UNILUX
HVAC INDUSTRIES

Vertical Stack Geothermal Heat Pumps

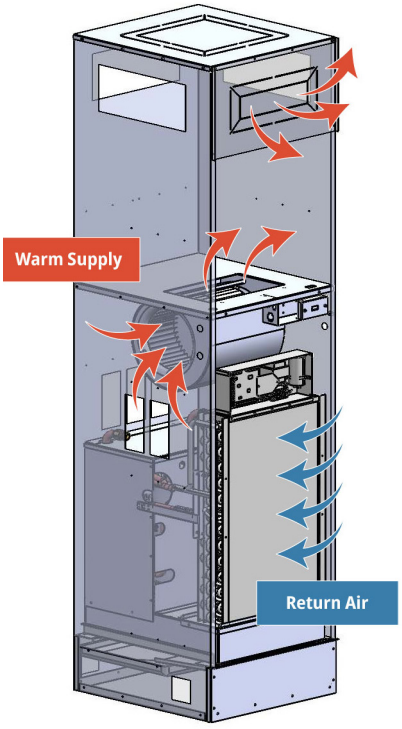
Model UVHPL

Leading Manufacturers of High-Rise Residential HVAC Equipment

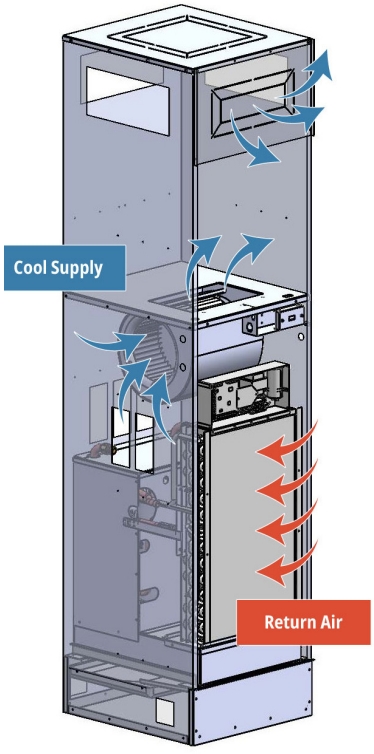
Efficient Heating and Cooling

Geothermal heat pumps are among the most energy efficient options on the market. Unilux HVAC manufactures vertical stack ground source heat pumps which use a closed loop of fluid running underground. By utilizing the earth's natural thermal properties, geothermal heat pumps use less energy than traditional HVAC systems, providing long-term savings with green technology. Geothermal heat pumps can help earn LEED points for the Energy and Atmosphere category.

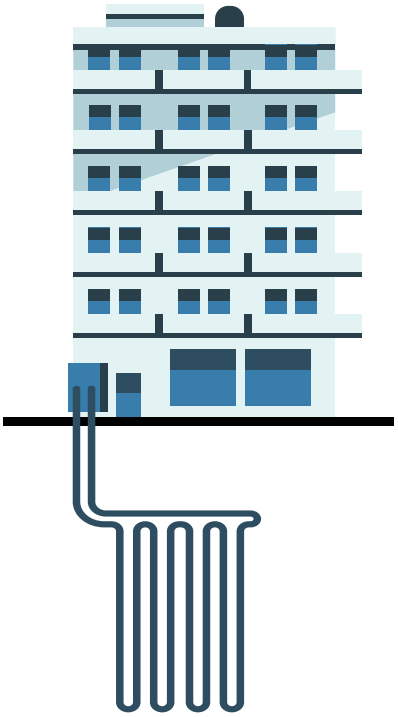
Heating Mode



Cooling Mode



Vertical Closed Loop System



ERV Upgrade

Unilux HVAC has developed a patented energy recovery ventilation system (ERV) that can be integrated with our full line of vertical stack heat pumps. Our integrated ERV solutions include multiple dampers and temperature sensors to ensure cores do not freeze when outside temperatures drop below freezing, without the need for an electric heater.

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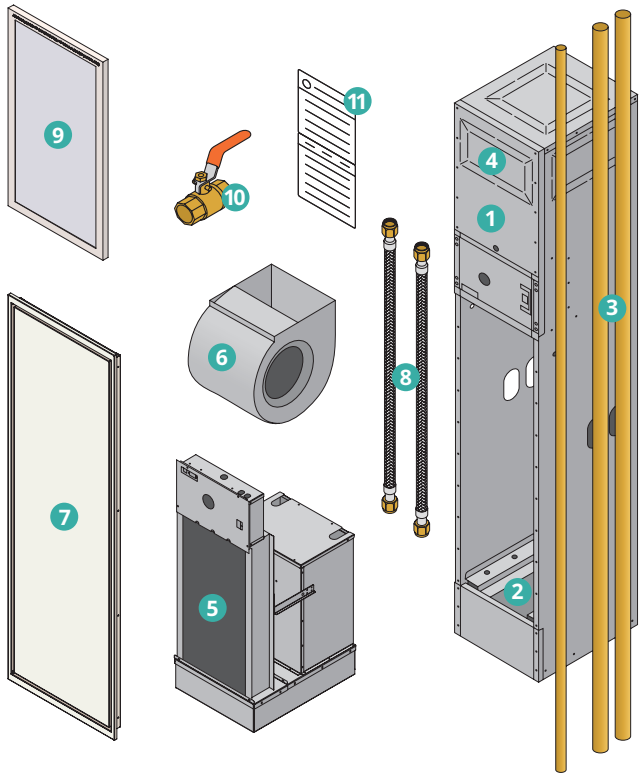
Benefits Overview

Standard Features

Unilux vertical stack heat pumps are designed to meet industry-leading performance requirements and are ETL tested. The units are ETL listed for safety requirements and meet UL 1995 / CSA22.2 #236—Issue 2011 / UL 60335-2-40 4th Edition.



1. Cabinet
Manufactured with satin-finished steel, the cabinet offers supply openings on the front, back, left, right or top. It is fully lined with fiberglass insulation reinforced by a thermosetting resin. It is coated on the air stream side with an acrylic facing without the use of flammable adhesives. Insulation inside the unit has a flame-spread rating no more than 25 and a smoke-developed rating no more than 50.

2. Stainless Steel Drain Pan and Overflow Sensor
Stainless-steel drain pan with neoprene insulation. A pre-formed rubber drain hose will connect the drain pan with the condensate riser to form P-trap and will be easily accessible for cleaning. The pan includes an overflow sensor to detect rising water levels and turn off the unit to prevent flooding.

3. Insulated Risers
Supply and return risers are type 'L' copper and condensate risers are type 'DWV'. All have 75mm (3") deep expanded ends to facilitate field installation. All risers are insulated with 1" fibreglass covered with a vapour barrier jacket, which complies with ASTM 84 for flame-spread and smoke-developed ratings. The insulation is continuous over the riser length within the height of the cabinet.

4. Supply Air Grilles & Registers
Double-deflection supply air grilles have adjustable vertical and horizontal louvers. They are constructed with light-gauge, powder-coated metal.

5. Refrigeration Chassis
A removable chassis with compressor isolation reduces vibration and provides easy and convenient service access. The chassis is complete with a rotary or scroll compressor, insulated coax condenser, TX valve, reversing valve, balancing valve, 2-way valve and motorized actuator — all housed within a sound-dampening cabinet. Complete with a DX coil and R-454B refrigeration circuit.

6. Fan & Motor Assembly
A thermally-protected, multi-speed ECM motor is resiliently mounted to a centrifugal fan which has a galvanized steel forward-curved DWDI wheel in a galvanized housing.

7. Access Panel
Steel construction with a durable baked-enamel powder coat finish, featuring a hinged door for easy filter exchange.

8. Water Hoses
Flexible supply and return insulated hoses for easy removal during maintenance and replacement.

9. Filter
One 1" MERV 8 filter and one disposable filter are included with the return air intake opening.

10. Ball Valves
Manual shut-off valves.

11. Unit Tagging
Units can be tagged with specific room numbers, riser numbers and other unique requirements.