

New Unit Solves Humidity, Temperature Problems for Medplex

Medplex Reaps Benefits of Electric HCU

Since installing its new electric Humidity Control Unit, Medplex has experienced a number of benefits from the system, including:

- Easy compliance with ASHRAE 62-2001, which cautions against the hazards of infection when relative humidity is too high.
- Cost savings by treating ventilation air economically.
- Cool, dry ventilation without overcooling.
- Independent control of space temperature and humidity.
- Elimination of wet floors, saturated duct, mold and mildew due to lower dewpoint.
- Elimination of uncomfortably cold areas.

Like many outpatient surgery facilities, Brookwood Hospital's Medplex Outpatient Surgery Center in Birmingham has always wrestled with temperature and humidity issues.

In the facility's operating rooms, low temperatures of around 60 degrees are required. These temperatures are needed to accommodate surgeons who may operate for 10 to 14 hours of strenuous physical effort during orthopedic surgeries, while wearing several layers of protective clothing to guard against infection.



However, the same operating rooms that require unusually low temperatures also must maintain low humidity, often below 60 percent, in duct work to avoid fungal growth that can lead to infections. Although Medplex has never experienced such infections, the facility was unable to regulate humidity in its operating rooms at such low temperature and needed a unique, proactive solution.

"From an infection control standpoint, we knew the humidity was above what's recommended, but our doctors need it to be really cold in the operating rooms," says Susan Hulsey, head nurse at Medplex. "The colder we would turn down the temperature, the more humid it would be."

To solve the problem, Medplex partnered with Alabama Power to install an electric Humidity Control Unit (HCU) from Munters. The unit was installed without interrupting any surgery schedules, with most work taking place during late afternoons and on weekends, and was in working order in August of this year. Since installing the HCU, Medplex has been able to maintain daytime operating room temperatures of around 60 degrees with humidity levels of 50 to 55 percent, according to Hulsey.

"Our goals were for the surgeons to feel cooler and for us to keep humidity low to avoid the risk of infection, and this system has helped us reach those goals," Hulsey says.

As a desiccant system, the Munters HCU absorbs moisture out of the air, reducing humidity in the process and helping facilities like Medplex to comply with ASHRAE Standard 62. Because the new electric HCU uses recycled waste heat to regenerate the desiccant wheel, energy consumption is minimal and the system is highly efficient.

"The electric HCU is the most efficient system we have for controlling temperature and humidity in surgery centers and other commercial buildings," says Michael Lawler, a Munters representative. "It's easy to install and much less expensive to run than other types of systems."

In addition to health care facilities, electric HCUs are being used successfully in other buildings such as:

- Commercial buildings that require high ventilation air, such as schools, restaurants, theaters, hotels and hospitals.
- Commercial buildings that require better control of space humidity, such as hospitals and nursing homes.
- Supermarkets that require lower space humidity at their freezer and refrigerator aisles to eliminate condensation.
- Indoor pools and health spas.

For more information about electric HCUs and how Alabama Power can help your facility control temperatures and humidity levels, contact the **Business Call Center** at 1-888-430-5787.

