

**EVALUATION REPORT OF
METAL SALES MANUFACTURING CORPORATION
'24 GA. SEAM-LOC 24 PANEL WITH S-5! CLAMPS**

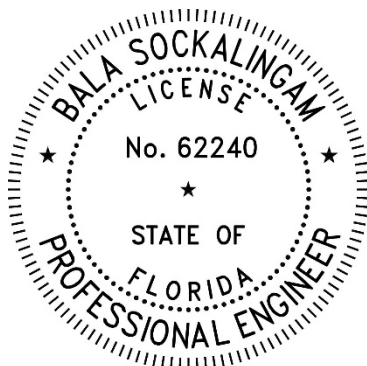
**FLORIDA BUILDING CODE 8TH EDITION (2023)
FLORIDA PRODUCT APPROVAL
FL 10999.9-R5
STRUCTURAL COMPONENTS
ROOF DECK**

**Prepared For:
Metal Sales Manufacturing Corporation
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**Prepared By:
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**This report consists of
Evaluation Report (3 Pages including cover)
Installation Details (1 Page)
Load Span Table (1 Page)**

**Report No. C2670-9
Date: 7.21.2023**



This item has been digitally signed and sealed by Bala Sockalingam, PE, on the date indicated.

Printed copies of this document are not considered signed and sealed and this signature must be verified on any electronic copies.

Manufacturer: Metal Sales Manufacturing Corporation

Product Name: Seam-Loc 24

Panel Description: Standing seam panel with max. 24" wide coverage and 2-5/8" high ribs

Materials: Min. 24 ga., 50 ksi steel. Galvanized coated steel (ASTM A653) or Galvalume coated steel (ASTM A792) or painted steel (ASTM A755). Corrosion resistant as per FBC 2023 Section 1507.4.3.

Support Description: Min. 16 ga., 50 ksi steel section (Must be designed by others)

Slope: 1/4:12 or greater in accordance with FBC 2023 Section 1507.4.2

Underlayment: Not Required

Design Uplift Pressure: 53.5 psf at clip spacing of 60" o.c.
130.9 psf at clip spacing of 24" o.c.

Panel Attachment: NC 3400 clip with (2) 1/4"-14 x 1-1/2" long self-drilling screws per clip. Clips and fasteners are corrosion resistant as per FBC 2023 Section 1506.7 and 1507.4.4, respectively.

Clamp Attachment: S-5-U Mini clamp at each clip location.

Test Standards: Roof assembly tested in accordance with ASTM E1592-01 'Test Method for Structural Performance of Sheet Metal Roof and Siding Systems by Uniform Static Air Pressure Difference' and FM 4470 Section 5.5 'Resistance to Foot Traffic'.

Test Equivalency: The test procedure in ASTM E1592-01 complies with test procedure prescribed in ASTM E1592-05(2017).
The test procedure in FM 4470 (1992) complies with test procedure prescribed in FM 4470 (2016) Section 4.6 'Resistance to Foot Traffic'.

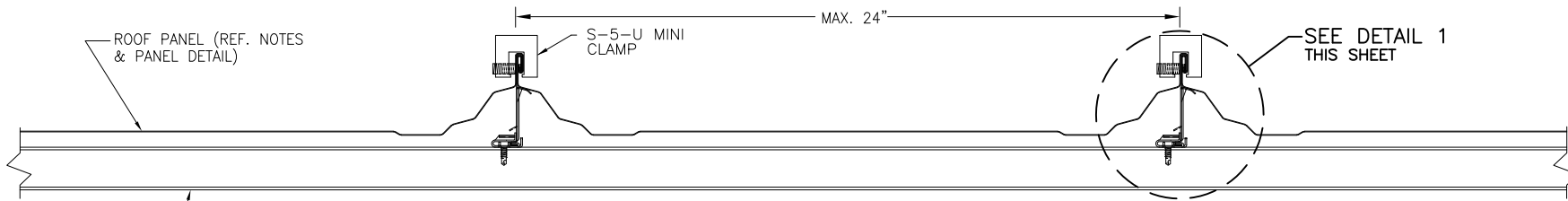
Code Compliance: The product described herein has demonstrated compliance with FBC 2023 Section 1507.4.

Product Limitations: Design wind loads shall be determined for each project in accordance with FBC 2023 Section 1609 or ASCE 7-22 using allowable stress design. The maximum clip spacing listed herein shall not be exceeded. The design uplift pressure for reduced clip spacing may be computed using rational analysis prepared by a Florida Professional Engineer or based on Metal Sales load span table. This evaluation report is not applicable in High Velocity Hurricane Zone. Fire classification is not within the scope of this Evaluation Report. Refer to FBC 2023

Section 1505 and current approved roofing materials directory or ASTM E108/UL790 report from an accredited laboratory for fire ratings of this product.

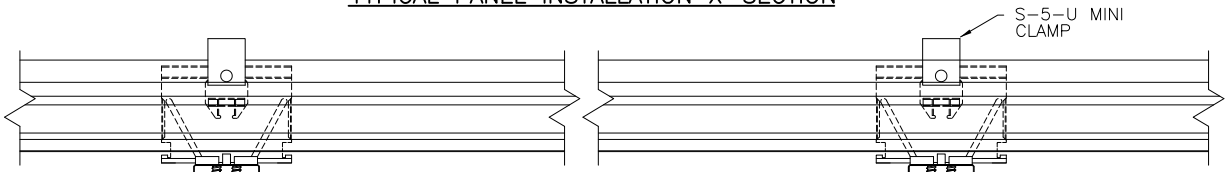
Supporting Documents: ASTM E1592 Test Report
ENCON Technology Inc.
Project No. C1466-2, Reporting Date 3/31/2006

FM 4470 Test Report
ENCON Technology Inc.
C1587-5, Reporting Date 6/30/2008



MIN 16 GA., 50 KSI STEEL
(DESIGN BY OTHERS)

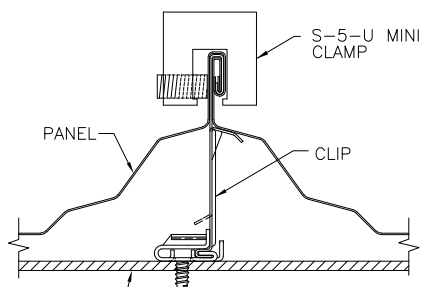
TYPICAL PANEL INSTALLATION X-SECTION



MIN 16 GA., 50 KSI STEEL
(DESIGN BY OTHERS)

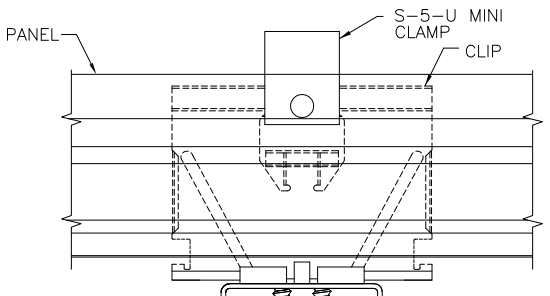
MAX 60" O.C.
SPACING PER ALLOWABLE
LOAD TABLE

TYPICAL SIDE VIEW



MIN 16 GA., 50 KSI STEEL
(DESIGN BY OTHERS)

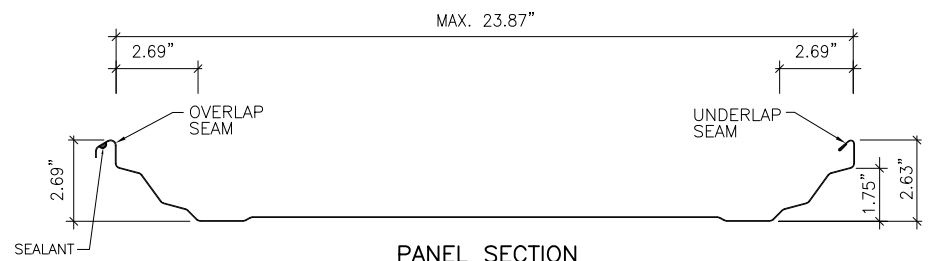
CLIP SECTION VIEW



MIN 16 GA., 50 KSI STEEL
(DESIGN BY OTHERS)

CLIP SIDE VIEW

DETAIL 1



PANEL SECTION
(MIN 24 GA.)

GENERAL NOTES:

1. STRUCTURAL ROOF PANEL HAS BEEN DESIGNED IN ACCORDANCE WITH THE FLORIDA BUILDING CODE (FBC).
2. ROOF PANELS SHALL BE MIN. 24 GA. (t = 0.022"). MAX. EFFECTIVE COVERING WIDTH OF PANEL = 24".
3. THE ROOF PANELS SHALL BE INSTALLED OVER STRUCTURE AS SPECIFIED ON THIS DRAWING.
4. REQUIRED DESIGN WIND LOADS SHALL BE DETERMINED FOR EACH PROJECT. THIS PANEL SYSTEM MAY NOT BE INSTALLED WHEN THE REQUIRED DESIGN WIND LOADS ARE GREATER THAN THE ALLOWABLE WIND LOADS SPECIFIED ON THIS DRAWING.
5. CLIPS AND FASTENERS MUST BE IN ACCORDANCE WITH THIS DRAWING & FLORIDA BUILDING CODE. IF A DIFFERENCE OCCURS BETWEEN THE MINIMUM REQUIREMENTS OF THIS DRAWING & THE CODE, THE CODE SHALL CONTROL.
6. PURLINS/JOISTS/TRUSSES MUST BE DESIGNED TO WITHSTAND WIND LOADS AS REQUIRED FOR EACH APPLICATION AND ARE THE RESPONSIBILITY OF OTHERS.

DRAWN BY: B.S.	CHECKED BY: D.S.
DATE: 7/14/2023	
NO.	REVISION DESCRIPTION
BY	DATE
DRAWING TITLE 24 GA. SEAM-LOC 24 STANDING SEAM ROOF PANEL	
CONSULTANTS BALA SOCKALINGAM, PH.D., P.E.	MANUFACTURER METAL SALES MANUFACTURING CORP.
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DRAWING NO. 2670-9	REV.
PAGE NO. 1	OF 1

METAL SALES MANUFACTURING CORPORATION
Seam-Loc 24 Panels with S-5! Clamps
Design Uplift Loads

Clip spacing along length (in)	Design Uplift Loads (psf)
	Min. 24 ga.
24	130.9
27	118.9
30	107.0
33	97.3
36	89.2
39	82.3
42	76.4
45	71.3
48	66.9
51	62.9
54	59.4
57	56.3
60	53.5

Notes:

1. The bold numbers indicate design loads calculated from test data with safety factor of 2.
2. The panels are fastened to support with NC 3400 clips with (2) 1/4"-14 SDS.
3. S-5-U Mini clamp at each clip location
4. Panels must be installed as per Evaluation Report FL 10999.9 and Metal Sales current installation procedure.
5. Three or more spans condition.