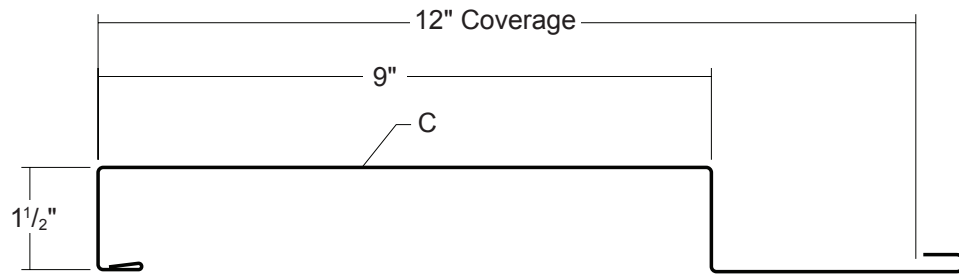


# EM15-1293 WALL

Condensed  
Technical  
Reference

EMPIRE SERIES™



ARCHITECTURAL  
COMMERCIAL  
INDUSTRIAL  
PANEL

CONCEALED  
FASTENED

12"  
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 Fluoropon® 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
- ▶ 12" panel coverage, 1 1/2" panel height, 9" box ribs on 12" centers
- ▶ Clip-attached, concealed-fastened panel system
- ▶ Panel Length: 6' minimum, 30' maximum
- ▶ Use on single-skin or field-assembled wall systems

## 4 PANEL MOCKUP

- ▶ Horizontal or vertical application
- ▶ Concealed fastener



## TESTING

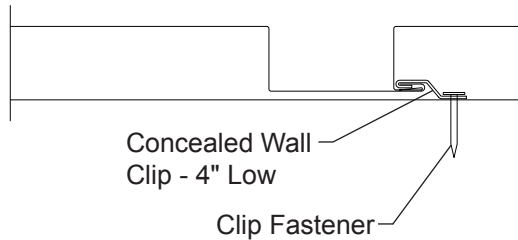
- ▶ ASTM E 283 Air Leakage, with building wrap
- ▶ ASTM E 331 Water Penetration, with building wrap
- ▶ ASTM E 330 Load Test
- ▶ ASTM E 1592 Load Test

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## PANEL ATTACHMENT



## FASTENING INFORMATION

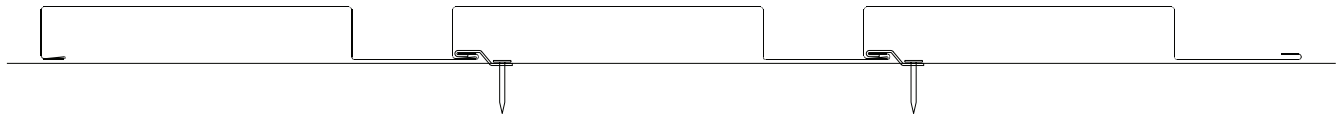
- Concealed Wall Clip - 4" Low is 1-3/4" x 4" x 3/8", from 16 ga, G90 material with 2 fastener holes.
- Clip Fastener(s) should be driven just to contact between fastener head / clip / support. Over-driven fasteners can cause panel distortions.
- Fasteners should extend 1/2" or more past the inside face 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: #10-16 Pancake Head Driller
    - > 12 ga: 1/4"-14 Self Driller, No Washer

## INSTALLATION DIRECTION

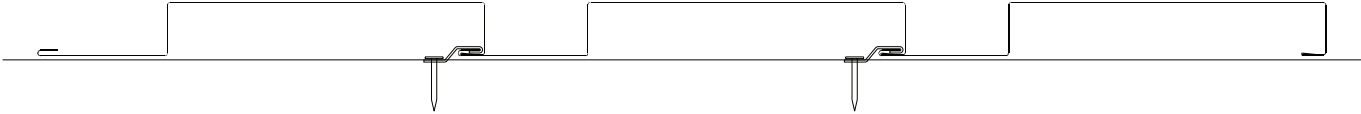
Horizontally-oriented panels must be installed from the bottom to the top.

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	12	50	1.33	0.0640	0.0600	0.1156	0.1083	117	60	38	27	21	103	58	39	30	24
22	12	50	1.74	0.0929	0.0901	0.1618	0.1555	117	60	38	27	21	103	58	39	30	24
20	12	33	2.12	0.1346	0.1392	0.2191	0.2198	117	60	38	27	21	103	58	39	30	24

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 loads are calculated in accordance with AISI 2016 specifications considering bending, shear, combined bending & shear, deflection, load testing on 16 ga girls and load testing of comparable profiles. Panel weight is not considered. Allowable loads do not consider other support conditions including web crippling, fasteners or support materials.
3. Allowable loads consider the 3 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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