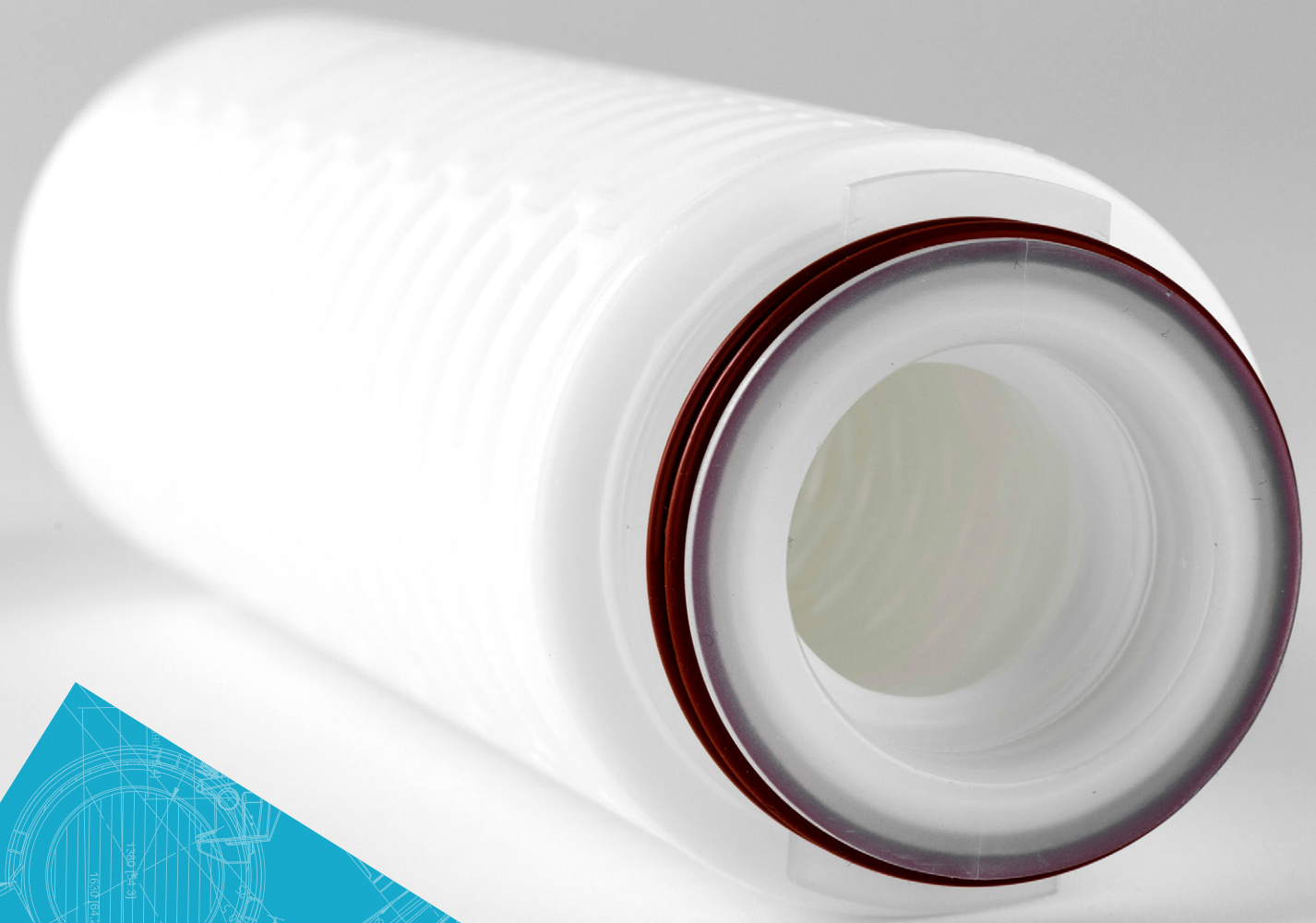


Atlas Copco



SFG-G
pleated glass
fiber filters

SFG-G pleated glass fiber filters

Product description

Introduction

SFG-G filters provide safe, reliable and efficient sterilization of compressed air, nitrogen and other gases used in Food & Beverage, Pharmaceutical and Chemical industries.

The filters effectively retain particles and micro-organisms through a hydrophobic borosilicate glass microfiber filter media, fully validated for bacterial retention. The filter media with support layers is integrated into a robust cage making it suitable for nearly all operation, service and cleaning conditions.

Devices

SFG-G filters are available in a wide range of scalable, cartridges, and mini 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

SFG-G filters are made from polypropylene hardware and stainless steel core utilizing thermal welding techniques to seal all the components thus optimizing device integrity, thus assuring a broad chemical compatibility with a large number of solvents, acids and bases. Polypropylene is a highly chemically resistant material, If you chemically regenerate that element you will definitely destroy the glass fiber matrix!!! The all polypropylene construction guarantees a small extractable footprint.

Documentation

SFG-G filters are designed, developed and manufactured in accordance with a ISO 9001 certified Quality Management System. A Validation Guide is available for compliance with regulatory requirements.

All the 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 the use in food and beverage applications. All materials used meet the requirements of the CFR Title 21.



Key features

- Hydrophobic filter media
- Validated bacteria retention
- Extremely high flow and low pressure drop
- Reinforced end cap

Applications

SFG-G cartridges are used for the sterile filtration of compressed gases such as air, nitrogen and carbon dioxide. Additionally the very low differential pressure qualifies the SFG-G for the ventilation of tanks in critical applications in Food & Beverage, Pharmaceutical, Cosmetics and Chemical industries.

- Sterile venting of tanks
- Fermentation inlet gas and off-gas filtration
- Sterilization of compressed air



Protecting process, 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)

0,02 µm

Cartridge length

5”/10”/20”/30”/40”

Cartridge diameter

68,5mm

Effective filtration area (typical)

0,42m²

Material of construction

Filter media	Borosilicate glass micro fiber, fluoropolymer impregnated
Core	Stainless steel
Cage	Polypropylene
End caps	Polypropylene + reinforcement
Seal	Silicone, Viton, EPDM

Maximum operating temperature

80°C (cartridges)

Maximum differential pressure forward (cartridges)

4,0 bar @ 20°C, 2,4 bar @80°C

Maximum differential pressure reverse (cartridges)

3,5 bar @ 20°C, 0,5 bar @80°C

Sterilization SIP (cartridges)

100 cycles for 30 mins @121°C, 0,5 bar dP

Sterilization Autoclave

100 cycles for 30 mins @121°C

Regulatory compliance

TOC/Conductivity @25°C

Autoclaved filter effluent meets USP<643> for Total Organic Carbon and USP<645> for Water Conductivity per WFI requirements after UPW flush of specified volume.

Non-fiber releasing

Non-fiber releasing component materials meet the criteria for a “non-fiber releasing filter” as per 21 CFR 210,3(b)(6).

Bacterial endotoxin

Aqueous extraction of autoclaved filter contains <0,25 EU/ml as determined by Limulus Amebocyte Lysate (LAL), USP <85>.

Bacterial Retention to ASTM F838-05

LRV >10⁷ CFU/cm² of Brevundimonas diminuta (ATCC 19146)

Biosafety

Meets criteria of USP <88> Biological Reactivity Test for class VI-121°C plastics.

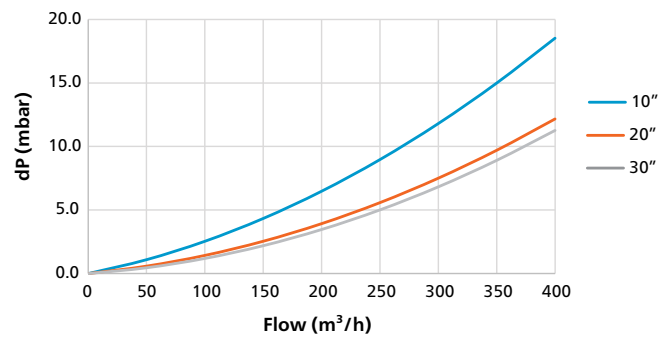
Indirect food additive

The product complies with food contact regulation 21 CFR §177 - 182 and (EC) No 1935/2004 and subsequent amendments.

Quality assurance

For each filter cartridge an electronic Certificate of Conformity is available, detailing relevant test data, 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 8 Cleanrooms.

Flow rate



10” cartridge tested with air @ 20°C/7 barg (typical flow rate)

Product configuration

Cartridges

Series	Rating (µm)	Length	End cap	Seal
SFG-G	0,02	J2,5"	CJ1 = 116 internal O-rings	S (Silicone)
		J5"	C2 (2x226 O-ring + 2 tabs/flat)	E (EPDM)
		5"	C3 (2x222 O-ring/flat)	V (Viton)
		10"	C7 (2x226 O-ring + 2 tabs/fin)	
		20"	C8 (2x222 O-ring/fin)	
		30"	C28 (2x222 O-ring + 3 tabs/fin)	
		40"	DOE (flat + gasket/flat + gasket)	

1CJ only applicable to J2,5" and J5" and vice versa
Example: SFG-G 0,02um 10" C7 S

