



2000-Series

RapidTM Engineering LLC

Direct-Fired Heating & Pressurization Systems



- Improved indoor air quality – Helps dilute airborne contaminants helping exhaust systems operate more efficiently.
- Augment existing ventilation system – Unit can be designed to automatically modulate outdoor air volume from 20% to 100% to help meet ventilation requirements in cold weather and decrease heat buildup in warm weather.
- More consistent temperatures and less stratification– Free ventilation cooling effectively reduces indoor air temperatures to help keep people and processes productive.
- Cost savings – Heating systems deliver 100% of the heat generated into the building resulting in energy savings.
- Flexibility and convenience – Heating systems require little to no ductwork and can be installed indoors or outdoors.

1.800.536.3461
www.rapidengineering.com



CANADA: 100% OUTSIDE AIR ONLY

RAPID™ 2000-Series

RAPID™ 2000-Series air handlers improve indoor air quality and provide air comfort.

RAPID™ 2000-Series air handlers can be designed to efficiently establish and maintain a slightly pressurized condition in your facility as outdoor air is gently tempered and, as required, mixed with existing indoor air.

NOTE: All models are available in upright or horizontal, as well as indoor or outdoor configurations. The discharge air on all model series may be supplied from the top or horizontal of the air handler.

Model	2005	2010	2010B	2020	2030	2040	2050
CFM	1,000 - 4,000	4,000 - 10,000	7,000 - 14,000	12,000 - 25,000	25,000 - 40,000	35,000 - 47,500	45,000 - 60,000
Output [MBH]*	110 - 400	440 - 756	760 - 1,500	1,300 - 2,700	2,700 - 4,100	3,780 - 5,130	4,860 - 6,480

*1 MBH = 1,000 Btu/h

Model Configurations

Air Management (AM) Models

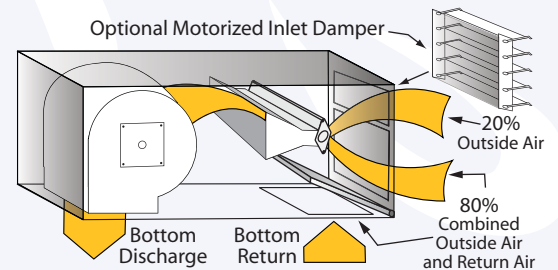
(Not available on Model 2005)

Design: Variable outdoor air from 20% to 100%. Discharge air volume is fixed.

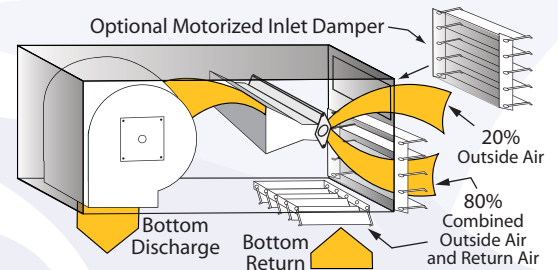
Function: Automatically responds to building pressure and temperature needs.

Application: Used in industrial and commercial buildings that have air quality and specific air management requirements.

Models 2010-2010B



Models 2020-2050



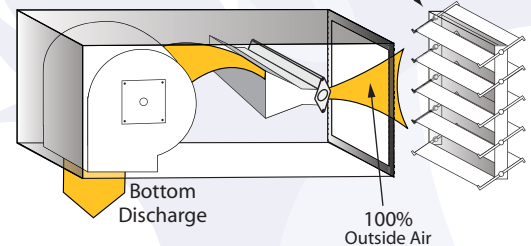
Make-Up Air (MUA) Models

Design: 100% outdoor air with a fixed discharge air volume.

Function: Supplies direct replacement air for building mechanical exhaust.

Application: Used as make-up air for industrial processes which incorporate mechanical exhaust.

Optional Motorized Inlet Damper



Fixed Recirculation (FR) Models

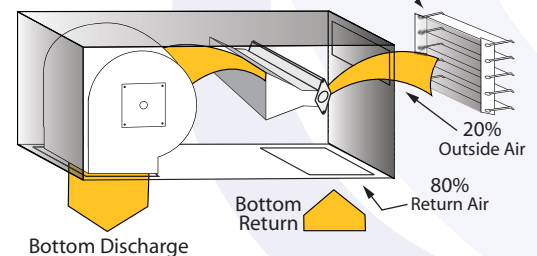
(Not available on Model 2005)

Design: Fixed 80% return air and 20% outdoor air. Discharge air volume is fixed.

Function: Provides efficient, low-cost heating where minimum ventilation rates are required.

Application: Used in warehouses, distribution centers, retail outlets, etc.

Optional Motorized Inlet Damper



Variable Air Volume (VAV) Models

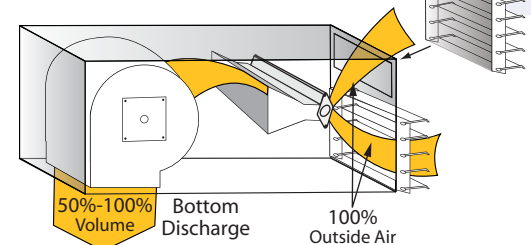
(Not available on Model 2005)

Design: 100% outdoor air with a variable discharge air volume from 50%-100%.

Function: Automatically responds to building pressure needs.

Application: Used in buildings requiring various levels of replacement air.

Optional Motorized Inlet Damper



RAPID™ 2000-Series Features

Reliable, Efficient System Operation Provided by:

- 30:1 fully modulating burner that maintains 100% combustion efficiency.
- Double-width, double-inlet, forward-curved centrifugal fan built for long life.
- Energy-saving ignition system.
- Electronic fuel modulation providing immediate response.
- UV scanner for excellent reliability and durability on Models 2010 - 2050.
- Operation of fan only in warm weather to enjoy free ventilation cooling.
- Compliance to ETL per ANSI Z83.18 or Z83.4 standards.

Long Lasting Construction Provided by:

- Heavy-duty, corrosion-resistant, galvanized steel construction.
- Sturdy, integral frame that is screwed and bolted together for durability and longer service life.
- Unpainted galvanized steel or white finishes available (2005 in white only).
- Heavy-duty, factory-installed motor and drive package designed for long-lasting performance.
- Heavy-duty, pre-lubricated bearings provide up to 30,000 hours of ABMA L-10 performance.

Ease of Maintenance Provided by:

- Large access panel for easy maintenance of blower, motor, drives and burner.
- Blower installed downstream of burner for convenient access.

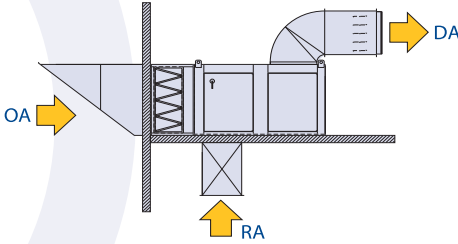
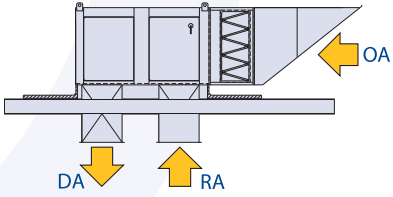
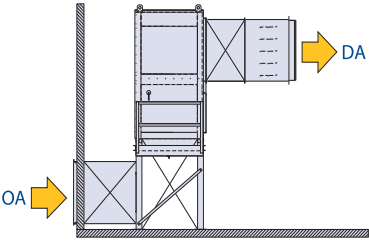
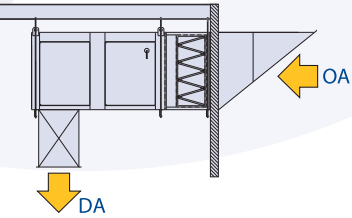
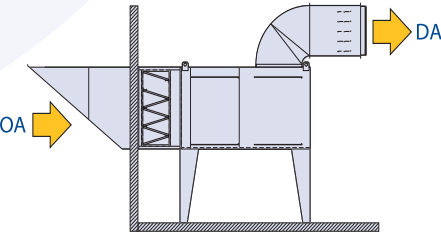
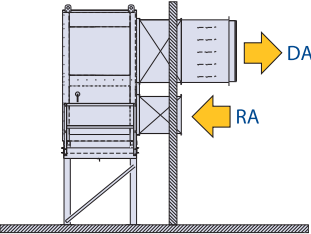
Other 2000-Series Options:

- 19" roof curb simplifies rooftop mounting.
- Inlet hood protects against water entrainment.
- Filter section with polylink or aluminum filters for longer equipment life of internal components.
- Motorized inlet damper for exfiltration control.
- FM/IRI compliant gas trains.
- Upright heater stand or legs of varying heights.

2000-Series Controls Options:

- Discharge temperature or room temperature controls available.
- Interlock to existing building management system or other remote devices.
- Mild weather stat.
- Low-temperature stat with bypass timer.

Typical Installations

Suspended (Wall or Roof Inlet)	Horizontal on Roof Curb (Outdoor)	Upright Indoor	
			
Suspended (Wall or Roof Inlet)	Horizontal on Legs (Indoor or Outdoor)	Upright Outdoor	
			
LEGEND	OA = Outside Air	DA = Discharge Air	RA = Return Air

RAPID™ 2000-Series Controllers



Basic Remote

This control is used for make-up air and space heating. The discharge temperature of the heater remains constant as selected on the selection dial. The burner flame is modulated by a discharge temperature control, which is governed by the remote temperature selector.

FAN ON/BURNER ON Mode:

Heater can operate continuously for building exhaust air replacement and space heating by maintaining a constant discharge temperature.

FAN ON/BURNER OFF Mode:

The blower can operate without the burner for summer ventilation.

Dimensions:

10"L x 10"W x 4"D NEMA 1 enclosure.



Standard Discharge Control Remote (SDC)

This control is used for make-up air and day/night heating of the building. The discharge temperature of the heater remains constant as selected on the selection dial. The burner flame is modulated by a discharge temperature control, which is governed by the remote temperature selector.

AUTO/WINTER Mode:

Heater cycles on/off to maintain space temperature as selected on the thermostat.

ON/WINTER Mode:

Heater can operate continuously for building exhaust air replacement and space heating by maintaining a constant discharge temperature.

ON/SUMMER Mode:

The blower can operate without the burner for summer ventilation.

Dimensions:

10"L x 10"W x 4"D NEMA 1 enclosure.



Deluxe Temperature Control Remote (DTC)

This control is used for make-up air and total automatic day/night heating of the building. A solid-state modulating room Selectrstat fully modulates the burner flame to maintain space temperature and compensate for changing building heat losses or gains.

AUTO/WINTER Mode:

Occupied time: Heater can operate continuously, fully modulating Btu/h output to maintain space temperature as selected on the Selectrstat.

Unoccupied time: Heater cycles on/off to maintain space temperature as selected on the programmable thermostat (night setback).

ON/WINTER Mode:

Heater can operate continuously, fully modulating Btu/h output to maintain space temperature as selected on the Selectrstat.

ON/SUMMER Mode:

The blower can operate without the burner for summer ventilation.

Dimensions:

10"L x 10"W x 4"D NEMA 1 enclosure.

Installation Code and Annual Inspections:

All installation and service of RAPID™ equipment must be performed by a contractor qualified in the installation and service of equipment sold and supplied by Rapid Engineering LLC and conform to all requirements set forth in the Rapid Engineering LLC manuals and all applicable governmental authorities pertaining to the installation, service and operation of the equipment. To help facilitate optimum performance and safety, Rapid Engineering LLC recommends that a qualified contractor conduct, at a minimum, annual inspections of your RAPID™ equipment and perform service where necessary, using only replacement parts sold and supplied by Rapid Engineering LLC.

Further Information: Applications, engineering and detailed guidance on systems design, installation and equipment performance is available through RAPID™ representatives. Please contact us for any further information you may require, including the Installation, Operation and Service Manual.

This product is not for residential use.

This document is intended to assist licensed professionals in the exercise of their professional judgment.

Rapid Engineering LLC

1100 Seven Mile Road NW
Comstock Park, MI 49321
Telephone: 616.784.0500
Toll Free: 800.536.3461
Fax: 616.784.1910

www.rapidengineering.com

© 2009 Rapid Engineering LLC

All rights reserved. No part of this work covered by the copyrights herein may be reproduced or copied in any form or by any means – graphic, electronic, or mechanical, including photocopying, recording, taping, or information storage and retrieval systems – without written permission of Rapid Engineering LLC.