

Versatile HEPA-AIRE® PAS Modes of Operation

Abatement HEPA-AIRE Portable Air Scrubbers are designed to operate 24/7 in any of the following configurations:

- **Negative Pressure Mode**
- **Continuous Air Cleaning and Recirculation Mode**
- **Positive Pressure Mode**

NEGATIVE PRESSURE MODE

Negative pressure is the most common HEPA-AIRE PAS configuration. It is used to protect occupants, furnishings or products outside the work area from airborne contaminants.

First, the work area is isolated from the rest of the facility by closing doors, or by erecting a temporary containment barrier from polyethylene sheeting or plywood. The HEPA-AIRE PAS is then used to continuously filter the air to reduce airborne contaminant levels, and to exhaust at least 10% greater volume of air from the room compared to the volume of air supplied to it via the facility HVAC system. This pressure differential helps ensure that any leakage through or around the containment barrier is clean air flowing into the room, not potentially contaminated air escaping.

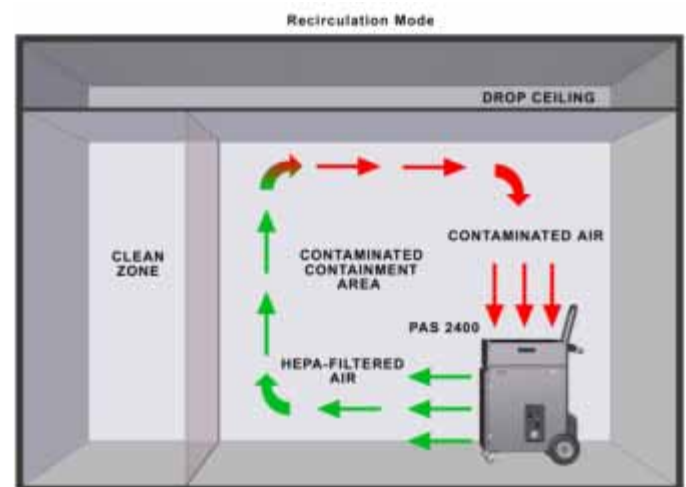
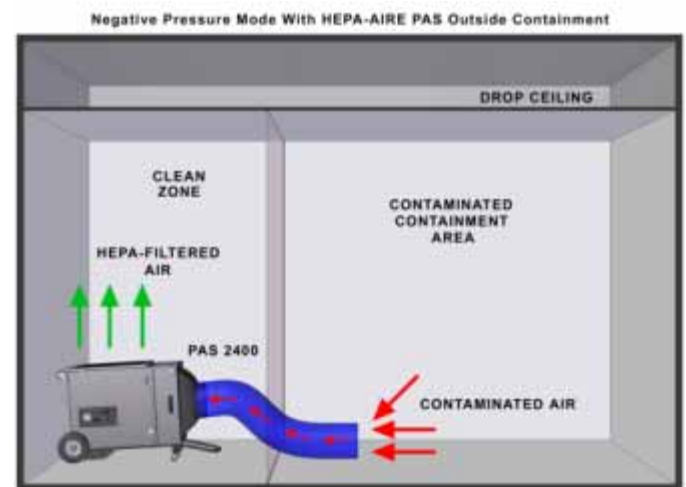
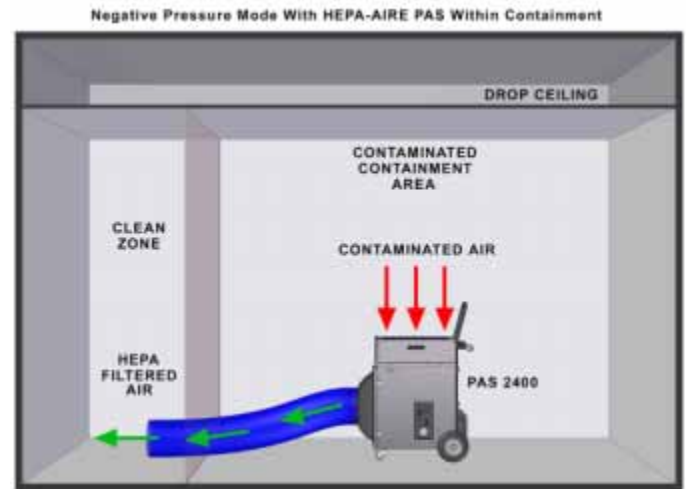
In the negative pressure mode, the HEPA-AIRE PAS can be located inside the containment work area or in an adjacent area outside of the work zone. If located inside, filtered air is exhausted out of the enclosed area through flexible outlet ducting.

When working in very confined spaces or remote areas, locating the HEPA-AIRE PAS unit inside containment may not be feasible. In these situations it can be located in an adjacent area and used to pull air into the unit via inlet ducting. For example, a restoration contractor may need to remove contaminants or odors from a crawl space or attic, a flooded basement, a portable containment module or a motor vehicle.

CONTINUOUS AIR CLEANING AND RECIRCULATION MODE

Recirculation air cleaning is a useful technique to supplement Air Changes per Hour (ACH), to accelerate contaminant capture where proper room pressure relationships are already established, and for general air cleaning and odor removal applications that do not require a pressure differential. In this mode, the HEPA-AIRE PAS is located within a contained or open area with no inlet or exhaust ducting, so there is no affect on room pressurization.

Recirculation air cleaning is commonly used during disaster restoration, construction and renovation projects in unoccupied buildings, for protecting parts or products, or for reducing exposure to unpleasant odors from smoke, paintings and coatings. It can also help reduce cleanup time when a project is completed. This technique can also be used to capture contaminants from a localized source such as a grinding or sawing operation.



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POSITIVE PRESSURE MODE

HEPA-AIRE PAS can also be used to create or enhance positive pressure environments by pulling or pushing clean, HEPA-filtered air into the area from adjacent spaces to prevent air contaminants from entering the contained area. All of the same principles apply as for negative pressure, except in reverse. In this mode the HEPA-AIRE PAS can be located either inside the contained area and equipped with inlet ducting to pull air into the unit. Or, it can be located outside the area and used to exhaust HEPA-filtered air into it.

COMMON APPLICATIONS FOR POSITIVE-PRESSURE CONTAINMENT INCLUDE:

- Protecting sensitive individuals, products or equipment from contamination
- Preventing contamination of sensitive areas like laboratories
- Ensuring that cleaned or decontaminated areas are not recontaminated

