

## Dehumidification, Reheat, and Forced Exhaust

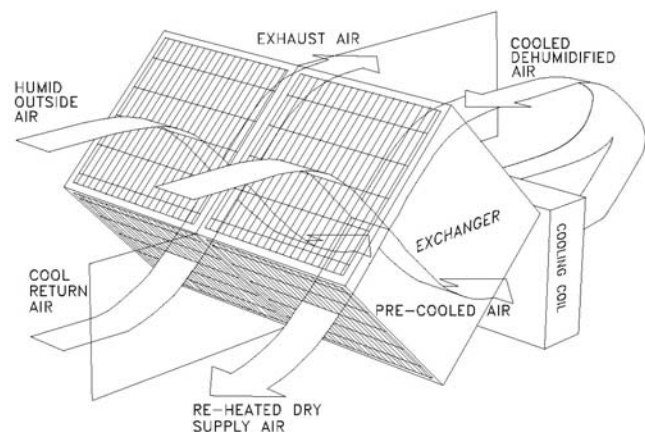
Like the model DXH, this DXH–XD unit efficiently conditions and dehumidifies supply air—but it recovers even more energy from a forced exhaust airstream, cutting building operating costs even further. The unit shown here is one of six 100% outdoor air handling units on an Elementary School HVAC renovation project. Newly installed heat pumps provide heating and cooling, delivered through a dual purpose water coil in each unit. In cooling mode, the Model XLT aluminum flat plate exchanger pre-cools the outdoor air, reheats it after the coil, and recovers energy from the cold return airstream. In heating mode, the exchanger recovers heat from the warm return air and uses it to preheat the incoming outdoor air.



View of the unit from the outdoor air intake hoods.

### Performance Specification

Model:	<b>DXH-30-42-XD-RT-CW</b>
Supply cfm:	4,100
Exhaust cfm:	4,100
Built:	July 2006
Dimensions:	71" H, 144" L, 88" W
Weight:	4,700 lbs
Energy Recovered:	275 MBH (Winter) 109 MBH (Summer)
Design Conditions:	-16 °F / 100% RH (Winter) 89 °F / 53% RH (Summer)



### Unit Features

- Double wall construction has 18ga, enamel coated, galvanealed steel exterior, 22ga galvanized steel interior, and 2" fiberglass insulation. Base frame is welded structural steel w/ integral lifting lugs.
- 18" Plenum blowers belt driven by 7.5 hp (supply) and 5 hp (exhaust) NEMA Frame, ODP, premium efficiency motors w/adjustable bases, common frames, and seismic spring isolators.
- The dual purpose 12 row, water/glycol coil provides 245 MBH cooling and 86 MBH heating.
- Rooftop/outdoor construction includes a sloped roof with capped seams and rain gutters, curb, and plumbing and electrical chase.
- Drain pans and access door hinges are stainless steel.
- 4" MERV 8 filters in both the return air and outdoor air protect the exchanger and coil.
- Dampers include outside air shut-off, face-and-bypass, and exhaust air backdraft.
- Single point power electrical panel includes main disconnect, fused branch circuits, terminal blocks, VFD bypass, and a BACnet DDC providing automated frost control (face-and-bypass), warm weather economizer, and summer recovery changeover.