

STEELFLOW™ CARTRIDGE

All-316L Stainless Steel Cartridge for Microfiltration Applications



The Steelflow product line has been developed for microfiltration applications requiring a cartridge that will tolerate extreme thermal ranges and differential pressures while providing an extended service life.

Steelflow attains its superior performance due to PTI's proprietary 421® filter medium, composed of 100%, 316L random fiber stainless steel. The company's unique calendering process compresses the fiber matrix to form specialized filter media which provides consistently high porosities and large filtration areas. The sintered matrix is then reinforced with woven wire screen to provide the mechanical strength necessary to withstand high differential pressures and exceptional flow characteristics. To further assure product quality, each cartridge is bubble point integrity tested.

All other Steelflow components are fabricated from 316L stainless steel which provides exceptional chemical and thermal resistance. Steelflow can be cleaned mechanically, chemically or thermally to allow cartridge reuse.

BENEFITS

- 100% bubble point integrity tested
- 316L stainless steel construction
- Superior chemical compatibility
- Excellent mechanical strength
- Extended on-stream life
- High thermal tolerance
- Regenerable

APPLICATIONS

- Spargers
- Cryogenics
- Beverage Filtration
- Highly Viscous Fluids
- Corrosive Liquids and Gases
- Super-Heated Process Steam
- High Temperature Processing
- Recovery of Valuable Particulate

SPECIFICATIONS

MICRON RATINGS

0.5 µm , 1.0 µm, 3.0 µm, 5.0 µm, 10 µm, 20 µm, 40 µm

Liquid particle retention is typically 98.0% efficient at the stipulated pore size.

MATERIALS OF CONSTRUCTION

Media:	316L Stainless Steel
Support Layers:	316L Stainless Steel
Structure:	316L Stainless Steel

MAXIMUM DIFFERENTIAL PRESSURE

Forward: 250 psid (17 bar) @ 700°F (371°C)

Reverse: 50 psid (3.4 bar) @ 700°F (371°C)

CHEMICAL COMPATIBILITY

Steelflow is compatible with all chemicals that may be processed using stainless steel.

OPERATING TEMPERATURE RANGE

Maximum: +700°F (+371°C)

Minimum: -450°F (-268°C)

EFFECTIVE FILTRATION AREA

1.8 ft² (0.17 m²) per nominal 10 inch (250 mm) cartridge

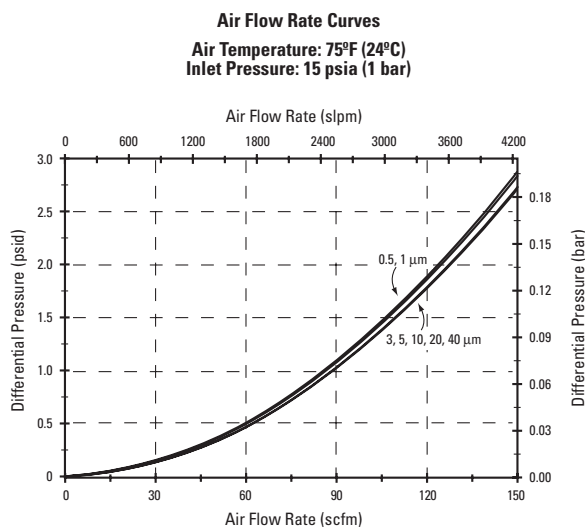
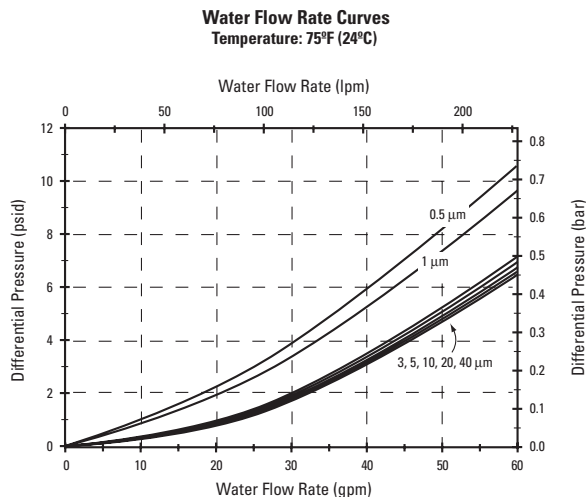
REGENERABLE

May be cleaned chemically, mechanically or thermally

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PERFORMANCE ATTRIBUTES



ORDERING INFORMATION

Each cartridge is identified with a product number, pore size, and lot number for traceability.

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End Fitting		Nominal Length		Filter Rating		O-Ring Material		Thickness (Gasket Only)	
CODE	DESCRIPTION	CODE	LENGTH	CODE	MICRON	CODE	MATERIAL	CODE	THICKNESS
1	DOE	10	10" (250 mm)	005	0.5 µm	0	Buna N	1	.200"
2	226/Flat	20	20" (500 mm)	010	1.0 µm	1	EPDM	2	.125"
3	222/Flat	30	30" (750 mm)	030	3.0 µm	2	Silicone	4	(1) .200"
7	226/Fin	40	40" (1000 mm)	050	5.0 µm	4	Viton®		(1) .125"
8	222/Fin			100	10.0 µm	5*	FEP-Encapsulated	N	No Gasket
A	SOE w/1" NPT			200	20.0 µm		Viton		
B	SOE w/1.5" NPT			400	40.0 µm	6	Encapsulated Silicone		
						N	None		

*O-Rings only

TECHNICAL SUPPORT and PRODUCT ORDERING

PTI Advanced Filtration provides unsurpassed product consistency and cost-efficiency for our customers. Our experienced professionals can help you select the right solution for your application. For more information or to place an order, contact your local distributor. Information on product specifications, applications and chemical compatibility can be found on our web site at www.pti-afi.com or through your nearest PTI Advanced Filtration office.

PTI designs and manufactures an extensive line of innovative solutions for specific applications in Biopharmaceutical, Microelectronics, Food & Beverage, Industrial and Chemical industries.

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