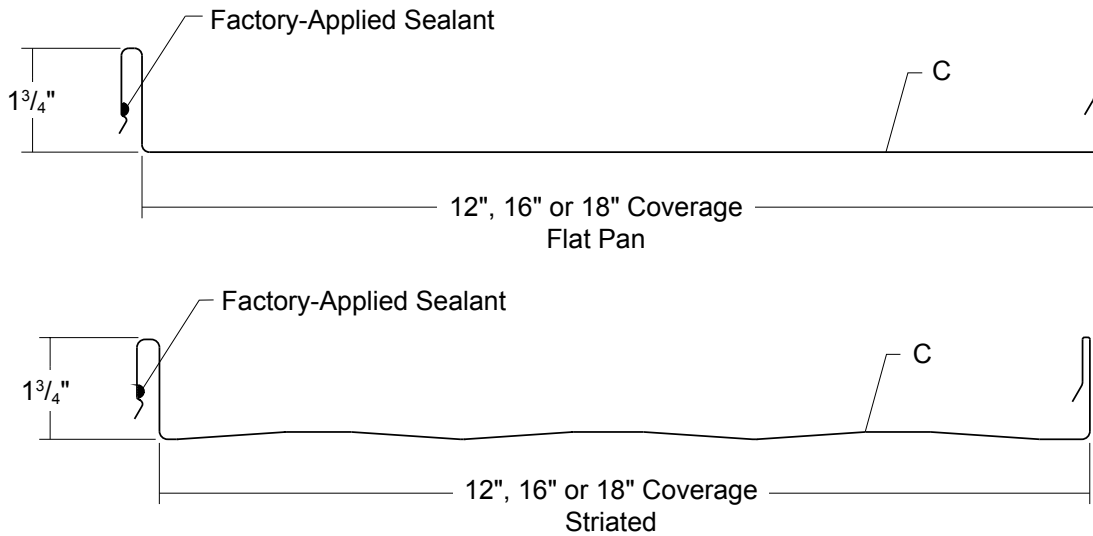


ALUMINUM VERTICAL SEAM

Condensed
Technical
Reference



ARCHITECTURAL
COMMERCIAL
PANEL

CONCEALED
FASTENERS

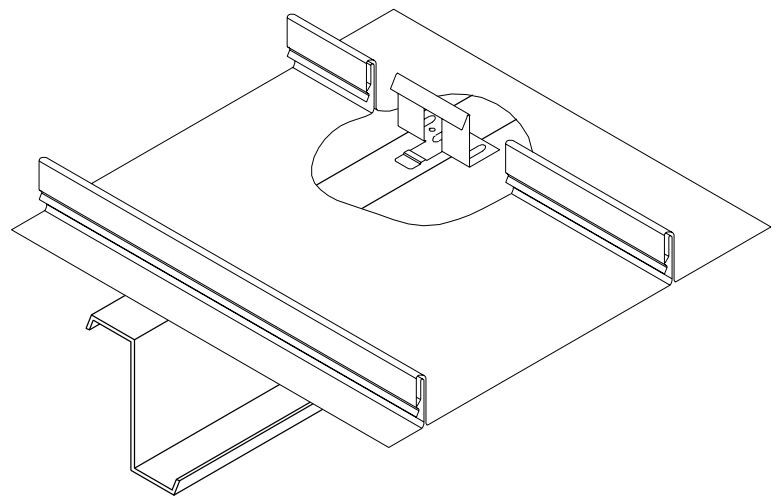
12", 16" OR 18"
COVERAGE

MINIMUM
ROOF SLOPE
1:12*

OPEN FRAMING OR
SOLID SUBSTRATE

PANEL OVERVIEW

- ▶ Finish: PVDF
 - ▶ Material: 3003-H14 or 3105-H24 Aluminum per ASTM B 209
 - ▶ Thicknesses: 0.032" Standard, 0.040" Optional
 - ▶ 12" or 16" panel coverage Standard, 18" Panel coverage Optional, 1 3/4" rib height
 - ▶ Concealed clip (0.050" thick) designed to accommodate thermal movement
 - ▶ Architectural/structural integral standing seam panel
 - ▶ Applies over open framing or solid substrate
 - ▶ Factory-applied side lap sealant
 - ▶ Snap-together panel system
- * Minimum roof slope is 1:12 for solid substrates and 3:12 for open framing.



TESTING AND APPROVALS

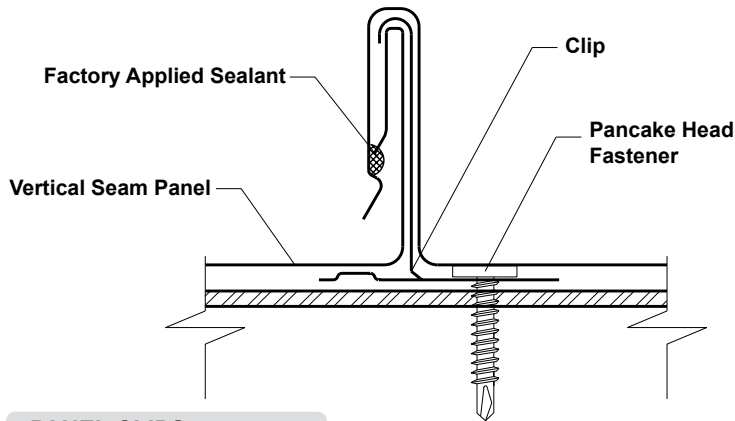
- ▶ UL 2218 Class 4, Impact Resistance
- ▶ UL 790, Class A, Fire Resistance
- ▶ UL 263, Fire Resistance
- ▶ TAS 100 - Wind Driven Rain
- ▶ UL 580, Class 90 Wind Uplift, Construction Numbers 508, 508A
- ▶ ASTM E 1592 Roof Uplift Load
- ▶ 2014 FBC Approvals: FL14645.6 and 14645.7
- ▶ ICC Evaluation Report - ESR-2385

ms metal sales[™]
manufacturing corporation

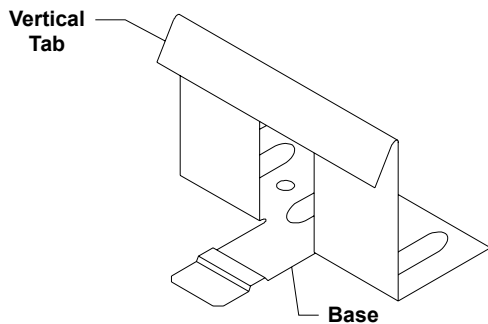
ALUMINUM VERTICAL SEAM

Condensed
Technical
Reference

ATTACHMENT DETAIL



PANEL CLIPS



UL90 CLIP
2 Fasteners

GENERAL INFORMATION

► Lengths

Minimum factory cut length is 5'-0".
Maximum recommended panel length is 45'-0".
Please inquire about longer panels.

► Clips

Galvanized clips are standard.
Stainless Steel clips are also available.

► Fasteners

Overdriven fasteners will cause panel distortion.

Panel 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 and Concealed End Fasteners:

Attaching to Wood:

#10-12 Pancake Head Wood Screw (Carbon Steel)

Attaching to 18 ga to 12 ga Steel Framing:

#10-16 Pancake Head Drillers (Carbon Steel)

Attaching to 22 ga to 18 ga Steel Deck:

1/4"-13 Deck Screw (Carbon Steel)

Exposed End Fasteners:

Attaching to Wood:

#9-15 BiMetal Wood Screw (Stainless Steel)

#10-12 Pancake Head Wood Screw (Carbon Steel)

Attaching to 18 ga to 12 ga Steel Framing:

#12-14 BiMetal Drillers (Stainless Steel)

#10-16 Pancake Head Drillers (Carbon Steel)

Attaching to 22 ga to 18 ga Steel Deck:

#12-14 BiMetal Drillers (Stainless Steel)

1/4"-13 Deck Screw (Carbon Steel)

Trim Fasteners:

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

#14-11 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				
							1'	1.5'	2'	2.5'	3'	1'	1.5'	2'	2.5'	3'-0"
							0.032	12	24	0.67	0.1670	0.1168	0.4793	313	142	80
0.032	16	24	0.61	0.1343	0.0899	0.4646	239	108	60	38	27	71	63	56	48	41

- Section properties for deflection and bending have been calculated per 2010 Aluminum Design Manual.
- Allowable load is calculated in accordance with 2010 Aluminum Design Manual specifications considering bending, shear, combined bending and shear, deflection and uplift load testing per UL 580 over 7/16" OSB. Additionally, testing further indicates the outward allowable uniform load is 97 psf with the application of a 3/8" bead of SM7108 in the rib. Outward values at 1' and 3' are based on test results. Other Outward values are determined by linear interpolation. 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.
- No testing for panels 18" wide or 0.040" thick is currently available.

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 888.902.8320
Spokane, WA 800.572.6565
Temple, TX 800.543.4415
Woodland, CA 800.759.6019

©MS1280AL VS/3-2016