



Product Evaluation

RV37 | 0815

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: RV-37

Effective Date: August 1, 2015

Re-evaluation Date: August 2019

Product Name: Static, Power, and Turbine Roof Ventilators

Manufacturer: GAF
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Parsippany, NJ 07054
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Products are trademarked under the name **Master Flow®**.

Product Description:

The roof ventilators specified in this product evaluation report consist of static, power, and turbine roof ventilators. The ventilators are available in a variety of sizes and colors. The model and type of ventilators are shown below.

Ventilator Model	Ventilator Type
Master Flow® 12" Galvanized Wind Turbine (GC12EF)	Dual Bearing Wind (Externally Braced)
Master Flow® Attic Exhaust Ventilation – 10' Aluminum Ridge Vent (AR10)	Metal Ridge Vent
Master Flow® Power Attic Ventilator Pro 1(PR1D)	Roof Mounted Power Vent

Master Flow® 12" Galvanized Wind Turbine (GC12EF)

Description: An externally braced roof ventilator made of galvanized steel with an octagonal base 18" in width. The overall height of the ventilator is 20.47". The GC12E consists of a turbine top model GT12E and a galvanized base model SBX12.

Master Flow® Attic Exhaust Ventilation – 10' Aluminum Ridge Vent (AR10)

Description: An aluminum ridge vent with a weather baffle to prevent water intrusion. The aluminum ventilator is manufactured of 0.025" thick aluminum. The vent measures 120" in length, 8-1/2" in width, and 1-1/8" in height. Installation requires aluminum straps and flexible rubber plugs at each end.

Master Flow® Power Attic Ventilation Pro 1 (PR1D)

Description: A roof mounted power attic vent. The ventilator has a 28" x 28" base and is 9.31" in height. The flashing is 0.020" G-90 galvanized steel. The stack is 0.020" G-90 galvanized steel that is mechanically crimped. The hood is 0.020" thick aluminum and is 22.41" in diameter. There are four 0.032" G-90 galvanized steel hood brackets. The hood brackets are secured to the stack with two rivets per bracket. The hood is secured to the hood bracket with one 1/4" x 3/4" screw per bracket.

Limitations:

Design Pressures:

Ventilator Model	Design Pressure (psf)
Master Flow® 12" Galvanized Wind Turbine (GC12EF)	-200.0
Master Flow® Attic Exhaust Ventilation – 10' Aluminum Ridge Vent (AR10)	-200.6
Master Flow® Power Attic Ventilator Pro 1(PR1D)	-200.6

Roof Slopes:

Master Flow® 12" Galvanized Wind Turbine (GC12EF): The minimum roof slope shall be 2:12 and the maximum roof slope shall be 12:12.

Master Flow® Attic Exhaust Ventilation – 10' Aluminum Ridge Vent (AR10): The minimum roof slope shall be 3:12 and the maximum roof slope shall be 12:12.

Master Flow® Power Attic Ventilator Pro 1(PR1D): The minimum roof slope shall be 2:12 and the maximum roof slope shall be 12:12.

Installation:

General Installation Instructions:

All requirements specified in the IRC and the IBC shall be satisfied and manufacturer’s installation instructions followed, unless otherwise specified by this product evaluation.

Master Flow® 12" Galvanized Wind Turbine (GC12EF)

Roof Deck: The roof deck shall consist of wood structural panels (plywood or OSB) with a minimum thickness of 7/16".

Installation: Install the vent to the roof deck by carefully sliding the upper half of the flashing up the roof beneath the shingles that were previously rolled back until the base is centered over the 12" cutout. Roll back the shingles where necessary to secure the vent to the roof deck.

The vents are secured to the roof deck with 16, 11 gauge roofing nails (1/8" shank diameter, 3/8" diameter head, and 1-1/4" long). Fastener placement shall be in accordance with Figure 1.

Master Flow® Attic Exhaust Ventilation – 10' Aluminum Ridge Vent (AR10)

Roof Deck: The roof deck shall consist of wood structural panels (plywood or OSB) with a minimum thickness of 7/16".

Installation: The vents are to be fastened to the roof deck with minimum 11 gauge smooth shank roofing nails (1/8" shank diameter, 3/8" diameter head, and 1-1/4" long). The fasteners shall be long enough to penetrate a minimum 3/4" into or through the roof sheathing. The fasteners are to be placed in the pre-punched fastener holes in the vent, spaced a maximum of 6" on center along each side of Master Flow® High Wind aluminum straps at each end of the vent, at all connections between sections, and at the mid-span of each vent section. Each strap has four pre-punched nail holes, two on each side. The straps are secured to the roof deck with minimum 11 gauge smooth shank roofing nails (1/8" shank diameter, 3/8" diameter head), two fasteners at each end of each strap. The fasteners shall be long enough to penetrate a minimum 3/4" into or through the roof sheathing. Install a flexible plug at each end of the vent, sealed with silicone. Seal any exposed fastener with silicone.

Master Flow® Power Attic Ventilator Pro 1 (PR1D)

Roof Deck: The roof deck shall consist of wood structural panels (plywood or OSB) with a minimum thickness of 7/16".

Installation: Roll back shingles and remove all nails. Separate each layer of shingles around the perimeter of the roof hole. Insert the vent flashing under the upper shingles, trim if necessary. Apply silicone caulk between each layer of shingles at the cut edge of the vent openings and between the vent flanges and the shingle surface. The vent flashing is secured to the deck with minimum 11 gauge smooth shank roofing nails (1/8" shank diameter, 3/8" diameter head, and 1-1/4" long). The fasteners shall be long enough to penetrate a minimum 3/4" into or through the roof sheathing. The fasteners, placed approximately 1" from the outer edge of the flashing, are to be located approximately 1" from each corner and approximately 6" on center along the perimeter of the flashing. In addition, near each of the four hood brackets, the flashing is secured to the deck with one minimum 11 gauge smooth shank roofing nail (1/8" shank diameter, 3/8" diameter head, and 1-1/4" long). The fasteners shall be long enough to penetrate a minimum 3/4" into or through the roof sheathing. Coat all seams, screws, rivets, and nail heads with silicone caulk.

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

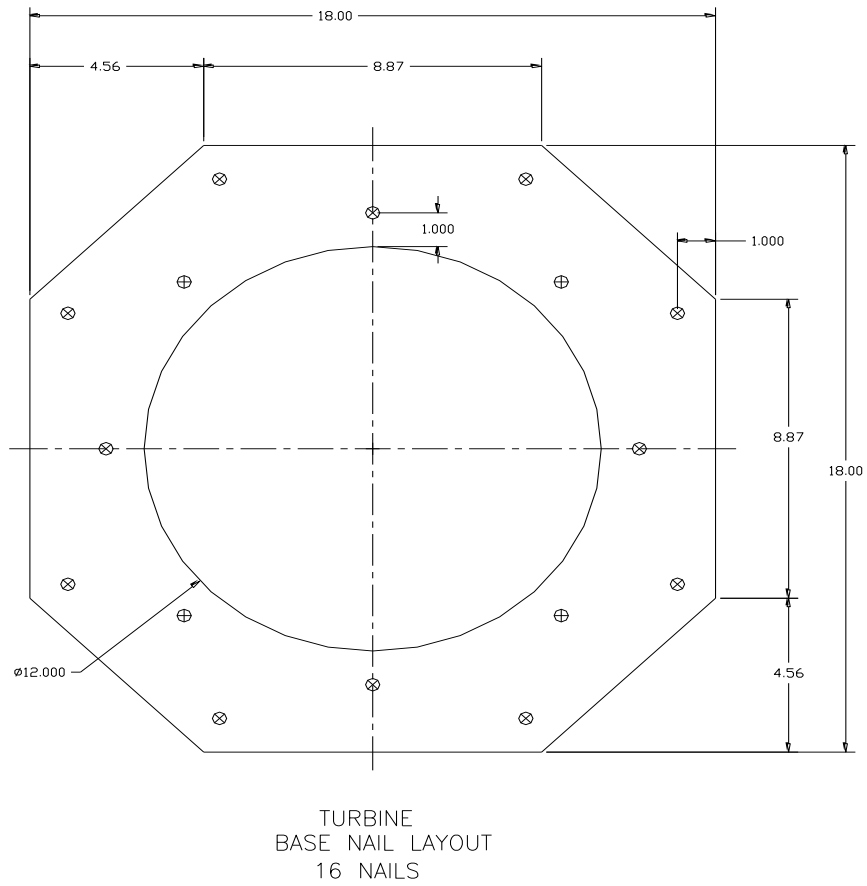


Figure 1. Fastener Pattern Requirements for the Master Flow® 12" Galvanized Wind Turbine (GC12EF) vent