Theris® is Phoenix Controls’ family of variable air volume (VAV) and constant volume (CV) airflow control systems designed for healthcare facilities. Using Theris, healthcare facility owners can reduce maintenance costs, reduce the spread of airborne pathogens and conserve more energy.
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 around the globe. Our customers know the quality and reliability of the Phoenix Controls venturi valve and control system is 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 valves into projects. Our innovative airflow control solutions provide new ways to save energy and reduce the costs of maintaining HVAC systems.

For healthcare organizations, precision airflow control means better infection control, improvements in energy conservation and reduced maintenance of mechanical systems. Controlling these factors contributes directly to healthcare operating margins, reducing risk and lowering operational costs. In a climate of decreasing government reimbursements and ever greater regulatory oversight, smart choices in facility mechanical design are essential. In all healthcare facility spaces, that choice is Phoenix Controls.

Theris Airflow Control Designed for Healthcare

The Theris family of venturi valves was designed specifically for hospitals and critical care facilities. Directional airflow and room pressurization are critical for isolation rooms, operating rooms and in-hospital pharmacies. Increasingly, patient rooms, recovery rooms, the emergency department and other spaces in a hospital need directional airflow to control airborne pathogens. The history of guideline revisions published by the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) and the Facilities Guidelines Institute (FGI) has demonstrated an evolution of airflow requirements that continually increase the need for pressurized spaces.

Theris meets and exceeds today’s published guidelines with four airflow control solutions, available as either variable air volume (VAV) or constant volume (CV) systems:

- **Theris-TP**—Supply and exhaust VAV tracking pairs with temperature control
- **Theris-TX**—Supply and exhaust VAV tracking pairs with temperature, humidity and pressure control
- **Theris-EO**—Exhaust only VAV airflow
- **Theris-SO**—Supply-only VAV airflow with temperature control
- **Theris-CV**—Constant volume airflow requiring no maintenance

Theris is ideal for both constant volume and variable air volume applications where stable directional airflow into or out of the space is critical. In VAV flow-tracking applications, the controller maintains an offset between the volume of air supplied into and exhausted from a space to ensure reliable room pressurization and directional airflow.
Our Customers

Many of the world’s leading healthcare institutions use Phoenix Controls products with confidence.

BETH ISRAEL HOSPITAL
BRIGHAM AND WOMEN’S HOSPITAL
BRITISH COLUMBIA CHILDREN’S HOSPITAL
CLEVELAND CLINIC
FYLKESSYKEHUSET I HAUGESUND
Norway
HADASA HOSPITAL
Israel
HEMA QUEBEC INC.
HÔPITAL DE MONTRÉAL POUR ENFANTS
Suisse
INSTITUTE OF CHILD HEALTH
England
JOSLIN DIABETES CENTER
M. D. ANDERSON CANCER CENTER
MOFFITT CANCER CENTER
NORTHWESTERN MEMORIAL HOSPITAL
SANITORIUM HOSPITAL
Hong Kong
SHRINERS HOSPITAL
SINGAPORE GENERAL HOSPITAL
Singapore
TAKATSUKI CITY HEALTH CENTER
Japan
TORONTO GENERAL HOSPITAL
VANCOUVER HEALTH SCIENCES CENTER
VETERAN’S ADMINISTRATION HOSPITALS
UNIVERSITY HOSPITAL CHARITÉ
Germany

Pandemic-ready Patient Rooms

Using Theris-TX, a normal patient room can be converted on-demand to an isolation room for emergency situations such as a pandemic.

Isolation Rooms

Ensure precise control of isolation room pressurization using Theris-TP or Theris-TX. Phoenix Controls pressure monitors integrate easily with Theris, providing local display, alarming and network integration.

THERIS TOTAL SOLUTIONS

Add quality ancillary devices like temperature and humidity sensors, Advanced Pressure Monitors (APMs), communicating thermostats, and Local Display Units (LDUs). Phoenix Controls and the Theris Family of Valves are your complete solution package for all room-level control in a healthcare facility.
Theris Benefits Healthcare Facilities

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

- **No flow sensors means no maintenance**—All venturi valves are characterized for their full flow range at the factory with a 192 point test downloaded as a 48-point flow table onto the controller. This means there are no flow sensors to clean, ever.

- **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. And, saving energy with lower air volume will never compromise room pressurization.

- **Fewer controllers per room**—Theris provides a full electronic platform to control temperature, humidity and monitor pressure, which eliminates the need for additional controllers in the space.*

- **Less Testing, Adjusting and Balancing (TAB) means faster commissioning**—Imagine commissioning a new HVAC system by just turning on the fans. Done. TAB is virtually eliminated with venturi valves.

- **Pressure-independent operation**—Design up to 30% shorter duct runs throughout the HVAC system. Theris valves operate accurately, even with short or angled duct sections. And, precise airflow delivery rates are never compromised when static pressure changes.

- **Integrate easily with LonTalk® or BACnet® networks**—Theris controllers are LonMark® and BTL® certified, providing confidence that BMS integration can be easily achieved.

- **Shut-off capability**—For rooms that require frequent decontamination, use the Theris-TX Shut-off Valve option. Eliminate the need for extra dampers and controls to isolate contaminated ductwork.

* No controls are included with Theris-CV.
Theris systems easily integrate with BACnet networks through Phoenix Controls’ MicroServer and Macroserver platforms. The MicroServer shown is a BACnet Testing Laboratory (BTL) certified network device that translates LonTalk communications to BACnet for efficient, reliable integration between Theris and a BACnet-based building management system (BMS).

The Theris Family of Valves are also directly integrated with any BMS. Phoenix Controls’ commitment to open protocols means Theris products are available for native BACnet MS/TP integration certified by BTL and direct LON integration via LonMark-certified controllers.
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.