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■ Overview

■ For Research Environments

Bio-containment
Cleanroom
Wet Chemistry Lab

■ For Life Science Facilities

Open Bench Lab
Support Lab Spaces
Vivarium

■ For Healthcare Spaces

Hospital Pharmacy
Medical Surgery
Pandemic Response
Patient Care (Critical & Nursing)

■ By Industry

Government
Healthcare
Petrochemical
Pharmaceutical
University

Traccel® Control Systems for Life Science Facilities

The Traccel® brand of products are designed specifically for life science facilities and can easily accommodate changes in airflow demands, reduce future HVAC renovation costs, maintain the environmental integrity of a research facility, and help earn the points to achieve an organization's LEED goals.

Controlling these factors contributes directly to your operating margins, reducing risk and lowering facility costs. If there is one constant factor within the life science industry, there will be change. Change to accommodate new research or a new faculty member. It is essential to make the smart choices in facility mechanical design now, so that costs of change are less in the future.



Advantages and Benefits

Flexibility

- Less testing, adjusting and balancing (TAB) means faster commissioning—Phoenix Controls venturi valves meter flow and don't measure flow. Devices that measure flow, like a terminal box, must typically be field characterized for the installation condition. Imagine commissioning a new or reconfigured HVAC system by just turning the fans on. TAB is virtually eliminated with venturi valves.
- Integrates easily with LonTalk® or BACnet® networks—Traccel® is offered in a LonMark®-certified or BTL BACnet®-certified controller and seamlessly plugs into the open LON or native BACnet network.
- Pressure-independent operation—Design up to 30% shorter duct runs throughout the HVAC system. Traccel valves operate accurately even with short or angled duct sections. Precise airflow delivery rate is never compromised when there are changes in static pressure. Use the Traccel-TX Shut-off Valve option to eliminate the need for extra dampers and controls to isolate the mechanical ductwork.
- Shut-off capability—In life sciences, needs for gaseous decontamination or HVAC isolation are not always considered during the planning stage. Planning a valve up front that can control airflow precisely with low-leakage shut-off can save thousands of dollars.

Operational Costs

Energy Conservation

- High turndown ratios saves energy—The design of the venturi valve body and cone assembly means higher turndown ratios than a traditional VAV terminal box—up to 20:1 versus 3:1. With better accuracy, you are saving energy with lower air volume and it will not compromise room pressurization.

Reduced Maintenance Costs

- No flow sensors means no maintenance – All venturi valves are characterized for their full flow range at the factory, with a 48-point flow table loaded onto the controller. This means there are no flow sensors to clean, ever.

PC Optimizer



Supporting Literature



Order literature to learn more about Phoenix Controls products and services.

Contact a Local Rep



Find a local Phoenix Controls Representative in your area.

- Fewer controllers per room – The Traccel controller provide a full electronic platform to control temperature and monitor humidity and pressure, eliminating the need for additional controllers in the space.
- Tiered control platforms (TP, TX, SO/EO) – There are many different applications within a life science facility. Having a choice of three control schemes (TP, TX, and SO/EO) allows you to distribute costs and value where it is required, such as the demanding decontamination applications versus less demanding conference rooms and office spaces adjacent to the labs.
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Applications

The Traccel[®] controllers and venturi valves are designed specifically for collaborative **Life Science facilities**. These facilities are typically anchored by an **open bench lab** with support alcoves that house various types of fume hoods, state of the art equipment or **animal holding spaces**. All these spaces together require a stable, accurate airflow control system that only a venturi valve can offer. Even adjacent **support lab** spaces such as equipment rooms and microscopy rooms or even conference rooms, offices and corridors may seem less critical in precisely controlling airflow. But in reality, every adjacent space to a lab space affects the ventilation and stability throughout the building.

For those Life Science facilities that need a controller to accommodate a more complex control scheme or meet the demands of a high speed VAV fume hood, the **Celeris** control system is a perfect fit. The Celeris system is a platform designed to provide a safe and comfortable work environment while managing a complex ventilation control scheme. With platform flexibility offered in Traccel, Celeris or a combination of both, the airflow demands for all styles of Life Science research facilities are covered.