

High Capacity, Dedicated Outdoor Air Ventilation

This unit is one of eight designed to provide 20 to 30 air changes per hour of ventilation air for a casino. To facilitate rooftop installation, it was constructed in two sections. With an on-board packaged DX system and indirect gas-fired heater, the unit provides 30,000 cfm of comfortably conditioned supply air under even the most extreme outdoor air conditions—and the flat plate heat exchanger drastically cuts the amount of fuel consumed.

Performance Specification

Model:	XHS-80-102-RT-BP-CD-HG-HI-SF-AC
Supply cfm:	30,000
Exhaust cfm:	30,000
Built:	June, 2009
Dimensions:	138" H, 528" L, 148" W
Weight:	40,000 lbs
Energy Recovered:	2,026 MBH (Winter) 451 MBH (Summer)
Design Conditions:	-20 °F / 99% RH (Winter) 92 °F / 46% RH (Summer)



Exchanger/Blower Section

Left: This section houses the exchanger, 4" MERV 13 filters, outside air shutoff and face-and-bypass dampers, and the four blowers (two airfoil plenum blowers in each airstream).



DX-ACCU/Furnace Section

Right: The other section contains the DX system with DX and hot gas reheat coils, compressors, condenser coils and axial fans, and all valves and plumbing, as well as blower VFDs and the indirect gas-fired furnace, and exhaust air shutoff damper.



Unit Features

- An XLT Type H Epoxy-Coated Aluminum Flat Plate Exchanger operates at 71% effectiveness under Winter Design Conditions and at 69% effectiveness in Summer.
- The Double Wall cabinet features modular construction and has an 18 gauge Painted Galvanealed Steel Exterior, 22 gauge Galvanized Interior, and 2" thick Fiberglass Insulation. Frame is Welded Structural Steel and drain pans are all-welded stainless steel.
- Twin Air Foil Plenum Blowers with Premium Efficiency motors are supplied for each airstream. (Supply: 2 x 24" blowers with 2 x 30hp motors, Exhaust: 2 x 27" blowers with 2 x 15hp motors.) The blowers are mounted on common frames and have 2" Seismic isolators.
- A DX Coil provides 1932 MBH, or 161 tons of cooling capacity and a Hot Gas Reheat Coil
- Eight indirect gas-fired heaters provide 1562 MBH heating capacity with a 32:1 turndown.
- An integral, R-410A, walk-in, air-cooled condensing section includes compressors with crank case heaters, condenser coils, valves, and 10 axial fans.