

# VSF-BEER Series Filter Cartridges



## Product Introduction

VSF-BEER series utilizes polyethersulfone membrane to provide consistent removal of spoilage organisms and inorganic particles. This series offers excellent retention efficiency and extended on-stream life making it an ideal product for final beer bottling filtration. Each cartridge is individually tested to ensure integrity before releasing. Imprinted model number, lot number and serial number allow for easy identification and traceability.

- Manufactured in a class 1,000 clean room
- Manufactured under a certified ISO 9001 quality system
- Pre-flushed with 18 megohm-cm DI water
- Integrity Test: bubble point test, diffusion flow test

## Product Specifications

### Materials of Construction

- Filter Media: Polyethersulfone Membrane
- Hardware: Polypropylene
- Sealing: Thermal Bond
- Support Material: Polypropylene
- Gaskets/O-rings: Silicone

### Dimensions

- Outside Diameter: 2.8" (71mm)
- Lengths: 10", 20", 30", 40"

## Performance Specifications

### Retention Ratings

0.45, 0.65  $\mu$ m Absolute

### Operating Conditions

- Maximum Operating Differential Pressure:  
75 psid (5.1 bar) @ 68°F (20°C)  
40 psid (2.8 bar) @ 150°F (65°C)
- Maximum Operating Temperature:  
180°F (82°C), CIP 203°F (95°C)
- Sanitization & Sterilization:  
Hot Water @ 90°C for 30 mins. up to 100 cycles.



### FDA Listed Materials

Manufactured from materials which are FDA listed for food contact applications in Title 21 of the U.S. Code of Federal Regulations.

### Purity

All VSF-BEER series filter cartridges are free of surfactants, anti-static agents, binders and adhesives.

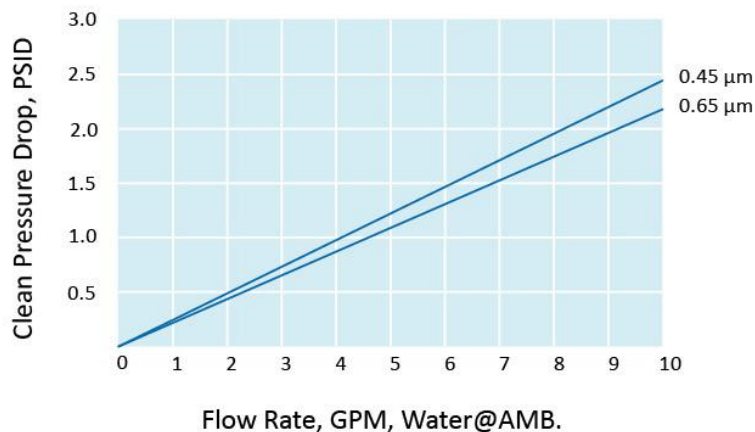
### Bacteria Retention

Filter Grade	Microorganism	LRV
0.45 µm	Serratia marcescens	>7
	Oenococcus oeni	>7
0.65 µm	Saccharomyces cerevisiae	>7

### Integrity Testing

Filter Grade	Bubble Point Test	Diffusion Flow Test (10'')
	Minimum Bubble Point	Maximum Diffusion Flow
0.45 µm	≥ 24 psi	≤ 30 ml/min @ 20 psi
0.65 µm	≥ 15 psi	≤ 30 ml/min @ 13 psi

## Liquid Flow Rate vs. Initial Differential Pressure



Flow rate is per 10" cartridge. For liquids other than water, multiply the pressure drop by the fluid viscosity in centipoises

## Ordering Information

VSF	450-	10-	7	S-	BEER
Product Name	Retention Rating	Cartridge Length	End Configuration	Gasket/O-ring Material	Industry
VSF	450=0.45µm 650=0.65µm	10" 20" 30" 40"	DOE=Double Open End Code 3=222 / Flat Code 8=222 / Fin Code 7=226 / Fin, Bayonet Code 28=222 / Fin, Bayonet	S=Silicone	Beer