



PURAFIL®



Represented in UAE by:
 Innovations
Technical Equipment
Trading CO. L.L.C.

1
O_c
ODOR
CONTROL

2
tGs
TOXIC GAS
SCRUBBING

3
C_c
CORROSION
CONTROL

ENGINEERED

for

WATER &
WASTEWATER
FACILITIES





CLEAN AIR SOLUTIONS for WATER & WASTEWATER APPLICATIONS

PREVENTING ODORS & CORROSION + ELIMINATING THE RISK OF TOXIC GAS RELEASES

Purafil, Inc. is the leading manufacturer of biological and dry-chemical media and scrubbers that eliminate problematic gases in the water and wastewater industries. We're a single-source provider of engineered, clean air solutions to clients worldwide. Our direct involvement in the manufacturing process enables us to answer your questions and ensure the quality of our media and equipment. We also offer consultative services to ensure that your systems function optimally. Purafil's specializes in the following municipal solutions:

- **ODOR CONTROL:** to eliminate odorous gases from sewage collection and processing operations.
- **TOXIC GAS SCRUBBING:** to prevent accidental chemical releases at facilities storing hazardous quantities of toxic gases, specifically chlorine, sulfur dioxide and ammonia.
- **CORROSION CONTROL:** to protect electronic equipment from premature failure due to corrosion.

PURAFIL'S DRY-SCRUBBING MEDIA ADVANTAGE

Purafil manufactures a wide variety of patented dry-scrubbing media to eliminate odorous, toxic, and corrosive gases. Our media permanently remove gases from the air through chemisorption. During this instantaneous process, gases are adsorbed, absorbed and captured throughout the entire volume of the media. The gases are then chemically transformed into harmless solids that remain trapped inside the media. Once the gases are removed from your environment, they cannot re-enter the airstream.

As a complimentary service, we help you optimize your system's performance by testing remaining media life. Our laboratory technicians analyze samples from your systems and tell you when to replace media based on specific conditions in your facility.

PURAFIL'S MUNICIPAL MEDIA	DESCRIPTION	LANDFILL-DISPOSABLE	THE PURAFIL MEDIA ADVANTAGE
ODORCARB™ ULTRA	Primary media for removal of hydrogen sulfide. Contains Media Life Indicator Pellets for a visual indication of remaining media life.	YES	BEST IN CLASS REMOVAL CAPACITY for Hydrogen Sulfide (H ₂ S)
ODORMIX™ SP	Broad spectrum control of odors, including mercaptans, amines, aldehydes, organics and sulfur dioxide.	YES	UNMATCHED POLISHING CAPABILITY with 12% Impregnated Sodium Permanganate
CSO™	Recommended for removal of chlorine and sulfur dioxide gases.	YES	THE ONLY AVAILABLE Alumina Based Media for Removal of Chlorine (Cl ₂) and Sulfur Dioxide (SO ₂) Gases
CHLOROSORB® ULTRA	Removes chlorine gas; operates effectively in below freezing temperatures without special heaters.	YES	HIGHEST AVAILABLE IN THE INDUSTRY with 15% Minimum by Weight Chlorine Gas (Cl ₂) Removable Capacity
PURACARB® AM	Removes ammonia gas.	YES	THE ONE AND ONLY UL CERTIFIED media for ammonia (NH ₃) removal.

TOXIC GAS SCRUBBING APPLICATIONS

PREVENTING TOXIC GAS RELEASES

Facilities storing hazardous quantities of chlorine (Cl_2), sulfur dioxide (SO_2) or ammonia (NH_3) must invest in emergency standby equipment to prevent accidental chemical releases.

Purafil's dry-chemical Emergency Gas Scrubber (EGS) is designed to remove the entire contents of a fully loaded $Cl_2/SO_2/NH_3$ cylinder in a worst-case release scenario. The EGS works with cylinders storing 150 pounds, 1 ton, 2 tons or 3 tons or more of $Cl_2/SO_2/NH_3$ and discharges less than 25 parts per billion.

Purafil ESD manufactures two designs of the EGS:

1. Aluminum, multi-stage scrubber with horizontal airflow
2. Fiberglass vessel with vertical airflow



DRY-SCRUBBING TECHNOLOGY

Instead of using toxic liquid caustic to neutralize gases, the EGS uses dry-scrubbing media. These media have indefinite shelf life - if they're not used, you don't need to replace them.

Whether new or spent, Purafil's dry-scrubbing EGS media are:

- non-toxic
- non-hazardous
- landfill disposable
- UL Classified
- * Chlorosorb® Ultra functions at -40° Fahrenheit

Because we manufacture our own media, we have quality control and can guarantee availability and fast delivery. We also offer value-added laboratory services to ensure optimal media and system performance.

TRANSFORMING FROM WET TO DRY IS AS EASY AS 1, 2, 3!



STEP 1:
Remove Caustic Material

Remove the three-panel lid.
Drain and dispose of liquid caustic from reservoir and reaction chamber.
Remove recirculation pump and pipe.



STEP 2:
Modify Existing Scrubber

Remove and dispose of tower packing material.
Cut out internal fiberglass walls and barrier between reaction chamber and liquid reservoir.
Install aluminum posts and secure to external fiberglass walls.
Install perforated, aluminum media screens and secure to posts.



STEP 3:
Install Purafil Chlorosorb® Ultra Media

Install Purafil ESD Chlorosorb Ultra Dry- Chemical Media between media screens.
Replace three-panel lid and plug holes.

ODOR APPLICATIONS

LOW AIRFLOW ODOR & CHLORINE SCRUBBERS

DRUM SCRUBBER

Installed in over 1,000 pump stations, lift stations, and wet wells.

The Drum Scrubber is sized for airflows up to 1,000 cfm and is ideal for low to moderate contaminant load applications. The Drum Scrubber houses multiple layers of Purafil's dry-scrubbing media (typically Odorcarb® Ultra or Odormix™ SP) for complete odor control.



CHLORINE DRUM SCRUBBER

Used for nuisance chlorine applications such as changing cylinders less than 150 lb chlorine scrubber.

The Chlorine Drum Scrubber is sized for airflows up to 500 cfm. This scrubber is bulk filled with Purafil's patented Chlorosorb® Ultra media which has the highest removal capacity available in the industry.



PURAVIL VENT SCRUBBER

Ideal for removal of odorous gases from municipal vent pipes with a 99.5+% gas removal efficiency up to 150 cfm. These inexpensive passive vent scrubbers are perfect for small vent applications and come standard with Purafil's Odormix™ SP media which is designed to remove a broad spectrum of odorous gases including mercaptans, hydrocarbons, hydrogen sulfide and general sewer odors.



MOLE MANHOLE SCRUBBER

Constructed of stainless steel, the MOLE™ Manhole Scrubber removes odors from street-level sewer manholes. Odors enter the MOLE through the bottom of the unit and flow upwards through two vertically stacked disposable modules containing Odormix™ SP media.



ODOR AND CORROSION APPLICATIONS

MEDIUM TO LARGE AIRFLOW ODOR AND/OR CORROSION SCRUBBERS

BIOLOGICAL AIR TREATER (BAT)

Features the most advanced proprietary fixed-film trickling filter technology through an exclusive license with Honeywell Process Solutions. Combined industry-leading patented innovations provide:

- Low Maintenance & Pressure Drop
- Natural Bio-Trickling Microbial Process
- Smaller Footprint versus Biofilters
- Engineered Chemisorptive Polishing Media
- Low Operating Costs with Long-lasting Media Life
- Ease of Operation with Stable Biofilms Resistant to Fluctuations
- Unique Design with Patented Mixed-Media Support Prevents Plugging and Channeling



DEEP BED SCRUBBER

Use at small headworks, large pump stations, in screening rooms, and at the discharge of biofilters.

The Deep Bed Scrubber is sized for airflows from 500 to 8,000 cfm and removes high concentrations of odors in wastewater operations.



TUB SCRUBBER SYSTEM

Use at small headworks, large pump stations, in screening rooms, and at the discharge of biofilters. The Tub Scrubber System is sized for airflows from 500 to 4,000 cfm and is an economical solution for controlling sewage odors.



PARALLEL BED SCRUBBER

Use at large headworks and full treatment plants.

Designed for airflows from 8,000 to 40,000 cfm, the parallel bed scrubber mitigates the highest contaminant loads.



VESSEL SCRUBBER

Use at large headworks, full treatment plants, and large digesters. Designed for airflows from 8,000 to 20,000 cfm, the Vessel Scrubber mitigates the highest contaminant loads.

The Vessel Scrubber is constructed of FRP and contains several thousand pounds of Purafil dry-scrubbing media.



CORROSION CONTROL EQUIPMENT & INSTRUMENTATION



Monitoring air quality is an essential part of your corrosion control program. Purafil's OnGuard® 3000 (OG3) Monitor protects your electronics by measuring in real time the level of corrosion in your facility and transmitting the readings to your SCADA system. Ideal for control rooms, motor control centers, rack rooms, and other areas where corrosion is a concern, the OnGuard allows for action to be taken before problems develop. In turn, this prevention increases the reliability of electronic and electrical instrumentation and reduces the cost of maintenance repairs.

Purafil also provides equipment for corrosion protection in control and server rooms as well as other areas housing electronics or electronic components.



POSITIVE PRESSURIZATION UNIT AND CORROSIVE AIR UNIT
Protects Control and Server Rooms
500 - 4,000 CFM

PURAFIL SIDE ACCESS SYSTEM
Protects HVAC System in Control Rooms
500 - 40,000 CFM



ELECTRONIC CABINET UNIT
Protects Control Panels
Less than 500 CFM



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