

**Force Engineering & Testing**

19530 Ramblewood Drive  
Humble, Texas 77338  
Phone: (281) 540-6603 FAX: (281) 540-9966  
Website: [www.forceengineeringtesting.com](http://www.forceengineeringtesting.com)

**Product Evaluation Report**  
**TRI COUNTY METALS**

***Snap-Lok 1 3/4", 24 Ga. 17 3/4" Wide Roof Panel over 22 Ga. Steel Deck***

**Florida Product Approval # 4595.13 R5**

Florida Building Code 2020

Per Rule 61G20-3

Method: 1 -D

Category: Roofing

Subcategory: Metal Roofing

Compliance Method: 61G20-3.005(1)(d)

HVHZ

**Product Manufacturer:**

**Tri County Metals**

**301 S. E. 16th Street**

**Trenton, Florida 32693**

**Engineer Evaluator:**

**Johnathan Green, P.E. #88223**

**Florida Evaluation ANE ID: 12901**

**Validator:**

**Brian Jaks P.E. #70159**

**Contents:**

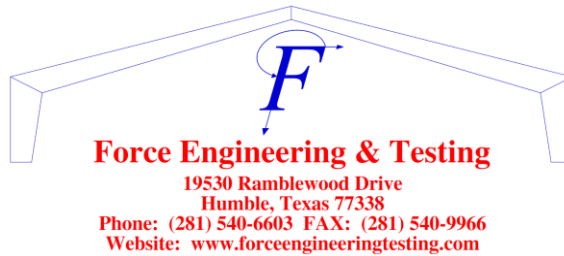
**Evaluation Report      Pages 1 – 4**



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**FL# 4595.13 R5**



**Compliance Statement:** The product as described in this report has demonstrated compliance with the Florida Building Code 2020, Sections 1504.3.2, 1518.9, 1523.6.5.2.4.

**Product Description:** Snap-Lok 1 3/4", 1 3/4" Snap Lock Standing Seam Roof Panel, 24 Ga. Steel, 17 3/4" Wide, Roof Panel restrained with steel fixed clips into min. 22 Ga. steel decking. Non-structural Application.

**Panel Material/Standards:** Material: 24 Ga. Steel, ASTM A792 unpainted or painted with Valspar Fluropon or ASTM A653 G90 conforming to Florida Building Code 2020 Section 1507.4.3. Yield Strength: Min. 50.0 ksi  
 Corrosion Resistance: Panel Material shall comply with Florida Building Code 2020, Section 1507.4.3

**Panel Dimension(s):** Thickness: 0.024"  
 Width: 17 3/4" max coverage  
 Rib Height: 1 3/4"  
 Panel Seam: Snap Lock

**Roof Panel Clips:** Product Name: Fixed Clip  
 Type: 20 Ga. Galvanized Steel, 2 1/4" long  
 Corrosion Resistance: Per Florida Building Code 2020 Section 1506.7

**Roof Clip Fastener:** (2) #14-13 Dek Fast per clip  
 3/4" minimum penetration through steel deck  
 Corrosion Resistance: Per Florida Building Code 2020, Section 1517.6.

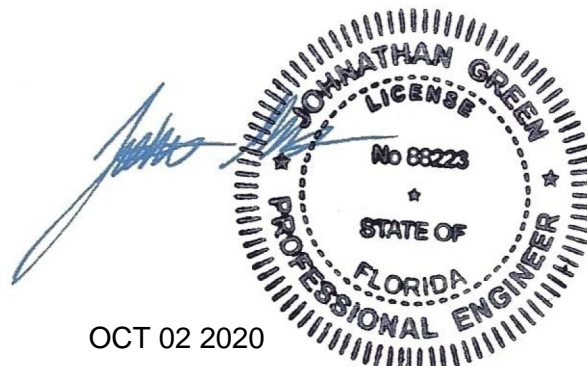
**Substrate Description:** Min. 22 Ga. steel deck, Min. Fy = 33 ksi. Design of steel deck and steel deck supports are outside the scope of this evaluation. Substrate must be designed in accordance w/ Florida Building Code 2020.

**Allowable Design Uplift Pressures:**

Table "A"

<b>Maximum Total Uplift Design Pressure:</b>	71.0 psf	108.5 psf
<b>Clip Spacing:</b>	24" O.C.	6" O.C.
<b># Fasteners per Clip:</b>	2	2

\*Design Pressure includes a Safety Factor = 2.0.



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- Code Compliance:** The product described herein has demonstrated compliance with The Florida Building Code 2020, Section 1504.3.2, 1518.9, 1523.6.5.2.4.
- Evaluation Report Scope:** The product evaluation is limited to compliance with the structural wind load requirements of the Florida Building Code 2020, as relates to Rule 61G20-3.
- Performance Standards:** The product described herein has demonstrated compliance with:
- TAS 125-03
  - UL 580-06 - Test for Uplift Resistance of Roof Assemblies
  - UL 1897-2012 - Uplift Test for Roof Covering Systems
  - TAS 100-95 - Test Procedure for Wind and Wind Driven Rain Resistance of Discontinuous Roof Systems
  - TAS 110-00 - Accel. Weathering ASTM G 155 / Salt Spray ASTM B 117
- Reference Data:**
1. TAS 125-03: UL 580-94 / 1897-98 Uplift Test  
Force Engineering & Testing, Inc. (FBC Organization # TST-5328)  
Report No. 72-0271T-07\*, Dated 02/04/2008
  2. TAS 100-95  
Farabaugh Engineering & Testing, Inc. (FBC Organization # TST-1654)  
Report No. T122-08\*, Dated 02/06/2008
  3. TAS 110-00: Valspar Fluropon coated metal panel testing  
A) ASTM G 155 by PRI Asphalt Technologies dated 10/31/2012  
B) ASTM B 117 by PRI Asphalt Technologies dated 10/31/2012
  4. Certificate of Independence  
By Johnathan Green, P.E. (No. 88223) @ Force Engineering & Testing  
(FBC Organization # ANE ID: 12901)
- Test Standard Equivalency:** The UL 580-94 test standard is equivalent to the UL 580-06 test standard.  
The UL 1897-98 test standard is equivalent to the UL 1897-2012 test standard.
- Quality Assurance Entity:** The manufacturer has established compliance of roof panel products in accordance with the Florida Product Code and Rule 61G20-3.005 (3) for manufacturing under a quality assurance program audited by an approved quality assurance entity.



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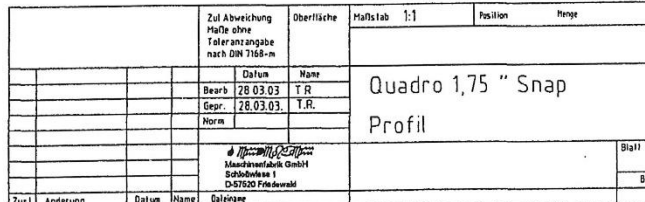
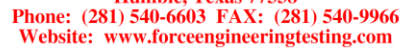
<b>Minimum Slope Range:</b>	2:12. Minimum Slope shall comply with Florida Building Code 2020, including Sections 1515.2.2 and in accordance with Manufacturers recommendations.
<b>Installation:</b>	Install per manufacturer's recommended details and RAS 133.
<b>Underlayment:</b>	Per Manufacturer's installation guidelines per Florida Building Code 2020 Section 1518.2, 1518.3, 1518.4.
<b>Fire Barrier:</b>	½" Georgia Pacific "Dens Deck" or manufacturer approved equal with current NOA.
<b>Insulation:</b>	1"-4" thick Polyiso rigid insulation, min. 20 psi compressive strength. Manufacturer approved with current NOA and conforming to Florida Building Code 2020 Section 1520.
<b>Shear Diaphragm:</b>	Shear diaphragm values are outside the scope of this report.
<b>Design Procedure:</b>	Based on the dimensions of the structure, appropriate wind loads are determined using Chapter 16 of the Florida Building Code 2020 for roof cladding wind loads. These component wind loads for roof cladding are compared to the allowable pressure listed above. The design professional shall select the appropriate erection details to reference in his drawings for proper fastener attachment to his structure and analyze the panel fasteners for pullout and pullover. Support framing must be in compliance with Florida Building Code 2020 Chapter 22 for steel, Chapter 23 for wood and Chapter 16 for structural loading.

\*The Test Reports are owned by Metalforming, Inc. Metalforming, Inc. gives the above manufacturer permission to use these test reports.



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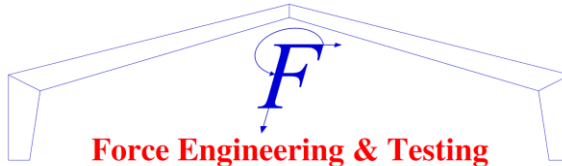


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**FL# 4595.13 R5**

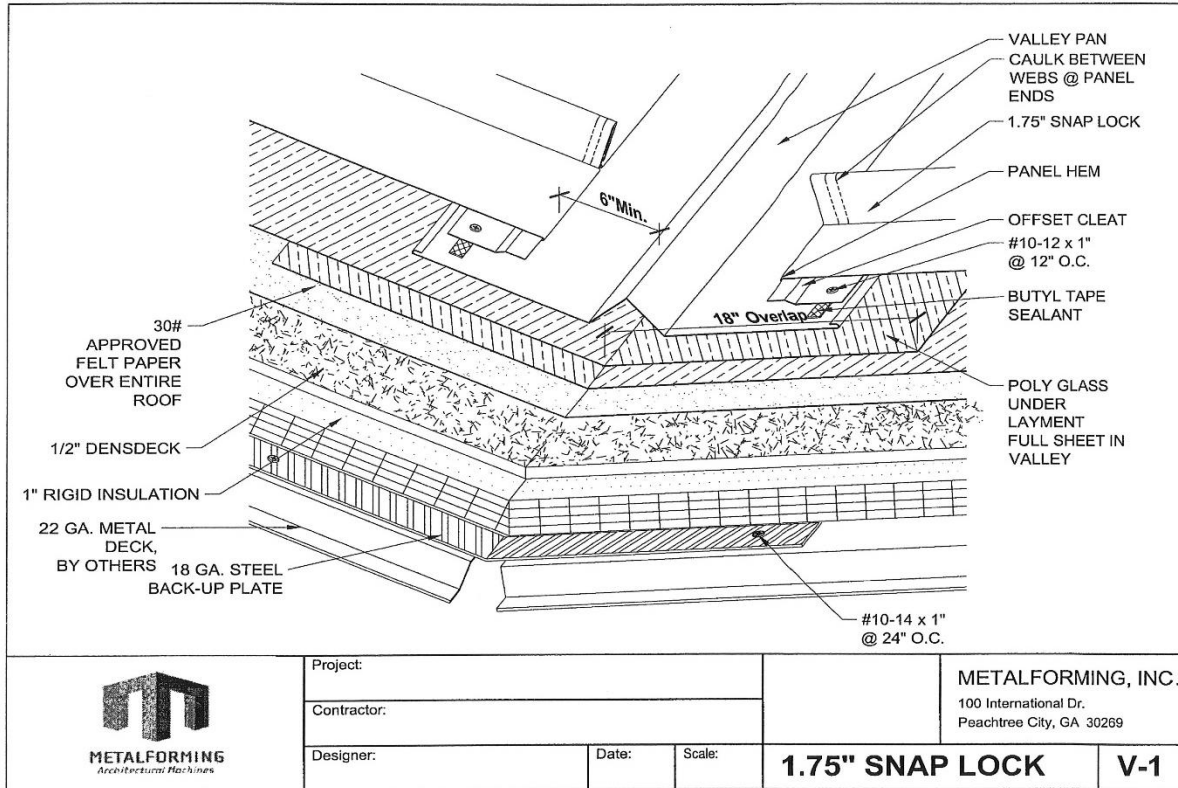




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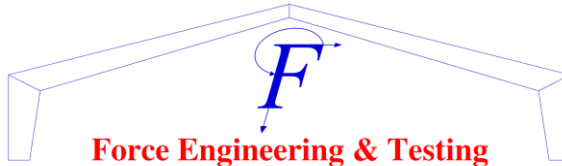
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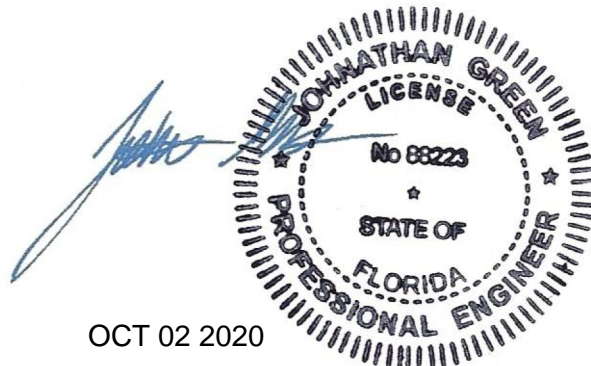


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<p>3" PLATE W/ #14 x 3" DEK FAST @ 18" O.C.</p> <p>RIGID INSULATION</p> <p>POLYGLASS 18" WIDE AT EAVE FELT OVER ENTIRE ROOF</p> <p>22 GA. METAL DECK, BY OTHERS</p> <p>CAULK BETWEEN WEBS</p> <p>BUTYL TAPE SEALANT</p> <p>#10-12 x 1" @ 12" O.C.</p> <p>EAVE FLASHING</p> <p>ROOFING NAILS @ 12" O.C.</p> <p>1/2" DENSDECK</p> <p>WOOD BLOCKING, BY OTHERS</p> <p>CLEAT</p>	<p>Project:</p> <p>Contractor:</p> <p>Designer:</p> <p>Date:</p> <p>Scale:</p>	<p>METALFORMING, INC. 100 International Dr. Peachtree City, GA 30269</p>
<p><b>METALFORMING</b> <i>Architectural Machines</i></p>	<p><b>1.75" SNAP LOCK</b></p>	<p><b>E-1</b></p>

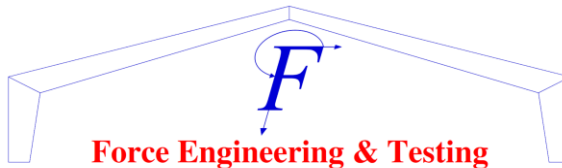


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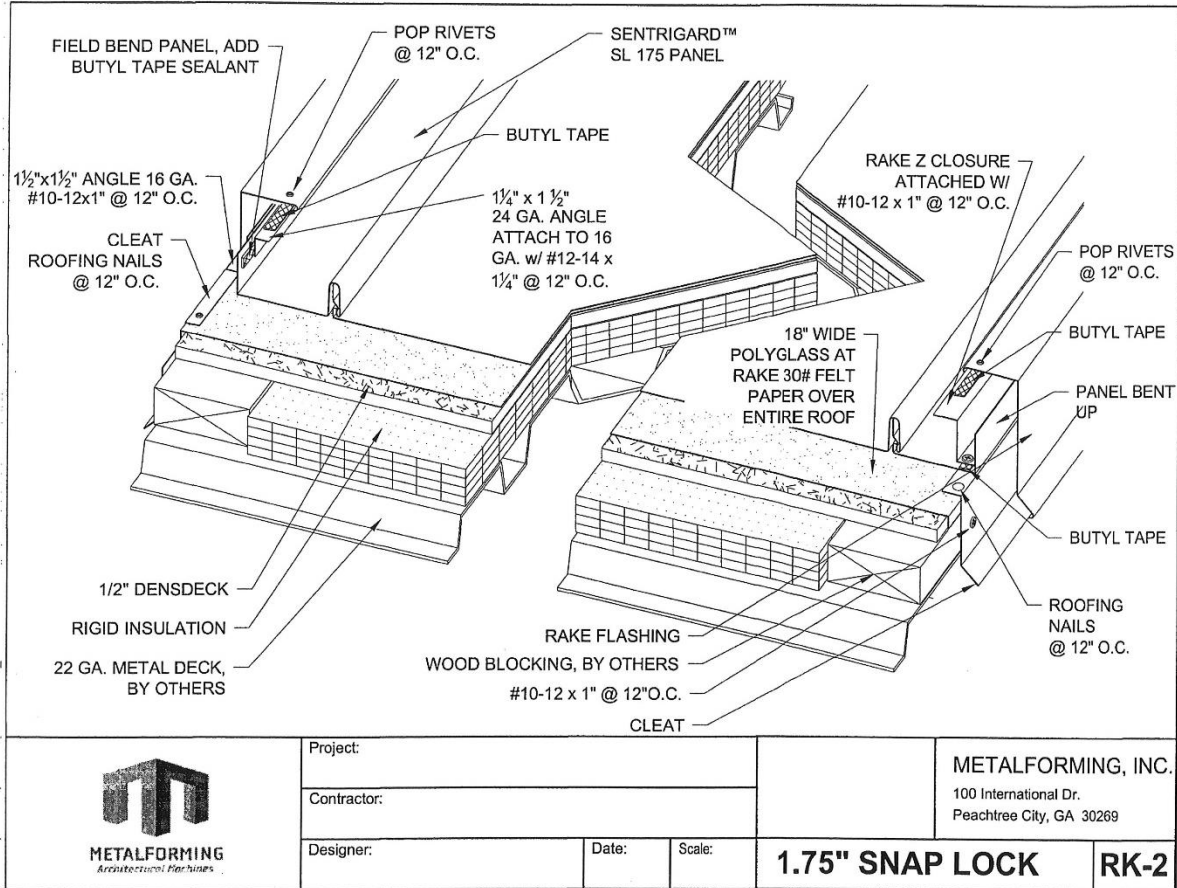
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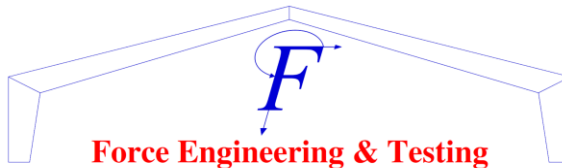


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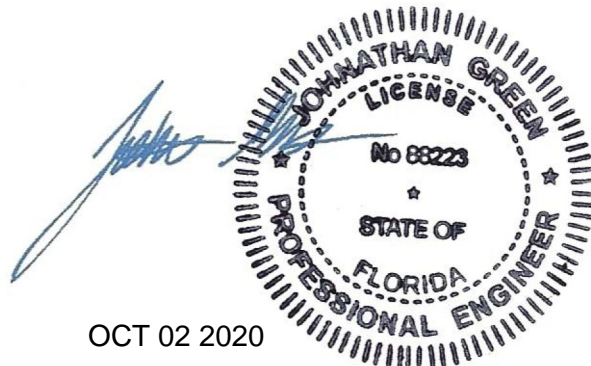
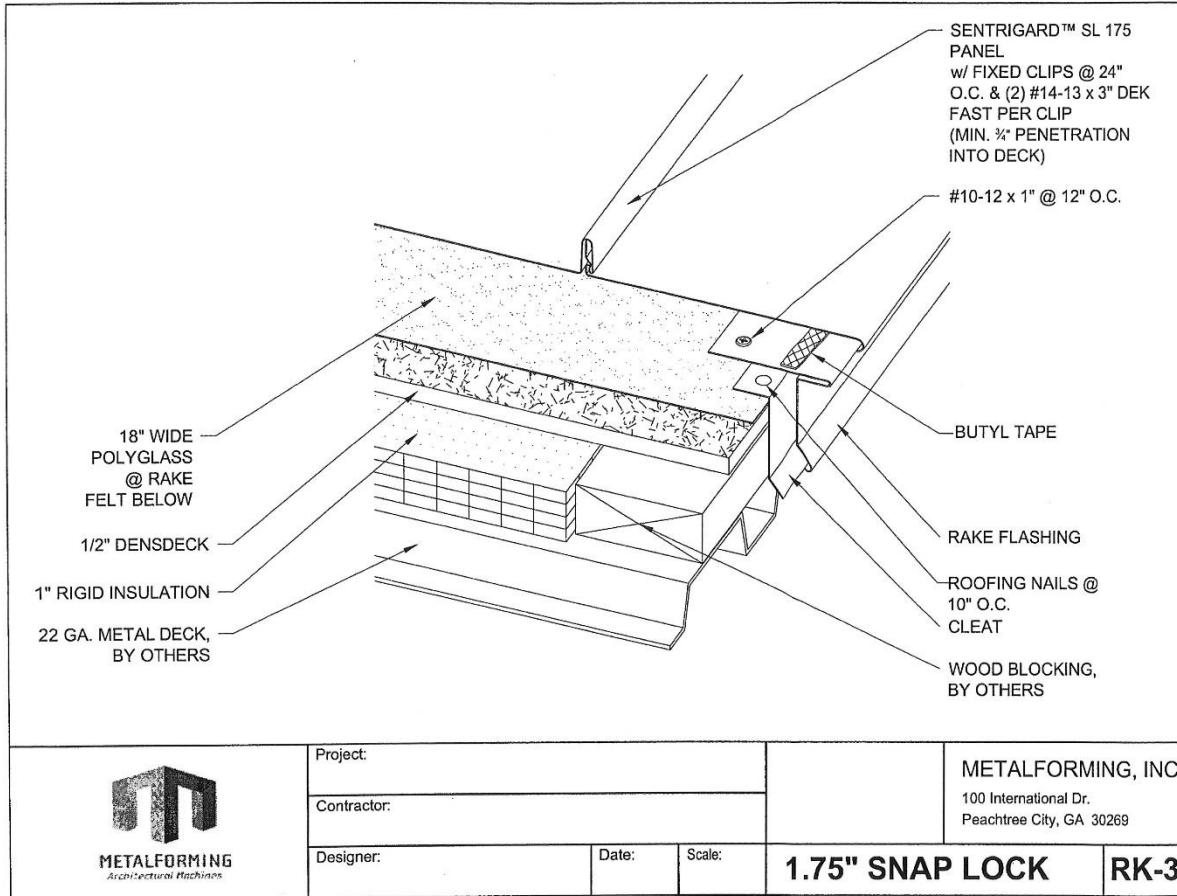




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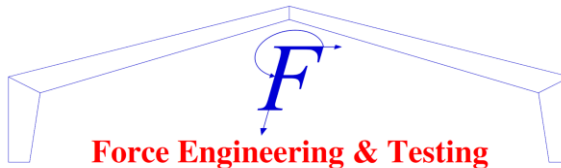
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**SFS** intec

**Weather Gard®**

**Panel Clips and Fasteners**

### Standing Seam Clips

Engineered panel clips  
For standing seam panel attachments

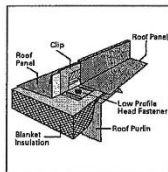
- Engineered panel clips are custom designed and manufactured for your panel system.
- Clips are supplied in galvanized steel, coated steel, stainless steel and other materials.
- Engineered fixed and float clip designs are available.

- Standard clips are available from stock without tooling cost to you.
- Sealant can be pre-applied to the clips to maintain the seal at the clip attachment.
- Clip design options are available for review and evaluation.

### Application

#### Snap Lock Panel Design

Configurations require very low profile clip bases with a base feature to hold the panel above the low profile fastener heads.

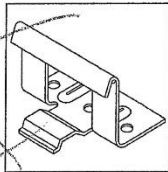


Fixed Clips are primarily used with these panels. Low profile head fasteners should be used with these panels to provide clearance for the panel over the fastener heads. These clips are manufactured from steel, stainless steel and other materials with various finishes to fit the needs of the panel application.

### Selection

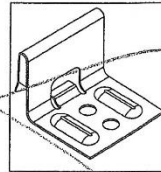
#### 1-1/2" Snap Lock Clip

G90 Galvanized: 18 ga. or 20 ga.  
Packaged 500 per carton



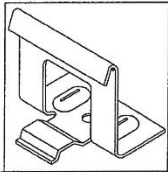
#### 1-1/2" Snap Lock Clip

G90 Galvanized: 24 ga.  
Packaged 1000 per carton



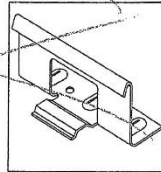
#### 1-3/4" Snap Lock (1 hole) Clip

G90 Galvanized: 18 ga.  
Packaged 500 per carton



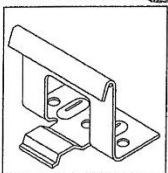
#### 1-3/4" Snap Lock (2 hole) Clip

G90 Galvanized: 18 ga.  
Packaged 250 per carton



#### 1-3/4" Snap Lock (3 hole) Clip

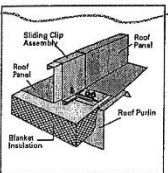
G90 Galvanized: 20 ga.  
Packaged 500 per carton



### Application

#### Architectural Panel Design

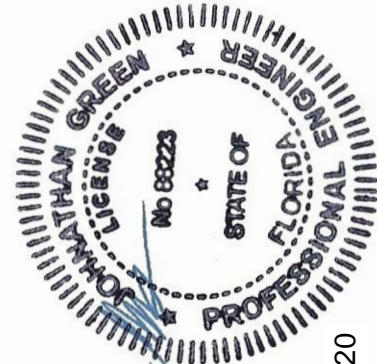
Configurations require low profile bases with clearance for the fastener head.



Fixed and Float Clips are used with these panels. The clips may have pre-applied sealant to maintain the panel seal at the clip attachment point. These clips are manufactured from steel, stainless steel and other materials with various finishes to fit the needs of the panel application.

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