

Metal Wall & Roof Systems
North America

Morin Exposed Series Perforated Metal Wall System

Deep Box Rib Span Charts

Innovative Single Element
Building Envelope Solution

Morin
By Kingspan

Product Data

Morin Exposed Series Perforated Range

The Morin Exposed Series features seventeen unique profiles (produced in several facilities). For wall applications, all Exposed Series panels are reversible with many asymmetrical panels offering a completely different profile per side chosen.

Deep Box Rib Profiles (See other booklets for additional options)

- **Exposed MR-36-EW Profile A/Profile B**
- **Exposed O-24-E Profile A/Profile B**
- **Exposed O-24-W Profile A/Profile B**
- **Exposed U-24-W Profile A/Profile B**

Applications

Weather-resistant or rainscreen rear-ventillated applications. Installed in Vertical or Horizontal orientations.

Available Lengths

Standard Lengths (ft)	5′ – 30′ (1.52 – 9.14m)

Shorter and longer lengths available on request.

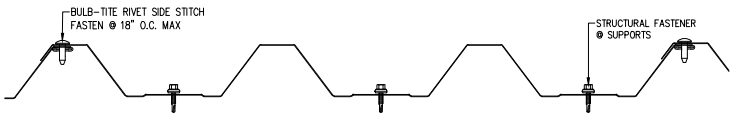
Standard Notes:

1. Numbers in the tables indicate clear span distance between the structural supports.
2. Section properties listed are for the perforated base sheet.
3. Load and span values listed do not include consideration of fastener with washer/oversize washer, to be determined by qualified personnel.
4. Refer to the following page for fastening pattern across the panel (along the support) and side lap/side stitch fastening.
5. For side stitch fastener use 9/32″ bulb-tite rivet.
6. This table is intended as a guide to the allowable loads (ASD) and spans for the panel product, however, actual assembly conditions must be determined by a qualified individual.
7. Deflection limit is L/180 unless otherwise noted.
8. Aluminum material confirming to 3003-H14; reach out to Morin technical for anodized (5005-H34) or any other Aluminum material
9. For project specific calculations, please contact Morin Technical Services at 800-640-9501.

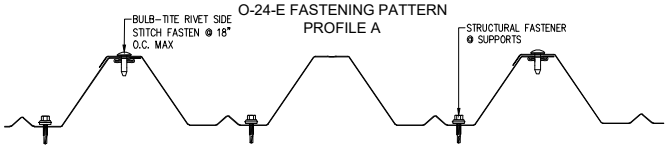
Deep Box Rib Profiles
Fastening Patterns:

PROFILE A

MR-36-EW FASTENING PATTERN
PROFILE A



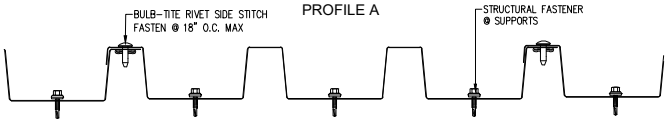
O-24-E FASTENING PATTERN
PROFILE A



O-24-W FASTENING PATTERN
PROFILE A

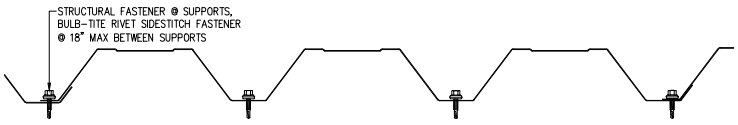


U-24-W FASTENING PATTERN
PROFILE A

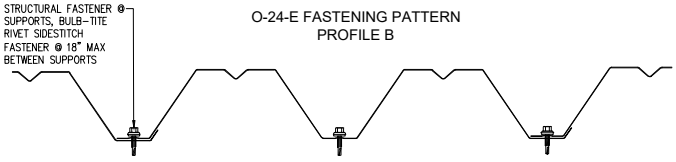


PROFILE B

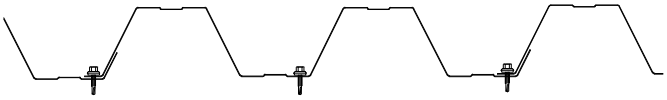
MR-36-EW FASTENING PATTERN
PROFILE B



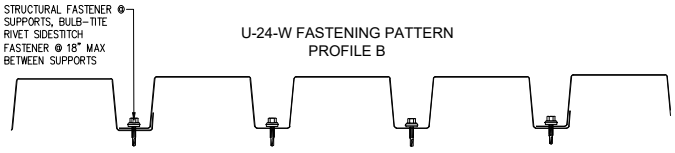
O-24-E FASTENING PATTERN
PROFILE B



O-24-W FASTENING PATTERN
PROFILE B



U-24-W FASTENING PATTERN
PROFILE B



Load / Span Data

MR-36-E/W
Aluminum Perforated

0.032 in

Ix: 0.0461 in^4/ft
Sx: 0.255 in^3/ft
Perforation: 10%

Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)	Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)
20	Stress	6’-6”	6’-6”	7’-4”	55	Stress	3’-11”	3’-11”	4’-5”
	Deflection	8’-10”	11’-11”	10’-11”		Deflection	6’-3”	8’-6”	7’-9”
25	Stress	5’-10”	5’-10”	6’-6”	60	Stress	3’-9”	3’-9”	4’-3”
	Deflection	8’-2”	11’-0”	10’-2”		Deflection	6’-1”	8’-3”	7’-7”
30	Stress	5’-4”	5’-4”	5’-11”	65	Stress	3’-7”	3’-7”	4’-1”
	Deflection	7’-8”	10’-5”	9’-6”		Deflection	5’-11”	8’-0”	7’-4”
35	Stress	4’-11”	4’-11”	5’-6”	70	Stress	3’-6”	3’-6”	3’-11”
	Deflection	7’-4”	9’-10”	9’-1”		Deflection	5’-10”	7’-10”	7’-2”
40	Stress	4’-7”	4’-7”	5’-2”	75	Stress	3’-4”	3’-4”	3’-9”
	Deflection	7’-0”	9’-5”	8’-8”		Deflection	5’-8”	7’-8”	7’-0”
45	Stress	4’-4”	4’-4”	4’-10”	80	Stress	3’-3”	3’-3”	3’-8”
	Deflection	6’-9”	9’-1”	8’-4”		Deflection	5’-7”	7’-6”	6’-11”
50	Stress	4’-1”	4’-1”	4’-7”	85	Stress	2’-9”	2’-9”	3’-1”
	Deflection	6’-6”	8’-9”	8’-1”		Deflection	5’-0”	6’-9”	6’-2”

MR-36-E/W
Aluminum Perforated

0.032 in

Ix: 0.0348 in^4/ft
Sx: 0.19 in^3/ft
Perforation: 23%

Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)	Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)
20	Stress	5’-8”	5’-8”	6’-4”	55	Stress	3’-5”	3’-5”	3’-10”
	Deflection	8’-0”	10’-10”	9’-11”		Deflection	5’-9”	7’-9”	7’-1”
25	Stress	5’-0”	5’-0”	5’-8”	60	Stress	3’-3”	3’-3”	3’-8”
	Deflection	7’-5”	10’-1”	9’-3”		Deflection	5’-7”	7’-6”	6’-11”
30	Stress	4’-7”	4’-7”	5’-2”	65	Stress	3’-2”	3’-2”	3’-6”
	Deflection	7’-0”	9’-5”	8’-8”		Deflection	5’-5”	7’-4”	6’-9”
35	Stress	4’-3”	4’-3”	4’-9”	70	Stress	3’-0”	3’-0”	3’-4”
	Deflection	6’-8”	9’-0”	8’-3”		Deflection	5’-3”	7’-2”	6’-7”
40	Stress	4’-0”	4’-0”	4’-5”	75	Stress	2’-11”	2’-11”	3’-3”
	Deflection	6’-4”	8’-7”	7’-11”		Deflection	5’-2”	7’-0”	6’-5”
45	Stress	3’-9”	3’-9”	4’-2”	80	Stress	2’-10”	2’-10”	3’-2”
	Deflection	6’-1”	8’-3”	7’-7”		Deflection	5’-1”	6’-10”	6’-3”
50	Stress	3’-7”	3’-7”	4’-0”	85	Stress	2’-9”	2’-9”	3’-1”
	Deflection	5’-11”	8’-0”	7’-4”		Deflection	4’-11”	6’-8”	6’-2”

*See page 2 for standard notes.

MR-36-E/W
Aluminum Perforated

0.032 in

Ix: 0.287 in^4/ft
Sx: 0.163 in^3/ft
Perforation: 30%

Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)	Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)
20	Stress	5’-3”	5’-3”	5’-10”	55	Stress	3’-2”	3’-2”	3’-6”
	Deflection	7’-6”	10’-2”	9’-4”		Deflection	5’-4”	7’-3”	6’-8”
25	Stress	4’-8”	4’-8”	5’-3”	60	Stress	3’-0”	3’-0”	3’-4”
	Deflection	7’-0”	9’-5”	8’-8”		Deflection	5’-3”	7’-0”	6’-6”
30	Stress	4’-3”	4’-3”	4’-9”	65	Stress	2’-11”	2’-11”	3’-3”
	Deflection	6’-7”	8’-10”	8’-2”		Deflection	5’-1”	6’-10”	6’-4”
35	Stress	3’-11”	3’-11”	4’-5”	70	Stress	2’-9”	2’-9”	3’-1”
	Deflection	6’-3”	8’-5”	7’-9”		Deflection	4’-11”	6’-8”	6’-2”
40	Stress	3’-8”	3’-8”	4’-1”	75	Stress	2’-8”	2’-8”	3’-0”
	Deflection	6’-0”	8’-1”	7’-5”		Deflection	4’-10”	6’-6”	6’-0”
45	Stress	3’-6”	3’-6”	3’-11”	80	Stress	2’-7”	2’-7”	2’-11”
	Deflection	5’-9”	7’-9”	7’-1”		Deflection	4’-9”	6’-5”	5’-10”
50	Stress	3’-4”	3’-4”	3’-8”	85	Stress	2’-6”	2’-6”	2’-10”
	Deflection	5’-6”	7’-6”	6’-10”		Deflection	4’-8”	6’-3”	5’-9”

MR-36-E/W
Aluminum Perforated

0.032 in

Ix: 0.26 in^4/ft
Sx: 0.152 in^3/ft
Perforation: 33%

Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)	Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)
20	Stress	5’-0”	5’-0”	5’-8”	55	Stress	3’-0”	3’-0”	3’-5”
	Deflection	7’-3”	9’-10”	9’-0”		Deflection	5’-2”	7’-0”	6’-5”
25	Stress	4’-6”	4’-6”	5’-0”	60	Stress	2’-11”	2’-11”	3’-3”
	Deflection	6’-9”	9’-1”	8’-4”		Deflection	5’-1”	6’-10”	6’-3”
30	Stress	4’-1”	4’-1”	4’-7”	65	Stress	2’-10”	2’-10”	3’-2”
	Deflection	6’-4”	8’-7”	7’-11”		Deflection	4’-11”	6’-8”	6’-1”
35	Stress	3’-10”	3’-10”	4’-3”	70	Stress	2’-8”	2’-8”	3’-0”
	Deflection	6’-0”	8’-2”	7’-6”		Deflection	4’-9”	6’-6”	5’-11”
40	Stress	3’-7”	3’-7”	4’-0”	75	Stress	2’-7”	2’-7”	2’-11”
	Deflection	5’-9”	7’-10”	7’-2”		Deflection	4’-8”	6’-4”	5’-10”
45	Stress	3’-4”	3’-4”	3’-9”	80	Stress	2’-6”	2’-6”	2’-10”
	Deflection	5’-7”	7’-6”	6’-11”		Deflection	4’-7”	6’-2”	5’-8”
50	Stress	3’-2”	3’-2”	3’-7”	85	Stress	2’-5”	2’-5”	2’-9”
	Deflection	5’-4”	7’-3”	6’-8”		Deflection	4’-6”	6’-1”	5’-7”

*See page 2 for standard notes.

Load / Span Data

MR-36-E/W
Aluminum Perforated

0.032 in

Ix: 0.204 in^4/ft
Sx: 0.127 in^3/ft
Perforation: 40%

Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)	Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)
20	Stress	4’-7”	4’-7”	5’-2”	55	Stress	2’-9”	2’-9”	3’-1”
	Deflection	6’-9”	9’-1”	8’-4”		Deflection	4’-9”	6’-6”	5’-11”
25	Stress	4’-1”	4’-1”	4’-7”	60	Stress	2’-8”	2’-8”	3’-0”
	Deflection	6’-3”	8’-5”	7’-9”		Deflection	4’-8”	6’-3”	5’-9”
30	Stress	3’-9”	3’-9”	4’-2”	65	Stress	2’-7”	2’-7”	2’-10”
	Deflection	5’-10”	7’-11”	7’-3”		Deflection	4’-6”	6’-1”	5’-7”
35	Stress	3’-6”	3’-6”	3’-11”	70	Stress	2’-5”	2’-5”	2’-9”
	Deflection	5’-7”	7’-6”	6’-11”		Deflection	4’-5”	6’-0”	5’-6”
40	Stress	3’-3”	3’-3”	3’-8”	75	Stress	2’-4”	2’-4”	2’-8”
	Deflection	5’-4”	7’-2”	6’-7”		Deflection	4’-4”	5’-10”	5’-4”
45	Stress	3’-1”	3’-1”	3’-5”	80	Stress	2’-4”	2’-4”	2’-7”
	Deflection	5’-1”	6’-11”	6’-4”		Deflection	4’-3”	5’-8”	5’-3”
50	Stress	2’-11”	2’-11”	3’-3”	85	Stress	2’-3”	2’-3”	2’-6”
	Deflection	4’-11”	6’-8”	6’-2”		Deflection	4’-2”	5’-7”	5’-2”

MR-36-E/W
Aluminum Perforated

0.032 in

Ix: 0.135 in^4/ft
Sx: 0.095 in^3/ft
Perforation: 51%

Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)	Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)
20	Stress	4’-0”	4’-0”	4’-5”	55	Stress	2’-5”	2’-5”	2’-8”
	Deflection	5’-10”	7’-11”	7’-3”		Deflection	4’-2”	5’-8”	5’-2”
25	Stress	3’-7”	3’-7”	4’-0”	60	Stress	2’-4”	2’-4”	2’-7”
	Deflection	5’-5”	7’-4”	6’-9”		Deflection	4’-1”	5’-6”	5’-0”
30	Stress	3’-3”	3’-3”	3’-8”	65	Stress	2’-3”	2’-3”	2’-6”
	Deflection	5’-1”	6’-11”	6’-4”		Deflection	3’-11”	5’-4”	4’-11”
35	Stress	3’-0”	3’-0”	3’-4”	70	Stress	2’-2”	2’-2”	2’-5”
	Deflection	4’-10”	6’-7”	6’-0”		Deflection	3’-10”	5’-2”	4’-9”
40	Stress	2’-10”	2’-10”	3’-2”	75	Stress	2’-1”	2’-1”	2’-4”
	Deflection	4’-8”	6’-3”	5’-9”		Deflection	3’-9”	5’-1”	4’-8”
45	Stress	2’-8”	2’-8”	3’-0”	80	Stress	1’-12”	1’-12”	2’-3”
	Deflection	4’-6”	6’-0”	5’-6”		Deflection	3’-8”	5’-0”	4’-7”
50	Stress	2’-6”	2’-6”	2’-10”	85	Stress	1’-8”	1’-8”	1’-11”
	Deflection	4’-4”	5’-10”	5’-4”		Deflection	3’-4”	4’-6”	4’-1”

*See page 2 for standard notes.

MR-36-E/W
Aluminum Perforated

0.040 in

Ix: 0.588 in^4/ft
Sx: 0.314 in^3/ft
Perforation: 10%

Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)	Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)
20	Stress	7’-3”	7’-3”	8’-1”	55	Stress	4’-4”	4’-4”	4’-10”
	Deflection	9’-7”	12’-11”	11’-10”		Deflection	6’-10”	9’-2”	8’-5”
25	Stress	6’-6”	6’-6”	7’-3”	60	Stress	4’-2”	4’-2”	4’-8”
	Deflection	8’-10”	12’-0”	11’-0”		Deflection	6’-7”	8’-11”	8’-3”
30	Stress	5’-11”	5’-11”	6’-7”	65	Stress	4’-0”	4’-0”	4’-6”
	Deflection	8’-4”	11’-3”	10’-4”		Deflection	6’-5”	8’-8”	8’-0”
35	Stress	5’-6”	5’-6”	6’-1”	70	Stress	3’-10”	3’-10”	4’-4”
	Deflection	7’-11”	10’-8”	9’-10”		Deflection	6’-3”	8’-6”	7’-10”
40	Stress	5’-1”	5’-1”	5’-9”	75	Stress	3’-9”	3’-9”	4’-2”
	Deflection	7’-7”	10’-3”	9’-5”		Deflection	6’-2”	8’-4”	7’-7”
45	Stress	4’-10”	4’-10”	5’-5”	80	Stress	3’-7”	3’-7”	4’-0”
	Deflection	7’-3”	9’-10”	9’-0”		Deflection	6’-0”	8’-1”	7’-6”
50	Stress	4’-7”	4’-7”	5’-1”	85	Stress	3’-1”	3’-1”	3’-5”
	Deflection	7’-0”	9’-6”	8’-9”		Deflection	5’-5”	7’-4”	6’-8”

MR-36-E/W
Aluminum Perforated

0.040 in

Ix: 0.444 in^4/ft
Sx: 0.241 in^3/ft
Perforation: 23%

Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)	Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)
20	Stress	6’-4”	6’-4”	7’-1”	55	Stress	3’-10”	3’-10”	4’-3”
	Deflection	8’-8”	11’-9”	10’-9”		Deflection	6’-2”	8’-5”	7’-8”
25	Stress	5’-8”	5’-8”	6’-4”	60	Stress	3’-8”	3’-8”	4’-1”
	Deflection	8’-1”	10’-11”	10’-0”		Deflection	6’-0”	8’-2”	7’-6”
30	Stress	5’-2”	5’-2”	5’-9”	65	Stress	3’-6”	3’-6”	3’-11”
	Deflection	7’-7”	10’-3”	9’-5”		Deflection	5’-10”	7’-11”	7’-3”
35	Stress	4’-10”	4’-10”	5’-4”	70	Stress	3’-5”	3’-5”	3’-8”
	Deflection	7’-3”	9’-9”	8’-11”		Deflection	5’-9”	7’-9”	6’-11”
40	Stress	4’-6”	4’-6”	5’-0”	75	Stress	3’-3”	3’-3”	2’-8”
	Deflection	6’-11”	9’-4”	8’-7”		Deflection	5’-7”	7’-7”	2’-10”
45	Stress	4’-3”	4’-3”	4’-9”	80	Stress	3’-2”	3’-2”	3’-7”
	Deflection	6’-8”	9’-0”	8’-3”		Deflection	5’-6”	7’-5”	6’-10”
50	Stress	4’-0”	4’-0”	4’-6”	85	Stress	3’-1”	3’-1”	3’-5”
	Deflection	6’-5”	8’-8”	7’-11”		Deflection	5’-4”	7’-3”	6’-8”

*See page 2 for standard notes.

Load / Span Data

MR-36-E/W
Aluminum Perforated

0.040 in

Ix: 0.366 in^4/ft
Sx: 0.207 in^3/ft
Perforation: 30%

Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)	Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)
20	Stress	5’-10”	5’-10”	6’-7”	55	Stress	3’-6”	3’-6”	3’-11”
	Deflection	8’-2”	11’-0”	10’-1”		Deflection	5’-10”	7’-10”	7’-3”
25	Stress	5’-3”	5’-3”	5’-10”	60	Stress	3’-5”	3’-5”	3’-9”
	Deflection	7’-7”	10’-3”	9’-5”		Deflection	5’-8”	7’-8”	7’-0”
30	Stress	4’-9”	4’-9”	5’-4”	65	Stress	3’-3”	3’-3”	3’-8”
	Deflection	7’-1”	9’-7”	8’-10”		Deflection	5’-6”	7’-5”	6’-10”
35	Stress	4’-5”	4’-5”	4’-11”	70	Stress	3’-2”	3’-2”	3’-6”
	Deflection	6’-9”	9’-2”	8’-5”		Deflection	5’-4”	7’-3”	6’-8”
40	Stress	4’-2”	4’-2”	4’-8”	75	Stress	3’-0”	3’-0”	3’-5”
	Deflection	6’-6”	8’-9”	8’-0”		Deflection	5’-3”	7’-1”	6’-6”
45	Stress	3’-11”	3’-11”	4’-4”	80	Stress	2’-11”	2’-11”	3’-3”
	Deflection	6’-3”	8’-5”	7’-9”		Deflection	5’-2”	6’-11”	6’-4”
50	Stress	3’-9”	3’-9”	4’-2”	85	Stress	2’-10”	2’-10”	3’-2”
	Deflection	6’-0”	8’-1”	7’-5”		Deflection	5’-0”	6’-10”	6’-3”

MR-36-E/W
Aluminum Perforated

0.040 in

Ix: 0.322 in^4/ft
Sx: 0.193 in^3/ft
Perforation: 33%

Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)	Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)
20	Stress	5’-8”	5’-8”	6’-4”	55	Stress	3’-5”	3’-5”	3’-10”
	Deflection	7’-11”	10’-8”	9’-9”		Deflection	5’-8”	7’-7”	7’-0”
25	Stress	5’-1”	5’-1”	5’-8”	60	Stress	3’-3”	3’-3”	3’-8”
	Deflection	7’-4”	9’-11”	9’-1”		Deflection	5’-6”	7’-5”	6’-9”
30	Stress	4’-8”	4’-8”	5’-2”	65	Stress	3’-2”	3’-2”	3’-6”
	Deflection	6’-11”	9’-4”	8’-7”		Deflection	5’-4”	7’-2”	6’-7”
35	Stress	4’-3”	4’-3”	4’-10”	70	Stress	3’-0”	3’-0”	3’-5”
	Deflection	6’-7”	8’-10”	8’-1”		Deflection	5’-2”	7’-0”	6’-5”
40	Stress	4’-0”	4’-0”	4’-6”	75	Stress	2’-11”	2’-11”	3’-3”
	Deflection	6’-3”	8’-5”	7’-9”		Deflection	5’-1”	6’-10”	6’-4”
45	Stress	3’-9”	3’-9”	4’-3”	80	Stress	2’-10”	2’-10”	3’-2”
	Deflection	6’-0”	8’-2”	7’-6”		Deflection	5’-0”	6’-9”	6’-2”
50	Stress	3’-7”	3’-7”	4’-0”	85	Stress	2’-9”	2’-9”	3’-1”
	Deflection	5’-10”	7’-10”	7’-3”		Deflection	4’-10”	6’-7”	6’-0”

*See page 2 for standard notes.

MR-36-E/W
Aluminum Perforated

0.040 in

Ix: 0.26 in^4/ft
Sx: 0.161 in^3/ft
Perforation: 40%

Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)	Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)
20	Stress	5’-2”	5’-2”	5’-9”	55	Stress	3’-1”	3’-1”	3’-6”
	Deflection	7’-3”	9’-10”	9’-0”		Deflection	5’-2”	7’-0”	6’-5”
25	Stress	4’-8”	4’-8”	5’-2”	60	Stress	2’-12”	2’-12”	3’-4”
	Deflection	6’-9”	9’-1”	8’-5”		Deflection	5’-1”	6’-10”	6’-3”
30	Stress	4’-3”	4’-3”	4’-9”	65	Stress	2’-10”	2’-10”	3’-3”
	Deflection	6’-4”	8’-7”	7’-11”		Deflection	4’-11”	6’-8”	6’-1”
35	Stress	3’-11”	3’-11”	4’-4”	70	Stress	2’-9”	2’-9”	3’-1”
	Deflection	6’-0”	8’-2”	7’-6”		Deflection	4’-10”	6’-6”	5’-11”
40	Stress	3’-8”	3’-8”	4’-1”	75	Stress	2’-8”	2’-8”	3’-0”
	Deflection	5’-9”	7’-10”	7’-2”		Deflection	4’-8”	6’-4”	5’-10”
45	Stress	3’-5”	3’-5”	3’-10”	80	Stress	2’-7”	2’-7”	2’-11”
	Deflection	5’-7”	7’-6”	6’-11”		Deflection	4’-7”	6’-2”	5’-8”
50	Stress	3’-3”	3’-3”	3’-8”	85	Stress	2’-6”	2’-6”	2’-10”
	Deflection	5’-4”	7’-3”	6’-8”		Deflection	4’-6”	6’-1”	5’-7”

MR-36-E/W
Aluminum Perforated

0.040 in

Ix: 0.172 in^4/ft
Sx: 0.121 in^3/ft
Perforation: 51%

Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)	Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)
20	Stress	4’-6”	4’-6”	5’-0”	55	Stress	2’-8”	2’-8”	3’-0”
	Deflection	6’-4”	8’-7”	7’-10”		Deflection	4’-6”	6’-1”	5’-7”
25	Stress	4’-0”	4’-0”	4’-6”	60	Stress	2’-7”	2’-7”	2’-11”
	Deflection	5’-11”	7’-11”	7’-4”		Deflection	4’-5”	5’-11”	5’-5”
30	Stress	3’-8”	3’-8”	4’-1”	65	Stress	2’-6”	2’-6”	2’-9”
	Deflection	5’-6”	7’-6”	6’-10”		Deflection	4’-3”	5’-9”	5’-4”
35	Stress	3’-5”	3’-5”	3’-9”	70	Stress	2’-5”	2’-5”	2’-8”
	Deflection	5’-3”	7’-1”	6’-6”		Deflection	4’-2”	5’-8”	5’-2”
40	Stress	3’-2”	3’-2”	3’-7”	75	Stress	2’-4”	2’-4”	2’-7”
	Deflection	5’-0”	6’-10”	6’-3”		Deflection	4’-1”	5’-6”	5’-1”
45	Stress	3’-0”	3’-0”	3’-4”	80	Stress	2’-3”	2’-3”	2’-6”
	Deflection	4’-10”	6’-6”	6’-0”		Deflection	4’-0”	5’-5”	4’-11”
50	Stress	2’-10”	2’-10”	3’-2”	85	Stress	1’-11”	1’-11”	2’-2”
	Deflection	4’-8”	6’-4”	5’-10”		Deflection	3’-7”	4’-10”	4’-5”

*See page 2 for standard notes.

Load / Span Data

MR-36-E/W
Aluminum Perforated

0.050 in

Ix: 0.666 in^4/ft
Sx: 0.338 in^3/ft
Perforation: 10%

Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)	Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)
20	Stress	7’-6”	7’-6”	8’-5”	55	Stress	4’-6”	4’-6”	5’-1”
	Deflection	9’-11”	13’-5”	12’-4”		Deflection	7’-1”	9’-7”	8’-10”
25	Stress	6’-9”	6’-9”	7’-6”	60	Stress	4’-4”	4’-4”	4’-10”
	Deflection	9’-3”	12’-6”	11’-6”		Deflection	6’-11”	9’-4”	8’-7”
30	Stress	6’-2”	6’-2”	6’-10”	65	Stress	4’-2”	4’-2”	4’-8”
	Deflection	8’-8”	11’-9”	10’-9”		Deflection	6’-9”	9’-1”	8’-4”
35	Stress	5’-8”	5’-8”	6’-4”	70	Stress	4’-0”	4’-0”	4’-6”
	Deflection	8’-3”	11’-2”	10’-3”		Deflection	6’-7”	8’-10”	8’-2”
40	Stress	5’-4”	5’-4”	5’-11”	75	Stress	3’-10”	3’-10”	4’-4”
	Deflection	7’-11”	10’-8”	9’-10”		Deflection	6’-5”	8’-8”	7’-11”
45	Stress	5’-0”	5’-0”	5’-7”	80	Stress	3’-9”	3’-9”	4’-2”
	Deflection	7’-7”	10’-3”	9’-5”		Deflection	6’-3”	8’-6”	7’-9”
50	Stress	4’-9”	4’-9”	5’-4”	85	Stress	3’-8”	3’-8”	4’-1”
	Deflection	7’-4”	9’-11”	9’-1”		Deflection	6’-2”	8’-4”	7’-7”

MR-36-E/W
Aluminum Perforated

0.050 in

Ix: 0.503 in^4/ft
Sx: 0.26 in^3/ft
Perforation: 23%

Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)	Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)
20	Stress	6’-7”	6’-7”	7’-4”	55	Stress	4’-0”	4’-0”	4’-5”
	Deflection	9’-1”	12’-3”	11’-3”		Deflection	6’-6”	8’-9”	8’-0”
25	Stress	5’-11”	5’-11”	6’-7”	60	Stress	3’-10”	3’-10”	4’-3”
	Deflection	8’-5”	11’-4”	10’-5”		Deflection	6’-3”	8’-6”	7’-10”
30	Stress	5’-4”	5’-4”	6’-0”	65	Stress	3’-8”	3’-8”	4’-1”
	Deflection	7’-11”	10’-8”	9’-10”		Deflection	6’-1”	8’-3”	7’-7”
35	Stress	5’-0”	5’-0”	5’-7”	70	Stress	3’-6”	3’-6”	3’-11”
	Deflection	7’-6”	10’-2”	9’-4”		Deflection	6’-0”	8’-1”	7’-5”
40	Stress	4’-8”	4’-8”	5’-2”	75	Stress	3’-5”	3’-5”	3’-10”
	Deflection	7’-2”	9’-9”	8’-11”		Deflection	5’-10”	7’-11”	7’-3”
45	Stress	4’-5”	4’-5”	4’-11”	80	Stress	3’-3”	3’-3”	3’-8”
	Deflection	6’-11”	9’-4”	8’-7”		Deflection	5’-9”	7’-9”	7’-1”
50	Stress	4’-2”	4’-2”	4’-8”	85	Stress	3’-2”	3’-2”	3’-7”
	Deflection	6’-8”	9’-0”	8’-3”		Deflection	5’-7”	7’-7”	6’-11”

*See page 2 for standard notes.

MR-36-E/W
Aluminum Perforated

0.050 in

Ix: 0.415 in^4/ft
Sx: 0.222 in^3/ft
Perforation: 30%

Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)	Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)
20	Stress	6’-1”	6’-1”	6’-10”	55	Stress	3’-8”	3’-8”	4’-1”
	Deflection	8’-6”	11’-6”	10’-7”		Deflection	6’-1”	8’-2”	7’-6”
25	Stress	5’-5”	5’-5”	6’-1”	60	Stress	3’-6”	3’-6”	3’-11”
	Deflection	7’-11”	10’-8”	9’-9”		Deflection	5’-11”	8’-0”	7’-4”
30	Stress	5’-0”	5’-0”	5’-7”	65	Stress	3’-5”	3’-5”	3’-9”
	Deflection	7’-5”	10’-0”	9’-3”		Deflection	5’-9”	7’-9”	7’-1”
35	Stress	4’-7”	4’-7”	5’-2”	70	Stress	3’-3”	3’-3”	3’-8”
	Deflection	7’-1”	9’-6”	8’-9”		Deflection	5’-7”	7’-7”	6’-11”
40	Stress	4’-4”	4’-4”	4’-10”	75	Stress	3’-2”	3’-2”	3’-6”
	Deflection	6’-9”	9’-1”	8’-4”		Deflection	5’-6”	7’-5”	6’-9”
45	Stress	4’-1”	4’-1”	4’-6”	80	Stress	3’-1”	3’-1”	3’-5”
	Deflection	6’-6”	8’-9”	8’-1”		Deflection	5’-4”	7’-3”	6’-8”
50	Stress	3’-10”	3’-10”	4’-4”	85	Stress	2’-11”	2’-11”	3’-4”
	Deflection	6’-3”	8’-5”	7’-9”		Deflection	5’-3”	7’-1”	6’-6”

MR-36-E/W
Aluminum Perforated

0.050 in

Ix: 0.376 in^4/ft
Sx: 0.208 in^3/ft
Perforation: 33%

Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)	Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)
20	Stress	5’-11”	5’-11”	6’-7”	55	Stress	3’-7”	3’-7”	4’-0”
	Deflection	8’-3”	11’-1”	10’-2”		Deflection	5’-10”	7’-11”	7’-3”
25	Stress	5’-3”	5’-3”	5’-11”	60	Stress	3’-5”	3’-5”	3’-10”
	Deflection	7’-8”	10’-4”	9’-6”		Deflection	5’-8”	7’-8”	7’-1”
30	Stress	4’-10”	4’-10”	5’-4”	65	Stress	3’-3”	3’-3”	3’-8”
	Deflection	7’-2”	9’-8”	8’-11”		Deflection	5’-7”	7’-6”	6’-11”
35	Stress	4’-5”	4’-5”	5’-0”	70	Stress	3’-2”	3’-2”	3’-6”
	Deflection	6’-10”	9’-3”	8’-6”		Deflection	5’-5”	7’-4”	6’-9”
40	Stress	4’-2”	4’-2”	4’-8”	75	Stress	3’-0”	3’-0”	3’-5”
	Deflection	6’-6”	8’-10”	8’-1”		Deflection	5’-4”	7’-2”	6’-7”
45	Stress	3’-11”	3’-11”	4’-5”	80	Stress	2’-11”	2’-11”	3’-3”
	Deflection	6’-3”	8’-6”	7’-9”		Deflection	5’-2”	7’-0”	6’-5”
50	Stress	3’-9”	3’-9”	4’-2”	85	Stress	2’-10”	2’-10”	3’-2”
	Deflection	6’-1”	8’-2”	7’-6”		Deflection	5’-1”	6’-10”	6’-4”

*See page 2 for standard notes.

Load / Span Data

MR-36-E/W
Aluminum Perforated

0.050 in

Ix: 0.295 in^4/ft
Sx: 0.173 in^3/ft
Perforation: 40%

Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)	Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)
20	Stress	5’-4”	5’-4”	6’-0”	55	Stress	3’-3”	3’-3”	3’-7”
	Deflection	7’-7”	10’-3”	9’-5”		Deflection	5’-5”	7’-4”	6’-9”
25	Stress	4’-10”	4’-10”	5’-4”	60	Stress	3’-1”	3’-1”	3’-6”
	Deflection	7’-1”	9’-6”	8’-9”		Deflection	5’-3”	7’-1”	6’-6”
30	Stress	4’-5”	4’-5”	4’-11”	65	Stress	2’-12”	2’-12”	3’-4”
	Deflection	6’-8”	8’-11”	8’-3”		Deflection	5’-1”	6’-11”	6’-4”
35	Stress	4’-1”	4’-1”	4’-6”	70	Stress	2’-10”	2’-10”	3’-3”
	Deflection	6’-4”	8’-6”	7’-10”		Deflection	5’-0”	6’-9”	6’-2”
40	Stress	3’-10”	3’-10”	4’-3”	75	Stress	2’-9”	2’-9”	3’-1”
	Deflection	6’-0”	8’-2”	7’-6”		Deflection	4’-11”	6’-7”	6’-1”
45	Stress	3’-7”	3’-7”	4’-0”	80	Stress	2’-8”	2’-8”	3’-0”
	Deflection	5’-9”	7’-10”	7’-2”		Deflection	4’-9”	6’-5”	5’-11”
50	Stress	3’-5”	3’-5”	3’-10”	85	Stress	2’-7”	2’-7”	2’-11”
	Deflection	5’-7”	7’-7”	6’-11”		Deflection	4’-8”	6’-4”	5’-10”

MR-36-E/W
Aluminum Perforated

0.050 in

Ix: 0.195 in^4/ft
Sx: 0.13 in^3/ft
Perforation: 51%

Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)	Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)
20	Stress	4’-8”	4’-8”	5’-2”	55	Stress	2’-10”	2’-10”	3’-2”
	Deflection	6’-7”	8’-11”	8’-2”		Deflection	4’-9”	6’-4”	5’-10”
25	Stress	4’-2”	4’-2”	4’-8”	60	Stress	2’-8”	2’-8”	3’-0”
	Deflection	6’-2”	8’-3”	7’-7”		Deflection	4’-7”	6’-2”	5’-8”
30	Stress	3’-10”	3’-10”	4’-3”	65	Stress	2’-7”	2’-7”	2’-11”
	Deflection	5’-9”	7’-10”	7’-2”		Deflection	4’-6”	6’-0”	5’-6”
35	Stress	3’-6”	3’-6”	3’-11”	70	Stress	2’-6”	2’-6”	2’-9”
	Deflection	5’-6”	7’-5”	6’-10”		Deflection	4’-4”	5’-11”	5’-5”
40	Stress	3’-3”	3’-3”	3’-8”	75	Stress	2’-5”	2’-5”	2’-8”
	Deflection	5’-3”	7’-1”	6’-6”		Deflection	4’-3”	5’-9”	5’-3”
45	Stress	3’-1”	3’-1”	3’-6”	80	Stress	2’-4”	2’-4”	2’-7”
	Deflection	5’-1”	6’-10”	6’-3”		Deflection	4’-2”	5’-7”	5’-2”
50	Stress	2’-11”	2’-11”	3’-3”	85	Stress	2’-3”	2’-3”	2’-6”
	Deflection	4’-10”	6’-7”	6’-0”		Deflection	4’-1”	5’-6”	5’-1”

*See page 2 for standard notes.

O-24-E
Aluminum Perforated

0.032 in

Ix: 0.854 in^4/ft
Sx: 0.38 in^3/ft
Perforation: 10%

Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)	Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)
20	Stress	7’-7”	7’-7”	8’-6”	55	Stress	4’-7”	4’-7”	5’-1”
	Deflection	10’-10”	14’-7”	13’-5”		Deflection	7’-9”	10’-5”	9’-7”
25	Stress	6’-9”	6’-9”	7’-7”	60	Stress	4’-4”	4’-4”	4’-11”
	Deflection	10’-0”	13’-7”	12’-5”		Deflection	7’-6”	10’-1”	9’-4”
30	Stress	6’-2”	6’-2”	6’-11”	65	Stress	4’-2”	4’-2”	4’-8”
	Deflection	9’-5”	12’-9”	11’-9”		Deflection	7’-4”	9’-10”	9’-1”
35	Stress	5’-9”	5’-9”	6’-5”	70	Stress	4’-1”	4’-1”	4’-6”
	Deflection	9’-0”	12’-1”	11’-2”		Deflection	7’-1”	9’-7”	8’-10”
40	Stress	5’-4”	5’-4”	6’-0”	75	Stress	3’-11”	3’-11”	4’-4”
	Deflection	8’-7”	11’-7”	10’-8”		Deflection	7’-0”	9’-5”	8’-8”
45	Stress	5’-1”	5’-1”	5’-8”	80	Stress	3’-9”	3’-9”	4’-3”
	Deflection	8’-3”	11’-2”	10’-3”		Deflection	6’-10”	9’-2”	8’-5”
50	Stress	4’-9”	4’-9”	5’-4”	85	Stress	3’-8”	3’-8”	4’-1”
	Deflection	8’-0”	10’-9”	9’-11”		Deflection	6’-8”	9’-0”	8’-3”

O-24-E
Aluminum Perforated

0.032 in

Ix: 0.645 in^4/ft
Sx: 0.284 in^3/ft
Perforation: 23%

Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)	Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)
20	Stress	6’-6”	6’-6”	7’-4”	55	Stress	3’-11”	3’-11”	4’-5”
	Deflection	9’-10”	13’-4”	12’-3”		Deflection	7’-0”	9’-6”	8’-9”
25	Stress	5’-10”	5’-10”	6’-6”	60	Stress	3’-9”	3’-9”	4’-3”
	Deflection	9’-2”	12’-4”	11’-4”		Deflection	6’-10”	9’-3”	8’-6”
30	Stress	5’-4”	5’-4”	6’-0”	65	Stress	3’-8”	3’-8”	4’-1”
	Deflection	8’-7”	11’-7”	10’-8”		Deflection	6’-8”	9’-0”	8’-3”
35	Stress	4’-11”	4’-11”	5’-6”	70	Stress	3’-6”	3’-6”	3’-11”
	Deflection	8’-2”	11’-0”	10’-2”		Deflection	6’-6”	8’-9”	8’-1”
40	Stress	4’-7”	4’-7”	5’-2”	75	Stress	3’-5”	3’-5”	3’-9”
	Deflection	7’-10”	10’-7”	9’-8”		Deflection	6’-4”	8’-7”	7’-10”
45	Stress	4’-4”	4’-4”	4’-10”	80	Stress	3’-3”	3’-3”	3’-8”
	Deflection	7’-6”	10’-2”	9’-4”		Deflection	6’-2”	8’-5”	7’-8”
50	Stress	4’-2”	4’-2”	4’-7”	85	Stress	3’-2”	3’-2”	3’-7”
	Deflection	7’-3”	9’-10”	9’-0”		Deflection	6’-1”	8’-3”	7’-6”

*See page 2 for standard notes.

Load / Span Data

O-24-E
Aluminum Perforated — 0.032 in

Ix: 0.532 in^4/ft
Sx: 0.243 in^3/ft
Perforation: 30%

Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)	Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)
20	Stress	6’-1”	6’-1”	6’-9”	55	Stress	3’-8”	3’-8”	4’-1”
	Deflection	9’-3”	12’-6”	11’-5”		Deflection	6’-7”	8’-11”	8’-2”
25	Stress	5’-5”	5’-5”	6’-1”	60	Stress	3’-6”	3’-6”	3’-11”
	Deflection	8’-7”	11’-7”	10’-8”		Deflection	6’-5”	8’-8”	7’-11”
30	Stress	4’-11”	4’-11”	5’-6”	65	Stress	3’-4”	3’-4”	3’-9”
	Deflection	8’-1”	10’-11”	10’-0”		Deflection	6’-3”	8’-5”	7’-9”
35	Stress	4’-7”	4’-7”	5’-1”	70	Stress	3’-3”	3’-3”	3’-7”
	Deflection	7’-8”	10’-4”	9’-6”		Deflection	6’-1”	8’-3”	7’-7”
40	Stress	4’-3”	4’-3”	4’-9”	75	Stress	3’-1”	3’-1”	3’-6”
	Deflection	7’-4”	9’-11”	9’-1”		Deflection	5’-11”	8’-0”	7’-4”
45	Stress	4’-0”	4’-0”	4’-6”	80	Stress	3’-0”	3’-0”	3’-5”
	Deflection	7’-1”	9’-6”	8’-9”		Deflection	5’-10”	7’-10”	7’-3”
50	Stress	3’-10”	3’-10”	4’-3”	85	Stress	2’-11”	2’-11”	3’-3”
	Deflection	6’-10”	9’-2”	8’-5”		Deflection	5’-8”	7’-8”	7’-1”

O-24-E
Aluminum Perforated — 0.032 in

Ix: 0.482 in^4/ft
Sx: 0.227 in^3/ft
Perforation: 33%

Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)	Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)
20	Stress	5’-10”	5’-10”	6’-6”	55	Stress	3’-6”	3’-6”	3’-11”
	Deflection	8’-11”	12’-1”	11’-1”		Deflection	6’-5”	8’-7”	7’-11”
25	Stress	5’-3”	5’-3”	5’-10”	60	Stress	3’-5”	3’-5”	3’-9”
	Deflection	8’-4”	11’-2”	10’-3”		Deflection	6’-2”	8’-4”	7’-8”
30	Stress	4’-9”	4’-9”	5’-4”	65	Stress	3’-3”	3’-3”	3’-8”
	Deflection	7’-10”	10’-6”	9’-8”		Deflection	6’-0”	8’-2”	7’-6”
35	Stress	4’-5”	4’-5”	4’-11”	70	Stress	3’-2”	3’-2”	3’-6”
	Deflection	7’-5”	10’-0”	9’-2”		Deflection	5’-11”	7’-11”	7’-4”
40	Stress	4’-2”	4’-2”	4’-7”	75	Stress	3’-0”	3’-0”	3’-5”
	Deflection	7’-1”	9’-7”	8’-10”		Deflection	5’-9”	7’-9”	7’-2”
45	Stress	3’-11”	3’-11”	4’-4”	80	Stress	2’-11”	2’-11”	3’-3”
	Deflection	6’-10”	9’-2”	8’-5”		Deflection	5’-8”	7’-7”	7’-0”
50	Stress	3’-8”	3’-8”	4’-2”	85	Stress	2’-10”	2’-10”	3’-2”
	Deflection	6’-7”	8’-11”	8’-2”		Deflection	5’-6”	7’-5”	6’-10”

*See page 2 for standard notes.

O-24-E
Aluminum Perforated

0.032 in

Ix: 0.378 in^4/ft
Sx: 0.189 in^3/ft
Perforation: 40%

Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)	Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)
20	Stress	5’-4”	5’-4”	6’-0”	55	Stress	3’-3”	3’-3”	3’-7”
	Deflection	8’-3”	11’-2”	10’-3”		Deflection	5’-11”	7’-11”	7’-4”
25	Stress	4’-9”	4’-9”	5’-4”	60	Stress	3’-1”	3’-1”	3’-5”
	Deflection	7’-8”	10’-4”	9’-6”		Deflection	5’-9”	7’-9”	7’-1”
30	Stress	4’-4”	4’-4”	4’-10”	65	Stress	3’-0”	3’-0”	3’-4”
	Deflection	7’-2”	9’-9”	8’-11”		Deflection	5’-7”	7’-6”	6’-11”
35	Stress	4’-0”	4’-0”	4’-6”	70	Stress	2’-10”	2’-10”	3’-2”
	Deflection	6’-10”	9’-3”	8’-6”		Deflection	5’-5”	7’-4”	6’-9”
40	Stress	3’-9”	3’-9”	4’-3”	75	Stress	2’-9”	2’-9”	3’-1”
	Deflection	6’-7”	8’-10”	8’-1”		Deflection	5’-4”	7’-2”	6’-7”
45	Stress	3’-7”	3’-7”	4’-0”	80	Stress	2’-8”	2’-8”	3’-0”
	Deflection	6’-3”	8’-6”	7’-10”		Deflection	5’-2”	7’-0”	6’-5”
50	Stress	3’-4”	3’-4”	3’-9”	85	Stress	2’-7”	2’-7”	2’-11”
	Deflection	6’-1”	8’-2”	7’-6”		Deflection	5’-1”	6’-10”	6’-4”

O-24-E
Aluminum Perforated

0.032 in

Ix: 0.25 in^4/ft
Sx: 0.142 in^3/ft
Perforation: 51%

Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)	Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)
20	Stress	4’-7”	4’-7”	5’-2”	55	Stress	2’-9”	2’-9”	3’-1”
	Deflection	7’-2”	9’-8”	8’-11”		Deflection	5’-2”	6’-11”	6’-4”
25	Stress	4’-2”	4’-2”	4’-7”	60	Stress	2’-8”	2’-8”	3’-0”
	Deflection	6’-8”	9’-0”	8’-3”		Deflection	5’-0”	6’-9”	6’-2”
30	Stress	3’-9”	3’-9”	4’-3”	65	Stress	2’-7”	2’-7”	2’-10”
	Deflection	6’-3”	8’-6”	7’-9”		Deflection	4’-10”	6’-7”	6’-0”
35	Stress	3’-6”	3’-6”	3’-11”	70	Stress	2’-6”	2’-6”	2’-9”
	Deflection	6’-0”	8’-1”	7’-5”		Deflection	4’-9”	6’-5”	5’-10”
40	Stress	3’-3”	3’-3”	3’-8”	75	Stress	2’-5”	2’-5”	2’-8”
	Deflection	5’-8”	7’-8”	7’-1”		Deflection	4’-7”	6’-3”	5’-9”
45	Stress	3’-1”	3’-1”	3’-5”	80	Stress	2’-4”	2’-4”	2’-7”
	Deflection	5’-6”	7’-5”	6’-10”		Deflection	4’-6”	6’-1”	5’-7”
50	Stress	2’-11”	2’-11”	3’-3”	85	Stress	2’-3”	2’-3”	2’-6”
	Deflection	5’-4”	7’-2”	6’-7”		Deflection	4’-5”	6’-0”	5’-6”

*See page 2 for standard notes.

Load / Span Data

O-24-E
Aluminum Perforated — 0.040 in

Ix: 1.067 in^4/ft
Sx: 0.475 in^3/ft
Perforation: 10%

Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)	Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)
20	Stress	8’-5”	8’-5”	9’-5”	55	Stress	5’-1”	5’-1”	5’-8”
	Deflection	11’-8”	15’-9”	14’-5”		Deflection	8’-4”	11’-3”	10’-4”
25	Stress	7’-7”	7’-7”	8’-5”	60	Stress	4’-11”	4’-11”	5’-6”
	Deflection	10’-10”	14’-7”	13’-5”		Deflection	8’-1”	10’-11”	10’-0”
30	Stress	6’-11”	6’-11”	7’-9”	65	Stress	4’-8”	4’-8”	5’-3”
	Deflection	10’-2”	13’-9”	12’-7”		Deflection	7’-10”	10’-7”	9’-9”
35	Stress	6’-5”	6’-5”	7’-2”	70	Stress	4’-6”	4’-6”	5’-1”
	Deflection	9’-8”	13’-1”	12’-0”		Deflection	7’-8”	10’-4”	9’-6”
40	Stress	6’-0”	6’-0”	6’-8”	75	Stress	4’-4”	4’-4”	4’-11”
	Deflection	9’-3”	12’-6”	11’-6”		Deflection	7’-6”	10’-1”	9’-4”
45	Stress	5’-8”	5’-8”	6’-4”	80	Stress	4’-3”	4’-3”	4’-9”
	Deflection	8’-11”	12’-0”	11’-0”		Deflection	7’-4”	9’-11”	9’-1”
50	Stress	5’-4”	5’-4”	6’-0”	85	Stress	4’-1”	4’-1”	4’-7”
	Deflection	8’-7”	11’-7”	10’-8”		Deflection	7’-2”	9’-9”	8’-11”

O-24-E
Aluminum Perforated — 0.040 in

Ix: 0.807 in^4/ft
Sx: 0.354 in^3/ft
Perforation: 23%

Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)	Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)
20	Stress	7’-4”	7’-4”	8’-2”	55	Stress	4’-5”	4’-5”	4’-11”
	Deflection	10’-7”	14’-4”	13’-2”		Deflection	7’-7”	10’-3”	9’-5”
25	Stress	6’-6”	6’-6”	7’-4”	60	Stress	4’-3”	4’-3”	4’-9”
	Deflection	9’-10”	13’-4”	12’-3”		Deflection	7’-4”	9’-11”	9’-1”
30	Stress	6’-0”	6’-0”	6’-8”	65	Stress	4’-1”	4’-1”	4’-6”
	Deflection	9’-3”	12’-6”	11’-6”		Deflection	7’-2”	9’-8”	8’-11”
35	Stress	5’-6”	5’-6”	6’-2”	70	Stress	3’-11”	3’-11”	4’-4”
	Deflection	8’-10”	11’-11”	10’-11”		Deflection	7’-0”	9’-5”	8’-8”
40	Stress	5’-2”	5’-2”	5’-9”	75	Stress	3’-9”	3’-9”	4’-3”
	Deflection	8’-5”	11’-4”	10’-5”		Deflection	6’-10”	9’-3”	8’-6”
45	Stress	4’-10”	4’-10”	5’-5”	80	Stress	3’-8”	3’-8”	4’-1”
	Deflection	8’-1”	10’-11”	10’-1”		Deflection	6’-8”	9’-0”	8’-3”
50	Stress	4’-7”	4’-7”	5’-2”	85	Stress	3’-7”	3’-7”	4’-0”
	Deflection	7’-10”	10’-7”	9’-8”		Deflection	6’-7”	8’-10”	8’-1”

*See page 2 for standard notes.

O-24-E
Aluminum Perforated

0.040 in

Ix: 0.665 in^4/ft
Sx: 0.303 in^3/ft
Perforation: 30%

Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)	Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)
20	Stress	6’-9”	6’-9”	7’-7”	55	Stress	4’-1”	4’-1”	4’-7”
	Deflection	9’-11”	13’-5”	12’-4”		Deflection	7’-1”	9’-7”	8’-10”
25	Stress	6’-1”	6’-1”	6’-9”	60	Stress	3’-11”	3’-11”	4’-4”
	Deflection	9’-3”	12’-6”	11’-5”		Deflection	6’-11”	9’-4”	8’-7”
30	Stress	5’-6”	5’-6”	6’-2”	65	Stress	3’-9”	3’-9”	4’-2”
	Deflection	8’-8”	11’-9”	10’-9”		Deflection	6’-9”	9’-1”	8’-4”
35	Stress	5’-1”	5’-1”	5’-9”	70	Stress	3’-7”	3’-7”	4’-0”
	Deflection	8’-3”	11’-2”	10’-3”		Deflection	6’-7”	8’-10”	8’-2”
40	Stress	4’-9”	4’-9”	5’-4”	75	Stress	3’-6”	3’-6”	3’-11”
	Deflection	7’-11”	10’-8”	9’-10”		Deflection	6’-5”	8’-8”	7’-11”
45	Stress	4’-6”	4’-6”	5’-0”	80	Stress	3’-5”	3’-5”	3’-9”
	Deflection	7’-7”	10’-3”	9’-5”		Deflection	6’-3”	8’-6”	7’-9”
50	Stress	4’-3”	4’-3”	4’-9”	85	Stress	3’-3”	3’-3”	3’-8”
	Deflection	7’-4”	9’-11”	9’-1”		Deflection	6’-2”	8’-4”	7’-7”

O-24-E
Aluminum Perforated

0.040 in

Ix: 0.602 in^4/ft
Sx: 0.283 in^3/ft
Perforation: 33%

Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)	Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)
20	Stress	6’-6”	6’-6”	7’-4”	55	Stress	3’-11”	3’-11”	4’-5”
	Deflection	9’-8”	13’-0”	11’-11”		Deflection	6’-10”	9’-3”	8’-6”
25	Stress	5’-10”	5’-10”	6’-6”	60	Stress	3’-9”	3’-9”	4’-3”
	Deflection	8’-11”	12’-1”	11’-1”		Deflection	6’-8”	9’-0”	8’-3”
30	Stress	5’-4”	5’-4”	6’-0”	65	Stress	3’-7”	3’-7”	4’-1”
	Deflection	8’-5”	11’-4”	10’-5”		Deflection	6’-6”	8’-9”	8’-1”
35	Stress	4’-11”	4’-11”	5’-6”	70	Stress	3’-6”	3’-6”	3’-11”
	Deflection	8’-0”	10’-9”	9’-11”		Deflection	6’-4”	8’-7”	7’-10”
40	Stress	4’-7”	4’-7”	5’-2”	75	Stress	3’-4”	3’-4”	3’-9”
	Deflection	7’-8”	10’-4”	9’-6”		Deflection	6’-2”	8’-4”	7’-8”
45	Stress	4’-4”	4’-4”	4’-10”	80	Stress	3’-3”	3’-3”	3’-8”
	Deflection	7’-4”	9’-11”	9’-1”		Deflection	6’-1”	8’-2”	7’-6”
50	Stress	4’-2”	4’-2”	4’-7”	85	Stress	3’-2”	3’-2”	3’-7”
	Deflection	7’-1”	9’-7”	8’-10”		Deflection	5’-11”	8’-0”	7’-4”

*See page 2 for standard notes.

Load / Span Data

O-24-E
Aluminum Perforated — 0.040 in

Ix: 0.473 in^4/ft
Sx: 0.236 in^3/ft
Perforation: 40%

Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)	Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)
20	Stress	6’-0”	6’-0”	6’-8”	55	Stress	3’-7”	3’-7”	4’-0”
	Deflection	8’-11”	12’-0”	11’-0”		Deflection	6’-4”	8’-7”	7’-10”
25	Stress	5’-4”	5’-4”	6’-0”	60	Stress	3’-5”	3’-5”	3’-10”
	Deflection	8’-3”	11’-2”	10’-3”		Deflection	6’-2”	8’-4”	7’-8”
30	Stress	4’-10”	4’-10”	5’-5”	65	Stress	3’-4”	3’-4”	3’-8”
	Deflection	7’-9”	10’-6”	9’-7”		Deflection	6’-0”	8’-1”	7’-5”
35	Stress	4’-6”	4’-6”	5’-0”	70	Stress	3’-2”	3’-2”	3’-7”
	Deflection	7’-4”	9’-11”	9’-2”		Deflection	5’-10”	7’-11”	7’-3”
40	Stress	4’-3”	4’-3”	4’-9”	75	Stress	3’-1”	3’-1”	3’-5”
	Deflection	7’-1”	9’-6”	8’-9”		Deflection	5’-9”	7’-9”	7’-1”
45	Stress	4’-0”	4’-0”	4’-5”	80	Stress	3’-0”	3’-0”	3’-4”
	Deflection	6’-9”	9’-2”	8’-5”		Deflection	5’-7”	7’-7”	6’-11”
50	Stress	3’-9”	3’-9”	4’-3”	85	Stress	2’-11”	2’-11”	3’-3”
	Deflection	6’-7”	8’-10”	8’-1”		Deflection	5’-6”	7’-5”	6’-10”

O-24-E
Aluminum Perforated — 0.040 in

Ix: 0.313 in^4/ft
Sx: 0.177 in^3/ft
Perforation: 51%

Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)	Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)
20	Stress	5’-2”	5’-2”	5’-9”	55	Stress	3’-1”	3’-1”	3’-6”
	Deflection	7’-9”	10’-5”	9’-7”		Deflection	5’-6”	7’-5”	6’-10”
25	Stress	4’-7”	4’-7”	5’-2”	60	Stress	3’-0”	3’-0”	3’-4”
	Deflection	7’-2”	9’-8”	8’-11”		Deflection	5’-4”	7’-3”	6’-8”
30	Stress	4’-3”	4’-3”	4’-9”	65	Stress	2’-10”	2’-10”	3’-2”
	Deflection	6’-9”	9’-1”	8’-5”		Deflection	5’-3”	7’-1”	6’-6”
35	Stress	3’-11”	3’-11”	4’-4”	70	Stress	2’-9”	2’-9”	3’-1”
	Deflection	6’-5”	8’-8”	8’-0”		Deflection	5’-1”	6’-11”	6’-4”
40	Stress	3’-8”	3’-8”	4’-1”	75	Stress	2’-8”	2’-8”	3’-0”
	Deflection	6’-2”	8’-3”	7’-7”		Deflection	5’-0”	6’-9”	6’-2”
45	Stress	3’-5”	3’-5”	3’-10”	80	Stress	2’-7”	2’-7”	2’-11”
	Deflection	5’-11”	8’-0”	7’-4”		Deflection	4’-10”	6’-7”	6’-1”
50	Stress	3’-3”	3’-3”	3’-8”	85	Stress	2’-6”	2’-6”	2’-10”
	Deflection	5’-8”	7’-8”	7’-1”		Deflection	4’-9”	6’-5”	5’-11”

*See page 2 for standard notes.

O-24-E
Aluminum Perforated

0.050 in

Ix: 1.332 in^4/ft
Sx: 0.573 in^3/ft
Perforation: 10%

Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)	Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)
20	Stress	9’-4”	9’-4”	10’-5”	55	Stress	5’-7”	5’-7”	6’-3”
	Deflection	12’-6”	16’-11”	15’-7”		Deflection	8’-11”	12’-1”	11’-1”
25	Stress	8’-4”	8’-4”	9’-4”	60	Stress	5’-4”	5’-4”	6’-0”
	Deflection	11’-8”	15’-9”	14’-5”		Deflection	8’-8”	11’-9”	10’-9”
30	Stress	7’-7”	7’-7”	8’-6”	65	Stress	5’-2”	5’-2”	5’-9”
	Deflection	10’-11”	14’-9”	13’-7”		Deflection	8’-6”	11’-5”	10’-6”
35	Stress	7’-0”	7’-0”	7’-10”	70	Stress	4’-12”	4’-12”	5’-7”
	Deflection	10’-5”	14’-1”	12’-11”		Deflection	8’-3”	11’-2”	10’-3”
40	Stress	6’-7”	6’-7”	7’-4”	75	Stress	4’-10”	4’-10”	5’-4”
	Deflection	9’-11”	13’-5”	12’-4”		Deflection	8’-1”	10’-11”	10’-0”
45	Stress	6’-2”	6’-2”	6’-11”	80	Stress	4’-8”	4’-8”	5’-2”
	Deflection	9’-7”	12’-11”	11’-10”		Deflection	7’-11”	10’-8”	9’-10”
50	Stress	5’-11”	5’-11”	6’-7”	85	Stress	4’-6”	4’-6”	5’-0”
	Deflection	9’-3”	12’-6”	11’-6”		Deflection	7’-9”	10’-5”	9’-7”

O-24-E
Aluminum Perforated

0.050 in

Ix: 1.006 in^4/ft
Sx: 0.441 in^3/ft
Perforation: 23%

Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)	Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)
20	Stress	8’-2”	8’-2”	9’-1”	55	Stress	4’-11”	4’-11”	5’-6”
	Deflection	11’-5”	15’-5”	14’-2”		Deflection	8’-2”	11’-0”	10’-1”
25	Stress	7’-3”	7’-3”	8’-2”	60	Stress	4’-8”	4’-8”	5’-3”
	Deflection	10’-7”	14’-4”	13’-2”		Deflection	7’-11”	10’-8”	9’-10”
30	Stress	6’-8”	6’-8”	7’-5”	65	Stress	4’-6”	4’-6”	5’-1”
	Deflection	10’-0”	13’-6”	12’-4”		Deflection	7’-9”	10’-5”	9’-7”
35	Stress	6’-2”	6’-2”	6’-11”	70	Stress	4’-4”	4’-4”	4’-10”
	Deflection	9’-6”	12’-10”	11’-9”		Deflection	7’-6”	10’-2”	9’-4”
40	Stress	5’-9”	5’-9”	6’-5”	75	Stress	4’-3”	4’-3”	4’-8”
	Deflection	9’-1”	12’-3”	11’-3”		Deflection	7’-4”	9’-11”	9’-1”
45	Stress	5’-5”	5’-5”	6’-1”	80	Stress	4’-1”	4’-1”	4’-7”
	Deflection	8’-9”	11’-9”	10’-10”		Deflection	7’-2”	9’-9”	8’-11”
50	Stress	5’-2”	5’-2”	5’-9”	85	Stress	3’-11”	3’-11”	4’-5”
	Deflection	8’-5”	11’-4”	10’-5”		Deflection	7’-1”	9’-6”	8’-9”

*See page 2 for standard notes.

Load / Span Data

O-24-E
Aluminum Perforated — 0.050 in

Ix: 0.829 in^4/ft
Sx: 0.377 in^3/ft
Perforation: 30%

Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)	Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)
20	Stress	7’-7”	7’-7”	8’-5”	55	Stress	4’-7”	4’-7”	5’-1”
	Deflection	10’-9”	14’-6”	13’-3”		Deflection	7’-8”	10’-4”	9’-6”
25	Stress	6’-9”	6’-9”	7’-7”	60	Stress	4’-4”	4’-4”	4’-10”
	Deflection	9’-11”	13’-5”	12’-4”		Deflection	7’-5”	10’-0”	9’-3”
30	Stress	6’-2”	6’-2”	6’-11”	65	Stress	4’-2”	4’-2”	4’-8”
	Deflection	9’-4”	12’-8”	11’-7”		Deflection	7’-3”	9’-9”	9’-0”
35	Stress	5’-8”	5’-8”	6’-4”	70	Stress	4’-0”	4’-0”	4’-6”
	Deflection	8’-11”	12’-0”	11’-0”		Deflection	7’-1”	9’-6”	8’-9”
40	Stress	5’-4”	5’-4”	6’-0”	75	Stress	3’-11”	3’-11”	4’-4”
	Deflection	8’-6”	11’-6”	10’-6”		Deflection	6’-11”	9’-4”	8’-7”
45	Stress	5’-0”	5’-0”	5’-7”	80	Stress	3’-9”	3’-9”	4’-3”
	Deflection	8’-2”	11’-0”	10’-2”		Deflection	6’-9”	9’-1”	8’-4”
50	Stress	4’-9”	4’-9”	5’-4”	85	Stress	3’-8”	3’-8”	4’-1”
	Deflection	7’-11”	10’-8”	9’-9”		Deflection	6’-7”	8’-11”	8’-2”

O-24-E
Aluminum Perforated — 0.050 in

Ix: 0.751 in^4/ft
Sx: 0.353 in^3/ft
Perforation: 33%

Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)	Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)
20	Stress	7’-3”	7’-3”	8’-2”	55	Stress	4’-5”	4’-5”	4’-11”
	Deflection	10’-4”	14’-0”	12’-10”		Deflection	7’-5”	10’-0”	9’-2”
25	Stress	6’-6”	6’-6”	7’-3”	60	Stress	4’-3”	4’-3”	4’-8”
	Deflection	9’-7”	13’-0”	11’-11”		Deflection	7’-2”	9’-8”	8’-11”
30	Stress	5’-11”	5’-11”	6’-8”	65	Stress	4’-1”	4’-1”	4’-6”
	Deflection	9’-1”	12’-3”	11’-3”		Deflection	7’-0”	9’-5”	8’-8”
35	Stress	5’-6”	5’-6”	6’-2”	70	Stress	3’-11”	3’-11”	4’-4”
	Deflection	8’-7”	11’-7”	10’-8”		Deflection	6’-10”	9’-3”	8’-6”
40	Stress	5’-2”	5’-2”	5’-9”	75	Stress	3’-9”	3’-9”	4’-3”
	Deflection	8’-3”	11’-1”	10’-2”		Deflection	6’-8”	9’-0”	8’-3”
45	Stress	4’-10”	4’-10”	5’-5”	80	Stress	3’-8”	3’-8”	4’-1”
	Deflection	7’-11”	10’-8”	9’-10”		Deflection	6’-6”	8’-10”	8’-1”
50	Stress	4’-7”	4’-7”	5’-2”	85	Stress	3’-6”	3’-6”	3’-11”
	Deflection	7’-8”	10’-4”	9’-6”		Deflection	6’-5”	8’-8”	7’-11”

*See page 2 for standard notes.

O-24-E
Aluminum Perforated

0.050 in

Ix: 0.59 in^4/ft
Sx: 0.294 in^3/ft
Perforation: 40%

Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)	Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)
20	Stress	6’-8”	6’-8”	7’-5”	55	Stress	4’-0”	4’-0”	4’-6”
	Deflection	9’-7”	12’-11”	11’-10”		Deflection	6’-10”	9’-3”	8’-6”
25	Stress	5’-11”	5’-11”	6’-8”	60	Stress	3’-10”	3’-10”	4’-4”
	Deflection	8’-10”	12’-0”	11’-0”		Deflection	6’-8”	8’-11”	8’-3”
30	Stress	5’-5”	5’-5”	6’-1”	65	Stress	3’-8”	3’-8”	4’-2”
	Deflection	8’-4”	11’-3”	10’-4”		Deflection	6’-5”	8’-9”	8’-0”
35	Stress	5’-0”	5’-0”	5’-7”	70	Stress	3’-7”	3’-7”	4’-0”
	Deflection	7’-11”	10’-9”	9’-10”		Deflection	6’-4”	8’-6”	7’-10”
40	Stress	4’-8”	4’-8”	5’-3”	75	Stress	3’-5”	3’-5”	3’-10”
	Deflection	7’-7”	10’-3”	9’-5”		Deflection	6’-2”	8’-4”	7’-8”
45	Stress	4’-5”	4’-5”	5’-0”	80	Stress	3’-4”	3’-4”	3’-9”
	Deflection	7’-4”	9’-10”	9’-1”		Deflection	6’-0”	8’-2”	7’-6”
50	Stress	4’-2”	4’-2”	4’-8”	85	Stress	3’-3”	3’-3”	3’-7”
	Deflection	7’-1”	9’-6”	8’-9”		Deflection	5’-11”	8’-0”	7’-4”

O-24-E
Aluminum Perforated

0.050 in

Ix: 0.39 in^4/ft
Sx: 0.221 in^3/ft
Perforation: 51%

Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)	Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)
20	Stress	5’-9”	5’-9”	6’-5”	55	Stress	3’-6”	3’-6”	3’-11”
	Deflection	8’-4”	11’-3”	10’-4”		Deflection	5’-11”	8’-0”	7’-4”
25	Stress	5’-2”	5’-2”	5’-9”	60	Stress	3’-4”	3’-4”	3’-9”
	Deflection	7’-9”	10’-5”	9’-7”		Deflection	5’-9”	7’-10”	7’-2”
30	Stress	4’-8”	4’-8”	5’-3”	65	Stress	3’-2”	3’-2”	3’-7”
	Deflection	7’-3”	9’-10”	9’-0”		Deflection	5’-7”	7’-7”	7’-0”
35	Stress	4’-4”	4’-4”	4’-10”	70	Stress	3’-1”	3’-1”	3’-5”
	Deflection	6’-11”	9’-4”	8’-7”		Deflection	5’-6”	7’-5”	6’-10”
40	Stress	4’-1”	4’-1”	4’-7”	75	Stress	2’-12”	2’-12”	3’-4”
	Deflection	6’-7”	8’-11”	8’-2”		Deflection	5’-4”	7’-3”	6’-8”
45	Stress	3’-10”	3’-10”	4’-4”	80	Stress	2’-11”	2’-11”	3’-3”
	Deflection	6’-4”	8’-7”	7’-11”		Deflection	5’-3”	7’-1”	6’-6”
50	Stress	3’-8”	3’-8”	4’-1”	85	Stress	2’-10”	2’-10”	3’-2”
	Deflection	6’-2”	8’-3”	7’-7”		Deflection	5’-2”	6’-11”	6’-5”

*See page 2 for standard notes.

Load / Span Data

O-24-W
Aluminum Perforated

0.032 in

Ix: 0.943 in^4/ft
Sx: 0.434 in^3/ft
Perforation: 10%

Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)	Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)
20	Stress	8’-1”	8’-1”	9’-0”	55	Stress	4’-10”	4’-10”	5’-5”
	Deflection	11’-2”	15’-1”	13’-10”		Deflection	8’-0”	10’-9”	9’-11”
25	Stress	7’-3”	7’-3”	8’-1”	60	Stress	4’-8”	4’-8”	5’-3”
	Deflection	10’-5”	14’-0”	12’-10”		Deflection	7’-9”	10’-6”	9’-7”
30	Stress	6’-7”	6’-7”	7’-5”	65	Stress	4’-6”	4’-6”	5’-0”
	Deflection	9’-9”	13’-2”	12’-1”		Deflection	7’-7”	10’-2”	9’-4”
35	Stress	6’-1”	6’-1”	6’-10”	70	Stress	4’-4”	4’-4”	4’-10”
	Deflection	9’-3”	12’-6”	11’-6”		Deflection	7’-4”	9’-11”	9’-2”
40	Stress	5’-9”	5’-9”	6’-5”	75	Stress	4’-2”	4’-2”	4’-8”
	Deflection	8’-10”	12’-0”	11’-0”		Deflection	7’-2”	9’-9”	8’-11”
45	Stress	5’-5”	5’-5”	6’-0”	80	Stress	4’-1”	4’-1”	4’-6”
	Deflection	8’-6”	11’-6”	10’-7”		Deflection	7’-0”	9’-6”	8’-9”
50	Stress	5’-1”	5’-1”	5’-9”	85	Stress	3’-11”	3’-11”	4’-5”
	Deflection	8’-3”	11’-1”	10’-3”		Deflection	6’-11”	9’-4”	8’-7”

O-24-W
Aluminum Perforated

0.032 in

Ix: 0.712 in^4/ft
Sx: 0.324 in^3/ft
Perforation: 23%

Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)	Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)
20	Stress	7’-0”	7’-0”	7’-10”	55	Stress	4’-3”	4’-3”	4’-8”
	Deflection	10’-2”	13’-9”	12’-8”		Deflection	7’-3”	9’-10”	9’-0”
25	Stress	6’-3”	6’-3”	7’-0”	60	Stress	4’-0”	4’-0”	4’-6”
	Deflection	9’-5”	12’-9”	11’-9”		Deflection	7’-1”	9’-6”	8’-9”
30	Stress	5’-8”	5’-8”	6’-5”	65	Stress	3’-10”	3’-10”	4’-4”
	Deflection	8’-11”	12’-0”	11’-0”		Deflection	6’-10”	9’-3”	8’-6”
35	Stress	5’-3”	5’-3”	5’-11”	70	Stress	3’-9”	3’-9”	4’-2”
	Deflection	8’-5”	11’-5”	10’-6”		Deflection	6’-8”	9’-1”	8’-4”
40	Stress	4’-11”	4’-11”	5’-6”	75	Stress	3’-7”	3’-7”	4’-0”
	Deflection	8’-1”	10’-11”	10’-0”		Deflection	6’-7”	8’-10”	8’-2”
45	Stress	4’-8”	4’-8”	5’-2”	80	Stress	3’-6”	3’-6”	3’-11”
	Deflection	7’-9”	10’-6”	9’-8”		Deflection	6’-5”	8’-8”	7’-11”
50	Stress	4’-5”	4’-5”	4’-11”	85	Stress	3’-5”	3’-5”	3’-9”
	Deflection	7’-6”	10’-2”	9’-4”		Deflection	6’-3”	8’-6”	7’-10”

*See page 2 for standard notes.

O-24-W
Aluminum Perforated

0.032 in

Ix: 0.587 in^4/ft
Sx: 0.277 in^3/ft
Perforation: 30%

Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)	Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)
20	Stress	6’-6”	6’-6”	7’-3”	55	Stress	3’-11”	3’-11”	4’-4”
	Deflection	9’-7”	12’-11”	11’-10”		Deflection	6’-10”	9’-2”	8’-5”
25	Stress	5’-9”	5’-9”	6’-6”	60	Stress	3’-9”	3’-9”	4’-2”
	Deflection	8’-10”	12’-0”	11’-0”		Deflection	6’-7”	8’-11”	8’-2”
30	Stress	5’-3”	5’-3”	5’-11”	65	Stress	3’-7”	3’-7”	4’-0”
	Deflection	8’-4”	11’-3”	10’-4”		Deflection	6’-5”	8’-8”	8’-0”
35	Stress	4’-11”	4’-11”	5’-6”	70	Stress	3’-5”	3’-5”	3’-10”
	Deflection	7’-11”	10’-8”	9’-10”		Deflection	6’-3”	8’-6”	7’-10”
40	Stress	4’-7”	4’-7”	5’-1”	75	Stress	3’-4”	3’-4”	3’-9”
	Deflection	7’-7”	10’-3”	9’-5”		Deflection	6’-2”	8’-4”	7’-7”
45	Stress	4’-4”	4’-4”	4’-10”	80	Stress	3’-3”	3’-3”	3’-7”
	Deflection	7’-3”	9’-10”	9’-0”		Deflection	6’-0”	8’-1”	7’-5”
50	Stress	4’-1”	4’-1”	4’-7”	85	Stress	3’-2”	3’-2”	3’-6”
	Deflection	7’-0”	9’-6”	8’-9”		Deflection	5’-11”	7’-11”	7’-4”

O-24-W
Aluminum Perforated

0.032 in

Ix: 0.532 in^4/ft
Sx: 0.259 in^3/ft
Perforation: 33%

Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)	Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)
20	Stress	6’-3”	6’-3”	7’-0”	55	Stress	3’-9”	3’-9”	4’-3”
	Deflection	9’-3”	12’-6”	11’-5”		Deflection	6’-7”	8’-11”	8’-2”
25	Stress	5’-7”	5’-7”	6’-3”	60	Stress	3’-7”	3’-7”	4’-0”
	Deflection	8’-7”	11’-7”	10’-8”		Deflection	6’-5”	8’-8”	7’-11”
30	Stress	5’-1”	5’-1”	5’-8”	65	Stress	3’-6”	3’-6”	3’-10”
	Deflection	8’-1”	10’-11”	10’-0”		Deflection	6’-3”	8’-5”	7’-9”
35	Stress	4’-9”	4’-9”	5’-3”	70	Stress	3’-4”	3’-4”	3’-9”
	Deflection	7’-8”	10’-4”	9’-6”		Deflection	6’-1”	8’-3”	7’-7”
40	Stress	4’-5”	4’-5”	4’-11”	75	Stress	3’-3”	3’-3”	3’-7”
	Deflection	7’-4”	9’-11”	9’-1”		Deflection	5’-11”	8’-0”	7’-4”
45	Stress	4’-2”	4’-2”	4’-8”	80	Stress	3’-1”	3’-1”	3’-6”
	Deflection	7’-1”	9’-6”	8’-9”		Deflection	5’-10”	7’-10”	7’-3”
50	Stress	3’-11”	3’-11”	4’-5”	85	Stress	3’-0”	3’-0”	3’-5”
	Deflection	6’-10”	9’-2”	8’-5”		Deflection	5’-8”	7’-8”	7’-1”

*See page 2 for standard notes.

Load / Span Data

O-24-W
Aluminum Perforated — 0.032 in

Ix: 0.418 in^4/ft
Sx: 0.215 in^3/ft
Perforation: 40%

Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)	Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)
20	Stress	5’-8”	5’-8”	6’-4”	55	Stress	3’-5”	3’-5”	3’-10”
	Deflection	8’-6”	11’-6”	10’-7”		Deflection	6’-1”	8’-3”	7’-6”
25	Stress	5’-1”	5’-1”	5’-8”	60	Stress	3’-3”	3’-3”	3’-8”
	Deflection	7’-11”	10’-8”	9’-10”		Deflection	5’-11”	8’-0”	7’-4”
30	Stress	4’-8”	4’-8”	5’-2”	65	Stress	3’-2”	3’-2”	3’-6”
	Deflection	7’-5”	10’-1”	9’-3”		Deflection	5’-9”	7’-9”	7’-2”
35	Stress	4’-4”	4’-4”	4’-10”	70	Stress	3’-1”	3’-1”	3’-5”
	Deflection	7’-1”	9’-7”	8’-9”		Deflection	5’-7”	7’-7”	7’-0”
40	Stress	4’-0”	4’-0”	4’-6”	75	Stress	2’-11”	2’-11”	3’-3”
	Deflection	6’-9”	9’-2”	8’-5”		Deflection	5’-6”	7’-5”	6’-10”
45	Stress	3’-10”	3’-10”	4’-3”	80	Stress	2’-10”	2’-10”	3’-2”
	Deflection	6’-6”	8’-9”	8’-1”		Deflection	5’-4”	7’-3”	6’-8”
50	Stress	3’-7”	3’-7”	4’-0”	85	Stress	2’-9”	2’-9”	3’-1”
	Deflection	6’-3”	8’-6”	7’-9”		Deflection	5’-3”	7’-1”	6’-6”

O-24-W
Aluminum Perforated — 0.032 in

Ix: 0.276 in^4/ft
Sx: 0.162 in^3/ft
Perforation: 51%

Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)	Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)
20	Stress	4’-11”	4’-11”	5’-6”	55	Stress	3’-0”	3’-0”	3’-4”
	Deflection	7’-5”	10’-0”	9’-2”		Deflection	5’-4”	7’-2”	6’-7”
25	Stress	4’-5”	4’-5”	4’-11”	60	Stress	2’-10”	2’-10”	3’-2”
	Deflection	6’-11”	9’-4”	8’-7”		Deflection	5’-2”	6’-11”	6’-5”
30	Stress	4’-0”	4’-0”	4’-6”	65	Stress	2’-9”	2’-9”	3’-1”
	Deflection	6’-6”	8’-9”	8’-0”		Deflection	5’-0”	6’-9”	6’-3”
35	Stress	3’-9”	3’-9”	4’-2”	70	Stress	2’-8”	2’-8”	2’-11”
	Deflection	6’-2”	8’-4”	7’-8”		Deflection	4’-11”	6’-7”	6’-1”
40	Stress	3’-6”	3’-6”	3’-11”	75	Stress	2’-7”	2’-7”	2’-10”
	Deflection	5’-11”	7’-11”	7’-4”		Deflection	4’-9”	6’-5”	5’-11”
45	Stress	3’-4”	3’-4”	3’-8”	80	Stress	2’-6”	2’-6”	2’-9”
	Deflection	5’-8”	7’-8”	7’-0”		Deflection	4’-8”	6’-4”	5’-10”
50	Stress	3’-1”	3’-1”	3’-6”	85	Stress	2’-5”	2’-5”	2’-8”
	Deflection	5’-6”	7’-5”	6’-9”		Deflection	4’-7”	6’-2”	5’-8”

*See page 2 for standard notes.

O-24-W
Aluminum Perforated

0.040 in

Ix: 1.177 in^4/ft
Sx: 0.540 in^3/ft
Perforation: 10%

Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)	Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)
20	Stress	7’-11”	7’-11”	8’-10”	55	Stress	4’-9”	4’-9”	5’-4”
	Deflection	12’-0”	16’-3”	14’-11”		Deflection	8’-7”	11’-7”	10’-8”
25	Stress	7’-1”	7’-1”	7’-11”	60	Stress	4’-7”	4’-7”	5’-1”
	Deflection	11’-2”	15’-1”	13’-10”		Deflection	8’-4”	11’-3”	10’-4”
30	Stress	6’-6”	6’-6”	7’-3”	65	Stress	4’-5”	4’-5”	4’-11”
	Deflection	10’-6”	14’-2”	13’-0”		Deflection	8’-2”	11’-0”	10’-1”
35	Stress	6’-0”	6’-0”	6’-9”	70	Stress	4’-3”	4’-3”	4’-9”
	Deflection	10’-0”	13’-6”	12’-5”		Deflection	7’-11”	10’-8”	9’-10”
40	Stress	5’-7”	5’-7”	6’-3”	75	Stress	4’-1”	4’-1”	4’-7”
	Deflection	9’-7”	12’-11”	11’-10”		Deflection	7’-9”	10’-6”	9’-7”
45	Stress	5’-4”	5’-4”	5’-11”	80	Stress	3’-12”	3’-12”	4’-5”
	Deflection	9’-2”	12’-5”	11’-5”		Deflection	7’-7”	10’-3”	9’-5”
50	Stress	5’-0”	5’-0”	5’-7”	85	Stress	3’-10”	3’-10”	4’-4”
	Deflection	8’-10”	12’-0”	11’-0”		Deflection	7’-5”	10’-0”	9’-3”

O-24-W
Aluminum Perforated

0.040 in

Ix: 0.890 in^4/ft
Sx: 0.403 in^3/ft
Perforation: 23%

Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)	Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)
20	Stress	6’-10”	6’-10”	7’-8”	55	Stress	4’-2”	4’-2”	4’-7”
	Deflection	11’-0”	14’-10”	13’-7”		Deflection	7’-10”	10’-7”	9’-8”
25	Stress	6’-2”	6’-2”	6’-10”	60	Stress	3’-12”	3’-12”	4’-5”
	Deflection	10’-2”	13’-9”	12’-7”		Deflection	7’-7”	10’-3”	9’-5”
30	Stress	5’-7”	5’-7”	6’-3”	65	Stress	3’-10”	3’-10”	4’-3”
	Deflection	9’-7”	12’-11”	11’-11”		Deflection	7’-5”	10’-0”	9’-2”
35	Stress	5’-2”	5’-2”	5’-10”	70	Stress	3’-8”	3’-8”	4’-1”
	Deflection	9’-1”	12’-3”	11’-3”		Deflection	7’-3”	9’-9”	8’-11”
40	Stress	4’-10”	4’-10”	5’-5”	75	Stress	3’-6”	3’-6”	4’-0”
	Deflection	8’-8”	11’-9”	10’-9”		Deflection	7’-1”	9’-6”	8’-9”
45	Stress	4’-7”	4’-7”	5’-1”	80	Stress	3’-5”	3’-5”	3’-10”
	Deflection	8’-4”	11’-4”	10’-5”		Deflection	6’-11”	9’-4”	8’-7”
50	Stress	4’-4”	4’-4”	4’-10”	85	Stress	3’-4”	3’-4”	3’-9”
	Deflection	8’-1”	10’-11”	10’-0”		Deflection	6’-9”	9’-2”	8’-5”

*See page 2 for standard notes.

Load / Span Data

O-24-W
Aluminum Perforated — 0.040 in

Ix: 0.733 in^4/ft
Sx: 0.345 in^3/ft
Perforation: 30%

Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)	Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)
20	Stress	6’-4”	6’-4”	7’-1”	55	Stress	3’-10”	3’-10”	4’-3”
	Deflection	10’-3”	13’-11”	12’-9”		Deflection	7’-4”	9’-11”	9’-1”
25	Stress	5’-8”	5’-8”	6’-4”	60	Stress	3’-8”	3’-8”	4’-1”
	Deflection	9’-7”	12’-11”	11’-10”		Deflection	7’-2”	9’-7”	8’-10”
30	Stress	5’-2”	5’-2”	5’-9”	65	Stress	3’-6”	3’-6”	3’-11”
	Deflection	9’-0”	12’-1”	11’-2”		Deflection	6’-11”	9’-4”	8’-7”
35	Stress	4’-10”	4’-10”	5’-4”	70	Stress	3’-5”	3’-5”	3’-9”
	Deflection	8’-6”	11’-6”	10’-7”		Deflection	6’-9”	9’-2”	8’-5”
40	Stress	4’-6”	4’-6”	5’-0”	75	Stress	3’-3”	3’-3”	3’-8”
	Deflection	8’-2”	11’-0”	10’-1”		Deflection	6’-7”	8’-11”	8’-2”
45	Stress	4’-3”	4’-3”	4’-9”	80	Stress	3’-2”	3’-2”	3’-7”
	Deflection	7’-10”	10’-7”	9’-9”		Deflection	6’-6”	8’-9”	8’-0”
50	Stress	4’-0”	4’-0”	4’-6”	85	Stress	3’-1”	3’-1”	3’-5”
	Deflection	7’-7”	10’-3”	9’-5”		Deflection	6’-4”	8’-7”	7’-10”

O-24-W
Aluminum Perforated — 0.040 in

Ix: 0.664 in^4/ft
Sx: 0.322 in^3/ft
Perforation: 33%

Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)	Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)
20	Stress	6’-2”	6’-2”	6’-10”	55	Stress	3’-8”	3’-8”	4’-2”
	Deflection	9’-11”	13’-5”	12’-4”		Deflection	7’-1”	9’-7”	8’-10”
25	Stress	5’-6”	5’-6”	6’-2”	60	Stress	3’-6”	3’-6”	4’-0”
	Deflection	9’-3”	12’-6”	11’-5”		Deflection	6’-11”	9’-4”	8’-7”
30	Stress	5’-0”	5’-0”	5’-7”	65	Stress	3’-5”	3’-5”	3’-10”
	Deflection	8’-8”	11’-9”	10’-9”		Deflection	6’-9”	9’-1”	8’-4”
35	Stress	4’-8”	4’-8”	5’-2”	70	Stress	3’-3”	3’-3”	3’-8”
	Deflection	8’-3”	11’-2”	10’-3”		Deflection	6’-7”	8’-10”	8’-1”
40	Stress	4’-4”	4’-4”	4’-10”	75	Stress	3’-2”	3’-2”	3’-6”
	Deflection	7’-11”	10’-8”	9’-9”		Deflection	6’-5”	8’-8”	7’-11”
45	Stress	4’-1”	4’-1”	4’-7”	80	Stress	3’-1”	3’-1”	3’-5”
	Deflection	7’-7”	10’-3”	9’-5”		Deflection	6’-3”	8’-6”	7’-9”
50	Stress	3’-11”	3’-11”	4’-4”	85	Stress	2’-12”	2’-12”	3’-4”
	Deflection	7’-4”	9’-11”	9’-1”		Deflection	6’-2”	8’-3”	7’-7”

*See page 2 for standard notes.

O-24-W
Aluminum Perforated

0.040 in

Ix: 0.521 in^4/ft
Sx: 0.268 in^3/ft
Perforation: 40%

Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)	Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)
20	Stress	5’-7”	5’-7”	6’-3”	55	Stress	3’-4”	3’-4”	3’-9”
	Deflection	9’-2”	12’-5”	11’-5”		Deflection	6’-7”	8’-10”	8’-1”
25	Stress	5’-0”	5’-0”	5’-7”	60	Stress	3’-3”	3’-3”	3’-7”
	Deflection	8’-6”	11’-6”	10’-7”		Deflection	6’-4”	8’-7”	7’-11”
30	Stress	4’-7”	4’-7”	5’-1”	65	Stress	3’-1”	3’-1”	3’-6”
	Deflection	8’-0”	10’-10”	9’-11”		Deflection	6’-2”	8’-4”	7’-8”
35	Stress	4’-3”	4’-3”	4’-9”	70	Stress	2’-12”	2’-12”	3’-4”
	Deflection	7’-7”	10’-3”	9’-5”		Deflection	6’-1”	8’-2”	7’-6”
40	Stress	3’-11”	3’-11”	4’-5”	75	Stress	2’-11”	2’-11”	3’-3”
	Deflection	7’-3”	9’-10”	9’-0”		Deflection	5’-11”	8’-0”	7’-4”
45	Stress	3’-9”	3’-9”	4’-2”	80	Stress	2’-10”	2’-10”	3’-2”
	Deflection	7’-0”	9’-5”	8’-8”		Deflection	5’-9”	7’-10”	7’-2”
50	Stress	3’-6”	3’-6”	3’-11”	85	Stress	2’-9”	2’-9”	3’-0”
	Deflection	6’-9”	9’-2”	8’-5”		Deflection	5’-8”	7’-8”	7’-0”

O-24-W
Aluminum Perforated

0.040 in

Ix: 0.345 in^4/ft
Sx: 0.202 in^3/ft
Perforation: 51%

Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)	Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)
20	Stress	4’-10”	4’-10”	5’-5”	55	Stress	2’-11”	2’-11”	3’-3”
	Deflection	8’-0”	10’-9”	9’-11”		Deflection	5’-8”	7’-8”	7’-1”
25	Stress	4’-4”	4’-4”	4’-10”	60	Stress	2’-10”	2’-10”	3’-2”
	Deflection	7’-5”	10’-0”	9’-2”		Deflection	5’-7”	7’-6”	6’-10”
30	Stress	4’-0”	4’-0”	4’-5”	65	Stress	2’-8”	2’-8”	3’-0”
	Deflection	7’-0”	9’-5”	8’-8”		Deflection	5’-5”	7’-3”	6’-8”
35	Stress	3’-8”	3’-8”	4’-1”	70	Stress	2’-7”	2’-7”	2’-11”
	Deflection	6’-8”	8’-11”	8’-3”		Deflection	5’-3”	7’-1”	6’-6”
40	Stress	3’-5”	3’-5”	3’-10”	75	Stress	2’-6”	2’-6”	2’-10”
	Deflection	6’-4”	8’-7”	7’-10”		Deflection	5’-2”	6’-11”	6’-5”
45	Stress	3’-3”	3’-3”	3’-7”	80	Stress	2’-5”	2’-5”	2’-9”
	Deflection	6’-1”	8’-3”	7’-7”		Deflection	5’-0”	6’-10”	6’-3”
50	Stress	3’-1”	3’-1”	3’-5”	85	Stress	2’-4”	2’-4”	2’-8”
	Deflection	5’-11”	7’-11”	7’-4”		Deflection	4’-11”	6’-8”	6’-1”

*See page 2 for standard notes.

Load / Span Data

O-24-W
Aluminum Perforated

0.050 in

Ix: 1.473 in^4/ft
Sx: 0.674 in^3/ft
Perforation: 10%

Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)	Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)
20	Stress	8’-10”	8’-10”	9’-11”	55	Stress	5’-4”	5’-4”	6’-0”
	Deflection	13’-0”	17’-6”	16’-1”		Deflection	9’-3”	12’-6”	11’-6”
25	Stress	7’-11”	7’-11”	8’-10”	60	Stress	5’-1”	5’-1”	5’-9”
	Deflection	12’-0”	16’-3”	14’-11”		Deflection	9’-0”	12’-2”	11’-2”
30	Stress	7’-3”	7’-3”	8’-1”	65	Stress	4’-11”	4’-11”	5’-6”
	Deflection	11’-4”	15’-4”	14’-1”		Deflection	8’-9”	11’-10”	10’-10”
35	Stress	6’-8”	6’-8”	7’-6”	70	Stress	4’-9”	4’-9”	5’-4”
	Deflection	10’-9”	14’-6”	13’-4”		Deflection	8’-7”	11’-6”	10’-7”
40	Stress	6’-3”	6’-3”	7’-0”	75	Stress	4’-7”	4’-7”	5’-1”
	Deflection	10’-4”	13’-11”	12’-9”		Deflection	8’-4”	11’-3”	10’-4”
45	Stress	5’-11”	5’-11”	6’-7”	80	Stress	4’-5”	4’-5”	4’-11”
	Deflection	9’-11”	13’-4”	12’-3”		Deflection	8’-2”	11’-0”	10’-2”
50	Stress	5’-7”	5’-7”	6’-3”	85	Stress	4’-4”	4’-4”	4’-10”
	Deflection	9’-7”	12’-11”	11’-10”		Deflection	8’-0”	10’-10”	9’-11”

O-24-W
Aluminum Perforated

0.050 in

Ix: 1.113 in^4/ft
Sx: 0.503 in^3/ft
Perforation: 23%

Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)	Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)
20	Stress	7’-8”	7’-8”	8’-7”	55	Stress	4’-7”	4’-7”	5’-2”
	Deflection	11’-10”	15’-11”	14’-8”		Deflection	8’-5”	11’-5”	10’-5”
25	Stress	6’-10”	6’-10”	7’-8”	60	Stress	4’-5”	4’-5”	4’-11”
	Deflection	11’-0”	14’-10”	13’-7”		Deflection	8’-2”	11’-1”	10’-2”
30	Stress	6’-3”	6’-3”	7’-0”	65	Stress	4’-3”	4’-3”	4’-9”
	Deflection	10’-4”	13’-11”	12’-10”		Deflection	8’-0”	10’-9”	9’-11”
35	Stress	5’-9”	5’-9”	6’-6”	70	Stress	4’-1”	4’-1”	4’-7”
	Deflection	9’-10”	13’-3”	12’-2”		Deflection	7’-9”	10’-6”	9’-8”
40	Stress	5’-5”	5’-5”	6’-1”	75	Stress	3’-11”	3’-11”	4’-5”
	Deflection	9’-5”	12’-8”	11’-8”		Deflection	7’-7”	10’-3”	9’-5”
45	Stress	5’-1”	5’-1”	5’-9”	80	Stress	3’-10”	3’-10”	4’-3”
	Deflection	9’-0”	12’-2”	11’-2”		Deflection	7’-5”	10’-1”	9’-3”
50	Stress	4’-10”	4’-10”	5’-5”	85	Stress	3’-9”	3’-9”	4’-2”
	Deflection	8’-8”	11’-9”	10’-10”		Deflection	7’-4”	9’-10”	9’-1”

*See page 2 for standard notes.

O-24-W
Aluminum Perforated

0.050 in

Ix: 0.918 in^4/ft
Sx: 0.0430 in^3/ft
Perforation: 30%

Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)	Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)
20	Stress	7’-1”	7’-1”	7’-11”	55	Stress	4’-3”	4’-3”	4’-9”
	Deflection	11’-1”	14’-11”	13’-9”		Deflection	7’-11”	10’-8”	9’-10”
25	Stress	6’-4”	6’-4”	7’-1”	60	Stress	4’-1”	4’-1”	4’-7”
	Deflection	10’-3”	13’-11”	12’-9”		Deflection	7’-8”	10’-4”	9’-6”
30	Stress	5’-9”	5’-9”	6’-6”	65	Stress	3’-11”	3’-11”	4’-5”
	Deflection	9’-8”	13’-1”	12’-0”		Deflection	7’-6”	10’-1”	9’-3”
35	Stress	5’-4”	5’-4”	6’-0”	70	Stress	3’-9”	3’-9”	4’-3”
	Deflection	9’-2”	12’-5”	11’-5”		Deflection	7’-4”	9’-10”	9’-1”
40	Stress	5’-0”	5’-0”	5’-7”	75	Stress	3’-8”	3’-8”	4’-1”
	Deflection	8’-10”	11’-10”	10’-11”		Deflection	7’-2”	9’-8”	8’-10”
45	Stress	4’-9”	4’-9”	5’-3”	80	Stress	3’-7”	3’-7”	4’-0”
	Deflection	8’-5”	11’-5”	10’-6”		Deflection	7’-0”	9’-5”	8’-8”
50	Stress	4’-6”	4’-6”	5’-0”	85	Stress	3’-5”	3’-5”	3’-10”
	Deflection	8’-2”	11’-0”	10’-1”		Deflection	6’-10”	9’-3”	8’-6”

O-24-W
Aluminum Perforated

0.050 in

Ix: 0.831 in^4/ft
Sx: 0.402 in^3/ft
Perforation: 33%

Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)	Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)
20	Stress	6’-10”	6’-10”	7’-8”	55	Stress	4’-2”	4’-2”	4’-7”
	Deflection	10’-9”	14’-6”	13’-3”		Deflection	7’-8”	10’-4”	9’-6”
25	Stress	6’-2”	6’-2”	6’-10”	60	Stress	3’-11”	3’-11”	4’-5”
	Deflection	9’-11”	13’-5”	12’-4”		Deflection	7’-5”	10’-0”	9’-3”
30	Stress	5’-7”	5’-7”	6’-3”	65	Stress	3’-10”	3’-10”	4’-3”
	Deflection	9’-4”	12’-8”	11’-7”		Deflection	7’-3”	9’-9”	9’-0”
35	Stress	5’-2”	5’-2”	5’-9”	70	Stress	3’-8”	3’-8”	4’-1”
	Deflection	8’-11”	12’-0”	11’-0”		Deflection	7’-1”	9’-6”	8’-9”
40	Stress	4’-10”	4’-10”	5’-5”	75	Stress	3’-6”	3’-6”	3’-11”
	Deflection	8’-6”	11’-6”	10’-7”		Deflection	6’-11”	9’-4”	8’-7”
45	Stress	4’-7”	4’-7”	5’-1”	80	Stress	3’-5”	3’-5”	3’-10”
	Deflection	8’-2”	11’-1”	10’-2”		Deflection	6’-9”	9’-1”	8’-4”
50	Stress	4’-4”	4’-4”	4’-10”	85	Stress	3’-4”	3’-4”	3’-9”
	Deflection	7’-11”	10’-8”	9’-10”		Deflection	6’-7”	8’-11”	8’-2”

*See page 2 for standard notes.

Load / Span Data

O-24-W
Aluminum Perforated

0.050 in

Ix: 0.652 in^4/ft
Sx: 0.335 in^3/ft
Perforation: 40%

Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)	Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)
20	Stress	6’-3”	6’-3”	7’-0”	55	Stress	3’-9”	3’-9”	4’-3”
	Deflection	9’-11”	13’-4”	12’-3”		Deflection	7’-1”	9’-6”	8’-9”
25	Stress	5’-7”	5’-7”	6’-3”	60	Stress	3’-7”	3’-7”	4’-0”
	Deflection	9’-2”	12’-5”	11’-5”		Deflection	6’-10”	9’-3”	8’-6”
30	Stress	5’-1”	5’-1”	5’-8”	65	Stress	3’-6”	3’-6”	3’-11”
	Deflection	8’-8”	11’-8”	10’-9”		Deflection	6’-8”	9’-0”	8’-3”
35	Stress	4’-9”	4’-9”	5’-3”	70	Stress	3’-4”	3’-4”	3’-9”
	Deflection	8’-2”	11’-1”	10’-2”		Deflection	6’-6”	8’-9”	8’-1”
40	Stress	4’-5”	4’-5”	4’-11”	75	Stress	3’-3”	3’-3”	3’-7”
	Deflection	7’-10”	10’-7”	9’-9”		Deflection	6’-4”	8’-7”	7’-11”
45	Stress	4’-2”	4’-2”	4’-8”	80	Stress	3’-2”	3’-2”	3’-6”
	Deflection	7’-7”	10’-2”	9’-4”		Deflection	6’-3”	8’-5”	7’-9”
50	Stress	3’-11”	3’-11”	4’-5”	85	Stress	3’-0”	3’-0”	3’-5”
	Deflection	7’-3”	9’-10”	9’-0”		Deflection	6’-1”	8’-3”	7’-7”

O-24-W
Aluminum Perforated

0.050 in

Ix: 0.431 in^4/ft
Sx: 0.251 in^3/ft
Perforation: 51%

Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)	Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)
20	Stress	5’-5”	5’-5”	6’-1”	55	Stress	3’-3”	3’-3”	3’-8”
	Deflection	8’-7”	11’-8”	10’-8”		Deflection	6’-2”	8’-4”	7’-7”
25	Stress	4’-10”	4’-10”	5’-5”	60	Stress	3’-2”	3’-2”	3’-6”
	Deflection	8’-0”	10’-10”	9’-11”		Deflection	6’-0”	8’-1”	7’-5”
30	Stress	4’-5”	4’-5”	4’-11”	65	Stress	3’-0”	3’-0”	3’-4”
	Deflection	7’-6”	10’-2”	9’-4”		Deflection	5’-10”	7’-10”	7’-3”
35	Stress	4’-1”	4’-1”	4’-7”	70	Stress	2’-11”	2’-11”	3’-3”
	Deflection	7’-2”	9’-8”	8’-10”		Deflection	5’-8”	7’-8”	7’-0”
40	Stress	3’-10”	3’-10”	4’-3”	75	Stress	2’-10”	2’-10”	3’-2”
	Deflection	6’-10”	9’-3”	8’-6”		Deflection	5’-7”	7’-6”	6’-10”
45	Stress	3’-7”	3’-7”	4’-0”	80	Stress	2’-8”	2’-8”	3’-0”
	Deflection	6’-7”	8’-10”	8’-2”		Deflection	5’-5”	7’-4”	6’-9”
50	Stress	3’-5”	3’-5”	3’-10”	85	Stress	2’-8”	2’-8”	2’-11”
	Deflection	6’-4”	8’-7”	7’-10”		Deflection	5’-4”	7’-2”	6’-7”

*See page 2 for standard notes.

U-24-W
Aluminum Perforated

0.032 in

Ix: 0.632 in^4/ft
Sx: 0.327 in^3/ft
Perforation: 10%

Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)	Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)
20	Stress	6’-7”	6’-7”	7’-4”	55	Stress	4’-0”	4’-0”	4’-5”
	Deflection	9’-9”	13’-3”	12’-2”		Deflection	7’-0”	9’-5”	8’-8”
25	Stress	5’-11”	5’-11”	6’-7”	60	Stress	3’-10”	3’-10”	4’-3”
	Deflection	9’-1”	12’-3”	11’-3”		Deflection	6’-9”	9’-2”	8’-5”
30	Stress	5’-5”	5’-5”	6’-0”	65	Stress	3’-8”	3’-8”	4’-1”
	Deflection	8’-7”	11’-6”	10’-7”		Deflection	6’-7”	8’-11”	8’-2”
35	Stress	5’-0”	5’-0”	5’-7”	70	Stress	3’-6”	3’-6”	3’-11”
	Deflection	8’-1”	11’-0”	10’-1”		Deflection	6’-5”	8’-8”	8’-0”
40	Stress	4’-8”	4’-8”	5’-3”	75	Stress	3’-5”	3’-5”	3’-10”
	Deflection	7’-9”	10’-6”	9’-8”		Deflection	6’-4”	8’-6”	7’-10”
45	Stress	4’-5”	4’-5”	4’-11”	80	Stress	3’-4”	3’-4”	3’-8”
	Deflection	7’-6”	10’-1”	9’-3”		Deflection	6’-2”	8’-4”	7’-8”
50	Stress	4’-2”	4’-2”	4’-8”	85	Stress	3’-2”	3’-2”	3’-7”
	Deflection	7’-3”	9’-9”	8’-11”		Deflection	6’-0”	8’-2”	7’-6”

U-24-W
Aluminum Perforated

0.032 in

Ix: 0.478 in^4/ft
Sx: 0.244 in^3/ft
Perforation: 23%

Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)	Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)
20	Stress	5’-8”	5’-8”	6’-4”	55	Stress	3’-5”	3’-5”	3’-10”
	Deflection	8’-11”	12’-0”	11’-1”		Deflection	6’-4”	8’-7”	7’-11”
25	Stress	5’-1”	5’-1”	5’-8”	60	Stress	3’-3”	3’-3”	3’-8”
	Deflection	8’-3”	11’-2”	10’-3”		Deflection	6’-2”	8’-4”	7’-8”
30	Stress	4’-8”	4’-8”	5’-2”	65	Stress	3’-2”	3’-2”	3’-6”
	Deflection	7’-9”	10’-6”	9’-8”		Deflection	6’-0”	8’-1”	7’-6”
35	Stress	4’-4”	4’-4”	4’-10”	70	Stress	3’-1”	3’-1”	3’-5”
	Deflection	7’-5”	10’-0”	9’-2”		Deflection	5’-10”	7’-11”	7’-3”
40	Stress	4’-0”	4’-0”	4’-6”	75	Stress	2’-11”	2’-11”	3’-3”
	Deflection	7’-1”	9’-7”	8’-9”		Deflection	5’-9”	7’-9”	7’-1”
45	Stress	3’-10”	3’-10”	4’-3”	80	Stress	2’-10”	2’-10”	3’-2”
	Deflection	6’-10”	9’-2”	8’-5”		Deflection	5’-7”	7’-7”	7’-0”
50	Stress	3’-7”	3’-7”	4’-0”	85	Stress	2’-9”	2’-9”	3’-1”
	Deflection	6’-7”	8’-10”	8’-2”		Deflection	5’-6”	7’-5”	6’-10”

*See page 2 for standard notes.

Load / Span Data

U-24-W
Aluminum Perforated

0.032 in

Ix: 0.394 in^4/ft
Sx: 0.209 in^3/ft
Perforation: 30%

Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)	Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)
20	Stress	5’-3”	5’-3”	5’-11”	55	Stress	3’-2”	3’-2”	3’-7”
	Deflection	8’-4”	11’-3”	10’-4”		Deflection	6’-0”	8’-1”	7’-5”
25	Stress	4’-9”	4’-9”	5’-3”	60	Stress	3’-1”	3’-1”	3’-5”
	Deflection	7’-9”	10’-6”	9’-7”		Deflection	5’-10”	7’-10”	7’-2”
30	Stress	4’-4”	4’-4”	4’-10”	65	Stress	2’-11”	2’-11”	3’-3”
	Deflection	7’-4”	9’-10”	9’-1”		Deflection	5’-8”	7’-7”	7’-0”
35	Stress	4’-0”	4’-0”	4’-5”	70	Stress	2’-10”	2’-10”	3’-2”
	Deflection	6’-11”	9’-4”	8’-7”		Deflection	5’-6”	7’-5”	6’-10”
40	Stress	3’-9”	3’-9”	4’-2”	75	Stress	2’-9”	2’-9”	3’-1”
	Deflection	6’-8”	8’-11”	8’-3”		Deflection	5’-5”	7’-3”	6’-8”
45	Stress	3’-6”	3’-6”	3’-11”	80	Stress	2’-8”	2’-8”	2’-11”
	Deflection	6’-5”	8’-7”	7’-11”		Deflection	5’-3”	7’-1”	6’-6”
50	Stress	3’-4”	3’-4”	3’-9”	85	Stress	2’-7”	2’-7”	2’-10”
	Deflection	6’-2”	8’-4”	7’-8”		Deflection	5’-2”	7’-0”	6’-5”

U-24-W
Aluminum Perforated

0.032 in

Ix: 0.357 in^4/ft
Sx: 0.195 in^3/ft
Perforation: 33%

Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)	Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)
20	Stress	5’-1”	5’-1”	5’-8”	55	Stress	3’-1”	3’-1”	3’-5”
	Deflection	8’-1”	10’-11”	10’-0”		Deflection	5’-9”	7’-9”	7’-2”
25	Stress	4’-7”	4’-7”	5’-1”	60	Stress	2’-11”	2’-11”	3’-3”
	Deflection	7’-6”	10’-2”	9’-4”		Deflection	5’-7”	7’-7”	6’-11”
30	Stress	4’-2”	4’-2”	4’-8”	65	Stress	2’-10”	2’-10”	3’-2”
	Deflection	7’-1”	9’-6”	8’-9”		Deflection	5’-6”	7’-4”	6’-9”
35	Stress	3’-10”	3’-10”	4’-4”	70	Stress	2’-9”	2’-9”	3’-1”
	Deflection	6’-9”	9’-1”	8’-4”		Deflection	5’-4”	7’-2”	6’-7”
40	Stress	3’-7”	3’-7”	4’-0”	75	Stress	2’-8”	2’-8”	2’-11”
	Deflection	6’-5”	8’-8”	7’-11”		Deflection	5’-2”	7’-0”	6’-5”
45	Stress	3’-5”	3’-5”	3’-10”	80	Stress	2’-7”	2’-7”	2’-10”
	Deflection	6’-2”	8’-4”	7’-8”		Deflection	5’-1”	6’-11”	6’-4”
50	Stress	3’-3”	3’-3”	3’-7”	85	Stress	2’-6”	2’-6”	2’-9”
	Deflection	5’-11”	8’-1”	7’-5”		Deflection	5’-0”	6’-9”	6’-2”

*See page 2 for standard notes.

U-24-W
Aluminum Perforated

0.032 in

Ix: 0.28 in^4/ft
Sx: 0.163 in^3/ft
Perforation: 40%

Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)	Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)
20	Stress	4’-8”	4’-8”	5’-2”	55	Stress	2’-10”	2’-10”	3’-2”
	Deflection	7’-5”	10’-1”	9’-3”		Deflection	5’-4”	7’-2”	6’-7”
25	Stress	4’-2”	4’-2”	4’-8”	60	Stress	2’-8”	2’-8”	3’-0”
	Deflection	6’-11”	9’-4”	8’-7”		Deflection	5’-2”	7’-0”	6’-5”
30	Stress	3’-10”	3’-10”	4’-3”	65	Stress	2’-7”	2’-7”	2’-11”
	Deflection	6’-6”	8’-10”	8’-1”		Deflection	5’-0”	6’-10”	6’-3”
35	Stress	3’-6”	3’-6”	3’-11”	70	Stress	2’-6”	2’-6”	2’-9”
	Deflection	6’-2”	8’-4”	7’-8”		Deflection	4’-11”	6’-8”	6’-1”
40	Stress	3’-3”	3’-3”	3’-8”	75	Stress	2’-5”	2’-5”	2’-8”
	Deflection	5’-11”	8’-0”	7’-4”		Deflection	4’-10”	6’-6”	5’-11”
45	Stress	3’-1”	3’-1”	3’-6”	80	Stress	2’-4”	2’-4”	2’-7”
	Deflection	5’-8”	7’-8”	7’-1”		Deflection	4’-8”	6’-4”	5’-10”
50	Stress	2’-11”	2’-11”	3’-3”	85	Stress	2’-3”	2’-3”	2’-6”
	Deflection	5’-6”	7’-5”	6’-10”		Deflection	4’-7”	6’-3”	5’-9”

U-24-W
Aluminum Perforated

0.032 in

Ix: 0.185 in^4/ft
Sx: 0.122 in^3/ft
Perforation: 51%

Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)	Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)
20	Stress	4’-0”	4’-0”	4’-6”	55	Stress	2’-5”	2’-5”	2’-9”
	Deflection	6’-6”	8’-9”	8’-1”		Deflection	4’-8”	6’-3”	5’-9”
25	Stress	3’-7”	3’-7”	4’-0”	60	Stress	2’-4”	2’-4”	2’-7”
	Deflection	6’-0”	8’-2”	7’-6”		Deflection	4’-6”	6’-1”	5’-7”
30	Stress	3’-3”	3’-3”	3’-8”	65	Stress	2’-3”	2’-3”	2’-6”
	Deflection	5’-8”	7’-8”	7’-0”		Deflection	4’-5”	5’-11”	5’-5”
35	Stress	3’-1”	3’-1”	3’-5”	70	Stress	2’-2”	2’-2”	2’-5”
	Deflection	5’-5”	7’-3”	6’-8”		Deflection	4’-3”	5’-9”	5’-4”
40	Stress	2’-10”	2’-10”	3’-2”	75	Stress	2’-1”	2’-1”	2’-4”
	Deflection	5’-2”	7’-0”	6’-5”		Deflection	4’-2”	5’-8”	5’-2”
45	Stress	2’-8”	2’-8”	3’-0”	80	Stress	2’-0”	2’-0”	2’-3”
	Deflection	5’-0”	6’-8”	6’-2”		Deflection	4’-1”	5’-6”	5’-1”
50	Stress	2’-7”	2’-7”	2’-10”	85	Stress	1’-11”	1’-11”	2’-2”
	Deflection	4’-9”	6’-6”	5’-11”		Deflection	4’-0”	5’-5”	5’-0”

*See page 2 for standard notes.

Load / Span Data

U-24-W
Aluminum Perforated

0.040 in

Ix: 0.779 in^4/ft
Sx: 0.408 in^3/ft
Perforation: 10%

Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)	Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)
20	Stress	7’-4”	7’-4”	8’-3”	55	Stress	4’-5”	4’-5”	5’-0”
	Deflection	10’-6”	14’-2”	13’-0”		Deflection	7’-6”	10’-1”	9’-3”
25	Stress	6’-7”	6’-7”	7’-4”	60	Stress	4’-3”	4’-3”	4’-9”
	Deflection	9’-9”	13’-2”	12’-1”		Deflection	7’-3”	9’-10”	9’-0”
30	Stress	6’-0”	6’-0”	6’-9”	65	Stress	4’-1”	4’-1”	4’-7”
	Deflection	9’-2”	12’-4”	11’-4”		Deflection	7’-1”	9’-7”	8’-9”
35	Stress	5’-7”	5’-7”	6’-3”	70	Stress	3’-11”	3’-11”	4’-5”
	Deflection	8’-8”	11’-9”	10’-10”		Deflection	6’-11”	9’-4”	8’-7”
40	Stress	5’-3”	5’-3”	5’-10”	75	Stress	3’-10”	3’-10”	4’-3”
	Deflection	8’-4”	11’-3”	10’-4”		Deflection	6’-9”	9’-1”	8’-4”
45	Stress	4’-11”	4’-11”	5’-6”	80	Stress	3’-8”	3’-8”	4’-1”
	Deflection	8’-0”	10’-10”	9’-11”		Deflection	6’-7”	8’-11”	8’-2”
50	Stress	4’-8”	4’-8”	5’-3”	85	Stress	3’-7”	3’-7”	4’-0”
	Deflection	7’-9”	10’-5”	9’-7”		Deflection	6’-6”	8’-9”	8’-0”

U-24-W
Aluminum Perforated

0.040 in

Ix: 0.589 in^4/ft
Sx: 0.305 in^3/ft
Perforation: 23%

Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)	Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)
20	Stress	6’-4”	6’-4”	7’-1”	55	Stress	3’-10”	3’-10”	4’-4”
	Deflection	9’-7”	12’-11”	11’-10”		Deflection	6’-10”	9’-2”	8’-5”
25	Stress	5’-8”	5’-8”	6’-4”	60	Stress	3’-8”	3’-8”	4’-1”
	Deflection	8’-10”	12’-0”	11’-0”		Deflection	6’-7”	8’-11”	8’-3”
30	Stress	5’-2”	5’-2”	5’-10”	65	Stress	3’-6”	3’-6”	3’-11”
	Deflection	8’-4”	11’-3”	10’-4”		Deflection	6’-5”	8’-8”	8’-0”
35	Stress	4’-10”	4’-10”	5’-5”	70	Stress	3’-5”	3’-5”	3’-10”
	Deflection	7’-11”	10’-8”	9’-10”		Deflection	6’-4”	8’-6”	7’-10”
40	Stress	4’-6”	4’-6”	5’-0”	75	Stress	3’-3”	3’-3”	3’-8”
	Deflection	7’-7”	10’-3”	9’-5”		Deflection	6’-2”	8’-4”	7’-8”
45	Stress	4’-3”	4’-3”	4’-9”	80	Stress	3’-2”	3’-2”	3’-7”
	Deflection	7’-3”	9’-10”	9’-0”		Deflection	6’-0”	8’-2”	7’-6”
50	Stress	4’-0”	4’-0”	4’-6”	85	Stress	3’-1”	3’-1”	3’-5”
	Deflection	7’-0”	9’-6”	8’-9”		Deflection	5’-11”	8’-0”	7’-4”

*See page 2 for standard notes.

U-24-W
Aluminum Perforated

0.040 in

Ix: 0.485 in^4/ft
Sx: 0.261 in^3/ft
Perforation: 30%

Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)	Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)
20	Stress	5’-11”	5’-11”	6’-7”	55	Stress	3’-7”	3’-7”	4’-0”
	Deflection	9’-0”	12’-1”	11’-1”		Deflection	6’-5”	8’-8”	7’-11”
25	Stress	5’-3”	5’-3”	5’-11”	60	Stress	3’-5”	3’-5”	3’-10”
	Deflection	8’-4”	11’-3”	10’-4”		Deflection	6’-3”	8’-5”	7’-8”
30	Stress	4’-10”	4’-10”	5’-5”	65	Stress	3’-3”	3’-3”	3’-8”
	Deflection	7’-10”	10’-7”	9’-8”		Deflection	6’-1”	8’-2”	7’-6”
35	Stress	4’-5”	4’-5”	5’-0”	70	Stress	3’-2”	3’-2”	3’-6”
	Deflection	7’-5”	10’-0”	9’-3”		Deflection	5’-11”	8’-0”	7’-4”
40	Stress	4’-2”	4’-2”	4’-8”	75	Stress	3’-0”	3’-0”	3’-5”
	Deflection	7’-1”	9’-7”	8’-10”		Deflection	5’-9”	7’-9”	7’-2”
45	Stress	3’-11”	3’-11”	4’-5”	80	Stress	2’-11”	2’-11”	3’-4”
	Deflection	6’-10”	9’-3”	8’-6”		Deflection	5’-8”	7’-7”	7’-0”
50	Stress	3’-9”	3’-9”	4’-2”	85	Stress	2’-10”	2’-10”	3’-2”
	Deflection	6’-7”	8’-11”	8’-2”		Deflection	5’-6”	7’-6”	6’-10”

U-24-W
Aluminum Perforated

0.040 in

Ix: 0.44 in^4/ft
Sx: 0.244 in^3/ft
Perforation: 33%

Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)	Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)
20	Stress	5’-8”	5’-8”	6’-4”	55	Stress	3’-5”	3’-5”	3’-10”
	Deflection	8’-8”	11’-8”	10’-9”		Deflection	6’-2”	8’-4”	7’-8”
25	Stress	5’-1”	5’-1”	5’-8”	60	Stress	3’-3”	3’-3”	3’-8”
	Deflection	8’-1”	10’-10”	10’-0”		Deflection	6’-0”	8’-1”	7’-5”
30	Stress	4’-8”	4’-8”	5’-2”	65	Stress	3’-2”	3’-2”	3’-6”
	Deflection	7’-7”	10’-3”	9’-5”		Deflection	5’-10”	7’-11”	7’-3”
35	Stress	4’-4”	4’-4”	4’-10”	70	Stress	3’-1”	3’-1”	3’-5”
	Deflection	7’-2”	9’-9”	8’-11”		Deflection	5’-9”	7’-8”	7’-1”
40	Stress	4’-0”	4’-0”	4’-6”	75	Stress	2’-11”	2’-11”	3’-3”
	Deflection	6’-11”	9’-3”	8’-6”		Deflection	5’-7”	7’-6”	6’-11”
45	Stress	3’-10”	3’-10”	4’-3”	80	Stress	2’-10”	2’-10”	3’-2”
	Deflection	6’-7”	8’-11”	8’-2”		Deflection	5’-6”	7’-4”	6’-9”
50	Stress	3’-7”	3’-7”	4’-0”	85	Stress	2’-9”	2’-9”	3’-1”
	Deflection	6’-5”	8’-7”	7’-11”		Deflection	5’-4”	7’-3”	6’-8”

*See page 2 for standard notes.

Load / Span Data

U-24-W
Aluminum Perforated — 0.040 in

Ix: 0.345 in^4/ft
Sx: 0.203 in^3/ft
Perforation: 40%

Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)	Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)
20	Stress	5’-2”	5’-2”	5’-10”	55	Stress	3’-2”	3’-2”	3’-6”
	Deflection	8’-0”	10’-10”	9’-11”		Deflection	5’-8”	7’-8”	7’-1”
25	Stress	4’-8”	4’-8”	5’-2”	60	Stress	2’-12”	2’-12”	3’-4”
	Deflection	7’-5”	10’-0”	9’-2”		Deflection	5’-7”	7’-6”	6’-10”
30	Stress	4’-3”	4’-3”	4’-9”	65	Stress	2’-11”	2’-11”	3’-3”
	Deflection	7’-0”	9’-5”	8’-8”		Deflection	5’-5”	7’-3”	6’-8”
35	Stress	3’-11”	3’-11”	4’-5”	70	Stress	2’-9”	2’-9”	3’-1”
	Deflection	6’-8”	8’-11”	8’-3”		Deflection	5’-3”	7’-1”	6’-6”
40	Stress	3’-8”	3’-8”	4’-1”	75	Stress	2’-8”	2’-8”	3’-0”
	Deflection	6’-4”	8’-7”	7’-10”		Deflection	5’-2”	6’-11”	6’-5”
45	Stress	3’-6”	3’-6”	3’-10”	80	Stress	2’-7”	2’-7”	2’-11”
	Deflection	6’-1”	8’-3”	7’-7”		Deflection	5’-0”	6’-10”	6’-3”
50	Stress	3’-3”	3’-3”	3’-8”	85	Stress	2’-6”	2’-6”	2’-10”
	Deflection	5’-11”	7’-11”	7’-4”		Deflection	4’-11”	6’-8”	6’-1”

U-24-W
Aluminum Perforated — 0.040 in

Ix: 0.228 in^4/ft
Sx: 0.152 in^3/ft
Perforation: 51%

Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)	Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)
20	Stress	4’-6”	4’-6”	5’-0”	55	Stress	2’-9”	2’-9”	3’-0”
	Deflection	7’-0”	9’-5”	8’-8”		Deflection	5’-0”	6’-9”	6’-2”
25	Stress	4’-0”	4’-0”	4’-6”	60	Stress	2’-7”	2’-7”	2’-11”
	Deflection	6’-6”	8’-9”	8’-0”		Deflection	4’-10”	6’-6”	6’-0”
30	Stress	3’-8”	3’-8”	4’-1”	65	Stress	2’-6”	2’-6”	2’-9”
	Deflection	6’-1”	8’-3”	7’-7”		Deflection	4’-8”	6’-4”	5’-10”
35	Stress	3’-5”	3’-5”	3’-10”	70	Stress	2’-5”	2’-5”	2’-8”
	Deflection	5’-9”	7’-10”	7’-2”		Deflection	4’-7”	6’-2”	5’-8”
40	Stress	3’-2”	3’-2”	3’-7”	75	Stress	2’-4”	2’-4”	2’-7”
	Deflection	5’-6”	7’-6”	6’-10”		Deflection	4’-6”	6’-1”	5’-7”
45	Stress	3’-0”	3’-0”	3’-4”	80	Stress	2’-3”	2’-3”	2’-6”
	Deflection	5’-4”	7’-2”	6’-7”		Deflection	4’-5”	5’-11”	5’-5”
50	Stress	2’-10”	2’-10”	3’-2”	85	Stress	2’-2”	2’-2”	2’-5”
	Deflection	5’-2”	6’-11”	6’-4”		Deflection	4’-4”	5’-10”	5’-4”

*See page 2 for standard notes.

U-24-W
Aluminum Perforated

0.050 in

Ix: 0.99 in^4/ft
Sx: 0.51 in^3/ft
Perforation: 10%

Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)	Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)
20	Stress	8’-3”	8’-3”	9’-2”	55	Stress	5’-0”	5’-0”	5’-7”
	Deflection	11’-4”	15’-4”	14’-1”		Deflection	8’-1”	10’-11”	10’-1”
25	Stress	7’-4”	7’-4”	8’-3”	60	Stress	4’-9”	4’-9”	5’-4”
	Deflection	10’-7”	14’-3”	13’-1”		Deflection	7’-11”	10’-8”	9’-9”
30	Stress	6’-9”	6’-9”	7’-6”	65	Stress	4’-7”	4’-7”	5’-1”
	Deflection	9’-11”	13’-5”	12’-4”		Deflection	7’-8”	10’-4”	9’-6”
35	Stress	6’-3”	6’-3”	7’-0”	70	Stress	4’-5”	4’-5”	4’-11”
	Deflection	9’-5”	12’-9”	11’-8”		Deflection	7’-6”	10’-1”	9’-3”
40	Stress	5’-10”	5’-10”	6’-6”	75	Stress	4’-3”	4’-3”	4’-9”
	Deflection	9’-0”	12’-2”	11’-2”		Deflection	7’-4”	9’-10”	9’-1”
45	Stress	5’-6”	5’-6”	6’-2”	80	Stress	4’-1”	4’-1”	4’-7”
	Deflection	8’-8”	11’-8”	10’-9”		Deflection	7’-2”	9’-8”	8’-10”
50	Stress	5’-2”	5’-2”	5’-10”	85	Stress	3’-12”	3’-12”	4’-6”
	Deflection	8’-4”	11’-4”	10’-5”		Deflection	7’-0”	9’-6”	8’-8”

U-24-W
Aluminum Perforated

0.050 in

Ix: 0.748 in^4/ft
Sx: 0.381 in^3/ft
Perforation: 23%

Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)	Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)
20	Stress	7’-1”	7’-1”	7’-11”	55	Stress	4’-4”	4’-4”	4’-10”
	Deflection	10’-4”	14’-0”	12’-10”		Deflection	7’-5”	10’-0”	9’-2”
25	Stress	6’-4”	6’-4”	7’-1”	60	Stress	4’-1”	4’-1”	4’-7”
	Deflection	9’-7”	13’-0”	11’-11”		Deflection	7’-2”	9’-8”	8’-11”
30	Stress	5’-10”	5’-10”	6’-6”	65	Stress	3’-11”	3’-11”	4’-5”
	Deflection	9’-0”	12’-2”	11’-3”		Deflection	7’-0”	9’-5”	8’-8”
35	Stress	5’-5”	5’-5”	6’-0”	70	Stress	3’-10”	3’-10”	4’-3”
	Deflection	8’-7”	11’-7”	10’-8”		Deflection	6’-10”	9’-2”	8’-5”
40	Stress	5’-0”	5’-0”	5’-8”	75	Stress	3’-8”	3’-8”	4’-1”
	Deflection	8’-3”	11’-1”	10’-2”		Deflection	6’-8”	9’-0”	8’-3”
45	Stress	4’-9”	4’-9”	5’-4”	80	Stress	3’-7”	3’-7”	4’-0”
	Deflection	7’-11”	10’-8”	9’-9”		Deflection	6’-6”	8’-10”	8’-1”
50	Stress	4’-6”	4’-6”	5’-0”	85	Stress	3’-5”	3’-5”	3’-10”
	Deflection	7’-7”	10’-4”	9’-5”		Deflection	6’-5”	8’-7”	7’-11”

*See page 2 for standard notes.

Load / Span Data

U-24-W
Aluminum Perforated

0.050 in

Ix: 0.616 in^4/ft
Sx: 0.326 in^3/ft
Perforation: 30%

Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)	Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)
20	Stress	6’-7”	6’-7”	7’-4”	55	Stress	4’-0”	4’-0”	4’-5”
	Deflection	9’-8”	13’-1”	12’-0”		Deflection	6’-11”	9’-4”	8’-7”
25	Stress	5’-11”	5’-11”	6’-7”	60	Stress	3’-10”	3’-10”	4’-3”
	Deflection	9’-0”	12’-2”	11’-2”		Deflection	6’-9”	9’-1”	8’-4”
30	Stress	5’-4”	5’-4”	6’-0”	65	Stress	3’-8”	3’-8”	4’-1”
	Deflection	8’-6”	11’-5”	10’-6”		Deflection	6’-7”	8’-10”	8’-1”
35	Stress	5’-0”	5’-0”	5’-7”	70	Stress	3’-6”	3’-6”	3’-11”
	Deflection	8’-1”	10’-10”	10’-0”		Deflection	6’-5”	8’-8”	7’-11”
40	Stress	4’-8”	4’-8”	5’-2”	75	Stress	3’-5”	3’-5”	3’-10”
	Deflection	7’-8”	10’-5”	9’-7”		Deflection	6’-3”	8’-5”	7’-9”
45	Stress	4’-5”	4’-5”	4’-11”	80	Stress	3’-3”	3’-3”	3’-8”
	Deflection	7’-5”	10’-0”	9’-2”		Deflection	6’-1”	8’-3”	7’-7”
50	Stress	4’-2”	4’-2”	4’-8”	85	Stress	3’-2”	3’-2”	3’-7”
	Deflection	7’-2”	9’-8”	8’-10”		Deflection	6’-0”	8’-1”	7’-5”

U-24-W
Aluminum Perforated

0.050 in

Ix: 0.558 in^4/ft
Sx: 0.304 in^3/ft
Perforation: 33%

Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)	Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)
20	Stress	6’-4”	6’-4”	7’-1”	55	Stress	3’-10”	3’-10”	4’-3”
	Deflection	9’-5”	12’-8”	11’-8”		Deflection	6’-8”	9’-1”	8’-4”
25	Stress	5’-8”	5’-8”	6’-4”	60	Stress	3’-8”	3’-8”	4’-1”
	Deflection	8’-9”	11’-9”	10’-10”		Deflection	6’-6”	8’-9”	8’-1”
30	Stress	5’-2”	5’-2”	5’-10”	65	Stress	3’-6”	3’-6”	3’-11”
	Deflection	8’-2”	11’-1”	10’-2”		Deflection	6’-4”	8’-7”	7’-10”
35	Stress	4’-10”	4’-10”	5’-5”	70	Stress	3’-5”	3’-5”	3’-10”
	Deflection	7’-9”	10’-6”	9’-8”		Deflection	6’-2”	8’-4”	7’-8”
40	Stress	4’-6”	4’-6”	5’-0”	75	Stress	3’-3”	3’-3”	3’-8”
	Deflection	7’-5”	10’-1”	9’-3”		Deflection	6’-1”	8’-2”	7’-6”
45	Stress	4’-3”	4’-3”	4’-9”	80	Stress	3’-2”	3’-2”	3’-7”
	Deflection	7’-2”	9’-8”	8’-11”		Deflection	5’-11”	8’-0”	7’-4”
50	Stress	4’-0”	4’-0”	4’-6”	85	Stress	3’-1”	3’-1”	3’-5”
	Deflection	6’-11”	9’-4”	8’-7”		Deflection	5’-10”	7’-10”	7’-2”

*See page 2 for standard notes.

U-24-W
Aluminum Perforated

0.050 in

Ix: 0.438 in^4/ft
Sx: 0.251 in^3/ft
Perforation: 40%

Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)	Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)
20	Stress	5’-9”	5’-9”	6’-6”	55	Stress	3’-6”	3’-6”	3’-11”
	Deflection	8’-8”	11’-8”	10’-9”		Deflection	6’-2”	8’-4”	7’-8”
25	Stress	5’-2”	5’-2”	5’-9”	60	Stress	3’-4”	3’-4”	3’-9”
	Deflection	8’-0”	10’-10”	10’-0”		Deflection	6’-0”	8’-1”	7’-5”
30	Stress	4’-9”	4’-9”	5’-3”	65	Stress	3’-2”	3’-2”	3’-7”
	Deflection	7’-7”	10’-3”	9’-5”		Deflection	5’-10”	7’-11”	7’-3”
35	Stress	4’-4”	4’-4”	4’-11”	70	Stress	3’-1”	3’-1”	3’-5”
	Deflection	7’-2”	9’-8”	8’-11”		Deflection	5’-8”	7’-8”	7’-1”
40	Stress	4’-1”	4’-1”	4’-7”	75	Stress	2’-12”	2’-12”	3’-4”
	Deflection	6’-10”	9’-3”	8’-6”		Deflection	5’-7”	7’-6”	6’-11”
45	Stress	3’-10”	3’-10”	4’-4”	80	Stress	2’-11”	2’-11”	3’-3”
	Deflection	6’-7”	8’-11”	8’-2”		Deflection	5’-5”	7’-4”	6’-9”
50	Stress	3’-8”	3’-8”	4’-1”	85	Stress	2’-10”	2’-10”	3’-2”
	Deflection	6’-5”	8’-7”	7’-11”		Deflection	5’-4”	7’-3”	6’-8”

U-24-W
Aluminum Perforated

0.050 in

Ix: 0.29 in^4/ft
Sx: 0.19 in^3/ft
Perforation: 51%

Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)	Load psf		Single Span (ft)	Double Span (ft)	Triple Span (ft)
20	Stress	5’-0”	5’-0”	5’-7”	55	Stress	3’-0”	3’-0”	3’-5”
	Deflection	7’-7”	10’-2”	9’-4”		Deflection	5’-5”	7’-3”	6’-8”
25	Stress	4’-6”	4’-6”	5’-0”	60	Stress	2’-11”	2’-11”	3’-3”
	Deflection	7’-0”	9’-5”	8’-8”		Deflection	5’-3”	7’-1”	6’-6”
30	Stress	4’-1”	4’-1”	4’-7”	65	Stress	2’-9”	2’-9”	3’-1”
	Deflection	6’-7”	8’-11”	8’-2”		Deflection	5’-1”	6’-11”	6’-4”
35	Stress	3’-10”	3’-10”	4’-3”	70	Stress	2’-8”	2’-8”	3’-0”
	Deflection	6’-3”	8’-5”	7’-9”		Deflection	5’-0”	6’-8”	6’-2”
40	Stress	3’-7”	3’-7”	4’-0”	75	Stress	2’-7”	2’-7”	2’-11”
	Deflection	6’-0”	8’-1”	7’-5”		Deflection	4’-10”	6’-7”	6’-0”
45	Stress	3’-4”	3’-4”	3’-9”	80	Stress	2’-6”	2’-6”	2’-10”
	Deflection	5’-9”	7’-9”	7’-2”		Deflection	4’-9”	6’-5”	5’-11”
50	Stress	3’-2”	3’-2”	3’-7”	85	Stress	2’-5”	2’-5”	2’-9”
	Deflection	5’-7”	7’-6”	6’-11”		Deflection	4’-8”	6’-3”	5’-9”

*See page 2 for standard notes.

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