

# TEXAS DEPARTMENT OF INSURANCE

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## PRODUCT EVALUATION

Effective December 1, 2011

RV-52

*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 **December 2015**.*

*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.*

**Model ASP Steel Roof Fans**, manufactured by

**Loren Cook Company**  
2015 East Dale Street  
Springfield, Missouri 65803  
Telephone: (417) 869-6474  
[www.lorencook.com](http://www.lorencook.com)

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 Model ASP fan is a steel roof fan. The roof fan consists of a DWDI blower that is mounted in a totally enclosed galvanized steel cabinet and a galvanized steel intake hood. Refer to Figure 1 for an illustration of the steel roof fan. The steel roof fan is available in models 90, 100, 120, 150, 180, and 200. The steel roof vent has maximum dimensions of 48  $\frac{1}{8}$ " x 48  $\frac{1}{8}$ " for the blower cabinet and 68" x 68" for the intake hood. The maximum height is 47  $\frac{1}{4}$  inches.

**Fan Construction:** The base panels are sealed with three (3) rows of foam gasket and secured to the curbing with No. 12 x 2" hex head self drilling screws with a  $\frac{1}{4}$ " washer and a neoprene grommet located 6 inches from each end and 6 inches on center. The base panels are secured to the corner posts with six (6)  $\frac{1}{4}$ " x  $\frac{3}{4}$ " hex head self-drilling screws located 1 inch and 2 inches from each end and two at the midpoint. Two (2) angles are secured to the base with six (6)  $\frac{1}{4}$ " x  $\frac{3}{4}$ " self-drilling screws located 4 inches from each corner and at the midpoint. Four (4) filter rails are secured with  $\frac{1}{4}$ " x  $\frac{3}{4}$ " self-drilling screws. Two (2) support panels are secured to corner posts with three (3)  $\frac{1}{4}$ " x  $\frac{3}{4}$ " self-drilling screws located 1 inch from each corner and at the midpoint. The panels are secured to one another with  $\frac{1}{4}$ " x  $\frac{3}{4}$ " self-drilling screws located 2 inches from the corners and at the midpoints. The hood is secured to two (2) angles and a cover with four (4)  $\frac{5}{16}$ " x 1" flange washer bolts with a  $\frac{7}{16}$ " washer and a speed-clip nut.

## LIMITATIONS

**Design Wind Pressure:**  $\pm 70$  psf

**Roof Framing:** The roof framing required to secure the fan shall consist of minimum nominal  $\frac{15}{32}$  inch plywood over nominal 2" wide Spruce-Pine-Fir dimension lumber.

**Roof Slope:** The roof fan shall be installed on a flat roof. Positive drainage of the roof is required.

**Impact Resistance:** These fan assemblies satisfy the Texas Department of Insurance's criteria for protection from windborne debris in the **Inland I** and the **Seaward zone**. The fan assemblies passed Missile Level D specified in ASTM E 1996-04. The fan assemblies may be installed at any height on the structure as long as the design pressure rating for the assemblies is not exceeded.

### INSTALLATION INSTRUCTIONS

**General Installation Requirements:**

All fasteners shall be corrosion resistant as specified in the International Residential Code (IRC) and the International Building Code (IBC). All IRC/IBC requirements must be satisfied and manufacturer's installation instructions followed, unless otherwise specified by this product evaluation.

**Installation:**

The metal curbing of the steel roof fan is secured to the Spruce-Pine-Fir roof framing with minimum  $\frac{5}{16}$ " x  $1\frac{1}{2}$ " lag bolts at 6 inches from each corner and 13 inches on center. The fasteners shall be long enough to penetrate a minimum of  $1\frac{1}{2}$  inches into the wood wall framing.



Figure 1. Model ASP Steel Roof Fan

**Note:** The manufacturer's installation instructions shall be 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.