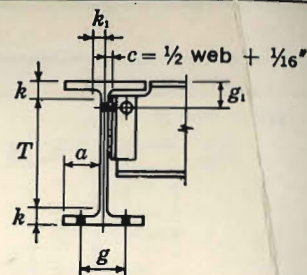




MISCELLANEOUS SHAPES (M) and LIGHT BEAMS (B) Dimensions for detailing



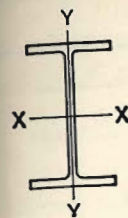
Nominal Size and Designation	Wt per Foot	Depth	Flange		Web		Distance						Max Flg Riv In.	Usual Gage g
			Width	Avg Thk- ness	Thk- ness	Half Thk- ness	a	T	k	k1	g1	c		
In.	Lb	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.
24X7 B	61 55	23 3/4 23 1/2	7 7	9/16 1/2	7/16 3/8	3/16 3/16	3 5/16 3 5/16	21 1/2 21 1/2	1 1/8 1	1 1/16 1 1/16	2 1/2 2 1/2	1/4 1/4	1 1	3 1/2 3 1/2
21X6 1/2 B	49 44	20 7/8 20 5/8	6 1/2 6 1/2	9/16 7/16	3/8 3/8	3/16 3/16	3 1/16 3 1/16	18 3/4 18 3/4	1 1/16 1 1/16	1 1/16 1 1/16	2 1/2 2 1/2	1/4 1/4	7/8 7/8	3 1/2 3 1/2
18X6 B	40 35	17 7/8 17 3/4	6 6	1/2 7/16	5/16 5/16	3/16 1/8	2 7/8 2 7/8	16 16	1 5/16 7/8	9/16 9/16	2 1/2 2 1/4	1/4 3/16	7/8 7/8	3 1/2 3 1/2
16X5 1/2 B	31 26	15 7/8 15 5/8	5 1/2 5 1/2	7/16 3/8	1/4 1/4	1/8 1/8	2 5/8 2 5/8	14 14	1 5/16 1 1/16	9/16 9/16	2 1/2 2 1/2	3/16 3/16	7/8 7/8	2 3/4 2 3/4
14X5 B	26 22	13 7/8 13 3/4	5 5	7/16 5/16	1/4 1/4	1/8 1/8	2 3/8 2 3/8	12 1/8 12 1/8	7/8 1 1/16	9/16 9/16	2 1/4 2 1/4	3/16 3/16	7/8 7/8	2 3/4 2 3/4
14X4 B	17.2	14	4	1/4	3/16	1/8	1 7/8	12 7/8	9/16	7/16	2	3/16	3/4	2 1/4
12X4 B	22 19 16.5 14	12 1/4 12 1/8 12 11 7/8	4 4 4 4	7/16 3/8 1/4 1/4	1/4 1/4 1/4 1/4	1/8 1/8 1/8 1/8	1 7/8 1 7/8 1 7/8 1 7/8	10 3/4 10 3/4 10 3/4 10 3/4	3/4 1 1/16 1 1/16 1 1/16	7/16 7/16 7/16 7/16	2 1/4 2 1/4 2 2	3/16 3/16 3/16 3/16	3/4 3/4 3/4 3/4	2 1/4 2 1/4 2 1/4 2 1/4
10X5 3/4 M	29.1 22.9 21	9 7/8 9 7/8 9 15/16	5 15/16 5 3/4 5 3/4	3/8 3/8 3/8	7/16 1/4 1/4	3/16 1/8 1/8	2 3/4 2 3/4 2 3/4	8 1/4 8 1/4 8 7/8	1 3/16 1 1/16 3/4	5/8 9/16 ...	2 1/4 2 1/4 2 1/4	1/4 3/16 3/16	7/8 7/8 7/8	2 3/4 2 3/4 2 3/4
10X4 B	19 17 15 11.5	10 1/4 10 1/8 10 9 7/8	4 4 4 4	3/8 1/4 1/4 3/16	1/4 1/4 1/4 3/16	1/8 1/8 1/8 1/8	1 7/8 1 7/8 1 7/8 1 7/8	8 7/8 8 7/8 8 7/8 8 7/8	1 1/16 3/8 9/16 1/2	7/16 7/16 7/16 7/16	2 1/4 2 2 2	3/16 3/16 3/16 3/16	3/4 3/4 3/4 3/4	2 1/4 2 1/4 2 1/4 2 1/4
8X6 1/2 M	28 24	8 8	6 5/8 6 1/2	3/8 3/8	3/8 1/4	3/16 1/8	3 1/8 3 1/8	6 1/4 6 1/4	7/8 7/8	...	2 1/4 2 1/4	1/4 3/16	7/8 7/8	3 1/2 3 1/2
8X5 1/4 M	22.5 20 18.5 17	8 8 8 8	5 3/8 5 3/8 5 1/4 5 1/4	3/8 3/16 3/8 5/16	3/8 3/8 1/4 1/4	3/16 3/16 1/8 1/8	2 1/2 2 1/2 2 1/2 2 1/2	6 1/2 6 3/8 6 1/2 6 3/8	3/4 1 1/16 1/2 1 1/16	9/16 7/16 ...	2 1/4 2 2 1/4 2	1/4 1/4 3/16 3/16	7/8 7/8 7/8 7/8	2 3/4 2 3/4 2 3/4 2 3/4
8X4 B	15 13 10	8 1/8 8 7 7/8	4 4 4	5/16 1/4 3/16	1/4 1/4 3/16	1/8 1/8 1/8	1 7/8 1 7/8 1 7/8	6 3/8 6 7/8 6 3/8	3/8 9/16 1/2	7/16 7/16 7/16	2 2 2	3/16 3/16 3/16	3/4 3/4 3/4	2 1/4 2 1/4 2 1/4
6X4 B	16 12 8.5	6 1/4 6 5 7/8	4 4 4	3/8 1/4 3/16	1/4 1/4 3/16	1/8 1/8 1/8	1 7/8 1 7/8 1 7/8	4 7/8 4 7/8 5	1 1/16 9/16 7/16	3/8 3/8 3/8	2 1/4 2 2	3/16 3/16 3/16	3/4 3/4 3/4	2 1/4 2 1/4 2 1/4

Gage g permissible near beam ends; elsewhere Spec may require reduction in flange size.



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MISCELLANEOUS SHAPES (M) and LIGHT BEAMS (B) Properties for designing



Weight per Foot	Area	Depth	Flange		Web Thick- ness	$\frac{d}{A_f}$	AXIS X-X			AXIS Y-Y		
			Width	Average Thick- ness			I	S	r	I	S	r
Lb.	In. ²	In.	In.	In.	In.	In. ⁴	In. ³	In.	In. ⁴	In. ³	In.	
61 55	17.95 16.17	23.72 23.55	7.023 7.000	.591 .503	.419 .396	5.71 6.69	1535.8 1338.2	129.5 113.7	9.25 9.10	34.0 28.7	9.69 8.19	1.38 1.33
49 44	14.42 12.95	20.82 20.66	6.520 6.500	.532 .451	.368 .348	6.00 7.05	970.3 842.1	93.2 81.5	8.20 8.06	24.5 20.6	7.52 6.33	1.30 1.26
40 35	11.76 10.30	17.90 17.71	6.018 6.000	.524 .429	.316 .298	5.68 6.88	611.3 512.3	68.3 57.9	7.21 7.05	19.0 15.4	6.30 5.12	1.27 1.22
31 26	9.12 7.65	15.84 15.65	5.525 5.500	.442 .345	.275 .250	6.49 8.25	372.5 298.1	47.0 38.1	6.39 6.24	11.57 8.71	4.19 3.17	1.13 1.07
26 22	7.65 6.47	13.89 13.72	5.025 5.000	.418 .335	.255 .230	6.61 8.19	242.6 197.4	34.9 28.8	5.63 5.52	8.26 6.40	3.29 2.56	1.04 .99
17.2	5.05	14.00	4.000	.272	.210	12.9	147.3	21.0	5.40	2.65	1.32	.72
22 19 16.5 14	6.47 5.62 4.86 4.14	12.31 12.16 12.00 11.91	4.030 4.010 4.000 3.970	.424 .349 .269 .224	.260 .240 .230 .200	7.20 8.69 11.2 13.4	155.7 130.1 105.3 88.2	25.3 21.4 17.5 14.8	4.91 4.81 4.65 4.61	4.55 3.67 2.79 2.25	2.26 1.83 1.39 1.13	.84 .81 .76 .74
129.1 122.9 121	8.55 6.73 6.10	9.88 9.88 9.90	5.935 5.750 5.750	.389 .389 .338	.425 .240 .240	4.28 4.42 5.09	131.5 116.6 104.4	26.6 23.6 21.1	3.92 4.16 4.14	11.2 9.9 9.2	3.7 3.5 3.2	1.14 1.22 1.22
19 17 15 11.5	5.61 4.98 4.40 3.39	10.25 10.12 10.00 9.87	4.020 4.010 4.000 3.950	.394 .329 .269 .204	.250 .240 .230 .180	6.47 7.67 9.29 12.3	96.2 81.8 68.8 51.9	18.8 16.2 13.8 10.5	4.14 4.05 3.95 3.92	4.19 3.45 2.79 2.01	2.08 1.72 1.39 1.02	.86 .83 .80 .77
128 124	8.23 7.06	8.00 8.00	6.650 6.500	.398 .398	.390 .240	3.02 3.09	90.1 83.8	22.5 21.0	3.31 3.45	17.73 16.52	5.33 5.08	1.47 1.53
122.5 120 118.5 117	6.61 5.88 5.44 5.00	8.00 8.00 8.00 8.00	5.395 5.360 5.250 5.250	.352 .305 .352 .305	.375 .350 .230 .240	4.21 4.89 4.33 5.00	68.3 60.7 62.1 56.0	17.1 15.2 15.5 14.0	3.23 3.22 3.38 3.35	7.5 6.6 6.9 6.16	2.8 2.46 2.6 2.35	1.08 1.06 1.13 1.11
15 13 110	4.43 3.82 2.95	8.12 8.00 7.90	4.015 4.000 3.940	.314 .254 .204	.245 .230 .170	6.44 7.87 9.83	48.0 39.5 30.8	11.8 9.88 7.79	3.29 3.21 3.23	3.30 2.62 1.99	1.65 1.31 1.01	.86 .83 .82
16 12 8.5	4.72 3.53 2.50	6.25 6.00 5.83	4.030 4.000 3.940	.404 .279 .194	.260 .230 .170	3.84 5.38 7.63	31.7 21.7 14.8	10.1 7.24 5.07	2.59 2.48 2.43	4.32 2.89 1.89	2.14 1.44 .96	.96 .90 .87

†Non-compact shape in A36, A242, A440 and A441.
‡Non-compact shape in A242, A440 and A441.



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