Industrial Filtration PRODUCTS CATALOG

Volume 2

Pentair Industrial FILTRATION PRODUCTS CATALOG Volume 2

Pentair Industrial

Complete Solutions for Your Filtration Needs

Pentair Industrial

Why Should You Do Business with Pentair Industrial?

Pentair Values

Customer First

Engaged Leadership

Pragmatic, Open Style; Candor

Respect for the Individual and the Environment

Speed

Absolute Integrity

DEDICATED, RESPONSIVE CUSTOMER SUPPORT & APPLICATION ENGINEERING

We have specialized support teams to satisfy your requirements

BROADEST LINE—SINGLE SOURCE

Pentair brings the broadest filtration offering in the industry – single source for all your filtration needs

LEAN MANUFACTURER

We strive for continuous improvement in cost, quality and delivery

TECHNOLOGY RESEARCH CENTERS

Advanced research results in greater innovation, technology and customized solutions for your applications

Table of Contents

Pentair Industrial

FILTER CARTRIDGES

Exclusive cartridge technologies provide superior adsorption and higher loading:

Biflex™, Carbflex™, Coreflex™, Pentaflex™, Proflex™, Pureflex™, Steelflex™, Symflex™, Triflex™, Stringflex™, and Versaflex®.

Models for all types of applications including drinking water, pharmaceuticals, beverages, food, cosmetics, oil and electroplating.

Models for 99.95% reduction of Cryptosporidium and Giardia Cysts.

Advanced proprietary Fibredyne™ technology filters sediment plus activated carbon filtration in the same cartridge in many models.

Versaflex® Series VF-450GD

Gradient Density
FILTER CARTRIDGES

Versaflex® Gradient Density Cartridges are sized for use in Big Blue® filter housings and will not impart taste, odor or color to the liquid being filtered. Additionally, 100% pure polypropylene construction provides superior chemical resistance and is not prone to bacterial attack.

APPLICATIONS

- Commercial
- Dyes
- Food and Beverage
- Inks
- Medical
- Municipal
- Oils
- Paints
- Pharmaceutical
- Plating Solutions
- Water

CARTRIDGE OPERATION

The Versaflex® Gradient Density design combines selective final filtration with appropriate pre-filtration to achieve up to three times the dirt-holding capacity of similar size sediment cartridges and even greater capacity than standard spun-bonded. The larger diameter of the filter reduces particle load, allowing it to operate at higher velocities. This increased depth provides for very high particulate removal efficiencies and increased loading capacity.

FEATURES

- Greater capacity than standard spun-bonded cartridges
- Increased effective filter depth of 233%
- 4.5-inch diameter
- Manufactured from pure 100% polypropylene
- Designed for purity and chemical compatibility
- Up to three times the dirt-holding capacity of similarly sized sediment cartridges
- Melt blown gradient density from outer to inner surfaces

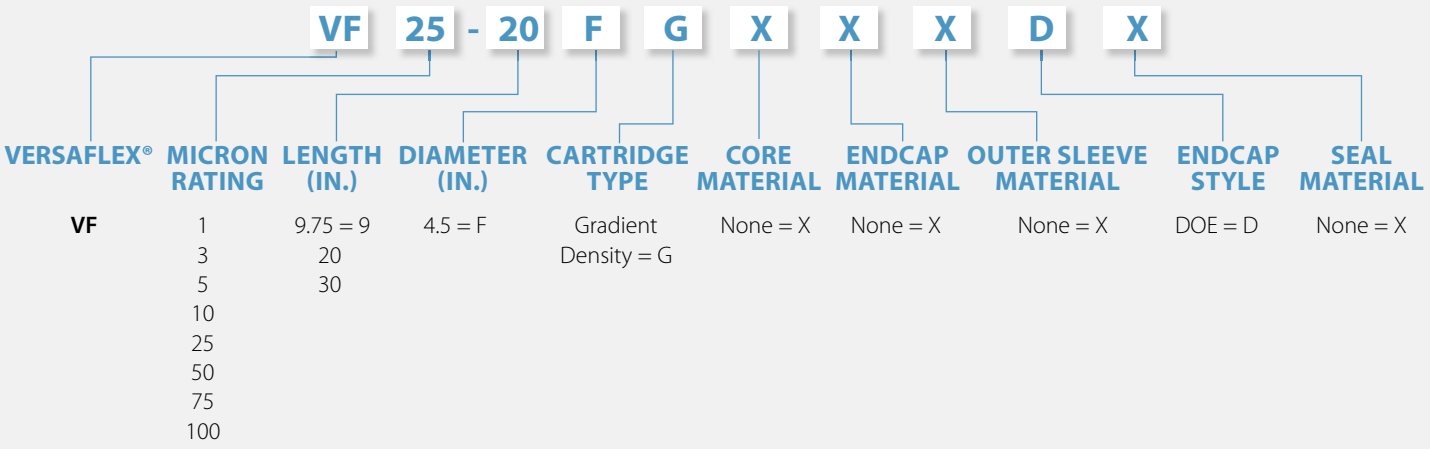
SPECIFICATIONS

Component	Material/Value
Fiber Media	Polypropylene
Temperature Rating	40˚F (4.4˚C)–180˚F (82.2˚C)

WARNING: *Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.*

ORDERING INFORMATION

Custom configurations available; please contact Customer Service.



DIMENSIONS AND CONSTRUCTION

Versaflex® Series Gradient Density		
Diameter (Inches)		4.5
Length (Inches)	9.75	•
	20	•
	30	•
Center Core		X
Endcap		X
Outer Sleeve		X
Endcap Style	DOE	•
Seal		X

Cartridge Availability Key	
DOE	Double Open End

Versaflex® Series VF-250SB

Spun-Bonded FILTER CARTRIDGES

Versaflex® Series Spun-Bonded Cartridges are manufactured from 100% polypropylene fibers. The depth filtration cartridge construction offers greater performance flexibility in a broad range of solutions.

APPLICATIONS

- Commercial
- Dyes
- Food and Beverage
- Inks
- Medical
- Municipal
- Oils
- Paints
- Pharmaceutical
- Plating Solutions
- Water

CARTRIDGE OPERATION

In water applications, Versaflex® Spun-Bonded Filter Cartridges will not impart taste, odor or colors into the solution. For industrial applications, this cartridge offers superior chemical resistance and is not prone to bacterial attack. The thermal bonding process eliminates the need for a core support. This process also greatly reduces fiber migration.

FEATURES

- Manufactured from pure 100% polypropylene
- Designed for chemical compatibility
- Spun fibers form a true gradient density from outer to inner surfaces
- Available in a wide range of lengths up to 40"
- Three different micron sizes available

SPECIFICATIONS

Component	Material/Value
Fiber Media	Polypropylene
Temperature Rating	40˚F (4.4˚C)–145˚F (62.8˚C)

WARNING: *Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.*

ORDERING INFORMATION

Custom configurations available; please contact Customer Service.

VF	20	-	20	B	S	X	X	X	D	X
VERSAFLEX®	MICRON RATING		LENGTH (IN.)	DIAMETER (IN.)	CARTRIDGE TYPE	CORE MATERIAL	ENDCAP MATERIAL	OUTER SLEEVE MATERIAL	ENDCAP STYLE	SEAL MATERIAL
VF	1 5 20		9.75 = 9 20 30 40	2.5 = B	Spun-Bonded = S	None = X	None = X	None = X	DOE = D	None = X

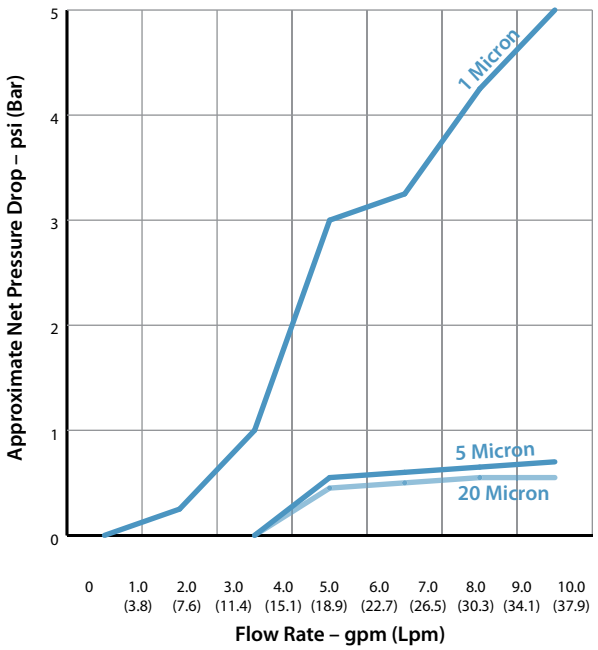
DIMENSIONS AND CONSTRUCTION

Versaflex® Series VF-250SB		
Diameter (Inches)		2.5
Length (Inches)	9.75	•
	20	•
	30	•
	40	•
Media		S
Endcap Style	DOE	•

Cartridge Availability Key	
S	Spun-Bonded
DOE	Double Open End

TEST DATA

Versaflex® Series VF-250SB Cartridge Water Flow Rate



Versaflex® Series VF-250MB

Meltblown Polypropylene FILTER CARTRIDGES

Versaflex® Meltblown Cartridges assure maximum process compatibility due to their thermally-bonded, glue-free design. Their graded density matrix traps and holds dirt within, providing longer life and better flow rates than standard cartridges.

APPLICATIONS

- Finish machining
- Food and Beverage
- Oils
- Parts Washers
- Pre-filter for RO Systems
- Seal Protection
- Solvents
- Spray Nozzle Protection

CARTRIDGE OPERATION

VF-250MB Filter Cartridges are 100% polypropylene and manufactured with FDA-listed materials using a thermal-bonding process that seals the meltblown media to the endcaps to assure a bypass-free cartridge.

VF-250MB Cartridges have been performance tested to assure you of a quality product. They deliver high dirt-loading capabilities, with superior performance over spun-bonded and stringwound cartridges.

FEATURES

- Nominal efficiency rating
- 100% polypropylene
- Micron rating stamped onto cartridge for easy identification
- Endcaps thermally bonded to cartridges
- No surfactants, binders or adhesives used in production
- Buna-N® o-rings are standard
- Manufactured with FDA-listed materials
- Several lengths and endcap configurations
- Eight micron ratings
- High dirt-loading capacity
- Low pressure drop
- Longer life than spun-bonded and stringwound cartridges
- Endcaps provide a positive seal to prevent bypass
- Double Open End cartridges have a unique polyfoam end gasket
- Chemically compatible in most applications
- Safe, easy incineration and disposal

SPECIFICATIONS

Component	Material/Value
Fiber Media	Polypropylene
Temperature Rating	40˚F (4.4˚C)–180˚F (82.2˚C)

WARNING: *Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.*

ORDERING INFORMATION

Custom configurations available; please contact Customer Service.

VF	100	-	30	B	M	X	X	X	D	P

VERSAFLEX®	MICRON RATING	LENGTH (IN.)	DIAMETER (IN.)	CARTRIDGE TYPE	CORE MATERIAL	ENDCAP MATERIAL	OUTER SLEEVE MATERIAL	ENDCAP STYLE	SEAL MATERIAL
VF	1 5 10 20 25 50 75 100	9.75 = 9 10 30 40	2.5 = B	Meltblown= M	None = X	Polypropylene = P None = X	None = X	DOE = D 222 Flat = S2 222 Fin = F2 226 Flat = S6 226 Fin = F6 SOE w/Spring = S3 SOE w/Core Extender = S4	Buna-N® = B Polypropylene = P None = X

DIMENSIONS AND CONSTRUCTION

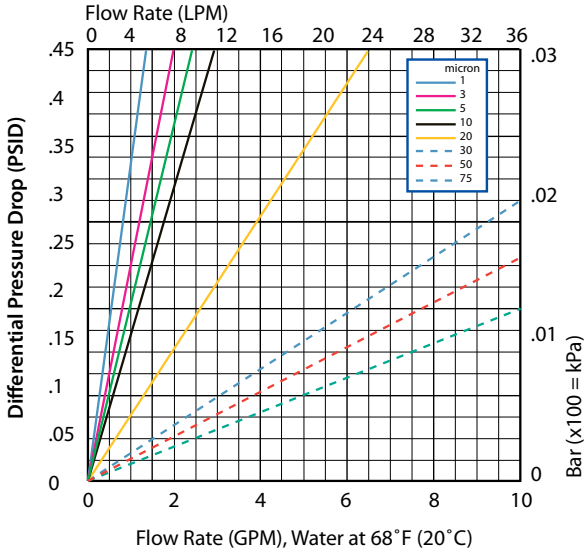
Versaflex® Series VF-250MB				
Diameter (Inches)		2.5	2.5	2.5
Length (Inches)	9.75	•	•	
	10	•	•	•
	30	•	•	•
	40	•	•	•
Media		M	M	M
Center Core		X	X	X
Endcap		X	P	P
Outer Sleeve		X	X	X
Endcap Style	DOE	•	•	•
	S2		•	•
	F2		•	•
	S6		•	
	F6		•	
	S3		•	
	S4		•	
Seal			P	B

Cartridge Availability Key	
M	Meltblown
S2	222 Flat
S6	226 Flat
F2	222 Fin
F6	226 Fin
S3	SOE w/Spring
S4	SOE w/Core Extender
DOE	Double Open End
B	Buna-N®
P	Polypropylene

TEST DATA

Versaflex® Series VF-250MB Cartridges Water Flow Rate

Typical Flow vs. Differential Pressure for Application Sizing



Versaflex® Series VF-250HE

High Efficiency Meltblown FILTER CARTRIDGES

Versaflex® High Efficiency Meltblown Cartridges assure maximum process compatibility due to their thermally-bonded, glue-free design. Their graded density matrix traps and holds dirt within, providing longer life and better flow rates than standard cartridges.

APPLICATIONS

- Finish machining
- Food and Beverage
- Oils
- Parts Washers
- Pre-filter for RO Systems
- Seal Protection
- Solvents
- Spray Nozzle Protection

CARTRIDGE OPERATION

VF-250HE Filter Cartridges are 100% polypropylene and manufactured with FDA-listed materials using a thermal-bonding process that seals the meltblown media to the endcaps to assure a bypass-free cartridge.

VF-250HE Cartridges have been performance tested to assure you of a quality product. They deliver high dirt-loading capabilities, with superior performance over spun-bonded and stringwound cartridges.

FEATURES

- Absolute rated 99% efficiency at stated micron size
- 100% polypropylene cartridge
- Rigid, polypropylene center core
- Micron rating stamped onto cartridge for easy identification
- Endcaps thermally bonded to cartridges
- No surfactants, binders or adhesives used in production
- Buna-N® o-rings are standard
- Manufactured with FDA-listed materials
- Several lengths and endcap configurations
- Eight micron ratings
- High dirt-loading capacity
- Low pressure drop
- Longer life than spun-bonded and stringwound cartridges
- Endcaps provide a positive seal to prevent bypass
- Double Open End (DOE) cartridges have a unique polyfoam end gasket
- Chemically compatible in most applications
- Safe, easy incineration and disposal

SPECIFICATIONS

Component	Material/Value
Fiber Media	Polypropylene
Temperature Rating	40˚F (4.4˚C)–180˚F (82.2˚C)

WARNING: *Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.*

ORDERING INFORMATION

Custom configurations available; please contact Customer Service.

VERSAFLEX®	MICRON RATING	LENGTH (IN.)	DIAMETER (IN.)	CARTRIDGE TYPE	CORE MATERIAL	ENDCAP MATERIAL	OUTER SLEEVE MATERIAL	ENDCAP STYLE	SEAL MATERIAL
VFHE	1	9.75	2.5 = B	High Efficiency= H	Polypropylene = P	Polypropylene = P	None = X	DOE = D	Buna-N® = B
	3	10				None = X		222 Flat = S2	Polypropylene = P
	5	19.5						222 Fin = F2	Viton® = V
	10	20						226 Flat = S6	EPDM = E
	25	29.5						226 Fin = F6	Neoprene = N
	35	30							None = X
	50	39							
	75	40							

DIMENSIONS AND CONSTRUCTION

Versaflex® Series VF-250HE				
Diameter (Inches)		2.5	2.5	2.5
Length (Inches)	9.75	•	•	
	10	•	•	•
	19.5	•	•	•
	20	•	•	•
	29.5	•	•	•
	30	•	•	•
	39	•	•	•
	40	•	•	•
Media		M	M	M
Center Core		P	P	P
Endcap		X	P	P
Outer Sleeve		X	X	X
Endcap Style	DOE	•		
	S2		•	
	F2		•	
	S6		•	
	F6		•	
Seal		P	B	P

Cartridge Availability Key	
H	High Efficiency
M	Meltblown
S2	222 Flat
S6	226 Flat
F2	222 Fin
F6	226 Fin
DOE	Double Open End
B	Buna-N®
P	Polypropylene
V	Viton®
E	EPDM
N	Neoprene

Pentaflex™ Series

Absolute* PES Membrane FILTER CARTRIDGES

Pentaflex™ PES Membrane Cartridges are available for general purpose filtration and for the specialized needs of the food and beverage, electronics and high-purity chemical industries.

APPLICATIONS

- Chemicals
- Deionized Water Systems
- Electronics
- Food and Beverage
- General Use Water
- Industrial
- Post-filter for RP Systems

CARTRIDGE OPERATION

The Pentaflex™ Absolute*-rated PES Membrane Cartridges combine polypropylene with polyethersulfone for electronics, food and beverage, and general purpose applications. The endcaps, center cores and outer support cages are constructed of polypropylene for increased durability.

Sanitation/sterilization is performed on all cartridges according to membrane/application using one or more of the following methods: filtered hot water, autoclave, in-line steam, and industry standard chemicals.

FEATURES

- Polypropylene center core and outer support cage for increased durability
- Sanitation/sterilization processes that meet industry requirements
- Long cartridge life
- Highly asymmetric PES membrane for full particle retention
- 0.1 to 0.8 Absolute* micron ratings
- Pentaflex cartridges are available in 10-, 20-, 30- and 40-inch lengths with a nominal outside diameter of 2.75-inch
- High flow rates
- Cartridge modules are individually tested
- Electronics grade is 18 megohm flushed
- Electronics and General Grade cartridges contain approximately 30% more surface area than the Water Grade

Custom housings are available for these cartridges.
Contact our technical support team for more details.

SPECIFICATIONS

Component	Material/Value
Fiber Media	Polypropylene/Polyethersulfone
Maximum Temperature Rating	176˚F (80˚C)
Maximum Differential Pressure	50 PSID (forward) 40 PSID (reverse)

**Absolute defined as B_x >5,000*
(99.98% efficiency at stated micron size)

ORDERING INFORMATION

Custom configurations available; please contact Customer Service.

ME	0.1	-	10	C	P	P	P	D	B
PENTAFLEX™	ABSOLUTE® MICRON RATING		LENGTH (IN.)	DIAMETER (IN.)	CORE MATERIAL	ENDCAP MATERIAL	OUTER SLEEVE MATERIAL	ENDCAP STYLE	SEAL MATERIAL
MG = General Grade **ME** = Electronics Grade **MW** = Water Grade	0.1 0.2 0.45 0.7 0.8		10 20 30 40	2.75 = C	Polypropylene = P	Polypropylene = P	Polypropylene = P	DOE = D 222 Flat = S2 222 Fin = F2 226 Flat = S6 226 Fin = F6 213 Internal O-Ring = S9	Buna-N® = B Silicone = S EPDM = E Viton® = V Teflon® = T

DIMENSIONS AND CONSTRUCTION

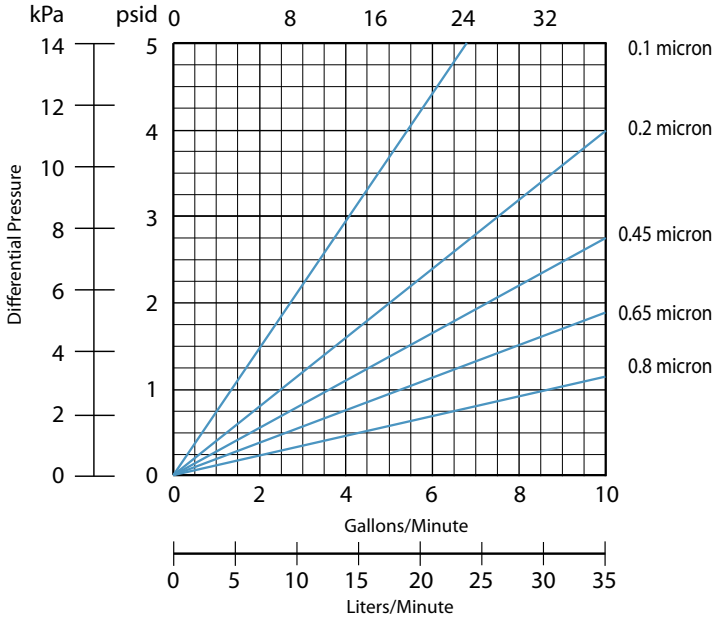
Pentaflex™ Series PES Membrane				
Media Grade		**MG**	**ME**	**MW**
Diameter (Inches)		2.75	2.75	2.75
Length (Inches)	10	•	•	•
	20	•	•	•
	30	•	•	•
	40	•	•	•
Center Core Material		P	P	P
Endcap Material		P	P	P
Cage Material		P	P	P
Endcap Style	D	•	•	•
	S2	•	•	•
	F2	•	•	•
	S6	•	•	•
	F6	•	•	•
	S9	•	•	•
Seal	B	•	•	•
	S	•	•	•
	E	•	•	•
	V	•	•	•
	T	•	•	•

Cartridge Availability Key					
B	Buna-N®	**S6**	226 Flat	**T**	Teflon®
D	DOE	**F6**	226 Fin	**V**	Viton®
E	EPDM	**MG**	General	**P**	Polypropylene
S2	222 Flat	**ME**	Electronics	**MW**	Water
F2	222 Fin	**S**	Silicone		

TEST DATA

Pentaflex™ Series Cartridge Water Flow Rate

Single 10-inch element



Flow rate is per single 10-inch water-grade element. For other liquids, multiply the Δ P by the fluid's viscosity in centipoise. For longer cartridges, divide the Δ P by the number of 10-inch equivalents.

Teflex™ Series
Absolute* PTFE Membrane FILTER CARTRIDGES

Teflex™ PTFE Membrane Cartridges are available for general purpose filtration and for the specialized needs of the food and beverage, electronics and high-purity chemical industries.

APPLICATIONS

- Chemicals
- Deionized Water Systems
- Electronics
- Food and Beverage
- General Use Water
- Industrial
- Post-filter for RP Systems

CARTRIDGE OPERATION

The Teflex™ Absolute*-rated PTFE Membrane Cartridges combine polypropylene with polytetrafluoro-ethylene for electronics, food and beverage, and general purpose applications. The endcaps, center cores and outer support cages are constructed of polypropylene for increased durability.

Sanitation/sterilization is performed on all cartridges according to membrane/application using one or more of the following methods: filtered hot water, autoclave, in-line steam, and industry standard chemicals.

FEATURES

- Polypropylene center core and outer support cage for increased durability
- Sanitation/sterilization processes that meet industry requirements
- Long cartridge life
- PTFE membrane for full particle retention
- 0.1 to 0.8 Absolute* micron ratings
- Teflex cartridges are available in 10-, 20-, 30- and 40-inch lengths with a nominal outside diameter of 2.75-inch
- Cartridge modules are individually tested

Custom housings are available for these cartridges. Contact our technical support team for more details.

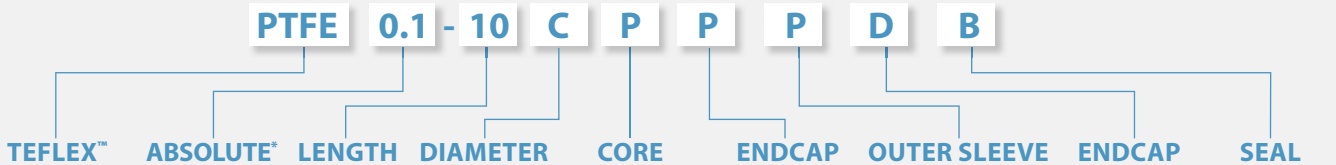
SPECIFICATIONS

Component	Material/Value
Fiber Media	Polypropylene/Polytetrafluoroethylene
Maximum Temperature Rating	176˚F (80˚C)
Maximum Differential Pressure	50 PSID (forward) 40 PSID (reverse)

**Absolute defined as B_x >5,000 (99.98% efficiency at stated micron size)*

ORDERING INFORMATION

Custom configurations available; please contact Customer Service.



TEFLEX™	ABSOLUTE® MICRON RATING	LENGTH (IN.)	DIAMETER (IN.)	CORE MATERIAL	ENDCAP MATERIAL	OUTER SLEEVE MATERIAL	ENDCAP STYLE	SEAL MATERIAL
PTFE	0.1 0.2 0.45 1.0 3.0	10 20 30 40	2.75 = C	Polypropylene = P	Polypropylene = P	Polypropylene = P	DOE = D 222 Flat = S2 222 Fin = F2 226 Flat = S6 226 Fin = F6 213 Internal O-Ring = S9	Buna-N® = B Silicone = S EPDM = E Viton® = V Teflon® = T

DIMENSIONS AND CONSTRUCTION

Teflex™ Series PTFE Membrane		
Diameter (Inches)		2.75
Length (Inches)	10	•
	20	•
	30	•
	40	•
Center Core Material		P
Endcap Material		P
Cage Material		P
Endcap Style	D	•
	S2	•
	F2	•
	S6	•
	F6	•
	S9	•
Seal	B	•
	S	•
	E	•
	V	•
	T	•

Cartridge Availability Key			
B	Buna-N®	**F6**	226 Fin
D	DOE	**S**	Silicone
E	EPDM	**T**	Teflon®
S2	222 Flat	**V**	Viton®
F2	222 Fin	**P**	Polypropylene
S6	226 Flat		

Cellflex™ Series CEF-250VP & CEF-450VP

Pleated Cellulose Polyester with Plastisol Endcap FILTER CARTRIDGES

Cellflex™ Series CEF-250VP & CEF-450VP heavy duty cartridges are manufactured from a unique blend of materials to provide a higher wet strength than standard cellulose cartridges. They also provide high flow rates and dirt-holding capacity while maintaining extremely low pressure drop.

APPLICATIONS

- Chemicals
- Electronics
- Magnetic Media
- Oil and Gas
- Pharmaceuticals
- Photographic
- Water

CARTRIDGE OPERATION

Cellflex™ Series CEF-250VP & CEF-450VP are built with the media pleated around a polypropylene core for added strength. The ends are immersed in a thermo-setting vinyl plastisol. Embedding and sealing each end of the pleat block in this fashion fuses the components together, forming a unified endcap and gasket.

FEATURES

- Plastisol endcaps
- Available in 2.5- and 4.5-inch diameters
- Made with a special formulation of resin-impregnated cellulose and polyester fibers
- Provides higher wet strength than regular cellulose cartridges
- High flow rates and dirt-holding capacity
- Low pressure drop
- Contain more media surface area than most competitive cartridges

SPECIFICATIONS

Component	Material/Value
Fiber Media	Cellulose Polyester
Temperature Rating	40˚F (4.4˚C)–125˚F (51.7˚C)

WARNING: *Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.*

ORDERING INFORMATION

Custom configurations available; please contact Customer Service.

CEF	10	-	10	B	P	VP	X	D	VP
CELLFLEX™	MICRON RATING		LENGTH (IN.)	DIAMETER (IN.)	CORE MATERIAL	ENDCAP MATERIAL	OUTER SLEEVE MATERIAL	ENDCAP STYLE	SEAL MATERIAL
CEF	1 5 10 20 50		9.75[2] 20[2] 30 40[1]	2.5 = B 4.5 = F	Polypropylene = P	Plastisol = VP	None = X	DOE = D	Plastisol = VP

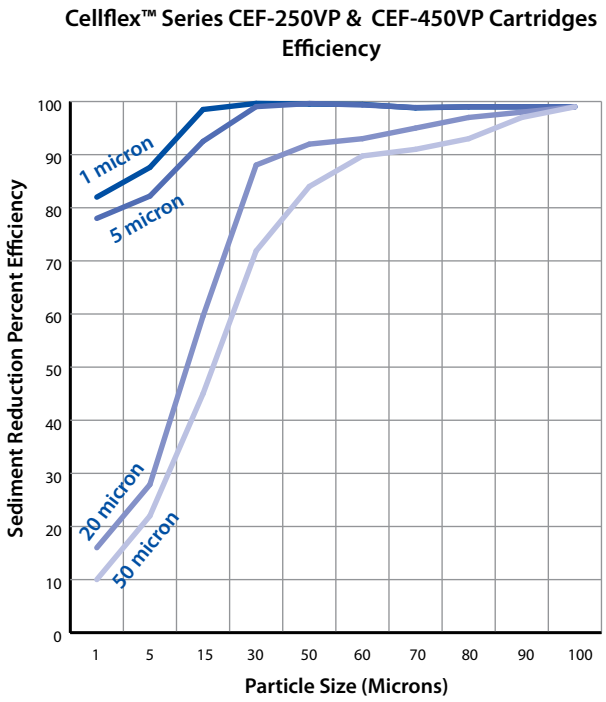
[1] 2.5 diameter only
[2] 4.5 diameter only

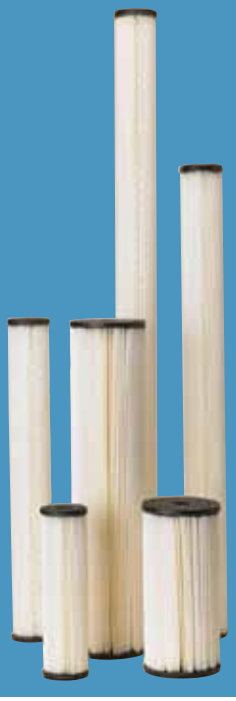
DIMENSIONS AND CONSTRUCTION

Cellflex™ Series		CEF-250VP	CEF-450VP
Diameter (Inches)		2.5	4.5
Length (Inches)	9.75	•	•
	20	•	•
	30	•	
	40	•	
Center Core		P	P
Endcap		VP	VP
Outer Sleeve		X	X
Endcap Style	DOE	•	•
Seal		VP	VP

Cartridge Availability Key	
P	Polypropylene
VP	Plastisol
DOE	Double Open End

TEST DATA





Coreflex™ Series COF-250VP & COF-450VP

Pleated Cellulose FILTER CARTRIDGES

Coreflex™ Series Pleated Cellulose Cartridges are economical, 20 micron, double open end filters designed for commercial and industrial filtration applications. Coreflex cartridges are available in nominal 20-inch lengths with 2.5- or 4.5-inch diameters.

APPLICATIONS

- Coolants
- Commercial
- Industrial
- Lubricating Oils
- Petrochemicals
- Pre-filtration
- Wastewater
- General Filtration

CARTRIDGE OPERATION

The cellulose media of Coreflex COF-250VP & COF-450VP Cartridges is pleated around a polypropylene core for enhanced strength and the ends are immersed in a thermo-setting vinyl plastisol. Embedding and sealing each end of the pleat in this fashion fuses the cartridge components together, forming a unified endcap and gasket. The overlap seam is sonically welded to reduce bypass, improving filtration efficiency.

Coreflex cartridges deliver high dirt-loading capacity with long life to reduce maintenance and change-outs. They are highly effective at reducing sediment particles down to 20 microns in size.

FEATURES

- Pleated design
- Nominal 20 micron rating
- Plastisol endcaps
- Single piece polypropylene core
- Sonically welded seam
- Media runs full length of cartridge
- Quality construction at an economical price
- Long cartridge life
- Reduced maintenance and change-outs
- Low pressure drop

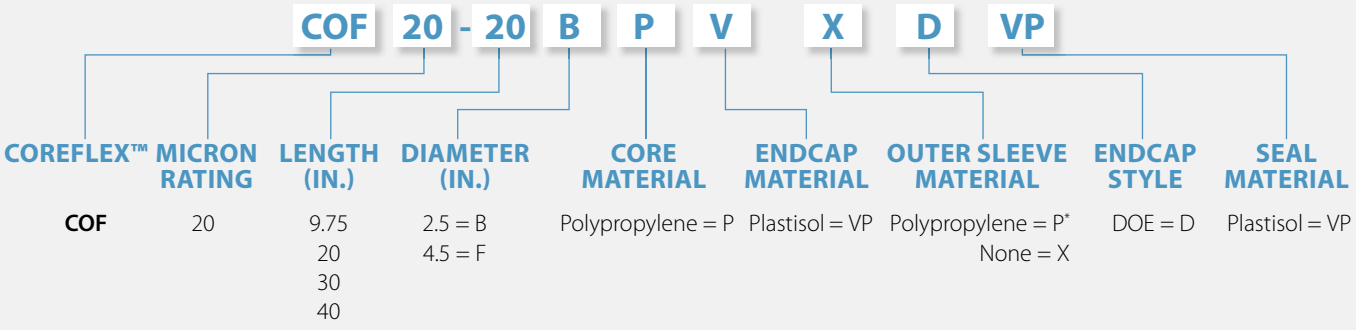
Custom housings are available for these cartridges. Contact our technical support team for more details.

SPECIFICATIONS

Component	Material/Value
Fiber Media	Non-Woven Polyester
Endcaps	Vinyl Plastisol
Core	Polypropylene
Temperature Rating	40˚F (4.4˚C)–125˚F (51.7˚C)

ORDERING INFORMATION

Custom configurations available; please contact Customer Service.



DIMENSIONS AND CONSTRUCTION

Coreflex™ Series		COF-250VP	COF-450VP
Diameter (Inches)		2.5	4.5
Length (Inches)	9.75	•	•
	20	•	•
	30	•	
	40	•	
Center Core		P	P
Endcap		V	V
Outer Sleeve		P*, X	P*, X
Endcap Style		DOE	DOE
Seal		V	V

** 30- and 40- inch only*

Cartridge Availability Key	
VP	Plastisol
P	Polypropylene
DOE	Double Open End

Proflex™ Series EF-250VP & EF-450VP

Pleated Polyester FILTER CARTRIDGES

Proflex™ Series EF-250VP & EF-450VP Cartridges are resistant to chemical and bacterial attack, and effective for a wide range of heavy duty commercial and industrial filtration applications.

APPLICATIONS

- Aqueous Solutions
- Chemicals
- Food and Beverage
- General Filtration
- Ink
- Pre-filter for RO Systems
- Waste Streams
- Water

CARTRIDGE OPERATION

Proflex™ Series EF-250VP & EF-450VP Cartridges are manufactured from a durable, non-woven and reusable polyester media pleated around a polypropylene core for added strength. The media is pleated to maximize dirt-holding capacity and minimize cartridge change-outs or cleaning. The ends are then immersed in a thermo-setting vinyl plastisol that fuses the cartridge components together, forming a unified endcap gasket. Filtration efficiency is enhanced by sonically welding the overlap seam to reduce internal bypass.

FEATURES

- Available in 2.5- and 4.5-inch diameters
- Available in micron ratings of 30 and 50
- Encapsulated endcap and gasket design
- Sonically-welded overlap seam
- Optimal surface area; (standard 10-inch cartridges feature more than four square feet of media; heavy duty cartridges offer media exceeding 16 square feet)
- Pleats maximize dirt-holding capacity and reduce change-out frequency
- Resistant to bacteria and chemicals
- Versatile and reusable for a wide variety of applications
- Gasket stays in place during service; reduces downtime
- Reduced bypass ensures heavy duty filtration efficiency

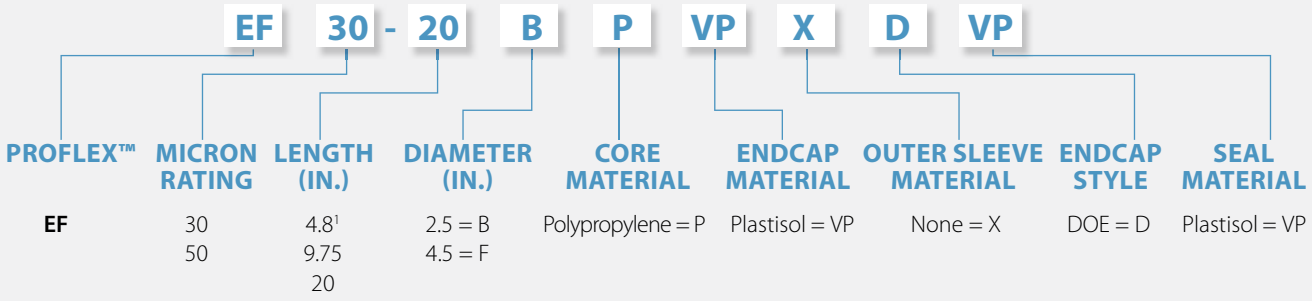
Custom housings are available for these cartridges. Contact our technical support team for more details.

SPECIFICATIONS

Component	Material/Value
Fiber Media	Non-Woven Polyester
Endcaps	Vinyl Plastisol
Core	Polypropylene
Temperature Rating	40˚F (4.4˚C)–125˚F (51.7˚C)

ORDERING INFORMATION

Custom configurations available; please contact Customer Service.



[1] 2.5 diameter only

DIMENSIONS AND CONSTRUCTION

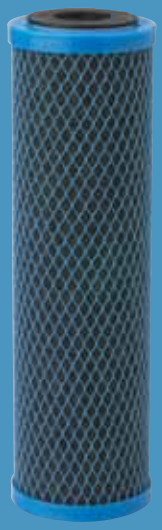
Proflex™ Series		EF-250VP	EF-450VP
Diameter (Inches)		2.5	4.5
Length (Inches)	4.8	•	
	9.75	•	•
	20	•	•
Center Core		P	P
Endcap		VP	VP
Endcap Style		DOE	DOE
Outer Sleeve		X	X
Seal		VP	VP

Cartridge Availability Key	
VP	Plastisol
P	Polypropylene
DOE	Double Open End

SPECIFICATIONS

Micron Rating	Flow Rate
30	10 gpm @ 0.2 PSI drop
50	10 gpm @ 0.5 PSI drop

Flow rates listed are of 10-inch cartridges with typical water flow at 1 PSI pressure differential.



Carbflex™ Series CAF-250

CFB-PB10 Lead Reduction Carbon FILTER CARTRIDGE

The Carbflex™ Series CAF-250 Lead Reduction Modified Molded Block Cartridges offer highly effective chlorine taste & odor, cyst and lead reduction found in traditional carbon block media while offering premium sediment filtration.

APPLICATIONS

- Commercial
- Food Service
- Industrial
- Residential Water

CARTRIDGE OPERATION

The CAF-250 Cartridge is modified molded block manufactured using our proprietary Fibredyne™ technology. This technology creates a unique filter media by attaching powdered activated carbon and lead adsorbent material onto a cellulose-free synthetic fiber matrix. This results in higher reduction efficiencies that resist plugging, afford the longest life, and feature the lowest pressure drop over the effective life of the cartridge of any available 0.5 micron filter cartridge.* Fibredyne's carbon block technology also offers up to two times the chlorine taste & odor reduction and dirt-holding capacity of traditional blocks.* In addition, this technology will not release fines into the effluent stream due to a unique post-filtration layer that is fused to the carbon/fiber media blend.

**Based on manufacturer's internal testing.*

FEATURES

- Nominal 0.5 micron rating
- 99.95% reduction of Cryptosporidium and Giardia cysts
- Lead reduction through 2000 gallons
- Premium dirt-holding capacity
- High chlorine taste & odor and bad taste & odor reduction
- Manufactured entirely from FDA-compliant materials

SPECIFICATIONS

Component	Material/Value
Media	Bonded PAC
Endcaps	Polypropylene
Netting	Polyethylene
Gasket	Santoprene®
Temperature Rating	40˚F (4.4˚C)–180˚F (82.2˚C)

WARNING: *Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the unit.*

NOTE: *Performance capacity depends on system design, flow rate and certain other application conditions. Certain states require system registration or certification for health-related contaminant reduction claims.*

NOTE: *Cartridges will contain a very small amount of carbon fines (very fine black powder). After installation, a new cartridge should be flushed with sufficient water to remove all traces of fines prior to using the water.*

NOTE: *Micron ratings based on 85% or greater removal of given particle size. Estimated capacity using 2ppm free available chlorine at 0.5 ppm breakthrough.*

†***NOTE:*** *Giardia, Cryptosporidium, Entamoeba and Toxoplasma cyst claim based on tests showing greater than 99.95% reduction using NSF Standard 53 protocol.*

NSF COMPONENT

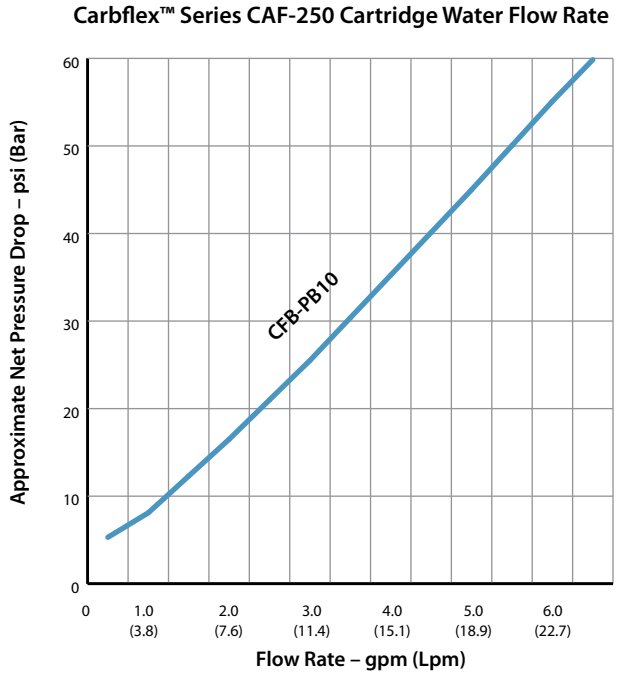
Tested and Certified by NSF International to NSF/ANSI Standard 42 for material requirements only.

CARTRIDGE SPECIFICATIONS AND PERFORMANCE*

Model	Maximum Dimensions	Micron Rating (Normal)	Initial ΔP (PSI) @ Flow Rate (gpm)	Chlorine Taste & Odor Reduction @ Flow Rate*
CFB-PB10	2.875" x 9.75" (73 mm x 248 mm)	0.5	8.1 PSI @ 1 gpm (0.6 bar @ 3.8 Lpm)	>5,000 gallons @ 1 gpm (>18,900 L @ 3.8 Lpm)

** Based on manufacturer's internal testing.*

TEST DATA



Carbflex™ Series CAF-250

CFBC Modified Molded Block Carbon FILTER CARTRIDGES

Carbflex™ CAF-250 Filter Cartridges offer the effective chlorine taste & odor reduction found in traditional carbon block media while providing superior sediment reduction with resistance to premature plugging.

APPLICATIONS

- Commercial
- Food Service
- Industrial
- Residential Water

CARTRIDGE OPERATION

Carbflex™ CAF-250 Cartridges are modified molded blocks manufactured using proprietary Fibredyne™ technology. This technology creates a unique filter media by attaching powdered activated carbon onto a cellulose-free synthetic fiber matrix. Benefits of this technology include low pressure drop over the entire life of the cartridge and up to three times the chlorine taste & odor and dirt-holding capacity of traditional 0.5 micron carbon blocks.

FEATURES

- Nominal 0.5 micron rating
- 99.95% reduction of Cryptosporidium and Giardia cysts
- Premium dirt-holding capacity
- High chlorine taste & odor and bad taste & odor reduction
- Some organic chemical reduction
- Combines benefits of both a sediment filter and a carbon block into a single cartridge
- Made with Fibredyne™ technology
- Manufactured entirely from FDA-compliant materials
- Post-filtration layer fused to the carbon/fiber media blend ensures cartridge will not release fines into the effluent stream

SPECIFICATIONS

Component	Material/Value
Filtration Media	Bonded PAC
Endcaps	Polypropylene
Netting	Spun Polyethylene
Gasket	Santoprene®
Temperature Rating	40˚F (4.4˚C)–180˚F (82.2˚C)

WARNING: *Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.*

NOTE: *Performance capacity depends on system design, flow rate and certain other application conditions. Certain states require system registration and certification for health-related contaminant reduction using the water.*

NOTE: *Cartridges will contain a very small amount of carbon fines (very fine black powder). After installation, a new cartridge should be flushed with sufficient water to remove all traces of fines prior to using the water.*

NOTE: *Micron ratings based on 85% or greater removal of given particle size. Estimated capacity using 2ppm free available chlorine at 0.5 ppm breakthrough.*

† ***NOTE:*** *Giardia, Cryptosporidum, Entamoeba and Toxoplasma cyst claim based on tests showing greater than 99.95% reduction using NSF Standard 53 protocol.*

NSF COMPONENT

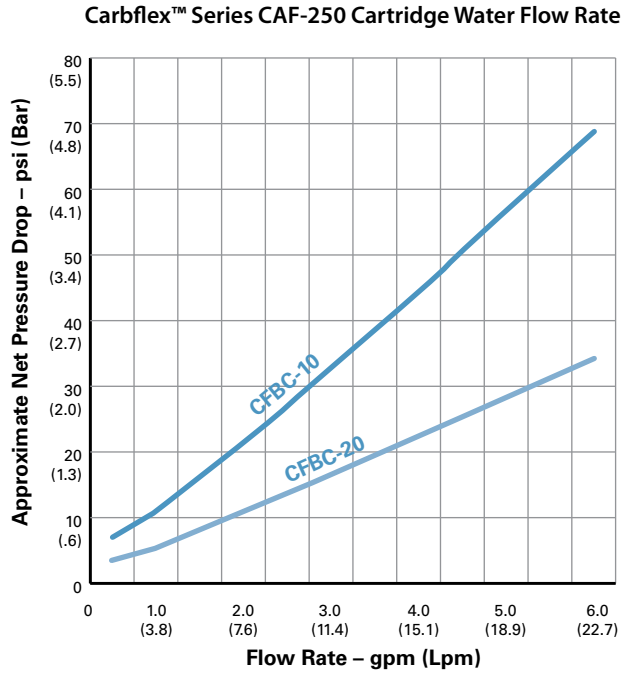
Tested and Certified by NSF International to NSF/ANSI Standard 42 for material requirements only.

CARTRIDGE SPECIFICATIONS AND PERFORMANCE*

Model	Maximum Dimensions	Micron Rating (Nominal)	Initial ΔP (PSI) @ Flow Rate (gpm)	Chlorine Taste & Odor Reduction @ Flow Rate*
CFBC-10	2.875" x 9.75" (73 mm x 248 mm)	0.5	10.7 PSI @ 1.0 gpm (0.7 bar @ 3.8 Lpm)	>20,000 gallons @ 1 gpm (>75,700 L @ 3.8 Lpm)
CFBC-20	2.875" x 20" (73 mm x 508 mm)	0.5	10.7 PSI @ 1.0 gpm (0.7 bar @ 7.6 Lpm)	>40,000 gallons @ 2 gpm (>151,400 L @ 7.6 Lpm)

** Based on manufacturer's internal testing.*

TEST DATA



Carbflex™ Series CAF-250

CFB Modified Molded Block Carbon FILTER CARTRIDGES

Carbflex™ CFB Filter Cartridges provide the effective chlorine taste & odor reduction found in traditional carbon block media while offering excellent sediment reduction capabilities. These cartridges are an ideal choice for applications with high contaminant lead that lead to premature plugging with other cartridges.

APPLICATIONS

- Commercial
- Food Service
- High Sediment
- Industrial
- Residential Water

CARTRIDGE OPERATION

CFB Series Filter Cartridges are modified molded blocks created by use of proprietary Fibredyne™ technology which creates a unique filter media by attaching powdered activated carbon onto a cellulose-free synthetic fiber matrix. Fibredyne's carbon block technology also offers up to two times the chlorine taste & odor reduction and dirt-holding capacity of traditional blocks.*

**Based on manufacturer's internal testing.*

FEATURES

- Nominal 10 micron rating
- Excellent dirt-holding capacity
- High chlorine taste & odor and bad taste & odor reduction
- Combines benefits of a sediment filter and a carbon block into a single cartridge
- Made with proprietary Fibredyne™ technology
- Manufactured entirely from FDA-compliant materials
- Post-filtration layer fused to the carbon/fiber media blend ensures cartridge will not release fines into the effluent stream

SPECIFICATIONS

Component	Material/Value
Filtration Media	Bonded PAC
Endcaps	Polypropylene
Netting	Polyethylene
Gasket	Santoprene®
Temperature Rating	40˚F (4.4˚C)–180˚F (82.2˚C)

WARNING: *Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.*

NOTE: *Performance capacity depends on system design, flow rate and certain other application conditions. Certain states require system registration and certification for health-related contaminant reduction using the water.*

NOTE: *Cartridges will contain a very small amount of carbon fines (very fine black powder). After installation, a new cartridge should be flushed with sufficient water to remove all traces of fines prior to using the water.*

NOTE: *Micron ratings based on 85% or greater removal of given particle size. Estimated capacity using 2ppm free available chlorine at 0.5 ppm breakthrough.*

NSF COMPONENT

Tested and Certified by NSF International to NSF/ANSI Standard 42 for material requirements only.

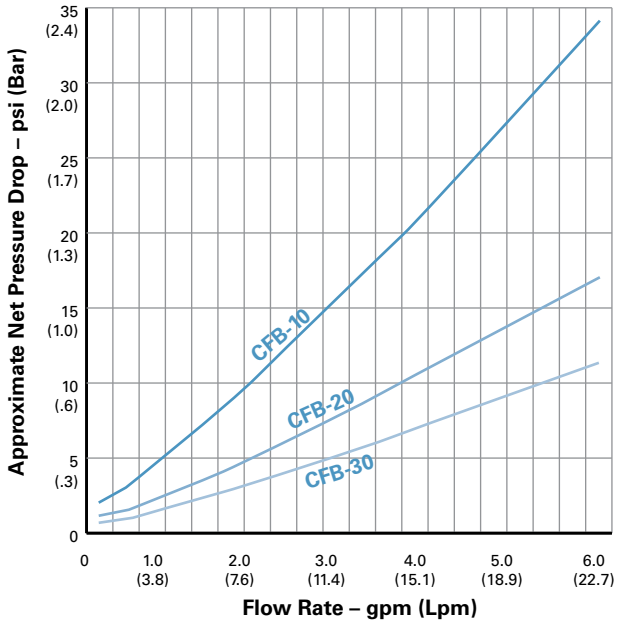
CARTRIDGE SPECIFICATIONS AND PERFORMANCE*

Model	Maximum Dimensions	Micron Rating (Nominal)	Initial ΔP (PSI) @ Flow Rate (gpm)*	Chlorine Taste & Odor Reduction @ Flow Rate*
CFB-10	2.8" x 9.75" (73 mm x 248 mm)	10	3.0 PSI @ 1.0 gpm (0.7 bar @ 3.8 Lpm)	>5,000 gallons @ 1 gpm (>18,900 L @ 3.8 Lpm)
CFB-20	2.8" x 20" (73 mm x 508 mm)	10	3.0 PSI @ 2.0 gpm (0.7 bar @ 7.6 Lpm)	>10,000 gallons @ 2 gpm (>37,800 L @ 7.6 Lpm)
CFB-30	2.8" x 30" (73 mm x 762 mm)	10	3.0 PSI @ 3.0 gpm (0.7 bar @ 11.4 Lpm)	>15,000 gallons @ 3 gpm (>56,700 L @ 11.4 Lpm)

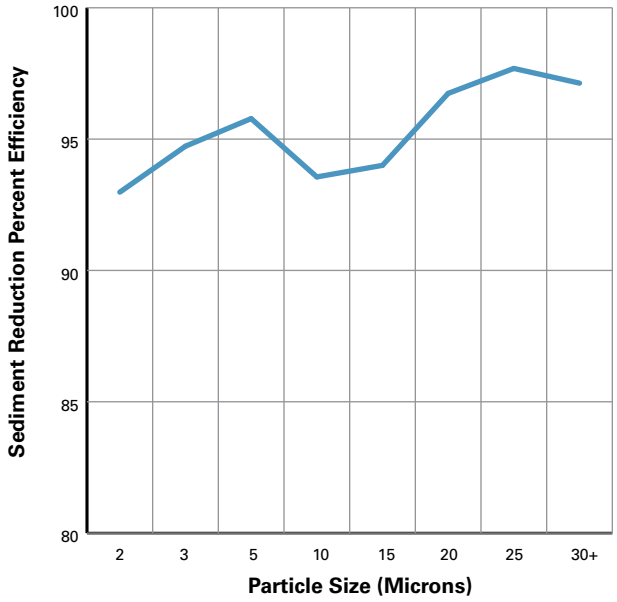
** Based on manufacturer's internal testing.*

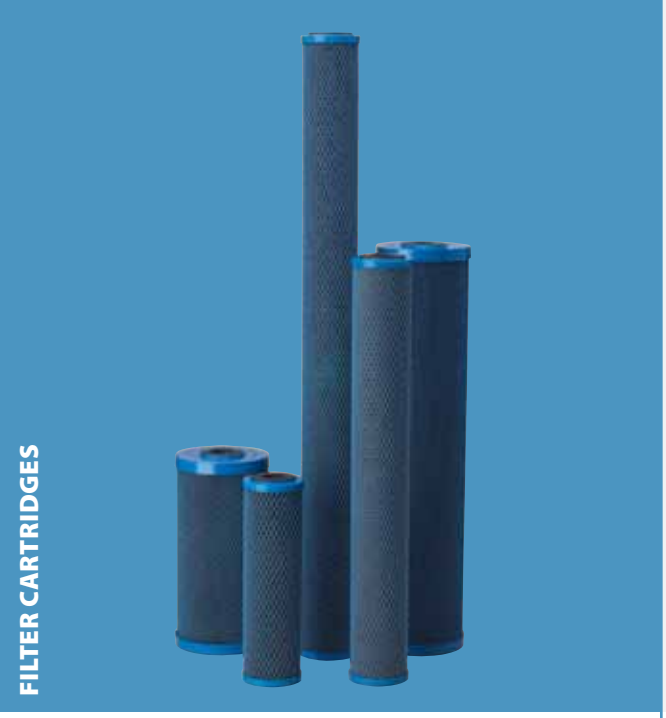
TEST DATA

Carbflex™ Series CAF-250 Cartridge Water Flow Rate



Efficiency





Carbflex™ Series CAF-250 & CAF-450

CFB-Plus Modified Molded Block FILTER CARTRIDGES

Carbflex™ Series CFB-Plus Modified Molded Block Filter Cartridges offer the same benefits as other CFB products while providing even greater chlorine taste & odor reduction and the highest sediment reduction levels found in a carbon cartridge.

APPLICATIONS

- Commercial
- Food Service
- Industrial
- Residential

CARTRIDGE OPERATION

CFB-Plus Series Filter Cartridges are modified molded blocks created by use of proprietary Fibredyne™ technology which creates a unique filter media by attaching powdered activated carbon onto a cellulose-free synthetic fiber matrix. The Fibredyne carbon block technology also offers up to two times the chlorine taste & odor reduction and dirt-holding capacity of traditional blocks.

FEATURES

- Combines the benefits of both a sediment filter and a carbon block into a single cartridge
- Up to two times the chlorine taste & odor reduction and dirt-holding capacity of traditional blocks.
- Nominal 5-10 micron rating
- Available in 2.8- and 4.6-inch diameters
- Post-filtration layer fused to the carbon/fiber media blend ensures fines will not be released into the effluent stream
- Fibredyne™ technology creates a unique filter media by attaching powdered activated carbon onto a cellulose-free synthetic fiber matrix
- Manufactured entirely from FDA-compliant materials

SPECIFICATIONS

Component	Material/Value
Filtration Media	Bonded PAC
Endcaps	Polypropylene
Netting	Polyethylene
Gasket	Santoprene®
Temperature Rating	40˚F (4.4˚C)–180˚F (82.2˚C)

WARNING: *Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.*

NOTE: *Performance capacity depends on system design, flow rate and certain other application conditions. Certain states require system registration and certification for health-related contaminant reduction using the water.*

NOTE: *Cartridges will contain a very small amount of carbon fines (very fine black powder). After installation, a new cartridge should be flushed with sufficient water to remove all traces of fines prior to using the water.*

NOTE: *Micron ratings based on 85% or greater removal of given particle size. Estimated capacity using 2ppm free available chlorine at 0.5 ppm breakthrough.*

NSF COMPONENT

Tested and Certified by NSF International to NSF/ANSI Standard 42 for material requirements only.

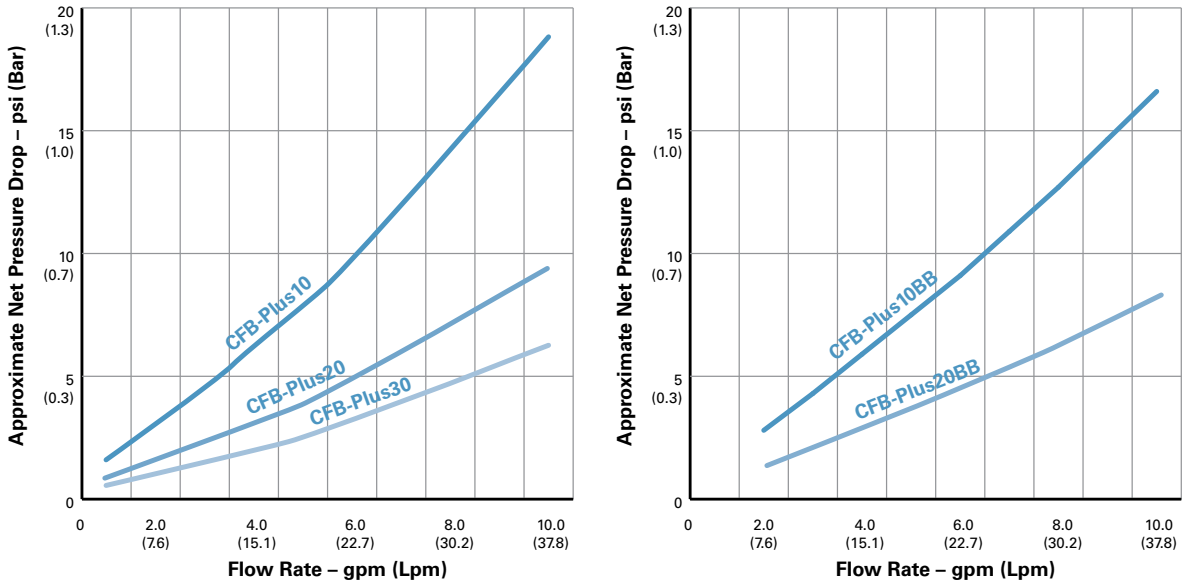
CARTRIDGE SPECIFICATIONS AND PERFORMANCE*

Model	Maximum Dimensions	Micron Rating (Normal)	Initial ΔP (PSI) @ Flow Rate (gpm)*	Chlorine Taste & Odor Reduction @ Flow Rate*
CFB-Plus10	2.8" x 9.75" (73 mm x 248 mm)	5-10	1.6 PSI @ 1.0 gpm (0.7 bar @ 3.8 Lpm)	>10,000 gallons @ 1 gpm (>37,800 L @ 3.8 Lpm)
CFB-Plus20	2.8" x 20" (73 mm x 508 mm)	5-10	1.6 PSI @ 2.0 gpm (0.7 bar @ 7.6 Lpm)	>20,000 gallons @ 2 gpm (>75,700 L @ 7.6 Lpm)
CFB-Plus30	2.8" x 30" (73 mm x 762 mm)	5-10	1.6 PSI @ 3.0 gpm (0.7 bar @ 11.4 Lpm)	>30,000 gallons @ 3 gpm (>113,500 L @ 11.4 Lpm)
CFB-Plus10BB	4.6" x 9.75" (118 mm x 248 mm)	5-10	2.5 PSI @ 2.0 gpm (0.7 bar @ 7.6 Lpm)	>25,000 gallons @ 2 gpm (>94,600 L @ 7.6 Lpm)
CFB-Plus20BB	4.6" x 20" (118 mm x 508 mm)	5-10	2.5 PSI @ 4.0 gpm (0.7 bar @ 11.4 Lpm)	>50,000 gallons @ 4 gpm (>189,000 L @ 15.1 Lpm)

** Based on manufacturer's internal testing.*

TEST DATA

Carbflex™ Series CAF-250 & CAF-450 Cartridge Water Flow Rate



Carbflex™ Series CAF-450

OAC-20BB Oil Adsorbing FILTER CARTRIDGE

The Carbflex™ OAC-20BB Oil Adsorbing Filter Cartridge is made from modified cellulose-based filter media to chemically bond with hydrocarbons and other pollutants.

APPLICATIONS

- Auto Service Stations
- Car and Truck Washes
- Oil and Gas Facilities
- Machine Shops
- Repair Shops
- Shipping Bilge Water
- Surface Water Runoff (Truck Stops, Airports, Parking Lots)

Note: Certain applications may require pre-filtration.

CARTRIDGE OPERATION

The Carbflex™ OAC-20BB Oil Adsorbing Filter Cartridge typically reduces hydrocarbon contamination up to 90-95 percent in a single pass. Lower outlet levels of hydrocarbons can be achieved by connecting cartridges in series.

FEATURES

- Instantaneous adsorption – up to 90 percent of total hydrocarbons removed in a single pass
- High flow rates
- Removes dissolved and dispersed oils
- Low pressure drop
- Media can hold 250-300 percent of its own weight, with no release of removed hydrocarbons
- Constructed for use in standard 20-inch Big Blue® filter housings

SPECIFICATIONS

Component	Material/Value
Endcaps	PVC Plastisol
Center Core	Natural Polypropylene
Outer Net	Polyethylene
Media	Modified Cellulose
Area	18 sq. ft. (1.6 sq. m.)
Weight	1.75 lbs. (0.8 kg)
Chemical Notification #	0 (zero)

CARTRIDGE SPECIFICATIONS

Model	Maximum Dimensions	Core I.D.	Flow Rate	Pressure Drop (at 5-10 gpm)
OAC-20BB	4.5" x 20.1" (114 mm x 511 mm)	1.110" (28 mm)	5-10 gpm (19-38 Lpm)	0.2-1.0 PSI (0.01-0.07 bar)

Change-out frequency will depend on the oil burden in the application. Because no appreciable increase in pressure drop is observed during service life, the filter must be changed when its adsorption capacity is exhausted.

PERFORMANCE*

For hydrocarbon-adsorbing capacity: The cartridge media has the potential to remove up to 2270 grams (5 lbs.) hydrocarbon contaminant. On this basis, the table below provides expected life data in hours or gallons at several contaminant levels based on a 10 gpm flow rate per 4.5" x 20" cartridge.

Hydrocarbon Concentration (PPM)	Hydrocarbon Concentration (% by weight)	Hydrocarbon Removal per Minute (grams)	Estimated Life in Hours	Gallons Fluid Treated	Estimated Cost per Gallon of Treated Fluid
10	0.001	0.36	106	63,308	0.001
100	0.01	3.6	10.6	6,330	0.01
1000	0.1	36	1.1	633	0.11

NOTE: *Operating flow will vary based on applications, type of pollutants, flow rates and level of contamination.*

DISPOSAL: *Safe and acceptable method to meet all local and EPA regulations is recommended. End user is responsible for safe disposal of used cartridge at user's cost. Consult factory for additional information.*

** Based on manufacturer's internal testing.*

Carbflex™ Series CAF-250 & CAF-450

GAC Granular Activated Carbon FILTER CARTRIDGES

Carbflex™ Series GAC Cartridges effectively reduce unwanted tastes, odor and chlorine taste & odor from your drinking water, based on internal testing. They are designed to allow maximum contact between the water and carbon, ensuring maximum adsorption.

APPLICATION

- Commercial
- Food Service
- Industrial
- Residential

CARTRIDGE OPERATION

The construction of the cartridge allows water to enter at one end and pass through the entire length of the carbon bed before exiting the other end of the cartridge, while an internal expansion pad minimizes channeling or bypass. Before the water exits the cartridge, a 20 micron post-filter helps reduce carbon fines and other suspended particles from the filtered water. The post-filter is permanently fastened to an innovative support basket ensuring that it is firmly secured, eliminating any potential for bypass.

FEATURES

- Bad taste & odor and chlorine taste & odor reduction
- Designed for maximum adsorption
- Internal expansion pad minimizes channeling or bypass
- Internal 20 micron post-filter helps reduce carbon fines and other suspended particles from the filtered water

SPECIFICATIONS

Component	Material/Value
Filtration Media	Granular activated carbon
Endcaps	Polystyrene
Post-Filter	Spun Polypropylene
Outer Casing	Polystyrene
Expansion Pad	Polypropylene
Gasket	Buna-N® (top) - Santoprene® (bottom)
Temperature Rating	40˚F (4.4˚C)–125˚F (51.7˚C)

**Test data represents actual 10-inch cartridges.*

WARNING: *Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.*

NOTE: *A drinking water cartridge may contain carbon fines (very fine black powder). After installation and before using the water, follow the instructions for flushing the cartridge to remove fines.*

NOTE: *It is recommended that you flush for 20 seconds prior to using the water for drinking or cooking purposes.*

NOTE: *Chlorine Reduction is estimated capacity using 2ppm free available chlorine (FAC) at continuous flow with greater than 75% reduction.*

NSF COMPONENT

The GAC-10 and GAC-20BB are Tested and Certified by NSF International to NSF/ANSI Standard 42 for material requirements only.

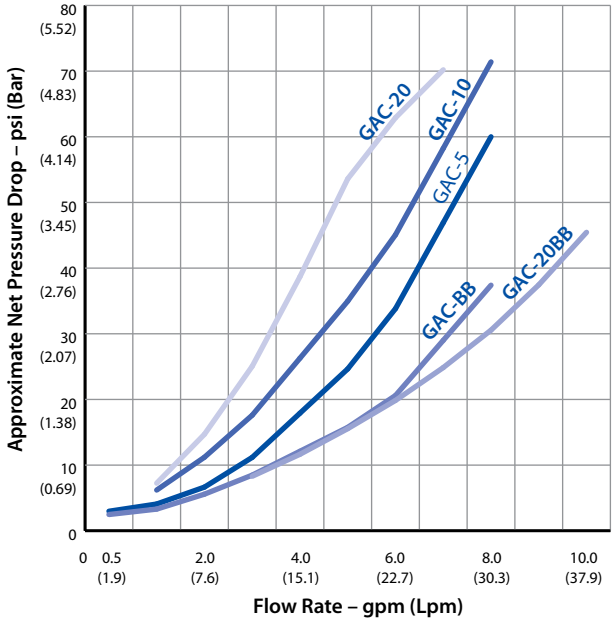
CARTRIDGE SPECIFICATIONS AND PERFORMANCE*

Model	Maximum Dimensions	Initial ΔP (PSI) @ Flow Rate (gpm)*	Chlorine Taste & Odor Reduction @ Flow Rate*
GAC-5	2.8" x 4.8" (73 mm x 124 mm)	3.0 PSI @ 0.5 gpm (0.2 bar @ 1.9 Lpm)	250 gallons @ 0.5 gpm (900 L @ 1.9 Lpm)
GAC-10	2.8" x 9.75" (73 mm x 248 mm)	7.0 PSI @ 1.0 gpm (0.5 bar @ 3.8 Lpm)	5,000 gallons @ 1.0 gpm (18,900 L @ 3.8 Lpm)
GAC-20	2.8" x 20" (73 mm x 508 mm)	16 PSI @ 2.0 gpm (1.1 bar @ 7.6 Lpm)	10,000 gallons @ 2.0 gpm (37,800 L @ 7.6 Lpm)
GAC-BB	4.5" x 9.75" (114 mm x 248 mm)	6.0 PSI @ 2.0 gpm (0.4 bar @ 7.6 Lpm)	12,500 gallons @ 2.0 gpm (47,000 L @ 7.6 Lpm)
GAC-20BB	4.5" x 20" (114 mm x 508 mm)	5.0 PSI @ 4.0 gpm (0.3 bar @ 15 Lpm)	25,000 gallons @ 4.0 gpm (95,000 L @ 15 Lpm)

** Based on manufacturer's internal testing.*

TEST DATA

Carbflex™ Series CAF-250 & CAF-450
Cartridge Water Flow Rate



Carbflex™ Series CAF-250

CGAC-10 Granular Activated Carbon FILTER CARTRIDGE

Carbflex™ Series CGAC-10 Granular Activated Carbon Cartridge utilizes advanced activated carbon technology, which results in excellent chloramine reduction as well as superior chlorine reduction.*

APPLICATION

- Water Treatment (Point-of-Entry and Point-Of-Use Applications)

CARTRIDGE OPERATION

The CGAC-10 Cartridge utilizes traditional granular activated carbon. The construction of this cartridge allows water to pass evenly over a large bed of carbon while minimizing channeling or bypass. Before the water exits the cartridge, a 20 micron post-filter helps reduce carbon fines and other suspended particles from the filtered water. The post-filter is permanently fastened to an innovative support basket ensuring that it is firmly secured and eliminating any potential for bypass.

FEATURES

- Advanced activated carbon technology for chloramine and chlorine reduction
- Variety of sizes available
- Several capacities offered
- Much more effective than standard granular carbons for reduction of chloramine taste & odor
- Allows water to enter at one end and pass through the entire length of the carbon bed before exiting the other end of the cartridge
- Internal expansion pad minimizes channeling or bypass
- Design allows for maximum contact between the water and carbon, ensuring maximum adsorption

SPECIFICATIONS

Component	Material/Value
Filter Media	Advanced granular activated carbon
Endcaps	Polystyrene
Inner Wrap/Core	N/A
Outer Wrap/Shellz	Polystyrene
Expansion Pad	Polypropylene
Post-Filter	Spun Polypropylene
Netting	N/A
Gasket	Buna-N® (top) Santoprene® (bottom)
Temperature Rating	40˚F (4.4˚C)–180˚F (82.2˚C)

WARNING: *For drinking water applications, do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.*

NOTE: *Some harmless bacteria will attack cellulose media cartridges. If your cartridge seems to disintegrate, or has a musty or moldy odor, switch to a synthetic media cartridge or consult the manufacturer.*

**** NOTE:*** *Estimated capacity tested at given flow rate using 2 ppm free available chlorine to 0.5 ppm breakthrough.*

NSF COMPONENT

The CGAC-10 is Tested and Certified by NSF International to NSF/ANSI Standard 42 for material requirements only.

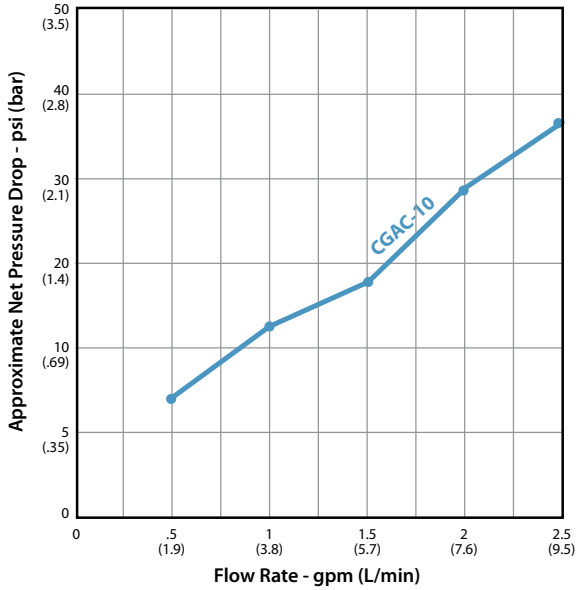
CARTRIDGE SPECIFICATIONS AND PERFORMANCE DATA*

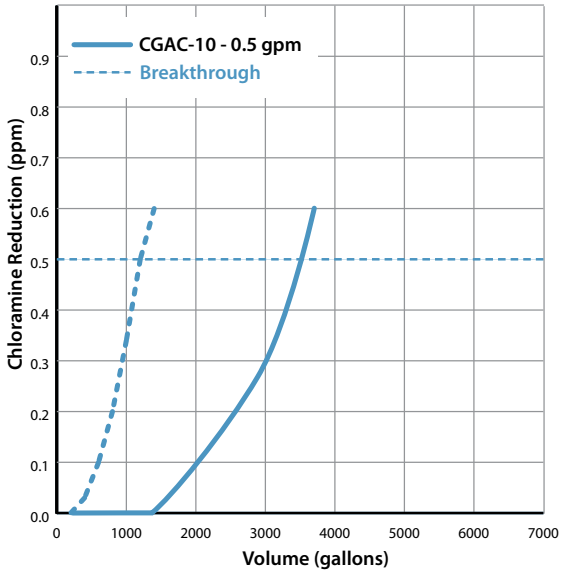
Model	Maximum Dimensions	Initial ΔP (PSI) @ Flow Rate (gpm)	Chlorine Taste & Odor Reduction* @ Flow Rate (gpm)	Chloramine Taste Odor Reduction*†
CGAC-10	2.8" x 9.75" (73 mm x 248 mm)	<20.00 PSI @ 1.0 gpm (<1.38 bar @ 3.8 Lpm)	30,000 gallons @ 1.0 gpm (113, 500 liters @ 3.8 Lpm)	1,750 gallons @ 1.0 gpm (6,624 liters @ 1.0 L/min) 3,500 gallons @ 0.5 gpm (13,250 liters @ 1.9 L/min)

** Based on manufacturer's internal testing.*
** Chloramine taste & odor reduction tested at 1.0 gpm (3.8 L/min), 3 ppm reduced to <0.5 ppm.*

TEST DATA

Carbflex™ Series CAF-250 Cartridge Water Flow Rate





Carbflex™ Series CAF-250

TSGAC Specialty Granular Activated Carbon/Phosphate FILTER CARTRIDGE

Carbflex™ Series TSGAC Cartridges provide superior water filtration performance and outstanding protection, effectively reducing chlorine taste and odor, rust stains and scale deposits.

APPLICATIONS

- Commercial Equipment
- Fixtures
- Major Appliances
- Water Lines

CARTRIDGE OPERATION

The construction of the TSGAC Cartridge allows water to enter at one end and pass through the entire length of the carbon bed before exiting the other end of the cartridge. An internal expansion pad minimizes channeling or bypass. This design allows for maximum contact between the water and carbon, ensuring maximum adsorption. Before the water exits the cartridge, a 20 micron post-filter helps remove carbon fines and other suspended particles from the filtered water. The post-filter is permanently fastened to an innovative support basket ensuring that it is firmly secured and eliminating any potential for bypass.

FEATURES

- Granular activated carbon to reduce bad taste, odor and chlorine taste & odor
- Phosphate crystals reduce rust stains and scale deposits
- Designed for maximum adsorption
- Post-filter to reduce carbon fines

SPECIFICATIONS

Component	Material/Value
Filtration Media	Granular Activated Carbon Hexametaphosphate Crystals
Endcaps	Polystyrene
Post-Filter	Spun Polypropylene
Outer Casing	Polystyrene
Expansion Pad	Polypropylene
Gasket	Buna-N® (top) - Santoprene® (bottom)
Temperature Rating	40˚F (4.4˚C)–125˚F (51.7˚C)

WARNING: *Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.*

NOTE: *A drinking water cartridge may contain carbon fines (very fine black powder). After installation and before using the water, flush the cartridge for 5 minutes to remove fines.*

NOTE: *It is recommended that you run the tap for 20 seconds prior to using the water for drinking or cooking purposes.*

NSF COMPONENT

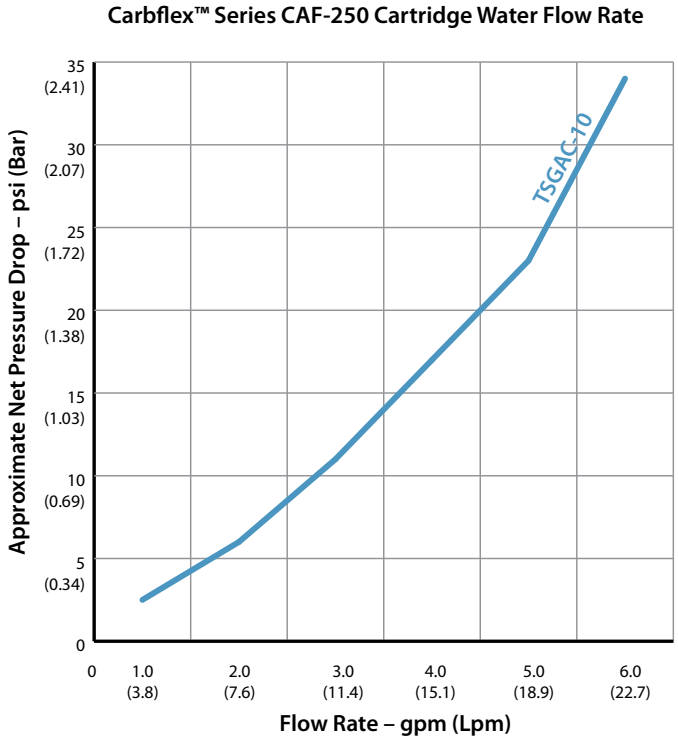
The TSGAC-10 is Tested and Certified by NSF International to NSF/ANSI Standard 42 for material requirements only.

CARTRIDGE SPECIFICATIONS AND PERFORMANCE*

Model	Maximum Dimensions	Initial ΔP (PSI) @ Flow Rate (gpm)	Chlorine Taste & Odor Reduction @ Flow Rate*
TSGAC-10	2.8" x 9.75" (73 mm x 248 mm)	2.5 PSI @ 1.0 gpm (0.2 bar @ 3.8 Lpm)	>2000 gallons @ 1 gpm (7,570 L @ 3.8 Lpm)

** Based on manufacturer's internal testing.*

TEST DATA



Steelflex™ Series

SF-250P, SF-250C, SF-250PP

Stainless Steel FILTER CARTRIDGES

Steelflex™ Stainless Steel Cartridges, capable of withstanding differential pressures up to 60 PSI and temperatures up to 500˚F, are compatible with most chemicals and can be cleaned and reused. For outstanding performance in a variety of commercial, industrial and general filtration applications, choose Steelflex™ Stainless Steel Cartridges.

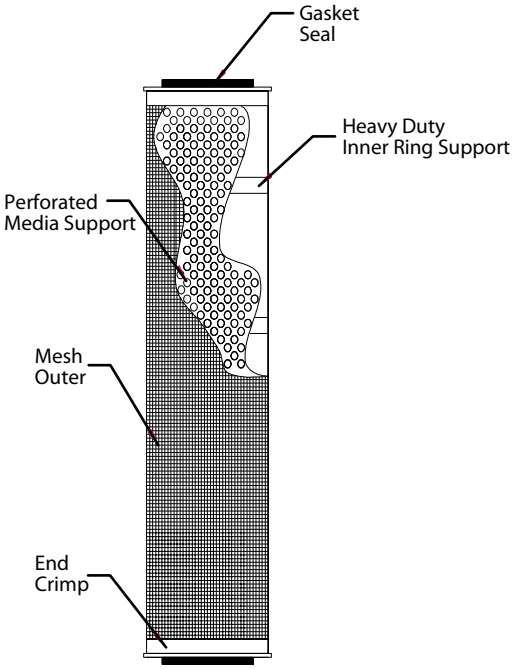
APPLICATIONS

- Commercial
- General Industrial
- High Corrosion
- High Pressure
- High Temperature
- Hydraulic

CARTRIDGE CONSTRUCTION

Fabricated using 304 Stainless Steel, with pleated or cylindrical surfaces and inner support bands, Steelflex™ cartridges are offered with micron ratings ranging from 5 to 840 in a variety of lengths and endcap options.

Buna-N® gaskets are standard. Options include 316 Stainless Steel and pleated or cylindrical construction.



FEATURES

- 2.5-inch diameter
- Available in 304 (standard) or 316 Stainless Steel with pleated SF-250P, pleated with pleat protector (SF-250PP) or cylindrical designs (SF-250C)
- Offered in a variety of lengths and endcap options
- Micron ratings from 5 to 840
- Inner support bands
- Cleanable and reusable
- Unaffected by most chemicals
- Withstand differential pressures up to 60 PSI
- Work at temperatures up to 500˚F
- Reusability means maximum product life and economy
- Can be made to fit in most competitive vessel models

OPTIONS

- Inner support bands
- Higher differential pressure

SPECIFICATIONS

Component	Material/Value
Media	304 or 316 Stainless Steel
Maximum Temperature Rating	500˚F (260˚C)
Maximum Operating Pressure	60 PSI

ORDERING INFORMATION

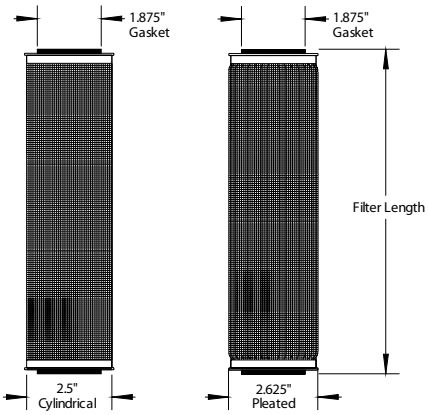
Custom configurations available; please contact Customer Service.

SF	10	-	10	B	P	4	4	4	S2	B	P
STEELFLEX™	MICRON RATING		LENGTH (IN.)	DIA. (IN.)	CONSTR.	ELEMENT MATERIAL	CORE	ENDCAP	ENDCAP STYLE	SEAL	PLEAT PROTECTOR
SF	5, 10, 20, 40, 75, 80, 100, 120, 150, 190, 230, 280, 370, 540 & 840		9.75 9.8 10 19.5 20 29.5 30	2.5 = B	Pleated = P Cylindrical = C	304 SS = 4 316 SS = 6	304 SS = 4 316 SS = 6	304 SS = 4 316 SS = 6	DOE = D SOE = S 222 Flat = S2 226 Flat = S6 1" Male Thread = 1M 1" Female Thread = 1F	Buna-N® = B Viton® = V Teflon® = T	Pleat Protector = P Blank = None

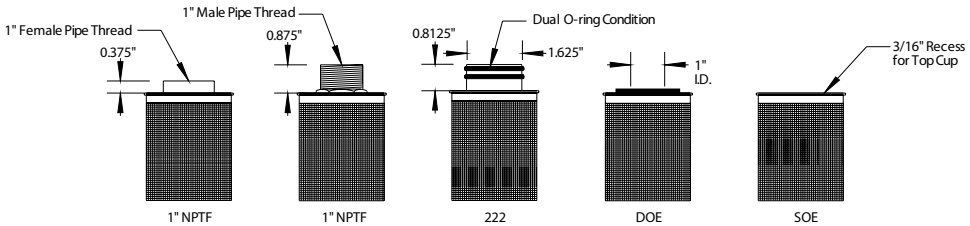
DIMENSIONS AND CONSTRUCTION

Steelflex™ Series		SF-250P	SF-250C	SF-250PP
Diameter (Inches)		2.5	2.5	2.5
Length (Inches)	9.75	•	•	•
	9.8	•	•	•
	10	•	•	•
	19.5	•	•	•
	20	•	•	•
	29.5	•	•	•
	30	•	•	•
Center Core		4, 6	4, 6	4, 6
Endcap		4, 6	4, 6	4, 6
Endcap Style	DOE	•	•	•
	SOE	•	•	•
	222 Flat	•	•	•
	226 Flat	•	•	•
	1-inch Male Thread	•	•	•
	1-inch Female Thread	•	•	•
Seal		B, V, T	B, V, T	B, V, T

CARTRIDGE DIAGRAM



END CONFIGURATIONS



Cartridge Availability Key	
P	Pleated
T	Teflon®
V	Viton®
SS	304 or 316 Stainless Steel
B	Buna-N®
C	Cylindrical

END CONFIGURATIONS

DOE	Double Open End, With Seals
SOE	Single Open End With Seals
222	Twin O-Ring, Opposite End Closed
226	Twin O-Ring, Opposite End Closed
1M	Male NPT 1-inch, Opposite End Closed
1N	Female NPT 1-inch, Opposite End Closed

Resflex™ Series RBP

Resin Bonded FILTER CARTRIDGES

Resflex™ Resin Bonded Cartridges are a patented breakthrough in resin bonded cartridge design. An outer, spiral wrap collects large particles and agglomerates, while inner layers control particle removal at rated size.

APPLICATIONS

- Adhesives
- Chemical Coatings
- Emulsions
- Organic Solvents
- Paints
- Petroleum Products
- Printing Inks
- Process Water
- Resins
- Waxes

CARTRIDGE OPERATION

Resflex™ Resin Bonded Filter Cartridges have a unique, proprietary two-stage filtration design to maximize particle removal and service life in viscous fluid filtration applications. An outer, spiral, prefilter wrap increases cartridge strength and eliminates residual debris associated with conventional, machined, resin bonded cartridges.

FEATURES

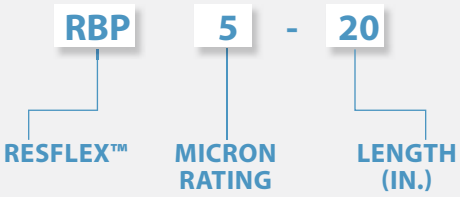
- Outer wrap increases surface area and eliminates loose debris and contamination caused by machined products
- Extra-long acrylic fibers provide added strength, resist breakage and migration common with competitive “short fiber” cartridges
- Phenolic resin impregnation strengthens cartridge for use with fluid viscosities up to 15,000 SSU (3200 cks)
- Withstands pressure surges up to 150 PSID across cartridge (depending on fluid temperature)
- Double-open-ended one-piece construction eliminates bypass concerns with multilength cartridges and eases change out
- Silicone-free construction ensures no contamination to adversely affect adhesion properties of coatings
- Flow rate 10 gpm per 10-inch length

SPECIFICATIONS

Component	Material/Value
Fiber Media	Acrylic Long Stable Fiber; Phenolic Bonding Resin
Maximum Temperature Rating	250˚F (121˚C)
Maximum Differential Pressure	150 PSID

ORDERING INFORMATION

Custom configurations available; please contact Customer Service.



RESFLEX™	MICRON RATING	LENGTH (IN.)
RBP	2	9.75
	5	10
	10	19.5
	25	20
	50	29.25
	75	30
	125	39
	150	40

DIMENSIONS AND CONSTRUCTION

Resflex™ Series		
Diameter (Inches)		2.56
Length (Inches)	9.75	•
	10	•
	19.5	•
	20	•
	29.25	•
	30	•
	39	•
	40	•

Stringflex™ Series UF-250

Wound Depth
FILTER CARTRIDGES

Stringflex™ Series UF-250 Wound Depth Cartridges are available in a comprehensive selection of filter media and core materials, are effective for a wide range of demanding low to high-temperature commercial and industrial applications. For high performance filtration and long life with minimal fiber migration, choose Stringflex™ wound depth cartridges.

APPLICATIONS

- Chemicals
- Edible Oils
- Electronics
- Food and Beverage
- Inks
- Oil and Gas
- Petrochemicals
- Plating
- Pre-filter for RO Systems

CARTRIDGE OPERATION

Stringflex™ Cartridges are manufactured using precise winding techniques to create a diamond pattern that traps particulates and maintains uniform micron retention throughout the length of the cartridge. This unique construction delivers true depth filtration with optimal cartridge life while minimizing downtime for equipment repair or replacement to maximize profitability.

Choose the micron rating, media and core material that suits your applications. Various o-rings, lengths and endcap options are available.

FEATURES

- Available in 2.5-inch diameter
- Available in natural, bleached or FDA-listed cotton, polypropylene and fiberglass
- Bleached cotton and polypropylene cartridges are FDA-listed
- Choice of core material, o-rings, lengths and endcaps
- Optional core covers on selected cartridges
- Media selection provides broad compatibility
- Suitable for low to high temperature applications
- Excellent particulate reduction with true depth filtration
- Fits in most competitive vessel models
- Extended cartridge life maximizes profitability
- Minimal fiber migration
- FDA-listed materials deliver potable water; permit contact with food products

FILTER MEDIA AND CORE SELECTION GUIDE

	Maximum Temperature	Applications
Fiber Media		
Natural Cotton	300˚F (149˚C)	Organic solvents, water, dilute acids, petroleum oils and other solvents
Bleached Cotton	300˚F (149˚C)	Same applications as natural cotton and also potable liquids, vegetable oils and beverages
Fiberglass	750˚F (400˚C)	Organic acids, organic solvents, petroleum oils, mineral acids, and other corrosive or high temperature services
Polypropylene	180˚F (82˚C)	Same chemical compatibility as polypropylene, fiber complies with FDA regulation that permits contact with food and edible products
Core		
Tinned Steel	400˚F (204˚C)	General purpose applications
Polypropylene	180˚F (82˚C)	Lower temperature applications of corrosive fluids and gases; easily incinerated to trace of ash
304 Stainless Steel	750˚F (400˚C)	High temperature diluted acids and moderately corrosive fluids

ORDERING INFORMATION

Custom configurations available; please contact Customer Service.

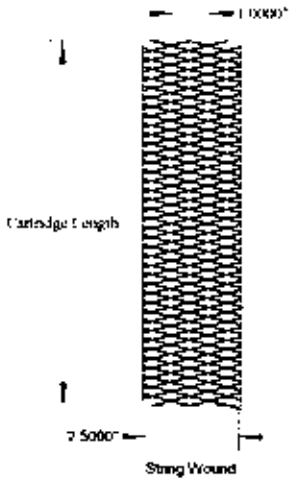
UF	40	- 20	B	P	T	P	S2	B
STRINGFLEX™	MICRON RATING	LENGTH (IN.)	DIAMETER (IN.)	CORD MATERIAL	CORE MATERIAL	ENDCAP MATERIAL	ENDCAP STYLE	SEAL MATERIAL
UF	0.5, 1, 3, 5, 10, 20, 25, 30, 50, 75, 100, 200, 250, 400	9.75 = 9 10 20 30 40	2.5 = B	Polypropylene = P Natural Cotton = C Bleached Cotton FDA = B Fiberglass = F	Polypropylene = P Tinned Steel = T Stainless Steel = S	Polypropylene = P None = X	DOE = D 222 Flat = S2 222 Fin = F2 226 Flat = S6 226 Fin= F6	Buna-N® = B Polypropylene = P None = X

DIMENSIONS AND CONSTRUCTION

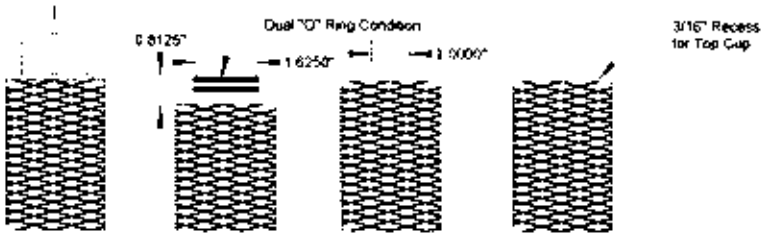
Stringflex™ Series UF-250		
Diameter (Inches)		2.5
Length (Inches)	9.75	•
	10	•
	20	•
	30	•
	40	•
Cord Material		P, C, B, F
Center Core		P, T, S
Endcap		P
Endcap Style	DOE	•
	F2	•
	S2	•
	F6	•
	S6	•
Seal		B, P

Cartridge Availability Key	
P	Polypropylene
B (Cord)	Bleached Cotton
C	Natural Cotton
F	Fiberglass
T	Tinned Steel
S	304 Stainless Steel
B (Seal)	Buna-N®
DOE	Double Open End

CARTRIDGE DIAGRAM



END CONFIGURATIONS



Stringflex™ Series UF-450

Wound Depth
FILTER CARTRIDGES

Stringflex™ Series UF-450 Wound Depth Cartridges, available in a comprehensive selection of filter media and core materials, are effective for a wide range of demanding low to high temperature commercial and industrial applications. For high performance filtration and long life with minimal fiber migration, choose Stringflex™ wound depth cartridges.

APPLICATIONS

- Chemicals
- Edible Oils
- Electronics
- Food and Beverage
- Inks
- Oil and Gas
- Petrochemicals
- Plating
- Pre-filter for RO Systems

CARTRIDGE OPERATION

Stringflex™ Cartridges are manufactured using precise winding techniques to create a diamond pattern that traps particulates and maintains uniform micron retention throughout the length of the cartridge. This unique construction delivers true depth filtration for optimal cartridge life while minimizing downtime for equipment repair or replacement to maximize profitability.

Choose the micron rating, media and core material that suits your applications. Various o-rings, lengths and endcap options are available.

FEATURES

- 4.5-inch diameter
- Polypropylene and fibrillated polypropylene
- Media selection provides broad compatibility
- Suitable for low-to-high-temperature applications
- Excellent particulate reduction with true depth filtration
- Extended cartridge life
- Minimal fiber migration
- FDA-listed materials

FILTER MEDIA AND CORE SELECTION GUIDE

	Maximum Temperature	Applications
Media		
Polypropylene	180˚F (82.2˚C)	Same chemical compatibility as polypropylene, fiber complies with FDA regulation that permits contact with food and edible products
Core		
Polypropylene	180˚F (82.2˚C)	Lower temperature applications of corrosive fluids and gases; Easily incinerated to trace of ash

ORDERING INFORMATION

Custom configurations available; please contact Customer Service.

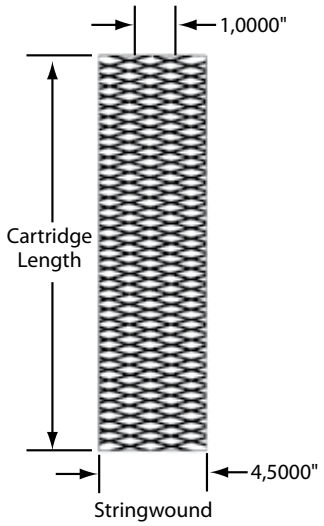
UF	100	-	20	F	P	P		X	D	X
STRINGFLEX™	MICRON RATING		LENGTH (IN.)	DIAMETER (IN.)	CORD MATERIAL		CORE MATERIAL	ENDCAP MATERIAL	ENDCAP STYLE	SEAL MATERIAL
UF	0.5 1 5 10 25 50 100		9.75 = 9 20	4.5 = F	Polypropylene = P Fibrillated Polypropylene = Z		Polypropylene = P None = X	None = X	DOE = D	None = X

DIMENSIONS AND CONSTRUCTION

Stringflex™ Series UF-450		
Diameter (Inches)		4.5
Length (Inches)	9.75	•
	20	•
Cord Material		P, Z
Center Core		P, X
Endcap		X
Endcap Style	DOE	•
Seal		X

Cartridge Availability Key	
P	Polypropylene
Z	Fibrillated Polypropylene

CARTRIDGE DIAGRAM



Apflex™ Series WS

Water Softener
FILTER CARTRIDGES

Apflex™ Series WS Filter Cartridges deliver softened water through the use of FDA-grade sodium-based, non-solvent-rinsed softening resin. The cartridge design provides a convenient solution for delivering softened water to protect sensitive delivery equipment.

APPLICATIONS

- Coffee and Espresso Appliances
- Commercial Food Service Machines
- Low Volume Beverage Machines
- Medical Equipment

CARTRIDGE OPERATION

Apflex™ Series WS Cartridges are designed to allow optimal contact between water and resin surfaces, ensuring maximum ion exchange. The internal expansion pad minimizes channeling, while the post-filter eliminates any potential for bypass.

FEATURES

- Manufactured with FDA-grade softener resin
- Available in a variety of sizes for multiple applications
- Utilize single-use resin technologies for maximum life grains ($CaCo_3$) capacity
- Sodium form
- Designed for low water usage
- Available in three sizes for use in Pentair Slim Line®, Standard, and Big Blue® Series filter housings
- Effectively treat water in applications requiring low hardness and scale deposits with capacity ranging between 750 to 4,500 grains

SPECIFICATIONS

Component	Material/Value
Filter Media	Cation, Sodium-Form Resin, 20 x 40 Mesh, R-S03-Na+
Endcaps	Polypropylene
Pre-Filter	Polypropylene
Post-Filter	Polypropylene
Gaskets	Buna-N®
Temperature Rating	100˚F (37.8˚C)

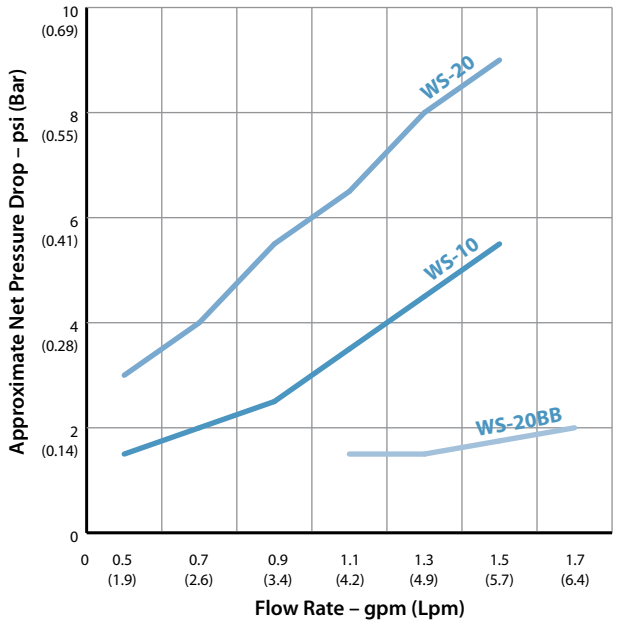
WARNING: *For drinking water applications, do not use where the water is microbiologically unsafe or with water of unknown quality without adequate disinfection before or after the system.*

CARTRIDGE SPECIFICATIONS AND PERFORMANCE

Model	Dimensions	Recommended Flow Rates	Capacity (Grains as $CaCO_3$)
WS-10	2.625" x 9.75" (67 mm x 248 mm)	0.50 gpm (1.9 Lpm)	750
WS-20	2.625" x 20" (67 mm x 508 mm)	0.75 gpm (2.8 Lpm)	1500
WS-20BB	4.5" x 20" (114 mm x 508 mm)	2.0 gpm (8.5 Lpm)	4500

TEST DATA

Apflex™ Series WS Water Softener Cartridge Water Flow Rate



Apflex™ Series PCF
Mixed Bed Deionization
FILTER CARTRIDGES

Apflex™ Series PCF Cartridges have been developed in response to the requirements for deionized water in many industries. These high-capacity, semi-conductor-grade resin cartridges are ideal for use in pharmaceutical and medical laboratories, cosmetics, and circuit board printing applications.

APPLICATIONS

- Boiler Make-up Water
- Circuit Board Printing
- Cosmetics
- Humidification Systems
- Jet Water Sprayers
- Lasers
- Medical/Laboratory
- Pharmaceutical
- Power Generating Equipment
- Recirculating/Cooling Towers
- Steam and Humidification
- Steam Processors

CARTRIDGE OPERATION

Apflex™ Series PCF Cartridges are manufactured using an FDA-compliant resin that has been subjected to additional post-production steps to minimize the total organic carbon (TOC) level. They are convenient and cost-effective for many applications where low levels of total organic carbon (TOC) and total dissolved solids (TDS) are required.

FEATURES

- Designed for deionizing water up to 16 megohms
- All materials and construction are FDA-compliant
- Available in three sizes, flow rates and capacities

SPECIFICATIONS

Component	Material/Value
Filter Media	Mixed bed DI Resins
Endcaps	Polypropylene
Shell	Polypropylene
Pre-Filter	Polypropylene
Post-Filter	Polypropylene
Gaskets	Buna-N®
Temperature Rating	40˚F (4.4˚C) –100˚F (37.8˚C)

WARNING: *For drinking water applications, do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the unit.*

CAUTION: *Do not use cartridges on equipment that has an electric conductivity water level indicator.*

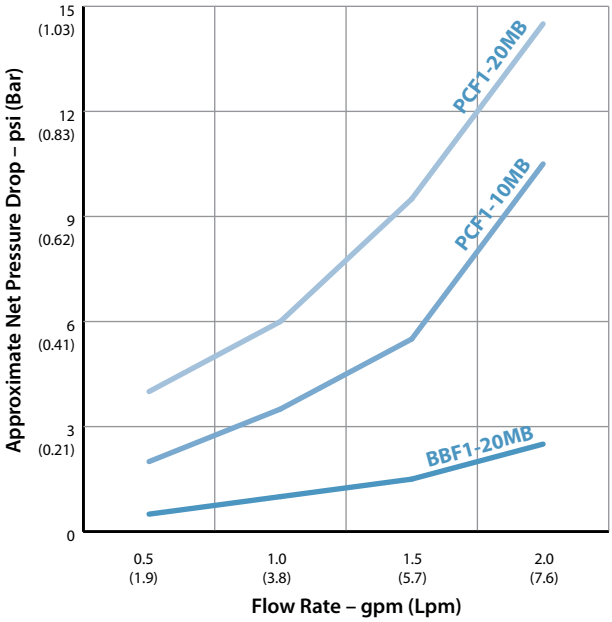
CARTRIDGE SPECIFICATIONS AND PERFORMANCE*

Model	Maximum Dimensions	Capacity Grains (mg TDS as $CaCO_3$)	Initial ΔP (PSI) @ Flow Rate (gpm)	Suggested Flow Rate
PCF1-10MB	2.67" x 9.75" (68 mm x 248 mm)	270 (17,500)	1.5 PSI @ 0.25 gpm (0.10 bar @ 0.95 Lpm)	0.25 gpm (0.95 Lpm)
PCF1-20MB	2.67" x 20" (68 mm x 508 mm)	600 (38,800)	3.4 PSI @ 0.25 gpm (0.23 bar @ Lpm)	0.50 gpm (1.9 Lpm)
BBF1-20MB	4.5" x 20" (114 mm x 508 mm)	1850 (120,000)	1.10 PSI @ 1.25 gpm (0.076 bar @ 4.7 Lpm)	1.25 gpm (4.7 Lpm)

* ***NOTE:*** *The above resin data is based on information obtained by Pentair Filtration, Inc. This data does not imply any warranty or performance guarantee. We recommend that the user determine performance by testing on his own processing equipment. We assume no liability or responsibility for patent infringement resulting from the use of this product.*

TEST DATA

Apflex™ Series PCF Filter Mixed Bed Deionization Cartridge Water Flow Rate



Typical Cartridge Properties and Characteristics	
Function Structure	Cation R-SO3-H+ Anion AR-N(CH2)2(C2H2OH)+OH-
Physical Form	Moist Spherical Bead
Ionic Form	H/OH
Percent Conversion	Hydrogen 99% minimum Hydroxide 95% minimum

Apflex™ Series RFFE20-BB
Radial Flow Iron Reduction FILTER CARTRIDGES

Apflex™ Series RFFE20-BB Radial Flow Iron Reduction Cartridges easily and effectively reduce up to 3 ppm of dissolved iron from water to improve flavor by reducing the metallic taste caused by iron.

APPLICATIONS

- Commercial Drinking Water Filtration
- Residential Drinking Water Filtration

CARTRIDGE OPERATION

Apflex™ Series RFFE20-BB Filter Cartridges are designed to provide an easy and effective method of reducing iron from water, which greatly improves its taste. These cartridges help to eliminate the orange and brown stains often found in sinks, toilets, tubs and other plumbing fixtures. They also reduce the possibility of damage to pipes and water heaters and reduce up to 3 ppm dissolved iron.

FEATURES

- Reduces the possibility of pipe and water heater damage
- For use in Pentair 20-inch Big Blue® filter housings
- Adds no harmful chemicals to the water, making it completely safe for drinking water applications
- Installs on the main cold water line after the pressure tank or water meter
- For best results, pre-sediment and post-carbon treatment is recommended

SPECIFICATIONS

Component	Material/Value
Filter Media	Permanganate Treated Zeolite
Endcaps	Polypropylene
Shell	Polypropylene
Pre-Filter	Polypropylene
Post-Filter	Polypropylene
Gaskets	Buna-N®
Temperature Rating	40˚F (4.4˚C) –100˚F (37.8˚C)

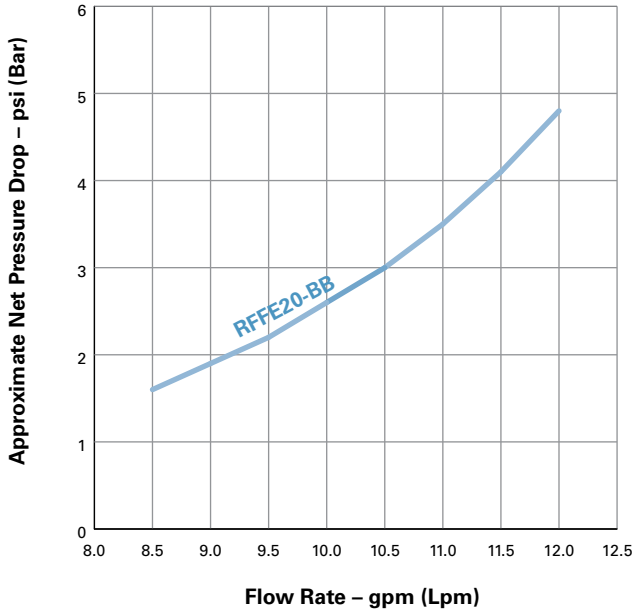
APPROXIMATE LIFE OF SYSTEM*

Iron Level in Water	Water Used	250 GPD (Four People)	125 GPD (Two People)	75 GPD (One Person)
5 ppm	16,000 gal	64 days	128 days	256 days
4 ppm	20,000 gal	80 days	160 days	320 days
3 ppm	26,000 gal	104 days	208 days	416 days
2 ppm	40,000 gal	160 days	320 days	640 days
1 ppm	80,000 gal	320 days	640 days	1280 days
0.5 ppm	160,000 gal	640 days	1280 days	N/A

** Test results were obtained by using the RFFE20-BB in combination with an RFC20-BB cartridge.*

TEST DATA

Apflex™ Series RFFE20-BB Radial Flow Iron Reduction Cartridge Water Flow Rate



Recommended Operating Conditions	
pH	>7.0
Silica	<100 ppm
Manganese	<1 ppm
Iron	<3 ppm
Iron Bacteria	None
Hydrogen Sulfide	None

NOTE: *Water conditions outside of the above specified limits may lead to a shortened filtration life. If your water contains Iron Bacteria, shock chlorination is recommended.*

WARNING: *Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the unit.*

CAUTION: *Protect against freezing to prevent cracking of the filter and water leakage.*

NOTE: *The RFFE20-BB and RFC20-BB cartridges will contain a very small amount of fines (very fine powder) and new cartridges, after installation, should be flushed with sufficient water to remove all traces of fines from your water system before use.*

Apflex™ Series PCC
Hexametaphoshate Crystal FILTER CARTRIDGES

Apflex™ Series PCC Hexametaphoshate Crystal Cartridges are effective for treating scale, corrosion and iron problems for up to six months at various flow rates and feed concentrations. The PCC-106 insert element is placed in the center core of the cartridge. It is designed for use with standard 10- and 20-inch radial flow, sediment and carbon block double open end (DOE) filter cartridges.

APPLICATIONS

- Air Conditioning Equipment
- Coffee and Vending Machines
- Drinking Water
- Food Service Equipment
- Ice Machines
- Water Heaters
- Water Processing Equipment

CARTRIDGE OPERATION

Apflex™ Series PCC Filter Cartridges contain food-grade hexametaphosphate that dissolves slowly in water to inhibit scale and rust build-up. These cartridges are available in four feeder sizes with variable volumes of phosphate crystals. All materials are FDA-grade.

FEATURES

- Hexametaphosphate crystals help prevent lime and scale deposits
- Effective for treating corrosion and iron problems
- Three unique designs to fit multiple applications
- Variety of media volumes and flow rates
- Manufactured with all FDA-grade materials
- PCC-212 and PCC-218 cartridges are designed to fit Pentair 3G® Standard #10 or Slim Line® filter housings
- PCC-1 cartridge is designed to fit in 3G® Standard #10 housings only

SPECIFICATIONS

Component	Material/Value
Filter Media	Food grade polyphosphate
Shell	Polypropylene
Post-Filter	Polypropylene
Gaskets	Buna-N® (PCC-212 & PCC-218)
Temperature Rating	40˚F (4.4˚C) –100˚F (37.8˚C)

CAUTION: *Eye irritant. Contains sodium calcium hexametaphosphate. Avoid contact with eyes. In case of eye contact, flush with water for 15 minutes, get medical attention. Keep out of reach of children.*

WARNING: *For drinking water applications, do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.*

NOTE: *PCC212 and PCC218 cartridges are not recommended for main line water applications with flow rates exceeding 3.0 gpm (11.4 lpm).*

NOTE: *With steamers, the water should be flushed daily.*

CAUTION: *Do not use this cartridge on water that will be carbonated.*

CARTRIDGE SPECIFICATIONS AND PERFORMANCE

Model	Maximum Dimensions	Initial ΔP (PSI) @ Flow Rate (gpm)
PCC-1	2.875" x 9.625" (73 mm x 244 mm)	Up to 5 gpm (19 Lpm)
PCC-106	1.0625" x 5.4375" (27 mm x 138 mm)	1 to 1.5 gpm (4 to 6 Lpm) for insertion in center core of open core cartridges
PCC-212	2.625" x 9.75" (67 mm x 248 mm)	1 to 1.5 gpm (4 to 6 Lpm)
PCC-218	2.625" x 9.75" (67 mm x 248 mm)	1.5 to 2.5 gpm (6 to 10 Lpm)

Apflex™ Series PCC Hexametaphosphate Crystal Cartridges	
Scale	Hardness particles are kept separated so they cannot precipitate and form deposits when heated. Maximum hardness 15 gpg.
Corrosion	A protective coating is formed on all metal surfaces, safeguarding against acidity/alkalinity, hardness, chloride and other factors which effect the corrosion of water equipment and pipes. pH range 6.5 – 9.0.
Iron	Dissolved iron, up to 1 ppm, is kept suspended in solution (sequestered), preventing dissolved iron from precipitating, which can cause staining and discoloration.

Pentair Industrial

FILTER BAGS

Liquid filter bags available for all common liquid bag housings.

Custom bags for every application.

Micron ratings from 1 to 1500 microns, depending on media.

Pleated bag models feature ultrasonic construction with high capacity surface area.

Easy installation and removal.

SIZING A LIQUID FILTER BAG

To properly size a filter bag, certain information is required. The questionnaire requests the information; below is an explaination of the reasons why these questions are asked.

A. BASIC INFORMATION REQUIRED: Provides the minimum amount of information for sizing a filter bag based strictly upon flow rates with no regard to contaminant loading. Hence, if sized on flow rate alone, frequent change-out could be required.

B. SPECIFIC INFORMATION REQUIRED: Provides for information to size a filter bag based upon the flow rates and the dirt/contaminant loading. All of this information should be met if at all possible.

A. WHY Basic Information is Required:

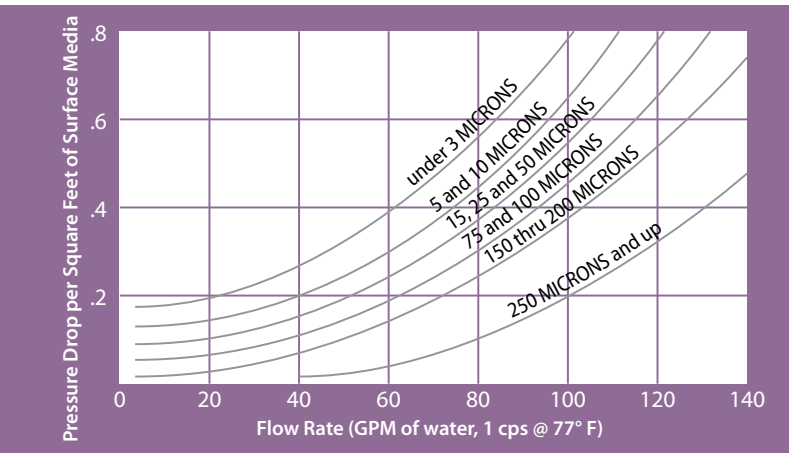
1. **Medium:** To properly choose the correct media for chemical compatibility.
2. **Flow Rate:** To properly choose the correct filter bag size.
3. **Temperature:** To properly choose the correct media for temperature range.
4. **Viscosity:** To configure the pressure drop/delta p across the filter bag. The higher the viscosity, the greater the delta p. This means, a larger size filter bag or a multiple number of filter bags may be required.
5. **Application:** To learn the background into what is to be accomplished.
6. **Operation:** To obtain additional background information.
7. **Types of Pump:** To learn pumping characteristics which are detrimental to filtration efficiencies. As positive, displacement; centrifugal and submerged pumps have smooth even flows while diaphragm pumps have pulsating flows.
8. **Location of Bag Housing to Pump:** To determine the size of the filter bag as pumps can only tolerate a certain delta p on their suction side or the pump will cavitate.

B. WHY Specific Information is Required:

1. **Particle Type:** To determine if the dirt/particulate is detrimental to the filter media.
2. **Particle Physical Properties:** To determine if the contaminant, will "plug up", i.e., blind off the filter due to its physical nature. For example, clay silt when wet acts just like a sealant.
3. **Particle Size To Be Removed:** To determine the filter bag micron rating.
4. **Particle Size Range:** To determine if there is a broad or narrow range of particle sizes in the liquid to determine if single or multiple filtration stages are required.
5. **Particle Loading:** To determine how many filter bags are to be required for the removal of dirt/particulate based upon the known dirt/particulate holding capacity of a filter bag at a given micron rating.
6. **Distribution Of Particles By Weight:** To "fine tune" the application and relates to item "4" above as single or multiple stages.

Bag Selection Guide

- The following data is based on 1 square foot of filtration media. Divide the differential pressure by the number of square feet of media that is found in the selected bag to get your final rating.
- The correction chart is based on 1 centipoise. If your liquid is above 1, use the correction factor to determine your estimated pressure drop.



CORRECTION CHART

VISCOSITY IN CPS.	CORRECTION FACTOR
50	4.5
100	8.3
200	16.6
400	27.7
800	50.0
1000	56.2
2000	113.6
4000	161.0
6000	250.0
8000	325.0

APPLICATION NOTES:

LIQUID FILTER BAG APPLICATION INFORMATION FORM

This form will help you determine the correct filter bag for your application.

A. BASIC INFORMATION REQUIRED

1. Medium: ❑ Water ❑ Animal Oil ❑ Mineral Oil ❑ Vegetable Oil ❑ Petroleum Oil ❑ Synthetic Oil ❑ Acid ❑ Alkali ❑ Solvent

Specify Common/Chemical Name _____

2. Flow Rate: _____ GPM _____ LPM _____ M2/Hr Other _____

3. Temperature: _____ ˚F _____ ˚C _____

4. Viscosity: _____ SSU _____ CPS Other _____

5. Application: ❑ Water ❑ Cooling ❑ Ground Remediation ❑ Oils ❑ Cutting ❑ Grinding

6. Operation: ❑ Continuous ❑ Batching ❑ Timed Period

Describe Operation _____

7. Type of Pump: ❑ Rotary ❑ Piston ❑ Screw ❑ Centrifugal ❑ Diaphragm ❑ Gravity ❑ Submerged

8. Location of Bag Housing to Pump: ❑ Suction Side ❑ Discharge Side

B. SPECIFIC INFORMATION REQUIRED

1. Particle Type: ❑ Rust ❑ Scale ❑ Grit ❑ Clay Metal ❑ Chips ❑ Fines ❑ Sand ❑ Fibers

2. Particle Physical Properties: ❑ Hard ❑ Soft ❑ Sticky ❑ Gummy

Describe Further _____

3. Particle Size to Be Removed: ❑ Micron _____ ❑ Mesh _____ ❑ Inches _____

4. Particle Size Range: _____

5. Particle Loading: ❑ PPM _____ ❑ Grams _____ ❑ Lbs _____

6. Distribution of Particles by Weight: _____

_____

_____

Liquid
FILTER BAGS

Economical filtration for a wide array of applications. Highly controlled manufacturing procedures ensure consistent quality and no contamination. The unique bag designs provide added strength and avoids risk of bypass. Our filter bags will fit all industry-standard bag housings.

APPLICATIONS

- Automotive
- Commercial
- General Industrial
- Paints, Inks, Coatings
- Water

REPLACEMENT BAGS AVAILABLE FOR:

American Felt™
Commercial™
Cuno®
Filter Specialists™ (FSI)
Filtration Systems™
GAF Filter Systems™
Plenty™
Ronnigen-Petter™
Rosedale™
Strainrite™

FEATURES

- Available medias range from 1 to 1500 microns
- Heavy-duty handle for easy installation and removal
- Wide array of media fibers to meet needed temperature and micron specifications
- Bag finish or covers available for strict migration requirements
- OEM replacement ring styles
- Multi-layered filtering capabilities for higher dirt-holding capacities and fewer change-outs
- Dimensions range from 4.12-inch diameter × 8-inch length thru 9-inch diameter × 32-inch length

BAG SPECIFICATIONS

Model No.	Bag Size	Length (inches)	Diameter (inches)	Surface Area (sq. ft.)
44-6	#3	8	4.12	.5
44-12	#4	14	4.12	1.0
66-12	#7	15	5.62	1.3
66-18	#8	21	5.62	2.0
66-30	#9	32	5.62	3.4
88-15	#1	16.5	7.06	2.0
88-15	#1 inner	14.5	5.75	1.6
88-30	#2	32	7.06	4.4
88-30	#2 inner	30	5.75	3.6
M88-30-OEM	#12	30	8.00	5.5
Multi-Rounds	#2	32	7.06	4.4

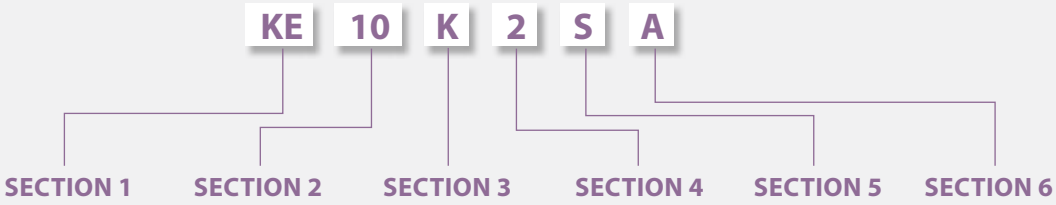
MICRON RATINGS PERFORMANCE

Fiber	Micron Rating															Temp
	1	5	10	15	25	50	75	100	150	200	250	300	400	600	800	1500	
Felt, Nomex (HT)		•	•	•	•	•		•									450˚F (232.2˚C)
Felt, Polyester (KE)	•	•	•	•	•	•	•	•		•							250˚F (121.1˚C)
Felt, Polypropylene (KO)	•	•	•		•	•		•									200˚F (93.3˚C)
Monofilament Mesh, Nylon (NMO)		•	•		•	•	•	•	•	•	•	•	•	•	•		250˚F (121.1˚C)
Monofilament, Polyester (KEMO)		•	•		•	•	•	•	•	•	•	•	•	•	•		250˚F (121.1˚C)
Monofilament Mesh, Polypropylene (KOMO)											•	•	•	•	•		200˚F (93.3˚C)
Multifilament Mesh, Nylon (NM)									•								250˚F (121.1˚C)
Multifilament Mesh, Polyester (KEM)*								•	•	•	•		•	•	•	•	250˚F (121.1˚C)
Oil Removal (OR)					•												200˚F (93.3˚C)

** Multifilament Polyester also available in 125, 1000 and 1500 microns.*

ORDERING INFORMATION

Custom configurations available; please contact Customer Service.



SECTION 1	SECTION 2	SECTION 3
Fibers	**Micron Ratings Available for the Designated Fibers**	**Bag Finish or Cover** (Over Felt Only)
KE = Felt, Polyester	KE = 1, 5, 10, 15, 25, 50, 75, 100, 200	K = Glazed
KO = Felt, Polypropylene	KO = 1, 5, 10, 25, 50, 100	NG = Non-Glazed Finish
NMO = Monofilament Mesh, Nylon	NMO = 5, 10, 25, 50, 75, 100, 125, 150, 175, 200, 250, 300, 400, 600, 800	KEM = Polyester Multifilament Mesh Cover
KEM = Multifilament Mesh, Polyester	KEM = 75, 100, 125, 150, 200, 250, 300, 400, 800, 1500	C = Spun-Bonded Nylon (Cerex®)
OR = Oil Removal Material	OR = 25	R = Spun-Bonded Polyester (Reemay®)
HT = Felt, Nomex (nylon)	HT = 5, 10, 25, 50, 100	NM = Nylon Multifilament Mesh Cover
KOMO = Monofilament Mesh, Polypropylene	KOMO = 75, 100, 125, 150, 175, 200, 250, 300, 400	NMO = Nylon Monofilament Mesh Cover
NM = Multifilament Mesh, Nylon	NM = 150	KOMO = Polypropylene Monofilament Mesh Cover

** Multifilament Polyester also available in 125, 1000 and 1500 microns.*

SECTION 4	SECTION 5	SECTION 6
Size & Symbol with Useage and Bag Dimensions	**Ring Styles**	
1 = Standard #1 Size Housings - Model 88-15 - 7.0625" dia. x 16.5" long	S = Carbon steel Ring	A = Automotive
2 = Standard #2 Size Housings - Model 88-30 - 7.0625" dia. x 32" long	SS = Stainless Steel Ring	
3 = Standard #3 Size Housing - Model 44-6 - 4.125" dia. x 8" long	KO = Polypropylene Ring	
4 = Standard #4 Size Housing - Model 44-12 - 4.125" dia. x 14" long	B = Stainless Steel Band on Commercial Bags	
7 = Standard #7 Size Housings - Model 66-12 - 5.625" dia. x 15" long	K = FSI Style Flanged Plastic Top	
8 = Standard #8 Size Housings - Model 66-18 - 5.625" dia. x 21" long		
9 = Standard #9 Size Housings - Model 66-30 - 5.625" dia. x 32" long		
12 = Standard #12 Size Housings - Model M88-30-0EM - 8" dia. x 32" long		
CU1 = Cuno #1 Size Housings - Model PC1 - 9" dia. x 20" long		
CU2 = Cuno #2 Size Housings - Model PC2 - 9" dia. x 30" long		
RK1 = Ronningen Petter Fabric Basket Housings #1 Size - 8" dia. x 30" long		
RK2 = Ronningen Petter Fabric Basket Housings #2 Size - 8" dia. x 40" long		
C01 = Commercial Filters #1 Size Housings - 7.3125" x 17" long		
C02 = Commercial Filters #2 Size Housings - 7.3125" dia. x 33" long		

MHP Series

Maximum High Performance FILTER BAGS

MHP Series Filter Bags have been tested under true filtering conditions to perform in the most demanding applications. If you need a maximum performance bag, the MHP Series offers you 96% to 99% efficiency at 2 to 35 microns or greater, depending on model.

APPLICATIONS

- Commercial Process Fluids
- Industrial Process Fluids

FEATURES

- Tested under operating conditions
- 42 square feet of filtration media
- Maximum dirt-loading
- Maximum efficiency rating
- Heavy-duty Stainless Steel ring
- Multi-layer graded density depth filtration
- Independent lab tested
- Polypropylene media construction
- Low initial pressure drop
- Fits into any standard size metal ring #2-size housing
- Fiber-free cover
- Silicone-free
- Packaged two per carton

TEST DATA Micron Efficiency Rating Per ASTM F795-88

Part Number	Fluid Type	Flow Rate	Temperature	Initial
MHP02ML2SS	Water	2.5 gpm	Ambient	0.6 PSID
MHP08ML2SS		25 gpm		1.5 PSID
MHP15ML2SS				1.8 PSID
MHP35ML2SS				1.2 PSID

GRAM LOADING TEST Per Modified Multi-Pass ASTM F797

Part Number	Fluid Type	Temperature	Net Capacity
MHP02ML2SS	Water	Ambient	1844 grams
MHP08ML2SS			788 grams
MHP15ML2SS			1758 grams
MHP35ML2SS			1007 grams

PERFORMANCE Average percent efficiency rating of two tests.

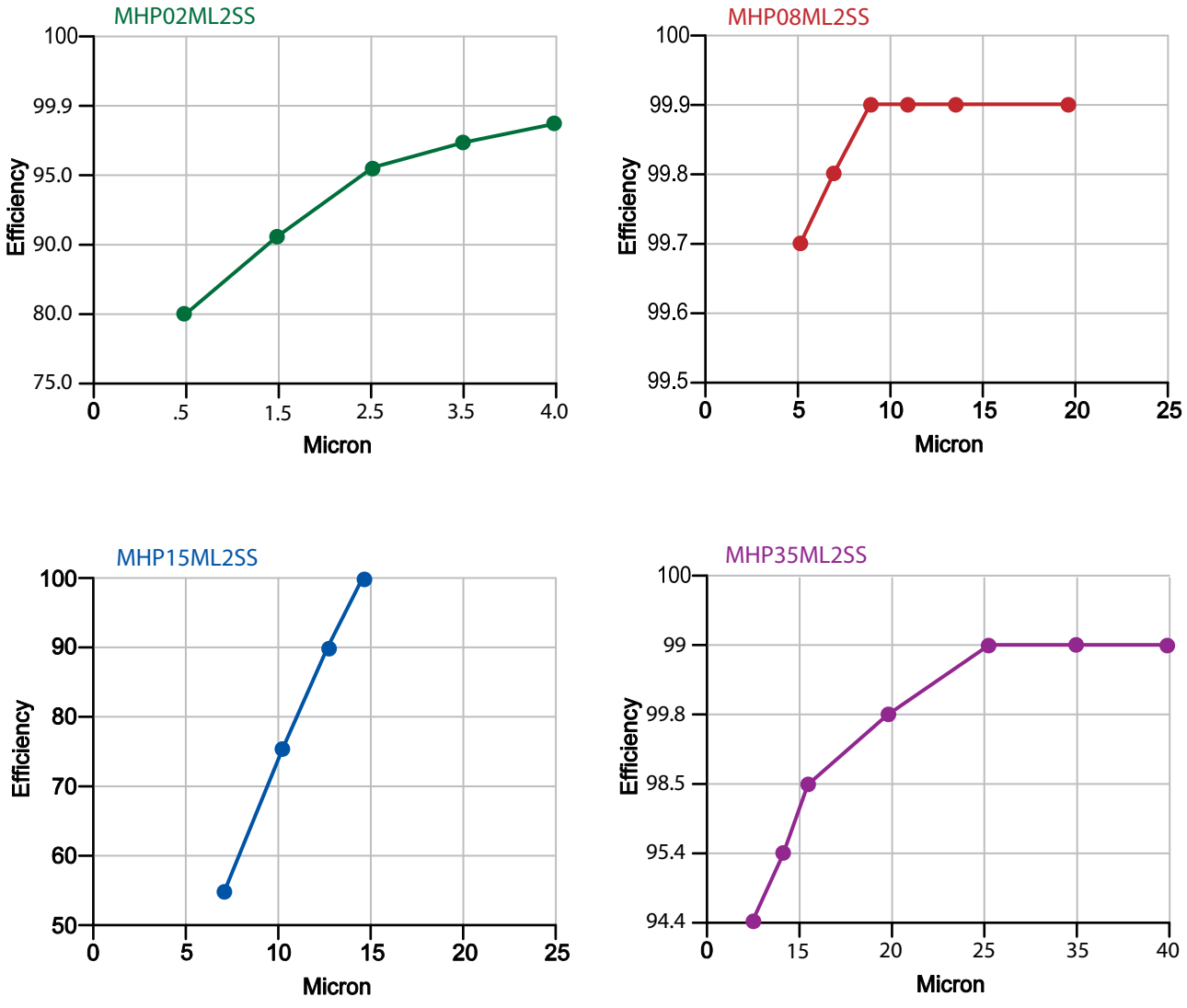
	MICRON SIZE													
Part Number	.5 - 1	1 - 1.5	1.5 - 2	2 - 3	3 - 4	5 - 6	6 - 8	8 - 10	10 - 12	12 - 15	15 - 20	20 - 25	25 - 35	35 Greater
MHP02ML2SS	80.2%	93.4%	95.7%	96.3%	97.2%									
MHP08ML2SS						99.7%	99.8%	99.9%	99.9%>	99.9%>	99.9%>			
MHP15ML2SS							55.75%	76.3%	90.65%		99.0%>	99.0%>	99.0%>	
MHP35ML2SS									94.4%	95.4%	98.5%	99.8%>	99.0%>	99.0%>

MEDIA SPECIFICATIONS

Part Number	Material	Maximum Temperature	Flow Rate	Initial PSID	Maximum PSID	Suggested Change	Size
MHP02ML2SS	Polypropylene	190° F	2.5 gpm	0.6 water	30 PSID	20 PSID	7.125" x 32" Standard Trade Size #2
MHP08ML2SS			25 gpm	1.5 water	45 PSID	25 PSID	
MHP15ML2SS				1.8 water			
MHP35ML2SS				1.2 water			

TEST DATA

MHP Series Efficiency



Pleated Series
FILTER BAGS

Pleated Series Filter Bags are available for all industry-standard housings in a wide array of micron ratings. These bags are constructed with polypropylene or polyester felt and provide more then four times the surface area of standard filter bags.

APPLICATIONS:

- Commercial Process Fluids
- Industrial Process Fluids

FEATURES:

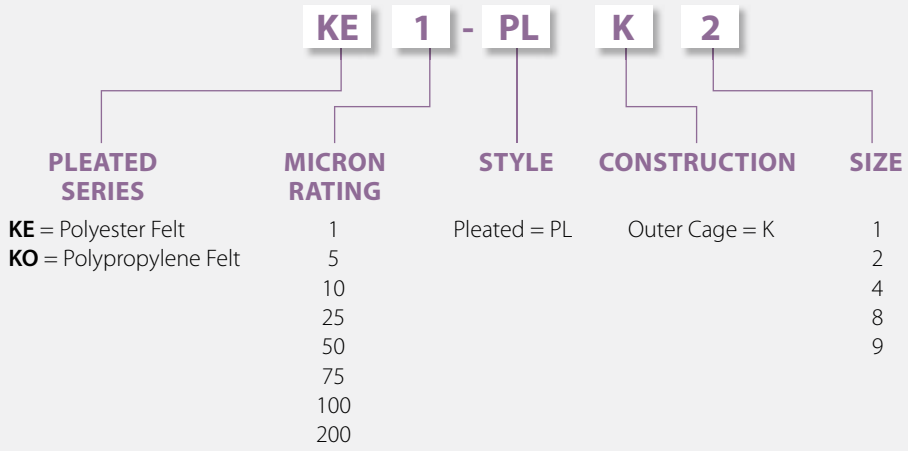
- Complete ultrasonic construction
- Greater surface area
- High dirt-loading capacity
- Low pressure drop
- Fully supported pleats
- Positive sealing flange designs
- Available medias range from 1 to 200 microns

SPECIFICATIONS

Component	Material/Value
Filter Media	Polyester or Polypropylene

ORDERING INFORMATION

Custom configurations available; please contact Customer Service.



LIQUID BAG SQUARE FOOTAGE

Size	Pleated	Standard
#1	9.0	2.0
#2	19.0	4.4
#4	2.5	1.0
#8	8.0	2.0
#9	13.0	3.4

BP, BPHE & BN Series
FILTER BAGS

BP, BPHE & BN Series Filter Bags feature a thermally-welded, unique design that results in consistent filtration efficiencies. They are designed to fit the BPHE-410 and BPHE-420 Housings. Higher productivity can be achieved with faster bag change-outs. The semi-rigid cylindrical design is easily crushed and incinerated.

APPLICATIONS

- Acids
- Alkalis
- Corrosive Fluids
- Micro-organisms
- Oils
- Organic Solvents

FEATURES

BP Series (Polypropylene Felt)

- Filtration ratings from 1 to 200 microns to comply with any filtration requirement
- Manufactured from felt due to its high solids loading capabilities versus similar mesh fabrics
- The media is created by needle-punching two layers of synthetic fibers together in a supporting scrim
- A glazed finish, created by melting the outermost surface fibers, is used to produce a bond that reduces the possibility of migration

BPHE Series (High-Efficiency)

- For those critical applications when high-efficiency combined with high dirt-holding capacity is required
- Polypropylene materials are processed into microfibers with diameters of 1 to 10 microns or more, then converted into filter material
- Microfiber media is covered with spun-bonded polypropylene

BN Series (Strainer)

- Woven monofilment materials are offered in nylon with micron ratings of 50 to 800
- Efficiencies from 75 to 95 percent
- Materials are cleanable and reusable

WARNING: *For drinking water applications, do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.*

NOTE: *This information is for general guidance. Users should test bag materials with media involved to determine compatibility.*

CAUTION: *Protect against freezing to prevent cracking of the filter and water leakage.*

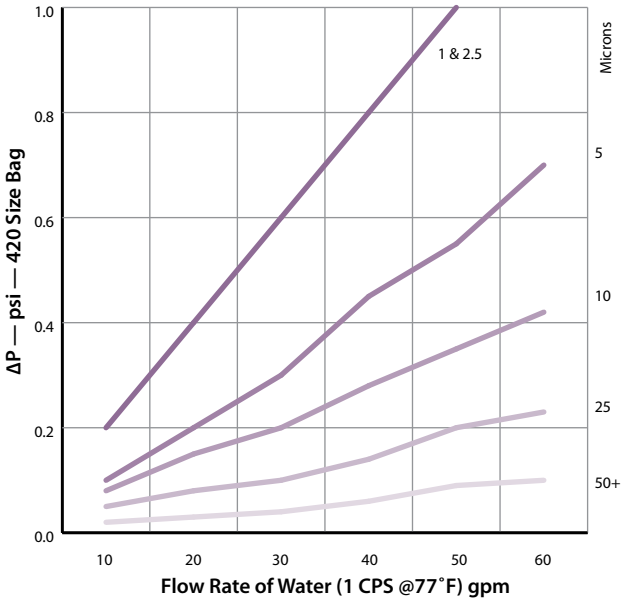
BAG SPECIFICATIONS AND PERFORMANCE

Model	Dimensions	Filter Media	Micron Rating	Case Quantity	Maximum Temperature
BP-410	4" x 8.625" (102 mm x 218 mm)	Glazed Polypropylene Felt	1, 5, 10, 25, 50, 100, 200	20	200˚F (93.3˚C)
BP-420	4" x 18" (102 mm x 457 mm)	Glazed Polypropylene Felt	1, 5, 10, 25, 50, 100, 200	20	
BPHE-410	4" x 8.625" (102 mm x 218 mm)	Polypropylene Microfibers with Spun-Bonded Polypropylene Covers	1, 5, 10, 25, 50, 75, 100	20	
BPHE-420	4" x 18" (102 mm x 457 mm)	Polypropylene Microfibers with Spun-Bonded Polypropylene Covers	1, 5, 10, 25, 50, 75, 100	20	
BN-410	4" x 8.625" (102 mm x 218 mm)	Nylon Monofilament Mesh	50, 100, 150, 200, 250, 300, 400, 600, 800	20	
BN-420	4" x 18" (102 mm x 457 mm)	Nylon Monofilament Mesh	50, 100, 150, 200, 250, 300, 400, 600, 800	20	

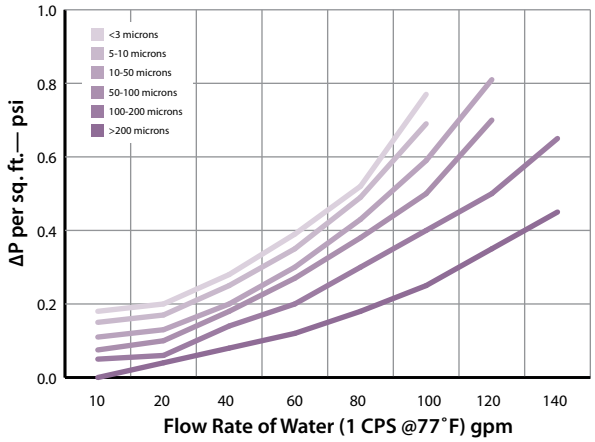
TEST DATA

BP, BPHE & BN Series Filter Bags Water Flow Rate

High Efficiency Bags



Polypropylene Felt Bags



Viscosity (cps)											
50	100	200	400	800	1000	1500	2000	4000	6000	8000	10000
4.5	8.3	16.6	27.7	50.0	56.2	77.2	113.6	161.0	250.0	325.0	430.0
Correction Factor											

See application literature for housing ratings.

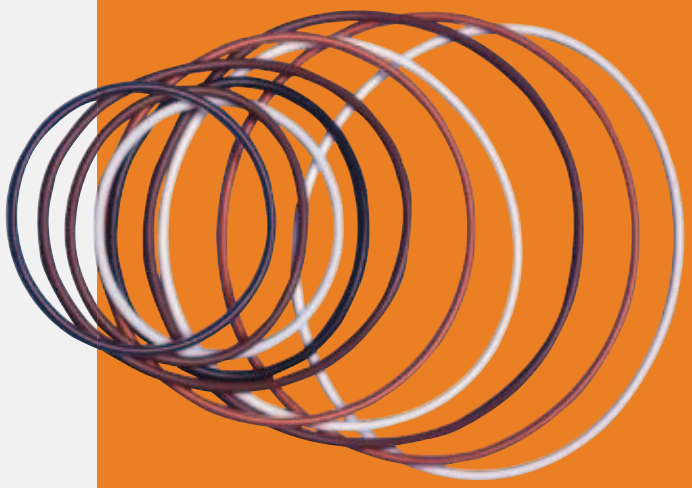
Pentair Industrial

LIQUID CARTRIDGE HOUSINGS

- *Wide variety of styles and flow rates up to 4100 gpm.*
- *Standard models feature patented design and accommodate 2.25- to 3.125-inch cartridges.*
- *Big Blue® and Big Clear models offer high flow rates accepting 4.5-inch cartridges.*
- *High temperature glass-reinforced nylon and 100% polypropylene models for special applications.*
- *Large capacity models accommodate multiple cartridges and high flow rate requirements.*

O-Rings

We offer o-rings in hundreds of sizes and material options. Contact us with your specific application requirements.



APPLICATIONS

- Commericial Process Fluid Sealing
- Industrial Process Fluid Sealing

PERFORMANCE

Buna-N®	Effectively resists petroleum based oils and like hydraulic fluids. Known for a good compression set and abrasion resistance. Is not compatible with strong acids or ketones. Temperature range is -65 to +275 degrees F. Has a Shore A hardness of 70.
Ethylene, Propylelne	Effectively resists phosphates ester based hydraulic fluids, also offers a high abrasion resistance. Works well with ketones and silicone based liquids. Is not compatible with petroleum fluids. Temperature range is -65 to +300 degrees F. Has a Shore A hardness of 70.
Silicone Encapsulated with FEP	Silicone is similar to Viton® with the exception of having a slightly lower compression set resistance. It is more suitable for sensitive applications where lighter compressive forces are applied to energize the seal. Temperature range of -65 to 450 degrees F. This core has a Shore A hardness of 70.
Silicone, Solid	Effectively resists temperatures fluctuations and high alkaline liquids. Is not compatible with ketones or most petroleum oils. Temperature range of -65 to 450 degrees F. Has a Shore A hardness of 70.
Teflon®, Solid	Superior lubricity plus excellent chemical resistance for a wide range of applications. Requires higher compressive force to energize the seal. Temperature range of -300 to +500 degrees F. Has a Shore D hardness of 60.
***Viton® Encapsulated with FEP**	A fluoroelastomer compound with a combination of exceptional mechanical properties and compression set resistance. This particular core gives an o-ring excellent "memory" and the ability to recover rapidly from deformation. This core has a Shore A hardness of 75 with a suggested operating temperature range of -10 to 300 degrees F in encapsulated applications.
Viton®, Solid	Offers a wide spectrum of chemical compatibility and temperature range. Works well with petroleum products, silicone fluids, solvents and most acids. Is not for use with ketones, methyl alcohol. Temperature range of -31 to +400 degrees F. Has a Shore A hardness of 75.

***Definition of an encapsulated o-ring:** Consists of two materials, a jacket and a core. Pentair offers the jacket, or external compound in FEP Teflon®. FEP is versatile when considering overall corrosion resistance, sealing capability and temperature; FEP is also an FDA-approved material. Our two core materials offered are silicone and Viton®. The core material is the component which imparts "memory" to the encapsulated o-ring when it is subjected to compressive force.*

MATERIALS

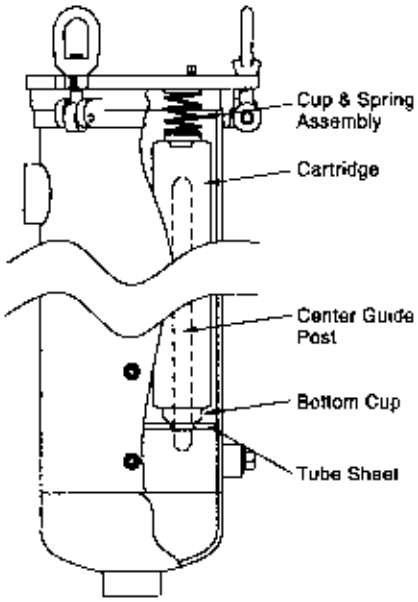
- Buna-N®
- Ethylene, Propylene
- Silicon Encapsulated with FEP, an FDA-approved material
- Silicone (Solid)
- Teflon® (Solid)
- Teflon® Encapsulated with FEP
- Viton® (Solid)

C44
Single Liquid CARTRIDGE HOUSINGS

C44 Single Liquid Cartridge Housings give the versatility of choosing cartridges for the needed flow rates, chemical compatibility and particle retention. The C44 accommodates one element in 10-, 20-, 30- or 40-inch lengths.

APPLICATIONS

- Commercial
- General Industrial



FEATURES

- Flow rates to 20 gpm
- Carbon or Stainless Steel construction
- Quick-swing closure with eye nuts
- Buna-N® lid seal
- 316 Stainless Steel cup and spring assemblies
- 300 PSI pressure rating
- Differential, drain, and vent ports available
- 316 Stainless Steel center guide post
- Two-part epoxy paint inside and outside on carbon steel
- Made to accept double open end cartridges (DOE) or 222 style with closed top cap*

** Note: Type of element top which will be used must be noted at the time of the housing order.*

HOUSING OPTIONS

- Duplexing for continual flow during maintenance
- Higher pressure rating
- 226 o-ring
- Fin style top
- ASME Code U or UM
- Adjustable support legs

ORDERING INFORMATION

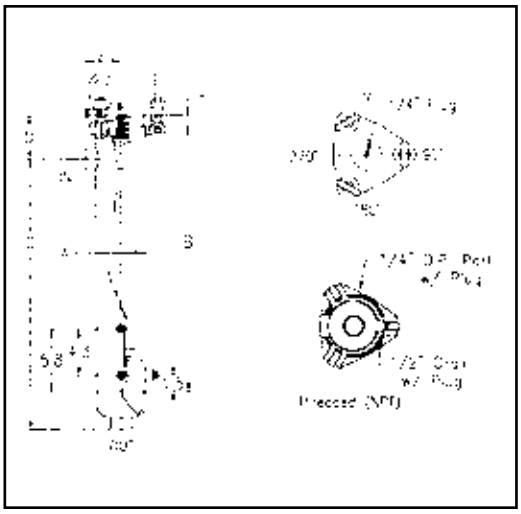
Custom configurations available; please contact Customer Service.

C44	20	.75	N	B	C	D	S
HOUSING	CARTRIDGE LENGTH (IN.)	CONNECTION SIZE (IN.)	CONNECTION TYPE	OUTLET CONN LOCATION	MATERIAL	ELEMENT BASE*	ELEMENT TOP
C44	10 20 30 40	0.5 0.75 1 1.25 1.50 2	NPT = N Flange = F	Bottom = A Opposite Side = B	Carbon = C 304 SS = 4 316 SS = 6	Double Open End = D 222 Style = 22 226 Style = 26	Single Open End = S Fin Style = F None = DOE

** Note: If double open end (DOE), it is only required once in the part number and will specify both top and base. Cartridges are not included but must be specified as to the type using when ordering the housing.*

DIMENSIONS

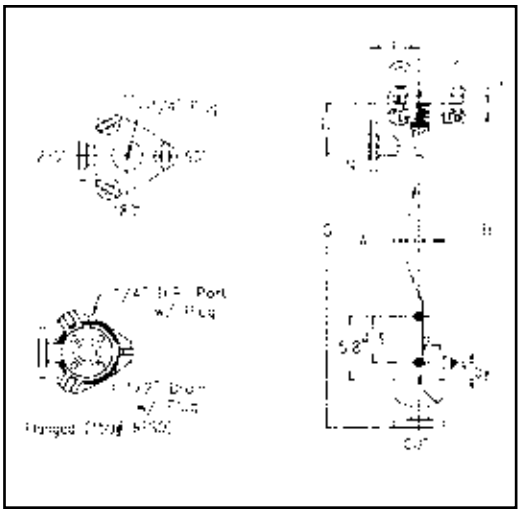
Threaded (NPT) Type



Top View

Bottom View

Flange Type



Housing #	Cartridge Length (in.)	Conn. Size Options (in.)	# of Cartridges	DIMENSIONS (in.) A	B	C	D	E	F	G
C44	10	0.75 1.0 1.25 1.50 2.0	1	4.5	12.5	13.7	4.0	3.5	4.5	14.7
	20		1	4.5	22.5	23.7	4.0	3.5	4.5	24.7
	30		1	4.5	32.5	33.7	4.0	3.5	4.5	34.7
	40		1	4.5	42.5	43.7	4.0	3.5	4.5	44.7

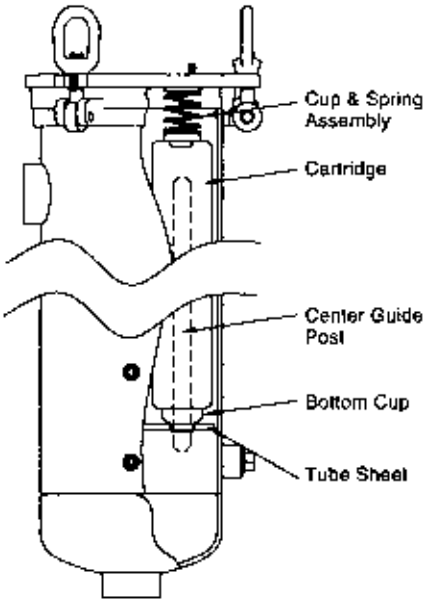
All dimensions are approximate.

C66
3-Round Liquid CARTRIDGE HOUSINGS

C66 3-Round Liquid Cartridge Housings give the versatility of choosing cartridges for the needed flow rates, chemical compatibility and particle retention. The C66 accommodates three elements in 20-, 30- or 40-inch lengths.

APPLICATIONS

- Commercial
- General Industrial



FEATURES

- Flow rates to 60 gpm
- Carbon or Stainless Steel construction
- Quick-swing closure with eye nuts
- Buna-N® lid seal
- 316 Stainless Steel cup and spring assemblies
- 150 PSI pressure rating
- Differential, drain, and vent ports available
- Adjustable support legs
- Two-part epoxy paint inside and outside on carbon steel
- 316 Stainless Steel center guide post
- Made to accept double open end cartridges (DOE) or 222 style with closed top cap*

** Note: Type of element top which will be used must be noted at the time of the housing order.*

HOUSING OPTIONS

- Duplexing for continual flow during maintenance
- Higher pressure rating
- 226 o-ring
- Fin style top
- ASME Code U or UM

ORDERING INFORMATION

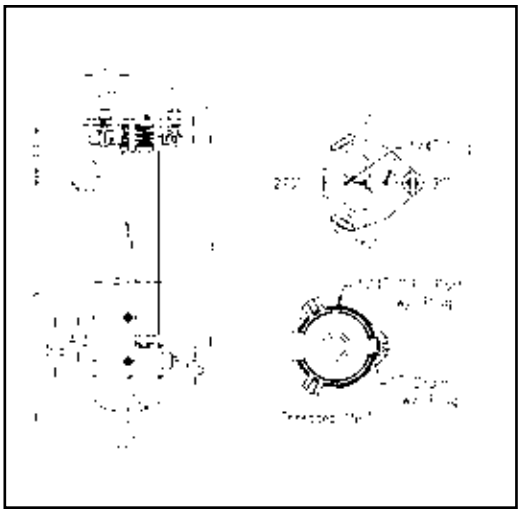
Custom configurations available; please contact Customer Service.

C66	20	1	N	B	C	D	S
HOUSING	CARTRIDGE LENGTH (IN.)	CONNECTION SIZE (IN.)	CONNECTION TYPE	OUTLET CONN LOCATION	MATERIAL	ELEMENT BASE*	ELEMENT TOP
C66	20 30 40	1 1.25 1.50 2 3	NPT = N Flange = F	Bottom = A Opposite Side = B	Carbon = C 304 SS = 4 316 SS = 6	Double Open End = D 222 Style = 22 226 Style = 26	Single Open End = S Fin Style = F None = DOE

** Note: If double open end (DOE), it is only required once in the part number and will specify both top and base. Cartridges are not included but must be specified as to the type using when ordering the housing.*

DIMENSIONS

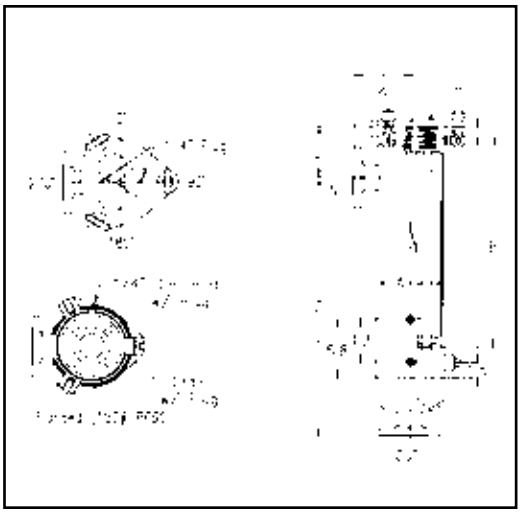
Threaded (NPT) Type



Top View

Bottom View

Flange Type



Housing #	Cartridge Length (in.)	Conn. Size Options (in.)	# of Cartridges	DIMENSIONS (in.) A	B	C	D	E	F	G
C66	20	1 1.25 1.50 2 3	3	6.6	24.5	22.3	6.0	4.1	5.2	23.5
	30		3	6.6	34.5	32.3	6.0	4.1	5.2	33.5
	40		3	6.6	44.5	42.3	6.0	4.1	5.2	43.5

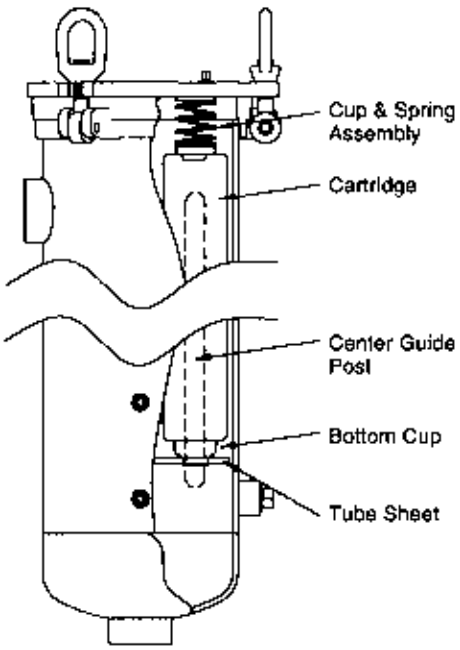
All dimensions are approximate.

C88
6-Round Liquid CARTRIDGE HOUSINGS

C88 6-Round Liquid Cartridge Housings give the versatility of choosing cartridges for the needed flow rates, chemical compatibility and particle retention.

APPLICATIONS

- Commercial
- General Industrial



FEATURES

- Accommodates 6 elements in 20-, 30- or 40-inch lengths
- Flow rates to 120 gpm
- Carbon or Stainless Steel construction
- Plated quick-swing closure with eye nuts
- Buna-N® lid seal
- 316 Stainless Steel cup and spring assemblies
- 150 PSI pressure rating
- Differential, drain, and vent ports available
- Adjustable support legs
- Two-part epoxy paint inside and outside on carbon steel
- 316 Stainless Steel center guide post
- Made to accept double open end cartridges (DOE) or 222 style with closed top cap*

** Note: Type of element top which will be used must be noted at the time of the housing order.*

HOUSING OPTIONS

- Duplexing for continual flow during maintenance
- Higher pressure rating
- 226 o-ring
- Fin style top
- ASME Code U or UM

ORDERING INFORMATION

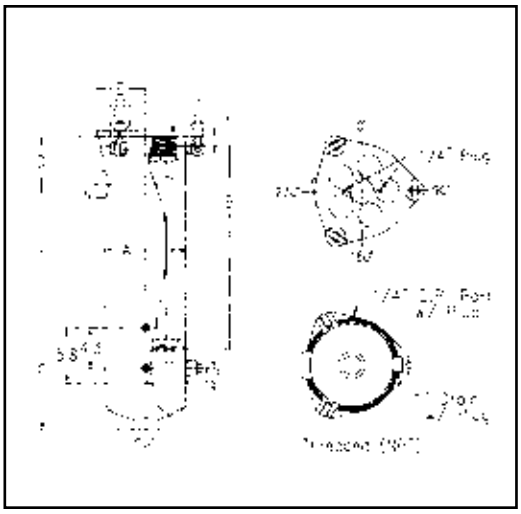
Custom configurations available; please contact Customer Service.

C88	20	2	F	B	C	D	S
HOUSING	CARTRIDGE LENGTH (IN.)	CONNECTION SIZE (IN.)	CONNECTION TYPE	OUTLET CONN LOCATION	MATERIAL	ELEMENT BASE*	ELEMENT TOP
C88	20 30 40	2 3 4	NPT = N Flange = F	Bottom = A Opposite Side = B	Carbon = C 304 SS = 4 316 SS = 6	Double Open End = D 222 Style = 22 226 Style = 26	Single Open End = S Fin Style = F None = DOE

** Note: If double open end (DOE), it is only required once in the part number and will specify both top and base. Cartridges are not included but must be specified as to the type using when ordering the housing.*

DIMENSIONS

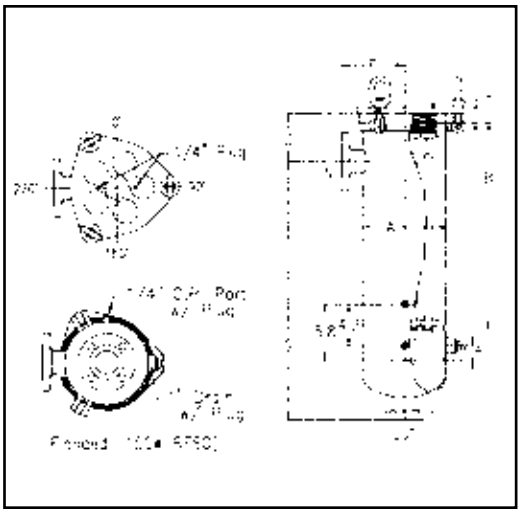
Threaded (NPT) Type



Top View

Bottom View

Flange Type



Housing #	Cartridge Length (in.)	Conn. Size Options (in.)	# of Cartridges	DIMENSIONS (in.) A	B	C	D	E	F	G
C88	20	2 3 4	6	8.6	24.5	22.3	6.0	4.1	5.2	23.3
	30		6	8.6	34.5	32.3	6.0	4.1	5.2	33.3
	40		6	8.6	44.5	42.3	6.0	4.1	5.2	43.3

All dimensions are approximate.

Multi-Round Series

Liquid
CARTRIDGE HOUSINGS

Multi-Round Liquid Cartridge Housings offer the versatility of choosing the correct cartridges for the needed flow rates, chemical compatibility and particle retention.

APPLICATIONS

- Commercial
- General Industrial

FEATURES

- Flow rates from 120 to 4100 gpm
- Carbon or Stainless Steel construction
- Bearing assisted davit assemblies
- Buna-N® lid seals
- 316 Stainless Steel cup and spring assemblies
- 150 PSI pressure rating
- Differential, drain and vent ports available
- Heavy-duty support legs
- Two-part epoxy finish on carbon steel
- 316 Stainless Steel center guide posts
- Plated swing bolts and eye nuts
- 11-round to 205-round capacity
- Made to accept double open end cartridges (DOE) or 222 style with closed top cap*

** Note: Type of element top which will be used must be noted at the time of the housing order.*

HOUSING OPTIONS

- Duplexing for continual flow during maintenance
- Hydraulic lid lift
- Higher pressure rating
- ASME Code U or UM
- Different connection sizes and types

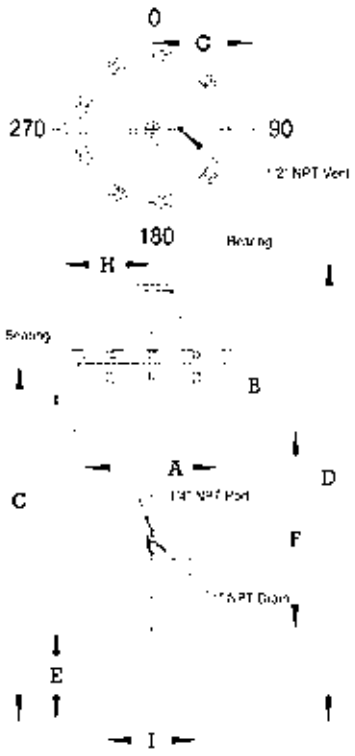
ORDERING INFORMATION

Custom configurations available; please contact Customer Service.

C1212	20	3	F	B	C	22	F
HOUSING	CARTRIDGE SIZE (IN.)	CONNECTION SIZE (IN.)	CONNECTION TYPE	OUTLET CONN LOCATION	MATERIAL	ELEMENT BASE*	ELEMENT TOP
C1212, C1616, C1818, C2424, C3030, C3636, C4242, C4848	20 30 40	Refer To Chart Below	Flange = F	Bottom = A Opposite Side = B	Carbon = C 304 SS = 4 316 SS = 6	Double Open End = D 222 Style = 22 226 Style = 26	Single Open End = S Fin Style = F None = DOE

** Note: If double open end (DOE), it is only required once in the part number and will specify both top and base. Cartridges are not included but must be specified as to the type using when ordering the housing.*

DIMENSIONS



Model	Tank Dia. (in.)	Cart Length (in.)	Conn Size (in.)	# of Cartridges	Dimensions (in.)							Weight Approx. (lbs.)
					C	D	E	F	G	H	I	
C1212	12	20	2	11	44.7	60.9	8.0	20.5	11.0	9.2	10.0	400
		30	3		54.7	70.9	10.0	20.5	11.0	9.2	10.0	410
		40	4		64.7	80.9	12.5	20.5	11.0	9.2	10.0	420
C1616	16	20	2	20	45.7	61.9	8.0	20.5	13.0	10.8	11.5	470
		30	3		55.7	71.9	10.0	20.5	13.0	10.8	11.5	480
		40	4		65.7	81.99	12.5	20.5	13.0	10.8	11.5	490
C1818	18	20	2	26	46.2	62.4	8.0	20.5	14.0	11.8	12.0	525
		30	3		56.2	72.4	10.0	20.5	14.0	11.8	12.0	535
		40	4		66.2	81.4	12.5	20.5	14.0	11.8	12.0	545
C2424	24	20	3	50	47.2	63.4	10.0	20.5	17.0	14.8	16.5	625
		30	4		57.2	73.4	12.5	20.5	17.0	14.8	16.5	635
		40	6		67.2	83.4	16.5	20.5	17.0	14.8	16.5	645
C3030	30	20	3	78	47.97	64.1	10.0	20.5	20.0	17.8	20.8	665
		30	4		57.9	74.1	12.5	20.5	20.0	17.8	20.8	705
		40	6		67.9	84.1	16.5	20.5	20.0	17.8	20.8	850
C3636	36	20	4	112	50.5	66.4	12.5	20.5	25.0	20.8	24.7	870
		30	6		60.5	76.4	16.5	20.5	25.0	20.8	24.7	1010
		40	8		70.5	86.4	20.75	20.5	25.0	20.8	24.7	1150
C4242	42	20	6	155	50.5	66.4	16.5	20.5	28.0	23.8	29.0	1960
		30	8		60.5	76.4	20.75	20.5	28.0	23.8	29.0	2070
		40	10		70.5	86.4	25.0	20.5	28.0	23.8	29.0	2200
C4848	48	20	8	205	51.2	67.4	20.7	20.5	31.0	26.8	33.2	2200
		30	10		61.2	77.4	25.0	20.5	31.0	26.8	33.2	2350
		40	12		71.2	87.4	29.5	20.5	31.0	26.8	33.2	2530

All dimensions are approximate.

BC4, BC7, BC9, BC11, BC12, BC14, BC15 & BC17

Liquid
CARTRIDGE HOUSINGS

BC Liquid Cartridge Housings offer the versatility of choosing multiple cartridges to meet flow rate, chemical compatibility and particle retention requirements. BC Housings accommodate from one to 33 elements in 10-, 20-, 30- or 40-inch lengths, depending on the model.

APPLICATIONS

- Commercial
- General Industrial

FEATURES

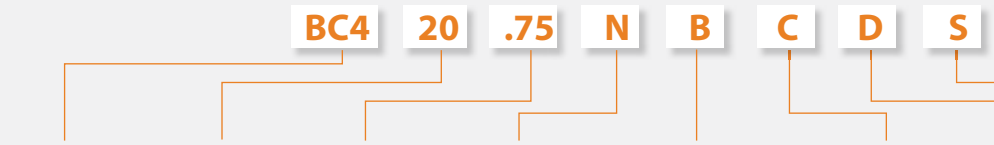
- Accepts 2.6-inch diameter cartridges
- Carbon steel or Stainless Steel construction
- Quick-swing strap band closure
- Buna-N® lid seal
- 150 PSI pressure rating (125 PSI, BC15 and BC17)
- Two-part epoxy paint inside and outside on carbon steel
- Adjustable support legs included

HOUSING CARTRIDGE CAPACITY

Housing	Number of Cartridges
BC4	1
BC7	3-5
BC9	5-7
BC11	8-12
BC12	13-16
BC14	17-21
BC15	22-24
BC17	25-33

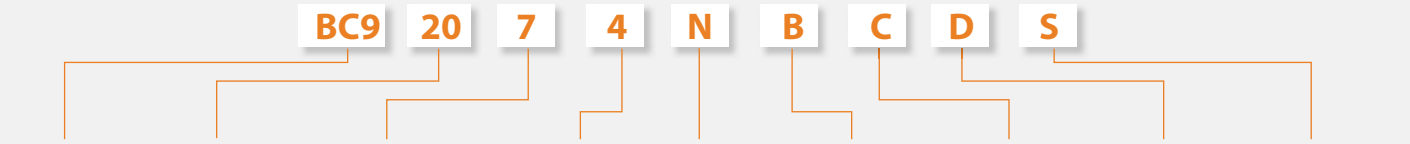
ORDERING INFORMATION

Custom configurations available; please contact Customer Service.



HOUSING	CARTRIDGE LENGTH (IN.)	CONN SIZE (IN.)	CONN TYPE	OUTLET CONN LOCATION	MATERIAL	ELEMENT BASE**	ELEMENT TOP
BC4*	10 20 30 40	0.75 1 1.25 1.50 2	NPT = N Flange = F	Bottom = A Opposite Side = B	Carbon = C 304 SS = 4 316 SS = 6	Double Open End = D 222 Style = 22 226 Style = 26 1" Male NPT = 1M 1" Female NPT = 1F	Single Open End = S Fin Style = F None = DOE

** Single cartridge housing*
*** Note: If double open end (DOE), it is only required once in the part number and will specify both top and base. Cartridges are not included but must be specified as to the type using when ordering the housing.*



HOUSING	CARTRIDGE LENGTH (IN.)	NUMBER OF CARTRIDGES	CONN SIZE (IN.)	CONN TYPE	OUTLET CONN LOCATION	MATERIAL	ELEMENT BASE*	ELEMENT TOP
BC7	10	BC7 = 3-5	1	NPT = N	Bottom = A	Carbon = C	Double Open End = D 222 Style = 22 226 Style = 26 1" Male NPT = 1M 1" Female NPT = 1F	Single Open End = S Fin Style = F
BC9	20	BC9 = 5-7	1.25	Flange = F	Opposite Side = B	304 SS = 4 316 SS = 6		
BC11	30	BC11 = 8-12	1.5					
BC12	40	BC12 = 13-16	2					
BC14		BC14 = 17-21	3					
BC15		BC15 = 22-24	4					
BC17		BC17 = 25-33						

** Note: If double open end (DOE), it is only required once in the part number and will specify both top and base. Cartridges are not included but must be specified as to the type using when ordering the housing.*

[1] BC7 Only

3G®
CARTRIDGE HOUSINGS

3G® Cartridge Housings feature unique and innovative 3G® design. This patented design features integral brackets, 10-inch or 20-inch length, clear housings, and caps for differential pressure gauges. Polypropylene construction offers excellent chemical compatibility.

APPLICATIONS

- Commercial
- Industrial
- Residential

FEATURES

- Reinforced polypropylene housings have excellent chemical resistance
- Clear housings offer on-site examination of the cartridge and have excellent chemical compatibility
- Buttress threads and uniform walls for easier cartridge change and improved strength
- Accepts proprietary Seal-Safe™ double o-ring sealing cartridges as well as standard double open end cartridges
- Optional pressure relief/bleed button and differential pressure gauge
- Leak-proof sealing with top-seated floating Buna-N® o-ring
- Inlet and outlet available in 0.25-, 0.38-, 0.5- and 0.75-NPT
- Accommodate a wide range of 2.25- to 3.125-inch diameter cartridges

HOUSING OPTIONS

- Available in 10- and 20-inch sumps in clear and opaque
- Durable polypropylene or FDA-compliant, clear Styrene-Acrylonitrile (SAN)
- Integral bracket and mounting boss cap versions available

SPECIFICATIONS

Housing	Polypropylene (Opaque) or Styrene Acrylonitrile (Clear)
Cap	Reinforced Polypropylene
Button Assembly	300-Series Stainless Steel, EPDM, and Polypropylene
O-Ring	Buna-N®
Maximum Temperature	125˚F (51.7˚C)
Maximum Pressure	125 PSI (8.62 bar)

CAUTION: *Protect against freezing to prevent cracking of the filter and water leakage.*

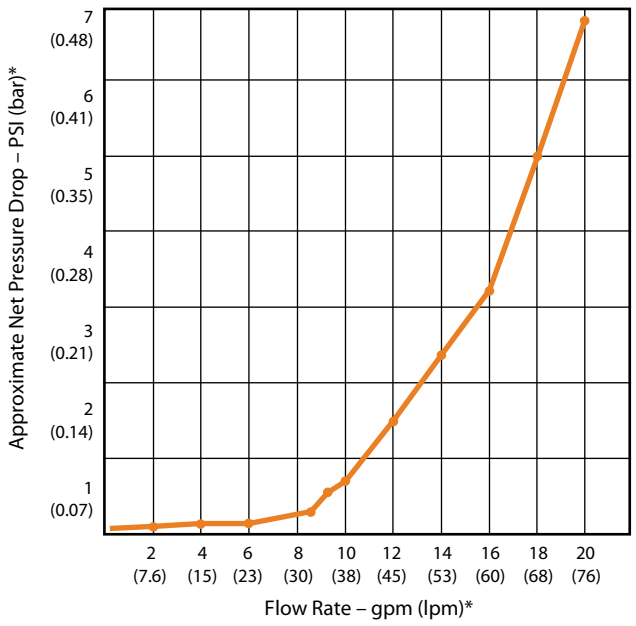
HOUSING SPECIFICATIONS AND PERFORMANCE

Model	Maximum Dimensions	Initial ΔP (PSI) @ Flow Rate (gpm)
3G #10 Blue or Clear MB	12.75" x 5.375" (324 mm x 137 mm)	1 PSI @ 10 gpm (0.07 bar @ 38 Lpm)
3G #10 Blue or Clear MB	13.25" x 5.75" (337 mm x 146 mm)	1 PSI @ 10 gpm (0.07 bar @ 38 Lpm)
3G #20 Blue or Clear MB	23" x 5.375" (597 mm x 137 mm)	1 PSI @ 10 gpm (0.07 bar @ 38 Lpm)
3G #20 Blue or Clear IB/MM*	23.5" x 5.75" (597 mm x 146 mm)	1 PSI @ 10 gpm (0.07 bar @ 38 Lpm)
.25-inch #10 3G Slim LIne® MB	11.75" x 4.75" (298 mm x 121 mm)	2 PSI @ 3 gpm (0.14 bar @ 11 Lpm)
.25-inch #10 3G Slim LIne® IB	13.375" x 5.375" (340 mm x 137 mm)	2 PSI @ 3 gpm (0.14 bar @ 11 Lpm)
.375-inch #10 3G Slim LIne® MB	11.75" x 4.75" (298 mm x 121 mm)	2 PSI @ 5 gpm (0.14 bar @ 19 Lpm)
.375-inch #10 3G Slim LIne® IB	13.375" x 5.375" (340 mm x 137 mm)	2 PSI @ 5 gpm (0.14 bar @ 19 Lpm)
.5-inch #10 3G Slim LIne® MB	11.75" x 4.75" (298 mm x 121 mm)	2 PSI @ 5 gpm (0.14 bar @ 19 Lpm)
.5-inch #10 3G Slim LIne® IB	13.375" x 5.375" (340 mm x 137 mm)	2 PSI @ 5 gpm (0.14 bar @ 19 Lpm)
.5-inch #10 3G Slim LIne® IB/MM	13.375" x 5.375" (340 mm x 137 mm)	2 PSI @ 5 gpm (0.14 bar @ 19 Lpm)

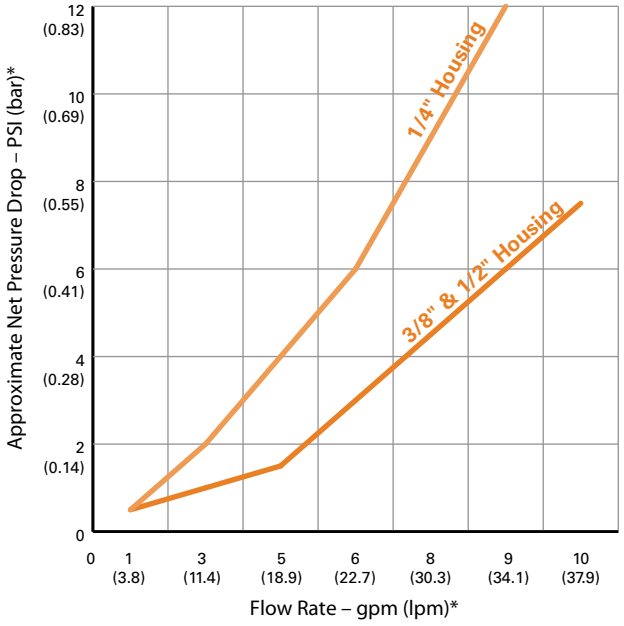
TEST DATA

3G Standard Housing Water Flow Rate

Based on 3G® #10



Based on 3G Slim Line®



** Pressure drop and flow rate based on housing without cartridge.*

Big Blue®/Big Clear
CARTRIDGE HOUSINGS

Big Blue® and Big Clear Filter Housings offer the versatility to meet larger capacity filtration needs. This reduces the number of housings required for high-flow applications.

APPLICATIONS

- Heavy Sediment Applications
- High-Flow Applications

FEATURES

- Large capacity housing
- Sumps constructed of durable reinforced polypropylene
- Big Clear Filter Housings offer on-site examination of flow, performance and cartridge life
- 1.25-inch internal port to allow a greater volume of liquid to pass through the high-flow polypropylene cap more rapidly
- Accepts 4.5-inch diameter cartridges
- Compatible with a broad range of chemicals

HOUSING OPTIONS

- 10- and 20-inch lengths available in opaque; and 10-inch in clear
- Cap available with 0.75-, 1- or 1.5-inch NPT inlet and outlet ports
- Blue polypropylene caps available with optional pressure relief/bleed button on inlet side of cap

SPECIFICATIONS

Model	Big Blue®	Big Clear
Housing	Polypropylene	Lexan® (#10)
Cap	Polypropylene	Polypropylene
Button Assembly	300-Series Stainless Steel, EPDM, and Polypropylene	300-Series Stainless Steel, EPDM, and Polypropylene
O-ring	Buna-N®	Buna-N®
Maximum Temperature	100˚F (37.8˚C)	100˚F (37.8˚C)
Maximum Pressure	#10 Big Blue® – 100 PSI (6.9 bar) #20 Big Blue® – 90 PSI (6.2 bar)	#10 Big Clear – 100 PSI (6.9 bar)

CAUTION: Protect against freezing to prevent cracking of the filter and water leakage.

NSF COMPONENT

The 150233, 150234, 150235, 150236, 150237, 150238, 150239, 150240, 150467, 150468, 150469, and 150470 Tested and Certified by NSF International to NSF/ANSI Standard 42 for material and structural integrity requirements.

NOTE: The Big Clear Series of housings are not NSF component listed.

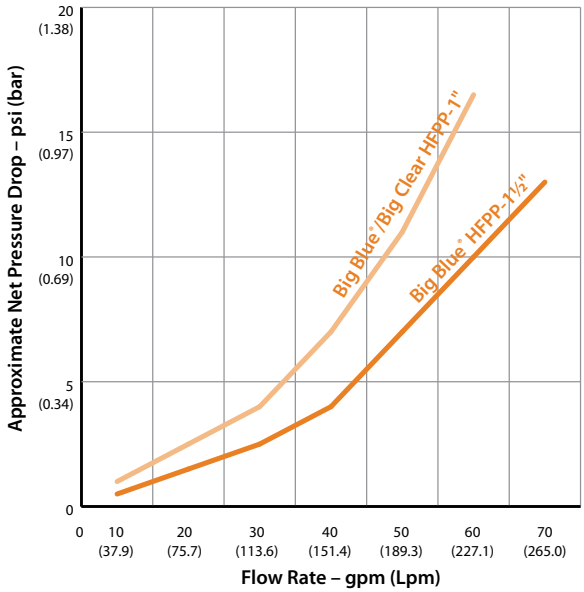
HOUSING SPECIFICATIONS AND PERFORMANCE

Model	Inlet/Outlet Size (in.)	Maximum Dimensions	Initial ΔP (PSI) @ Flow Rate (gpm)
#10 Big Blue®	.75	13.125" x 7.25" (333 mm x 184 mm)	2 PSI @ 15 gpm (0.1 bar @ 57 Lpm)
#10 Big Blue®	1	13.125" x 7.25" (333 mm x 184 mm)	1 PSI @ 15 gpm (0.1 bar @ 57 Lpm)
#10 Big Blue®	1.5	13.625" x 7.25" (346 mm x 184 mm)	1 PSI @ 20 gpm (0.1 bar @ 76 Lpm)
#20 Big Blue®	.75	23.375" x 7.25" (594 mm x 184 mm)	2 PSI @ 15 gpm (0.1 bar @ 57 Lpm)
#20 Big Blue®	1	23.375" x 7.25" (594 mm x 184 mm)	1 PSI @ 15 gpm (0.1 bar @ 57 Lpm)
#20 Big Blue®	1.5	23.875" x 7.25" (606 mm x 184 mm)	1 PSI @ 20 gpm (0.1 bar @ 76 Lpm)
#10 Big Clear	1	13.5" x 7.125" (343 mm x 181 mm)	1 PSI @ 15 gpm (0.1 bar @ 57 Lpm)
#20 Big Clear	1	23.375" x 7.25" (594 mm x 184 mm)	1 PSI @ 15 gpm (0.1 bar @ 57 Lpm)

** Not performance tested or certified by NSF.*

TEST DATA

Big Blue®/Big Clear Housing Water Flow Rate



High Temperature
CARTRIDGE HOUSINGS

High Temperature Cartridge Housings are constructed of glass-reinforced nylon and provide an economical alternative to stainless and carbon steel housings.

APPLICATIONS*

- Alcohol
- Organic Solvents
- Petroleum
- Sea Water
- Vegetable Oils

** Not to be used with ketones.*

FEATURES

- Flow rates up to 20 gpm
- Withstand temperatures up to 165˚F (.5-inch housings) and 125˚F (.75-inch housings)
- Durable glass-reinforced nylon construction
- Excellent chemical compatibility
- Excellent alternative to stainless and carbon housings
- #241 o-ring for dependable sealing

HOUSING OPTIONS

- Available in 0.5-inch NPT Slim Line® and 0.75-inch NPT Standard housings
- Available in 10- and 20-inch lengths

SPECIFICATIONS

Component	Material/Value
Housing	Glass-Reinforced Nylon
Cap	Glass-Reinforced Nylon
O-ring	Slim Line® Housings Viton® Standard Housings Silicone
Maximum Temperature	0.5-inch Housing 165˚F (73.9˚C) 0.75-inch Housing 125˚F (51.7˚C)
Maximum Pressure	125 PSI (8.62 bar)

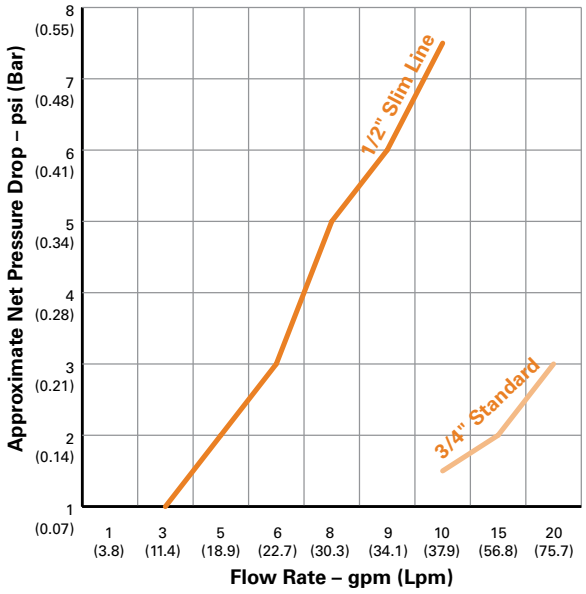
CAUTION: *Protect against freezing to prevent cracking of the filter and water leakage.*

HOUSING SPECIFICATIONS AND PERFORMANCE

Model	Inlet/Outlet Size (in.)	Maximum Dimensions	Initial ΔP (PSI) @ Flow Rate (gpm)
#10 Standard	.75"	12.125" x 5.125" (308 mm x 130 mm)	<1 PSI @ 8 gpm (<0.1 bar @ 30 Lpm)
#20 Standard	.75"	22.25" x 5.125" (565 mm x 130 mm)	<1 PSI @ 8 gpm (<0.1 bar @ 30 Lpm)
#10 Slim Line®	.5"	11.75" x 4.375" (298 mm x 111 mm)	5 PSI @ 8 gpm (<0.4 bar @ 30 Lpm)

TEST DATA

High Temperature Housing Water Flow Rate



All Natural Polypropylene
CARTRIDGE HOUSINGS

All Natural Polypropylene Cartridge Housings help maintain high standards of purity and performance required in critical contamination control systems and processes.

APPLICATIONS

- Deionized and Reagent Grade Water
- Electronic Grade Chemicals (See Compatibility Chart)
- Reagent Grade Chemicals
- Pharmaceutical
- Cosmetic
- Freons (TF, 113)
- Electronic Etching Solutions
- Magnetic Coatings (Tape, Disc or Card)
- Reverse Osmosis or Ultrafiltration Final Filters

HOUSING OPTIONS

- Housings with plugged 0.25-inch NPT inlet, outlet and sump ports available
- Sump Extension Kit for 12-inch housing (157209) designed for use with 12-inch All Natural 222 and standard housings. This extension fills the 15/16-inch (24 mm) to 2, 1/16-inch (56 mm) gap left by single open end flat bottomed cartridges over 10-inch overall length

- Cartridge Coupler (155003) for coupling 9.75-inch DOE cartridges in a 20-inch housing

- Cap Plug Kit (144457) for vents or gauges, includes plug and Viton® o-ring

FEATURES

- All Natural polypropylene components – no fillers, colorants, plasticizers or lubricants
- Economical alternative to fluoropolymer, Stainless Steel or Teflon® housings
- Ultra-smooth contact surfaces prevent bacterial adhesion and build-up
- Resists deionized water and other inorganic solutions
- Resists stress cracking
- Viton® o-rings for dependable sealing
- 0.75-inch NPT inlet and outlet threads
- Compatible with most manufacturers

SPECIFICATIONS

Component	Material/Value
Housing	All Natural Polypropylene
Cap	All Natural Polypropylene
O-Ring	Viton®
Maximum Temperature	100˚F (37.8˚C)
Maximum Pressure	100 PSI (6.9 bar)

CAUTION: *Do not install where system will be exposed to direct sunlight.*

CAUTION: *Protect against freezing to prevent cracking of the filter and water leakage. For additional information about chemical compatibility, call our technical support department at 800.861.8758.*

HOUSING SPECIFICATIONS AND PERFORMANCE

Model	Cartridge Sealing	Maximum Dimensions	Initial ΔP (PSI) @ Flow Rate (gpm)*
#10	DOE[1]	12.5" x 5.125" (320 mm x 180 mm)	1 PSI @ 10 gpm (0.1 bar @ 38 Lpm)
#12	222[2]	15.375" x 5.125" (390 mm x 180 mm)	1 PSI @ 10 gpm (0.1 bar @ 38 Lpm)
#20	DOE[1] 222[2]	29.125" x 5.125" (590 mm x 180 mm)	1 PSI @ 10 gpm (0.1 bar @ 38 Lpm)

[1]DOE: Double open end [2]222 o-ring sealing ** Pressure drop measured on empty housing.*

CHEMICAL COMPATIBILITY

	100% Poly		PVDF		
Semiconductor Processing Materials	68˚F (20˚C)	140˚F (60˚)	68˚F (20˚C)	140˚F (60˚C)	Viton®
Acetic Acid 99.7% (135°F/51.7˚C Max)	R	C	R	R	NR
Acetic Acid 50%	R	R	R	R	R
Acetone 99.5%	R	R	NR	NR	NR
Ammonium Fluoride 40%	R	R	R	R	R
Ammonium Hydroxide 10%	R	R	R	R	R
Hydrochloric Acid 37%	R	R	R	R	R
Hydrofluoric Acid 49%, 52%	R	R	R	R	R
Hydrogen Peroxide 50%	R	C	R	R	R
Methanol 99.9% (140˚F/60˚C Max)	R	R	R	R	NR
Methylene Chloride 99.8% (105˚F/40.6˚C Max)	R	NR	R	NR	R
Methyl Ethyl Ketone	R	C	NR	NR	NR
N-Butyl Acetate 99.0%	NR	NR	C	NR	NR
Nitric Acid 60%	R	NR	R	C	R
Phosphoric Acid 86%	R	R	R	R	R
Potassium Hydroxide 45%	R	R	R	R	NR
2-Propanol 99.5%	R	R	R	C	R
Sodium Hydroxide 50%	R	R	R	R	R
Sulfuric Acid 90%	R	R	R	R	R
Tetrachloroethylene 99.0%	NR	NR	R	R	R
Water-Deionized	R	R	R	R	R

R = Resistant C = Conditionally resistant NR = Non-resistant

ST Series
Stainless Steel
CARTRIDGE HOUSINGS

ST Series Stainless Steel Cartridge Housings effectively provide heavy-duty filtration for smaller filtration systems and point-of-use applications.

APPLICATIONS

- Hot Water
- Point of Use

FEATURES

- Flow rates of up to 20 gpm (76 lpm) at 275˚F
- Heavy duty construction
- Brushed 304 Stainless Steel sump with a cast brass/nickel plated head
- Accepts complete range of standard double open end (DOE) cartridges
- Easy to install and maintain
- Compatible with a complete range of filter cartridges

HOUSING OPTIONS

- Sumps available with either a pipe plug or pet-cock in the bottom for draining

SPECIFICATIONS

Component	Material/Value
Housing	Brushed 304 Stainless Steel
Head	Brass/Nickel plated
Maximum Temperature	275˚F (135˚C)
Pipe Size	0.75-inch NPT
Sealing Gaskets	Buna-N®, Cellulose Fiber

WARNING: *For drinking water applications, do not use with water that microbiologically unsafe or of unknown quality without adequate disinfection before or after the system*

CAUTION: *Protect against freezing to prevent cracking of the filter and water leakage*

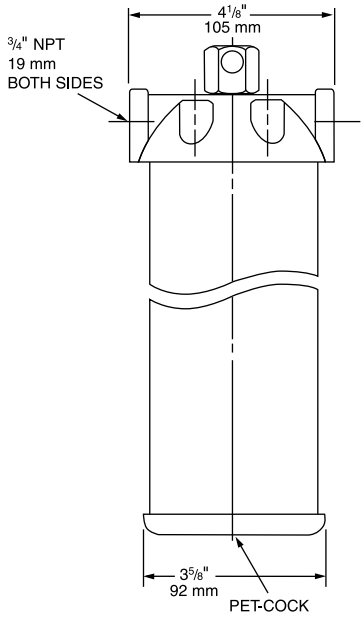
NOTE: *Not recommended for applications with TDS or chlorides >1000 ppm and/or pH <5.0. Use of this product in these conditions will void the limited warranty. Consult factory for product modifications for these conditions.*

HOUSING SPECIFICATIONS AND PERFORMANCE

Model	Maximum Dimensions	Flow Rate (gpm)	Pressure
ST-1	12.875" x 4.125" (327 mm x 105 mm)	10 gpm (38 Lpm)	250 PSI (17.2 bar)
ST-2	22.75" x 4.125" (578 mm x 105 mm)	15 gpm (57 Lpm)	250 PSI (17.2 bar)
ST-3	32.375" x 4.125" (822 mm x 105 mm)	20 gpm (76 Lpm)	250 PSI (17.2 bar)

- *Maximum cartridge diameter 3" (76 mm).*
- *Will not accept GAC, CC, CGAC, TSGAC, WS, PCF or PCC Series Cartridges.*

DIMENSIONS



Pentair Industrial

LIQUID BAG HOUSINGS

Effective removal of of dirt, pipe scale and other contaminants from process liquids such as water, chemicals, food, paper, petroleum products and other general industrial liquids.

Rugged carbon, 304 or 316 Stainless Steel construction assures dependable performance.

Flow rates up to 3500 gpm.

Pressure ratings up to 3000 PSI with low pressure drop.

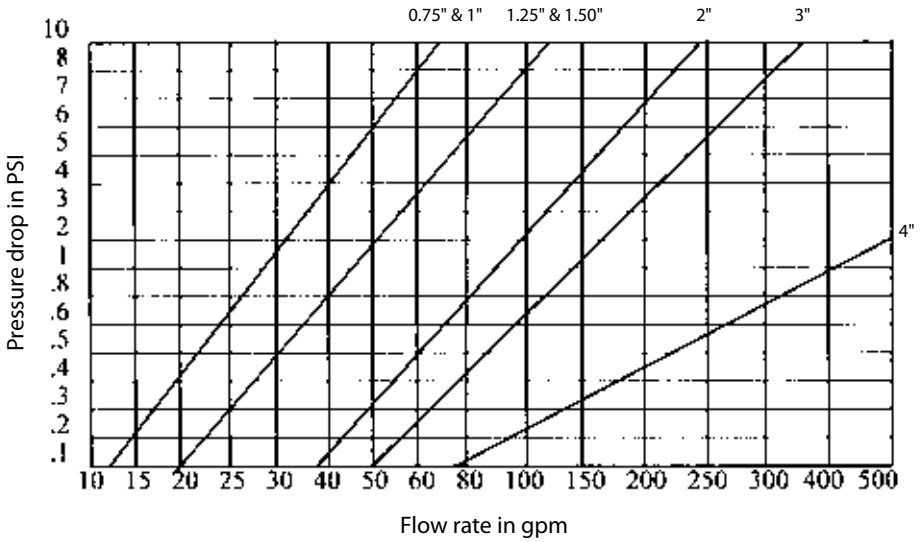
HOUSING SELECTION GUIDE

CONNECTION SIZE TO FLOW RATE

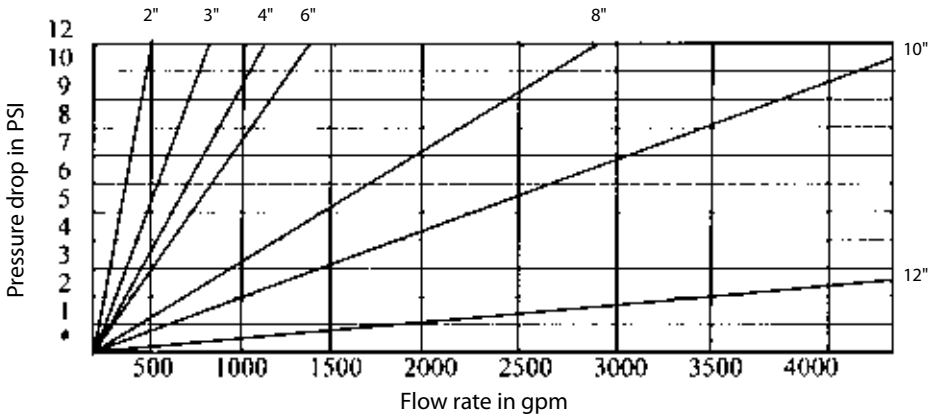
- The following information is offered to help determine the pressure drop for a housing relating to connection sizes versus flow rates. The chart is based on the viscocity of one centipoise of water.
- If the bags are to be installed in the housing, you must add the pressure drop of the elements to the housing differential pressure to get a clean starting point.

TEST DATA

CONNECTION SIZE (L44, L66, L88)



CONNECTION SIZE (MULTI-ROUND)



L44
Single Liquid BAG HOUSINGS

L44 Single Liquid Bag Housings effectively remove dirt, pipe scale, and other contaminants from process liquids. Quality construction and design assure protection for all downstream equipment.

APPLICATIONS

- Chemical
- General Industrial
- Oil and Gas
- Water

HOUSING OPERATION

Unfiltered liquid enters the housing above the filter bag or strainer basket; fills the interior of the housing; and continues through the bag or strainer basket. Solids are trapped inside the filter bag or strainer and easily removed when the housing is serviced.

HOUSING OPTIONS

- 500 PSI pressure rating
- Mesh-lined strainer baskets
- Alternative o-ring materials
- Adjustable support legs
- ASME code U or UM

FEATURES

- Flow rates up to 50 gpm
- Two lengths available, 6- and 12-inch depending upon the required surface area and volume of fluid to be filtered
- Carbon Steel and 304 or 316 Stainless Steel material
- Each vessel is factory hydro-tested
- Low pressure drop
- Quick-swing closure with eye nuts
- Viton® lid seal
- Differential, drain, and vent ports
- 304 Stainless Steel strainer basket for 304 Stainless Steel housings and Carbon Steel housing
- 316 Stainless Steel strainer basket in 316 Stainless Steel housings
- Accepts #3-size and #4-size bag filters
- Two-part epoxy paint finish on carbon vessels

SPECIFICATIONS

Pressure Rating	150 PSI at 300˚F (up to 500 PSI optional)
Connections	0.75-, 1.0-, 1.25-, 1.5-, or 2-inch (NPT)(FLG)
Housing Lid	3-bolt swing closure with 0.25-inch NPT vent port
Lid Seal	Viton® o-ring
Inlets/Outlets	Side inlet/bottom outlet; side inlet/side outlet; side inlet/90˚ bottom outlet
Pressure Ports	Two 0.25-inch NPT
Construction/Finish	Carbon steel w/two-part epoxy finish; 304 or 316 Stainless Steel w/satin finish
Basket Material	304 Stainless Steel stainer basket for 304 Stainless Steel housings and Carbon Steel housings with 9/64-inch perforations; 316 Stainless Steel strainer basket for 316 Stainless Steel housings with 9/64-inch perforations
Bags Sizes	#3 and #4 liquid bags accepted
Base	Adjustable tripod leg assembly optional

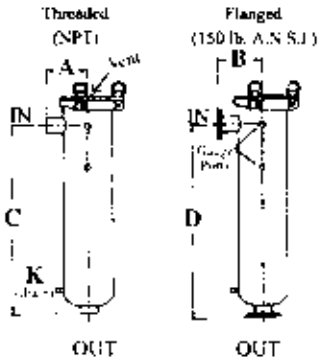
ORDERING INFORMATION

Custom configurations available; please contact Customer Service.

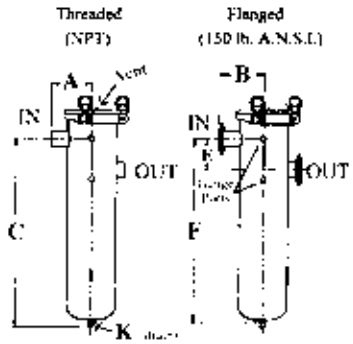
L44	6	1.25	N	A	C	30
HOUSING	BASKET SIZE (IN.)	CONNECTION SIZE (IN.)	CONNECTION TYPE	OUTLET LOCATION	MATERIAL	PRESSURE RATING (PSI)
L44	6 (#3) 12 (#4)	0.75 1 1.25 1.50 2	NPT = N Flange = F	Bottom = A Side = B Bottom, Angle 90˚ = C	Carbon = C 304 SS = 4 306 SS = 6	150 = 15 300 = 30 500 = 50

DIMENSIONS

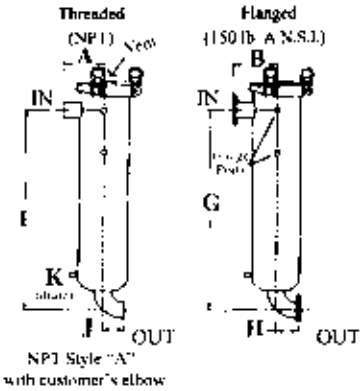
STYLE A BOTTOM OUTLET



STYLE B SIDE OUTLET



STYLE C BOTTOM OUTLET 90˚



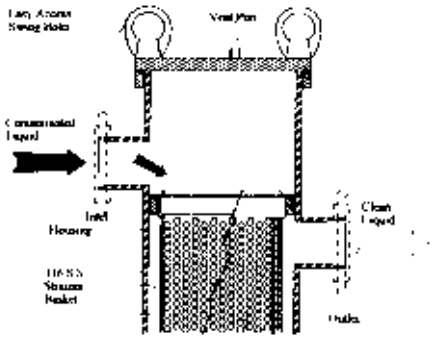
L44-6 (IN.)

Pipe Size	A	B	C	D	E	F	G	H	I	J	K
0.75	3.0	4.3	11.3	12.8	4.0	11.2	11.7	4.0	11.7	1.3	.5
1.0	3.0	4.3	11.3	12.8	4.0	11.2	12.0	4.0	12.0	1.5	
1.25	3.2	4.3	11.3	12.8	4.0	11.2	12.2	4.0	12.3	1.8	
1.50	3.2	4.3	11.3	12.8	4.0	11.2	12.7	4.0	12.4	2.0	28# box wt.
2.0	3.5	4.5	11.3	12.8	4.0	11.2	13.6	4.0	12.6	2.3	

L44-12 (IN.)

Pipe Size	A	B	C	D	E	F	G	H	I	J	K
0.75	3.0	4.3	16.5	17.9	4.0	16.2	16.7	4.0	16.7	1.3	.5
1.0	3.0	4.3	16.5	17.9	4.0	16.2	17.0	4.0	16.9	1.5	
1.25	3.2	4.3	16.5	17.9	4.0	16.2	17.4	4.0	17.2	1.8	
1.50	3.2	4.3	16.5	17.9	4.0	16.2	17.7	4.0	17.3	2.0	32# box wt.
2.0	3.5	4.3	16.5	17.9	4.0	16.2	18.4	4.0	17.5	2.3	

All dimensions are approximate.



BASKET DATA

Depth Nominal (in.)	Diameter (in.)	Surface Area (sq. ft.)	Volume (cu. in.)
6	3.9	0.5	65
12	3.9	1.0	130

L66
Single Liquid BAG HOUSINGS

L66 Single Liquid Bag Housings effectively remove dirt, pipe scale, and other contaminants from process liquids. Quality construction and design assure clean effluent and protection for all downstream equipment.

APPLICATIONS

- Chemical
- General Industrial
- Oil and Gas
- Water

HOUSING OPERATION

Unfiltered liquid enters the housing above the filter bag or strainer basket, fills the interior of the housing and continues through the bag or strainer basket. Solids are trapped inside the filter bag or strainer and easily removed when the housing is serviced. The standard o-ring seal between the basket and the housing ensures a positive seal to prevent bypass.

HOUSING OPTIONS

- 300 PSI pressure rating
- Mesh-lined strainer baskets
- Alternative o-ring materials
- Adjustable support legs
- ASME code U or UM

FEATURES

- Flow rates up to 100 gpm
- Two lengths available, an 18- and a 30-inch housing, depending upon the required surface area and volume of fluid to be filtered
- Carbon, 304, or 316 Stainless Steel construction
- Each vessel is factory hydro-tested
- Low pressure drop
- Quick-swing closure with eye nuts
- Viton® seals — lid & basket
- Differential, drain, and vent ports
- 304 Stainless Steel strainer basket for 304 Stainless Steel housings and Carbon Steel housing
- 316 Stainless Steel strainer basket in 316 Stainless Steel housings
- Accepts #8-size and #9-size bag filters
- Two-part epoxy paint finish on carbon vessels

SPECIFICATIONS

Pressure Rating	150 PSI at 300˚F (up to 300 PSI optional)
Connections	1-, 1.25-, 1.5-, 2- or 3-inch (NPT)(FLG)
Housing Lid	3-bolt swing closure with 0.25-inch NPT vent port
Lid & Basket Seal	Viton® o-ring
Inlets/Outlets	Side inlet/bottom outlet; side inlet/side outlet; side inlet/90˚ bottom outlet
Pressure Ports	Two 0.25-inch NPT
Construction/Finish	Carbon steel w/two-part epoxy finish; 304 or 316 Stainless Steel w/satin finish
Basket Material	304 Stainless Steel stainer basket for 304 Stainless Steel housings and Carbon Steel housings with 9/64-inch perforations; 316 Stainless Steel strainer basket for 316 Stainless Steel housings with 9/64-inch perforations
Bags Sizes	#8 and #9 liquid bags accepted
Base	Adjustable tripod leg assembly

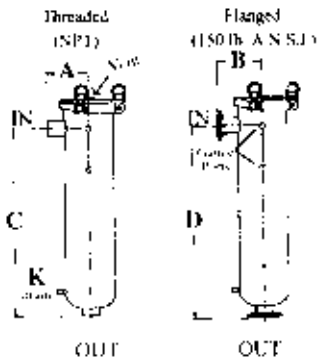
ORDERING INFORMATION

Custom configurations available; please contact Customer Service.

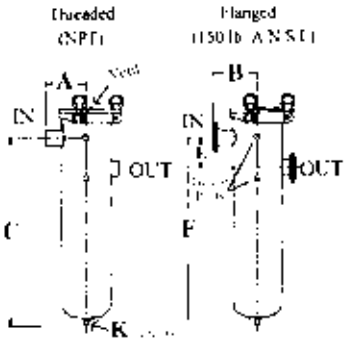
L66	18	1.25	N	A	4	15
HOUSING	BASKET SIZE (IN.)	CONNECTION SIZE (IN.)	CONNECTION TYPE	OUTLET LOCATION	MATERIAL	PRESSURE RATING (PSI)
L66	18 (#8) 30 (#9)	1 1.25 1.50 2 3	NPT = N Flange = F	Bottom = A Side = B Bottom, Angle 90˚ = C	Carbon = C 304 SS = 4 306 SS = 6	150 = 15 300 = 30

DIMENSIONS

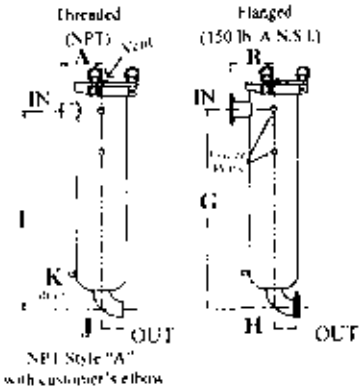
STYLE A BOTTOM OUTLET



STYLE B SIDE OUTLET



STYLE C BOTTOM OUTLET 90˚



L66-18 (IN.)

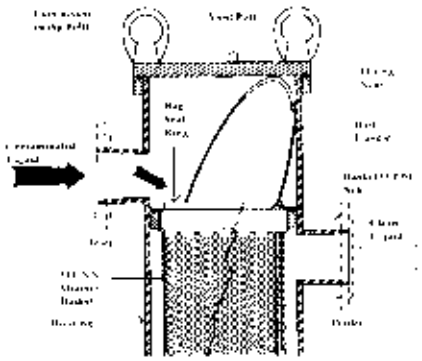
Pipe Size	A	B	C	D	E	F	G	H	I	J	K
1.0	4.0	5.4	23.8	25.3	7.0	23.7	24.5	5.0	24.5	1.5	.75
1.25	4.2	5.6	23.8	25.3	7.0	23.7	24.8	5.0	24.8	1.0	
1.50	4.2	5.6	23.8	25.3	7.0	23.7	25.2	5.0	24.9	2.0	90# box wt.
2.0	4.3	5.7	23.8	25.4	7.0	23.7	25.9	5.0	25.1	2.3	
3.0	4.3	6.0	23.8	25.9	7.0	23.7	27.1	5.0	25.7	3.1	

Adjustable support legs have 9.25" bolt circle and an 16" height adjustment.

L66-30 (IN.)

Pipe Size	A	B	C	D	E	F	G	H	I	J	K
1.0	4.0	5.4	33.7	35.3	7.0	33.8	34.6	5.0	34.5	1.5	.75
1.25	4.2	5.6	33.7	35.3	7.0	33.8	34.9	5.0	34.8	1.8	
1.50	4.2	5.6	33.7	35.3	7.0	33.8	35.3	5.0	34.9	2.0	115# box wt.
2.0	4.3	5.7	33.7	35.4	7.0	33.8	35.9	5.0	35.1	2.3	
3.0	4.3	6.0	33.7	35.9	7.0	33.8	37.1	5.0	35.7	3.1	

All dimensions are approximate.



BASKET DATA

Depth Nominal (in.)	Diameter (in.)	Surface Area (sq. ft.)	Volume (cu. in.)
18	5.0	2.0	350
30	5.0	3.4	630

L88
Single Liquid BAG HOUSINGS

L88 Single Liquid Bag Housings effectively remove dirt, pipe scale, and other contaminants from process liquids. Quality construction and design assure clean effluent and protection for all downstream equipment.

APPLICATIONS

- Chemical
- General Industrial
- Oil and Gas
- Water

HOUSING OPERATION

Unfiltered liquid enters the housing above the filter bag or strainer basket, fills the interior of the housing and continues through the bag or strainer basket. Solids are trapped inside the filter bag or strainer and easily removed when the housing is serviced. The standard o-ring seal between the basket and the housing ensures a positive seal to prevent bypass.

HOUSING OPTIONS

- 300 PSI pressure rating
- Mesh-lined strainer baskets
- Alternative o-ring materials
- Adjustable support legs
- ASME code U or UM

FEATURES

- Flow rates up to 220 gpm
- Two lengths available, a 15- or a 30-inch housing, depending upon the required surface area and volume of fluid to be filtered
- Carbon Steel and 304 or 316 Stainless Steel material
- Each vessel is factory hydro-tested
- Low pressure drop
- Quick-swing closure with eye nuts
- Viton® seals — lid & basket
- Differential, drain, and vent ports
- 304 Stainless Steel strainer basket for 304 Stainless Steel housings and Carbon Steel housing
- 316 Stainless Steel strainer basket in 316 Stainless Steel housings
- Accepts #1-size and #2-size bag filters
- Two-part epoxy paint finish on carbon vessels

SPECIFICATIONS

Pressure Rating	150 PSI at 300˚F (up to 300 PSI optional)
Connections	2-, 3- or 4-inch (NPT)(FLG)
Housing Lid	3-bolt swing closure with 0.25-inch NPT vent port
Lid & Basket Seat	Viton® o-ring
Inlets/Outlets	Side inlet/bottom outlet; side inlet/side outlet; side inlet/90˚ bottom outlet
Pressure Ports	Two differential ports measure pressure across filter bag
Construction/Finish	Carbon steel w/two-part epoxy finish; 304 or 316 Stainless Steel w/satin finish
Basket Material	304 Stainless Steel stainer basket for 304 Stainless Steel housings and Carbon Steel housings with 9/64-inch perforations; 316 Stainless Steel strainer basket for 316 Stainless Steel housings with 9/64-inch perforations
Bags Sizes	#1 and #2 liquid bags accepted
Base	Adjustable tripod leg assembly

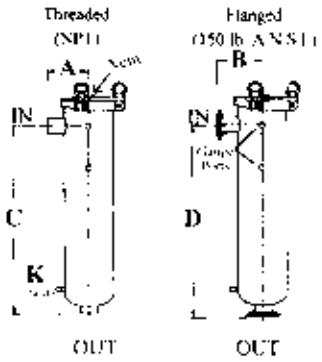
ORDERING INFORMATION

Custom configurations available; please contact Customer Service.

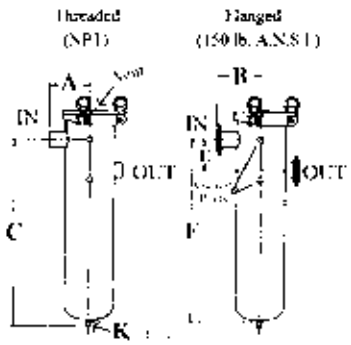
L88	15	2	N	A	C	15
HOUSING	BASKET SIZE (IN.)	CONNECTION SIZE (IN.)	CONNECTION TYPE	OUTLET LOCATION	MATERIAL	PRESSURE RATING (PSI)
L88	15 (#1) 30 (#2)	2 3 4	NPT = N Flange = F	Bottom = A Opposite = B Bottom, Angle 90˚ = C	Carbon = C 304 SS = 4 306 SS = 6	150 = 15 300 = 30

DIMENSIONS

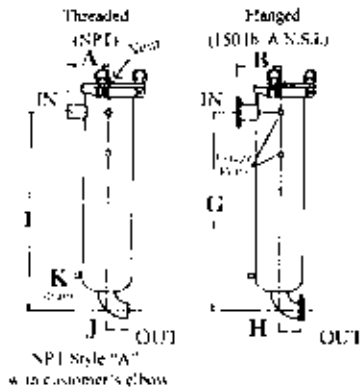
STYLE A BOTTOM OUTLET



STYLE B SIDE OUTLET



STYLE C BOTTOM OUTLET 90˚



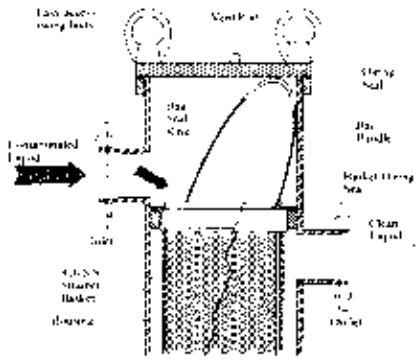
L88-15 (IN.)

Pipe Size	A	B	C	D	E	F	G	H	I	J	K	wt.
2	5.3	6.7	23.2	24.5	7.0	24.7	26.2	3.4	25.7	2.3		105-125# skid wt.
3	5.4	7.1	23.2	24.5	7.0	24.7	26.5	5.0	26.3	3.1	1	
4	5.4	7.1	23.2	24.5	7.0	24.7	29.1	6.3	26.9	3.8		

L88-30 (IN.)

Pipe Size	A	B	C	D	E	F	G	H	I	J	K	wt.
2	5.3	6.7	36.2	37.4	7.0	34.7	36.2	3.4	35.7	2.3		125-145# skid wt.
3	5.4	7.1	36.2	38.0	7.0	34.7	37.7	5.0	37.2	3.1.	1	
4	5.4	7.1	36.2	38.1	7.0	34.7	39.1	6.3	37.4	3.8		

All dimensions are approximate.



BASKET DATA

Depth Nominal (in.)	Diameter (in.)	Surface Area (sq. ft.)	Volume (cu. in.)
15	6.7	2.3	500
30	6.7	4.4	1000

L88
100 PSI Single Liquid BAG HOUSINGS

L88 100 PSI Liquid Bag Housings offer quality vessels for lower pressure applications and effectively remove dirt, pipe scale, and other contaminants from process liquids. Quality construction and design assure clean effluent and protection for all downstream equipment.

APPLICATIONS

- Chemical
- General Industrial
- Oil and Gas
- Water

HOUSING OPERATION

Unfiltered liquid enters the housing above the filter bag or strainer basket; fills the interior of the housing; and continues through the bag or strainer basket. Solids are trapped inside the filter bag or strainer and easily removed when the housing is serviced. The standard o-ring seal between the basket and the housing ensures a positive seal to prevent bypass.

HOUSING OPTIONS

- Mesh-lined strainer baskets
- Alternative o-ring materials
- Adjustable support legs
- ASME code U or UM

FEATURES

- Flow rates up to 220 gpm
- Carbon steel or 304 Stainless Steel construction
- Each vessel is factory hydro-tested
- Low pressure drop
- Quick-swing closure with eye nuts
- Buna-N® seals — lid & basket
- Differential, drain, and vent ports
- 304 Stainless Steel strainer basket
- 2-inch female NPT connection
- Accepts #1-size and #2-size bag filters

SPECIFICATIONS

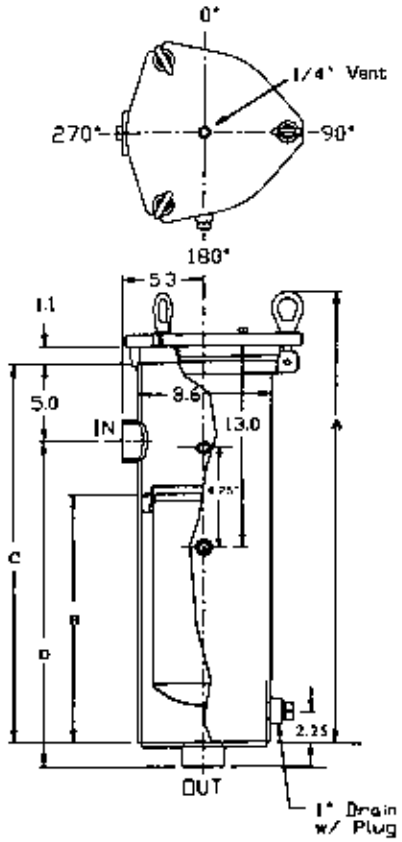
Pressure Rating	100 PSI at 300˚F (up to 300 PSI optional)
Connections	2-inch (NPT)
Housing Lid	3-bolt swing closure with 0.25-inch NPT vent port
Lid & Basket Seat	Buna-N® o-ring in the basket support
Inlets/Outlets	Side inlet/bottom outlet; side inlet/side outlet; side inlet/90˚ bottom outlet
Pressure Ports	Two 0.25-inch NPT
Construction/Finish	Carbon steel w/two-part epoxy finish; 304 or 316 Stainless Steel w/satin finish
Basket Material	304 Stainless Steel with 9/64-inch perforations
Bags Sizes	#1 and #2 liquid bags accepted
Base	Adjustable tripod leg assembly

ORDERING INFORMATION

Custom configurations available; please contact Customer Service.

L88	30	2	N	A	C	10
HOUSING	BASKET SIZE (IN.)	CONNECTION SIZE (IN.)	CONNECTION TYPE	OUTLET LOCATION	MATERIAL	PRESSURE RATING (PSI)
L88	30 (#2)	2	NPT = N	Bottom = A	Carbon = C 304 SS = 4	100 = 10

DIMENSIONS



All dimensions are approximate.

BASKET DATA

	30 (in.)
A	42.1
B	27.5
C	36.0
D	32.6

T88
Top Flow Single Liquid BAG HOUSINGS

T88 Top Flow Single Liquid Bag Housings effectively remove dirt, pipe scale, and other contaminants from process liquids. Quality construction and design assure clean effluent and protection for all downstream equipment.

APPLICATIONS

- Chemical
- General Industrial
- Oil and Gas
- Water

HOUSING OPERATION

Unfiltered liquid enters the housing above the filter bag or strainer basket, fills the interior of the housing and continues through the bag or strainer basket. Solids are trapped inside the filter bag or strainer and easily removed when the housing is serviced. The standard o-ring seal between the basket and the housing ensures a positive seal to prevent bypass.

HOUSING OPTIONS

- 300 PSI pressure rating
- Mesh-lined strainer baskets
- Alternative o-ring materials
- Adjustable support legs
- ASME code U or UM

FEATURES

- Flow rates up to 220 gpm
- Two lengths available, 15- and 30-inch, depending upon the required surface area and volume of fluid to be filtered
- Carbon steel and 304 or 316 Stainless Steel construction
- Each vessel is factory hydro-tested
- Low pressure drop
- Quick-swing closure with eye nuts
- Differential, drain and vent ports
- Adjustable support legs
- 304 Stainless Steel basket
- Two-part epoxy paint finish on carbon steel vessels
- Accepts #1-size and #2-size bag filters

SPECIFICATIONS

Pressure Rating	150 PSI at 300˚F (up to 300 PSI optional)
Connections	2-inch (NPT)(FLG)
Housing Lid	4-bolt swing closure with 0.25-inch NPT vent port
Lid Seal	Viton® o-ring
Inlets/Outlets	Side inlet/bottom outlet; side inlet/side outlet; side inlet/90˚ bottom outlet
Pressure Ports	Two 0.25-inch NPT
Construction/Finish	Carbon steel w/two-part epoxy finish; 304 or 316 Stainless Steel w/satin finish
Basket Material	304 Stainless Steel with 9/64-inch perforations
Bags Sizes	#1 and #2 liquid bags accepted
Base	Adjustable tripod leg assembly

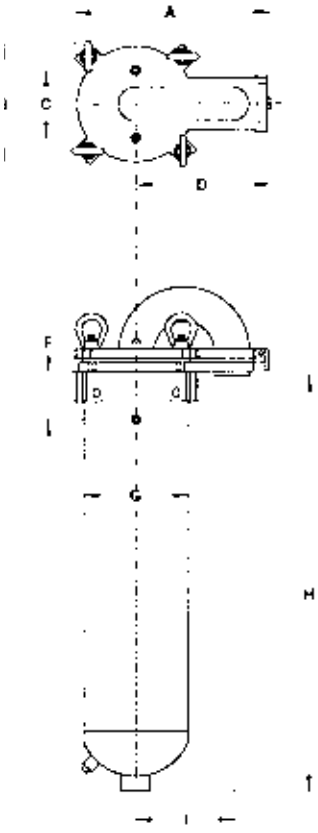
ORDERING INFORMATION

Custom configurations available; please contact Customer Service.

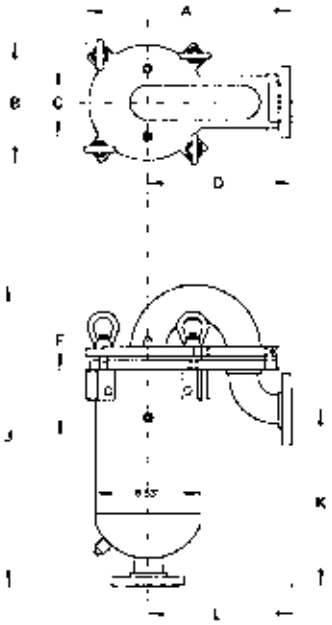
T88	30	2	N	A	C	15
HOUSING	BASKET SIZE (IN.)	CONNECTION SIZE (IN.)	CONNECTION TYPE	OUTLET LOCATION	MATERIAL	PRESSURE RATING (PSI)
T88	15 (#1) 30 (#2)	2	NPT = N Flange = F	Bottom = A Side = B	Carbon = C 304 SS = 4 316 SS = 6	150 = 15

DIMENSIONS

NPT CONNECTION



FLANGED CONNECTION



NPT CONNECTION (IN.)

Model	A	B	C	D	E	F	G	H	I
T88-15	16	10	6	11	23	4	8.63	15	8
T88-30	16	10	6	11	41	4	8.63	33	8

All dimensions are approximate.

FLANGED CONNECTION (IN.)

Model	A	B	C	D	G	J	K	L
T88-15	17.75	10	6	12.25	8.63	23.5	11.25	12.75
T88-30	17.75	10	6	12.25	8.63	41.5	29.25	12.75

OEM M88

100 PSI Liquid BAG HOUSINGS

OEM M88 100 PSI Liquid Bag Housings are superb quality vessels for lower pressure applications. They effectively remove dirt, pipe scale, and other contaminants from process liquids. Quality construction and design assure clean effluent and protection for all downstream equipment.

APPLICATIONS

- Chemical
- General Industrial
- Oil and Gas
- Water

HOUSING OPERATION

Unfiltered liquid enters the housing above the filter bag or strainer basket; fills the interior of the housing; and continues through the bag or strainer basket. Solids are trapped inside the filter bag or strainer and easily removed when the housing is serviced. The standard o-ring seal between the basket and the housing ensures a positive seal to prevent bypass.

HOUSING OPTIONS

- 300 PSI pressure rating
- Mesh-lined strainer baskets
- Alternative o-ring materials
- Adjustable support legs

FEATURES

- Flow rates to 220 gpm
- Dome base
- Carbon steel and 304 Stainless Steel construction
- Each vessel is factory hydro-tested
- Low pressure drop with #12 size bag
- 3-bolt swing lid with eye nuts
- Buna-N® seal-lid
- Differential, drain, and vent ports
- 304 Stainless Steel strainer basket
- 2-inch female NPT connections
- Side and bottom outlets
- Differential, drain and vent ports
- Two-part epoxy paint finish on carbon vessels; satin finish on Stainless Steel vessels
- Accepts #12-size bag filters — offers 25% more surface area than standard #2-size bag filters

SPECIFICATIONS

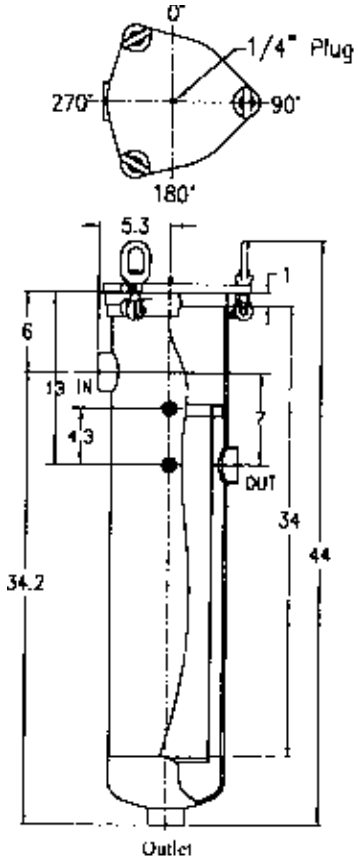
Pressure Rating	150 PSI at 200˚F
Connections	2-inch (NPT)
Housing Lid	3-bolt swing closure with vent port
Lid Seal	Buna-N®
Inlets/Outlets	Side inlet/bottom outlet; side inlet/side outlet; side inlet/90˚ bottom outlet
Pressure Ports	Two differential ports measure pressure across filter bag
Construction/Finish	Carbon steel w/two-part epoxy finish; 304 or 316 Stainless Steel w/satin finish
Basket Material	304 Stainless Steel with 9/64-inch perforations
Bags Sizes	#12 liquid bag accepted
Base	Adjustable tripod leg assembly

ORDERING INFORMATION

Custom configurations available; please contact Customer Service.

M88	30	2	N	A	C	10
HOUSING	BASKET SIZE (IN.)	CONNECTION SIZE (IN.)	CONNECTION TYPE	OUTLET LOCATION	MATERIAL	PRESSURE RATING (PSI)
M88	30 (#2)	2	NPT = N	Bottom = A Opposite Side = B	Carbon = C 304 SS = 4	100 = 10

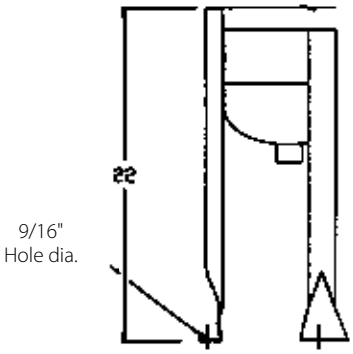
DIMENSIONS



All dimensions are approximate.

Note: *This housing requires a standard #12 size liquid filter bag.*

ADJUSTABLE SUPPORT LEGS



#12 BAG DATA (IN.)

Length	Diameter	Surface Area
30	8	5.5 square feet

L882
Twin Capacity Liquid BAG HOUSINGS

L882 Liquid Bag Housings effectively remove dirt, pipe scale, and other contaminants from process liquids, and their quality construction and design assure clean effluent and protection for all downstream equipment.

APPLICATIONS

- Chemical
- General Industrial
- Oil and Gas
- Water

HOUSING OPERATION

L882 Twin Capacity Liquid Bag Housings offer the flow rates of multi-round housings at an economical cost. These vessels are ideal for applications requiring high dirt-holding capacity, low pressure drop, or additional flow.

HOUSING OPTIONS

- 300 PSI pressure rating
- Mesh-lined strainer baskets
- Alternative o-ring materials
- Adjustable support legs

FEATURES

- Flow rates up to 440 gpm
- Two identical, L88 housings working in tandem
- Increased flow rates
- Can be used with strainer baskets alone or with bag filters
- Lower differential pressure
- Carbon or Stainless Steel construction
- Each vessel is factory hydro-tested
- Quick-swing closure with eye nuts
- Viton® seals—lid and basket
- Differential, drain, and vent ports
- 304 Stainless Steel strainer basket for 304 Stainless Steel housings and Carbon Steel housing
- 316 Stainless Steel strainer basket in 316 Stainless Steel housings
- Accepts #2-size bag filters

SPECIFICATIONS

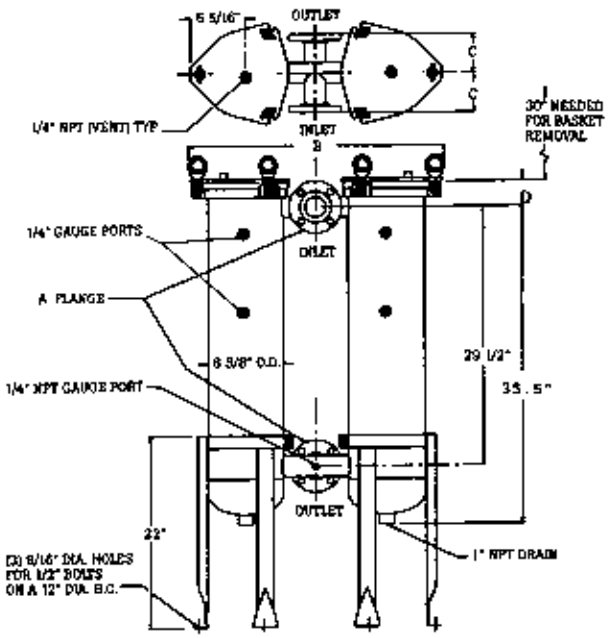
Pressure Rating	150 PSI at 300˚F (up to 300 PSI optional)
Connections	2-, 3-, or 4-inch (FLG)
Housing Lid	3-bolt swing closure with vent & gauge port (blind flange for 300 PSIG)
Lid & Basket Seals	Viton® o-ring
Pressure Ports	Two 0.25-inch NPT
Construction/Finish	Carbon steel w/two-part epoxy finish; 304 or 316 Stainless Steel w/satin finish
Basket Material	304 Stainless Steel stainer basket for 304 Stainless Steel housings and Carbon Steel housings with 9/64-inch perforations; 316 Stainless Steel strainer basket for 316 Stainless Steel housings with 9/64-inch perforations
Bags Sizes	#2 liquid bag accepted
Base	Adjustable tripod leg assemblies

ORDERING INFORMATION

Custom configurations available; please contact Customer Service.

L882	2	F	A	C	15
HOUSING	CONNECTION SIZE (IN.)	CONNECTION TYPE	OUTLET LOCATION	MATERIAL	PRESSURE RATING (PSI)
L882	2 3 4	Flange = F	Bottom = A Opposite = B	Carbon = C 304 SS = 4 316 SS = 6	150 = 15 300 = 30

DIMENSIONS



All dimensions are approximate.

FLANGE DIMENSION (IN.)

A	2	3	4
B	30	32	34
C	4.5	5.5	6.5
D	2.875	3.75	3.75

Multi-Round
Liquid
BAG HOUSINGS

Multi-Round Liquid Bag Housings effectively remove dirt, pipe scale, and other contaminants from process liquids. Quality construction and design assure clean effluent and protection for all downstream equipment.

APPLICATIONS

- Chemical
- General Industrial
- Oil and Gas
- Water

HOUSING OPERATION

Unfiltered liquid enters the housing above the filter bags or strainer baskets, fills the interior of the housing and continues through the bag or strainer basket. Solids are trapped inside the filter bags or strainers and easily removed when the housing is serviced.

HOUSING OPTIONS

- 300 PSI pressure rating
- Mesh-lined strainer baskets
- Alternative o-ring materials
- Heavy-duty support legs

FEATURES

- Flow rates up to 3500 gpm
- 2 basket to 24 basket housing designs, depending upon the required surface area and volume of fluid to be filtered
- Carbon steel and 304, or 316 Stainless Steel material
- Each vessel is factory hydro-tested
- Low pressure drop
- Swing bolts with bearing-assisted davit closure
- Buna-N® seals — lid and basket
- Differential, drain, and vent ports
- 304 Stainless Steel strainer basket for 304 Stainless Steel housings and Carbon Steel housing
- 316 Stainless Steel strainer basket in 316 Stainless Steel housings
- Two-part epoxy finish on carbon vessels
- Accepts #2-size bag filters
- Hydraulic lid lift

SPECIFICATIONS

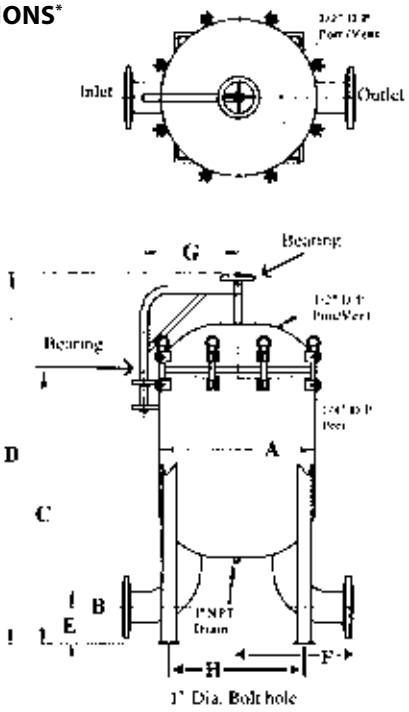
Model	Maximum Dimensions
Pressure Rating	150 PSI at 300˚F (up to 300 PSI optional)
Connections	2-, 3-, 4-, 6-, 8-, 10- or 12-inch RF FLG
Housing Lid	Swing bolts with davit cover lift
Lid & Basket Seals	Buna-N®
Pressure Ports	Two differential ports measure pressure across filter bag
Construction/Finish	Carbon steel w/two-part epoxy finish; 304 or 316 Stainless Steel w/satin finish
Basket Material	304 Stainless Steel stainer basket for 304 Stainless Steel housings and Carbon Steel housings with 9/64-inch perforations; 316 Stainless Steel strainer basket for 316 Stainless Steel housings with 9/64-inch perforations
Bags Sizes	#2 liquid bags accepted
Base	Heavy duty support legs

ORDERING INFORMATION

Custom configurations available; please contact Customer Service.

LR2	30	2	F	A	C	15
HOUSING	BASKET SIZE (IN.)	CONNECTION SIZE (IN.)	CONNECTION TYPE	OUTLET LOCATION	MATERIAL	PRESSURE RATING (PSI)
LR2 **LR3** **LR4** **LR6** **LR8** **LR12** **LR17** **LR21** **LR24**	30 (#2)	Refer to the chart below for available pipe size per housing	Flange = F	Bottom = A	Carbon = C 304 SS = 4 316 SS = 6	150 = 15

DIMENSIONS*



** For reference purposes only.*

BASKET DATA

Housing	Number of Baskets	Straining Filtering Area (sq. ft.)	Standard Pipe Size Available (in.)	Nominal Flow Rate (gpm)
LR2	2	8.8	2, 3, 4	400
LR3	3	13.2	2, 3, 4	600
LR4	4	17.6	3, 4, 6	800
LR6	6	26.4	3, 4, 6	1200
LR8	8	35.2	4, 6, 8	1600
LR12	12	44.0	6, 8, 10	2100
LR17	17	74.8	8, 10, 12	3500
LR21	21	92.4	8, 10, 12	4300
LR24	24	92.4	8, 10, 12	4300

DIMENSIONS* (IN.)

Housing	Pipe Size	A	B	C	D	E	F	G	Leg Bolt Center H	Weight Approx. (lbs.)
LR2	2	16"	2	Call factory						
	3		3	Call factory						
	4		4	Call factory						
LR3	2	18"	2	40.6	56.1	5.0	10.3	11.9	12.0	410
	3		3	43.0	59.0	5.8	11.0	11.9	12.0	435
	4		4	49.0	65.5	6.5	12.75	11.9	12.0	460
LR4	2	22"	2	48.3	67.0	5.0	11.5	15.0	16.5	535
	3		3	49.8	68.5	6.0	12.9	15.0	16.5	555
	4		4	52.5	70.0	6.5	14.5	15.0	16.5	590
LR6	3	26"	3	49.8	68.5	6.0	12.9	15.0	16.5	535
	4		4	52.5	70.0	6.5	14.5	15.0	16.5	555
	6		6	50.1	67.6	7.0	16.8	15.0	16.5	590
LR8	3	30"	3	51.5	68.9	6.0	15.1	18.0	20.8	665
	4		4	53.0	70.4	7.0	16.4	18.0	20.8	705
	6		6	50.5	71.0	8.0	19.1	18.0	20.8	850
LR12	4	36"	4	51.8	76.8	6.5	20.5	21.0	24.7	870
	6		6	52.0	76.5	8.3	22.5	21.0	24.7	1010
	8		8	54.5	79.0	10.8	23.8	21.0	24.7	1150
LR17	6	42"	6	59.2	80.7	8.3	25.1	24.0	29.0	1960
	8		8	63.5	85.0	9.5	26.1	24.0	29.0	2070
	10		10	68.0	89.5	11.0	27.2	24.0	29.0	2200
LR21	8	48"	8	59.9	85.2	8.3	28.8	27.0	33.2	2200
	10		10	64.4	89.7	9.5	29.8	27.0	33.2	2350
	12		12	69.2	94.5	11.0	32.3	27.0	33.2	2530
LR24	8	48"	8	59.9	85.2	8.3	28.8	27.0	33.2	2200
	10		10	64.4	89.7	9.5	29.8	27.0	33.2	2350
	12		12	69.2	94.5	11.0	32.3	27.0	33.2	2530

All dimensions are approximate.

Duplex
Liquid
BAG HOUSINGS

Duplex Liquid Bag Housings offer the capability of a continual flow for non-stop filtering during maintenance. Duplex systems effectively remove dirt, pipe, scale, and other contaminants from process liquids, and they deliver a wide variety of choices for flow rates and particulate removal. Plus, quality construction and design assure clean effluent and protection for all downstream equipment.

APPLICATIONS

- Chemical
- General Industrial
- Oil and Gas
- Water

HOUSING OPERATIONS

An optional automatic actuation system can be added to all housings for ease of operation. The automated system will switch flow between the housings after reaching a programmed differential pressure.

HOUSING OPTIONS

- Mesh-lined strainer baskets
- Alternative seal materials
- Adjustable support legs
- Automatic or manual switching system
- ASME code U or UM

FEATURES

- Twin housings with common connections
- Continuous flow possible
- Single handle actuation to switch between housings (4-inch piping and smaller) or independent controls (6-inch and larger)
- Carbon Steel or Stainless Steel construction
- Each vessel is factory hydro-tested
- Quick-swing closure with eye nuts
- O-ring seals — lid & basket
- Differential, drain, and vent ports
- 304 Stainless Steel strainer basket for 304 Stainless Steel housings and Carbon Steel housing
- 316 Stainless Steel strainer basket in 316 Stainless Steel housings

SPECIFICATIONS

Pressure Rating	150 PSI at 300˚F (up to 500 PSI optional)
Connections	NPT or RF FLG
Flow Switching	Single handle (4-inch piping and lower) or independent controls (6-inch and larger)
Housing Lid	Swing closure with vent port
Lid & Basket Seals	O-ring (material dependent on model)
Pressure Ports	Two 0.25-inch NPT
Construction/Finish	Carbon steel w/two-part epoxy finish; 304 or 316 Stainless Steel w/satin finish
Basket Material	304 Stainless Steel stainer basket for 304 Stainless Steel housings and Carbon Steel housings with 9/64-inch perforations; 316 Stainless Steel strainer basket for 316 Stainless Steel housings with 9/64-inch perforations

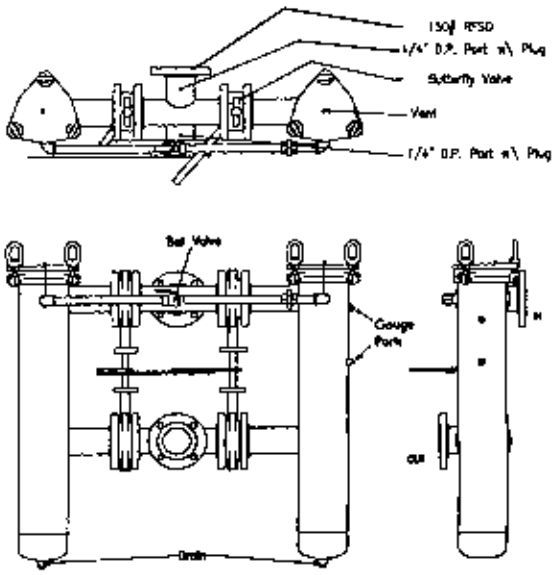
ORDERING INFORMATION

Custom configurations available; please contact Customer Service.

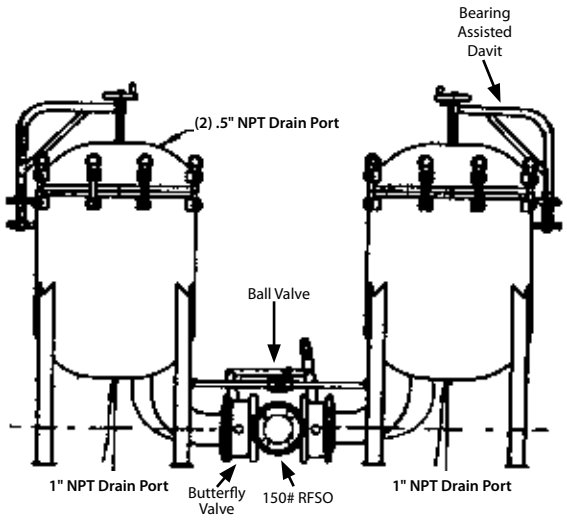
LR3	9	3	F	B	C	15	D
HOUSING	BASKET SIZE (IN.)	CONNECTION SIZE (IN.)	CONNECTION TYPE	OUTLET LOCATION	MATERIAL	PRESSURE RATING (PSI)	ACTUATION
L44, L66 **L88, LR2** **LR3, LR4** **LR6, LR8** **LR12, LR17** **LR21**	1 2 3 4 8 9	0.75 1 2 3 4 6 8 10 12	Flange = F	Side = B	Carbon=C 304 SS=4 316 SS=6	150 = 15 300 = 30 500 = 50	Manual = D Auto Actuated System = DA

DIMENSIONS

Single Housing



Multi-Round Housing



Diversa-Flow
Liquid
BAG HOUSINGS

Diversa-Flow Liquid Bag Housings give you the capability of a continuous flow for non-stop filtering during maintenance, offering an economical alternative to multi-round duplexing. Diversa-Flow systems effectively remove dirt, pipe scale, and other contaminants from process liquids. They provide a wide variety of choices for flow rates and particulate removal. Plus, quality construction and design assure clean effluent and protection for all downstream equipment.

APPLICATIONS

- Chemical
- General Industrial
- Oil and Gas
- Water

HOUSING OPERATIONS

An optional automatic actuation system can be added to all housings for ease of operation. The automated system will switch flow between the housings after reaching a programmed differential pressure.

HOUSING OPTIONS

- Mesh-lined strainer baskets
- Alternative o-ring materials
- Adjustable support legs
- Automatic or manual switching system
- ASME code U or UM

FEATURES

- Flow rates up to 200 gpm per housing
- Housings with common connections
- Continuous flow rates
- Independent serviceability
- Large sump area at the bottom of the basket for dirt and scale accumulation
- Carbon or Stainless Steel construction
- Each vessel is factory hydro-tested
- Quick-swing closure with eye nuts
- Viton® seals — lid and basket
- Differential, drain, and vent ports
- 304 Stainless Steel strainer basket for 304 Stainless Steel housings and Carbon Steel housing
- 316 Stainless Steel strainer basket in 316 Stainless Steel housings

SPECIFICATIONS

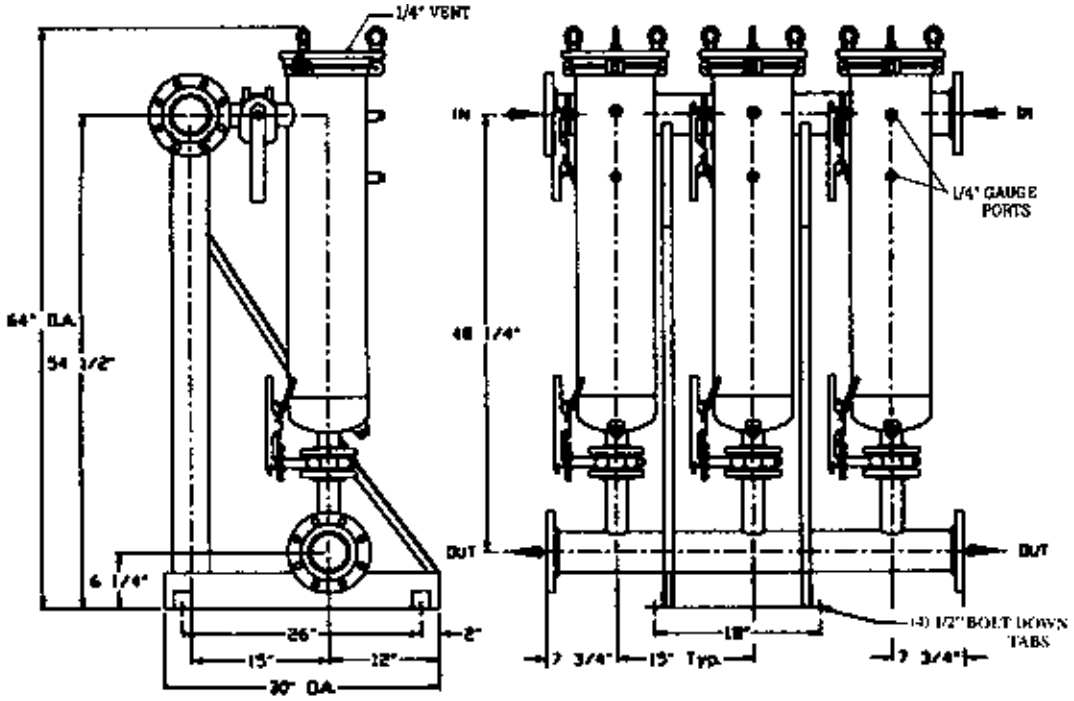
Pressure Rating	150 PSI
Connections	NPT or RF FLG
Housing Lid	3-bolt swing closure with vent port
Lid & Basket Seals	Viton® o-ring
Pressure Ports	Two 0.25-inch NPT
Construction/Finish	Carbon steel w/two-part epoxy finish; 304 or 316 Stainless Steel w/satin finish
Basket Material	304 Stainless Steel stainer basket for 304 Stainless Steel housings and Carbon Steel housings with 9/64-inch perforations; 316 Stainless Steel strainer basket for 316 Stainless Steel housings with 9/64-inch perforations

ORDERING INFORMATION

Custom configurations available; please contact Customer Service.

L88302FAC15	3	4F	C	DF
HOUSING	**NUMBER OF HOUSINGS**	**FLANGED HEADER SIZE (IN.)**	**MATERIAL**	**DIVERSA-FLOW**
See housing pages to select appropriate model; example shown above	2 or more	1.5 = 1F 2 = 2F 3 = 3F 4 = 4F 5 = 5F 6 = 6F	Carbon = C 304 SS = 4 316 SS = 6	DF

DIMENSIONS



All dimensions are approximate.

BL44, BL88 & BLM88

Single Liquid BAG HOUSINGS

BL44, BL88 and BLM88 Single Liquid Bag Housings effectively remove dirt, pipe scale, and other contaminants from process liquids. Quality construction and design assure protection for all downstream equipment.

APPLICATIONS

- Chemical
- General Industrial
- Oil and Gas
- Water

HOUSING OPERATION

Unfiltered liquid enters the housing above the filter bag or strainer basket; fills the interior of the housing and continues through the bag or strainer basket. Solids are trapped inside the filter bag or strainer and are easily removed when the housing is serviced.

HOUSING OPTIONS

- Mesh-lined strainer baskets
- Alternative o-ring materials

FEATURES

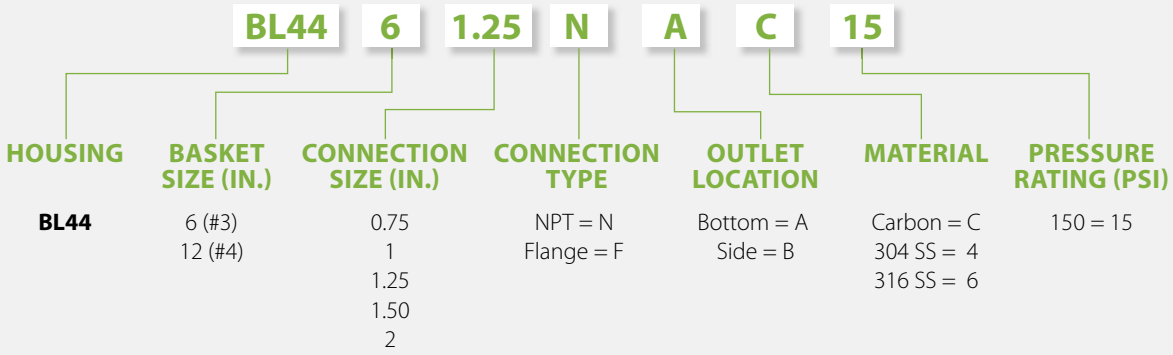
- Flow rates up to 50 gpm (BL44), 220 gpm (BL88), or 250 gpm (BLM88)
- Four lengths available, 6-, 12-, 15-, and 30-inch, depending upon the required surface area and volume of fluid to be filtered
- Carbon steel and 304 or 316 Stainless Steel material
- Each vessel is factory hydro-tested
- Low pressure drop
- Quick-swing strap band closure
- Buna-N® lid seal
- Differential, drain, and vent ports
- 304 Stainless Steel strainer basket
- Accepts #1, #2, #,3, #4 and #12-size bag filters, depending on model
- Two-part epoxy paint finish on carbon vessels
- Adjustable support legs included

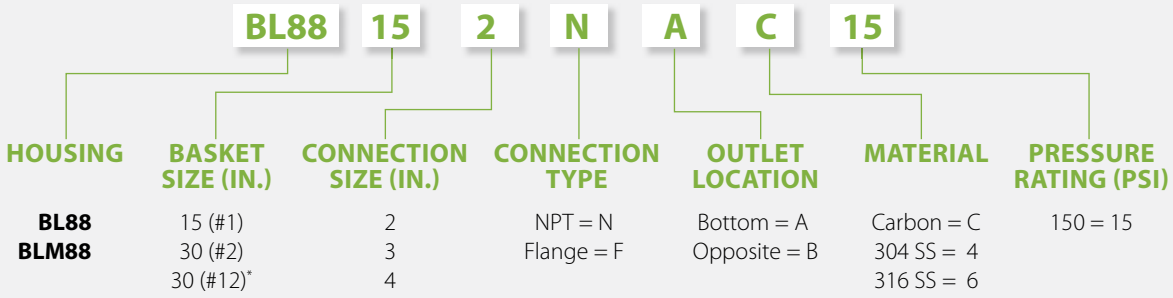
SPECIFICATIONS

Pressure Rating	150 PSI at 300˚F (up to 500 PSI optional)
Connections	.75-, 1.0-, 1.25-, 1.5-, or 2-inch (NPT) (FLG)
Housing Lid	Quick swing strap band closure
Lid Seal	Buna-N® o-ring
Inlets/Outlets	Side inlet/bottom outlet; side inlet/side outlet
Construction/Finish	Carbon steel w/two-part epoxy finish; 304 or 316 Stainless Steel w/satin finish
Basket Material	304 Stainless Steel with 9/64-inch perforations
Bags Sizes	#1, #2, #3, #4 and #12 liquid bags accepted, depending on model
Base	Adjustable tripod leg assembly standard

ORDERING INFORMATION

Custom configurations available; please contact Customer Service.





*BLM88 only

PBH Series

Bag Vessel
BAG HOUSINGS

PBH Series Bag Housings keep systems on stream longer by reducing bag filter change time. These assemblies offer all the necessary strength without the weight.

APPLICATIONS

- Commercial Water
- Food Service
- Industrial Chemical
- Industrial Water
- Residential Pre-filtration

HOUSING OPTIONS

- Choice of 10- or 20-inch housings
- Available in 1- and 1.5-inch NPT sizes
- Bag vessel stand sold separately

FEATURES

- Lightweight corrosion-resistant polypropylene construction
- Single large ACME thread closure ensures quick opening and positive sealing
- Outstanding chemical compatibility makes housings ideal for use in a variety of low-flow applications
- Equipped with a black, reinforced polypropylene cap
- Includes gauge, wrench and .375-inch drain valve
- Portable
- Economically priced
- Provides uninterrupted flow rates installed as a duplex system
- Outstanding chemical compatibility
- Filter bags are available in polypropylene felt, absolute-rated high-efficiency polypropylene and nylon monofilament mesh—ideal for filtering and straining applications from 1 to 800 microns

SPECIFICATIONS

Housing	Polypropylene
Cap	Polypropylene
Gauge	Bismuth Brass (Lead-Free)
Vent Plug	Polypropylene
Drain Plug	High Density Polypropylene
Ball Valve	PVC/Buna-N® Seals
Basket	Polypropylene
O-Ring and Gaskets	Buna-N®
Maximum Pressure	100˚F (37.8˚C)

NOTE: *Refer to bag filter specifications sheet for 1 to 200 micron quick-install bags.*

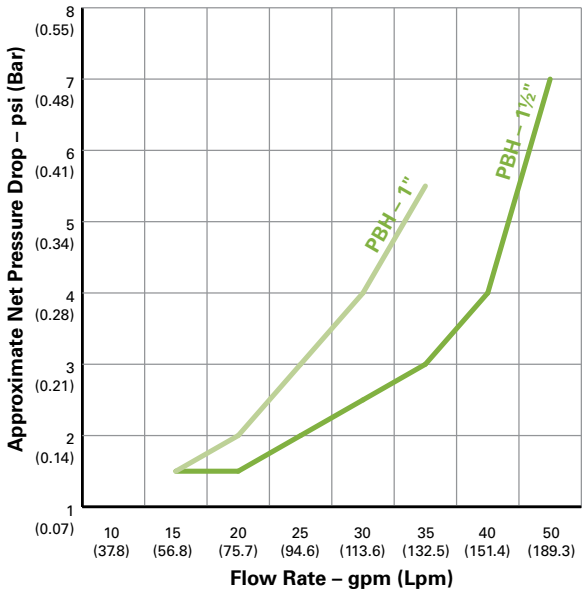
HOUSING SPECIFICATIONS AND PERFORMANCE

Model	Maximum Dimensions	Initial ΔP (PSI) @ Flow Rate (gpm)	Maximum Pressure
PBH-410-1 (1" NPT)	13.125" x 7.25" (333 mm x 184 mm)	1 PSI @ 15 gpm (0.07 bar @ 57 Lpm)	100 PSI (6.9 bar)
PBH-410-1.5 (1.5" NPT)	13.625" x 7.25" (346 mm x 184 mm)	1 PSI @ 15 gpm (0.07 bar @ 57 Lpm)	100 PSI (6.9 bar)
PBH-420-1 (1" NPT)	23.375" x 7.25" (594 mm x 184 mm)	1 PSI @ 15 gpm (0.07 bar @ 57 Lpm)	90 PSI (6.2 bar)
PBH-420-1.5 (1.5" NPT)	23.875" x 7.25" (606 mm x 184 mm)	1 PSI @ 15 gpm (0.07 bar @ 57 Lpm)	90 PSI (6.2 bar)

• PBH-410 accepts a standard 4" x 8.25" (102 mm x 210 mm) bag. Dimensions allow for 1" (25 mm) overlap on basket.
• PBH-420 accepts a standard 4" x 18.5" (102 mm x 470 mm) bag. Dimensions allow for 1" (25 mm) overlap on basket.

TEST DATA

PBH Series Bag Vessel Bag Housings



In-Line Series
STRAINER HOUSINGS

In-Line Series Strainer Housings offer a wide variety of filtration capabilities and flow rates.

APPLICATIONS

- Commercial
- Industrial

HOUSING OPTIONS

- Higher PSI pressure ratings
- Filtration from 2 to 2000 microns
- ASME Code U or UM
- Mesh-lined strainer baskets

FEATURES

- Flow rates from 1 to 1000 gpm
- In-line connections
- Many standard connection sizes
- High dirt load capacity
- 3-bolt swing lid with eye nuts
- High capacity basket with positive hold down spring
- Vent, drain and gauge ports
- Each vessel is factory hydro-tested
- Carbon steel and 304 or 316 Stainless Steel construction
- Two-part epoxy finish on carbon steel
- Buna-N® lid and basket o-rings

SPECIFICATIONS

Pressure Rating	150 PSI and 300 PSI
Housing Lid	3-bolt swing closure with vent port
Housing Ports	Two differential pressure ports and one vent and drain port
Construction/Finish	Carbon steel w/two-part epoxy finish; 304 or 316 Stainless Steel w/satin finish
Baskets	316 Stainless Steel with omega positive hold-down spring
Seals	Lid and basket: Buna-N® o-rings

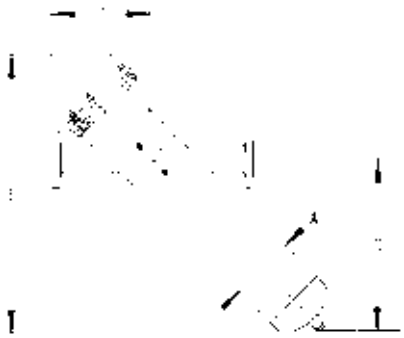
Additional Housings and Cartridges

ORDERING INFORMATION

Custom configurations available; please contact Customer Service.

S44	6	1	N	I	C	30
HOUSING MODEL	BASKET SIZE (IN.)	CONNECTION SIZE (IN.)	CONNECTION TYPE	OUTLET LOCATION	MATERIAL	PRESSURE RATING (PSI)
S44 S66 S88	6 or 12 18 or 30 15 or 30	Refer to chart below for available pipe size per model #	NPT = N Flange = F	In-line = I	Carbon = C 304 SS = 4 316SS = 6	150 = 15 300 = 30 500 = 50

DIMENSIONS (IN.)



Housing	Suface Area (sq. in.)	A Tank Dia. (in.)	Basket Size (in.)	Conn Size (in.)	C	D	E	Req'd Service Height	Weight Approx. (lbs.)
S446	75	4	6	.75	9.75	6.5	16.5	8	28
				1	9.75	6.5	16.5	8	
				1.25	9.75	6.5	16.5	8	
				1.50	9.75	6.5	16.5	8	
				2	9.75	6.5	16.5	8	
S4412	135	4	12	.75	11	11	21	14	32
				1	11	11	21	14	
				1.25	11	11	21	14	
				1.50	11	11	21	14	
				2	11	11	21	14	
S6618	280	6	18	1	12	12.25	22	20	45
				1.25	12	12.25	22	20	
				1.50	12	12.25	22	20	
				2	12	12.25	22	20	
				3	12	12.25	22	20	
S6630	495	6	30	1	12	12.25	22	32	75
				1.25	12	12.25	22	32	
				1.50	12	12.25	22	32	
				2	12	12.25	22	32	
				3	12	12.25	22	32	
S8815	355	8	15	2	13.5	15.5	29	17	100
				3	13.5	15.5	29	17	
				4	13.5	15.5	29	17	
S8830	635	8	30	2	13.5	24	38	32	125
				3	13.5	24	38	32	
				4	13.5	24	38	32	

All dimensions are approximate.

ComPro

675 to 2,025 GPD

COMMERCIAL/INDUSTRIAL REVERSE OSMOSIS SYSTEM

The Pentair Industrial ComPro system is a world-class, light commercial reverse osmosis (RO) system designed to solve a variety of water problems. This high quality, energy efficient system is easy to install, set up and service. Choose from 3 models to fit your specific market or application needs.

FEATURES

- Nominal salt rejection up to 98%
- Permeate flush at shutdown
- Proprietary quick connect, encapsulated, energy efficient, low pressure membranes
- High efficiency 1/2 HP Berkeley® stainless steel centrifugal pump
- Genuine PENTEK® prefilter housing with Pentair Industrial 10" Versaflex™ 5 micron pre-filter
- Automatic, low inlet pressure switch for pump cut-off with auto restart
- Inlet pre-filter, post-filter, membrane feed and final pressure gauges
- Blue-White® permeate and concentrate flow meters with integrated concentrate flow control
- Fixed recycle flow control minimizes tampering
- 30-50 psi (2.1-3.5 kg/cm2) [207-345 kPa] on/off switch on permeate
- Industrial grade solenoid valve
- 115V / 60 Hz or 230V/50 Hz single phase pump

CONTROL FEATURES

- 2 LED status indicators and backlit LCD show current status: Off, Run, Tank Full, Replace Fuse and Low Pressure Shut-Off
- Pentair-exclusive CULUS-, CE-listed controller assures quality and safety of electrical system and components
- Digital conductivity monitoring of feed and permeate water

BENEFITS

- High TDS rejection with reduced water and electrical costs
- Longer membrane life, improved water quality after shutdown and better long-term performance with permeate flush
- Assured replacement business for future membranes
- Easy to service and capable of accepting additional membranes
- Berkeley® centrifugal pump lasts 8-12 times longer than rotary vane pump for lower operation and maintenance costs
- Constant 30-50 psi (2.1-3.5 kg/cm2) [207-345 kPa] pressure in system with appropriate storage system
- Automated control with auto restart alerts operator to status and operation steps
- Low inlet pressure shutoff protects pump
- 115 Volt/60 Hz or 230 V/50 Hz for easy installation and operation
- Integrated brackets make it easy to achieve a secure wall-mount installation
- Adaptable to a wide range of water conditions
- Built-in Versaflex filter reduces particulate breakthrough from pre-treatment bypass or failure
- Longer system life with high quality, long-lasting and high-purity components

COMMERCIAL APPLICATIONS

- Whole building water loop, including water supply for bottleless water coolers
- Coffee, espresso, cappuccino, beverage, ice machines, post-mix and steamers
- Ingredient water
- Laboratory water systems
- Misting and humidification systems
- Commercial dishwashers
- Evaporative coolers
- Institutional water, schools, hospitals and healthcare facilities
- Car wash spot-free rinsing
- Horticulture, floriculture and greenhouses
- Drip irrigation
- Community water vending including marinas, recreational vehicle and mobile home parks

INDUSTRIAL APPLICATIONS

- Small boiler feedwater
- Autoclave/steam generator supply water
- Metal plating/finishing
- Chemical makeup water
- Sustainable drinking water
- Spot-free product rinse water
- R&D lab use
- Ink/dye makeup water
- Process ingredient water
- Deionizer pre-treatment

ORDERING INFORMATION

Custom configurations available; please contact Customer Service.

Model	ComPro-675 CMCPDLX1M	ComPro-1350 CMCPDLX2M	ComPro-2025 CMCPDLX3M
Part Number 115 VAC/60 Hz or 230 VAC/50 Hz	CM801011 / CM801014	CM801012 / CM801015	CM801013 / CM801016
Nominal Capacity GPD (m^3/day) +/- 15%*	675 (2.55)	1350 (5.11)	2025 (7.66)
System Recovery	25-75%	25-75%	25-75%
Permeate Rate, gpm (m^3/hr)	0.47 (.11)	0.94 (.21)	1.41 (.32)
Concentrate Rate, gpm (m^3/hr)	1.41-0.47 (.33-.11)	2.82-0.94 (.63-.21)	4.23-1.41 (.96-.32)
Feed Water Rate, gpm (m^3/hr)	1.88-0.94 (.44-.22)	3.76-1.88 (.84-.42)	5.64-2.82 (1.28-.64)
Feed Water Inlet Pressure - Min. psi (Kg/cm^2) [kPa]	50 psi (3.5) [345]	50 psi (3.5) [345]	50 psi (3.5) [345]
Feed Water Inlet Pressure - Max. (Kg/cm^2) [kPa]	100 psi (7.0) [689]	100 psi (7.0) [689]	100 psi (7.0) [689]
Membrane Feed Water Inlet Pressure - Max. (Kg/cm^2) [kPa]	125 psi (8.8) [862]	125 psi (8.8) [862]	125 psi (8.8) [862]
Standard Feed Water Temperature °F (°C)	35-104°F (2- 40 °C)	35-104°F (2- 40 °C)	35-104°F (2- 40 °C)
Permeate Flush on Shutdown	Yes	Yes	Yes
Membranes			
Membrane Size - Nominal Inches	ComPro Encapsulated	ComPro Encapsulated	ComPro Encapsulated
Membrane Quantity	1	2	3
Elements Array	1	2	3
Nominal Salt Rejection	95-98%	95-98%	95-98%
Vessel Material	PVC	PVC	PVC
Piping			
Inlet: Inches (mm)	1/2 (13) NPT	1/2 (13) NPT	1/2 (13) NPT
Permeate Outlet: Inches (mm)	1/2 (13) Tube	1/2 (13) Tube	1/2 (13) Tube
Concentrate Outlet: Inches (mm)	1/2 (13) Tube	1/2 (13) Tube	1/2 (13) Tube
Pump			
Pump Type	Centrifugal	Centrifugal	Centrifugal
Boost Pressure: psi (Kg/cm^2) [kPa]	10-25 (0.7-1.8) [69-172]	10-25 (0.7-1.8) [69-172]	10-25 (0.7-1.8) [69-172]
Pump Material	Stainless Steel	Stainless Steel	Stainless Steel
Horsepower (KW)	1/2 (0.37)	1/2 (0.37)	1/2 (0.37)
Voltage/ Hz - STD Single Phase	115V/ 60 Hz or 230/ 50 Hz	115V/ 60 Hz or 230/ 50 Hz	115V/ 60 Hz or 230/ 50 Hz
Amps 115V / 230 V	10 / 5	10 / 5	10 / 5
Overall Dimensions			
Height Inches (cm)	41 (105)	41 (105)	41 (105)
Width Inches (cm)	32 (82)	32 (82)	32 (82)
Depth Inches (cm)	12 (31)	12 (31)	12 (31)
Weight of System wo/water lbs (Kg)	125 (56.8)	136 (61.8)	147 (66.8)
Prefilter Dimensions			
Filter Housing Cartridge Quantity & Size Inches	1 x 2.9" x 9.8"	1 x 2.9" x 9.8"	1 x 2.9" x 9.8"
Replacement Filter	5 Micron CMVersaFlex	5 Micron CMVersaFlex	5 Micron CMVersaFlex
Standard Water Quality			
Softened Water	<1 grain/gallon	<1 grain/gallon	<1 grain/gallon
Silt Density Index (SDI)	SDI < 3	SDI < 3	SDI < 3
Total Dissolved Solids (TDS)	TDS < 2000	TDS < 2000	TDS < 2000
Silica ppm	SiO_2 < 20	SiO_2 < 20	SiO_2 < 20
Turbidity NTU	Turbidity < 1.0	Turbidity < 1.0	Turbidity < 1.0
pH	pH = 3 to 10	pH = 3 to 10	pH = 3 to 10
Iron & Manganese ppm	< 0.01	< 0.01	< 0.01
Chlorine/ Chloramine - Maximum (mg/l)	< 0.01	< 0.01	< 0.01
Chloride ppm	<350	<350	<350

Note: System performance and specifications based on feed water of 750 Mg/L NaCl at 77°F (25°C) at 75% recovery and 60 psi (4.2 Kg/cm^2) [414 kPa] dynamic pressure to the inlet of the system.

Strainer Baskets

Strainer Baskets are available for In-Line Strainer Series Housings. Styles include perforated, pleated mesh and mesh-lined. Accessories include liquid displacer, hold-down spring and plastic top conversion.

APPLICATIONS

- Commercial
- Industrial

316 Stainless Steel Strainer Baskets with Positive Hold-down Springs

FEATURES

- Heavy duty 316 Stainless Steel construction
- Perforations from 1/16- to .25-inch
- Mesh sizes from 2 to 841 microns
- Accepts standard size liquid bags
- Safe-edge interior for easy bag removal
- Tig-welded base on mesh-lined for a bypass-free filter
- Standard pleated strainers are backed with .25-inch perforation
- Standard mesh-lined strainers are backed with 9/64-inch perforation

OEM REPLACEMENT BASKETS

American Felt™	GAF Filter Systems™
Commercial™	Plenty™
Cuno®	Ronnigen-Petter™
Filter Specialists™ (FSI)	Rosedale™
Filtration Systems™	Strainrite™

AVAILABLE STYLES & ACCESSORIES

Strainers	Accessories
Perforated	Liquid displacer
Pleated Mesh	Hold-down spring
Mesh Lined	Plastic top conversion

ORDERING INFORMATION

Custom configurations available; please contact Customer Service.

HOUSING SIZE	BASKET STYLE	SIZE OF PERF. (IN.)	SIZE OF MESH	INNER BASKET
44/6 = BT-3 44/12 = BT-4 66/12 = BT-7 66/18 = BT-8 66/30 = BT-9 88/15 = BT-1 88/30 = BT-2	Strainer = SR Mesh Lined = ML Pleated = PL Wire Mesh = WW	1/4 = M 3/16 = L 3/32 = R 9/64 = S 1/16 = W Mesh-Lined & Pleated = O	20, 30, 40, 50, 60, 70, 80, 100, 150, 200 200 x 600 = 26 165 x 800 = 18 200 x 1400 = 21 325 x 2300 = 32 Perf = no symbol	No = Blank Yes = T*

** Inner basket not available for model numbers 44 and 66.*

Hydraulic
CARTRIDGE HOUSINGS

Hydraulic Cartridge Housings are designed for the removal of particulate from oils and industrial fluids. Our housings accept standard cartridge inner diameters of 2.625 to 3.5 inches, outer diameters of 6 or 7 inches and heights up to 44 inches. Quality construction and design assure clean effluent and protection for all downstream equipment.

APPLICATIONS

- Filtering Diesel Fuel
- Fuel Oils
- Hydraulic Systems
- Industrial Process Fluids
- Mineral Oil
- Solvents
- Transformer Oils

FEATURES

- Flow rates to 120 gpm
- Carbon or 304 Stainless Steel construction
- 100 PSI pressure rating at 250˚F
- Low pressure drop
- 3-bolt swing lid with eye nuts allows for easy opening and closing
- Buna-N® lid seal
- Optional inlet port/drain port
- Full tie-rod element connections for positive seal
- Two-inch in-line connection design
- Two-part epoxy finish on carbon steel vessels

SPECIFICATIONS

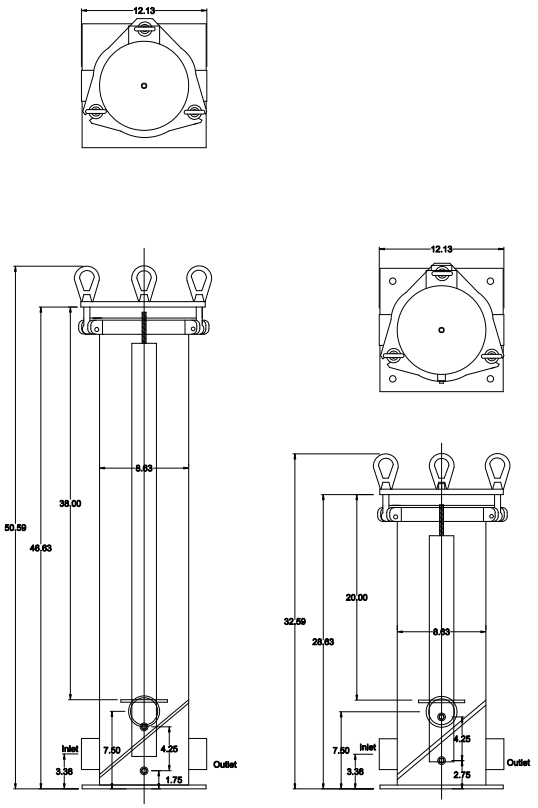
Housing Lid	3-bolt swing closure with vent port
Lid Seal	Buna-N® o-ring
Connections	2-inch NPT couplings for in-line or 90˚ setting
Clean-out Port	2-inch bottom
Construction/Finish	Carbon steel w/two-part epoxy finish; 304 or 316 Stainless Steel w/satin finish
Element Seal	Full tie-rod with aluminum hand nut for positive seal
Pressure Rating	100 PSID
Elements	Not supplied; order separately

ORDERING INFORMATION

Custom configurations available; please contact Customer Service.

H88	18	2	N	A	C	15
HOUSING	FOR CARTRIDGE SIZE (IN.)	CONNECTION SIZE (IN.)	CONNECTION TYPE	OUTLET LOCATION	MATERIAL	PRESSURE RATING (PSI)
H88	18	2	NPT = N	Bottom = A	Carbon = C	150 = 15
	36	3	Flange = F	Opposite = B	304 SS = 4	300 = 30
	44	4		Bottom, Angle 90˚ = C	306 SS = 6	

DIMENSIONS



AVAILABLE CARTRIDGE SPECIFICATIONS

Component	Material/Valve Construction
Size	6-inch OD × 2.625-inch ID × 18-inch HT (single), 36-inch HT (double), 44-inch
Media (Particulate)	Phenolic resin-impregnated cellulose
Media (Water Removal/ Particulate)	Laminated adsorbent and resin-impregnated cellulose, 3 liters water-holding capacity per 18-inch cartridge height
Outer Wrap	Electronic tinplate with 3/32-inch openings
Endcaps	Aluminized Steel
Center Core	Heavy duty spiral-locked, corrugated steel rated at 75 PSID
Gaskets	3/32-inch Buna-N®
Surface Area	34 square feet per 18-inch cartridge height
Recommended Change-Out	15-20 PSID
Flow Rate at 100 PSI	60 gpm at 150 SSU/1 PSID per 18-inch of cartridge height

Multi-Round Series

Hydraulic
CARTRIDGE HOUSINGS

Multi-Round Series Hydraulic Cartridge Housings offer high flow rates, chemical compatibility and good particle retention. They are an ideal choice for particulate and contaminant removal with our hydraulic cartridges.

APPLICATIONS

- Diesel Fuel
- Fuel Oils
- Hydraulic Fluids
- Industrial Process Fluids
- Mineral Oil
- Solvents
- Transformer Oils

FEATURES

- Flow rates from 360 to 4500 gpm
- Carbon or Stainless Steel construction
- Bearing-assisted Davit assembly
- Buna-N® lid seals
- 150 PSI pressure rating
- Differential, drain and vent ports
- Heavy duty support legs
- Two-part epoxy finish on carbon steel
- Removable two-inch heavy-wall center guide posts
- 3-round to 38-round capacity
- Full tie-rod element connections for positive seal

HOUSING OPTIONS

- Duplexing for continual flow during maintenance
- Hydraulic lid lift
- Higher pressure rating
- ASME Code U or UM
- Connection sizes and types

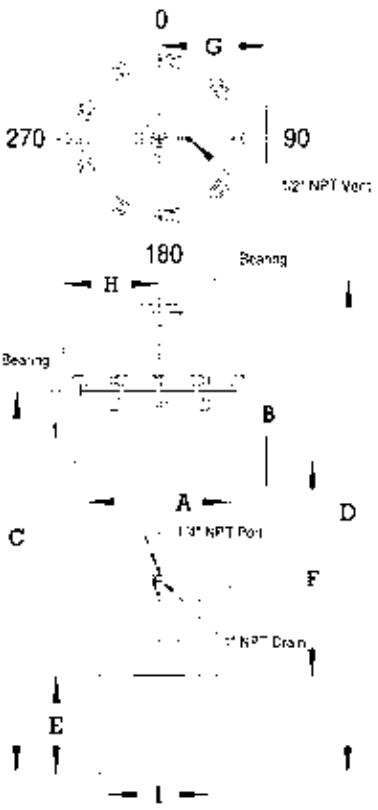
ORDERING INFORMATION

Custom configurations available; please contact Customer Service.

H1616 36 3 F C 15

HOUSING	CARTRIDGE LENGTH (IN.)	CONNECTION SIZE (IN.)	CONNECTION TYPE	MATERIAL	PRESSURE RATING (PSI)
H1616 **H1818** **H2424** **H3030** **H3636** **H4242** **H4848**	36 44	Refer to chart for availability per model #	Flange = F	Carbon = C 304 SS = 4 316 SS = 6	150 = 15

DIMENSIONS



All dimensions are approximate.

Model	Tank (in.)	Cart Length (in.)	Conn (in.)	# of Elements	Dimensions (in.) C	D	E	F	G	H	I	Weight Approx. (lbs.)
H1616	16	36	2	3	61.7	69.9	8.0	20.5	13.0	10.8	11.5	470
			3		62.5	70.6	10.0	20.5	13.0	10.8	11.5	480
			4		63.2	71.4	12.5	20.5	13.0	10.8	11.5	490
		44	2		68.7	77.9	8.0	20.5	13.0	10.8	11.5	485
			3		70.5	78.6	10.0	20.5	13.0	10.8	11.5	495
			4		71.2	79.3	12.5	20.5	13.0	10.8	11.5	505
H1818	18	36	2	4	62.2	70.4	8.0	20.5	14.0	11.8	12.0	535
			3		63.0	71.4	10.0	20.5	14.0	11.8	12.0	540
			4		63.7	71.9	12.5	20.5	14.0	11.8	12.0	550
		44	2		69.2	78.4	8.0	20.5	14.0	11.8	12.0	550
			3		71.0	79.4	10.0	20.5	14.0	11.8	12.0	560
			4		71.7	79.9	12.5	20.5	14.0	11.8	12.0	570
H2424	24	36	3	9	62.7	78.9	10.0	20.5	17.0	14.8	16.5	635
			4		63.2	79.6	12.5	20.5	17.0	14.8	16.5	640
			6		63.7	80.4	16.5	20.5	17.0	14.8	16.5	645
		44	3		70.7	86.9	10.0	20.5	17.0	14.8	16.5	660
			4		71.2	87.6	12.5	20.5	17.0	14.8	16.5	665
			6		71.7	88.1	16.5	20.5	17.0	14.8	16.5	670
H3030	30	36	3	14	63.2	80.6	10.0	20.5	20.0	17.8	17.8	700
			4		63.9	82.1	12.5	20.5	20.0	17.8	17.8	705
			6		64.4	82.6	16.5	20.5	20.0	17.8	17.8	710
		44	3		71.2	88.6	10.0	20.5	20.0	17.8	17.8	740
			4		71.7	89.1	12.5	20.5	20.0	17.8	17.8	745
			6		72.2	89.6	16.5	20.5	20.0	17.8	17.8	750
H3636	36	36	4	22	66.0	74.0	12.5	26.5	25.0	20.8	24.7	890
			6		66.5	74.5	16.5	26.5	25.0	20.8	24.7	895
			8		67.0	75.0	20.7	26.5	25.0	20.8	24.7	900
		44	4		74.0	82.0	12.5	26.5	25.0	20.8	24.7	950
			6		74.5	82.5	16.5	26.5	25.0	20.8	24.7	955
			8		75.0	83.0	20.7	26.5	25.0	20.8	24.7	960
H4242	42	36	6	31	66.0	82.9	16.5	26.5	28.0	23.8	29.0	2070
			8		66.5	82.4	20.7	26.5	28.0	23.8	29.0	2075
			10		67.0	82.9	25.0	26.5	28.0	23.8	29.0	2080
		44	6		74.0	90.9	16.5	26.5	28.0	23.8	29.0	2210
			8		74.5	91.4	20.7	26.5	28.0	23.8	29.0	2225
			10		75.0	91.9	25.0	26.5	28.0	23.8	29.0	2235
H4848	48	36	8	38	66.7	82.9	20.7	26.5	31.0	26.8	33.2	2350
			10		67.2	83.4	25.0	26.5	31.0	26.8	33.2	2375
			12		67.7	83.9	29.5	26.5	31.0	26.8	33.2	2450
		44	8		74.7	90.9	20.7	26.5	31.0	26.8	33.2	2575
			10		75.2	91.4	25.0	26.5	31.0	26.8	33.2	2600
			12		75.7	91.9	29.5	26.5	31.0	26.8	33.2	2625

Hydraulic Cartridges

For use in particulate- and water-adsorbent hydraulic fluid applications.

APPLICATIONS

- Diesel Fuel
- Fuel Oils
- Hydraulic Fluids
- Industrial Process Fluids
- Mineral Oil
- Solvents
- Transformer Oils

FEATURES

- Available 1, 5, 10, 25, 50, 75 and 100 micron ratings
- Particulate- or water-adsorbent media types
- Recommended change-out is 15-20 PSID
- Flow rate is 60 gpm at 150 SSU/1 PSID per 18 inches of element

SPECIFICATIONS

Part Number	Cartridge Length (in.)	Micron Rating	Media Type
KK718-1	18	1 micron	Particulate
KK718-*	18	Any standard*	Particulate
KK718W-1	18	1 micron	Water Adsorbent
KK718W-*	18	Any standard*	Water Adsorbent
KK736-1	36	1 micron	Particulate
KK736-*	36	Any standard*	Particulate
For 36-inch length water adsorbent, use quantity 2 of the KK718W-*			
KK644-1	44	1 micron	Particulate
KK644-*	44	Any standard*	Particulate

Standard Microns = 5, 10, 25, 50, 75 and 100.

CONSTRUCTION

Sizes	6" OD X 2.625" ID X 18" HT 6" OD X 2.625" ID X 36" HT 6" OD X 3.5" ID X 44" HT
Media (Particulate)	Phenolic resin-impregnated cellulose
Media (Water Adsorbent Particulate)	Laminated adsorbent & resin-impregnated cellulose
Outer Wrap	Electrolytic tinplate with 3/32-inch openings
Endcaps	Tin-plated steel
Center Core	Heavy-duty spiral-locked, corrugated steel, rated for 75 PSID
Gaskets	3/32-inch Buna-N®
Surface Area	18-inch = 32 sq. ft. 36-inch = 62 sq. ft. 44-inch = 60 sq. ft.

Terms and Conditions

Pentair Industrial

PRICING, PAYMENTS & ORDERS

1. All prices are subject to change without notice.
2. Minimum order is $200.00 list.
3. Payment terms are NET 30 DAYS. Orders will not be processed on delinquent accounts until all past due amounts are paid.
4. Custom orders may require deposits in advance of production.

OPEN ACCOUNT

Customer will be required to complete a credit application prior to shipping on an open account basis. All orders will ship COD or check with order, prior to credit approval.

PRODUCT AVAILABILITY

Filter Cartridges and Bags:

1. Ship from stock - 2 days
2. Standard - 1 to 2 weeks
3. Custom - Consult Factory

Cartridge and Bag Housings:

1. Ships from stock - 2 days
2. Catalog items (Carbon) - 2 weeks
3. Catalog items (304 SS) - 3 to 4 weeks
4. Catalog items (316 SS) - 6 to 8 weeks
5. Custom - Per quote/Consult Customer Service
6. Rush Shipments - Per quote/Consult Customer Service

FREIGHT TERMS

1. All orders are shipped FOB factory
2. Routing shall be at factory discretion unless customer requests a specific carrier at time of ordering. UPS will be used whenever possible. LTL shipments will ship collect.

CANCELLATION OR ORDER CHANGES

Once an order is under production, add-ons may hold up shipment of the original order. Pentair Industrial must approve all order changes, and a charge may be imposed depending on the progress of the original order. Cancellations are subject to approval by Pentair Industrial with charges for production time incurred. Custom orders cannot be cancelled once materials have been ordered or production has begun.

RETURNED GOODS SPECIFICATIONS

All goods must be returned with a RETURNED GOODS AUTHORIZATION (RGA) number. RGA numbers are valid for 15 days from date of issue. All documentation must contain the RGA numbers to receive credit. All goods returned without an RGA, or not covered by an RGA, will be returned freight collect. The RGA number is valid for one shipment only and all items must be shipped together. Merchandise credit will be based upon the invoiced unit price less **20% restocking fee.** Credit will be issued upon receipt and inspection of the products.

THE FOLLOWING ITEMS MAY NOT BE RETURNED

1. Custom products.
2. Any item not packed in the original crate or carton.
3. Items that have been damaged, used or altered.
4. Products that have become obsolete.

Pentair Industrial will notify you of any products not acceptable for return and request routing instructions. Instructions must be received within 30 days of request to insure product retrieval. Products will be returned freight collect.

Full freight charges must be paid on the original invoice regardless of products returned. Freight charges must be prepaid on all returned merchandise shipments. Collect shipments will be refused and returned to sender.

Merchandise shipped in error by Pentair Industrial may be returned freight collect **after prior authorization from Pentair Industrial is obtained** and an RGA number is issued. No re-stocking fee will be applied.

CHEMICAL COMPATIBILITY

Chemical Compatibility Key		Gasket/O-Ring Material Key	
N	Not Recommended	**B**	Buna-N®
LR	Limited Resistance; short term use only; testing suggested	**E**	EPR
VR	Variable Resistance; contact us for resistance at specific concentrations	**N**	Neoprene
*	w/Stainless Steel or polyester endcaps	**S**	Silicone
—	Insufficient or unavailable data; testing required	**V**	Viton® A

Chemical	FILTER MEDIA			Gaskets/ O-Rings
	Biflex™	Triflex™	Pureflex™	
Acetic Acid	VR	VR	R	E
Acetone	R	R	R	E
Air	R	R	R	B, E, N, S, V
Ammonium Hydroxide	LR	N	R	E,N
Amyl Acetate	R	N	LR	E
Amyl Alcohol	R	R	R	E, N
Aniline	R	N	LR	E
Aviation Gasoline	R*	R*	LR	B, V
Benzene	R*	R*	N	V
Benzoic Acid	R	N	R	V
Benzyl Alcohol	R	R	R	B, E, N
Boric Acid	LR	R	R	E, E, N
Butyl Acetate	R	N	LR	E
Butyl Alcohol	R	R	R	B, N, S, V
Calcium Hydroxide	LR	N	R	E
Carbon Dioxide	R	R	R	B, E, N, S, V,
Carbon Tetrachloride	R	N	LR	B, V
Carbonic Acid	R	N	R	E, N, S, V
Cellosolve Acetate	R	N	R	R
Chloroform	R	N	LR	V
Chromic Acid	N	N	R	V
Citric Acid	R	R	R	B, E, N, S, V
Cottonseed Oil	R	LR	LR	B, S, V
Cutting Oil	R	R	R	R, R
Cyclohexane	R	R*	N	B, V
Diesel Fuel	R	R*	LR	B, S, V
Diethanolamine	R	R	R	B, E
Diethyl Ether	—	—	LR	—
Diethylene Ether	R	R	R	—
Diisopropyl Ehter	—	—	R	—
Dimethyl Formamide	R	N	R	B, E, S
Dioxane	N	—	R	E
Dowclene™ WR	N	N	LR	—
Ethyl Acetate	R	N	LR	—
Ethyl Alcohol	R	R	R	B, E, N, S
Ethylene Gycol	R	R	R	B, E, N, S, V
Ethylene Oxide	R	N	LR	B, E
Formaldehyde	R	R	R	E, S
Formic Acid	R	R	R	B, N, S
Freon® TF, PCA	R	N	R	B, N, V
Freon® TMC	N	N	LR	—
Gasoline	R	N*	LR	—
Genosolv-D	R	N	R	—
Glycerine	R	—	R	B, E, N, S, V
Helium Gas	R	R	R	B, E, N, S, V
Heptane	R	—	—	B, N, V
Hexane	R	LR	LR	B, N, V
Hydraulic Oils	R	R	R	B, S, V

Chemical	FILTER MEDIA			Gaskets/ O-Rings
	Biflex™	Triflex™	Pureflex™	
Hydrochloric Acid	N		R	V
Hydrofluoric Acid	N	N	R	V
Hydrogen Gas	R	R	R	B, E, N, V
Hydrogen Peroxide	N	R	R	V
Isobutyl Alcohol	R	—	—	B, E, N, S, V
Isopropanol Alcohol	—	R	R	B, E, N, S, V
Isopropyl Acetate	—	N	R	E
Isopropyl Alcohol	R	R	R	B, E, N, S, V
JP-4	—	R	R	B, V
Jet Fuel	R*	R*	LR	B, V
Kerosene	R*	R*	R	B, N, V
Lube Oil (Petroleum Base)	R	R	R	B, V
Magtape Slurry	R	R	R	E
Methanol	R	R	R	B, E, N, S
Methyl Acetate	R	N	LR	—
Methyl Alcohol	R	R	R	B, E, N, S
Methyl Ethyl Ketone	R	N	LR	E
Methyl Isobutyl Ketone	R	N	LR	E
Methylene Chloride	R	N	LR	V
Monoethanol Amine	R	R	R	B,E,S
Nickel Sufate Solution	R	R	R	B, E, N, S
Nitric Acid	N	VR	R	V
Nitrogen, Gas	R	R	R	B, E, N, S, V
Oxygen, Gas	R	R	R	E, N, S, V
Ozone	R	R	R	E, S, V
Peanut Oil	LR	LR	R	B, S, V
Perchloroethylene	R	N	LR	B, V
Pertoleum Ether	R	R	R	—
Phenol	R	R	R	V
Phosphoric Acid	VR	VR	R	E, V
Potassium Hydroxide	N	N	R	E
Propylene Glycol	R	R	R	B, E, N, S, V
Pyridine	N	N	LR	E
Sesame Oil	—	LR	R	B, E, N, S, V
Sodium Hydroxide	VR	VR	R	B, E, N, S
Sodium Hypochlorite	N	N	R	V
Sulfuric Acid	N	VR	R	V
Tetrahydrofuran	R	N	LR	E
Toluene	R	N	N	V
1,1,1- Trichloroethane	R	R	N	V
Trichloroethylene	R	N	LR	V
Triethylene Glycol	R	R	R	B, E, S, V
Turbine Oils	R	R	R	V
Turpentine	R	LR	LR	B, S, V
Water	R	R	R	B, E, N, S, V
White Petrolatum	LR	R	—	B, E, N, S, V
Xylene	LR	R	—	V

SPECIFIC GRAVITY, VISCOSITY AND WEIGHTS OF COMMON LIQUIDS

Pentair Industrial

Liquid	Specific Gravity	Viscosity @ 60˚F	Weight (lbs/gallon)
Miscellaneous Liquids			
Water	1.0	31.5	8.33
Gasoline	.68–.74	30	5.6–6.2
Jet Fuel	.74–.85	35	6.2–7.1
Kerosene	.78–.82	38	6.5–6.8
Turpentine	.86–.87	33	7.2
Varnish Spar	0.9	1600	7.5
Fuel Oil and Diesel Oil			
No. 1 Fuel Oil	.82–.95	38	6.8–7.9
No. 2 Fuel Oil	.82–.95	50	6.8–7.9
No. 3 Fuel Oil	.82–.95	68	6.8–7.9
No. 5A Fuel Oil	.82–.95	400	6.8–7.9
No. 5B Fuel Oil	.82–.95	600	6.8–7.9
No. 6 Fuel Oil	.82–.95	70000	6.8–7.9
No. 2D Diesel Oil	.82–.95	68	6.8–7.9
No. 3D Diesel Oil	.82–.95	120	6.8–7.9
No. 4D Diesel Oil	.82–.95	600	6.8–7.9
No. 5D Diesel Oil	.82–.95	5000	6.8–7.9
Crankcase Oil - Automobile Lubrication Oils			
SAE 10	.88–.935	600–900	7.3–7.8
SAE 20	.88–.935	900–3000	7.3–7.8
SAE 30	.88–.935	3000–4400	7.3–7.8
SAE 40	.88–.935	4400–6000	7.3–7.8
SAE 50	.88–.935	6000–10000	7.3–7.8
SAE 60	.88–.935	10000–17000	7.3–7.8
SAE 70	.88–.935	17000–45000	7.3–7.8
Transmission Oils - Automobile Transmission Gear Lubricants			
SAE 90	.88–.935	5500	7.33–7.79
SAE 140	.88–.935	12000	7.33–7.79
SAE 250	.88–.935	50000	7.33–7.79

Liquid	Specific Gravity	Viscosity @ 60˚F	Weight (lbs/gallon)
Miscellaneous Liquids			
Castor Oil	0.96	9000	8.00
Chinawood	0.943	1800	7.85
Coconut	0.925	500	7.70
Cod	0.928	600	7.73
Corn	0.924	700	7.70
Cotton Seed	.88–.925	600	7.33–7.7
Cylinder	.82–.95	14000	6.83–7.9
Navy No.1 Fuel	0.989	1100	8.24
Navy No.2 Fuel	1.0	24000	8.33
Gas	.887	90	7.39
Insulating Lard	.912–.925	600	7.6–7.7
Linseed	.925–.939	500	7.7–7.82
Raw Menhadden	0.933	500	7.77
Neats Foot	0.917	1000	7.64
Olive	.912–.918	550	7.6–7.65
Palm	0.924	700	7.70
Peanut	0.92	500	7.66
Quencing	—	900	—
Rape Seed	0.919	900	7.65
Rosin	0.98	7800	8.16
Rosin (Wood)	1.09	Extreme Viscose	9.1
Sesame	0.923	500	7.69
Soya Bean	.927–.98	475	7.72–8.16
Sperm	0.883	250	7.35
Turbine (Light)	0.91	350	7.58
Turbine (Heavy)	0.91	1400	7.58
Whale	0.925	450	7.70

USEFUL CONVERSIONS

Pentair Industrial

LIQUID FACTS

1 Gal. Water = 8.3 pounds
CPS = Centipoise
CPS = Centistoke x Specific Gravity
CTS = Centistoke
CTS = Centipoise ÷ Specific Gravity

Pa = Pascal
PSIG = Pounds per square inch gauge
PSIa = Pounds per square inch absolute
PSID = Pounds per square inch differential
Mm Hg = Millimeters of mercury
In. Hg. = Inches of mercury
Cc = Cubic Centimeters

1 Cu. Ft./Hr =
0.0166 Cu Ft/Min.
0.471 Lpm
28.320 Lph
471.950 Cc/Min.
28317 Cc/Hr.
0.124 Gal./Min.
7.481 Gal./Hr.

1 Lpm =
60 Lph
0.035 Cu.Ft./Min.
2.118 Cu.Ft./Hr.
1000 Cc/Min.
6000 Cc/Hr.
.264 Gal./Min.
15.852 Gal./Hr.

1 Gal./Min. =
60 Gal./Hr.
.133 Cu.Ft./Min.
8.022 Cu.Ft./Hr
3.785 Lpm
227.1 Lph
3,785,000 Cc/Min.

Temperature =
0C = 32˚F
0C = 273˚K
0K = -465˚F
0K = -273˚C
60F = 520˚K
Degree ˚C = 5/9 (˚F-32)
Degree ˚K = 460 + ˚F

Pressure =
1 PSI =
27.71 In/H_2O
2.038 In/Hg
703.1 Mm/H_2O
51. 75 Mm/Hg
.0703 Kg/Cm^2
.0689 Bar
6895 Pa

Key: **C** = Centigrade
F = Fahrenheit
K = Kelvin (or absolute)

MICRON REFERENCE CHART

U.S. Wire Mesh To Micron Size
1 micron (1 x 10-6 meters) =
4 x 10-5 inches (0.00004 inches)

U.S. Wire Mesh	Micron
10	2000
20	841
25	707
30	595
35	500
40	420
45	354
50	297
60	250
70	210
80	177
100	149
120	125
140	105
150	95
170	88
200	74
250	61
270	53
325	44
400	37
500	25

Relative Micron Comparisons

Beach Sand	>150
Granular Salt	100
Pin Point	80
Human Hair (DIA)	45-70
White Blood Cell	25
Plant Spores	15
Red Blood Cell	8
Fog Mist	5
Tabacco Smoke	0.1-1
Carbon Black	0.02-.1
Virus	0.008-.1
Aqueous Salt	<0.002

Types of Separation

Microns	
>1	Particle Filtration
0.8-1	Microfiltration
0.07-.1	Ultrafiltration
0.01-.009	Nanofiltration
<0.002	Reverse Osmosis

SPECIFICATIONS

Liquid Bag Square Footage

Size	Pleated	Standard
#1	9.0	2.0
#2	19.0	4.4
#3	2.5	1.0
#4	8.0	2.0
#5	13.0	3.4

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