

**Evaluation Report**  
**MMI Off Ridge Vent**

**Manufacturer:**  
**Millennium Metals, Inc.**  
**10200 Eastport Road**  
**Jacksonville, FL 32218**  
**(877) 358-7663**  
*for*  
**Florida Product Approval**  
**# FL 19567.1 R1**

**Florida Building Code 6th Edition (2017)**  
**Per Rule 61G20-3**

**Method: 2 - B**  
**Category: Roofing**  
**Sub - Category: Roofing Accessories that are an Integral Part of the Roof System**

**Product:** MMI Off Ridge Vent  
**Material:** Steel or Aluminum  
**Support:** Wood Deck

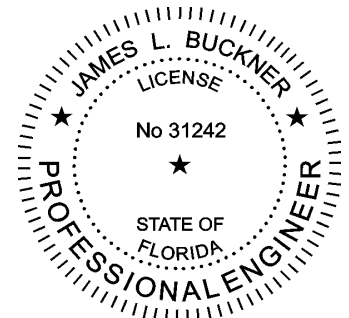
Facsimile of digital copy signed by  
James L. Buckner, P.E.  
Electronically signed and sealed documents shall  
comply with the provisions of FAC Rule 61G15-23.

**Prepared by:**

James L. Buckner, P.E., SECB  
Florida Professional Engineer # 31242  
Florida Evaluation ANE ID: 1916  
Report No. 17-196-MMI-ORV-ER6  
Date: 12 / 15 / 17

Contents:

Evaluation Report                      Pages 1 – 7



A handwritten signature in blue ink, appearing to read "James L. Buckner".

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<b>Manufacturer:</b>	<b>Millennium Metals, Inc.</b>
<b>Product Name:</b>	<b>MMI Off Ridge Vent</b>
<b>Product Category:</b>	Roofing
<b>Product Sub-Category</b>	Roofing Accessories that are an Integral part of the Roofing System
<b>Compliance Method:</b>	State Product Approval Rule 61G20-3.005 (2) (b)
<b>Product/System Description:</b>	MMI Off Ridge Vent Steel or aluminum off ridge vent for shingle roofs mechanically attached to plywood deck.
<b>Product Assembly as Evaluated:</b>	Refer to Page 4 of this report for product assembly structural components: <ol style="list-style-type: none"><li>1. Off Ridge Vent</li><li>2. Fasteners</li><li>3. Roof Cement</li></ol>
<b>Support:</b>	<b>Type:</b> Wood Deck  (Design of support and its attachment to support framing is outside the scope of this evaluation.)  <b>Description:</b> <ul style="list-style-type: none"><li>• 15/32 (min.) or greater plywood,</li><li>• or Wood plank (min. specific gravity of 0.42)</li></ul>
<b>Slope:</b>	2 : 12 or Greater
<b>Performance:</b>	Wind Uplift Structural Resistance * Design Uplift Pressure: - <b>70 PSF</b>  * Allowable design pressure for allowable stress design (ASD) with a margin of safety of 2 to 1.

**Performance Standards:** The following test protocols were performed to demonstrate compliance with the intent of the code as this product is not addressed specifically in the code.

- **ASTM E330-02** – *Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference*

**Code Compliance:** The product described herein has demonstrated compliance with Florida Building Code 6th Edition (2017), Section 1708.2.

**Evaluation Report Scope:** This product evaluation is limited to compliance with the structural requirements of the Florida Building Code, as related to the scope section to Florida Product Approval Rule 61G20-3.001.

**Limitations and Conditions of Use:**

- Scope of “Limitations and Conditions of Use” for this evaluation:  
This evaluation report for “Optional Statewide Approval” contains technical documentation, specifications and installation method(s) which include “Limitations and Conditions of Use” throughout the report in accordance with Rule 61G20-3.005. Per Rule 61G20-3.004, the Florida Building Commission is the authority to approve products under “Optional Statewide Approval”.
- Option for application outside “Limitations and Conditions of Use”  
Rule 61G20-3.005(1)(e) allows engineering analysis for “project specific approval by the local authorities having jurisdiction in accordance with the alternate methods and materials authorized in the Code”. Any modification of the product as evaluated in this report and approved by the Florida Building Commission is outside the scope of this evaluation and will be the responsibility of others.
- Refer to applicable building code section for ventilation requirements.
- Design of support system is outside the scope of this report.
- Fire Classification is outside the scope of Rule 61G20-3, and is therefore not included in this evaluation.
- This evaluation report does not evaluate the use of this product for use in the High Velocity Hurricane Zone code section. (Dade & Broward Counties)

**Quality Assurance:** The manufacturer has demonstrated compliance of roof components in accordance with the Florida Building Code and Rule 61G20-3.005 (3) for manufacturing under a quality assurance program audited by an approved quality assurance entity through **Keystone Certifications, Inc.** (FBC Organization #: QUA 1824).

**Components/Materials  
(by Manufacturer):**

Material Type 1:

Thickness: Steel  
Yield Strength: 26 gauge (min.)  
Corrosion Resistance: 40 ksi min.  
Aluminum Zinc Coated Steel per ASTM A792 AZ 50, or  
Galvanized Steel per ASTM A653 G-90, or  
Pre-painted Steel per ASTM A755 or  
Per FBC Section 1507.4.3

Material Type 2:

Thickness: Aluminum  
Alloy Type: 0.025" (min.)  
Corrosion Resistance: 3105-H14  
In compliance with FBC Section 1507.4.3:  
• ASTM B209

**Nominal Dimensions:**

Width: 24"  
Height: 4-1/2"  
Lengths: 2', 4', 6', 8' and 10'

**Fastener(s):**

Base Fastener:

Purpose: Attaches Ridge Vent Base Flange to Deck  
Type: Annular Ring Shank Roofing Nails  
Size: 11 gauge (× length to meet min. penetration through deck)  
Penetration Through: 3/16" min. through wood deck  
Edge Distance: 1-1/2" min. from edge of deck  
Corrosion Resistance: Per FBC Section 1506.5  
Standard: Per ASTM F1667

Alternate Fastener:

Purpose: Attaches Ridge Vent Base Flange to Deck  
Type: Hex-Head Wood Screw  
Size: #10 (× length to meet min. penetration through deck)  
Penetration Through: 3/16" min. through wood deck  
Edge Distance: 1-1/2" min. from edge of deck  
Corrosion Resistance: Per FBC Section 1506.6 and 1507.4.4  
Standard: Per ANSI/ASME B18.6.4

**Installation:**

**Structural Installation Method:**

(Refer to drawings on Pages 6-7 of this report.)

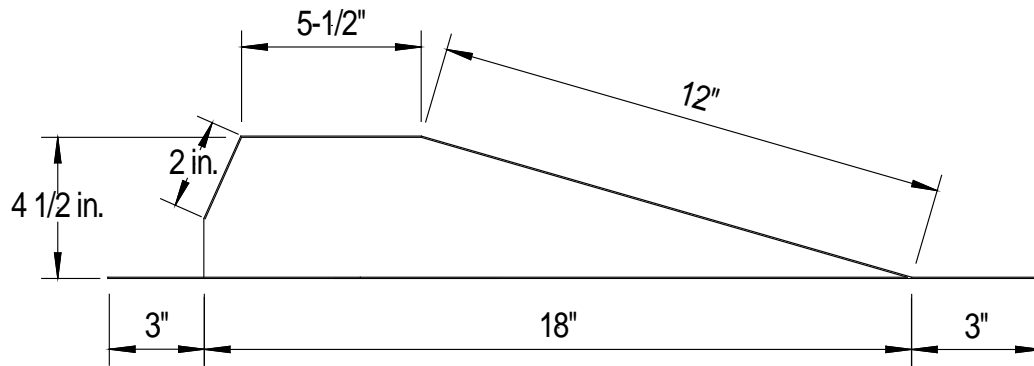
- Position vent flange beneath loosened shingles and align with deck opening.
- Attach vent perimeter flanges to deck with nails or screws spaced **8" o.c.** maximum and 4-1/2" from each end.
- Minimum fastener penetration thru bottom of support, 3/16".
- Refer to manufacturer's installation instructions as a supplemental guide for attachment.

**Referenced Data:**

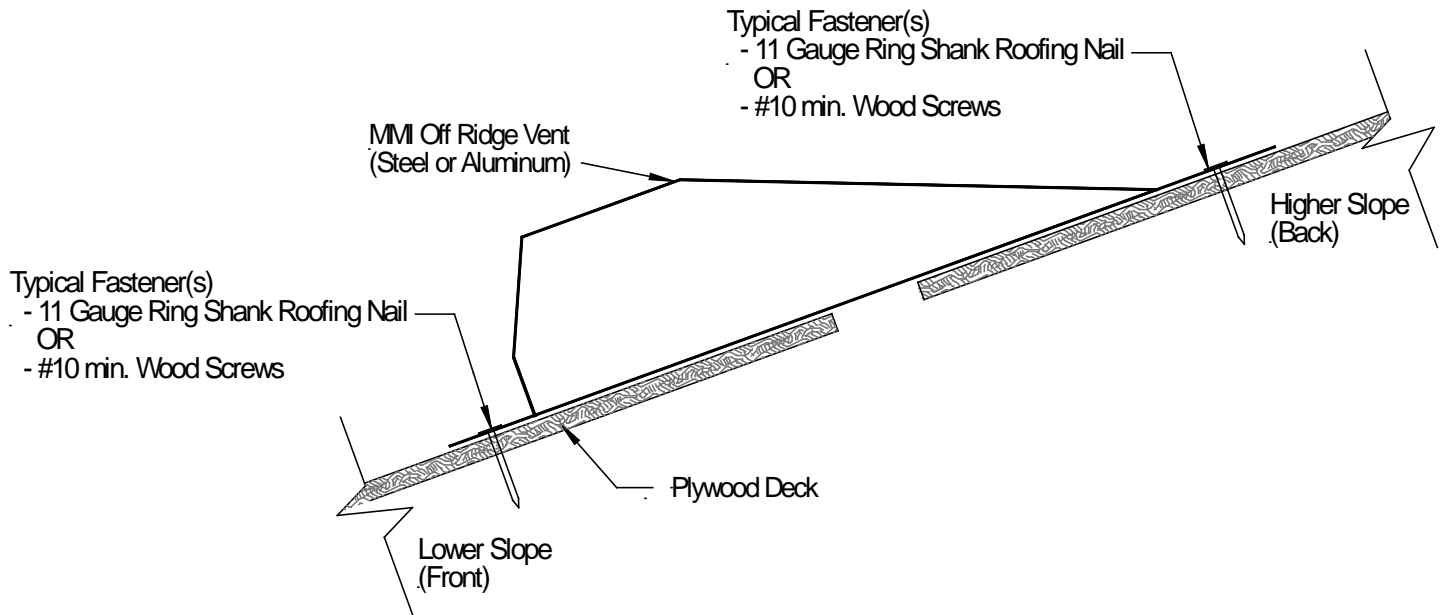
1. ASTM E330-02 Uniform Static Air Pressure Difference Test  
Architectural Testing, Inc. (FBC Organization #TST ID: 1527)  
Report #: F3167.01-450-44, Report Date: 12 / 15 / 15
2. Quality Assurance  
By Keystone Certifications, Inc. (QUA ID: 1824)  
Millennium Metals Licensee # 423
3. Certification of Independence  
By James L. Buckner, P.E. @ CBUGK Engineering  
(FBC Organization # ANE 1916)

**Installation Method**  
**Millennium Metals, Inc.**  
**MMI Steel or Aluminum Off Ridge Vent Attached to Wood Deck**

**Profile Drawings**

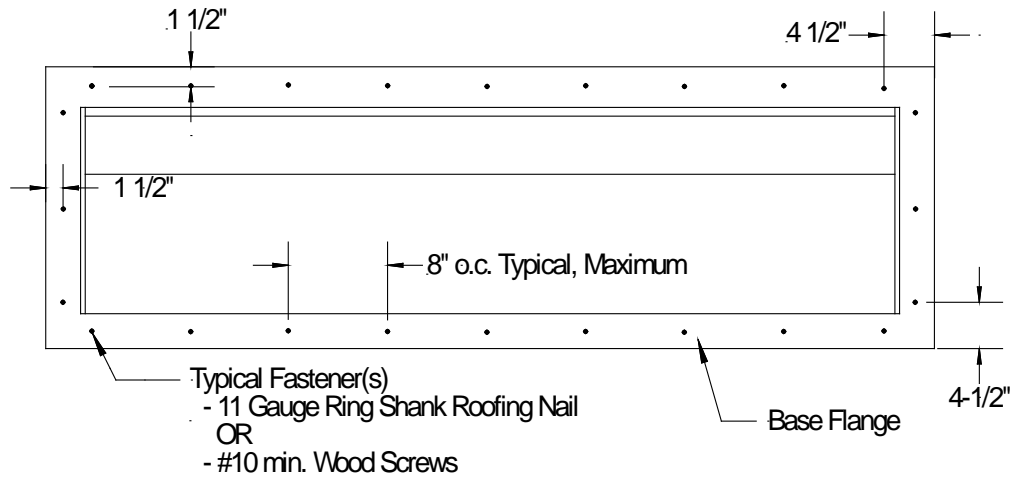


**Side View (Not To Scale)**

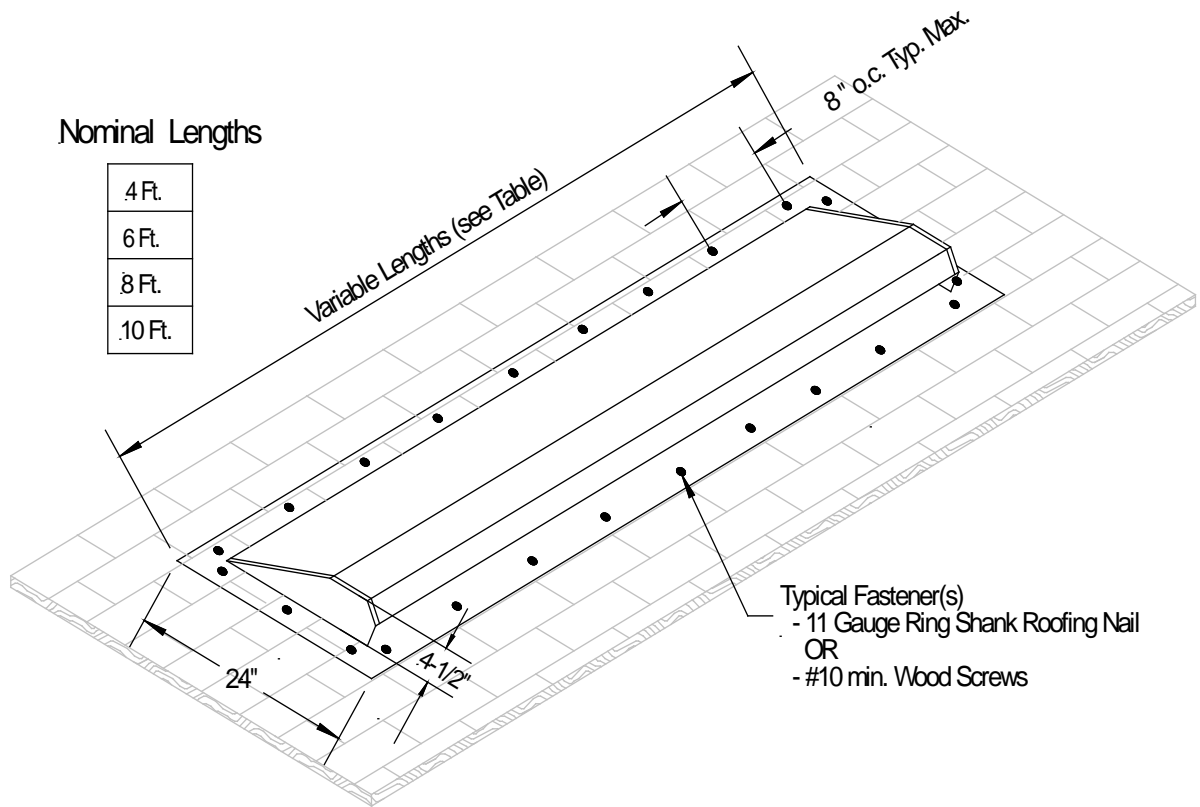


**Typical Cross Section View (Not To Scale)**

**Installation Method**  
**Millennium Metals, Inc.**  
**MMI Steel or Aluminum Off Ridge Vent Attached to Wood Deck**



**Top Plan View (Not To Scale)**  
**(Typical Fastening Pattern)**



**Typical Ridge Vent Assembly**  
**Isometric View (Not To Scale)**