

## Customized Cooling of Electrical Equipment

Building ventilation is not the only application for energy recovery. XeteX works with industrial OEMs to design custom solutions for process heating and cooling. This unit was developed to provide cooling for industrial-scale variable frequency drives used in coal mining. The XeteX unit replaced mechanical cooling and achieved the desired cooling at one tenth the operating cost, resulting in a pay-back period of just a few months.

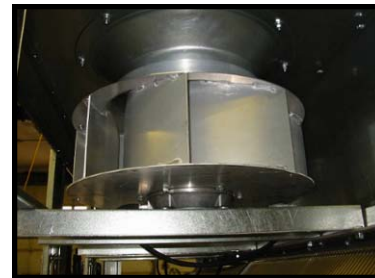
Requiring no changes to the original drive equipment, these units were designed to bolt directly onto the existing drive cabinets. The highly efficient, double-pass heat exchanger removes 76.9 kW of heat even under the worst hot summer conditions while consuming only 6.67 kW of fan power. The fully sealed, epoxy coated heat exchangers withstand the corrosive industrial environment and maintain the required clean-room quality air used to cool the drive equipment. The primary and redundant blowers were wired to interface with the pre-existing VFD controls making the XeteX unit a plug-and-play system.



The VFD bolts on to the back side. The double-pass exchanger configuration results in 80% heat transfer effectiveness.

### *Performance Specification*

Model:	<b>DXC-850</b>
Supply cfm:	15,650
Exhaust cfm:	13,130
Built:	July 2004
Dimensions:	100" H, 174" L, 112" W
Weight:	8,000 lbs
Energy	927 MBH (Winter)
Recovered:	305 MBH (Summer)
Design	-10 °F / 47% RH (Winter)
Conditions:	90 °F / 45% RH (Summer)



Redundancy—two of the three blowers (BI and direct drive) in each bank operate at design conditions.

### *Unit Features*

- Flat Plate Heat Exchanger is a Double-Pass, Epoxy Coated Aluminum, model XLT-34-90.
- 18" Backward Inclined Plenum Blowers are driven by NEMA Frame ODP, High Efficiency,
- Heavy Duty Double Wall Cabinet has Galvanized Steel construction (18 ga Exterior, 22 ga
- Unit is Configured for Outdoor Installation with Capped Roof Seams.
- Outdoor Air Shut-Off Dampers are included.
- Drain Pan is Galvanized Steel.
- Exterior individual blower connections provide plug-and-play integration with external VFD
- Electrical system includes Motor Starters, Disconnect, and Blower Connections.

The XeteX unit featured on this page was built for an actual application. It is provided here to show our capability.