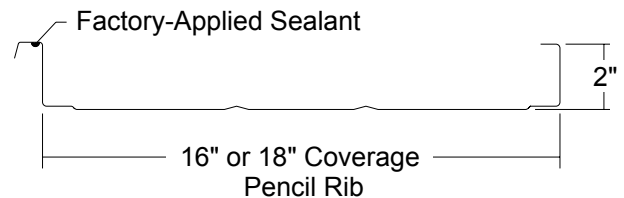
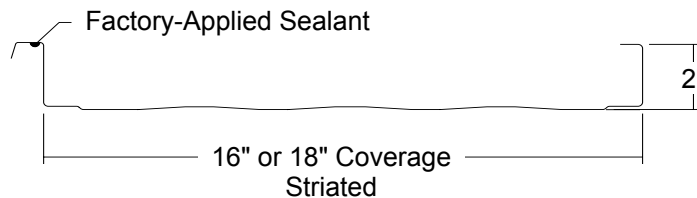
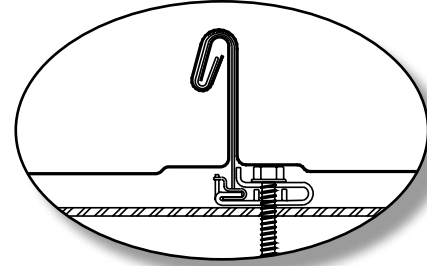
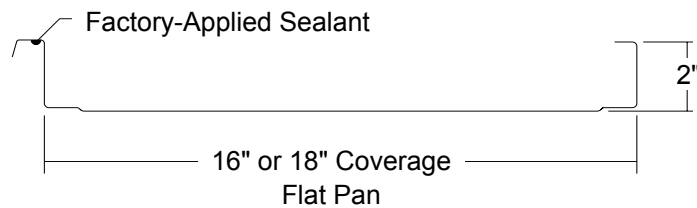


ALUMINUM MAGNA-LOC 180

Condensed
Technical
Reference



ARCHITECTURAL
COMMERCIAL
INDUSTRIAL
PANEL

CONCEALED
FASTENERS

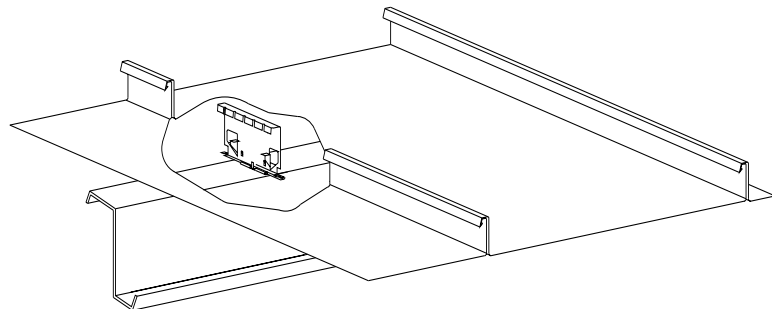
16" OR 18"
COVERAGE

MINIMUM
1/2:12 SLOPE

OPEN FRAMING OR
SOLID SUBSTRATE

PANEL OVERVIEW

- ▶ Finishes: PVDF and Mill Finish
- ▶ Material: 3003-H14 Aluminum per ASTM B 209
- ▶ Thickness: 0.032"
- ▶ 16" or 18" panel coverage, 2" rib height
- ▶ Panels can be factory notched and punched for end laps
- ▶ Architectural/structural flat pan standing seam panel
- ▶ Applies over open framing or solid substrate
- ▶ Concealed clip designed to accommodate thermal movement, 1.5" each way
- ▶ Integral, mechanically seamed side lap
- ▶ Accommodates 1/2" to 6" blanket insulation
- ▶ Factory-applied side lap sealant
- ▶ Minimum roof slope: 1/2:12



TESTING AND APPROVALS

- ▶ UL 2218, Class 4, Impact Resistance
- ▶ UL 790, Class A, Fire Resistance
- ▶ UL 263, Fire Resistance
- ▶ ASTM E 2140 Standing Water - No Leakage at 6" of water
- ▶ ASTM E 1592 Wind Uplift
- ▶ UL 580 Uplift Resistance - Class 90 Construction: #672

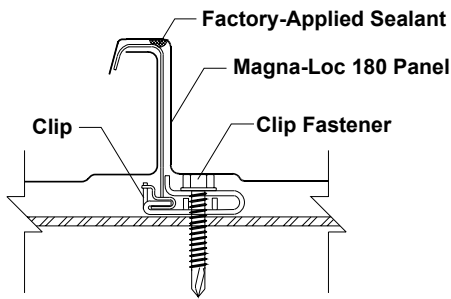
ms metal salesTM
manufacturing corporation

ALUMINUM MAGNA-LOC 180

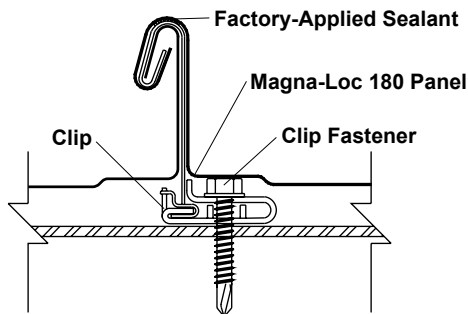
**Condensed
Technical
Reference**

ATTACHMENT DETAILS

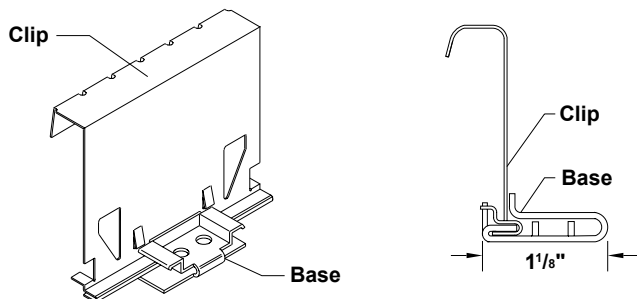
BEFORE SEAMING



AFTER SEAMING



PANEL CLIP



GENERAL INFORMATION

► Length

Minimum factory cut length is 5'-0" with striations and 7'-0" without striations.
Maximum recommended panel length is 45'-0".
Please inquire about longer panels.

► Clips

Clip spacing is based upon the spacing of structural framing members and loading requirements. Clips with Galvanized tabs are standard. Clips with Stainless Steel tabs are also available.

► Fasteners

Overdriven fasteners will cause panel distortions.

Panel and Clip fasteners should extend 1/2" or more past the inside face of the support material.

Type 304 Stainless Steel fasteners are recommended for any fastener that penetrates Aluminum.

Type of fastener material is shown in parenthesis.

Clip Fasteners:

Attaching to Wood:

#12-11 x 1.5" Wood Screw (Carbon Steel)

Attaching to Steel:

<18 ga: 1/4"-13 Deck Screw (Carbon Steel)

>= 18 ga, <= 12 ga: 1/4"-14 Driller (Carbon Steel)

> 12 ga: 1/4"-24 Driller, No Washer (Carbon Steel)

Exposed End Fasteners (Attaching to Eave Plate):

#12-14 Driller (Stainless Steel)

#12-14 Driller XL (Carbon Steel)

Concealed End Fasteners (Attaching to Eave Plate):

#12-14 Driller (Stainless Steel)

#12-14 Driller, No Washer (Carbon Steel)

Trim Fasteners:

1/8" x 3/16" Pop Rivets (Stainless Steel)

#14-11 x 1" Stitch Screw (Stainless Steel)

1/4"-14 x 7/8" Stitch Screw (Carbon Steel)

SECTION PROPERTIES

ALLOWABLE UNIFORM LOADS, psf (3 or More Equal Spans)

| Thick in | Width in | Yield ksi | Weight psf | I in ⁴ /ft | S _{Top} in ³ /ft | S _{Bottom} in ³ /ft | Inward Load | | | | | | | | | | Outward Load | | | | | |
|-------------|-------------|--------------|---------------|--------------------------|---|--|-------------|------|----|------|----|----|--------------|------|----|------|--------------|----|--|--|--|--|
| | | | | | | | Inward Load | | | | | | Outward Load | | | | | | | | | |
| | | | | | | | 2' | 2.5' | 3' | 3.5' | 4' | 5' | 2' | 2.5' | 3' | 3.5' | 4' | 5' | | | | |
| 0.032 | 16 | 17 | 0.60 | 0.2333 | 0.1321 | 0.5830 | 86 | 56 | 39 | 29 | 22 | 14 | 80 | 72 | 65 | 57 | 49 | 34 | | | | |
| 0.032 | 18 | 17 | 0.58 | 0.2133 | 0.1185 | 0.5792 | 76 | 49 | 34 | 25 | 19 | 12 | 63 | 57 | 51 | 46 | 40 | 28 | | | | |

- Section properties have been calculated per 2010 Aluminum Design Manual. I, S_{Top} and S_{Bottom} are section properties for deflection and bending.
- Allowable load is calculated in accordance with 2010 Aluminum Design Manual specifications considering bending, shear, combined bending and shear, deflection, and ASTM 1592 uplift testing. Allowable load does not address web crippling or other fasteners or support materials.
- Deflection consideration is limited by a maximum deflection ratio of L/180 of span.
- Allowable loads do not include a 1/3 stress increase in uplift.

ms metal sales
manufacturing corporation

metalsales.us.com

Anchorage, AK 866.640.7663
Bay City, MI 888.777.7640
Deer Lake, PA 800.544.2577
Denver, CO 800.289.7663

Detroit Lakes, MN 888.594.1394
Fontana, CA 800.782.7953
Fort Smith, AR 877.452.3915
Independence, MO 800.747.0012

Jacksonville, FL 800.394.4419
Jefferson, OH 800.321.5833
Mocksville, NC 800.228.6119
Nashville, TN 800.251.8508
Rock Island, IL 800.747.1206
Rogers, MN 800.328.9316

Seattle, WA 800.431.3470
Sellersburg, IN 800.999.7777
Sioux Falls, SD 888.299.0024
Spokane, WA 800.572.6565
Temple, TX 800.543.4415
Woodland, CA 800.759.6019