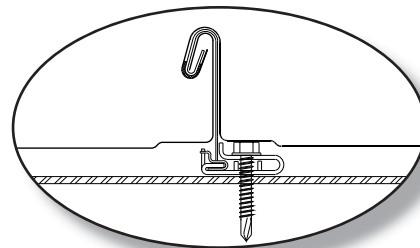
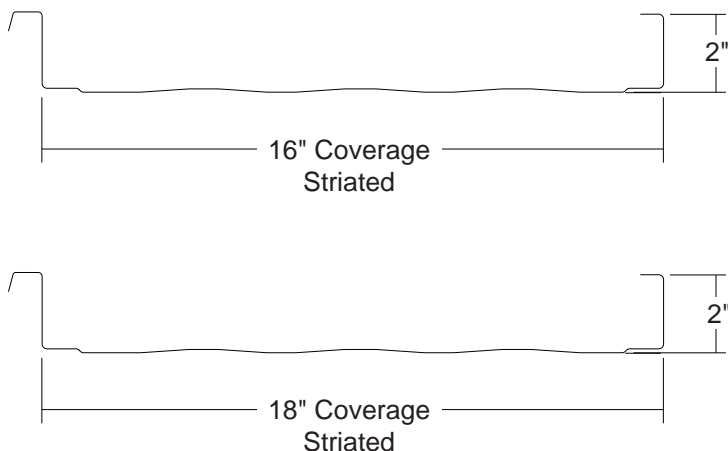


CURVED MAGNA-LOC



ARCHITECTURAL
COMMERCIAL
INDUSTRIAL
PANEL

CONCEALED
FASTENERS

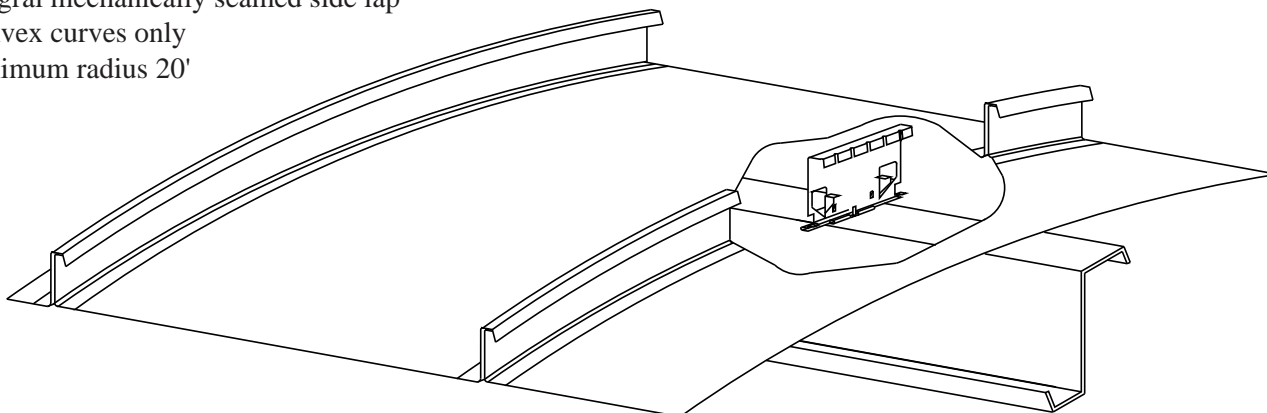
16" OR 18"
COVERAGE

MINIMUM
RADIUS
20'

OPEN FRAMING OR
SOLID SUBSTRATE

PANEL OVERVIEW

- ▶ Finishes: Kynar 500 (PVDF) and Acrylic Coated Galvalume®
- ▶ Gauges: 24ga standard, 22ga optional
- ▶ 16" or 18" panel coverage, 2" rib height
- ▶ Panels can be factory notched and punched
- ▶ Architectural/Structural flat pan standing seam panel
- ▶ Applies over open framing or solid substrate
- ▶ Concealed clip designed to accommodate thermal movement
- ▶ Side lap sealant applied after curving of panel
- ▶ Accommodates 1/2" to 6" blanket insulation
- ▶ Integral mechanically seamed side lap
- ▶ Convex curves only
- ▶ Minimum radius 20'



TESTING

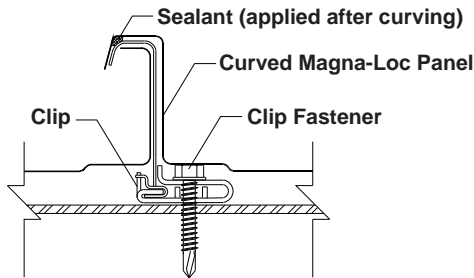
- ▶ ASTM E-1592 Wind Uplift
- ▶ ASTM E-1680 Air Penetration
- ▶ ASTM E-1646 Water Infiltration
- ▶ UL 580 Class 90 Wind Uplift, Construction Number 506, 506A, 506B (16" Panel Only)

metal sales
manufacturing corporation

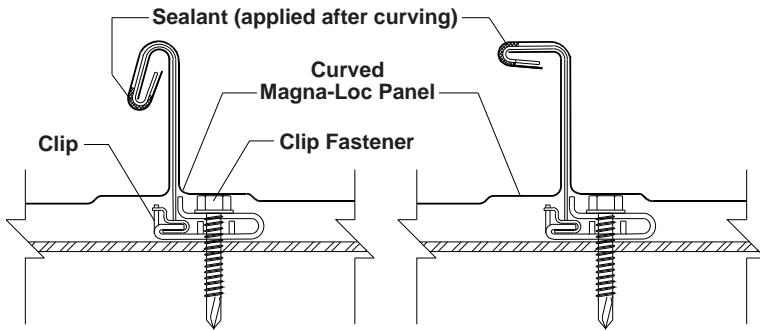
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CURVED MAGNA-LOC

ATTACHMENT DETAILS



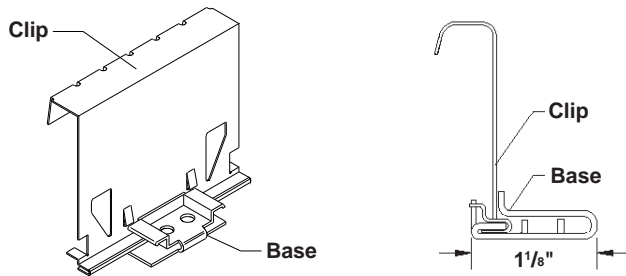
BEFORE SEAMING



180° SEAM AFTER SEAMING

90° SEAM AFTER SEAMING

PANEL CLIP



GENERAL INFORMATION

► Radius

The minimum recommended radius for the Curved Magna-Loc roof panel is 20' for 90° seam and 50' for 180° seam. The maximum radius for 90° seam is 110'. There is no maximum for the 180° seam.

► Substructure

Curved Magna-Loc is designed to be utilized over open structural framing or a solid substrate. Substrate must follow the curve of the specified radius.

► Clips

Clip spacing is based upon the spacing of structural framing members and loading requirements.

► Coverage

Magna-Loc 180 panels are available in a 2" seam height with a 16" or 18" width coverage.

► Length

Minimum factory cut length is 5'-0" (with striations). Maximum recommended panel length is 45'-0". Longer panels require additional consideration in packaging, shipping, and erection. Please consult Metal Sales for recommendations.

► Fasteners

The fastener selection guide should be consulted for choosing the proper fastener for specific applications. Quantity and type of fastener must meet necessary loading and code requirements.

NOTE: All panels are subject to surface distortion due to improperly applied fasteners. Overdriven fasteners will cause stress and induce oil canning across the face of the panel at or near the point of attachment.

► Availability

Finishes: Acrylic Coated Galvalume® or various Kynar 500 (PVDF) colors.

Gauges: 24ga, 22ga optional

SECTION PROPERTIES

Ga.	Seam	Width (in.)	Yield KSI	Weight PSF	Top in Compression		Bottom in Compression		ALLOWABLE UNIFORM LIVE LOADS PSF (3 or More Equal Spans)											
					Ixx In ⁴ /ft	Sxx In ³ /ft	Ixx In ⁴ /ft	Sxx In ³ /ft	Inward Load			Outward Load								
									1'	2'	2.5'	3'	4'	5'						
24	180°	16"	50	1.24	0.1403	0.0772	0.0720	0.0656	530	215	158	121	78	55	146	119	105	92	64	37
24	180°	18"	50	1.21	0.0691	0.0320	0.0640	0.0583	471	191	140	107	63	40	115	95	85	75	46	30
24	90°	16"	50	1.24	0.1695	0.0953	0.0840	0.0750	568	233	172	132	86	61	52	52	52	52	52	52

- Theoretical section properties have been calculated per AISI 2001 "Specification for the Design of Cold-formed Steel Structural Members." Ixx and Sxx are effective section properties for deflection and bending.
- For 180° Seam the allowable load is calculated in accordance with AISI 2001 specifications considering bending, shear, combined bending and shear, deflection, and ASTM E 1592 testing.
- For 90° Seam the allowable load is calculated in accordance with AISI 2001 specifications, considering bending, shear, combined bending and shear, deflection, and UL 580 Class 90 results.
- Allowable load considers the worst case of 3 and 4 equal span conditions. Allowable load does not address web crippling or fasteners/support connection and panel weight is not considered.
- Deflection consideration is limited by a maximum deflection ratio of L/180.
- Allowable loads do not include a 1/3 stress increase in uplift.



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