

CASE STUDY: HEALTHCARE

Facility:	Hospital
Location:	Newburg, N.Y.
Project Type:	Heat Wheel Retrofit
Wheel Type:	Enthalpy Standard Performance 40,000 CFM / Unit
Scope:	Replacement of 3 Wing 4770 heat wheels

Problem:

Insufficient cooling capacity and high energy costs. In early 2004 the facilities hospital staff contacted Thermotech Enterprises concerning the existing Wing energy recovery wheels. The director of engineering discussed options for repair or retrofit of 3 Wing 4770 12' diameter heat wheels. A decision was made to proceed with a full retrofit on 2 of the 3 units.

Solution:

Thermowheel TR-Series. The retrofit product chosen was a Thermowheel TR-474 energy recovery wheel. This product was installed in the existing upgraded frame of the old Wing unit. All rotor parts were replaced with the patented Thermowheel system, including new variable speed drives, motors and controls. The project commenced in the fall of 2004 and an immediate energy savings was realized by the hospital. In addition, there was an overall improvement in the indoor air quality provided by the TR-474 Thermowheels. With the energy savings validated, an order was placed in 2005 to retrofit the last of the units. The retrofit projects were performed around the hospital's busy schedule and required only 3 days per unit to complete with minimal effect on operations.

Results:

Improved IAQ and lower energy costs. There was no surprise to Thermotech that the savings in energy costs and improvement in air quality were immediate as many older wheels tend to shed the desiccant coating that is the main driving force of enthalpy wheel technology. Thermotech has replaced wheels and installed new wheels in hospitals, schools, manufacturing facilities and labs nationwide. Thermotech's goal of providing high performance and reliability coupled with the engineering expertise of the Thermotech team has resulted in a reliability record that is the envy of the industry.