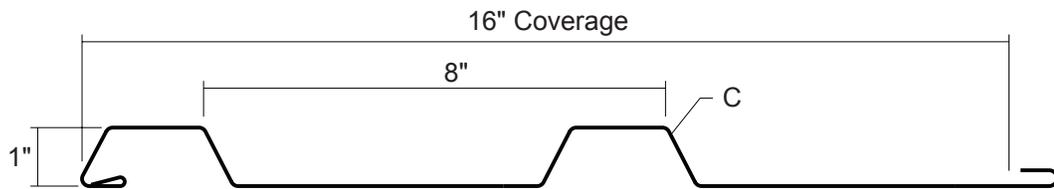


# AP1-168 WALL

Condensed  
Technical  
Reference

APEX SERIES



ARCHITECTURAL  
COMMERCIAL  
INDUSTRIAL  
PANEL

CONCEALED  
FASTENED

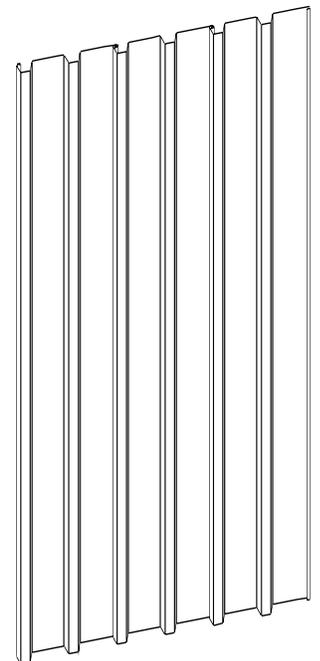
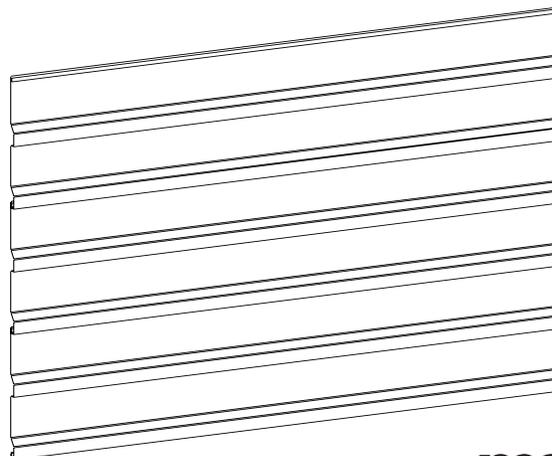
16"  
COVERAGE

WALL AND  
LINER PANEL

OPEN FRAMING OR  
SOLID SUBSTRATE

## PANEL OVERVIEW

- ▶ Finish: Standard: PVDF and Acrylic-Coated Galvalume®  
Optional: multi-pass Kynar 500® and Fluoropolymer® PURE
- ▶ Corrosion Protection: AZ50 per ASTM A 792 for Painted Galvalume®  
AZ55 per ASTM A 792 for Acrylic-Coated Galvalume®  
G90 per ASTM A 653 for Painted Galvanized
- ▶ Gauges: 24 ga standard; 22 ga and 20 ga optional
- ▶ 16" panel coverage, 1" panel height
- ▶ Trapezoidal ribs on 8" centers
- ▶ Clip-attached, concealed-fastened panel system
- ▶ Panel Length: 6' minimum, 30' maximum
- ▶ Panels can be installed horizontally or vertically
- ▶ Panels are interchangeable for accent effects
- ▶ Use on single-skin or field-assembled wall systems



## TESTING

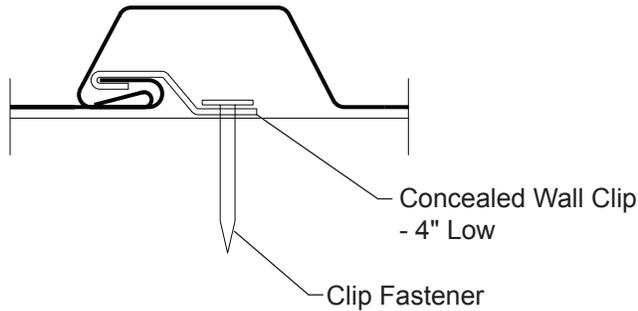
- ▶ ASTM E 283 Air Leakage
- ▶ ASTM E 331 Water Penetration
- ▶ ASTM E 330 Load Test
- ▶ ASTM E 1592 Load Test

**MMS Metal Sales**™

# AP1-168 WALL

**Condensed  
Technical  
Reference**

## PANEL ATTACHMENT



## FASTENING INFORMATION

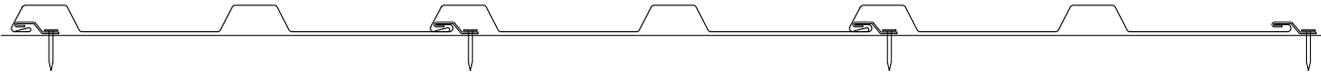
- Concealed Wall Clip - 4" Low is 1-3/4" x 4" x 3/8", from 16 ga, G90 material with 2 fastener holes.
- Clip Fastener(s) should be driven just to contact between fastener head / clip / support. Overdriven fasteners will cause panel distortions.
- Fasteners should extend 1/2" or more past the inside face of the support material for steel and wood sheathing support materials.
- Clip Fasteners:
  - Attaching to Wood:
    - #12-11 Low Profile Wood Screw
  - Attaching to Steel:
    - < 18 ga: 1/4"-13 Deck Screw
    - ≥ 18 ga, ≤ 12 ga: #12-14 Self Drilling Screw
    - > 12 ga: 1/4"-14 Self Driller, No Washer

## INSTALLATION DIRECTION

Horizontally-oriented panels must be installed from the bottom to the top.

Vertically-oriented panels may be installed from the right-to-left or left-to-right.

Left-to-Right Installation of Vertically-Oriented Panels



Right-to-Left Installation of Vertically-Oriented Panels



## SECTION PROPERTIES

## ALLOWABLE UNIFORM LOADS, psf For various clip spacings

Ga	Width in	Yield ksi	Weight psf	Top In Compression		Bottom In Compression		Inward Load					Outward Load				
				Ixx in <sup>4</sup> /ft	Sxx in <sup>3</sup> /ft	Ixx in <sup>4</sup> /ft	Sxx in <sup>3</sup> /ft	2'	3'	4'	5'	6'	2'	3'	4'	5'	6'
24	16	50	1.19	0.0345	0.0472	0.0278	0.0569	117	60	38	27	21	88	47	31	22	18
22	16	50	1.56	0.0495	0.0693	0.0390	0.0758	117	60	38	27	21	88	47	31	22	18
20	16	33	1.91	0.0690	0.0998	0.0548	0.0958	117	60	38	27	21	88	47	31	22	18

1. Theoretical section properties have been calculated per AISI S100 2016(20) '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 S100 specification considering bending, shear, combined bending & shear, deflection and load testing of comparable profiles on 16 ga girls. Allowable load does not address web crippling, fasteners or support material. Panel weight is not considered.
3. Allowable load considers the three or more equal spans condition.
4. Deflection consideration is limited by a maximum deflection ratio of L/180 of span.
5. Allowable loads do not include a 1/3 stress increase for wind.

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