

# FiberFlo® Hollow Fiber Cartridge Filters



## Proven Technology for Bacteria, Endotoxin and Particle Control

- ✓ Higher flow rates at lower pressure drops
- ✓ Extended life--cleanable, sanitizable
- ✓ Removes pyrogens\*
- ✓ Autoclavable and steam sterilizable
- ✓ Quick rinse-up in ultrapure water
- ✓ In-situ integrity testable
- ✓ Hydrophilic membranes--repeatedly rewettable without wetting agents
- ✓ Biocompatible for medical applications

# FiberFlo HF Cartridge Filters

- ✓ Fine filtration
- ✓ High flow with low pressure drops
- ✓ Longer filter life

## Bacteria, Particle and Pyrogen Removal\*

The unique membrane structure of FiberFlo HF cartridge filters provides consistent and verifiable pyrogen removal that surpasses traditional, absolute-rated membrane filters. High level endotoxin, bacteria, and spore removal make these filters ideal for a variety of water purification or process fluid applications.

## Longer Lasting

FiberFlo cartridge filters have up to three times the surface area of comparable pleated cartridge filters. This larger membrane surface area provides greater capacity and longer life than pleated filters, resulting in lower filter replacement costs.

## Easy to Maintain

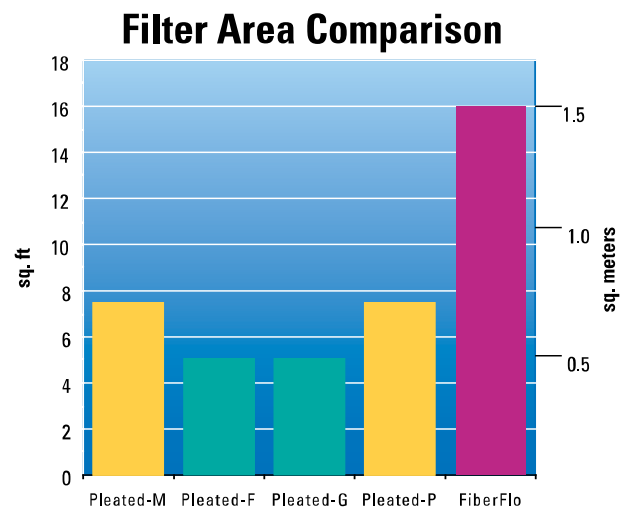
FiberFlo HF cartridge filters can be steam sterilized in-line or autoclaved off-line.

## Customized

FiberFlo cartridge filters are available in four lengths, four micron ratings, and a variety of endcap styles to fit a variety of standard filter housings.

## Quality Assured

Minntech Filtration Technologies manufactures FiberFlo cartridge 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 standards for purified water extractables. FiberFlo HF cartridge filters are integrity testable by diffusional methods.



\*Only the pore sizes of the FiberFlo 50 and FiberFlo 100 are validated to remove pyrogens.

# Proven Technology for Bacteria,

# FiberFlo Cartridge Membrane Selection

## FiberFlo 50

FiberFlo HF 50 offers the highest degree of control of particulates and microorganisms through its absolute pore removal rating of 0.05  $\mu\text{m}$  and the retentive characteristics of its Polyphen® polysulfone membrane. It is recommended for the most demanding bacteria, particle and pyrogen removal applications. FiberFlo HF 50 will remove 100 percent of endotoxin<sup>1</sup> when challenged with a feed concentration of 5.0 EU/ml.

## FiberFlo 100

FiberFlo HF 100 offers the best balance of flow, pressure, retentive capacity, pyrogen removal and cost. Its absolute pore removal rating of 0.1  $\mu\text{m}$  and overall pore structure gives high water flow rates and excellent control of particulates, microorganisms and pyrogens. FiberFlo HF 100 will remove 100 percent of endotoxin<sup>1</sup> when challenged with a feed concentration of 1.0 EU/ml.

## FiberFlo 200

FiberFlo HF 200 offers maximum flow rates without loss of bacteria retention. Absolute removal of *Brevundimonas diminuta* is a characteristic of this filter. The ability of FiberFlo HF 200 to remove bacteria and particulates gives it performance characteristics unmatched by traditional 0.2 micron pleated membrane filters.

## FiberFlo 450

FiberFlo HF 450 is designed for prefiltration and fluid clarification applications. The HF 450 assures maximum protection of downstream sterilizing filters. It provides superior particle control, dirt-holding capacity, and flow rates. The ability of the FiberFlo HF 450 to remove particulates is unmatched by traditional 0.45  $\mu\text{m}$  absolute pleated membrane filters.

<sup>1</sup>Minimum LAL test sensitivity of 0.06 EU/ml.

## Suggested Applications



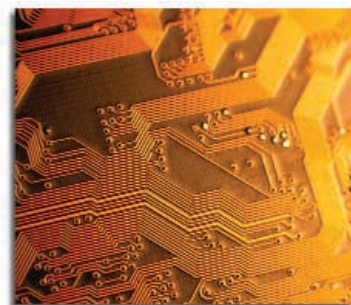
### Medical and Laboratory

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



### Pharmaceutical Manufacturing

- Serum and other blood fractions
- USP purified water
- Ophthalmics
- Buffers
- Growth media
- Fermentation feed stocks
- Diagnostic reagents



### Industrial

- Semiconductor manufacturing
- Deionized water
- Industrial process water
- Dilute inorganic chemical solutions



### Food and Beverage

- Distilled spirits
- Bottled water
- Seltzer
- Vinegar
- Food products
- Makeup and rinse waters

# Endotoxin and Particle Control

FiberFlo	50	100	200	450
Pore Size $\mu\text{m}$	0.05 absolute <sup>1</sup>	0.1 absolute <sup>1</sup>	0.2 absolute <sup>1,2</sup>	0.45 absolute <sup>1</sup>
Maximum Flow Rate per 10" segment	2.5 GPM	3.0 GPM	3.0 GPM	5.0 GPM
Membrane	Polyphen <sup>®</sup> Polysulfone			
Maximum Differential Pressure	30 PSI (2 Bar)			
Surface Area	16 ft <sup>2</sup> (1.5 m <sup>2</sup> )			
Diameter	2.9" (6.4 cm)			
Nominal Length	10", 20", 30", 40" (25 cm, 51 cm, 76 cm, 102 cm)			
Case and End Caps	Polypropylene			
End Seals	Polyurethane			
Extractables	Passes U.S.P. tests for oxidizable substances and total solids for purified water.			

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

1. As determined by latex bead challenge. Procedure available upon request.

2. As determined by HIMA challenge and latex bead challenge.

## Ordering Information:

**1. Select type:**      Fiberflo 50      Fiberflo 100      Fiberflo 200      Fiberflo 450

**2. Select length:**    10 inch      20 inch      30 inch      40 inch

### 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 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\*

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

Contact your Filtration Technologies Group representative for more information.

**4. Call: (800) 328-3370**

[www.minntech.com](http://www.minntech.com)



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**SOE Flat,  
Closed End**



**SOE  
Fin End**



**Internal  
119 O-Ring**



**External  
222 O-Ring**



**External  
226 O-Ring**