Dedicated Outdoor Air Systems (DOAS)

Model ERCH

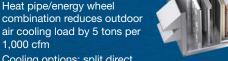
- 1,000 10,000 cfm and 1.75 in. wg
- 4 to 30 nominal tons of cooling
- Cooling options: packaged direct expansion, split direct expansion, chilled water, water-source heat pump, or evaporative cooling



- · Heating options: indirect gas, electric, hot water, or water-source heat pump
- Modulating hot gas reheat for humidly control
- Optional high turndown furnace (up to 16:1)
- Optional unoccupied recirculation damper for night setback
- Intake/discharge flexibility: top, bottom, end or side
- Ideal for DOAS applications paired with variant refrigerant flow, fan coils, or water-source heat pumps

Model ERT

- 2.000 10.000 cfm and 1.75 in. wg
- Wraparound heat pipe
- · Heat pipe/energy wheel combination reduces outdoor air cooling load by 5 tons per 1.000 cfm





- · Heating options: electric or hot water
- Backward-curved fans
- Intake/discharge flexibility: top, bottom, end or side
- Ideal for DOAS applications paired with variant refrigerant flow, fan coils, and water-source heat pump units

Optional Accessories

Airflow Monitoring

CO₂ Sensor

Coatings for Corrosive Environments

Damper End Switches

Dirty Filter Sensor(s)

Energy Wheel Rotation Sensor

Electric Preheater

GFCI Outlet

Roof Curb

Room Thermostat

Smoke Detector

Common Applications

| Animal Shelters | Locker Rooms |
|--------------------|----------------------|
| Conference Centers | Multifamily Housing |
| Dormitories | Nursing Homes |
| Hotels | Schools |
| Institutions | Veterinary Hospitals |

Product Certifications



ETL Listed for electrical and overall unit safety. Every unit is tested at the factory before it is shipped to the iobsite.



AHRI Certified coils. To guarantee your coil is going to perform as required, check for AHRI Certification.



Energy recovery wheels are certified by the AHRI Air-to-Air Energy Recovery Ventilation Equipment Certification Program in accordance with AHRI Standard 1060. Actual performance in packaged equipment may vary. Certified ratings are available in the Certified Product Directory at ahridirectory.org.

Greenheck

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Dedicated Outdoor Air Systems









Models RV and RVE

All Sizes

- 2-inch double-wall with R13 foam insulation construction
- 800 18,000 cfm and up to 3 in. wg
- Ideal for 100% outdoor air, variable air volume, and single zone applications
- Optional recirculation damper for 20-100% outside air and night setback operation
- · Optional total energy wheel
- Direct drive, VFD driven, backward-inclined fans



Cooling

- 5 to 70 nominal tons of cooling
- Chilled water, packaged direct expansion, air-source heat pump, or split direct expansion with or without remote condenser
- Optional inverter, digital or standard scroll on lead compressor
- Modulating hot gas reheat for humidly control
- Low sound condenser fan
- Optional electronically commutated (EC) motor on lead condenser fan

Heating

- Indirect gas-fired, electric, hot water, or air-source heat pump
- Up to 1,200 mbh heating capacity
- 16:1 high turndown furnace



Optional Features

Remote Condenser (RV-25, 45 and RVE-40, 85 only)

- 5 30 tons cooling capacity
- 800 8,500 cfm
- Hot gas reheat and compressors internally mounted within DOAS
- · Low sound condenser fans
- Lead FC condenser fans.

Air-Source Heat Pump

- 5 30 tons capacity
- High efficiency with standard inverter compressor
- Lead EC outdoor fan motor (standard feature) for modulating head pressure control
- Coefficients of Performance (COP) ranging from 3-4, contributing to lower annual energy costs

Horizontal Duct Connections

- Optional side or end return air intake
- Side discharge
- Eliminates the need for a costly, tall plenum curb



Unit Control Options

Microprocessor

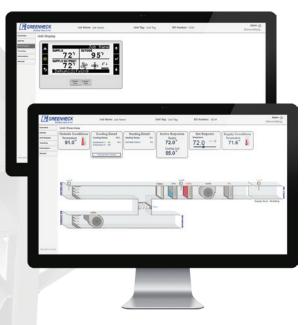
Models RV and RVE include a microprocessor controller that is factory programmed, wired and tested prior to shipment. The controller can operate stand-alone or integrate with a building management system (BMS) using BACnet® MS/TP or IP, LonWorks® or Modbus® RTU protocols. This controller operates the unit in a safe and energy efficient manner while controlling temperature and humidity. Control features include:

- LCD display with built-in keypad for easy set point adjustment
- Integral 7-day time clock
- Night setback option
- · Auto changeover based on outdoor air conditions
- · Heating and cooling temperature lockouts
- · Building freeze protection
- · Room temperature and humidity control
- Override controls for ease of start-up



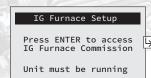
Web User Interface (UI)

Greenheck's microprocessor controller comes standard with a web user interface allowing the unit to be viewed and controlled from a web browser. A full graphic, specific to the unit selected, allows for monitoring and control of the unit without a building management system (BMS). Other features include full control display access, customizable data trending, and service contact information.



Built-in Furnace Commissioning Guide

Controller commissioning menus make for simple and easy start-up, saving time and money.



Mod Furnace Startup 2
Please hook-up
manometer to combo vlv
outlet on mod furnace.
Check alarms during
commissioning sequence
Complete: No

Mod Furnace Startup 3
Furnace at High Fire

Set pressure at
combination valve
outlet to: 5.0" WC

Complete: No

Mod Furnace Startup 3

Modulating Furnace
Low Fire Verification
Is small and large
Manifold Pressure =
0.33"WC and Combustion
Fan at Low Speed?
No



DOAS Selection Software

Greenheck's free online eCAPS® Engineering Application Suite can now simplify and optimize your selection of DOAS. Just CLICK on the Outdoor Air product category. ENTER your project requirements. REVIEW your selections for size, weight and electrical load specifications. Then create a SCHEDULE. eCAPS also helps you locate and contact your nearest Greenheck rep. It's easy to use and always up-to-date.

