BEVPOR MS Bottled Water

Filter Cartridges

BEVPOR MS filters provide full retention to industry regulated, water contaminating organisms to ensure the micro-biological safety of bottled water.

The inert and highly asymmetric PES membrane provides validated microbial retention to regulated, contaminating organisms. The 0.2µm grade provides complete sterility in accordance to ASTM F838-05 requirements. Combined with hydrophilic properties for easy integrity testing, BEVPOR MS filters provide assured performance throughout their service life.

BEVPOR MS filters have been designed to provide a cost-effective solution to the microbial sterilization and stabilization of bottled water by providing increased process control with increased operational efficiency.

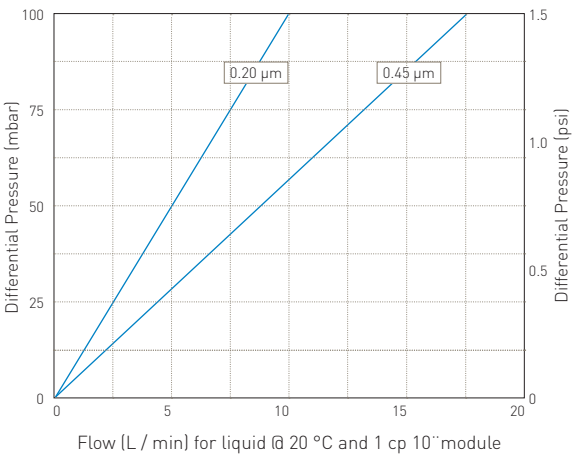
Features

- Validated retention to industry regulated organisms
- Inert materials of construction
- Easily integrity tested in-situ

Benefits

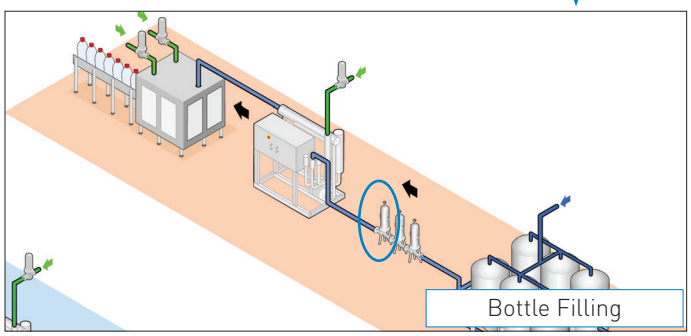
- Ensures the safety of the water prior to bottling
- Protects the purity and essential characteristics of the source water
- Assured filtration performance

Performance Characteristics



Filtration Stage

Clarification | Pre-stabilization | Final Stabilization



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Specifications

Materials of Construction

Filtration Membrane:	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 21 CFR 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		Max Forward dP	
°C	°F	(bar)	(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˝ (250mm) Up to 0.6m² (6.45ft²)

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. Please refer to our Clean-in-Place support guide or contact your local Parker representative for more information.

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 10^7cfu per cm² using *Brevundimonas diminuta*.

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

Organism	LRV when challenged with a minimum of 10^7 cfu per cm²	
	0.20	0.45
Serratia marcescens	FR	FR
Escherichia coli	FR	FR
Enterococcus faecalis	FR	FR
Clostridium perfringens	FR	FR
Pseudomonas aeruginosa	FR	FR
Brevundimonas diminuta	FR	5

**FR - Fully retentive during challenge*

When expressed as titre reduction "FR" equates to >10" per 10˝module.

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	0.45
Test Pressure (barg)	2.4	1.7
Test Pressure (psig)	35.0	25.0
Max Diffusional Flow per 10˝ (ml /min)	16.0	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 - [ ] [ ] - [ ] A [ ]

Code	Length (Nominal)	
1	10˝	(250 mm)
2	20˝	(500 mm)
3	30˝	(750 mm)
4	40˝	(1000 mm)

Code	Micron	
02	0.20	µm
04	0.45	µm

Code	End Cap (10 inch)
C	Fin / 226 Bayonet
D	Fin / 222
E	Flat Top / 222
G	REcess 222
R	BF / 222 Bayonet

Code	O-rings
S	Silicone
E	EPDM

VSH & HSL HOUSING RANGE AVAILABLE

Parker domnick hunter has a continuous policy of product development and although the Company reserves the right to change specifications, it attempts to keep customers informed of any alterations. This publication is for general information only and customers are requested to contact our Process Filtration Sales Department for detailed information and advice on a products suitability for specific applications. All products are sold subject to the company's standard conditions of sale.

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