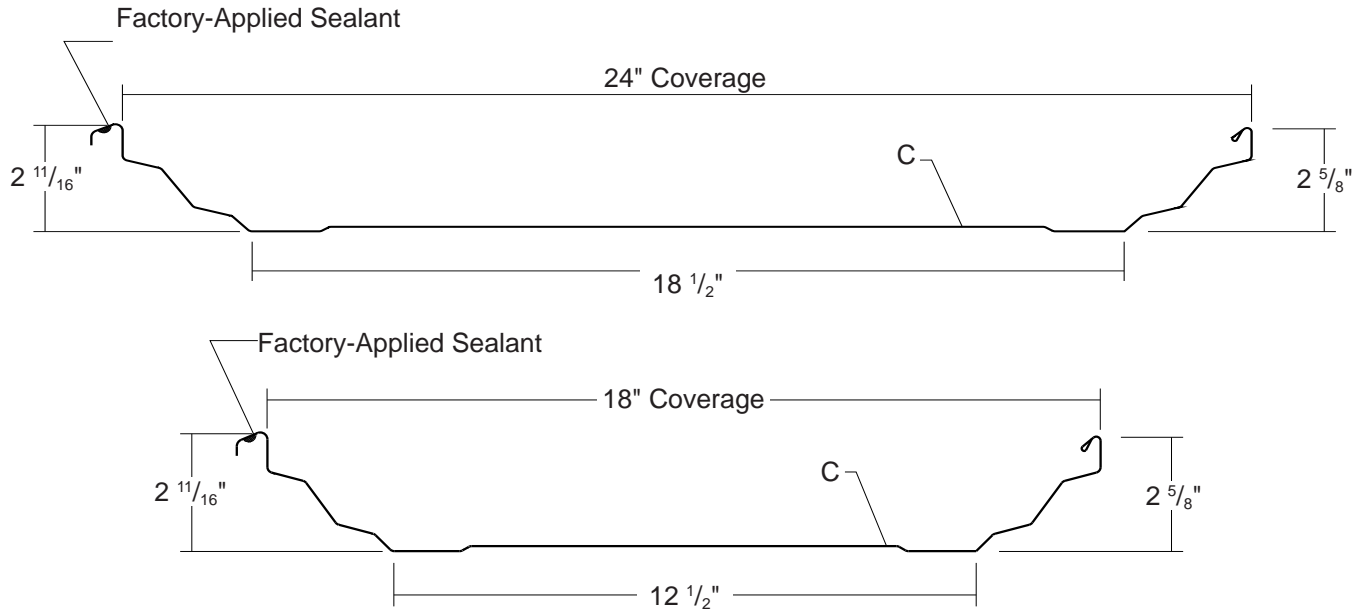


# SEAM-LOC 24®

## CONDENSED TECHNICAL REFERENCE



COMMERCIAL  
INDUSTRIAL  
PANEL

CONCEALED  
FASTENED

24" OR 18"  
COVERAGE

MINIMUM  
SLOPE  
1/4:12

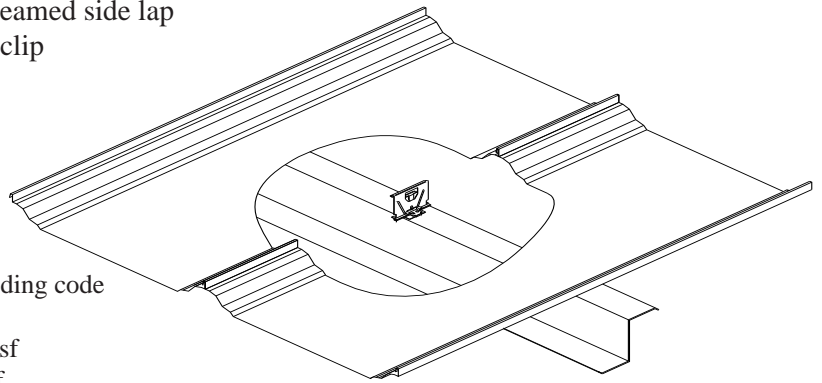
OPEN FRAMING OR  
SOLID SUBSTRATE

### 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 optional
- ▶ 24" or 18" panel coverage, 2 11/16" rib height
- ▶ Panel Length: Minimum: 5'; Maximum: 45' recommended
- ▶ Structural trapezoidal standing seam roof system
- ▶ Pittsburgh double flat locking mechanically seamed side lap
- ▶ Factory-applied side lap sealant in panel and clip
- ▶ Minimum roof slope: 1/4:12
- ▶ 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 283 Air Leakage - 0.06 cfm/ft² at 6.24 psf
- ▶ ASTM E 331 Water Penetration - none at 6.24 psf
- ▶ ASTM E 1680 Air Leakage - 0.0011 cfm/ft² at 6.24 psf
- ▶ ASTM E 1646 Water Penetration - none at 12 psf
- ▶ ASTM E 1592 Structural Performance
- ▶ UL 580 Uplift Resistance - Class 90 Constructions: #197 and #197A
- ▶ FM 4471 Roof Approval - Class 1-90, 1-165
- ▶ 2010 FBC Approvals - FL10999.8, FL10999.9

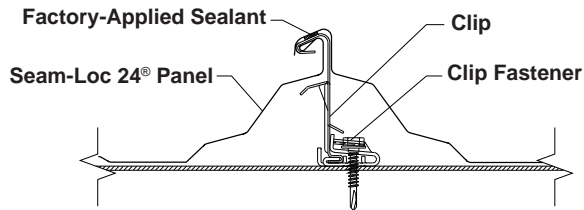


**ms metal sales**  
manufacturing corporation

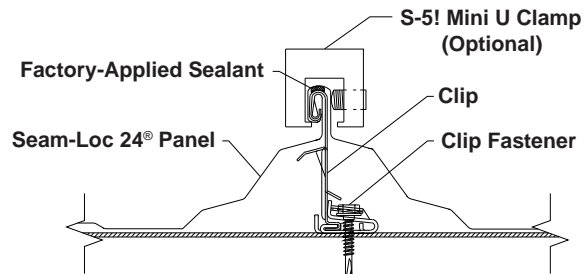
# SEAM-LOC 24®

## CONDENSED TECHNICAL REFERENCE

### ATTACHMENT DETAILS

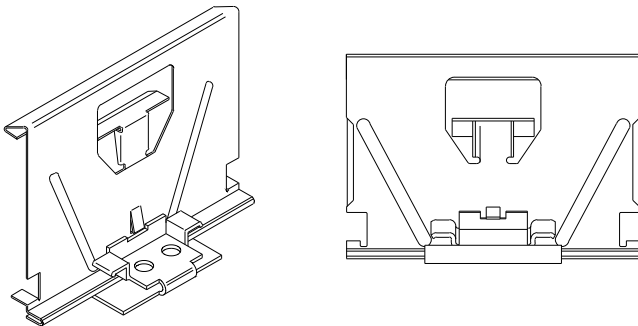


**BEFORE SEAMING**



**AFTER SEAMING**

### PANEL 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 0.037" thick, G90. Clip base is 0.060" thick, G60.

Floating Clips can accommodate 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:

#10-12 Pancake Head Wood Scrw

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 Compression Plate:

#12-14 XL Driller

#### Concealed End Fasteners:

At Compression Plate:

#12-14 Driller, No Washer

#### Trim Fasteners:

1/4"-14 x 7/8" XL Stitch Screw

### SECTION PROPERTIES

Ga	Width in	Yield ksi	Weight psf	Top In Compression		Bottom In Compression	
				Ixx in <sup>4</sup> /ft	Sxx in <sup>3</sup> /ft	Ixx in <sup>4</sup> /ft	Sxx in <sup>3</sup> /ft
24	24	50	1.09	0.2055	0.0952	0.0920	0.0653
24*	24	50	1.09	0.2055	0.0952	0.0920	0.0653
24	18	50	1.15	0.2480	0.1221	0.1220	0.0869
24*	18	50	1.15	0.2480	0.1221	0.1220	0.0869
22	24	50	1.43	0.2725	0.1263	0.1280	0.0882

### ALLOWABLE UNIFORM LOADS, psf For various clip spacings

				Inward Load						Outward Load					
				2.5'	3'	3.5'	4'	4.5'	5'	2.5'	3'	3.5'	4'	4.5'	5'
24	24	50	1.09	227	161	120	93	74	60	64	59	54	47	42	38
24*	24	50	1.09	227	161	120	93	74	60	107	89	76	67	59	54
24	18	50	1.15	302	214	160	123	98	80	85	77	66	58	51	46
24*	18	50	1.15	302	214	160	123	98	80	132	110	94	83	73	66
22	24	50	1.43	305	217	161	125	99	81	69	64	59	54	49	44

- 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.
  - Allowable loads are calculated in accordance with AISI 2007 specifications considering bending, shear, combined bending and shear, deflection and ASTM E 1592 uplift testing. 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.
  - Deflection consideration is limited by a maximum deflection ratio of L/180 of span.
  - Allowable loads do not include a 1/3 stress increase for wind.
- \* Loads determined using a S-5! Mini U clamp at each panel clip location.