

# Poly-Ray Filter Cartridge with PP Microfiber media

The Poly-Ray pleated filter is made of polypropylene fiber media. Poly-Ray pleated filter combines exceptional solids holding capacities with precise micron ratings than depth filters. The multi-layers sheets of melt-blown media provide absolute particle retention. The Poly-Ray pleated cartridge filter has high solid loading and long service life, which is also designed for membrane's pre-filtration.

## ► Features & Benefits

- Low pressure drop, high capacity of dust and long service life.
- End caps and connectors sealed by thermal bond, free of binder
- Manufacture in clean room, high clean cartridge.
- Pre-flush with 18 Megohm-cm DI water.
- Poly-Ray filter is multi-layers structure, absolute efficiency filter (Absolute rating 99.9%; Bata ratio=1000).
- 100% PP for compatibility with a wide range of process fluids.
- End configurations to fit all standard housings
- Certificated by USP XXIII and FDA CFR Title 21
- In compliance with the latest EC Directive for food contact.

## ► Operation conditions

- Maximum operating forward pressure:  
90°C: 1.4 kg/cm<sup>2</sup>  
60°C: 2.8 kg/cm<sup>2</sup>  
20°C: 4.9 kg/cm<sup>2</sup>
- Recommended replacement pressure drop: 2.5kg/cm<sup>2</sup>
- Maximum operating temperature: 90°C
- Sterilization: 121°C, 30min 10 times

## ► Applications of products

- Pre-filtration of membrane cartridge
- Filtration of cleaning process
- Pre-filtration of DI water filtration
- Filtration of cooling water system (PCW)
- Filtration of beer or beverage manufacture
- Filtration of medium & low viscosity chemical fluids.

## ► Product specifications

Micron ratings: Absolute rating 0.2, 0.45, 1, 5, 10 ,20 ,50, 100 micron

Material of construction: 100% melt-blown micro-denier PP fiber

Support: PP fiber

Core & End Cap: High Strength PP(OD:69mm, 64mm); HDPE(OD:80mm)  
(Stainless Steel insert end cap is available for PP cage)

O-ring Material: EPDM, Buan N, Silicone, Viton, PFA encapsulated Viton

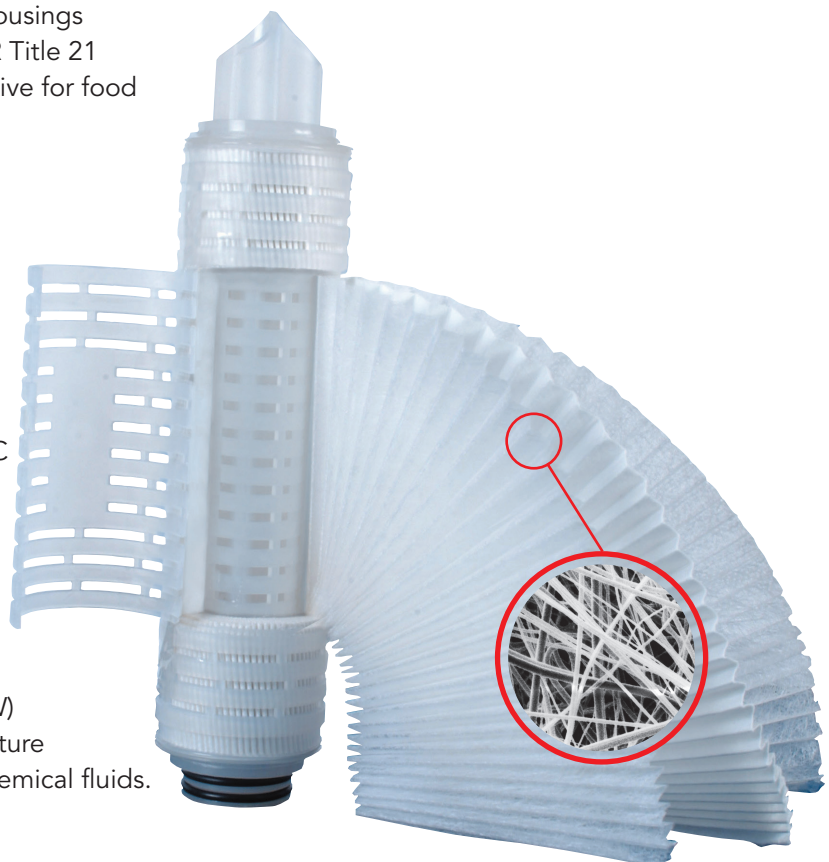
Filtration Area: Poly Ray AR >0.4 m<sup>2</sup> / 10"  
Extra Poly Ray E-AR >0.49 m<sup>2</sup> / 10"

Length: 10", 20", 30", 40"

Inner Diameter: 28mm

Outer Diameter: AR = 69mm(PP); E-AR = 80mm(HDPE); N-AR = 64mm(PP)

Retention Efficiency: >99.9% under muti-pass test



## Pleated Filter with Microfiber media

### Efficiency of Filtration

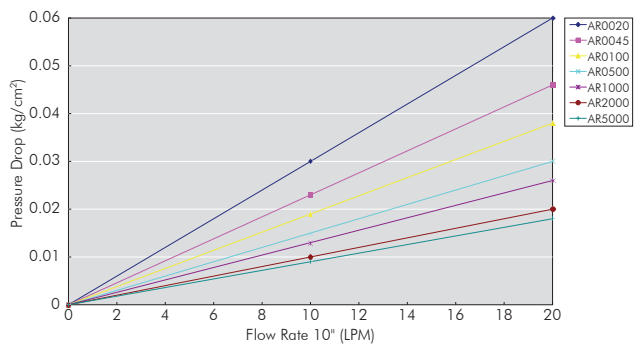
spec.	Retention Efficiency (%)							
	0.2 micron	0.3 micron	0.5 micron	1.0 micron	5.0 micron	10 micron	20 micron	50 micron
AR0020	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9
AR0045	62.3	71.9	>99.9	>99.9	>99.9	>99.9	>99.9	>99.9
AR0100	30.2	67.1	73.9	>99.9	>99.9	>99.9	>99.9	>99.9
AR0500	----	----	46.8	87.3	>99.9	>99.9	>99.9	>99.9
AR1000	----	----	----	53.9	81.5	>99.9	>99.9	>99.9
AR2000	----	----	----	----	59.3	86.9	>99.9	>99.9
AR5000	----	----	----	----	----	79.8	>89.9	>99.9

\* Multi-pass Test

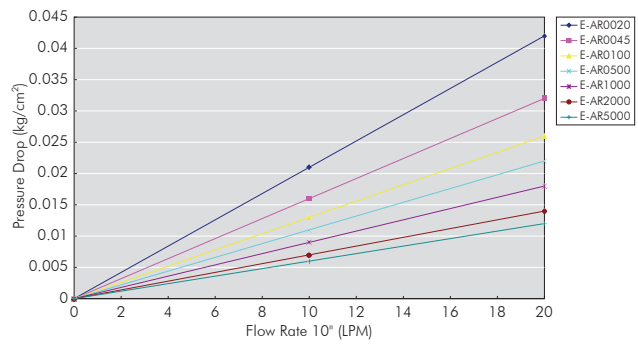
### Suggested equivalent products

- Millipore
  - Pall
  - Pall
  - 3M
  - 3M
  - Pall
- Polygard-CN  
HDC II Filter  
Ultipleat Profile  
Betafine D  
Polypro  
Poly-Fine II

### AR Initial Pressure Drop



### E-AR Initial Pressure Drop



## Ordering Information

- **AR** - **0020** - **E** - **0** - **1** - **B**

Outer Diameter  
Blank: Standard:  
69mm

E: 80mm  
N: 64mm

Poly-Ray

Micron Ratings:  
0020 = 0.2micron  
0045 = 0.45micron  
0100 = 1micron  
0500 = 5micron  
1000 = 10micron  
2000 = 20micron  
5000 = 50micron  
T000 = 100micron

End Cap Number:  
F = Double Open end (DOE)

0 = 222 /Flat (SOE)  
5 = 222 /Fin (SOE)  
6 = 226 /Flat (SOE)  
7 = 226 /Fin (SOE)  
B = 213 /Flat

A = Non-Preflush  
B = Pre-flush with DI water

O-ring Material:  
E = EPDM  
N = Buna N  
S = Silicone  
V = Viton  
T = PFA encapsulated Viton

Length:  
A = shorter than 10"  
Remark the total length  
1 = 10"  
2 = 20"  
3 = 30"  
4 = 40"