

Emflon® PFA Filter Cartridges

High-flow Economical Filters for the Sterilization of Air and Gas



Emflon PFA filters are a further addition to the successful **Emflon** filter range. The filters contain a proprietary pleated hydrophobic PTFE membrane and are designed for the removal of micro-organisms and particles from air and gases.

Emflon PFA filters:

- Offer exceptionally high-flow rates to ensure low installation and operating costs
- Have been validated for bacterial removal in air at an aerosol challenge level of 10^7 *Brevundimonas diminuta* ATCC 19146 per 254 mm (10 in.) length cartridge
- Are integrity testable by the Water Intrusion test or alcohol wet Forward Flow test
- Can also be steam sterilized repeatedly in situ to provide long service life

Better by Design

The heart of the filter is a PTFE membrane with exceptional flow properties. Equally important is Pall's unrivalled expertise in cartridge construction drawing on many years experience in making PTFE membrane filters.

Optimized pleating configuration and membrane support, together with a wide bore cartridge core and adapter, ensure that this high-flow performance can be exploited to the fullest.

Typical Applications

- Large-scale fermenter air
- Intermediate product vessel venting
- Autoclave vacuum break
- Instrument air
- Air and gas service lines

Features and Benefits

- High-flow rates and low pressure drop allow the use of smaller systems, minimizing installation, filter replacement, and energy costs
- In situ integrity testable by Water Intrusion or Forward Flow methods for maximum convenience and security
- Long steaming life offering low-cost filtration

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Technical Specifications

Materials of Construction

Components	Material
Membrane	Hydrophobic PTFE
Support and Drainage Layers	Polypropylene
End Cap, Core and Cage	Polypropylene
Code 7 Adapter	Polypropylene with encapsulated stainless steel reinforcing ring

Nominal Filter Area

AB1PFA7PV	0.8 m ² (8.6 ft ²)
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Maximum Differential Pressure⁽¹⁾

Temperature	Maximum Differential Pressure
	Forward Direction
Steam up to 125 °C (257 °F)	0.3 bar (4.3 psi)

⁽¹⁾ Validated using 1-hour cycles.

Cumulative Steam Life⁽²⁾

Up to 125 °C (257 °F)	100 hours
Up to 140 °C (284 °C)	40 hours

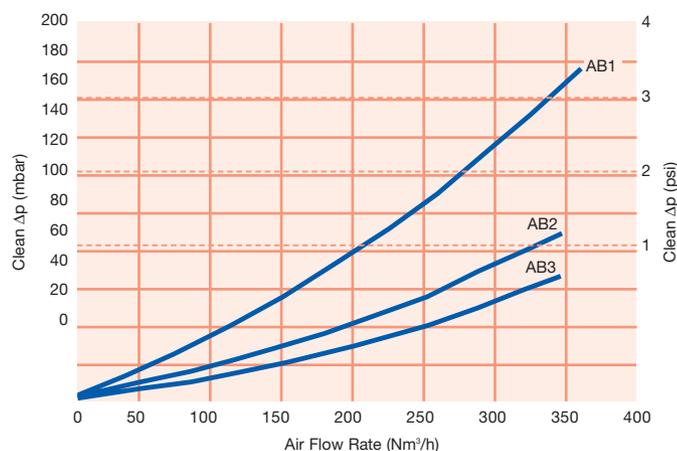
⁽²⁾ Validated using 1-hour cycles.

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 filters' long-term resistance to steam sterilization and hot air service. Filters should be qualified for each process application.

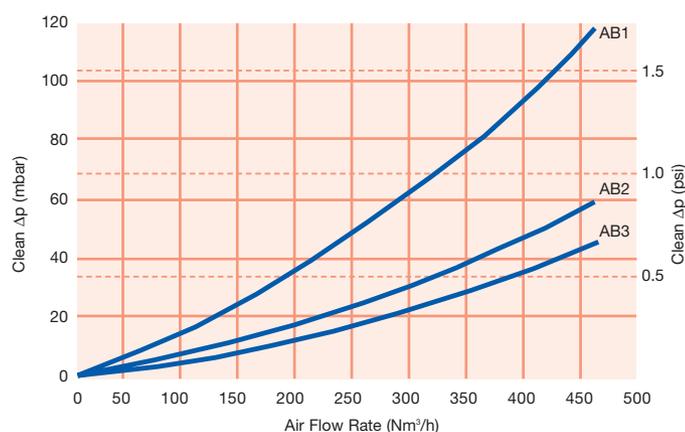
Service Life in Air

Temperature	Service Life
60 °C (140 °F) Pressurized Air	Typically 12 months
80 °C (176 °F) Vent Service	Typically 6 months

Typical Air Flow v Differential Pressure – Vent Application⁽³⁾



Typical Air Flow v Differential Pressure – 2 bar g Inlet Pressure



⁽³⁾ Typical initial clean medium Δp per 254 mm (10 in.) element, air at 20 °C (68 °F). For multiplate cartridges, divide pressure drop by number of 254 mm (10 in.) elements. Contact Pall for assistance in sizing.

Ordering Information

Code	Nominal Length	Code	Cartridge Style	Code	Filter Grade	Optimization	Code	O-ring Material
05	5 in. (127 mm)	2 ⁽⁴⁾	Double 226 O-ring with bayonet lock and flat end	P	Pharmaceutical*	Oxidation resistant polypropylene hardware	H4	Silicone
1	10 in. (254 mm)			Omit	General Use			
2	20 in. (508 mm)	7	Double 226 O-ring with bayonet lock and fin end					
3	30 in. (762 mm)							

⁽⁴⁾ AB05 cartridges only.

* Pall pharmaceutical-grade filters are designed for use in conformance with CGMP in Manufacturing, Processing, Packing or Holding of Drugs (21CFR210) and CGMP for finished Pharmaceuticals (21CFR211.72) including batch release certificate and full traceability.

This is a guide to the part number structure and possible options only. For availability of specific options, please contact Pall.