CARTRIDGE FILTERS

Resin-Bonded Cartridge Filter

Coreless, rigid-bodied depth filter made by impregnating long cellulose and synthetic fibres with phenolic or acrylic resin and curing them with heat. With a 1–150 µm range, it keeps its form under pressure in viscous fluids such as paints, varnishes, inks, adhesives, resins and oils.



RESIN TYPE	FILTRATION	MAX. ΔP	LENGTH
2 options	**1–150 µm**	**2.5 bar**	**10″ – 40″**
Phenolic or Acrylic	9 micron grades	25 °C · 1.0 bar at 80 °C	Standard and Big Blue

Technical specifications

Filter media	Long cellulose and synthetic fibre impregnated with phenolic or acrylic resin
Micron ratings	1 · 5 · 10 · 25 · 50 · 75 · 100 · 125 · 150 µm (nominal)
Construction type	Coreless, rigid thermoset body; graded density from outside to inside
Surface structure	Grooved; increased effective filtration area
Outer / inner diameter	65 mm / 27 mm (Big Blue: 115 mm / 28 mm)
Length options	10″ · 20″ · 30″ · 40″
End cap type	DOE (double open end, double gasket) · SOE (bayonet end cap)
Gasket / O-ring material	NBR · EPDM · Viton · Silicone · PTFE
Operating temperature	Nominal 60 °C · Max. 80 °C @ 1.0 bar
Max. operating pressure	4.2 bar @ 25 °C · Reverse flow 2.1 bar @ 25 °C
Max. differential pressure (ΔP)	2.5 bar @ 25 °C
Recommended replacement ΔP	2.0 bar
pH range	5–9
Use	Single-use; cannot be washed and reused, not steam sterilisable

Length and area of use

LENGTH	AREA OF USE
10″	Sampling lines, pilot production of paints and inks
20″	Medium-flow paint, varnish and resin lines
30″	Central paint and solvent distribution systems
40″	High-flow viscous fluid lines

All lengths have a one-piece rigid body with no joints.

End cap and connection options

DOE
Double open end; gasket at both ends. Rigid ends are not crushed.

SOE · Bayonet
Single open end, bayonet end cap connection.

High temperature
High-temperature gasket / adapter option.

Chemical compatibility

CHEMICAL GROUP	ACRYLIC	PHENOLIC
Process water	E	E
Strong inorganic acids	P	P
Alkalis (dilute)	P	F
Oxidising agents	N/R	N/R
Polar solvents	F	G
Aromatic solvents	G	E
Chlorinated solvents	N/R	G
Mineral and vegetable oils	E	E

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

Resin selection

Phenolic
Solvent-based paints, inks, resins; petroleum derivatives and oils. If acids and solvents are both present, choose phenolic.

Acrylic
Water-based fluids, mildly acidic processes above pH 5 and salt solutions. Breaks down in alkalis.

Use and maintenance

- Replace the cartridge at 2.0 bar ΔP and do not exceed 2.5 bar; if colour or turbidity appears at the outlet, replace it at once.
- Keep flow at 70–75% of the cartridge capacity.
- Do not use acrylic cartridges on lines with an alkaline cleaning (CIP) step.
- On DOE models, confirm that both end gaskets seat fully.
- Check gasket compatibility in advance: NBR for oil, Viton for aromatic content.

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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