Pressure-Controlled Spaces

Are You Designing Pressure-Controlled Spaces?

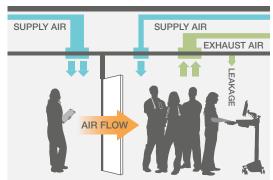
Within a pressurized space, the air pressure is controlled through the amount of air supplied and exhausted.

Negative Pressure is used to prevent air and contaminants from leaving the space. It is achieved by exhausting more air from a space than is supplied to the space.

Positive Pressure is used to prevent air and contaminants from entering the space. It is achieved by suppling more air to a space than is exhausted from the space.

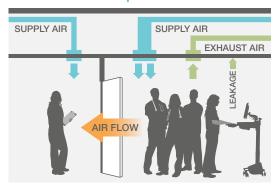
Protect People and Equipment through the use of pressure-controlled spaces, minimizing exposure to contaminants, pathogens and dust resulting in improved Indoor Air Quality (IAQ).

Negative Pressure Spaces



Negative room pressures are present when air flows from the hallway into the space. This keeps contaminants in a space.

Positive Pressure Spaces



Positive room pressures are present when air flows from the space into the hallway. This keeps contaminants out of a space.









Where are pressure-controlled spaces used today?

Negative Pressure Areas

- Healthcare Isolation Rooms
- Sick Rooms

Positive Pressure Areas

- Operating rooms
- Protective Environments

Other Areas

- Clean Rooms
- Labs
- Manufacturing
- Control Rooms
- Server Rooms

Where are new applications for pressure-controlled spaces?

- Senior Living
- Assisted Living
- Manufacturing Breakrooms
- School Nurses' Offices
- Locker Rooms
- Typical Patient Spaces

Anywhere you want to keep the air/contaminants in the space from entering adjacent spaces OR may want to pressurize in the future – this provides the flexibility to convert to a pressure-controlled space more easily in the future.

How does AirAssure[™] contribute to a pressure-controlled space?

AirAssure ceiling panels with integrated factory-gasketed edges reduce air leakage through the ceiling plane 4x compared to standard ceiling tiles, which means you need to supply or exhaust less air from a room. This results in less energy to maintain the pressure differential.

AirAssure ceiling panels:

- Support easy conversion to negative or positive pressure-controlled spaces (without hold-down clips)
- Reduce fan energy usage by up to 75%*
- Improves differential pressure within pressure-controlled spaces (and eliminate nuisance alarms)
- Enables flexibility to meet future need for pressurized spaces by having a sealed ceiling in place now if you want to pressurize later (i.e. surge capacity, patient room to isolation room, lab space, clean room, etc.)
- * Based on laboratory measurements in an approximately 1,000 cubic ft. (FT3) space with ducted return at pressure difference of 0.020 (in WC). Actual results and savings may vary based on specific room configuration (size, configuration, MEP, pressure, etc.).





Details for specifiers and installers at armstrongceilings.com/airassure

