

## Product Evaluation

RC720 | 0623

Engineering Services Program

The following product has been evaluated for compliance with the wind loads specified in the International Residential Code (IRC) and the International Building Code (IBC).

This product evaluation is not an endorsement of this product or a recommendation that this product be used. The Texas Department of Insurance has not authorized the use of any information contained in the product evaluation for advertising, or other commercial or promotional purpose.

This product evaluation is intended for use by those individuals who are following the design wind load criteria in Chapter 3 of the IRC and Section 1609 of the IBC. The design loads determined for the building or structure shall not exceed the design load rating specified for the products shown in the limitations section of this product evaluation. This product evaluation does not relieve a Texas licensed engineer of his responsibilities as outlined in the Texas Insurance Code, the Texas Administrative Code, and the Texas Engineering Practice Act.

For more information, contact TDI Engineering Services Program at (800) 248-6032.

**Evaluation ID:** RC-720

**Effective Date:** June 1, 2023

**Re-evaluation Date:** June 2027

**Product Name:** 275 New Lock Metal Panel Installed Over Steel Deck

**Manufacturer:** Select Management Systems, Inc.  
DBA Superior Metal Services  
17 Scenic Loop Road  
Boerne, TX 78006  
Phone: (830) 388-7640

### General Description:

The 275 New Lock standing seam metal roof panels have 17.5" of coverage. The metal roof panels have a 2" rib height and a mechanical seamed side lap. The panels are manufactured from 24-gauge Galvalume coated steel that conform to ASTM A792, Grade 50, with a minimum yield strength of 50,000 psi. An optional paint finish is available. The panel rollformer is manufactured by New Tech Machinery Corp. with 275 Panel Profile.

### Limitations:

**Roof Framing:** The steel roofing panels must be installed over a minimum 22-gauge, 1-1/2" Grade 40, B-deck.

**New Roof Framing Attachment:** The roof decking must meet or exceed the uplift requirements of the IRC or the IBC.

**Design Wind Pressures:** For installations to steel deck, Table 1 specifies the design wind pressure limitations.

**Table 1:** Minimum 24-gauge Seamed 275 New Lock Panels to steel deck.

Design Wind Pressure (psf)	Purlins	Deck	Attachment of Panel to Deck
-52.5	12-gauge steel at 5'-0" on center	Minimum 22-gauge steel B-Deck	Clip spacing at 3'-0" on center

**Roof Slope:** The metal roof panels may be installed on roofs with a roof slope as low as 1/2:12.

**Installation Over an Existing Roof Covering:** Not Permitted.

**Installation:**

**General:** Install the steel roofing panels in accordance with the manufacturer's recommended installation instructions and this evaluation report.

**Steel Purlins:** The minimum thickness of the steel and the maximum spacing of the purlins must be as specified in Table 1.

**Structural Steel Deck:** Minimum 22-gauge steel B-deck. The steel deck is secured to the steel purlins with 1/4"-14 x 1-1/4" HWH fasteners in a 36/7 pattern.

**Insulation** Minimum 1" thick, maximum 4" thick rigid insulation with polyisocyanurate foam core with fiber reinforced facers laid on top of the steel deck. Minimum 20 psi compressive strength. Secured to the steel deck with minimum five (5) #14-13 x 9" DP1 Concealor screws with 3" diameter steel disks per sheet. The fasteners must be long enough to ensure a minimum penetration of 3 pitches of thread below the steel deck.

**Attachment of Steel Roofing Panels to the Steel Deck:** The steel roofing panels must be secured to the steel deck with sliding clip and a 4" x 5" x 16-gauge galvanized steel bearing plate. Each clip and bearing plate are secured to the steel deck with two (2) minimum #14-13 DP1 Concealor screws manufactured by Triangle Fastener Corporation. The spacing of the clips is as specified in Table 1. The fasteners must be long enough to ensure a minimum penetration of 3 pitches of thread below the steel deck.

**Panel Clip:** NCF-33003 sliding clips (2-1/2" tall; 22-gauge top; 16-gauge base; 50 ksi steel, G90 galvanized steel) by Logan Stamping, Inc.

**Panel Seam:** Adjacent panels are seamed together mechanically along the side laps with a mechanical seamer to a 90-degree seam.

**Panel Ends and Edges:** As required by manufacturer.

**Trims, Closures, and Accessories:** Components, such as the eave trim, rake trim, ridge trim, hip trim, and valley trim must be installed as required by the manufacturer.

**Note:** Keep the manufacturer's installation instructions available on the job site during the installation. Use corrosion resistant fasteners as specified in the IRC and the IBC.