



May 1, 2011

Energy recovery system reduces cost of cooling outside air

Airxchange. The developers of Turtle River Montessori School in Jupiter, Fla., wanted students to have the best possible indoor air quality, but the school needed to be energy-efficient as well. One recommendation was high-efficiency air-to-air Energy Recovery Ventilation (ERV) to reduce outside air (OA) load—the required rate of heat removal from outside air. ERV wheels dramatically reduce HVAC costs by recycling the heating and cooling energy in exhaust air (not the air itself), thereby reducing the load on the HVAC system by as much as 80 percent. This reduction in load not only translates into significant ongoing cost savings, but also allows the downsizing of HVAC equipment, thereby reducing first cost and providing an immediate return on investment.

The Airxchange energy recovery ventilation (ERV) system installed at the school saved about \$25,000 in construction costs. And since the school opened, it has delivered still more savings at the rate of about \$6,000 per year, compared with the utility bills the school would have had with a conventional HVAC system.

“The indoor air quality is excellent,” says Bubli Dandiya, the building’s owner and principal. “The building is very comfortable, and the air always smells fresh and clean.”