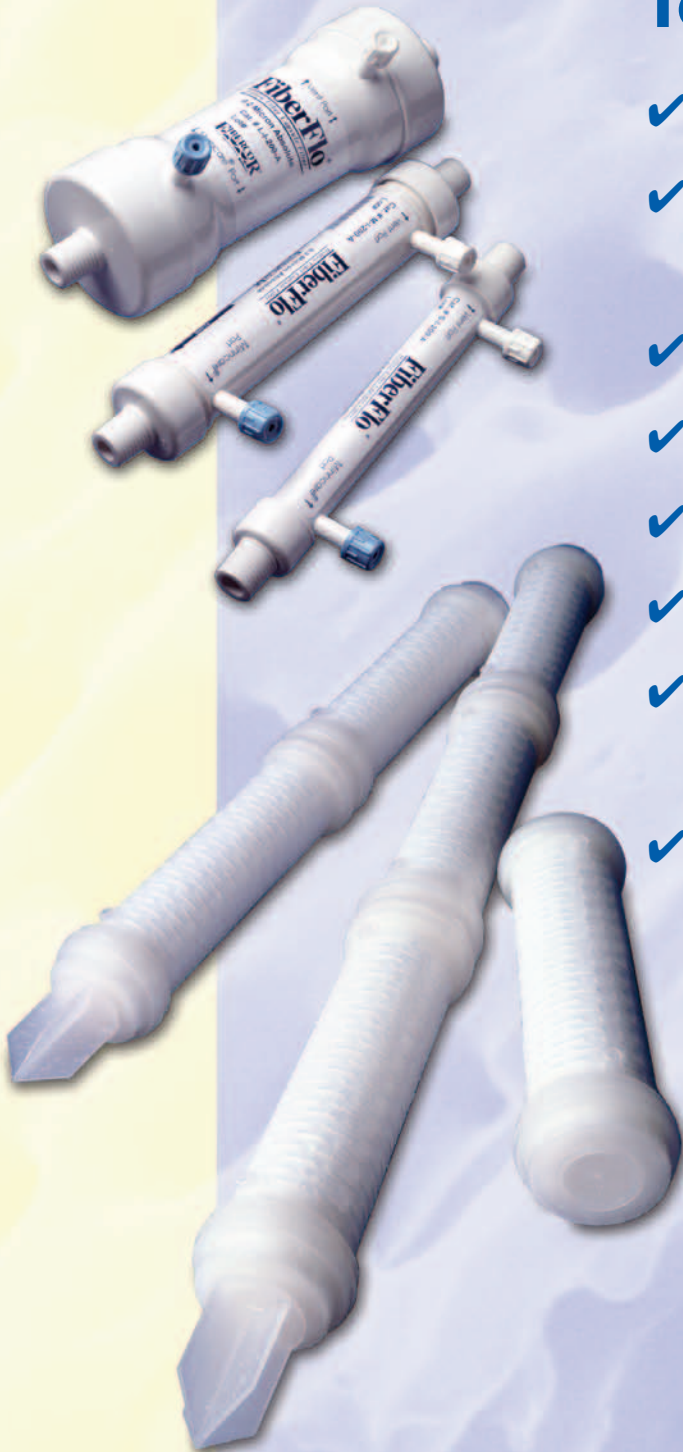


# FiberFlo® EN Endotoxin Removal Filters

## Endotoxin Control with Total Flow Recovery

- ✓ Removes endotoxin/pyrogen
- ✓ Normal flow filtration—No waste stream from tangential flow
- ✓ Higher flow rates at lower pressure drops
- ✓ Autoclavable and steam sterilizable
- ✓ Extended life—cleanable, sanitizable
- ✓ In-situ integrity testable
- ✓ Hydrophilic membranes—repeatedly rewettable without wetting agents
- ✓ Biocompatible for medical applications



# Consistent and Verifiable Pyrogen Removal

## Endotoxin/Pyrogen Removal

The unique membrane structure of FiberFlo EN cartridge and capsule filters provides consistent and verifiable pyrogen removal. The FiberFlo EN filters remove all endotoxin to below detection limits when challenged with up to 5 EU/ml of endotoxin in water\*. The high level of endotoxin removal makes these filters ideal for a variety of applications requiring the removal of endotoxins for higher fluid purity.

## Total Flow Recovery

FiberFlo EN filters are "normal flow" filters. They remove endotoxins because of the affinity of the membrane with the endotoxin molecules. The endotoxin binds to the membrane, but the membrane allows all of the product flow through the filter. There is no waste stream like that created by a tangential flow filter.

*\*Detection limit is 0.06 EU/ml.*

## 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 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

Minntech Filtration Technologies manufactures all FiberFlo cartridge and capsule filters to 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 diffusional methods.

## Suggested Applications



### Medical and Laboratory

- Medical device rinsing
- Hemodialysis water systems
- Medical equipment rinse water

### Pharmaceutical Manufacturing

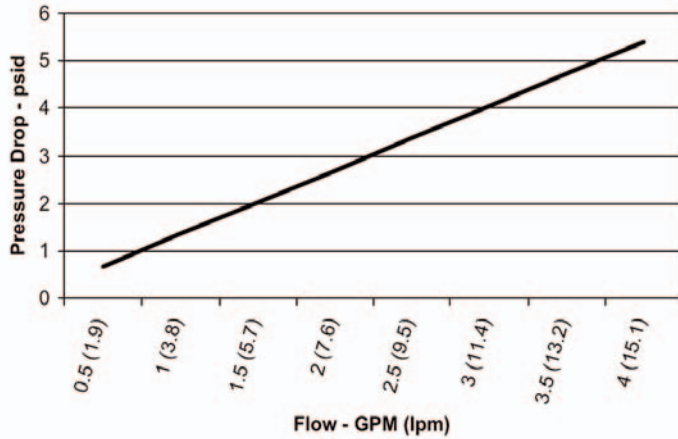
- USP purified water
  - Ophthalmics
  - Buffers
  - Growth media
- Fermentation feed stocks
- Diagnostic reagents



# Endotoxin Control with Total F

## FiberFlo EN Cartridge Filters Flow and Pressure Drop

Typical Water Flow Rates - FiberFlo EN  
(10-Inch Nominal Length)



### FiberFlo EN Cartridge Filter Specifications

Membrane	Polyphen® Polysulfone
Maximum Differential Pressure	30 PSI (2 Bar)
Membrane Surface Area	16 ft <sup>2</sup> (1.5 m <sup>2</sup> )
Filter Diameter	2.9" (6.4 cm)
Nominal Length	10", 20", 30" and 40" (25 cm, 51 cm, 76 cm, 102 cm)
Case and End Cap Material	Polypropylene
Seal Material	Silicone
Extractables	Passes U.S.P. tests for oxidizable substances and total solids for purified water.
USP Class VI	Pass
Cytotoxicity	Pass

### EN Cartridge Ordering Information

#### Nomenclature Format - EN-xxY

xx = Nominal Length	Y = Style
10 = 10 inch	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 7. 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*
20 = 20 inch	
30 = 30 inch	
40 = 40 inch	

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

**SOE Flat,  
Closed End**

**SOE  
Fin End**

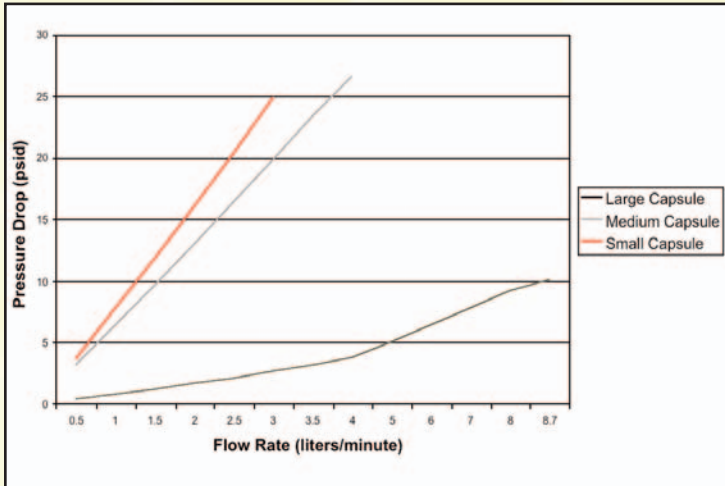
**Internal  
119 O-Ring**

**External  
222 O-Ring**

**External  
226 O-Ring**

# Low Recovery

## FiberFlo EN Capsule Filters Flow and Pressure Drop



### FiberFlo EN Capsule Filter Specifications

Membrane	Polyphen® Polysulfone
Maximum Differential Pressure	30 PSI (2 Bar)
Membrane Surface Area	Large Capsule - 6.0 ft <sup>2</sup> Medium Capsule - 2.0 ft <sup>2</sup> Small Capsule - 0.6 ft <sup>2</sup>
Case and End Cap Material	Polycarbonate
Extractables	Passes U.S.P. tests for oxidizable substances and total solids for purified water
USP Class VI	Pass
Cytotoxicity	Pass

### EN Capsule Ordering Information

#### Nomenclature Format - x-I-EN-y

x = Capsule Size	Y = Connections	
L = Large	Inlet	Outlet
M = Medium	A.....1/4 inch NPT.....1/4 inch NPT	
S = Small	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	

### Hose Barb



### MNPT



### Sanitary Fitting



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