

3M™ LifeASSURE™ BFS Series PTFE Membrane Filter Cartridges

3M™ LifeASSURE™ BFS Series Filter Cartridges are used in critical process stages where sterile/particulates filtration are required. The hydrophobic PTFE membrane in an all polypropylene construction provides excellent chemical resistance and high efficiency contaminant reduction. After manufacture and assembly, 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. No pre-wetting is required for solvent based chemicals.

Features & Benefits

PTFE and Polypropylene Materials of Construction

- Excellent air flow for fermenter aeration and smaller, economical vent filter assemblies. 3M LifeASSURE BFS series filters are qualified for quantitative retention of *Brevundimonas diminuta* (B. diminuta) at a minimum challenge of 10⁷ organisms/cm² 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.
- Increased throughput and long filter life.
- See BFS Technical Support Guide for further performance and capability information.

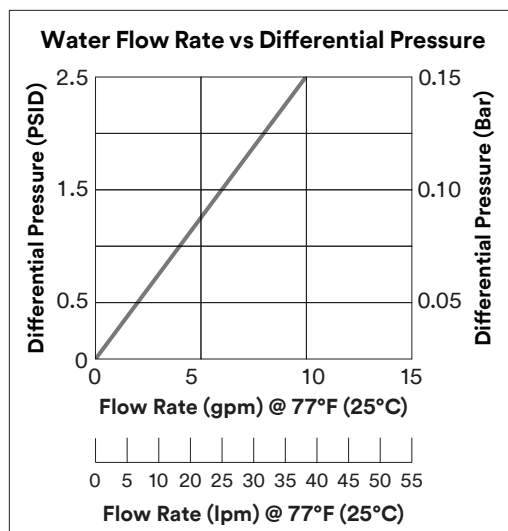


Chart 1: 3M™ LifeASSURE™ BFS Series Flow Rate vs. Differential Pressure

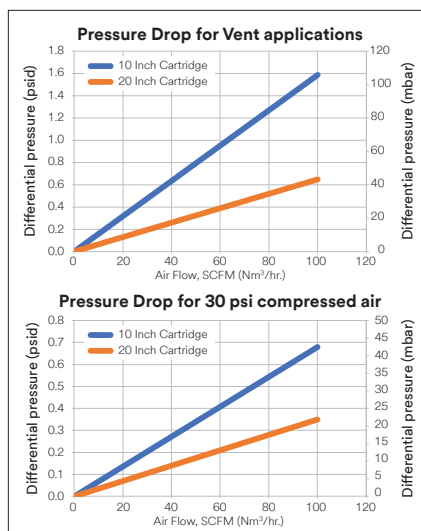


Chart 2: 3M™ LifeASSURE™ BFS Series Air Flow Rate vs. Differential Pressure

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

Product Operating Parameters and Specifications

Filter configuration	Cartridge 10" to 30"
Filter Rating	0.2 µm
Filtration Surface Area	11 (1.02)* ft ² (m ²)
Maximum Differential Pressure	
Forward Pressure	80 psid (5.5 bar) @ 77°F (25°C) 25 psid (1.7 bar) @ 176°F (80°C)
Reverse Pressure	65 psid (4.5 bar) @ 77°F (25°C)
Maximum Operating Temperature	176°F (80°C)
Integrity Parameters - Forward Flow Test - @ 16 psig (1.1 bar)***	
60%/40% (v/v) IPA/water @ 25°C and 1 atm: cc/min	≤35.5**
Minimum bubble point: psig (bar)****	16 (1.1)
Water Intrusion test – Maximum Allowable Flow at 40 psig (2.76 bar) @ 20°C and 1 atm: cc/min	0.59
In situ Steam Conditions	Up to 293°F (145°C)
In use Max Temperature Rating	60° C continuous, 80° C (short duration)

* Per 10" element

** Not for continuous compressed gas service.

*** NOTE: Wetting fluid should be maintained within +/- 2% v/v concentration and +/- 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
USA FDA CFR-21 compliant materials of construction*

* The wetted component materials, when used in accordance with 3M product intended uses and instructions, have been evaluated and found to comply to USA FDA 21 CFR Sections 170-186 for Indirect Food Contact Compliance. For details related to specific use conditions or limitations for food contact applications please contact your 3M representative for more information.

3M™ LifeASSURE™ BFS Series Ordering Guide

Table 1. For Food & Beverage Applications (with reinforced stainless steel ring)

Model Number	3M ID	Global ID	Description (Grade : 0.2 µm)		
			Length	O-ring	End Treatments
BFS020A01BA	70-0200-0502-4	7100277536	10"	Silicone	226/SPEAR
BFS020A02BA	70-0200-0503-2	7100277534	20"	Silicone	226/SPEAR
BFS020A03BA	70-0200-0504-0	7100277533	30"	Silicone	226/SPEAR
BFS020A01FA	70-0203-4857-2	7100277042	10"	Silicone	222/CAP
BFS020A02FA	70-0200-1091-7	7100277535	20"	Silicone	222/CAP
BFS020A03FA	70-0201-1701-9	7100277041	30"	Silicone	222/CAP

Table 2. For MicroElectronics Applications (with embedded Polyethersulfone (PES) ring)

Model Number	3M ID	Global ID	Description (Grade : 0.2 µm)		
			Length	O-ring	End Treatments
BFS020A01BA1	70-0203-5478-6	7100288798	10"	Silicone	226/SPEAR
BFS020A02BA1	70-0203-5486-9	7100288790	20"	Silicone	226/SPEAR
BFS020A02BK1	70-0203-5484-4	7100288792	20"	PTFE	226/SPEAR
BFS020A03CA1	70-0203-5492-7	7100289285	30"	Silicone	222/SPEAR
BFS020A01FA1	70-0203-5480-2	7100288783	10"	Silicone	222/FLAT
BFS020A02FA1	70-0203-5481-0	7100288803	20"	Silicone	222/FLAT
BFS020A01CA1	70-0203-5490-1	7100288784	10"	Silicone	222/SPEAR
BFS020A02CA1	70-0203-5491-9	7100288788	20"	Silicone	222/SPEAR
BFS020A01FK1	70-0203-5489-3	7100288785	10"	PTFE	222/FLAT
BFS020A01CK1	70-0203-5487-7	7100288786	10"	PTFE	222/SPEAR
BFS020A01BK1	70-0203-5485-1	7100288787	10"	PTFE	226/SPEAR
BFS020A01FB1	70-0203-5494-3	7100288797	10"	Fluorocarbon	222/FLAT
BFS020A01FC1	70-0203-5495-0	7100288800	10"	EPR	222/FLAT
BFS020A02CK1	70-0203-5488-5	7100288791	20"	PTFE	222/SPEAR
BFS020A02FC1	70-0203-5496-8	7100288789	20"	EPR	222/FLAT
BFS020A02CC1	70-0203-5497-6	7100289284	20"	EPR	222/SPEAR
BFS020A03FA1	70-0203-5482-8	7100288799	30"	Silicone	222/FLAT
BFS020A03BA1	70-0203-5483-6	7100289283	30"	Silicone	226/SPEAR

Intended Use and Product Selection: 3M™ LifeASSURE™ BFS Series Filter Cartridges are intended for use in industrial filtration applications of gases and aqueous fluids in accordance with applicable product instructions and specifications. 3M LifeASSURE BFS Series Filter Cartridge products are also intended for use with non-aqueous fluids where materials of construction are compatible. Certain limited 3M LifeASSURE BFS Series Filter Cartridge products are also intended for use in Food and Beverage (F&B) applications. For details related to the specific use conditions or limitations for food contact applications please contact your 3M 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 3M product is suitable and appropriate for the user's specific applications, including user conducting an appropriate risk assessment and evaluating the 3M product in user's application.

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