

Evaluation Report MMI Off Ridge Vent & Attached Permanent Baffle Ridge Vent & Accessory Assembly

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

FL 19567.2 R2

Florida Building Code 7th Edition (2020)

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
& Attached Permanent Baffle**
Material: Steel or Aluminum
Support: Wood Deck

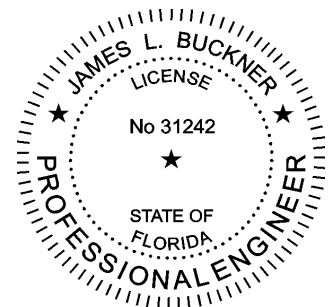
This item has been electronically signed and sealed by James L. Buckner, P.E., on this date using a Digital Signature. Printed copies of this document are not considered signed and sealed, and the signature must be verified on any electronic copies.

Prepared by:

James L. Buckner, P.E., SECB
Florida Professional Engineer # 31242
Florida Evaluation ANE ID: 1916
Report No. 20-224-MMI-ORV-PB-ER
Date: 10 / 29 / 2020

Contents:

Evaluation Report Pages 1 – 7



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

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Manufacturer:	Millennium Metals, Inc.
Product Name:	MMI Off Ridge Vent & Attached Permanent Baffle
Product Category:	Roofing
Product Sub-Category	Roofing Accessories that are an Integral part of the Roofing System
Compliance Method:	State Product Approval Rule 61G20-3.005 (2) (b)
Product/System Description:	MMI Off Ridge Vent with Attached Permanent Baffle Steel or aluminum off ridge vent & attached permanent baffle for shingle roofs mechanically attached to plywood deck.
Product Assembly as Evaluated:	Refer to Page 4 of this report for product assembly components/materials for structural attachment: <ol style="list-style-type: none">1. Off Ridge Vent2. Permanent Baffle3. Fasteners4. Roof Cement
Support:	Type: Wood Deck (Design of support and its attachment to support framing is outside the scope of this evaluation.) Description: <ul style="list-style-type: none">• 15/32 (min.) or greater plywood,• or Wood plank (min. specific gravity of 0.42)
Slope:	2 : 12 or Greater
Performance:	Wind Uplift Structural Resistance * Design Uplift Pressure: - 70 PSF <i>* Allowable design pressure for allowable stress design (ASD) with a margin of safety of 2 to 1.</i>

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 7th Edition (2020), 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 panel products 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).

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

Ridge Vent:

MMI Off Ridge Vent

Material Type 1:

Steel

Thickness:

26 gauge (min.)

Yield Strength:

40 ksi min.

Corrosion Resistance:

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:

Aluminum

Thickness:

0.025" (min.)

Alloy Type:

3105-H14

Corrosion Resistance:

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'

Baffle:

Permanent Model

Material Type 1:

Steel

Thickness:

26 gauge (min.)

Yield Strength:

40 ksi min.

Corrosion Resistance:

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:

Aluminum

Thickness:

0.025" (min.)

Alloy Type:

3105-H14

Corrosion Resistance:

In compliance with FBC Section 1507.4.3:
• ASTM B209

Nominal Dimensions:

Flange Width:

2-3/4"

Height:

3-1/4"

Lengths:

2', 4', 6', 8' and 10' (to match length of off ridge vent)

Fastener(s):

Base Fastener:

Purpose:

Attaches Ridge Vent Base Flange to Deck

Type:

Annular Ring Shank Roofing Nails

Size:

11 gauge (x length to meet min. penetration through deck)

Penetration Through:

3/16" min. through wood deck

Edge Distance:

Nominal 1-1/2" or 3/4" min. from edge of flange

Corrosion Resistance:

3/4" min. from edge of deck

Standard:

Per FBC Section 1506.5

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: Nominal 1-1/2" or 3/4" min. from edge of flange
Corrosion Resistance: Per FBC Section 1506.6 and 1507.4.4
Standard: Per ANSI/ASME B18.6.4

Roof Cement:

Type: Asbestos-free asphalt based roof cement w/ SBS rubber
Application Size: 1/4" thick minimum
Standard: Per ASTM D3019 Type III and ASTM D3409

Installation:

Structural Installation Method:

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

- Apply roof cement to the underside, back and side flanges of the ridge vent. Cement should be a 1/4" thick and extend 2" onto roof underlayment. (Install cement in compliance with manufacturer's installation guidelines.)
- Position vent flange beneath loosened shingles and align with deck opening.
- Insert baffle flange flushly beneath the vent front flange.

Simultaneously attach vent flange and baffle flange to deck with nails or screws spaced **8" o.c.** maximum and Nominal 4-1/2" from each end or 3/4" min. from edge of flange.

- Attach vent side flanges to deck with Two nails or screws equally spaced and Nominal 1-1/2" from flange edge or 3/4" min. from edge of flange.
- Minimum fastener penetration thru bottom of support, 3/16".
- Refer to manufacturer's installation instructions as a supplemental guide for attachment.

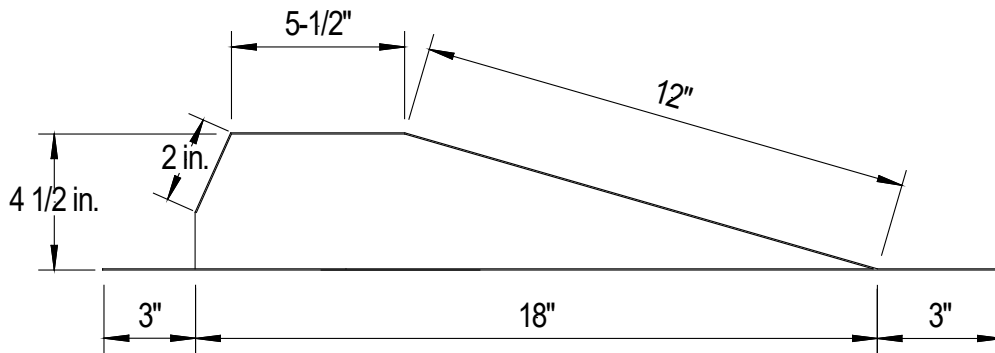
Referenced Data:

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. Engineering Analysis
By CBUGK Engineering
3. Quality Assurance
By Keystone Certifications, Inc. (QUA ID: 1824)
Millennium Metals Licensee # 423
4. Certification of Independence

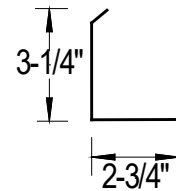
By James L. Buckner, P.E. @ CBUCK Engineering
(FBC Organization # ANE 1916)

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

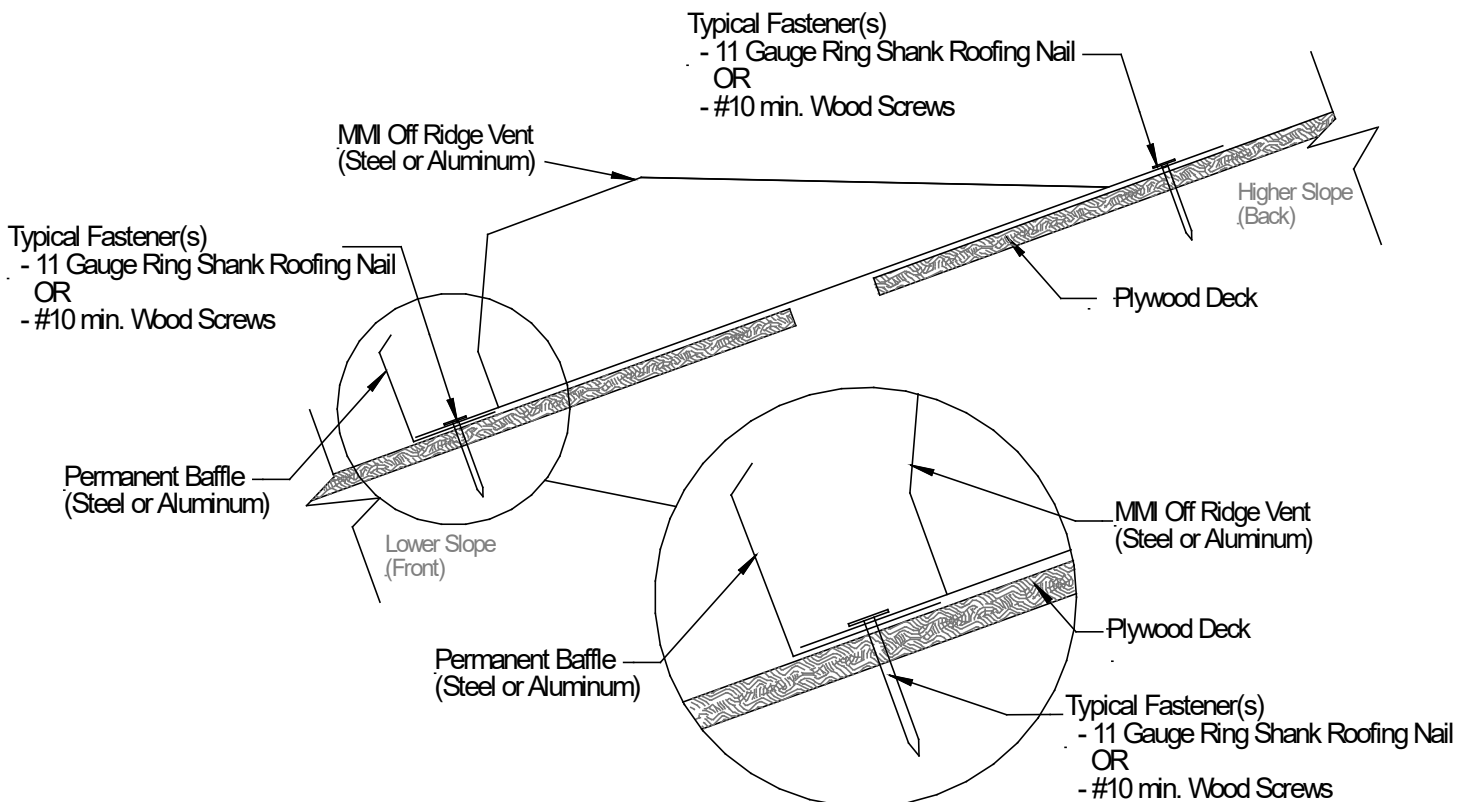
Profile Drawings



Vent Side View
(Not To Scale)

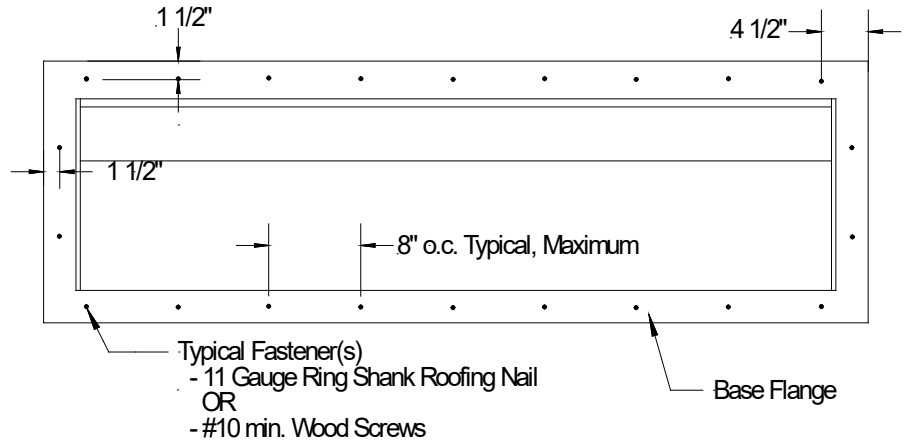


Baffle Side View
(Not To Scale)

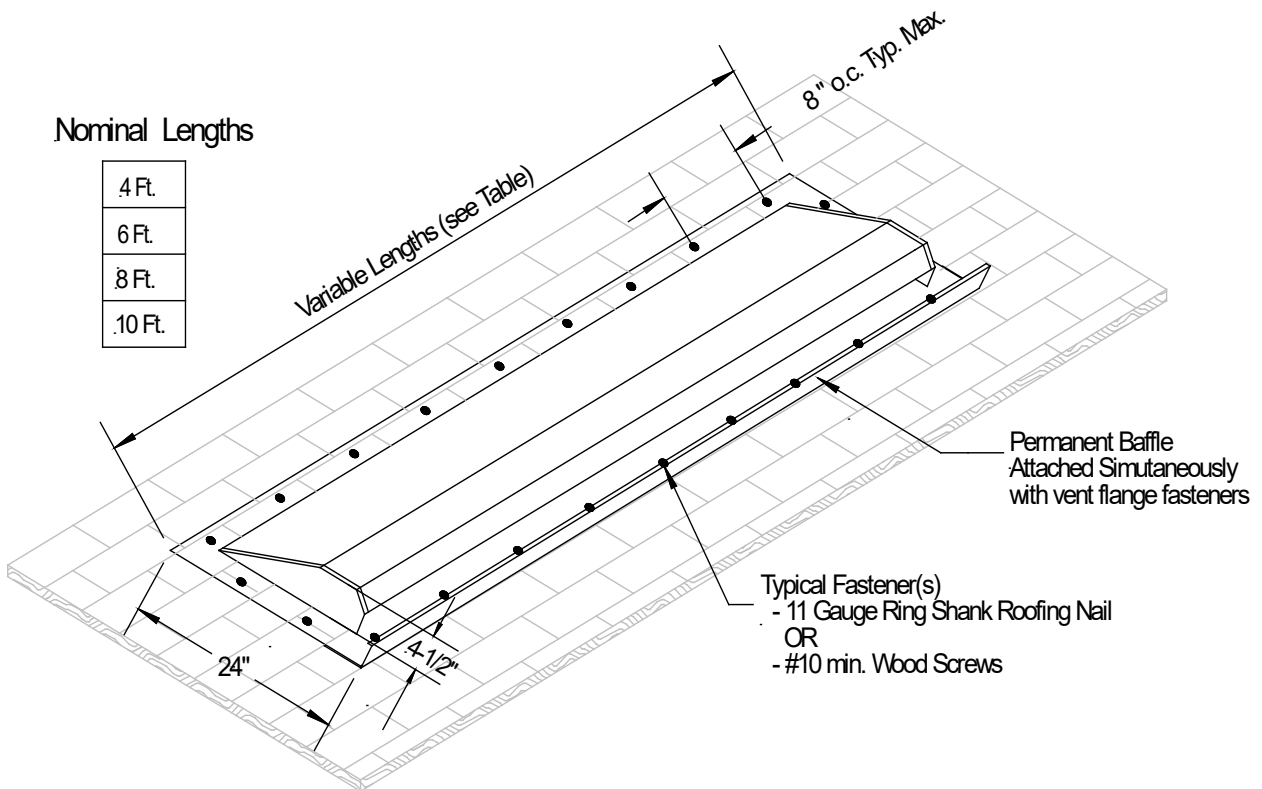


Typical Cross Section View (Not To Scale)

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)*