

# *ECOS*

ENVIRONMENTAL SOLUTIONS



ECS has over ten years of experience in the design and manufacturing of Odor Control Systems with installations all over North America.

ECS sets itself apart from other odor control companies by providing a complete system – from source to solution. Sales, design, project management, manufacturing and inventory items are located together in our 100,000 ft.<sup>2</sup> facility in central Texas. ECS Environmental and Engineered Composite Systems are divisions of TexGlass Industries, a family owned and operated company since 1997.

## VENTADSORB

The ECS VENTADSORB is designed for passive venting applications. Standard units are designed to treat up to 20 cubic feet per minute. The VENTADSORB unit comes with a variety of mounting options including threaded, slip or flanged connections for easy installation. Spent media replacement is as easy as removing a cap on the side and replacing the high-capacity carbon.



### Unique benefits to the VENTADSORB

- Quick, easy media replacement
- Optional support clips
- Standard sizes in stock, same-day shipment in some cases
- Exclusive high-capacity media

## Deep Bed

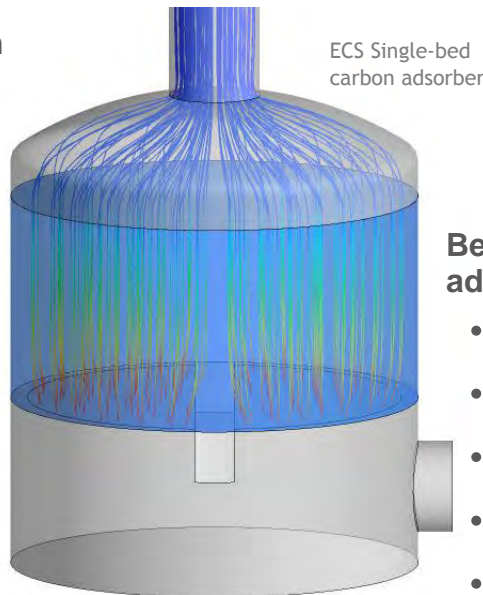
While still utilized in high-flow applications (CFM >5000), deep beds are more suited for lower CFM applications due to their large foot-print. This can be addressed by installing a “dual bed” system which doubles airflow capacity in the same diameter vessel.

### Single-bed carbon adsorber system

Air enters an open plenum area of a fiberglass vessel and travels up through a three-foot bed of media. It then exits the vessel through an exhaust stack.

### Dual-bed carbon adsorber system

Air enters an open plenum in the center of the vessel. Fifty-percent of the air volume travels up through a media bed and exits through an exhaust stack just as it would on a single-bed system. The remaining air travels down through a bed of media below the air plenum and then up through a vertical outlet stack which extends from the vessel exterior into another air plenum area underneath the lower media bed.



### Benefits to the ECS deep-bed carbon adsorber systems

- All FRP components have a 100-mil internal corrosion liner
- Smaller systems can be skid-mounted, wired and shop-tested prior to shipment
- Systems come complete with all components as required or agreed upon
- Vessels are designed for full-hydro to allow for the use of regenerable media
- Exterior surfaces have a proprietary UV coating system

Lo-Flow Unit installed as part of a skid system



## Lo-Flow

Lo-Flow systems are designed to be a low-cost, easy solution for removing H<sub>2</sub>S or other compounds from a variety of applications up to 1,200 CFM.

### Options

- Sound enclosures or silencers as factory-installed components
- Quick-port access for easy removal / exchange of media
- Skid-mounted or mobile units
- Optional PP or HDPE construction to the standard high-quality FRP vessel
- Passive or supplied with a pre-wired exhaust fan
- Single-bed with a vertical orientation

# VX Radial Flow

Radial flow carbon systems are not new, but, over the past ten years, this exciting technology has taken a quantum leap in design efficiency.

The VX is an efficient, highly effective system for removing H<sub>2</sub>S and other compounds from the air in municipal wastewater applications. These systems can utilize a wide variety of adsorbent medias for specific treatment needs.



ECS designed and manufactured radial flow carbon polishing unit

## Benefits of a Radial Flow System

- Lower capital cost
- Lower operating cost than Deep Bed or Up-Flow canisters
- High efficiencies of H<sub>2</sub>S and organic odor removal
- Small footprint
- Low pressure drop thus lower horsepower blowers
- Can utilize a wide variety of media and mixtures of media for specific treatment needs



ECS staff worked closely with CFD modeling specialist to develop the VX radial system

## Benefits Specific to the VX Radial Flow System

- Patented perforated high-efficiency media retention system
- Special BPO/DMA curing system on critical internal components
- All composite construction with a full 100-mil corrosion barrier
- Designed to be hydrostatically loaded (filled with liquid)
- Easy access for media fill / removal (Serviceability)
- Special design to prevent short circuiting
- New deflection plate design to dissipate immediate, localized inlet pressure
- All internal components can be removed for cleaning and maintenance if required

# Accessories

ECS is the only firm that has the ability to offer a complete odor control solution. The ability to manufacture and supply these items gives ECS total control over scheduling, quality and ultimately customer satisfaction.



## Control Dampers

### X-line:

Volume control, balancing to full bubble tight performance.

### BD-01:

Control backflow, relieve or control pressure

### IV-01:

Variable inlet dampers vary the degree of pre-fan air rotation

### MB-01:

Shut off balancing

## Ductwork Systems

Class 1 fire-rated odor control ductwork to 120" diameter and various configurations with a specific set of design calculations performed to suit the design pressure and environment. Ductwork is shop assembled to the maximum shippable extent and ECS service technicians provide field training for installation, field joints or maintenance.

## Pre-Filters

(Grease Filter / Mist Eliminators)  
Engineered Pre-Filters for filtering grease or debris and de-humidification

## Enclosures And In-Line Silencers

Sound-deadening equipment built out of corrosion resistant FRP with a standard UV external coating

## Inlet Boxes

Collect and straighten air-flow

## Bed Monitor

Simple, reliable product to measure a system's performance



# **ECS**

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## Company History

ECS Environmental was formed to develop, design and manufacture equipment for the treatment of odorous compounds in air-streams. With over 10 years of experience in the design and manufacturing of Odor Control Systems, ECS Environmental has installations all over North America.

In 2009 and 2010, ECS designed, managed and shipped over 80 Odor Control Systems to treat 1000 CFM or greater.

ECS designs and manufactures almost every component of our odor control systems. This gives us ultimate control over system performance and ultimate responsibility for the service and quality of our products.

The principles of ECS have been in the composite and odor control business for over ten years.

Engineered Composite Systems and ECS Environmental Solutions are subsidiaries of TexGlass Industries which was founded in 1999.

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