Industrial filtration

LifeASSURE BFS filter cartridges

PTFE Membrane filter cartridges

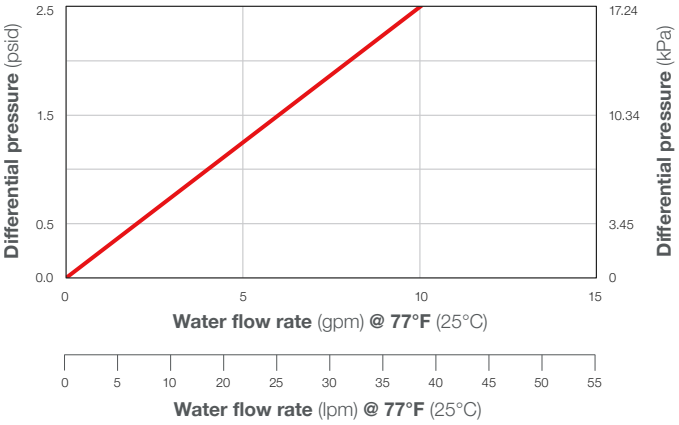


Thermo Scientific™ LifeASSURE™ BFS Filter Cartridges are designed for critical process applications requiring sterile and microbial-rated air and gas filtration in food and beverage production, as well as high-purity chemical processing in the electronics industry. The hydrophobic PTFE membrane and all-polypropylene construction provide excellent chemical compatibility, high airflow and efficient contaminant reduction for sterile venting, tank protection and process gas applications. No pre-wetting is required for solvent-based chemicals.

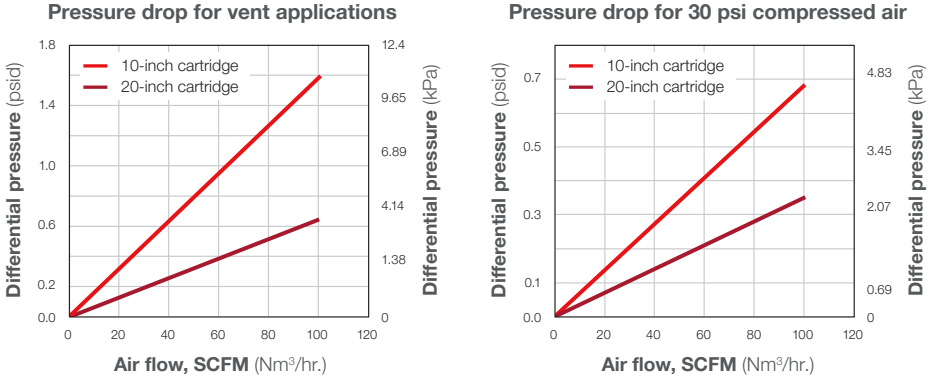
Features and benefits

PTFE and polypropylene materials of construction

- Excellent air flow for fermenter aeration and smaller, economical vent filter assemblies. LifeASSURE BFS filter cartridges are qualified for quantitative retention of Brevundimonas diminuta *(B. diminuta)* at a minimum challenge of 10^7 organisms/cm^2 of effective filter surface area.
- Hydrophobic PTFE membrane that will not become blocked with moisture.
- Provides a low differential pressure to minimize bubble formation pressure applications.
- Manufactured and assembled, cartridges are rinsed with 18 megohm-cm DI water in a clean environment under an ISO-certified quality system to provide downstream cleanliness and then double bagged.



Graph 1. LifeASSURE BFS filter cartridges' water flow rate vs. differential pressure



Graph 2. LifeASSURE BFS filter cartridges' air flow rate vs. differential pressure

Applications

Microelectronics:

- High purity chemicals
- Organic solvents
- Photoresists
- Anti-reflective coatings
- Plating solutions

Food and beverage:

- Sterile vent filtration for fermentation applications
- Sterile air in-take for bioreactors
- Sterile compressed gas filtration
- Spirit particulate filtration

thermo scientific

Technical data and operating parameters

Filter configuration	Cartridge 10-inch to 30-inch
Filter rating	0.2 µm
Filtration surface area	11 ft²* (1.02 m²)
Maximum differential pressure	
Forward pressure	80 psid (551.6 kPa) @ 77°F (25°C) 25 psid (172.4 kPa) @ 176°F (80°C)
Reverse pressure	65 psid (448.2 kPa) @ 77°F (25°C)
Maximum operating temperature	176°F (80°C)
Integrity parameters - forward flow test - @ 16 psig (110 kPa)* **	
60%/40% (v/v) IPA/water @ 77°F (25°C) and 1 atm	≤35.5** cc/min
Minimum bubble point	16 psig (110.3 kPa)****
Water intrusion test – Maximum allowable flow at 40 psig (275.8 kPa) @ 68°F (20°C) and 1 atm	0.59 cc/min
In situ steam conditions	Up to 293°F (145°C)
In use max temperature rating	140°F (60°C) continuous, 176°F (80°C) short duration

*Per 10-inch element. **Not for continuous compressed gas service.
***NOTE: Wetting fluid should be maintained within +/- 2% v/v concentration and +/- 35.6°F (2°C) temperature.
****Wet with 60%/40% (v/v) IPA/Water.

Compliance

Standard
ISO 9001 Registered Quality System
100% diffusion flow tested prior to shipment

Certain LifeASSURE BFS products are compliant with:

- US FDA 21 CFR
- EU food contact regulation (EC) 1935/2004
- Other food contact regulations

Contact your Thermo Fisher representative for detailed declaration of compliance information for food contact applications

LifeASSURE BFS filter cartridges ordering guide

Table 1. For food and beverage applications with reinforced stainless steel ring or microelectronics applications with embedded polysulfone ring

Cartridge type	Grade code and rating (µm)	Configuration	Length (inches)	End modification	Gasket/O-ring material	Reinforcing adapter ring
BFS	020 - 0.20	A	01 / 10 in 02 / 20 in 03 / 30 in	B - 226 O-ring & spear C - 222 O-ring & spear F - 222 O-ring & flat cap	A* - Silicone B - Fluorocarbon C - EPR K - PTFE	(blank) - Stainless steel 1* - Encapsulated polysulfone

*Part number example: BFS020A03CA (Food & Beverage) available only in silicone gasket.
BFS020A03CA1 (Microelectronics) the suffix "1" is intended for use in Microelectronics applications only.
47 mm discs available for lab evaluation.
Please consult with your Thermo Fisher Scientific representative to determine the appropriate part number for your application.

Intended Use: LifeASSURE BFS cartridges are intended for use in industrial, chemical, food and beverage and electronics filtration applications of gases, aqueous and non-aqueous fluids in accordance with the product instructions, specifications and where materials of construction are compatible.

Certain LifeASSURE BFS filter cartridge products are compliant for use in Food and Beverage applications. For specific details regarding use or limitations for food contact applications please contact your Thermo Fisher Scientific Inc. representative for more information.

Since there are many factors that can affect a product's use, the customer and user remain responsible for determining whether the Thermo Scientific product is suitable and appropriate for the user's specific application, including user conducting an appropriate risk assessment and evaluating the Thermo Scientific product in the user's application.

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