PROUDLY INTRODUCING RUPPAIR'S
DEDICATED OUTDOOR AIR SYSTEM

RUPPAIR
HEATING · COOLING · VENTILATION

www.ruppams.com · 1.800.291.2452
PROUDLY INTRODUCING RUPPAIR'S

DEDICATED OUTDOOR AIR SYSTEM (DOAS)

Backed by 50 years of ventilation expertise, the Dedicated Outside Air System (DOAS) by RuppAir offers exceptional energy savings, unprecedented comfort, and precise humidity control. RuppAir's DOAS is the ideal HVAC solution for schools, hospitals, restaurants, grocery stores, hotel corridors, and any commercial application that requires conditioned outdoor air.

SUPERIOR ENERGY EFFICIENCY

RuppAir’s DOAS achieves an impressive 20.2 Integrated Energy Efficiency Ratio (IEER) rating which is over 1.5x the ASHRAE 90.1-2016 IEER standard. Designed with the future in mind, the RuppAir DOAS is poised to exceed rising IEER standards for years to come.

PRECISE TEMPERATURE & HUMIDITY CONTROL

RuppAir’s DOAS contains fully modulating refrigeration and optional hot gas reheat components that deliver the exact amount of air requested at the desired temperature and humidity. Variable speed components allow the DOAS to adjust its heating and cooling capacity to match the required load. This provides a consistent temperature throughout the space and avoids large temperature swings often associated with single stage equipment.
1. **Mixed Air Temperature / Humidity Sensor**
   Monitors mixed air temperature / humidity
   Available outdoor, return, mixed, discharge, and space air temperature / humidity measurements

2. **Up to Three Layers of Outdoor Air Filtration**
   Standard 2” metal mesh outdoor air filters
   Up to 4” additional filtration - MERV-8, 13, 15 & HEPA

3. **Low-Leakage Outdoor Air Damper**
   Modulates to accurately meet variable outdoor air requirements
   Integrated louver and bird screen assembly included
   Exceeds AMCA Class 1A Leakage Standards

4. **Wide Indoor Coil Design**
   Up to 7-row coil allows for optimal compressor efficiencies, full conditioning of outdoor air, and moisture control
   Staggered coil design reduces supply air bypass

5. **Electronic Expansion Valve**
   Provides automated superheat control and monitoring by modulating from 0-100%
   Precise position control prevents liquid migration during off-duty cycles

6. **Fully Modulating Hot Gas Reheat Coil (Optional)**
   Provides highly accurate humidity control
   Electronic reheat valve allows for precise capacity control

7. **Stainless Steel Sloped Condensate Drain Pan**
   Removable insulated drain pan allows for easy maintenance and serviceability
   Float switch monitors water level and protects against condensate overflow
   Exceeds ASHRAE 62.1 Standards

8. **Modular Heating**
   Natural gas indirect fired furnace with constant 80% efficiency throughout modulation (90% high efficiency option available)
   Propane, Heat Pump, and Electric Heat options available
9 Variable Speed Direct Drive Supply Fan
High efficiency Variable Frequency Drive (VFD) or Electronically Commutated Motor (ECM) options available
Low maintenance – no belts to adjust

10 Variable Speed Outdoor Fans with EC Motors
10:1 turndown maintains peak efficiency for all outdoor air conditions
Aerodynamically designed bionic blades drastically reduce noise emissions

11 Double Wall, Galvanized Steel Construction
Insulated with 2” thick, foil-faced, R13 closed cell foam G-90 galvanized steel

12 Removable Hinged Access Doors
Allow for easier maintenance and serviceability

13 Human Machine Interface (HMI)
User friendly interface allows for simple programming of temperature, humidity and scheduling settings
Access to real-time temperature / humidity data and refrigerant temperature / pressure measurements

14 Integrated Controls
Multiple PID loops maximize energy efficiency
Several control offerings - full integration to BAS/DDC
Fully insulated controls cabinet reduces condensation, avoiding damage to controls

15 Danfoss Variable Speed Inverter Scroll Compressor
Modulates capacity to provide precise load matching with reduced energy consumption
Protective operating envelope minimizes risk of damage and premature failure
Variable Frequency Drive (VFD) provides phase and over-amp protection to maximize life of unit
RELIABLE SERVICE & TECHNICAL SUPPORT

RuppAir offers unmatched factory service and technical support through its rapidly expanding nationwide service team. Each local service technician undergoes extensive in-house training to ensure your needs are quickly met and problems are thoroughly addressed. Since the RuppAir DOAS is a fully standardized equipment line, our techs are able to stock most replacement parts on their trucks, eliminating long lead times often associated with service visits. Additionally, the DOAS is designed with service in mind, incorporating several convenience features to make support visits as smooth and efficient as possible.

CASLink

24/7 REAL-TIME UNIT MONITORING INCLUDED WITH EVERY DOAS UNIT

CASLink, RuppAir’s proprietary cloud-based building management system, collects real-time performance data to verify proper equipment operation, recognize potential problems, diagnose minor issues, and analyze system efficiency. CASLink allows for remote unit adjustments, often eliminating the need for an onsite service tech visit. Every DOAS unit includes a CASLink system at no additional charge.
## SYSTEM SIZING & SPECIFICATIONS

<table>
<thead>
<tr>
<th>Unit Size (Nominal Tonnage)</th>
<th>8</th>
<th>15</th>
<th>20</th>
<th>30</th>
</tr>
</thead>
<tbody>
<tr>
<td>Min Airflow (CFM)</td>
<td>750</td>
<td>1500</td>
<td>2000</td>
<td>3000</td>
</tr>
<tr>
<td>Max Airflow (CFM)</td>
<td>3000</td>
<td>4500</td>
<td>6000</td>
<td>9000</td>
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<tr>
<td>Indoor Coil Rows</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>6</td>
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<tr>
<td>Cooling Turndown Ratio</td>
<td>7:1</td>
<td>4:1</td>
<td>4:1</td>
<td>4:1</td>
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<tr>
<td>Integrated Energy Efficiency Ratio (IEER)</td>
<td>20.2</td>
<td>18.8</td>
<td>18.2</td>
<td>17.8</td>
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<tr>
<td>Max Heating Turndown Ratio</td>
<td>15:1</td>
<td>9:1</td>
<td>9:1</td>
<td>10:1</td>
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<tr>
<td>Furnace Input Capacity (MBH)</td>
<td>50-200</td>
<td>150-500</td>
<td>150-500</td>
<td>200-600</td>
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<tr>
<td>Electric Coil Capacity (kW)</td>
<td>15-60</td>
<td>15-100</td>
<td>15-100</td>
<td>60-150</td>
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<tr>
<td>Curb Size (L x W)</td>
<td>75&quot; x 49.5&quot;</td>
<td>91&quot; x 59.5&quot;</td>
<td>91&quot; x 59.5&quot;</td>
<td>111&quot; x 80&quot;</td>
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<tr>
<td>Unit Dimensions (L x W x H)</td>
<td>81.75&quot; x 80.75&quot; x 60.75&quot;</td>
<td>99&quot; x 89.75&quot; x 69&quot;</td>
<td>99&quot; x 89.75&quot; x 69&quot;</td>
<td>158&quot; x 89.75&quot; x 94&quot;</td>
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<tr>
<td>Approximate Weight (lbs)</td>
<td>1650</td>
<td>2400</td>
<td>2570</td>
<td>4500</td>
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For additional information, please contact your local RuppAir sales representative.

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