



Steel Dynamics[®]

Steel Dynamics Sales North America, Inc.

Long Products Group

Structural and Rail Division

PRODUCT CATALOG

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Toll-free: (866) 740-8700

<https://lpg.steeldynamics.com/>



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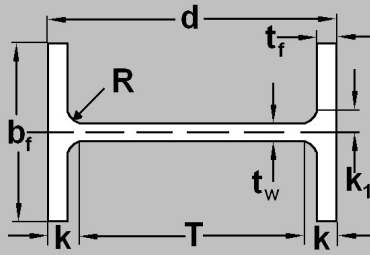
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Structural Long Products



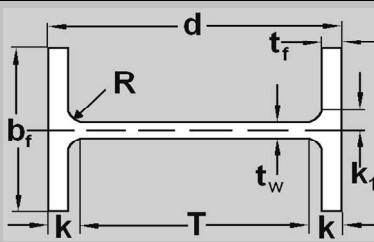
The permissible dimensional variations of structural long products manufactured by Steel Dynamics, Inc., Structural and Rail Division, conform to the latest edition of ASTM A6.

Wide Flange Beams



Inch - Pound Sizes		Comparable Metric Sizes	
Prime Section Group	Weight range in Group	Prime Section Group	Weight range in Group
(in x in)	(lbs/ft)	(mm x mm)	(kg/m)
4 x 4	13	100 x 100	19.3
5 x 5	16 - 19	130 x 130	23.8 - 28.1
6 x 6	15 - 25	150 x 150	22.5 - 37.1
6 x 4	8.5 - 16	150 x 100	13 - 24
8 x 8	31 - 67	200 x 200	46.1 - 100
8 x 6.5	24 - 28	200 x 170	35.9 - 41.7
8 x 5.25	14 - 21	200 x 130	21.0 - 31.3
8 x 4	10 - 15	200 x 100	15.0 - 22.5
10 x 10	49 - 112	250 x 250	73.0 - 167
10 x 8	33 - 45	250 x 200	49.1 - 67.0
10 x 5.75	16 - 30	250 x 150	24.0 - 44.8
10 x 4	12 - 19	250 x 100	17.9 - 28.4
12 x 12	65 - 252	310 x 310	97.0 - 375
12 x 10	53 - 58	310 x 250	79 - 86
12 x 8	40 - 50	310 x 200	60 - 74
12 x 6.5	21 - 35	310 x 170	31 - 52
12 x 4	14 - 22	310 x 100	21.0 - 32.7
14 x 16	145 - 283	360 x 406	216 - 421
14 x 14.5	90 - 132	360 x 370	134 - 196
14 x 10	61 - 82	360 x 250	91.0 - 122
14 x 8	43 - 53	360 x 200	64 - 79

Inch - Pound Sizes		Comparable Metric Sizes	
Prime Section Group	Weight range in Group	Prime Section Group	Weight range in Group
(in x in)	(lbs/ft)	(mm x mm)	(kg/m)
14 x 6.75	30 - 38	360 x 170	44.6 - 58
14 x 5	22 - 26	360 x 130	32.9 - 39
16 x 10.25	67 - 100	410 x 260	100 - 149
16 x 7	36 - 57	410 x 180	53 - 85
16 x 5.5	26 - 31	410 x 140	38.8 - 46.1
18 x 11	76 - 234	460 x 280	113 - 349
18 x 7.5	41 - 71	460 x 190	60 - 106
18 x 6	35 - 46	460 x 150	52 - 68
21 x 12.25	101 - 275	530 x 310	150 - 409
21 x 8.25	48 - 93	530 x 210	72 - 138
21 x 6.5	44 - 57	530 x 170	66 - 85
24 x 12.75	104 - 279	610 x 320	155 - 415
24 x 9	56 - 103	610 x 230	83 - 153
24 x 7	55 - 62	610 x 180	82 - 92
27 x 14	146 - 194	690 x 360	217 - 289
27 x 10	84 - 129	690 x 250	125 - 192
30 x 10.5	90 - 148	760 x 270	134 - 220
33 x 11.5	118 - 169	840 x 290	176 - 251
36 x 12	135 - 256	920 x 300	201 - 381

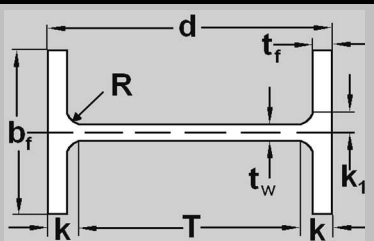


Nominal Shape Dimensions

W4

Comparable Metric Shapes
W100's

Prime Section Group	Section Name	Comparable Metric Section	Weight	Area	Depth	Flange		Web Thickness	Detailing Distance			Fillet Radius
						Width	Thickness		k	k ₁	T	
						b _f	t _f					
in x lbs/ft	mm x kg/m	lbs/ft	in ²	in	in	in	in	in	in	in	in	
4x4	W4x13	W100x19.3	13	3.83	4.16	4.060	0.345	0.280	0.750	0.545	2.660	0.405

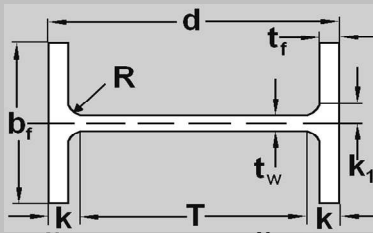


Nominal Shape Dimensions

W5

Comparable Metric Shapes
W130's

Prime Section Group	Section Name	Comparable Metric Section	Weight	Area	Depth	Flange		Web Thickness	Detailing Distance			Fillet Radius
						Width	Thickness		k	k ₁	T	
						b _f	t _f					
in x lbs/ft	mm x kg/m	lbs/ft	in ²	in	in	in	in	in	in	in	in	
5x5	W5x19	W130x28.1	19	5.54	5.15	5.030	0.430	0.270	0.835	0.540	3.480	0.405
	W5x16	W130x23.8	16	4.68	5.01	5.000	0.360	0.240	0.765	0.525	3.480	0.405

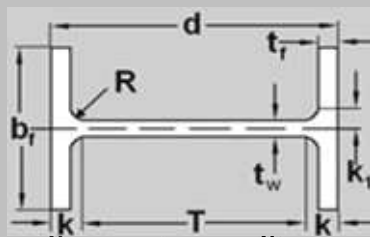


Nominal Shape Dimensions

W6

Comparable Metric Shapes
W150's

Prime Section Group	SECTION NAME	Comparable Metric Section	WEIGHT	Area	Depth	Flange		Web	Detailing Distance*						Fillet Radius*	
						Width	Thickness	Thickness	*These values depend on the mill. Manual measurements are necessary to confirm.							
									MSM			HSM			MSM	HSM
						b_f	t_f	t_w	k	k_1	T	k	k_1	T	R	R
	in x lbs/ft	mm x kg/m	lbs/ft	in ²	in	in	in	in	in	in	in	in	in	in	in	in
6x6	W6x25	W150x37.1	25	7.34	6.38	6.080	0.455	0.320	0.927	0.632	4.526	0.855	0.560	4.670	0.472	0.400
	W6x20	W150x29.8	20	5.87	6.20	6.020	0.365	0.260	0.837	0.602	4.526	0.785	0.530	4.670	0.472	0.400
	W6x15	W150x22.5	15	4.43	5.99	5.990	0.260	0.230	0.732	0.587	4.526	0.660	0.515	4.670	0.472	0.400
6x4	W6x16	W150x24	16	4.74	6.28	4.030	0.405	0.260	0.877	0.602	4.526	0.805	0.530	4.670	0.472	0.400
	W6x12	W150x18	12	3.55	6.03	4.000	0.280	0.230	0.752	0.587	4.526	0.680	0.515	4.670	0.472	0.400
	W6x9	W150x13.5	9	2.68	5.90	3.940	0.215	0.170	0.687	0.557	4.526	0.615	0.485	4.670	0.472	0.400
	W6x8.5	W150x13	8.5	2.52	5.83	3.940	0.194	0.170	0.666	0.557	4.498	0.594	0.485	4.642	0.472	0.400

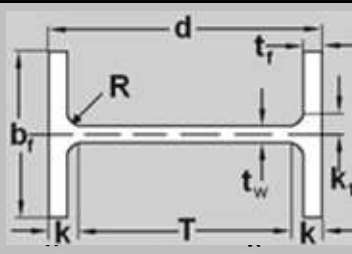


Nominal Shape Dimensions

W8

Comparable Metric Shapes
W200's

Prime Section Group	SECTION NAME	Comparable Metric Section	WEIGHT	Area	Depth	Flange		Web	Detailing Distance*						Fillet Radius*	
						Width	Thickness	Thickness	*These values depend on the mill. Manual measurements are necessary to confirm.						MSM	HSM
									MSM			HSM				
						b _f	t _f	t _w	k	k ₁	T	k	k ₁	T	R	R
in x lbs/ft	mm x kg/m	lbs/ft	in ²	in	in	in	in	in	in	in	in	in	in	in	in	
8x8	W8x67	W200x100	67	19.70	9.00	8.280	0.935	0.570	1.407	0.757	6.186	0.335	0.685	6.330	0.472	0.400
	W8x58	W200x86	58	17.10	8.75	8.220	0.810	0.510	1.282	0.727	6.186	0.210	0.655	6.330	0.472	0.400
	W8x48	W200x71	48	14.10	8.50	8.110	0.685	0.400	1.157	0.672	6.186	0.085	0.600	6.330	0.472	0.400
	W8x40	W200x59	40	11.70	8.25	8.070	0.560	0.360	1.032	0.652	6.186	0.060	0.580	6.330	0.472	0.400
	W8x35	W200x52	35	10.30	8.12	8.020	0.495	0.310	0.967	0.627	6.186	0.095	0.555	6.330	0.472	0.400
	W8x31	W200x46.1	31	9.13	8.00	7.995	0.435	0.285	0.907	0.615	6.186	0.335	0.545	6.330	0.472	0.400
8x6½	W8x28	W200x41.7	28	8.25	8.06	6.535	0.465	0.285	0.937	0.615	6.186	0.365	0.545	6.330	0.472	0.400
	W8x24	W200x35.9	24	7.08	7.93	6.495	0.400	0.245	0.872	0.595	6.186	0.300	0.525	6.330	0.472	0.400
8x5¼	W8x21	W200x31.3	21	6.16	8.28	5.270	0.400	0.250	0.872	0.597	6.536	0.300	0.525	6.680	0.472	0.400
	W8x18	W200x26.6	18	5.26	8.14	5.250	0.330	0.230	0.802	0.587	6.536	0.730	0.515	6.880	0.472	0.400
8x4	W8x15	W200x22.5	15	4.44	8.11	4.015	0.315	0.245	0.787	0.595	6.536	0.715	0.525	6.880	0.472	0.400
	W8x13	W200x19.3	13	3.84	7.99	4.000	0.255	0.230	0.727	0.587	6.536	0.655	0.515	6.680	0.472	0.400
	W8x10	W200x15	10	2.96	7.89	3.940	0.205	0.170	0.677	0.557	6.536	0.605	0.485	6.880	0.472	0.400

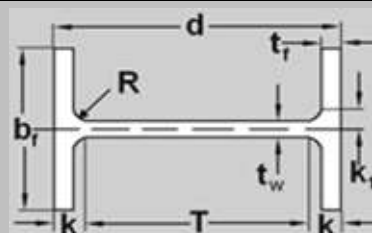


Nominal Shape Dimensions

W10

Comparable Metric Shapes
W250's

Prime Section Group	SECTION NAME	Comparable Metric Section	WEIGHT	Area	Depth	Flange		Web	Detailing Distance*						Fillet Radius*	
						Width	Thickness	Thickness	*These values depend on the mill. Manual measurements are necessary to confirm.						MSM	HSM
									MSM			HSM				
						b_f	t_f	t_w	k	k_1	T	k	k_1	T	R	R
in x lbs/ft	mm x kg/m	lbs/ft	in ²	in	in	in	in	in	in	in	in	in	in	in	in	
10x10	W10x112	W250x167	112	32.90	11.36	10.415	1.250	0.755	N/A	N/A	N/A	2.037	1.165	7.286	N/A	0.787
	W10x100	W250x149	100	29.40	11.10	10.340	1.120	0.680	N/A	N/A	N/A	1.907	1.127	7.286	N/A	0.787
	W10x88	W250x131	88	25.90	10.84	10.265	0.990	0.605	N/A	N/A	N/A	1.777	1.090	7.286	N/A	0.787
	W10x77	W250x115	77	22.60	10.60	10.190	0.870	0.530	N/A	N/A	N/A	1.657	1.052	7.286	N/A	0.787
	W10x68	W250x101	68	20.00	10.40	10.130	0.770	0.470	N/A	N/A	N/A	1.557	1.022	7.286	N/A	0.787
	W10x60	W250x89	60	17.60	10.22	10.080	0.680	0.420	N/A	N/A	N/A	1.467	0.997	7.286	N/A	0.787
	W10x54	W250x80	54	15.80	10.09	10.030	0.615	0.370	N/A	N/A	N/A	1.402	0.972	7.286	N/A	0.787
	W10x49	W250x73	49	14.40	9.98	10.000	0.560	0.340	N/A	N/A	N/A	1.347	0.957	7.286	N/A	0.787
10x8	W10x45	W250x67	45	13.30	10.10	8.020	0.620	0.350	1.277	0.832	7.546	1.277	0.832	7.546	0.657	0.657
	W10x39	W250x58	39	11.50	9.92	7.985	0.530	0.315	1.187	0.815	7.546	1.187	0.815	7.546	0.657	0.657
	W10x33	W250x49.1	33	9.71	9.73	7.960	0.435	0.290	1.092	0.802	7.546	1.092	0.802	7.546	0.657	0.657
10x5¾	W10x30	W250x44.8	30	8.84	10.47	5.810	0.510	0.300	0.982	0.622	8.506	0.910	0.590	8.650	0.472	0.400
	W10x26	W250x38.5	26	7.61	10.33	5.770	0.440	0.260	0.912	0.602	8.506	0.840	0.530	8.650	0.472	0.400
	W10x22	W250x32.7	22	6.49	10.17	5.750	0.360	0.240	0.832	0.592	8.506	0.760	0.520	8.650	0.472	0.400
10x4	W10x19	W250x28.4	19	5.62	10.24	4.020	0.395	0.250	0.867	0.597	8.506	0.795	0.525	8.650	0.472	0.400
	W10x17	W250x25.3	17	4.99	10.11	4.010	0.330	0.240	0.802	0.592	8.506	0.730	0.520	8.650	0.472	0.400
	W10x15	W250x22.3	15	4.41	9.99	4.000	0.270	0.230	0.742	0.587	8.506	0.670	0.515	8.650	0.472	0.400
	W10x12	W250x17.9	12	3.54	9.87	3.960	0.210	0.190	0.682	0.567	8.506	0.610	0.495	8.650	0.472	0.400

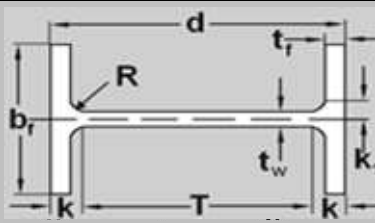


Nominal Shape Dimensions

W12

Comparable Metric Shapes
W310's

Prime Section Group	SECTION NAME	Comparable Metric Section	WEIGHT	Area	Depth	Flange		Web	Detailing Distance*						Fillet Radius*	
						Width	Thickness	Thickness	*These values depend on the mill. Manual measurements are necessary to confirm.						MSM	HSM
									MSM			HSM				
						w	A	d	b _f	t _f	t _w	k	k ₁	T	k	k ₁
in x lbs/ft	mm x kg/m	lbs/ft	in ²	in	in	in	in	in	in	in	in	in	in	in		
12x12	W12x252	W310x375	252	74.10	15.41	13.005	2.250	1.395	N/A	N/A	N/A	3.037	1.485	9.336	N/A	0.787
	W12x230	W310x342	230	67.70	15.05	12.895	2.070	1.285	N/A	N/A	N/A	2.857	1.430	9.336	N/A	0.787
	W12x210	W310x313	210	61.80	14.71	12.790	1.900	1.180	N/A	N/A	N/A	2.687	1.377	9.336	N/A	0.787
	W12x190	W310x283	190	55.80	14.38	12.670	1.735	1.060	N/A	N/A	N/A	2.522	1.317	9.336	N/A	0.787
	W12x170	W310x253	170	50.00	14.03	12.570	1.560	0.960	N/A	N/A	N/A	2.347	1.267	9.336	N/A	0.787
	W12x152	W310x226	152	44.70	13.71	12.480	1.400	0.870	N/A	N/A	N/A	2.187	1.222	9.336	N/A	0.787
	W12x136	W310x202	136	39.90	13.41	12.400	1.250	0.790	N/A	N/A	N/A	2.037	1.182	9.336	N/A	0.787
	W12x120	W310x179	120	35.30	13.12	12.320	1.105	0.710	N/A	N/A	N/A	1.892	1.142	9.336	N/A	0.787
	W12x106	W310x158	106	31.20	12.89	12.220	0.990	0.610	N/A	N/A	N/A	1.777	1.092	9.336	N/A	0.787
	W12x96	W310x143	96	28.20	12.71	12.160	0.900	0.550	N/A	N/A	N/A	1.687	1.062	9.336	N/A	0.787
	W12x87	W310x129	87	25.60	12.53	12.125	0.810	0.515	N/A	N/A	N/A	1.597	1.045	9.336	N/A	0.787
	W12x79	W310x117	79	23.20	12.38	12.080	0.735	0.470	N/A	N/A	N/A	1.522	1.022	9.336	N/A	0.787
	W12x72	W310x107	72	21.10	12.25	12.040	0.670	0.430	N/A	N/A	N/A	1.457	1.002	9.336	N/A	0.787
	W12x65	W310x97	65	19.10	12.12	12.000	0.605	0.390	N/A	N/A	N/A	1.392	0.982	9.336	N/A	0.787
12x10	W12x58	W310x86	58	17.00	12.19	10.010	0.640	0.360	N/A	N/A	N/A	1.427	0.967	9.336	N/A	0.787
	W12x53	W310x79	53	15.60	12.06	9.995	0.575	0.345	N/A	N/A	N/A	1.362	0.960	9.336	N/A	0.787
12x8	W12x50	W310x74	50	14.70	12.19	8.080	0.640	0.370	1.297	0.842	9.596	0.827	0.972	9.336	0.657	0.787
	W12x45	W310x67	45	13.20	12.06	8.045	0.575	0.335	1.232	0.825	9.596	0.762	0.955	9.336	0.657	0.787
	W12x40	W310x60	40	11.80	11.94	8.005	0.515	0.295	1.172	0.805	9.596	0.702	0.935	9.336	0.657	0.787
12x6.5	W12x35	W310x52	35	10.30	12.50	6.560	0.520	0.300	0.992	0.622	10.516	0.820	0.850	10.516	0.472	0.400
	W12x30	W310x44.5	30	8.79	12.34	6.520	0.440	0.260	0.912	0.602	10.516	0.840	0.830	10.516	0.472	0.400
	W12x26	W310x38.7	26	7.65	12.22	6.490	0.380	0.230	0.852	0.587	10.516	0.780	0.815	10.516	0.472	0.400
12x4	W12x22	W310x32.7	22	6.48	12.31	4.030	0.425	0.260	0.897	0.602	10.516	0.825	0.830	10.516	0.472	0.400
	W12x19	W310x28.3	19	5.57	12.16	4.005	0.350	0.235	0.822	0.590	10.516	0.750	0.818	10.516	0.472	0.400
	W12x16	W310x23.8	16	4.71	11.99	3.990	0.265	0.220	0.737	0.582	10.516	0.665	0.810	10.516	0.472	0.400
	W12x14	W310x21.0	14	4.16	11.91	3.970	0.225	0.200	0.697	0.572	10.516	0.625	0.800	10.516	0.472	0.400

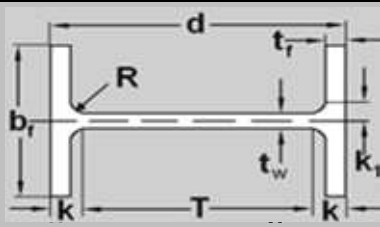


Nominal Shape Dimensions

W14

Comparable Metric Shapes
W360's

Prime Section Group	SECTION NAME	Comparable Metric Section	WEIGHT	Area	Depth	Flange		Web	Detailing Distance*						Fillet Radius*	
						Width	Thickness	Thickness	*These values depend on the mill. Manual measurements are necessary to confirm.						MSM	HSM
									MSM			HSM				
						w	A	d	b _f	t _f	t _w	k	k ₁	T	k	k ₁
in x lbs/ft	mm x kg/m	lbs/ft	in ²	in	in	in	in	in	in	in	in	in	in	in	in	
14x16	W14x283	W360x421	283	83.30	16.74	16.110	2.070	1.290	N/A	N/A	N/A	3.011	1.586	10.718	N/A	0.941
	W14x257	W360x382	257	75.60	16.38	15.995	1.890	1.175	N/A	N/A	N/A	2.831	1.529	10.718	N/A	0.941
	W14x233	W360x247	233	68.50	16.04	15.890	1.720	1.070	N/A	N/A	N/A	2.661	1.476	10.718	N/A	0.941
	W14x211	W360x314	211	62.00	15.72	15.800	1.560	0.980	N/A	N/A	N/A	2.501	1.431	10.718	N/A	0.941
	W14x193	W360x287	193	56.80	15.48	15.710	1.440	0.890	N/A	N/A	N/A	2.381	1.386	10.718	N/A	0.941
	W14x176	W360x262	176	51.80	15.22	15.650	1.310	0.830	N/A	N/A	N/A	2.251	1.356	10.718	N/A	0.941
	W14x159	W360x237	159	46.70	14.98	15.565	1.190	0.745	N/A	N/A	N/A	2.131	1.314	10.718	N/A	0.941
	W14x145	W360x216	145	42.70	14.78	15.500	1.090	0.680	N/A	N/A	N/A	2.031	1.281	10.718	N/A	0.941
14x14½	W14x132	W360x196	132	38.80	14.66	14.725	1.030	0.645	N/A	N/A	N/A	1.971	1.264	10.718	N/A	0.941
	W14x120	W360x179	120	35.30	14.48	14.670	0.940	0.590	N/A	N/A	N/A	1.881	1.236	10.718	N/A	0.941
	W14x109	W360x162	109	32.00	14.32	14.605	0.860	0.525	N/A	N/A	N/A	1.801	1.204	10.718	N/A	0.941
	W14x99	W360x147	99	29.10	14.16	14.565	0.780	0.485	N/A	N/A	N/A	1.721	1.184	10.718	N/A	0.941
	W14x90	W360x134	90	26.50	14.02	14.520	0.710	0.440	N/A	N/A	N/A	1.651	1.161	10.718	N/A	0.941
14x10	W14x82	W360x122	82	24.10	14.31	10.130	0.855	0.510	N/A	N/A	N/A	1.796	1.196	10.718	N/A	0.941
	W14x74	W360x110	74	21.80	14.17	10.070	0.785	0.450	N/A	N/A	N/A	1.726	1.166	10.718	N/A	0.941
	W14x68	W360x101	68	20.00	14.04	10.035	0.720	0.415	N/A	N/A	N/A	1.661	1.149	10.718	N/A	0.941
	W14x61	W360x91	61	17.90	13.89	9.995	0.645	0.375	N/A	N/A	N/A	1.586	1.129	10.718	N/A	0.941
14x8	W14x53	W360x79	53	15.60	13.92	8.060	0.660	0.370	1.317	0.842	11.286				0.657	
	W14x48	W360x72	48	14.10	13.79	8.030	0.595	0.340	1.252	0.827	11.286				0.657	
	W14x43	W360x64	43	12.60	13.66	7.995	0.530	0.305	1.187	0.810	11.286				0.657	
14x6¾	W14x38	W360x58	38	11.20	14.10	6.770	0.515	0.310	1.172	0.812	11.756				0.657	
	W14x34	W360x51	34	10.00	13.98	6.745	0.455	0.285	1.112	0.800	11.756				0.657	
	W14x30	W360x44.6	30	8.85	13.84	6.730	0.385	0.270	1.042	0.792	11.756				0.657	
14x5	W14x26	W360x39	26	7.69	13.91	5.025	0.420	0.255	1.077	0.785	11.756				0.657	
	W14x22	W360x32.9	22	6.49	13.74	5.000	0.335	0.230	0.992	0.772	11.756				0.657	

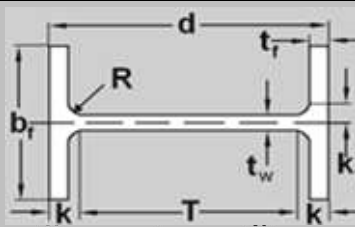


Nominal Shape Dimensions

W16

Comparable Metric Shapes
W410's

Prime Section Group	SECTION NAME	Comparable Metric Section	WEIGHT	Area	Depth	Flange		Web	Detailing Distance*						Fillet Radius*	
						Width	Thickness	Thickness	*These values depend on the mill. Manual measurements are necessary to confirm.						MSM	HSM
									MSM			HSM				
						b_f	t_f	t_w	k	k_1	T	k	k_1	T	R	R
in x lbs/ft	mm x kg/m	lbs/ft	in ²	in	in	in	in	in	in	in	in	in	in	in	in	
16x10¼	W16x100	W410x149	100	29.40	16.97	10.425	0.985	0.585	N/A	N/A	N/A	1.772	1.080	13.426	N/A	0.787
	W16x89	W410x132	89	26.20	16.75	10.365	0.875	0.525	N/A	N/A	N/A	1.662	1.050	13.426	N/A	0.787
	W16x77	W410x114	77	22.60	16.52	10.295	0.760	0.455	N/A	N/A	N/A	1.547	1.015	13.426	N/A	0.787
	W16x67	W410x100	67	19.70	16.33	10.235	0.665	0.395	N/A	N/A	N/A	1.452	0.985	13.426	N/A	0.787
16x7	W16x57	W410x85	57	16.80	16.43	7.120	0.715	0.430	1.372	0.872	13.686	1.384	0.884	13.686	0.657	0.689
	W16x50	W410x75	50	14.70	16.26	7.070	0.630	0.380	1.287	0.847	13.686	1.299	0.859	13.686	0.657	0.689
	W16x45	W410x67	45	13.30	16.13	7.035	0.565	0.345	1.222	0.830	13.686	1.234	0.842	13.686	0.657	0.689
	W16x40	W410x60	40	11.80	16.01	6.995	0.505	0.305	1.162	0.810	13.686	1.174	0.822	13.686	0.657	0.689
	W16x36	W410x53	36	10.60	15.86	6.985	0.430	0.295	1.087	0.805	13.686	1.099	0.817	13.686	0.657	0.689
16x5½	W16x31	W410x46.1	31	9.12	15.88	5.525	0.440	0.275	1.097	0.795	13.686	1.109	0.807	13.686	0.657	0.689
	W16x26	W410x38.8	26	7.68	15.69	5.500	0.345	0.250	1.002	0.782	13.686	1.014	0.794	13.686	0.657	0.689

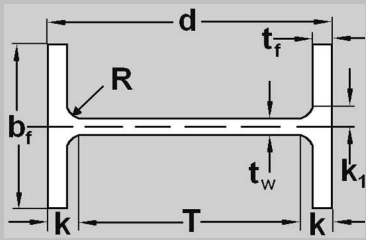


Nominal Shape Dimensions

W18

Comparable Metric Shapes
W460's

Prime Section Group	SECTION NAME	Comparable Metric Section	WEIGHT	Area	Depth	Flange		Web	Detailing Distance*						Fillet Radius*	
						Width	Thickness	Thickness	MSM			HSM			MSM	HSM
									k	k ₁	T	k	k ₁	T	R	R
						w	A	d	b _f	t _f	t _w	k	k ₁	T	k	k ₁
in x lbs/ft	mm x kg/m	lbs/ft	in ²	in	in	in	in	in	in	in	in	in	in	in	in	
18x11	W18x234	W460x349	234	68.80	21.06	11.650	2.110	1.160	N/A	N/A	N/A	2.897	1.367	15.266	N/A	0.787
	W18x211	W460x315	211	62.10	20.67	11.555	1.910	1.060	N/A	N/A	N/A	2.697	1.317	15.276	N/A	0.787
	W18x192	W460x286	192	56.40	20.35	11.455	1.750	0.960	N/A	N/A	N/A	2.537	1.267	15.276	N/A	0.787
	W18x175	W460x260	175	51.30	20.04	11.375	1.590	0.890	N/A	N/A	N/A	2.377	1.232	15.286	N/A	0.787
	W18x158	W460x235	158	46.30	19.72	11.300	1.440	0.810	N/A	N/A	N/A	2.227	1.192	15.266	N/A	0.787
	W18x143	W460x213	143	42.10	19.49	11.220	1.320	0.730	N/A	N/A	N/A	2.107	1.152	15.276	N/A	0.787
	W18x130	W460x193	130	38.20	19.25	11.160	1.200	0.670	N/A	N/A	N/A	1.987	1.122	15.276	N/A	0.787
	W18x119	W460x177	119	35.10	18.97	11.265	1.060	0.655	N/A	N/A	N/A	1.847	1.115	15.276	N/A	0.787
	W18x106	W460x158	106	31.10	18.73	11.200	0.940	0.590	N/A	N/A	N/A	1.727	1.082	15.276	N/A	0.787
	W18x97	W460x144	97	28.50	18.59	11.145	0.870	0.535	N/A	N/A	N/A	1.657	1.055	15.276	N/A	0.787
	W18x86	W460x128	86	25.30	18.39	11.090	0.770	0.480	N/A	N/A	N/A	1.557	1.027	15.276	N/A	0.787
	W18x76	W460x113	76	22.30	18.21	11.035	0.680	0.425	N/A	N/A	N/A	1.467	1.000	15.276	N/A	0.787
18x7½	W18x71	W460x106	71	20.80	18.47	7.635	0.810	0.495	1.467	0.905	15.536	1.479	0.817	15.536	0.657	0.669
	W18x65	W460x97	65	19.10	18.35	7.590	0.750	0.450	1.407	0.882	15.536	1.419	0.894	15.536	0.657	0.669
	W18x60	W460x89	60	17.60	18.24	7.555	0.695	0.415	1.352	0.865	15.536	1.364	0.877	15.536	0.657	0.669
	W18x55	W460x82	55	16.20	18.11	7.530	0.630	0.390	1.287	0.852	15.536	1.299	0.864	15.536	0.657	0.669
	W18x50	W460x74	50	14.70	17.99	7.495	0.570	0.355	1.227	0.835	15.536	1.239	0.847	15.536	0.657	0.669
18x6	W18x46	W460x68	46	13.50	18.06	6.060	0.605	0.360	1.262	0.837	15.536	1.274	0.849	15.536	0.657	0.669
	W18x40	W460x60	40	11.80	17.90	6.015	0.525	0.315	1.182	0.815	15.536	1.194	0.827	15.536	0.657	0.669
	W18x35	W460x52	35	10.30	17.70	6.000	0.425	0.300	1.082	0.807	15.536	1.098	0.815	15.536	0.657	0.669

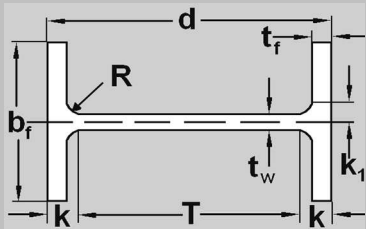


Nominal Shape Dimensions

W21

Comparable Metric Shapes
W530's

Prime Section Group	Section Name	Comparable Metric Section	Weight	Area	Depth	Flange		Web Thickness	Detailing Distance			Fillet Radius
						Width	Thickness		k	k ₁	T	
						w	A		d	b _f	t _f	
	in x lbs/ft	mm x kg/m	lbs/ft	in ²	in	in	in	in	in	in	in	in
21x12¼	W21x275	W530x409	275	80.90	24.13	12.890	2.190	1.220	2.977	1.397	18.176	0.787
	W21x248	W530x369	248	72.90	23.74	12.775	1.990	1.100	2.777	1.337	18.186	0.787
	W21x223	W530x332	223	65.60	23.35	12.675	1.790	1.000	2.577	1.287	18.196	0.787
	W21x201	W530x300	201	59.20	23.03	12.575	1.630	0.910	2.417	1.242	18.196	0.787
	W21x182	W530x272	182	53.70	22.72	12.500	1.480	0.830	2.267	1.202	18.186	0.787
	W21x166	W530x248	166	48.90	22.48	12.420	1.360	0.750	2.147	1.162	18.186	0.787
	W21x147	W530x219	147	43.20	22.06	12.510	1.150	0.720	1.937	1.147	18.186	0.787
	W21x132	W530x196	132	38.80	21.83	12.440	1.035	0.650	1.822	1.112	18.186	0.787
	W21x122	W530x182	122	35.90	21.68	12.390	0.960	0.600	1.747	1.087	18.186	0.787
	W21x111	W530x165	111	32.70	21.51	12.340	0.875	0.550	1.662	1.062	18.186	0.787
	W21x101	W530x150	101	29.80	21.36	12.290	0.800	0.500	1.587	1.037	18.186	0.787
21x8¼	W21x93	W530x138	93	27.30	21.62	8.420	0.930	0.580	1.717	1.077	18.186	0.787
	W21x83	W530x123	83	24.30	21.43	8.355	0.835	0.515	1.622	1.045	18.186	0.787
	W21x73	W530x109	73	21.50	21.24	8.295	0.740	0.455	1.527	1.015	18.186	0.787
	W21x68	W530x101	68	20.00	21.13	8.270	0.685	0.430	1.472	1.002	18.186	0.787
	W21x62	W530x92	62	18.30	20.99	8.240	0.615	0.400	1.402	0.987	18.186	0.787
	W21x55*	W530x82	55	16.20	20.80	8.220	0.522	0.375	1.309	0.975	18.182	0.787
	W21x48*	W530x72	48	14.10	20.62	8.140	0.430	0.350	1.217	0.962	18.186	0.787
21x6½	W21x57	W530x85	57	16.70	21.06	6.555	0.650	0.405	1.437	0.990	18.186	0.787
	W21x50	W530x74	50	14.70	20.83	6.530	0.535	0.380	1.322	0.977	18.186	0.787
	W21x44	W530x66	44	13.00	20.66	6.500	0.450	0.350	1.237	0.962	18.186	0.787
	* Canadian Size											

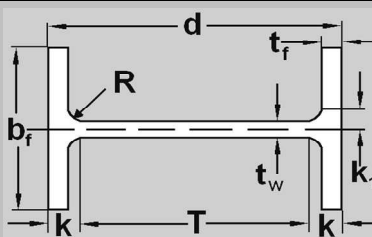


Nominal Shape Dimensions

W24

Comparable Metric Shapes
W610's

Prime Section Group	Section Name	Comparable Metric Section	Weight	Area	Depth	Flange		Web Thickness	Detailing Distance			Fillet Radius
						Width	Thickness		k	k ₁	T	
						w	A		d	b _f	t _f	
	in x lbs/ft	mm x kg/m	lbs/ft	in ²	in	in	in	in	in	in	in	in
24x12½	W24x279	W610x415	279	82.00	26.73	13.305	2.090	1.160	2.790	1.280	21.150	0.700
	W24x250	W610x372	250	73.50	26.34	13.185	1.890	1.040	2.590	1.220	21.160	0.700
	W24x229	W610x341	229	67.20	26.02	13.110	1.730	0.960	2.430	1.180	21.160	0.700
	W24x207	W610x307	207	60.70	25.71	13.010	1.570	0.870	2.270	1.135	21.170	0.700
	W24x192	W610x285	192	56.30	25.47	12.950	1.460	0.810	2.160	1.105	21.150	0.700
	W24x176	W610x262	176	51.70	25.24	12.890	1.340	0.750	2.040	1.075	21.160	0.700
	W24x162	W610x241	162	47.70	25.00	12.955	1.220	0.705	1.920	1.053	21.160	0.700
	W24x146	W610x217	146	43.00	24.74	12.900	1.090	0.650	1.790	1.025	21.160	0.700
	W24x131	W610x195	131	38.50	24.48	12.855	0.960	0.605	1.660	1.003	21.160	0.700
	W24x117	W610x174	117	34.40	24.26	12.800	0.850	0.550	1.550	0.975	21.160	0.700
	W24x104	W610x155	104	30.60	24.06	12.750	0.750	0.500	1.450	0.950	21.160	0.700
24x9	W24x103	W610x153	103	30.30	24.53	9.000	0.980	0.550	1.680	0.975	21.170	0.700
	W24x94	W610x140	94	27.70	24.31	9.065	0.875	0.515	1.575	0.958	21.160	0.700
	W24x84	W610x125	84	24.70	24.10	9.020	0.770	0.470	1.470	0.935	21.160	0.700
	W24x76	W610x113	76	22.40	23.92	8.990	0.680	0.440	1.380	0.920	21.160	0.700
	W24x68	W610x101	68	20.10	23.73	8.965	0.585	0.415	1.285	0.908	21.160	0.700
24x7	W24x62	W610x92	62	18.20	23.74	7.040	0.590	0.430	1.290	0.915	21.160	0.700
	W24x55	W610x82	55	16.20	23.57	7.005	0.505	0.395	1.205	0.898	21.160	0.700

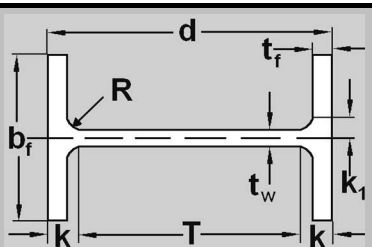


Nominal Shape Dimensions

W27

Comparable Metric Shapes
W690's

Prime Section Group	Section Name	Comparable Metric Section	Weight	Area	Depth	Flange		Web Thickness	Detailing Distance			Fillet Radius
						Width	Thickness		k	k ₁	T	
						w	A		d	b _f	t _f	t _w
	in x lbs/ft	mm x kg/m	lbs/ft	in ²	in	in	in	in	in	in	in	in
27x14	W27x194	W690x289	194	57.00	28.11	14.035	1.340	0.750	2.040	1.075	24.030	0.700
	W27x178	W690x265	178	52.30	27.81	14.085	1.190	0.725	1.890	1.063	24.030	0.700
	W27x161	W690x240	161	47.40	27.59	14.020	1.080	0.660	1.780	1.030	24.030	0.700
	W27x146	W690x217	146	42.90	27.38	13.965	0.975	0.605	1.675	1.003	24.030	0.700
27x10	W27x129	W690x192	129	37.80	27.63	10.010	1.100	0.610	1.800	1.005	24.030	0.700
	W27x114	W690x170	114	33.50	27.29	10.070	0.930	0.570	1.630	0.985	24.030	0.700
	W27x102	W690x152	102	30.00	27.09	10.015	0.830	0.515	1.530	0.958	24.030	0.700
	W27x94	W690x140	94	27.70	26.92	9.990	0.745	0.490	1.445	0.945	24.030	0.700
	W27x84	W690x125	84	24.80	26.71	9.960	0.640	0.460	1.340	0.930	24.030	0.700

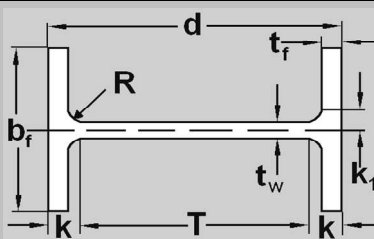


Nominal Shape Dimensions

W30

Comparable Metric Shapes
W760's

Prime Section Group	Section Name	Comparable Metric Section	Weight	Area	Depth	Flange		Web Thickness	Detailing Distance			Fillet Radius
						Width	Thickness		k	k ₁	T	
						w	A		d	b _f	t _f	t _w
	in x lbs/ft	mm x kg/m	lbs/ft	in ²	in	in	in	in	in	in	in	in
30x10½	W30x148	W760x220	148	43.50	30.67	10.480	1.180	0.650	1.880	1.025	26.910	0.700
	W30x132	W760x196	132	38.90	30.31	10.545	1.000	0.615	1.700	1.008	26.910	0.700
	W30x124	W760x185	124	36.50	30.17	10.515	0.930	0.585	1.630	0.993	26.910	0.700
	W30x116	W760x173	116	34.20	30.01	10.495	0.850	0.565	1.550	0.983	26.910	0.700
	W30x108	W760x161	108	31.70	29.83	10.475	0.760	0.545	1.460	0.973	26.910	0.700
	W30x99	W760x147	99	29.10	29.65	10.450	0.670	0.520	1.370	0.960	26.910	0.700
	W30x90	W760x134	90	26.40	29.53	10.400	0.610	0.470	1.310	0.935	26.910	0.700

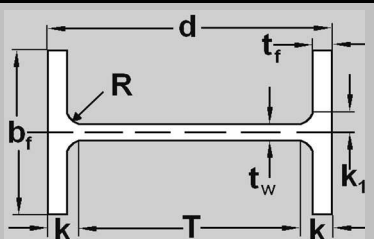


Nominal Shape Dimensions

W33

Comparable Metric Shapes
W840's

Prime Section Group	Section Name	Comparable Metric Section	Weight	Area	Depth	Flange		Web Thickness	Detailing Distance			Fillet Radius
						Width	Thickness		k	k ₁	T	
						w	A					
in x lbs/ft	mm x kg/m	lbs/ft	in ²	in	in	in	in	in	in	in	in	
33x11½	W33x169	W840x251	169	49.50	33.82	11.500	1.220	0.670	1.920	1.035	29.980	0.700
	W33x152	W840x226	152	44.70	33.49	11.565	1.055	0.635	1.755	1.018	29.980	0.700
	W33x141	W840x210	141	41.60	33.30	11.535	0.960	0.605	1.660	1.003	29.980	0.700
	W33x130	W840x193	130	38.30	33.09	11.510	0.855	0.580	1.555	0.990	29.980	0.700
	W33x118	W840x176	118	34.70	32.86	11.480	0.740	0.550	1.440	0.975	29.980	0.700



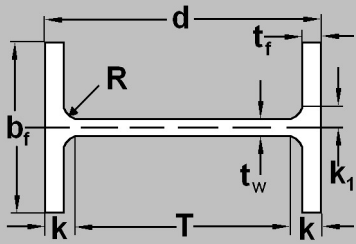
Nominal Shape Dimensions

W36

Comparable Metric Shapes
W920's

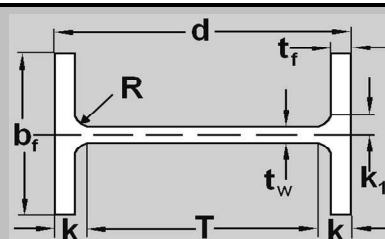
Prime Section Group	Section Name	Comparable Metric Section	Weight	Area	Depth	Flange		Web Thickness	Detailing Distance			Fillet Radius
						Width	Thickness		k	k ₁	T	
						w	A					
in x lbs/ft	mm x kg/m	lbs/ft	in ²	in	in	in	in	in	in	in	in	
36x12	W36x256	W920x381	256	75.40	37.43	12.215	1.730	0.960	2.480	1.230	32.470	0.750
	W36x232	W920x345	232	68.10	37.12	12.120	1.570	0.870	2.320	1.185	32.480	0.750
	W36x210	W920x313	210	61.80	36.69	12.180	1.360	0.830	2.110	1.165	32.470	0.750
	W36x194	W920x289	194	57.00	36.49	12.115	1.260	0.765	2.010	1.133	32.470	0.750
	W36x182	W920x271	182	53.60	36.33	12.075	1.180	0.725	1.930	1.113	32.470	0.750
	W36x170	W920x253	170	50.00	36.17	12.030	1.100	0.680	1.850	1.090	32.470	0.750
	W36x160	W920x238	160	47.00	36.01	12.000	1.020	0.650	1.770	1.075	32.470	0.750
	W36x150	W920x223	150	44.20	35.85	11.975	0.940	0.625	1.690	1.063	32.470	0.750
	W36x135	W920x201	135	39.70	35.55	11.950	0.790	0.600	1.540	1.050	32.470	0.750

H-Pile



Inch-Pound Sizes		Comparable Metric Sizes	
Prime Section Group	Weight range in Group	Prime Section Group	Weight range in Group
(in x in)	(lbs/ft)	(mm x mm)	(kg/m)
8 x 8	36	200 x 200	53
10 x 10	42 - 57	250 x 250	62 - 85
12 x 12	53 - 89	310 x 310	79 - 132

Inch-Pound Sizes		Comparable Metric Sizes	
Prime Section Group	Weight range in Group	Prime Section Group	Weight range in Group
(in x in)	(lbs/ft)	(mm x mm)	(kg/m)
14 x 14 ^{1/4}	73 - 117	360 x 370	108 - 174
16 x 16	88 - 183	410 x 410	131 - 272



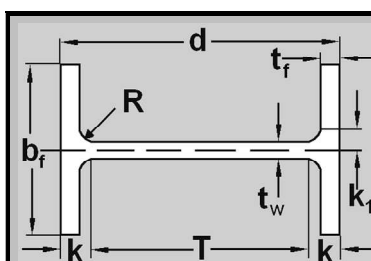
Nominal Shape Dimensions

HP8

Comparable Metric Shapes
HP200's

Prime Section Group	SECTION NAME	Comparable Metric Section	WEIGHT	Area	Depth	Flange		Web	Detailing Distance*						Fillet Radius*	
						Width	Thickness	Thickness	MSM			HSM			MSM	HSM
									k	k ₁	T	k	k ₁	T		
						in x lbs/ft	mm x kg/m	lbs/ft	in ²	in	in	in	in	in	in	in
8x8	HP8x36	HP200x53	36	10.60	8.02	8.155	0.445	0.445	0.917	0.695	6.186	0.845	0.625	6.330	0.472	0.400

*These values depend on the mill. Manual measurements are necessary to confirm.

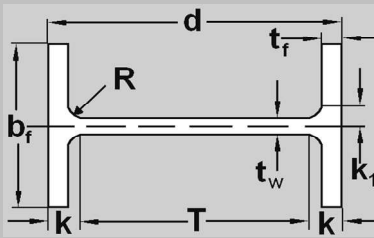


Nominal Shape Dimensions

HP10

Comparable Metric Shapes
HP250's

Prime Section Group	Section Name	Comparable Metric Section	Weight	Area	Depth	Flange		Web Thickness	Detailing Distance			Fillet Radius
						Width	Thickness		k	k ₁	T	
						in	in		in	in	in	
10x10	HP10x57	HP250x85	57	16.80	9.99	10.225	0.565	0.565	1.222	0.940	7.546	0.657
	HP10x42	HP250x62	42	12.40	9.70	10.075	0.420	0.415	1.077	0.865	7.546	0.657

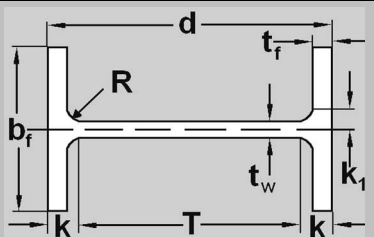


Nominal Shape Dimensions

HP12

Comparable Metric Shapes
HP310's

Prime Section Group	Section Name	Comparable Metric Section	Weight	Area	Depth	Flange		Web Thickness	Detailing Distance			Fillet Radius
						Width	Thickness		k	k ₁	T	
						b _f	t _f					
in x lbs/ft	mm x kg/m	lbs/ft	in ²	in	in	in	in	in	in	in	in	
12x12	HP12x89	HP310x132	89	26.85	12.35	12.330	0.720	0.720	1.507	1.147	9.336	0.787
	HP12x84	HP310x125	84	24.60	12.28	12.295	0.685	0.685	1.472	1.130	9.336	0.787
	HP12x74	HP310x110	74	21.80	12.13	12.215	0.610	0.605	1.397	1.090	9.336	0.787
	HP12x63	HP310x93	63	18.40	11.94	12.125	0.515	0.515	1.302	1.045	9.336	0.787
	HP12x53	HP310x79	53	15.50	11.78	12.045	0.435	0.435	1.222	1.005	9.336	0.787

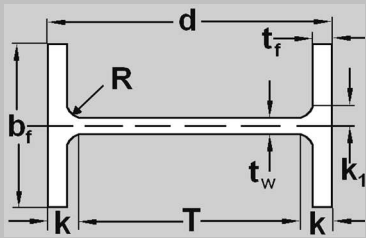


Nominal Shape Dimensions

HP14

Comparable Metric Shapes
HP360's

Prime Section Group	Section Name	Comparable Metric Section	Weight	Area	Depth	Flange		Web Thickness	Detailing Distance			Fillet Radius
						Width	Thickness		k	k ₁	T	
						b _f	t _f					
in x lbs/ft	mm x kg/m	lbs/ft	in ²	in	in	in	in	in	in	in	in	
14x14½	HP14x117	HP360x174	117	34.40	14.21	14.885	0.805	0.805	1.592	1.190	11.026	0.787
	HP14x102	HP360x152	102	30.00	14.01	14.785	0.705	0.705	1.492	1.140	11.026	0.787
	HP14x89	HP360x132	89	26.10	13.83	14.695	0.615	0.615	1.402	1.095	11.026	0.787
	HP14x73	HP360x108	73	21.40	13.61	14.585	0.505	0.505	1.292	1.040	11.026	0.787



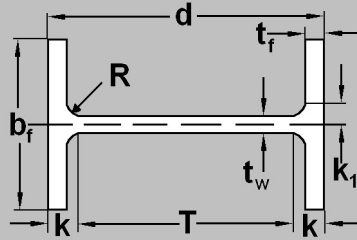
Nominal Shape Dimensions

HP16

Comparable Metric Shapes
HP410's

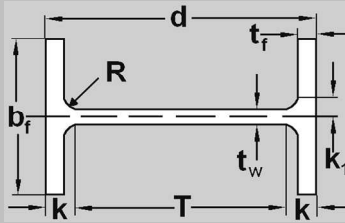
Prime Section Group	Section Name	Comparable Metric Section	Weight	Area	Depth	Flange		Web Thickness	Detailing Distance			Fillet Radius
						Width	Thickness		k	k ₁	T	
						b _f	t _f					
in x lbs/ft	mm x kg/m	lbs/ft	in ²	in	in	in	in	in	in	in	in	
16x16	HP16x183	HP410x272	183	53.80	16.50	16.250	1.125	1.125	2.267	1.705	11.966	1.142
	HP16x162	HP410x242	162	47.70	16.25	16.125	1.000	1.000	2.142	1.642	11.966	1.142
	HP16x141	HP410x211	141	41.70	16.00	16.000	0.875	0.875	2.017	1.580	11.966	1.142
	HP16x121	HP410x181	121	35.70	15.75	15.875	0.750	0.750	1.892	1.517	11.966	1.142
	HP16x101	HP410x151	101	29.80	15.50	15.750	0.625	0.625	1.767	1.455	11.966	1.142
	HP16x88	HP410x131	88	25.80	15.33	15.665	0.540	0.540	1.682	1.412	11.966	1.142

M Shapes



Inch - Pound Sizes		Comparable Metric Sizes	
Prime Section Group	Weight range in Group	Prime Section Group	Weight range in Group
(in x in)	(lbs/ft)	(mm x mm)	(kg/m)
12.5 x 3.75	12.4	318 x 95	18.5
10 x 2.5	7.5 – 9	250 x 64	11.2 – 13.4
6 x 2	4.4	150 x 51	6.6

Inch - Pound Sizes		Comparable Metric Sizes	
Prime Section Group	Weight range in Group	Prime Section Group	Weight range in Group
(in x in)	(lbs/ft)	(mm x mm)	(kg/m)
12 x 3	10 – 11.8	310 x 76	14.9 – 17.6
8 x 2	6.2 – 6.5	200 x 51	9.2 – 9.7

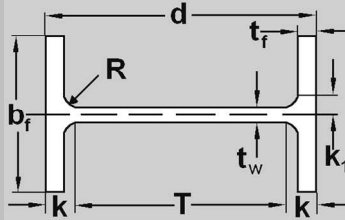


Nominal Shape Dimensions

M6

Comparable Metric Shapes
M150's

Prime Section Group	Section Name	Comparable Metric Section	Weight	Area	Depth	Flange		Web Thickness	Detailing Distance			Fillet Radius	
						Width	Thickness		k	k ₁	T		R
						w	A						
6x2	M6x4.4	M150x6.6	4.4	1.29	6.00	1.844	0.171	0.114	0.421	0.307	5.158	0.250	

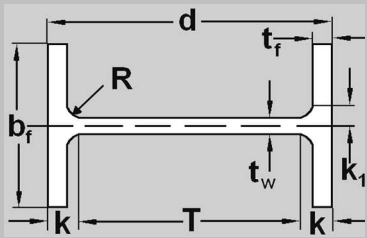


Nominal Shape Dimensions

M8

Comparable Metric Shapes
M200's

Prime Section Group	Section Name	Comparable Metric Section	Weight	Area	Depth	Flange		Web Thickness	Detailing Distance			Fillet Radius	
						Width	Thickness		k	k ₁	T		R
						w	A						
8x2.281	M8x6.2	M200x9.2	6.2	1.81	8.00	2.281	0.177	0.129	0.477	0.365	7.046	0.300	
	M8x6.5	M200x9.7	6.5	1.92	8.00	2.281	0.189	0.135	0.489	0.368	7.022	0.300	

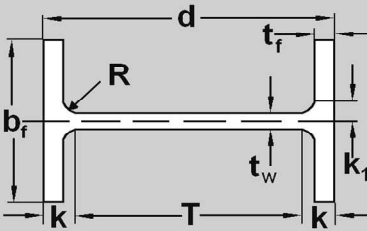


Nominal Shape Dimensions

M10

Comparable Metric Shapes
M250's

Prime Section Group	Section Name	Comparable Metric Section	Weight	Area	Depth	Flange		Web Thickness	Detailing Distance			Fillet Radius
						Width	Thickness		k	k ₁	T	
						w	A		d	b _f	t _f	t _w
	in x lbs/ft	mm x kg/m	lbs/ft	in ²	in	in	in	in	in	in	in	in
10x2.690	M10x8.0	M250x11.9	8	2.35	9.95	2.690	0.182	0.141	0.482	0.371	8.986	0.300
	M10x9.0	M250x13.4	9	2.65	10.00	2.690	0.206	0.157	0.506	0.379	8.988	0.300
10x2.688	M10x7.5	M250x11.2	7.5	2.21	9.99	2.688	0.173	0.130	0.473	0.365	9.044	0.300

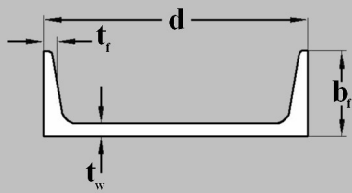


Nominal Shape Dimensions

M12

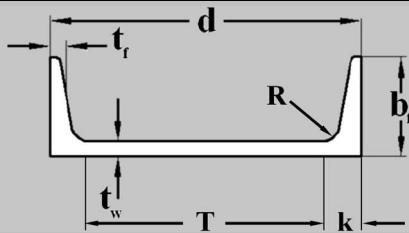
Comparable Metric Shapes
M310's

Prime Section Group	Section Name	Comparable Metric Section	Weight	Area	Depth	Flange		Web Thickness	Detailing Distance			Fillet Radius
						Width	Thickness		k	k ₁	T	
						w	A		d	b _f	t _f	t _w
	in x lbs/ft	mm x kg/m	lbs/ft	in ²	in	in	in	in	in	in	in	in
12.5x3.750	M12.5x12.4	M318x18.5	12.4	3.66	12.53	3.750	0.228	0.155	0.528	0.378	11.478	0.300
12x3	M12x11.8	M310x17.6	11.8	3.47	12.00	3.065	0.225	0.177	0.525	0.389	10.950	0.300
	M12x10.8	M310x16.1	10.8	3.18	11.97	3.065	0.210	0.160	0.510	0.380	10.950	0.300
	M12x10	M310x14.9	10	2.94	11.97	3.250	0.180	0.149	0.480	0.375	11.010	0.300



C-Shaped Channels

Inch - Pound Sizes		Comparable Metric Sizes		Inch - Pound Sizes		Comparable Metric Sizes	
Prime Section Group	Weight range in Group	Prime Section Group	Weight range in Group	Prime Section Group	Weight range in Group	Prime Section Group	Weight range in Group
(in x in)	(lbs/ft)	(mm x mm)	(kg/m)	(in x in)	(lbs/ft)	(mm x mm)	(kg/m)
8 x 2.5	11.5 - 18.75	200 x 63.5	17.1 - 27.9	12 x 3	20.7 - 30	310 x 75	30.8 - 45
10 x 2.75	15.3 - 30	250 x 70	22.8 - 45	15 x 3.5	33.9 - 50	380 x 90	50.4 - 74

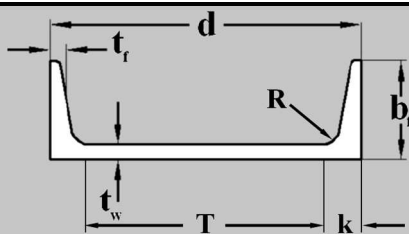


Nominal Shape Dimensions

C8

Comparable Metric Shapes
C200's

Prime Section Group	Section Name	Comparable Metric Section	Weight	Area	Depth	Flange		Web Thickness	Detailing Distance		Fillet Radius
						Width	Thickness		k	T	
						b_f	t_f				
in x lbs/ft	mm x kg/m	lbs/ft	in ²	in	in	in	in	in	in		
8x2.5	C8x18.75	C200x27.9	18.75	5.51	8.00	2.527	0.390	0.487	0.803	6.394	0.315
	C8x13.75	C200x20.5	13.75	4.04	8.00	2.343	0.390	0.303	0.803	6.394	0.315
	C8x11.5	C200x17.1	11.5	3.38	8.00	2.260	0.390	0.220	0.803	6.394	0.315

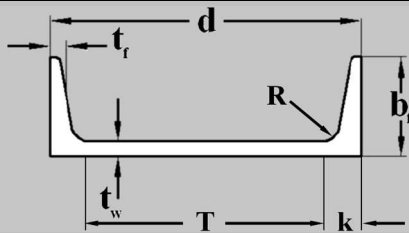


Nominal Shape Dimensions

C10

Comparable Metric Shapes
C250's

Prime Section Group	Section Name	Comparable Metric Section	Weight	Area	Depth	Flange		Web Thickness	Detailing Distance		Fillet Radius
						Width	Thickness		k	T	
						b_f	t_f				
in x lbs/ft	mm x kg/m	lbs/ft	in ²	in	in	in	in	in	in		
10x2.75	C10x30	C250x45	30	8.82	10.00	3.033	0.436	0.673	1.018	7.965	0.472
	C10x25	C250x37	25	7.35	10.00	2.886	0.436	0.526	1.018	7.965	0.472
	C10x20	C250x30	20	5.88	10.00	2.739	0.436	0.379	1.018	7.965	0.472
	C10x15.3	C250x22.8	15.3	4.49	10.00	2.600	0.436	0.240	1.018	7.965	0.472

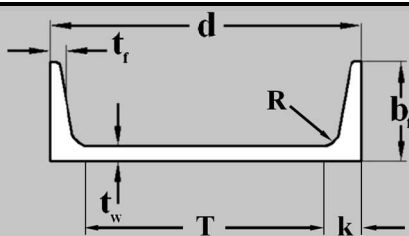


Nominal Shape Dimensions

C12

Comparable Metric Shapes
C310's

Prime Section Group	Section Name	Comparable Metric Section	Weight	Area	Depth	Flange		Web Thickness	Detailing Distance		Fillet Radius
						Width	Thickness		k	T	
						b_f	t_f				
in x lbs/ft	mm x kg/m	lbs/ft	in ²	in	in	in	in	in	in		
12x3	C12x30	C310x45	30	8.82	12.00	3.170	0.501	0.510	1.094	9.812	0.472
	C12x25	C310x37	25	7.35	12.00	3.047	0.501	0.387	1.094	9.812	0.472
	C12x20.7	C310x30.8	20.7	6.09	12.00	2.942	0.501	0.282	1.094	9.812	0.472

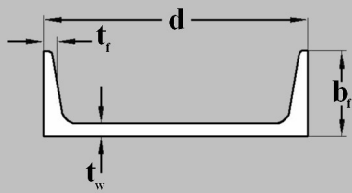


Nominal Shape Dimensions

C15

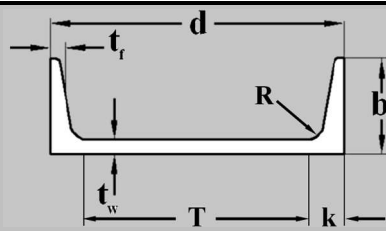
Comparable Metric Shapes
C380's

Prime Section Group	Section Name	Comparable Metric Section	Weight	Area	Depth	Flange		Web Thickness	Detailing Distance		Fillet Radius
						Width	Thickness		k	T	
						b_f	t_f				
in x lbs/ft	mm x kg/m	lbs/ft	in ²	in	in	in	in	in	in		
15x3.5	C15x50	C380x74	50	14.70	15.00	3.716	0.650	0.716	1.315	12.370	0.551
	C15x40	C380x60	40	11.80	15.00	3.520	0.650	0.520	1.315	12.370	0.551
	C15x33.9	C380x50.4	33.9	9.96	15.00	3.400	0.650	0.400	1.315	12.370	0.551



MC-Shaped Channels

Inch - Pound Sizes		Comparable Metric Sizes		Inch - Pound Sizes		Comparable Metric Sizes	
Prime Section Group	Weight range in Group	Prime Section Group	Weight range in Group	Prime Section Group	Weight range in Group	Prime Section Group	Weight range in Group
(in x in)	(lbs/ft)	(mm x mm)	(kg/m)	(in x in)	(lbs/ft)	(mm x mm)	(kg/m)
10 x 1	6.5 - 8.4	250 x 25	9.7 - 12.5	10 x 3	22 - 25	250 x 76	33 - 37
12 x 2	10.6 - 14.3	310 x 51	15.8 - 21.3				



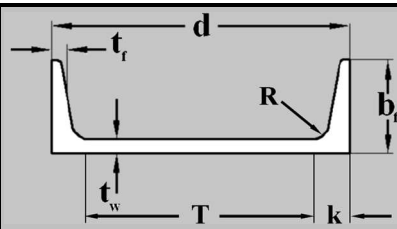
Nominal Shape Dimensions

MC10

Comparable Metric Shapes

C250's

Prime Section Group	Section Name	Comparable Metric Section	Weight	Area	Depth	Flange		Web Thickness	Detailing Distance		Fillet Radius
						Width	Thickness		k	T	
						w	A				
in x lbs/ft	mm x kg/m	lbs/ft	in ²	in	in	in	in	in	in	in	
10x3	MC10x25	MC250x37	25	7.35	10.00	3.405	0.575	0.380	0.507	8.986	0.256
10x3	MC10x22	MC250x33	22	6.45	10.00	3.315	0.575	0.290	0.507	8.986	0.256
10x1	MC10x8.4	MC250x12.5	8.4	2.46	10.00	1.500	0.280	0.170	0.507	8.986	0.256
10x1	MC10x6.5	MC250x9.7	6.5	1.91	10.00	1.170	0.202	0.152	0.507	8.986	0.256



Nominal Shape Dimensions

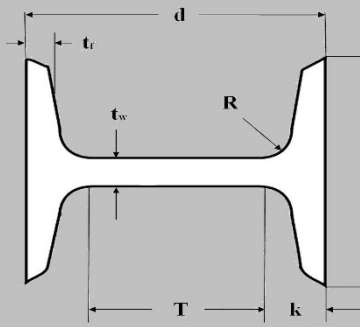
MC12

Comparable Metric Shapes

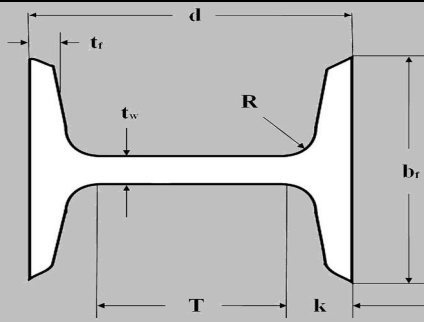
C310's

Prime Section Group	Section Name	Comparable Metric Section	Weight	Area	Depth	Flange		Web Thickness	Detailing Distance		Fillet Radius
						Width	Thickness		k	T	
						w	A				
in x lbs/ft	mm x kg/m	lbs/ft	in ²	in	in	in	in	in	in	in	
12x2	MC12x14.3	MC310x21.3	14.3	4.19	12.00	2.125	0.313	0.250	0.616	10.768	0.315
12x2	MC12x10.6	MC310x15.8	10.6	3.10	12.00	1.500	0.309	0.190	0.616	10.768	0.315

S-Shapes



Inch - Pound Sizes		Comparable Metric Sizes			Inch - Pound Sizes		Comparable Metric Sizes	
Prime Section Group	Weight range in Group	Prime Section Group	Weight range in Group		Prime Section Group	Weight range in Group	Prime Section Group	Weight range in Group
(in x in)	(lbs/ft)	(mm x mm)	(kg/m)		(in x in)	(lbs/ft)	(mm x mm)	(kg/m)
12 x 5	31.8 – 35	310 x 129	47.3 – 52		18 x 6	54.7 – 70	460 x 152	81.4 – 104
12 x 5.5	40.8 – 50	310 x 139	60.7 – 74		20 x 6.25	66 – 75	510 x 159	98 – 112
15 x 5.5	42.9 – 50	380 x 139	64 – 74		20 x 7	86 – 96	510 x 178	128 – 143
					24 x 7	80 – 100	610 x 178	119 – 149
					24 x 8	106 – 121	610 x 203	158 – 180

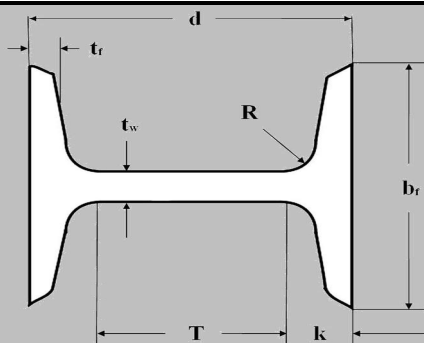


Nominal Shape Dimensions

S12

Comparable Metric Shapes
S310's

Prime Section Group	Section Name	Comparable Metric Section	Weight	Area	Depth	Flange		Web Thickness	Detailing Distance		Fillet Radius
						Width	Thickness		k	T	
						w	A				
in x lbs/ft	mm x kg/m	lbs/ft	in ²	in	in	in	in	in	in		
12 x 5.5	S12 x 50	S310 x 74	50	14.70	12.00	5.477	0.659	0.687	1.288	9.425	0.559
	S12 x 40.8	S310 x 60.7	40.8	12.00	12.00	5.252	0.659	0.462	1.288	9.425	0.559
12 x 5	S12 x 35	S310 x 52	35	10.30	12.00	5.078	0.544	0.428	1.166	9.669	0.559
	S12 x 31.8	S310 x 47.3	31.8	9.35	12.00	5.000	0.544	0.350	1.166	9.669	0.559

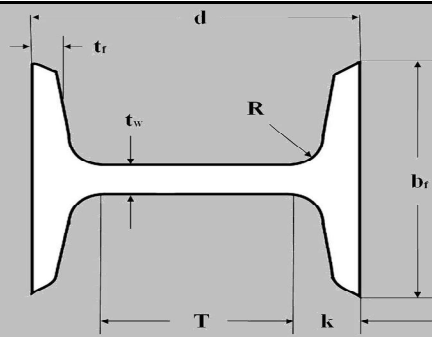


Nominal Shape Dimensions

S15

Comparable Metric Shapes
S380's

Prime Section Group	Section Name	Comparable Metric Section	Weight	Area	Depth	Flange		Web Thickness	Detailing Distance		Fillet Radius
						Width	Thickness		k	T	
						w	A				
in x lbs/ft	mm x kg/m	lbs/ft	in ²	in	in	in	in	in	in		
15 x 5.5	S15 x 50	S380 x 74	50	14.70	15.00	5.640	0.622	0.550	1.172	12.657	0.512
	S15 x 42.9	S380 x 64	42.9	12.60	15.00	5.501	0.622	0.411	1.172	12.657	0.512

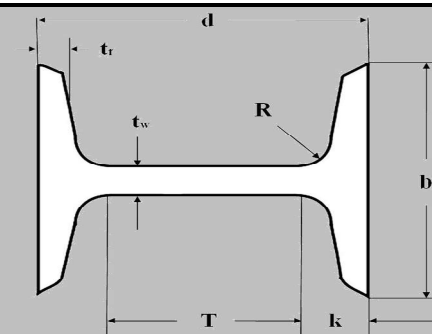


Nominal Shape Dimensions

S18

Comparable Metric Shapes
S460's

Prime Section Group	Section Name	Comparable Metric Section	Weight	Area	Depth	Flange		Web Thickness	Detailing Distance		Fillet Radius
						Width	Thickness		k	T	
						w	A		d	b _f	t _f
	in x lbs/ft	mm x kg/m	lbs/ft	in ²	in	in	in	in	in	in	in
18 x 6	S18 x 70	S460 x 104	70	20.60	18.00	6.251	0.691	0.711	1.360	15.280	0.559
	S18 x 54.7	S460 x 81.4	54.7	16.10	18.00	6.001	0.691	0.461	1.360	15.280	0.559

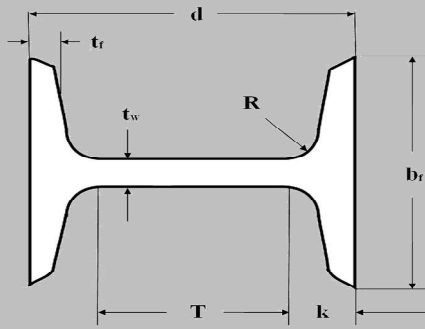


Nominal Shape Dimensions

S20

Comparable Metric Shapes
S510's

Prime Section Group	Section Name	Comparable Metric Section	Weight	Area	Depth	Flange		Web Thickness	Detailing Distance		Fillet Radius
						Width	Thickness		k	T	
						w	A		d	b _f	t _f
	in x lbs/ft	mm x kg/m	lbs/ft	in ²	in	in	in	in	in	in	in
20 x 6.25	S20 x 75	S510 x 112	75	22.00	20.00	6.385	0.795	0.635	1.504	16.993	0.598
	S20 x 66	S510 x 98	66	19.40	20.00	6.255	0.795	0.505	1.504	16.993	0.598
20 x 7	S20 x 96	S510 x 143	96	28.20	20.30	7.200	0.920	0.800	1.681	16.938	0.598
	S20 x 86	S510 x 128	86	25.30	20.30	7.060	0.920	0.660	1.681	16.938	0.598

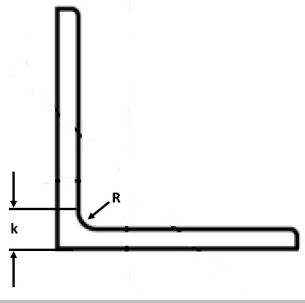


Nominal Shape Dimensions

S24

Comparable Metric Shapes
S610's

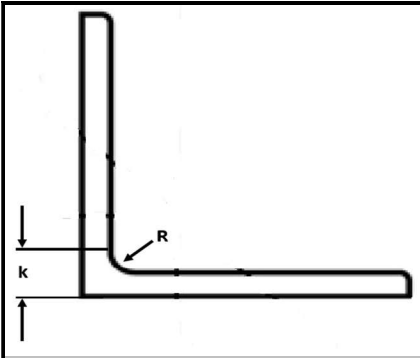
Prime Section Group	Section Name	Comparable Metric Section	Weight	Area	Depth	Flange		Web Thickness	Detailing Distance		Fillet Radius
						Width	Thickness		k	T	R
						w	A				d
in x lbs/ft	mm x kg/m	lbs/ft	in ²	in	in	in	in	in	in	in	
24 x 7	S24 x 100	S610 x 149	100	29.30	24.00	7.245	0.870	0.745	1.590	20.820	0.598
	S24 x 90	S610 x 134	90	26.50	24.00	7.125	0.870	0.625	1.590	20.820	0.598
	S24 x 80	S610 x 119	80	23.50	24.00	7.000	0.870	0.500	1.590	20.820	0.598
24 x 8	S24 x121	S610 x 180	121	35.60	24.50	8.050	1.090	0.800	1.842	20.816	0.598
	S24 x 106	S610 x 158	106	31.20	24.50	7.870	1.090	0.620	1.842	20.816	0.598



L-Shapes

Equal and Unequal

Imperial Sizes		Metric Sizes		Imperial Sizes		Metric Sizes	
Prime Section Group	Thickness range in Group	Prime Section Group	Thickness range in Group	Prime Section Group	Thickness range in Group	Prime Section Group	Thickness range in Group
(in x in)	(in)	(mm x mm)	(mm)	(in x in)	(in)	(mm x mm)	(mm)
5 x 5	5/16 – 7/8	127 x 127	7.9 – 22.2	6 x 4	5/16 – 7/8	152 x 102	7.9 – 22.2
6 x 6	5/16 – 1	152 x 152	7.9 – 25.4	5 x 3	1/4 – 1/2	127 x 76	6.4 – 12.7
8 x 8	1/2 – 1 1/8	203 x 203	12.7 – 28.6	5 x 3 1/2	1/4 – 3/4	127 x 89	6.4 – 19.0
				7 x 4	3/8 – 3/4	178 x 102	9.5 – 19.0
				8 x 4	7/16 – 1	203 x 102	11.1 – 25.4
				8 x 6	7/16 – 1	203 x 152	11.1 – 25.4



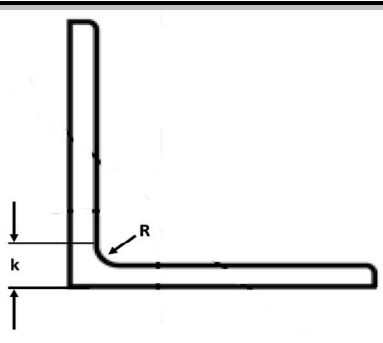
Nominal Shape Dimensions

L5

Comparable Metric Shapes

L127's

Prime Section Group	Section Name	Comparable Metric Section	Weight	Area	Thickness	Detailing Distance	Fillet Radius
			w	A	t _f	k	R
			lbs/ft	in ²	in	in	in
5 x 3	L5 x 3 x 1/2	L127 x 76 x 12.7	12.8	3.75	0.500	0.921	0.421
	L5 x 3 x 7/16	L127 x 76 x 11.1	11.3	3.31	0.438	0.859	0.421
	L5 x 3 x 3/8	L127 x 76 x 9.5	9.8	2.86	0.375	0.796	0.421
	L5 x 3 x 5/16	L127 x 76 x 7.9	8.2	2.40	0.313	0.734	0.421
	L5 x 3 x 1/4	L127 x 76 x 6.4	6.6	1.94	0.250	0.671	0.421
5 x 3-1/2	L5 x 3-1/2 x 3/4	L127 x 89 x 19.0	19.8	5.81	0.750	1.171	0.421
	L5 x 3-1/2 x 5/8	L127 x 89 x 15.9	16.8	4.92	0.625	1.046	0.421
	L5 x 3-1/2 x 1/2	L127 x 89 x 12.7	13.6	4.00	0.500	0.921	0.421
	L5 x 3-1/2 x 3/8	L127 x 89 x 9.5	10.4	3.05	0.375	0.796	0.421
	L5 x 3-1/2 x 5/16	L127 x 89 x 7.9	8.7	2.56	0.313	0.734	0.421
5 x 5	L5 x 5 x 7/8	L127 x 127 x 22.2	27.2	7.98	0.875	1.296	0.421
	L5 x 5 x 3/4	L127 x 127 x 19.0	23.6	6.94	0.750	1.171	0.421
	L5 x 5 x 5/8	L127 x 127 x 15.9	20.0	5.86	0.625	1.046	0.421
	L5 x 5 x 1/2	L127 x 127 x 12.7	16.2	4.75	0.500	0.921	0.421
	L5 x 5 x 7/16	L127 x 127 x 11.1	14.3	4.18	0.438	0.859	0.421
	L5 x 5 x 3/8	L127 x 127 x 9.5	12.3	3.61	0.375	0.796	0.421
	L5 x 5 x 5/16	L127 x 127 x 7.9	10.3	3.03	0.313	0.734	0.421

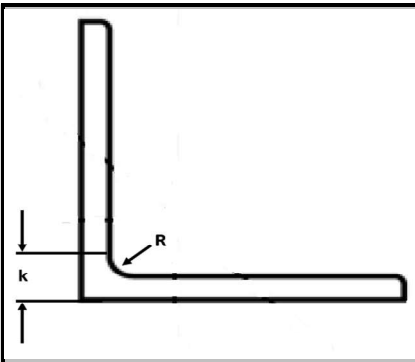


Nominal Shape Dimensions

L6

Comparable Metric Shapes
L152's

Prime Section Group	Section Name	Comparable Metric Section	Weight	Area	Thickness	Detailing Distance	Fillet Radius
			w	A	t _f	k	R
			lbs/ft	in ²	in	in	in
6 x 4	L6 x 4 x 7/8	L152 x102 x 22.2	27.2	7.98	0.875	1.296	0.421
	L6 x 4 x 3/4	L152 x102 x 19.0	23.6	6.94	0.750	1.171	0.421
	L6 x 4 x 5/8	L152 x102 x 15.9	20.0	5.86	0.625	1.046	0.421
	L6 x 4 x 9/16	L152 x102 x 14.3	18.1	5.31	0.563	0.984	0.421
	L6 x 4 x 1/2	L152 x102 x 12.7	16.2	4.75	0.500	0.921	0.421
	L6 x 4 x 7/16	L152 x102 x 11.1	14.3	4.18	0.438	0.859	0.421
	L6 x 4 x 3/8	L152 x102 x 9.5	12.3	3.61	0.375	0.796	0.421
	L6 x 4 x 5/16	L152 x102 x 7.9	10.3	3.03	0.313	0.734	0.421
6 x 6	L6 x 6 x 1	L152 x 152 x 25.4	37.4	11.00	1.000	1.480	0.480
	L6 x 6 x 7/8	L152 x 152 x 22.2	33.1	9.73	0.875	1.355	0.480
	L6 x 6 x 3/4	L152 x 152 x 19.0	28.7	8.44	0.750	1.230	0.480
	L6 x 6 x 5/8	L152 x 152 x 15.9	24.2	7.11	0.625	1.105	0.480
	L6 x 6 x 9/16	L152 x 152 x 14.3	21.9	6.43	0.563	1.043	0.480
	L6 x 6 x 1/2	L152 x 152 x 12.7	19.6	5.75	0.500	0.980	0.480
	L6 x 6 x 7/16	L152 x 152 x 11.1	17.2	5.06	0.438	0.918	0.480
	L6 x 6 x 3/8	L152 x 152 x 9.5	14.9	4.36	0.375	0.855	0.480
	L6 x 6 x 5/16	L152 x 152 x 7.9	12.4	3.65	0.313	0.793	0.480

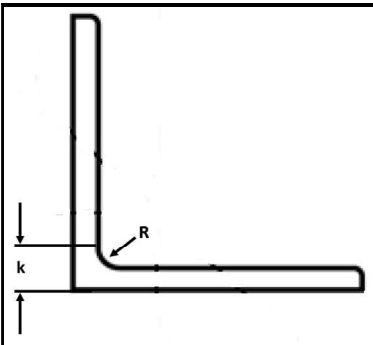


Nominal Shape Dimensions

L7

Comparable Metric Shapes
L178's

Prime Section Group	Section Name in x in x in	Comparable Metric Section mm x mm x mm	Weight	Area	Thickness	Detailing Distance	Fillet Radius
			w	A	t _f	k	R
			lbs/ft	in ²	in	in	in
7 x 4	L7 x 4 x 3/4	L178 x102 x 19.0	26.2	7.69	0.750	1.171	0.421
	L7 x 4 x 5/8	L178 x102 x 15.9	22.1	6.48	0.625	1.046	0.421
	L7 x 4 x 1/2	L178 x102 x 12.7	17.9	5.25	0.500	0.921	0.421
	L7 x 4 x 7/16	L178 x102 x 11.1	15.7	4.62	0.438	0.859	0.421
	L7 x 4 x 3/8	L178 x102 x 9.5	13.6	3.98	0.375	0.796	0.421



Nominal Shape Dimensions

L8

Comparable Metric Shapes
L203's

Prime Section Group	Section Name	Comparable Metric Section	Weight	Area	Thickness	Detailing Distance	Fillet Radius
			w	A	t _f	k	R
			lbs/ft	in ²	in	in	in
8 x 8	L8 x 8 x 1 1/8	L203 x 203 x 28.6	56.9	16.70	1.125	1.625	0.500
	L8 x 8 x 1	L203 x 203 x 25.4	51.0	15.00	1.000	1.500	0.500
	L8 x 8 x 7/8	L203 x 203 x 22.2	45.0	13.20	0.875	1.375	0.500
	L8 x 8 x 3/4	L203 x 203 x 19.0	38.9	11.40	0.750	1.250	0.500
	L8 x 8 x 5/8	L203 x 203 x 15.9	32.7	9.61	0.625	1.125	0.500
	L8 x 8 x 9/16	L203 x 203 x 14.3	29.6	8.68	0.563	1.063	0.500
	L8 x 8 x 1/2	L203 x 203 x 12.7	26.4	7.75	0.500	1.000	0.500
8 x 6	L8 x 6 x 1	L203 x 152 x 25.4	44.2	13.00	1.000	1.480	0.480
	L8 x 6 x 7/8	L203 x 152 x 22.2	39.1	11.50	0.875	1.355	0.480
	L8 x 6 x 3/4	L203 x 152 x 19.0	33.8	9.94	0.750	1.230	0.480
	L8 x 6 x 5/8	L203 x 152 x 15.9	28.5	8.36	0.625	1.105	0.480
	L8 x 6 x 9/16	L203 x 152 x 14.3	25.7	7.56	0.563	1.043	0.480
	L8 x 6 x 1/2	L203 x 152 x 12.7	23.0	6.75	0.500	0.980	0.480
	L8 x 6 x 7/16	L203 x 152 x 11.1	20.2	5.93	0.438	0.918	0.480
8 x 4	L8 x 4 x 1	L203 x 102 x 25.4	37.4	11.00	1.000	1.421	0.421
	L8 x 4 x 7/8	L203 x 102 x 22.2	33.1	9.73	0.875	1.296	0.421
	L8 x 4 x 3/4	L203 x 102 x 19.0	28.7	8.44	0.750	1.171	0.421
	L8 x 4 x 5/8	L203 x 102 x 15.9	24.2	7.11	0.625	1.046	0.421
	L8 x 4 x 9/16	L203 x 102 x 14.3	21.9	6.43	0.563	0.984	0.421
	L8 x 4 x 1/2	L203 x 102 x 12.7	19.6	5.75	0.500	0.921	0.421
	L8 x 4 x 7/16	L203 x 102 x 11.1	17.2	5.06	0.438	0.859	0.421

Rebar



Rebar products are made to ASTM A6, A615 and/or A706. Offering compact spooled coils weighing up to 5.5 tons depending on bar size. Cut length options also available.

BAR DESIGNATION NUMBERS, NOMINAL WEIGHTS, NOMINAL DIMENSIONS, AND DEFORMATION REQUIREMENTS

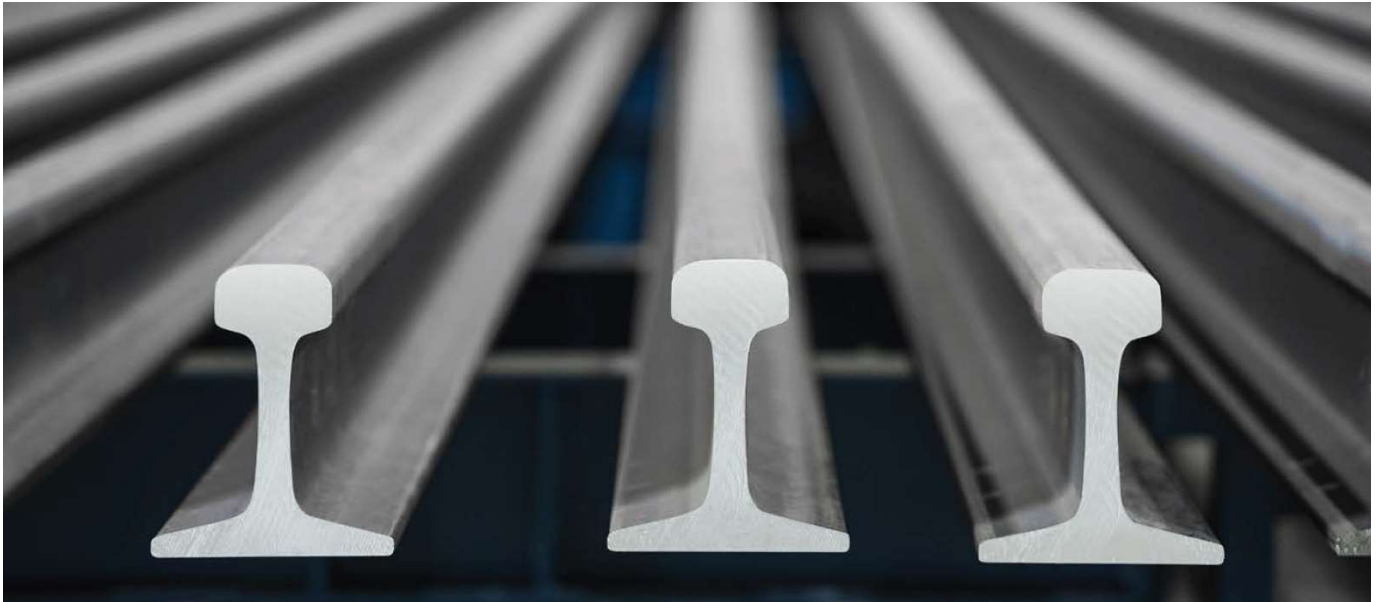
A615 and A706

Bar Designation No. [mm]	Nominal Weight, lb/ft [kg/m]	Nominal Dimensions*			Deformation Requirements, in. [mm]		
		Diameter, in. [mm]	Cross- Sectional Area, in. ² [mm ²]	Perimeter, in. [mm]	Maximum Average Spacing	Minimum Average Spacing	Maximum Gap (Chord of 12.5% of Nominal Perimeter)
3 [10]	0.376 [0.560]	0.375 [9.5]	0.11 [71]	1.178 [29.9]	0.262 [6.7]	0.015 [0.38]	0.143 [3.6]
4 [13]	0.668 [0.994]	0.500 [12.7]	0.20 [129]	1.571 [39.9]	0.350 [8.9]	0.020 [0.51]	0.191 [4.9]
5 [16]	1.043 [1.552]	0.625 [15.9]	0.31 [199]	1.963 [49.9]	0.437 [11.1]	0.028 [0.71]	0.239 [6.1]
6 [19]	1.502 [2.235]	0.750 [19.1]	0.44 [284]	2.356 [59.8]	0.525 [13.3]	0.038 [0.97]	0.286 [7.3]
7 [22]	2.044 [3.042]	0.875 [22.2]	0.60 [387]	2.749 [69.8]	0.612 [15.5]	0.044 [1.12]	0.334 [8.5]
8 [25]	2.670 [3.973]	1.000 [25.4]	0.79 [510]	3.142 [79.8]	0.700 [17.8]	0.050 [1.27]	0.383 [9.7]
9 [29]	3.400 [5.060]	1.128 [28.7]	1.00 [645]	3.544 [90.0]	0.790 [20.1]	0.056 [1.42]	0.431 [10.9]
10 [32]	4.303 [6.404]	1.270 [32.3]	1.27 [819]	3.990 [101.3]	0.889 [22.6]	0.064 [1.63]	0.487 [12.4]

*The nominal dimensions of a deformed bar are equivalent to those of a plain round bar having the same weight [mass] per foot [metre] as the deformed bar.

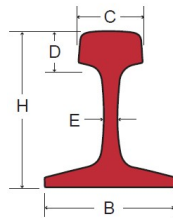
Smooth Rounds: Size (diameter, in.): 3/8 – 1-1/16. Capable of producing to a wide range of chemistries and test requirements, please inquire.

Rail



Standards

AREMA American Railway Engineering Maintenance-of-Way Association, Chapter 4 Rail, Part 1, 2, 3.
Please inquire regarding railroad specific specification compliance.



Section	Specification	Nominal Dimensions					Nominal Area	Nominal Mass
		H	B	C	D	E		
AREMA Standard		in.					in ²	lbs/yd
115 RE	AREMA	6.625	5.5	2.71875	1.6875	0.625	11.2171	114.3757
119 RE	AREMA	6.8125	5.5	2.65625	1.875	0.625	11.6378	118.6657
132 RE	AREMA	7.125	6	3	1.75	0.65625	12.9124	131.6622
136 RE	AREMA	7.3125	6	2.9375	1.9375	0.6875	13.3263	135.8826
141 RE	AREMA	7.4375	6	3.1875	2.15625	0.6875	13.7972	140.7002
European Standard		mm					cm ²	kg/m
60E1	EN	172	150	72	51	16.5	76.7	60.21
Legacy		in.					in ²	lbs/yd
100-8	ARA	5.640625	5.140625	2.65625	1.703125	0.5625	9.7527	99.4658
122 CB	CHESSIE	6.78125	6	2.9375	1.9375	0.65625	12.01	122.5

Semi-finished



Continuous cast semi-finished billets, capable of producing to a wide range of chemistries and test requirements, please inquire.



Billet Size (in. x in.)	A (in.)	B (in.)	Length Range (in.)	Nominal Weight (lb/ft)
7x7	7	7	200 - 585	167
8x8	8	8	200 - 585	215
8x10	8	10	200 - 585	264
10x14	10	14	200 - 585	478

Lengths are flexible, please inquire.

Summary of changes:

2/28/2023: Updated fillet radiuses.

7/14/2023: Updated web address.

4/14/2024: Added W24x279#.