

1948

HOT ROLLED CARBON STEEL STRUCTURAL SHAPES



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UNITED STATES STEEL

B136

HOT ROLLED CARBON STEEL STRUCTURAL SHAPES



*Approved By National Bureau
of Standards R216-46,
February 15, 1946*

SUPPLEMENTARY INFORMATION

- Structural Tees Cut from Beams
- Plate Size Limitation Tables
- Floor Plates
- Steel Sheet Piling
- Bearing Piles
- Crane Rails
- Corrugated Sheeting
- Standard Mill Practices

CARNEGIE-ILLINOIS STEEL CORPORATION . Pittsburgh and Chicago

COLUMBIA STEEL COMPANY San Francisco

TENNESSEE COAL, IRON & RAILROAD COMPANY . Birmingham

UNITED STATES STEEL EXPORT COMPANY
Export Distributors — New York

UNITED STATES STEEL SUPPLY COMPANY
Warehouse Distributors — Chicago

UNITED STATES STEEL

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SPLIT

CAR
SECTIONS

CRANE
RAILS

CORRUG.
SHEETS

PILING

FLOOR
PLATES

PLATES

MILL
PRACTICES

INDEX

CARNEGIE-ILLINOIS STEEL CORPORATION
Pittsburgh, Pa. — Chicago, Ill.

TENNESSEE COAL, IRON AND RAILROAD COMPANY
Birmingham, Ala.

COLUMBIA STEEL COMPANY
San Francisco, Cal.

Foreword

IN COMPLIANCE with the recommendation of the U. S. Department of Commerce, National Bureau of Standards, this publication provides data pertaining to Simplified Practice Recommendation R216-46 for Hot Rolled Carbon Steel Structural Shapes and includes nominal dimensions, weights, properties and dimensions for detailing.

Data pertaining to other rolled products in common use by designers and fabricators are included as a matter of ready reference.

This publication supersedes earlier U.S.S. publications Simplified Structural Steel Shapes, Structural Sections and Pocket Companion.

This edition is issued jointly by

CARNEGIE-ILLINOIS STEEL CORPORATION
TENNESSEE COAL, IRON AND RAILROAD COMPANY
COLUMBIA STEEL COMPANY

Each company sells all the products listed, regardless of where produced.

The following symbols used with the sections indicate in which district or districts they are produced.

- P. Produced in Pittsburgh district of Carnegie-Illinois Steel Corporation.
- C. Produced in Chicago district of Carnegie-Illinois Steel Corporation.
- B. Produced in Birmingham district by Tennessee Coal, Iron and Railroad Company.
- S. Produced in Pacific Coast district by Columbia Steel Company.
- G. Produced in Geneva district by Geneva Steel Company.

SECTIONS OBTAINABLE IN USS HIGH-STRENGTH LOW-ALLOY STEELS

All the structural and car building sections shown in this publication except CB-362 and unequal angle A645 (2" x 1 1/4") can be furnished in U.S.S. High-Strength, Low-Alloy Steels. Sections in U.S.S. High-Strength, Low-Alloy Steels are not produced in all districts which produce the same sections in carbon steel. Consult the District Sales Office regarding the plant from which specific sections can be furnished.

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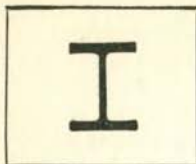
PILING

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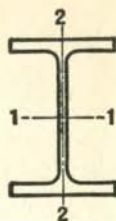
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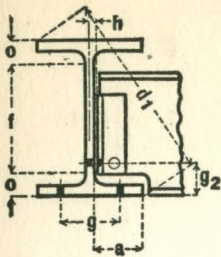
WIDE FLANGE CB SECTIONS

PROPERTIES OF SECTIONS

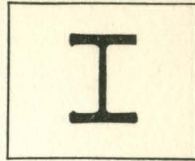


District Rolled	Section Index and Nominal Size	Weight per Foot	Area of Section	Depth of Section	Flange		Web Thickness	Axis 1-1			Axis 2-2		
					Width	Thickness		I	S	r	I	S	r
P. C.	36" WF	300	88.17	36.72	16.655	1.680	.945	20290.2	1105.1	15.17	1225.2	147.1	3.73
	CB 362	280	82.32	36.50	16.595	1.570	.885	18819.3	1031.2	15.12	1127.5	135.9	3.70
	36 x 16½	260	76.56	36.24	16.555	1.440	.845	17233.8	951.1	15.00	1020.6	123.3	3.65
	R=1.02	245	72.03	36.06	16.512	1.350	.802	16092.2	892.5	14.95	944.7	114.4	3.62
		230	67.73	35.88	16.475	1.260	.765	14988.4	835.5	14.88	870.9	105.7	3.59
P. C.	36" WF	194	57.11	36.48	12.117	1.260	.770	12103.4	663.6	14.56	355.4	58.7	2.49
	CB 361	182	53.54	36.32	12.072	1.180	.725	11281.5	621.2	14.52	327.7	54.3	2.47
	36 x 12	170	49.98	36.16	12.027	1.100	.680	10470.0	579.1	14.47	300.6	50.0	2.45
	R=.80	160	47.09	36.00	12.000	1.020	.653	9738.8	541.0	14.38	275.4	45.9	2.42
	150	44.16	35.84	11.972	.940	.625	9012.1	502.9	14.29	250.4	41.8	2.38	
P. C.	33" WF	240	70.52	33.50	15.865	1.400	.830	13585.1	811.1	13.88	874.3	110.2	3.52
	CB 332	220	64.73	33.25	15.810	1.275	.775	12312.1	740.6	13.79	782.4	99.0	3.48
	33 x 15¼	200	58.79	33.00	15.750	1.150	.715	11048.2	669.6	13.71	691.7	87.8	3.43
	R=.96												
P. C.	33" WF	152	44.71	33.50	11.565	1.055	.635	8147.6	486.4	13.50	256.1	44.3	2.39
	CB 331	141	41.51	33.31	11.535	.960	.605	7442.2	446.8	13.39	229.7	39.8	2.35
	33 x 11½	130	38.26	33.10	11.510	.855	.580	6699.0	404.8	13.23	201.4	35.0	2.29
	R=.75												
P. C.	30" WF	210	61.78	30.38	15.105	1.315	.775	9872.4	649.9	12.64	707.9	93.7	3.38
	CB 302	190	55.90	30.12	15.040	1.185	.710	8825.9	586.1	12.57	624.6	83.1	3.34
	30 x 15	172	50.65	29.88	14.985	1.065	.655	7891.5	528.2	12.48	550.1	73.4	3.30
	R=.91												
P. C.	30" WF	132	38.83	30.30	10.551	1.000	.615	5753.1	379.7	12.17	185.0	35.1	2.18
	CB 301	124	36.45	30.16	10.521	.930	.585	5347.1	354.6	12.11	169.7	32.3	2.16
	30 x 10½	116	34.13	30.00	10.500	.850	.564	4919.1	327.9	12.00	153.2	29.2	2.12
	R=.70	108	31.77	29.82	10.484	.760	.548	4461.0	299.2	11.85	135.1	25.8	2.06
P. C.	27" WF	177	52.10	27.31	14.090	1.190	.725	6728.6	492.8	11.36	518.9	73.7	3.16
	CB 272	160	47.04	27.08	14.023	1.075	.658	6018.6	444.5	11.31	458.0	65.3	3.12
	27 x 14	145	42.68	26.88	13.965	.975	.600	5414.3	402.9	11.26	406.9	58.3	3.09
	R=.86												
P. C.	27" WF	114	33.53	27.28	10.070	.932	.570	4080.5	299.2	11.03	149.6	29.7	2.11
	CB 271	102	30.01	27.07	10.018	.827	.518	3604.1	266.3	10.96	129.5	25.9	2.08
	27 x 10	94	27.65	26.91	9.990	.747	.490	3266.7	242.8	10.87	115.1	23.0	2.04
	R=.64												

For key to symbols in first column, refer to page 3.



WIDE FLANGE CB SECTIONS DIMENSIONS OF SECTIONS



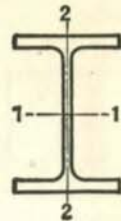
Section Index and Nominal Depth	Weight per Foot	Depth of Section	Flange		Web		Distance					Usual Gage σ	
			Width	Thick-ness	Thick-ness	Half Thick-ness	a	f	o	d_1	Min. σ_2		Clear. h
	Lbs.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.
36" WF CB 362 36 x 16 1/2 R=1.02	300	36 3/4	16 5/8	1 1/16	1 5/16	1/2	7 7/8	31 1/8	2 13/16	40 3/8	4	9/16	5 1/2
	280	36 1/2	16 5/8	1 1/16	1 7/8	7/8	7 7/8	31 1/8	2 1/16	40 1/8	4	1/2	5 1/2
	260	36 1/4	16 1/2	1 7/8	1 7/8	7/8	7 7/8	31 1/8	2 7/16	39 7/8	3 3/4	1/2	5 1/2
	245	36	16 1/2	1 3/8	1 3/16	3/8	7 7/8	31 1/8	2 7/16	39 3/4	3 3/4	7/16	5 1/2
	230	35 7/8	16 1/2	1 3/4	3/4	3/8	7 7/8	31 1/8	2 3/8	39 1/2	3 1/2	7/16	5 1/2
36" WF CB 361 36 x 12 R=.80	194	36 1/2	12 3/8	1 3/4	1 3/16	3/8	5 5/8	32 1/4	2 3/8	38 1/2	3 1/4	7/16	5 1/2
	182	36 3/8	12 1/8	1 3/16	3/4	3/8	5 5/8	32 1/4	2 1/16	38 3/8	3 1/4	7/16	5 1/2
	170	36 1/8	12	1 1/8	1 1/16	3/8	5 5/8	32 1/4	1 15/16	38 1/8	3 1/4	7/16	5 1/2
	160	36	12	1	1 1/16	5/16	5 5/8	32 1/4	1 7/8	38	3	3/8	5 1/2
	150	35 7/8	12	1 5/16	5/8	5/16	5 5/8	32 1/4	1 13/16	37 7/8	3	3/8	5 1/2
33" WF CB 332 33 x 15 3/4 R=.96	240	33 1/2	15 7/8	1 3/8	7/8	7/16	7 1/2	28 5/8	2 7/16	37 7/8	3 3/4	1/2	5 1/2
	220	33 1/4	15 3/4	1 1/4	1 3/16	3/8	7 1/2	28 5/8	2 9/16	36 7/8	3 1/2	7/16	5 1/2
	200	33	15 3/4	1 3/8	3/4	3/8	7 1/2	28 5/8	2 3/16	36 5/8	3 1/2	7/16	5 1/2
33" WF CB 331 33 x 11 1/2 R=.75	152	33 1/2	11 5/8	1 1/16	5/8	5/16	5 1/2	29 3/4	1 7/8	35 1/2	3	3/8	5 1/2
	141	33 1/4	11 1/2	1 5/16	5/8	5/16	5 1/2	29 3/4	1 3/4	35 1/4	3	3/8	5 1/2
	130	33 3/8	11 1/2	7/8	9/16	5/16	5 1/2	29 3/4	1 11/16	35 1/8	3	3/8	5 1/2
30" WF CB 302 30 x 15 R=.91	210	30 3/8	15 1/8	1 5/16	1 3/16	3/8	7 1/8	25 3/4	2 5/16	34	3 1/2	7/16	5 1/2
	190	30 1/8	15	1 3/16	3/4	3/8	7 1/8	25 3/4	2 9/16	33 3/4	3 1/2	7/16	5 1/2
	172	29 7/8	15	1 1/16	1 1/16	5/16	7 1/8	25 3/4	2 1/16	33 1/2	3 1/4	3/8	5 1/2
30" WF CB 301 30 x 10 1/2 R=.70	132	30 1/4	10 1/2	1	5/8	5/16	5	26 7/8	1 11/16	32 1/8	3	3/8	5 1/2
	124	30 1/8	10 1/2	1 5/16	5/8	5/16	5	26 7/8	1 5/8	31 7/8	3	3/8	5 1/2
	116	30	10 1/2	7/8	9/16	5/16	5	26 7/8	1 9/16	31 3/4	2 3/4	3/8	5 1/2
	108	29 7/8	10 1/2	3/4	9/16	5/16	5	26 7/8	1 1/2	31 5/8	2 3/4	3/8	5 1/2
27" WF CB 272 27 x 14 R=.86	177	27 1/4	14 3/8	1 3/16	3/4	3/8	6 3/4	23	2 3/8	30 3/4	3 1/4	7/16	5 1/2
	160	27 1/8	14	1 1/16	1 1/16	5/16	6 3/4	23	2 1/16	30 1/2	3 1/4	3/8	5 1/2
	145	26 7/8	14	1	5/8	5/16	6 3/4	23	1 15/16	30 3/8	3 1/4	3/8	5 1/2
27" WF CB 271 27 x 10 R=.64	114	27 1/4	10 3/8	1 5/16	9/16	5/16	4 3/4	24	1 5/8	29 1/8	2 3/4	3/8	5 1/2
	102	27 1/8	10	1 3/16	1 1/2	1/4	4 3/4	24	1 9/16	28 7/8	2 3/4	5/16	5 1/2
	94	26 7/8	10	3/4	1 1/2	1/4	4 3/4	24	1 1/16	28 3/4	2 3/4	5/16	5 1/2

Gages g_2 are based on 1 1/4" edge distance (7/8" maximum rivet).



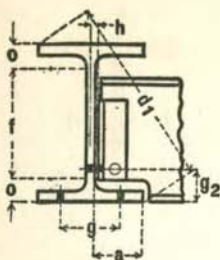


WIDE FLANGE CB SECTIONS PROPERTIES OF SECTIONS

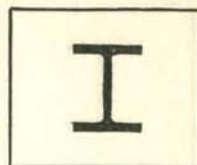


District Rolled	Section Index and Nominal Size	Weight per Foot	Area of Section	Depth of Section	Flange		Web Thickness	Axis 1-1			Axis 2-2		
					Width	Thick-ness		I	S	r	I	S	r
P. C.	24" WF	160	47.04	24.72	14.091	1.135	.656	5110.3	413.5	10.42	492.6	69.9	3.23
	CB 243	145	42.62	24.49	14.043	1.020	.608	4561.0	372.5	10.34	434.3	61.8	3.19
	24 x 14 R=.70	130	38.21	24.25	14.000	.900	.565	4009.5	330.7	10.24	375.2	53.6	3.13
P. C.	24" WF	120	35.29	24.31	12.088	.930	.556	3635.3	299.1	10.15	254.0	42.0	2.68
	CB 242	110	32.36	24.16	12.042	.855	.510	3315.0	274.4	10.12	229.1	38.0	2.66
	24 x 12 R=.70	100	29.43	24.00	12.000	.775	.468	2987.3	248.9	10.08	203.5	33.9	2.63
P. C.	24" WF	94	27.63	24.29	9.061	.872	.516	2683.0	220.9	9.85	102.2	22.6	1.92
	CB 241	84	24.71	24.09	9.015	.772	.470	2364.3	196.3	9.78	88.3	19.6	1.89
	24 x 9 R=.54	76	22.37	23.91	8.985	.682	.440	2096.4	175.4	9.68	76.5	17.0	1.85
P. C.	21" WF	142	41.76	21.46	13.132	1.095	.659	3403.1	317.2	9.03	385.9	58.8	3.04
	CB 213	127	37.34	21.24	13.061	.985	.588	3017.2	284.1	8.99	338.6	51.8	3.01
	21 x 13 R=.65	112	32.93	21.00	13.000	.865	.527	2620.6	249.6	8.92	289.7	44.6	2.96
P. C.	21" WF	96	28.21	21.14	9.038	.935	.575	2088.9	197.6	8.60	109.3	24.2	1.97
	CB 212	82	24.10	20.86	8.962	.795	.499	1752.4	168.0	8.53	89.6	20.0	1.93
	21 x 9 R=.65												
P. C.	21" WF	73	21.46	21.24	8.295	.740	.455	1600.3	150.7	8.64	66.2	16.0	1.76
	CB 211	68	20.02	21.13	8.270	.685	.430	1478.3	139.9	8.59	60.4	14.6	1.74
	21 x 8 1/4 R=.54	62	18.23	20.99	8.240	.615	.400	1326.8	126.4	8.53	53.1	12.9	1.71
P. C.	18" WF	114	33.51	18.48	11.833	.991	.595	2033.8	220.1	7.79	255.6	43.2	2.76
	CB 183	105	30.86	18.32	11.792	.911	.554	1852.5	202.2	7.75	231.0	39.2	2.73
	18 x 11 3/4 R=.60	96	28.22	18.16	11.750	.831	.512	1674.7	184.4	7.70	206.8	35.2	2.71
P. C.	18" WF	85	24.97	18.32	8.838	.911	.526	1429.9	156.1	7.57	99.4	22.5	2.00
	CB 182	77	22.63	18.16	8.787	.831	.475	1286.8	141.7	7.54	88.6	20.2	1.98
	18 x 8 3/4 R=.60	70	20.56	18.00	8.750	.751	.438	1153.9	128.2	7.49	78.5	17.9	1.95
P. C.	18" WF	60	17.64	18.25	7.558	.695	.416	984.0	107.8	7.47	47.1	12.5	1.63
	CB 181	55	16.19	18.12	7.532	.630	.390	889.9	98.2	7.41	42.0	11.1	1.61
	18 x 7 1/2 R=.43	50	14.71	18.00	7.500	.570	.358	800.6	89.0	7.38	37.2	9.9	1.59

For key to symbols in first column, refer to page 3.



WIDE FLANGE CB SECTIONS DIMENSIONS OF SECTIONS



Section Index and Nominal Depth	Weight per Foot	Depth of Section	Flange		Web		Distance					Usual Gage σ	
			Width	Thickness	Thickness	Half Thickness	a	f	o	d_1	Min. g_2		Clear. h
	Lbs.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.
24" WF CB 243	160	24 $\frac{3}{4}$	14 $\frac{1}{8}$	1 $\frac{1}{8}$	1 $\frac{1}{16}$	5 $\frac{1}{16}$	6 $\frac{3}{4}$	20 $\frac{3}{4}$	2	28 $\frac{1}{2}$	3 $\frac{1}{4}$	3 $\frac{1}{8}$	5 $\frac{1}{2}$
24 x 14 R=.70	145	24 $\frac{1}{2}$	14	1	5 $\frac{1}{8}$	5 $\frac{1}{16}$	6 $\frac{3}{4}$	20 $\frac{3}{4}$	1 $\frac{7}{8}$	28 $\frac{1}{4}$	3 $\frac{1}{4}$	3 $\frac{1}{8}$	5 $\frac{1}{2}$
	130	24 $\frac{1}{4}$	14	7 $\frac{1}{8}$	9 $\frac{1}{16}$	5 $\frac{1}{16}$	6 $\frac{3}{4}$	20 $\frac{3}{4}$	1 $\frac{3}{4}$	28	3	3 $\frac{1}{8}$	5 $\frac{1}{2}$
24" WF CB 242	120	24 $\frac{1}{4}$	12 $\frac{7}{8}$	1 $\frac{5}{16}$	9 $\frac{1}{16}$	5 $\frac{1}{16}$	5 $\frac{3}{4}$	20 $\frac{7}{8}$	1 $\frac{1}{16}$	27 $\frac{1}{8}$	3	3 $\frac{1}{8}$	5 $\frac{1}{2}$
24 x 12 R=.70	110	24 $\frac{1}{8}$	12	7 $\frac{1}{8}$	1 $\frac{1}{2}$	1 $\frac{1}{4}$	5 $\frac{3}{4}$	20 $\frac{7}{8}$	1 $\frac{5}{8}$	27	2 $\frac{3}{4}$	5 $\frac{1}{16}$	5 $\frac{1}{2}$
	100	24	12	3 $\frac{1}{4}$	1 $\frac{1}{2}$	1 $\frac{1}{4}$	5 $\frac{3}{4}$	20 $\frac{7}{8}$	1 $\frac{9}{16}$	26 $\frac{7}{8}$	2 $\frac{3}{4}$	5 $\frac{1}{16}$	5 $\frac{1}{2}$
24" WF CB 241	94	24 $\frac{1}{4}$	9	7 $\frac{1}{8}$	9 $\frac{1}{16}$	1 $\frac{1}{4}$	4 $\frac{1}{4}$	21 $\frac{3}{8}$	1 $\frac{7}{16}$	25 $\frac{7}{8}$	2 $\frac{3}{4}$	5 $\frac{1}{16}$	5 $\frac{1}{2}$
24 x 9 R=.54	84	24 $\frac{1}{8}$	9	3 $\frac{1}{4}$	1 $\frac{1}{2}$	1 $\frac{1}{4}$	4 $\frac{1}{4}$	21 $\frac{3}{8}$	1 $\frac{3}{8}$	25 $\frac{3}{4}$	2 $\frac{3}{4}$	5 $\frac{1}{16}$	5 $\frac{1}{2}$
	76	23 $\frac{7}{8}$	9	1 $\frac{1}{16}$	7 $\frac{1}{16}$	1 $\frac{1}{4}$	4 $\frac{1}{4}$	21 $\frac{3}{8}$	1 $\frac{1}{4}$	25 $\frac{5}{8}$	2 $\frac{1}{2}$	5 $\frac{1}{16}$	5 $\frac{1}{2}$
21" WF CB 213	142	21 $\frac{1}{2}$	13 $\frac{1}{8}$	1 $\frac{1}{8}$	1 $\frac{1}{16}$	3 $\frac{1}{8}$	6 $\frac{1}{4}$	17 $\frac{3}{4}$	1 $\frac{7}{8}$	25 $\frac{1}{4}$	3	7 $\frac{1}{16}$	5 $\frac{1}{2}$
21 x 13 R=.65	127	21 $\frac{1}{4}$	13	1	9 $\frac{1}{16}$	5 $\frac{1}{16}$	6 $\frac{1}{4}$	17 $\frac{3}{4}$	1 $\frac{3}{4}$	25	3	3 $\frac{1}{8}$	5 $\frac{1}{2}$
	112	21	13	7 $\frac{1}{8}$	9 $\frac{1}{16}$	1 $\frac{1}{4}$	6 $\frac{1}{4}$	17 $\frac{3}{4}$	1 $\frac{5}{8}$	24 $\frac{3}{4}$	3	5 $\frac{1}{16}$	5 $\frac{1}{2}$
21" WF CB 212	96	21 $\frac{1}{8}$	9	1 $\frac{5}{16}$	9 $\frac{1}{16}$	5 $\frac{1}{16}$	4 $\frac{1}{4}$	18	1 $\frac{9}{16}$	23	2 $\frac{3}{4}$	3 $\frac{1}{8}$	5 $\frac{1}{2}$
21 x 9 R=.65	82	20 $\frac{7}{8}$	9	1 $\frac{3}{16}$	1 $\frac{1}{2}$	1 $\frac{1}{4}$	4 $\frac{1}{4}$	18	1 $\frac{7}{16}$	22 $\frac{3}{4}$	2 $\frac{3}{4}$	5 $\frac{1}{16}$	5 $\frac{1}{2}$
21" WF CB 211	73	21 $\frac{1}{4}$	8 $\frac{1}{4}$	3 $\frac{1}{4}$	1 $\frac{1}{2}$	1 $\frac{1}{4}$	4	18 $\frac{5}{8}$	1 $\frac{1}{16}$	22 $\frac{7}{8}$	2 $\frac{1}{2}$	5 $\frac{1}{16}$	5 $\frac{1}{2}$
21 x 8 $\frac{1}{4}$ R=.54	68	21 $\frac{1}{8}$	8 $\frac{1}{4}$	1 $\frac{1}{16}$	7 $\frac{1}{16}$	1 $\frac{1}{4}$	4	18 $\frac{5}{8}$	1 $\frac{1}{4}$	22 $\frac{3}{4}$	2 $\frac{1}{2}$	5 $\frac{1}{16}$	5 $\frac{1}{2}$
	62	21	8 $\frac{1}{4}$	5 $\frac{1}{8}$	3 $\frac{1}{8}$	3 $\frac{1}{16}$	4	18 $\frac{5}{8}$	1 $\frac{1}{16}$	22 $\frac{5}{8}$	2 $\frac{1}{2}$	1 $\frac{1}{4}$	5 $\frac{1}{2}$
18" WF CB 183	114	18 $\frac{1}{2}$	11 $\frac{7}{8}$	1	5 $\frac{1}{8}$	5 $\frac{1}{16}$	5 $\frac{5}{8}$	15 $\frac{1}{8}$	1 $\frac{1}{16}$	22	3	3 $\frac{1}{8}$	5 $\frac{1}{2}$
18 x 11 $\frac{3}{4}$ R=.60	105	18 $\frac{3}{8}$	11 $\frac{3}{4}$	1 $\frac{1}{16}$	9 $\frac{1}{16}$	5 $\frac{1}{16}$	5 $\frac{5}{8}$	15 $\frac{1}{8}$	1 $\frac{5}{8}$	21 $\frac{7}{8}$	2 $\frac{3}{4}$	3 $\frac{1}{8}$	5 $\frac{1}{2}$
	96	18 $\frac{1}{8}$	11 $\frac{3}{4}$	1 $\frac{1}{16}$	1 $\frac{1}{2}$	1 $\frac{1}{4}$	5 $\frac{5}{8}$	15 $\frac{1}{8}$	1 $\frac{1}{2}$	21 $\frac{3}{4}$	2 $\frac{3}{4}$	5 $\frac{1}{16}$	5 $\frac{1}{2}$
18" WF CB 182	85	18 $\frac{3}{8}$	8 $\frac{7}{8}$	1 $\frac{5}{16}$	9 $\frac{1}{16}$	1 $\frac{1}{4}$	4 $\frac{1}{8}$	15 $\frac{3}{8}$	1 $\frac{1}{2}$	20 $\frac{3}{8}$	2 $\frac{3}{4}$	5 $\frac{1}{16}$	5 $\frac{1}{2}$
18 x 8 $\frac{1}{4}$ R=.60	77	18 $\frac{1}{8}$	8 $\frac{3}{4}$	1 $\frac{13}{16}$	1 $\frac{1}{2}$	1 $\frac{1}{4}$	4 $\frac{1}{8}$	15 $\frac{3}{8}$	1 $\frac{3}{8}$	20 $\frac{1}{8}$	2 $\frac{3}{4}$	5 $\frac{1}{16}$	5 $\frac{1}{2}$
	70	18	8 $\frac{3}{4}$	3 $\frac{1}{4}$	7 $\frac{1}{16}$	1 $\frac{1}{4}$	4 $\frac{1}{8}$	15 $\frac{3}{8}$	1 $\frac{1}{16}$	20	2 $\frac{3}{4}$	5 $\frac{1}{16}$	5 $\frac{1}{2}$
	64	17 $\frac{7}{8}$	8 $\frac{3}{4}$	1 $\frac{1}{16}$	7 $\frac{1}{16}$	3 $\frac{1}{16}$	4 $\frac{1}{8}$	15 $\frac{3}{8}$	1 $\frac{1}{4}$	20	2 $\frac{1}{2}$	1 $\frac{1}{4}$	5 $\frac{1}{2}$
18" WF CB 181	60	18 $\frac{1}{4}$	7 $\frac{1}{2}$	1 $\frac{1}{16}$	7 $\frac{1}{16}$	3 $\frac{1}{16}$	3 $\frac{3}{8}$	15 $\frac{7}{8}$	1 $\frac{1}{16}$	19 $\frac{7}{8}$	2 $\frac{1}{2}$	1 $\frac{1}{4}$	3 $\frac{1}{2}$
18 x 7 $\frac{1}{2}$ R=.43	55	18 $\frac{1}{8}$	7 $\frac{1}{2}$	5 $\frac{1}{8}$	3 $\frac{1}{8}$	3 $\frac{1}{16}$	3 $\frac{3}{8}$	15 $\frac{7}{8}$	1 $\frac{1}{8}$	19 $\frac{5}{8}$	2 $\frac{1}{2}$	1 $\frac{1}{4}$	3 $\frac{1}{2}$
	50	18	7 $\frac{1}{2}$	9 $\frac{1}{16}$	3 $\frac{1}{8}$	3 $\frac{1}{16}$	3 $\frac{3}{8}$	15 $\frac{7}{8}$	1 $\frac{1}{16}$	19 $\frac{1}{2}$	2 $\frac{1}{4}$	1 $\frac{1}{4}$	3 $\frac{1}{2}$

Gages g_2 are based on 1 $\frac{1}{4}$ " edge distance (7 $\frac{1}{8}$ " maximum rivet).

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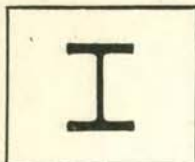
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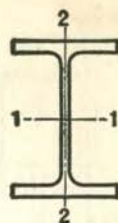
MILL
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INDEX



WIDE FLANGE CB SECTIONS

PROPERTIES OF SECTIONS

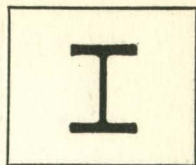
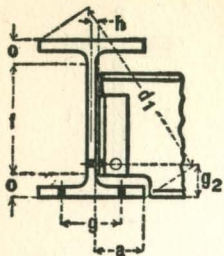


District Rolled	Section Index and Nominal Size	Weight per Foot	Area of Section	Depth of Section	Flange		Web Thickness	Axis 1-1			Axis 2-2		
					Width	Thick-ness		I	S	r	I	S	r
					In.	In.		In. ⁴	In. ³	In.	In. ⁴	In. ³	In.
P. C.	16" WF	96	28.22	16.32	11.533	.875	.535	1355.1	166.1	6.93	207.2	35.9	2.71
	CB 163 16 x 11½ R=.60	88	25.87	16.16	11.502	.795	.504	1222.6	151.3	6.87	185.2	32.2	2.67
P. C.	16" WF	78	22.92	16.32	8.586	.875	.529	1042.6	127.8	6.74	87.5	20.4	1.95
	CB 162	71	20.86	16.16	8.543	.795	.486	936.9	115.9	6.70	77.9	18.2	1.93
	16 x 8½	64	18.80	16.00	8.500	.715	.443	833.8	104.2	6.66	68.4	16.1	1.91
	R=.60	58	17.04	15.86	8.464	.645	.407	746.4	94.1	6.62	60.5	14.3	1.88
P. C.	16" WF	50	14.70	16.25	7.073	.628	.380	655.4	80.7	6.68	34.8	9.8	1.54
	CB 161	45	13.24	16.12	7.039	.563	.346	583.3	72.4	6.64	30.5	8.7	1.52
	16 x 7	40	11.77	16.00	7.000	.503	.307	515.5	64.4	6.62	26.5	7.6	1.50
	R=.43	36	10.59	15.85	6.992	.428	.299	446.3	56.3	6.49	22.1	6.3	1.45
P. C.		426	125.25	18.69	16.695	3.033	1.875	6610.3	707.4	7.26	2359.5	282.7	4.34
		398	116.98	18.31	16.590	2.843	1.770	6013.7	656.9	7.17	2169.7	261.6	4.31
		370	108.78	17.94	16.475	2.658	1.655	5454.2	608.1	7.08	1986.0	241.1	4.27
		342	100.59	17.56	16.365	2.468	1.545	4911.5	559.4	6.99	1806.9	220.8	4.24
		314	92.30	17.19	16.235	2.283	1.415	4399.4	511.9	6.90	1631.4	201.0	4.20
		287	84.37	16.81	16.130	2.093	1.310	3912.1	465.5	6.81	1466.5	181.8	4.17
		264	77.63	16.50	16.025	1.938	1.205	3526.0	427.4	6.74	1331.2	166.1	4.14
		246	72.33	16.25	15.945	1.813	1.125	3228.9	397.4	6.68	1226.6	153.9	4.12
		237	69.69	16.12	15.910	1.748	1.090	3080.9	382.2	6.65	1174.8	147.7	4.11
		228	67.06	16.00	15.865	1.688	1.045	2942.4	367.8	6.62	1124.8	141.8	4.10
		219	64.36	15.87	15.825	1.623	1.005	2798.2	352.6	6.59	1073.2	135.6	4.08
		211	62.07	15.75	15.800	1.563	.980	2671.4	339.2	6.56	1028.6	130.2	4.07
		202	59.39	15.63	15.750	1.503	.930	2538.8	324.9	6.54	979.7	124.4	4.06
		193	56.73	15.50	15.710	1.438	.890	2402.4	310.0	6.51	930.1	118.4	4.05
		184	54.07	15.38	15.660	1.378	.840	2274.8	295.8	6.49	882.7	112.7	4.04
		176	51.73	15.25	15.640	1.313	.820	2149.6	281.9	6.45	837.9	107.1	4.02
		167	49.09	15.12	15.600	1.248	.780	2020.8	267.3	6.42	790.2	101.3	4.01
		158	46.47	15.00	15.550	1.188	.730	1900.6	253.4	6.40	745.0	95.8	4.00
		150	44.08	14.88	15.515	1.128	.695	1786.9	240.2	6.37	702.5	90.6	3.99
		142	41.85	14.75	15.500	1.063	.680	1672.2	226.7	6.32	660.1	85.2	3.97
	*320	94.12	16.81	16.710	2.093	1.890	4141.7	492.8	6.63	1635.1	195.7	4.17	
P. C.		136	39.98	14.75	14.740	1.063	.660	1593.0	216.0	6.31	567.7	77.0	3.77
		127	37.33	14.62	14.690	.998	.610	1476.7	202.0	6.29	527.6	71.8	3.76
		119	34.99	14.50	14.650	.938	.570	1373.1	189.4	6.26	491.8	67.1	3.75
		111	32.65	14.37	14.620	.873	.540	1266.5	176.3	6.23	454.9	62.2	3.73
		103	30.26	14.25	14.575	.813	.495	1165.8	163.6	6.21	419.7	57.6	3.72
		95	27.94	14.12	14.545	.748	.465	1063.5	150.6	6.17	383.7	52.8	3.71
		87	25.56	14.00	14.500	.688	.420	966.9	138.1	6.15	349.7	48.2	3.70

*Column Core Section.
For key to symbols in first column, refer to page 3.

WIDE FLANGE CB SECTIONS

DIMENSIONS OF SECTIONS



Section Index and Nominal Depth	Weight per Foot	Depth of Section	Flange		Web		Distance					Usual Gage g	
			Width	Thick-ness	Thick-ness	Half Thick-ness	a	f	o	d ₁	Min. g ₂		Clear. h
	Lbs.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	
16" WF CB 163	96	16 ³ / ₈	11 ¹ / ₂	7 ⁸ / ₁₆	9 ¹ / ₁₆	5 ¹ / ₁₆	5 ¹ / ₂	13 ¹ / ₈	15 ⁸ / ₁₆	20	2 ³ / ₄	3 ⁸ / ₁₆	5 ¹ / ₂
16 x 11 ¹ / ₂ R=.60	88	16 ¹ / ₈	11 ¹ / ₂	1 ⁹ / ₁₆	1 ¹ / ₂	1 ¹ / ₄	5 ¹ / ₂	13 ¹ / ₈	1 ¹ / ₂	19 ⁷ / ₈	2 ³ / ₄	5 ¹ / ₁₆	5 ¹ / ₂
16" WF CB 162	78	16 ³ / ₈	8 ⁵ / ₈	7 ⁸ / ₁₆	9 ¹ / ₁₆	1 ¹ / ₄	4	13 ³ / ₈	1 ¹ / ₂	18 ¹ / ₂	2 ³ / ₄	5 ¹ / ₁₆	5 ¹ / ₂
16 x 8 ¹ / ₂ R=.60	64	16	8 ¹ / ₂	1 ¹ / ₁₆	1 ¹ / ₁₆	1 ¹ / ₄	4	13 ³ / ₈	1 ⁵ / ₁₆	18 ¹ / ₈	2 ¹ / ₂	5 ¹ / ₁₆	5 ¹ / ₂
16" WF CB 161	50	16 ¹ / ₄	7 ³ / ₈	5 ⁸ / ₁₆	3 ⁸ / ₁₆	3 ¹ / ₁₆	3 ³ / ₈	14	1 ¹ / ₈	17 ³ / ₄	2 ¹ / ₂	1 ¹ / ₄	3 ¹ / ₂
16 x 7 R=.43	45	16 ¹ / ₈	7	9 ¹ / ₁₆	3 ⁸ / ₁₆	3 ¹ / ₁₆	3 ³ / ₈	14	1 ¹ / ₁₆	17 ⁷ / ₈	2 ¹ / ₄	1 ¹ / ₄	3 ¹ / ₂
	40	16	7	1 ¹ / ₂	3 ¹ / ₁₆	3 ¹ / ₁₆	3 ³ / ₈	14	1	17 ¹ / ₂	2 ¹ / ₄	1 ¹ / ₄	3 ¹ / ₂
	36	15 ⁷ / ₈	7	1 ¹ / ₁₆	3 ¹ / ₁₆	3 ¹ / ₁₆	3 ³ / ₈	14	1 ¹ / ₁₆	17 ³ / ₈	2 ¹ / ₄	1 ¹ / ₄	3 ¹ / ₂
	426	18 ³ / ₄	16 ³ / ₄	3 ¹ / ₁₆	1 ⁷ / ₈	1 ⁵ / ₁₆	7 ³ / ₈	11 ³ / ₈	3 ⁵ / ₈	25 ¹ / ₂	5	1	
	398	18 ¹ / ₄	16 ³ / ₄	2 ¹ / ₁₆	1 ¹ / ₁₆	7 ⁸ / ₁₆	7 ³ / ₈	11 ³ / ₈	3 ⁷ / ₁₆	24 ³ / ₄	4 ³ / ₄	1 ¹⁵ / ₁₆	
	370	18	16 ¹ / ₂	2 ¹ / ₁₆	1 ¹ / ₁₆	1 ³ / ₁₆	7 ⁸ / ₁₆	11 ³ / ₈	3 ¹ / ₄	24 ³ / ₈	4 ¹ / ₂	7 ⁸ / ₁₆	
	342	17 ¹ / ₂	16 ³ / ₈	2 ¹ / ₁₆	1 ⁹ / ₁₆	1 ³ / ₁₆	7 ⁸ / ₁₆	11 ³ / ₈	3 ¹ / ₁₆	24	4 ¹ / ₄	7 ⁸ / ₁₆	
	314	17 ¹ / ₄	16 ¹ / ₄	2 ⁵ / ₁₆	1 ⁷ / ₁₆	3 ¹ / ₄	7 ⁸ / ₁₆	11 ³ / ₈	2 ⁷ / ₈	23 ³ / ₄	4 ¹ / ₄	1 ¹³ / ₁₆	
	287	16 ³ / ₄	16 ³ / ₈	2 ¹ / ₁₆	1 ⁹ / ₁₆	1 ¹ / ₁₆	7 ⁸ / ₁₆	11 ³ / ₈	2 ¹ / ₁₆	23 ³ / ₈	4	3 ¹ / ₄	
	264	16 ¹ / ₂	16	1 ¹⁵ / ₁₆	1 ¹ / ₄	5 ⁸ / ₁₆	7 ⁸ / ₁₆	11 ³ / ₈	2 ⁹ / ₁₆	23	3 ³ / ₄	1 ¹¹ / ₁₆	
	246	16 ¹ / ₄	16	1 ¹ / ₁₆	1 ⁷ / ₈	9 ¹ / ₁₆	7 ⁸ / ₁₆	11 ³ / ₈	2 ⁷ / ₁₆	22 ⁷ / ₈	3 ³ / ₄	5 ⁸ / ₁₆	
	237	16 ¹ / ₈	15 ⁷ / ₈	1 ³ / ₄	1 ¹ / ₈	9 ¹ / ₁₆	7 ⁸ / ₁₆	11 ³ / ₈	2 ³ / ₈	22 ³ / ₈	3 ³ / ₄	5 ⁸ / ₁₆	
14" WF CB 146	228	16	15 ⁷ / ₈	1 ¹ / ₁₆	1 ¹ / ₁₆	9 ¹ / ₁₆	7 ⁸ / ₁₆	11 ³ / ₈	2 ⁵ / ₁₆	22 ³ / ₈	3 ¹ / ₂	5 ⁸ / ₁₆	
14 x 16 R=.60	219	15 ⁷ / ₈	15 ⁷ / ₈	1 ⁵ / ₈	1	1 ¹ / ₂	7 ⁸ / ₁₆	11 ³ / ₈	2 ¹ / ₄	22 ¹ / ₂	3 ¹ / ₂	9 ¹ / ₁₆	
	211	15 ³ / ₄	15 ³ / ₄	1 ¹ / ₁₆	1	1 ¹ / ₂	7 ⁸ / ₁₆	11 ³ / ₈	2 ³ / ₁₆	22 ³ / ₈	3 ¹ / ₂	9 ¹ / ₁₆	
	202	15 ⁵ / ₈	15 ³ / ₄	1 ¹ / ₂	1 ¹⁵ / ₁₆	1 ¹ / ₂	7 ⁸ / ₁₆	11 ³ / ₈	2 ¹ / ₈	22 ¹ / ₄	3 ¹ / ₂	9 ¹ / ₁₆	
	193	15 ¹ / ₂	15 ³ / ₄	1 ⁷ / ₁₆	7 ⁸ / ₁₆	1 ¹ / ₁₆	7 ⁸ / ₁₆	11 ³ / ₈	2 ¹ / ₁₆	22 ¹ / ₈	3 ³ / ₄	1 ¹ / ₂	
	184	15 ⁵ / ₈	15 ⁵ / ₈	1 ³ / ₈	7 ⁸ / ₁₆	1 ¹ / ₁₆	7 ⁸ / ₁₆	11 ³ / ₈	2	22	3 ¹ / ₄	1 ¹ / ₂	
	176	15 ¹ / ₄	15 ⁵ / ₈	1 ¹ / ₁₆	1 ¹ / ₁₆	1 ¹ / ₁₆	7 ⁸ / ₁₆	11 ³ / ₈	1 ¹⁵ / ₁₆	21 ⁷ / ₈	3 ¹ / ₄	1 ¹ / ₂	
	167	15 ¹ / ₈	15 ⁵ / ₈	1 ¹ / ₄	1 ¹ / ₁₆	3 ⁸ / ₁₆	7 ⁸ / ₁₆	11 ³ / ₈	1 ⁷ / ₈	21 ³ / ₄	3 ¹ / ₄	7 ¹ / ₁₆	
	158	15	15 ¹ / ₂	1 ³ / ₁₆	3 ¹ / ₄	3 ⁸ / ₁₆	7 ⁸ / ₁₆	11 ³ / ₈	1 ¹ / ₁₆	21 ³ / ₈	3	7 ¹ / ₁₆	
	150	14 ⁷ / ₈	15 ¹ / ₂	1 ¹ / ₈	1 ¹ / ₁₆	3 ⁸ / ₁₆	7 ⁸ / ₁₆	11 ³ / ₈	1 ³ / ₄	21 ¹ / ₂	3	7 ¹ / ₁₆	
	142	14 ³ / ₄	15 ¹ / ₂	1 ¹ / ₁₆	1 ¹ / ₁₆	3 ⁸ / ₁₆	7 ⁸ / ₁₆	11 ³ / ₈	1 ¹ / ₁₆	21 ¹ / ₂	3	7 ¹ / ₁₆	
*320	16 ³ / ₄	16 ³ / ₄	2 ¹ / ₁₆	1 ⁷ / ₈	1 ⁵ / ₁₆		7 ⁸ / ₁₆	11 ³ / ₈	2 ¹ / ₁₆	23 ³ / ₄	4	1	
136	14 ³ / ₄	14 ³ / ₄	1 ¹ / ₁₆	1 ¹ / ₁₆	3 ⁸ / ₁₆	7	7	11 ³ / ₈	1 ¹ / ₁₆	20 ⁷ / ₈	3	7 ¹ / ₁₆	5 ¹ / ₂
127	14 ⁵ / ₈	14 ³ / ₄	1	5 ⁸ / ₁₆	5 ¹ / ₁₆	7	7	11 ³ / ₈	1 ⁵ / ₈	20 ³ / ₄	3	3 ⁸ / ₁₆	5 ¹ / ₂
14" WF CB 145	119	14 ¹ / ₂	14 ⁵ / ₈	1 ⁵ / ₁₆	9 ¹ / ₁₆	5 ¹ / ₁₆	7	11 ³ / ₈	1 ⁹ / ₁₆	20 ⁵ / ₈	2 ³ / ₄	3 ⁸ / ₁₆	5 ¹ / ₂
111	14 ³ / ₈	14 ⁵ / ₈	7 ⁸ / ₁₆	9 ¹ / ₁₆	5 ¹ / ₁₆	7	7	11 ³ / ₈	1 ¹ / ₂	20 ¹ / ₂	2 ³ / ₄	3 ⁸ / ₁₆	5 ¹ / ₂
14 x 14 ¹ / ₂ R=.60	103	14 ¹ / ₄	14 ⁵ / ₈	1 ¹ / ₁₆	1 ¹ / ₂	1 ¹ / ₄	7	11 ³ / ₈	1 ⁷ / ₁₆	20 ¹ / ₂	2 ³ / ₄	5 ¹ / ₁₆	5 ¹ / ₂
	95	14 ¹ / ₈	14 ¹ / ₂	3 ¹ / ₄	1 ¹ / ₂	1 ¹ / ₄	7	11 ³ / ₈	1 ³ / ₈	20 ¹ / ₄	2 ³ / ₄	5 ¹ / ₁₆	5 ¹ / ₂
	87	14	14 ¹ / ₂	1 ¹ / ₁₆	1 ¹ / ₁₆	1 ¹ / ₄	7	11 ³ / ₈	1 ¹ / ₁₆	20 ¹ / ₄	2 ¹ / ₂	5 ¹ / ₁₆	5 ¹ / ₂

*Column Core Section.
Gages g₂ are based on 1¹/₄" edge distance (7⁸/₁₆" maximum rivet).

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SECTIONS

CRANE
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CORRUG.
SHEETS

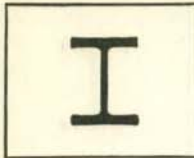
PILING

FLOOR
PLATES

PLATES

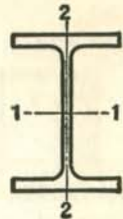
MILL
PRACTICES

INDEX



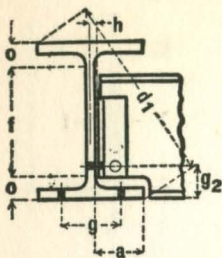
WIDE FLANGE CB SECTIONS

PROPERTIES OF SECTIONS

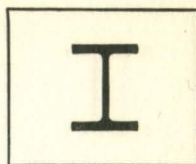


District Rolled	Section Index and Nominal Size	Weight per Foot	Area of Section	Depth of Section	Flange		Web Thickness	Axis 1-1			Axis 2-2		
					Width	Thick-ness		I	S	r	I	S	r
					In.	In.		In. ⁴	In. ³	In.	In. ⁴	In. ³	In.
P. C.	14" WF CB 144	84	24.71	14.18	12.023	.778	.451	928.4	130.9	6.13	225.5	37.5	3.02
	14 x 12 R = .60	78	22.94	14.06	12.000	.718	.428	851.2	121.1	6.09	206.9	34.5	3.00
P. C.	14" WF CB 143	74	21.76	14.19	10.072	.783	.450	796.8	112.3	6.05	133.5	26.5	2.48
	14 x 10 R = .60	68	20.00	14.06	10.040	.718	.418	724.1	103.0	6.02	121.2	24.1	2.46
		61	17.94	13.91	10.000	.643	.378	641.5	92.2	5.98	107.3	21.5	2.45
P. C.	14" WF CB 142	53	15.59	13.94	8.062	.658	.370	542.1	77.8	5.90	57.5	14.3	1.92
	14 x 8 R = .60	48	14.11	13.81	8.031	.593	.339	484.9	70.2	5.86	51.3	12.8	1.91
		43	12.65	13.68	8.000	.528	.308	429.0	62.7	5.82	45.1	11.3	1.89
P. C.	14" WF CB 141	38	11.17	14.12	6.776	.513	.313	385.3	54.6	5.87	24.6	7.3	1.49
	14 x 6 3/4 R = .43	34	10.00	14.00	6.750	.453	.287	339.2	48.5	5.83	21.3	6.3	1.46
		30	8.81	13.86	6.733	.383	.270	289.6	41.8	5.73	17.5	5.2	1.41
P. C.		190	55.86	14.38	12.670	1.736	1.060	1892.5	263.2	5.82	589.7	93.1	3.25
		161	47.38	13.88	12.515	1.486	.905	1541.8	222.2	5.70	486.2	77.7	3.20
		133	39.11	13.38	12.365	1.236	.755	1221.2	182.5	5.59	389.9	63.1	3.16
		120	35.31	13.12	12.320	1.106	.710	1071.7	163.4	5.51	345.1	56.0	3.13
	12" WF CB 124	106	31.19	12.88	12.230	.986	.620	930.7	144.5	5.46	300.9	49.2	3.11
	12 x 12 R = .60	99	29.09	12.75	12.190	.921	.580	858.5	134.7	5.43	278.2	45.7	3.09
		92	27.06	12.62	12.155	.856	.545	788.9	125.0	5.40	256.4	42.2	3.08
		85	24.98	12.50	12.105	.796	.495	723.3	115.7	5.38	235.5	38.9	3.07
		79	23.22	12.38	12.080	.736	.470	663.0	107.1	5.34	216.4	35.8	3.05
		72	21.16	12.25	12.040	.671	.430	597.4	97.5	5.31	195.3	32.4	3.04
	65	19.11	12.12	12.000	.606	.390	533.4	88.0	5.28	174.6	29.1	3.02	
P. C.	12" WF CB 123	58	17.06	12.19	10.014	.641	.359	476.1	78.1	5.28	107.4	21.4	2.51
	12 x 10 R = .60	53	15.59	12.06	10.000	.576	.345	426.2	70.7	5.23	96.1	19.2	2.48
P. C.	12" WF CB 122	50	14.71	12.19	8.077	.641	.371	394.5	64.7	5.18	56.4	14.0	1.96
	12 x 8 R = .60	45	13.24	12.06	8.042	.576	.336	350.8	58.2	5.15	50.0	12.4	1.94
		40	11.77	11.94	8.000	.516	.294	310.1	51.9	5.13	44.1	11.0	1.94
P. C.	12" WF CB 121	36	10.59	12.24	6.565	.540	.305	280.8	45.9	5.15	23.7	7.2	1.50
	12 x 6 1/2 R = .37	31	9.12	12.09	6.525	.465	.265	238.4	39.4	5.11	19.8	6.1	1.47
		27	7.97	11.96	6.500	.400	.240	204.1	34.1	5.06	16.6	5.1	1.44

For key to symbols in first column, refer to page 3.



WIDE FLANGE CB SECTIONS DIMENSIONS OF SECTIONS



Section Index and Nominal Depth	Weight per Foot	Depth of Section	Flange		Web		Distance					Usual Gage σ	
			Width	Thick-ness	Thick-ness	Half Thick-ness	a	f	o	d ₁	Min. g ₂		Clear. h
			In.	In.	In.	In.	In.	In.	In.	In.	In.		In.
14" WF CB 144	84	14 1/8	12	3/4	7/16	1/4	5 3/4	11 3/8	1 3/8	18 5/8	2 3/4	5/16	5 1/2
14 x 12 R = .60	78	14	12	11/16	7/16	1/4	5 3/4	11 3/8	1 5/16	18 1/2	2 1/2	5/16	5 1/2
14" WF CB 143	74	14 1/4	10 1/8	1 3/16	7/16	1/4	4 3/4	11 3/8	1 3/8	17 1/2	2 3/4	5/16	5 1/2
14 x 10 R = .60	68	14	10	11/16	7/16	1/4	4 3/4	11 3/8	1 5/16	17 3/4	2 1/2	5/16	5 1/2
	61	13 7/8	10	5/8	3/8	3/16	4 3/4	11 3/8	1 1/4	17 1/8	2 1/2	1/4	5 1/2
14" WF CB 142	53	14	8	1 1/16	3/8	3/16	3 7/8	11 3/8	1 1/4	16 1/8	2 1/2	1/4	5 1/2
14 x 8 R = .60	48	13 3/4	8	9/16	3/8	3/16	3 7/8	11 3/8	1 3/16	16	2 1/2	1/4	5 1/2
	43	13 5/8	8	1/2	5/16	3/16	3 7/8	11 3/8	1 1/8	15 7/8	2 1/2	1/4	5 1/2
14" WF CB 141	38	14 1/8	6 3/4	1/2	5/16	3/16	3 1/4	12 1/8	1	15 3/4	2 1/4	1/4	3 1/2
14 x 6 3/4 R = .43	34	14	6 3/4	7/16	3/16	3/16	3 1/4	12 1/8	1 5/16	15 5/8	2 1/4	1/4	3 1/2
	30	13 7/8	6 3/4	3/8	5/16	1/8	3 1/4	12 1/8	7/8	15 1/2	2 1/4	3/16	3 1/2
	190	14 3/8	12 5/8	1 3/4	1 1/16	9/16	5 3/4	9 3/4	2 5/16	19 1/4	3 3/4	5/8	5 1/2
	161	13 7/8	12 1/2	1 1/2	1 5/16	7/16	5 3/4	9 3/4	2 1/16	18 3/4	3 1/2	1/2	5 1/2
	133	13 3/8	12 3/8	1 1/4	3/4	3/8	5 3/4	9 3/4	1 13/16	18 1/4	3 1/4	7/16	5 1/2
	120	13 1/8	12 3/8	1 1/8	3/4	3/8	5 3/4	9 3/4	1 11/16	18	3	7/16	5 1/2
12" WF CB 124	106	12 7/8	12 1/4	1	5/8	5/16	5 3/4	9 3/4	1 9/16	17 7/8	3	3/8	5 1/2
12 x 12 R = .60	99	12 3/4	12 1/4	1 5/16	5/8	5/16	5 3/4	9 3/4	1 1/2	17 3/4	2 3/4	3/8	5 1/2
	92	12 5/8	12 1/8	7/8	9/16	5/16	5 3/4	9 3/4	1 7/16	17 1/2	2 3/4	3/8	5 1/2
	85	12 1/2	12 1/8	1 3/16	1 1/2	1/4	5 3/4	9 3/4	1 3/8	17 1/2	2 3/4	5/16	5 1/2
	79	12 3/8	12 1/8	3/4	1 1/2	1/4	5 3/4	9 3/4	1 5/16	17 3/8	2 3/4	5/16	5 1/2
	72	12 1/4	12	1 1/16	7/16	1/4	5 3/4	9 3/4	1 1/4	17 1/4	2 1/2	5/16	5 1/2
	65	12 1/8	12	5/8	3/8	3/16	5 3/4	9 3/4	1 3/16	17 1/8	2 1/2	1/4	5 1/2
12" WF CB 123	58	12 1/4	10	5/8	3/8	3/16	4 7/8	9 3/4	1 1/4	15 7/8	2 1/2	1/4	5 1/2
12 x 10 R = .60	53	12	10	9/16	3/8	3/16	4 7/8	9 3/4	1 3/16	15 5/8	2 1/2	1/4	5 1/2
12" WF CB 122	50	12 1/4	8 1/8	5/8	3/8	3/16	3 7/8	9 3/4	1 1/4	14 5/8	2 1/2	1/4	5 1/2
12 x 8 R = .60	45	12	8	9/16	3/8	3/16	3 7/8	9 3/4	1 3/16	14 1/2	2 1/2	1/4	5 1/2
	40	12	8	1/2	5/16	3/16	3 7/8	9 3/4	1 1/8	14 3/8	2 1/2	1/4	5 1/2
12" WF CB 121	36	12 1/4	6 5/8	9/16	5/16	3/16	3 1/8	10 3/8	1 5/16	14	2 1/4	1/4	3 1/2
12 x 6 1/2 R = .37	31	12 1/8	6 1/2	7/16	1/4	1/8	3 1/8	10 3/8	7/8	13 3/4	2 1/4	3/16	3 1/2
	27	12	6 1/2	3/8	1/4	1/8	3 1/8	10 3/8	1 3/16	13 5/8	2 1/4	3/16	3 1/2

Gages g₂ are based on 1 1/4" edge distance (1/8" maximum rivet).

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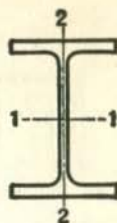
MILL
PRACTICES

INDEX



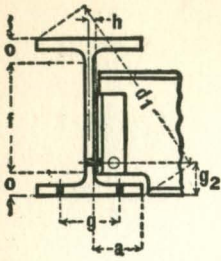
WIDE FLANGE CB SECTIONS

PROPERTIES OF SECTIONS

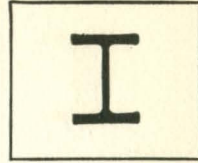


District Rolled	Section Index and Nominal Size	Weight per Foot	Area of Section	Depth of Section	Flange		Web Thickness	Axis 1-1			Axis 2-2		
					Width	Thick-ness		I	S	r	I	S	r
					In.	In.		In. ⁴	In. ³	In.	In. ⁴	In. ³	In.
P.C.	10" WF CB 103 10 x 10 R = .50	112	32.92	11.38	10.415	1.248	.755	718.7	126.3	4.67	235.4	45.2	2.67
		100	29.43	11.12	10.345	1.118	.685	625.0	112.4	4.61	206.6	39.9	2.65
		89	26.19	10.88	10.275	.998	.615	542.4	99.7	4.55	180.6	35.2	2.63
		77	22.67	10.62	10.195	.868	.535	457.2	86.1	4.49	153.4	30.1	2.60
		72	21.18	10.50	10.170	.808	.510	420.7	80.1	4.46	141.8	27.9	2.59
		66	19.41	10.38	10.117	.748	.457	382.5	73.7	4.44	129.2	25.5	2.58
		60	17.66	10.25	10.075	.683	.415	343.7	67.1	4.41	116.5	23.1	2.57
P.C.	10" WF CB 102 10 x 8 R = .50	54	15.88	10.12	10.028	.618	.368	305.7	60.4	4.39	103.9	20.7	2.56
		49	14.40	10.00	10.000	.558	.340	272.9	54.6	4.35	93.0	18.6	2.54
		45	13.24	10.12	8.022	.618	.350	248.6	49.1	4.33	53.2	13.3	2.00
		39	11.48	9.94	7.990	.528	.318	209.7	42.2	4.27	44.9	11.2	1.98
P.C.	10" WF CB 101 10 x 5 3/4 R = .32	33	9.71	9.75	7.964	.433	.292	170.9	35.0	4.20	36.5	9.2	1.94
		29	8.53	10.22	5.799	.500	.289	157.3	30.8	4.29	15.2	5.2	1.34
		25	7.35	10.08	5.762	.430	.252	133.2	26.4	4.26	12.7	4.4	1.31
P.C.	8" WF CB 83 8 x 8 R = .40	21	6.19	9.90	5.750	.340	.240	106.3	21.5	4.14	9.7	3.4	1.25
		67	19.70	9.00	8.287	.933	.575	271.8	60.4	3.71	88.6	21.4	2.12
		58	17.06	8.75	8.222	.808	.510	227.3	52.0	3.65	74.9	18.2	2.10
		48	14.11	8.50	8.117	.683	.405	183.7	43.2	3.61	60.9	15.0	2.08
		40	11.76	8.25	8.077	.558	.365	146.3	35.5	3.53	49.0	12.1	2.04
P.C.	8" WF CB 82 8 x 6 1/2 R = .40	35	10.30	8.12	8.027	.493	.315	126.5	31.1	3.50	42.5	10.6	2.03
		31	9.12	8.00	8.000	.433	.288	109.7	27.4	3.47	37.0	9.2	2.01
		28	8.23	8.06	6.540	.463	.285	97.8	24.3	3.45	21.6	6.6	1.62
		24	7.06	7.93	6.500	.398	.245	82.5	20.8	3.42	18.2	5.6	1.61
P.C.	8" WF CB 81 8 x 5 1/4 R = .32	20	5.88	8.14	5.268	.378	.248	69.2	17.0	3.43	8.50	3.2	1.20
		17	5.00	8.00	5.250	.308	.230	56.4	14.1	3.36	6.72	2.6	1.16

For key to symbols in first column, refer to page 3.



WIDE FLANGE CB SECTIONS DIMENSIONS OF SECTIONS



Section Index and Nominal Depth	Weight per Foot	Depth of Section	Flange		Web		Distance					Usual Gage g	
			Width	Thickness	Thickness	Half Thickness	a	f	o	d ₁	Min. g ₂		Clear. h
	Lbs.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.
10" WF CB 103 10 x 10 R = .50	112	11 3/8	10 3/8	1 1/4	3/4	3/8	4 7/8	7 7/8	1 3/4	15 1/2	3	7/16	5 1/2
	100	11 1/8	10 5/8	1 1/8	1 1/16	3/8	4 7/8	7 7/8	1 5/8	15 1/4	3	7/16	5 1/2
	89	10 7/8	10 1/4	1	5/8	5/16	4 7/8	7 7/8	1 1/2	15	2 3/4	3/8	5 1/2
	77	10 5/8	10 1/4	7/8	9/16	5/16	4 7/8	7 7/8	1 3/8	14 3/4	2 3/4	3/8	5 1/2
	72	10 1/2	10 1/8	13/16	1/2	1/4	4 7/8	7 7/8	1 5/16	14 5/8	2 3/4	5/16	5 1/2
	66	10 3/8	10 1/8	3/4	7/16	1/4	4 7/8	7 7/8	1 1/4	14 1/2	2 1/2	3/16	5 1/2
	60	10 1/4	10 1/8	11/16	7/16	1/4	4 7/8	7 7/8	1 3/16	14 3/8	2 1/2	5/16	5 1/2
54	10 1/8	10	5/8	3/8	3/16	4 7/8	7 7/8	1 1/8	14 1/4	2 1/2	1/4	5 1/2	
49	10	10	9/16	3/8	3/16	4 7/8	7 7/8	1 1/16	14 1/8	2 1/2	1/4	5 1/2	
10" WF CB 102 10 x 8 R = .50	45	10 1/8	8	5/8	3/8	3/16	3 7/8	7 7/8	1 1/8	13	2 1/2	1/4	5 1/2
	39	10	8	1/2	5/16	3/16	3 7/8	7 7/8	1 1/16	12 7/8	2 1/2	1/4	5 1/2
	33	9 3/4	8	7/16	5/16	3/16	3 7/8	7 7/8	1 5/16	12 5/8	2 1/4	1/4	5 1/2
10" WF CB 101 10 x 5 1/4 R = .32	29	10 1/4	5 3/4	1/2	5/16	3/16	2 3/4	8 1/2	7/8	11 3/4	2 1/4	1/4	2 3/4
	25	10 1/8	5 3/4	7/16	1/4	1/8	2 3/4	8 1/2	13/16	11 5/8	2 1/4	3/16	2 3/4
	21	9 7/8	5 3/4	5/16	1/4	1/8	2 3/4	8 1/2	1 1/16	11 1/2	2	3/16	2 3/4
8" WF CB 83 8 x 8 R = .40	67	9	8 1/4	15/16	9/16	5/16	3 7/8	6 3/8	15/16	12 1/4	2 3/4	3/8	5 1/2
	58	8 3/4	8 1/4	13/16	1/2	1/4	3 7/8	6 3/8	1 1/16	12	2 1/2	5/16	5 1/2
	48	8 1/2	8 1/8	1 1/16	7/16	3/16	3 7/8	6 3/8	1 1/16	11 7/8	2 1/2	1/4	5 1/2
	40	8 1/4	8 1/8	9/16	3/8	3/16	3 7/8	6 3/8	15/16	11 5/8	2 1/4	1/4	5 1/2
	35	8 1/8	8	1/2	5/16	3/16	3 7/8	6 3/8	7/8	11 1/2	2 1/4	1/4	5 1/2
31	8	8	7/16	5/16	3/16	3 7/8	6 3/8	15/16	11 3/8	2 1/4	1/4	5 1/2	
8" WF CB 82 8 x 6 1/2 R = .40	28	8	6 1/2	7/16	5/16	1/8	3 1/8	6 3/8	13/16	10 1/2	2 1/4	3/16	3 1/2
	24	7 7/8	6 1/2	3/8	1/4	1/8	3 1/8	6 3/8	13/16	10 1/4	2 3/4	3/16	3 1/2
8" WF CB 81 8 x 5 1/4 R = .32	20	8 1/8	5 1/4	3/8	1/4	1/8	2 1/2	6 3/4	1 1/16	9 3/4	2 1/4	3/16	2 3/4
	17	8	5 1/4	5/16	1/4	1/8	2 1/2	6 3/4	5/8	9 5/8	2 1/4	3/16	2 3/4

Gages g₂ are based on 1/4" edge distance (7/8" maximum rivet).

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CAR & SHIP

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SPLIT
CAR SECTIONS

CRANE RAILS

CORRUG. SHEETS

PILING

FLOOR PLATES

PLATES

MILL PRACTICES

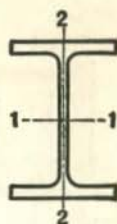
INDEX



WIDE FLANGE

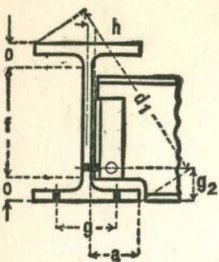
LIGHT BEAMS, STANCHIONS AND JOISTS

PROPERTIES OF SECTIONS

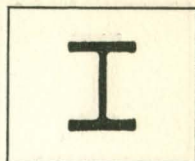


District Rolled	Section Index and Nominal Size	Weight per Foot Lbs.	Area of Section In. ²	Depth of Section In.	Flange		Web Thickness In.	Axis 1-1			Axis 2-2				
					Width In.	Thick-ness In.		I In. ⁴	S In. ³	r In.	I In. ⁴	S In. ³	r In.		
LIGHT BEAMS															
P.C.	CBL 12 12 x 4 R = .30	22.0 19.0 16.5	6.47 5.62 4.86	12.31 12.16 12.00	4.030 4.010 4.000	.424 .349 .269	.260 .240 .230	155.7 130.1 105.3	25.3 21.4 17.5	4.91 4.81 4.65	4.55 3.67 2.79	2.26 1.83 1.39	0.84 0.81 0.76		
	P.C.	CBL 10 10 x 4 R = .30	19.0 17.0 15.0	5.61 4.98 4.40	10.25 10.12 10.00	4.020 4.010 4.000	.394 .329 .269	.250 .240 .230	96.2 81.8 68.8	18.8 16.2 13.8	4.14 4.05 3.95	4.19 3.45 2.79	2.08 1.72 1.39	0.86 0.83 0.80	
		P.C.	CBL 8 8 x 4 R = .30	15.0 13.0	4.43 3.83	8.12 8.00	4.015 4.000	.314 .254	.245 .230	48.0 39.5	11.8 9.88	3.29 3.21	3.30 2.62	1.65 1.31	0.86 0.83
P.C.	CBL 6 6 x 4 R = .25		16.0 12.0	4.72 3.53	6.25 6.00	4.030 4.000	.404 .279	.260 .230	31.7 21.7	10.1 7.24	2.59 2.48	4.32 2.89	2.14 1.44	0.96 0.90	
	STANCHIONS														
P.C.	CBS 6 6 x 6 R = .25	25.0	7.35	6.37	6.080	.456	.320	53.5	16.8	2.69	17.1	5.6	1.52		
		20.0	5.88	6.20	6.018	.367	.258	41.7	13.4	2.66	13.3	4.4	1.50		
		15.5	4.59	6.00	6.000	.269	.240	30.3	10.1	2.56	9.69	3.2	1.45		
P.	CB 51 5 x 5 R = .3	18.5	5.45	5.12	5.025	.420	.265	25.4	9.94	2.16	8.89	3.54	1.28		
		16.0	4.70	5.00	5.000	.360	.240	21.3	8.53	2.13	7.51	3.00	1.26		
JOISTS															
P.C.	CBJ 12 12 x 4 R = .30	14.0	4.14	11.91	3.970	.224	.200	88.2	14.8	4.61	2.25	1.13	0.74		
		P.C.	CBJ 10 10 x 4 R = .30	11.5	3.39	9.87	3.950	.204	.180	51.9	10.5	3.92	2.01	1.02	0.77
				P.C.	CBJ 8 8 x 4 R = .30	10.0	2.95	7.90	3.940	.204	.170	30.8	7.79	3.23	1.99	1.01	0.82
P.C.	CBJ 6 6 x 4 R = .25	8.5	2.50			5.83	3.940	.194	.170	14.8	5.07	2.43	1.89	0.96	0.87

For key to symbols in first column, refer to page 3.



WIDE FLANGE
LIGHT BEAMS, STANCHIONS
AND JOISTS
DIMENSIONS OF SECTIONS



Section Index and Nominal Size	Weight per Foot	Depth of Section	Flange		Web		Distance					Usual Gage g	
			Width	Thick-ness	Thick-ness	Half Thick-ness	a	f	o	d_1	Min. g_2		Clear. h

LIGHT BEAMS

CBL 12 12 x 4 R=.30	22.0 19.0 16.5	12 $\frac{1}{4}$ 12 $\frac{1}{8}$ 12	4 4 4	$\frac{7}{16}$ $\frac{3}{8}$ $\frac{1}{4}$	$\frac{1}{4}$ $\frac{1}{4}$ $\frac{1}{4}$	$\frac{1}{8}$ $\frac{1}{8}$ $\frac{1}{8}$	1 $\frac{7}{8}$ 1 $\frac{7}{8}$ 1 $\frac{7}{8}$	10 $\frac{3}{4}$ 10 $\frac{3}{4}$ 10 $\frac{3}{4}$	$\frac{3}{4}$ $\frac{11}{16}$ $\frac{5}{8}$	13 12 $\frac{3}{4}$ 12 $\frac{5}{8}$	2 2 1 $\frac{3}{4}$	$\frac{3}{16}$ $\frac{3}{16}$ $\frac{3}{16}$	2 $\frac{1}{4}$ 2 $\frac{1}{4}$ 2 $\frac{1}{4}$
CBL 10 10 x 4 R=.30	19.0 17.0 15.0	10 $\frac{1}{4}$ 10 $\frac{1}{8}$ 10	4 4 4	$\frac{3}{8}$ $\frac{5}{16}$ $\frac{1}{4}$	$\frac{1}{4}$ $\frac{1}{4}$ $\frac{1}{4}$	$\frac{1}{8}$ $\frac{1}{8}$ $\frac{1}{8}$	1 $\frac{7}{8}$ 1 $\frac{7}{8}$ 1 $\frac{7}{8}$	8 $\frac{7}{8}$ 8 $\frac{7}{8}$ 8 $\frac{7}{8}$	$\frac{11}{16}$ $\frac{5}{8}$ $\frac{9}{16}$	11 10 $\frac{7}{8}$ 10 $\frac{3}{4}$	2 2 1 $\frac{3}{4}$	$\frac{3}{16}$ $\frac{3}{16}$ $\frac{3}{16}$	2 $\frac{1}{4}$ 2 $\frac{1}{4}$ 2 $\frac{1}{4}$
CBL 8 8 x 4 R=.30	15.0 13.0	8 $\frac{1}{8}$ 8	4 4	$\frac{5}{16}$ $\frac{1}{4}$	$\frac{1}{4}$ $\frac{1}{4}$	$\frac{1}{8}$ $\frac{1}{8}$	1 $\frac{7}{8}$ 1 $\frac{7}{8}$	6 $\frac{7}{8}$ 6 $\frac{7}{8}$	$\frac{5}{8}$ $\frac{9}{16}$	9 9	2 1 $\frac{3}{4}$	$\frac{3}{16}$ $\frac{3}{16}$	2 $\frac{1}{4}$ 2 $\frac{1}{4}$
CBL 6 6 x 4 R=.25	16.0 12.0	6 $\frac{1}{4}$ 6	4 4	$\frac{3}{8}$ $\frac{1}{4}$	$\frac{1}{4}$ $\frac{1}{4}$	$\frac{1}{8}$ $\frac{1}{8}$	1 $\frac{7}{8}$ 1 $\frac{7}{8}$	4 $\frac{7}{8}$ 4 $\frac{7}{8}$	$\frac{11}{16}$ $\frac{9}{16}$	7 $\frac{3}{8}$ 7 $\frac{1}{4}$	2 1 $\frac{3}{4}$	$\frac{3}{16}$ $\frac{3}{16}$	2 $\frac{1}{4}$ 2 $\frac{1}{4}$

STANCHIONS

CBS 6 6 x 6 R=.25	25.0 20.0 15.5	6 $\frac{3}{8}$ 6 $\frac{1}{4}$ 6	6 6 6	$\frac{1}{2}$ $\frac{3}{8}$ $\frac{1}{4}$	$\frac{5}{16}$ $\frac{1}{4}$ $\frac{1}{4}$	$\frac{3}{16}$ $\frac{3}{16}$ $\frac{1}{8}$	2 $\frac{7}{8}$ 2 $\frac{7}{8}$ 2 $\frac{7}{8}$	4 $\frac{7}{8}$ 4 $\frac{7}{8}$ 4 $\frac{7}{8}$	$\frac{3}{4}$ $\frac{11}{16}$ $\frac{9}{16}$	8 $\frac{7}{8}$ 8 $\frac{5}{8}$ 8 $\frac{1}{2}$	2 $\frac{1}{4}$ 2 2	$\frac{1}{4}$ $\frac{3}{16}$ $\frac{3}{16}$	3 $\frac{1}{2}$ 3 $\frac{1}{2}$ 3 $\frac{1}{2}$
CB 51 5 x 5 R=.3	18.5 16.0	5 $\frac{1}{8}$ 5	5 5	$\frac{7}{16}$ $\frac{3}{8}$	$\frac{1}{4}$ $\frac{1}{4}$	$\frac{1}{8}$ $\frac{1}{8}$	2 $\frac{3}{8}$ 2 $\frac{3}{8}$	3 $\frac{11}{16}$ 3 $\frac{11}{16}$	$\frac{11}{16}$ $\frac{5}{8}$	7 $\frac{1}{8}$ 7	2 $\frac{3}{4}$ 2 $\frac{3}{4}$	$\frac{3}{16}$ $\frac{3}{16}$	3 3

This section has a flange slope of 3° and the flange thickness shown is the average thickness.

JOISTS

CBJ 12 12 x 4 R=.30	14.0	11 $\frac{7}{8}$	4	$\frac{1}{4}$	$\frac{3}{16}$	$\frac{1}{8}$	1 $\frac{7}{8}$	10 $\frac{3}{4}$	$\frac{9}{16}$	12 $\frac{1}{2}$	1 $\frac{3}{4}$	$\frac{3}{16}$	2 $\frac{1}{4}$
CBJ 10 10 x 4 R=.30	11.5	9 $\frac{7}{8}$	4	$\frac{3}{16}$	$\frac{3}{16}$	$\frac{1}{8}$	1 $\frac{7}{8}$	8 $\frac{7}{8}$	$\frac{1}{2}$	10 $\frac{5}{8}$	1 $\frac{3}{4}$	$\frac{3}{16}$	2 $\frac{1}{4}$
CBJ 8 8 x 4 R=.30	10.0	7 $\frac{7}{8}$	4	$\frac{3}{16}$	$\frac{3}{16}$	$\frac{1}{8}$	1 $\frac{7}{8}$	6 $\frac{7}{8}$	$\frac{1}{2}$	8 $\frac{7}{8}$	1 $\frac{3}{4}$	$\frac{3}{16}$	2 $\frac{1}{4}$
CBJ 6 6 x 4 R=.25	8.5	5 $\frac{7}{8}$	4	$\frac{3}{16}$	$\frac{3}{16}$	$\frac{1}{8}$	1 $\frac{7}{8}$	5	$\frac{7}{16}$	7	1 $\frac{3}{4}$	$\frac{3}{16}$	2 $\frac{1}{4}$

Gages g_2 are based on $\frac{1}{4}$ " edge distance ($\frac{7}{8}$ " maximum rivet).

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CBL-S-J

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CAR SECTIONS

CRANE RAILS

CORRUG. SHEETS

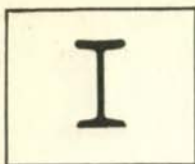
PILING

FLOOR PLATES

PLATES

MILL PRACTICES

INDEX



BEAMS

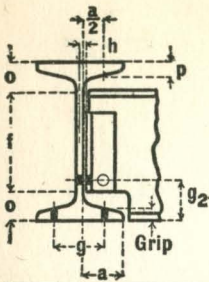
AMERICAN STANDARD

PROPERTIES OF SECTIONS



District Rolled	Section Index and Nominal Size	Weight per Foot	Area of Section	Depth of Beam	Width of Flange	Aver. Flange Thickness	Web Thickness	Axis 1-1			Axis 2-2		
								I	S	r	I	S	r
								In. ⁴	In. ²	In.	In. ⁴	In. ²	In.
P. C.	24" 1 B 18	120.0	35.13	24	8.048	1.102	.798	3010.8	250.9	9.26	84.9	21.1	1.56
	24 x 7 $\frac{3}{8}$ R=.60	105.9	30.98		7.875	1.102	.625	2811.5	234.3	9.53	78.9	20.0	1.60
P. C.	24" 1 B 1	100.0	29.25	24	7.247	.871	.747	2371.8	197.6	9.05	58.4	13.4	1.29
	24 x 7 R=.60	90.0 79.9	26.30 23.33		7.124 7.000	.871 .871	.624 .500	2230.1 2087.2	185.8 173.9	9.21 9.46	45.5 42.9	12.8 12.2	1.32 1.36
P. C.	20" 1 B 2	95.0	27.74	20	7.200	.916	.800	1599.7	160.0	7.59	50.5	14.0	1.35
	20 x 7 R=.70	85.0	24.80		7.053	.916	.653	1501.7	150.2	7.78	47.0	13.3	1.38
P. C.	20" 1 B 3	75.0	21.90	20	6.391	.789	.641	1263.5	126.3	7.60	30.1	9.4	1.17
	20 x 6 $\frac{1}{4}$ R=.60	65.4	19.08		6.250	.789	.500	1169.5	116.9	7.83	27.9	8.9	1.21
P.C.B.	18" 1 B 4	70.0	20.46	18	6.251	.691	.711	917.5	101.9	6.70	24.5	7.8	1.09
	18 x 6 R=.56	54.7	15.94		6.000	.691	.460	795.5	88.4	7.07	21.2	7.1	1.15
P.C.B.G.	15" 1 B 7	50.0	14.59	15	5.640	.622	.550	481.1	64.2	5.74	16.0	5.7	1.05
	15 x 5 $\frac{1}{2}$ R=.51	42.9	12.49		5.500	.622	.410	441.8	58.9	5.95	14.6	5.3	1.08
P. C.	12" 1 B 8	50.0	14.57	12	5.477	.659	.687	301.6	50.3	4.55	16.0	5.8	1.05
	12 x 5 $\frac{1}{4}$ R=.56	40.8	11.84		5.250	.659	.460	268.9	44.8	4.77	13.8	5.3	1.08
P.C.B.G.	12" 1 B 9	35.0	10.20	12	5.078	.544	.428	227.0	37.8	4.72	10.0	3.9	0.99
	12 x 5 R=.45	31.8	9.26		5.000	.544	.350	215.8	36.0	4.83	9.5	3.8	1.01
P.C.B.G.	10" 1 B 10	35.0	10.22	10	4.944	.491	.594	145.8	29.2	3.78	8.5	3.4	0.91
	10 x 4 $\frac{3}{8}$ R=.41	25.4	7.38		4.660	.491	.310	122.1	24.4	4.07	6.9	3.0	0.97
P.C.B.G.	8" 1 B 12	23.0	6.71	8	4.171	.425	.441	64.2	16.0	3.09	4.4	2.1	0.81
	8 x 4 R=.37	18.4	5.34		4.000	.425	.270	56.9	14.2	3.26	3.8	1.9	0.84
P.C.B.S.	7" 1 B 13	20.0	5.83	7	3.860	.392	.450	41.9	12.0	2.68	3.1	1.6	0.74
	7 x 3 $\frac{3}{8}$ R=.35	15.3	4.43		3.660	.392	.250	36.2	10.4	2.86	2.7	1.5	0.78

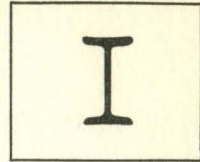
For key to symbols in first column, refer to page 3.



BEAMS

AMERICAN STANDARD

DIMENSIONS OF SECTIONS



Section Index and Depth	Weight per Foot	Flange		Web			Distance						Max. Flange Rivet
		Width	Thick-ness, p	Thick-ness	Half Thick-ness	a	f	o	Min. g ₂	Clear. h	Gage g	Grip	
	Lbs.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.
24" I	120.0	8	1 1/8	1 3/16	7/16	3 5/8	20 1/8	1 5/16	3 1/4	1/2	4	1 1/8	1
B 18	105.9	7 7/8	1 1/8	5/8	5/16	3 5/8	20 3/8	1 5/16	3 1/4	3/8	4	1 1/8	1
R=.60													
24" I	100.0	7 1/4	7/8	3/4	3/8	3 1/4	20 3/4	1 5/8	3	7/16	4	7/8	1
B 1	90.0	7 1/8	7/8	5/8	5/16	3 1/4	20 3/4	1 5/8	3	3/8	4	7/8	1
R=.60	79.9	7	7/8	1/2	1/4	3 1/4	20 3/4	1 5/8	3	5/16	4	7/8	1
20" I	95.0	7 1/4	1 5/16	1 3/16	7/16	3 1/4	16 1/2	1 3/4	3 1/4	1/2	4	1 5/16	1
B 2	85.0	7	1 5/16	1 1/16	5/16	3 1/4	16 1/2	1 3/4	3 1/4	3/8	4	7/8	1
R=.70													
20" I	75.0	6 3/8	1 3/16	5/8	5/16	2 7/8	16 7/8	1 1/16	3	3/8	3 1/2	1 1/16	7/8
B 3	65.4	6 1/4	1 3/16	1/2	1/4	2 7/8	16 7/8	1 1/16	3	5/16	3 1/2	3/4	7/8
R=.60													
18" I	70.0	6 1/4	1 1/16	3/4	3/8	2 3/4	15 1/4	1 3/8	2 3/4	7/16	3 1/2	1 1/16	7/8
B 4	54.7	6	1 1/16	1/2	1/4	2 3/4	15 1/4	1 3/8	2 3/4	5/16	3 1/2	1 1/16	7/8
R=.56													
15" I	50.0	5 5/8	5/8	9/16	5/16	2 1/2	12 1/2	1 1/4	2 3/4	3/8	3 1/2	9/16	3/4
B 7	42.9	5 1/2	5/8	7/16	1/4	2 1/2	12 1/2	1 1/4	2 3/4	5/16	3 1/2	9/16	3/4
R=.51													
12" I	50.0	5 1/2	1 1/16	1 1/16	3/8	2 3/8	9 3/8	1 5/16	2 3/4	7/16	3	5/8	3/4
B 8	40.8	5 1/4	1 1/16	1/2	1/4	2 3/8	9 3/8	1 5/16	2 3/4	5/16	3	5/8	3/4
R=.56													
12" I	35.0	5 1/8	9/16	7/16	1/4	2 3/8	9 3/4	1 1/8	2 1/2	5/16	3	1/2	3/4
B 9	31.8	5	9/16	3/8	3/16	2 3/8	9 3/4	1 1/8	2 1/2	1/4	3	1/2	3/4
R=.45													
10" I	35.0	5	1/2	5/8	5/16	2 3/8	8	1	2 1/2	3/8	2 3/4	1/2	3/4
B 10	25.4	4 5/8	1/2	3/16	3/16	2 3/8	8	1	2 1/2	1/4	2 3/4	1/2	3/4
R=.41													
8" I	23.0	4 1/8	7/16	7/16	1/4	1 7/8	6 1/4	7/8	2 1/4	5/16	2 1/4	7/16	3/4
B 12	18.4	4	7/16	3/16	1/8	1 7/8	6 1/4	7/8	2 1/4	3/16	2 1/4	7/16	3/4
R=.37													
7" I	20.0	3 7/8	3/8	7/16	1/4	1 3/4	5 3/8	1 1/16	2	5/16	2 1/4	3/8	5/8
B 13	15.3	3 5/8	3/8	1/4	1/8	1 3/4	5 3/8	1 1/16	2 1/4	3/16	2 1/4	3/8	5/8
R=.35													

Gages g₂ are based on 1/4" edge distance (7/8" maximum rivet).

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CAR SECTIONS

CRANE RAILS

CORRUG. SHEETS

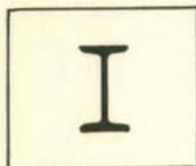
PILING

FLOOR PLATES

PLATES

MILL PRACTICES

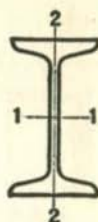
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BEAMS

AMERICAN STANDARD

PROPERTIES OF SECTIONS

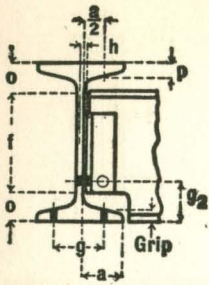


District Rolled	Section Index and Nominal Size	Weight per Foot	Area of Section	Depth of Beam	Width of Flange	Aver. Flange Thickness	Web Thickness	Axis 1-1			Axis 2-2		
								I	S	r	I	S	r
								In. ⁴	In. ²	In.	In. ⁴	In. ²	In.
P.C.B.G.	6" 1	17.25	5.02	6	3.565	.359	.465	26.0	8.7	2.28	2.3	1.3	0.68
	B 14												
	6 x 3 ³ / ₈ R=.33												
P.C. P.C.S.	5" 1	14.75	4.29	5	3.284	.326	.494	15.0	6.0	1.87	1.7	1.0	0.63
	B 15 5 x 3 R=.31												
P.C.B.G. P.C.B.S.G.	4" 1	9.5	2.76	4	2.796	.293	.326	6.7	3.3	1.56	0.91	0.65	0.58
	B 16 4 x 2 ⁹ / ₈ R=.29												
P.C.B. P.C.B.S.	3" 1	7.5	2.17	3	2.509	.260	.349	2.9	1.9	1.15	0.59	0.47	0.52
	B 17 3 x 2 ⁹ / ₈ R=.27												

H-BEAMS

District Rolled	Section Index and Nominal Size	Weight per Foot	Area of Section	Depth of Beam	Width of Flange	Aver. Flange Thickness	Web Thickness	Axis 1-1			Axis 2-2		
								I	S	r	I	S	r
								In. ⁴	In. ²	In.	In. ⁴	In. ²	In.
P.C.	H 4 8 x 8 R=.313	34.3	10.07	8	8.000	.459	.375	115.5	28.9	3.40	35.1	8.8	1.87
P.C.	H 3a 6 x 6 R=.313	25.0	7.35	6	5.938	.481	.313	47.0	15.7	2.53	14.9	5.0	1.43
P.C.B.	H 3 6 x 6 R=.313	20.0	5.88	6	5.938	.380	.250	38.8	12.9	2.57	11.4	3.8	1.39
P.C.B.	H 2 5 x 5 R=.313	18.9	5.54	5	5.000	.417	.313	23.8	9.5	2.08	7.8	3.1	1.20
P.C.B.S.	H 1 4 x 4 R=.313	13.0	3.82	4	3.937	.372	.250	10.4	5.2	1.65	3.4	1.7	.94

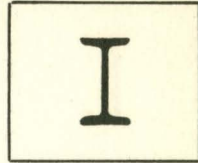
For key to symbols in first column, refer to page 3.



BEAMS

AMERICAN STANDARD

DIMENSIONS OF SECTIONS



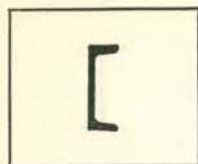
Section Index and Depth	Weight per Foot	Flange		Web		Distance							Max. Flange Rivet
		Width	Thick-ness, p	Thick-ness	Half Thick-ness	a	f	o	Min. g ₂	Clear. h	Gage g	Grip	
		In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	
6" I B 14 R=.33	17.25 12.5	3 ⁵ / ₈ 3 ³ / ₈	3/8 3/8	1/2 1/4	1/4 1/8	1 1/2 1 1/2	4 1/2 4 1/2	3/4 3/4	2 2	5/16 3/16	2 2	3/8 5/16	5/8 5/8
5" I B 15 R=.31	14.75 10.0	3 1/4 3	5/16 5/16	1/2 1/4	1/4 1/8	1 3/8 1 3/8	3 5/8 3 5/8	1 1/16 1 1/16	2 2	5/16 3/16	1 3/4 1 3/4	5/16 5/16	1/2 1/2
4" I B 16 R=.29	9.5 7.7	2 3/4 2 5/8	5/16 5/16	5/16 3/16	3/16 1/8	1 1/4 1 1/4	2 3/4 2 3/4	5/8 5/8	2 2	1/4 3/16	1 1/2 1 1/2	5/16 5/16	1/2 1/2
3" I B 17 R=.27	7.5 5.7	2 1/2 2 3/8	1/4 1/4	3/8 3/16	3/16 1/8	1 1/8 1 1/8	1 7/8 1 7/8	9/16 9/16	..... .....	1/4 3/16	1 1/2 1 1/2	1/4 1/4	3/8 3/8

H-BEAMS

Section Index and Depth	Weight per Foot	Flange		Web		Distance					Max. Flange Rivet	
		Width	Thick-ness, p.	Thick-ness	Half Thick-ness	a	f	o	Min. g ₂	Gage g		Grip
		In.	In.	In.	In.	In.	In.	In.	In.	In.		In.
H 4 8 R=.313	34.3	8	7/16	3/8	3/16	3 13/16	6 1/4	7/8	2 1/4	5	7/16	7/8
H 3a 6 R=.313	25.0	6	1/2	5/16	3/16	2 13/16	4 1/4	7/8	2 1/4	3 1/2	1/2	7/8
H 3 6 R=.313	20.0	6	3/8	1/4	1/8	2 7/8	4 7/16	3/4	2	3 1/2	3/8	7/8
H 2 5 R=.313	18.9	5	7/16	5/16	3/16	2 3/8	3 3/8	1 3/16	2	2 3/4	7/16	3/4
H 1 4 R=.313	13.0	4	3/8	1/4	1/8	1 7/8	2 1/2	3/4	2	2 1/4	3/8	5/8

Gages g₂ are based on 1 1/4" edge distance (7/8" maximum rivet).

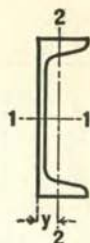
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- [CAR & SHIP
- L EQUAL
- L UNEQUAL
- L BULB
- T
- T SPLIT
- CAR SECTIONS
- CRANE RAILS
- CORRUG. SHEETS
- PILING
- FLOOR PLATES
- PLATES
- MILL PRACTICES
- INDEX



CHANNELS

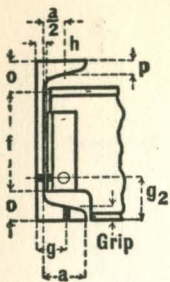
AMERICAN STANDARD

PROPERTIES OF SECTIONS



District Rolled	Section Index and Nominal Size	Weight per Foot	Area of Section	Depth of Channel	Width of Flange	Aver. Flange Thickness	Web Thickness	Axis 1-1			Axis 2-2			
								I	S	r	I	S	r	y
								ln. ⁴	ln. ³	ln.	ln. ⁴	ln. ³	ln.	ln.
P.C.	†C 60 18 x 4 R=.625	58.0	16.98	18	4.200	.625	.700	670.7	74.5	6.29	18.5	5.6	1.04	0.88
		51.9	15.18		4.100	.625	.600	622.1	69.1	6.40	17.1	5.3	1.06	0.87
		45.8	13.38		4.000	.625	.500	573.5	63.7	6.55	15.8	5.1	1.09	0.89
		42.7	12.48		3.950	.625	.450	549.2	61.0	6.64	15.0	4.9	1.10	0.90
P.C.B.G.	C 1 15 x 3 3/8 R=.50	50.0	14.64	15	3.716	.650	.716	401.4	53.6	5.24	11.2	3.8	0.87	0.80
		40.0	11.70		3.520	.650	.520	346.3	46.2	5.44	9.3	3.4	0.89	0.78
		33.9	9.90		3.400	.650	.400	312.6	41.7	5.62	8.2	3.2	0.91	0.79
P.C.	C 20 13 x 4 R=.48	50.0	14.66	13	4.412	.610	.787	312.9	48.1	4.62	16.7	4.9	1.07	0.98
		40.0	11.71		4.185	.610	.560	271.4	41.7	4.82	13.9	4.3	1.09	0.97
P.C.B.	C 20 13 x 4 R=.48	35.0	10.24	13	4.072	.610	.447	250.7	38.6	4.95	12.5	4.0	1.10	0.99
P.C.B.		31.8	9.30		4.000	.610	.375	237.5	36.5	5.05	11.6	3.9	1.11	1.01
P.C.B.G.	C 2 12 x 3 R=.38	30.0	8.79	12	3.170	.501	.510	161.2	26.9	4.28	5.2	2.1	0.77	0.68
		25.0	7.32		3.047	.501	.387	143.5	23.9	4.43	4.5	1.9	0.79	0.68
		20.7	6.03		2.940	.501	.280	128.1	21.4	4.61	3.9	1.7	0.81	0.70
P.C.B.G.	C 3 10 x 2 5/8 R=.34	30.0	8.80	10	3.033	.436	.673	103.0	20.6	3.42	4.0	1.7	0.67	0.65
		25.0	7.33		2.886	.436	.526	90.7	18.1	3.52	3.4	1.5	0.68	0.62
		20.0	5.86		2.739	.436	.379	78.5	15.7	3.66	2.8	1.3	0.70	0.61
		15.3	4.47	2.600	.436	.240	66.9	13.4	3.87	2.3	1.2	0.72	0.64	
P.C.B.	C 4 9 x 2 1/2 R=.33	20.0	5.86	9	2.648	.413	.448	60.6	13.5	3.22	2.4	1.2	0.65	0.59
		15.0	4.39		2.485	.413	.285	50.7	11.3	3.40	1.9	1.0	0.67	0.59
		13.4	3.89	2.430	.413	.230	47.3	10.5	3.49	1.8	0.97	0.67	0.61	
P.C.B.G.	C 5 8 x 2 1/4 R=.32	18.75	5.49	8	2.527	.390	.487	43.7	10.9	2.82	2.00	1.00	0.60	0.57
		13.75	4.02		2.343	.390	.303	35.8	9.0	2.99	1.50	0.86	0.62	0.56
		11.50	3.36	2.260	.390	.220	32.3	8.1	3.10	1.30	0.79	0.63	0.58	
P.C.B.S.G.	C 6 7 x 2 1/8 R=.31	14.75	4.32	7	2.299	.366	.419	27.1	7.7	2.51	1.40	0.79	0.57	0.53
		12.25	3.58		2.194	.366	.314	24.1	6.9	2.59	1.20	0.71	0.58	0.53
		9.80	2.85	2.090	.366	.210	21.1	6.0	2.72	0.98	0.63	0.59	0.55	
P.C.B.G.	C 7 6 x 2 R=.30	13.00	3.81	6	2.157	.343	.437	17.3	5.8	2.13	1.10	0.65	0.53	0.52
		10.50	3.07		2.034	.343	.314	15.1	5.0	2.22	0.87	0.57	0.53	0.50
		8.20	2.39	1.920	.343	.200	13.0	4.3	2.34	0.70	0.50	0.54	0.52	
P.C.B.S.G.	C 8 5 x 1 3/4 R=.29	9.00	2.63	5	1.885	.320	.325	8.8	3.5	1.83	0.64	0.45	0.49	0.48
		6.70	1.95		1.750	.320	.190	7.4	3.0	1.95	0.48	0.38	0.50	0.49
P.C.B.S.G.	C 9 4 x 1 5/8 R=.28	7.25	2.12	4	1.720	.296	.320	4.5	2.3	1.47	0.44	0.35	0.46	0.46
		5.40	1.56		1.580	.296	.180	3.8	1.9	1.56	0.32	0.29	0.45	0.46
P.C.B.	C 10	6.00	1.75	3	1.596	.273	.356	2.1	1.4	1.08	0.31	0.27	0.42	0.46
P.C.B.S.	3 x 1 1/2	5.00	1.46		1.498	.273	.258	1.8	1.2	1.12	0.25	0.24	0.41	0.44
P.C.B.S.	R=.27	4.10	1.19		1.410	.273	.170	1.6	1.1	1.17	0.20	0.21	0.41	0.44

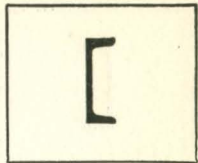
†C 60 is not an American standard channel.
For key to symbols in first column, refer to page 3.



CHANNELS

AMERICAN STANDARD

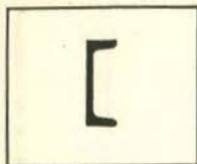
DIMENSIONS OF SECTIONS



Section Index and Depth	Weight per Foot Lbs.	Flange		Web		Distance							Max. Flange Rivet In.	
		Width In.	Thick-ness, p In.	Thick-ness In.	Half Thick-ness In.	a In.	f In.	o In.	Min. g ₂ In.	Clear. h In.	Gage g In.	Grip In.		
†C 60	58.0	4 1/4	5/8	1 1/16	3/8	3 1/2	15 3/8	1 5/16	2 3/4	3/4	2 1/2	5/8	1	
	18	4 1/8	5/8	5/8	5/16	3 1/2	15 3/8	1 5/16	2 3/4	1 1/16	2 1/2	5/8	1	
	45.8	4	5/8	1 1/2	1/4	3 1/2	15 3/8	1 5/16	2 3/4	9/16	2 1/2	5/8	1	
R=.625	42.7	4	5/8	7/16	1/4	3 1/2	15 3/8	1 5/16	2 3/4	1/2	2 1/2	5/8	1	
C 1	50.0	3 3/4	5/8	3/4	3/8	3	12 3/8	1 5/16	2 3/4	1 3/16	2 1/4	5/8	1	
	15	40.0	3 1/2	5/8	9/16	1/4	3	12 3/8	1 5/16	2 3/4	5/8	2	5/8	1
	R=.50	33.9	3 3/8	5/8	7/16	3/16	3	12 3/8	1 5/16	2 3/4	1/2	2	5/8	1
C 20	50.0	4 3/8	5/8	1 3/16	7/16	3 5/8	10 3/8	1 5/16	2 3/4	7/8	2 1/2	5/8	1	
	40.0	4 1/8	5/8	5/8	5/16	3 3/8	10 3/8	1 5/16	2 3/4	5/8	2 1/2	9/16	1	
	13	35.0	4 1/8	5/8	7/16	1/4	3 3/8	10 3/8	1 5/16	2 3/4	1/2	2 1/2	9/16	1
R=.48	31.8	4	5/8	3/8	3/16	3 3/8	10 3/8	1 5/16	2 3/4	7/16	2 1/2	9/16	1	
C 2	30.0	3 1/8	1/2	1 1/2	1/4	2 5/8	9 7/8	1 1/16	2 1/2	9/16	1 3/4	1/2	7/8	
	12	25.0	3	1/2	3/8	3/16	2 5/8	9 7/8	1 1/16	2 1/2	7/16	1 1/2	7/8	
	R=.38	20.7	3	1/2	5/16	1/8	2 5/8	9 7/8	1 1/16	2 1/2	3/8	1 3/4	1/2	7/8
C 3	30.0	3	7/16	1 1/16	3/8	2 5/8	8 1/8	1 5/16	2 1/2	3/4	1 3/4	7/16	3/4	
	25.0	2 7/8	7/16	9/16	1/4	2 5/8	8 1/8	1 5/16	2 1/2	5/8	1 3/4	7/16	3/4	
	10	20.0	2 3/4	7/16	3/8	3/16	2 5/8	8 1/8	1 5/16	2 1/2	7/16	1 1/2	7/16	
R=.34	15.3	2 5/8	7/16	1/4	1/8	2 5/8	8 1/8	1 5/16	2 1/2	5/16	1 1/2	7/16	3/4	
C 4	20.0	2 5/8	7/16	7/16	1/4	2 1/4	7 1/4	7/8	2 1/2	1/2	1 1/2	7/16	3/4	
	9	15.0	2 1/2	7/16	5/16	3/16	2 1/4	7 1/4	7/8	2 1/2	3/8	1 3/8	7/16	
	R=.33	13.4	2 3/8	7/16	1/4	1/8	2 1/4	7 1/4	7/8	2 1/2	7/16	1 3/8	3/8	
C 5	18.75	2 1/2	3/8	1 1/2	1/4	2	6 3/8	1 3/16	2 1/4	9/16	1 1/2	3/8	3/4	
	8	13.75	2 3/8	3/8	5/16	3/16	2	6 3/8	1 3/16	2 1/4	3/8	1 3/8	3/8	
	R=.32	11.5	2 1/4	3/8	1/4	1/8	2	6 3/8	1 3/16	2 1/4	5/16	1 3/8	3/8	
C 6	14.75	2 1/4	3/8	7/16	1/4	1 7/8	5 3/8	1 3/16	2	1/2	1 1/4	3/8	5/8	
	7	12.25	2 1/4	3/8	5/16	3/16	1 7/8	5 3/8	1 3/16	2	3/8	1 1/4	3/8	
	R=.31	9.8	2 3/8	3/8	1/4	1/8	1 7/8	5 3/8	1 3/16	2	5/16	1 1/4	3/8	
C 7	13.0	2 3/8	3/8	7/16	1/4	1 3/4	4 1/2	3/4	2	1/2	1 3/8	5/16	5/8	
	6	10.5	2	3/8	5/16	3/16	1 3/4	4 1/2	3/4	2	3/8	1 1/8	5/8	
	R=.30	8.2	1 7/8	3/8	3/16	1/8	1 3/4	4 1/2	3/4	2	7/4	1 1/8	5/8	
C 8	9.0	1 7/8	5/16	5/16	3/16	1 1/2	3 5/8	1 1/16	2	3/8	1 1/8	5/16	1 1/2	
	5	6.7	1 3/4	5/16	3/16	1/8	1 1/2	3 5/8	1 1/16	2	1/4	1 1/8	5/16	
	R=.29	7.25	1 3/4	5/16	5/16	3/16	1 3/8	2 3/4	5/8	2	3/8	1	5/16	
C 9	4	5.4	1 5/8	3/16	1/8	1 3/8	2 3/4	5/8	2	7/4	1	1/4	1 1/2	
	R=.28	6.0	1 5/8	1/4	3/8	3/16	1 1/4	1 3/4	5/8	.....	7/16	7/8	5/16
	3	5.0	1 1/2	1/4	1/4	1/8	1 1/4	1 3/4	5/8	.....	3/16	7/8	1/4
R=.27	4.1	1 3/8	1/4	3/16	1/8	1 1/4	1 3/4	5/8	.....	1/4	7/8	1/4	

Gages g₂ are based on 1/4" edge distance (7/8" maximum rivet).
†C 60 is not an American standard channel.

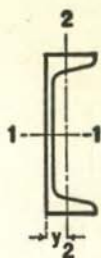
- STD.
- CAR & SHIP
- EQUAL
- UNEQUAL
- BULB
- SPLIT
- CAR SECTIONS
- CRANE RAILS
- CORRUG. SHEETS
- PILING
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CHANNELS

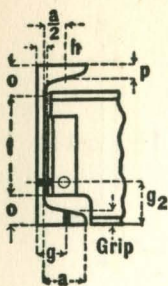
CAR BUILDING AND SHIPBUILDING

PROPERTIES OF SECTIONS



District Rolled	Section Index and Nominal Size	Weight per Foot	Area of Section	Depth of Channel	Width of Flange	Aver. Flange Thickness	Web Thickness	Axis 1-1			Axis 2-2			
								I	S	r	I	S	r	y
								In. ⁴	In. ³	In.	In. ⁴	In. ³	In.	In.
P.C.	C 60 18 x 4 R=.625	58.0	16.98	18	4.200	.625	.700	670.7	74.5	6.29	18.5	5.6	1.04	0.88
		51.9	15.18		4.100	.625	.600	622.1	69.1	6.40	17.1	5.3	1.06	0.87
		45.8	13.38		4.000	.625	.500	573.5	63.7	6.55	15.8	5.1	1.09	0.89
		42.7	12.48		3.950	.625	.450	549.2	61.0	6.64	15.0	4.9	1.10	0.90
P.C.G. P.C.B.G. P.C.B.G. P.C.B.G.	C 20 13 x 4 R=.48	50.0	14.66	13	4.412	.610	.787	312.9	48.1	4.62	16.7	4.9	1.07	0.98
		40.0	11.71		4.185	.610	.560	271.4	41.7	4.82	13.9	4.3	1.09	0.97
		35.0	10.24		4.072	.610	.447	250.7	38.6	4.95	12.5	4.0	1.10	0.99
		31.8	9.30		4.000	.610	.375	237.5	36.5	5.05	11.6	3.9	1.11	1.01
P.C.B.G.	C 170 12 x 4 R=.50	50.0	14.64	12	4.135	.700	.835	268.1	44.7	4.28	17.8	5.8	1.10	1.06
		45.0	13.16		4.012	.700	.712	250.4	41.7	4.36	16.1	5.4	1.11	1.05
		40.0	11.70		3.890	.700	.590	232.8	38.8	4.46	14.5	5.1	1.12	1.05
		35.0	10.23		3.767	.700	.467	215.1	35.8	4.59	12.9	4.8	1.12	1.07
P.G.	C 171 12 x 3½ R=.60	37.0	10.80	12	3.600	.600	.600	203.4	33.9	4.34	10.3	3.8	0.98	0.89
		32.9	9.60		3.500	.600	.500	189.0	31.5	4.44	9.4	3.6	0.99	0.89
		30.9	9.00		3.450	.600	.450	181.8	30.3	4.50	8.9	3.5	0.99	0.90
P.G.	C 26 10 x 4 R=.575	41.1	12.06	10	4.319	.575	.794	156.3	31.3	3.61	16.4	5.1	1.17	1.11
		33.6	9.81		4.100	.575	.575	138.0	27.6	3.75	13.7	4.6	1.18	1.11
		28.5	8.31		3.950	.575	.425	125.5	25.1	3.89	11.8	4.2	1.19	1.15
P.G.	C 27 10 x 3½ R=.575	28.3	8.23	10	3.500	.575	.475	116.9	23.4	3.77	8.6	3.4	1.02	0.96
		24.9	7.23		3.400	.575	.375	108.6	21.7	3.88	7.6	3.2	1.03	0.98
P.C.	C 28 10 x 3½ R=.50	25.3	7.38	10	3.550	.500	.425	106.0	21.2	3.79	7.9	3.0	1.04	0.94
		21.9	6.38		3.450	.500	.325	97.6	19.5	3.91	7.0	2.8	1.05	0.98
P.C.G.	C 32 9 x 3½ R=.55	25.4	7.41	9	3.500	.550	.450	87.3	19.4	3.43	8.0	3.2	1.04	1.00
		23.9	6.96		3.450	.550	.400	84.3	18.7	3.48	7.5	3.1	1.04	1.01

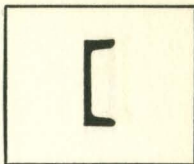
For key to symbols in first column, refer to page 3.



CHANNELS

CAR BUILDING AND SHIP BUILDING

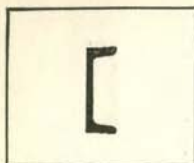
DIMENSIONS OF SECTIONS



Section Index and Depth	Weight per Foot	Flange		Web		Distance						Max. Flange Rivet	
		Width	Thick-ness, p	Thick-ness	Half Thick-ness	a	f	o	Min. g ₂	Clear. h	Gage g		Grip
		Lbs.	In.	In.	In.	In.	In.	In.	In.	In.	In.		In.
C 60 18 R=.625	58.0	4 1/4	5/8	1 1/16	3/8	3 1/2	15 3/8	1 5/16	2 3/4	3/4	2 1/2	5/8	1
	51.9	4 1/8	5/8	5/8	5/16	3 1/2	15 3/8	1 5/16	2 3/4	1 1/16	2 1/2	5/8	1
	45.8	4	5/8	1/2	1/4	3 1/2	15 3/8	1 5/16	2 3/4	9/16	2 1/2	5/8	1
	42.7	4	5/8	7/16	1/4	3 1/2	15 3/8	1 5/16	2 3/4	1/2	2 1/2	5/8	1
C 20 13 R=.48	50.0	4 3/8	5/8	1 3/16	7/16	3 5/8	10 3/8	1 5/16	2 3/4	7/8	2 1/2	5/8	1
	40.0	4 1/8	5/8	9/16	5/16	3 5/8	10 3/8	1 5/16	2 3/4	5/8	2 1/2	9/16	1
	35.0	4 1/8	5/8	7/16	1/4	3 5/8	10 3/8	1 5/16	2 3/4	1/2	2 1/2	9/16	1
	31.8	4	5/8	3/8	3/16	3 5/8	10 3/8	1 5/16	2 3/4	7/16	2 1/2	9/16	1
C 170 12 R=.50	50.0	4 1/8	1 1/16	7/8	7/16	3 3/8	9 1/2	1 1/4	2 1/2	15/16	2 1/2	1 1/16	1
	45.0	4	1 1/16	1 1/16	3/8	3 3/8	9 1/2	1 1/4	2 1/2	3/4	2 1/2	1 1/16	1
	40.0	3 7/8	1 1/16	5/8	5/16	3 3/8	9 1/2	1 1/4	2 1/2	1 1/16	2 1/2	1 1/16	1
	35.0	3 3/4	1 1/16	1/2	1/4	3 3/8	9 1/2	1 1/4	2 1/2	9/16	2 1/2	1 1/16	1
C 171 12 R=.60	37.0	3 5/8	5/8	5/8	5/16	3	9 1/2	1 1/4	2 1/2	1 1/16	2 1/4	5/8	7/8
	32.9	3 1/2	5/8	1/2	1/4	3	9 1/2	1 1/4	2 1/2	9/16	2 1/4	9/16	7/8
	30.9	3 1/2	5/8	7/16	1/4	3	9 1/2	1 1/4	2 1/2	1/2	2 1/4	9/16	7/8
C 26 10 R=.575	41.1	4 5/16	9/16	1 3/16	7/16	3 1/2	7 1/2	1 1/4	2 1/2	7/8	2 1/2	9/16	7/8
	33.6	4 1/8	9/16	9/16	5/16	3 1/2	7 1/2	1 1/4	2 1/2	5/8	2 1/2	9/16	7/8
	28.5	4	9/16	7/16	1/4	3 1/2	7 1/2	1 1/4	2 1/2	1/2	2 1/2	9/16	7/8
C 27 10 R=.575	28.3	3 1/2	9/16	1/2	1/4	3	7 3/8	1 3/16	2 1/2	9/16	2	9/16	7/8
	24.9	3 3/8	9/16	3/8	3/16	3	7 3/8	1 3/16	2 1/2	7/16	2	9/16	7/8
C 28 10 R=.50	25.3	3 1/2	1/2	7/16	1/4	3 1/8	7 7/8	1 1/16	2 1/2	1/2	2	1/2	7/8
	21.9	3 1/2	1/2	9/16	3/16	3 1/8	7 7/8	1 1/16	2 1/2	3/8	2	1/2	7/8
C 32 9 R=.55	25.4	3 1/2	9/16	7/16	1/4	3	6 3/4	1 1/8	2 1/2	1/2	2	9/16	7/8
	23.9	3 1/2	9/16	7/16	3/16	3	6 3/4	1 1/8	2 1/2	1/2	2	9/16	7/8

Gages g are usual standard gages, but may be varied if conditions require.
Gages g₂ are based on 1 1/4" edge distance (3/8" maximum rivet).

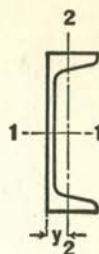
- [CAR & SHIP
- L EQUAL
- L UNEQUAL
- L BULB
- T SPLIT
- CAR SECTIONS
- CRANE RAILS
- CORRUG. SHEETS
- PILING
- FLOOR PLATES
- PLATES
- MILL PRACTICES
- INDEX



CHANNELS

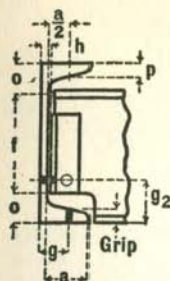
CAR BUILDING AND SHIP BUILDING

PROPERTIES OF SECTIONS



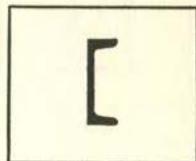
District Rolled	Section Index and Nominal Size	Weight per Foot	Area of Section	Depth of Channel	Width of Flange	Aver. Flange Thickness	Web Thickness	Axis 1-1			Axis 2-2			
								I	S	r	I	S	r	y
								In. ⁴	In. ³	In.	In. ⁴	In. ³	In.	In.
P.C.G.	C 36 8 x 3½ R=.525	22.8	6.63	8	3.500	.525	.425	63.3	15.8	3.09	7.4	3.0	1.05	1.04
		21.4	6.23		3.450	.525	.375	61.2	15.3	3.13	6.9	2.9	1.05	1.05
P.B.G.	C 37 8 x 3 R=.50	20.0	5.83	8	3.025	.500	.400	54.0	13.5	3.05	4.7	2.2	0.90	0.86
		18.7	5.43		2.975	.500	.350	51.9	13.0	3.09	4.4	2.1	0.90	0.88
P.C.	C 41 7 x 3½ R=.50	22.7	6.60	7	3.600	.500	.500	47.1	13.5	2.67	7.5	3.0	1.07	1.07
		19.1	5.55		3.450	.500	.350	42.8	12.2	2.78	6.3	2.7	1.07	1.11
P.	C 42 7 x 3 R=.475	17.6	5.12	7	3.000	.475	.375	37.3	10.7	2.70	4.2	2.0	0.90	0.90
P.G.	C 46 6 x 3½ R=.475	18.0	5.22	6	3.500	.475	.375	29.4	9.8	2.38	6.1	2.6	1.08	1.15
P.C.	C 56 6 x 3½ R=.385	15.3	4.48	6	3.500	.385	.340	25.3	8.4	2.38	5.1	2.1	1.08	1.08
P.	C 47 6 x 3 R=.475	16.3	4.75	6	3.000	.475	.375	25.8	8.6	2.33	4.0	1.9	0.91	0.95
		15.1	4.37		2.938	.475	.313	24.7	8.2	2.38	3.6	1.8	0.91	0.97
P.	C 48 6 x 2½ R=.375	12.0	3.52	6	2.500	.375	.313	18.6	6.2	2.30	2.0	1.1	0.75	0.72
P.	C 200 4 x 2½ R=.28	13.8	4.00	4	2.500	.500	.500	8.8	4.4	1.49	2.2	1.4	0.74	0.86
P. P. C.	*C 192	9.0	2.64	3	2.125	.351	.500	3.1	2.1	1.09	0.97	0.68	0.61	0.71
	*C 193													
	*C 21													
	3 x 1⅞ R=.19	7.1	2.08	1.938	.351	.313	2.7	1.8	1.14	0.71	0.56	0.58	0.68	

*C 193 and C 21 are identical with C 192 except flanges are flared out to 3⅞" at toe of flanges.
For key to symbols in first column refer to page 3.



CHANNELS

CAR BUILDING AND SHIP BUILDING



DIMENSIONS OF SECTIONS

Section Index and Depth	Weight per Foot	Flange		Web		Distance						Max. Flange Rivet	
		Width	Thick-ness, p	Thick-ness	Half Thick-ness	a	f	o	Min. g ₂	Clear. h	Gage g		Grip
		Lbs.	In.	In.	In.	In.	In.	In.	In.	In.	In.		In.
C 36 8 R=.525	22.8 21.4	3½ 3½	½ ½	⅞ ⅞	¼ ⅜	3⅞ 3⅞	5⅞ 5⅞	1⅞ 1⅞	2¼ 2¼	½ ⅞	2 2	½ ½	⅞ ⅞
C 37 8 R=.50	20.0 18.7	3 3	½ ½	⅞ ⅞	⅜ ⅜	2⅞ 2⅞	5⅞ 5⅞	1⅞ 1⅞	2¼ 2¼	½ ⅞	1¾ 1¾	½ ½	⅞ ⅞
C 41 7 R=.50	22.7 19.1	3⅞ 3½	½ ½	⅞ ⅞	¼ ⅜	3⅞ 3⅞	4⅞ 4⅞	1⅞ 1⅞	2¼ 2¼	⅞ ⅞	2 2	½ ½	⅞ ⅞
C 42 7 R=.475	17.6	3	½	⅞	⅜	2⅞	5	1	2¼	⅞	1¾	½	⅞
C 46 6 R=.475	18.0	3½	½	⅞	⅜	3⅞	4	1	2¼	⅞	2	½	⅞
C 56 6 R=.385	15.3	3½	⅞	⅞	⅜	3⅞	4⅞	1⅞	2	⅞	2	⅜	⅞
C 47 6 R=.475	16.3 15.1	3 3	½ ½	⅞ ⅞	⅜ ⅜	2⅞ 2⅞	4 4	1 1	2¼ 2¼	⅞ ⅞	1¾ 1¾	½ ½	¾ ¾
C 48 6 R=.375	12.0	2½	⅞	⅞	⅜	2⅞	4½	¾	2	⅞	1½	⅜	⅞
C 200 4 R=.28	13.8	2½	½	½	¼	2	2⅞	1⅞	2	⅞	1½	½	⅞
*C 192													
*C 193	9.0	2⅞	⅞	½	¼	1⅞	1⅞	⅞	...	⅞	...	..	..
*C 21	7.1	2	⅞	⅞	⅜	1⅞	1⅞	⅞	...	⅞	...	..	..
R=.19													

Gages g are usual standard gages, but may be varied if conditions require.

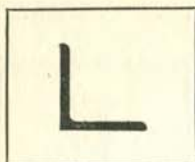
Gages g₂ are based on 1¼" edge distance (⅞" maximum rivet).

*C 193 and C 21 are identical with C 192 except flanges are flared out to 3⅞" at toe of flanges.

- EQUAL
- UNEQUAL
- BULB
- SPLIT
- CAR SECTIONS
- CRANE RAILS
- CORRUG. SHEETS
- PILING
- FLOOR PLATES
- PLATES

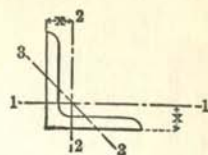
MILL PRACTICES

INDEX



EQUAL ANGLES

PROPERTIES OF SECTIONS

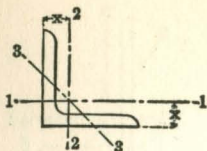


District Rolled	Section Index	Size	Thickness		Weight per Foot	Area of Section	Axis 1-1 and Axis 2-2				Axis 3-3
			In.	In.			I	S	x	x	x min.
		In.	In.	Lbs.	In. ²	In. ⁴	In. ³	In.	In.	In.	
P.C.B.	A 1 R=5/8	8 x 8	1 1/8	1 1/8	56.9	16.73	98.0	17.5	2.42	2.41	1.55
			1	1	51.0	15.00	89.0	15.8	2.44	2.37	1.56
			7/8	7/8	45.0	13.23	79.6	14.0	2.45	2.32	1.56
			3/4	3/4	38.9	11.44	69.7	12.2	2.47	2.28	1.57
			5/8	5/8	32.7	9.61	59.4	10.3	2.49	2.23	1.58
			1/2	1/2	29.6	8.68	54.1	9.3	2.50	2.21	1.58
				26.4	7.75	48.6	8.4	2.51	2.19	1.58	
P.C.B.G.			o1		37.4	11.00	35.5	8.6	1.80	1.86	1.16
P.C.B.G.			o7/8		33.1	9.73	31.9	7.6	1.81	1.82	1.17
P.C.B.G.			3/4		28.7	8.44	28.2	6.7	1.83	1.78	1.17
P.C.B.G.			5/8		24.2	7.11	24.2	5.7	1.84	1.73	1.17
P.C.B.G.	A 2 R=1/2	6 x 6	9/16		21.9	6.43	22.1	5.1	1.85	1.71	1.18
P.C.B.G.			1/2		19.6	5.75	19.9	4.6	1.86	1.68	1.18
P.C.B.G.			7/8		17.2	5.06	17.7	4.1	1.87	1.66	1.19
P.C.B.G.			3/8		14.9	4.36	15.4	3.5	1.88	1.64	1.19
P.C.B.G.			5/16		12.6	3.66	13.0	3.0	1.89	1.61	1.19
P.G.											
P.C.			7/8		27.2	7.98	17.8	5.2	1.49	1.57	0.96
P.C.B.S.			o3/4		23.6	6.94	15.7	4.5	1.50	1.52	0.97
P.C.B.S.	A 3 R=1/2	5 x 5	3/8		20.0	5.86	13.6	3.9	1.52	1.48	0.97
P.C.B.S.			1/2		16.2	4.75	11.3	3.2	1.54	1.43	0.98
P.C.B.S.			7/8		14.3	4.18	10.0	2.8	1.55	1.41	0.98
P.C.B.S.			3/8		12.3	3.61	8.7	2.4	1.56	1.39	0.99
P.C.B.S.			5/16		10.3	3.03	7.4	2.0	1.56	1.36	0.99
P.C.B.S.											
P.C.B.G.	A 4 R=3/8	4 x 4	3/4		18.5	5.44	7.7	2.8	1.19	1.27	0.77
			5/8		15.7	4.61	6.7	2.4	1.20	1.23	0.77
			1/2		12.8	3.75	5.6	2.0	1.22	1.18	0.78
			7/16		11.3	3.31	5.0	1.8	1.23	1.16	0.78
			3/8		9.8	2.86	4.4	1.5	1.23	1.14	0.79
			5/16		8.2	2.40	3.7	1.3	1.24	1.12	0.79
			1/4		6.6	1.94	3.0	1.0	1.25	1.09	0.79
P.C.B.G.	A 5 R=3/8	3 1/2 x 3 1/2	1/2		11.1	3.25	3.6	1.5	1.06	1.06	0.68
			7/16		9.8	2.87	3.3	1.3	1.07	1.04	0.68
			3/8		8.5	2.48	2.9	1.2	1.07	1.01	0.69
			5/16		7.2	2.09	2.5	0.98	1.08	0.99	0.69
			1/4		5.8	1.69	2.0	0.79	1.09	0.97	0.69

*Special gage.

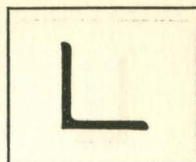
oWhen produced in Birmingham District, leg length will exceed standard tolerance.

For key to symbols in first column, refer to page 3.



EQUAL ANGLES

PROPERTIES OF SECTIONS



District Rolled	Section Index	Size	Thick-ness	Weight per Foot	Area of Section	Axis 1-1 and Axis 2-2				Axis 3-3
						I	S	z	x	r min.
						In. ⁴	In. ³	In.	In.	In.
P.C.B.S.	A 7 R=5/16	3 x 3	1/2	9.4	2.75	2.2	1.1	0.90	0.93	0.58
			7/16	8.3	2.43	2.0	0.95	0.91	0.91	0.58
			3/8	7.2	2.11	1.8	0.83	0.91	0.89	0.58
			5/16	6.1	1.78	1.5	0.71	0.92	0.87	0.59
			1/4	4.9	1.44	1.2	0.58	0.93	0.84	0.59
			*3/16	3.71	1.09	0.96	0.44	0.94	0.82	0.59
P.C.B.	†A 9 R=1/4	2 1/2 x 2 1/2	1/2	7.7	2.25	1.2	0.73	0.74	0.81	0.47
P.C.B.S.			3/8	5.9	1.73	0.98	0.57	0.75	0.76	0.48
P.C.B.S.			5/16	5.0	1.47	0.85	0.48	0.76	0.74	0.49
P.C.B.S.			1/4	4.1	1.19	0.70	0.39	0.77	0.72	0.49
P.C.B.S.			3/16	3.07	0.90	0.55	0.30	0.78	0.69	0.49
P.C.B.S.	†A 11 R=1/4	2 x 2	3/8	4.7	1.36	0.48	0.35	0.59	0.64	0.39
			5/16	3.92	1.15	0.42	0.30	0.60	0.61	0.39
			1/4	3.19	0.94	0.35	0.25	0.61	0.59	0.39
			3/16	2.44	0.71	0.28	0.19	0.62	0.57	0.40
			1/8	1.65	0.48	0.19	0.13	0.63	0.55	0.40
P.C.B.S.	†A 12 R=1/4	1 3/4 x 1 3/4	3/8	3.99	1.17	0.31	0.26	0.51	0.57	0.34
			5/16	3.39	1.00	0.27	0.23	0.52	0.55	0.34
			1/4	2.77	0.81	0.23	0.19	0.53	0.53	0.34
			3/16	2.12	0.62	0.18	0.14	0.54	0.51	0.35
			1/8	1.44	0.42	0.13	0.10	0.55	0.48	0.35
P.C.B.S.	†A 13 R=3/16	1 1/2 x 1 1/2	1/4	2.34	0.69	0.14	0.13	0.45	0.47	0.29
			3/16	1.80	0.53	0.11	0.10	0.46	0.44	0.29
			1/8	1.23	0.36	0.08	0.07	0.46	0.42	0.30
P.C.B.S.	†A 15 R=3/16	1 1/4 x 1 1/4	1/4	1.92	0.56	0.08	0.09	0.37	0.40	0.24
			3/16	1.48	0.43	0.06	0.07	0.38	0.38	0.24
			1/8	1.01	0.30	0.04	0.05	0.38	0.35	0.25
P.C.B.S.	†A 16 R=1/8	1 x 1	1/4	1.49	0.44	0.04	0.06	0.29	0.34	0.19
			3/16	1.16	0.34	0.03	0.04	0.30	0.32	0.19
			1/8	0.80	0.23	0.02	0.03	0.31	0.30	0.19

*Special gage.

†Bar size.

oWhen produced in Birmingham District, leg length will exceed standard tolerance.

For key to symbols in first column, refer to page 3.

- EQUAL
- UNEQUAL
- BULB
- SPLIT
- CAR SECTIONS
- CRANE RAILS
- CORRUG. SHEETS
- PILING
- FLOOR PLATES

PLATES

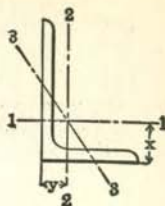
MILL PRACTICES

INDEX



UNEQUAL ANGLES

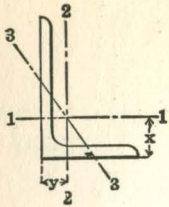
PROPERTIES OF SECTIONS



District Rolled	Section Index	Size	Thick-ness	Weight per Foot	Area of Section	Axis 1-1				Axis 2-2				Axis 3-3
						I	S	r	x	I	S	r	y	r min.
		In.	In.	Lbs.	In. ²	In. ⁴	In. ³	In.	In.	In. ⁴	In. ³	In.	In.	In.
C.G.	A 94 R=1/2	9 x 4	1	40.8	12.00	97.0	17.6	2.84	3.50	12.0	4.0	1.00	1.00	0.83
			7/8	36.1	10.61	86.8	15.7	2.86	3.45	10.8	3.6	1.01	0.95	0.84
			3/4	31.3	9.19	76.1	13.6	2.88	3.41	9.6	3.1	1.02	0.91	0.84
			5/8	26.3	7.73	64.9	11.5	2.90	3.36	8.3	2.6	1.04	0.86	0.85
			9/16	23.8	7.00	59.1	10.4	2.91	3.33	7.6	2.4	1.04	0.83	0.85
			1/2	21.3	6.25	53.2	9.3	2.92	3.31	6.9	2.2	1.05	0.81	0.85
P.C.B.	A 18 R=1/2	8 x 6	1	44.2	13.00	80.8	15.1	2.49	2.65	38.8	8.9	1.73	1.65	1.28
			7/8	39.1	11.48	72.3	13.4	2.51	2.61	34.9	7.9	1.74	1.61	1.28
			3/4	33.8	9.94	63.4	11.7	2.53	2.56	30.7	6.9	1.76	1.56	1.29
			5/8	28.5	8.36	54.1	9.9	2.54	2.52	26.3	5.9	1.77	1.52	1.29
			9/16	25.7	7.56	49.3	9.0	2.55	2.50	24.0	5.3	1.78	1.50	1.30
			1/2	23.0	6.75	44.3	8.0	2.56	2.47	21.7	4.8	1.79	1.47	1.30
P.C.G.	A 50 R=1/2	8 x 4	1	37.4	11.00	69.6	14.1	2.52	3.05	11.6	3.9	1.03	1.05	0.85
			7/8	33.1	9.73	62.5	12.5	2.53	3.00	10.5	3.5	1.04	1.00	0.85
			3/4	28.7	8.44	54.9	10.9	2.55	2.95	9.4	3.1	1.05	0.95	0.85
			5/8	24.2	7.11	46.9	9.2	2.57	2.91	8.1	2.6	1.07	0.91	0.86
			9/16	21.9	6.43	42.8	8.4	2.58	2.88	7.4	2.4	1.07	0.88	0.86
			1/2	19.6	5.75	38.5	7.5	2.59	2.86	6.7	2.2	1.08	0.86	0.86
P.C.G.	A 60 R=1/2	7 x 4	7/8	30.2	8.86	42.9	9.7	2.20	2.55	10.2	3.5	1.07	1.05	0.86
			3/4	26.2	7.69	37.8	8.4	2.22	2.51	9.1	3.0	1.09	1.01	0.86
			5/8	22.1	6.48	32.4	7.1	2.24	2.46	7.8	2.6	1.10	0.96	0.86
			9/16	20.0	5.87	29.6	6.5	2.24	2.44	7.2	2.4	1.11	0.94	0.87
			1/2	17.9	5.25	26.7	5.8	2.25	2.42	6.5	2.1	1.11	0.92	0.87
			7/16	15.8	4.62	23.7	5.1	2.26	2.39	5.8	1.9	1.12	0.89	0.88
			3/8	13.6	3.98	20.6	4.4	2.27	2.37	5.1	1.6	1.13	0.87	0.88

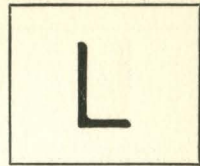
oWhen produced in Birmingham District, leg length will exceed standard tolerance.

For key to symbols in first column, refer to page 3.



UNEQUAL ANGLES

PROPERTIES OF SECTIONS



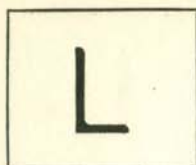
District Rolled	Section Index	Size	Thick-ness	Weight per Foot	Area of Section	Axis 1-1				Axis 2-2				Axis 3-3
						I	S	r	x	I	S	r	y	x min.
						In. ⁴	In. ³	In.	In.	In. ⁴	In. ³	In.	In.	In.
P.C.B.G.	A 20 R=1/2	6 x 4	0 7/8	27.2	7.98	27.7	7.2	1.86	2.12	9.8	3.4	1.11	1.12	0.86
P.C.B.G.			3/4	23.6	6.94	24.5	6.2	1.88	2.08	8.7	3.0	1.12	1.08	0.86
P.C.B.G.			5/8	20.0	5.86	21.1	5.3	1.90	2.03	7.5	2.5	1.13	1.03	0.86
P.C.B.G.			9/16	18.1	5.31	19.3	4.8	1.90	2.01	6.9	2.3	1.14	1.01	0.87
P.C.B.G.			1/2	16.2	4.75	17.4	4.3	1.91	1.99	6.3	2.1	1.15	0.99	0.87
P.C.B.G.			7/16	14.3	4.18	15.5	3.8	1.92	1.96	5.6	1.9	1.16	0.96	0.87
P.C.B.G.			3/8	12.3	3.61	13.5	3.3	1.93	1.94	4.9	1.6	1.17	0.94	0.88
P.C.G.	*5/16	10.3	3.03	11.4	2.8	1.94	1.92	4.2	1.4	1.17	0.92	0.88		
P.C.B.	A 21 R=1/2	6 x 3 1/2	1/2	15.3	4.50	16.6	4.2	1.92	2.08	4.3	1.6	0.97	0.83	0.76
P.C.B.			3/8	11.7	3.42	12.9	3.2	1.94	2.04	3.3	1.2	0.99	0.79	0.77
P.C.B.			5/16	9.8	2.87	10.9	2.7	1.95	2.01	2.9	1.0	1.00	0.76	0.77
P.C.			*1/4	7.9	2.31	8.9	2.2	1.96	1.99	2.3	0.85	1.01	0.74	0.78
P.C.B.G.	A 23 R=7/16	5 x 3 1/2	0 3/4	19.8	5.81	13.9	4.3	1.55	1.75	5.6	2.2	0.98	1.00	0.75
P.C.B.G.			5/8	16.8	4.92	12.0	3.7	1.56	1.70	4.8	1.9	0.99	0.95	0.75
P.C.B.G.			1/2	13.6	4.00	10.0	3.0	1.58	1.66	4.1	1.6	1.01	0.91	0.75
P.C.B.G.			7/16	12.0	3.53	8.9	2.6	1.59	1.63	3.6	1.4	1.01	0.88	0.76
P.C.B.G.			3/8	10.4	3.05	7.8	2.3	1.60	1.61	3.2	1.2	1.02	0.86	0.76
P.C.B.G.			5/16	8.7	2.56	6.6	1.9	1.61	1.59	2.7	1.0	1.03	0.84	0.76
P.C.G.			*1/4	7.0	2.06	5.4	1.6	1.61	1.56	2.2	0.83	1.04	0.81	0.76
P.C.B.S.	A 24 R=3/8	5 x 3	1/2	12.8	3.75	9.5	2.9	1.59	1.75	2.6	1.1	0.83	0.75	0.65
P.C.B.S.			7/16	11.3	3.31	8.4	2.6	1.60	1.73	2.3	1.0	0.84	0.73	0.65
P.C.B.S.			3/8	9.8	2.86	7.4	2.2	1.61	1.70	2.0	0.89	0.84	0.70	0.65
P.C.B.S.			5/16	8.2	2.40	6.3	1.9	1.61	1.68	1.8	0.75	0.85	0.68	0.66
C.S.			*1/4	6.6	1.94	5.1	1.5	1.62	1.66	1.4	0.61	0.86	0.66	0.66

*Special gage.

oWhen produced in Birmingham District, leg length will exceed standard tolerance.

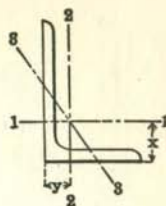
For key to symbols in first column, refer to page 3.

- UNEQUAL
- BULB
- SPLIT
- CAR SECTIONS
- CRANE RAILS
- CORRUG. SHEETS
- PILING
- FLOOR PLATES
- PLATES
- MILL PRACTICES
- INDEX



UNEQUAL ANGLES

PROPERTIES OF SECTIONS



District Rolled	Section Index	Size	Thick-ness	Weight per Foot	Area of Section	Axis 1-1				Axis 2-2				Axis 3-3
						I	S	r	x	I	S	r	y	r min.
						In. ⁴	In. ²	In.	In.	In. ⁴	In. ²	In.	In.	In.
P.C.	A 26 R=3/8	4 x 3 1/2	5/8	14.7	4.30	6.4	2.4	1.22	1.29	4.5	1.8	1.03	1.04	0.72
P.C.B.			1/2	11.9	3.50	5.3	1.9	1.23	1.25	3.8	1.5	1.04	1.00	0.72
P.C.B.			7/16	10.6	3.09	4.8	1.7	1.24	1.23	3.4	1.4	1.05	0.98	0.72
P.C.B.			3/8	9.1	2.67	4.2	1.5	1.25	1.21	3.0	1.2	1.06	0.96	0.73
P.C.B.			5/16	7.7	2.25	3.6	1.3	1.26	1.18	2.6	1.0	1.07	0.93	0.73
P.C.B.			1/4	6.2	1.81	2.9	1.0	1.27	1.16	2.1	0.81	1.07	0.91	0.73
P.C.B.G.	A 27 R=3/8	4 x 3	5/8	13.6	3.98	6.0	2.3	1.23	1.37	2.9	1.4	0.85	0.87	0.64
			1/2	11.1	3.25	5.1	1.9	1.25	1.33	2.4	1.1	0.86	0.83	0.64
			7/16	9.8	2.87	4.5	1.7	1.25	1.30	2.2	1.0	0.87	0.80	0.64
			3/8	8.5	2.48	4.0	1.5	1.26	1.28	1.9	0.87	0.88	0.78	0.64
			5/16	7.2	2.09	3.4	1.2	1.27	1.26	1.7	0.73	0.89	0.76	0.65
			1/4	5.8	1.69	2.8	1.0	1.28	1.24	1.4	0.60	0.90	0.74	0.65
P.C.B.S.G.	A 28 R=3/8	3 1/2 x 3	1/2	10.2	3.00	3.5	1.5	1.07	1.13	2.3	1.1	0.88	0.88	0.62
			7/16	9.1	2.65	3.1	1.3	1.08	1.10	2.1	0.98	0.89	0.85	0.62
			3/8	7.9	2.30	2.7	1.1	1.09	1.08	1.9	0.85	0.90	0.83	0.62
			5/16	6.6	1.93	2.3	0.95	1.10	1.06	1.6	0.72	0.90	0.81	0.63
			1/4	5.4	1.56	1.9	0.78	1.11	1.04	1.3	0.59	0.91	0.79	0.63
P.C.B.	A 29 R=5/16	3 1/2 x 2 1/2	1/2	9.4	2.75	3.2	1.4	1.09	1.20	1.4	0.76	0.70	0.70	0.53
P.C.B.			7/16	8.3	2.43	2.9	1.3	1.09	1.18	1.2	0.68	0.71	0.68	0.54
P.C.B.S.			3/8	7.2	2.11	2.6	1.1	1.10	1.16	1.1	0.59	0.72	0.66	0.54
P.C.B.S.			5/16	6.1	1.78	2.2	0.93	1.11	1.14	0.94	0.50	0.73	0.64	0.54
P.C.B.S.			1/4	4.9	1.44	1.8	0.75	1.12	1.11	0.78	0.41	0.74	0.61	0.54
P.C.B.					5/8	8.5	2.50	2.1	1.0	0.91	1.00	1.3	0.74	0.72	0.75	0.52
P.C.B.	A 32 R=5/16	3 x 2 1/2	7/16	7.6	2.21	1.9	0.93	0.92	0.98	1.2	0.66	0.73	0.73	0.52
P.C.B.S.			3/8	6.6	1.92	1.7	0.81	0.93	0.96	1.0	0.58	0.74	0.71	0.52
P.C.B.S.			5/16	5.6	1.62	1.4	0.69	0.94	0.93	0.90	0.49	0.74	0.68	0.53
P.C.B.S.			1/4	4.5	1.31	1.2	0.56	0.95	0.91	0.74	0.40	0.75	0.66	0.53

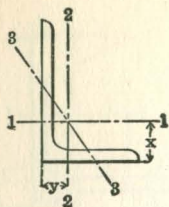
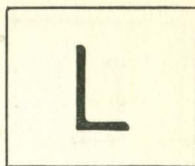
*Special gage.

oWhen produced in Birmingham District, leg length will exceed standard tolerance.

For key to symbols in first column, refer to page 3.

UNEQUAL ANGLES

PROPERTIES OF SECTIONS



District Rolled	Section Index	Size	Thick-ness	Weight per Foot	Area of Section	Axis 1-1				Axis 2-2				Axis 3-3
						I	S	r	x	I	S	r	y	r min.
						In. ⁴	In. ³	In.	In.	In. ⁴	In. ³	In.	In.	In.
P.C.B.	A 33 R=5/16	3 x 2	1/2	7.7	2.25	1.9	1.0	0.92	1.08	0.67	0.47	0.55	0.58	0.43
P.C.B.			3/8	6.8	2.00	1.7	0.89	0.93	1.06	0.61	0.42	0.55	0.56	0.43
P.C.B.S.			5/16	5.9	1.73	1.5	0.78	0.94	1.04	0.54	0.37	0.56	0.54	0.43
P.C.B.S.			3/8	5.0	1.47	1.3	0.66	0.95	1.02	0.47	0.32	0.57	0.52	0.43
P.C.B.S.			1/4	4.1	1.19	1.1	0.54	0.95	0.99	0.39	0.26	0.57	0.49	0.43
P.C.B.S.			*3/16	3.07	0.90	0.84	0.41	0.97	0.97	0.31	0.20	0.58	0.47	0.44
P.C.B.S.	†A 35 R=1/4	2 1/2 x 2	3/8	5.3	1.55	0.91	0.55	0.77	0.83	0.51	0.36	0.58	0.58	0.42
			5/16	4.5	1.31	0.79	0.47	0.78	0.81	0.45	0.31	0.58	0.56	0.42
			1/4	3.62	1.06	0.65	0.38	0.78	0.79	0.37	0.25	0.59	0.54	0.42
P.C.S.	†A 48 R=1/4	2 1/2 x 1 1/2	5/16	3.92	1.15	0.71	0.44	0.79	0.90	0.19	0.17	0.41	0.40	0.32
			1/4	3.19	0.94	0.59	0.36	0.79	0.88	0.16	0.14	0.41	0.38	0.32
			3/16	2.44	0.72	0.46	0.28	0.80	0.85	0.13	0.11	0.42	0.35	0.33
P.C.B.S.	†A 37 R=1/4	2 x 1 1/2	1/4	2.77	0.81	0.32	0.24	0.62	0.66	0.15	0.14	0.43	0.41	0.32
			3/16	2.12	0.62	0.25	0.18	0.63	0.64	0.12	0.11	0.44	0.39	0.32
			5/16	1.44	0.42	0.17	0.13	0.64	0.62	0.09	0.08	0.45	0.37	0.33
P.	†A 645 R=1/4	2 x 1 1/4	1/4	2.55	0.75	0.30	0.23	0.63	0.71	0.09	0.10	0.34	0.33	0.27
			3/16	1.96	0.57	0.23	0.18	0.64	0.69	0.07	0.08	0.35	0.31	0.27
P.C.	†A 39 R=1/4	1 3/4 x 1 1/4	1/4	2.34	0.69	0.20	0.18	0.54	0.60	0.09	0.10	0.35	0.35	0.27
			3/16	1.80	0.53	0.16	0.14	0.55	0.58	0.07	0.08	0.36	0.33	0.27
			5/16	1.23	0.36	0.11	0.09	0.56	0.56	0.05	0.05	0.37	0.31	0.27

*Special gage.
For key to symbols in first column, refer to page 3.

†Bar size.

L
BULB

T

T
SPLIT

CAR
SECTIONS

CRANE
RAILS

CORRUG.
SHEETS

PILING

FLOOR
PLATES

PLATES

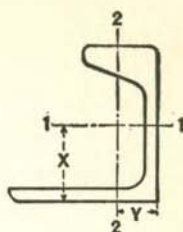
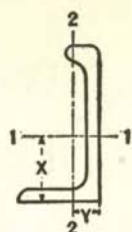
MILL
PRACTICES

INDEX



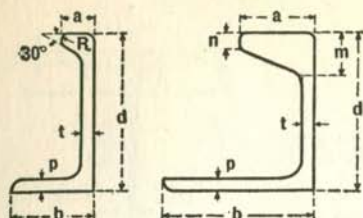
BULB ANGLES

PROPERTIES OF SECTIONS



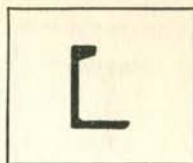
District Rolled	Section Index and Nominal Size	Weight per Foot Lbs.	Area of Section In. ²	Width of Flange In.	Thickness		Axis 1-1				Axis 2-2			
					Web In.	Flange In.	I	S	r	x	I	S	r	y
							In. ⁴	In. ³	In.	In.	In. ⁴	In. ³	In.	In.
SHIP BUILDING														
P.G.	BA 313 10 x 3½	32.3	9.49	3.69	.64	.61	118.1	22.1	3.53	4.69	6.2	2.2	0.81	0.77
		29.9	8.78	3.63	.58	.58	110.7	20.9	3.55	4.70	5.6	2.0	0.80	0.75
		27.2	7.98	3.57	.52	.485	102.9	19.6	3.59	4.80	5.1	1.8	0.80	0.72
		24.8	7.28	3.51	.46	.455	95.4	18.4	3.62	4.82	4.6	1.6	0.80	0.70
		22.4	6.57	3.45	.40	.425	88.0	17.2	3.66	4.85	4.1	1.5	0.79	0.68
P.	BA 312 9 x 3½	23.8	7.00	3.57	.50	.465	73.3	15.1	3.24	4.19	4.7	1.7	0.82	0.72
		21.6	6.35	3.51	.44	.435	67.7	14.1	3.27	4.21	4.2	1.5	0.82	0.70
		19.4	5.70	3.45	.38	.405	62.2	13.1	3.30	4.22	3.7	1.4	0.81	0.68
P.G.	BA 311 8 x 3½	24.3	7.14	3.68	.58	.55	57.0	12.7	2.83	3.53	5.2	1.9	0.85	0.78
		20.0	5.87	3.56	.46	.43	48.9	11.1	2.89	3.61	4.2	1.5	0.85	0.72
		16.0	4.70	3.44	.34	.37	40.9	9.4	2.95	3.62	3.3	1.2	0.84	0.69
P.	BA 309 7 x 3½	21.1	6.19	3.68	.56	.54	37.5	9.2	2.46	2.95	4.8	1.8	0.88	0.80
		17.1	5.03	3.56	.44	.41	32.0	8.0	2.52	3.03	3.9	1.4	0.88	0.74
		13.6	3.98	3.44	.32	.35	26.4	6.7	2.58	3.01	3.0	1.1	0.87	0.71
P.C.G.	BA 307 6 x 3½	17.4	5.12	3.69	.52	.49	22.7	6.3	2.10	2.42	4.3	1.6	0.92	0.82
		13.9	4.06	3.57	.40	.365	19.0	5.3	2.16	2.47	3.4	1.2	0.91	0.76
		10.7	3.13	3.45	.28	.305	15.3	4.4	2.21	2.45	2.6	0.94	0.91	0.73
P.	BA 303 5 x 2½	9.8	2.88	2.56	.36	.33	9.1	3.1	1.78	2.06	1.1	0.56	0.63	0.55
		7.3	2.13	2.44	.24	.27	7.1	2.4	1.83	2.01	0.81	0.42	0.62	0.51
P.	BA 145 3 x 2	3.8	1.12	2.00	.19	.19	1.3	0.74	1.09	1.24	0.31	0.20	0.54	0.45
CAR BUILDING														
P.C.	BA 125 5 x 4½	19.1	5.64	4.50	.438	.438	20.8	7.9	1.91	2.39	7.9	2.4	1.18	1.23
P.C.	BA 124 5 x 3½	13.0	3.82	3.50	.375	.375	13.5	4.9	1.88	2.22	3.3	1.2	0.92	0.86
P.	BA 122 4 x 3½	14.3	4.21	3.50	.500	.500	8.7	3.7	1.44	1.65	3.9	1.5	0.96	0.99
P.C.B.	BA 123 4 x 3½	11.9	3.48	3.50	.375	.375	7.9	3.5	1.50	1.77	3.1	1.2	0.94	0.94

For key to symbols in first column, refer to page 3.



BULB ANGLES

DIMENSIONS OF SECTIONS



Section Index and Nominal Size	Weight per Foot	Flange		Web		Bulb			
		Width b	Thickness p	Depth d	Thickness t	Width a	Radius R	Thickness m	Thickness n
		Lbs.	In.	In.	In.	In.	In.	In.	In.

SHIP BUILDING

BA 313 10 x 3 1/2	32.3	3 3/4	5/8	10	5/8	1 5/16	.40	—	—
	29.9	3 5/8	9/16	10	9/16	1 7/8	.40	—	—
	27.2	3 5/8	1/2	10	1/2	1 3/4	.40	—	—
	24.8	3 1/2	7/16	10	7/16	1 3/4	.40	—	—
	22.4	3 1/2	7/16	10	3/8	1 1/4	.40	—	—
BA 312 9 x 3 1/2	23.8	3 5/8	7/16	9	1/2	1 1/16	.36	—	—
	21.6	3 1/2	7/16	9	7/16	1 5/8	.36	—	—
	19.4	3 1/2	3/8	9	3/8	1 3/16	.36	—	—
BA 311 8 x 3 1/2	24.3	3 5/8	9/16	8	9/16	1 5/8	.32	—	—
	20.0	3 1/2	7/16	8	7/16	1 1/2	.32	—	—
	16.0	3 1/2	3/8	8	3/16	1 3/8	.32	—	—
BA 309 7 x 3 1/2	21.1	3 5/8	9/16	7	9/16	1 1/2	.28	—	—
	17.1	3 1/2	7/16	7	7/16	1 3/8	.28	—	—
	13.6	3 1/2	3/8	7	3/16	1 1/4	.28	—	—
BA 307 6 x 3 1/2	17.4	3 3/4	1/2	6	1/2	1 5/16	.24	—	—
	13.9	3 5/8	3/8	6	3/8	1 3/16	.24	—	—
	10.7	3 1/2	9/16	6	1/4	1 3/16	.24	—	—
BA 303 5 x 2 1/2	9.8	2 1/2	5/16	5	3/8	1	.20	—	—
	7.3	2 1/2	1/4	5	1/4	7/8	.20	—	—
BA 145 3 x 2	3.8	2	3/16	3	3/16	9/16	.25	—	—

CAR BUILDING

BA 125 5 x 4 1/2	19.1	4 1/2	7/16	5	7/16	2 1/4	—	1 3/32	9/16
BA 124 5 x 3 1/2	13.0	3 1/2	3/8	5	3/8	1 1/2	—	29/32	7/16
BA 122 4 x 3 1/2	14.3	3 1/2	1/2	4	1/2	1 1/2	—	1 5/16	1/2
BA 123 4 x 3 1/2	11.9	3 1/2	3/8	4	3/8	1 1/2	—	29/32	1/2


BULB




SPLIT

CAR SECTIONS

CRANE RAILS

CORRUG. SHEETS

PILING

FLOOR PLATES

PLATES

MILL PRACTICES

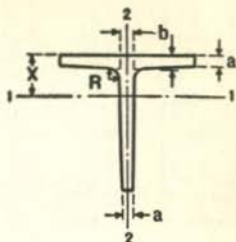
INDEX



TEES

EQUAL AND UNEQUAL

PROPERTIES AND DIMENSIONS OF SECTIONS



District Rolled	Section Index	Weight per Foot	Area of Section	Size					Axis 1-1				Axis 2-2		
				Flange	Stem	Thickness		Radius of Fillet R	I	S	r	x	I	S	r
						Toe a	Root b									In.^{4}	In.^{3}	In.	In.^{4}	In.^{3}	In.
Lbs.	In. ²	In.	In.	In.	In.	In.	In.	In. ⁴	In. ³	In.	In. ⁴	In. ³	In.		

EQUAL TEES

P.C.	T1	13.5	3.97	4	4	1/2	9/16	1/2	5.7	2.0	1.20	1.18	2.8	1.4	0.84
P.C.	T8	7.8	2.27	3	3	3/8	7/16	5/16	1.8	0.86	0.90	0.88	0.90	0.60	0.63
P.C.	T9	6.7	1.95	3	3	5/16	3/8	5/16	1.6	0.74	0.90	0.86	0.75	0.50	0.62
P.C.	†T 10	6.4	1.87	2 1/2	2 1/2	3/8	7/16	1/4	1.0	0.59	0.74	0.76	0.52	0.42	0.53
P.C.	†T 11	5.5	1.60	2 1/2	2 1/2	5/16	3/8	1/4	0.88	0.50	0.74	0.74	0.44	0.35	0.52
P.C.	†T 13	4.1	1.19	2 1/4	2 1/4	1/4	5/16	1/4	0.52	0.32	0.66	0.65	0.25	0.22	0.46
P.C.	†T 14	4.3	1.26	2	2	5/16	3/8	1/4	0.44	0.31	0.59	0.61	0.23	0.23	0.43
P.C.	†T 15	3.62	1.05	2	2	1/4	5/16	1/4	0.37	0.26	0.59	0.59	0.18	0.18	0.42

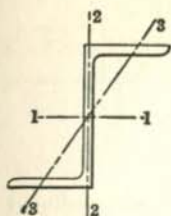
UNEQUAL TEES

P.	T 50	13.6	4.00	5	3 1/8	1/2, 13/32	5/16, 5/8	3/8	2.7	1.1	0.82	0.76	5.2	2.1	1.14
		11.5	3.37	5	3	3/8, 13/32	7/16, 5/8	3/8	2.4	1.1	0.84	0.76	3.9	1.6	1.10
P.	T 60	11.2	3.29	4	4 1/2	3/8	7/16	1/2	6.3	2.0	1.39	1.31	2.1	1.1	0.80
P.C.	T 61	9.2	2.68	4	3	3/8	7/16	3/8	2.0	0.90	0.86	0.78	2.1	1.1	0.89
P.	T 62	8.5	2.48	4	2 1/2	3/8	7/16	3/8	1.2	0.62	0.69	0.62	2.1	1.0	0.92
P.C.	T 79	6.1	1.77	3	2 1/2	5/16	3/8	5/16	0.94	0.52	0.73	0.68	0.75	0.50	0.65

†Bar Size.

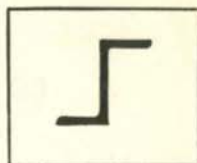
*Where two dimensions are shown, the first is for the flange, the second for the stem.

For key to symbols in first column, refer to page 3.



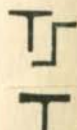
ZEES

PROPERTIES AND DIMENSIONS OF SECTIONS



District Rolled	Section Index	Weight per Foot	Area of Section	Size			Axis 1-1			Axis 2-2			Axis 3-3
				Depth	Flange	Thickness	I	S	r	I	S	r	r min.
				Lbs.	In. ²	In.	In.	In.	In. ⁴	In. ³	In.	In. ⁴	In. ³	In.	In.
P.C.	Z 1	21.1	6.19	6 $\frac{1}{8}$	3 $\frac{5}{8}$	$\frac{1}{2}$	34.4	11.2	2.36	12.9	3.8	1.44	0.84
	R = $\frac{5}{16}$	15.7	4.59	6	3 $\frac{1}{2}$	$\frac{3}{8}$	25.3	8.4	2.35	9.1	2.8	1.41	0.83
P.C.	Z 5	17.9	5.25	5	3 $\frac{1}{4}$	$\frac{1}{2}$	19.2	7.7	1.91	9.1	3.0	1.31	0.74
P.C.	Z 4	16.4	4.81	5 $\frac{1}{8}$	3 $\frac{3}{8}$	$\frac{7}{16}$	19.1	7.4	1.99	9.2	2.9	1.38	0.77
		14.0	4.10	5 $\frac{1}{16}$	3 $\frac{5}{16}$	$\frac{3}{8}$	16.2	6.4	1.99	7.7	2.5	1.37	0.76
		R = $\frac{5}{16}$	11.6	3.40	5	3 $\frac{1}{4}$	$\frac{5}{16}$	13.4	5.3	1.98	6.2	2.0	1.35	0.75
P.C.	Z 8	15.9	4.66	4 $\frac{1}{16}$	3 $\frac{1}{8}$	$\frac{1}{2}$	11.2	5.5	1.55	8.0	2.8	1.31	0.67
P.C.B.	Z 7	12.5	3.66	4 $\frac{1}{8}$	3 $\frac{3}{16}$	$\frac{3}{8}$	9.6	4.7	1.62	6.8	2.3	1.36	0.69
		10.3	3.03	4 $\frac{1}{16}$	3 $\frac{1}{8}$	$\frac{5}{16}$	7.9	3.9	1.62	5.5	1.8	1.34	0.68
		R = $\frac{5}{16}$	8.2	2.41	4	3 $\frac{1}{16}$	$\frac{1}{4}$	6.3	3.1	1.62	4.2	1.4	1.33	0.67
P.C.	Z 12	12.6	3.69	3	2 $\frac{11}{16}$	$\frac{1}{2}$	4.6	3.1	1.12	4.9	2.0	1.15	0.53
P.C.B.	Z 11	9.8	2.86	3	2 $\frac{11}{16}$	$\frac{3}{8}$	3.9	2.6	1.16	3.9	1.6	1.17	0.54
P.C.B.	Z 10	6.7	1.97	3	2 $\frac{11}{16}$	$\frac{1}{4}$	2.9	1.9	1.21	2.8	1.1	1.19	0.55

For key to symbols in first column, refer to page 3.



SPLIT

CAR SECTIONS

CRANE RAILS

CORRUG. SHEETS

PILING

FLOOR PLATES

PLATES

MILL PRACTICES

INDEX

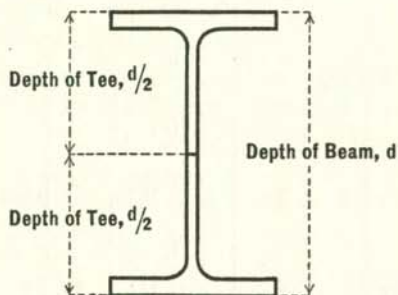
STRUCTURAL TEES

CUT FROM

CB SECTIONS AND STANDARD BEAMS

In addition to sections of rolled tees the following series include sections produced by shearing or gas cutting either standard beams or CB sections.

Generally, any beam or channel section from 3" to 36" in depth can be split to form tees or angles.



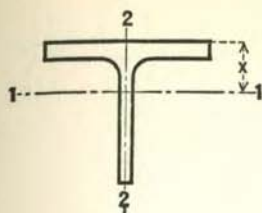
The following tolerances, over or under, apply to the depth $d/2$ of the tee or angle which is one-half of the beam or channel depth:

Beams or Channels under 6"	$1/8$ "
Beams or Channels 6" to 15" incl.	$3/16$ "
Beams or Channels over 15" to 20"	$1/4$ "
Beams over 20" to 24"	$5/16$ "
Beams over 24"	$3/8$ "

The above tolerances for depth of tees or angles include the allowable tolerances in depth for the beams or channels before splitting. Tolerances both for dimensions and straightness, as set up for the beams or channels from which these tees or angles are cut, will apply.

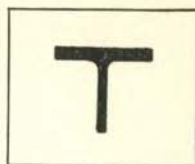
These sections should be ordered either in pairs or so as to utilize all of the beam or channel from which they are produced.

All structural tees or angles are produced in Pittsburgh District only.



STRUCTURAL TEES

CUT FROM
CB SECTIONS



PROPERTIES OF SECTIONS

District Produced	Section Index	Weight per Foot	Area of Section	Depth of Tee	Flange		Stem Thickness	Axis 1-1				Axis 2-2		
					Width	Thickness		I	S	r	x	I	S	r
					In.	In.		In. ⁴	In. ³	In.	In.	In. ⁴	In. ³	In.
P.	T18 WF TCB 18 (CB 362)	150	44.09	18.36	16.655	1.680	.945	1222.7	85.9	5.27	4.13	612.6	73.6	3.73
		140	41.16	18.25	16.595	1.570	.885	1133.3	79.9	5.25	4.07	563.7	67.9	3.70
		130	38.28	18.12	16.555	1.440	.845	1059.2	75.4	5.26	4.07	510.3	61.6	3.65
		122.5	36.01	18.03	16.512	1.350	.802	994.3	71.1	5.25	4.04	472.3	57.2	3.62
		115	33.86	17.94	16.475	1.260	.765	935.8	67.2	5.26	4.02	435.5	52.9	3.59
P.	T18 WF TCB 18 (CB 361)	97	28.56	18.24	12.117	1.260	.770	904.0	67.3	5.63	4.81	177.7	29.3	2.49
		91	26.77	18.16	12.072	1.180	.725	844.0	63.0	5.61	4.77	163.9	27.1	2.47
		85	24.99	18.08	12.027	1.100	.680	784.7	58.8	5.60	4.74	150.3	25.0	2.45
		80	23.54	18.00	12.000	1.020	.653	741.0	56.0	5.61	4.76	137.7	22.9	2.42
		75	22.08	17.92	11.972	.940	.625	696.7	53.0	5.62	4.79	125.2	20.9	2.38
P.	T16 WF TCB16.5 (CB 332)	120	35.26	16.75	15.865	1.400	.830	822.5	63.2	4.83	3.73	437.2	55.1	3.52
		110	32.36	16.63	15.810	1.275	.775	754.1	58.4	4.83	3.71	391.2	49.5	3.48
		100	29.40	16.50	15.750	1.150	.715	683.6	53.3	4.82	3.67	345.8	43.9	3.43
P.	T16 WF TCB16.5 (CB 331)	76	22.35	16.75	11.565	1.055	.635	591.9	47.4	5.15	4.26	128.1	22.1	2.39
		70.5	20.76	16.66	11.535	.960	.605	551.8	44.7	5.16	4.30	114.9	19.9	2.35
		65	19.13	16.55	11.510	.855	.580	513.0	42.1	5.18	4.37	100.7	17.5	2.29
P.	T15 WF TCB 15 (CB 302)	105	30.89	15.19	15.105	1.315	.775	578.0	48.7	4.33	3.31	354.0	46.9	3.38
		95	27.95	15.06	15.040	1.185	.710	520.4	44.1	4.31	3.26	312.3	41.5	3.34
		86	25.32	14.94	14.985	1.065	.655	471.0	40.2	4.31	3.23	275.1	36.7	3.30
P.	T15 WF TCB 15 (CB 301)	66	19.41	15.15	10.551	1.000	.615	420.7	37.4	4.66	3.90	92.5	17.5	2.18
		62	18.22	15.08	10.521	.930	.585	394.8	35.3	4.65	3.90	84.8	16.1	2.16
		58	17.07	15.00	10.500	.850	.564	371.8	33.6	4.67	3.94	76.6	14.6	2.12
		54	15.88	14.91	10.484	.760	.548	349.5	32.1	4.69	4.03	67.6	12.9	2.06
P.	T13 WF TCB13.5 (CB 272)	88.5	26.05	13.655	14.090	1.190	.725	391.8	36.7	3.88	2.97	259.4	36.8	3.16
		80	23.52	13.54	14.023	1.075	.658	351.4	33.1	3.87	2.91	229.0	32.7	3.12
		72.5	21.34	13.44	13.965	.975	.600	316.3	29.9	3.85	2.85	203.5	29.1	3.09
P.	T13 WF TCB13.5 (CB 271)	57	16.77	13.64	10.070	.932	.570	288.9	28.3	4.15	3.42	74.8	14.9	2.11
		51	15.01	13.535	10.018	.827	.518	257.7	25.4	4.14	3.39	64.8	12.9	2.08
		47	13.83	13.455	9.990	.747	.490	238.5	23.7	4.15	3.41	57.5	11.2	2.04
P.	T12 WF TCB 12 (CB 243)	80	23.54	12.36	14.091	1.135	.656	271.6	27.6	3.40	2.51	246.3	35.0	3.23
		72.5	21.31	12.245	14.043	1.020	.608	246.2	25.2	3.40	2.48	217.1	30.9	3.19
		65	19.13	12.13	14.000	.900	.565	222.6	23.1	3.41	2.47	187.6	26.8	3.13

Section Index in parentheses refers to beam from which tee is cut.
For key to symbols in first column, refer to page 3.



SPLIT

CAR SECTIONS

CRANE RAILS

CORRUG. SHEETS

PILING

FLOOR PLATES

PLATES

MILL PRACTICES

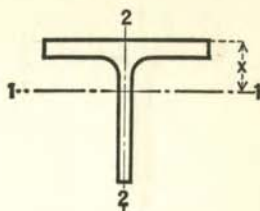
INDEX



STRUCTURAL TEES

CUT FROM
CB SECTIONS

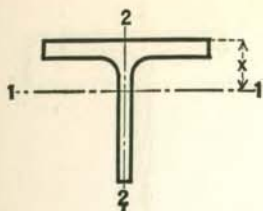
PROPERTIES OF SECTIONS



District Produced	Section Index	Weight per Foot	Area of Section	Depth of Tee	Flange		Stem Thickness	Axis 1-1				Axis 2-2		
					Width	Thick-ness		I	S	r	x	I	S	r
P.	T12 WF	60	17.64	12.155	12.088	.930	.556	213.6	22.4	3.48	2.62	127.0	21.0	2.68
	TCB 12	55	16.18	12.08	12.042	.855	.510	195.2	20.5	3.47	2.57	114.5	19.0	2.66
	(CB 242)	50	14.71	12.00	12.000	.775	.468	176.7	18.7	3.46	2.54	101.8	17.0	2.63
P.	T12 WF	47	13.81	12.145	9.061	.872	.516	185.9	20.3	3.67	2.99	51.1	11.3	1.92
	TCB 12	42	12.35	12.045	9.015	.772	.470	165.9	18.3	3.66	2.97	44.2	9.80	1.89
	(CB 241)	38	11.18	11.955	8.985	.682	.440	151.1	16.9	3.68	3.00	38.3	8.51	1.85
P.	T10 WF	71	20.89	10.73	13.132	1.095	.659	177.3	20.8	2.91	2.18	193.0	29.4	3.04
	TCB10.5	63.5	18.67	10.62	13.061	.985	.588	155.8	18.3	2.89	2.11	169.3	25.9	3.01
	(CB 213)	56	16.48	10.50	13.000	.865	.527	136.4	16.2	2.88	2.06	144.8	22.3	2.96
P.	T10 WF	48	14.11	10.57	9.038	.935	.575	137.1	17.1	3.11	2.55	54.7	12.1	1.97
	TCB10.5	41	12.05	10.43	8.962	.795	.499	115.4	14.5	3.09	2.48	44.8	10.0	1.93
P.	T10 WF	36.5	10.73	10.62	8.295	.740	.455	110.2	13.7	3.21	2.60	33.1	7.98	1.76
	TCB10.5	34	10.01	10.57	8.270	.685	.430	102.8	12.9	3.20	2.59	30.2	7.30	1.74
	(CB 211)	31	9.12	10.495	8.240	.615	.400	93.7	11.9	3.21	2.59	26.6	6.45	1.71
P.	T9 WF	57	16.77	9.24	11.833	.991	.595	102.6	13.9	2.47	1.85	127.8	21.6	2.76
	TCB 9	52.5	15.45	9.16	11.792	.911	.554	93.9	12.8	2.47	1.82	115.5	19.6	2.73
	(CB 183)	48	14.13	9.08	11.750	.831	.512	85.3	11.7	2.46	1.78	103.4	17.6	2.71
P.	T9 WF	42.5	12.49	9.16	8.838	.911	.526	84.4	11.9	2.60	2.05	49.7	11.3	2.00
	TCB 9	38.5	11.32	9.08	8.787	.831	.475	75.3	10.6	2.58	1.99	44.3	10.1	1.98
	TCB 9	35	10.28	9.00	8.750	.751	.438	68.1	9.67	2.57	1.96	39.2	8.97	1.95
	(CB 182)	32	9.40	8.935	8.715	.686	.403	61.8	8.82	2.56	1.93	35.2	8.07	1.93
P.	T9 WF	30	8.82	9.125	7.558	.695	.416	64.8	9.32	2.71	2.17	23.5	6.23	1.63
	TCB 9	27.5	8.09	9.06	7.532	.630	.390	59.6	8.63	2.71	2.16	21.0	5.57	1.61
	(CB 181)	25	7.35	9.00	7.500	.570	.358	53.9	7.85	2.71	2.14	18.6	4.96	1.59
P.	T8 WF	48	14.13	8.16	11.533	.875	.535	64.7	9.82	2.14	1.57	103.6	18.0	2.71
	TCB 8	44	12.95	8.08	11.502	.795	.504	59.5	9.11	2.14	1.55	92.6	16.1	2.67
P.	T8 WF	39	11.46	8.16	8.586	.875	.529	60.0	9.45	2.28	1.81	43.8	10.2	1.95
	TCB 8	35.5	10.43	8.08	8.543	.795	.486	54.0	8.57	2.28	1.77	38.9	9.11	1.93
	TCB 8	32	9.40	8.00	8.500	.715	.443	48.3	7.71	2.27	1.73	34.2	8.05	1.91
	(CB 162)	29	8.52	7.93	8.464	.645	.407	43.6	7.00	2.26	1.70	30.2	7.14	1.88
P.	T8 WF	25	7.35	8.125	7.073	.628	.380	42.2	6.77	2.40	1.89	17.4	4.92	1.54
	TCB 8	22.5	6.62	8.06	7.039	.563	.346	37.8	6.10	2.39	1.87	15.2	4.33	1.52
	TCB 8	20	5.88	8.00	7.000	.503	.307	33.2	5.37	2.37	1.82	13.3	3.79	1.50
	(CB 161)	18	5.30	7.93	6.992	.428	.299	30.7	5.10	2.41	1.90	11.1	3.17	1.45

Section index in parentheses refers to beam from which tee is cut.

For key to symbols in first column, refer to page 3.



STRUCTURAL TEES

CUT FROM
CB SECTIONS

PROPERTIES OF SECTIONS



District Produced	Section Index	Weight per Foot	Area of Section	Depth of Tee	Flange		Stem Thickness	Axis 1-1				Axis 2-2		
					Width	Thickness		I	S	x	x	I	S	x
P.	T 7 WF TCB 7 (CB 146)	105.5	31.04	7.875	15.800	1.563	.980	102.2	16.2	1.81	1.57	514.3	65.1	4.07
		101	29.70	7.815	15.750	1.503	.930	95.7	15.2	1.80	1.53	489.8	62.2	4.06
		96.5	28.36	7.75	15.710	1.438	.890	90.1	14.4	1.78	1.49	465.1	59.2	4.05
		92	27.04	7.69	15.660	1.378	.840	83.9	13.4	1.76	1.45	441.4	56.4	4.04
		88	25.87	7.625	15.640	1.313	.820	80.2	12.9	1.76	1.42	418.9	53.6	4.02
		83.5	24.55	7.56	15.600	1.248	.780	75.0	12.1	1.75	1.39	395.1	50.7	4.01
		79	23.24	7.50	15.550	1.188	.730	69.3	11.3	1.73	1.34	372.5	47.9	4.00
		75	22.04	7.44	15.515	1.128	.695	64.9	10.6	1.72	1.31	351.3	45.3	3.99
	71	20.92	7.375	15.500	1.063	.680	62.1	10.2	1.72	1.29	330.1	42.6	3.97	
P.	T 7 WF TCB 7 (CB 145)	68	19.99	7.375	14.740	1.063	.660	60.0	9.89	1.73	1.31	283.9	38.5	3.77
		63.5	18.67	7.31	14.690	.998	.610	54.7	9.04	1.71	1.26	263.8	35.9	3.76
		59.5	17.49	7.25	14.650	.938	.570	50.4	8.36	1.70	1.22	245.9	33.6	3.75
		55.5	16.33	7.185	14.620	.873	.540	46.7	7.80	1.69	1.19	227.4	31.1	3.73
		51.5	15.13	7.125	14.575	.813	.495	42.4	7.10	1.67	1.15	209.9	28.8	3.72
		47.5	13.97	7.06	14.545	.748	.465	39.1	6.58	1.67	1.12	191.9	26.4	3.71
	43.5	12.78	7.00	14.500	.688	.420	34.9	5.88	1.65	1.08	174.8	24.1	3.70	
P.	T 7 WF TCB 7 (CB 144)	42	12.36	7.09	12.023	.778	.451	37.4	6.36	1.74	1.21	112.7	18.8	3.02
		39	11.47	7.03	12.000	.718	.428	34.8	5.96	1.74	1.19	103.5	17.2	3.00
P.	T 7 WF TCB 7 (CB 143)	37	10.88	7.095	10.072	.783	.450	36.1	6.26	1.82	1.32	66.7	13.3	2.48
		34	10.00	7.03	10.040	.718	.418	33.0	5.74	1.81	1.29	60.6	12.1	2.46
		30.5	8.97	6.955	10.000	.643	.378	29.2	5.13	1.80	1.25	53.6	10.7	2.45
P.	T 7 WF TCB 7 (CB 142)	26.5	7.79	6.97	8.062	.658	.370	27.7	4.95	1.88	1.38	28.8	7.14	1.92
		24	7.06	6.905	8.031	.593	.339	24.9	4.49	1.88	1.35	25.6	6.38	1.91
		21.5	6.32	6.84	8.000	.528	.308	22.2	4.02	1.87	1.33	22.6	5.64	1.89
P.	T 7 WF TCB 7 (CB 141)	19	5.59	7.06	6.776	.513	.313	23.5	4.27	2.05	1.56	12.3	3.64	1.49
		17	5.00	7.00	6.750	.453	.287	21.1	3.86	2.05	1.55	10.6	3.15	1.46
		15	4.41	6.93	6.733	.383	.270	19.0	3.55	2.08	1.59	8.77	2.61	1.41
P.	T 6 WF TCB 6 (CB 124)	80.5	23.69	6.94	12.515	1.486	.905	62.6	11.5	1.63	1.47	243.1	38.9	3.20
		66.5	19.56	6.69	12.365	1.236	.755	48.4	9.03	1.57	1.33	195.0	31.5	3.16
		60	17.65	6.56	12.320	1.106	.710	43.4	8.22	1.57	1.28	172.5	28.0	3.13
		53	15.59	6.44	12.230	.986	.620	36.7	7.01	1.53	1.20	150.4	24.6	3.11
		49.5	14.54	6.375	12.190	.921	.580	33.7	6.46	1.52	1.16	139.1	22.8	3.09
		46	13.53	6.31	12.155	.856	.545	31.0	5.98	1.51	1.13	128.2	21.1	3.08
		42.5	12.49	6.25	12.105	.796	.495	27.8	5.38	1.49	1.08	117.7	19.5	3.07
		39.5	11.61	6.19	12.080	.736	.470	25.8	5.02	1.48	1.06	108.2	17.9	3.05
		36	10.58	6.125	12.040	.671	.430	23.1	4.53	1.48	1.02	97.6	16.2	3.04
		32.5	9.55	6.06	12.000	.606	.390	20.6	4.06	1.47	.98	87.3	14.6	3.02

CAR SECTIONS

CRANE RAILS

CORRUG. SHEETS

PILING

FLOOR PLATES

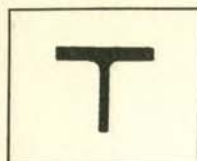
PLATES

MILL PRACTICES

INDEX

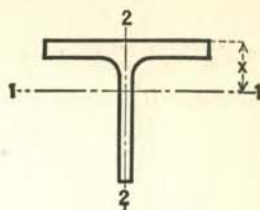
Section Index in parentheses refers to beam from which tee is cut.

For key to symbols in first column, refer to page 3.



STRUCTURAL TEES

CUT FROM
CB SECTIONS

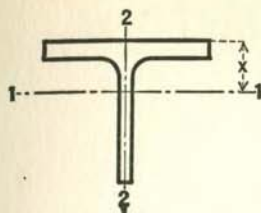


PROPERTIES OF SECTIONS

District Produced	Section Index	Weight per Foot	Area of Section	Depth of Tee	Flange		Stem Thickness	Axis 1-1				Axis 2-2		
					Width	Thickness		I	S	r	x	I	S	r
P.	T 6 WF TCB 6 (CB 123)	29	8.53	6.095	10.014	.641	.359	19.0	3.75	1.49	1.03	53.7	10.7	2.51
		26.5	7.80	6.03	10.000	.576	.345	17.7	3.54	1.51	1.02	48.0	9.60	2.48
P.	T 6 WF TCB 6 (CB 122)	25	7.36	6.095	8.077	.641	.371	18.7	3.80	1.60	1.17	28.2	6.98	1.96
		22.5	6.62	6.03	8.042	.576	.336	16.6	3.40	1.59	1.13	25.0	6.20	1.94
		20	5.89	5.97	8.000	.516	.294	14.4	2.94	1.56	1.08	22.0	5.50	1.94
P.	T 6 WF TCB 6 (CB 121)	18	5.29	6.12	6.565	.540	.305	15.3	3.14	1.70	1.26	11.9	3.62	1.50
		15.5	4.56	6.045	6.525	.465	.265	13.0	2.69	1.69	1.22	9.91	3.04	1.47
		13.5	3.99	5.980	6.500	.400	.240	11.4	2.39	1.69	1.21	8.30	2.55	1.44
P.	T 6 WF TCBL 6 (CBL 12)	11	3.24	6.16	4.030	.424	.260	11.7	2.58	1.90	1.63	2.27	1.13	.84
		9.5	2.81	6.08	4.010	.349	.240	10.2	2.32	1.91	1.67	1.84	.92	.81
		8.25	2.43	6.00	4.000	.269	.230	9.02	2.13	1.93	1.76	1.39	.70	.76
P.	T 6 WF TCBJ 6 (CBJ 12)	7.00	2.07	5.96	3.970	.224	.200	7.66	1.83	1.92	1.76	1.13	.57	.74
P.	T 5 WF TCB 5 (CB 103)	56	16.46	5.69	10.415	1.248	.755	28.8	6.42	1.32	1.21	117.7	22.6	2.67
		50	14.72	5.56	10.345	1.118	.685	24.8	5.62	1.30	1.14	103.3	20.0	2.65
		44.5	13.09	5.44	10.275	.998	.615	21.3	4.88	1.28	1.07	90.3	17.6	2.63
		38.5	11.33	5.31	10.195	.868	.535	17.7	4.10	1.25	1.00	76.7	15.1	2.60
		36	10.59	5.25	10.170	.808	.510	16.4	3.83	1.24	.97	70.9	13.9	2.59
		33	9.70	5.19	10.117	.748	.457	14.5	3.39	1.22	.92	64.6	12.8	2.58
		30	8.83	5.125	10.075	.683	.415	12.8	3.02	1.21	.88	58.2	11.6	2.57
		27	7.94	5.06	10.028	.618	.368	11.2	2.64	1.18	.84	51.95	10.4	2.56
P.	T 5 WF TCB 5 (CB 102)	24.5	7.20	5.00	10.000	.558	.340	10.1	2.40	1.18	.81	46.5	9.30	2.54
		22.5	6.62	5.06	8.022	.618	.350	10.3	2.48	1.25	.91	26.6	6.63	2.00
		19.5	5.74	4.97	7.990	.528	.318	8.96	2.19	1.25	.88	22.5	5.62	1.98
P.	T 5 WF TCB 5 (CB 101)	16.5	4.85	4.875	7.964	.433	.292	7.80	1.95	1.27	.88	18.2	4.58	1.94
		14.5	4.27	5.11	5.799	.500	.289	8.38	2.07	1.40	1.05	7.61	2.62	1.34
		12.5	3.67	5.04	5.762	.430	.252	7.12	1.77	1.39	1.02	6.34	2.20	1.31
P.	TCBL 5 (CBL 10)	10.5	3.10	4.95	5.750	.340	.240	6.31	1.62	1.43	1.06	4.87	1.69	1.25
		9.50	2.80	5.13	4.020	.394	.250	6.70	1.74	1.55	1.28	2.09	1.04	.86
		8.50	2.49	5.06	4.010	.329	.240	6.07	1.62	1.56	1.32	1.73	.86	.83
P.	TCBJ 5 (CBJ 10)	7.50	2.20	5.00	4.000	.269	.230	5.46	1.50	1.57	1.37	1.39	.70	.80
		5.75	1.69	4.94	3.950	.204	.180	4.15	1.16	1.57	1.35	1.00	.51	.77

Section Index in parentheses refers to beam from which tee is cut.

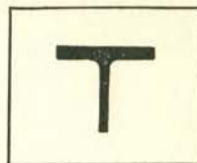
For key to symbols in first column, refer to page 3.



STRUCTURAL TEES

CUT FROM

CB SECTIONS AND
STANDARD BEAMS



PROPERTIES OF SECTIONS

District Produced	Section Index	Weight per Foot	Area of Section	Depth of Tee	Flange			Stem Thickness	Axis 1-1				Axis 2-2		
					Width	Thick-ness	In.		I	S	r	x	I	S	r
P.	T 4 WF TCB 4 (CB 83)	33.5	9.85	4.50	8.287	.933	.575	10.94	3.07	1.05	.94	44.3	10.7	2.12	
		29	8.53	4.375	8.222	.808	.510	9.11	2.60	1.03	.87	37.50	9.10	2.10	
		24	7.06	4.25	8.117	.683	.405	6.92	2.00	.99	.78	30.45	7.50	2.08	
		20	5.88	4.125	8.077	.558	.365	5.80	1.71	.99	.74	24.50	6.05	2.04	
		17.5	5.15	4.06	8.027	.493	.315	4.88	1.45	.97	.69	21.25	5.30	2.03	
		15.5	4.56	4.00	8.000	.433	.288	4.31	1.30	.97	.67	18.50	4.60	2.01	
P.	T 4 WF TCB 4 (CB 82)	14	4.11	4.03	6.540	.463	.285	4.22	1.28	1.01	.73	10.8	3.30	1.62	
		12	3.53	3.965	6.500	.398	.245	3.53	1.08	1.00	.70	9.10	2.80	1.61	
P.	T 4 WF TCB 4 (CB 81)	10	2.94	4.07	5.268	.378	.248	3.66	1.13	1.12	.83	4.25	1.61	1.20	
		8.5	2.50	4.00	5.250	.308	.230	3.21	1.01	1.13	.84	3.36	1.28	1.16	
P.	TCBL 4 (CBL 8)	7.50	2.22	4.06	4.015	.314	.245	3.29	1.07	1.22	1.00	1.65	.82	.86	
		6.50	1.91	4.00	4.000	.254	.230	2.90	.98	1.23	1.03	1.31	.66	.83	
P.	TCBJ 4 (CBJ 8)	5.00	1.48	3.95	3.940	.204	.170	2.15	.72	1.21	.96	1.00	.51	.82	
		8.00	2.36	3.13	4.030	.404	.260	1.66	.68	.84	.67	2.16	1.07	.96	
P.	TCBL 3 (CBL 6)	6.00	1.77	3.00	4.000	.279	.230	1.30	.56	.86	.67	1.44	.72	.90	
		4.25	1.25	2.92	3.940	.194	.170	.90	.40	.85	.64	.94	.48	.87	
P.	TB 6 (B 8)	25	7.35	6.00	5.477	.660	.687	25.2	6.05	1.85	1.84	7.85	2.87	1.03	
		20.4	5.99	6.00	5.250	.660	.460	18.8	4.26	1.77	1.57	6.77	2.58	1.06	
P.	TB 6 (B 9)	17.5	5.14	6.00	5.078	.544	.428	17.2	3.95	1.83	1.65	4.93	1.94	.98	
		15.9	4.67	6.00	5.000	.544	.350	14.9	3.31	1.78	1.51	4.68	1.87	1.00	
P.	TB 5 (B 10)	17.5	5.15	5.00	4.944	.491	.594	12.5	3.63	1.56	1.56	4.18	1.69	.90	
		12.7	3.73	5.00	4.660	.491	.310	7.81	2.05	1.45	1.20	3.39	1.46	.95	
P.	TB 4 (B 12)	11.5	3.38	4.00	4.171	.425	.441	3.50	1.77	1.22	1.15	2.15	1.03	.80	
		9.2	2.70	4.00	4.000	.425	.270	3.50	1.14	1.14	.94	1.86	.93	.83	
P.	TB 3.5 (B 13)	10	2.94	3.50	3.860	.392	.450	3.36	1.36	1.07	1.04	1.58	.82	.73	
		7.65	2.24	3.50	3.660	.392	.250	2.18	.81	.99	.81	1.32	.72	.77	
P.	TB 3 (B 14)	8.625	2.53	3.00	3.565	.359	.465	2.13	1.02	.92	.91	1.15	.65	.67	
		6.25	1.83	3.00	3.330	.359	.230	1.27	.55	.83	.69	.93	.56	.71	

Section Index in parentheses refers to beam from which tee is cut.
For key to symbols in first column, refer to page 3.

CAR SECTIONS

CRANE RAILS

CORRUG. SHEETS

PILING

FLOOR PLATES

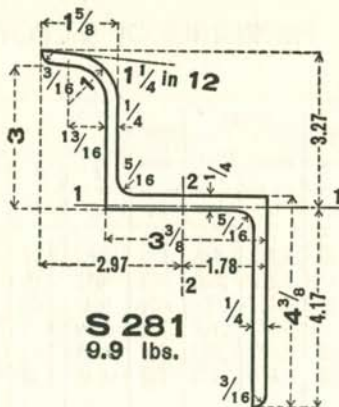
PLATES

MILL PRACTICES

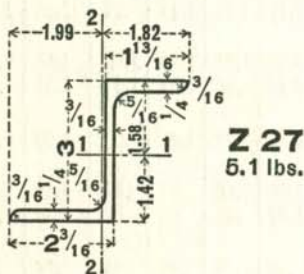
INDEX

MISCELLANEOUS CAR BUILDING SECTIONS

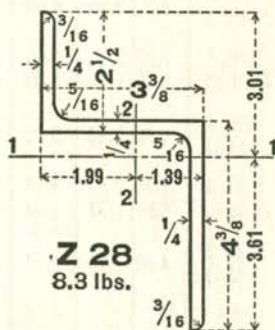
W SIDE PLATE SECTION



SIDE POST SECTION



SIDE PLATE SECTION

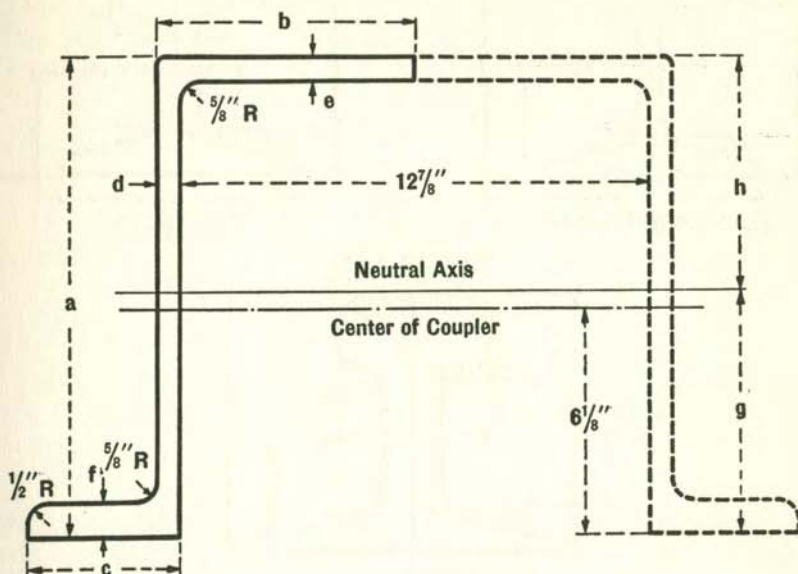


District Rolled	Section Index	Depth In.	Weight' per Foot Lbs.	Area In. ²	Axis 1-1		Axis 2-2	
					I	S	I	S
					In. ⁴	In. ³	In. ⁴	In. ³
P.C.	S 281	7 1/16	9.9	2.89	11.26	2.70	6.94	2.34
P.C.B.	Z 27	3	5.10	1.50	2.13	1.34	1.16	0.58
P.C.	Z 28	3 3/8	8.30	2.44	6.53	1.81	4.48	2.25

For key to symbols in first column, refer to page 3.

MISCELLANEOUS CAR BUILDING SECTIONS

CENTER SILL SECTION Z26



SECTION AS ROLLED

District Rolled	Section Index	Weight per Foot	Area of Section	a	b	c	d	e	f
		Lbs.	In. ²	In.	In.	In.	In.	In.	In.
P.C.	Z-26	51.2	15.06	13 1/16	7 1/32	4 3/16	19 1/32	19 1/32	15 7/16
		41.2	12.12	12 13/16	6 29/32	4 1/16	15 1/32	15 1/32	13 1/16
		36.2	10.65	12 7/8	6 27/32	4	13 1/32	13 1/32	3 1/4
		31.3	9.20	12 13/16	6 25/32	3 15/16	11 1/32	11 1/32	11 1/16

For Key to symbols in first column, refer to page 3.

DATA FOR COMPLETE SILL (TWO Z-26 SECTIONS)

Weight per Foot	Area	Moment of Inertia	Section Modulus		End Ratio		g	h
			Top	Bottom	Top	Bottom		
Lbs.	In. ²	In. ⁴	In. ³	In. ³			In.	In.
102.4	30.12	771.4	122.8	113.8	.0279	.0390	6.780	6.283
82.4	24.24	626.0	98.6	95.0	.0366	.0461	6.588	6.349
72.4	21.30	552.2	86.1	85.5	.0431	.0509	6.458	6.417
62.6	18.40	481.7	74.1	76.3	.0517	.0568	6.315	6.498

CAR SECTIONS

CRANE RAILS

CORRUG. SHEETS

PILING

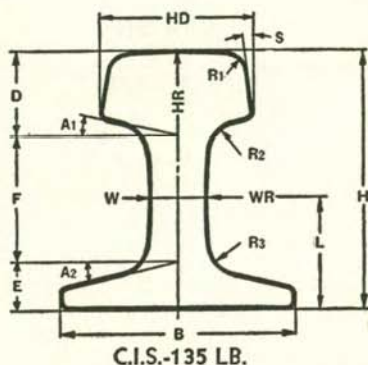
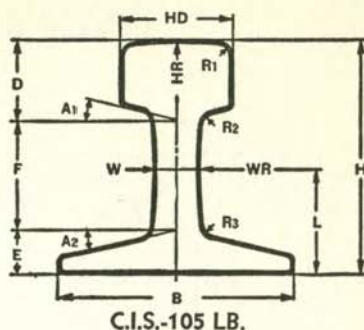
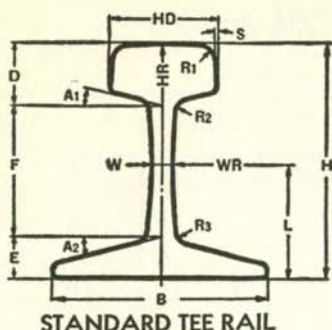
FLOOR PLATES

PLATES

MILL PRACTICES

INDEX

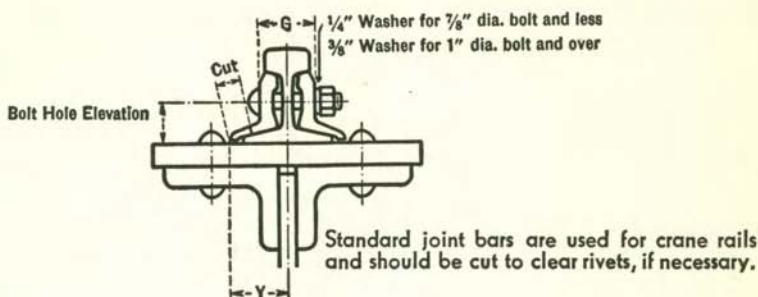
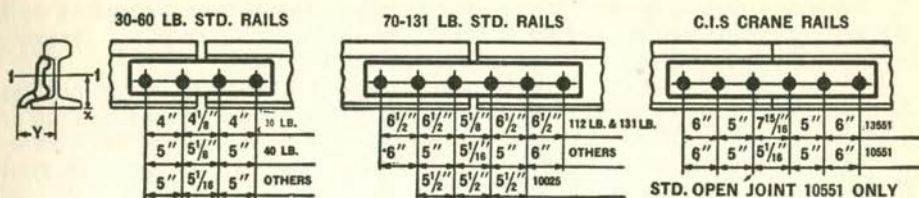
CRANE RAILS



District Rolled	Weight per Yd. and Type	Section Index	Dimensions, Inches															
			Height	Base	Head	Web	Depth of Head	Fishing	Depth of Base	Head Angle	Base Angle	Slope of Head	ϕ of Web Radius	Head Radius	Web Radius	Head Fillet Radius	Web Fillet Rad. Top	Web Fillet Rad. Bottom
			H	B	HD	W	D	F	E	A ₁ -A ₂	S	L	HR	WR	R ₁	R ₂	R ₃	
PCB	30 lb. A.S.C.E.	3040	3 1/8	3 3/8	1 11/16	2 1/64	7/8	1 23/32	17/32	13°	str.	1 25/64	12	12	5/16	1/4	1/4	
PC	40 lb. A.S.C.E.	4040	3 1/2	3 1/2	1 7/8	2 5/64	1 1/64	1 55/64	5/8	13°	str.	1 7 1/128	12	12	5/16	1/4	1/4	
PCB	60 lb. A.S.C.E.	6040	4 1/4	4 1/4	2 3/8	3 1/64	1 7/32	2 17/64	49/64	13°	str.	1 11 3/128	12	12	5/16	1/4	1/4	
PC	70 lb. A.S.C.E.	7040	4 5/8	4 5/8	2 7/16	3 3/64	1 11/32	2 15/32	13 1/16	13°	str.	2 29/64	12	12	5/16	1/4	1/4	
PCB	80 lb. A.S.C.E.	8040	5	5	2 1/2	3 5/64	1 1/2	2 5/8	7/8	13°	str.	2 23/16	12	12	5/16	1/4	1/4	
PCB	85 lb. A.S.C.E.	8540	5 1/16	5 1/16	2 9/16	9/16	1 35/64	2 3/4	57/64	13°	str.	2 17/64	12	12	5/16	1/4	1/4	
PCB	90 lb. A.R.A.-A	9020	5 5/8	5 1/8	2 9/16	9/16	1 15/32	3 5/32	1	1:4	1:16	2 29/64	14	14	3/8	3/8	3/8	
PC	90 lb. A.S.C.E.	9040	5 3/8	5 3/8	2 5/8	9/16	1 19/64	2 55/64	1 59/64	13°	str.	2 4 1/128	12	12	5/16	1/4	1/4	
PC	100 lb. A.R.A.-A	10020	6	5 1/2	2 3/4	9/16	1 19/64	3 3/8	1 1/16	1:4	1:16	2 15/16	14	14	3/8	3/8	3/8	
CB	100 lb. A.R.E.A.	10025	6	5 3/8	2 11/16	9/16	1 21/64	3 3/32	1 1/16	1:4	1:16	2 31/64	14	14	3/8	3/8	3/8	
PCB	100 lb. A.R.A.-B	10030	5 41/64	5 3/8	2 21/32	9/16	1 45/64	2 55/64	1 5/64	13°	3°	2 5 1/128	12	12	5/16	1/4	1/4	
PC	100 lb. A.S.C.E.	10040	5 3/4	5 3/4	2 3/4	9/16	1 45/64	3 3/64	3 1/32	13°	str.	2 5 1/128	12	12	5/16	1/4	1/4	
PC	105 lb. C.I.S.	10551	5 3/16	5 3/16	2 9/16	15/16	1 25/64	2 13/32	1	13°	str.	2 13/64	12	12	5/16	1/4	1/4	
PCB	112 lb. A.R.E.A.	11228	6 5/8	5 1/2	2 23/32	19/32	1 11/16	3 13/16	1 1/8	1:4	1:40	3 3/4	14 & 1	10 & 23	3/8	3/8	3/8	
PCB	131 lb. A.R.E.A.	13128	7 1/8	6	3	2 1/32	1 3/4	4 3/16	1 3/8	1:4	1:40	4 1/4	14 & 1	10 & 23	3/8	3/8	3/8	
C	135 lb. C.I.S.	13551	5 3/4	5 3/16	37/16	1 1/4	1 7/8	2 13/16	1 1/16	13°	10°	2 13/32	14	12	7/16	3/4	3/4	
C	175 lb. C.I.S.	17551	6	6	4 1/4	1 1/2	1 3/4	3 7/64	1 3/64	12°	10°	2 21/32	18	∞	7/16	2	1 1/8	

For key to symbols in first column refer to page 3.

CRANE RAIL SPLICES



For New Work and Major Repairs the following Rail Sections are recommended—

Pittsburgh District—4040, 6040, 8540, 10551 and 13551.

Chicago District—4040, 6040, 8540, 10551 and 13551.

Birmingham District—3040, 6040, 8540, 9020, 10025, 10551 and 13551.

RAIL						JOINT BAR				BOLTS			
Section Index	Bolt Hole Elevation	Properties				Section Index	Dimensions, Inches			Dimensions, In.			
		Gross Area	Axis 1-1 Parallel to Base				Length	Size of Hole	To Toe of Joint Bar	Cut From Joint Bar	Diameter	Bolt Grip	
			I	S	N.A. from base x							G	Length
In. ²	In. ⁴	In. ²	In.	Y	Y								
3040	1 25/64	3.00	4.1	2.5	1.52	S 3040	16 1/8	1 1/16 x 3 1/32	2	9/16	5/8	1 1/16	2 3/4
4040	1 7 1/128	3.94	6.6	3.6	1.68	S 4040	20	1 3/16 x 1 1/8	2 3/16	9/16	3/4	1 15/16	3 1/4
6040	1 11 5/128	5.93	14.6	6.6	2.05	S 6040	24	1 3/16 x 1 1/8	2 11/16	1 1/16	3/4	2 19/32	3 7/8
7040	2 3/64	6.81	19.7	8.2	2.22	S 7040	34	1 3/16 x 1 1/8	2 15/16	3/4	3/4	2 27/32	4 1/8
8040	2 9/16	7.86	26.4	10.1	2.38	*S 8040	34	1 5/16 x 1 1/4	3 3/16	1 3/16	7/8	3 1/16	4 1/2
8540	2 17/64	8.33	30.1	11.1	2.47	S 8540	34	1 5/16 x 1 1/4	3 11/32	7/8	7/8	3 5/8	4 1/2
9020	2 37/64	8.82	38.7	12.6	2.54	S 9020	34	1 1/16 x 1 13/32	3 13/16	1 3/8	1	3 5/16	4 7/8
9040	2 4 5/128	8.83	34.4	12.2	2.55	S 9040	34	1 1/16 x 1 13/32	3 7/16	7/8	1	3 1/4	4 3/4
10020	2 3/4	9.84	48.9	15.0	2.75	S 10020	34	1 1/16 x 1 13/32	4 1/16	1 7/16	1	3 7/16	4 7/8
10025	2 4 5/64	9.95	49.0	15.1	2.75	Confer	..	..	..	..	..	..	..
10030	2 6 5/128	9.85	41.3	13.7	2.63	Confer	..	..	..	..	..	..	..
10040	2 6 5/128	9.84	44.0	14.6	2.73	S 10040	34	1 1/16 x 1 13/32	3 5/8	7/8	1	3 7/16	4 7/8
10551	2 13/64	10.30	34.4	12.4	2.41	S 7040	34	1 5/16 x 1 1/4	..	..	7/8	3 5/8	4 1/2
11228	2 7/8	11.01	65.5	18.1	3.00	Confer	..	..	..	..	..	..	..
13128	3 3/32	12.82	88.5	22.6	3.20	Confer	..	..	..	..	..	..	..
13551	2 15/32	13.32	50.6	17.2	2.81	S 13551	34	1 3/16 Round	2 19/32	..	1 1/8	3 5/8	5 1/2
17551	2 21/32	17.12	70.2	23.3	3.02	S 17551	34	1 3/16 Round	..	..	1 1/8	4 1/8	6

*Not produced in Birmingham District.

CRANE RAILS

CORRUG. SHEETS

PILING

FLOOR PLATES

PLATES

MILL PRACTICES

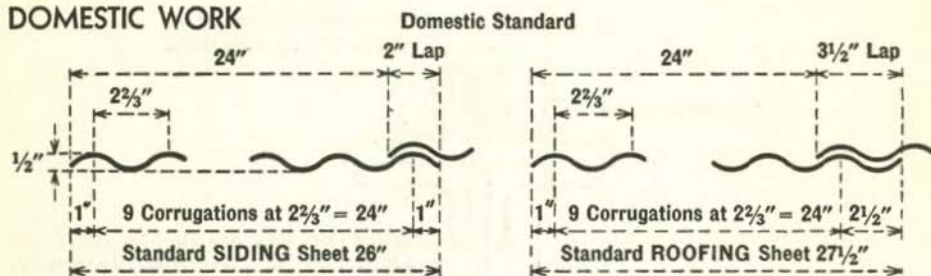
INDEX

CORRUGATED SHEET CONSTRUCTION

Corrugated sheets, in addition to their extensive application as roofing and siding for buildings, are adaptable to other uses such as lining of shafts, supports and forms for floor arches, partitions, enclosures and culverts.

Corrugated sheets are available in steel of regular analysis or in rust-resisting alloys, usually copper bearing steel, either black (unpainted mill finish), painted or galvanized. Although the mills offer a wide choice in types and widths of corrugations, the curved type is generally used. General practice is to furnish in even foot lengths ranging from 60" to 144".

DOMESTIC WORK



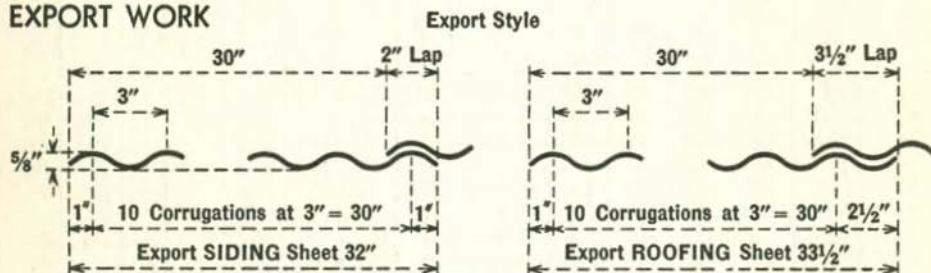
Nominal 2 1/2" widths of corrugation (actual 2 2/3") are preferred for domestic work.

Siding sheets are 26" wide after corrugating, with both edges turned the same way. They are laid with one corrugation side lap as shown in sketch and minimum end lap of 4".

Roofing sheets are 27 1/2" wide after corrugating with one edge turned up and the other down. They are laid with 1 1/2 corrugations side lap as shown in sketch. A minimum end lap of 6" should be used for roof pitch of 4 in 12 or over and 8" for roof of less pitch. Corrugated steel roofing is seldom used for roof pitch under 3 in 12.

Both siding and roofing sheets cover approximately 24" net width.

EXPORT WORK



Nominal 3" widths of corrugation are generally used for export work.

Siding sheets are 32" wide after corrugating, with both edges turned the same way.

Roofing sheets are 33 1/2" wide after corrugating, with 1 edge turned up and the other turned down.

Both siding and roofing cover approximately 30" net width.

Sheet steel flashing must be provided at roof ridge, eaves, windows and wherever necessary to insure watertight results.

CORRUGATED SHEET CONSTRUCTION

STANDARD 2½" CORRUGATED

Black					Galvanized					Maximum Span Between Supports	
Manufacturers Standard Gage			Corrugated Pounds per Sq. Ft.		Galvanized Sheet Gage			Corrugated Pounds per Sq. Ft.				Roofing	Siding
Gage No.	Pounds per Sq. Ft.	Approx. Thick. Inches	26" Wide	27½" Wide	Gage No.	Pounds per Sq. Ft.	Approx. Thick. Inches	26" Wide	27½" Wide		
12	4.38	.105	4.71	4.77	12	4.53	.109	4.88	4.94	5' 9"	5' 10"
14	3.13	.075	3.37	3.41	14	3.28	.079	3.53	3.58	5' 9"	5' 10"
16	2.50	.060	2.69	2.73	16	2.66	.064	2.86	2.90	5' 9"	5' 10"
18	2.00	.048	2.15	2.18	18	2.16	.052	2.32	2.35	5' 9"	5' 10"
20	1.50	.036	1.62	1.64	20	1.66	.040	1.78	1.81	5' 9"	5' 10"
22	1.25	.030	1.35	1.36	22	1.41	.034	1.51	1.53	4' 9"	5' 10"
24	1.00	.024	1.08	1.09	24	1.16	.028	1.25	1.26	3' 9"	4' 10"
26	.75	.018	.81	.82	26	.91	.022	.98	.99	2' 9"	3' 10"
28	.63	.015	.67	.68	28	.78	.019	.84	.85	2' 9"	3' 10"

To obtain weights of Painted Sheets add 0.010 pounds per square foot to weights of Black Sheets.

EXPORT 3" CORRUGATED

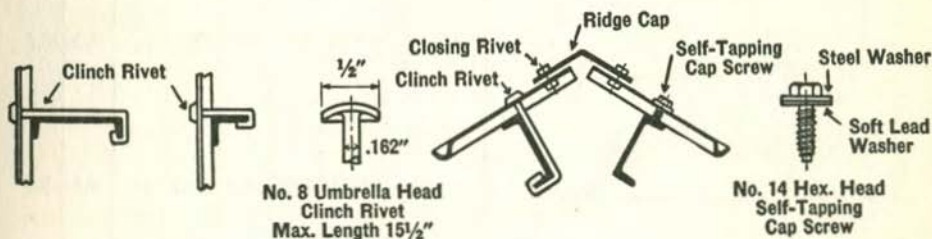
Black				Galvanized				Maximum Span Between Supports	
Manufacturers Standard Gage			Corrugated Pounds per Sq. Ft.	Galvanized Sheet Gage			Corrugated Pounds per Sq. Ft.			Roofing	Siding
Gage No.	Pounds per Sq. Ft.	Approx. Thick. Inches	32" & 33½" Wide	Gage No.	Pounds per Sq. Ft.	Approx. Thick. Inches	32" & 33½" Wide		
12	4.38	.105	4.86	12	4.53	.109	5.03	5' 9"	5' 10"
14	3.13	.075	3.47	14	3.28	.079	3.64	5' 9"	5' 10"
16	2.50	.060	2.78	16	2.66	.064	2.95	5' 9"	5' 10"
18	2.00	.048	2.22	18	2.16	.052	2.40	5' 9"	5' 10"
20	1.50	.036	1.67	20	1.66	.040	1.84	5' 9"	5' 10"
22	1.25	.030	1.39	22	1.41	.034	1.57	4' 9"	5' 10"
24	1.00	.024	1.11	24	1.16	.028	1.29	3' 9"	4' 10"

To obtain weights of Painted Sheets add 0.010 pounds per square foot to weights of Black Sheets.

Method of obtaining approximate gross area required:

Roofing = net area + end laps + 15% for side laps of 1½ corrugations.

Siding = net area + end laps + 10% for side laps of 1 corrugation.



Fastenings for Corrugated Steel

STEEL SHEET PILING SECTIONS

Profile	District Rolled	Section Index	Driving Distance per Pile	Weight			Web Thickness	Section Modulus	
				Per Foot	Per Square Foot of Wall	Per Pile		Per Foot of Wall	
				In.	Lbs.				Lbs.	In.^{3}	In.^{3}
	C.	MP 102	15	40.0	32.0	1/2			
	C.	MP 101	15	35.0	28.0	3/8			
	C.	MP 117	15	38.8	31.0	3/8	8.9	7.1	
INTERLOCK WITH EACH OTHER									
	P.	MP 113	16	37.3	28.0	1/2	3.3	2.5	
	P.C.	MP 112	16	30.7	23.0	3/8	3.2	2.4	
INTERLOCK WITH EACH OTHER									
	P.	MP 110	16	42.7	32.0	3 1/64	20.4	15.3	
	P.C.	MP 116	16	36.0	27.0	3/8	14.3	10.7	
	P.C.	MP 115	19 5/8	36.0	22.0	3/8	8.8	5.4	

For key to symbols in first column, refer to page 3.

STEEL SHEET PILING SECTIONS—Z PILES

Profile	District Rolled	Section Index	Driving Distance per Pile	Weight		Web Thickness	Section Modulus	
				Per Foot	Per Square Foot of Wall		Per Pile	Per Foot of Wall
				In.	Lbs.		Lbs.	In. ³
	P.	MZ 38	18	57.0	38.0	3/8	70.2	46.8
INTERLOCK WITH EACH OTHER								
	P.	MZ 32	21	56.0	32.0	3/8	67.0	38.3
<hr/>								
	P.	MZ 27	18	40.5	27.0	3/8	45.3	30.2
INTERLOCK WITH EACH OTHER								
	P.	MZ 22	22	40.3	22.0	3/8	34.8	19.0

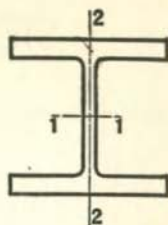
Complete data regarding these sections will be found in a separate publication entitled "Steel Sheet Piling." For key to symbols in first column, refer to page 3.



BEARING PILES

WIDE FLANGE CBP SECTIONS

PROPERTIES OF SECTIONS



District Rolled	Section Index and Nominal Size	Weight per Foot Lbs.	Area of Section In ²	Depth of Section In.	FLANGE		Web Thickness In.	Axis 1-1			Axis 2-2		
					Width In.	Thick-ness In.		I In. ⁴	S In. ³	r In.	I In. ⁴	S In. ³	r In.
P.C.	CBP 145 14 x 14 1/2	117	34.44	14.234	14.885	.805	.805	1228.5	172.6	5.97	443.1	59.5	3.59
		102	30.01	14.032	14.784	.704	.704	1055.1	150.4	5.93	379.6	51.3	3.56
		89	26.19	13.856	14.696	.616	.616	909.1	131.2	5.89	326.2	44.4	3.53
		73	21.46	13.636	14.586	.506	.506	733.1	107.5	5.85	261.9	35.9	3.49
P.C.	CBP 124 12 x 12	74	21.76	12.122	12.217	.607	.607	566.5	93.5	5.10	184.7	30.2	2.91
		53	15.58	11.780	12.046	.436	.436	394.8	67.0	5.03	127.3	21.2	2.86
P.C.	CBP 103 10 x 10	57	16.76	10.012	10.224	.564	.564	294.7	58.9	4.19	100.6	19.7	2.45
		42	12.35	9.720	10.078	.418	.418	210.8	43.4	4.13	71.4	14.2	2.40
P.C.	CBP 83 8 x 8	36	10.60	8.026	8.158	.446	.446	119.8	29.9	3.36	40.4	9.9	1.95

Complete data regarding these sections will be found in a separate publication entitled "Steel Bearing Piles." For key to symbols in first column, refer to page 3.

FLOOR PLATES

ALLOWABLE UNIFORM LOAD IN LB. PER SQ. FT.

Weight of Plate Included - Simply Supported Along Two Opposite Edges - Bending Stress, 16,000 psi

Plate Thickness Inches	SPAN—Feet and Inches										
	1'-0"	1'-6"	2'-0"	2'-6"	3'-0"	3'-6"	4'-0"	4'-6"	5'-0"	5'-6"	6'-0"
1/8	333	148	83	53	37						
3/16	750	333	188	120	83	61	47				
1/4	1333	593	333	213	148	109	83	65	53		
5/16	2083	926	521	333	231	170	130	103	83	69	58
3/8	3000	1333	750	480	333	245	188	148	120	99	83
7/16	4083	1815	1021	653	454	333	255	202	163	135	113
1/2	5333	2370	1333	853	593	435	333	263	213	176	148
5/8	8333	3704	2083	1333	926	680	521	412	333	275	231
3/4	12000	5333	3000	1920	1333	980	750	593	480	397	333
1	21333	9481	5333	3413	2370	1741	1333	1053	853	705	593
Deflection Coefficient	.0166	.0372	.0662	.1034	.1490	.2027	.2648	.3351	.4138	.5006	.5958

Deflections for loadings above stepped line will exceed 1/100th of the span.

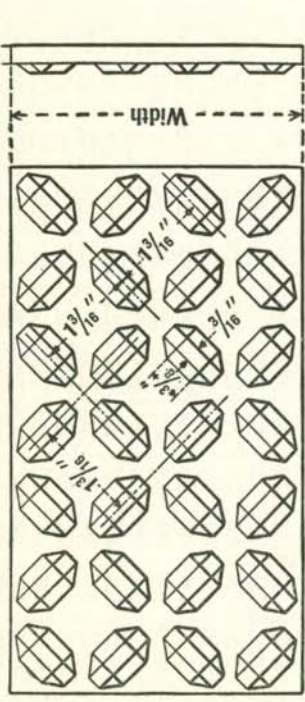
The deflection coefficient at the bottom of each span column is a constant, which, when divided by the **plate thickness** under consideration, in inches, gives the deflection in inches at the center of the span for the tabular loading shown.

To find the deflection in inches for any uniform load less than tabulated above, find the deflection for the tabular load for a given span and plate thickness; multiply this deflection by the load per sq. ft. desired; and divide by the tabular allowable safe load above.

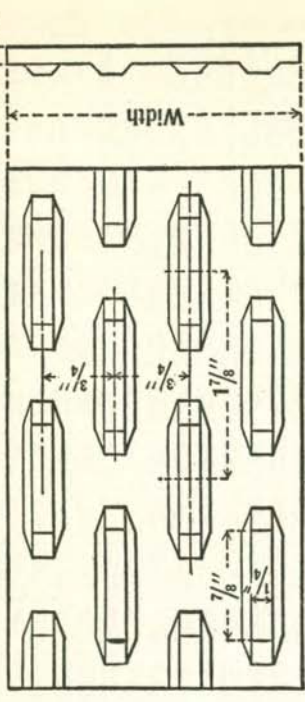
Plate Thickness in inches is the body or base thickness, and does not include the depth of the projections.

EXTREME SIZES OF RECTANGULAR AND CIRCULAR FLOOR PLATES

CARBON STEEL—SECTION S-300



CARBON STEEL—SECTION M-41



Thickness Inches	Weight—Lbs. per Sq. Ft.	WIDTHS IN INCHES						Circles Maximum Diameter, Inches	Thickness Inches
		Over 6	Over 12	Over 18	Over 24	Over 30	Over 48		
		Incl. 12	Incl. 18	Incl. 24	Incl. 30	Incl. 36	Incl. 48		
1/8	6.15	180	240	240	240	240	60	1/8	
3/16	8.70	180	300	360	360	600	84	3/16	
1/4	11.25	180	300	360	360	600	84	1/4	
5/16	13.80	180	300	360	360	600	84	5/16	
3/8	16.35	180	300	360	360	600	84	3/8	
1/2	18.90	180	300	360	360	600	72	1/2	
5/8	21.45	180	300	360	360	600	72	5/8	
3/4	21.45	180	300	360	360	600	72	3/4	
1	21.45	180	300	360	360	600	72	1	

Chicago and Pittsburgh Districts.
Weights are approximate and may vary.
*Not rolled in Chicago District.

Thickness Inches	Weight—Lbs. per Sq. Ft.	WIDTHS IN INCHES						Circles Maximum Diameter, Inches	Thickness Inches
		Over 6	Over 12	Over 18	Over 24	Over 30	Over 48		
		Incl. 12	Incl. 18	Incl. 24	Incl. 30	Incl. 36	Incl. 48		
1/8	6.50	144	180	180	240	240	60	1/8	
3/16	8.70	144	180	200	300	360	90	3/16	
1/4	11.25	144	180	200	300	360	90	1/4	
5/16	13.80	144	180	200	300	360	90	5/16	
3/8	16.35	120	180	200	300	360	90	3/8	
1/2	18.90	120	180	200	300	360	90	1/2	
5/8	21.45	120	180	200	300	360	84	5/8	
3/4	31.65	120	180	200	300	360	84	3/4	
1	41.85	120	180	200	300	360	84	1	

Pittsburgh District only.
Weights are approximate and may vary.

FLOOR
PLATES

PLATES

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INDEX

EXTREME SIZES OF RECTANGULAR UNIVERSAL MILL PLATES
CARBON STEEL—STRUCTURAL GRADE—72,000 PSI MAXIMUM T.S.
OVER 2 INCHES THICK

Thickness Inches	WIDTH IN INCHES												Thickness Inches											
	Over 6 to 7 Incl.	Over 7 to 8 Incl.	Over 8 to 9 Incl.	Over 9 to 9 9/16 Incl.	Over 10 to 11 Incl.	Over 11 to 13 Incl.	Over 13 to 15 Incl.	Over 15 to 17 Incl.	Over 17 to 19 Incl.	Over 19 to 21 Incl.	Over 21 to 23 Incl.	Over 23 to 25 Incl.		Over 25 to 27 Incl.	Over 27 to 29 Incl.	Over 29 to 31 Incl.	Over 31 to 33 Incl.	Over 33 to 35 Incl.	Over 35 to 37 Incl.	Over 37 to 39 Incl.	Over 39 to 41 Incl.	Over 41 to 43 Incl.	Over 43 to 45 Incl.	Over 45 to 46 Incl.
2 1/4	276	252	252	216	764	646	561	736	729	722	716	711	708	704	675	652	596	564	535	508	485	463	444	2 1/2
2 1/2	252	216	204	192	688	582	505	662	649	649	644	640	637	634	606	588	536	507	481	458	437	417	400	2 3/4
3	204	180	180	152	573	485	420	552	546	541	537	533	531	528	506	474	447	423	401	381	364	347	333	3
3 1/4	180	152	152	128	491	415	360	473	468	464	460	457	455	453	433	406	383	362	344	327	312	298	286	3 1/2
4	152	128	128	104	430	363	315	414	410	406	403	400	398	396	379	355	335	317	300	286	273	260	250	4
4 1/4	128	104	104	80	382	323	280	368	364	361	358	355	354	352	337	316	298	282	267	254	243	231	222	4 1/2
5	104	80	80	56	345	291	252	331	328	325	322	320	318	317	303	284	268	253	240	229	218	208	200	5
5 1/4	80	56	56	32	301	259	229	301	298	295	293	291	289	288	278	260	245	232	220	209	200	190	183	5 1/2
6	56	32	32	8	276	233	210	276	273	270	268	266	265	264	254	237	223	211	200	190	182	173	166	6
6 1/4	32	8	8	0	254	212	194	254	252	250	248	246	245	244	234	217	207	196	186	176	168	161	154	6 1/2
7	8	0	0	0	236	194	176	236	234	232	230	228	227	226	216	203	191	183	173	165	157	150	143	7
7 1/4	0	0	0	0	205	163	145	205	203	201	200	199	198	198	188	179	168	160	150	143	136	130	123	7 1/2
8	0	0	0	0	180	138	120	180	178	177	176	175	175	175	165	156	145	136	126	120	114	108	101	8
8 1/4	0	0	0	0	161	119	101	161	159	158	157	157	157	157	147	138	127	118	110	104	99	93	87	8 1/2
9	0	0	0	0	132	90	72	132	130	129	128	128	128	128	118	110	100	92	86	81	76	71	66	9
10	0	0	0	0	104	62	44	104	102	101	100	100	100	100	90	82	74	68	63	58	54	50	46	10
10 1/4	0	0	0	0	88	46	28	88	86	85	84	84	84	84	74	66	58	53	49	45	41	38	35	10 1/2
11	0	0	0	0	72	30	12	72	70	69	68	68	68	68	58	50	42	37	34	31	28	26	23	11 1/4
11 1/4	0	0	0	0	56	14	0	56	54	53	52	52	52	52	42	34	26	21	18	16	14	12	11	11 1/2
12	0	0	0	0	40	0	0	40	38	37	36	36	36	36	26	18	10	11	10	9	8	7	6	12 1/2
12 1/4	0	0	0	0	24	0	0	24	22	21	20	20	20	20	10	12	4	5	4	4	3	2	1	13
13	0	0	0	0	8	0	0	8	6	5	4	4	4	4	4	4	4	4	4	3	2	1	0	13 1/2
13 1/4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14
14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14 1/4
14 1/4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14 1/2
15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15

All Sizes must be gas cut to width and length. Plate requirements in excess of dimensions shown may be submitted for special consideration.
 In general circles can be furnished in diameters equal to widths of plates shown.

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Pittsburgh
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PLATES ROLLED IN PITTSBURGH DISTRICT

EXTREME SIZES OF RECTANGULAR AND CIRCULAR SHEARED MILL PLATES

CARBON STEEL—STRUCTURAL GRADE—72,000 PSI MAXIMUM T. S.

2 INCHES THICK AND UNDER



Thickness Inches	Weight Lbs. per Sq. Ft.	WIDTHS IN INCHES																Circles Maximum Diameter, Inches	Thickness Inches									
		24	30	36	42	48	48½	54	60	66	72	78	84	90	90%	96	102			108	114	120	126	132	138	144		
3/16	7.65	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	122	3/16
1/4	10.20	720	900	900	900	900	900	900	900	900	840	720	600	480	*390	*380	*370	*360	*341	*324	320	300	...	...	...	134	1/4
5/16	12.75	900	900	900	900	900	900	900	900	900	900	900	840	720	520	480	480	480	480	480	480	480	350	320	300	140	5/16	
3/8	15.30	900	900	900	900	900	900	900	900	900	900	900	840	720	720	720	720	720	720	720	720	480	440	330	300	146	3/8	
7/16	17.85	900	900	900	900	900	900	900	900	900	900	900	840	720	720	720	720	720	720	720	720	520	480	380	340	146	7/16	
1/2	20.40	900	900	900	900	900	900	900	900	900	900	900	840	720	720	720	720	720	720	720	720	560	520	420	380	146	1/2	
9/16	22.95	900	900	900	900	900	900	900	900	900	900	840	720	720	720	720	720	720	720	720	720	600	540	450	420	146	9/16	
5/8	25.50	900	900	900	900	900	900	900	900	900	900	840	720	720	720	720	720	720	720	720	720	600	540	480	420	146	5/8	
11/16	28.05	900	900	900	900	900	900	900	900	900	864	864	840	780	720	720	720	720	720	720	720	600	540	480	420	146	11/16	
3/4	30.60	900	900	900	900	900	900	900	900	900	900	864	840	780	720	720	720	720	720	720	720	600	540	480	420	146	3/4	
13/16	33.15	495	515	520	520	600	600	660	720	720	720	720	720	720	720	720	720	720	720	720	720	600	540	480	420	146	13/16	
7/8	35.70	495	495	520	520	600	600	660	720	720	720	720	720	720	720	720	720	720	720	720	720	600	540	480	420	146	7/8	
1	40.80	450	465	520	520	600	600	660	720	720	720	720	720	720	720	720	720	720	720	720	720	600	540	480	420	146	1	
1 1/8	45.90	450	465	500	520	600	600	660	720	720	720	720	720	720	720	720	720	720	720	720	720	600	540	480	420	146	1 1/8	
1 1/4	51.00	400	450	500	520	600	600	660	720	720	720	720	720	720	720	720	720	720	720	720	720	600	540	480	420	146	1 1/4	
1 1/2	61.20	400	420	500	520	600	600	660	720	720	720	720	720	720	720	720	720	720	720	720	720	660	600	530	460	420	146	1 1/2
1 3/4	71.40	400	420	500	520	600	600	660	720	720	720	720	720	720	720	720	720	720	720	720	720	600	585	535	455	380	146	1 3/4
2	81.60	400	420	500	520	600	600	660	720	720	720	720	720	720	720	720	720	720	720	720	720	600	565	530	495	330	146	2

*Plates ordered over 90" wide and 3/8" thick, must be specified to thickness only. Cannot be furnished to weight per sq. ft. Plate requirements in excess of dimensions shown may be submitted for special consideration.

EXTREME SIZES OF RECTANGULAR SHEARED MILL PLATES

OVER 2 INCHES THICK

Thickness Inches	WIDTHS IN INCHES												Thickness Inches						
	Over 46 to 47 incl.	Over 47 to 48 incl.	Over 48 to 54 incl.	Over 54 to 60 incl.	Over 60 to 66 incl.	Over 66 to 72 incl.	Over 72 to 78 incl.	Over 78 to 84 incl.	Over 84 to 90 incl.	Over 90 to 96 incl.	Over 96 to 102 incl.	Over 102 to 108 incl.		Over 108 to 114 incl.	Over 114 to 120 incl.	Over 120 to 126 incl.	Over 126 to 132 incl.	Over 132 to 138 incl.	Over 138 to 144 incl.
2 1/4	600	600	600	600	600	600	600	600	600	600	600	600	600	600	600	600	600	600	600
2 1/2	600	600	600	600	600	600	600	600	600	600	600	600	600	600	600	600	600	600	600
3	600	600	600	600	600	600	600	600	600	600	600	600	600	600	600	600	600	600	600
3 1/2	600	600	600	600	600	600	600	600	600	600	600	600	600	600	600	600	600	600	600
4	559	457	487	438	399	366	337	315	298	280	266	253	239	229	220	210	200	190	182
4 1/2	494	483	430	363	346	314	288	266	247	229	215	203	182	162	151	145	138	138	138
5	440	430	363	346	314	288	266	247	229	215	203	182	162	151	145	138	138	138	138
5 1/2	398	389	346	312	283	259	239	223	207	194	183	163	143	132	126	126	126	126	126
6	364	357	317	287	260	238	220	204	190	178	168	150	138	126	126	126	126	126	126
6 1/2	337	330	293	264	239	220	203	188	176	165	155	138	126	126	126	126	126	126	126
7	311	305	271	245	222	204	188	174	163	152	144	127	126	126	126	126	126	126	126
7 1/2	292	286	254	228	207	190	176	162	151	143	126	126	126	126	126	126	126	126	126
8	279	273	243	218	199	182	168	156	145	136	126	126	126	126	126	126	126	126	126
8 1/2	257	252	224	201	183	168	155	144	134	126	126	126	126	126	126	126	126	126	126
9	244	238	212	190	173	159	146	136	128	126	126	126	126	126	126	126	126	126	126
9 1/2	229	225	200	180	163	150	138	128	126	126	126	126	126	126	126	126	126	126	126
10	218	214	190	171	156	143	132	126	126	126	126	126	126	126	126	126	126	126	126
10 1/2	205	201	179	161	147	134	126	126	126	126	126	126	126	126	126	126	126	126	126
11	198	194	172	156	141	129	126	126	126	126	126	126	126	126	126	126	126	126	126
11 1/2	190	187	166	148	135	126	126	126	126	126	126	126	126	126	126	126	126	126	126
12	181	179	158	143	129	126	126	126	126	126	126	126	126	126	126	126	126	126	126
12 1/2	173	173	154	138	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126
13	168	164	146	132	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126
13 1/2	161	158	140	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126
14	156	153	136	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126
14 1/2	150	147	130	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126
15	145	142	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126

All Sizes must be gas cut to width and length. Plate requirements in excess of dimensions shown may be submitted for special consideration. In general circles can be furnished in diameters equal to widths of plates shown.

PLATES
Pittsburgh
District

PLATES
Chicago
District

PLATES ROLLED IN CHICAGO DISTRICT
EXTREME SIZES OF RECTANGULAR UNIVERSAL MILL PLATES
CARBON STEEL—STRUCTURAL GRADE—72,000 PSI MAXIMUM T. S.

2 INCHES THICK AND UNDER

Thickness Inches	WIDTHS IN INCHES												Thickness Inches						
	6 1/2	7	7 1/2	8	8 1/2	9	9 1/2	10	12	14	16	18		20	22	24	26	28	30
1/4	10.20	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320	960
5/16	12.75	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320	1080
3/8	15.30	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320	1200
7/16	17.85	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320
1/2	20.40	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320
9/16	22.95	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320
5/8	25.50	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320
3/4	30.60	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320
7/8	35.70	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320	1320
1	40.80	1272	1320	1320	1320	1320	1320	1320	1320	1308	1296	1290	1284	1278	1272	1266	1266	1182	1182
1 1/8	45.90	1164	1164	1212	1200	1200	1188	1188	1188	1164	1152	1140	1128	1128	1116	1116	1116	1032	1032
1 1/4	51.00	1002	1044	1092	1080	1068	1068	1068	1068	1044	1032	1032	1020	1020	1008	1008	996	936	936
1 1/2	56.10	888	948	984	984	972	972	972	960	948	936	936	924	924	912	912	912	846	846
1 5/8	61.20	804	864	900	900	888	888	888	864	864	864	852	840	840	840	828	828	792	792
1 3/4	66.30	744	792	828	828	816	816	816	816	804	792	780	780	780	768	768	768	714	714
1 7/8	71.40	684	732	768	768	756	756	756	756	744	732	732	726	720	714	714	708	660	660
2	76.50	636	684	714	714	708	708	702	702	696	684	684	678	672	666	666	660	624	624
2 1/8	81.60	600	612	636	666	660	660	660	648	648	648	636	630	630	624	624	624	576	576

Plate requirements in excess of dimensions shown may be submitted for special consideration.

EXTREME SIZES OF RECTANGULAR UNIVERSAL MILL PLATES
CARBON STEEL—STRUCTURAL GRADE—72,000 PSI MAXIMUM T. S.
OVER 2 INCHES THICK

Thickness Inches	WIDTHS IN INCHES											Thickness Inches							
	6½	7	7½	8	8½	9	9½	10	12	14	16		18	20	22	24	26	28	30
2¼	528	552	570	594	588	588	582	582	576	570	564	558	558	552	552	552	546	510	2¼
2½	468	486	510	528	528	528	522	522	516	510	504	504	498	498	492	492	492	456	2½
2¾	420	444	462	480	474	474	474	474	468	462	456	456	450	450	450	444	444	414	2¾
3	...	...	...	438	438	432	432	432	426	420	420	414	414	408	408	408	408	378	3
3½	...	...	...	372	372	366	366	366	366	360	354	354	348	348	348	348	348	324	3½
4	...	...	...	324	324	324	318	318	318	312	312	306	306	306	300	300	300	282	4
4½	...	...	...	282	282	282	282	282	276	276	270	270	270	270	270	264	264	246	4½
5	...	...	...	...	252	252	252	252	252	246	246	240	240	240	240	240	234	222	5
5½	...	...	...	...	228	228	228	228	228	222	222	216	216	216	216	216	216	198	5½
6	...	...	...	...	210	204	204	204	204	204	198	198	198	198	198	192	192	180	6

All sizes must be gas cut to length. Plate requirements in excess of dimensions shown may be submitted for special consideration.

PLATES
Chicago
District

PLATES ROLLED IN CHICAGO DISTRICT
EXTREME SIZES OF RECTANGULAR AND CIRCULAR SHEARED MILL PLATES
CARBON STEEL—STRUCTURAL GRADE—72,000 PSI MAXIMUM T. S.

PLATES
Chicago District

2 INCHES THICK AND UNDER

Thickness Inches	Weight Lbs. per Sq. Ft.	WIDTHS IN INCHES										Circles Maximum Diameter, Inches	Thickness Inches									
		24 to 30	30 to 48	48 to 54	Over 54 to 78	84	88 to 88½	90	96	102	108			114	120	126	132	138	144	146	148	
5/16	7.65	720	720	720	720	720	720	720	720	720	720	720	720	720	720	720	720	720	720	720	84	5/16
1/4	10.20	720	720	720	720	720	720	720	720	720	720	720	720	720	720	720	720	720	720	720	84	1/4
5/16	12.75	720	720	720	720	720	720	720	720	720	720	720	720	720	720	720	720	720	720	720	134	5/16
3/8	15.30	720	720	720	720	720	720	720	720	720	720	720	720	720	720	720	720	720	720	720	140	3/8
1/2	17.85	720	720	720	720	720	720	720	720	720	720	720	720	720	720	720	720	720	720	720	146	1/2
3/4	20.40	720	720	720	720	720	720	720	720	720	720	720	720	720	720	720	720	720	720	720	146	3/4
5/8	22.95	720	720	720	720	720	720	720	720	720	720	720	720	720	720	720	720	720	720	720	148	5/8
3/2	25.50	720	720	720	720	720	720	720	720	720	720	720	720	720	720	720	720	720	720	720	148	3/2
1 1/16	28.05	720	720	720	720	720	720	720	720	720	720	720	720	720	720	720	720	720	720	720	150	1 1/16
3/4	30.60	720	720	720	720	720	720	720	720	720	720	720	720	720	720	720	720	720	720	720	150	3/4
1 1/8	33.15	720	720	720	720	720	720	720	720	720	720	720	720	720	720	720	720	720	720	720	150	1 1/8
1 1/4	35.70	720	720	720	720	720	720	720	720	720	720	720	720	720	720	720	720	720	720	720	150	1 1/4
1 1/2	40.80	720	720	720	720	720	720	720	720	720	720	720	720	720	720	720	720	720	720	720	150	1 1/2
1 3/4	45.90	720	720	720	720	720	720	720	720	720	720	720	720	720	720	720	720	720	720	720	150	1 3/4
2	51.00	720	720	720	720	720	720	720	720	720	720	720	720	720	720	720	720	720	720	720	150	2
1 1/2	61.20	720	720	720	720	720	720	720	720	720	720	720	720	720	720	720	720	720	720	720	150	1 1/2
1 3/4	71.40	720	720	720	720	720	720	720	720	720	720	720	720	720	720	720	720	720	720	720	150	1 3/4
2	81.60	720	720	720	720	720	720	720	720	720	720	720	720	720	720	720	720	720	720	720	150	2

Plate requirements in excess of dimensions shown may be submitted for special consideration.

EXTREME SIZES OF RECTANGULAR SHEARED MILL PLATES
CARBON STEEL—STRUCTURAL GRADE—72,000 PSI MAXIMUM T. S.
OVER 2 INCHES THICK

Thickness Inches	WIDTHS IN INCHES										Thickness Inches									
	48	54	60	66	72	78	84	90	96	102		108	114	120	126	132	138	144	146	
	LENGTHS IN INCHES																			
2 1/4	720	720	680	680	680	600	560	520	490	465	435	410	395	380	360	335	300	300	260	
3	720	680	630	580	530	490	460	430	405	385	360	340	325	310	300	280	260	260	220	180
3 1/2	635	590	540	500	460	430	400	370	350	330	310	290	275	260	250	235	220	220	180	145
4	550	505	465	430	395	365	340	315	300	285	265	245	235	225	215	200	180	180	145	110
4 1/2	490	450	415	380	350	325	300	275	260	245	230	215	205	195	185	175	160	160	125	90
5	445	405	370	345	320	295	270	245	230	215	205	195	185	175	165	155	145	145	110	75
5 1/2	400	365	335	305	280	255	240	220	210	200	185	170	165	155	145	140	130	130	100	65
6	365	335	305	280	255	235	220	205	190	180	170	155	150	145	135	130	125	125	95	60
6 1/2	340	310	280	255	235	215	200	185	175	165	155	145	140	130	125	120	115	115	85	55
7	315	285	255	230	210	190	175	160	150	140	130	120	115	110	105	100	95	95	70	50
7 1/2	295	270	245	220	200	180	165	150	140	130	120	110	105	100	95	90	85	85	65	45
8	275	250	230	210	195	180	165	150	140	130	120	110	105	100	95	90	85	85	60	40
8 1/2	255	235	215	200	185	170	155	140	130	120	110	100	95	90	85	80	75	75	55	35
9	245	220	200	185	170	160	145	130	125	115	105	95	90	85	80	75	70	70	50	30
9 1/2	230	210	190	175	160	145	135	125	115	105	95	85	80	75	70	65	60	60	45	25
10	215	200	180	165	150	135	125	115	105	95	85	75	70	65	60	55	50	50	40	20
10 1/2	205	195	175	160	145	130	120	110	100	90	80	70	65	60	55	50	45	45	35	15
11	195	185	165	150	135	125	115	105	95	85	75	65	60	55	50	45	40	40	30	10
11 1/2	185	175	155	140	125	115	105	95	85	75	65	55	50	45	40	35	35	35	25	5
12	175	165	145	130	115	105	95	85	75	65	55	45	40	35	30	25	25	25	20	0
12 1/2	170	160	140	125	110	100	90	80	70	60	50	40	35	30	25	20	20	20	15	0
13	160	150	130	115	100	90	80	70	60	50	40	30	25	20	15	10	10	10	10	0
13 1/2	155	145	125	110	95	85	75	65	55	45	35	25	20	15	10	10	10	10	10	0
14	140	130	110	95	80	70	60	50	40	30	20	15	10	10	10	10	10	10	10	0
14 1/2	140	130	110	95	80	70	60	50	40	30	20	15	10	10	10	10	10	10	10	0
15	140	130	110	95	80	70	60	50	40	30	20	15	10	10	10	10	10	10	10	0

All sizes must be gas cut to width and length. Plate requirements in excess of dimensions shown may be submitted for special consideration. In general circles can be furnished in diameters equal to widths of plates shown.

PLATES
Chicago District

EXTREME SIZES OF RECTANGULAR AND CIRCULAR SHEARED MILL PLATES

CARBON STEEL—STRUCTURAL GRADE—72,000 PSI MAXIMUM T. S.

1 1/8 INCHES THICK AND UNDER

Thickness Inches	Weight Lbs. per Sq. Ft.	WIDTHS IN INCHES																		Circles Maximum Diameter, Inches	Thickness Inches				
		MAXIMUM LENGTHS IN INCHES																							
		Over 36 Thru 66	Over 72 Thru 78	Over 84 Thru 90	Over 96 Thru 98	Over 100 Thru 102	Over 104 Thru 106	Over 106 Thru 108	Over 108 Thru 110	Over 110 Thru 112	Over 112 Thru 114	Over 114 Thru 116	Over 116 Thru 118	Over 118 Thru 120	Over 120 Thru 122	Over 122 Thru 124	Over 124 Thru 126	Over 126 Thru 128							
3/16	7.65	600	540	460	430	400	400	400	400	370	370	370	340	340	340	320	320	320	320	...	...	...	120	3/16	
1/4	10.20	600	600	560	560	510	510	510	480	480	480	440	440	440	440	400	400	400	400	400	...	...	...	124	1/4
5/16	12.75	600	600	600	600	550	550	550	550	550	530	530	530	500	500	500	500	500	500	480	480	480	480	128	5/16
3/8	15.30	720	720	720	720	660	660	660	600	600	600	550	550	550	520	520	520	520	520	480	480	480	480	128	3/8
1/2	17.85	720	720	720	720	660	660	660	600	600	600	550	550	550	520	520	520	520	480	480	480	480	480	128	1/2
5/8	20.40	720	720	720	720	680	680	680	640	640	640	600	600	600	600	600	600	560	560	560	540	540	540	128	5/8
3/4	22.95	720	720	720	720	680	680	680	640	640	640	600	600	600	600	600	600	560	560	560	540	540	540	128	3/4
7/8	25.50	720	720	720	720	680	680	680	640	640	640	600	600	600	600	600	600	560	560	560	540	540	540	128	7/8
1	28.05	720	720	720	720	680	680	680	640	640	640	600	600	600	600	600	600	560	560	560	540	540	540	128	1
1 1/8	30.60	720	720	720	720	680	680	680	640	640	640	600	600	600	600	600	600	560	560	560	540	540	540	128	1 1/8
1 1/4	33.15	720	720	720	720	680	680	680	640	640	640	600	600	600	600	600	600	560	560	560	540	540	540	128	1 1/4
1 1/2	35.70	720	720	720	720	680	680	680	640	640	640	600	600	600	600	600	600	560	560	560	540	540	540	128	1 1/2
1 3/4	40.80	720	720	720	720	670	620	600	560	540	540	500	500	500	480	480	480	460	460	460	460	460	460	128	1 3/4
2	45.90	720	720	650	600	510	510	510	500	500	480	480	460	460	440	440	430	430	430	400	400	400	400	128	2

Minimum sheared length—60"
Widths over 36" to 120" incl.: Rotary side sheared.
Widths over 120": Sides sheared on straight shear.
*Circles 1/8" thick are gas cut to size.

Widths 36" and Under: Sheared within the following size limitations:
Thickness
3/16" thru 1/2" — — —
5/16" thru 1 1/4" — — —
Width
12" thru 36" — — —
24" thru 36" — — —
Length
60" thru 240" — — —
60" thru 240"

PLATES
Birmingham
District

PLATES ROLLED IN BIRMINGHAM DISTRICT
EXTREME SIZES OF RECTANGULAR SHEARED MILL PLATES
CARBON STEEL—STRUCTURAL GRADE—72,000 PSI MAXIMUM T. S.

OVER 1/8 INCHES THICK (Gas Cut)

Thickness Inches	WIDTHS IN INCHES													Thickness Inches								
	Over 27 Thru 28	Over 28 Thru 30	Over 30 Thru 32	Over 32 Thru 34	Over 34 Thru 36	Over 36 Thru 38	Over 38 Thru 40	Over 40 Thru 42	Over 42 Thru 44	Over 44 Thru 46	Over 46 Thru 48	Over 48 Thru 50	Over 50 Thru 52		Over 52 Thru 54	Over 54 Thru 56	Over 56 Thru 58	Over 58 Thru 60	Over 60 Thru 62	Over 62 Thru 64	Over 64 Thru 66	
1 1/4	270	310	330	350	380	410	720	720	720	720	720	720	720	720	720	717	694	673	652	633	633	1 1/4
1 1/2	270	290	310	330	350	380	370	720	720	720	720	720	720	720	695	648	628	608	589	572	572	1 1/2
1 3/4	270	290	310	330	350	360	340	720	720	720	704	682	656	633	612	591	572	554	537	521	521	1 3/4
1 7/8	270	290	310	330	350	330	310	720	720	710	681	655	630	607	586	565	529	512	497	482	482	1 7/8
2	270	290	310	330	320	305	290	720	717	685	656	630	605	582	561	541	505	489	473	458	458	1 7/8
2 1/4	270	290	310	315	300	280	270	698	666	637	610	585	563	541	521	503	485	469	454	426	413	2
2 1/2	270	290	310	295	275	260	250	653	623	595	570	547	525	505	486	469	453	423	397	385	385	2
2 3/4	270	290	310	240	240	230	220	240	240	240	240	240	240	240	240	240	240	240	240	240	240	2 3/4
3	240	235	220	205	195	185	170	240	240	240	240	240	240	240	240	240	240	240	240	240	240	2 3/4
3 1/2	185	175	165	155	145	135	130	240	240	240	240	240	240	240	240	240	240	240	240	240	240	3
4	156	150	140	130	125	115	110	240	240	240	240	240	240	240	240	240	240	240	240	240	240	3 1/2
4 1/2	...	...	...	...	...	...	...	240	240	240	239	229	221	212	204	197	190	184	178	172	167	4 1/2
5	...	...	...	...	...	...	...	240	237	227	218	209	201	195	187	182	176	169	164	159	153	5
5 1/2	...	...	...	...	...	...	...	235	224	215	205	197	189	182	175	169	163	157	152	147	142	5 1/2
6	...	...	...	...	...	...	...	214	204	195	187	179	172	165	159	153	148	143	138	133	129	6
6 1/2	...	...	...	...	...	...	...	197	188	179	171	164	157	152	146	140	135	131	126	122	118	6 1/2
7	...	...	...	...	...	...	...	182	173	163	158	151	145	140	134	129	125	120	116	112	109	7
7 1/2	...	...	...	...	...	...	...	169	161	153	147	140	135	129	124	120	115	111	107	104	100	7 1/2
8	...	...	...	...	...	...	...	157	150	143	136	131	125	120	115	111	107	103	99	93	90	8

For maximum circle diameters, see table on page 63.

EXTREME SIZES OF RECTANGULAR AND CIRCULAR SHEARED MILL PLATES
CARBON STEEL—STRUCTURAL GRADE—72,000 PSI MAXIMUM T. S.
OVER 1 1/8 INCHES THICK (Gas Cut)

Thickness Inches	WIDTHS IN INCHES																Circles Maximum Diameter Inches	Thickness Inches					
	Over 66 Thru 68	Over 70 Thru 72	Over 74 Thru 76	Over 78 Thru 80	Over 82 Thru 84	Over 86 Thru 88	Over 88 Thru 92	Over 92 Thru 96	Over 100 Thru 104	Over 104 Thru 108	Over 108 Thru 112	Over 112 Thru 116	Over 116 Thru 120	Over 120 Thru 124	Over 124 Thru 128								
1 1/4	615	598	581	566	551	537	524	511	498	487	476	465	445	426	409	393	378	364	351	339	327	128	1 1/4
1 1/2	555	540	525	511	497	484	473	461	450	439	429	419	401	384	368	354	340	327	315	304	294	128	1 1/2
1 3/4	506	492	478	465	453	441	430	419	409	399	390	381	364	348	334	321	308	297	286	276	266	128	1 3/4
1 7/8	468	455	442	430	419	408	398	388	378	369	361	353	337	322	309	297	285	275	265	255	247	128	1 7/8
2	432	420	408	397	386	376	367	357	349	340	332	325	310	297	285	273	263	253	243	234	226	128	2
2 1/4	401	389	378	368	358	349	340	331	323	315	308	301	287	275	263	253	243	233	225	217	209	128	2 1/4
2 1/2	373	362	352	343	333	324	316	308	301	293	286	280	267	255	245	235	225	216	208	201	194	128	2 1/2
2 3/4	240	240	240	240	240	240	240	240	240	240	240	240	233	223	213	204	196	188	181	174	168	128	2 3/4
3	240	240	240	240	240	240	240	239	233	227	222	216	206	197	188	180	173	166	160	153	148	128	3
3 1/2	240	236	229	222	216	210	205	199	194	190	185	180	172	164	157	150	144	138	133	128	124	124	3 1/2
4	214	208	202	196	191	186	181	177	172	168	164	160	153	147	140	135	129	124	120	115	108	108	4
4 1/2	185	179	174	169	165	160	156	152	148	145	141	138	131	126	120	115	109	105	100	95	92	104	4 1/2
5	162	157	153	148	144	140	137	133	130	126	123	120	115	109	105	101	96	92	88	86	88	100	5
5 1/2	151	146	140	137	133	129	127	124	119	118	115	111	107	101	96	92	88	86	84	82	80	92	5 1/2
6	134	130	126	123	119	116	113	110	109	105	102	100	97	95	91	89	88	86	84	82	80	88	6
6 1/2	121	118	114	111	108	105	102	100	97	95	92	89	88	86	84	82	80	78	77	76	75	78	6 1/2
7	111	108	105	102	99	96	93	91	89	88	86	84	82	80	78	77	76	75	74	73	72	78	7
7 1/2	102	99	96	93	90	88	86	84	82	80	78	77	76	75	74	73	72	71	70	69	68	78	7 1/2
8	94	91	89	86	83	81	79	77	76	75	74	73	72	71	70	69	68	67	66	65	64	78	8
8	87	85	82	80	78	76	74	72	70	68	66	64	62	60	58	56	54	52	50	48	46	72	8

PLATES
Birmingham
District

PLATES ROLLED IN GENEVA DISTRICT
EXTREME SIZES OF RECTANGULAR AND CIRCULAR SHEARED MILL PLATES
CARBON STEEL—STRUCTURAL GRADE—72,000 PSI MAXIMUM T. S.
1½ INCHES THICK AND UNDER

PLATES
Geneva
District

Thickness, Inches	Lbs. per Sq. Ft.	WIDTHS IN INCHES												Circles Maximum Diameter, Inches	Thickness, Inches					
		36	42	48½	54	60	66	72	78	84	90	96	102			108	114	120		
		LENGTHS IN INCHES																		
9/16	7.65	480	480	480	480	480	480	480	480	480	480	480	480	480	480	480	384	96	9/16	
¼	10.20	600	600	600	600	600	600	600	600	600	600	600	600	600	600	600	480	384	120	¼
5/16	12.75	600	600	600	600	600	600	600	600	600	600	600	600	600	600	600	480	384	120	5/16
3/8	15.30	600	600	600	600	600	600	600	600	600	600	600	600	600	600	600	480	384	120	3/8
7/16	17.85	600	600	600	600	600	600	600	600	600	600	600	600	600	600	600	480	384	120	7/16
9/16	20.40	600	600	600	600	600	600	600	600	600	600	600	600	600	600	600	480	384	120	9/16
½	22.95	600	600	600	600	600	600	600	600	600	600	600	600	600	600	600	480	384	120	½
9/16	25.50	600	600	600	600	600	600	600	600	600	600	600	600	600	600	600	480	384	120	9/16
5/8	28.05	600	600	600	600	600	600	600	600	600	600	600	600	600	600	600	480	384	120	5/8
11/16	30.60	600	600	600	600	600	600	600	600	600	600	600	600	600	600	600	480	384	120	11/16
¾	33.15	480	480	480	480	480	480	480	480	480	480	480	480	480	480	480	420	360	120	¾
13/16	35.70	480	480	480	480	480	480	480	480	480	480	480	480	480	480	480	420	360	120	13/16
7/8	40.80	480	480	480	480	480	480	480	480	480	480	480	480	480	480	480	420	360	120	7/8
1	45.90	480	480	480	480	480	480	480	480	480	480	480	480	480	480	480	420	360	120	1
1 1/8	51.00	480	480	480	480	480	480	480	480	480	480	480	480	480	480	480	420	360	120	1 1/8
1 1/4	61.20	480	480	480	480	480	480	480	480	480	480	480	480	480	480	480	420	360	120	1 1/4
1 3/8		480	480	480	480	480	480	480	480	480	480	480	480	480	480	480	420	360	120	1 3/8

For items shown under heavy line, the minimum quantity of one size which the mill can accept is 200' either in one length or multiples adding up to a minimum of 200'.
 For flange, firebox and higher qualities where tests from both ends are required—reduce above maximum lengths by 20 inches.
 Circles—minimum diameter 36 inches. Plate requirements in excess of dimensions shown may be submitted for special consideration.

EXTREME SIZES OF RECTANGULAR SHEARED MILL PLATE
CARBON STEEL—STRUCTURAL GRADE—72,000 PSI MAXIMUM T. S.
OVER 1½ INCHES THICK

Thickness, Inches	WIDTHS IN INCHES							LENGTHS IN INCHES						
	49	54	60	66	72	78	84	90	96	102	108	114	120	
1½	370	445	425	390	360	330	240	215	200					
1¾	345	410	385	360	335	305	220	200						
1⅞	320	380	360	335	310	285	200							
2	300	355	335	310	290	270								
2⅛	285	335	315	295	275	255								
2¼	270	315	300	280	260	240								
2⅝	255	300	285	265	245	225								
2½	240	285	270	250	230	215								
2⅞	230	270	255	235	220	205								
2¾	220	260	245	225	210									
2⅞	210	250	235	215	200									
3	200	240	225	210										

All sizes must be gas cut to width and length.

For all items shown on this page, the minimum quantity for one size which the mill can accept is 200' either in one length or multiples adding up to a minimum of 200'.

For flange, firebox and higher qualities where tests from both ends are required—reduce above maximum lengths by 20 inches.

Plate requirements in excess of dimensions shown may be submitted for special consideration.

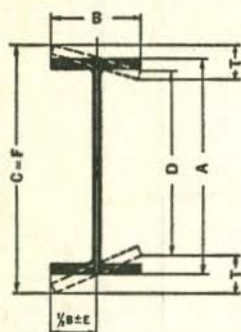
PLATES
Geneva
District

STANDARD MILL PRACTICES

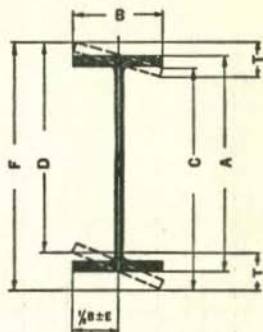
PERMISSIBLE VARIATIONS FOR DIMENSIONS AND WEIGHT

Rolling structural shapes involves factors such as roll wear, subsequent roll dressing, temperature variations, etc., which cause the finished shapes to vary from published profiles. Structural shapes are furnished to standard rolling tolerances published by the American Iron and Steel Institute in "Steel Products Manual: Carbon Steel Structural Sections," August, 1943.

The permissible variation from the theoretical or specified weight is 2.5 per cent.



WIDE FLANGE BEAMS



SECTION

Nominal Depth, In.	A Depth, In.		B Width of Flange, In.		T or T'	C minus D	E	F
	Over	Under	Over	Under	Out of Square, In.	Out of Parallel, In.	Web off Center, In.	Maximum Overall Depth at any Cross-Section. Measured Parallel with Web, In.
					Not Over	Not Over	Not Over	Over Nominal
To 12 incl. ^a	1/8	1/8	1/4	3/16	3/16	3/16	3/16	1/4
Over 12	1/8	1/8	1/4	3/16	1/4	1/4	3/16	1/4

^aIncludes all H-Beams rolled on mills having vertical rolls.

LENGTH

Nominal Depth, In.	Variations from Specified Length for Lengths Given, In.			
	To 30 ft., incl.		Over 30 ft.	
	Over	Under	Over	Under
Beams up to 24 incl.	3/8	3/8	3/8 plus 1/16 for each additional 5 ft. or fraction thereof.	3/8
Beams over 24 and all Columns	1/2	1/2	1/2 plus 1/16 for each additional 5 ft. or fraction thereof.	1/2

ENDS OUT-OF-SQUARE

1/64 in. per inch of depth, or of flange width if it is greater than depth.

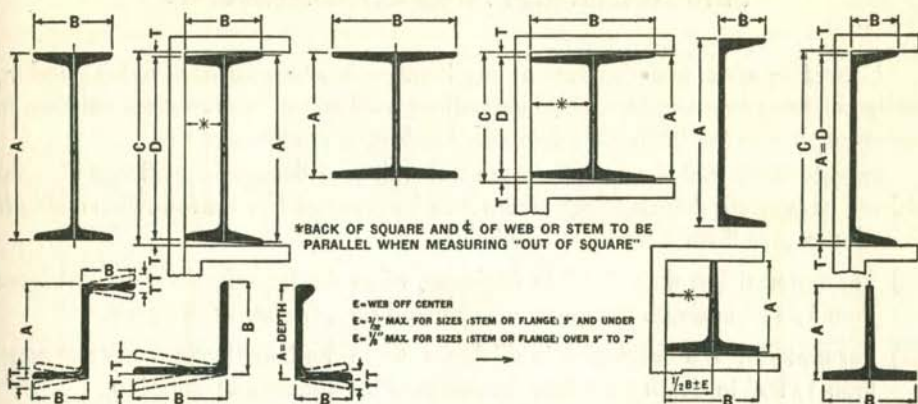
CAMBER OR SWEEP

Beams: $1/8 \text{ in.} \times \frac{\text{number of feet of total length}}{10}$

When Ordered As Columns: $\left\{ \begin{array}{l} \text{Lengths to 45 ft., inclusive: } 1/8'' \times \frac{\text{number of feet of total length}}{10}, \text{ but not over } 3/8'' \\ \text{Lengths over 45 ft.: } 3/8'' + 1/8'' \times \frac{\text{number of feet of total length, minus 45}}{10} \end{array} \right.$

STANDARD MILL PRACTICES

PERMISSIBLE VARIATIONS FOR DIMENSIONS



STANDARD BEAMS, H-BEAMS, CHANNELS, ZEES—SECTION

Sections	Specified Size, In.	A Depth, In.		B Flange Width, In.		T or T' Out of Square per Inch of B, In.	Out of Parallel per Inch of B, In. C Minus D
		Over	Under	Over	Under		
Beams	3, 4, 5, 6, 7	3/32	1/16	1/8	1/8	1/32	1/32
	8, 10, 12,	1/8	3/32	5/32	5/32	1/32	1/32
	15, 18, 20, 24	3/16	1/8	3/16	3/16	1/32	1/32
H-Beams ^a	4	3/32	1/16	1/8	1/8	1/32	1/32
	5 6 and 8	3/32 1/8	1/16 3/32	5/32 3/16	5/32 3/16	1/32 1/32	1/32 1/32
Channels	3, 4, 5, 6, 7	3/32	1/16	1/8	1/8	1/32	1/32
	8, 9, 10, 12, 13	1/8	3/32	1/8	5/32	1/32	1/32
	15 and 18	3/16	1/8	1/8	3/16	1/32	1/32
Zees	3 and 4	1/8	1/16	1/8	3/32	3/128 ^b	...
	5 and 8	1/8	1/16	1/8	1/8	3/128 ^b	...

^a These tolerances apply to H-Beams rolled on standard structural mills.

^b 3/128" per inch = 1/2°.

ANGLES, BULB ANGLES, ROLLED TEES—SECTION

Sections	Specified Size, In.	A Depth, In.		B Flange Width, In. or Length of Leg, In.		T Out of Square per Inch of B, In.
		Over	Under	Over	Under	
Angles ^a	3, 3½, 4			1/8	3/32	3/128 ^b
	5 and 6			1/8	1/8	3/128 ^b
	7, 8, 9			3/16	1/8	3/128 ^b
Bulb Angles	3 and 4	1/8	1/16	1/8	3/32	3/128 ^b
	5 and 6	1/8	1/16	1/8	1/8	3/128 ^b
	7, 8, 9, 10	1/8	1/16	3/16	1/8	3/128 ^b
Rolled Tees	3, 4, 5	3/32	1/16	1/8	1/8	1/32

^a For unequal leg angles, longer leg determines classification.

^b 3/128" per inch = 1/2°.

ALL STANDARD SECTIONS—LENGTH

Sections	Variations from Specified Length for Lengths Given, In.							
	To 30 ft. incl.		Over 30 ft. to 40 ft. incl.		Over 40 ft. to 50 ft. incl.		Over 50 ft.	
	Over	Under	Over	Under	Over	Under	Over	Under
Beams, Standard Mill H-Beams, Channels	3/8	3/8	5/8	3/8	7/8	3/8	1	3/8
Angles, Bulb Angles, Tees, Zees	3/4	0	1	0	1¼	0	1¼	0

ENDS OUT-OF-SQUARE

- Beams, Channels, } 1/64 in. per inch of depth.
- Standard Mill H-Beams }
- Angles^a } 3/128 in. per inch of leg length or 1/2°.
- Bulb Angles } 3/128 in. per inch of depth or 1/2°.
- Rolled Tees^a } 1/64 in. per inch of flange or stem.
- Zees } 3/128 in. per inch of sum of both flange lengths.

^a Tolerances for ends out-of-square are determined on the longer members of the section.

CAMBER

$$1/8 \text{ in.} \times \frac{\text{number of feet of total length}}{5}$$

STANDARD MILL PRACTICES

SURFACE FINISH AND CONDITIONING

Correcting minor imperfections at any location in structural sections by grinding or by chipping to sound metal and depositing weld metal by arc-fusion welding, in accordance with the limitations prescribed below, is regular practice.

Imperfections that do not affect the full utility of the piece shall not be considered as injurious defects. Such pieces may be processed by the following methods in order to give them a workmanlike finish.

- (1) For material less than 3/8" in thickness, when the imperfections are not more than 1/32" in depth they may be removed by grinding or chipping.
- (2) For material 3/8" and over in thickness, when the imperfections are not more than 1/16" in depth they may be removed by grinding or chipping.
- (3) For material 3/8" and over in thickness, when the imperfections are more than 1/16" in depth, the pieces may be chipped and welded under limiting conditions, listed below under "Chipping and Welding."

After the imperfection has been completely removed, the maximum depth of depression shall not exceed the following:

THICKNESS OF MATERIAL INCHES	DEPTH OF DEPRESSION MAXIMUM, INCHES
Grinding or Chipping only	
To 3/8" excl.	1/32
3/8 and over	1/16
Chipping and Welding	
3/8 to 3/4 excl.	3/32
3/4 to 1-1/4 excl.	3/16
1-1/4 to 2-1/4 excl.	1/4
2-1/4 and over	3/8

The cross-sectional area of any piece shall not be reduced by grinding or chipping more than 1.5 per cent at any cross-section, nor shall the total area of the ground or chipped surface of any piece exceed 2 per cent of the total surface area of that piece.

An experienced mill inspector shall inspect the work after the chipping operation to see that the defects have been completely removed and that the limitations specified above have not been exceeded. All welding shall be done by qualified welders using suitable coated welding rods. The welds must be sound; the weld metal being thoroughly fused on all surfaces and edges without under-cutting or overlap. Weld metal shall project at least 1/16 in. above the rolled surface after welding, and the projecting metal shall be removed by chipping or grinding to make it flush with the rolled surface and produce a workmanlike finish.

STANDARD MILL PRACTICES

CAMBERING OF ROLLED BEAMS

This refers to the cold cambering of large depth beams to produce a predetermined design. The maximum lengths that can be cambered depend on the length that can be rolled of a given section, to a maximum of 100 feet. The maximum cambers that can be furnished and the minimum lengths for given cambers are shown in the following table.

Sections	Maximum Camber, Inches								
	5	4½	4	3½	3	2½	2	1½	1
	Minimum Lengths for Given Camber, Feet								
Wide Flange 24" and over	85	75	65	55	50	45	40	35	30
Wide Flange 21"; Standard 24"	80	70	60	50	45	40	35	30	25

Camber will approximate a simple regular curve nearly the full length of the beam, or between any two points as specified. Reverse or other compound curves can not be undertaken. Camber is to be specified by the ordinate at the mid-length of the portion of the beam to be curved; ordinates at other points are not to be specified. The camber ordinate is subject to a tolerance of nothing under to 1/2 in. over for lengths 50 ft. and less; and for lengths over 50 ft., 1/8 in. is to be added to the over tolerance for each additional 10 ft. or fraction thereof.

MINIMUM CAMBER, IN INCHES, LIKELY TO REMAIN PERMANENT

Wide Flange Sections	Lengths in Feet						
	85	75	65	55	50	45	40
CB 362, 361.....	3¾	3	2¼	1½	1¼	1	¾
332, 331.....	4	3¼	2½	1¾	1½	1¼	1
302, 301.....	4½	3½	2¾	2	1½	1¼	1
272, 271.....	5	4	3	2	1¾	1½	1¼
243, 242, 241.....	5	4½	3¼	2½	2	1½	1¼

Wide Flange Sections and Standard Beams	Lengths in Feet							
	80	70	60	50	45	40	35	30
CB 213, 212, 211.....	5	4½	3¼	2¼	1¾	1½	1	¾
24" B18, B1.....	5	3¾	2¾	2	1½	1¼	1	¾

Cambers less than minimum shown above will not be furnished.

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