

## Evaluation Report

**“Solar Attic Fans”  
Self-Flashing Series  
with Inclined Remote Mounted Solar Panel  
20 Watts, 30 Watts & 40 Watts Solar Panels**

### Manufacturer

**Attic Breeze, LLC.**

1370 FM 116  
Gatesville, Texas 76528  
(877) 288-4234  
*for*

### Florida Product Approval

**# FL 13339.3 R6**

**Florida Building Code 6th Edition (2017)**

**Per Rule 61G20-3**

**Method: 2 - B**

**Category: Roofing**

**Sub - Category: Roofing Accessories that are an Integral  
Part of the Roofing System**

**Product:** *Solar Attic Fans*  
**Product Description:** *Self-Flashing Series  
with Inclined Remote Mounted Solar Panel*

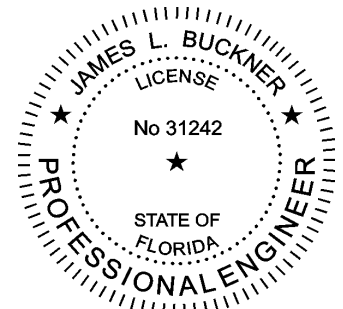
### Prepared by:

James L. Buckner, P.E., SECB  
Florida Professional Engineer # 31242  
Florida Evaluation ANE ID: 1916  
Report No. 18-101-SPAF-RemInc-S4W-ER  
Date: 1 / 4 / 18

### Contents:

Evaluation Report Pages 1 – 8

Facsimile of digital copy signed by  
James L. Buckner, P.E.  
Electronically signed and sealed documents shall  
comply with the provisions of FAC Rule 61G15-23



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

<b>Manufacturer:</b>	Attic Breeze, LLC.																				
<b>Product Name:</b>	Solar Attic Fans																				
<b>Product Category:</b>	Roofing																				
<b>Product Sub-Category:</b>	Roofing Accessories that are an Integral part of the Roofing System																				
<b>Compliance Method:</b>	State Product Approval Rule 61G20-3.005 (2) (b)																				
<b>Product Description:</b>	The Solar Attic Fans are roof mounted system powered by one or two solar panels. The unit consists of a 14 inch diameter fan, enclosed in a self-flashing fan house base vent, with corrosion resistant zincalume alloy steel housing, including a thermal switch, and a rodent guard. solar panel is remotely attached from the fan house unit shroud/dome.																				
<b>Product Assembly as Evaluated:</b>	Self-flashing solar attic fan with inclined remote mounted solar panel <ul style="list-style-type: none"><li>- Fan house base unit component mechanically attached to deck with wood screws</li><li>- Solar panel remotely attached to one (1) universal mounting bracket with machine bolts</li><li>- Inclined universal mounting bracket attached through roof deck to roof rafter/truss top chord with lag screws</li></ul>																				
<b>Model Numbers:</b>	<table><thead><tr><th><u>No./Designation</u></th><th><u>No. of Solar Panel</u></th></tr></thead><tbody><tr><td>AB-201D</td><td>1 Solar Panel</td></tr><tr><td>AB-202D</td><td>1 Solar Panel</td></tr><tr><td>AB-251D</td><td>1 Solar Panel</td></tr><tr><td>AB-252D</td><td>1 Solar Panel</td></tr><tr><td>AB-401</td><td>2 Solar Panels</td></tr><tr><td>AB-402</td><td>2 Solar Panels</td></tr><tr><td>AB-2022D</td><td>1 Solar Panel</td></tr><tr><td>AB-3022D</td><td>1 Solar Panel</td></tr><tr><td>AB-4022D</td><td>1 Solar Panel</td></tr></tbody></table>	<u>No./Designation</u>	<u>No. of Solar Panel</u>	AB-201D	1 Solar Panel	AB-202D	1 Solar Panel	AB-251D	1 Solar Panel	AB-252D	1 Solar Panel	AB-401	2 Solar Panels	AB-402	2 Solar Panels	AB-2022D	1 Solar Panel	AB-3022D	1 Solar Panel	AB-4022D	1 Solar Panel
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<b>Fan Unit Base Support:</b>	<b>Type:</b> Wood Deck (Design of support system is outside the scope of this evaluation) <b>Description:</b> <ul style="list-style-type: none"><li>• 15/32" or greater Plywood, or</li><li>• Wood plank deck (based on minimum density/specific gravity of 0.42)</li></ul>																				
<b>Solar Panel Support:</b>	Roof Rafter/Truss Top Chord <table><tr><td>Type:</td><td>Dimensional Lumber (Designed by Others)</td></tr><tr><td>Density/Specific Gravity:</td><td>0.42 Minimum</td></tr><tr><td>Nominal Size:</td><td>2 x 4 Minimum</td></tr></table>	Type:	Dimensional Lumber (Designed by Others)	Density/Specific Gravity:	0.42 Minimum	Nominal Size:	2 x 4 Minimum														
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<b>Roof Slope:</b>	Slope shall be in compliance with FBC, Chapter 15 based on the type of roof covering.																				
<b>Performance:</b>	Allowable Wind Resistance: <ul style="list-style-type: none"><li>* Positive Design Pressure: + 115 PSF</li><li>* Negative Design Pressure: - 115 PSF</li><li>* Allowable design pressures for allowable stress design (ASD).</li></ul>																				

**Performance Standards:** The following test protocol was performed to demonstrate compliance with the intent of the code as this product does not specifically address the performance standard in the code.

- ASTM E330-02 – *Standard Test Method for Structural Performance of Exterior Windows, Curtain Walls, and Doors and by Uniform Static Air Pressure Difference*

**Code Compliance:** The product described herein has demonstrated compliance with the Florida Building Code 6th Edition (2017), Section **1708.2**.

**Evaluation Report Scope:** This product evaluation demonstrates compliance of this product with the structural wind load requirements of the Florida Building Code, as related to Florida Product Approval Rule 61G20-3.001.

- Limits of Use:**
- The Solar Attic Fan including solar panel and electrical wiring shall be installed in compliance with Attic Breeze’s installation instructions and in accordance with applicable Building Codes
  - 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 vent 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 Certification, Inc.** (FBC Organization #: QUA 1824)

**Component(s)**

**Material Standards:**

**Fan Unit**

- Nominal Dimensions
  - Fan House Base: 28" × 28"
  - Fan House Shroud/ Dome: 21-1/2" × 21-1/2"
  - Overall Height: 10-3/4"
- Fan House Base & Shroud/Dome Material:
  - Material: Steel
  - Thickness: 22 ga.
  - Yield Strength: 33 ksi Minimum
  - Corrosion Resistance: Galvalume or Zinalume per ASTM A792 AZ 50 or in compliance with the FBC, Section 1507.4.3.

<b>Solar Panel</b>	<b>20 Watts</b>	<b>30 Watts</b>	<b>40 Watts</b>
Nominal Length:	19-1/4"	19-1/4"	26"
Nominal Width:	16-1/4"	16-1/4"	16-1/4"
Nominal Height:	1"	1"	1"
Frame Material:	Aluminum		
Frame Alloy	5052-H32		

**Universal Mounting Bracket** *(One per Panel)*

- Material: Aluminum
- Alloy: 5052-H32
- Thickness: 0.090 in

**Fastener (A)** *(Fan House Base to Roof Deck)*

- Type: Pancake Head Wood Screw
- Size: #10 × 1 in. Minimum
- Standard: Per ANSI/ASME B18.6.1
- Corrosion Resistance: Per FBC Section 1506.6

**Fastener (B)** *(Panel to Bracket)*

- Type: Hex-Head Machine Bolts and Nuts
- Size: 1/4 in. – 20 × 3/4 in. Minimum
- Washer: 1/4 in. Flat Washer & Lock Washer
- Material: 18-8 Stainless Steel

**Fastener (C)** *(Mounting Bracket to Dimensional Lumber)*

- Type: Hex-Head Lag Screw
- Size: 1/4 in.
- Embedment: 1-1/2 in.
- Standard: Per ANSI/ASME B18.6.1
- Corrosion Resistance: Per FBC Section 1506.6 AND 1507.4.4

**Installation:**

**Installation Method:**

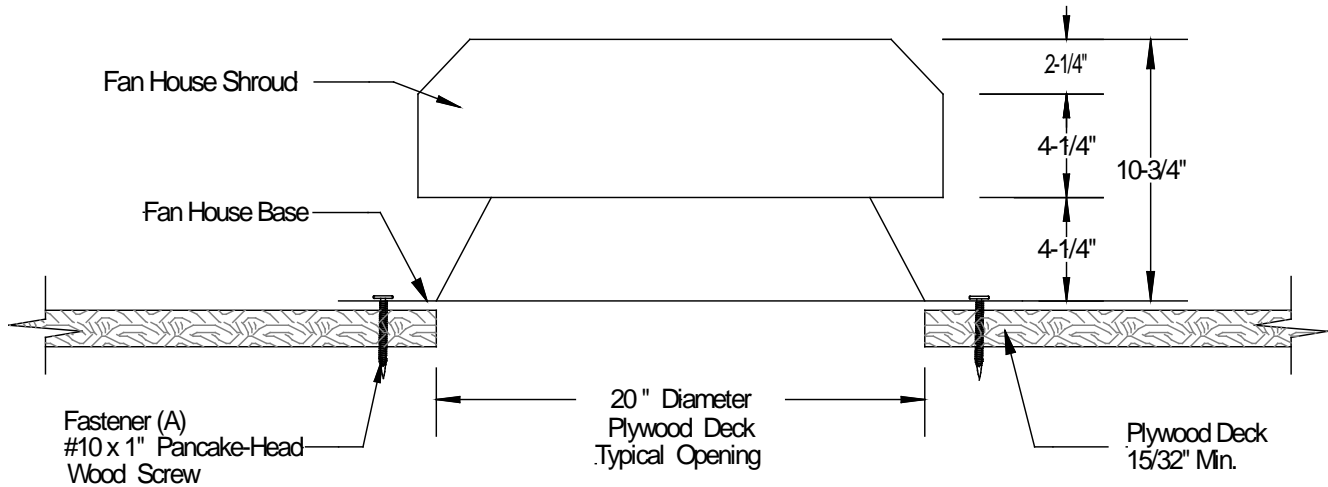
(Refer to Pages 6 through 8 of this evaluation report.)

“The Solar Attic Fans” shall be installed in compliance with the installation method listed in this report. The installation method described herein is in accordance with the scope of this evaluation report. Refer to manufacturer’s installation instructions as a supplemental guide for attachment.

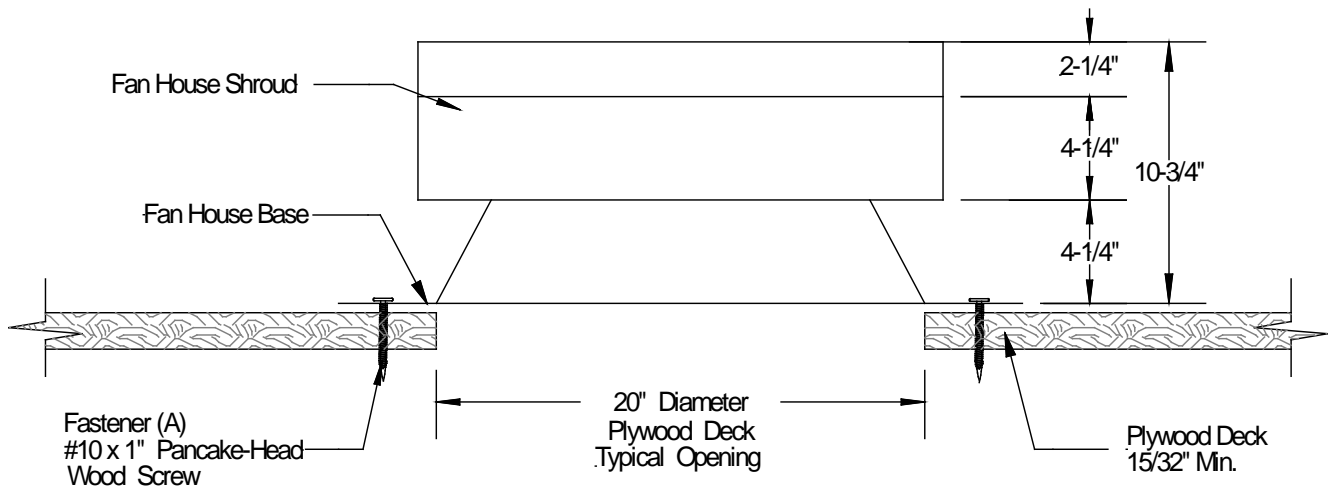
**Evaluated Referenced Data:**

1. ASTM E330-02 – Uniform Static Air Pressure Difference Test  
By Certified Testing Laboratories, Inc. (FBC Organization ID# TST 1577)  
Project #: CTLA 2002W, Dated: 11 / 20 / 09
2. Quality Assurance  
By Keystone Certification, Inc. (FBC Organization ID# QUA 1824)  
Attic Breeze, LLC. Licensee #740
3. Certification of Independence  
By James L. Buckner, P.E. @ CBUGK Engineering  
(FBC Organization # ANE 1916)
4. Engineering Analysis  
By CBUGK Engineering  
Report #C09-194, Dated: 12 / 1 / 09  
Report #C16-164, Dated: 10 / 20 / 16

## Installation Method Attic Breeze, LLC. Solar Attic Fan Attachment Assembly

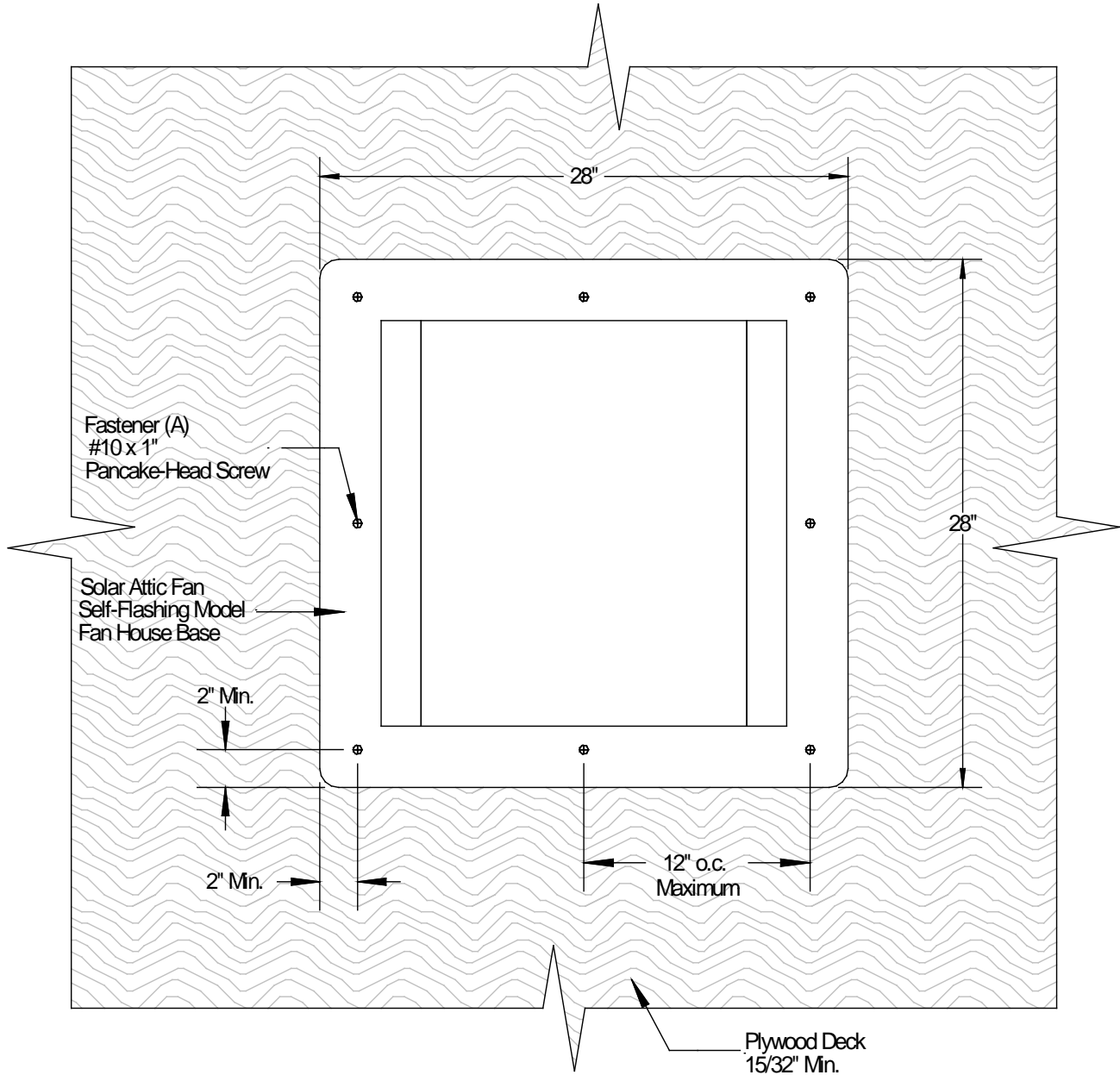


Assembly Front Section View



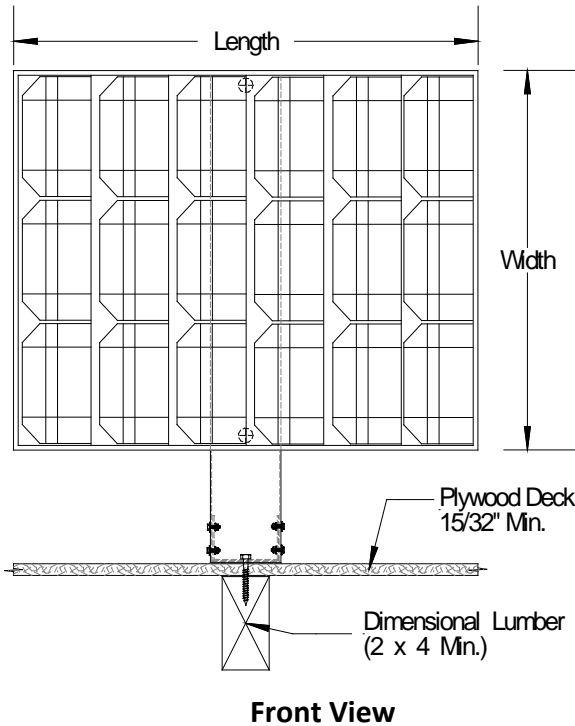
Assembly Side Section View

## Installation Method Attic Breeze, LLC. Solar Attic Fan Attachment Assembly



Assembly Top Plan View

## Installation Method Attic Breeze, LLC. Inclined Remote Mounted Solar Panel Attached Assembly



Model No.	No. of Panels per Unit
AB-201D	1 Solar Panel
AB-202D	1 Solar Panel
AB-251D	1 Solar Panel
AB-252D	1 Solar Panel
AB-401	2 Solar Panels
AB-402	2 Solar Panels
AB-2022D	1 Solar Panel
AB-3022D	1 Solar Panel
AB-4022D	1 Solar Panel

Solar Panel Nominal Dimensions			
Type:	20 Watts	30 Watts	40 Watts
Length:	19-1/4"	19-1/4"	25"
Width:	16-1/4"	16-1/4"	16-1/4"
Height:	1"	1"	1"

