

Fischer-Robertson, Inc.
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 **BHA**®

**Increased performance.
Maximum quality.**

BHA® Pleated Filter Elements



 **Parker**

ENGINEERING YOUR SUCCESS.

The Original Pleated Technology

BHA pleated filter elements provide maximum benefits through increased production and reduced operational costs.

With today's demands of increased production and tighter emission controls, dust collectors can be pushed beyond their design limits. If they fail to keep up, production and profitability suffer.

As an alternative to traditional filtration technology, Parker Hannifin produces an innovative and extensive family of pleated filter elements that offers proven performance and durability. With more than 4 million units sold to date, BHA PulsePleat® filter elements along with BHA ThermoPleat® options deliver valuable benefits:

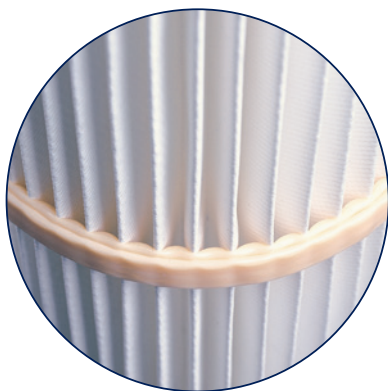
- Provide superior filtration efficiency
- Promote better airflow for increased throughput
- Reduce air-to-cloth ratios
- Reduce operating differential pressure
- Reduce compressed air consumption
- Eliminate the need for cages
- Are easily installed and removed

Best of all, installation typically requires no modification to existing equipment. You can enjoy improved performance and energy savings without the expense of costly modifications.

BHA PulsePleat filter elements prove to be a versatile and cost-effective solution



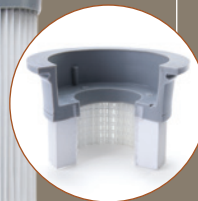
BHA iPLAS[®] pleat alignment and retention system replaces conventional strapping methods (utilizing fabric straps and adhesive) that are susceptible to chemical and hydrolytic attack.



BHA iPLAS keeps the pleated media in place, eliminating failures of the filter element due to over-flexing and pleat reversal. BHA iPLAS is only available through Parker Hannifin and our distributors.



Molded polyurethane top is available in a variety of styles and sizes to fit a wide range of tubesheet holes. Other materials or designs are available for higher temperatures and unique applications.



One-piece design eliminates the need for filter bags and cages, significantly reducing installation time.

Spunbond polyester media provides 99.99+% filtering efficiency.

Inner core (BHA PulsePleat and BHA ThermoPleat) is constructed from polypropylene or metal, depending on your application needs.

Pleat depth and spacing are customized for specific applications to allow for improved dustcake release. The pleated design increases filtration surface area up to 3-4 times.

Specialty finishes available, including BHA Preveil[®] ePTFE membrane.

iPLAS “formed-in-place” design anchors pleat tips firmly, keeping them evenly spaced and straight pleats aligned while element is in operation.

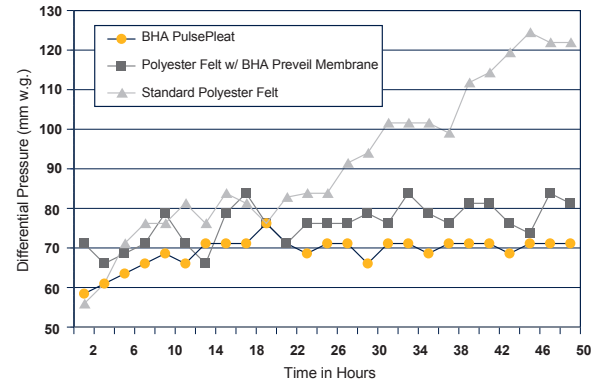
Molded bottom helps resist abrasive wear at the bottom of the elements.

Spunbond Media

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BHA PulsePleat media is unlike any traditional felt or woven fabric. Manufactured by the layering and calendering of fine denier fibers, it features a tight pore structure that better resists particulate penetration. Physically rigid, it can hold a pleat without the support of backing material and withstand temperatures up to 265° F (130° C). Spunbond media, when pleated and molded into a PulsePleat filter, can increase filtration surface area 3 to 4 times more than conventional filter bags. This can lead to a dramatic increase in filtration efficiency while operating at a significantly lower differential pressure.

Differential Pressure Comparison



Spunbond Media vs. Traditional Needle Felt

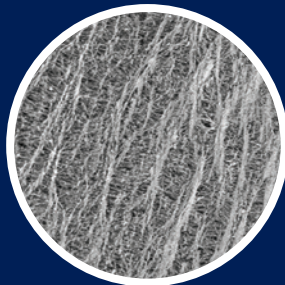
Tight calendering of spunbond media fibers resists particulate penetration into the media.



Standard polyester felt magnified 300 times.

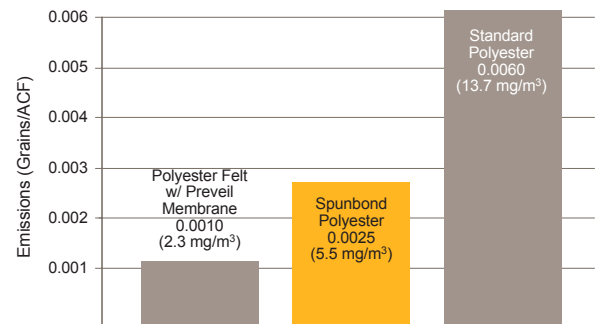


Spunbond polyester magnified 300 times.



Spunbond polyester laminated with BHA's Preveil ePTFE membrane magnified 300 times.

Outlet Emissions (Grains/ACF)



CRITERIA: Air-to-cloth ratio: 5:1 ft./min. (1.5 m/min.); Mean particle size: 0.5 micron; Inlet dust loading: 30 grains/ACF (69 g/m³); Pulse cleaning: 80 PSI (5.5 bar); Frequency and duration: 15 min. intervals for 50 hrs.

TESTING: In a controlled Variable Environmental Simulation Analysis (VESA) test, the spunbond media was tested against traditional 16 oz. (500 g) polyester felt media and 16 oz. (500 g) polyester felt media laminated with BHA Preveil ePTFE membrane.

Additional Performance Information

Parker Hannifin filtration media tested to American Society of Heating, Refrigeration and Air Conditioning Engineers (ASHRAE) Standard 52.2

- Standard spunbond polyester: MERV 10 (minimum efficiency reporting value)
- Spunbond polyester with BHA Preveil membrane: MERV 16

BHA ThermoPleat Pleated Filter Elements

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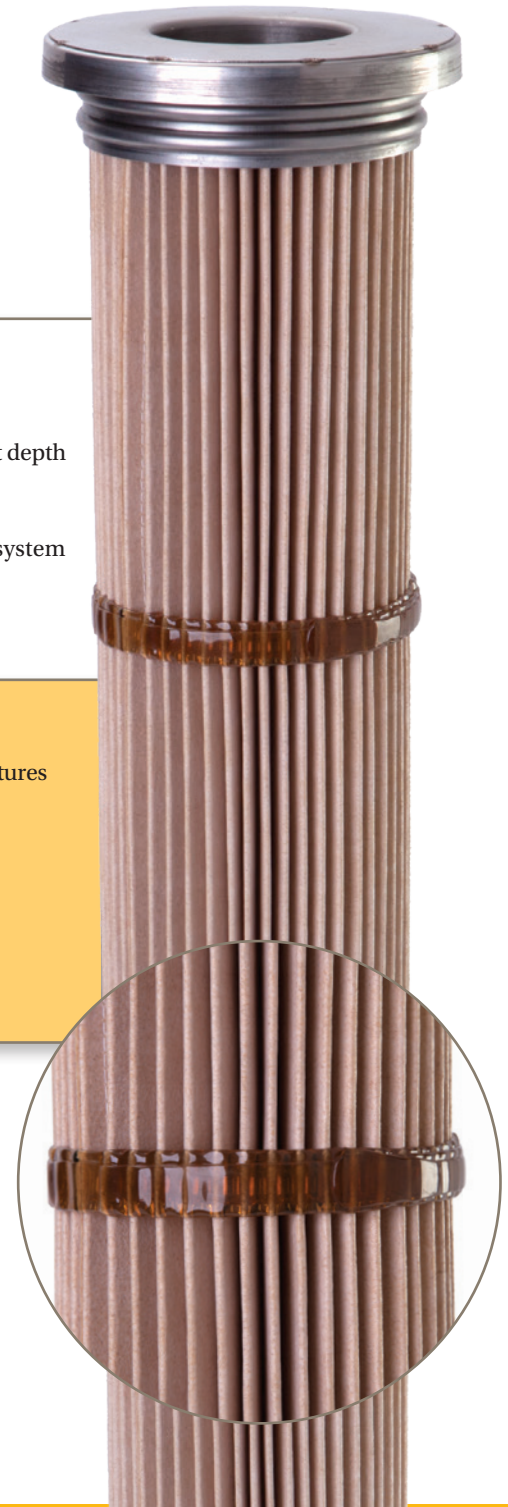
BHA ThermoPleat high-temperature filter elements provide superior quality and performance for upgrading and improving existing dust collection systems. Each element is constructed with patented, high-density media stiffened by non-resin, state-of-the-art thermal bonding technology. BHA ThermoPleat filter elements are a direct replacement for standard filter bags and cages and can withstand operating temperatures as high as 375° F (191° C). While working in these applications, the substrate fabric maintains excellent physical properties and dimensional stability.

Construction Features

- Strong, heat-resistant media
- Wide, open pleat spacing and shallow pleat depth
- High filtration efficiency
- Perforated metal inner core
- High-temperature BHA iPLAS strapping system
- Metal top and bottom construction
- Customized lengths and diameters
- Customized pleat counts

Benefits of BHA ThermoPleat

- Media allows for higher operating temperatures
- Designed to eliminate filter bags and cages
- Reduces air-to-cloth ratios dramatically
- Reduces abrasion problems
- Provides a larger dropout area
- Increases filtration area
- Reduces operating differential pressure



Specifications and Options

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		Maximum Operating Temperature				
		BHA PulsePleat			BHA ThermoPleat	
		180°F (82°C)	225°F (107°C)	265°F (130°C)	375°F (191°C)	
Media	<p>Each fabric filter dust collector operates under a unique set of characteristics and system parameters. Choosing the filter type best suited to the application requires evaluation of the following variables:</p> <ul style="list-style-type: none"> • Temperature • Particulate Size • Air-to-Cloth Ratio • Mechanical Factors • Moisture Level • Gas Stream Chemistry • Particulate Abrasiveness 	<ul style="list-style-type: none"> • Spunbond Polyester • Stiffened Polypropylene 	<ul style="list-style-type: none"> • Spunbond Polyester 	<ul style="list-style-type: none"> • Spunbond Polyester 	<ul style="list-style-type: none"> • Aramid • PPS 	
	<ul style="list-style-type: none"> • Molded Polyurethane for Top- and Bottom-Load Styles 		●	●		
	<ul style="list-style-type: none"> • Injection Molded EPDM or Silicone for Top- and Bottom-Load Styles (white EPDM available for food-grade applications) 		●	●	●	●
Tops	<ul style="list-style-type: none"> • Hard Polyurethane (top-load styles only) installed with Snapband Cuff or EPDM Cuff • Galvanized or Stainless Steel Metal (top-load styles only) installed with Snapband Cuff • Flange-Style Top-Load 		●	●	●	●
	<ul style="list-style-type: none"> • Polypropylene 		●			
	<ul style="list-style-type: none"> • Perforated Metal • Expanded Metal (each available in galvanized or stainless steel) 		●	●	●	●
Inner Cores	<ul style="list-style-type: none"> • Galvanized or Stainless Steel Pan • Hard Polyurethane Puck 		●	●	●	●
	Bottoms					

Available element sizes

Standard top-load tubesheet hole diameters are available in sizes ranging from 4½ in. (114.3 mm) to 8 in. (203.2 mm) for ⅜ in. and ¼ in. thick tubesheets.

Bottom-load styles

Load styles for common bag cup/venturi configurations such as:

- MikroPul®
- Flex-Kleen®
- Wheelabrator®
- Fuller®
- United Conveyor

Note: Not all designs are available in all sizes.

Special top designs

Elements designed to fit:

- Wheelabrator® recessed hole
- MikroPul®
- Aeropulse® “3-Notch”
- Euro MikroPul
- General Resources™
- Oval RF (Carter Day®, Donaldson®, Howden®)

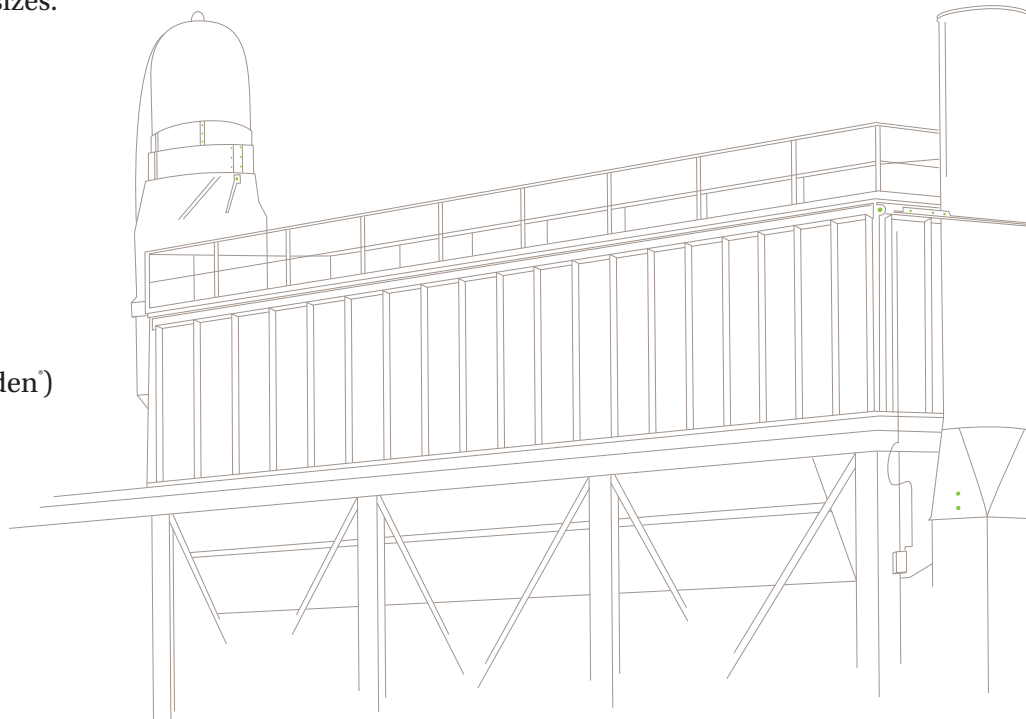
Media options

- Spunbond polyester (standard)
- Spunbond polyester with oleophobic treatment
- Spunbond polyester laminated with BHA Preveil ePTFE membrane
- Conductive media available
- Spunbond polypropylene
- Stiffened aramid felt (available with BHA Preveil ePTFE membrane lamination)
- Stiffened PPS felt (available with BHA Preveil ePTFE membrane lamination)

Specialty finishes available to fit particular applications.

Construction options

- Higher temperature components
 - up to 375°F (191°C)
- Customized lengths and diameters
- Customized pleat counts
- iPLAS is standard on all elements
 - up to 375°F (191°C)
- Designs available for indirect dry food contact applications (US FDA 21 CFR 177-2600(d), CFR 177-2600(g), CFR 177-2420, CRF 177-1630)



Applications

Here are a few of the many different applications where BHA PulsePleat filter elements have improved system performance. We custom manufacture to fit nearly any OEM style of pulse-jet baghouse. Our application engineers can help you select the right media, size and construction to fit your collector without capital modifications.

Cement and Rock Dust
Bentonite Crushing
Clay Grinding
Clinker Cooler
Coal Mill
Crushing/Grinder
High-Efficiency Separator
Kaolin Processing
Material Handling/Transport
Packing Machines
Raw Mill/Finish Mill

Chemical
Calcium Hypochlorite
Catalyst Manufacturing
Cellulose Fibers
Coke-Briquetting Process
Fertilizer Spray Dryers
Packaging
Plastic Fibers
Polyethylene Resins
Polystyrene Fluff
PVC
Tire/Specialty Rubbers

Combustion
Boiler
Coal Handling
Fly Ash Handling

Food/Pharmaceutical
Animal Vitamins
Cereal Drying
Flour Milling
Food Additive Processing
Grain
Mixing/Blending
Pharmaceutical Pill Coating
Spray Drying

Metals
BOF Furnace
Caster
Desulphurization Furnace
Electric Arc Furnace
Induction Furnace
Ladle Melt Furnace
Mold Cooling Lines
Sand Shakeout/Sand Reclaim
Shot Blast/Grinding

Paint/Pigments
Micronizers
Packaging
Paint Mixing
Pigment Blending
Pneumatic Conveying
Spray Drying
Toner Mixing/Blending

Primary Aluminum
Alumina Handling/Unloading
Anode Crushing Ventilation
Carbon Bake Dry Scrubbers
Fluid Bed Dry Scrubbers
Green Mill Carbon Handling
Reacted/Unreacted Ore Silos
Venturi Injection Dry Scrubbers

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