



# PF-PP

## Absolute Rated Polypropylene Cartridge Filters

PF-PP\_GB\_rev.5.1



# PF-PP

## PF-PP:

PF-PP Serie cartridges are manufactured using super fine nanofiber polypropylene media 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 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

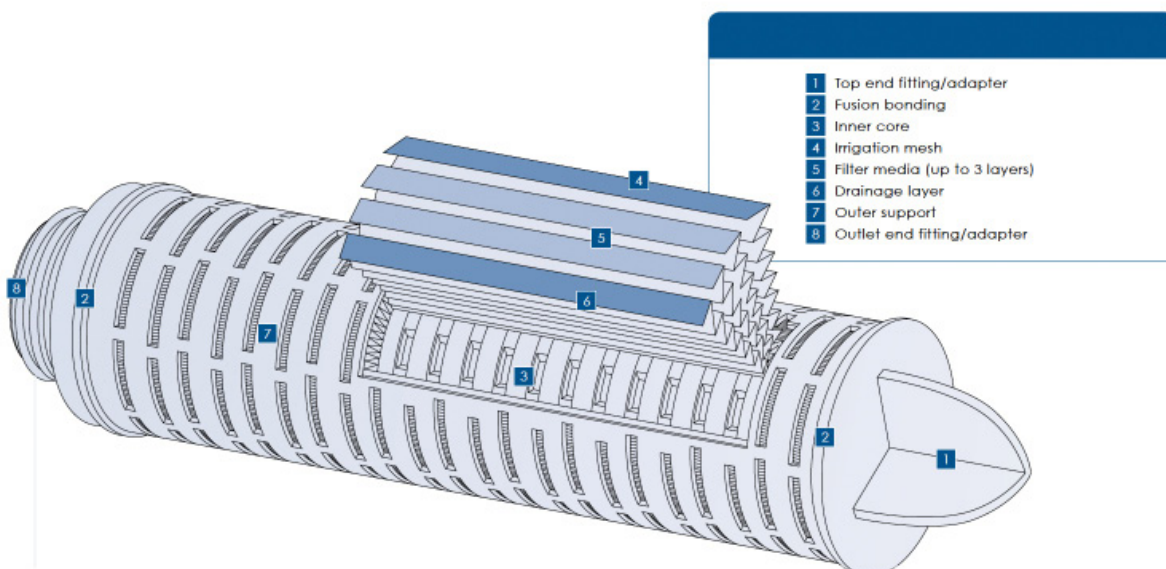
The filtration of high grade chemicals including solvents, reagents, photographic emulsions and plating solutions.

### • 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.



PF-PP\_GB\_rev.5.1



# PF-PP

## 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 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: 100 cycles for 30 min at 135 °C (Differential Pressure <30kPa) Hot Water Sterilization: 50 cycles for 30 min at 90 °C
Cleaning Solution	2% NaOH Solution @ ≤65°C
Effective Filtration Area	0.70m <sup>2</sup> - 10 inch

PF-PP\_GB\_rev.5.1



Kronsbein ultrafilter®

## Ultrafilter GmbH Headquarters

Otto-Hahn-Str. 1 • 40721 Hilden • Germany

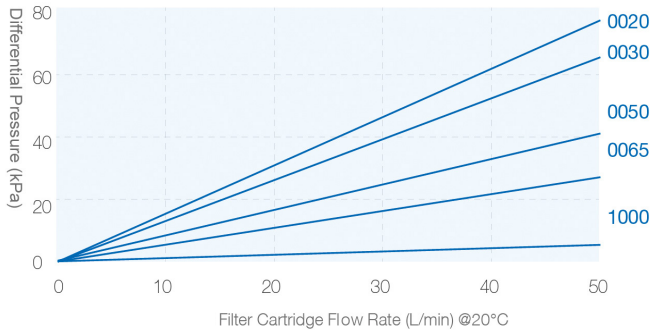
Tel: +49 (0) 21 03.33 36 13 • Fax +49 (0) 21 03.33 36 36

e-Mail: info@ultra-filter.de • www.ultra-filter.de



# PF-PP

## 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

Technical Alternations reserved

PF-PP\_GB\_rev.5.1



### Ultrafilter GmbH Headquarters

Otto-Hahn-Str. 1 • 40721 Hilden • Germany  
 Tel: +49 (0) 21 03.33 36 13 • Fax +49 (0) 21 03.33 36 36  
 e-Mail: info@ultra-filter.de • www.ultra-filter.de

