

Emflon™ PFR

FILTERS

High-strength, long-life sterilizing filters for air and gas

Features	Benefits
Comprehensive validation	Assure high removal efficiency and high safety margins
High flow rates and low pressure drop	Allow use of small systems, reducing installation and running costs
Robust construction	Ensure integrity and reliability
Long steaming life and long service	Offer low-cost filtration

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)



Fig 1. Emflon PFR filter cartridges.

Technical specifications

Materials of construction	
Membrane	Double layer hydrophobic PTFE ⁽¹⁾
Support and drainage layers	Polypropylene (PP), oxidation-resistant
Core, cage and end caps	
Adapters	Polymeric, encapsulated in oxygen-resistant PP

⁽¹⁾ Polytetrafluoroethylene

Operating conditions ⁽²⁾	
Temperature	Maximum differential pressure
20°C	5.3 bard (77 psid)
80°C	4.1 bard (60 psid)

⁽²⁾ In air/N₂ service or other compatible gases

Service life in air	
Temperature	Service life
60°C pressurized air	Typically 12 months
80°C vent service	Typically 6 months

Effective filtration area (EFA)	
EFA per 254 mm (10 in.) element	0.8 m ² (8.6 ft ²)

Autoclave / steaming

Max. streaming conditions ^(3,4)	Pressure and temperature	Cumulative steaming time ^(3,4)
Forward	1.0 bard (14.5 psid) at 125°C	20 h (1 h cycles)
	0.3 bard (4.38 psid) at 140°C	165 h (1 h cycles)
Reverse	0.5 bard (7.3 psid) at 125°C	20 h (1 h cycles)

⁽³⁾ Lab tests to establish multi-cycle resistance. Filters should be qualified in actual use. Contact Cytiva for recommended procedures
⁽⁴⁾ Excursion conditions only

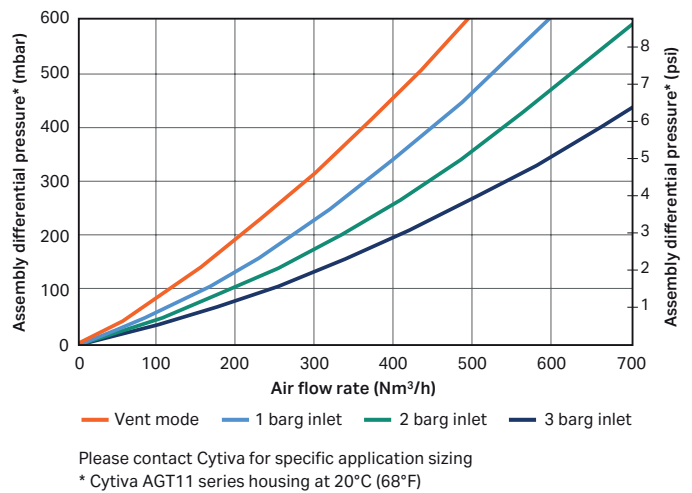


Fig 2. System air flow vs differential pressure (AB1 size filter cartridge).

Ordering information

Product	Length (nominal)	Product code
Emflon PFR filter, double O-ring with bayonet lock and flat cap, silicone seal	127 mm (5 in.)	AB05PFR2PVH4
Emflon PFR filter, double O-ring with bayonet lock and finned cap, silicone seal	254 mm (10 in.)	AB1PFR7PVH4
Emflon PFR filter, double O-ring with bayonet lock and finned cap, silicone seal	508 mm (20 in.)	AB2PFR7PVH4
Emflon PFR filter, double O-ring with bayonet lock and finned cap, silicone seal	762 mm (30 in.)	AB3PFR7PVH4

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