Phoenix Controls

PATIENT & EMPLOYEE HEALTH: THE AIR WE BREATHE

Nearly 95,000 critical care beds, including surgical and specialty units, are available in U.S. hospitals today. Conservative estimates suggest almost twice this amount will be needed if the ongoing impact of COVID-19 pandemic resembles the influenza pandemics of 1957 or 1968*.

The need for an increase in flexible and reliable patient rooms continues to be evident throughout the global crisis.

Isolation and pandemic-ready rooms are not only critical during large-scale crisis situations, they are necessary during everyday hospital and healthcare management. But when the strain of increased patient needs hit during the spring 2020, aging systems and the lack of proper airflow equipment impacted the ability to quickly adjust to the facility needs.

This crisis demonstrates the clear need for reliable directional airflow, dedicated equipment and tools to keep staff and patients safe, while maintaining on-going, efficient and flexible, multi-use facilities. **Phoenix Controls has supported the healthcare industry for over 30 years with an airflow control system that provides staff the ability to immediately convert a patient room to an isolation room at the push of a button.**

A Phoenix Controls system provides fast, stable and repeatable space ventilation and pressurization control that supports standard patient, isolation, and pandemic room requirements, while providing the best energy savings options without compromising patient, staff, or visitor safety.

"We need to be able to flip our airflow very quickly."

- Healthcare Facilities Management Supervisor"

PROBABILITY OF FUTURE OUTBREAKS IS ON THE RISE

The World Health Organization looked at historical data on global influenza pandemics since the 1700s. Six pandemics in this period led to excess mortality rates ranging between 0.03% and 0.08% of world population equivalent of between 2 million and 6 million excess deaths globally. Is your facility ready?

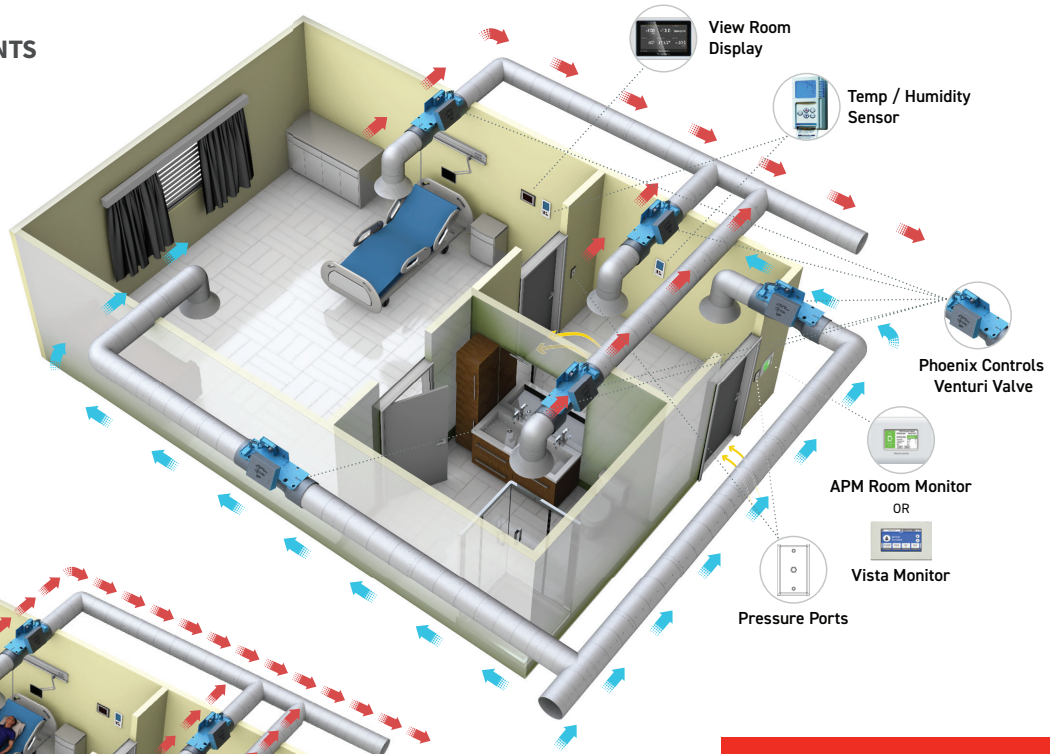
* acpjournals.org/doi/10.7326/M20-0907
How Should U.S. Hospitals Prepare for Coronavirus Disease 2019 (COVID-19)?
Annals of Internal Medicine - Vineet Chopra, MD, MSc, Eric Toner, MD, Richard Waldhorn, MD, Laraine Washer, MD)

AIRBORNE INFECTIOUS ISOLATION ROOMS

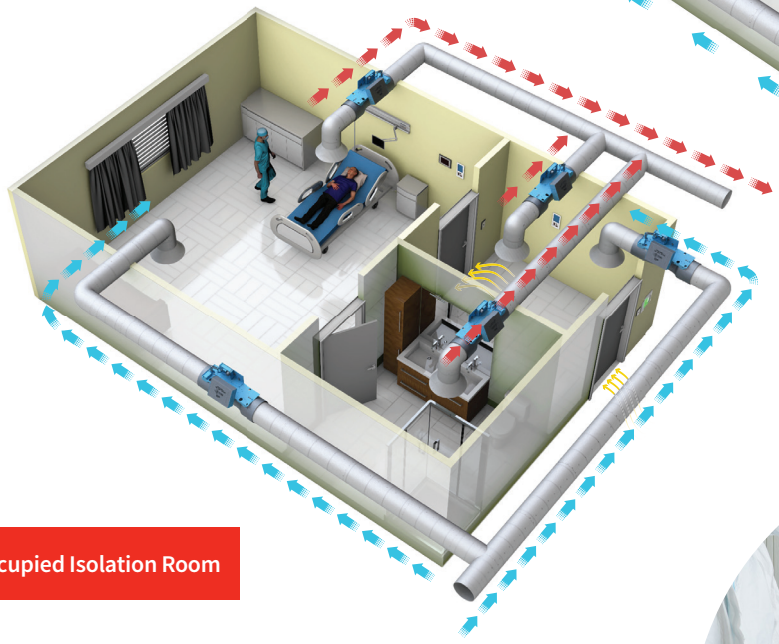
Airborne Infectious Isolation (AII) rooms control and minimize the spread of infectious disease through maintaining negative pressure in the space. Many existing VAV box systems inconsistently achieve negative room pressure due to repositioning and pressure fluctuations. This compromises the maintaining of the pressure, increasing the risk for these outbreaks and the patients already in the hospital. The guidelines for management and construction of these rooms are specific, especially when it comes to controlling airflow into and out of the room.

ISOLATION ROOM REQUIREMENTS

- Must always be Negative –0.01 InWC (minimum)*
- Constant visual/audible device to monitor pressure differential when occupied
- 12 ACH –Neg Direction Occupied, 6 ACH Unoccupied but must remain in the negative pressure state during transition



Unoccupied Isolation Room



Occupied Isolation Room

Outside Air

Exhaust Air

Room Offset

PHOENIX CONTROLS ELEMENTS

- Venturi valves
- Advanced Pressure Monitors (APM)
- Vista Monitor
- View Touch Screen Monitor
- Pressure Ports
- Temp/Humidity sensors

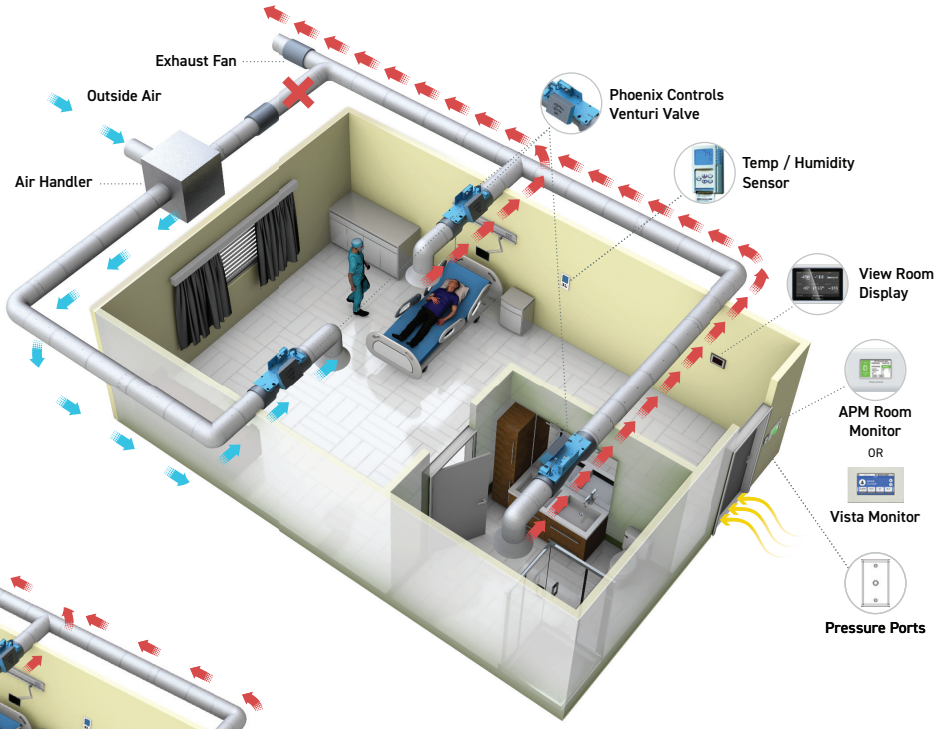
* For Canadian standard CSA Z317.2-19 - 0.03 inWC / 7.5 Pa..

PANDEMIC ROOMS

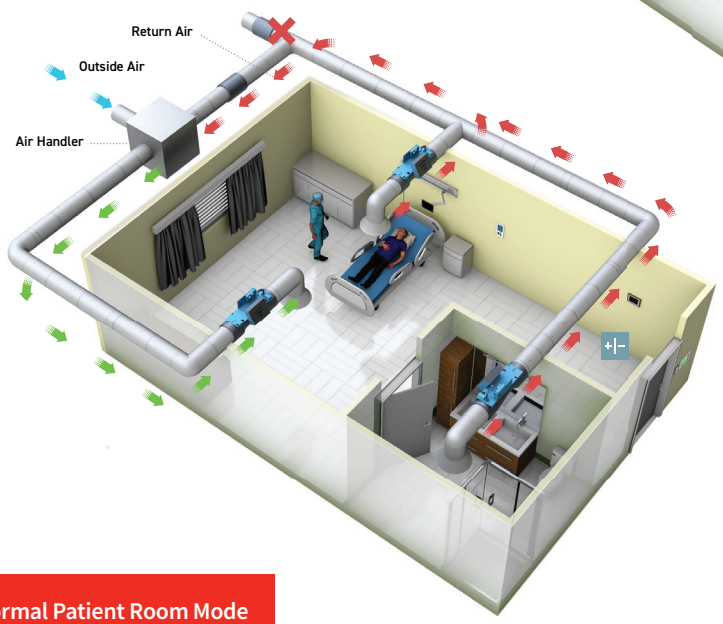
Different than the independent Isolation room, pandemic-ready rooms are normal patient rooms with no special monitoring requirements. However, when pandemic mode is needed, the pressure in the rooms can be switched from neutral to negative. Having an APM2 or Vista Monitor in place visually and locally ensures staff that pandemic room state is achieved.

TRANSITION STEPS TO PANDEMIC ROOM

- The recirculation system must be turned into a 100% fresh air system by closing the return air damper
- Opening the exhaust damper and switching on a exhaust fan
- Simultaneously the room exhaust airflow is increased at the venturi air valve to make the room negatively pressurized
- Make up air into the corridor also must be increased at the same time to provide the additional offset airflow



Pandemic Room Mode



Normal Patient Room Mode

- Outside Air
- Recirculated Air
- Exhaust Air
- Room Offset
- Neutral Pressure

PHOENIX CONTROLS ELEMENTS

- Venturi valves
- Advanced Pressure Monitors (APM)
- Vista Monitor
- View Touch Screen Monitor
- Pressure Ports
- Temp/Humidity sensors

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PHOENIX CONTROLS' SOLUTION CAN BE INTEGRATED WITH ANY BUILDING MANAGEMENT SYSTEM TO ENHANCE:

- Room Pressure/Infection Control Strategies
- Patient Health and Comfort Automation
- Facility Operations/ Maintenance Savings
- Flexible Surgical and Critical Care Control Strategies
- Energy Management Optimization
- Reliable, Accurate, HVAC Performance
- Accreditation Management with Vision CE*

CHOOSE EXPERIENCE, KNOWLEDGE, QUALITY

Since 1985, Phoenix Controls has been the recognized leader in precision airflow control systems for use in critical room environments. The increased focus on reducing healthcare-acquired infections, along with budget management necessity, calls for Phoenix Controls' airflow products and experience in the critical environment industry.

From design assistance, consultation, installation and service support, the Phoenix Controls team and extended representative network is your experienced resource.

Contact your local Phoenix Controls representative or visit **phoenixcontrols.com/howtobuy** to start making your facility safer and better prepared.

* Vision CE is Phoenix Controls' real time critical systems analysis tool

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