

POLYFLOW II Filter Cartridges

- liquid filters
- polypropylene



POLYFLOW II's random fibre polypropylene depth media provides long on-stream life and high retention efficiencies. While many polypropylene depth media are nominally rated and cannot meet their actual claimed retention efficiency, POLYFLOW II has been engineered to meet exacting performance claims.

The all polypropylene construction ensures a broad range of chemical compatibility making POLYFLOW II cartridges particularly suitable for the filtration of aggressive and viscous chemicals and solvents. They do not suffer from hydrolysis in aggressive solutions which would result in the contamination of the process fluid.

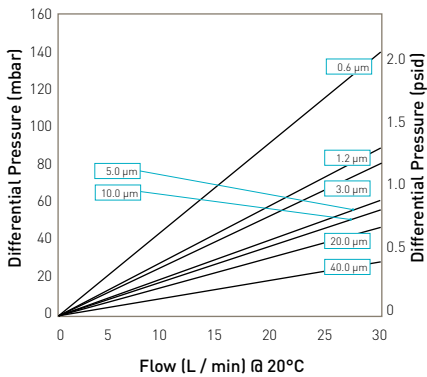
Extensive research has resulted in filter media with continuously graded fibre density giving progressively finer particulate retention through the depth of the media. This combined with optimised media pleating density gives POLYFLOW II cartridges exceptional lifetime performance.

Features and Benefits

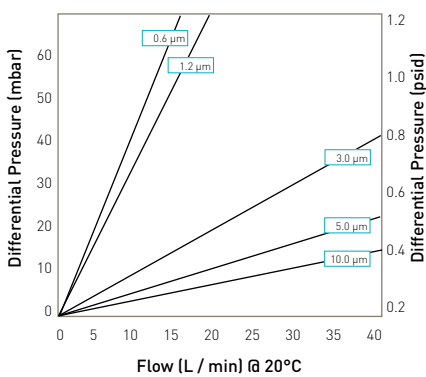
- Broad chemical compatibility allows use in most applications
- Available in 0.6 to 30 micron
- High retention efficiency provides excellent protection for downstream filters
- Available in Disposable and Demi format
- Absolute rated beta 10,000



Performance Characteristics



10" Size (250 mm) Cartridge



Demi Cartridge

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POLYFLOW II Filter Cartridges

Specifications

Materials of Construction

- Filtration Media : Polypropylene
- Upstream Support : Polypropylene
- Downstream Support : Polypropylene
- Inner Support Core : Polypropylene
- Outer Protection Cage : Polypropylene
- End Caps : Polypropylene
- End Cap Insert : Polypropylene (if applicable)
- Standard o-rings/gaskets : Nitrile

Recommended Operating Conditions

Up to 70 °C (158 °F) continuous operating temperature and higher short-term temperatures during CIP to the following limits:

Temperature °C	Temperature °F	Max. Forward dP (bar)	Max. Forward dP (psid)
20	68	5.0	72.5
40	104	4.0	58.0
60	140	3.0	43.5
80	176	2.0	29.0
90	194	1.0	14.5
>100 (steam)	>212 (steam)	0.3	4.0

Steam Sterilisation

POLYFLOW II cartridges can be repeatedly steam sterilised in situ or autoclaved at up to 130°C (266°F). They can be sanitised with hot water at up to 80°C (176°F). Demi cartridges and capsules can be autoclaved for up to 25 cycles (30 minutes) at 135°C (275°F). They are all compatible with most sanitising agents.

Recommended Rinse Volume

Prior to use - 10 litres per 10" (250 mm) filter cartridge.

Effective Filtration Area (EFA)

10" (250 mm) 0.5 m² (5.38 ft²)

Retention Characteristics

The retention characteristics of POLYFLOW II have been determined by a single-pass technique using suspensions of ISO 12103 Part 1 A2 Fine and A4 Course test dust in water.

Media Code	Micron Rating at Various Efficiencies				
	>99.99% 10000	99.98% 5000	99.90% 1000	99% 100	90% 10
006	0.60	0.57	0.54	0.32	0.20
012	1.20	0.95	0.90	0.70	0.50
030	3.00	2.80	1.80	1.00	0.70
050	5.00	4.70	4.50	3.50	1.00
100	10.00	8.00	7.00	4.80	2.80
200	20.00	16.00	14.00	10.00	6.00
400	40.00	32.00	28.00	20.00	12.00

Applications

- Solvent filtration
- Liquid clarification
- Recirculating liquid
- General water filtration
- Reagent-grade chemicals
- Final product clarification
- Feedstock filtration

Ordering Information

Cartridges

Code Insert style	Code End Fitting	Code Length (Nominal)	Code Micron	Code Seal	Code Gasket Thickness
1 None (std) 5 Encapsulated Stainless steel 6 Encapsulated Polysulphone A* Short neck	0 DOE (C) 1 DOE 2 Flat / 226 3 Flat / 222 6 Flat / 020 / Internal 7 Fin / 226 8 Fin / 222 G 213 / Internal / O-ring DOE H 213 / Internal / O-ring recessed blank R 222 / Recessed Blank	10 10" (250 mm) 20 20" (500 mm) 30 30" (750 mm) 40 40" (1000 mm)	006 0.6 012 1.2 030 3.0 050 5.0 100 10.0 200 20.0 400 40.0	0 Buna N 1 EPDM 2 Silicone 4 Viton** 5* FEP Viton 6* FEP Silicone N None	1 5mm [0.200"] 2 3mm [0.125"] 4 (1) 5mm [0.200"] and (1) 3mm [0.125"] N No Gaskets

*Code 3 and 8 only

* O-rings only

Capsules

Code Size	Code Inlet Connection	Code Outlet Connection	Code Micron	Code Vent O-ring Material
H Half Size S Standard Size D Double Size	B 1/4" Hose Barb H 1/2" Hose Barb S 1 1/2" Sanitary Flange D Quick Disconnect P 1/4" NPT (Male) J 1/2" NPT (Male) K 3/8" NPT (Female) G Swagelok	B 1/4" Hose Barb H 1/2" Hose Barb S 1 1/2" Sanitary Flange D Quick Disconnect P 1/4" NPT (Male) J 1/2" NPT (Male) K 3/8" NPT (Female) G Swagelok	006 0.6 012 1.2 030 3.0 050 5.0 100 10.0	0 Nitrile 1 EPDM 2 Silicone 4 Viton** N None Z No vents

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Demi Cartridges

Code Micron	Code o-rings
006 0.6 012 1.2 030 3.0 050 5.0 100 10.0	0 Nitrile 1 EPDM 2 Silicone 4 Viton N None

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