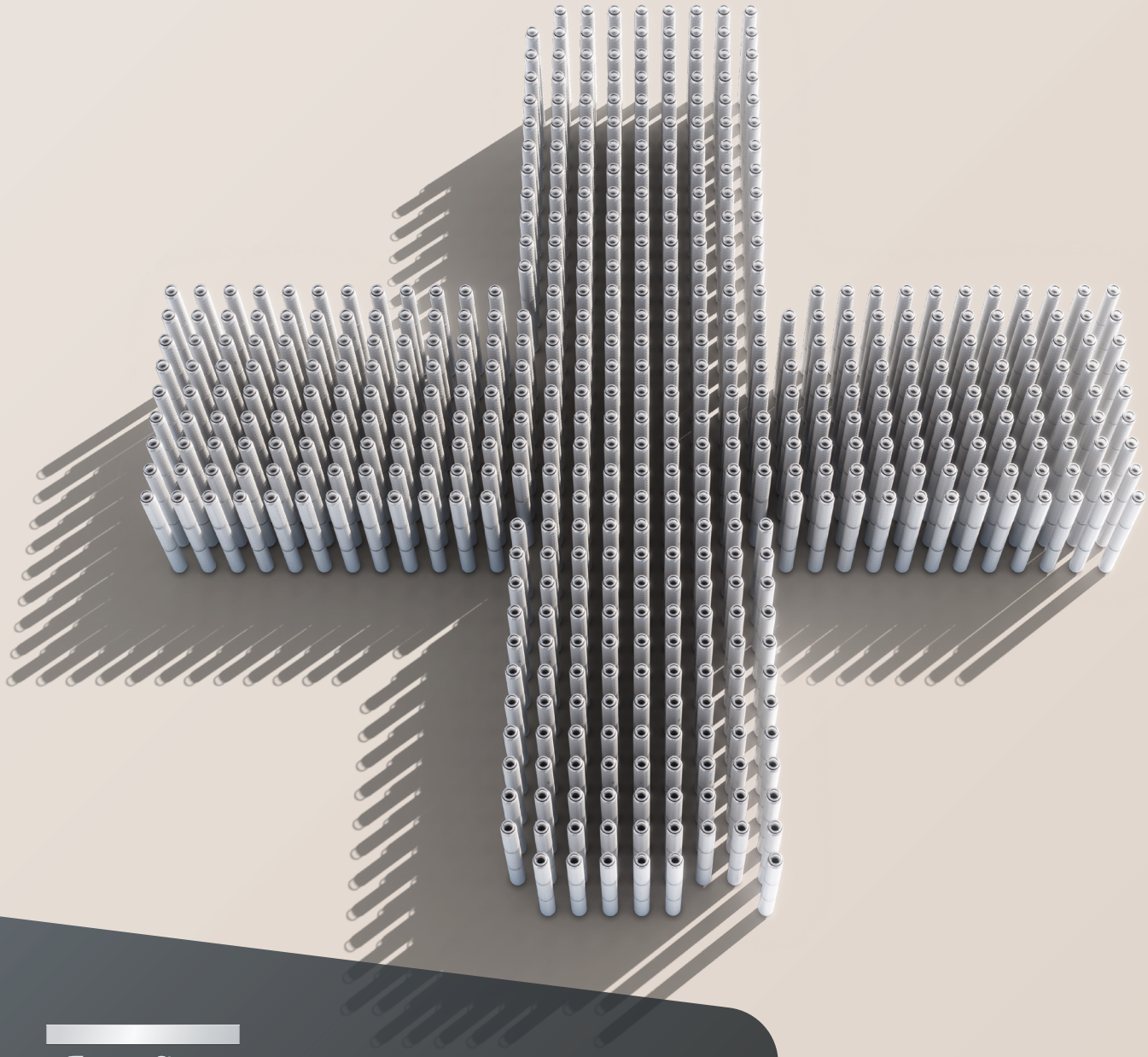


Atlas Copco

# PFP+ C

PLUS series pleated
polypropylene fiber filters

# PFP⁺ C pleated polypropylene fiber filters

## Product description

### Introduction

The Atlas Copco PFP⁺ series has been designed to make filtration easy to understand. The PFP⁺ C ensures validated and tested retention of Cryptosporidium and Giardia oocysts with a maximum service life, and is specifically constructed to handle the demands of applications that require liquid free of these microorganisms.
The filters effectively retain particles through the filter media of melt-blown PP fiber. The high-efficiency filter media with support layers is integrated into a robust cage, making it suitable for nearly all operating, service and cleaning conditions.

### Devices

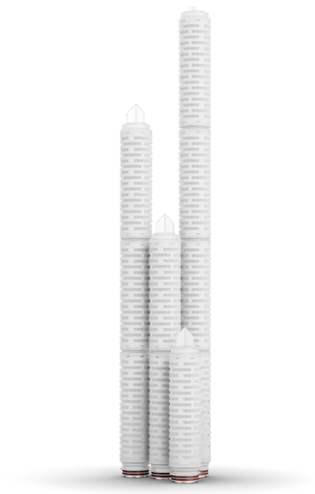
PFP⁺ C filters are available in a wide range of cartridges that allow for fast and easy scale-up of your production.
From laboratory-scale filters to production-scale assemblies, all filters incorporate the same media and identical materials of construction, eliminating the need to requalify filter units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

### Compatibility

PFP⁺ C 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⁺C filters are designed, developed and manufactured in accordance with an ISO 9001 certified Quality Management System. A Validation Guide is 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

- Retention of Cryptosporidium and Giardia oocysts
- Low pressure drop
- Thermally bonded: no surfactants or binders
- Wide chemical compatibility

### Applications

Due to its chemical compatibility, PFP⁺ C 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)
1 µm

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

**Cartridge diameter**
70 mm

**Effective filtration area** (typical)
0.49m²

**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)
20 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)
50 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.

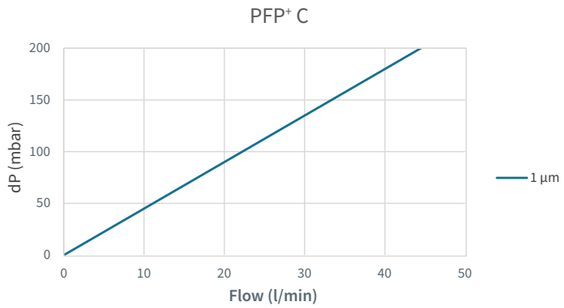
### Quality assurance

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⁺ C | 1 | | C2 (2x226 O-ring + 2 tabs/flat) | S (Silicone) |
| | | 10” | C3 (2x222 O-ring/flat) | E (EPDM) |
| | | 20” | C7 (2x226 O-ring + 2 tabs/fin) | |
| | | 30” | C8 (2x222 O-ring/fin) | |
| | | 40” | C28 (2x222 O-ring + 3 tabs/fin) | |
| | | | DOE (flat + gasket/flat + gasket) | |

Example: PFP⁺ C 1 µm 20” C7 S

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

www.atlascopco.com/en-uk