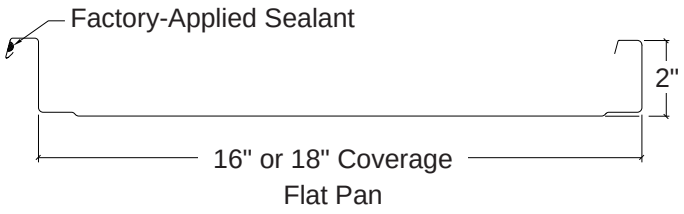
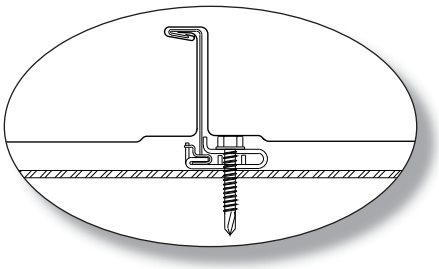
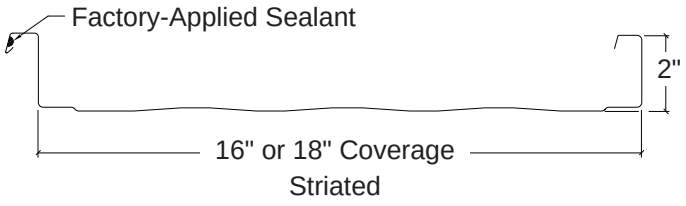
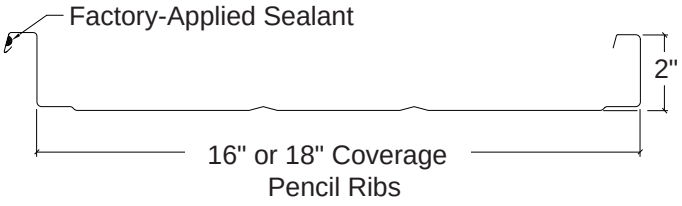
MAGNA-LOC

CONDENSED TECHNICAL REFERENCE





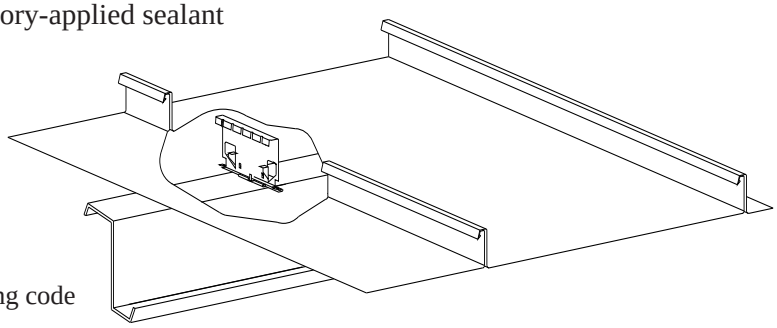




ARCHITECTURAL COMMERCIAL INDUSTRIAL PANEL | **CONCEALED FASTENED** | **16" OR 18" COVERAGE** | **MINIMUM SLOPE 1/2:12** | **OPEN FRAMING OR SOLID SUBSTRATE**

PANEL OVERVIEW

- Finishes: PVDF (Kynar 500®) and Acrylic Coated Galvalume®
- Corrosion Protection: AZ55 per ASTM A 792 for unpainted Galvalume®
  AZ50 per ASTM A 792 for painted Galvalume®
  G90 per ASTM A 653 for Galvanized
- Gauges: 24 ga standard; 22 ga and 20 ga optional
- 16" or 18" panel coverage, 2" rib height
- Panel Length: Minimum: 5' for striated, 7' for non-striated; Maximum: 45' recommended
- Architectural, structural vertical rib standing seam roof system
- Integral mechanically seamed side lap with factory-applied sealant
- Minimum roof slope: 1/2:12
- Panels can be factory-notched and punched
- Accommodates 1/2" to 6" blanket insulation



TESTING AND APPROVALS

- UL 2218 Impact Resistance - Class 4
- UL 790 Fire Resistance Rating - Class A, per building code
- UL 263 Fire Resistance Rating - per assembly
- ASTM E 1680 Air Leakage - 0.016 cfm/ft^2 at 12 psf*
- ASTM E 1646 Water Penetration - none at 12 psf*
- ASTM E 2140 Water Penetration, Static Head - none*
- ASTM E 1592 Structural Performance
- UL 580 Uplift Resistance - Class 90 Constructions: #506, #506A and #506B
- FM 4471 Roof Approval - Class 1-90, 1-105, 1-165
- Texas Wind Storm - Evaluation RC-197
- 2010 FBC Approvals - FL10999.5, FL11560.5 and FL11560.6
- Miami-Dade County, Florida NOA 08-1014.08
- Miami-Dade County, Florida NOA 08-1006.04

* with tube sealant at clip locations

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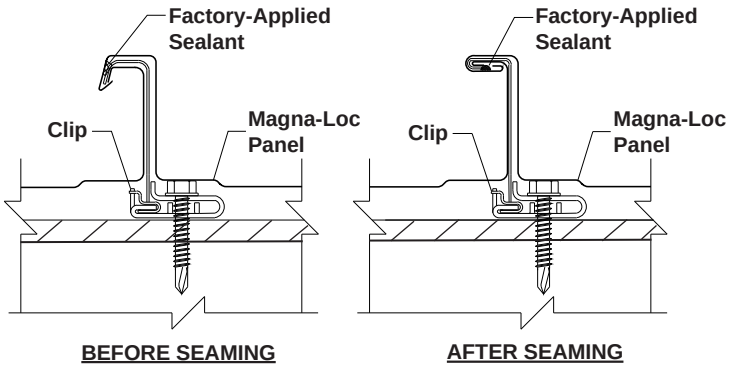
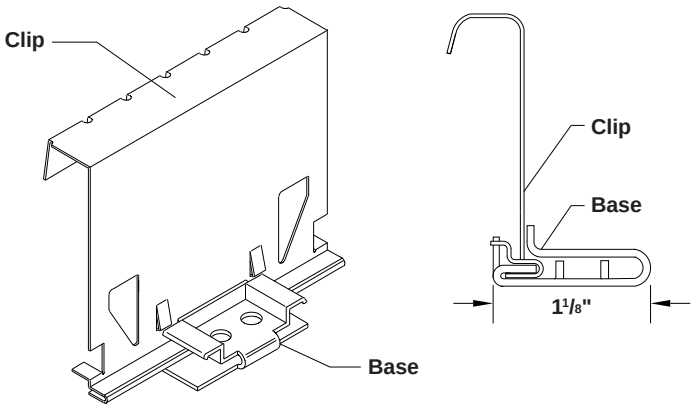
MAGNA-LOC

CONDENSED TECHNICAL REFERENCE

ATTACHMENT DETAILS



FLOATING CLIP



FASTENING INFORMATION

▶ Clips

Clip spacing is based upon the design loads, the spanning capacity of the panels, the fasteners and the support members.

Clip Tabs are 0.034" thick, G90 is standard, 410 stainless is optional. Clip base is 0.060" thick, G60.

Floating Clips can accomodate 1-1/2" of thermal movement each way.

▶ Fasteners

Overdriven fasteners will cause panel distortions.

Fasteners should extend 1/2" or more past the inside face of the support material.

Clip Fasteners:
- Attaching to Wood:
  - #12-11 x 1-1/2" Wood Screw
- Attaching to Steel:
  - <18 ga: 1/4"-14 Deck Screw
  - >=18 ga, <=12 ga: 1/4"-14 Driller, No Washer
  - >12 ga: 1/4"-24 Driller, No Washer

Exposed End Fasteners:
- At Eave Plate or Back-Up Channel:
  - #12-14 XL Driller

Concealed End Fasteners:
- At Eave Plate or Back-Up Channel:
  - #12-14 Driller, No Washer

Trim Fasteners:
- 1/4"-14 x 7/8" XL Stitch Screw
- 1/8" x 3/16" Pop Rivet

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^4/ft	Sxx in^3/ft	Ixx in^4/ft	Sxx in^3/ft	2.5'	3'	3.5'	4'	4.5'	5'	2.5'	3'	3.5'	4'	4.5'	5'
24	16	50	1.25	0.1785	0.1013	0.0855	0.0754	249	179	135	105	83	68	111	99	87	75	63	51
22	16	50	1.64	0.2475	0.1424	0.1178	0.1070	367	261	195	151	120	98	119	110	101	92	83	74
20	16	33	2.02	0.3165	0.1831	0.1643	0.1474	330	236	176	136	109	89	119	110	101	92	83	74
24	18	50	1.21	0.1620	0.0900	0.0760	0.0669	221	159	119	93	74	60	68	62	56	50	43	37
22	18	50	1.58	0.2233	0.1255	0.1047	0.0947	326	232	173	134	107	87	78	73	68	62	57	52
20	18	33	1.96	0.2893	0.1640	0.1460	0.1310	293	209	157	121	97	79	78	73	68	62	57	52

1. Theoretical section properties have been calculated per AISI 2007 '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 2007 specifications considering bending, shear, combined bending and shear and deflection. Allowable loads consider the 3 or more equal spans condition. Allowable loads do not address web crippling, fasteners, support material or load testing. Panel weight is not considered.
3. Deflection consideration is limited by a maximum deflection ratio of L/180 of span.
4. Allowable loads do not include a 1/3 stress increase for wind.

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