



CAMERON GREAT LAKES, INC.

MOLECULAR FILTRATION SPECIALISTS

DEALING WITH SMOKE



Although smoking is on the decline, one should not overlook those places where smoking is permissible and must still be filtered. For example, the number of cigar bars is on the rise, bingo halls, casinos, and bars still have the need to provide cleaner air for their patrons and their employees. There are different approaches to these applications but ultimately what is required is the same. Removal of smoke requires both high efficiency particulate filtration and molecular filtration. One without the other is not effective.

Our recommendation on particulate filtration is to use a filter with a minimum 65% ASHRAE Efficiency. Our preference is to have a filter with a 90% Efficiency ASHRAE Rating. Anything less will compromise the overall effectiveness of the system.

As far as a choice of molecular filtration media, the best choice is always blend of carbon and permanganate. The number and types of contaminants that are generated as so vast and varied that only a blend will be able to address the majority of them.

When deciding the best method to remove smoke, it is important to first look at layout of the room or building. Answering the following questions will help to determine the filtration approach:

Does the AHU servicing the smoking area service non smoking area as well?

How much room does the AHU have for additional filtration?

Can the blower handle additional pressure drop?

Is the smoking area itself well isolated from the non-smoking area?

Once you have these answers we can begin to look at filtration alternatives. There are basically 2 filtration options.

If the AHU services both smoking and non-smoking areas, then use of stand alone air cleaners in the smoking area may not completely resolve the odor problem in non smoking areas unless air cleaners are also placed in these areas. This is probably a more expensive alternative to providing filtration in the AHU itself which will insure that the supply air to the non-smoking area has been cleaned. Deciding filter type can also depend upon the size of the unit. In larger units you may wish to use refillable carbon panels. While up front costs are more expensive than disposable filters, future cost of service easily justifies the up front expense. Smaller units or those without much room can be well serviced with a filter such as the Vapor Trap disposable V-Bank which can be made in depths from 4" to 12" so room constraints become less of an issue.

If the AHU services only the smoking area than either option is acceptable. The use of stand alone air cleaners, such as the Cascade®, has proven very successful. It allows one to capture the contaminants closer to the source. The units can provide both the particulate filtration and molecular filtration required for removal of the harmful contaminants associated with smoke. A variety of unit sizes and mounting options makes them ideal in these applications.

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For more information on the above products please contact us at: sales@cglcarbon.com or visit our website, www.camerongreatlakes.com.

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