

Profile® Coreless Filter Elements Gas Filtration Applications

Profile Coreless filter elements combine Pall proven Profile depth filter technology with a design that eliminates the core to provide a convenient, cost efficient and environmentally-friendly solution for high flow rate applications.

The large diameter filter element features low differential pressure polypropylene, or polyphenylene sulphide (PPS) medium, meaning fewer elements are required for a given flow rate. Filter vessels are correspondingly smaller, resulting in lower capital and installation costs, as well as reduced operating costs.

Pall Coreless filter technology is particularly well suited for gas filtration applications where the experience has shown that solid contaminants are very small -typically in the micron and sub-micron size range.

Pall Coreless has been successfully used in various applications requiring an efficient protection of critical downstream equipment and units, such as:

- **'Black Powder' removal from gas pipelines (raw gas, dry gas, ethane)**
- **Removal of desiccant fines from gas drying units (dry gas, regeneration gas)**
- **Removal of catalyst / activated carbon fines from mercury guard beds**

Convenience

The Profile Coreless filter element fits over a 316L stainless steel core, which is retained inside the filter housing. At changeout, the element is simply pulled up over the core which is then ready to accept the replacement element. By retaining the metallic core, the Coreless design significantly reduces the amount of waste material to dispose of, providing a lower cost, more environmentally-friendly option.

Efficiency

Profile Coreless filter elements use the advanced and proven benefits of Profile medium's unique depth filter technology. The combination of a continuous graded pore prefilter section and a high performance inner section is an ideal combination, giving low clean differential pressure, high liquid flow rates and long service life.

Pall Quality Assurance

The Profile Coreless filter element is manufactured to a very high standard of quality assurance and cleanliness, and in accordance with BS EN ISO 9001:2008.

Materials of Construction

Filter Element: Polypropylene, or Polyphenylene Sulphide (PPS)



Profile Coreless Filter Element.

Features

- Large diameter cartridge utilizing low differential pressure media
- Separate stainless steel core retained in the filter housing
- Proven depth filter technology / continuous graded pore structure
- Polypropylene, or polyphenylene sulphide (PPS) filter media
- Fully disposable design.

Benefits

- Smaller systems with low capital cost, low installation costs and reduced operating costs
- Providing high liquid flow rate capability, ease of fitment, low operating costs and increased cost efficiency
- Reliable, consistent and verifiable filtration performance
- Compatible with a wide range of applications
- Less waste materials, lower cost of disposal and more environmentally-friendly.

Technical Information

Operating Characteristics in Compatible Fluids¹

Maximum Differential Pressure	Operating Temperature	
	Polypropylene	Polyphenylene Sulphide (PPS)
4.0 bard (58 psid)	32 °C (89.6 °F)	32 °C (89.6 °F)
1.0 bard (14.5 psid)	82 °C (179.6 °F)	204 °C (400 °F)

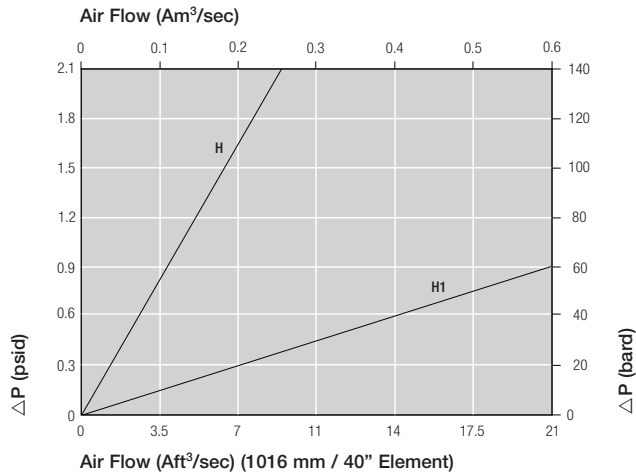
¹ Compatible fluids are defined as those which do not swell, soften or attack any of the filter components.

Dimensions

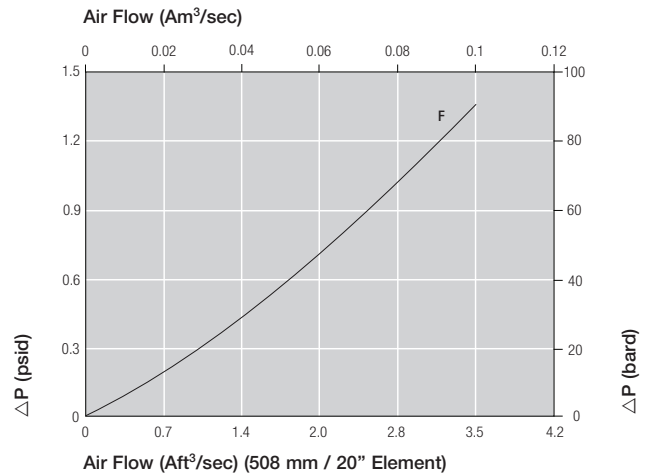
Nominal Length	1016 mm (40 in)
Nominal Outside Diameter	152 mm (6 in)
Nominal Inside Diameter	114 mm (4.5 in)

Flow Rates

Polypropylene Media



Polyphenylene Sulphide Media



* For air at viscosity of 0.018cp. Correction for other gases:
Use reading from Graph x

$$\frac{\text{Gas Viscosity}}{0.018\text{cP (Air)}} = \text{Actual Pressure Drop}$$

Black Powder Contaminated Coreless Cartridges



Ordering Information

This information is a guide to the part number structure and possible options. For availability of specific options, please contact Pall. Refer to Pall for housing details.

Element Part number

Part Number	Removal Rating in Gases at 0.3 μm*
EBPSAH	99.997 %
EBPSAH1	99.995 %
EFPSMEF	99.999 %

* Determined using Sodium Chloride aerosol challenge



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