

# OPTIPLEAT

## PLEATED POLYPROPYLENE FILTER

### Repetitive Backwash Cleaning

These filter cartridges are constructed of nanofiber media with a design and support materials that maximize backwash cleaning efficiency. These filters combine high dirt holding capacity with longer lifetime and extremely high flow rates.

Recommended for beverage filtration.



### FEATURES AND BENEFITS

- Provides closely controlled porosity and a high filtration area
- Super fine nanofiber medium provides high efficiency and dirt holding capacity
- Special design ensures backwash cleaning and increases the lifetime of the filter
- Wide range of end caps to provide retrofitting of existing systems
- All materials used meet the requirements on materials used for articles intended to come into contact with food as described in FDA CFR Title 21 and European Regulation (EC) N° 1935/2004 and EC N° 10/2011
  - \* Extractables < 30mg per 10" / 254mm
  - \* Endotoxins < 0.25EU/ml
- Typical applications:
  - ⇒ Raw water filtration where the lifetime of the filter can be enhanced by repetitive backwash
  - ⇒ Trap filtration (guard filtration)
  - ⇒ Carbon and fine resin removal downstream from the treatment process
  - ⇒ Clarification of CIP solutions prior to use with pre-filter cartridges and micro-porous membranes
  - ⇒ Clarification of beer and wine

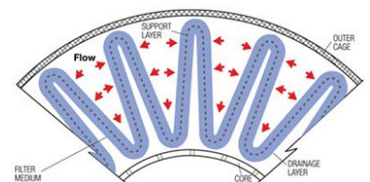
### TECHNICAL SPECIFICATIONS

#### CARTRIDGE DIMENSIONS

- Outer diameter: 71mm / 2.79"
- Length: 5" - 127mm    10" - 254mm    20" - 508mm    30" - 762mm    40" - 1016mm

#### MATERIALS OF CONSTRUCTION

- Filter media: Super fine Nano fiber
- Support layers: Polypropylene
- Inner core: Polypropylene
- Outer support: Polypropylene
- End caps: Polypropylene
- End cap insert (optional): 316L stainless steel or PBT (autoclaveable)
- Standard O' ring/gaskets: Silicone or EPDM (other options available)



#### EFFECTIVE FILTRATION AREA (EFA)

- 0.6m<sup>2</sup> / 6.45ft<sup>2</sup> per 10" / 254mm

## RECOMMENDED OPERATING CONDITIONS

Under max. 70°C continues operating temperature, in-line CIP cleaning process recommend short time operating pressure as below:

TEMPERATURE	MAX. ALLOWABLE DIFFERENTIAL PRESSURE		MAX. ALLOWABLE BACK PRESSURE	
	°C	bar	psi	bar
20	5.0	73	2.0	29
40	4.0	58	1.5	22
60	3.0	44	1.0	15
80	2.0	29	0.5	7
90	1.0	15	<i>Not recommended</i>	
> 100 (steam)	0.3	4	<i>Not recommended</i>	



REMOVAL RATINGS	EFFICIENCY	> 99.99%	99.98%	99.90%	99%	95%	90%
	β ratio	10000	5000	1000	100	20	10
	1μm	1.9	1.0	1.2	0.8	0.5	10
	2μm	2.2	2.0	1.9	1.2	0.9	0.5
	3μm	3.0	3.0	2.2	1.7	1.3	1.1
	5μm	5.0	5.0	3.4	2.7	2.0	1.7
10μm	10	10	7.7	5.6	4.1	3.8	

## ORDERING INFORMATION

GRADE	LENGTH	MICRON	END CAP (inf)	END CAP (sup)	GASKETS	END CAP INSERT
<b>G</b> - General	5 - 5"/127mm	<b>001</b> - 1μm	<b>A</b> - DOE no Gaskets	<b>A</b> - DOE no Gaskets	<b>S</b> - Silicone	<b>(Blank)</b> - No insert
<b>F</b> - F & B	10 - 10"/254mm	<b>002</b> - 2μm	<b>B</b> - DOE with Gaskets	<b>B</b> - DOE with Gaskets	<b>E</b> - EPDM	<b>P</b> - PBT
<b>P</b> - Pharmaceutical	20 - 20"/508mm	<b>003</b> - 3μm	<b>C</b> - 226	<b>F</b> - Flat	<b>V</b> - Viton	<b>S</b> - St. St.
	30 - 30"/762mm	<b>005</b> - 5μm	<b>D</b> - 222	<b>S</b> - Spear		
	40 - 40"/1016mm	<b>010</b> - 10μm	<b>E</b> - 222 Sartorius (3 tabs)			
			<b>J</b> - Junior 214			
			<b>K</b> - Junior 216			