CARTRIDGE FILTERS

String-Wound Cartridge Filter

Depth filter made by cross-winding yarn in a diamond pattern onto a PP or stainless steel core. With 8 media and a 0.8–150 µm range, it is used for pre-filtration and fine filtration on water, chemical solution, oil and solvent lines.



FILTER MEDIA	FILTRATION	MAX. TEMPERATURE	LENGTH
8 media	**0.8–150 µm**	**80 °C**	**5″ – 60″**
PP, cotton, glass fibre, nylon…	Graded depth	PP media · others in table	Standard and Big Blue

Technical specifications

Filter media	PP · Natural cotton · Bleached cotton · Glass fibre · Nylon · Polyester · Acrylic · Viscose
Micron ratings	1 · 3 · 5–100 (in 5 µm steps) · 150 µm; 0.8 µm (natural cotton only)
Construction type	Graded-density criss-cross diamond winding; pure yarn free of adhesives and resins
Centre core	Polypropylene (PP) or stainless steel (AISI 304 / 316)
Outer diameter	58 mm ±1 (Big Blue: 107 mm ±1)
Inner diameter	28 mm ±1 (same for PP and SS cores)
Length options	5″ · 10″ · 20″ · 30″ · 40″ · 50″ · 60″ · custom process lengths
End cap type	DOE (with or without gasket) · SOE
Connection / cap	215 · 222 · 226 O-ring · Flat · Fin 1 · Fin 2 cap
O-ring material	Silicone · NBR · EPDM · Viton · PTFE
Max. operating temperature	PP 80 °C (nominal 60 °C) · Nylon / Polyester 121 °C · Cotton / Viscose 120–160 °C · Glass fibre 399 °C (with SS core)
Max. differential pressure (ΔP)	2.5 bar @ 30 °C · Reverse flow 2.1 bar @ 25 °C
Recommended replacement ΔP	2.0–2.4 bar
pH range	1–14 (PP); for other media see the chemical table
Quality	ISO 9001:2015 · Certificate No: 06009/PR09U

Filtration surface area

LENGTH	SURFACE AREA (M²)	SURFACE AREA (FT²)
5″	0.023	0.249
10″	0.046	0.498
20″	0.093	0.997
30″	0.139	1.495
40″	0.185	1.993
50″	0.231	2.491
60″	0.278	2.989

End cap and connection options

DOE
Double open end; with or without gasket. DOE without gasket is the most widely used model.

SOE · O-ring
Single open end; push-in fit with 215, 222 or 226 O-ring.

Cap types
Flat, Fin 1 or Fin 2 cap; chosen to suit the filter housing type.

Chemical compatibility

CHEMICAL GROUP	PP	BL. COTTON	NAT. COTTON	GLASS FIBRE	NYLON	POLYESTER	ACRYLIC	VISCOSE
Water, RO pre-filtration	E	E	E	G	G	G	G	G
Dilute inorganic acids	E	F	F	E	P	G	E	F
Strong inorganic acids	P	N/R	N/R	E	N/R	F	G	P
Strong bases	E	G	G	P	E	N/R	F	G
Oxidising agents	P	F	F	E	F	G	G	F
Chlorinated solvents	P	E	E	E	G	F	G	E
Mineral / vegetable oil	F	E	E	E	E	G	G	E

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

Use and maintenance

- Choose the media to suit the chemistry and temperature of the fluid; above 80 °C, use bleached cotton or glass fibre instead of PP.
- Record the initial differential pressure of the clean cartridge; replace it when ΔP reaches 2.0–2.4 bar.
- Cartridges are single-use; they cannot be washed and reused.
- Check the O-ring and gasket surfaces before installation.
- Use only silicone grease on 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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