TEXAS DEPARTMENT OF INSURANCE

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PRODUCT EVALUATION   Effective August 1, 2013
RV-77

*The following product has been evaluated for compliance with the wind loads specified in **International Residential Code (IRC)** and the **International Building Code (IBC)**. This product shall be subject to reevaluation **August 2017.***

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.

SR1800 Solar Ventilation Fans, manufactured by

Solar Royal, LLC
3530 Bee Cave Rd. #104
Austin, Texas 78746
Telephone: (512) 547-3269

will be acceptable for use in designated catastrophe zones along the Texas Gulf Coast when installed in accordance to manufacturer's installation instructions and this product evaluation.

PRODUCT DESCRIPTION

The **Solar Royal SR1800** is a solar ventilation fan. The product has a two-piece design where the flashing is installed first and then the hood is secured without the use of tools. The product includes a built-in monocrystalline adjustable solar panel allowing for versatility in mounting positions. The solar panel is 22 watts and is expandable via an external power connector. Refer to Figure 1 for a top and side view of the assembly.

Flashing Base: A square, powder-coated metal, flashing base, with measurements of 26" x 26".

Hood: A square, automotive grade ABS, high impact composite material with a UV stabilizer and fire retardant, hood, with measurements of 24" x 24" x 7".

Solar Panel: The fan is powered by an 18" x 18", 22 Watt, 17.6 volt, monocrystalline solar panel.

LIMITATIONS

Design Wind Pressure: -340 psf

Roof Deck: The roof deck shall be minimum nominal $\frac{1}{2}$" plywood ($\frac{15}{32}$" plywood is acceptable).

Roof Slope: The attic fan shall be installed on roofs with a minimum slope of 3:12 and a maximum slope of 16:12.

INSTALLATION INSTRUCTIONS

General Installation Requirements: All requirements specified in the International Residential Code (IRC) and the International Building Code (IBC) shall be satisfied. The manufacturer's installation instructions shall be followed unless otherwise specified by this product evaluation.

Roof Deck: The roof deck shall consist of plywood wood structural panels with a minimum nominal thickness of $\frac{1}{2}$" plywood ($\frac{15}{32}$" plywood is acceptable).
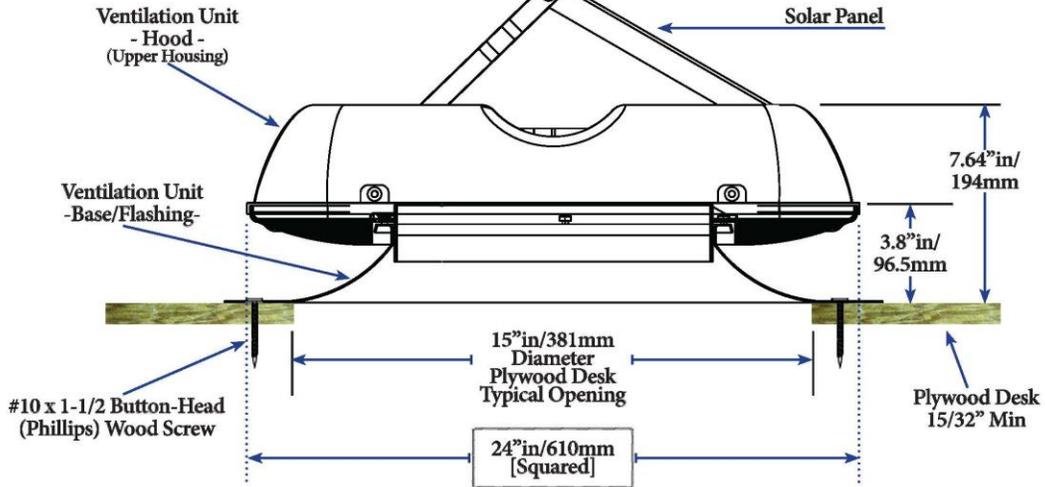
Installation Requirements: The solar ventilation (attic) fan shall be installed in accordance with the Solar Royal SR1800 Installation manual and this product evaluation report. The base flange shall be secured to the roof deck with No. 10 x 1-1/2" wood screws with neoprene washers. Two screws are required on each side of the base flange. The fasteners are located approximately 6 inches from each end and 2 inches in from the edge of the flange.

Note: The manufacturer's installation instructions shall be available on the job site during the installation. All fasteners shall be corrosion resistant as specified in the International Residential Code (IRC); the International Building Code (IBC); and the Texas Revisions.

APPENDIX - A
Model# SR1800

ASSEMBLY SIDE VIEW

Ventilation Unit
- Hood -
(Upper Housing)

Solar Panel

Ventilation Unit
-Base/Flashing-

7.64"in/
194mm

3.8"in/
96.5mm

15"in/381mm
Diameter
Plywood Desk
Typical Opening

24"in/610mm
[Squared]

#10 x 1-1/2 Button-Head
(Phillips) Wood Screw

Plywood Desk
15/32" Min

ASSEMBLY TOP VIEW

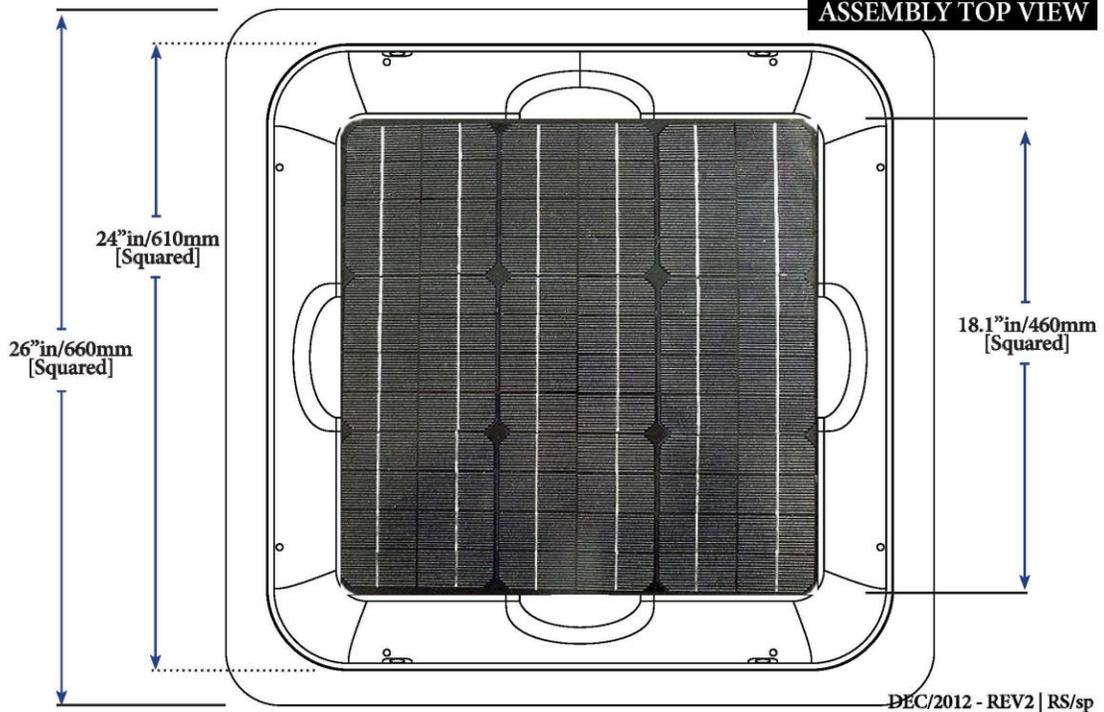24"in/610mm
[Squared]

26"in/660mm
[Squared]

18.1"in/460mm
[Squared]

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Figure 1. Assembly Top and Side View