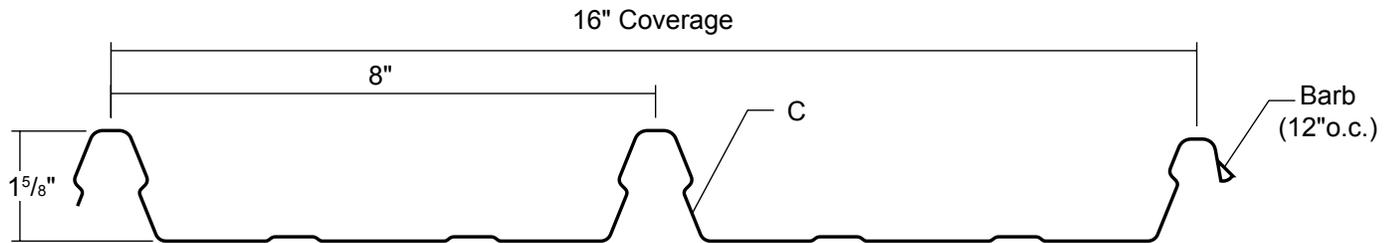


CLIP-LOC

Condensed
Technical
Reference



COMMERCIAL
INDUSTRIAL
PANEL

CONCEALED
FASTENED

16"
COVERAGE

MINIMUM
SLOPE
1:12

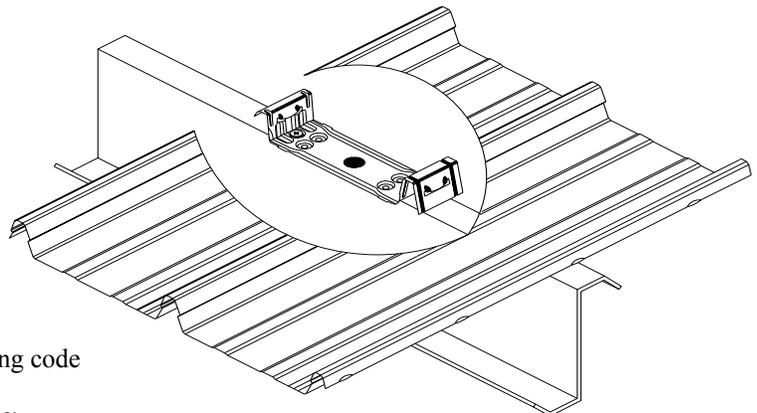
OPEN FRAMING OR
SOLID SUBSTRATE

PANEL OVERVIEW

- ▶ Finishes: PVDF and Acrylic-Coated Galvalume®
- ▶ Corrosion Protection: AZ55 per ASTM A 792 for unpainted Galvalume®
AZ50 per ASTM A 792 for painted Galvalume®
G90 per ASTM A 653 for Galvanized
- ▶ Gauges: 26 ga and 24 ga standard; 22 ga optional
- ▶ 16" panel coverage, 1⁵/₈" rib height
- ▶ Panel Length: Minimum: 5'; Maximum: 45' recommended
- ▶ Commercial, structural integral standing rib roof system
- ▶ Snap-together side lap
- ▶ Minimum roof slope: 1:12
- ▶ Accommodates up to 4" blanket insulation

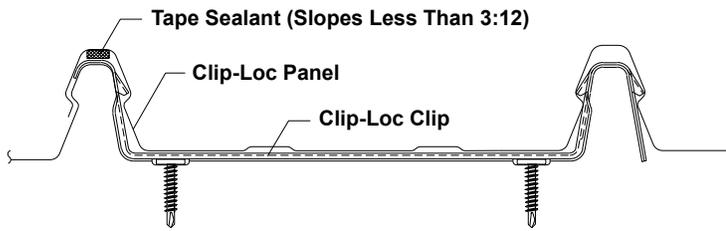
TESTING AND APPROVALS

- ▶ UL 2218 Impact Resistance - Class 4
 - ▶ UL 790 Fire Resistance Rating - Class A, per building code
 - ▶ UL 263 Fire Resistance Rating - per assembly
 - ▶ ASTM E 283 Air Leakage - 0.056 cfm/ft² at 6.24 psf*
 - ▶ ASTM E 331 Water Penetration - none at 6.24 psf*
 - ▶ ASTM E 1680 Air Leakage - 0.056 cfm/ft² at 6.24 psf*
 - ▶ ASTM E 1646 Water Penetration - none at 2.86 psf*
 - ▶ ASTM E 1592 Structural Performance
 - ▶ UL 580 Uplift Resistance - Class 90 Constructions: #586, #586A and #609
 - ▶ ICC Evaluation Report - ESR-2385
 - ▶ AISI 1996 Cantilever Diaphragm test
- * with single bead tape sealant in side lap

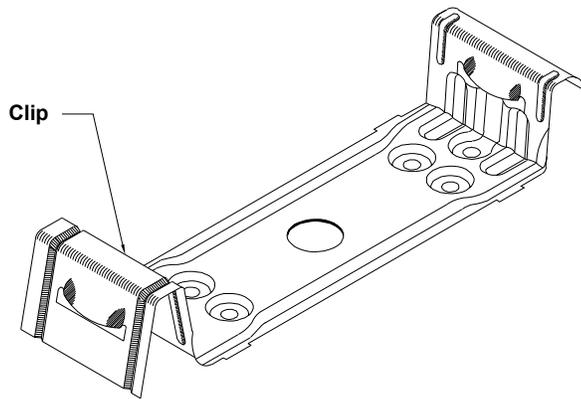


ms metal sales[™]
manufacturing corporation

ATTACHMENT DETAIL



PANEL CLIP



FASTENING INFORMATION

► Clips

Clip spacing is based upon the design loads, the spanning capacity of the panels, the fasteners and the support members.

Clip is 20 ga, G90 galvanized.

Clips can accommodate thermal expansion and contraction.

► Fasteners

Overdriven fasteners will cause panel distortions.

Fasteners should extend 1/2" or more past the inside face of the support material.

Clip Fasteners:

Attaching to Wood:

#10-12 Pancake Head Wood Screw

Attaching to Steel:

<18 ga: 1/4"-14 Deck Screw

>=18 ga, <=12 ga: #10-16 Pancake Head Driller

Exposed End Fasteners:

Attaching to Wood:

#10-14 XL Wood Screw

Attaching to Steel:

<=12 ga: #12-14 XL Driller

Trim Fasteners:

1/4"-14 x 7/8" XL Stitch Screw

SECTION PROPERTIES

| Ga | Width in | Yield ksi | Weight psf | Top In Compression | | Bottom In Compression | |
|----|-------------|--------------|---------------|----------------------------|----------------------------|----------------------------|----------------------------|
| | | | | Ixx in ⁴ /ft | Sxx in ³ /ft | Ixx in ⁴ /ft | Sxx in ³ /ft |
| 26 | 16 | 50 | 1.00 | 0.0919 | 0.0761 | 0.0473 | 0.0573 |
| 24 | 16 | 50 | 1.30 | 0.1185 | 0.0983 | 0.0638 | 0.0756 |
| 22 | 16 | 50 | 1.69 | 0.1523 | 0.1272 | 0.0878 | 0.1005 |

ALLOWABLE UNIFORM LOADS, psf For various clip spacings

| | | | | | | | | Inward Load | | | | | Outward Load | | | | | | |
|----|----|----|------|--------|--------|--------|--------|-------------|-----|------|-----|------|--------------|------|----|------|----|------|----|
| | | | | | | | | 2.5' | 3' | 3.5' | 4' | 4.5' | 5' | 2.5' | 3' | 3.5' | 4' | 4.5' | 5' |
| 26 | 16 | 50 | 1.00 | 0.0919 | 0.0761 | 0.0473 | 0.0573 | 208 | 146 | 108 | 83 | 65 | 53 | 45 | 42 | 40 | 37 | 35 | 32 |
| 24 | 16 | 50 | 1.30 | 0.1185 | 0.0983 | 0.0638 | 0.0756 | 274 | 192 | 142 | 109 | 86 | 70 | 58 | 49 | 42 | 37 | 32 | 29 |
| 22 | 16 | 50 | 1.69 | 0.1523 | 0.1272 | 0.0878 | 0.1005 | 363 | 255 | 188 | 145 | 115 | 93 | 56 | 47 | 40 | 35 | 31 | 28 |

- Theoretical section properties have been calculated per AISI 2012 'North American Specification for the Design of Cold-Formed Steel Structural Members'. Ixx and Sxx are effective section properties for deflection and bending.
- Allowable loads are calculated in accordance with AISI 2012 specifications considering bending, shear, combined bending and shear, deflection and ASTM E 1592 uplift testing. Allowable loads consider the 3 or more equal spans condition. Allowable loads do not address web crippling, fasteners or support material. Panel weight is not considered.
- Deflection consideration is limited by a maximum deflection ratio of L/180 of span.
- Allowable loads do not include a 1/3 stress increase for wind.