Ascension Parish Schools

Donaldsonville, Louisiana

ASCENSION PARISH SCHOOLS

PROPERTY: Ascension Parish Schools
Donaldsonville, Louisiana

DESIGN/BUILD: Castagnos-Goodwin

"Other engineers need to know about IEC's great 'Ratings' software. It makes for easy selections because you can quickly calculate load and work up schedules. I use it every week. It was a great tool for designing these school systems."

—Robert Utley, Senior Mechanical Engineer, Castagnos-Goodwin

Ascension Parish Public Schools serve an area of southeastern Louisiana that has experienced greater than expected growth in the school population in the wake of Hurricane Katrina, resulting in crowded conditions in existing school buildings.

In 2006, the parish created an ambitious plan to build six new K-5 elementary schools, with an emphasis on a cost-effective design, reasonable maintenance costs and energy-efficient long-term operation. The new schools' design was based on an existing school, Duplessis Primary, that uses IEC fan coil units to provide a comfortable atmosphere for learning. The duct-free fan coil units are economical to purchase and run, can be maintained by the school district's own personnel and provide the ability to regulate conditions in different classrooms and areas of the school according to the preferences of the teachers and staff in each individual area.

The new schools incorporate IEC Modular Hi-Rise Series MXY fan coil units in the classrooms and other spaces. The MXY is designed for applications where concealed installation is not practical. The slim, attractive cabinet arrives powder-coated for ease of finishing when the classroom walls are painted.

A variety of unit-mounted thermostats are available. In some instances, two MXYs are controlled by a single two-stage thermostat, effectively harnessing the individual fan coils into a two-stage system. One unit provides cost-effective cooling during low demand times; when demand increases, the second unit kicks in for additional cooling capacity.

MXY
Exposed Modular Unit

PROBLEM: The school district needs to provide a comfortable, economical way to operate a learning environment for students, teachers and staff.

SOLUTION: IEC Hi-Rise Modular MXY fan coil units provide cost-effective, duct-free, targeted cooling to individual classrooms and other areas of the school such as the computer lab, which requires high levels of cooling all year round.

PROBLEM: The school district needs to minimize maintenance expenses associated with the HVAC system as well as down time for units that require service.

SOLUTION: IEC fan coil units can be serviced by district facilities staff. Schools keep spare parts and replacement filter media on hand so that in the event of a repair or filter change, maintenance staff can quickly and easily return that classroom or area of the school to normal comfortable conditions without calling for an outside service technician.

PROBLEM: Some areas of the school, such as the computer lab, have unique cooling needs that vary greatly from those of a regular classroom.

SOLUTION: Because of the heat generated by computers, the computer lab requires cooling all year round. In the colder months, the chillers that assist in cooling the school in the summer are shut down but a cooling-dedicated MXY fan coil unit with DX coils remains active to provide targeted comfort and peak operating conditions to the lab room.

IEC often provides custom engineering upon request. Robert Utley, Senior Engineer at Castagnos-Goodwin, took advantage of this service to have wiring diagrams created for inside the door for the thermostats that control the MXY fan coil units in the Ascension Parish schools. Because in some instances one thermostat controls two fan coil units as part of the "two-stage" system, the wiring diagrams enable school maintenance staff to install or replace the thermostats themselves as needed.

"The IEC fan coil units really work for everyone involved with the schools. The maintenance staff likes them because they're so easy to service. The CFO likes them because they're cost-effective to purchase and run, and down the road if a unit needs to be replaced, it can be replaced individually and won't bring the entire system down. Finally, the teachers really enjoy the units because they are so quiet and each teacher can control the environment in their classroom."

—Robert Utley, Senior Mechanical Engineer, Castagnos-Goodwin

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