

Fluoroflow®-HSA

Increased performance all-fluoropolymer cartridge for aggressive applications

The Fluoroflow®-HSA filter cartridge provides good flow rates and on-stream life. The enhanced pleating provides more than 40% more surface area than our standard Fluoroflow®. This results in increased bath turnover and longer filter lifetime demanded by today's fabs. The all-fluoropolymer construction provides excellent chemical resistance for the most aggressive applications up to 180°C. Available wet-packed for quick installation or Ultraclean wet-packed which offers the lowest metals extractables in the industry.



Benefits

- Increased filtration area for longer life
- Higher flow rates for increased bath turn over
- Wet-pack option for quick installation
- Ultraclean wet-pack option for absolute cleanliness
- All-fluoropolymer for most maximum chemical resistance
- 100% integrity tested for consistent quality

Applications

- Wet etch and clean
 - Phosphoric acid
 - Sulfuric acid
 - Hydrofluoric acid
 - Nitric acid
 - Piranha
 - SC1, SC2
 - NMP-based solvents
- Other high temperature or ozonated processes

Parker Hannifin Corporation provides our customers with unsurpassed product consistency and cost-efficiency. 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.parker.com or through your nearest **Parker Hannifin Corporation** office.

Parker Hannifin Corporation designs and manufactures an extensive line of innovative solutions for specific applications in the Microelectronics, Biopharmaceutical, Food and Beverage, Industrial and Chemical industries.



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Fluoroflow[®]-HSA

Specifications

Materials of Construction

100% Fluoropolymer construction
All components are thermally bonded to ensure integrity and reduce extractables.

Effective Filtration Area

4.8ft² (0.45 m²) 4" (100mm) cartridge
9.8ft² (0.91 m²) 10" (250mm) cartridge

Metals Extractables*

Standard: <20ppb (total)
Ultraclean: <5ppb (total)

*in a 10% HNO₃ extraction

Maximum Differential Pressure/ Temperature

Forward: 80psid (5.5bar) @ 75°F (24°C)
55psid (3.8bar) @ 167°F (75°C)
30psid (2.0bar) @ 257°F (125°C)
15psid (1.0bar) @ 300°F (150°C)

Forward

HT option: 100psid (6.8bar) @ 75°F (24°C)
75psid (5.1bar) @ 167°F (75°C)
50psid (3.4bar) @ 257°F (125°C)
15psid (1.0bar) @ 356°F (180°C)

Reverse: 50psid (3.4bar) @ 75°F (24°C)
15psid (1.0bar) @ 250°F (121°C)

Cleanliness (particle shedding)

Wet-packed: <2 particles/ml >0.2µm after
7gal at 1gpm

TOC/Resistivity Rinse-up (wet-packed)

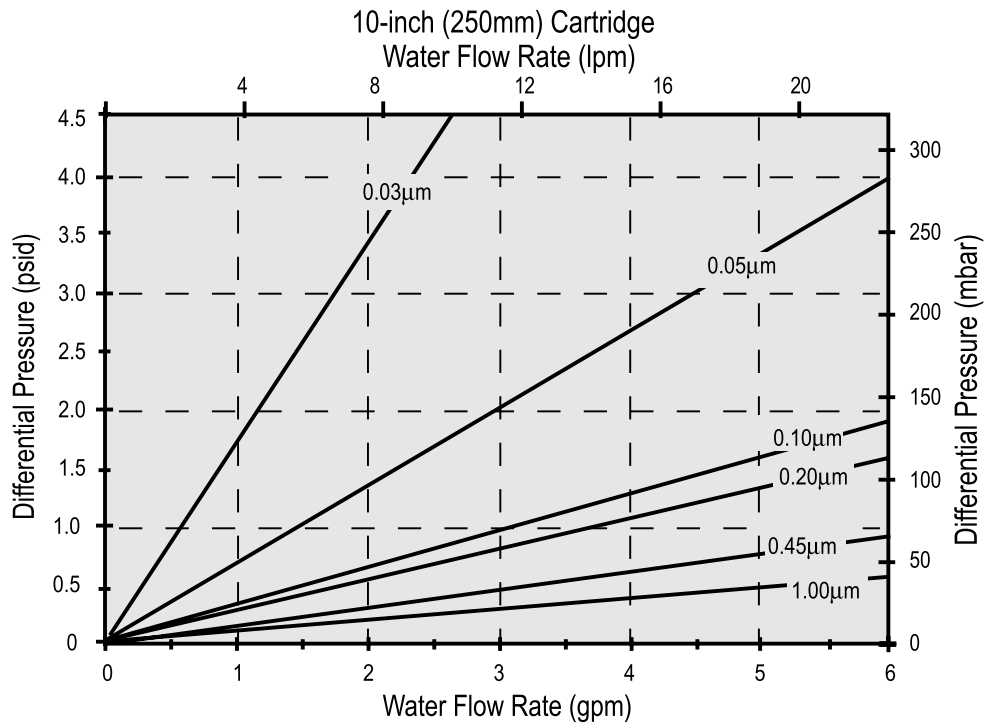
TOC recovery within 3-5ppb of feed without
additional rinse-up. Resistivity recovery
within 0.4megohm-cm of feed after
22gal @ 1gpm.

Performance Attributes

Water Flow rates, Typical *

0.03µm 0.65gpm/psid (3.6lpm/100 mbar)
0.05µm 1.5gpm/psid (8.2lpm/100 mbar)
0.10µm 3.2gpm/psid (17.6lpm/100 mbar)
0.20µm 3.9gpm/psid (21.5lpm/100 mbar)
0.45µm 7.0gpm/psid (38.5lpm/100 mbar)
1.00µm 10.0gpm/psid (55.0lpm/100 mbar)

*Per 10" (250mm) cartridge equivalent



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-Rings		Options		Options	
CODE	DESCRIPTION	CODE	LENGTH	CODE	MICRON	CODE	MATERIAL	CODE	TEMPERATURE	CODE	TREATMENT
2	226/Flat	04	4" (102mm)	923	0.03µm	2	Silicone	E	Electronic Standard (150°C Max)	Blank	UPW Flush and dried
3	222/Flat	10	10" (250mm)	925	0.05µm	4	Viton®	H*	High Temperature (180°C Max)	F	Ozone UPW Flush and dried
7	226/Fin	20	20" (500mm)	001	0.1µm	5	FEP-Encapsulated Viton			W	Wet Packed
8	222/Fin	30	30" (750mm)	002	0.2µm	6	FEP-Encapsulated Silicone			U	Ultraclean (pre-wet)
		40	40" (1000mm)	004	0.45µm						
				010	1µm	7	Chemraz®				
				503	100 (Nominal)	N	None				
						K	Kalrez				

* High Temperature is available only in 4", 10" and 20" lengths

Specifications are subject to change without notification.
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Chemraz is a registered trademark of Green, Tweed Inc.

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