CARTRIDGE FILTERS

High Flow Cartridge Filter

Pleated high flow cartridge with a 6″ (152 mm) diameter, made by adhesive-free thermal bonding. With PP and glass fibre media (PES, PTFE, nylon on request), 0.5–100 µm and 10″–60″ lengths, it replaces many standard cartridges on petrochemical, condensate, paint and industrial water lines.



DIAMETER	FILTRATION	SURFACE AREA	LENGTH
6″ (152 mm)	**0.5–100 µm**	**5.30 m²**	**10″ – 60″**
Inner diameter 3.5″ (89 mm)	7 micron grades	40″ cartridge · 57.1 ft²	One-piece body

Technical specifications

Filter media	PP · Glass fibre (GF) · PES, PTFE, Nylon (on request and on a project basis)
Micron ratings	0.5 · 1 · 5 · 10 · 20 · 50 · 100 µm
Construction type	Optimised pleated structure; thermal bonding free of adhesives, resins and silicone
Support layers	Polypropylene (outer and inner support)
End cap	Glass-filled polypropylene · Glass-filled acetal
Outer / inner diameter	6″ (152 mm) / 3.5″ (89 mm)
Length options	10″ · 20″ · 30″ · 40″ · 60″
End cap type	SOE + integrated handle; single or double O-ring or gasket seat
O-ring material	Silicone · Nitrile (NBR) · EPDM · Viton
Flow direction	Standard series outside-in · Bag Filter Replacement (BFR) series inside-out
Max. operating temperature	PP 82 °C (nominal 4–60 °C) · Glass fibre 121 °C · PES 80 °C · PTFE 100 °C · Nylon 90 °C (PES, PTFE, nylon estimated)
Max. differential pressure (ΔP)	PP 3.4 bar @ 25 °C (1.0 bar at 82 °C) · Glass fibre 3.44 bar @ 121 °C
Recommended replacement ΔP	2.1–2.4 bar
pH range	PP and PTFE 1–14 · PES 3–12 · Nylon 3–11 · Glass fibre 4–10
Quality	ISO 9001:2015 · Certificate No: 06009/PR09U

Filtration surface area

LENGTH	SURFACE AREA (M²)	SURFACE AREA (FT²)
10″	1.33	14.3
20″	2.65	28.5
30″	3.98	42.8
40″	5.30	57.1
60″	8.00	86.1

Pressure drop (40″, bar)

FLOW RATE	1 MICRON	10 MICRON	20 MICRON
379 L/min	0.012	0.006	0.004
757 L/min	0.023	0.012	0.008
1,325 L/min	0.041	0.021	0.014

40″ (1016 mm) cartridge · pleated PP media · pure water.

Chemical compatibility

CHEMICAL GROUP	PP	GLASS FIBRE	PES	PTFE	NYLON
Water, process water, condensate	E	E	G	E	G
Dilute inorganic acids	E	E	F	E	P
Strong inorganic acids	P	G	P	E	N/R
Alkalis (bases)	E	P	P	E	G
Oxidising agents	P	G	G	E	F
Mineral / industrial oil	F	E	E	E	G
Chlorinated solvents	P	E	F	E	G

E: Excellent · G: Good · F: Fair · P: Poor · N/R: Not recommended

End cap and connection options

Standard series
Outside-in flow; O-ring or gasket seat in high flow housings.

Bag Filter Replacement (BFR)
Inside-out flow; fits existing bag filter housings without modification.

End cap and handle
Locking end cap; integrated handle for tool-free changes.

Use and maintenance

- Use pre-filtration with a high particle load.
- Monitor ΔP weekly; replace the cartridge at 2.1–2.4 bar.
- Check that the cartridge is fully seated; incorrect installation creates bypass.
- Use only silicone grease on gaskets and O-rings.

Values in this data sheet are typical and for information only. Product selection should be made with our engineers based on process fluid, temperature, pressure and flow conditions. Proses T.İ.M. reserves the right to change product specifications without prior notice.

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