

# BEVPOR MS Utilities

Filter Cartridges



Minimizing the cost of microbiological control while maintaining quality and product protection is a key requirement for utility water treatment within beverage production. BEVPOR MS is an advanced membrane filter cartridge designed for the beverage industry to meet and surpass these criteria.

Specifically developed as a beverage grade cartridge, BEVPOR MS utilizes an advanced polyethersulphone membrane configured to provide high flow and cost-effective performance. The membrane has an asymmetric pore structure which provides graded filtration throughout its depth, resulting in increased capacity to hold contaminants. Componentry has been selected to maximize mechanical strength and chemical compatibility enabling the filter to withstand repeated chemical cleaning and sterilization.

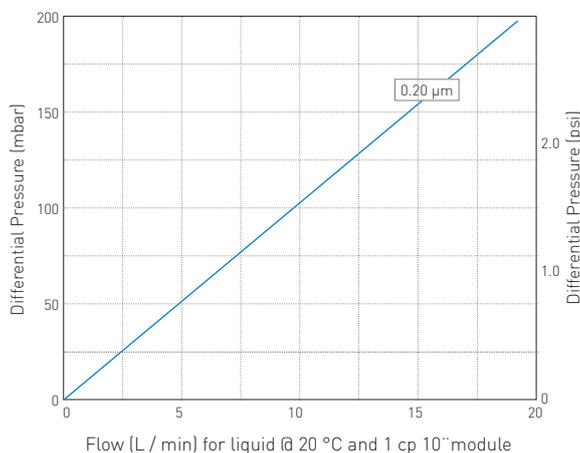
## Features

- Sterilizing grade PES membrane
- Highly asymmetrical pore structure
- Robust materials of construction can be repeatedly steam sterilized and hot water sanitized
- Easily integrity tested in-situ

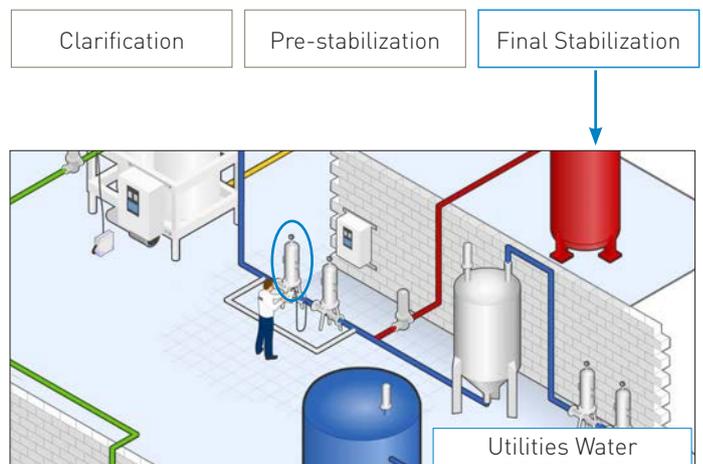
## Benefits

- Ensures safety of process water
- High flow and cost-effective performance
- Extended service life
- Assured filtration performance

## Performance Characteristics



## Filtration Stage



## Specifications

### Materials of Construction

Filtration Media:	Polyethersulphone
Upstream Support:	Polyester
Downstream Support:	Polyester
Inner Support Core:	Polypropylene
Outer Protection Cage:	Polypropylene
End Caps:	Nylon
End Cap Insert:	316L Stainless Steel
O-rings:	Silicone / EPDM

### Food Contact Compliance

Materials conform to the relevant requirements of FDA 21CFR Part 177, current EC1935 / 2004 and current USP Plastics Class VI - 121 °C.



### Recommended Operating Conditions

Up to 70 °C (158 °F) continuous operating temperature and higher short-term temperatures during CIP to the following limits:

Temperature °C	Temperature °F	Max Forward dP (bar)	Max Forward dP (psi)
20	68	5.0	72.5
40	104	4.0	58.0
60	140	3.0	43.5
80	176	2.0	29.0
90	194	1.0	14.5
>100 (steam)	>212 (steam)	0.3	4.0

### Effective Filtration Area (EFA)

10" (250 mm) Up to 0.6 m<sup>2</sup> (6.5 ft<sup>2</sup>)

### Cleaning and Sterilization

BEVPOR MS cartridges can be repeatedly steam sterilized in-situ or autoclaved at up to 130 °C (266 °F). They can be sanitized with hot water at up to 90 °C (194 °F) and are compatible with a wide range of chemicals.

For detailed operational procedures and advice on cleaning and sterilization, please contact the Technical Support Group through your usual Parker domnick hunter contact.

### Retention Characteristics

0.2µm BEVPOR MS filters have been validated to provide sterile effluent after bacterial challenge testing following ASTM F838-05 methodology on 10" cartridges with more than 10<sup>7</sup> cfu per cm<sup>2</sup> using *Brevundimonas diminuta*.

In addition, challenges with the following EU regulated organisms have been performed.

Organism	LRV when challenged with a minimum of 10 <sup>7</sup> cfu per cm <sup>2</sup>
	0.20
<i>Serratia marcescens</i>	FR
<i>Escherichia coli</i>	FR
<i>Enterococcus faecalis</i>	FR
<i>Clostridium perfringens</i>	FR
<i>Pseudomonas aeruginosa</i>	FR

### Integrity Test Data

All filters are flushed with pharmaceutical grade purified water prior to despatch. They are integrity tested to the following limits:

Diffusional Flow Test Parameters	Micron Rating
	0.20
Test Pressure (barg)	2.4
Test Pressure (psig)	35.0
Max Diffusional Flow Per 10" (ml / min)	16.0

### Manufacturing Traceability

Each filter cartridge displays the product name, product code and lot number. Additionally, each module displays a unique serial number providing full manufacturing traceability.

## Ordering information

BMS	-		-	02	-		-	A	-	
Code	Length (Nominal)	Code	Micron	Code	End Cap (10 inch)	Code	O-rings			
1	10" (250 mm)	02	0.2 µm	C	BF / 226 Bayonet	S	Silicone			
2	20" (500 mm)			D	Fin / 222	E	EPDM			
3	30" (750 mm)			E	Flat Top / 222					
4	40" (1000 mm)			G	Recess / 222					
				R	BF / 222 Bayonet					

