BEVPOR PH BEER

Filter Cartridges

BEVPOR PH beer filters protect the unique characteristics of beer by removing yeast and other spoilage organisms to ensure microbial stability during cold stabilization.

The inert and highly asymmetric PES membrane provides validated microbial retention to typical spoilage organisms, whilst protecting the beer's organoleptic qualities to preserve a fresh taste and a long shelf-life once packaged.

The incorporation of an active prefilter layer, combined with an increased filtration area provides high beer flow rates, greater resistance to blockage and maximized service lifetime.

BEVPOR PH filters have been designed to provide the optimum solution to beer stabilization by providing increased process control with maximized operational efficiency.

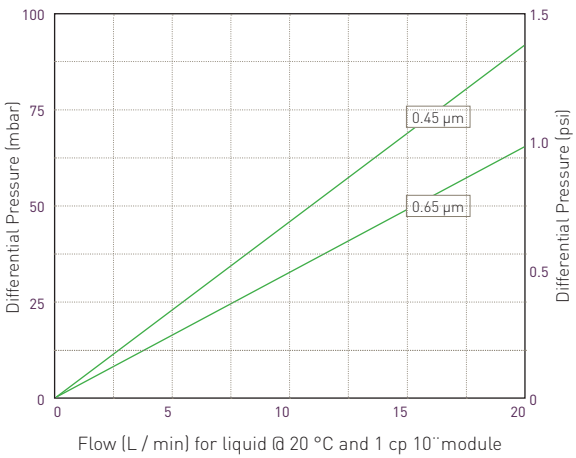
Features

- Validated retention to spoilage organisms
- Inert materials of construction
- Easily integrity tested in-situ
- Integral depth prefiltration layer
- High filtration area

Benefits

- Ensures effective microbial stabilization of beer
- Preserves the organoleptic qualities of the beer
- Assures performance of the filtration
- Increased throughput to blockage
- High beer flow and maximized operational efficiency

Performance Characteristics

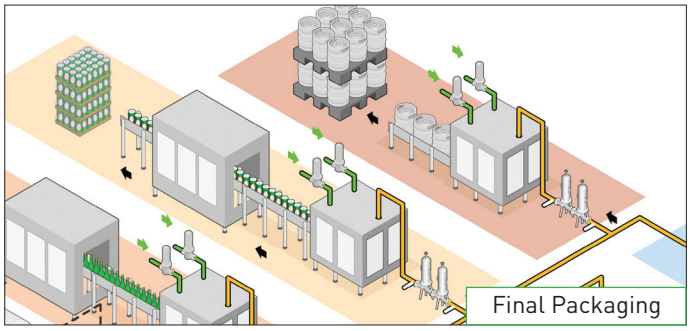


Flow (L / min) for liquid @ 20 °C and 1 cp 10¨module

Recommended beer flow rate of 1.5-3l/min/10"module

Filtration Stage

Clarification | Pre-stabilization | **Final Stabilization**



BEVPOR PH BEER

BREWING

Specifications

Materials of Construction

- Filtration Membrane: Polyethersulphone
- Prefilter Layer: Polyester
- Upstream Support: Polyester
- Downstream Support: Polyester
- Inner Support Core: Polypropylene
- Outer Protection Cage: Polypropylene
- End Caps: Nylon
- End Cap Insert: 316L Stainless Steel
- Standard o-rings: Silicone

Food Contact Compliance

Materials conform to the relevant requirements of 21CFR Part 177, current EC1935 / 2004 and current USP Plastics Class VI - 121 °C and ISO10993 equivalents.

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" (250 mm) Up to 0.8 m^2 (8.61 ft^2)

Cleaning and Sterilization

BEVPOR PH 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

The retention characteristics of BEVPOR PH filters have been validated by challenges performed with the following organisms.

Organism	LRV when challenged with a minimum of 10^7 cfu per cm^2	
	0.45	0.65
Saccharomyces cerevisiae	FR	FR
Brettanomyces bruxellensis	FR	FR
Lactobacillus brevis	FR	FR
Acetobacter oeni	FR	FR
Pseudomonas aeruginosa	9.1	8.9
Serratia marcescens	FR	FR

**FR - Fully retentive during challenge*

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	
	0.45	0.65
Test Pressure (barg)	1.4	1.0
Test Pressure (psig)	20.0	15.0
Max Diffusional Flow per 10" (ml /min)	21.0	21.0

Manufacturing Traceability

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

Ordering Information

BPH - [ ] [ ] - [ ] A [ ]

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

Code	Micron
04	0.45 µm
06	0.65 µm

Code	Endcap (10 inch)
C	Fin / 226 Bayonet
D	Fin / 222
E	Flat Top / 222
R	BF / 222 Bayonet

Code	O-rings
S*	Silicone
E	EPDM

**Silicone O-rings supplied as standard*

VSH & HSL range of Sanitary Beverage Housings

- Multi and single elements
- Designed specifically for the food and beverage industry 0.4µM Ra internal, 0.25µM Ra external
- High quality crevice free construction
- Available for up to 30 round filters
- Sanitary vent, tri-clamp connections as standard
- Sanitary body closure as standard

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