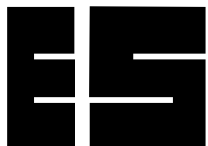


# BOCA EVALUATION SERVICES, INC.

# BOCA RESEARCH REPORT NO. 98-41



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A Participating Member of the NES, Inc.

NES

## DIVISION 07 - THERMAL AND MOISTURE PROTECTION

### SECTION 07720 - ROOF ACCESSORIES

#### ROLL VENT ATTIC VENTILATION SYSTEM

**BENJAMIN OBDYKE INC.  
65 STEAMBOAT DRIVE  
WARMINSTER, PA 18974-4889**

#### 1.0 DESCRIPTION OF EVALUATION

This report evaluates the use of Roll Vent Attic Ventilation System as a means of providing ventilation openings to concealed roof spaces, through a review of physical test data.

#### 2.0 DESCRIPTION AND USE OF PRODUCT

##### 2.1 GENERAL DESCRIPTION

Roll Vent Attic Ventilation System is intended to be installed, in conjunction with eave, cornice or soffit vents, to provide natural ventilation of enclosed attic and rafter spaces.

The ridge vent is intended for use on roofs with asphalt shingle roof coverings and a minimum slope of 3 units vertical to 12 horizontal. The ridge vent shall be installed over the roof shingles and a continuous opening cut in the roof sheathing at the roof ridge. The ridge vent shall be secured to the roof with nails and covered with ridge shingles as illustrated in Figure 1 of this report. Refer to Section 2.2 of this report for additional information on the installation of the ridge vent.

Roll Vent Attic Ventilation System consists of a flexible, single layer, three dimensional, random nylon matrix matting, with a nonwoven nylon-polyester fabric covering. The ridge vent material is 0.90 in. (23 mm) thick, has a nominal weight of 0.130 lb/linear ft (0.19 kg/m), and is manufactured in rolls 10 1/2 in. (267 mm) wide x 20 or 50 ft (6.1 or 15.2 m) long.

#### 2.2 USE AND APPLICATION

Roll Vent Attic Ventilation System shall be installed over a slot cut into the roof sheathing material on each side of the roof ridge. The minimum nominal width of the slot, measured horizontally, shall be 1 13/16 in. (46 mm) on each side of the roof ridge. The last 6 in. (152 mm) of roof sheathing at each end of the ridge shall be left uncut. On roofs with ridge boards a slot with a width of 1 13/16 in. (46 mm) shall be provided on each side of the ridge board.

The ridge vent material shall be unrolled to cover the entire length of the ridge. The ridge vent shall be completely covered by the roof ridge shingles. The roof ridge shingles shall be fastened in place over the ridge vent material with minimum 2 1/2 in. (64 mm) long, hot-dipped galvanized roofing nails installed on each side of the ridge at a maximum spacing of 5 in. (127 mm) on center. The roofing nails shall have a nominal 0.120 in. (3.05 mm) diameter shank and a 0.412 in. (10.5 mm) diameter x 0.020 in. (0.51 mm) thick head and shall be long enough to penetrate through the roof sheathing. The roofing nails shall be driven so that a minimum 0.90 in. (23 mm) clear space remains between the ridge and roof shingles.

Where shorter lengths of the roof vent material are used, they shall be joined together by removing a portion of the nylon matrix and splicing the sections together, with no gaps between the sections.

#### 3.0 CODE ANALYSIS OF SUBMITTED INFORMATION

The following data were submitted by the proponent for demonstration of compliance with the respective code sections listed above each item of information. The basis is the *BOCA National Building Code/1996*.

##### 3.1 WEATHER PROTECTION

**Code Section 1504.1 General**

#### INFORMATION SUBMITTED:

Please contact BOCA Evaluation Services, Inc., with any questions you may have regarding this report. Additionally, please contact us if you have any information on the performance of the product described herein which is contrary to this report. This report is subject to the limitations listed herein and to the specific product, data and test reports submitted by the applicant requesting this report. Independent tests were not performed by BOCA Evaluation Services, Inc., and BOCA Evaluation Services, Inc., specifically does not make any warranty, either expressed or implied, as to any findings or other matter in this report or as to any product covered by this report. Evaluation reports are not to be construed as representing aesthetics or any other attributes not specifically addressed nor as an endorsement or recommendation for the use of the subject of the report. This disclaimer includes, but is not limited to, merchantability.

Construction Research Laboratory, Inc., Test Report No. 4955, dated May 17, 1988, contains results of wind-driven rain and static pressure structural uplift performance testing. The results of testing indicate that there was no rain infiltration of the system when subjected to wind speeds ranging from 50 to 100 mph (80 and 160 kph) with varying durations, and no damage or failure when subjected to static pressures ranging from 15 to 100 lbf/ft<sup>2</sup> (0.7 to 4.8 kPa).

### 3.2 VENTILATION OF SPECIAL SPACES

#### Code Section 1210.1 Roof spaces

##### INFORMATION SUBMITTED:

**3.2.1** Construction Research Laboratory, Inc., Test Report No. 5646, dated June 8, 1992, contains results of simulated snow (fine saw dust) infiltration performance testing. The results of testing indicate that there was no simulated snow infiltration of the system, when subjected to wind speeds of 30, 50 and 70 mph (48, 80 and 112 kph).

**3.2.2** See Information Submitted in Section 3.1 of this report for test data containing evidence of resistance to wind-driven rain.

**3.2.3** Engineering calculations, signed and sealed by a Professional Engineer, contain data indicating that the system has a net free ventilating area of 18.0 in<sup>2</sup>/lineal ft (11613 mm<sup>2</sup>/304.8 mm).

### 4.0 INSTRUCTIONS TO THE CODE OFFICIAL

Benjamin Obdyke Inc.'s Roll Vent Attic Ventilation System has been evaluated for compliance with the 1996 edition of the *BOCA National Codes*. This report is limited to the applications and products as stated herein. This evaluation is based solely upon information provided to BOCA Evaluation Services, Inc. by Benjamin Obdyke Inc., and has not been independently verified. BOCA-ES intends that the report be used by the code official to determine that Roll Vent Attic Ventilation System complies with those code requirements specifically addressed in Section 3.0 of this report, provided that this product is installed in accordance with the following limitations:

#### Limitations

- 4.1** This report is subject to annual certification. Reports that are not certified shall not be used or referred to. In order to determine the status of certification of this report, contact BOCA Evaluation Services, Inc., or consult the latest edition of the *National Product Evaluation Listing* published periodically in the BOCA magazine.
- 4.2** Roll Vent Attic Ventilation System shall be installed in accordance with the manufacturer's installation instructions, Form No. 436-30M/TH, dated September 1997, subject to the provisions of this report.
- 4.3** Roll Vent Attic Ventilation System shall be limited to installation on roofs with a minimum slope of 3 units vertical in 12 units horizontal (3:12) and a maximum slope of 12 units vertical in 12 units horizontal (12:12).

**4.4** A maximum of one-half of the ventilation openings shall be provided by the ridge vent and the balance of the openings provided by eave or cornice vents in accordance with the provisions of Section 1210.1 of the *BOCA National Building Code/1996*.

**4.5** Roll Vent Attic Ventilation System shall be considered to provide not more than 18.0 in<sup>2</sup> (11613 mm<sup>2</sup>) of net free ventilating area per lineal foot of ridge vent.

### 5.0 INFORMATION REQUIRED ON CONSTRUCTION DOCUMENTS

To aid in the use of this report, the following represents the minimum level of information to be reflected on construction documents in order to determine compliance with this research report.

**5.1** The language "See BOCA Evaluation Services, Inc., Research Report No. 98-41."

**5.2** Drawings shall indicate the following:

**5.2.1** The minimum required net free ventilating area for the space(s) and the amount of ventilation provided by the ridge vent and the eave or cornice vents;

**5.2.2** The size of the slot to be provided in the roof sheathing;

**5.2.3** The slope of the roof; and

**5.2.4** The size and spacing of the roofing nails.

### 6.0 IDENTIFICATION

All Benjamin Obdyke Inc., Roll Vent Attic Ventilation Systems manufactured in accordance with this research report shall be marked at the plant with the identifying language "See BOCA Evaluation Services, Inc., Research Report No. 98-41."

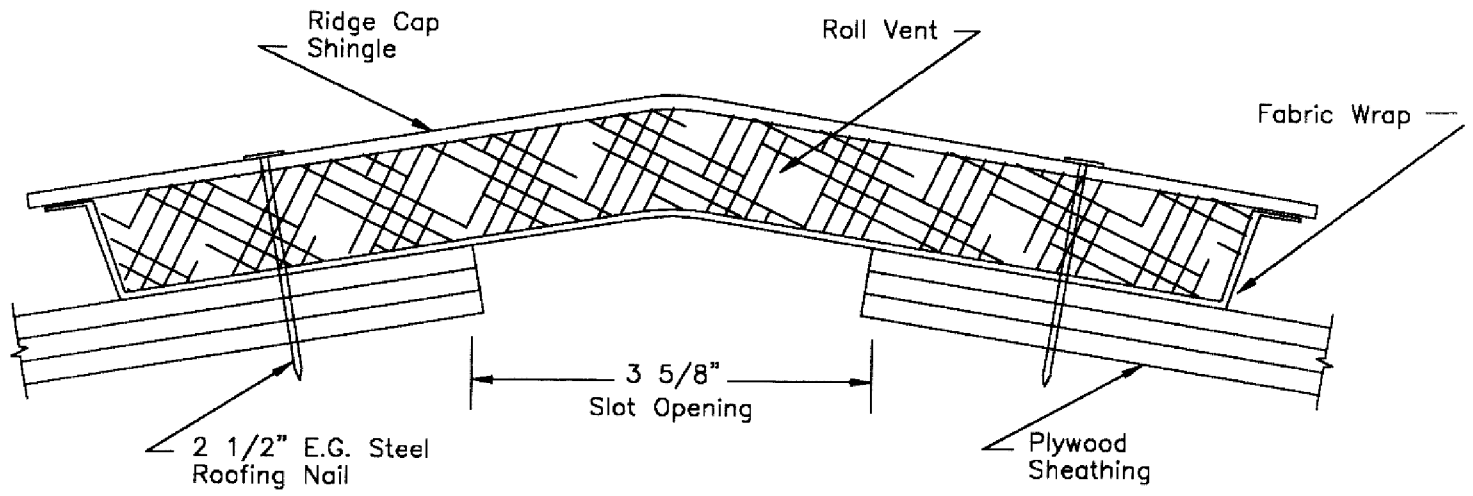


Figure 1\*

\*THIS DRAWING IS FOR ILLUSTRATION PURPOSES ONLY. IT IS NOT INTENDED FOR USE AS A CONSTRUCTION DOCUMENT FOR THE PURPOSE OF DESIGN, FABRICATION OR ERECTION.