

**The Right SPEC.
Right NOW.**



6 - 12.5 TONS

- R7DA Gas/Electric Packaged DOAS System

 **Mammoth®**

Made For Those Who Respect The SPEC.

Mammoth light commercial packaged rooftops are highly configurable at the factory, so consultant engineers, building owners, facility managers or design-build contractors can get the configured unit they need delivered to the job site. It's the right choice for those who respect the spec.

THE RIGHT EFFICIENCY

At 12.7 IEER, Mammoth light commercial packaged units meet federal minimum efficiency standards for 2018 and beyond. The R7DA DOAS product exceeds the minimum efficiency of 5.2 ISMRE per AHSSRAE standard 90.1-2016, which puts the product ahead of many units on the market.

THE RIGHT FEATURES

Foam panel construction and hinged panel doors are standard for the unit. This type of construction increases the overall unit longevity while drastically improving indoor air quality over fiber glass insulated units. Panel walls are easy to clean and provide a super high R-value. High-quality hinges eliminate screws on the roof and keep the access doors in place, even in high wind conditions. In addition, foam panel construction reduces radiated noise into the space from the compressors and condenser fans.

THE RIGHT QUALITY

Mammoth light commercial packaged units are manufactured using Demand Flow Technology (DFT), the most advanced and flexible quality-control manufacturing process in the industry. To ensure accuracy, each unit is bar-code verified to the bill-of-material components. And, our personnel test each unit for function & form as it rolls down the line.

THE RIGHT SPEC

With over 35 options per tonnage size, there are over 750,000 unit configurations available. Having the units built to spec at the factory increases product quality while lowering installation labor costs. Have a fast-track job? No problem. A 15-day, quick-ship option is available out of our factory in Dyersburg, Tennessee.

R7DA Model - front



R7DA Model - back



 Mammoth®

Model R7DA Dedicated Outdoor Air Unit and High Outside Air Application

Mammoth light commercial packaged rooftops are configurable for makeup air and ventilation air applications. In addition, the units can properly handle space temperature & humidity control application with up to 50% outside air. The unique option set allows the units to be used in application beyond the capability of standard package equipment.

Features & Benefits

CONSTRUCTION

- 1" Foam Panel Construction: Roof, Walls & Base
 - R-6.4 Insulation
- Base Unit Fits on Existing Carrier Curb
- Heavy Duty Latches, Hinges & Gasketed Doors
- Fork Lift Access from 3 Sides

Options

- Full Unit crating available
- Flatbed and LTL crating available
- 18" Roof Curb – Vertical Discharge
- Hurricane Hold Down Clips

DX SYSTEM

- High Efficiency 5.2 ISMRE, meets ASHRAE 90.1-2016
- 10-100% Capacity Control – Modulating Digital Scroll
- 4 Row Coil (> 40°F ΔT capability, High Latent Performance)
- Rust Proof Drain Pan
- Lightweight All-Aluminum Condenser Coil
- R410-A Refrigerant
- High & Low Pressure Cutout Safety Switches
- Driers & TXV
- Low Noise Condenser Fans

Options

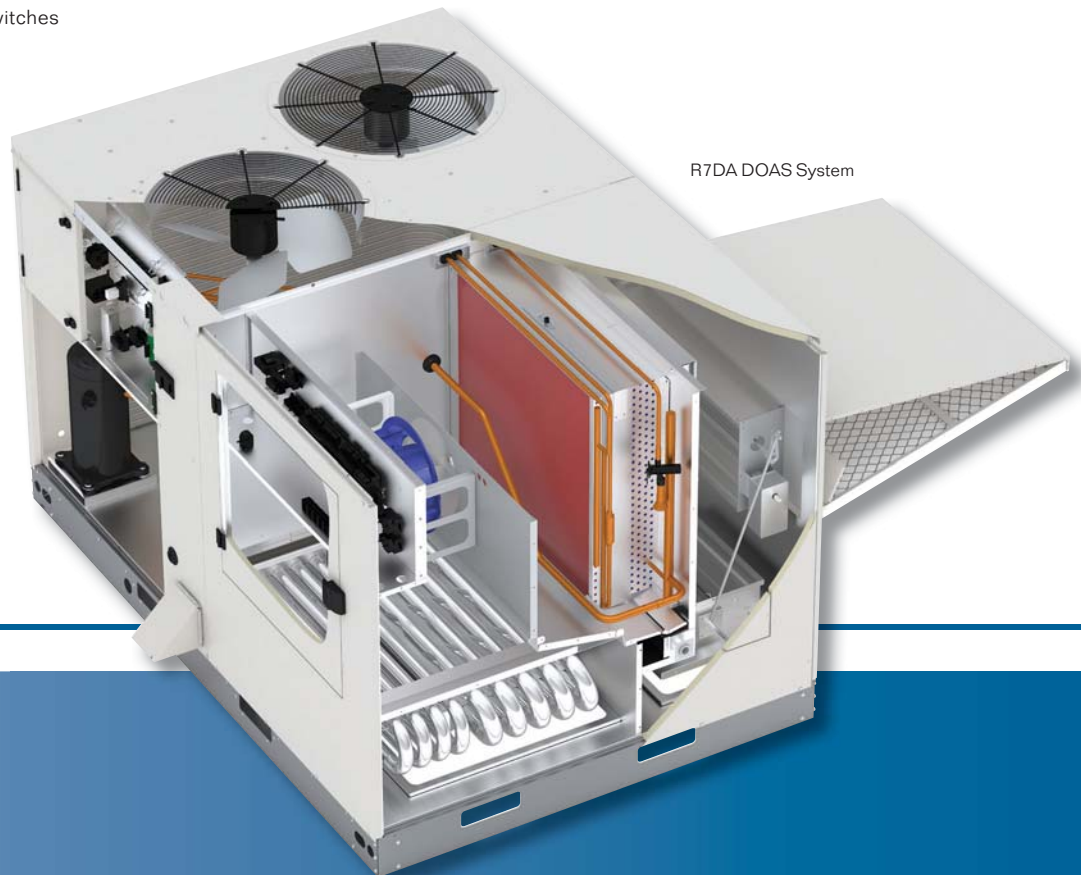
- Hot Gas Reheat with Dehumidification Control (patented)
- Low Ambient Operation (32°F)
- Coil Coating 6000 > Salt Spray Hours
- Mesh Hail Guard
- Hood Hail Guard
- Condensate Overflow Float Switch
- Evaporator Coil Frost Protection

BLOWER SECTION

- Backward Incline Plenum Fan
- Direct Drive High Efficiency ECM
- High External Static Capability (> 2.0" w.c.)
- Field Convertible Horizontal Supply & Return
- Auto & Manual Control from Unit Mounted Display

Fan Speed Controls Options

- Supply Fan Constant CFM (Direct Measurement)
- Duct Static Pressure Control (0-2.5" w.c.)
- Building Static Pressure Control (± 0.5 " w.c.)
- 2 Speed CO₂ Control (High/Low)
- 0-10V Input Signal for Fan Control "BMS Control through BacNet point"
- 2 Speed Summer/Winter
- High-Low Volume Control
- Occupied/Unoccupied Speed
- Constant Volume (User Adjustment)



Model R7DA Dedicated Outdoor Air Unit and High Outside Air Application continued

R7DA Features & Benefits continued

HEAT SECTION

- Natural Gas (80% Efficiency)
- 16-100% Modulated Control (6:1)
- 20-100°F temperature rise at full fire
- 1" Bottom & Side Connection
- 304 Stainless Steel

Options

- Gas Flue Hood
- High Altitude & Propane Conversion Kits
- Smoke Detector available

AIR MANAGEMENT

- 100% Outside Air Intake Damper & Control
- Outside & Return Air Intake Damper & Control
- Field Convertible Horizontal Supply & Return - Panels replace vertical holes
- Intake Damper Control
 - Economizer Title 24 Complainant
 - CO₂ Demand Control for outside air intake
 - Building Static Pressure Control ($\pm 0.5"$ w.c.)
 - External 0-10V input signal control
 - BMS control through BacNet point
 - 2 Position Control
 - 4 Position Control based upon 2 input switches
- 4" MERV 8 Filters (low pressure drop)

Options

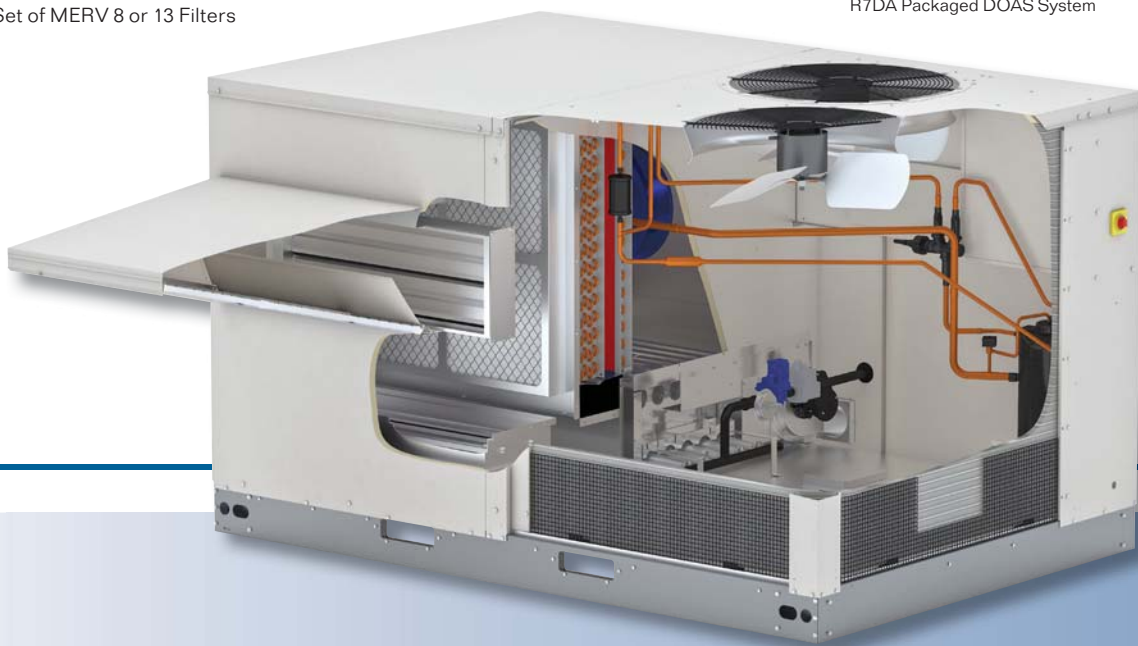
- 4" MERV 13 Filters
- Enhance Security Burglar Bars (Return & Supply Access)
- Filter Outside Air Hood with rain baffles (MERV 5/Washable)
- Dirty Filter Indicator
- Extra Set of MERV 8 or 13 Filters

ELECTRICAL & CONTROLS

- 208/230V & 460V Single Power Connection
- Terminal Wiring Connections
- Bottom or Side Electrical Power Connections
- Standard Thermostat Connection
- Replaceable Cube Relays
- Direct Digital Control Sequence
 - Make-up Air
 - Space Temperature & Humidity Control
 - Variable Air Volume Control

Options

- Factory Install Disconnect
- Field Installed Disconnect
- Phase Loss Monitor
- Air Flow CFM Monitoring
- Convenience Outlet (Field Powered)



R7DA Packaged DOAS System

Our Safety Mission Delivers Quality & Reliability to You!



Made in Dyersburg, TN

Type	Base Model	Nominal Tons	Cooling Efficiency	Heating Capacity	Weight*	Inside Dimensions
				Gas - MBH		inches (LxWxH)
Gas/Electric DOAS	R7DA-072	6	5.2 ISMRE	100, 225	1,145	81 x 53 x 54
	R7DA-090	7.5	5.2 ISMRE	100, 225	1,182	81 x 53 x 54
	R7DA-120 2nd Qtr	10	5.2 ISMRE	TBD	TBD	81 x 53 x 64
	R7DA-150 2nd Qtr	12.5	5.2 ISMRE	TBD	TBD	81 x 53 x 64

Note: All units are arranged for 208-230/3, 460/3 and 575/3 voltage *Weight of unit will change depending on options selected

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Patented Hot Gas Reheat System

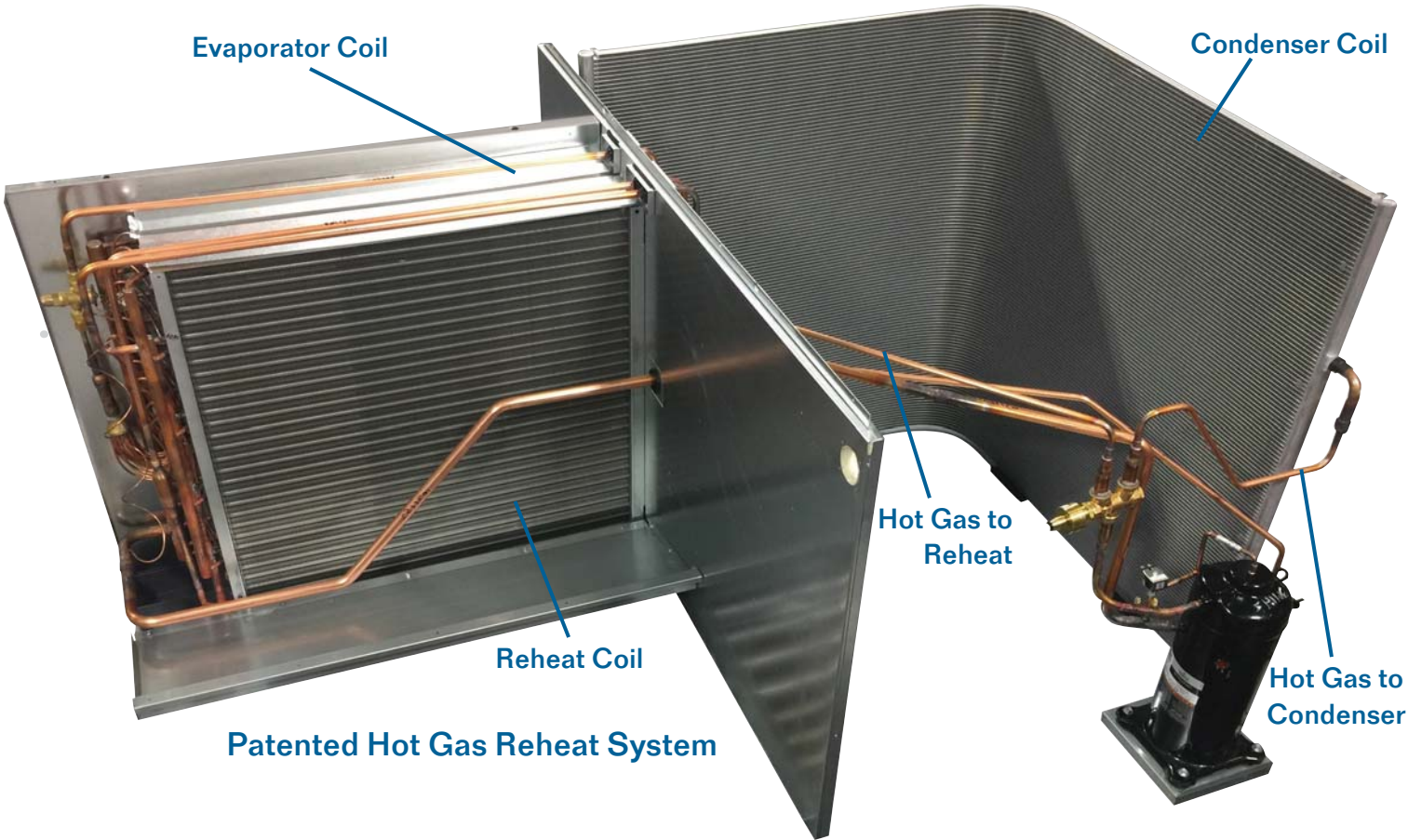
FOG...

Nice to look at – when it's outside...

... avoid the fog.

The Mammoth logo consists of three slanted parallel bars to the left of the word "Mammoth" in a bold, sans-serif font, followed by a registered trademark symbol (®).

Mammoth®



Most HGRH system performances are shown at design conditions when the demand for reheat is needed the least. It's part load condition that matters the most. The Mammoth Patent HGRH avoids freezing and low capacity with smart controls and a robust mechanical design.

The chart shows a common, yet hard-to-manage control issue. In mild weather, the amount of reheat available from 100% valve control may not be enough to reach the discharge temperature setpoint. The Mammoth reheat algorithm modulates the compressor to provide additional reheat capacity while maintaining proper evaporator coil control to avoid freezing.

Evaporator Coil Entering Air Condition		Leaving Air Condition from Reheat Coil		Compressor Capacity	Reheat Valve Position
db	wb	db	Dewpoint	0-100%	Open to Reheating
95°F	78°F	75.0°F	55.3°F	100%	8.8%
80°F	73°F	75.0°F	54.9°F	76.7%	17.6%
70°F	66°F	75.0°F	54.9°F	46.6%	75%
63°F	59°F	68.5°F	54.8°F	10.0%	100%
63°F	59°F	75.0°F	52.1°F	18.2%	100%

Table depicts unit function at AHRI 920 standard test conditions



Specifications and illustrations subject to change without notice and without incurring obligation.

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