> / <sub>2</sub>	15/16	↓	↓
x 311	91.6	22.3	22 <sup>3</sup> / <sub>8</sub>	1.520	1 <sup>1</sup> / <sub>2</sub>	12.0	12	2.74	2 <sup>3</sup> / <sub>4</sub>	13/8	↓	↓
W 21 x 44	13.0	20.7	20 <sup>5</sup> / <sub>8</sub>	0.350	3/8	6.50	6 <sup>1</sup> / <sub>2</sub>	0.450	7/16	13/16	18 <sup>3</sup> / <sub>8</sub>	3 <sup>1</sup> / <sub>2</sub>
x 50	14.7	20.8	20 <sup>7</sup> / <sub>8</sub>	0.380	3/8	6.53	6 <sup>1</sup> / <sub>2</sub>	0.535	9/16	13/16	↓	↓
x 57	16.7	21.1	21	0.405	3/8	6.56	6 <sup>1</sup> / <sub>2</sub>	0.650	5/8	13/16	↓	↓
W 21 x 48	14.1	20.6	20 <sup>5</sup> / <sub>8</sub>	0.350	3/8	8.14	8 <sup>1</sup> / <sub>8</sub>	0.430	7/16	13/16	18 <sup>3</sup> / <sub>8</sub>	5 <sup>1</sup> / <sub>2</sub>
x 55	16.2	20.8	20 <sup>3</sup> / <sub>4</sub>	0.375	3/8	8.22	8 <sup>1</sup> / <sub>4</sub>	0.522	1/2	13/16	↓	↓
x 62	18.3	21.0	21	0.400	3/8	8.24	8 <sup>1</sup> / <sub>4</sub>	0.615	5/8	13/16	↓	↓
x 68	20.0	21.1	21 <sup>1</sup> / <sub>8</sub>	0.430	7/16	8.27	8 <sup>1</sup> / <sub>4</sub>	0.685	1 <sup>1</sup> / <sub>16</sub>	7/8	↓	↓
x 73	21.5	21.2	21 <sup>1</sup> / <sub>4</sub>	0.455	7/16	8.30	8 <sup>1</sup> / <sub>4</sub>	0.740	3/4	7/8	↓	↓
x 83	24.3	21.4	21 <sup>3</sup> / <sub>8</sub>	0.515	1/2	8.36	8 <sup>3</sup> / <sub>8</sub>	0.835	13/16	7/8	↓	↓
x 93	27.3	21.6	21 <sup>5</sup> / <sub>8</sub>	0.058	9/16	8.42	8 <sup>3</sup> / <sub>8</sub>	0.930	15/16	15/16	↓	↓



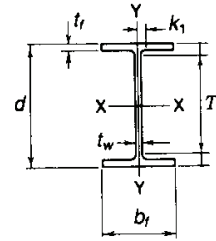
# W Shapes

## Dimensions

Shapes	Area A	Depth d		Web		Flange				Distance		
				Thickness t <sub>w</sub>		Width b <sub>f</sub>		Thickness t <sub>f</sub>		k <sub>1</sub>	T	Work-able Gage
				in.		in.		in.		in.		in.
W 21 x 101	29.8	21.4	21 <sup>3</sup> / <sub>8</sub>	0.500	1/2	12.3	12 <sup>1</sup> / <sub>4</sub>	0.800	1 <sup>3</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>16</sub>	18	5 <sup>1</sup> / <sub>2</sub>
x 111	32.7	21.5	21 <sup>1</sup> / <sub>2</sub>	0.550	9/16	12.3	12 <sup>3</sup> / <sub>8</sub>	0.875	7/8	1 <sup>1</sup> / <sub>8</sub>	↓	↓
x 122	35.9	21.7	21 <sup>5</sup> / <sub>8</sub>	0.600	5/8	12.4	12 <sup>3</sup> / <sub>8</sub>	0.960	1 <sup>5</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>8</sub>	↓	↓
x 132	38.8	21.8	21 <sup>7</sup> / <sub>8</sub>	0.650	5/8	12.4	12 <sup>1</sup> / <sub>2</sub>	1.04	1 <sup>1</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>8</sub>	↓	↓
x 147	43.2	22.1	22	0.720	3/4	12.5	12 <sup>1</sup> / <sub>2</sub>	1.15	1 <sup>1</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>16</sub>	↓	↓
x 166	48.8	22.5	22 <sup>1</sup> / <sub>2</sub>	0.750	3/4	12.4	12 <sup>3</sup> / <sub>8</sub>	1.36	1 <sup>3</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>16</sub>	↓	↓
x 182	53.6	22.7	22 <sup>3</sup> / <sub>4</sub>	0.830	1 <sup>3</sup> / <sub>16</sub>	12.5	12 <sup>1</sup> / <sub>2</sub>	1.48	1 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>4</sub>	↓	↓
x 201	59.2	23.0	23	0.910	1 <sup>5</sup> / <sub>16</sub>	12.6	12 <sup>5</sup> / <sub>8</sub>	1.63	1 <sup>5</sup> / <sub>8</sub>	1 <sup>5</sup> / <sub>16</sub>	↓	↓
W 24 x 55	16.2	23.6	23 <sup>5</sup> / <sub>8</sub>	0.395	3/8	7.01	7	0.505	1/2	1	20 <sup>3</sup> / <sub>4</sub>	3 <sup>1</sup> / <sub>2</sub>
x 62	18.2	23.7	23 <sup>3</sup> / <sub>4</sub>	0.430	7/16	7.04	7	0.590	9/16	1 <sup>1</sup> / <sub>16</sub>	20 <sup>3</sup> / <sub>4</sub>	3 <sup>1</sup> / <sub>2</sub>
W 24 x 68	20.1	23.7	23 <sup>3</sup> / <sub>4</sub>	0.415	7/16	8.97	9	0.585	9/16	1 <sup>1</sup> / <sub>16</sub>	20 <sup>3</sup> / <sub>4</sub>	5 <sup>1</sup> / <sub>2</sub>
x 76	22.4	23.9	23 <sup>7</sup> / <sub>8</sub>	0.440	7/16	8.99	9	0.680	1 <sup>1</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>16</sub>	↓	↓
x 84	24.7	24.1	24 <sup>1</sup> / <sub>8</sub>	0.470	1/2	9.02	9	0.770	3/4	1 <sup>1</sup> / <sub>16</sub>	↓	↓
x 94	27.7	24.3	24 <sup>1</sup> / <sub>4</sub>	0.515	1/2	9.07	9 1/8	0.875	7/8	1 <sup>1</sup> / <sub>16</sub>	↓	↓
x 103	30.3	24.5	24 <sup>1</sup> / <sub>2</sub>	0.550	9/16	9.00	9	0.980	1	1 <sup>1</sup> / <sub>8</sub>	↓	↓
W 24 x 104	30.6	24.1	24	0.500	1/2	12.8	12 <sup>3</sup> / <sub>4</sub>	0.750	3/4	1 <sup>1</sup> / <sub>16</sub>	20 <sup>3</sup> / <sub>4</sub>	5 <sup>1</sup> / <sub>2</sub>
x 117	34.4	24.3	24 <sup>1</sup> / <sub>4</sub>	0.550	9/16	12.8	12 <sup>3</sup> / <sub>4</sub>	0.850	7/8	1 <sup>1</sup> / <sub>8</sub>	↓	↓
x 131	38.5	24.5	24 <sup>1</sup> / <sub>2</sub>	0.605	5/8	12.9	12 <sup>7</sup> / <sub>8</sub>	0.960	1 <sup>5</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>8</sub>	↓	↓
x 146	43.0	24.7	24 <sup>3</sup> / <sub>4</sub>	0.650	5/8	12.9	12 <sup>7</sup> / <sub>8</sub>	1.09	1 <sup>1</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>8</sub>	↓	↓
x 162	47.7	25.0	25	0.705	1 <sup>1</sup> / <sub>16</sub>	13.0	13	1.22	1 <sup>1</sup> / <sub>4</sub>	1 <sup>3</sup> / <sub>16</sub>	↓	↓
x 176	51.7	25.2	25 <sup>1</sup> / <sub>4</sub>	0.750	3/4	12.9	12 <sup>7</sup> / <sub>8</sub>	1.34	1 <sup>5</sup> / <sub>16</sub>	1 <sup>3</sup> / <sub>16</sub>	↓	↓
x 192	56.3	25.5	25 <sup>1</sup> / <sub>2</sub>	0.810	1 <sup>3</sup> / <sub>16</sub>	13.0	13	1.46	1 <sup>7</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>4</sub>	↓	↓
x 207	60.7	25.7	25 <sup>3</sup> / <sub>4</sub>	0.870	7/8	13.0	13	1.57	1 <sup>9</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>4</sub>	↓	↓
x 229	67.2	26.0	26	0.960	1 <sup>5</sup> / <sub>16</sub>	13.1	13 <sup>1</sup> / <sub>8</sub>	1.73	1 <sup>3</sup> / <sub>4</sub>	1 <sup>5</sup> / <sub>16</sub>	↓	↓
x 250	73.5	26.3	26 <sup>3</sup> / <sub>8</sub>	1.04	1 <sup>1</sup> / <sub>16</sub>	13.2	13 <sup>1</sup> / <sub>8</sub>	1.89	1 <sup>7</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>8</sub>	↓	↓
x 279	82.0	26.7	26 <sup>3</sup> / <sub>4</sub>	1.16	1 <sup>3</sup> / <sub>16</sub>	13.3	13 <sup>1</sup> / <sub>4</sub>	2.09	2 <sup>1</sup> / <sub>16</sub>	1 <sup>7</sup> / <sub>16</sub>	↓	↓
x 306	89.9	27.1	27 <sup>1</sup> / <sub>8</sub>	1.26	1 <sup>1</sup> / <sub>4</sub>	13.4	13 <sup>3</sup> / <sub>8</sub>	2.28	2 <sup>1</sup> / <sub>4</sub>	1 <sup>7</sup> / <sub>16</sub>	↓	↓
x 335	98.4	27.5	27 <sup>1</sup> / <sub>2</sub>	1.38	1 <sup>3</sup> / <sub>8</sub>	13.5	13 <sup>1</sup> / <sub>2</sub>	2.48	2 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>2</sub>	↓	↓
x 370	109.0	28.0	28	1.52	1 <sup>1</sup> / <sub>2</sub>	13.7	13 <sup>5</sup> / <sub>8</sub>	2.72	2 <sup>3</sup> / <sub>4</sub>	9/16	↓	↓

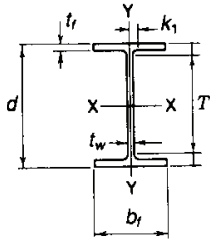
# W Shapes

## Dimensions



Shapes	Area A	Depth d		Web		Flange				Distance		
				Thickness t <sub>w</sub>		Width b <sub>f</sub>		Thickness t <sub>f</sub>		k <sub>1</sub>	T	Work-able Gage
	in. <sup>2</sup>	in.		in.		in.		in.		in.	in.	in.
W 27 x 84	24.8	26.7	26 <sup>3</sup> / <sub>4</sub>	0.460	7 <sup>1</sup> / <sub>16</sub>	10.0	10	0.640	5 <sup>8</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>16</sub>	23 <sup>5</sup> / <sub>8</sub>	5 <sup>1</sup> / <sub>2</sub>
x 94	27.7	26.9	26 <sup>7</sup> / <sub>8</sub>	0.490	1 <sup>2</sup> / <sub>2</sub>	10.0	10	0.745	3 <sup>4</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>16</sub>		
x 102	30.0	27.1	27 <sup>1</sup> / <sub>8</sub>	0.515	1 <sup>2</sup> / <sub>2</sub>	10.0	10	0.830	1 <sup>3</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>16</sub>		
x 114	33.5	27.3	27 <sup>1</sup> / <sub>4</sub>	0.570	9 <sup>1</sup> / <sub>16</sub>	10.1	10 <sup>1</sup> / <sub>8</sub>	0.930	1 <sup>5</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>8</sub>		
x 129	37.8	27.6	27 <sup>5</sup> / <sub>8</sub>	0.610	5 <sup>8</sup> / <sub>8</sub>	10.0	10	1.10	1 <sup>1</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>8</sub>		
W 27 x 146	43.1	27.4	27 <sup>3</sup> / <sub>8</sub>	0.605	5 <sup>8</sup> / <sub>8</sub>	14.0	14	0.975	1	1 <sup>1</sup> / <sub>8</sub>	23 <sup>5</sup> / <sub>8</sub>	5 <sup>1</sup> / <sub>2</sub>
x 161	47.6	27.6	27 <sup>5</sup> / <sub>8</sub>	0.660	1 <sup>1</sup> / <sub>16</sub>	14.0	14	1.08	1 <sup>1</sup> / <sub>16</sub>	1 <sup>3</sup> / <sub>16</sub>		
x 178	52.5	27.8	27 <sup>3</sup> / <sub>4</sub>	0.725	3 <sup>4</sup> / <sub>4</sub>	14.1	14 <sup>1</sup> / <sub>8</sub>	1.19	1 <sup>3</sup> / <sub>16</sub>	1 <sup>3</sup> / <sub>16</sub>		
x 194	57.2	28.1	28 <sup>1</sup> / <sub>8</sub>	0.750	3 <sup>4</sup> / <sub>4</sub>	14.0	14	1.34	1 <sup>5</sup> / <sub>16</sub>	1 <sup>3</sup> / <sub>16</sub>		
x 217	64.0	28.4	28 <sup>3</sup> / <sub>8</sub>	0.830	1 <sup>3</sup> / <sub>16</sub>	14.1	14 <sup>1</sup> / <sub>8</sub>	1.50	1 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>4</sub>		
x 235	69.4	28.7	28 <sup>5</sup> / <sub>8</sub>	0.910	1 <sup>5</sup> / <sub>16</sub>	14.2	14 <sup>1</sup> / <sub>4</sub>	1.61	1 <sup>5</sup> / <sub>8</sub>	1 <sup>5</sup> / <sub>16</sub>		
x 258	76.0	29.0	29	0.980	1 <sup>1</sup> / <sub>2</sub>	14.3	14 <sup>1</sup> / <sub>4</sub>	1.77	1 <sup>3</sup> / <sub>4</sub>	1 <sup>5</sup> / <sub>16</sub>		
x 281	82.9	29.3	29 <sup>1</sup> / <sub>4</sub>	1.060	1 <sup>1</sup> / <sub>16</sub>	14.4	14 <sup>3</sup> / <sub>8</sub>	1.93	1 <sup>15</sup> / <sub>16</sub>	1 <sup>3</sup> / <sub>8</sub>		
x 307	90.4	29.6	29 <sup>5</sup> / <sub>8</sub>	1.160	1 <sup>3</sup> / <sub>16</sub>	14.4	14 <sup>1</sup> / <sub>2</sub>	2.09	2 <sup>1</sup> / <sub>16</sub>	1 <sup>7</sup> / <sub>16</sub>		
x 336	98.9	30.0	30	1.260	1 <sup>1</sup> / <sub>4</sub>	14.6	14 <sup>1</sup> / <sub>2</sub>	2.28	2 <sup>1</sup> / <sub>4</sub>	1 <sup>7</sup> / <sub>16</sub>		
x 368	108.0	30.4	30 <sup>3</sup> / <sub>8</sub>	1.380	1 <sup>3</sup> / <sub>8</sub>	14.7	14 <sup>5</sup> / <sub>8</sub>	2.48	2 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>2</sub>		
x 539	159	32.5	32 <sup>1</sup> / <sub>2</sub>	1.970	2	15.3	15 <sup>1</sup> / <sub>4</sub>	3.54	3 <sup>9</sup> / <sub>16</sub>	1 <sup>13</sup> / <sub>16</sub>		
W 30 x 90	26.4	29.5	29 <sup>1</sup> / <sub>2</sub>	0.470	1 <sup>2</sup> / <sub>2</sub>	10.4	10 <sup>3</sup> / <sub>8</sub>	0.610	5 <sup>8</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>16</sub>		
x 99	29.1	29.7	29 <sup>5</sup> / <sub>8</sub>	0.520	1 <sup>2</sup> / <sub>2</sub>	10.5	10 <sup>1</sup> / <sub>2</sub>	0.670	1 <sup>1</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>16</sub>		
x 108	31.7	29.8	29 <sup>7</sup> / <sub>8</sub>	0.545	9 <sup>1</sup> / <sub>16</sub>	10.5	10 <sup>1</sup> / <sub>2</sub>	0.760	3 <sup>4</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>8</sub>		
x 116	34.2	30.0	30	0.565	9 <sup>1</sup> / <sub>16</sub>	10.5	10 <sup>1</sup> / <sub>2</sub>	0.850	7 <sup>8</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>8</sub>		
x 124	36.5	30.2	30 <sup>1</sup> / <sub>8</sub>	0.585	9 <sup>1</sup> / <sub>16</sub>	10.5	10 <sup>1</sup> / <sub>2</sub>	0.930	1 <sup>5</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>8</sub>		
x 132	38.9	30.3	30 <sup>1</sup> / <sub>4</sub>	0.615	5 <sup>8</sup> / <sub>8</sub>	10.5	10 <sup>1</sup> / <sub>2</sub>	1.00	1	1 <sup>1</sup> / <sub>8</sub>		
x 148	43.5	30.7	30 <sup>5</sup> / <sub>8</sub>	0.650	5 <sup>8</sup> / <sub>8</sub>	10.5	10 <sup>1</sup> / <sub>2</sub>	1.18	1 <sup>3</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>8</sub>		
W 30 x 173	51.0	30.4	30 <sup>1</sup> / <sub>2</sub>	0.655	5 <sup>8</sup> / <sub>8</sub>	15.0	15	1.07	1 <sup>1</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>8</sub>	26 <sup>1</sup> / <sub>2</sub>	5 <sup>1</sup> / <sub>2</sub>
x 191	56.3	30.7	30 <sup>5</sup> / <sub>8</sub>	0.710	1 <sup>1</sup> / <sub>16</sub>	15.0	15	1.19	1 <sup>3</sup> / <sub>16</sub>	1 <sup>3</sup> / <sub>16</sub>		
x 211	62.2	30.9	31	0.775	3 <sup>4</sup> / <sub>4</sub>	15.1	15 <sup>1</sup> / <sub>8</sub>	1.32	1 <sup>5</sup> / <sub>16</sub>	1 <sup>3</sup> / <sub>16</sub>		
x 235	69.2	31.3	31 <sup>1</sup> / <sub>4</sub>	0.830	1 <sup>3</sup> / <sub>16</sub>	15.1	15	1.50	1 <sup>1</sup> / <sub>2</sub>	1 <sup>1</sup> / <sub>4</sub>		
x 261	76.9	31.6	31 <sup>5</sup> / <sub>8</sub>	0.930	1 <sup>5</sup> / <sub>16</sub>	15.2	15 <sup>1</sup> / <sub>8</sub>	1.65	1 <sup>5</sup> / <sub>8</sub>	1 <sup>5</sup> / <sub>16</sub>		
x 292	85.9	32.0	32	1.02	1	15.3	15 <sup>1</sup> / <sub>4</sub>	1.85	1 <sup>7</sup> / <sub>8</sub>	1 <sup>5</sup> / <sub>16</sub>		
x 326	95.8	32.4	32 <sup>3</sup> / <sub>8</sub>	1.14	1 <sup>1</sup> / <sub>8</sub>	15.4	15 <sup>3</sup> / <sub>8</sub>	2.05	2 <sup>1</sup> / <sub>16</sub>	1 <sup>3</sup> / <sub>8</sub>		
x 357	105.0	32.8	32 <sup>3</sup> / <sub>4</sub>	1.24	1 <sup>1</sup> / <sub>4</sub>	15.5	15 <sup>1</sup> / <sub>2</sub>	2.24	2 <sup>1</sup> / <sub>4</sub>	1 <sup>7</sup> / <sub>16</sub>		
x 391	115.0	33.2	32 <sup>1</sup> / <sub>4</sub>	1.36	1 <sup>3</sup> / <sub>8</sub>	15.6	15 <sup>5</sup> / <sub>8</sub>	2.44	2 <sup>7</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>2</sub>		





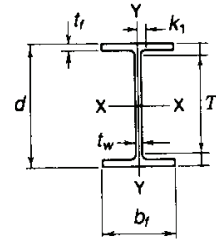
# W Shapes

## Dimensions

Shapes	Area A	Depth d		Web		Flange				Distance		
				Thickness t <sub>w</sub>		Width b <sub>f</sub>		Thickness t <sub>f</sub>		k <sub>1</sub>	T	Work-able Gage
				in.		in.		in.		in.		in.
W 33 x 118	34.7	32.9	32 <sup>7</sup> / <sub>8</sub>	0.550	9 <sup>1</sup> / <sub>16</sub>	11.5	11 <sup>1</sup> / <sub>2</sub>	0.740	3 <sup>4</sup> / <sub>4</sub>	1 <sup>1</sup> / <sub>8</sub>	29 <sup>5</sup> / <sub>8</sub>	5 <sup>1</sup> / <sub>2</sub>
x 130	38.3	33.1	33 <sup>1</sup> / <sub>8</sub>	0.580	9 <sup>1</sup> / <sub>16</sub>	11.5	11 <sup>1</sup> / <sub>2</sub>	0.855	7 <sup>8</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>8</sub>	↓	↓
x 141	41.6	33.3	33 <sup>1</sup> / <sub>4</sub>	0.605	5 <sup>8</sup> / <sub>8</sub>	11.5	11 <sup>1</sup> / <sub>2</sub>	0.960	15 <sup>1</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>8</sub>	↓	↓
x 152	44.8	33.5	33 <sup>1</sup> / <sub>2</sub>	0.635	5 <sup>8</sup> / <sub>8</sub>	11.6	11 <sup>5</sup> / <sub>8</sub>	1.06	1 <sup>1</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>8</sub>	↓	↓
x 169	49.5	33.8	33 <sup>3</sup> / <sub>8</sub>	0.670	1 <sup>1</sup> / <sub>16</sub>	11.5	11 <sup>1</sup> / <sub>2</sub>	1.22	1 <sup>1</sup> / <sub>4</sub>	1 <sup>3</sup> / <sub>16</sub>	↓	↓
W 33 x 201	59.2	33.7	33 <sup>5</sup> / <sub>8</sub>	0.715	1 <sup>1</sup> / <sub>16</sub>	15.7	15 <sup>3</sup> / <sub>4</sub>	1.15	1 <sup>1</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>16</sub>	29 <sup>5</sup> / <sub>8</sub>	5 <sup>1</sup> / <sub>2</sub>
x 221	65.2	33.9	33 <sup>7</sup> / <sub>8</sub>	0.775	3 <sup>4</sup> / <sub>4</sub>	15.8	15 <sup>3</sup> / <sub>4</sub>	1.28	1 <sup>1</sup> / <sub>4</sub>	1 <sup>3</sup> / <sub>16</sub>	↓	↓
x 241	71.0	34.2	34 <sup>1</sup> / <sub>8</sub>	0.830	13 <sup>1</sup> / <sub>16</sub>	15.9	15 <sup>7</sup> / <sub>8</sub>	1.40	1 <sup>3</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>4</sub>	↓	↓
x 263	77.5	34.5	34 <sup>1</sup> / <sub>2</sub>	0.870	7 <sup>8</sup> / <sub>8</sub>	15.8	15 <sup>3</sup> / <sub>4</sub>	1.57	19 <sup>1</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>4</sub>	↓	↓
x 291	85.7	34.8	34 <sup>7</sup> / <sub>8</sub>	0.960	15 <sup>1</sup> / <sub>16</sub>	15.9	15 <sup>7</sup> / <sub>8</sub>	1.73	1 <sup>3</sup> / <sub>4</sub>	1 <sup>5</sup> / <sub>16</sub>	↓	↓
x 318	93.6	35.2	35 <sup>1</sup> / <sub>8</sub>	1.04	1 <sup>1</sup> / <sub>16</sub>	16.0	16	1.89	1 <sup>7</sup> / <sub>8</sub>	1 <sup>5</sup> / <sub>16</sub>	↓	↓
x 354	104.0	35.6	35 <sup>1</sup> / <sub>2</sub>	1.16	13 <sup>1</sup> / <sub>16</sub>	16.1	16 <sup>1</sup> / <sub>8</sub>	2.09	2 <sup>1</sup> / <sub>16</sub>	1 <sup>3</sup> / <sub>8</sub>	↓	↓
x 387	114.0	36.0	36	1.26	1 <sup>1</sup> / <sub>4</sub>	16.2	16 <sup>1</sup> / <sub>4</sub>	2.28	2 <sup>1</sup> / <sub>4</sub>	1 <sup>7</sup> / <sub>16</sub>	↓	↓
W 36 x 135	39.7	35.6	35 <sup>1</sup> / <sub>2</sub>	0.600	5 <sup>8</sup> / <sub>8</sub>	12.0	12	0.790	13 <sup>1</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>8</sub>	32 <sup>1</sup> / <sub>8</sub>	5 <sup>1</sup> / <sub>2</sub>
x 150	44.2	35.9	35 <sup>7</sup> / <sub>8</sub>	0.625	5 <sup>8</sup> / <sub>8</sub>	12.0	12	0.940	15 <sup>1</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>8</sub>	↓	↓
x 160	47.0	36.0	36	0.650	5 <sup>8</sup> / <sub>8</sub>	12.0	12	1.02	1	1 <sup>1</sup> / <sub>8</sub>	↓	↓
x 170	50.1	36.2	36 <sup>1</sup> / <sub>8</sub>	0.680	1 <sup>1</sup> / <sub>16</sub>	12.0	12	1.10	1 <sup>1</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>16</sub>	↓	↓
x 182	53.6	36.3	36 <sup>3</sup> / <sub>8</sub>	0.725	3 <sup>4</sup> / <sub>4</sub>	12.1	12 <sup>1</sup> / <sub>8</sub>	1.18	13 <sup>1</sup> / <sub>16</sub>	1 <sup>3</sup> / <sub>16</sub>	↓	↓
x 194	57.0	36.5	36 <sup>1</sup> / <sub>2</sub>	0.765	3 <sup>4</sup> / <sub>4</sub>	12.1	12 <sup>1</sup> / <sub>8</sub>	1.26	1 <sup>1</sup> / <sub>4</sub>	1 <sup>3</sup> / <sub>16</sub>	↓	↓
x 210	61.8	36.7	36 <sup>3</sup> / <sub>4</sub>	0.830	13 <sup>1</sup> / <sub>16</sub>	12.2	12 <sup>1</sup> / <sub>8</sub>	1.36	1 <sup>3</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>4</sub>	↓	↓
x 232	68.1	37.1	37 <sup>1</sup> / <sub>8</sub>	0.870	7 <sup>8</sup> / <sub>8</sub>	12.1	12 <sup>1</sup> / <sub>8</sub>	1.57	19 <sup>1</sup> / <sub>16</sub>	1 <sup>1</sup> / <sub>4</sub>	↓	↓
x 256	75.4	37.4	37 <sup>3</sup> / <sub>8</sub>	0.960	15 <sup>1</sup> / <sub>16</sub>	12.2	12 <sup>1</sup> / <sub>4</sub>	1.73	1 <sup>3</sup> / <sub>4</sub>	1 <sup>5</sup> / <sub>16</sub>	↓	↓
W 36 x 231	68.1	36.5	36 <sup>1</sup> / <sub>2</sub>	0.760	3 <sup>4</sup> / <sub>4</sub>	16.5	16 <sup>1</sup> / <sub>2</sub>	1.26	1 <sup>1</sup> / <sub>4</sub>	1 <sup>9</sup> / <sub>16</sub>	31 <sup>3</sup> / <sub>8</sub>	7 <sup>1</sup> / <sub>2</sub>
x 247	72.5	36.7	36 <sup>5</sup> / <sub>8</sub>	0.800	13 <sup>1</sup> / <sub>16</sub>	16.5	16 <sup>1</sup> / <sub>2</sub>	1.35	1 <sup>3</sup> / <sub>8</sub>	1 <sup>5</sup> / <sub>8</sub>	↓	↓
x 262	77.0	36.9	36 <sup>7</sup> / <sub>8</sub>	0.840	13 <sup>1</sup> / <sub>16</sub>	16.6	16 <sup>1</sup> / <sub>2</sub>	1.44	1 <sup>7</sup> / <sub>16</sub>	1 <sup>5</sup> / <sub>8</sub>	↓	↓
x 282	82.9	37.1	37 <sup>1</sup> / <sub>8</sub>	0.885	7 <sup>8</sup> / <sub>8</sub>	16.6	16 <sup>5</sup> / <sub>8</sub>	1.57	19 <sup>1</sup> / <sub>16</sub>	1 <sup>5</sup> / <sub>8</sub>	↓	↓
x 302	88.8	37.3	37 <sup>3</sup> / <sub>8</sub>	0.945	15 <sup>1</sup> / <sub>16</sub>	16.7	16 <sup>5</sup> / <sub>8</sub>	1.68	1 <sup>11</sup> / <sub>16</sub>	1 <sup>11</sup> / <sub>16</sub>	↓	↓
x 330	97.0	37.7	37 <sup>5</sup> / <sub>8</sub>	1.02	1	16.6	16 <sup>5</sup> / <sub>8</sub>	1.85	1 <sup>7</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>4</sub>	↓	↓
x 361	106.0	38.0	38	1.12	1 <sup>1</sup> / <sub>8</sub>	16.7	16 <sup>3</sup> / <sub>4</sub>	2.01	2	1 <sup>3</sup> / <sub>4</sub>	↓	↓
x 395	116.0	38.4	38 <sup>3</sup> / <sub>8</sub>	1.22	1 <sup>1</sup> / <sub>4</sub>	16.8	16 <sup>7</sup> / <sub>8</sub>	2.20	2 <sup>3</sup> / <sub>16</sub>	1 <sup>13</sup> / <sub>16</sub>	↓	↓
x 441	130.0	38.9	38 <sup>7</sup> / <sub>8</sub>	1.36	1 <sup>3</sup> / <sub>8</sub>	17.0	17	2.44	2 <sup>7</sup> / <sub>16</sub>	1 <sup>7</sup> / <sub>8</sub>	↓	↓
x 487	143.0	39.3	39 <sup>3</sup> / <sub>8</sub>	1.50	1 <sup>1</sup> / <sub>2</sub>	17.1	17 <sup>1</sup> / <sub>8</sub>	2.68	2 <sup>11</sup> / <sub>16</sub>	1 <sup>15</sup> / <sub>16</sub>	↓	↓
x 529	156.0	39.8	39 <sup>3</sup> / <sub>4</sub>	1.61	1 <sup>5</sup> / <sub>8</sub>	17.2	17 <sup>1</sup> / <sub>4</sub>	2.91	2 <sup>15</sup> / <sub>16</sub>	2	↓	↓
x 652	192.0	41.1	41	1.97	2	17.6	17 <sup>5</sup> / <sub>8</sub>	3.54	3 <sup>9</sup> / <sub>16</sub>	2 <sup>3</sup> / <sub>16</sub>	↓	↓
x 800	236.0	42.6	42 <sup>1</sup> / <sub>2</sub>	2.38	2 <sup>3</sup> / <sub>8</sub>	18.0	18	4.29	4 <sup>5</sup> / <sub>16</sub>	2 <sup>3</sup> / <sub>8</sub>	↓	↓

# W Shapes

## Dimensions



Shapes	Area A	Depth d		Web		Flange				Distance		
				Thickness t <sub>w</sub>		Width b <sub>f</sub>		Thickness t <sub>f</sub>		k <sub>1</sub>	T	Work-able Gage
	in. <sup>2</sup>	in.		in.		in.		in.		in.	in.	in.
W 40 x 149	43.8	38.2	38¼	0.630	5/8	11.8	11¾	0.830	13/16	1½	34	7½
x 167	49.2	38.6	385/8	0.650	5/8	11.8	11¾	1.03	1	19/16	↓	↓
x 183	53.3	39.0	39	0.650	5/8	11.8	11¾	1.20	13/16	19/16	↓	↓
x 211	62.0	39.4	393/8	0.750	3/4	11.8	11¾	1.42	17/16	19/16	↓	↓
x 235	69.0	39.7	39¾	0.830	13/16	11.9	117/8	1.58	19/16	15/8	↓	↓
x 264	77.6	40.0	40	0.960	15/16	11.9	117/8	1.73	1¾	111/16	↓	↓
x 278	82.0	40.2	401/8	1.03	1	12.0	12	1.81	113/16	1¾	↓	↓
x 294	86.3	40.4	403/8	1.06	11/16	12.0	12	1.93	115/16	1¾	↓	↓
x 327	96.0	40.8	40¾	1.18	13/16	12.1	121/8	2.13	21/8	113/16	↓	↓
x 331	97.5	40.8	40¾	1.22	1¼	12.2	121/8	2.13	21/8	113/16	↓	↓
x 392	115.0	41.6	415/8	1.42	17/16	12.4	123/8	2.52	2½	115/16	↓	↓
W 40 x 199	58.5	38.7	385/8	0.650	5/8	15.8	15¾	1.07	11/16	19/16	34	7½
x 215	63.4	39.0	39	0.650	5/8	15.8	15¾	1.22	1¼	19/16	↓	↓
x 249	73.3	39.4	393/8	0.750	3/4	15.8	15¾	1.42	17/16	19/16	↓	↓
x 277	81.4	39.7	39¾	0.830	13/16	15.8	157/8	1.58	19/16	15/8	↓	↓
x 297	87.4	39.8	397/8	0.930	15/16	15.8	157/8	1.65	15/8	111/16	↓	↓
x 324	95.3	40.2	401/8	1.00	1	15.9	157/8	1.81	113/16	111/16	↓	↓
x 362	107.0	40.6	40½	1.12	11/8	16.0	16	2.01	2	1¾	↓	↓
x 372	109.0	40.6	405/8	1.16	13/16	16.1	161/8	2.05	21/16	113/16	↓	↓
x 397	117.0	41.0	41	1.22	1¼	16.1	161/8	2.20	23/16	113/16	↓	↓
x 431	127.0	41.3	41¼	1.34	15/16	16.2	16¼	2.36	23/8	17/8	↓	↓
x 503	148.0	42.1	42	1.54	19/16	16.4	163/8	2.76	2¾	2	↓	↓
x 593	174.0	43.0	43	1.79	113/16	16.7	16¾	3.23	3¼	21/8	↓	↓
W 44 x 230	67.7	42.9	427/8	0.710	11/16	15.8	15¾	1.22	1¼	13/16	38¾	5½
x 262	76.9	43.3	43¼	0.785	13/16	15.8	1¾	1.42	17/16	13/16	↓	↓
x 290	85.4	43.6	435/8	0.865	7/8	15.8	157/8	1.58	19/16	1¼	↓	↓
x 335	98.5	44.0	44	1.03	1	15.9	16	1.77	1¾	15/16	↓	↓