

Custom Configuration for a University Laboratory

This custom XVC unit was built so that the customer, a university laboratory complex, could provide their own exhaust air blower section. Unlike most XVC units, which have exhaust air inlets on the bottom and exhaust air outlet sections on top, exhaust air enters this unit through one of its sides and passes straight out the other. In this airstream, XeteX only provided the exchanger and dampers. On the supply side, however, XeteX built the unit with cold water and steam coils, final filters, dampers, actuators, an air foil plenum blower, and a humidifier section. When finished, this unit gave the lab operators complete control over temperature and humidity, year-round energy recovery, and a custom configuration that met their requirements.



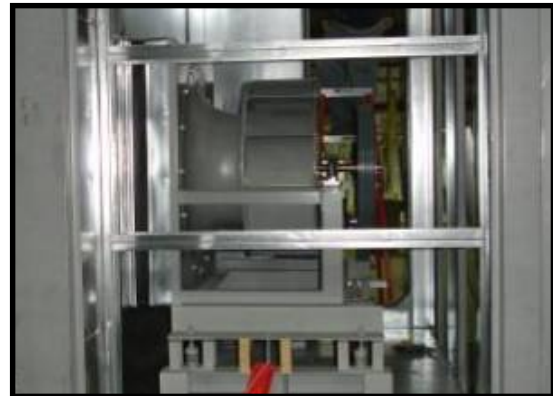
The heat exchanger (left) and cold water coil (right). The exchanger is flat, creating no turns within the unit.

Performance Specification

Model: **XVC-60-60-RT-BP-
HS-CW-SP**
Supply cfm: 10,500
Exhaust cfm: 10,500
Built: March, 2006
Dimensions: 94" H, 252" L, 108" W
Weight: 9,000 lbs
Energy Recovered: 741 MBH (Winter)
117 MBH (Summer)
Design Conditions: -20 °F / 99% RH (Winter)
90 °F / 45% RH (Summer)



Dampers for exhaust air (left) and supply air (right).



Air foil plenum blower section.

Unit Features

- An XLT Type H Aluminum Flat Plate Exchanger operates at 62% effectiveness under summer conditions and 69% under winter.
- The Double Wall cabinet has an 18 gauge Epoxy-Coated Galvanealed Steel Exterior, 20 gauge Galvanized Interior, and 2" thick Fiberglass Insulation. Frame is Welded Structural Steel.
- The 36" quiet Air Foil Plenum supply air blower is belt driven by a Premium Efficient 15 hp motor. The exhaust air blower section was provided by others.
- A Cold Water coil provides 687 MBH cooling and a Steam Coil provides 1196 MBH heat. The humidifier section provides 275 lbs/hr of moisture.