TDI | Texas Department of Insurance

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Product Evaluation

RV62 | 0819

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-62

Effective Date: August 1, 2019
Re-evaluation Date: August 2023

Product Name: Master Flow® Green Machine™ High Power Solar Roof Vent-Solar Powered (PRSOLAR2), and Master Flow® Green Machine™ High Power Solar Roof Vent - Dual Powered (PRHYBRID2)

Manufacturer: GAF
1 Campus Drive
Parsippany, NJ 07054
(800) 766-3411

General Description:
The ventilators specified in this product evaluation consist of solar-powered and dual-powered roof ventilators. The dual-power roof vents can use conventional electricity (120 volts) or solar power.

The Master Flow® Green Machine™ High Power Solar Roof Vent – Solar-Powered (PRSOLAR2) and Master Flow® Green Machine™ High Power Solar Roof Vent – Dual-Powered (PRHYBRID2) are constructed of injection-molded polypropylene. These vents have a DC motor and a 20-watt solar panel mounted on the top of the hood. They are 7-1/2" high on the roof and the flashing is 27" x 27". The flashing has dimpled nail holes to help with the installation.

Limitations:

Design Pressures:

Ventilator Model	Design Pressure (psf)
Master Flow® Green Machine™ High Power Solar Roof Vent-Solar Powered PRSOLAR2)	-200
Master Flow® Green Machine™ High Power Solar Roof Vent Dual Powered (PRHYBRID2)	-200

Installation:

General: All requirements specified in the IRC and the IBC must be satisfied and the manufacturer's installation instructions followed, unless otherwise specified by this product evaluation.

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

Installation: The roof vents must be placed 18" from the ridge line. The vents must be centered between two rafters. A 15" diameter hole is cut through the shingles and the roof deck. 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 roofing cement between each layer of shingles at the cut edge of the vent openings and between the vent flanges and the shingle surface. Urethane sealant must only be used on these products since a petroleum-based sealant can cause degradation of their polypropylene construction.

The base of the vent is secured to the roof deck with a minimum of 24 fasteners. The fasteners must be minimum 11-gauge smooth shank galvanized roofing nails (1/8" shank diameter, 3/8" diameter head, minimum 1-1/4" in length). The fasteners must long enough to penetrate through the roof sheathing 1/2". The fasteners are placed approximately 4" on center, 1" from the outside edge of the flange at the dimple locations on the flange. Keep the fastener head of nails below the shingles where possible. Seal all seams and nails with roofing cement. Note: Use only urethane sealant to seal all seams and nails for the roof vents.

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