AIRGUARD®

Vari•Pure[®]

High Capacity Gas Phase Adsorbers For effective removal of odors and gaseous contaminants



Features:

- Highest Carbon Content
- Variety of Adsorbents
- Vari-Sock Afterfilter



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Vari-Pure® High Capacity Gas Phase Adsorbers

Applications

The Vari•Pure gas phase adsorber unit is the ideal solution for conditions requiring a high level of odor control at high flow velocity. Vari•Pure filters may be retrofitted into existing HVAC systems, specified for new construction, or used as direct replacements in orginial equipment manufacturer's (OEM's) air purifying units.

- Office buildings
- Hospitals
- Convalescent Homes
- Airports
- Schools and Libraries
- Industrial Plants
- Social Halls

The units have a 1" peripheral header and fit into standard built-up frame banks should have sufficient reinforcement to support the weight of carbon contained in each filter. Vari•Pure filters should always be operated with a prefilter to prevent the carbon granule pore structure from becoming plugged with particulate which would destroy their ability to collect odor compound molecules.

Vari•Pure filters are designed to operate at the same face velocity as the particulate filters in the system. No transitions are needed to increase the number of filters required for acheiving the desired level of odor removal.

When the filters are fully saturated, they are easily removed and replaced with fresh units.



Choose from a Variety Adsorbents

Select from premium grade, 60% activity coconut shell carbon or specially impregnated carbons for hard to remove odors.

Standard 60% activity carbon effectively removes odors associated with diesel fumes, hydrocarbons, tobacco smoke, body odors, cooking, and volatile organic compounds (VOC's).

Specifically impregnated carbons or potassium permanganate can be selected to remove compounds such as ammonia, hydrogen sulfide, or formaldehyde.

High Carbon Content Increases Odor Removal Capacity.

Construction

Vari•Pure filters are made in a V-Bank design consisting of eight 1" deep panels fashioned into four V's. Each panel has a honeycomb structure that contains the carbon granuels. A fine mesh scrim on both sides of the panel retains the granules in the honeycomb.

The extended surface, V-Bank design significantly increases the amount of carbon contained in the filter and reduces resistance to air flow.

The end caps are made of high strength, ABS plastic and the vertical support members are made of galvanized steel for a totally rigid structure.

A non-volatile, non-toxic, environmentally friendly hot melt adhesive is used to bond the honeycomb carbon panels to the end caps and steel support struts - prevents bypass.

High Activity Coconut Shell Carbon

Standard Vari•Pure filters contain 60% activity, premium grade coconut shell carbon which removes most VOC's at a capacity of 33% by weight. Premium grade coconut shell carbon is very hard and does not readily dust in service.

Vari•Pure filters are available with two carbon loadings depending on the concentration of odor present, support strength of existing racks or holding frames, and pressure drop restrictions:

Vari•Pure - Contains 26 lbs. of carbon (24" x 24" size). Used for heavier odor concentrations or longer service life.

Vari•Pure Lite - Contains 18 lbs. of carbon (24" x 24" size). Used for lighter odor concentrations or where lower resistance and less weight are required.

Vari•Sock[™] Afterfilter Prevents Dusting

All Vari•Pure filters are shipped with an afterfilter as an integral component of the filter assembly. The Vari•Sock filter prevents any carbon dust from migrating downstream while enhancing particulate efficiency.



1. High Strength Plastic End Caps - Resilient ABS plastic end caps assure high integrity construction.

2. 1" Header - Vari•Pure units can be installed in built-up frame banks or side access housings.

3. Support Struts - Galvanized steel support struts on both sides of the filter ensure product rigidity.

4. High Activity Carbon - Premium grade, 60% activity coconut shell carbon offers excellent odor adsorbing characteristics. Specially impregnated carbons are also available.

5. Honeycomb Carbon Panels - The honeycomb panels containing the carbon granules are water resistant to prevent deterioration in high humidity conditions.

6. Hot Melt Adhesive - Non-volatile hot melt glue bonds the carbon panels, end caps and steel support members into a totally unitized, highly rigid unit.

7. Vari•Sock Afterfilter - Integral afterfilter prevents carbon dusting downstream. Vari•Sock filters can be purchased separately.

Vari•Pure® High Capacity Gas Phase Adsorbers



Vari•Pure activated carbon filters are designed to meet the challenge facing specifying and operating engineers to improve indoor air quality demanded by employees, tenants, customers... all occupants of commercial, industrial, educational, institutional, and residential buildings.

Gas phase adsorbers are playing an increasingly significant role in meeting building codes and specifications for HVAC systems.

Vari•Pure... another reason why the industry looks to Airguard for leadership in Indoor Air Quality.

Adsorptive Capacity - 60% Activity (CCI4) Coconut Shell Carbon Partial List of Odors and Compounds

Acetic Acid	Diesel Fumes	Lubricating Oils	Pet Odors	
Adhesives	Ethyl Alcohol	Medicinal Odors	Poultry odors	
Animal Odors	Ethyl Benzene	Methyl Ethyl Ketone	Rubber	
Asphalt Fumes	Fertilizer	Methyl Isobutyl Ketone	Smog	
Bathroom Smells	Fish Odors	Nicotine	Stale odors	
Benzene	Food Aromas	Onions	Tar	
Body Odor	Gasoline	Ozone	Tobacco Smoke	
Burned Food	Hospital Odors	Paint Odors	Toluene	
Cheese	Kitchen Odors	Perfumes	Varnish Fumes	

Standard Airguard carbon is rated Excellent at adsorbing all the compunds and odors listed above. To qualify for an Excellent adsorptive rating, each pound of carbon must adsorb an average of 33-1/3% of it's weight in each respective compound.

For a more complete list of compounds, contact Airguard - Jeffersonville, Indiana.



Performance Data

Model	Nominal Size	Actual Size	Initial Resistance	(1) Carbon Wt.	Filters per	Shipping		
Number	(WxHxD) in.	(WxHxD) in.	@500 FPM	per Filter	Carton	Weight		
VARI • PURE								
VAR-05	24 x 24 x 12	23-3/8 x 23-3/8 x 11-1/2	.76"W.G.	26	1	40		
VAR-06	24 x 12 x 12	23-3/8 x 11-3/8 x 11-1/2	.76"W.G.	12	2	37		
VAR-15	24 x 20 x 12	23-3/8 x 19-3/8 x 11-1/2	.76"W.G.	21	1	33		
VARI • PURE LITE								
VARL-05	24 x 24 x 12	23-3/8 x 23-3/8 x 11-1/2	.33"W.G.	18	1	32		
VARL-06	24 x 12 x 12	23-3/8 x 11-3/8 x 11-1/2	.33"W.G.	8	2	29		
VARL-15	24 x 20 x 12	23-3/8 x 19-3/8 x 11-1/2	.33"W.G.	15	1	27		

(1) Carbon Weight is based on minimum surface area of 1100 square meters per gram of coconut shell carbon. Weight may vary due to U.S. Sieve Series and carbon density variations.

Activity Rating - Minimum 60% on carbon tetrachloride (CCI4) at 25°C.

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WARNING: This product can expose you to chemicals, including acetaldehyde and nickel, which are known to the State of California to cause cancer, and methanol, which is known to the State of California to cause birth defects and other reproductive harm. For more information go to www. P65Warnings.ca.gov.

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