LaRose-Cut Off Middle School

LaRose, Louisiana

LaROSE-CUT OFF MIDDLE SCHOOL

PROPERTY: LaRose-Cut Off Middle School
LaRose, Louisiana

DESIGN/BUILD: Castagnos-Goodwin

"I requested that IEC modify the fan coil units with a service grille so the school maintenance staff doesn't have to take the front panel off to change the filter media. I also sent a wiring diagram for the thermostats and they came back with the diagram inside the door so anyone can install them. Every time I've asked IEC for special engineering, they've done it!"

—Robert Utley, Senior Mechanical Engineer, Castagnos-Goodwin

In the warm, humid climate of southeast Louisiana, schools like LaRose-Cut Off Middle School can't simply turn off their HVAC equipment to save energy and lower utility costs when school is not in session—doing so would invite mold and mildew to take over the building. And when school is in session, a comfortable atmosphere is essential to a good learning environment. Building codes further mandate that fresh air be available to the school's more than 500 sixth to eighth graders plus teachers and staff. Therefore, the school district sought a reliable, economical, quiet and easily maintained way to cool the classrooms at LaRose-Cutoff.

Castagnos-Goodwin designed a fan coil system for the school district that tapped off an existing system in an adjacent building, incorporating IEC Modular Hi-Rise Series MXY and Hi-Performance Series HXY fan coil units. By using autoflows and three-way valves, Castagnos-Goodwin essentially turned a single circuit coil into a two-stage coil. When temperatures rise above 72° F, an additional valve opens in the coil, allowing for greater GPM. Each classroom has its own thermostat, enabling each teacher to control his or her individual environment. This plus the unit's quiet operation creates staff satisfaction, while a range stop on the thermostats prevents excessive cooling and its attendant costs.

The simplicity of the fan coil system enables school district maintenance staff to service the units themselves, avoiding costly technician visits, and allowing staff members to replace filter media and change worn parts. Also, in the event that a fan coil unit is disabled for servicing, only the immediate environment is impacted. The rest of the classrooms continue to function normally, preserving school-wide comfort.

MXY
Exposed Modular Unit

HXY
Horizontal Cabinet
High-Static

PROBLEM: LaRose-Cut Off Middle School needed a reliable, economical cooling system that could respond to periods of high and low demand.

SOLUTION: IEC fan coil units provide cooling and fresh air to students and teachers with a two-staged system that enables greater GPM during peak demand periods yet drops back and runs efficiently to dehumidify the school when classes are not in session.

PROBLEM: Personal preferences and location within the building caused teachers and other staff members to require different levels of cooling in their rooms.

SOLUTION: Each classroom has its own thermostat, enabling teachers to control their immediate environment. Range stops prevent excessive cooling and associated costs, while the fan coils' quiet operation enhances the student's learning environment.

PROBLEM: Routine service such as changing filter media required removal of the fan coil's front panel.

SOLUTION: IEC customized the unit with an auxiliary service grille, which simplifies access to the interior of the unit and facilitates routine maintenance.

In addition to the reasonable up front costs, efficiency and comfort benefits of the IEC fan coil units at LaRose-Cut Off Middle School, the school district appreciated the low profile of the floor-based units, which do not require any ladder work during servicing. This creates a better liability scenario for the district.

And while the fan coil units are simple to service, Castagnos-Goodwin sought to make them even more user-friendly by asking IEC to create customized auxiliary service grilles in the front of each classroom unit. The front panel need not be removed for routine service, enhancing staff productivity and cutting down on maintenance time.

Finally, the appearance of the fan coil units was suitable to an educational environment, with a finished cabinet that can be painted to match its surroundings. The units become so much a part of the classroom that they are often seen covered with magnets holding student papers to the unit's steel walls.

IEC International Environmental

IEC Case Study Part #: I100-90008540
CS-238 Revision 1 (7/2016)

PO Box 2598
Oklahoma City, OK 73101-2598
p: 405.605.5000
f: 405.605.5001
www.iec-okc.com