ULTRAFILTER
THE FILTRATION MANUFACTURER

Kronsbein ultrafilter ®

PF-PP

Polypropylene Membrane Cartridge Filters

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PF-PP

PF-PP:

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.

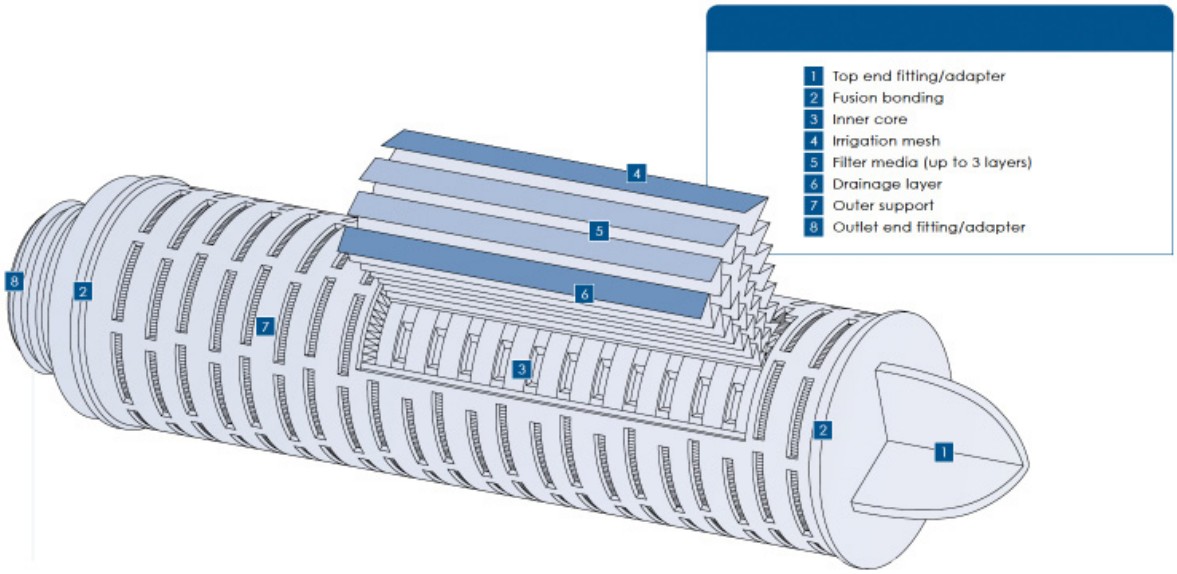
For solvent and aggressive chemical filtration applications, PF-PP Serie cartridges offer a wide range of chemical compatibility. Suitable for the most demanding microfiltration applications, the cartridges can be used for the filtration of aggressive chemical solutions including acids, alkalis, solvents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

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

APPLICATIONS:

PF-PP Serie cartridges provide absolute filtration where reproducibility and consistency of performance are critical. Suitable for the filtration of aqueous and organic liquids, PF-PP Serie cartridges can be used as prefilters or final filters in the following applications:

- **PHARMACEUTICALS AND BIOPROCESSING**
  The batch preparation of intermediates used in the manufacture of pharmaceutical and bioprocessed products. Used as prefilters to extend the life of membrane filters.
- **FOODS AND BEVERAGES**
  The clarification of beers, wines and spirits to a clear and bright finish without affecting taste or colour.
- **INKS AND COATINGS**
  For removal of agglomerates and gels with minimal loss of product.
- **FINE CHEMICALS**
  The filtration of high grade chemicals including solvents, reagents, photographic emulsions and plating solutions.
- **STERILE VENTS**
  The clarification of process water and intermediates for the finished product.
- **PROCESS WATER SYSTEMS**
  The filtration of process water installations for removal of general contamination and resin fines.



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FEATURES AND BENEFITS:

- **PF-PP SERIE CARTRIDGES**

Extensive research and selection of the latest and most advanced polypropylene meltblown microfibre filter media, results in improved performance, leading to extended filter life at a given efficiency.

- **GRADED MULTI-LAYER MEDIA**

The multi-layer media structure provides prefiltration of the process fluid prior to the absolute rated final layer. This combination provides economy of use and a smaller process footprint.

- **HIGH FILTRATION AREA**

Large surface area for low clean pressure drop.

- **GUARANTEED REMOVAL RATINGS**

PF-PP Serie cartridges are validated using the recognised industry standard modified OSU-F2 single pass test to Beta 5000 (99.98% efficiency).

- **SUITABLE FOR STEAM AND HOT WATER SANITISATION**

PF-PP Serie cartridges are resistant to repeat steam sterilisation up to 135°C (275°F) and hot water cycles at up to 90°C (194°F).

- **ENVIRONMENTALLY FRIENDLY**

PF-PP Serie cartridges filters are environmentally friendly, all spent cartridges can be readily incinerated to trace ash.

- **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 The high quality robust all polypropylene construction of PF-PP Serie cartridges, allows for excellent chemical compatibility with a wide range of fluids. The meltblown polypropylene media provides a bonded matrix thus eliminating fibre migration.

The inherent structural stability of the PF-PP Serie cartridges, prevents 'channelling' and avoids the risk of particle unloading even under impulse conditions.

The multi-layer combination of filter media, irrigation mesh and drainage material carefully pleated and thermally bonded maximises the media area and ensures an efficient flow throughout the cartridge.

The PF-PP Serie fusion bonded construction ensures cartridge integrity. No surfactants or bonding agents are used, minimising extractables.

OPERATING CONDITIONS	
Maximum Operating Pressure	6.9 bar (100 psi) at 25 °C (77°F) 4.0 bar (58 psi) at 60 °C (140°F) 2.4 bar (35 psi) at 80 °C (176°F)
Max. Differential Pressure	Forward 6.9 bar (100 psi) at 25 °C (77°F) 2.4 bar (35 psi) at 80 °C (176°F) Reverse 3.0 bar (44 psi) at 25 °C (77°F) 1.0 bar (15 psi) at 80 °C (176°F)
Sterilization	Inline Steam Sterilization: 100 cycles for 30 min at 135 °C (257°F) (Differential Pressure<30kPa) Hot Water Sterilization: 50 cycles for 30 min at 90 °C (194°F)
Cleaning Solution	2% NaOH Solution @ ≤65°C (149°F)
Effective Filtration Area	0.70m² - 10 inch

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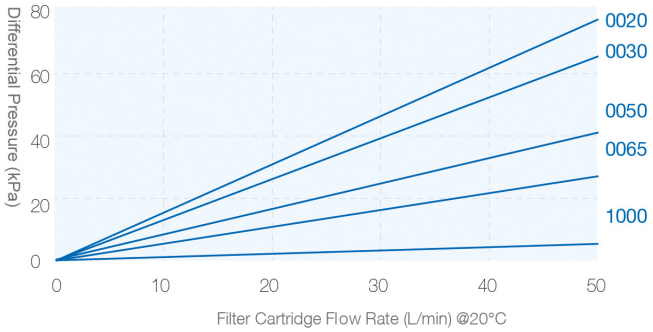
Flow Rate Characteristics



Technical Data:

MATERIALS OF CONSTRUCTION	
Filter Medium	Polypropylene
Cage | Support	Polypropylene
Core | Endcaps	Polypropylene

ORDERING INFORMATION					
PP-					
	REMOVAL	NOMINAL LENGTH	END CAP	SEAL MATERIAL	PHARMA GRADE
-D*	P5 = 0.5 µm	5 = 5"	2 = Code 2	A = EPDM	-V
	P8 = 0.8 µm	1 = 10"	3 = Code 3	B = Silicone	
	01 = 1.0 µm	2 = 20"	7 = Code 7	C = Viton	
	02 = 2.0 µm	3 = 30"	8 = Code 8		
	03 = 3.0 µm	4 = 40"	MF = DOE		
	05 = 5.0 µm		UF = UF		
	07 = 7.0 µm				
	10 = 10.0 µm				
-C*	10 = 0.10 µm				
	20 = 0.20 µm				
	65 = 0.65 µm				

* -D = Pre-Filtration
-C = Depth-Filtration

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