

# AUTHORIZATION TO MARK RECOGNIZED COMPONENT

This authorizes the manufacturer to apply the ETL mark to certified products; also to the multiple listee model numbers as listed on the correlation page of the Listing Report where applicable; when made in accordance with the accompanying descriptions and drawings under the conditions set forth in the Certification Agreement herein:

**Applicant:** AbsolutAire, Inc.  
5496 North Riverview Drive  
Kalamazoo, MI 49004

**Contact:** **Name:** Robert T. Jauch Jr. **Phone:** 269-382-1875

**Manufacturer:** Same as applicant

**Contact:** **Name:** **Phone:**

**Reference Report No.:** 3023279-002

**Product Covered:** Recirculating Direct Gas-Fired Industrial Air Heaters.  
Series AA, model numbers 1, 2, 3, 4, 5, 6, 7, 8, followed by U or H, followed by M (Modulating Minimum 20%), B (2-Position, minimum 20% or 100% OA) or F (Fixed, minimum 20% OA), followed by X, E or M.  
Series AA, model number 3000, followed by U or H, followed by M (Modulating Minimum 20%), B (2-Position, minimum 20% or 100% OA), or F (Fixed, minimum 20% OA), followed by X, E or M.

**Description:** The product covered by this report is a series of gas-fired air heaters utilizing a burner in the air stream such that the products of combustion are diluted in the fresh air passing through the heater. Units are intended for use in industrial and commercial applications. The unit described herein consists of an air handling enclosure with provisions for all inlet air to be ducted directly from the outdoors. Units have a single, forward curved centrifugal blower powered by up to a 75 HP motor. Blower size and motor horsepower determine unit airflow ratings. Units are equipped with a gas-fired line burner and appropriate gas control devices. Gas input rate is determined by the length of the burner and the manifold pressure. The product is intended to be permanently connected to the electrical and gas supply source. The units are equipped to permit recirculation of air across the burner.

Fuels: Natural and LP Gas

Unit Configuration: Draw Through, Horizontal or Vertical

Discharge Configurations: Horizontal, Upwards, Downwards

Installation: Indoor or Outdoor

**Standard(s):** Recirculating Direct Gas-Fired Industrial Air Heaters  
ANSI Z83.18-2000  
ANSI Z83.18a-2001

This procedure, with all revisions, etc., is the property of Intertek Testing Services and is intended solely for the guidance of the listee and the representative of Intertek Testing Services, and is not transferable.

**Issued by:** Intertek Testing Services NA Inc., 3933 US RT 11, Cortland, NY 13045-2014 USA



**Authorized by:** \_\_\_\_\_  
William T. Starr  
Certification Manager

**Date:** \_\_\_\_\_

**Control Number:** \_\_\_\_\_

# LISTING REPORT

## INTERTEK TESTING SERVICES NA INC.

3933 US ROUTE 11

CORTLAND, NY 13045

Job No. 3023279-421

Issued: February 23, 2004

Revised: 04/27/10

REPORT NO. 3023279-002

INSPECTION, TESTS AND EVALUATION  
OF A  
RECIRCULATING DIRECT GAS-FIRED INDUSTRIAL AIR HEATER

RENDERED TO

ABSOLUTAIRE  
KALAMAZOO, MI

GENERAL: This Report gives the results of the inspection, tests and evaluation of a Recirculating Direct Gas-Fired Industrial Air Heater for compliance with applicable requirements of the Standard for Recirculating Direct Gas-Fired Industrial Air Heaters (ANSI Z83.18-2000 and ANSI Z83.18a- 2001). This investigation was authorized by Purchase Order No. 14047, dated 04/02/02. The investigation was begun on May 15, 2002 and completed on July 31, 2003. Two prototype samples in good condition were provided by the client on May 15, 2002 and tested at the client's facility in Kalamazoo, MI.

American National Standard For Recirculating Direct Gas-Fired Industrial Air Heaters  
ANSI Z83.18-2004 with addenda Z83.18-2005a and Z83.18-2008b

Participant:

AbsolutAire, Inc.  
5496 North Riverview Drive  
Kalamazoo, MI 49004

Manufacturer:

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**PRODUCT DESCRIPTION****PRODUCT COVERED**

Recirculating Direct Gas-Fired Industrial Air Heaters.

Series AA or V, model numbers 1 (AA Only), 2, 3, 4, 5, 6, 7, 8, or 9 (V only), followed by U or H, followed by M (Modulating Minimum 20%), B (2-Position, minimum 20% or 100% OA) or F (Fixed, minimum 20% OA), followed by X, E or M.

Series AA, model number 3000, followed by U or H, followed by M (Modulating Minimum 20%), B (2-Position, minimum 20% or 100% OA), or F (Fixed, minimum 20% OA), followed by X, E or M.

**PRODUCT DESCRIPTION**

The product covered by this report is a series of gas-fired air heaters utilizing a burner in the air stream such that the products of combustion are diluted in the fresh air passing through the heater. Units are intended for use in industrial and commercial applications. The unit described herein consists of an air handling enclosure with provisions for all inlet air to be ducted directly from the outdoors. Units have a single, forward curved centrifugal blower powered by up to a 75 HP motor. Blower size and motor horsepower determine unit airflow ratings. Units are equipped with a gas-fired line burner and appropriate gas control devices. Gas input rate is determined by the length of the burner and the manifold pressure. The product is intended to be permanently connected to the electrical and gas supply source. The units are equipped to permit recirculation of air across the burner.

Fuels: Natural and LP Gas

Unit Configuration: Draw Through, Horizontal or Vertical

Discharge Configurations: Horizontal, Upwards, Downwards

Installation: Indoor or Outdoor

**MODEL SIMILARITY**

The product covered by this report is a series of semi-custom manufactured direct fired units. This report describes basic models plus a number of optional features which are certified for use with these models, singly or in combination. It is considered difficult to assign suffixes and prefixes which would identify all possible combinations to the basic model number. Therefore, to maintain traceability of models shipped and installed, the manufacturer must record by serial number and site location each sale, and make such records available to ITS on request.

Unrestricted approved inlet accessories include filter sections, inlet dampers, and weather hoods or inlet plenums. Inlet accessories include evaporative coolers and coils. The basic descriptions given in this report cover all configurations.

ELECTRICAL RATINGS

Electrical ratings are dependant upon voltage and blower motor horsepower ratings and include control circuit requirements. Input voltages covered by this report are as follows:

<u>Voltage</u>	<u>Phase</u>	<u>Frequency</u>
120	1	60
208	1	60
230	1	60
208	3	60
230	3	60
460	3	60
575	3	60

See Blower Motor description for HP and Amp ratings.

RATINGS

Natural Gas  
Model No.

	CFM		Max. Temp. Rise Nat./ LP (°F)	Max. Input Rate <sup>1</sup> (Btu/H)		Gas Inlet Pressure (psi)
	Min.	Max.		Natural Gas	LP Gas	
AA3000 & V2	1,400	3,500	110/ 95	375,000	375,000	1/2
AA1	2,000	5,500	110/ 95	673,704	597,849	1/2 or 1
AA2 & V3	3,200	8,000	110/ 95	979,933	869,599	1/2 or 1
AA3 & V4	3,700	9,500	110/ 95	1,163,671	1,032,649	1/2 or 1
AA4 & V5	5,500	14,000	110/ 95	1,714,884	1,521,798	1 or 5
AA5 & V6	7,500	20,000	110/ 95	2,449,834	2,173,998	5
AA6 & V7	11,000	26,000	110/ 95	3,184,784	2,826,197	5
AA7 & V8	16,000	35,000	110/ 95	4,287,209	3,804,496	5
AA8 & V9	21,000	54,000	110/ 95	6,614,551	5,869,793	5

<sup>1</sup> The maximum input rating is based upon the maximum temperature rise at the maximum air throughput, an inlet temperature of -10°F, at sea level.

Burner	Max. Btu/Ft Burner	Max Temp. Rise- Nat.	Max Temp. Rise- LP	Δ P at burner	
				Max.	Min.
Midco HMA	650,000	100	90	0.90	0.40
Maxon NP-LE	750,000	100	95	1.00	0.40
Eclipse AH-MA	700,000	110	95	0.60	0.20

Clearances to Combustible Material:

6" from Top, Back, Sides and Front

For installation w/6" clearance from base to Combustible material.