



Emflon® PFR Filters



High Strength, Long Life Sterilizing Filters for Air and Gas

Features

- ▶ Comprehensive validation
- ▶ High flow rates and low pressure drop
- ▶ Robust construction
- ▶ Long steaming life and long service Benefits

Benefits

- ▶ Assures highest removal efficiency and highest safety margins
- ▶ Allows use of small systems, reducing installation and running costs
- ▶ Ensures integrity and reliability
- ▶ Offers low cost filtration

Description

Superior Performance

Emflon PFR filters provide high assurance of filter integrity and long life, even during continuous use in hot air up to 60 °C, in vent applications up to 80 °C and during repeated steaming. This is combined with high flow rates and excellent de-wetting characteristics resulting in very economical filtration through the use of smaller installations and reduced energy costs. Emflon PFR filters have an absolute removal rating of 0.2 µm in liquids and 0.003 µm in gases and have been validated by:-

- ▶ *Brevundimonas (Pseudomonas) diminuta* liquid challenge at 10⁷/cm²
- ▶ *Brevundimonas (Pseudomonas) diminuta* aerosol challenge
- ▶ PP7 bacteriophage aerosol challenge
- ▶ Airborne sodium chloride aerosol challenge at 100 L/min flow (0.003 µm rated in gases)

Specifications

Materials Of Construction

Membrane	Double layer hydrophobic PTFE
Support and Drainage Layers	Polypropylene, oxidation resistant
Core, Cage, End Caps	Polypropylene, oxidation resistant
Adapters	Polymeric, encapsulated in oxygen-resistant polypropylene

Maximum Differential Pressure

Temperature	Forward Direction	Reverse Direction
Up to 40 °C	5.3 bar (76.8 psi)	3.0 bar ² (43.5 psi)
Up to 80 °C	4.1 bar (60 psi)	–
Steam up to 125 °C	1.0 bar (14.5 psi)	0.5 bar (7.3 psi)
Steam up to 142 °C	0.3 bar (4.4 psi)	0.2 bar (3.0 psi)

²Excursion conditions only

Service Life in Air

Temperature	Service Life
60 °C Pressurized Air	Typically 12 months
80 °C Vent Service	Typically 6 months

Effective Surface Area

AB1PFR7PVH4	0.8 m ² (8.6 ft ²)
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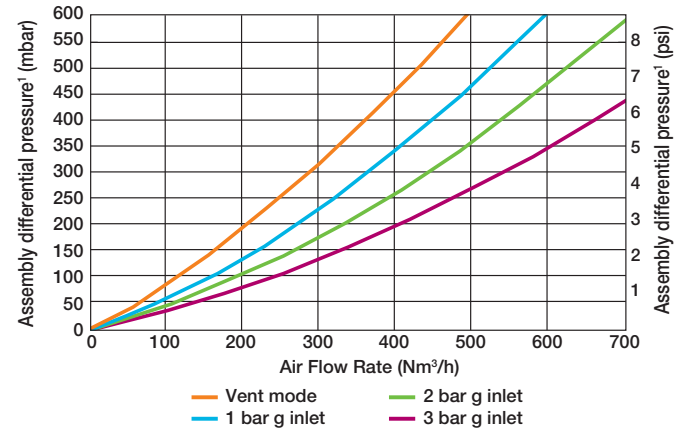
Cumulative Steam Life³

Up to 142 °C and 0.3 bar ΔP	AB05	AB 1,2,3
	100 hours	165 hours

³ The steam life and service life data were determined by testing under controlled laboratory conditions up to the time indicated. Actual operating conditions may affect the filter's long term resistance to steam sterilization and hot air service. Filters should be qualified for each process application.

Figure 1

System Air Flow vs. Differential Pressure (AB1 Size Cartridge)



Ordering Information

Emflon PFR Part Number: (example: AB2PFR7PVH4)

AB	PFR				O-ring Material
Code	Filter Size	Code	Module Type	Code	
05	127 mm (5 in.)	2 ⁴	Double O-ring with bayonet lock and flat end	H4	Silicone
1	254 mm (10 in.)				
2	508 mm (20 in.)				
3	762 mm (30 in.)				
4	1016 mm (40 in.)	7 ⁵	Double O-ring with bayonet lock and flat end		

⁴AB05 cartridges only, ⁵AB 1, 2, 3 cartridges only



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