CASE STUDY

Southern Indiana Career and Technical Center

Application:
Air Handling Units

Griswold Controls Solution:
MVP Valves

Contractor:
Industrial Contractors

Engineer/Consultant:
Tom Durkin

Completion Date:
October 2006

Griswold Controls is ISO 9001:2000 Certified

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Griswold Controls Helps Educate Indiana High School Students

The Evansville–Vanderburgh School Corporation, along with the Indiana Department of Workforce Development and local businesses, saw the critical need for a vocation–technical high school. Working together, they envisioned a school that would not only educate high school students, but also meet the changing demands of workforce training and technology. Resulting from a public 54–member planning and design task force, the new Southern Indiana Career and Technical Center (SICTC) will educate and prepare high school students for employment within local industries. In addition, the Technical Center will offer adult continuing education courses, workforce development programs, and general education classes for the entire Southern Indiana region.

Opening on September 13, 2006, the $32.5 million, 262,000 square foot center is progressive in design, and equipped with state–of–the–art equipment. A major responsibility for the architects and engineers was to integrate concerns about cost–effectiveness and tight school budgets into their design. This applied to all aspects of the center, including the criteria to operate the HVAC system as efficiently as possible given the budget constraints.

Veazey, Parrott, Durkin, & Shoulders were the architects; mechanical engineer Tom Durkin, P.E., having responsibility for the mechanical. Kevin Smith of Hydronic Sales did the valve selection and coordination, ultimately using (42) Griswold Controls MVP™ valves and (125) CPP–IRIS packages on the project. There are (21) Trane air handlers regulating the center, and the pumps are controlled by a VFD system.

As Kevin Smith stated, "We all had a responsibility to the taxpayers to design something functional but frugal at the same time. The planning task force clearly stated that they did not want to build the Taj Majal with taxpayers' money."

The MVP™ will track with the VFD system, only a change in demand load will cause a flow rate change, not the pressure drop across the valve. In addition, the MVP™ reduces air side fan energy because flow, coil output, and controlled temperature remain stable. Also, circuits with the MVP™ valves are independent, thereby allowing the use of CPP–IRIS on small demand loads, keeping the initial cost down.

Another advantage to using the MVP was that the maximum flow rate for the cooling and heating coils is able to be set at the factory using dip switches, saving time and manpower in the field. Through a collaborative effort, Southern Indiana now has a state–of–the–art technical center that accommodates a wide variety of uses.

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