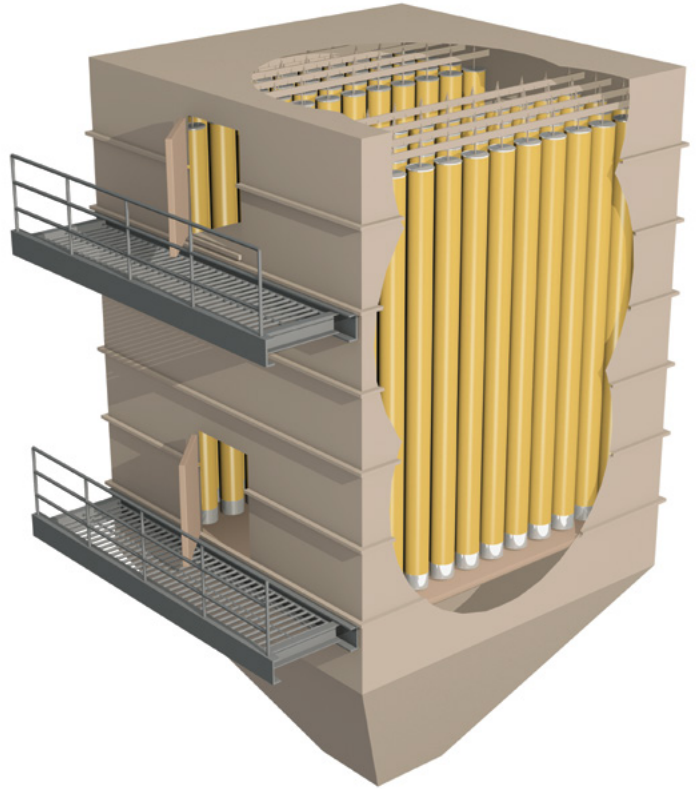
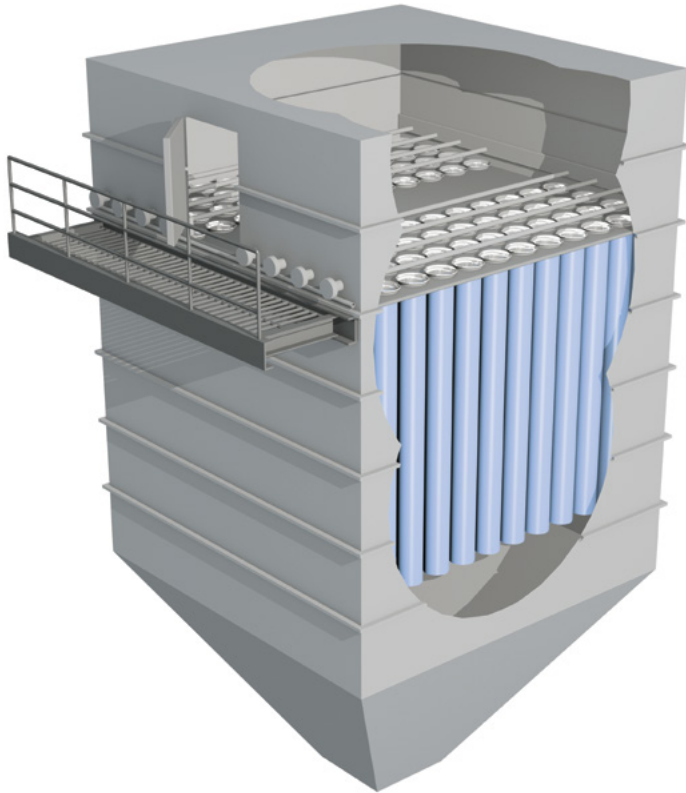


Fischer-Robertson, Inc.
3890 Symmes Road
Hamilton, OH 45015
ph 513-860-3445 fx 513-860-4744
www.fischer-robotson.com



Particulate Matter Expertise

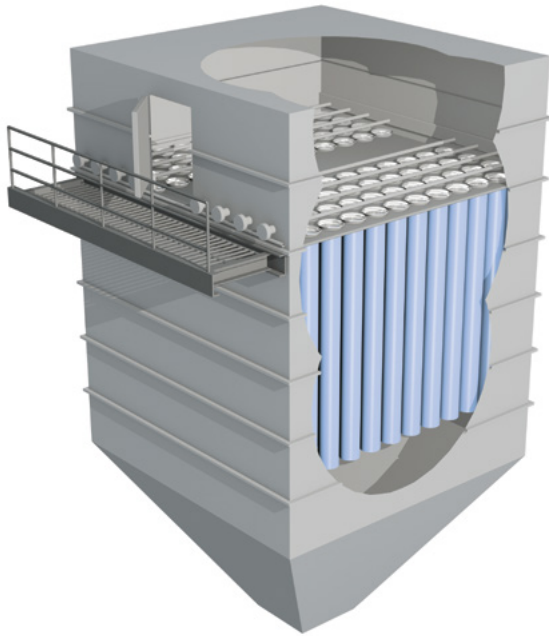


ENGINEERING YOUR SUCCESS.

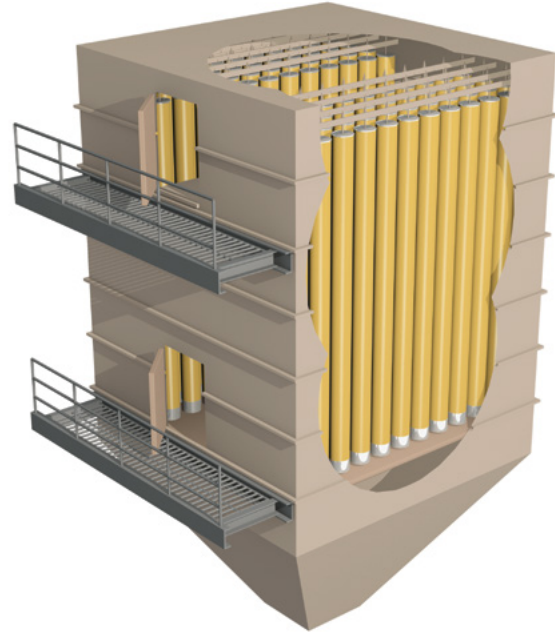
**Serving more than
50 industries,
specializing
in providing
solutions for
problem dust
collectors.**



Pulse Jet Baghouse



Reverse Air Baghouse



Controlling particulate matter emissions and improving performance.

Particulate matter control has never been more of an issue globally, and the ability to enhance the performance of existing fabric filter (baghouse) collectors is important to improve production capability and profitability.

Through years of troubleshooting expertise based on a total system approach, we can help you find the trouble areas of your ventilation system and then provide the integrated technology and services you need to enhance its performance.

We have seen and solved just about every type of dust collection problem in hundreds of applications worldwide. With an experienced team of technicians, engineers, and emissions experts ready to serve you, Parker Hannifin can be your preferred choice for particulate matter expertise and technology.

Fischer-Robertson, Inc.
3890 Symmes Road
Hamilton, OH 45015
ph 513-860-3445 fx 513-860-4744
www.fischer-robertson.com

High Efficiency Fine Filtration



BHA PulsePleat® pleated filter elements

BHA PulsePleat elements are custom manufactured to fit easily and quickly into nearly every OEM style of pulse-jet baghouse elements are available with many types of filter media, tops/bottoms, and inner cores to handle different types of process conditions, temperatures, and gas stream.

BHA Wicked™ High Temp pleated filters

A breakthrough in pleated filter technology for Cement, Lime, Carbon Black and other extremely high temperature applications.

We now offer the most innovative and efficient solution for high-temperature applications. BHA Wicked High Temp Filters ensure a quality filter for challenging applications. Until now, there have been many design issues that limit the temperature for pleated filters forcing operators to use bag and cage filtration systems. Now plants operating at extreme temperatures have a choice.

Wicked High Temp pleated filters deliver lower operating differential pressure - up to 50% over bags and cages and a 90% reduction in pulse-cleaning emissions compared to standard bags in our finished filter testing.

Pleated filters can help by delivering numerous benefits over traditional filter bags and cages:

- Superior filtration efficiency
- Reduced air-to-cloth ratios
- Reduce operating differential pressure
- No cages, easy installation and removal
- Less bottom bag abrasion
- In some cases, longer filter life

For plants that are operating at particularly high temperatures, 500°F (260°C), you need Wicked High-Temp Filters.

BHA ThermoPleat® high temperature pleated elements

For increased airflow through a hot gas baghouse, BHA ThermoPleat elements operate in temperatures up to 375°F (190°C). BHA ThermoPleat elements directly replace high temperature filter bags such as aramid, PPS, and fiberglass. Various stiffened media options, along with steel inner cores and metal components, enable these filters to withstand extreme heat conditions, yet can provide 99.9% efficiency and reduced differential pressures. These filters have proven to be effective in many high temperature applications, including cement, utility, and asphalt.

Key benefits of pleated technology

- Up to 99.99% efficiency with spunbond polyester media
- Exclusive patented iPLAS® pleat alignment system for pleated filters up to 375°F (191°C), maintains proper pleat spacing and eliminates premature strap failure—which improves filter efficiency and filter life
- Reduced installation time with one-piece design
- Increased filtration surface area, 2–3 times versus standard filter bags, allowing more airflow to be filtered
- For gas temperatures up to 500°F (260°C)
- Wicked High Temp filters strap design is rated at 500°F (260°C) continuous operating temperature
- No baghouse modifications necessary— BHA PulsePleat elements create a dust-tight seal with existing tubesheets
- Reduces air-to-cloth ratios and operating differential pressure
- Helps reduce energy costs because less compressed air is required to effectively pulse clean the elements
- Shorter lengths and molded bottoms reduce the chances of abrasion (which causes premature failure)
- Perfect for undersized baghouses, fine particulate, and filter abrasion problems



High-Performance Dust Cartridge Filters

When it comes to dust cartridge filters, we're known for delivering products that provide higher efficiencies with cleaner air, longer filter life, and greater energy savings. Our products are performance certified by 3rd party testing services, and our customers can trust our products will perform reliably.

We can help you select the right cartridge filter for your specific application. Temperature, moisture in the gas stream, presence of oils, spark carryover, FDA compliance, and the abrasive nature of the particulates are all factors that need to be considered. We evaluate the necessary MERV rating and which type of filtration method will help you meet your operating goals, surface or depth loading. We know that when media is properly applied it can minimize energy consumption and compressed air usage while creating maximum lifespan for the cartridge filter.

BHA ProTura® SB Nano Pleated Filters and Cartridges

We are at the forefront of technology and innovation; we develop and manufacture proprietary filter media technologies using our advanced research capabilities to ensure the latest developments are in our filters. ProTura SB is a 100% synthetic base media with a proprietary nanofiber layer applied to the collection surface that's ready to take on the most demanding applications.

ProTura SB advanced nanofiber filtration technology is proven to achieve:

- Higher efficiency and greater energy savings than spunbond polyester
- Lower average differential pressure over the life of the filter
- Nanofiber layer that is durable against abrasive particulate
- Longer filter life

BHA Preveil® expanded PTFE membrane filters

For applications that demand the absolute highest filtration efficiencies, filters laminated with BHA Preveil expanded polytetrafluoroethylene (ePTFE) membrane are critical. The BHA Preveil membrane can provide 99.99+% efficiencies, excellent dustcake release, and greater airflow at lower energy consumption levels.

How does the ePTFE membrane work?

Our sophisticated manufacturing process expands PTFE resin into a membrane composed of billions of microscopic pores in a three-dimensional weblike structure. These pores are small enough to collect submicron dust particles, yet large enough for air to pass through. The BHA Preveil membrane, when applied to a filter bag, creates a filter solution that operates with virtually no dustcake. Plus, the nonstick nature of the membrane enables even the stickiest dust to be cleaned easily from the filters.

Key benefits of ePTFE membrane filters

- Near ZERO emissions
- The non-stick surface reduces the need for cleaning, which may lower compressed air costs and increase filter life
- Reduces operating pressure drop
- Available on a variety of base media, including polyester, acrylic, aramid, and fiberglass
- Operates effectively in high moisture environments, improves release of sticky dusts and temperatures up to 500°F (260°C)
- ePTFE membrane is resistant to chemical attack
- Our bi-component lamination process improves membrane durability and airflow

Fischer-Robertson, Inc.
 3890 Symmes Road
 Hamilton, OH 45015
 ph 513-860-3445 fx 513-860-4744
www.fischer-robertson.com

Solutions for Fabric Filter Collectors



Filter Bags and Cages

We manufacture a wide range of replacement filters to fit all OEM styles of baghouses, including pulse-jet, reverse air, plenum pulse, and cartridge collectors. Felt and woven fabric filters are available in the following media types:

- Polypropylene
- Acrylic
- Polyester
- PPS
- Aramid
- P84™
- Fiberglass
- PTFE Felt
- Expanded PTFE Membrane (ePTFE)

We also supply support cages in a variety of sizes, wire configurations, and materials to ensure optimum performance in unison with the proper fabric.

Fine Filtration Products

For enhanced filtration efficiency, we offer:

- BHA Pulsepleat, ThermoPleat, and BHA Wicked™ High Temp pleated filter elements
- BHA Preveil expanded PTFE membrane filters
- ProTura SB advanced nanofiber filtration technology

See page 5 for more details.

Baghouse Services

Our service crews are trained and experienced in all aspects of APC equipment operation, maintenance, and repair. Our service crews work exclusively on APC equipment and have an excellent track record for safety and on-time completion. Improve your baghouse with our services:

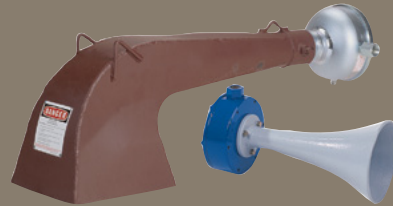
- Inspections and plant surveys
- Filter installations
- Ventilation system analysis
- Preventive maintenance programs/troubleshooting

Baghouse Accessories

In addition to filters, we have a complete selection of replacement parts and accessory items for all types of baghouse designs. The following is a partial list of components available:

- Pulse-jet valves and diaphragm kits
- Bag tensioning devices
- BHA Neutralite® filter bag conditioning powder
- BHA Visolite leak detection system
- Pulse-on-Demand™ cleaning controls
- Differential pressure gauges
- Access doors
- Door seal
- Bag cups/venturies
- Auto purge valves/surge valves
- Blowpipes
- Timer boards
- Tubesheets/thimbles

A complete line of replacement filters and parts to fit almost every style of fabric filter (baghouse) collector.



Engineered Solutions and System Modifications

Many times the best solution for a poorly performing baghouse is to rebuild it with new components or change the cleaning method. Parker Hannifin offers engineering services that define the scope, materials, and procedures necessary to perform baghouse upgrade projects. Our engineers have worked with all types of fabric filtration systems in a variety of industries and applications.

Horizontal Dust Collectors for Belt Conveyors

With traditional in-plant dust collectors, severe emission problems can occur in areas that are hard to ventilate. To solve this challenging dust collection problem, our technical applications engineering team designed a unique dust collector for venting belt conveyors, especially in areas with restricted height such as, limestone transfer conveyors, clinker handling off the way feeder, coal belt conveyor transfer points, and clinker reclaim tunnels. Fitted with high efficiency BHA PulsePleat filters, the horizontal collector combines ease of installation and operational effectiveness with a compact design that requires no ductwork.

Acoustic Cleaners and Impulse Cleaning

BHA Powerwave[®] acoustic cleaning systems can significantly improve the cleaning of baghouses, precipitators, boiler tubes, heat transfer surfaces, SCRs, silos, spray dryers, and material handling equipment. BHA Powerwave cleaners are an economical and effective solution to remove particulate buildup anywhere in your system, without causing the structural damage that frequently occurs with other cleaning methods.

BHA Powerwave+[®] impulse cleaning systems help remove tenacious deposits and can potentially improve flow rate, increase heat rate, and reduce emissions. Managed entirely by a fully automated, easy to use control system, each impulse wave has the ability to penetrate in and around obstructions to provide a more complete surface contact and removal of deposits than traditional cleaning methods, such as sootblowers.



Education/Seminars

To help customers better understand the proper operation and maintenance of APC equipment, Parker Hannifin conducts dozens of troubleshooting seminars each year in the U.S. and abroad. Seminars can also be arranged at individual plant sites.

For further information and a full schedule of upcoming educational events, visit: www.BHA.com/education.

Fischer-Robertson, Inc.
3890 Symmes Road
Hamilton, OH 45015
ph 513-860-3445 fx 513-860-4744
www.fischer-robertson.com

Products and Services

- Filter Bags and Cages
- BHA® PulsePleat® Filter Elements
- BHA® Preveil® ePTFE Membrane Filters
- BHA® Wicked™ High Temp Pleated Filter Elements
- BHA® Powerwave® Acoustic & Impulse Cleaning Systems
- Baghouse Parts & Accessories
- Technical Training
- Fabric Filter Services/Troubleshooting
- Engineering Services

Industries Served

Providing environmental solutions to more than fifty industries, including:

- Aluminum
- Asphalt
- Battery/Lead
- Carbon Black
- Cement
- Chemical
- Energy
- Food
- Foundry
- Gypsum
- Incinerator
- Lime
- Oil & Gas Production
- Petroleum Refining
- Pharmaceutical
- Plastics
- Paints & Pigments
- Power Generation
- Rubber
- Soaps & Detergents
- Steel
- TiO₂



Fischer-Robertson, Inc.
3890 Symmes Road
Hamilton, OH 45015
ph 513-860-3445 fx 513-860-4744
www.fischer-robertson.com

ENGINEERING YOUR SUCCESS.