

## Capsule Filters C6-C10

### Introduction

Atlas Copco provides an extensive range of disposable filter capsules comprising a wide variety of styles and filter media, validated and ready-to-use for reliable and efficient filtration in many pharmaceutical, medical and food applications.

Filter capsules offer reliable and efficient removal of micro-organisms and particles in both atmospheric- (venting) and pressurized applications. Thanks to its excellent chemical compatibility the cartridges can be used for a wide range of gases and liquids up to 5.2 bar/74 PSIG and 38°C/100°F.

### Product description

The filter capsules feature a pleated filter media layer(s) integrated in a polypropylene housing with inlet/outlet- and drain/vent connections. The construction utilizes thermal welding techniques to seal all the components therefore eliminating adhesives and extractables and optimizing cartridge integrity. The capsules are suitable for steam sterilization (autoclave).



### Key features

- Wide range of filtration media and sizes available
- Reduce investment and operational costs
- Thermally bonded: no surfactants or binders
- Sanitary flanged inlet/outlet connections
- Sterilizing grade capsules have validated performance for removal of bacteria
- Manufacturing acc. ISO 9001 in a controlled environment
- 100% Integrity Tested (membranes)

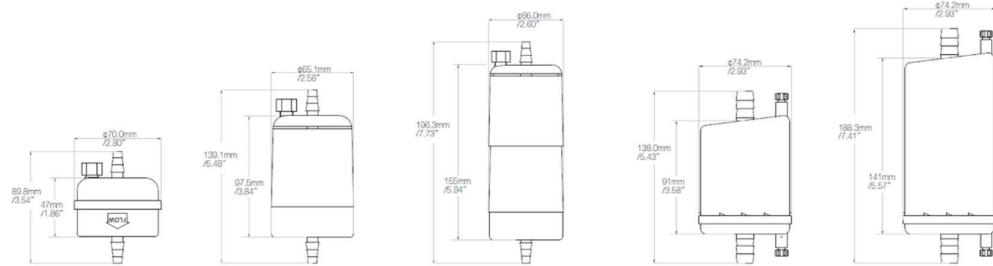
### Quality standards

Item	
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
Particle shedding	Autoclaved filter effluent meets USP<788> for large volume injections
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 Amebicidase Lysate (LAL), USP <85>
USP <87> cytotoxicity	Meets criteria of USP <87> In Vitro Cytotoxicity Test
USP <88> biological toxicity	Meets criteria of USP <88> Biological Reactivity Test for class VI-121°C plastics
Indirect food additive	All materials meet FD Indirect Food Additive requirements as per 21 CFR 177-182, and EUR regulation 1935/2004/EC

### Quality assurance

For each filter capsule 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 capsules are manufactured in a controlled clean room environment that generally meets the requirements for ISO 14644-1 Class 8 Cleanrooms. Additionally, well defined and documented work instructions and quality plans are used to ensure that the highest quality and cleanliness standards are consistently maintained.

**Capsule style and dimensions**

Capsule style	C6	C7	C8	C9	C10
Diameter (mm)	70.0	65.1	66.0	74.2	74.2
Length (mm)	47.0	97.5	155.0	91.0	141.0
Inlet/Outlet	6-9 mm stepped hose barb			12 mm stepped hose barb	
Vent/Drain			1/8" NPT		

**Product configuration**

Series	Media	Rating	Capsule style
PFP	PP (nominal)	0.2-0.45-1-3-5-10-20 µm	C6
PFP-A	PP (absolute)	0.2-0.45-1-3-5-10-20 µm	C7
PFP-D	PP (multi-layer)	0.2-0.5-1.2-1.5-2-5-10-20-50-70 µm	C8
PFG	Glass fiber	0.1-0.2-0.45-0.8-1-3-5 µm	C9
BME	PES (single layer)	0.22-0.45-0.65-0.8-1.2 µm	C10
SME	PES (single layer)	0.1/0.22/0.45 µm	
SME-X	PES (double layer)	0.22/0.1-0.22/0.22-0.45/0.22-0.65/0.22µm	
SMV	PVDF (single layer)	0.1/0.22/0.45/0.65 µm	
SMV-X	PVDF (double layer)	0.22/0.1-0.22/0.22-0.45/0.22-1/0.45 µm	
SMV-Z	PVDF, positive charged zeta (single layer)	0.22-0.45 µm	
SMV-XZ	PVDF, positive charged zeta (double layer)	0.22/0.22-0.45/0.22 µm	
SMN-X	N66 (double layer)	0.1/0.1-0.22/0.22-0.45/0.22-1+0.45 µm	
SMN-Z	N66, positive charged zeta (double layer)	0.22-0.22/0.22-0.45/0.22 µm	
SMT-G	Hydrophobic PTFE	0.01-0.2 µm	
SMT	Hydrophobic PTFE	0.1-0.22-0.45-1-3-5-10 µm	
SMTi	Hydrophilic PTFE	0.22-0.45-1 µm	

Example : SMT-G 0.01µm C8

**Operating and sanitization conditions**

Condition	Specification
Maximum temperature	60°C
Maximum pressure (liquid and gas)	5.2 bar @ 38°C/3.1 bar @ 60°C
Steam sterilization (autoclave) membrane filters	≤ 200 cycles @ 130°C for 30 minutes
Steam sterilization (autoclave) depth filters	≤ 20 cycles 125°C for 30 minutes

**Effective filtration area**

Series	C6 cm <sup>2</sup>	C7 cm <sup>2</sup>	C8 cm <sup>2</sup>	C9 cm <sup>2</sup>	C10 cm <sup>2</sup>
<b>PFP</b>	390	740	1300	1000	1820
<b>PFP-A</b>	460	870	1150	930	1700
<b>PFP-D</b>	220	440	780	570	970
<b>PFG</b>	230	410	730	570	1098
<b>BME</b>	470	870	1530	1430	2520
<b>SME</b>	470	870	1530	1430	2520
<b>SME-X</b>	430	800	1350	1170	2060
<b>SMV</b>	390	720	1320	1140	2060
<b>SMV-X</b>	380-500	800-1030	1420-1820	1140	2060
<b>SMV-Z</b>	390	720	1320	1140	2060
<b>SMV-XZ</b>	380-500	800-1030	1420-1820	1140	2060
<b>SMN-X</b>	380-500	800-1030	1420-1820	1140	2060
<b>SMN-XZ</b>	380-500	800-1030	1420-1820	1140	2060
<b>SMT-G</b>	910	1740	3060	1640	2880
<b>SMT</b>	560	1130	1930	1570	2790
<b>SMTi</b>	580	1070	1890	1790	3150


**Protecting process, products and people**

Atlas Copco provides an extensive range of filter cartridges, capsules and housings comprising a wide variety of styles and filter media, validated and ready-to-use for reliable and efficient filtration for pharmaceutical and medical applications.

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.