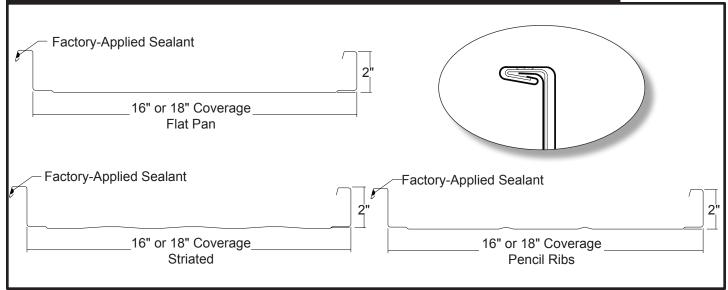
MAGNA-LOC 90





ARCHITECTURAL COMMERCIAL INDUSTRIAL PANEL

CONCEALED FASTENED

16" OR 18" COVERAGE MINIMUM SLOPE 1/2:12

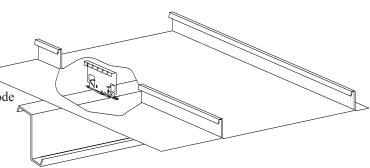
OPEN FRAMING OR SOLID SUBSTRATE

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: 24 ga standard; 22 ga optional
- ▶ 16" or 18" panel coverage, 2" rib height
- ▶ Panel Length: Minimum: 5' for striated, 7' for non-striated; Maximum: 45' recommended
- Architectural, structural vertical rib standing seam roof system
- ▶ Integral mechanically seamed side lap with factory-applied sealant
- ► Minimum roof slope: 1/2:12
- ▶ Panels can be factory-notched and punched
- Accommodates 1/2" to 6" blanket insulation

TESTING AND APPROVALS

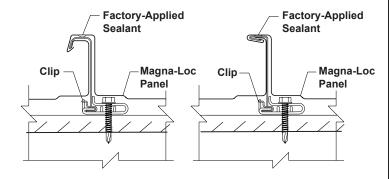
- ► UL 2218 Impact Resistance Class 4
- ► UL 790 Fire Resistance Rating Class A, per building code
- ► UL 263 Fire Resistance Rating per assembly
- ► ASTM E 1680 Air Leakage 0.016 cfm/ft² at 12 psf*
- ► ASTM E 1646 Water Penetration none at 12 psf*
- ► ASTM E 2140 Water Penetration, Static Head none*
- ► ASTM E 1592 Structural Performance
- ▶ UL 580 Uplift Resistance Class 90 Constructions: #506, #506A and #506B
- ► FM 4471 Roof Approval Class 1-90, 1-105, 1-165
- ► Texas Windstorm Evaluation RC-197
- ▶ 2020 FBC Approvals FL10999.5, FL11560.6 and FL11560.7
- ▶ Miami-Dade County, Florida NOAs 18-0901.01 and 18-0901.02 expires 12/12/2023
- ► ICC Evaluation Report ESR-2385
- * with tube sealant at clip locations





MAGNA-LOC

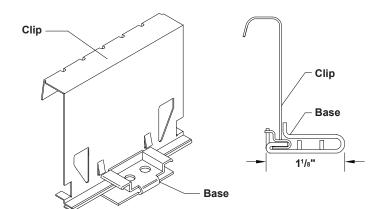
ATTACHMENT DETAILS



AFTER SEAMING

FLOATING CLIP

BEFORE SEAMING



FASTENING INFORMATION

▶ Clips

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

Clip tab is 0.034" and clip base is 0.060". Both conform to ASTM A 1008 or ASTM A 1011 and are coated with G90 per ASTM A 653. As an option, 410 stainless tabs are available.

Floating Clips can accomodate 1-1/2" of thermal movement each way.

▶ 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: #12-11 x 1-1/2" Wood Screw

Attaching to Steel:

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

>=18 ga, <=12 ga: 1/4"-14 Driller, No Washer

>12 ga: 1/4"-24 Driller, No Washer

Exposed End Fasteners:

At Eave Plate or Back-Up Channel: #12-14 XL Driller

Concealed End Fasteners:

At Eave Plate or Back-Up Channel: #12-14 Driller, No Washer

Trim Fasteners:

1/4"-14 x 7/8" XL Stitch Screw 1/8" x 3/16" Pop Rivet

ALLOWABLE UNIFORM LOADS, psf SECTION PROPERTIES For various clip spacings Top In Compression Bottom In Compression **Outward Load** Width Yield Weight **Inward Load** Ga lxx Sxx lxx Sxx ksi psf in4/ft in³/ft in⁴/ft in3/ft 2.5' 3' 3.5' 4' 5' 2' 3.5' 5' 2.5 3' 0.1785 0.1013 0.0855 0.0754 368 105 68 123 51 24 16 50 1.25 249 179 135 111 87 75 22 16 50 1.64 0.2475 0.1424 0.1178 0.1070 549 367 261 195 151 98 128 119 110 100 91 73 24 18 50 1.21 0.1620 0.0900 0.0760 0.0669 327 159 93 60 111 99 75 63 39 221 119 87 22 18 50 0.2240 0.1261 0.1047 0.0951 488 326 232 173 87 120 108 95 71 46 1.59 134 83

- 1. Theoretical section properties have been calculated per AISI 2016 'North American Specification for the Design of Cold-Formed Steel Structural Members'. Ixx and Sxx are effective section properties for deflection and bending.
- 2. Allowable load is calculated in accordance with AISI 2016 specifications considering bending, shear, combined bending & shear and deflection. Allowable load does not address web crippling, fasteners, support material or load testing. Allowable load considers the three or more equal spans condition. Panel weight is not considered.
- 3. Deflection consideration is limited by a maximum deflection ratio of L/180 of span.
- 4. Allowable loads do not include a 1/3 stress increase for wind.

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