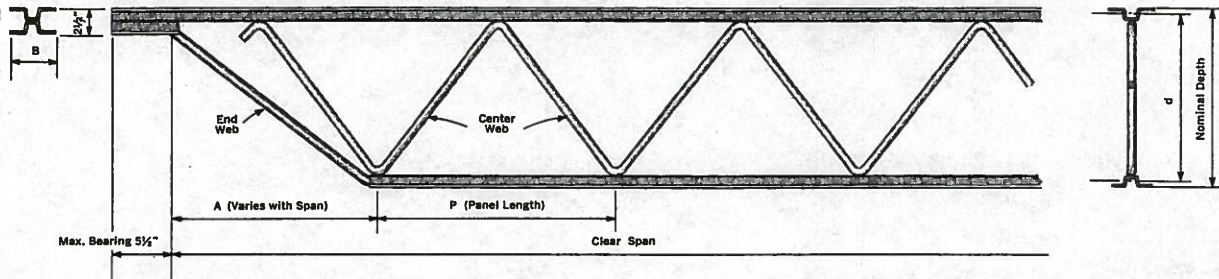


Cold Formed Chords, J-Series and H-Series

Dimensions and Properties



Joist Designation ***		Nominal Depth	Effective Depth "d"	Section Number		A Varies with Span		Bar Web Diameter		B Bearing Width	P Panel Length	Approx. Weight per ft. *	Joist Moment of Inertia **
J-Series	H-Series			in.	in.	Top Chord	Bottom Chord	Min.	Max.				
		in.	in.			in.	in.	in.	in.	in.	in.	lbs.	in. ⁴
8J2	8H2	8	7.09	2T	2B	20	31	1 3/16	3/16	3 3/8	24	4.2	10
10J2	10H2	10	9.09	2T	2B	20	31	1 3/16	3/16	3 3/8	24	4.2	17
10J3	10H3	10	9.23	3T	3B	20	31	1 3/16	1 3/16	3 3/8	24	5.0	21
10J4	10H4	10	9.20	4T	4B	20	31	1 3/16	1 3/16	4	24	6.1	26
12J2	12H2	12	11.09	2T	2B	19	30	1 3/16	3/16	3 3/8	24	4.5	25
12J3	12H3	12	11.23	3T	3B	19	30	1 3/16	3/16	3 3/8	24	5.2	32
12J4	12H4	12	11.20	4T	4B	19	30	1 3/16	4/16	4	24	6.2	39
12J5	12H5	12	11.23	5X	5B	19	30	1 3/16	4/16	4 7/8	24	7.1	49
12J6	12H6	12	11.22	6X	6B	19	30	1 3/16	4/16	5 3/8	24	8.2	58
14J3	14H3	14	13.23	3T	3B	19	30	1 3/16	5/16	3 3/8	24	5.5	44
14J4	14H4	14	13.20	4T	4B	19	30	1 3/16	5/16	4	24	6.5	54
14J5	14H5	14	13.23	5X	5B	19	30	1 3/16	4 3/4	4 7/8	24	7.4	68
14J6	14H6	14	13.22	6X	6B	19	30	1 3/16	4 3/4	5 3/8	24	8.6	80
14J7	14H7	14	13.31	7T	7B	19	30	1 3/16	4 3/4	5 3/8	24	10.0	97
16J4	16H4	16	15.20	4T	4B	19	30	1 3/16	4 3/4	4	24	6.6	72
16J5	16H5	16	15.20	5T	5B	19	30	1 3/16	4 3/4	4 7/8	24	7.8	86
16J6	16H6	16	15.20	6T	6B	19	30	1 3/16	4 3/4	5 3/8	24	8.6	104
16J7	16H7	16	15.31	7T	7B	19	30	1 3/16	4 3/4	5 3/8	24	10.4	128
16J8	16H8	16	15.27	8T	8B	19	30	1 3/16	4 3/4	5 3/8	24	11.6	142
18J5	18H5	18	17.20	5T	5B	21	32	1 3/16	2 3/4	4 7/8	24	8.0	110
18J6	18H6	18	17.20	6T	6B	21	32	1 3/16	4 3/4	5 3/8	24	9.2	133
18J7	18H7	18	17.31	7T	7B	21	32	1 3/16	4 3/4	5 3/8	24	10.4	163
18J8	18H8	18	17.27	8T	8B	21	32	1 3/16	2 3/4	5 3/8	24	11.6	182
20J5	20H5	20	19.20	5T	5B	23	34	1 3/16	3/4	4 7/8	24	8.4	137
20J6	20H6	20	19.20	6T	6B	23	34	1 3/16	4 3/4	5 3/8	24	9.6	165
20J7	20H7	20	19.31	7T	7B	23	34	1 3/16	2 3/4	5 3/8	24	10.7	203
20J8	20H8	20	19.27	8T	8B	23	34	1 3/16	3 1/4	5 3/8	24	12.2	227
22J6	22H6	22	21.20	6T	6B	27	38	1 3/16	2 3/4	5 3/8	24	9.7	202
22J7	22H7	22	21.31	7T	7B	27	38	1 3/16	5/16	5 3/8	24	10.7	247
22J8	22H8	22	21.27	8T	8B	27	38	1 3/16	1 1/16	5 3/8	24	12.0	276
24J6	24H6	24	23.20	6T	6B	29	40	1 3/16	1 3/16	5 3/8	24	10.3	241
24J7	24H7	24	23.31	7T	7B	29	40	1 3/16	5/16	5 3/8	24	11.5	296
24J8	24H8	24	23.27	8T	8B	29	40	1 3/16	2 1/2	5 3/8	24	12.7	330

J-Series

H-Series

*The weights per foot as shown in these tables are approximate only. Such weights are shown only for the convenience of the designer. They cannot be used in figuring prices or determining shipping weights.

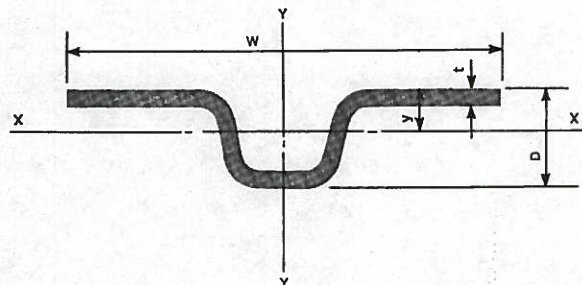
**See Page 6 for computation of deflections due to uniform loading.

***Steel for H-Series joist chords and webs is tested in accordance with "Section 3. Materials" of the SJI Specifications for Open Web Steel Joists, H-Series (Chords: 50,000 psi. minimum yield strength; Webs: 36,000 psi. minimum yield strength).

Steel for J-Series joist chords and webs is tested in accordance with "Section 3. Materials" of the SJI Specifications for Open Web Steel Joists, J-Series (36,000 psi. minimum yield strength).

Chord Properties

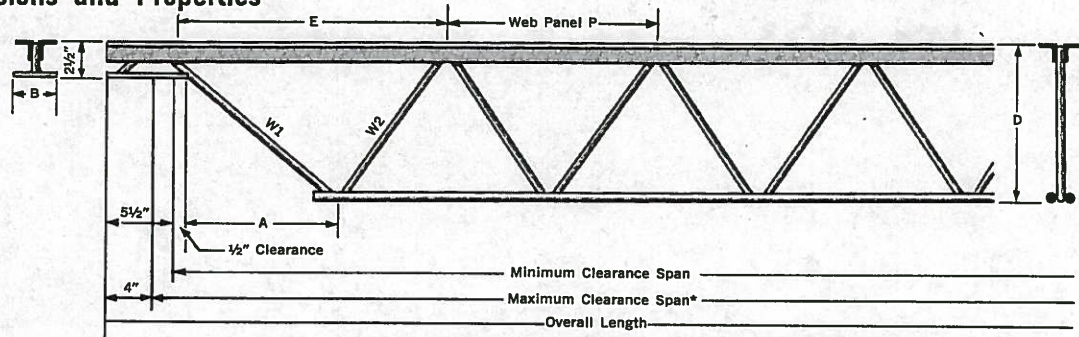
Sec. No.	Area Sq. in.	t in.	D in.	y in.	W in.	X-X Axis		Y-Y Axis		Sec. No.
						I	r	I	r	
2T	0.476	0.125	1.125	0.49	2 5/8	0.08	0.40	0.24	0.70	2T
3T	0.578	0.125	1.125	0.42	3 3/8	0.09	0.40	0.47	0.91	3T
4T	0.722	0.156	1.156	0.43	3 1/2	0.12	0.40	0.62	0.92	4T
5T	0.855	0.188	1.188	0.44	3 1/2	0.14	0.40	0.74	0.93	5T
5X	0.949	0.188	1.188	0.41	4	0.15	0.40	1.08	1.07	5X
6T	1.025	0.219	1.219	0.44	3 3/4	0.17	0.40	1.02	1.00	6T
6X	1.066	0.219	1.219	0.42	3 3/4	0.17	0.40	1.17	1.05	6X
7T	1.271	0.219	1.219	0.37	4 1/4	0.19	0.39	2.16	1.30	7T
8T	1.421	0.250	1.250	0.39	4 1/2	0.22	0.39	2.45	1.31	8T
2B	0.362	0.109	0.922	0.42	2 1/2	0.04	0.33	0.17	0.68	2B
	0.437	0.109	0.922	0.35	3 3/8	0.05	0.33	0.32	0.85	3B
	0.544	0.141	0.953	0.37	3 1/2	0.06	0.33	0.38	0.84	4B
5B	0.654	0.156	0.969	0.36	3 3/8	0.07	0.33	0.56	0.93	5B
6B	0.796	0.188	1.000	0.36	3 3/8	0.09	0.33	0.75	0.97	6B
7B	0.949	0.188	1.000	0.32	4 1/4	0.10	0.32	1.35	1.19	7B
8B	1.066	0.219	1.031	0.34	4 3/8	0.11	0.33	1.48	1.18	8B



Cold formed chord joists are manufactured only at the Kansas City plant.

Hot Rolled Chords, J-Series and H-Series

Dimensions and Properties



*This is the maximum clear span with a 4" bearing on each end. Add 1/2" for each end or a total of 3" for both ends with a 2 1/2" minimum bearing.

J-Series

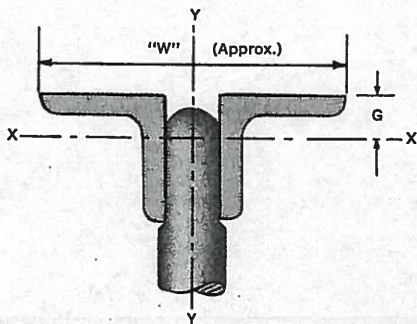
H-Series

Joist Designation ***		Nominal Depth	Effective Depth "d"	Top Chord	Bottom Chord two round bars		E Varies with Span		Bar Web Diameter			A	B Bearing Width	P Panel Length	Approx. Weight per ft. *	Joist Moment of Inertia **
J-Series	H-Series				Sec. No.	Dia. in.	Area in.	Min. in.	Max. in.	W1 in.	W2 in.					
8J2	8H2	8	7.59	2	.469	.345	8.5	15.5	1 1/2	1 1/2	1 1/2	7.0	4.5	14	4.2	11
10J2	10H2	10	9.47	2	.469	.345	11.0	18.0	1 1/2	1 1/2	1 1/2	9.5	4.5	14	4.2	18
10J3	10H3	10	9.37	3	.531	.443	11.0	18.0	1 1/2	1 1/2	1 1/2	9.5	4.5	14	5.0	22
10J4	10H4	10	9.28	4	.594	.554	11.0	18.0	1 1/2	1 1/2	1 1/2	9.5	4.5	14	6.1	27
12J2	12H2	12	11.47	2	.469	.345	13.5	22.5	1 1/2	1 1/2	1 1/2	12.0	4.5	18	4.5	26
12J3	12H3	12	11.37	3	.531	.443	13.5	22.5	1 1/2	1 1/2	1 1/2	12.0	4.5	18	5.2	33
12J4	12H4	12	11.28	4	.594	.554	13.5	22.5	1 1/2	1 1/2	1 1/2	12.0	4.5	18	6.2	40
12J5	12H5	12	11.23	5	.656	.676	13.5	22.5	1 1/2	1 1/2	1 1/2	12.0	4.5	18	7.1	52
12J6	12H6	12	11.20	6	.719	.811	13.5	22.5	1 1/2	1 1/2	1 1/2	12.0	4.5	18	8.2	58
14J3	14H3	14	13.37	3	.531	.443	16.0	25.0	1 1/2	1 1/2	1 1/2	14.5	4.5	18	5.5	45
14J4	14H4	14	13.28	4	.594	.554	16.0	25.0	1 1/2	1 1/2	1 1/2	14.5	4.5	18	6.5	56
14J5	14H5	14	13.23	5	.656	.676	16.0	25.0	1 1/2	1 1/2	1 1/2	14.5	4.5	18	7.4	73
14J6	14H6	14	13.20	6	.719	.811	16.0	25.0	1 1/2	1 1/2	1 1/2	14.5	4.5	18	8.6	81
14J7	14H7	14	13.10	7	.781	.959	16.0	25.0	1 1/2	1 1/2	1 1/2	14.5	4.5	18	10.0	93
16J4	16H4	16	15.28	4	.594	.554	18.5	27.5	2 1/2	2 1/2	2 1/2	17.0	5.5	18	6.6	74
16J5	16H5	16	15.23	5	.656	.676	18.5	27.5	2 1/2	2 1/2	2 1/2	17.0	5.5	18	7.8	96
16J6	16H6	16	15.20	6	.719	.811	18.5	27.5	2 1/2	2 1/2	2 1/2	17.0	5.5	18	8.6	107
16J7	16H7	16	15.10	7	.781	.959	18.5	27.5	2 1/2	2 1/2	2 1/2	17.0	5.5	18	10.3	124
16J8	16H8	16	15.01	8	.844	1.118	18.5	27.5	2 1/2	2 1/2	2 1/2	17.0	5.5	18	11.4	142
18J5	18H5	18	17.23	5	.656	.676	21.0	31.0	2 1/2	2 1/2	2 1/2	19.5	5.5	20	8.0	123
18J6	18H6	18	17.20	6	.719	.811	21.0	31.0	2 1/2	2 1/2	2 1/2	19.5	5.5	20	9.2	137
18J7	18H7	18	17.10	7	.781	.959	21.0	31.0	2 1/2	2 1/2	2 1/2	19.5	5.5	20	10.4	159
18J8	18H8	18	17.01	8	.844	1.118	21.0	31.0	2 1/2	2 1/2	2 1/2	19.5	5.5	20	11.6	182
20J5	20H5	20	19.23	5	.656	.676	23.5	34.5	2 1/2	2 1/2	2 1/2	22.0	5.5	22	8.4	153
20J6	20H6	20	19.20	6	.719	.811	23.5	34.5	2 1/2	2 1/2	2 1/2	22.0	5.5	22	9.6	171
20J7	20H7	20	19.10	7	.781	.959	23.5	34.5	2 1/2	2 1/2	2 1/2	22.0	5.5	22	10.7	198
20J8	20H8	20	19.01	8	.844	1.118	23.5	34.5	2 1/2	2 1/2	2 1/2	22.0	5.5	22	12.2	227
22J6	22H6	22	21.20	6	.719	.811	26.0	38.0	2 1/2	2 1/2	2 1/2	24.5	5.5	24	9.7	208
22J7	22H7	22	21.10	7	.781	.959	26.0	38.0	2 1/2	2 1/2	2 1/2	24.5	5.5	24	10.7	241
22J8	22H8	22	21.01	8	.844	1.118	26.0	38.0	2 1/2	2 1/2	2 1/2	24.5	5.5	24	12.0	277
24J6	24H6	24	23.20	6	.719	.811	28.5	40.5	2 1/2	2 1/2	2 1/2	27.0	5.5	24	10.3	249
24J7	24H7	24	23.10	7	.781	.959	28.5	40.5	2 1/2	2 1/2	2 1/2	27.0	5.5	24	11.5	289
24J8	24H8	24	23.01	8	.844	1.118	28.5	40.5	2 1/2	2 1/2	2 1/2	27.0	5.5	24	12.7	332

*The weights per foot as shown in these tables are approximate only. Such weights are shown only for the convenience of the designer. They cannot be used in figuring prices or in determining shipping weights.

** See Page 6 for computation of deflections due to uniform loading.

***Steel for H-Series joist chords and webs is tested in accordance with "Section 3. Materials" of the SJI Specifications for Open Web Steel Joists, H-Series (50,000 psi. minimum yield strength).
Steel for J-Series joist chords and webs is tested in accordance with "Section 3. Materials" of the SJI Specifications for Open Web Steel Joists, J-Series (36,000 psi. minimum yield strength).



Chord Properties

Section No.	Material Two Angles	Total Area	G	W	About Axis X-X		About Axis Y-Y		Section No.
					I	r	I	r	
2	1 x 1 x .125	0.46	0.30	2.34	0.04	0.30	0.14	0.55	2
3	1 1/4 x 1 1/4 x .125	0.60	0.36	2.84	0.08	0.38	0.25	0.65	3
4	1 1/2 x 1 1/2 x .125	0.72	0.42	3.34	0.16	0.47	0.41	0.75	4
5	1 1/2 x 1 1/2 x .188	1.06	0.44	3.47	0.22	0.46	0.70	0.81	5
6	1 1/2 x 1 1/2 x .188	1.06	0.44	3.47	0.22	0.46	0.70	0.81	6
7	1 3/4 x 1 3/4 x .188	1.24	0.51	3.97	0.36	0.54	1.05	0.92	7
8	2 x 2 x .188	1.42	0.57	4.53	0.54	0.62	1.53	1.04	8