LE SERIES ERVs
COMMERCIAL ENERGY RECOVERY VENTILATORS

- Packaged static-plate total energy recovery ventilator
- 1,500-11,000 CFM
- Single-point connection, TEFC standard premium efficiency motors
- Modular design
- Options and accessories: integrated programmable controls, VFDs, double wall, Class 1 low-leakage dampers, MERV 13 filters

VENTILATION SOLUTIONS FOR EVERY APPLICATION
Deficient indoor air quality is a threat.

As buildings get tighter to seal weather out, they seal in contaminants, causing deficient indoor air quality (IAQ). Typical contaminants include off-gassing from carpeting, furniture and building materials, excess humidity and mold, odors, cooking and cleaning fumes, CO₂, hair and fibers, to name a few.

Deficient IAQ is a threat since it can harm occupant health and cognitive function, damage structures and hurt the bottom line. It’s especially concerning since people spend about 90% of their time indoors, and indoor air can be two to five times—and up to 100 times—more polluted than outdoor air. The EPA ranks indoor air pollution as a top-five health risk.¹

Adverse effects of deficient IAQ

Health problems

Deficient IAQ can cause allergies, headaches, coughs, asthma, skin irritations and breathing difficulties, as well as cancer, liver disease, kidney damage and nervous-system failure.²

Cognitive impairment

Harvard and Berkeley Lab found that CO₂—a constituent of exhaled breath—negatively impacts thinking and decision-making at levels commonly found indoors.³

Reduced productivity

Berkeley Lab found that deficient IAQ can cost $200 billion in debilitated worker performance and $36 billion in lost sick time.³

RenewAire ventilation solutions improve health & wellness

Airstreams do not mix & pollutants are not transferred across partition plates

Ashrae building codes & standards

With the goal of building sustainably and creating healthy environments for all, the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) has written several standards and guidelines. By enhancing IAQ and saving energy, RenewAire technologies provide the means to meet and exceed all ASHRAE standards and guidelines. Following these parameters leads to greener structures and healthier occupants.

ASHRAE Standard 62.1: “Ventilation for Acceptable Indoor Air Quality” is the recognized standard for designing ventilation systems to achieve acceptable IAQ. ERVs play a key role by creating cleaner and healthier indoor air while optimizing energy efficiency.

ASHRAE Standard 90.1: “Energy Standard for Buildings Except Low-Rise Residential Buildings” is a benchmark for commercial building energy codes in the U.S. and across the world. ERVs are required in several instances based on climate zone and percent of outdoor air at full design airflow rate.

RenewAire core technology

Certification

Certified by the Air Conditioning, Heating and Refrigeration Institute (AHRI) for an industry-leading, low-to-zero Exhaust Air Transfer Ratio (EATR) at typical static pressure differentials

Superior core flammability performance; passes UL-723 and UL-1812

Maintenance

RenewAire cores are easy to clean without removing them from the unit, and they never require washing

Innovative construction

Core exchanger material is cellulosic-based and doesn’t contain or use halogenated flame retardants or PVCs

Manufactured with a galvanized steel frame

Reliability

An industry-leading 10-year structural and performance warranty for the static-plate core, two-year warranty for commercial products and five-year warranty for residential products

Exceptional performance

Moderates heat and humidity via total energy recovery to maintain a comfortable indoor environment

No need for frost protection or condense pans

Laminar airflow ensures that particulates do not accumulate in the core

Reduced costs

Optimized energy efficiency via core energy transfer decreases ventilation energy requirements, which can result in smaller air conditioning and heating needs

RenewAire ERVs temper the air

In summer, the warm, humid outside air is precooled and dehumidified by the outgoing cool interior air

In winter, the cold, dry outside air is preheated and humidified by the outgoing warm interior air

In the summer, our ERVs moderate the extremes of outdoor supply-air temperature and humidity year-round, providing a sustainable ventilation solution for every climate.

Notes:


⁴ “ASHRAE Standard 90.1: ‘Energy Standard for Buildings Except Low-Rise Residential Buildings’ is a benchmark for commercial building energy codes in the U.S. and across the world. ERVs are required in several instances based on climate zone and percent of outdoor air at full design airflow rate.”
A CLOSER LOOK

LE SERIES
As part of our robust commercial ERV line, the innovative LE Series bolsters flexibility, reliability and efficiency for large-capacity applications. With both indoor and outdoor units available, as well as an extensive airflow range of 1,500-11,000 CFM, the LE Series provides the optimal solution for every commercial job. Utilizing our LE Series ERVs can enhance IAQ, downsize HVAC equipment and reduce costs.

MAINTENANCE IS SIMPLE
Disposable filters should be checked and replaced as needed. Additionally, once a year, vacuum the four core faces using a soft brush. The RenewAire core does not need to be washed as particulates do not accumulate in the core.

GREEN BUILDING TRENDS
Trends in high-performance green buildings up the ante with stricter standards. Their guidelines not only place an emphasis on energy reduction, but also call for increased ventilation that aims to improve health, wellness, IAQ and indoor environmental quality (IEQ). Sustainable design initiatives like ASHRAE Standard 189.1, LEED™ certification, the 2030 Challenge, the Living Building Challenge and the WELL Building Standard have grown in popularity among architects, contractors and building owners alike.

Our ventilation technologies create healthier and more comfortable indoor environments while optimizing energy efficiency by reusing otherwise-wasted total energy from exhaust air. The results are exceptional IAQ, IEQ and energy savings are critical components to earning the distinction of being a “high-performance green building.”
LE MODELS AT A GLANCE

<table>
<thead>
<tr>
<th>UNIT</th>
<th>LE6X</th>
<th>LE8X</th>
<th>LE10X</th>
</tr>
</thead>
<tbody>
<tr>
<td>Airflow Range</td>
<td>1,500-6,600 CFM</td>
<td>2,000-8,800 CFM</td>
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<tr>
<td>Indoor &amp; Outdoor Installation Location</td>
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<tr>
<td>Non-Fused (standard) &amp; Fused (optional)</td>
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<tr>
<td>Unit Disconnect</td>
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<tr>
<td>Energy Recovery Static Plate, Heat &amp; Humidity Transfer</td>
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</tr>
<tr>
<td>Single &amp; Double Wall (optional) Construction</td>
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<tr>
<td>1&quot; Foil-Faced Insulation</td>
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<tr>
<td>2,500-Hour Salt Spray Rated in White &amp; Custom (optional) Painted Cabinets</td>
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<tr>
<td>Class 1 Low-Leakage Isolation Dampers - OA, RA or Both Airstreams</td>
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<td>Forward Curved Centrifugal Supply/Exhaust Blower</td>
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<tr>
<td>Belt-Driven Supply/Exhaust Fan Type</td>
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<tr>
<td>Supply/Exhaust Fan Speed Control with VFD</td>
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<tr>
<td>575V 3P</td>
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<td>VFD</td>
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<td>0-2 in. w.g.</td>
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<tr>
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<tr>
<td>Integrated Programmable Controls - Enhanced, Premium (optional)</td>
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<tr>
<td>Optional Communications</td>
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<td>BACnet, Modbus RTU or TCP</td>
<td>BACnet, Modbus RTU or TCP</td>
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<td>ACCESSORIES</td>
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<td>MERV 8 Filters (standard)</td>
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<td>MERV 13 Filters (optional)</td>
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<td>CERTIFICATIONS</td>
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</tr>
</tbody>
</table>

AIRFLOW ORIENTATIONS

**INDOOR**

**OUTDOOR**

**APPLICATION STRATEGIES**

AIR SUPPLIED TO INTAKES OF TERMINAL UNITS

DIRECT-TO-ZONE WITH TERMINAL UNITS

DIRECT-TO-ZONE WITH ROOFTOP OR ALTERNATIVELY TO MIXING BOX OF ROOFTOP UNITS (see dotted line)

SUPPLY AIR TO MIXING BOXES FOR INDOOR TERMINAL UNITS OR ROOFTOPS

SUPPLY AIR TO MIXING BOXES FOR INDOOR TERMINAL UNITS OR ROOFTOPS

*Roof-top applications shown, configurations can be applied to indoor units.*
# EXPAND FUNCTIONALITY

## ACCESSORIES

### FILTERS
- 2" or 4" MERV 8, 13 Filters

### HEATERS
- EK Series Electric Duct Heater (for indoor units only)
- GH Series Indirect Gas-Fired Duct Furnace

### DAMPERS
- Automatic Balancing Damper 4", 5" & 6"

## CONTROLS

### CO2 Sensor
- Wall Mount
- Duct Mount

### IAQ Sensor
- Wall Mount
- Ceiling Mount
- Duct Mount

### Temperature Sensor
- Duct Mount

### BACnet Factory Activation

### Occupancy Sensor
- Ceiling Mount
- Wall Mount
- Duct Mount

### Duct Static Pressure Sensor
- Wall/Duct Mount without Display
- Wall/Duct Mount with Display

### Smoke Detector

### Remote Display
- Handheld or Wall Mount

### Digital Time Clock
- Wall Mount

### Digital Time Clock Exterior Enclosure

## ENGINEERED COMBO CURBS

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Member of the S&P Group
Family of Brands

RenewAire Energy Recovery Ventilation

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