

**TEST REPORT NO. 3010895B**

EVALUATION OF  
AMERIVENT DIRECT VENT SYSTEMS  
IN CONJUNCTION WITH  
HEARTHSTONE APPLIANCES

FOR

AMERICAN METAL PRODUCTS  
8601 HACKS CROSS ROAK  
OLIVE BRANCH, MS 38654

# Test Report

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**ITS**

Intertek Testing Services

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**TEST REPORT NO. 3010895B**

Prepared for  
**AMERICAN METAL PRODUCTS**  
8601 Hacks Cross Road  
Olive Branch, MS 38654

Prepared by  
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### INTRODUCTION

Intertek Testing Services NA Inc. (ITS) of Middleton, Wisconsin, examined and tested the Ameri Vent Direct vent/intake system, manufactured and furnished by American Metal Products, a MASCO Company, of Olive Branch, MS. Tests were conducted at the American Metal Products test facility. The systems were evaluated as alternate components of WHI-certified vented gas fireplace heaters manufactured by the Hearthstone Company of Morrisville, VT. Applicable existing and proposed portions of ANSI and CSA Standards were used as guidelines for the test project. The results in this report are limited to the items submitted.

### EXPLANATORY NOTES

Generic (separate from the appliances) testing was previously conducted at the AMP facility and results are included in WHI Report #J20017829. Specific tests' results described in this report were used as a comparison with the original components.

### TEST EQUIPMENT

Test equipment used to measure and record data was examined and found to be acceptable for the certification project. Calibration records are on file at the American Metal Products facility in Olive Branch, MS.

### CLEARANCES TO COMBUSTIBLES

Clearances were established during appliance certification testing.

### APPLIANCES TESTED

Hearthstone Model Tuscon with AmeriVent Direct 4" x 7" system.

Hearthstone Model Champlain with AmeriVent Direct 4" x 7" system.

### TESTS DESCRIPTION

#### Combustion Tests

The Model Tuscon was installed in a test structure as described in the ANSI Z21.88 Standard, and connected to the 4" x 7" AmeriVent Direct system in the configuration deemed by the testing agency to impose the most severe operation conditions.

The Model Champlain was installed in a test structure as described in the ANSI Z21.88 Standard, and connected to the 4" x 7" AmeriVent Direct system in the configuration deemed by the testing agency to impose the most severe operation conditions.

#### Results

When tested as described in the Combustion Section (2.4) of the Standard, the AmeriVent Direct system did not cause either appliance to produce a concentration of carbon monoxide in excess of 0.04%.

#### Wind Tests

The Model Tuscon was installed in a test structure as described in the ANSI Z21.88 Standard, and connected to the 4" x 7" AmeriVent Direct system. Tests were conducted with the various configurations specified in the manufacturer's installation instructions to provide for:

- a. The least resistance to the egress of combustion products; and
- b. The highest resistance to egress of combustion products.

The Model Champlain was installed in a test structure as described in the ANSI Z21.88 Standard, and connected to the 4" x 7" AmeriVent Direct system. Tests were conducted with the various configurations specified in the manufacturer's installation instructions to provide for:

- c. The least resistance to the egress of combustion products; and
- d. The highest resistance to egress of combustion products.

During each test the wind was directed against the termination at the various wind speeds and directions as described in the Standard to verify results of tests conducted previously.

#### Results

1. The gas at the pilot and main burner was capable of being ignited at the specified wind nominal velocity of 5 and 10 miles per hour (2.24 m/s and 4.47 m/s).
2. The main burner and pilot did not become extinguished and the gas at the main burner ignited from the pilot without excessive delay when the vent/air intake terminal was exposed to a wind having a nominal velocity ranging from 5 to 40 miles per hour (2.24 m/s to 17.88 m/s).

#### Delayed Ignition Tests

1. With the appliance installed with the maximum vent/intake length according to the manufacturer's instructions, as described in the Standard, the delayed ignition tests were conducted.

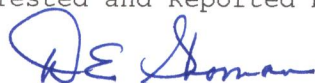
#### Results

1. No damage to the appliance was observed.

Conclusions

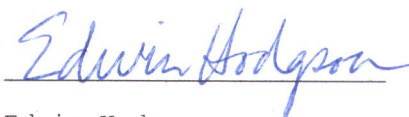
Intertek Testing Services NA has examined and tested the AmeriVent Direct vent/intake system and judged the design, as detailed in the certification report, to be acceptable as an alternate system for these and other similar designs of Hearthstone Stove Company Vented Gas Fireplace Heaters.

Tested and Reported by:

A handwritten signature in blue ink, appearing to read "DE Shoman", written over a horizontal line.

Dan Shoman  
ITS Dallas

Reviewed by:

A handwritten signature in blue ink, appearing to read "Edwin Hodgson", written over a horizontal line.

Edwin Hodgson  
Project Manager