Perry Fiberglass Products, Inc.









EXPERTS IN DESIGNING AND MANUFACTURING ODOR CONTROL AND AIR POLLUTION CONTROL EQUIPMENT

Our systems are engineered to create a clean environment.

CALL TODAY FOR TOMORROW'S SOLUTIONS!

5415 Village Drive Rockledge, Florida 32955 / PHONE: 321-609-9036 / FAX: 321 609-9003

www.PerryFiberglass.com

ESTABLISHED IN 1984



ABOUT PERRY FIBERGLASS

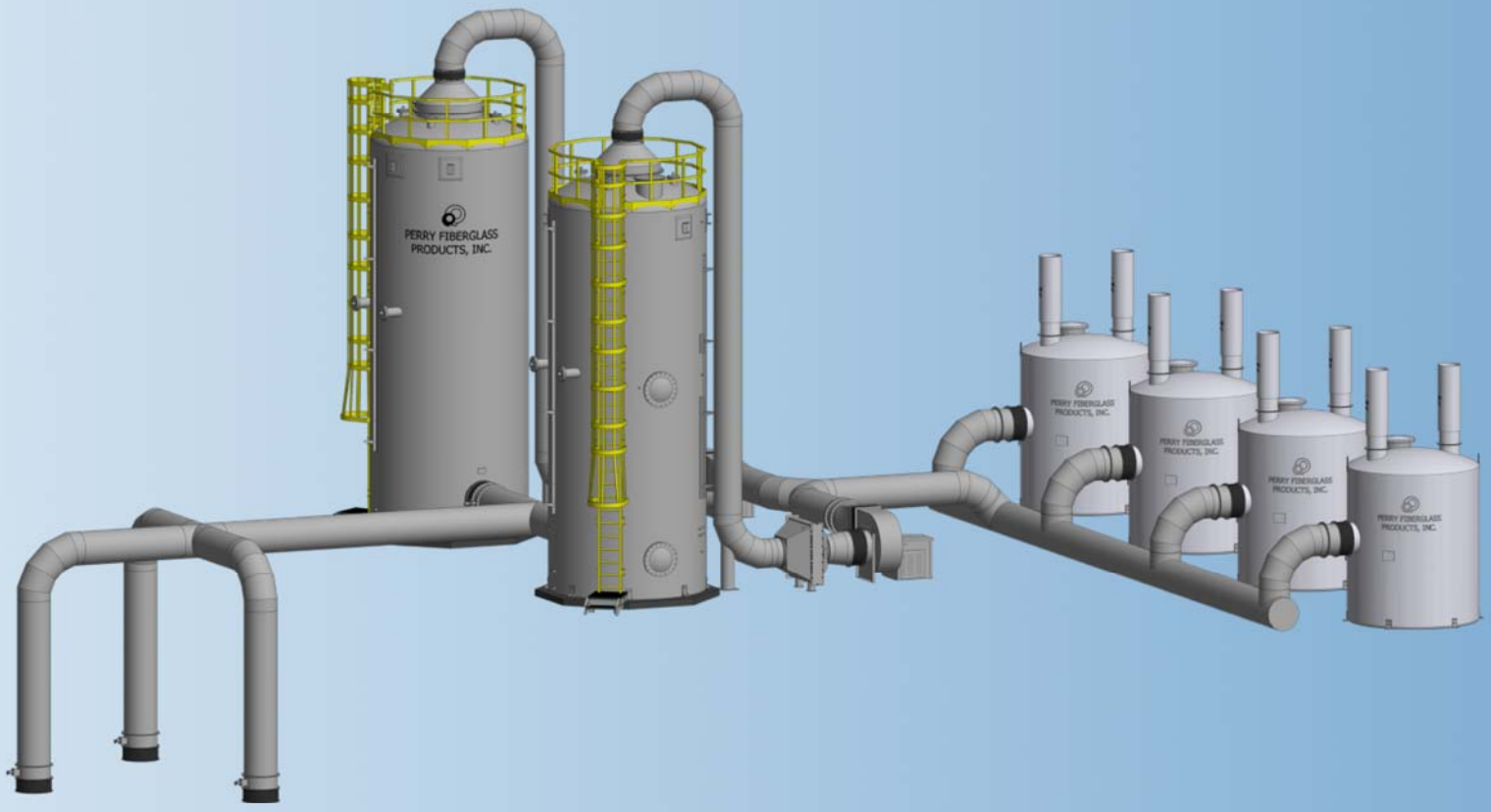
Perry Fiberglass Products, Inc. was established in 1984 by Thomas Pulliam. Thomas Pulliam sold the company to his son Chad Pulliam in 2005. Perry Fiberglass is headquartered in Rockledge, Florida and manufactures all of its FRP products in Elyria, Ohio.

We develop, design and manufacture equipment for the treatment of odorous compounds in air-streams. We remain set apart from other odor control companies by providing a complete turn-key system.

Perry Fiberglass is in the business of supporting owners and engineers by providing technologically developed and improved odor control and air pollution control equipment.

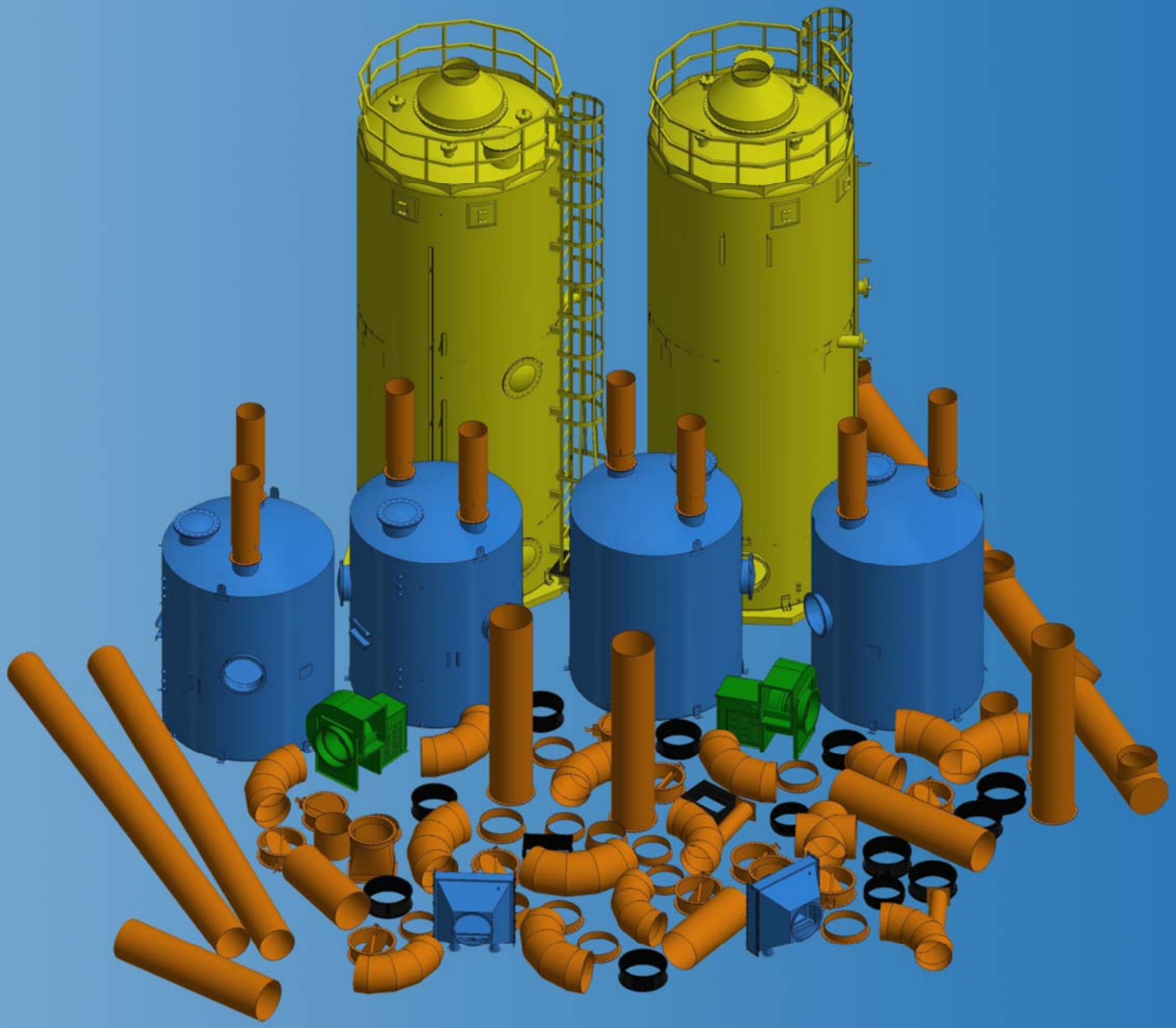
Our mission is to provide quality engineered products at a competitive price and in compliance with recognized codes and standards. Our emphasis on quality and excellent customer service by trained personnel is paramount to our success.

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PERRY FIBERGLASS PRODUCTS, INC

(TURN KEY SYSTEM GUARANTEED TO WORK)



COMPETITION

(PARTS AND PIECES FROM FOUR SEPARATE SUPPLIERS)

Perry Fiberglass Products, Inc.

EXPERTS IN DESIGNING AND MANUFACTURING ODOR CONTROL AND AIR POLLUTION CONTROL EQUIPMENT

ACTIVATED CARBON (DRY) ODOR CONTROL SYSTEMS

Chemical Adsorption Odor Control Systems are a once-through chemical adsorption system. Odorous compounds and other organics are removed from the air stream through adherence to the activated carbon porous surface.

Available Medias:

- Higher or Lower Capacity Coconut Shell Carbon
- High H_2S Capacity Carbon
- Polishing Media
- Water-Washable Activated Carbon
- Media Manufactured to Adsorb Ammonia and Chlorine

Perry Models:

- B1 - Single Bed Vertical Unit
- B2 - Dual Bed Vertical Unit
- H1 - Single Bed Horizontal Unit
- H2 - Dual Bed Horizontal Unit
- RF - Vertical Radial Flow Unit



Perry B1 Single Bed Carbon Unit



Perry B1 Single Bed Carbon Unit



Perry H2 - Dual bed Carbon Unit



Perry B2 Unit with Mist Grease Filter, Fan and Ductwork



Perry B2 Unit with Mist Grease Filter, Fan and Ductwork

CHEMICAL SCRUBBERS AND DEGASIFIERS / AIR STRIPPERS

Perry Fiberglass offers a variety of packed-bed scrubbers. Our scrubbers are designed and manufactured to removed soluble odors. Contact Perry Fiberglass today for your engineered system.

CHEMICAL SCRUBBERS:

Contaminated air is introduced to the packed-bed scrubber, the air travels through the scrubber mixing with the scrubbing solution. Within the scrubber, aerosols and vapors are transferred to the scrubbing liquid in accordance with various chemical and mechanical principles. Clean air is exhausted to the atmosphere, while the scrubbing liquid is recirculated with small amounts discharged to a wastewater treatment system.

DEGASIFIERS / AIR STRIPPERS:

Degasifiers / Air Strippers are designed to remove volatile organic compounds (VOC's) from groundwater. The Degasifiers / Air Strippers exhausted air can be further treated with an activated carbon unit or a chemical scrubber to prevent atmospheric pollution.



Left Photo: Perry Air Stripper / Degasifier in operation

Right Photo: Perry 50,000 cfm Chemical Scrubber with pumps, controls, packing and feed pump. Installed in **2004**



Right Photo: Perry 15,000 cfm chemical scrubber. Perry supplied; controls, pumps, fans, packing and chemical feed pumps.





FRP DUCTWORK, PIPING AND STACKS

FRP DUCTWORK

Fiberglass Reinforced Plastic (FRP) duct products from Perry Fiberglass serve a wide array of applications including but not limited to; municipal, industrial and underground. Perry Fiberglass offers a variety of resins for corrosion applications to include; vinyl ester and isophlalic resins for superior corrosion resistance.

Perry 20S Low Smoke ™ is offered for air handling (underground and aquatic centers) with a class 1 rating for both flame and smoke.

FRP PIPING

Perry FRP Piping systems are engineered for corrosive and abrasive applications. FRP Piping has superior corrosion resistance. In comparison to metallic piping, FRP can be more economical then stainless steel, titanium, and other exotic alloys. Pulp and paper, mining, chemical processing, power, and water plants have successfully chosen to utilize FRP Piping in their process systems.

FRP STACKS

Perry Fiberglass designs and manufactures fiberglass reinforced plastic FRP stacks for a variety of industries too include; municipal odor control, chemical exhaust, pulp/paper, and mining. FRP stacks from Perry Fiberglass offer a number of advantages over traditional concrete and metal stacks to including superior corrosion resistance, relatively light weight, and ease of installation. Perry Fiberglass can engineer a stack for your specific application taking specific design criteria into account including wind and seismic loads. Perry stacks can be fitted with lights, grounding systems, complete ladder systems, guy wires, and support rings along with many other accessories to meet your needs.



150 PSI Perry Piping



Factory Manifolded Duct System



Odor Control Ductwork



Waste Water Plant Odor Control Ductwork



FRP Underground H20 Rated Ductwork

OTHER PERRY PRODUCTS

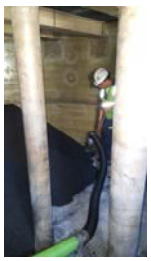
Perry Fiberglass designs and manufacturers a range of accessories and components for the municipal and industrial markets.



Perry V—Series 9,000 CFM Grease Filter / Mist Eliminator



Perry Chemical Feed System



Perry Technician Performing a Carbon Media Change Out



Perry Technician Testing for H_2S

SERVICES:

- Quarterly or Yearly System Maintenance
- Dry Media (Activated Carbon) change-outs
- Existing System Evaluation
- Performace Testing (EPA Testing Methods)
- Air Balancing
- Training and Start-up Services
- System Design Services

ADDITIONAL PRODUCT OFFERING:

- Grease Filter / Mist Eliminators
- FRP Enclosures
- Covers and Hoods
- FRP Dampers
- Fans
- FRP Chemical Storage Tanks
- FRP Brine Tanks
- Chemical Feed Systems
- Instrumentation
- Control Panels
- Biofilters / Biological Filters

RADIAL FLOW



The Perry **RF radial flow** is an efficient and highly effective system for removing odorous compounds from municipal and industrial processes. These systems can utilize a wide variety of adsorbent media for specific treatment. A few being:

- Highly efficient
- Removable carbon retention screen. (Other radial flow manufacturers do not offer an internal basket that utilizes an easily removable screen.)

Perry Fiberglass Products, Inc.

Experts in designing and manufacturing odor control and air pollution control equipment

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RADIAL FLOW

Compact system to treat high flow rates

RADIAL FLOW FEATURES	RADIAL FLOW BENEFIT
Footprint	Up to 40,000 cfm unit in a single 12’ diameter vessel.
Proprietary Interior Baffle	Offering an engineered baffle system
Construction	Vessel and internal components are manufactured using high quality, corrosion resistant materials to provide a long service life.
FRP Flanged Carbon Ports	High-quality FRP flanged ports
Carbon Retention Screen	Unlike other radial flow carbon unit manufacturers; our radial flow is designed to have a removable carbon retention screen.



Additional Product Line offered by Perry

- B1 single bed
- B2 dual bed
- RF radial flow
- Chemical scrubbers
- Controls
- FRP ductwork systems
- AMCA certified dampers
- Grease filter/ mist eliminators
- Control panels
- Fans
- Activated carbon media
- FRP chemical storage tanks
- FRP hoods/ covers
- Sound enclosures and silencers
- Field services

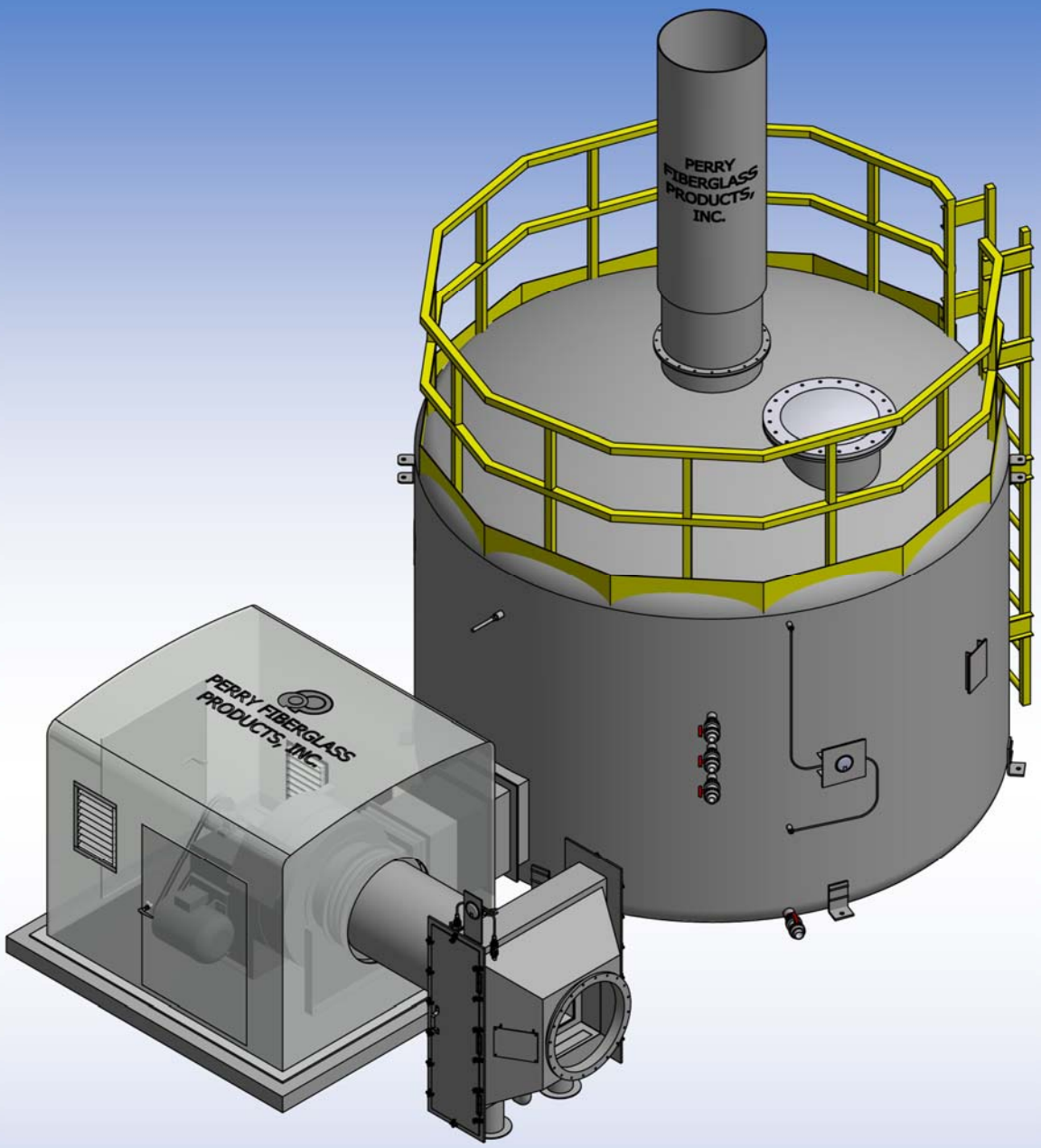
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SINGLE AND DUAL BED CARBON ADSORBERS

B1, B2, H1, H2 AND RF SERIES



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ACTIVATED CARBON (DRY) ODOR CONTROL SYSTEMS

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- High H_2S Capacity Carbon
- Polishing Media
- Water-Washable Activated Carbon
- Media Manufactured to Adsorb Ammonia and Chlorine

Perry Models:

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- RF - Vertical Radial Flow Unit



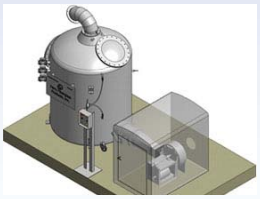
Perry B1 Single Bed Carbon Unit



Perry H2 - Dual Bed Carbon Unit



Perry B2 Unit with Mist Grease Filter, Fan and Ductwork



Perry B1 Single Bed Carbon Unit

Perry Fiberglass offers the following complete line of odor control and air pollution control products

- B1 single bed
- B2 dual bed
- RF radial flow
- Chemical scrubbers
- Controls
- FRP ductwork systems
- AMCA certified dampers
- Grease filter/ mist eliminators
- Biological systems
- Fans
- Activated carbon media
- FRP chemical storage tanks
- FRP hoods/ covers
- Sound enclosures and silencers
- Field services

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The Perry Portfolio

- Biofilters (Built in Place and Modular)
- Biotrickling Filters (Round and Rectangular)
- Multi-Stage Systems (Round and Rectangular)
- Biogas
- Air Strippers
- Carbon Adsorbers
- Chemical Scrubbers
- FRP Ductwork
- FRP Dampers
- FRP Fans

Perry's Engineered Media's

- BIO-ROLL (Synthetic Structural Randomly Packed)
- BIO MEDIA LAVA (Inorganic, Scoria Lava)
- BIO WOOD (Aged Bark, Engineered)
- BIO-FGB (Porous and Engineered)
- BIO-FGW (Structural Randomly Packed)

Up to 15 year warranty (depending on application)



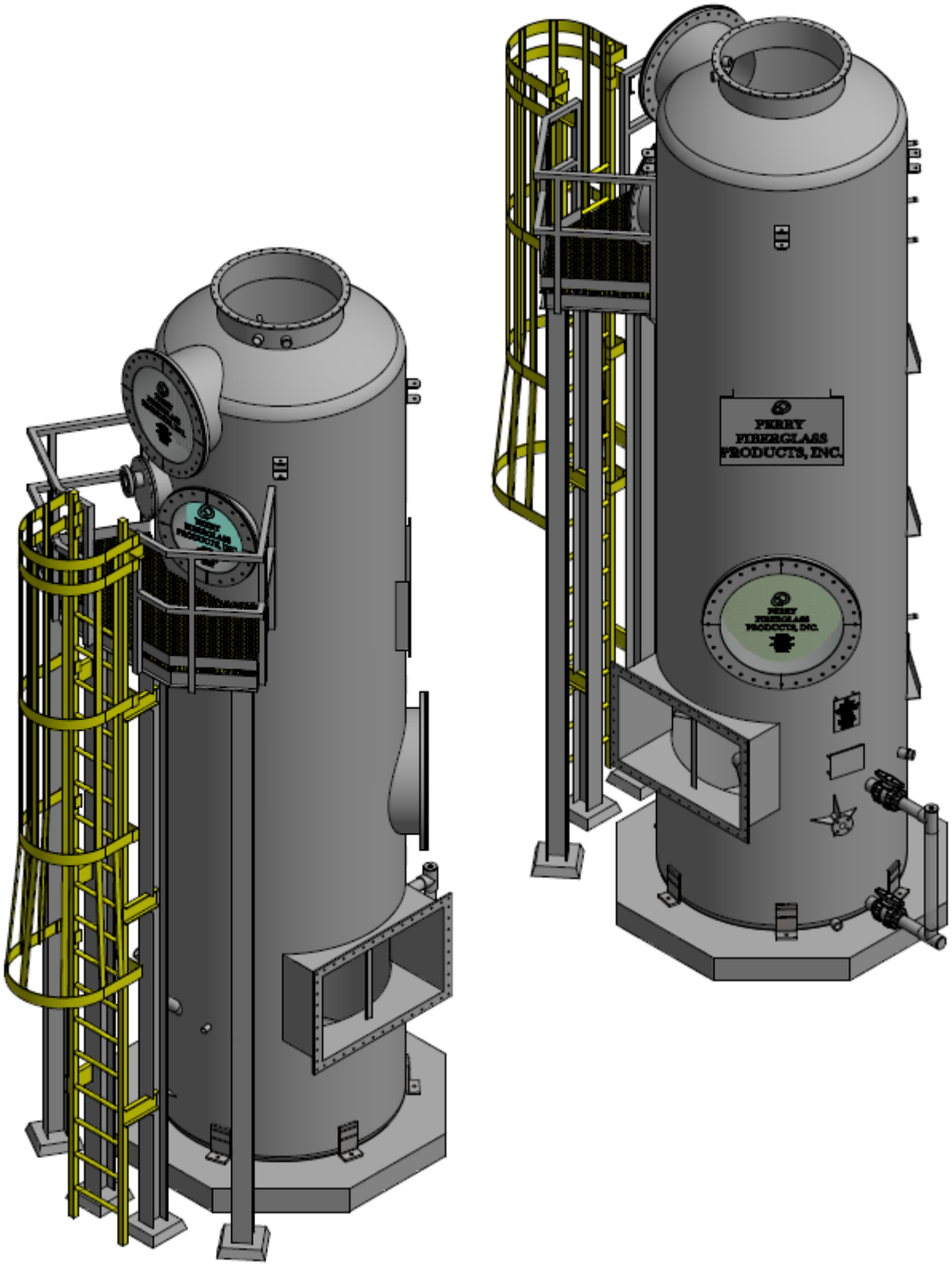


Corporate Headquarters:
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Visit our website www.perryfiberglass.com for more information about the Perry multi-stage biotrickling filter/biofilter.

CHEMICAL SCRUBBERS

CCV and CCH SERIES



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Experts in designing and manufacturing of odor control and air pollution control equipment

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Principle of Odor Scrubbers

The principle of a scrubber is to remove impurities out of the gas stream typically by absorption. For example, gas generated at a wastewater treatment plant will require the removal of Ammonia or sulfide compounds. Scrubbers are designed based on the particular contaminants required to be removed. The contaminated gas flows up while recirculating liquid sprays downward into the packed bed. The gases are absorbed by the solubility levels or by chemical reaction. The airborne vapor is then released into the atmosphere or to a further post treatment process.





Perry's scrubbers are one of the most economical and effective means of removing gases, odors and vapor fumes from a wide variety of applications. Each system is individually designed and engineered to meet site specific requirements. A typical scrubber includes the vessel with internals, fan, chemical metering pumps, controls, instrumentation and recirculation pumps. Perry Fiberglass can integrate a complete package to include all duct, piping, instruments, fan filter enclosure, access ladder and platform, instruments and controls. Units typically range from 12" to 168" diameter.

Odorous Compounds Controlled

H_2S	Aldehydes	NH_3
Amines	Acetic Acids	Ketones

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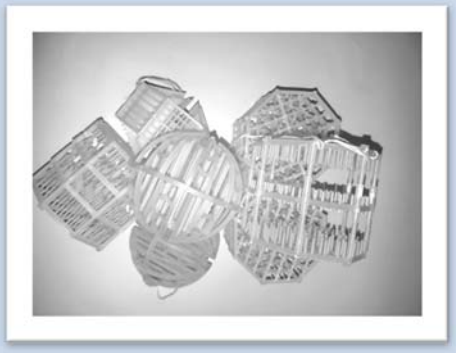
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Vessel:

Perry Fiberglass scrubber vessels are designed and fabricated of all type of materials; most common are fiberglass, aluminum and stainless steel. All fiberglass vessels are manufactured per ASTM D-3982, ASTM D-3299 and RTP-1 standards. Most units are one piece construction with no body flanges for ease of installation. Fiberglass units have light blocking UV inhibitors that are applied to prevent UV penetration that can aid in potential biological fouling. Each vessel is designed with site specific seismic and wind consideration.

Packing Media:

Perry Fiberglass provides packing media to match the specific application of the service intended. Most media is random dump type polypropylene that has high mass transfer efficiency, excellent chemical resistance, and low potential for biological or chemical scale fouling.





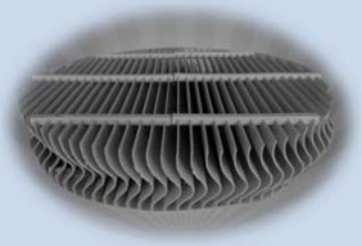
Scrubber Configurations:

- Counter-Current Vertical Flow (CCV Series)
- Cross-Current Horizontal Flow (CCV Series)



Liquid Distribution:

Perry Fiberglass provides a high quality engineered complete designed liquid distribution system that assures proper liquid flow and the best available wetting of the packing media. The quantity, size, and configuration along with materials of construction are important for proper design and durability. Materials included; PVC, FRP, CPVC, stainless steel and aluminum.



Demisters/Liquid Entertainment Separators:

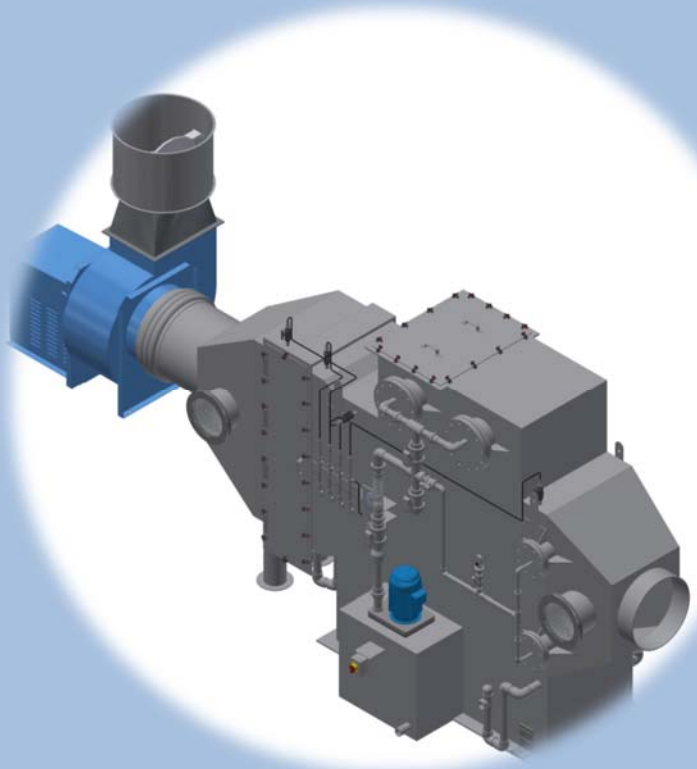
Perry Fiberglass demisters are supplied as required per the application and requirement of the service intended. Units are supplied as mesh pad assemblies or ridged chevron blade type. Both types are very effective in removal of entrained water droplets.



Tower Cleaning/Wash Down:

Perry Fiberglass offers options for effective ways of cleaning the scrubber vessel, header, packing and demister. These normally include use of piped wash down header connections and spray nozzles. These are designed to use recycled cleaning solutions (usually, HCL or sodium hypochlorite) to flush down the vessel and allow cleaning of all internals.





Scrubbers

Degasifiers / Air Strippers

Carbon Adsorbers

Fans

Storage Tanks

Pumps

Metering Pumps

Stacks

Ductwork

Dampers

Enclosures

Control Panels

Instrumentation and Controls

Design

Fabrication

System Integration

Complete Turn-Key Systems

Municipal and Industrial

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Perry Fiberglass Products, Inc.

FRP INDUSTRIAL DUCTWORK



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ESTABLISHED IN 1984

ABOUT PERRY DUCTWORK

Perry Fiberglass engineers and manufactures custom made pipe for a variety of applications. Our FRP products are typically engineered with safety factors of 10:1 against pressure and 5:1 against vacuum. Perry surpasses the performance of commodity FRP ductwork systems at a comparable and often lower cost.

Perry can fabricate duct in virtually any diameter and up to 40 feet in length. Chemical resistant ducting will be filament wound or contact molded depending upon the design conditions specified. To reduce field assembly time and project cost Perry can factory mani-fold your order in the longest practical shippable lengths. Joints either can be butt & wrapped or flanged.

With the ability to manufacture from a variety of thermoset resins, FRP duct outperforms other materials of construction in a broad spectrum of corrosive environments and temperatures.



INDUSTRIES SERVED

- Chip Manufacturing
- Wastewater Treatment Plants
- Laboratory Exhaust
- Clean Rooms
- Plating and Metal Finishing
- Pharmaceutical Plants
- Automotive Plants
- Chemical Storage Facilities
- Diesel/Automotive Exhaust
- Pulp and Paper
- Mining

WHY CHOOSE PERRY FIBERGLASS FRP DUCTWORK PRODUCTS

Perry Fiberglass FRP duct products offer numerous advantages over other duct materials such as galvanized, stainless steel, and PVC. Below you'll find some of the many reasons we feel Perry Fiberglass FRP ductwork represents the best the industry has to offer:

MATERIAL INTEGRITY

Perry Fiberglass FRP duct is filament wound with glass and resins selected for the application. The duct is manufactured to comply with recognized industry standards and can be customized to your exact specifications.

STRENGTH

Filament winding provides greater hoop strength, resulting in a much stronger duct than other methods of construction such as hand lay-up, and is far superior to metal products in many corrosive environments. Perry Fiberglass FRP duct is lighter than steel while offering superior corrosion qualities and equal air flow performance.

DURABILITY

Superior resistance to corrosion and leakage are hallmarks of Perry Fiberglass FRP ductwork products. The same corrosion resistant qualities can be maintained on both the inside diameter (ID) and outside diameter (OD) allowing for a wide range of applications.

VERSATILITY

Perry Fiberglass FRP duct is available in long lengths—up to 40 feet. A complete complement of standard fittings and special shapes are manufactured. The light weight duct is exceptionally strong, making it easy for workers to handle on the jobsite. Factory mani-folding color options and custom wall thickness are all available to meet unique job requirements.

EFFICIENCY

A duct system from Perry Fiberglass can be sealed to achieve a liquid-tight system. This assures efficient movement of the exhaust air while moving any risk of contamination.

EASE OF USE

Perry Fiberglass FRP duct can be field installed using simple tools. The joining material is the same glass and resin combination as the duct. Perry Fiberglass can provide field training for the installing personnel. Optional flanged or bell and spigot joints can be provided upon request.





Perry Fiberglass FRP duct products are as versatile and varied as the industries they serve. The wide range of configurations available ensures that we have duct products to meet your needs.

PRODUCT OFFERING

Perry Fiberglass offers two main categories of FRP duct products: Single wall and pre-insulated double wall.

SINGLE WALL

Desirable in corrosive environments.

PRE-INSULATED DOUBLE WALL

If thermal control is a concern, then our pre-insulated double wall duct solves the problem. When supplied with the our standard 1” insulation thickness, our double wall duct has a k factor of 0.14 and an R value of 7. The same corrosion resistant qualities can be maintained on both the ID and OD. Also available in R-5, R-10, R-14 or as specified.

CONFIGURATION OPTIONS

SHAPES

Typical shapes for filament wound construction are round, rectangular and oval. Special shapes such as triangular are also available. Engineering assistance is available for designing projects requiring non-standard construction.

DIAMETER

Duct diameters are available from 2” - 168”. Rectangular sizes are available as required for your projects.

LENGTHS

Lengths up to 40 feet.

FITTINGS

Standard fittings include:

Elbows	Dampers	Blast gates
Tees	Register Boxes	Access Door
Laterals	Square to Rounds	Stacks
Y’s	Crosses	Caps
Reducers	Flanges	Hoods

COLORS

Our standard colors are gray and white. Custom colors are available upon request.





Perry Fiberglass Products, Inc.

EXPERTS IN DESIGNING AND MANUFACTURING ODOR CONTROL AND AIR POLLUTION CONTROL EQUIPMENT

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FRP ENCLOSURES

The Perry Fiberglass E series enclosures are designed and manufactured to reduce sound levels (dbs) and protect equipment. Perry enclosures are constructed of high quality Fiberglass Reinforced Plastic (FRP) material, each sound enclosure uses our premier internal sound reduction foam. Fiberglass enclosures offer superior equipment protection from the elements.

Available Options:

- Hinged Manway Doors
- Roof Exhaust Fan(s)
- Heavy Duty Lifting Lugs
- Split Housed Enclosure (Available on Most Models)
- High Quality Air Louvers
- Sound Reduction Foam
- Quick Release Latches (Available on Most Models)
- Windows
- Interior and Exterior Lighting



Shown Above: FRP Enclosure for housing high voltage circuits





SHOWN ABOVE: PERRY FIBERGLASS ENCLOSURE TO HOUSE A PERRY FAN

Product Advantages:

- Reduce Noise Levels
- Equipment Protection
- Long Lasting / Weather Proof
- Backed by our Best in the Industry Warranty.
- Split Design Option (clam shell style)

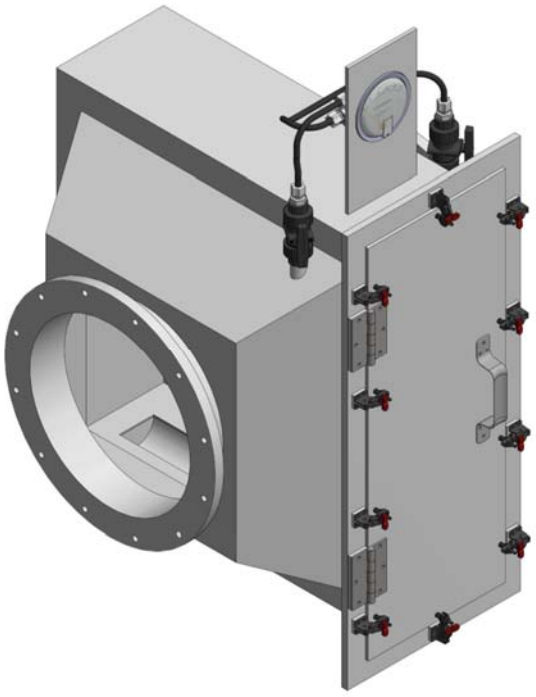
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GREASE FILTER / MIST ELIMINATOR

The Perry Fiberglass H (horizontal) and V (vertical) series Grease Filter / Mist Eliminators are designed to prevent mist and grease from entering equipment downstream. The Perry H and V series grease filter / mist eliminators use high performance stainless steel and/or polypropylene mesh pads. The mesh pads are designed for 99.9% removal of 10 microns or larger. Each unit is made to order and designed to fit your specific application.



Available Options:

- Flanged Inlet/Outlet
- Quick Release Latches or Bolted for Pad Access
- UHMW Lining to Protect the Housing Corrosion Liner
- Differential Pressure Gauge or Switch
- PVC or CPVC Piping for Differential Pressure Gauge
- FRP Support Legs
- Stainless Steel / Polypropylene Mesh Pad
- Drain



Product Advantages:

- Use a Grease Filter / Mist Eliminator to reduce problems with your FAN and CARBON units.
- Low Maintenance Cost
- Washable Stainless Steel and Polypropylene Pads.
- Low Pressure Drop

Photo shown above: 14,300 CFM Perry H Series Mist Eliminators—New York