



traccel

environments you can trust



life science solutions

Traccel® is Phoenix Controls' family of airflow control systems designed to meet the needs of today's life science facilities. With Traccel, life science facility owners can easily accommodate changes in airflow demands, reduce future HVAC renovation costs, and, most importantly, maintain the environmental integrity of the research facility.





Phoenix Controls: The Leader in Precision Airflow

Your business demands precision airflow control for critical spaces. It is a matter of safety, pure and simple. Safety for world-class research laboratories. Safety for collaboration in the world of emerging sciences. Safety for patients and staff in state-of-the-art hospitals. For all critical airflow control needs, Phoenix Controls is simply the best in the business.

For more than 20 years, the name Phoenix Controls has meant peace of mind for thousands of corporations and universities around the globe. Our customers know the quality and reliability of Phoenix Controls' venturi valve and control system are second to none. Yes, we know safety is the primary reason our customers choose us. But today, there are even more reasons to design our venturi valves into projects. Our innovative airflow control solutions

provide new ways to save energy and reduce the costs of maintaining HVAC systems.

For life science facilities, precision airflow control means improved research integrity, superior mechanical flexibility, improvements in energy conservation and reduced maintenance costs of demanding mechanical systems. Controlling these factors contributes directly to your operating margins, reducing risk and lowering facility costs. If there is one consistent factor within the life science industry, it's that there will be change. Change to either accommodate new research or a new faculty member. It is essential to make the smart choices in facility mechanical design now, so that the costs of change are less in the future. In all of the spaces in a life science facility, that choice is Phoenix Controls.

Traccel Airflow Control Designed for Life Science

The Traccel family of controllers and venturi valves are designed specifically with life science facilities in mind. These facilities are typically anchored by large, open labs with support alcoves that house various types of fume hoods or state-of-the-art equipment requiring accurate airflow control. Even adjacent spaces, such as offices, corridors and conference rooms, may seem less critical in precisely controlling airflow. But, in reality, every adjacent space to the lab affects the ventilation throughout the building. The solution to the life science control demands of ventilation, temperature and pressure can only be provided by the flexibility the Traccel family of valves offers.

The tiered Traccel family of valves and controllers for your entire facility are:

- **Traccel-TP**—Supply and exhaust VAV tracking pairs maintain a prescribed CFM offset to enable accurate space pressurization and complete room temperature control.
- **Traccel-TX**—Supply and exhaust VAV tracking pairs maintain a prescribed CFM offset to enable accurate space pressurization and complete room temperature control. In

addition, TX provides extra I/O to meet the needs of humidity control, pressure monitoring, plus provides the control and ability to shut off for gaseous decontamination or isolating HVAC on command.

- **Traccel-SO**—Supply-only VAV airflow that provides a cost-effective supply valve when no tracking exhaust valve is required to maintain complete room temperature control. Ideal for equipment alcoves and workstations open to the core lab.
- **Traccel-EO**—Exhaust-only VAV airflow when no tracking supply valve is required. Ideal for an additional exhaust on a BSC or 2-State-Hood in a support alcove.

The Traccel family provides a trusted, safe and comfortable working environment for a single support alcove or can work together for an entire research complex. The flexibility, airflow turndown and configurability make it the perfect solution for life science facilities.

Our Customers

Many of the world's top life science research facilities trust Tracel products. Below are just a few:

RESEARCH UNIVERSITIES

UNIVERSITY OF ALBERTA
Prion Centre

ARIZONA STATE UNIVERSITY
Bio-Design Institute

UNIVERSITY OF CALIFORNIA–IRVINE
Reines Hall

CAMBRIDGE UNIVERSITY
Cambridge, UK

UNIVERSITY OF CHICAGO
Searle Hall

UNIVERSITY OF MINNESOTA–DULUTH
Life Science Building

UNIVERSITY OF NORTH CAROLINA
Asheville Science Center

UNIVERSITY OF VIRGINIA
Gilmer Hall

UNIVERSITY OF VICTORIA
Science Building

WASHINGTON UNIVERSITY–ST. LOUIS
Cortex Building

PHARMA/BIOTECH

AMYRIS BIOTECHNOLOGIES
California

FEINSTEIN INSTITUTE FOR MEDICAL
RESEARCH
New York

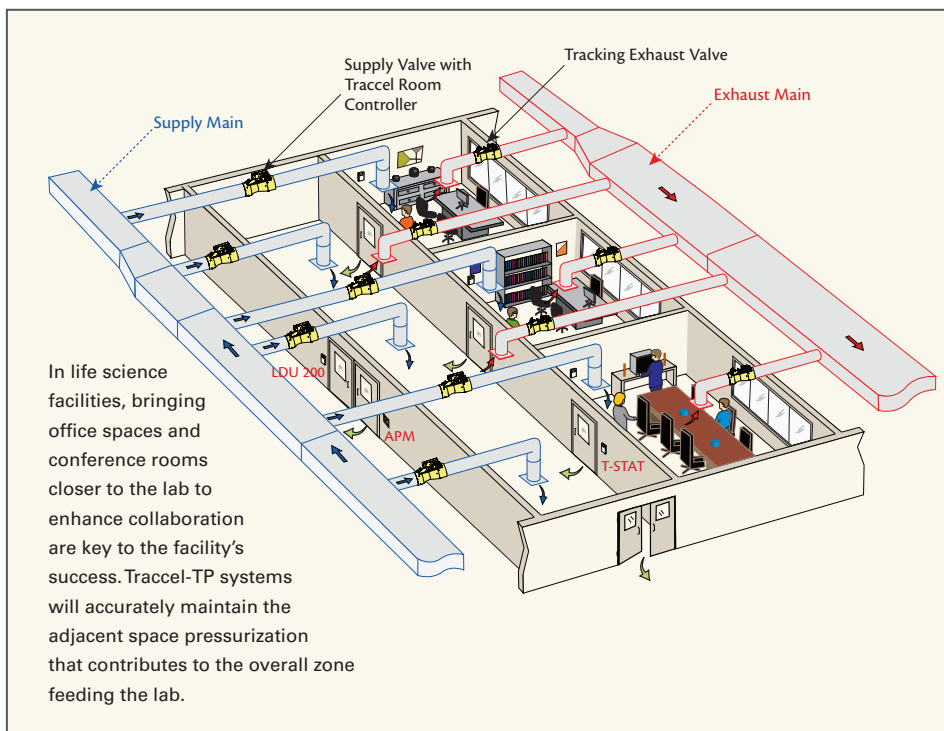
ISTITUTO DEITUMORI GENOVA, I.S.R.
MELDOLA LAB
Italy

JOHNSON & JOHNSON
Wales

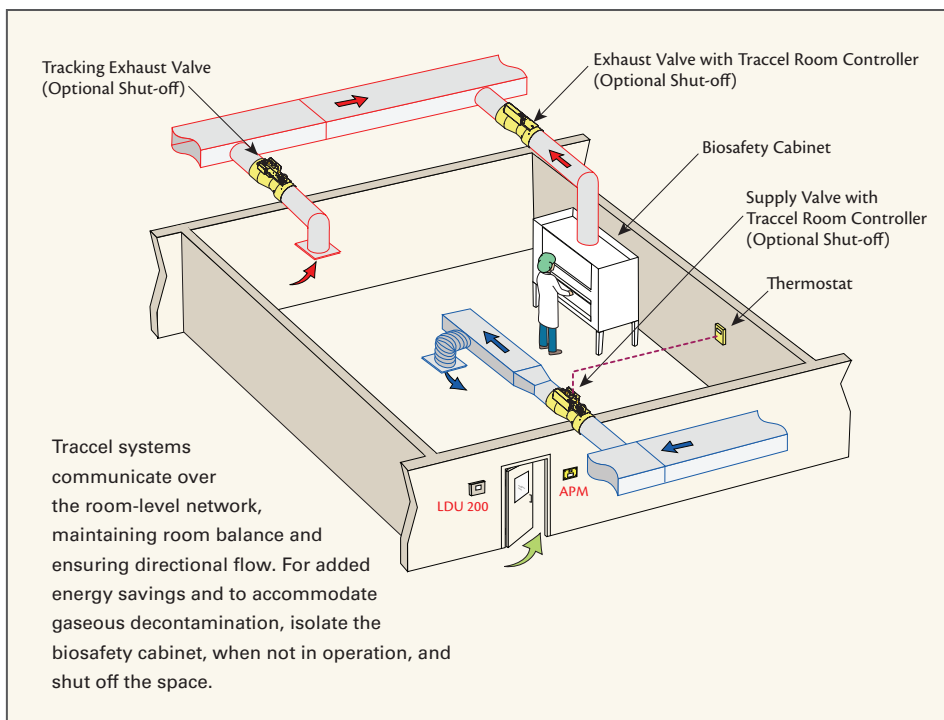
MERCK
New Jersey

PFIZER - PHARMACIA (NRB)
Montana

Office and Corridors Adjacent to Labs



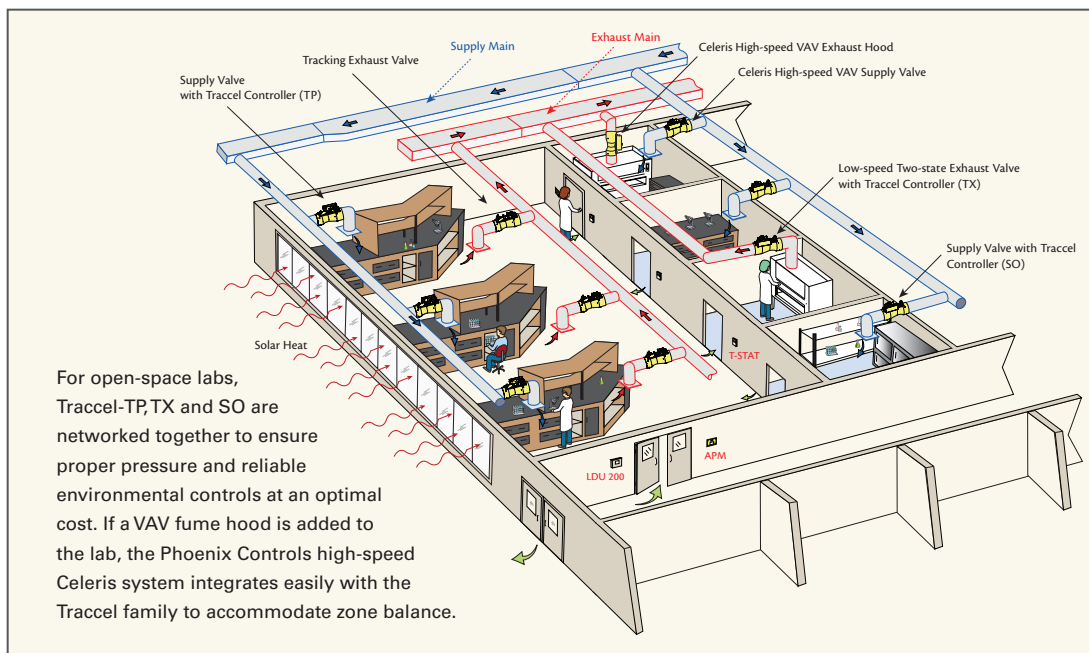
Biosafety Spaces



TRACCEL TOTAL SOLUTIONS

Add quality ancillary devices like temperature and humidity sensors, Advanced Pressure Monitors (APMs), Fume Hood Monitors (FHM)s and Local Display Units (LDUs). Phoenix Controls and The Tracel Family of Valves are your complete solution package for all room-level control in a life sciences research facility.

Interdisciplinary Research Labs



Tracel Benefits Life Science Facilities

Tracel, like all airflow control products from Phoenix Controls, has core benefits inherent in the valve design that are important in life science facilities:

Flexibility

- **Less testing, adjusting and balancing (TAB) means faster commissioning**—Phoenix Controls venturi valves meter flow and don't measure. 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.
- **Integrate easily with LonTalk or BACnet networks**—Tracel controllers are LonMark and BTL certified, providing confidence that BMS integration can be achieved easily.
- **Pressure-independent operation**—Design up to 30% shorter duct runs throughout the HVAC system. Tracel valves operate accurately even with short or angled duct sections. Precise airflow delivery rate is never compromised when there are changes in static pressure.
- **Shut-off capability**—In life science, 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. Use the Tracel-TX Shut-off Valve option to eliminate

the need for extra dampers and controls to isolate the mechanical ductwork.

Energy Savings

- **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 vs. 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.

Cost Savings

- **Fewer controllers per room**—The Tracel controller provides 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 vs. less demanding conference rooms and office spaces adjacent to the labs.

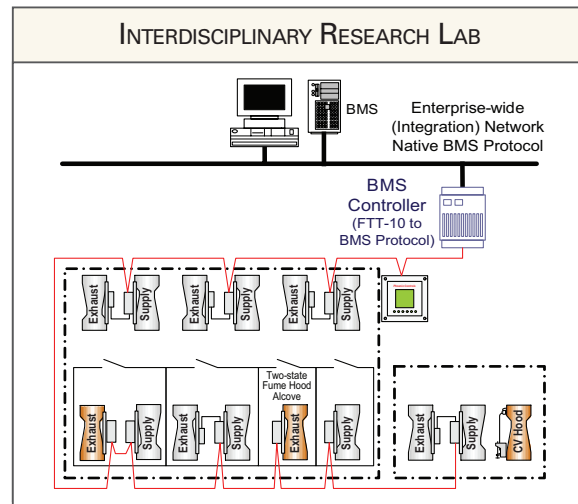
The Traccel Family of valves are available as a LonMark Certified controller or a BTL certified, native BACnet controller. If you are using an open LON or BACnet Building Management System (BMS), interoperability is assured.



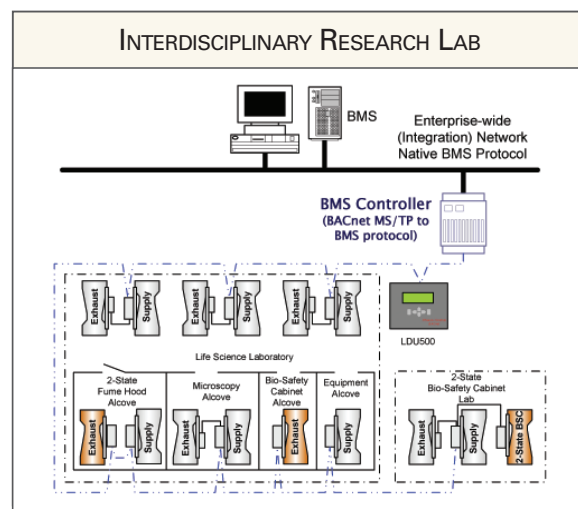
Design with confidence in a Celeris control network.

The Traccel Room Controller is fully compatible and communicates with any BMS over the Celeris communications link (Micro/MacroServer).

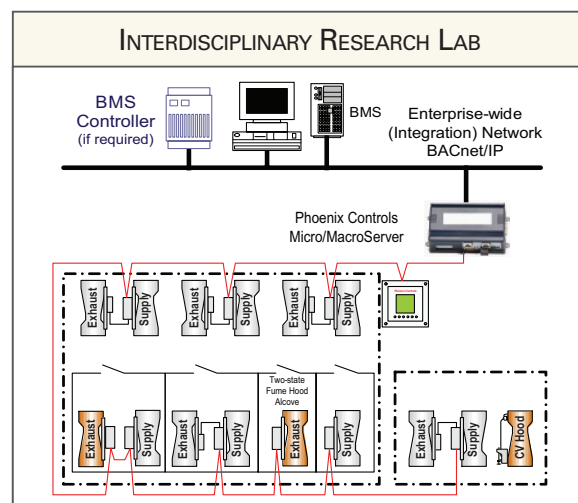
Direct LON Integration



Direct BACnet Integration



Phoenix Controls' Celeris® Systems





Founded in 1985, Phoenix Controls is a recognized leader in the design and manufacture of precision airflow control systems for use in critical room environments. Our customers include the leading pharmaceutical companies, universities, hospitals, government research facilities and global corporations. We offer innovative airflow control solutions that combine unparalleled safety and performance with value and energy savings.

The Phoenix Controls Quality Management System is registered to ISO 9001:2008.

Our Core Values

Of the values we collectively hold, we identify the following as *core* and use them to guide our behavior and decision making:

Excellence

We take pride in the high standards of quality we demand of ourselves and relentlessly pursue excellence in our work, products and service to customers.

Integrity

We act with honesty, fairness and ethical behavior in everything we do and are accountable by taking ownership of our actions and meeting our commitments.

Creativity

Creativity is the spark of invention and the cornerstone of our organization. Our inspiration comes from an environment that embraces learning, experimentation and innovative thinking.



For additional information and a listing of our global offices, please visit our Web site at www.phoenixcontrols.com or call (800) 340-0007.

Phoenix Controls is a business of Honeywell International, Inc.

LONMARK is a registered trademark of Echelon Corporation.

BACnet is a registered trademark of ASHRAE. BTL is a registered trademark of the BACnet International.

Phoenix Controls, Tracel and Celeris are registered trademarks of Honeywell International, Inc.

These products may be covered by one or more of the following patents: 5240455, 5251665, 5304093, 5385505, 5545086, 6116375, 6457437, their foreign counterparts and other pending patents.

© 2009 Phoenix Controls 5/11 Printed in U.S.A. MKT-0141 MPC-1575