

## FiberFlo® EN Endotoxin Removal Filters

- Greater than 4-log endotoxin/pyrogen removal
- Higher flow rates at lower pressure drops
- Dead end filtration - No waste stream from tangential flow
- Autoclavable (121°C) and steam sterilizable
- Extended life - cleanable, sanitizable
- In-situ integrity testable
- Naturally hydrophilic membranes
- Biocompatible for medical application
- Fits inside standard cartridge filter housings

### Consistent and Verifiable Pyrogen Removal

#### ENDOTOXIN/PYROGEN REMOVAL

The unique membrane property of FiberFlo® EN cartridge and capsule filters provides a consistent and verifiable pyrogen removal that exceeds a 4-log endotoxin (EU) reduction. The high level of endotoxin removal makes these filters ideal for a variety of applications requiring the removal of endotoxin for assured fluid purity.

#### EASY TO INSTALL AND MAINTAIN

Unlike most tangential flow devices, FiberFlo EN Hollow Fiber cartridge filters can be steam sterilized in-line or autoclaved off-line. FiberFlo EN cartridge filters are available in four lengths and a variety of end cap styles to fit a variety of standard filter housings in process applications. FiberFlo EN capsule filters come in a variety of sizes and have a variety of end connections (Sanitary, Hose Barb and NPT) for easy installation in your equipment.

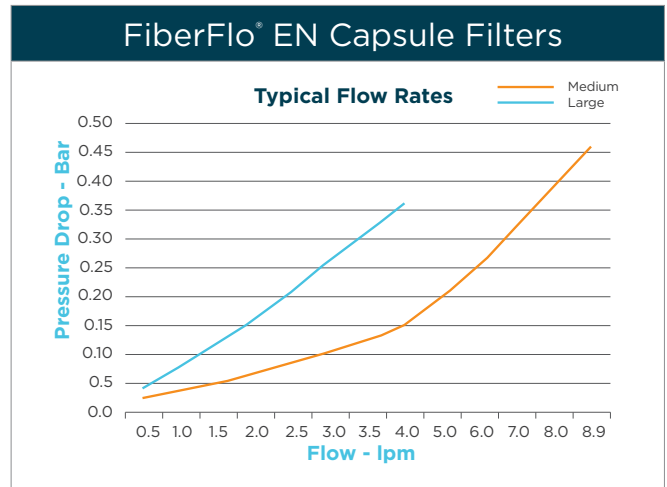
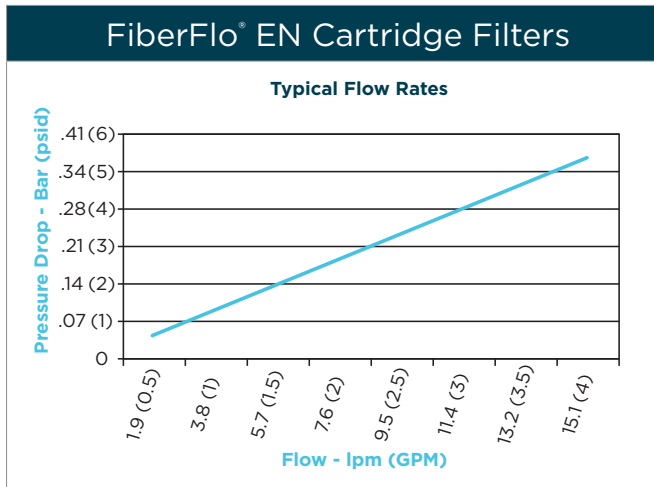
#### QUALITY ASSURED

All FiberFlo cartridge and capsule filters are manufactured to meet medical device quality standards with adherence to QSR manufacturing guidelines. These filters exceed the requirements of USP Class VI Plastics Testing and meet USP XXIII standards for purified water extractables. FiberFlo EN cartridge filters are integrity testable by diffusion flow method.



Fiber Lot Number	Endotoxin (EU/mL)		
	Inlet	Outlet	Log Reduction Log <sub>10</sub> (Inlet/ Outlet)
2024701B	165.0	0.005	4.5
1924801B	245.5	0.011	4.3
1925201D	232.5	0.010	4.4
1924001B	250.0	0.005	4.7
1930401A	236.5	0.005	4.7
1925601B	199.5	0.005	4.6
1923301C	263.5	0.005	4.7
1927701C	259.5	0.005	4.7
1928101A	276.0	0.005	4.7
1927401E	151.0	0.005	4.5
<b>Mean</b>	<b>227.9</b>	<b>0.006</b>	<b>4.6</b>

# Pressure Drop and Flow Rates



## Technical Data

### FiberFlo Cartridge Filter Specifications

Membrane	Polyphen Polysulfone
Max. Differential Pressure	2 Bar (30 PSI)
Membrane Surface Area (Per 10" Segment)	1.5 m <sup>2</sup> (16 ft <sup>2</sup> )
Filter Diameter	6.4 cm (2.9")
Nominal Length	25 cm, 51 cm, 76 cm, 102 cm (10", 20", 30", 40")
Case and End Caps	Polycarbonate
Seal Materials	Medical Grade Polyurethane
Extractables	Passes U.S.P. tests for oxidizable substances and total solids for purified water.

Fiber meets all USP-XXIII Class VI criteria as well as test standards for tissue cytotoxicity.

### FiberFlo Cartridge Ordering Information

1. Select type	EN	EN	EN	EN
2. Select length	10 in (25 cm)	20 in (51 cm)	30 in (76 cm)	40 in (102 cm)
3. Select style				
Style 3: SOE flat, closed end, external 222 O-ring. Replaces Pall Code 3, Millipore Code 0				
Style 4: SOE fin end, external 222 O-ring. Replaces Pall Code 8, Millipore Code 5				
Style 5: SOE fin end, external 226 O-ring. Replaces Pall Code 7, Millipore Code				
Style 7: SOE mini fin end, internal 119 O-ring. Installs in standard 10 inch Ametek Housing				
Style 8: SOE flat, internal 119 O-ring. Installs in standard 20 inch Ametek Housing				
Example: EN-103 would be a 10 inch, SOE flat, closed end, external 222 O-ring.				

\*Simple filter bowl modifications are required for this cartridge.

### FiberFlo Capsule Filter Specifications

Membrane	Polyphen Polysulfone
Maximum Differential Pressure	2 Bar (30 PSI)
Surface Area	M = 0.61 m <sup>2</sup> (2.0 ft <sup>2</sup> ), L = 1.83 m <sup>2</sup> (6.0 ft <sup>2</sup> )
Case and End Caps	Polycarbonate
Extractables	Passes U.S.P. tests for oxidizable substances and total solids for purified water.
Seal Materials	Medical Grade Polyurethane

Fiber meets all USP-XXIII Class VI criteria as well as test standards for tissue cytotoxicity.

### FiberFlo Capsule Ordering Information\*

Code	Inlet Description	Outlet Description
A	1/4 inch NPT	1/4 inch NPT
B	3/8 inch NPT	3/8 inch NPT
C	1/2 inch hose barb	1/2 inch hose barb
D	3/8 inch hose barb	3/8 inch hose barb
E	1/4 inch NPT	1/2 inch hose barb
F	1/4 inch NPT	3/8 inch hose barb
G	3/8 inch NPT	1/2 inch hose barb
H	Sanitary	Sanitary
J	Mini-ISO	Mini-ISO

#### Nomenclature Format - x-l-EN-y

M - l - EN - K

Capsule Size
End-Fitting Option  
 L = 6.0 ft<sup>2</sup> (0.557 m<sup>2</sup>)  
 M = 2.0 ft<sup>2</sup> (0.185 m<sup>2</sup>)  
(see chart)

\*Certain Inlet/Outlet configurations are considered custom and have minimum order quantity.

Each lot of FiberFlo filters is certified to remove 100% of endotoxin at challenge rates up to 5 EU/ml with test sensitivity to 0.06 EU/ml. These levels of endotoxin are commonly found in water systems and process fluid streams, regardless of the diligence of the contamination control personnel.



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