Table 1: Unique Open-Web Joists

(Load tables may be available from SJI)

System	Figure	Description	Yield Strength	Depth (inches)	Span (feet)	Chords	Webs	Notes
Ashland	1	HS-Series Joists	50 ksi	8 to 24	8 to 48	Double angles	Round bars	
	N/A	LS-Series Joists	50 ksi	Unknown	64 maximum	Unknown	Unknown	
Cadmus	5	1952 Structural T Long-span & Standard Joists	See Note 6	10± to 54	12'-6" to 108	Split T	Angles	6, 7
Haven Busch	6	1952 to 1962 T-Chord Longspan Joists	See Note 9	18 to 88	25 to 175	Split T	Angles	8, 9
Macomber	7	Purlin or Steel Joist	Unknown	8 to 16	10 to 26	See Note 10	Round bars	10
	8	Massillon Steel Joist	Unknown	8 to 16	4 to 31	Round bars	Round bars	
	9	Canton Steel Joist	Unknown	8 to 16	Unknown	Double angles	Round bars	
	10	Buffalo Steel Joist	Unknown	8 to 16	Unknown	See Note 11	Round bars	11
	N/A	Special Joists	Unknown	12 to 20	8 to 40	Unknown	Unknown	
	11	Residence Joist	Unknown	6 to 10	6 to 20	See Note 12	Round bars	12
	12	Standard Longspan Joist	See Note 14	18 to 40	24 to 72	Double angles	Angles & bars	13, 14
	N/A	Intermediate Longspan	See Note 14	18 to 22	20 to 44	See Note 10	Round bars	10, 14
	13	1955 New Yorker	Unknown	8 to 24	7 to 48	V shaped plates	Round bars	
	14	V or Double V Bar Joist	Unknown	8 to 22	4 to 44	V shaped plates	Round bars	
	N/A	V-Girders	Unknown	18 to 48	13 to 96	V shaped plates	Round bars	
	15	V-Purlin	Unknown	8 to 60	8 to 120	V shaped plates	See Note 15	15
	16	Allspan	Unknown	8 to 76	8 to 152	V & Double V shaped plates	See Note 15	15
	N/A	V-Lok Purlin	Unknown	8 to 36	8 to 72	V & Double V shaped plates	Round bars or round pipes	16, 17
	17	V-Lok Girder	Unknown	12 to 40	15 to 50	See Note 18	Round bars or Angles	16, 18
	18	V-Beam	Unknown	8 to 28	8 to 56	See note 19	Round bars	19
Northwest	4	Series 1, 2, 3 & 4 Joists	See Note 5	12 to 72	12 to 80	V shaped plates	Square bars & round pipes	4, 5
Ridgeway	3	Open Web Joists	See Note 3	12± to 47±	16± to 59±	V shaped plates	Square bars & round pipes	3
Vescom	2	Composite Floor Joists	36 & 50 ksi	8 to 40	20 to 48	Double angles	Round bars	1
	N/A	Composite Truss Girders	36 & 50 ksi	16 to 40	20 to 50	Double angles	Angles	2

Notes:

1. Top chord included deformed, extended vertical leg of one angle for composite action with surrounding concrete slab.
2. Top chord included deformed, extended vertical plate in addition to double angles for composite action with surrounding concrete slab.
3. Web allowable stress: 36 ksi (bars) & 50 ksi (pipes); Chord allowable stress: 54 ksi.
4. Joist designs over 80 feet spans were available upon request.
5. Web allowable stress: 33 & 44 ksi (bars), 50 ksi (pipes); Chord allowable stress: 55 ksi.
6. Allowable compressive stress for top chord or web members = 15 ksi. Allowable combined compressive stress at top chord panel points and allowable tensile stress = 18 ksi.
7. Chord tees cut from standard wide flange or junior beams.
8. Available as parallel chord, single or double sloped top chord or hipped end configurations.
9. Allowable combined compressive stress at mid-panel chord and web = 15 ksi (1952); 20 ksi (1956). Allowable combined compressive stress at panel points = 24 ksi (1956). Allowable tensile stress = 20 ksi (1952 & 1956).
10. Double angle top chord; Round bars bottom chord.
11. Inverted double angle top chord; Round bars bottom chord.
12. Single steel angle and wood nailer top chord; Round bars bottom.
13. Available as parallel chord or single or double sloped top chord.
14. Allowable combined direct and bending stress in top chords = 20 ksi.
15. Sizes #2 - #9: Round bars; Sizes #10 up through #22: Angles.
16. Included proprietary stud and slot end bearing connection.
17. Round bars, round pipes or angles.
18. V & double V shaped plates or double angles.
19. V shaped top chord & U shaped bottom chord plates.

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