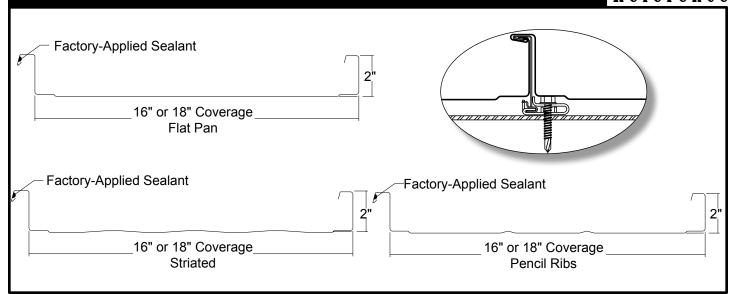
MAGNA-LOC

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

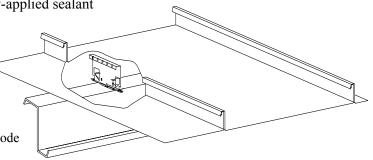
- ► Finishes: PVDF and Acrylic-Coated Galvalume®
- ► Corrosion Protection: AZ55 per ASTM A 792 for unpainted Galvalume® AZ50 per ASTM A 792 for painted Galvalume®

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

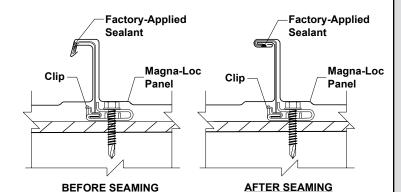
- ► UL 2218 Impact Resistance Class 4
- ► UL 790 Fire Resistance Rating Class A, per building code
- ▶ UL 263 Fire Resistance Rating per assembly
- ► ASTM E 1680 Air Leakage 0.016 cfm/ft² at 12 psf*
- ► ASTM E 1646 Water Penetration none at 12 psf*
- ► ASTM E 2140 Water Penetration, Static Head none*
- ► 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 Windstorm Evaluation RC-197
- ▶ 2014 FBC Approvals FL10999.5, FL11560.6 and FL11560.7
- ▶ Miami-Dade County, Florida NOAs 13-0905.02 and 13-0905.03 expires 12/12/2018
- ► ICC Evaluation Report ESR-2385
- * with tube sealant at clip locations



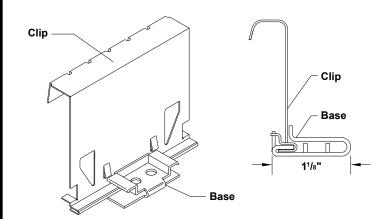


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ATTACHMENT DETAILS



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 Compre			ompression	Inward Load						Outward Load						
				lxx in⁴/ft	Sxx in³/ft	lxx in⁴/ft	Sxx in³/ft	IIIWalu Loau					Outward Load							
								2'	2.5'	3'	3.5'	4'	5'	2'	2.5	3'	3.5'	4'	5'	
24	16	50	1.25	0.1785	0.1013	0.0855	0.0754	368	249	179	135	105	68	123	111	99	87	75	51	
22	16	50	1.64	0.2475	0.1424	0.1178	0.1070	549	367	261	195	151	98	128	119	110	100	91	73	
20	16	33	2.02	0.3165	0.1831	0.1643	0.1474	492	330	236	176	136	89	136	123	110	98	85	60	
24	18	50	1.21	0.1620	0.0900	0.0760	0.0669	327	221	159	119	93	60	111	99	87	75	63	39	
22	18	50	1.59	0.2240	0.1261	0.1047	0.0951	488	326	232	173	134	87	120	108	95	83	71	46	
20	18	33	1.96	0.2893	0.1640	0.1460	0.1310	437	293	209	157	121	79	124	112	100	88	76	52	

- 1. Theoretical section properties have been calculated per AISI 2012 '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 2012 specifications considering bending, shear, combined bending and shear, deflection and uplift load testing on 16 ga purlins. Allowable loads consider the 3 or more equal spans condition. Allowable loads do not address web crippling, fasteners or support material. 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.

TIS metal sales manufacturing corporation

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