



PF-PP-UW

Polypropylene Membrane Cartridge Filters



PF-PP-UW

PF-PP-UW:

PF-PP Serie cartridges are manufactured using a polypropylene membrane of uniform thickness and high voids, with a homogeneous structure and controlled pore sizes.

Designed for the removal of submicron organic and inorganic particulate matter, the inherent structural stability of the membrane eliminates any risk of media migration and minimises the release of particles.

For solvent and aggressive chemical filtration applications, PF-PP Serie cartridges offer a wide range of chemical compatibility. Suitable for the most demanding microfiltration applications, the cartridges can be used for the filtration of aggressive chemical solutions including acids, alkalis, solvents and etchants.

PF-PP Serie cartridges can also be used for a wide range of sterile venting and gas filtration applications.

APPLICATIONS:

PF-PP Serie polypropylene membrane cartridges meet the demanding filtration requirements of pharmaceutical, semiconductor and fine chemical manufacturers. They can be used for the fine filtration of aggressive chemical solutions including acids, alkalis, solvents and etchants. They are also suitable for a wide range of sterile venting and gas filtration applications, including the filtration of wet gases.

• FINE CHEMICALS AND SOLVENTS

The removal of submicronic particles from processing chemicals and solvents.

• PHOTORESISTS AND DEVELOPERS

The microfiltration of photoresists and developer solvents, susceptible to contamination and precipitation during manufacture, storage and processing.

• PURE WATER SUPPLY SYSTEMS

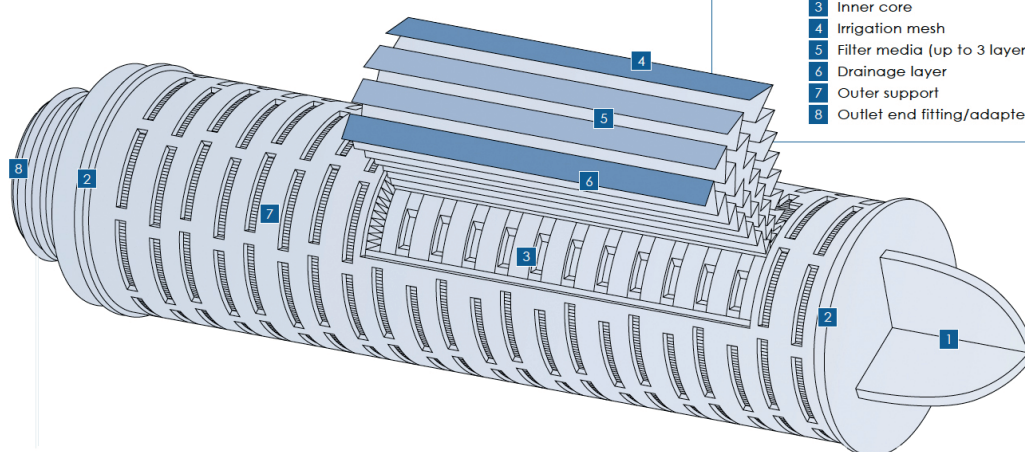
For use in de-mineralised and de-ionised water systems, for the supply of ultra-pure water, for example in the semiconductor industry.

• STERILE PROCESS GASES

The supply of sterile gas for critical applications in the pharmaceutical, biotechnology, food and beverage markets.

• STERILE VENTS

The safe sterile venting of processing vessels in pharmaceutical, fermentation, and food and beverage processes.



- 1 Top end fitting/adaptor
- 2 Fusion bonding
- 3 Inner core
- 4 Irrigation mesh
- 5 Filter media (up to 3 layers)
- 6 Drainage layer
- 7 Outer support
- 8 Outlet end fitting/adaptor



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FEATURES AND BENEFITS:

● PF-PP SERIE CARTRIDGES

The all polypropylene cartridge construction makes it an ideal choice for the filtration of aggressive chemicals.

● GUARANTEED MICROBIAL RATINGS

PF-PP Serie cartridges are validated for bacterial removal according to HIMA guidelines and ASTM F838-05, with a log reduction value >7.

● FLOW ΔP CHARACTERISTICS

PF-PP Serie filter cartridges provide high flow rates at low pressure differentials. These features result in lower energy consumption and fewer filter cartridges per system.

● STEAM STERILISATION

PF-PP Serie cartridges have been designed and validated to be repeatedly steam sterilised in-situ at temperatures of 125°C (257°F) for 100 cycles at 30 minutes per cycle.

● CARTRIDGE INTEGRITY AND LOW TOC LEVELS

Resistant to many process chemicals, PF-PES Serie cartridges are suitable for use in a wide range of process applications.

● SOLVENTS AND AGGRESSIVE CHEMICALS

The exceptional chemical resistance of polypropylene allows PF-PP Serie filter cartridges to be compatible with aggressive chemical solutions, including strong acids, alkalis, solvents and etchants.

● FULL TRACEABILITY

All PF-PP Serie cartridges are individually and batch identified with a unique serial number. Each PF-PP Serie cartridge is supplied with a Certificate of Quality and an operating instruction leaflet.

● CONTROLLED MANUFACTURING ENVIRONMENT

PF-PP Serie cartridges are manufactured in an ISO Cleanroom environment by fully gowned staff, minimising the risk of contamination.

CARTRIDGE CONSTRUCTION:

PF-PP Serie cartridges are manufactured from a multilayer combination of irrigation mesh, filter membrane, membrane support and drainage material. PF-PP Serie cartridges have optimal pleat geometry to maximise the available filtration area and to ensure an efficient flow through the cartridges.

An all thermal fusion bonded assembly process eliminates the use of resins and binders.

Manufactured as standard with injection moulded polypropylene inner and outer supports, PF-PP Serie cartridges are designed with the strength necessary to withstand thermal stresses encountered during steam sterilisation and subsequent cooling. They can be steam sterilised and will retain total integrity following steaming at 125°C (257°F).

All components used in the construction of PF-PP Serie cartridges are FDA approved to 21CFR and meet or exceed the latest EC Directives for Food Contact.

OPERATING CONDITIONS

Maximum Operating Pressure	6.9 bar (100 psi) at 25 °C 4.0 bar (58 psi) at 60 °C 2.4 bar (35 psi) at 80 °C
Max. Differential Pressure	Forward 6.9 bar (100 psi) at 25 °C 2.4 bar (35 psi) at 80 °C Reverse 3.0 bar (44 psi) at 25 °C 1.0 bar (15 psi) at 80 °C
Sterilization	Inline Steam Sterilization: 20 cycles for 30 min at 125 °C (Differential Pressure <30kPa) Hot Water Sterilization: 50 cycles for 30 min at 85 °C
Cleaning Solution	2% NaOH Solution @ ≤65°C
Effective Filtration Area	0.23m ² / 71-10 inch



Kronsbein ultrafilter®

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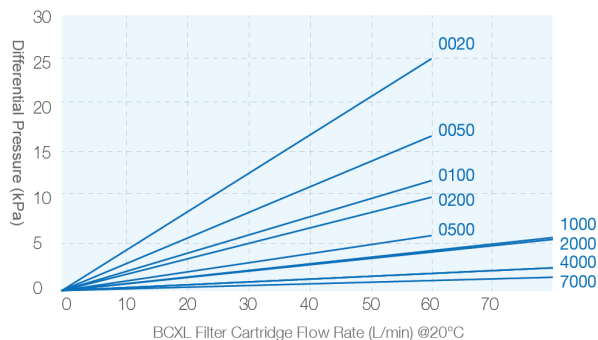
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Flow Rate Characteristics



Technical Data:

MATERIALS OF CONSTRUCTION

Filter Medium	Multi-Layer Polypropylene
Cage Support	Polypropylene
Core Endcaps	Polypropylene

RETENTION RATES

Retention Rates (%)							
PF-PP-UW	1.0 µm	2.0 µm	5.0 µm	10 µm	20 µm	40 µm	70 µm
0020	≥99.90	≥99.90	≥99.90	≥99.99	≥99.99	≥99.99	≥99.99
0050	≥99.00	≥99.50	≥99.90	≥99.90	≥99.99	≥99.99	≥99.99
0100	≥98.00	≥99.00	≥99.50	≥99.90	≥99.98	≥99.99	≥99.99
0200		≥98.00	≥99.00	≥99.50	≥99.90	≥99.98	≥99.99
0500			≥98.00	≥99.00	≥99.50	≥99.90	≥99.98
1000				≥98.00	≥99.00	≥99.50	≥99.90
2000					≥98.00	≥99.00	≥99.50
4000						≥98.00	≥99.00
7000							≥98.00

ORDERING INFORMATION

PF-PP-UW-F

	REMOVAL	NOMINAL LENGTH	END CAP	SEAL MATERIAL
[71]	01= 0.01 µm	05 = 5"	2 = Code 2	A = EPDM
	1= 0.1 µm	10 = 10"	3 = Code 3	B = Silicone
	2= 0.2 µm	20 = 20"	7 = Code 7	C = Viton
	4= 0.45 µm	30 = 30"	8 = Code 8	D= Nitrile
		40 = 40"	MF = DOE	E = FEP Viton
			UF = UF	F = FEP Silicone

Technical Alternations reserved



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