

ELRO MANUFACTURING, LLC MIAMI-DADE TEST REPORT

SCOPE OF WORK

WIND DRIVEN RAIN RESISTANCE TESTING OF AEROVENT GOOSENECK OFF RIDGE VENT

REPORT NUMBER

J4948.02-450-18 R0

TEST DATE

04/24/19

ISSUE DATE

05/16/19

RECORD RETENTION END DATE

04/24/29

PAGES

13

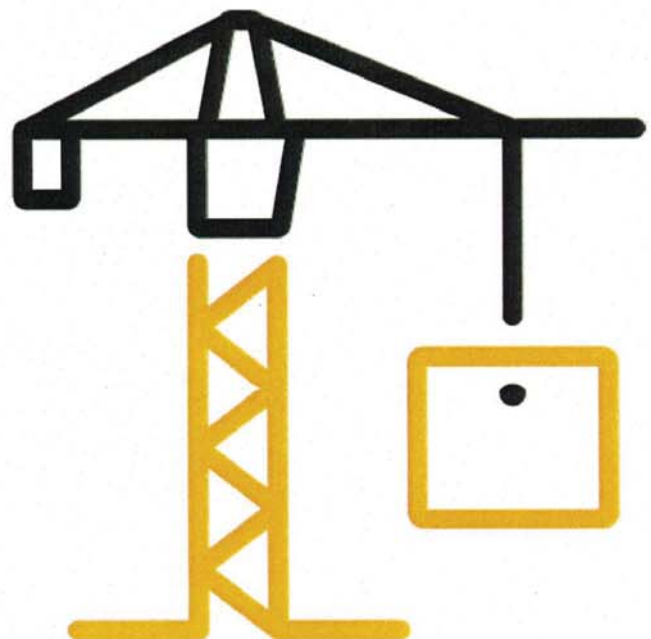
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TEST REPORT FOR ELRO MANUFACTURING, LLC

Report No.: J4948.02-450-18 R0

Date: 05/16/19

REPORT ISSUED TO

ELRO MANUFACTURING, LLC, INC

90 Bradshaw Rd.

Apopka, FL 32703

SECTION 1

SCOPE

Intertek Building & Construction (B&C) was contracted by Elro Manufacturing, LLC to perform testing in accordance with TAS 100(A)-95, *Test Procedure for Wind and Wind Driven Rain Resistance of Discontinuous Roof Systems*, on their Aerovent Gooseneck off ridge vent. Results obtained are tested values and were secured by using the designated test method. Testing was conducted at Intertek facility in West Palm Beach, Florida. This report does not constitute the certification of this product nor an opinion or endorsement by this laboratory.

SECTION 2

SUMMARY OF TEST RESULTS

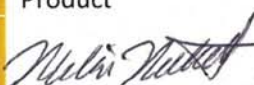
Off Ridge Vent

Manufacturer: Elro Manufacturing, LLC, Inc.

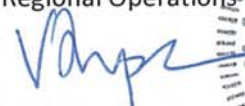
Series/Model: Aerovent Gooseneck

Test Results: PASS

For INTERTEK B&C:

COMPLETED BY:	Melissa Nuttall
TITLE:	Technician Team Leader - Product
SIGNATURE:	
DATE:	05/16/19

mmn:sr

REVIEWED BY:	Vinu Abraham, P.E.
TITLE:	Vice President – Global Business Development & Regional Operations
SIGNATURE:	
DATE:	05/16/19



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SECTION 3**TEST METHOD**

The specimens were evaluated in accordance with the following:

TAS 100(A)-95, *Test Procedure for Wind and Wind Driven Rain Resistance of Discontinuous Roof Systems*, Florida Building Code - Test Protocols for High Velocity Hurricane Zone, 6th Edition (2017).

SECTION 4**CALIBRATION**

Windstream, water supply, and water distribution calibrations were performed prior to testing.

SECTION 5**MATERIAL SOURCE/INSTALLATION**

The specimen was provided by Elro Manufacturing, LLC. Representative samples of the test specimen(s) will be retained by Intertek B&C for a minimum of ten years from the test completion date.

Installation of the tested product was performed by Elro Manufacturing, LLC.

SECTION 6**EQUIPMENT**

Wind Generator: Engine driven propeller

SECTION 7**LIST OF OFFICIAL OBSERVERS**

NAME	COMPANY
Al Robida	Elro Manufacturing, LLC
Lewis Stevenson	Elro Manufacturing, LLC
Melissa Nuttall	Intertek B&C
Veron Wickham	Intertek B&C
Vinu Abraham, P.E.	Intertek B&C

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SECTION 8

TEST PROCEDURE

This test evaluates whether a soffit ventilation and a continuous or intermittent ridge area ventilation system installed within a discontinuous roof system, provides sufficient wind driven rain resistance to allow minimal water infiltration through the soffit and ridge area vent during a predetermined test period. One assembly was tested per TAS-100(A) at the wind speed intervals indicated below. (Reference Chart No. 1 for wind speed and duration.)

Interval No.	Wind Speed (mph)	Time (min)	Water Spray
1	35	15	On
2	0	5	Off
3	70	15	On
4	0	5	Off
5	90	15	On
6	0	5	Off
7	110	5	On
8	0	5	Off

Chart No. 1
TAS-100(A) Wind Speed Intervals

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SECTION 9**TEST SPECIMEN DESCRIPTION****Off Ridge Vent****Manufacturer:** Elro Manufacturing, LLC, Inc.**Series/Model:** Aerovent Gooseneck Off Ridge Vent**Vent Size:** 10" (nominal)

Test Deck Description: An 8' 2" wide by 7' 0" roof system test assembly on a 2:12 slope incorporating a ridge condition was used. The plywood test deck consisted of four-ply 15/32" thick plywood sheathing installed over 2x10 perimeter supports and 2x10 intermediate supports, spaced 24" on center. The plywood was cut out to provide an 8" x 46" opening below the off ridge vent. A single layer with 10" overlaps of RhinoRoof U-20 underlayment was installed over the plywood using 1" roofing nails with plastic caps spaced 12" on center at the overlaps. Asphalt shingles were installed over the underlayment per installation instruction. A 3-1/4" (l) x 2-1/2" (h) drip edge was installed along the entire perimeter. Roofing cement was used underneath and on top of the drip edge and it was secured with the shingle fasteners. Soffit ventilation was constructed into the test deck and located below the deck's front edge.

Specimen Description: The vent was constructed from 26 Ga galvalume steel. The overall dimensions of the vent were 7-1/2" (h) x 19-3/16" (w) x 16-5/8" (l). The top flange of the vent was located 17" below the ridge. The vent was secured at the sides and top with 1-1/4" standard roofing nails spaced 4" on center through the flanges. Sealant was used under the bottom flange. Roof cement was used on top of and 2" beyond the top and side flanges. Clear sealant was used on the underside of all vent construction seams. Shingles were installed over the flanges per installation instructions. The specimen was installed by the client.

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SECTION 10**TEST RESULTS****Protocol TAS 100(A)-95, Wind Driven Rain****Test Date:** 04/24/19

The temperature during testing was 78°F. The results are tabulated as follows:

Test Results: The TAS 100(A) test results are as follows:

Wind Speed	Results	Allowed
35 mph	No leakage	0.03 lbs
70 mph	No leakage	0.07 lbs
90 mph	No leakage	0.10 lbs
110 mph	<0.01 lbs	0.11 lbs

Notes:*Reference Chart No. 1 for test wind speeds and durations.**Reference Section 12 for Photographs.***SECTION 11****CONCLUSION**

The Aerovent Gooseneck Off Ridge Vent tested per TAS 100(A)-95 met the requirements for wind driven rain resistance. Per Section 11.1.2 of TAS 100(A) the vent met the requirements for installation up to and including a height of 33 feet.

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SECTION 12

PHOTOGRAPHS



Photo No. 1
Interior of Deck at 35 mph



Photo No. 2
Exterior of Deck at 35 mph

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Photo No. 3
Interior of Deck at 70 mph



Photo No. 4
Exterior of Deck at 70 mph

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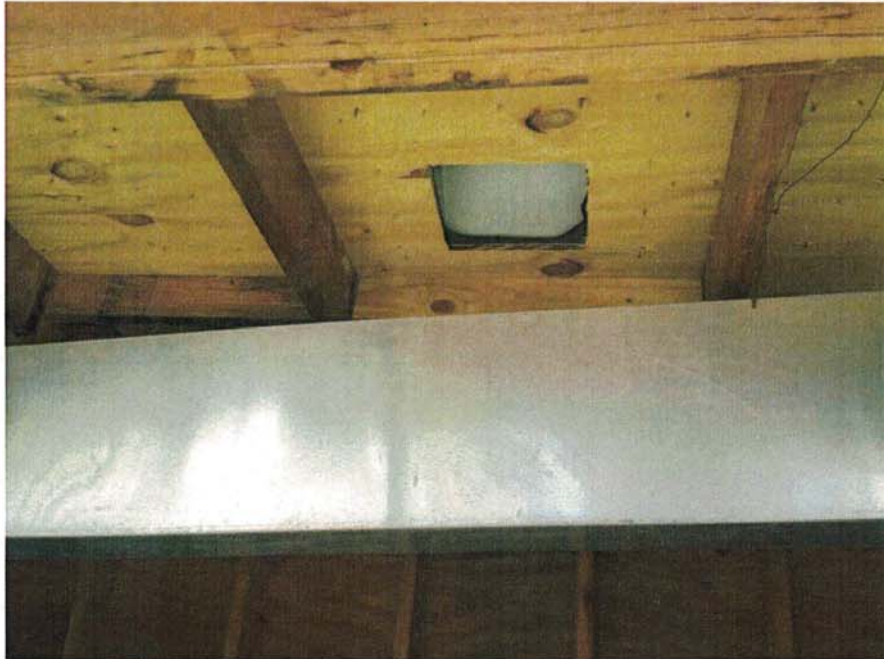


Photo No. 5
Interior of Deck at 90 mph



Photo No. 6
Exterior of Deck at 90 mph

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Photo No. 7
Interior of Deck at 110 mph



Photo No. 8
Exterior of Deck at 110 mph

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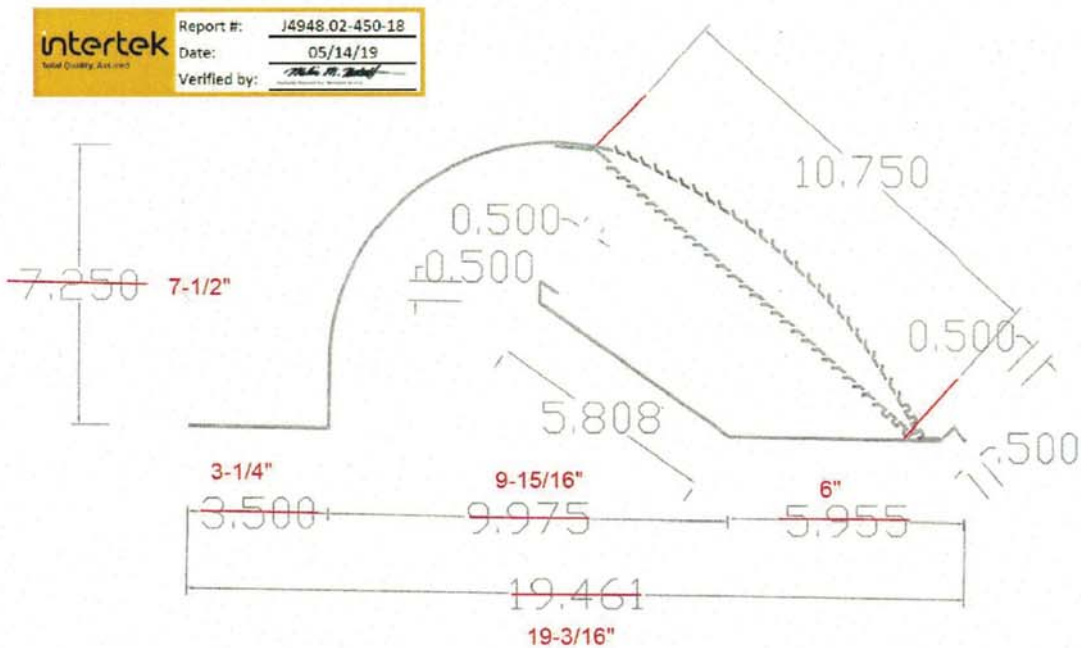
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SECTION 13

DRAWINGS

The test specimen drawings have been reviewed by Intertek B&C and are representative of the test specimen(s) reported herein. Test specimen construction was verified by Intertek B&C per the drawings included in this report. Any deviations are documented herein or on the drawings.

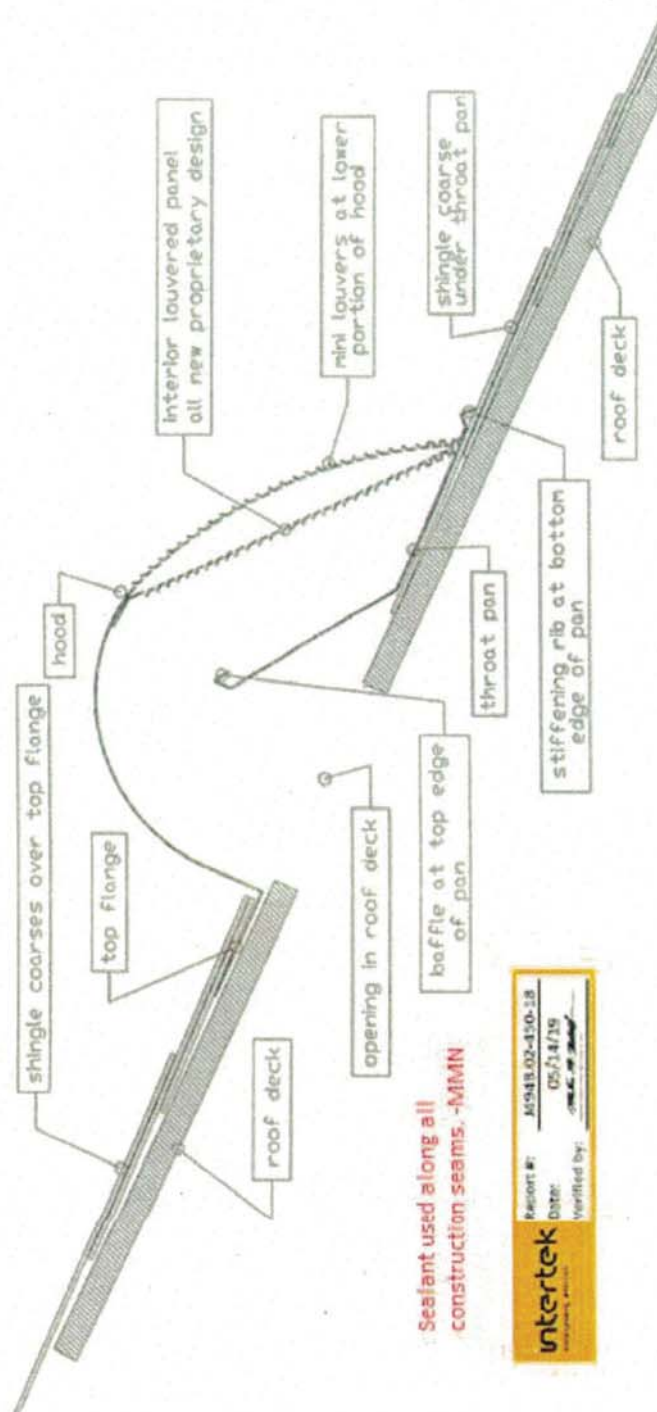


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Aero-Vent GN : profile & features



Sealant used along all construction seams. -MMN





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SECTION 14

REVISION LOG

REVISION #	DATE	PAGES	REVISION
0	05/16/19	N/A	Original Report Issue