

Unit Control Options

Microprocessor

Models ECV, ERV, ERVe, and ERVi are available with an optional microprocessor controller that is programmed, wired and tested in the factory prior to shipment. The controller can operate stand-alone or integrate with a building management system (BMS) using BACnet® MSTP or IP or Modbus RTU or IP protocols. Control features include:

- LCD display with full text readout
- Built-in keypad for easy set point adjustment
- Integral 7-day time clock
- Optional remote display for service convenience
- Built-in frost and economizer controls
- Supply and exhaust fan modulation capabilities
- Monitoring points for temperature and/or relative humidity
- Web user interface
- Heating enabled sequence for external hot water or SCR electric heater (provided by others)
- Cooling enabled sequence for external chilled water or split DX coil (provided by others)

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. With an Ethernet connection from the unit to the facilities network, a full graphic, specific to the unit selected, will allow for monitoring and control of the unit without a building management system (BMS). Other features include full control display access and service contact information.

Remote Display

The optional remote display allows for remote monitoring and adjustment of parameters of the unit-mounted controller. The remote display allows identical access to menus and screens as the unit-mounted controller display and is ideal for non-BMS applications.



Optional Accessories

- Airflow Monitor
- CO₂ Sensor
- Coatings for Corrosive Environments
- Damper End Switches
- Dirty Filter Sensor(s)
- Double-Wall Construction
- Energy Wheel Rotation Sensor
- Hinged Access
- Modulating VFDs
- Remote Control Panel
- Roof Curb
- Smoke Detector

Common Applications

- Animal Shelters
- Conference Centers
- Data Centers
- Dormitories
- Hotels
- Institutions
- Locker Rooms
- Multifamily Housing
- Nursing Homes
- Office Buildings
- Schools
- 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 jobsite.



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ERV

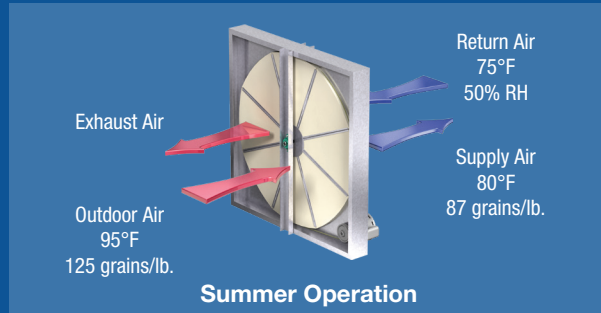


ENERGY RECOVERY VENTILATORS



Energy Wheel

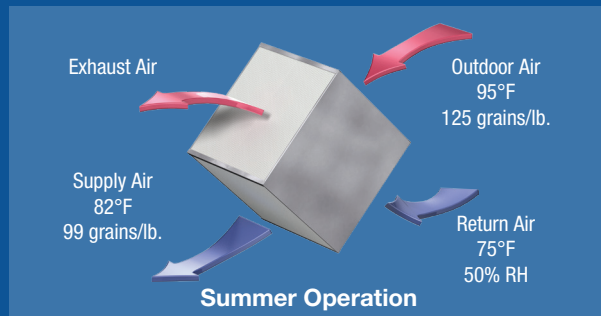
The energy wheel rotates between two airstreams while transferring both sensible (heat) and latent (moisture) energy.



- Constructed of polymer heat transfer media with silica gel desiccant
- Most efficient devices on the market with up to 80% enthalpy recovery ratio (ERR)
- Easy maintenance with removable wheel segments

Energy Core

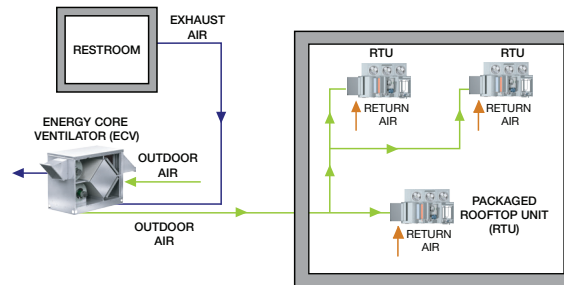
The energy core crosses air with the core without direct air-to-air contact while transferring both sensible (heat) and latent (moisture) energy.



- Available in either a fiber or polymer membrane
- Cross-flow corrugated structure separates the supply and exhaust airstreams for less than 1% exhaust air transfer ratio (EATR)
- Meets efficiency codes with ERR of up to 60%
- Low maintenance with no moving parts

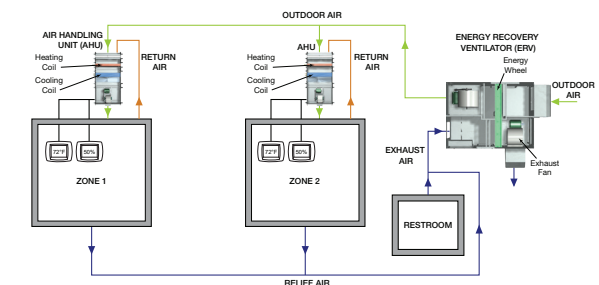
Energy recovery is the process of transferring energy between the conditioned return air from the space and the fresh, outdoor air that imposes the load on mechanical equipment. Fresh, outdoor air enters the energy unit where an energy recovery wheel or core treats the air before entering the heating and cooling equipment.

Energy Recovery with Packaged Rooftop Equipment



These diagrams illustrate how energy recovery units can be used in conjunction with other HVAC equipment. Whether ducting into terminal units such as air handlers or directly feeding into a rooftop unit, the preconditioners provide the ability to reduce the outdoor air loads on those systems. Energy recovery reduces the outdoor air ventilation load by up to 50%.

Energy Recovery with Ducted Air Handlers



ERVs Selection Guide

Model	ER Technology			Mounting		Performance		Control Options							Certifications	
	Polymer Wheel	Fiber Membrane Core	Polymer Membrane Core	Indoor	Outdoor	Minimum Volume (cfm)	Maximum Volume (cfm)	Microprocessor	BMS Integration	Frost Control	Economizer	Varl-Green® Motors	Fan VFDs	Motorized Dampers	UL Certified	AHRI 1060 Certified
ERM	✓			✓		500	10,000								✓	✓
MiniVent	✓			✓		150	10,000			✓		✓			✓	✓
ERV	✓			✓	✓	300	12,000	✓	✓	✓	✓	✓	✓	✓	✓	✓
ERVe	✓			✓	✓	1,000	6,000	✓	✓	✓	✓		✓	✓	✓	✓
ERVi	✓			✓		375	2,500	✓	✓	✓	✓	✓			✓	✓
MiniCore		✓	✓	✓		150	1,000			✓		✓			✓	✓
ECV		✓	✓	✓	✓	300	5,000	✓	✓	✓	✓	✓	✓	✓	✓	✓

Selection Software

Greenheck's free online eCAPS® Engineering Application Suite can simplify and optimize your selection of energy recovery preconditioners. Just CLICK on the Preconditioners product category. ENTER your project requirements. REVIEW your selections for size, energy recovery performance, 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.

