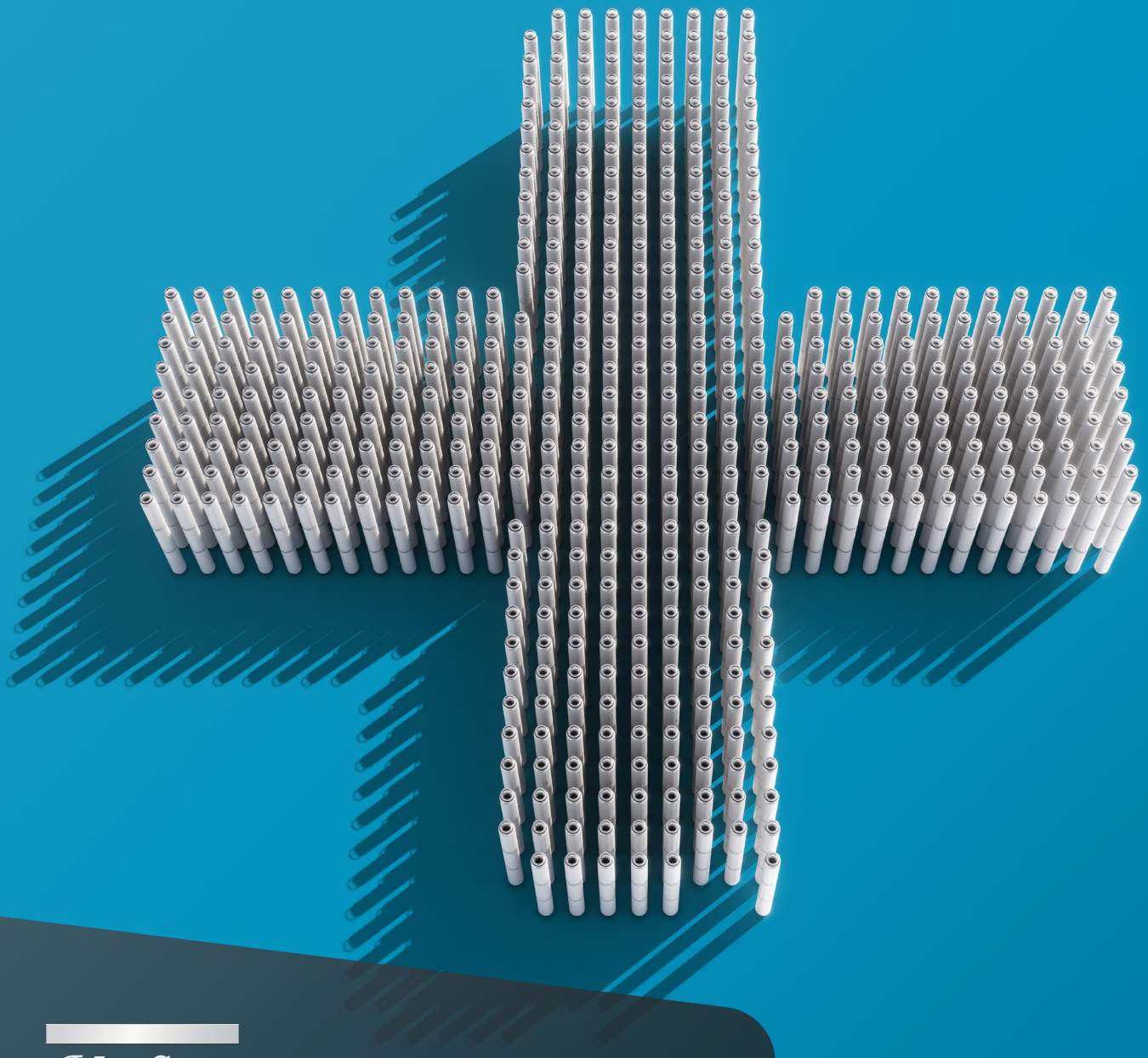


Atlas Copco

PFP+

PLUS series pleated
polypropylene fiber filters

PFP⁺ pleated polypropylene fiber filters

Product description

Introduction

The Atlas Copco PFP⁺ series has been designed to make filtration easy to understand. The PFP⁺ is the starting point, for nominally rated, reliable, and efficient filtration, with a maximum service life, for a wide range of pre-filtration applications in Food & Beverage, Pharmaceutical and Chemical industries.
The filters effectively retain particles through a single layer of melt-blown PP fiber. The nominally rated filter media with support layers is integrated into a robust cage, making it suitable for nearly all operating, service and cleaning conditions.

Devices

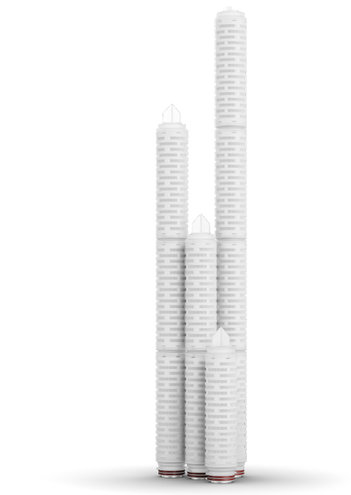
PFP⁺ filters are available in a wide range of cartridges that allow for fast and easy scale-up of your production.
From laboratory-scale filters to production-scale assemblies, all filters incorporate the same media and identical materials of construction, eliminating the need to requalify filter units as processes are scaled up.

Compatibility

PFP⁺ filters are completely made from polypropylene, utilizing thermal welding techniques to seal all the components thus optimizing device integrity and ensuring broad chemical compatibility with a large number of solvents, acids and bases. Polypropylene is a highly chemically resistant material, enabling the filters to be chemically regenerated. The all-polypropylene construction guarantees a small extractable footprint.

Documentation

PFP⁺ filters are designed, developed and manufactured in accordance with an ISO 9001 certified Quality Management System. A Validation Guide are available for compliance with regulatory requirements.
All the raw materials used comply with the European Union Regulation (EC) No. 1935/2004 as well as the Regulation (EU) No. 10/2011. concerning plastic materials and articles intended to come into contact with foodstuffs. These guidelines for plastics allow their use in food and beverage applications. All materials used meet the requirements of the CFR Title 21.



Key features

- Wide range of ratings and devices
- High-flow and low pressure drop
- Thermally bonded: no surfactants or binders
- Wide chemical compatibility

Applications

Due to its chemical compatibility, PFP⁺ filters are widely used in Food & Beverage, Pharmaceutical, Cosmetics and Chemical Industries.

- Retention of particles in liquids
- Pre-filtration for final membrane filters
- Edible liquids: bottled water, beer, wine, spirits, juices, soft drinks, non-carbonated drinks, etc.
- Non-edible liquids: water, serums, formulations, WFI, aggressive solvents, chemicals, etc.

Protecting processes, products and people

Atlas Copco's process filters optimize your productivity while protecting your process, product and consumers. Our portfolio of cartridges and housings covers all your filtration needs. The products are made from proven, high quality materials from reputable suppliers and manufactured in a controlled environment subjected to strict QA/QC procedures.

Technical data

Micron ratings (µm)
0,2/0,5/1/3/5/10/20 µm

Cartridge length
10"/20"/30"/40"

Cartridge diameter
70 mm

Effective filtration area (typical)
0.56m²

Material of construction

Filter media:	Polypropylene
Core:	Polypropylene
Cage:	Polypropylene
Housing:	Polypropylene
End caps:	Polypropylene + reinforcement
Seal:	Silicone, EPDM

Maximum operating temperature
80°C (cartridges)

Maximum differential pressure forward (cartridges)
5.0 bar @ 20°C, 1.8 bar @ 82°C

Maximum differential pressure reverse (cartridges)
3.0 bar @ 25°C, 1.0 bar @ 80°C

Sterilization SIP (cartridges)
10 cycles for 30 mins @ 125°C, 0.3 bar dP

Sterilization Autoclave (cartridges)
20 cycles for 30 mins @ 125°C, 0.3 bar dP

Hot water sanitization (cartridges)
50 cycles for 30 minutes @ 85°C

Chemical sanitization (cartridges)
20 cycles for 30 mins @ 40°C with sodium hypochlorite (100ppm) or peroxyacetic acid (100ppm)

All sanitization based on test results and actual operating conditions may vary and impact number of cycles.
We would recommend following all limits and guidelines of usage.

Regulatory compliance

Global food contact compliance

The PFP⁺ filter elements are manufactured from materials that comply with the requirements of Regulation (EC) No. 1935/2004 and Regulation (EU) No. 10/2011 (as amended), as well as the applicable sections of the U.S. Food and Drug Administration (FDA) Code of Federal Regulations (CFR), Title 21 for food contact applications. All substances used are listed in Annex I of Regulation (EU) No. 10/2011 and meet the applicable specific migration limits (SML), group restrictions, and purity requirements, while non-intentionally added substances (NIAS) have been assessed in accordance with Article 3 of Regulation (EC) No. 1935/2004 and relevant provisions of Regulation (EU) No. 10/2011.
Migration testing using standard food simulants (A, B, and D2) confirmed that overall migration values are below the regulatory limits, demonstrating suitability for contact with all relevant food types, including repeated-use applications.
All polymeric and elastomeric components are additionally compliant with the relevant FDA 21 CFR sections (e.g. 21 CFR §177.1520 for polypropylene and §177.2600 for elastomers) and are permitted for use in food contact applications.
Furthermore, the PFP⁺ range complies with Regulation (EU) 2024/3190, confirming the absence of restricted bisphenols (including BPA), and ensuring full conformity with current European requirements for food contact materials.

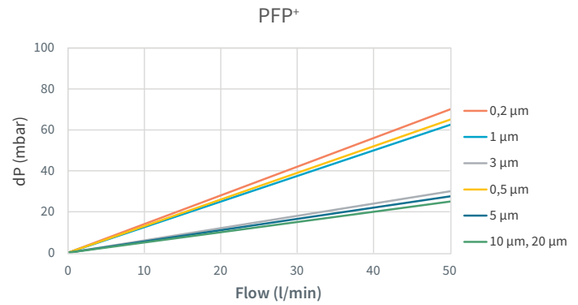
Quality assurance

For each filter cartridge an electronic Certificate of Conformity is available, detailing regulatory compliance, biological safety information and product approvals against the specific batch number and part number for the filter. The filter cartridges are manufactured in a controlled clean room environment that generally meets the requirements for ISO 14644-1 Class 7 cleanrooms.

Bisphenol A conformity

Furthermore, the PFP⁺ range complies with Regulation (EU) 2024/3190, confirming the absence of restricted bisphenols (including BPA), and ensuring full conformity with current European requirements for food contact materials.

Flow rate



Note: 10" cartridge tested with water @ 20°C, 1,005 cP (typical flow rate)

Product configuration

Cartridges

Series	Rating (µm)	Length	End cap	Seal
PFP+	0,2	10”	C2 (2x226 O-ring + 2 tabs/flat)	S (Silicone)
	0,5	20”	C3 (2x222 O-ring/flat)	E (EPDM)
	1	30”	C7 (2x226 O-ring + 2 tabs/fin)	
	3	40”	C8 (2x222 O-ring/fin)	
	5		C28 (2x222 O-ring + 3 tabs/fin)	
	10		DOE (flat + gasket/flat + gasket)	
	20			

Example PFP+ 1 µm 30” C7 S

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Ready to improve process efficiency and product quality?

Discover how our process filtration solutions can make a difference. Scan the QR code to learn more.

www.atlascopco.com/en-uk