



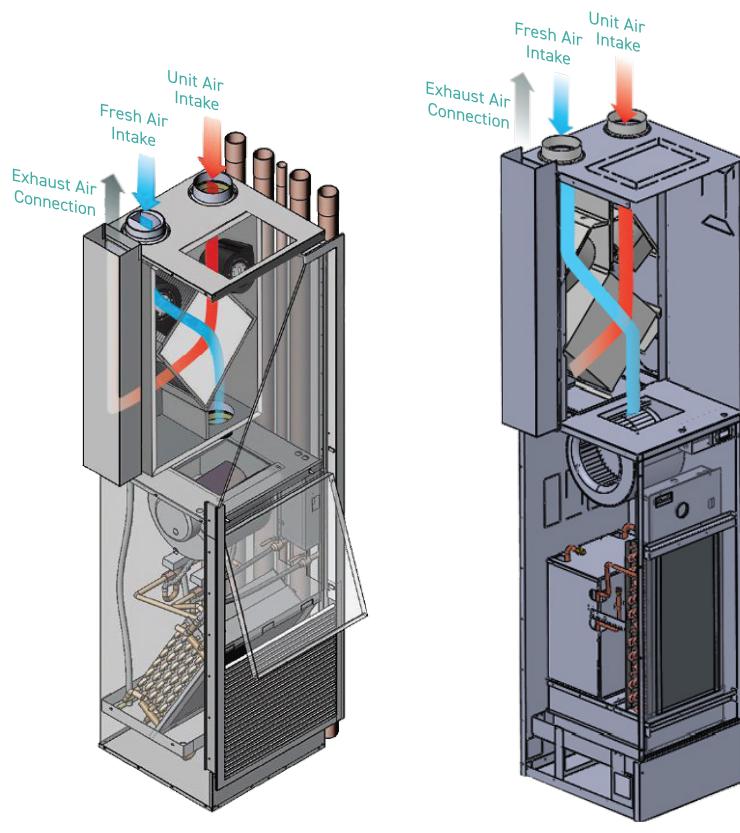
# Integrated ERV System

Available with Vertical Stack Fan Coils and Heat Pumps

## Leading Manufacturer of High-Rise Residential HVAC Equipment

Elevate home comfort and energy efficiency with Unilux HVAC's patented integrated ERV systems.

Unilux HVAC offers an all-in-one HVAC solution, seamlessly integrating heating, cooling, and ventilation. Multiple dampers and temperature sensors ensure freeze prevention in low-temperature areas.



## Dynamic Balancing

Unilux HVAC utilizes dynamic balancing which is an ERV control system installed in all Unilux ERV products. Dynamic Balancing provides a more precise method of air balancing between fresh air and exhaust air for each individual unit. Air pressure sensors in each air stream constantly measure and feed information to the ERV control board. The ERV board then controls the fresh air and exhaust air fan speeds to ensure that there is equal air volume in both air streams. This maintains neutral pressure in the space for ultimate building comfort.

### Benefits of Dynamic Balancing

- Reduction in use of motor resulting in energy savings
- Reduction in loss of each suite's conditioned air
- Reduction in unwanted air pulled in from outside suite through cracks and openings
- Isolates each zone of comfort from neighbours
- Reduction in odour transfer from surrounding suites and hallways



# Features, Options, and Performance

## 1. ERV Motor/Blower Assembly

2 motor/blower assemblies with single inlet centrifugal impeller types with forward curved blades. Motors are Electronically Commutated Modulation (ECM) motors. These motors are IP-44, shielded bearing, high efficiency types with internal thermal overload protection. Motors meet CSA standards and are UL approved.

## 2. Freeze Protection

Unilux HVAC has developed and patented an integrated design that has three temperature sensors trigger a motorized spring return damper to isolate the core and introduce exhaust air to the unit. This ensures the core temperature remains above 32°F (0°C) to prevent the core from freezing and rendering the ERV inoperable, without the need for an electric heater.

## 3. Controls

ECM motors using pulse width modulation. Motor speed is controlled using a rotary switch with the following settings: 25 CFM, 50 CFM, 75 CFM, 100 CFM and off. Timer switches are available with 20-40-60 minute options for high speed operation.

## 4. Filters

2 washable foam filters.

### Unilux HVAC Patented Integrated HRV/ERV

U.S. Patent No. 8939826  
CDN Patent No. 2746405

### Unilux HVAC Patented Dynamic Balancing

U.S. Patent Pending Application No. US20200124311  
CDN Patent No. 3059735

ERV Performance					
	Summer			Winter	
CFM	Sensible Eff. Cooling	Latent Eff. Cooling	Total Eff. Cooling	Sensible Eff. Heating	
25	87.25	44.53	60.90	87.13	
50	81.20	41.70	56.95	80.90	
75	75.68	38.95	53.15	75.13	
100	70.50	36.20	49.50	69.80	

Our state-of-the-art designs are demanded by today's best developers, engineers and owners. Contact us to learn why Unilux HVAC is the preferred choice of professionals throughout North America for vertical stack HVAC solutions.

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