



## **LAB ENVIRONMENT- EQUIPMENT REPLACEMENT/ CONTROLS UPGRADE**

*Centricor Analytical Labs  
Charlotte, NC*

### **Background**

Centricor Analytical Labs in Charlotte, NC found itself with an air conditioning unit that was truly on its last legs. The affected lab space had very specific temperature and humidity requirements and United Mechanical Corporation was consulted about the equipment replacement.

### **UMC Approach**

As is typical of the way United Mechanical approaches any new project, a thorough analysis of the situation was made before simply quoting a replacement unit. Taking the mechanics of the entire HVAC system into consideration, United Mechanical wanted to see what else, in addition to replacing the air conditioner, could be accomplished that might offer more control, efficiencies, and cost savings.

Over the course of time, the lab space had been added on to and re-arranged to the point that the air was not balanced correctly in much of the area. Utilizing the existing boiler/steam heating system, United Mechanical knew they could update the building controls system and reconfigure the duct work to once again consistently meet the temperature and humidity requirements throughout the entire lab.

### **Results**

Not only did Centricor get a new make-up air unit, but United Mechanical was able to once again balance and maintain the air environment in the entire lab. Per design, the upgraded controls also served to create a more efficient operating environment and lower energy costs. Now, energy usage could be automatically adjusted to reflect occupancy levels at different times of the day and the fresh air dampers controlled to introduce only the proper amount of outside air.

As a full service contractor, United Mechanical was also able to save Centricor time and money by handling all the engineering and duct work fabrication in-house. Even though challenges were met along the way, a tightly coordinated project management schedule resulted in a very reasonable completion date and minimal downtime; the lab was kept up and running the entire time.

