



BEHRINGER[®]

ECO-Wind[™] **FP**

String-Wound FDA Polypropylene Depth Filter Cartridges

Nominal Filtration Efficiencies
FDA-Listed Materials

Performance:

Max Differential Pressure:	60 psid (3.5 bar)
Recommended Change Out:	25 psid (1.75 bar)
Filtration Rating: (Micron sizes)	0.5, 1, 3, 5, 10, 20 25, 30, 50, 75, 100, 200, 250, 400

Features and Benefits

- Polypropylene media raw materials meet FDA regulations for contact with food and beverages.
- Offered in a wide variety of lengths from 4 in. To 50 in., With diameters ranging from 1.5 in to 4.5 in.
- Graduated Density provides twice the life of competitors filters.
- Core covers, core extenders, and various different end cap configurations are available to make installation simple in any manufacturer's filter vessel.
- Core option include 304SS, 316SS, Tin, Extended, and polypropylene snap-in extender.
- High dirt-holding capacity because of the unique manufacturing process.

Typical Applications

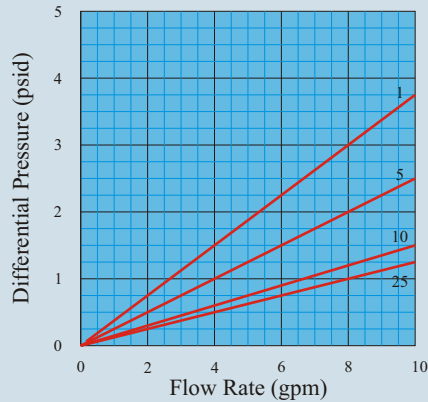
- Chemicals
- Consumer Products
- Beverages
- Oils
- Photography Chemicals
- Plating Solutions
- Waste Effluent
- Edible Oils
- Connectors
- Petro Chemical
- Juices
- Paint/ Ink
- Pharmaceuticals
- Process Water
- Water

Media

Behringer[®] ECO-Wind[™] FP Series Wound Polypropylene Depth Filter Cartridges are an economical way to offer superior filtration for process applications. Manufactured from FDA-grade polypropylene material, these inexpensive cartridges are an excellent match for a variety of industrial fluids, as well as organic solvents and edible oils. Utilizing an advanced computer-controlled manufacturing process, Behringer Process Filtration's string-wound cartridges are able to achieve a true graded-density media layer. This precisely-patterned fiber structure creates a consistently reliable media with expanded void volume, creating a cartridge that performs with a gradual pressure increase over the life of the cartridge, rather than the abrupt flow cutoff typical of competitor's cartridges. What this equates to is a filter cartridge that has an unsurpassed dirt-holding capacity with increased service life and efficiency. Construction of the FP series filter cartridges is done using all FDA-Grade Polypropylene materials, which are approved for use in food and beverage applications, and have a high resistance in many chemical applications.

Flow vs. Pressure Information

Single 10-inch Wound Cotton Cartridge



Pressure drop calculation:

Pressure drop curves are based on fluid with viscosity similar to water, and element length of 10 inches. P across the media is proportionally related to viscosity and element length. The formula for calculating different pressure drops is as follows:

$$\text{New P} = \text{P Curve} \times \text{Viscosity (cSt)} / \# \text{ of 10 in. Lengths}$$

Notes:

- 1.) Cartridges should not exceed the recommended max flow rate of 10gpm per 10 inch length.
- 2.) Initial pressure drop should be kept as low as possible. Initial pressure drops over 3-4 psid may considerably decrease cartridge life.
- 3.) Every process is different, and all aspects should be reviewed to ensure complete compatibility.

Operating Conditions

Max Operating Temperature:
180° F (82° C)

Max Permissible p:
60 psid (4 bar) @ ambient temp.

Recommended Change-Out p:
25 psid (1.75 bar)

Max Recommended Flow Rate:
10 gpm (37.8 lpm) per 10 in. Length

Construction

Media:
Wound FDA Polypropylene

End Caps:
222 O-rings, 226 O-rings, Fins, DOE Caps, Spears, Flat Gaskets, Springs, Core Extenders, Custom

Gasket / O-ring Materials:
Polyfoam, Buna-N, Viton, Silicone, EPR, Neoprene

Outside Diameter:
2.5 in. (63.5 mm)

Inside Diameter:
1.06 in. (27 mm)

Nominal Lengths (in):
4¾, 9¾, 10, 19½, 20, 29½, 30, 39, 40, 50, 60

Table 1 Table 2 Table 3 Table 4 Table 5 Table 6

EFP

Length

Table 1

4.9	4.875 in. (half)
9.8	9.75 Inch
10	10 Inch (single)
19.5	19.5 Inch
20	20 Inch (double)
29.75	29.75 Inch
30	30 Inch (triple)
39	39 Inch
40	40 Inch (quad)
50	50 Inch

Core

Table 2

N	None
P	Polypropylene
T	304S/S
S	316S/S
C	1.56 Steel
D	1.22 PP
F	Glass PP
M	1.56 PP
E	EPT

Filtration Rating

Table 3

0.5 micron	30 micron
1 micron	50 micron
3 micron	75 micron
5 micron	100 micron
10 micron	200 micron
20 micron	250 micron
25 micron	400 micron

Adders

Table 4

C	Closed End Cap (1 end)
222	222 O-ring / Closed
222F	222 O-ring / Fin End
226	226 O-ring / Closed
226F	226 O-ring / Fin End
FG	Flat Gasket / DOE Caps
CS	Compression Seal
PS	Polypropylene Spring
PCE	PP Core Extender
TCE	304 S/S Core Extender
SCE	316 S/S Core Extender

Seals

Table 5

omit	None -- depends on adders
E	EPR
N	Neoprene
V	Viton
S	Silicone
B	Buna-N (Nitrile)
PF	Polyfoam

Core Covers

Table 6

omit	None
C	Cover (compatible material to filter media)

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