

SPECIALTY FILTER CARTRIDGES

These cartridges are designed for special purpose use wherever a cost effective filter is required:

SC Stainless Steel Pleated and Cylindrical Filters



SC series cartridges have been designed to tackle the toughest of filtering applications. The cartridges are available in 304 or 316 Stainless steel with a complete option of end cap configurations. You can choose the pleated style for extra surface area and extended life or the cylindrical for easy cleaning. SC cartridges are the perfect choice for high temperature, high pressure, and resolve chemical compatibility with polymer elements. SC filters are cleanable and reusable and offered in retention ratings as low as 2 micron through 840 micron.

ACB Extruded Activated Carbon Block Filters



ACB filters are the most widely used carbon block devices in the world and provide previously unattainable performance. ACB filters simultaneously remove chlorine taste, odor and organic chemicals that contribute to taste and odor while providing the particulate filtration and dirt-holding capacity of an efficient 5.0 μm nominal sediment filter. ACB filters are optimized for applications where they perform the role of both a sediment and activated carbon block. Used in residential and commercial water purification systems, food service, pre-and post-RO systems and organic solvents.

CB Liquid Filter Bags



CB Series bags have been designed to tackle the toughest of filtering and straining applications. Standard bags are available in a wide selection of sizes, materials, and microns. We also offer a complete line of high efficiency micro poly bags and oil absorbing bags. The CB line would not be complete without a full line of monofilament and multifilament mesh bags that are suitable when felt and other materials are not desirable.



CB series

Liquid Filter Bags

engineered and manufactured for cost effective filtration

Distributed by: John Mulhern Company
 PO Box 6604, Santa Rosa, Ca 95406
 800 761-9201 707 578-5105 fax 707 578-8692 info@jmulhern.com

CB series bags have been designed to tackle the toughest of filtering and straining applications. Standard bags are available in a wide selection of sizes, materials, and microns. We also offer a complete line of high efficiency micro poly bags and oil absorbing bags. The CB line would not be complete without a full line of monofilament and multifilament mesh bags that are suitable when felt and other materials are not desirable. One advantage to monofilament bags is the strong woven material is both durable and in many cases reusable. See below for details and specifications.



Applications

- Caustic Fluids
- Potable Water
- High Temp Fluids
- Plating Solutions
- Wastewater
- Straining
- Chemical Solutions
- Corrosive Liquids
- Viscous Fluids
- Oils

Media and Pore Size

The following table represents the media and pore size available in the CB series. Find your media and move across the chart to find pore size available. (• indicates this pore size is available)

Media	.5	1	3	5	10	15	25	50	75	100	125	150	175	200	250	300	400	600	800	1000	1200	1500	
P - Polypropylene Felt		•	•	•	•		•	•		•					•								
E - Polyester Felt	•	•	•	•	•	•	•	•	•	•					•								
N - Nylon Monofilament Mesh		•		•	•		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
M - Polyester Multifilament									•	•	•	•		•	•	•	•	•	•	•			•
HA - 98% Efficiency Micro Poly		•	•	•	•		•																
HB - 92% Efficiency Micro Poly		•	•	•	•		•																
OB - Oil Bag		•	•	•	•		•	•															

Compatibility and Temperature Limits for Standard Bag Materials

Media	Organic Solvents	Animal Vegetable & Petro Oils	Micro Organisms	Alkalies	Organic Acids	Oxidizing Agents	Mineral Acids	Temperature Limitations (max. deg F)
Polypropylene	Excellent	Excellent	Excellent	Excellent	Excellent	Good	Good	225
Polyester	Excellent	Excellent	Excellent	Good	Good	Good	Good	300
Nylon	Excellent	Excellent	Excellent	Good	Fair	Poor	Poor	325

CBHA High Efficiency Bag Specifications & Data

CBHA series high efficiency filter bags are constructed of multiple layers of melt-blown polypropylene microfiber filter media for precise and consistent filtration. The CBH series is manufactured with all FDA grade materials and is silicone free. A few key features to this design is the high dirt loading capacity and excellent initial efficiency figures.

Operating Parameters

Maximum Temperature: 180°F (82°C)
Recommended Flow: 25 gpm #2 size
Max Flow (water): 50 gpm #2 size
Max Differential Pressure: 25 psid

Particle Removal Efficiency Chart

CBHA	1.0 µm	3.0 µm	5.0 µm	10 µm	25 µm
Eff @ 98%	2.0	2.5	5.0	18	28.0
Eff @ 95%	1.0	2.0	3.5	9.5	25.0
Eff @ 90%	0.9	1.5	2.0	7.0	18.0
Eff @ 75%	<0.9	<1.0	1.0	5.0	10.0

Dirt Holding Capacity (grams)

1.0 µm	3.0 µm	5.0 µm	10 µm	25 µm
244	310	455	N/D	N/D

Flow Rates

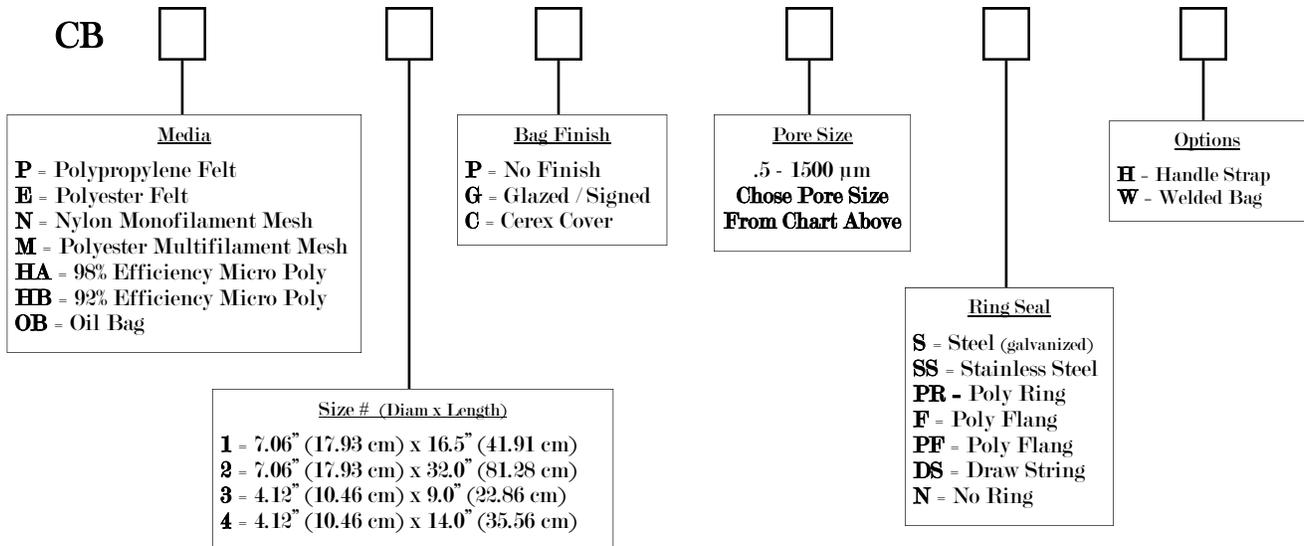
The following table represents typical water flow at less than one psi (69 mbar) pressure differential across a single #2 bag filter. The test fluid is water at ambient temperature.

Pore Size	1.0 µm	3.0 µm	5.0 µm	10 µm	25 µm
GPM	40	45	50	>50	>50
LPM	151.42	170.34	189.27	189.27	189.27

The statements & technical data presented here are based on test data which Critical Process Filtration deems to be reliable, but the accuracy or completeness of such statements and technical data is not guaranteed. Critical Process Filtration makes no warranties, express or implied warranty or merchantability or fitness for a particular purpose. User is responsible for determining whether the product is fit for a particular purpose & suitable for user's application.

Ordering Information

The filter bag catalog number is made up of several variable characters i.e. media, pore size, ring seal, bag size, and options etc. For example: a polypropylene felt, 5µm, #2 size with a glazed finish, stainless steel ring with handle strap, would be designated as: CBP2G5SSH





ACB series

Extruded Activated Carbon Block Filter Cartridges

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ACB filters are the most widely used carbon block devices in the world and provide previously unattainable performance. ACB filters simultaneously remove chlorine taste, odor and organic chemicals that contribute to taste and odor while providing the particulate filtration and dirt-holding capacity of an efficient 5 µm nominal sediment filter. ACB filters are optimized for applications where they perform the role of both a sediment and activated carbon block. Used in residential and commercial water purification systems, food service, pre-and post-RO systems and organic solvents.

Description and Construction

Manufactured in the US from high purity acid-washed activated carbon that is fused into a uniform block with enhanced adsorptive capacity and efficiency. Filters flow in a radial (outside-to-inside) direction providing a low pressure drop. Unlike granular activated carbon filters, ACB cartridges will not channel or bypass, due to the extreme uniformity of their extruded activated carbon core. Service life is greatly extended by a prefiltration medium.

Maximum Operating Parameters

Maximum Operating Temperature: .. 125°F (52°C)
Maximum Operating Pressure: 250 psig (17.2 bar)
Maximum Differential Pressure: 100 psid (6.89 bard)
Collapse Pressure: 200 psid (13.8 bard)

Warnings

ACB filters are not to be autoclaved or steam sterilized. Use only with microbiologically safe and adequately disinfected water.

Technical Specifications

Part No.	Length x O.D.	Weight	Chlorine Taste & Odor Reduction Capacity @ Flow	Nominal µm Rating	Initial P @ Flow
ACB975	9.75" x 2.70"	0.75 lbs.	>6,000 gal @ 1.0 gpm	5 µm	2.0 psid @ 1.0 gpm
ACB20	20" x 2.70"	1.75 lbs.	>12,000 gal @ 2.0 gpm	5 µm	2.0 psid @ 2.0 gpm
ACB30	30" x 2.70"	2.50 lbs.	>18,000 gal @ 3.0 gpm	5 µm	2.0 psid @ 3.0 gpm
ACB40	40" x 2.70"	3.25 lbs	>24,000 gal @ 4.0 gpm	5 µm	2.0 psid @ 4.0 gpm



Notes

Performance of a given ACB carbon filter varies in direct proportion to the total weight of carbon in each filter.

Projected chlorine taste and odor reduction capacity when tested in accordance with NSF/ANSI standard 42 protocol. All materials of construction are FDA accepted

Nominal particulate rating (5 µm) is for >85% of a given size, as determined from a single-pass particle counting test results.

Actual results obtained will vary with various combinations of organic contaminants, changes in pH or other conditions encountered in actual use.

All information presented here is based on data believed to be reliable. It is offered for evaluation and verification, but is not to be considered a warranty of any kind.

This cartridge must be placed in and appropriate housing and flushed for a minimum of 5 minutes prior to use.

Ordering Information

All that is needed is the series number and length. For example: ACB20 - Carbon Block 20" length

ACB



Cartridge Length
975 = 9 3/4 inches (24.8 cm)
20 = 20 inches (50.8 cm)
30 = 30 inches (76.2 cm)
40 = 40 inches (101.6 cm)



SC series

Stainless Steel Pleated and Cylindrical Filter Cartridges engineered and manufactured for cost effective filtration

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Maximum Operating Parameters

Maximum Operating Temperature:¹ 500°F (260°C)
Forward Differential Pressure: 60 psi (4.14 bar)
Reverse Differential Pressure: 2 psi (0.14 bar)
Recommended Change Out Pressure: ...35 psid (2.41 bard)

¹ Temperature rating based on proper gasket selection.

Dimensions (Cylindrical)

Length: 5 to 40 inches (12.7 to 101.6 cm) nominal
Outside Diameter: 2 1/2 inches (6.35 cm)
Inside Diameter: 1 1/16 inches (2.95 cm)
Flat Gasket OD: 2 1/4 inches (5.72 cm)
Surface Area:55 ft² (0.051 m²)

Dimensions (Pleated)

Length: 5 to 40 inches (12.7 to 101.6 cm) nominal
Outside Diameter: 2 5/8 inches (6.67 cm)
Inside Diameter: 1 1/16 inches (2.95 cm)
Flat Gasket OD: 2 1/4 inches (5.17 cm)
Surface Area: 1.7 ft² (0.157 m²)

Flow Rate

The following table represents typical water flow at a one psi (69 mbar) pressure differential across a single 10 inch pleated cartridge element. The test fluid is water at ambient temperature. Extrapolation for housings with multiple elements and higher pressure drops is acceptable, but as flows increase the pressure drop of the housing becomes more apparent. For 10 micron and above, the recommended maximum flow rate per 10" is 7 –8 gpm for maximum service life.

Pore Size	2.0 µm	5.0 µm	10 µm	20 µm	40 µm	75 µm	100 µm	120 µm - 840 µm
GPM	1.2	4.5	8.0	12	16	> 18	> 18	> 18
LPM	4.54	17.03	30.28	45.42	60.56	> 68.13	> 68.13	> 68.13

Applications

Caustic Fluids	Straining
Potable Water	Chemical Solutions
High Temperature	Corrosive Liquids
High Pressure	Air and Gases
Plating Solutions	Viscous Fluids
Wastewater	Oils

Quality Standards

All materials of construction are 304 or 316 stainless steel. Fabrication is by welding and crimping, no adhesives or epoxy is used for bonding. Pleated units rated 100 microns or finer have an underlying support layer of coarser mesh to prevent pleat collapse. Grommet style flat gaskets are held in place mechanically without adhesives.

Standard End Configurations



Flat Gasket



2-222



2-226



1" NPTF



1" NPTM



Additional Information

Pressure: For special engineered designs to achieve differential pressures up to 500 psi (34.4 bar) consult the factory.

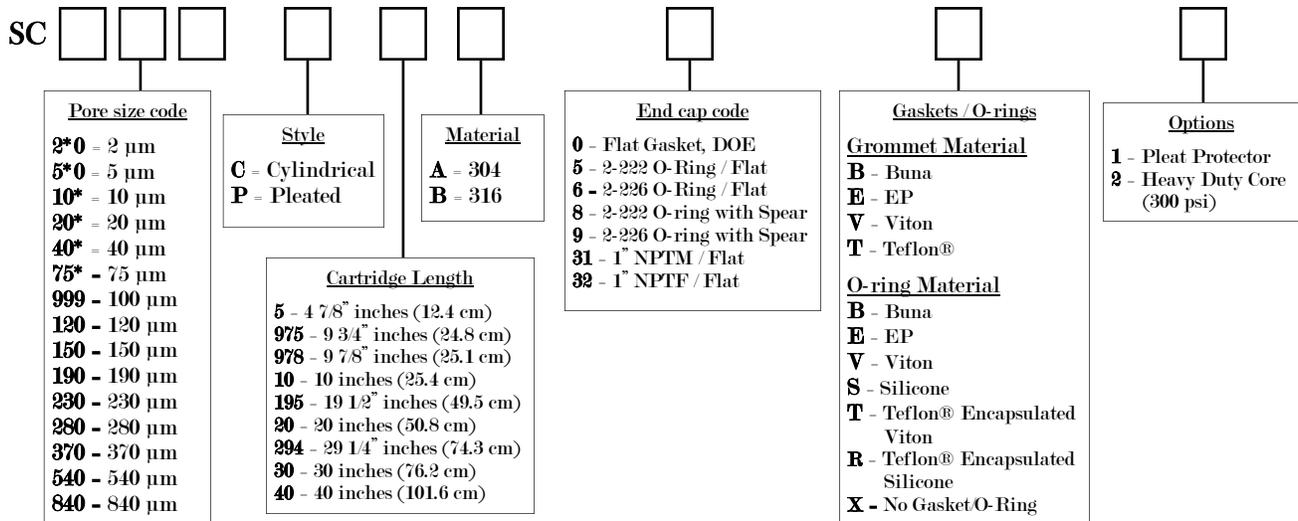
Cleaning: There are many cleaning protocols, such as steaming, chemical and pressure washing designed to clean and extend the life of the SC cartridges. Ultrasonic cleaning is recommended for 5 micron and below in order to reuse and extend the life of the element.

Pleat Protectors

Pleat protectors prevent accidental denting of the pleated surface. Made of Stainless Steel with 1/4" Diameter perforations. Held in place by bending tabs at the top and bottom.

Ordering Information

The cartridge catalog number is made up of several variable characters i.e. pore size, end cap code, length, and O-ring material. For example: a 10µm Pleated, 10 inch long cartridge with a Buna Flat Gasket, Double Open End, 304L Stainless. would be designated as: SC10*P10A0B



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