



METRIC
MILLIMETERS



CENTIMETERS

PURAFIL®

FIRST
IN CLEAN
AIR

ENGINEERED **4** HOTEL & CASINO
FACILITIES



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IMPROVING
INDOOR AIR

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PREVENTING
ODORS

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SAVING
ENERGY

CLEAN AIR SOLUTIONS **4** HOTEL & CASINO FACILITIES
 IMPROVING INDOOR AIR QUALITY + PREVENTING ODORS

For more than 30 years, Purafil has provided clean air solutions to hotels and casinos worldwide. Purafil specializes in the manufacture of air purification systems that remove gaseous and particulate contaminants to ensure a comfortable environment for hotel and casino patrons and staff.

Sources of airborne pollution are everywhere — from automobile emissions to environmental tobacco smoke. Common particulate filters trap dust, pollen, and other particles, but only Purafil gas-phase air filtration systems eliminate gaseous pollutants, the true sources of poor indoor air quality and odor complaints.

IDENTIFYING THE PROBLEM: AIRBORNE POLLUTION

Controlling airborne pollutants is essential to maintaining a comfortable indoor environment. Pollutants can come from outside and inside the building. Outside sources of odors, including the incinerators, loading docks and waste disposal units, are usually located at the rear of the building within a few feet of primary HVAC air intakes. Emissions from nearby industrial facilities or residential furnaces can also result in complaints from guests and staff. Inside sources of pollution can include tobacco smoke, restaurants, clean-

ing aerosols and bioeffluents from guests. Office furnishings and printers can worsen indoor air quality.

For clean indoor air, Purafil offers an extensive product selection, from pleated chemical filters to modular front and side access units. Our systems are designed for easy maintenance and are incorporated into your makeup, supply, or return airstreams.

PURAFIL APPLICATIONS WITHIN HOTELS & CASINOS

There are numerous locations in hotels and casinos where gas-phase air filtration can be applied. Purafil offers a wide range of

dry-chemical adsorbents called media, which are engineered to mitigate objectionable odors.

LOCATIONS AND CAUSES OF GAS-PHASE POLLUTION

| LOCATION | HOTEL GUEST ROOMS | OFFICES | RESTAURANTS/BAR |
|--------------------|--|---|---|
| PROBLEM | Complaints of odors from guests | Complaints of eye and throat irritation | General odor complaints |
| CAUSE | Offgassing of building materials Residual odors from cleaning products | Air intake ducts face a busy highway Off-gassing of new office furnishings | Insufficient ventilation or filtration |
| GASEOUS POLLUTANTS | <ul style="list-style-type: none"> Acetone Ketones Hydrogen sulfide | <ul style="list-style-type: none"> Alcohols Aldehydes Acetone Ketones Hydrogen sulfide | <ul style="list-style-type: none"> Tobacco smoke (made up of many gases and particulates) Cooking odors (hydrogen sulfide, aldehydes, mercaptans, and VOCs) |

APPLICATION AREA CONTAMINANTS

| APPLICATION AREA | GASEOUS POLLUTANTS |
|--------------------|--|
| Restaurant/Bar | Hydrogen sulfide, aldehydes, mercaptans, VOCs |
| Casino/Gaming Area | Polycyclic aromatic hydrocarbons (PAHs), carbon monoxide, nitrogen oxide, acrolein, formaldehyde |
| Hotel Guest Rooms | Acetone, alcohols, ketones, aldehydes, hydrogen sulfide |

WHICH AIR FILTRATION SYSTEM IS BEST?

Purafil's systems are built-to-order to meet the needs of your budget, space, and air handling system. We offer solutions for retrofit applications and new construction.

PURAFIL MEDIA



Purafil offers a broad selection of dry-chemical adsorbents called media, which are the core of our built-to-order air purification systems. Purafil manufactures a wide variety of media to remove specific pollutants from specific sources. Purafil media remove contaminants through a process known as chemisorption. During this instantaneous process, gases are adsorbed, or captured on the surface of the media. Unlike adsorption, during chemisorption the contaminants are chemically transformed into harmless solids that remain trapped inside the media. Once the gases are removed from your environment, they cannot re-enter the air stream.

In most cases, we recommend Purafil® SP Blend media because it removes the widest variety of odors and gases. SP Blend is a combination of Purakol® media, a premium grade activated carbon, and Purafil® SP media, an activated alumina substrate impregnated with the active ingredient sodium permanganate. While Purakol is highly effective at removing VOCs, it performs poorly against hydrogen sulfide, sulfur dioxide, and oxides of nitrogen. By using these media in combination, Purafil can ensure the removal of all odors.

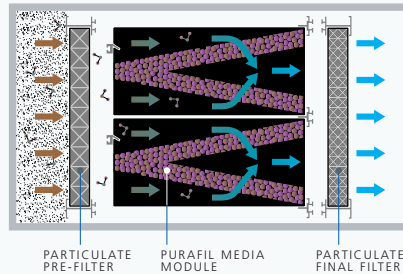
THE PURAFIL AIR PURIFICATION SYSTEM

Purafil media are packaged into disposable plastic modules. The MediaPAK™ disposable plastic module is factory filled with media and comes ready to be installed. Each MediaPAK holds 0.5 ft³ of media and is easy to install and replace. In addition to media modules,

Purafil's air purification system also offers a variety of filter options: a MERV 6 prefilter for removal of dust, pollen, and other particulates, as well as a MERV 13 or MERV 14 final filter to polish air before it enters the room.

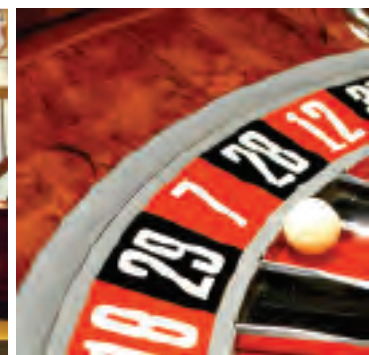
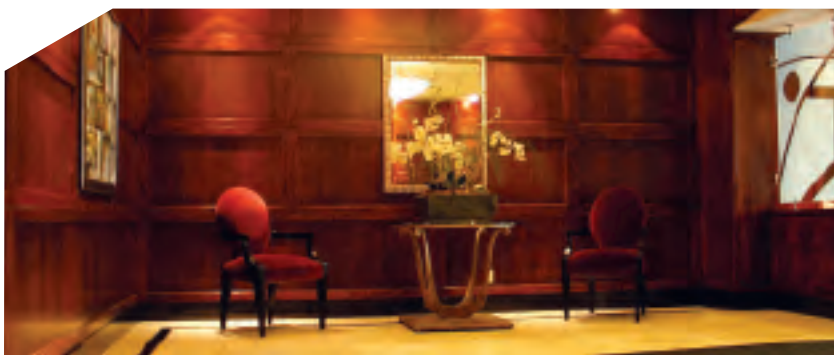
THE PURAFIL SIDE ACCESS SYSTEM (PSA)

The PSA is designed for both particulate and general odor control and works in conjunction with the facility's air handling system. The PSA is a built-to-order system available in more than 20 size options. A full range of prefilter selections and particulate final filter selections are also available.



THE PURAFIL FRONT ACCESS SYSTEM (FAS)

The FAS consists of modular frames that are individually tracked for Purafil media modules. Frames can be stacked to any size or configuration to meet any space requirement. The FAS is specified in retrofit applications with high airflows or for custom air handling units. Each frame with modules can handle airflows up to 2000 cfm depending on the model chosen.





16X
MAGNIFIED



32X
MAGNIFIED



THE PURAFILTER®

Purafil also recommends the use of the Purafilter, a combination chemical and particulate filter designed to replace existing particulate filters in retrofit or rework applications. The Purafilter, which contains Purafil blended media, is useful in applications where space limitations exist.

Purafil engineers are the first to successfully suspend sodium permanganate adsorbents in a bi-component fiber matrix, which does not require the use of adhesives, so adsorbents are fully exposed for reaction with gaseous chemical contaminants and odors. Adsorbents are evenly distributed throughout the filter structure to assure the highest filtration efficiencies.

INCORPORATING PURAFIL INTO YOUR FACILITY

A In the return airstream, the Purafil system removes odors generated inside the building, such as those from office furnishings or restaurants/bars.

B In the supply airstream, Purafil removes odors from outside and return air.

C In the outside/makeup airstream, the Purafil system removes pollutants from outside air, including loading dock fumes, general automobile exhaust, and odors from nearby facilities.



PURAFIL CASE STUDY: THE WESTIN PEACHTREE PLAZA

The Westin Peachtree Plaza Hotel, Atlanta, Georgia's biggest landmark, boasts 1,704 guest rooms and suites, nine restaurants and two ballrooms. One of America's tallest hotels, visitors can view the entire city from the hotel's revolving Sun Dial Restaurant, located on the 72nd floor.

Like most hotels, the Westin is exposed to many sources of pollution, such as tobacco smoke, cleaning aerosols and bioeffluents from guests. Aware of the problems associated with poor indoor air quality, the Westin took preventive action and contacted Purafil's local representative. Without the proper filtration system, a build-up of odorous emissions could have prevented the Westin from providing a comfortable environment for guests.

Purafil's Front Access Systems were installed to filter odors from outside intake air. Sized for retrofit, they operate within the hotel's existing air handling units, which supply purified air to the Westin's guest rooms, suites and common areas.

www.purafil.com

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