

Intertek Testing Services

REPORT NO: J20017832-231

REPORT DATE: AUGUST 21, 2000

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CLIENT: AMERICAN METAL PRODUCTS INC.

MODEL: DIRECT VENT GAS APPLIANCE VENT TERMINALS

TEST REPORT NO. J20017832-231

EVALUATION
OF
MODELS 4DHC, 5DHC, 4DVC, 5DVC, 4DWT AND 5DWT
DIRECT VENT APPLIANCE VENTING COMPONENTS

FOR
AMERICAN METAL PRODUCTS
8601 HACKS CROSS ROAD
OLIVE BRANCH, MI 38654

BY
INTERTEK TESTING SERVICES NA INC
8431 MURPHY DRIVE
MIDDLETON, WISCONSIN 53562

INTRODUCTION

Intertek Testing Services NA Inc. (ITS) of Middleton, Wisconsin, examined and tested the above stated direct vent appliance venting components manufactured and furnished by American Metal Products of Olive Branch, Michigan. The tests were conducted on May 15 – June 14, 2000 for compliance with applicable sections of ANSI Z21.88-1999•CSA 2.33-M99 “Standard for Vented Gas Fireplace Heaters.” The vent components were tested in conjunction with Johnson Gas Appliance Co. models SDV-40, DXV-42, and Chateau 60 direct vent gas fireplace heaters. The results in this report are limited to the items submitted. The test data is on file at ITS, Middleton, Wisconsin.

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PRODUCT DESCRIPTION

The models stated below are venting components for gas-fired direct vent appliances. They are concentric (coaxial) pipes for separating the inlet and exhaust gases. A complete description of the components including proprietary drawings is on file at ITS, Middleton, Wisconsin.

| Description | Part Number | Materials | Diameter Dimensions (in) |
|------------------------|-------------|----------------------------------|--------------------------|
| Vertical termination | 4DVC | Stainless steel/galvanized steel | 4 by 6-5/8 |
| Vertical termination | 5DVC | Stainless steel/galvanized steel | 5 by 8 |
| Horizontal termination | 4DHC | Stainless steel/galvanized steel | 4 by 6-5/8 |
| Horizontal termination | 5DHC | Stainless steel/galvanized steel | 5 by 8 |
| Wall Thimble | 4DWT | Stainless steel/galvanized steel | 4 by 6-5/8 |
| Wall Thimble | 5DWT | Stainless steel/galvanized steel | 5 by 8 |

CONSTRUCTION REVIEW

ANSI Z21.88-1999•CSA 2.33-M99

| SECTION | SUBJECT/REQUIREMENT | RESULTS |
|-------------|--|----------------|
| 1.1 | Scope | Informational |
| 1.2 | General Construction | Complies |
| 1.3 | Accessibility | Complies |
| 1.4 | Thickness of Materials | Complies |
| 1.5 | Evaluation of Comb./Venting Side Sealing Materials | Complies |
| 1.6 – 1.23 | Appliance Specific Sections | Not applicable |
| 1.24 | Direct Vent/Air Intake Pipes | Complies |
| 1.25 – 1.35 | Appliance Specific Sections | Not applicable |

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PERFORMANCE

ANSI Z21.88-1999•CSA 2.33-M99

| SECTION | SUBJECT/REQUIREMENT | RESULTS |
|-------------|---|----------------|
| 2.1 – 2.3 | General, Appliance Specific | Informational |
| 2.4 | Combustion | Complies |
| 2.5 | Appliance and Burner Durability Test | Complies |
| 2.6 | Burner Operating Characteristics | Complies |
| 2.7 | Loose Materials | Not applicable |
| 2.8 | Pilot Operating Characteristics | Complies |
| 2.9 – 2.11 | Appliance Specific Sections | Not applicable |
| 2.12 | Delayed Ignition & Integrity Tests for Direct Vent App. | Complies |
| 2.13 – 2.20 | Appliance Specific Sections | Not applicable |
| 2.21 | Wall, Floor and Ceiling Temperatures | Complies |
| 2.22 - 28 | Appliance Specific Sections | Not applicable |
| 2.29 | Wind Tests | Complies |
| 2.30 | Vent & Vent/Air Intake Terminal Assembly | Complies |
| 2.31 – 2.36 | Appliance Specific Sections | Not applicable |

TEST EQUIPMENT

Test equipment used to measure and record data was as follows. Calibration records are on file at ITS - Middleton, Wisconsin.

1. Gordon type K (Chromel - Alumel) thermocouple wire and Type J (iron constantan) thermocouple wire, special limits type.
2. Omega Digital/Analog thermocouple readouts (Type K and J).
3. Omega 16, 20, and 40 position J/K switching modules.
4. Horiba Model PIR-2000 Carbon Monoxide Analyzer, WHI #70.
5. Horiba Model PIR-2000 Carbon Dioxide Analyzer, WHI #306.
6. Rockwell Model T-110 Dry Gas Meter, WHI #14.
7. Rosemount Model 755R Oxygen Analyzer, WHI #364.

CLEARANCES TO COMBUSTIBLES

At the conclusion of testing, the wall thimble and vent terminals were found acceptable for zero-clearance to combustibles when installed per the manufacturer's instructions.

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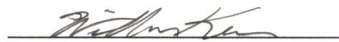
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CONCLUSIONS

Based on tests conducted with Johnson Gas Appliance models SDV-40, DXV-42, and Chateau 60 direct vent gas fireplace heaters, the American Metal Product models 4DHC, 5DHC, 4DVC, 5DVC, 4DWT and 5DWT appliance vent components are deemed in compliance with ANSI Z21.88-1999•CSA 2.33-M99 when used in conjunction with all Johnson Gas Appliance direct vent gas fireplace heater models. The vent components are to be constructed and installed in accordance with ITS approved documentation. This report does not automatically imply certification. Products must bear a WHI label in order to demonstrate certification.

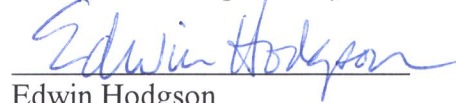
Tested by:



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Reviewed and reported by:



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