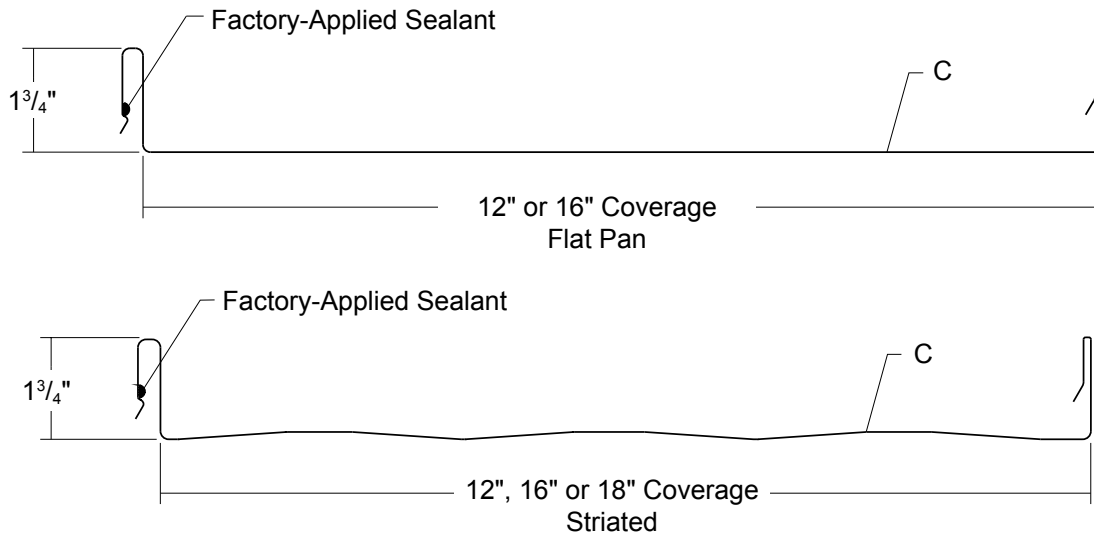


# VERTICAL SEAM • Aluminum

Condensed  
Technical  
Reference



ARCHITECTURAL  
COMMERCIAL  
PANEL

CONCEALED  
FASTENED

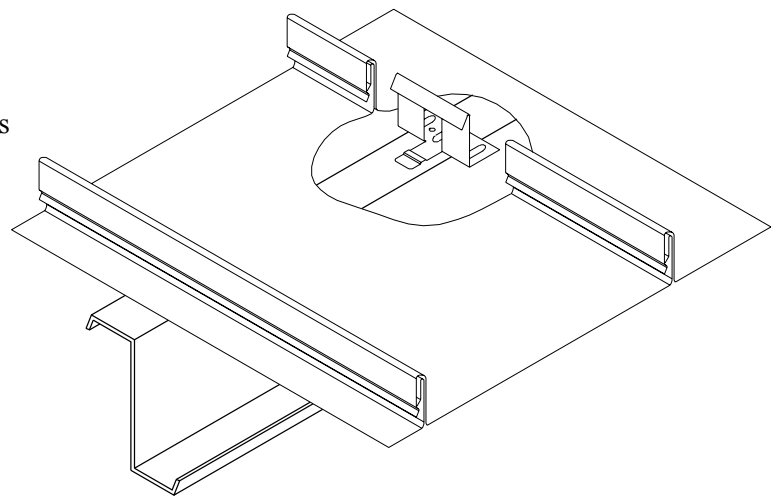
12", 16" OR 18"  
COVERAGE

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
  - ▶ 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

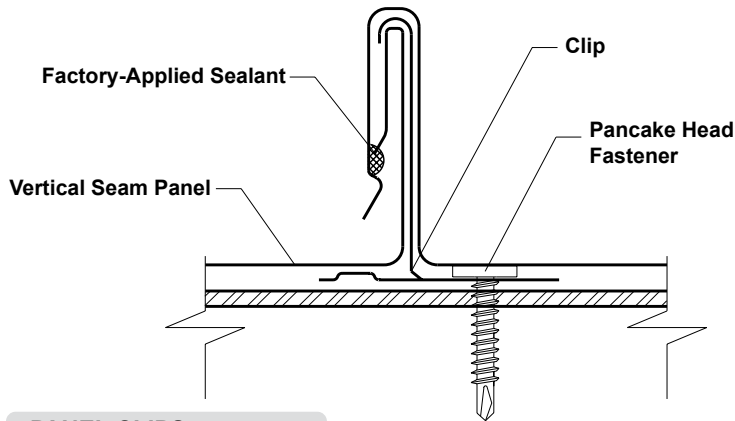
- ▶ UL 2218 Class 4, Impact Resistance
- ▶ UL 790, Class A, Fire Resistance
- ▶ UL 263, Fire Resistance
- ▶ TAS 100 - Wind Driven Rain
- ▶ UL 580, Class 90 Wind Uplift, Construction Numbers 508, 508A
- ▶ ASTM E 1592 Roof Uplift Load
- ▶ 2020 FBC Approvals: FL14645.5, 14645.6, FL40264.3 and FL40264.4
- ▶ ICC Evaluation Report, ESR-2385

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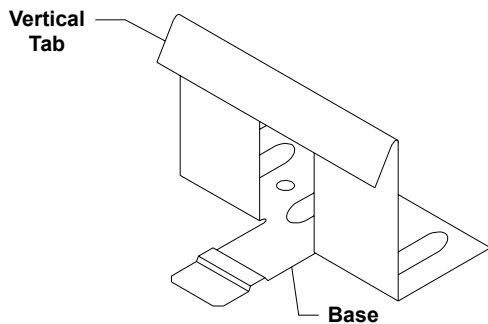
# ALUMINUM VERTICAL SEAM

**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 applications exposed to corrosive environments.

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

Thick in	Width in	Yield ksi	Weight psf	I in <sup>4</sup> /ft	S <sub>Top</sub> in <sup>3</sup> /ft	S <sub>Bottom</sub> in <sup>3</sup> /ft	Z in <sup>3</sup> /ft	ALLOWABLE UNIFORM LOADS, psf for various clip spacings									
								Inward Load					Outward Load				
								1'	1.5'	2'	2.5'	3'	1'	1.5'	2'	2.5'	3'
0.032	12	17	0.67	0.1670	0.1168	0.4793	0.196	224	143	103	79	62	71	63	56	48	41
0.040	16	17	0.61	0.1343	0.0899	0.4646	0.148	168	108	77	59	47	71	63	56	48	41

- Theoretical section properties have been calculated per 2015 Aluminum Design Manual. I, S and Z are section properties for deflection and bending.
- Allowable load is calculated in accordance with 2015 Aluminum Design Manual specifications considering bending, shear, combined bending & shear, deflection and uplift load testing per UL580 over 7/16" OSB. Additional testing indicates the outward allowable uniform load is 97 psf with the addition of a 3/8" bead of adhesive in the rib and clips spaced 12" on center. Allowable load does not consider other support conditions such as web crippling, fasteners or support material. Panel weight is not considered.
- Allowable load considers the three or more equal span case.
- 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.

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