Energy Recovery Custom Designed for Indoor Spaces

This unit and four others where built for an Independent Living Facility in Vermont. It was designed for indoor installation with certain space restraints. The horizontal supply airflow and vertical exhaust airflow allow the heat exchanger to lay flat inside the cabinet, reducing unit size. Since the exhaust air travels straight up through the Model XLT™ exchanger, condensation can drain straight down. A drain pan can then be located below the unit in the floor or ductwork, ensuring that water never collects inside the unit. Since the exhaust air flow rate was greater than the supply, the exchanger operated at a high efficiency—up to 71% in the winter. This takes a large portion of the heating load off the hot water coil and cuts building operation cost.

Performance Specification

Model:	**XVC–50–72–BP–HW**
Supply cfm:	11,000
Exhaust cfm:	12,000
Built:	March 2006
Dimensions:	106" H, 186" L, 98" W
Weight:	7,500 lbs
Energy Recovered:	792 MBH (Winter) 108 MBH (Summer)
Design Conditions:	–20 °F / 100% RH (Winter) 88 °F / 46% RH (Summer)

Top level blower cabinet is configured for exhaust air out. Supply air enters the bottom section through the damper (left) and flows out the other end (right).

XVC Wrapped and Loaded for Shipment

Unit Features

- An XLT Type H Aluminum Flat Plate Exchanger operates at 71% effectiveness under Winter Design Conditions and at 65% effectiveness in Summer.
- The Double Wall cabinet has an 18 gauge Galvanealed Steel Exterior, 22 gauge Galvanized Interior, and 1½" thick Fiberglass Insulation. Frame is Welded Structural Steel.
- 20" FC DWDI Blowers are belt driven by NEMA Frame, ODP motors (5 hp supply, 5 hp exhaust). The blowers are mounted on common frames and have rubber isolators and Flexible Duct Connections.
- A Hot Water Coil provides 899 MBH of heating capacity.
- 2" MERV 8 (30/30) filters on both outdoor and return airstreams protect the unit from debris.
- Outside Air Shut-Off, Outside Air Face-and-Bypass, and Exhaust Air Shut-Off Dampers and Actuators are included.
- Single Point Power Terminal Blocks, Main Disconnect, Protected Branch Circuits, and Motor Control Starters with Overloads are accessed in an Electrical Panel. Automatic Frost Control is also included.