

## Product Evaluation

RV79 | 0620

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-79

**Effective Date:** June 1, 2020

**Re-evaluation Date:** June 2024

**Product Name:** The TurbineAire Series (WTI-12, WTI-14, WTE-12, WTE-14, TI-12, TI-14, TE-12, TE-14, ATI-12, ATI-14, ATE-12, and ATE-14) and the AirHawk Series (TIBG-12, TIBG-14, TOBG-12, TOBG-14, TIB-12, TIB-14, TOB-12, TOB-14) turbine roof ventilators

**Manufacturer:** Air Vent, Inc.  
4117 Pinnacle Point Drive  
Suite 400  
Dallas, TX 75211  
(214) 630-7377

**Private Label:** TRI-BUILT 12-inch Internal Brace Wind Turbine (Equivalent to Air Vent TIB-12)  
TRI-BUILT 12-inch External Brace Wind Turbine (Equivalent to Air Vent TOB-12)  
TRI-BUILT 14-inch Internal Brace Wind Turbine (Equivalent to Air Vent TIB-14)  
TRI-BUILT 14-inch External Brace Wind Turbine (Equivalent to Air Vent TOB-14)

### General Description:

The AirHawk series turbine roof ventilators are manufactured of aluminum components with ball bearings and a plastic support structure to fasten the head to the adjustable collar. The roof turbines may be manufactured with galvanized steel components, which get the 'G' designation in the model number. The TurbineAire series are manufactured of either aluminum components (ATI/ATE) or galvanized steel (WTI/WTE) components and utilize a galvanized steel support structure to fasten the head to the adjustable collar. This evaluation report includes the following turbine roof ventilator products:

Model Number	Type Vent
WTI-12, WTI-14, WTE-12, WTE-14	TurbineAire Series
TI-12, TI-14, TE-12, TE-14	TurbineAire Series
ATI-12, ATI-14, ATE-12, ATE-14	TurbineAire Series
TIB-12, TIB-14, TOB-12, TOB-14	AirHawk Series
TIBG-12, TIBG-14, TOBG-12, TOBG-14	AirHawk Series

### Product Dimensions:

Model Number	Base	Height
TI-12, ATI-12, WTI-12, TE-12, ATE-12, WTE-12	18.0" x 18.0"	20.5"
TI-14, ATI-14, WTI-14, TE-14, ATE-14, WTE-14	20.0" x 20.0"	19.8"
TIB-12, TIBG-12	20.0" x 20.0"	17.0"
TIB-14, TIBG-14	20.0" x 20.0"	19.5"
TOB-12, TOBG-12	20.0" x 20.0"	17.5"
TOB-14, TOBG-14	20.0" x 20.0"	20.0"

### Limitations:

#### Design Pressure:

- 170 psf (WTI-12, WTI-14, WTE-12, WTE-14, TI-12, TI-14, TE-12, TE-14)
- 170 psf (ATI-12, ATI-14, ATE-12, ATE-14)
- 170 psf (TIB-12, TOB-12, TIBG-12, TOBG-12)
- 160 psf (TIB-14, TOB-14, TIBG-14, TOBG-14)

**Roof Slope:** The turbine roof ventilators must be installed on roofs with a minimum slope of 3:12 and a maximum slope of 12:12.

### Installation:

#### General Instructions:

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

**Deck:** The roof deck must consist of wood structural panels (plywood or OSB) with a minimum nominal thickness of 3/8".

#### Attachment of Roof Vent to Roof Deck:

**TIB-12, TIB-14, TOB-12, TOB-14, TIBG-12, TIBG-14, TOBG-12, TOBG-14:** The base of the vent must be attached to the deck with minimum 1-1/4" long, 12-gauge, smooth shank roofing nails. The fasteners must be located 1" in on all eight corners of the vent base. The fasteners must be long enough to penetrate into and through the roof deck.

**WTI-12, WTI-14, WTE-12, WTE-14, TI-12, TI-14, TE-12, TE-14, ATI-12, ATI-14, ATE-12, and ATE-14:** The base of the vent must be attached to the deck with minimum 1-1/4" long, 12-gauge,

smooth shank roofing nails. The fasteners must be located 1" in on all eight corners of the vent base. The fasteners must be long enough to penetrate into and through the roof deck.

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