

Sartofluor[®]

Cartridges GA,
Cartridges LG,
Mini Cartridges,
Junior, Maxicaps[®],
Midicaps[®] & Capsules



Product Information

Sartofluor[®] is especially suited to demanding venting applications with high volume gas streams, extreme humidity, and stringent Steam In Place regimes. The hydrophobic PTFE membranes used in Sartofluor[®] filters offer reliability, process security, and a long service life.

Introduction

The Sartofluor[®] family of filters has been on the market for over three decades and has improved over time in response to changing customer needs. Today, experience and filtration expertise are combined in our best sterile venting device ever.

Sartofluor[®] contains PTFE membrane making it the most hydrophobic vent filter available. The inherent hydrophobicity of the PTFE membrane is unaffected by repeated autoclaving or steaming and guarantees sterile filtration of both dry and moist gases. Sartofluor[®] filters show superior air flow rates throughout all sizes and formats.

Applications

- Bioreactors (Inlet | Outlet)
- Storage Tank Venting
- Filling Equipment Venting
- Freeze Dryer
- Autoclave Venting

Sartofluor® GA: Filtration of Air & Gas

Sartofluor® LG*: Filtration of Air & Liquids (Solvents)

* Filtration Area of Sartofluor® LG is developed in order to optimize liquid filtration of solvents.
Membrane and material composition of LG and GA is identical.

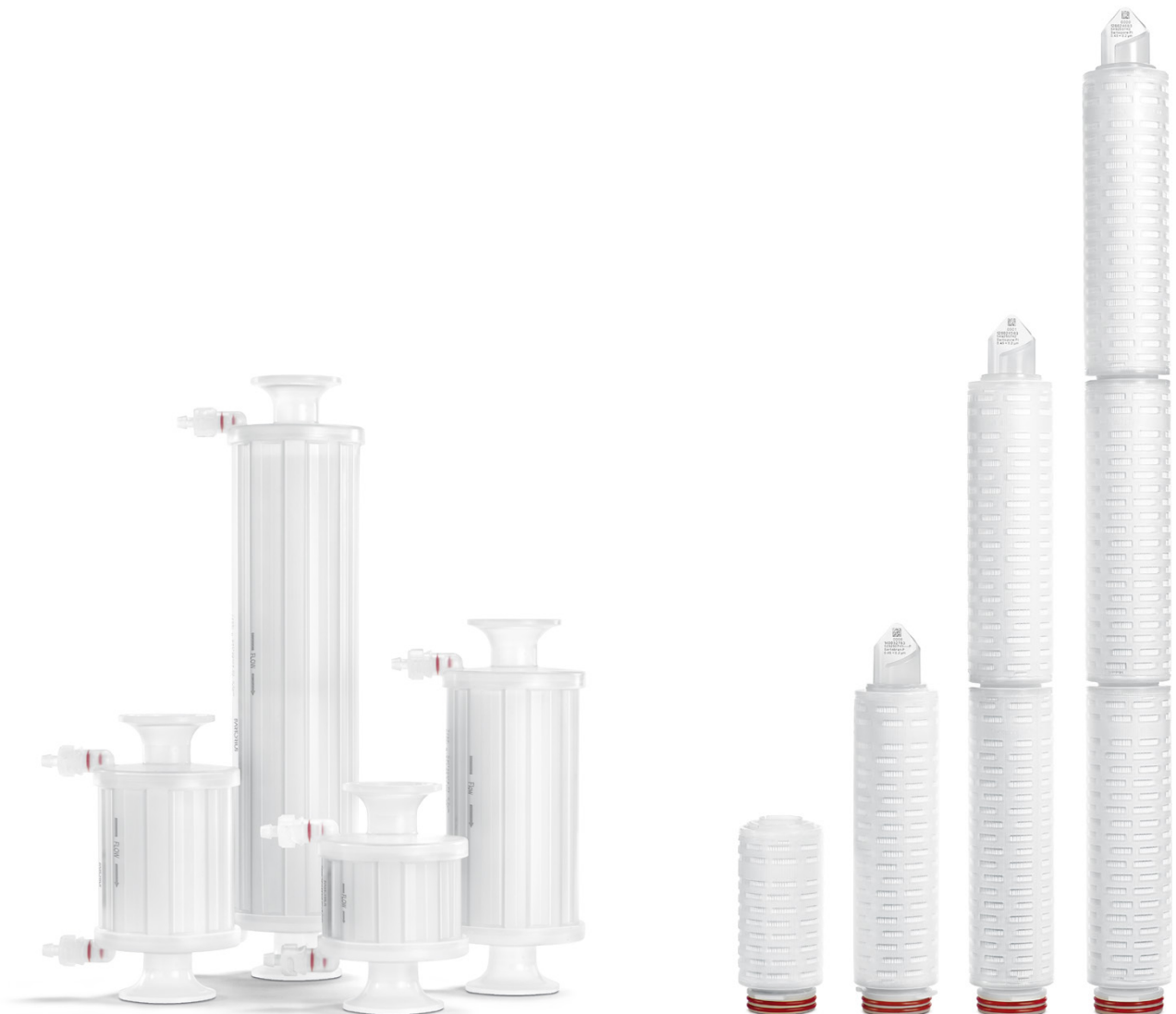
Benefits

The Most Reliable Sterile Venting Device

The 0.2 µm single-layer hydrophobic PTFE membrane offers superior moisture repellence and exceptional gas flow rates at low differential pressures.

All components were developed and are produced under the full control of Sartorius. In addition, the following critical requirements are met:

- Retention of $\geq 10^7$ B. diminuta/cm² in aerosol and liquid
- Retention of $\geq 10^7$ MS2 coliphage/cm² in aerosol
- Retention of particles sizes 0.005 µm | 0.3 µm
- Bi-directional sterility proven by worst case liquid Bacterial Challenge Test in forward and reverse direction
- 100% integrity tested prior to release
- Clear labelling with Lot. number and individual unit number.
All information laser marked on each filter housing.



Technical Data

Available Sizes	Filtration Area [m ² ft ²]	WIT Test Pressure [bar psi]	Sartocheck® 4+ and older		Sartocheck® 5 & Sartocheck® 5+	Test Pressure [bar psi]	Max. Diffusion @ 0.7 bar 10.2 psi [ml/min]	Min. Bubble Point [bar psi]
			WIT [mL/10 min]	WFT [mL/ min]	Water Intrusion (Water Flow Rate based) [mL/min]			
Cartridges GA								
Size 0	0.375 4.05	2.5 36	7.0	0.2	0.200	0.7 10.2	6.0	1.0 14.5
Size 1	0.75 8.1	2.5 36	13.0	0.37	0.371	0.7 10.2	11.0	1.0 14.5
Size 2	1.5 16.1	2.5 36	26.0	0.74	0.743	0.7 10.2	22.0	1.0 14.5
Size 3	2.25 24.2	2.5 36	39.0	1.11	1.114	0.7 10.2	33.0	1.0 14.5
Cartridges LG								
Size 1	0.5 5.4	2.5 36	8.0	0.23	0.229	0.7 10	7.0	1.0 14.5
Size 2	1.0 10.8	2.5 36	16.0	0.46	0.457	0.7 10	14.0	1.0 14.5
Size 3	1.5 16.1	2.5 36	24.0	0.69	0.686	0.7 10	21.0	1.0 14.5
Mini Cartridges								
Size 7	0.05 0.54	2.5 36	-	-	-	0.7 10	2.0	1.0 14.5
Size 8	0.1 1.1	2.5 36	3.0	0.09	0.086	0.7 10	3.0	1.0 14.5
Size 9	0.2 2.2	2.5 36	4.0	0.114	0.114	0.7 10	4.0	1.0 14.5
Junior								
Size 7	0.05 0.54	2.5 36	-	-	-	0.7 10	2.0	1.0 14.5
Maxicaps®								
Size 1	0.5 5.4	2.5 36	8.0	0.23	0.229	0.7 10	7.0	1.0 14.5
Size 2	1.0 10.8	2.5 36	16.0	0.46	0.457	0.7 10	14.0	1.0 14.5
Midicaps®								
Size 7	0.05 0.54	2.5 36	-	-	-	0.7 10	2.0	1.0 14.5
Size 8	0.1 1.1	2.5 36	3.0	0.09	0.086	0.7 10	3.0	1.0 14.5
Size 9	0.2 2.2	2.5 36	4.0	0.114	0.114	0.7 10	4.0	1.0 14.5
Size 0	0.45 4.8	2.5 36	8.0	0.23	0.228	0.7 10	8.0	1.0 14.5
Capsules								
Size 4	0.015 0.16	-	-	-	-	-	-	1.0 14.5
Size 5	0.03 0.32	-	-	-	-	-	-	1.0 14.5

Regulatory Compliance

- Each individual element is tested for integrity by Bubble Point and Diffusion test
- Fully validated as sterilizing grade filters according to current ASTM F-838 guidelines
- Designed, developed and manufactured in accordance with an ISO 9001 certified Quality Management System
- USP Plastic Class VI Test
- Non-fiber releasing: This product was manufactured with a membrane which meets the criteria for a “non-fiber releasing” filter as defined in 21 CFR 210.3 (b) (6) and 211.72.
- Oxidizable Substances: The filtrate of these filter elements shows a negative reaction when tested according to the current USP

Available Pore Size

0.2 µm

Materials

Filter Membrane

ePTFE

Support Fleece

Polypropylene

Core

Polypropylene

End Caps

Polypropylene

O-Rings

Cartridges (GA & LG) | Mini Cartridges | Junior: Silicone (optional EPDM or Fluoroelastomer)

Maxicaps® | Midicaps® | Capsules: EPDM

Capsule Housing

Midicaps® | Capsules: Polypropylene

Max. Differential Pressure (in Direction of Flow)

Cartridges (GA & LG) | Mini Cartridges | Junior

5 bar | 72.5 psi at 20 °C

2 bar | 29 psi at 80 °C

Maxicaps®

5 bar | 72.5 psi at 20 °C

3 bar | 43.5 psi at 50 °C

Midicaps®

5 bar | 72.5 psi at 20 °C

Capsules

4 bar | 58 psi at 20 °C

Max. Back Pressure (in Reverse Direction of Flow)

Cartridges GA | Mini Cartridges | Junior

3 bar | 43.5 psi at 20 °C

Cartridges LG | Maxicaps® | Midicaps® | Capsules

2 bar | 29 psi at 20 °C

Sterilization

Cartridges (GA & LG) | Mini Cartridges | Junior

- Autoclaving
134 °C, 2 bar | 29 psi, 30 min
Sterilization Cycles:
Min. 25
 - In-Line Steam Sterilization
134 °C, 20 min. at max differential pressure of 0.5 bar | 7.25 psi
Sterilization Cycles:
Max. 150
Min. 25 (Mini Cartridges)
-

Maxicaps® | Midicaps® | Capsules

- Autoclaving
134 °C, 2 bar | 29 psi, 30 min
Sterilization Cycles:
Min. 25 (Maxicaps® | Midicaps®)
Min. 5 (Capsules)
-

Note: No In-Line Steam Sterilization for Maxicaps® | Midicaps® | Capsules

Technical References

Cartridges (GA & LG) | Mini Cartridges | Junior |

Maxicaps® | Midicaps® | Capsules

Validation Guide: DIR No.: 3035788

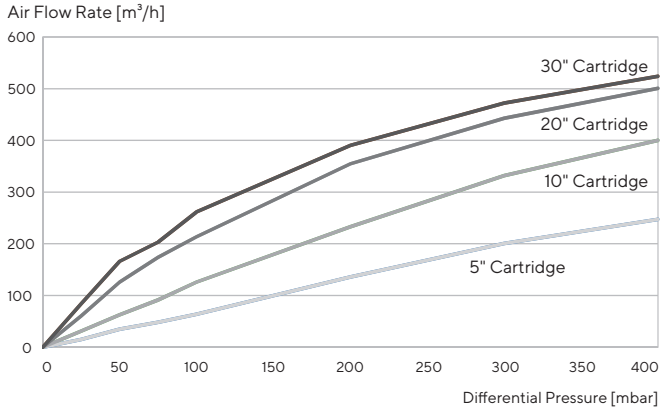
Extractable Guide: DIR No.: 2461994

Performance

Air Flow Rates for Sartofluor® Cartridges GA | Mini Cartridges | Junior | Midicaps® | Capsules

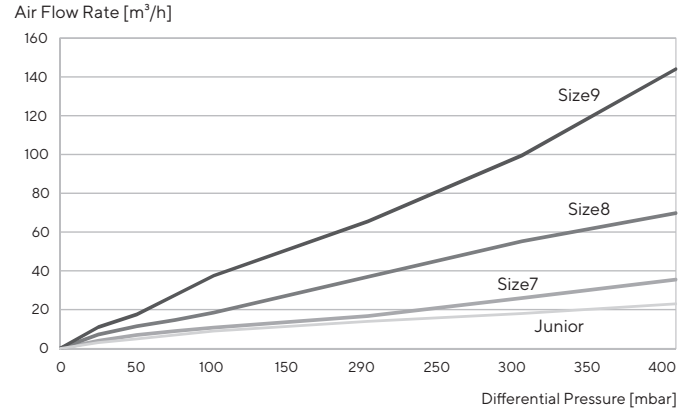
Cartridges GA

Under atmospheric pressure conditions



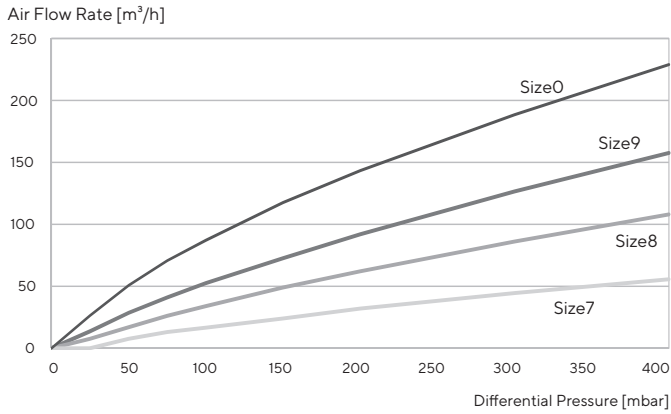
Mini Cartridges

Under atmospheric pressure conditions



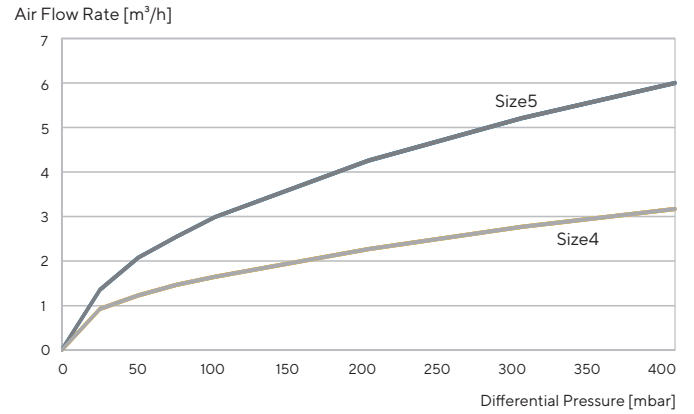
Midicaps®

Valid for SS-Connector



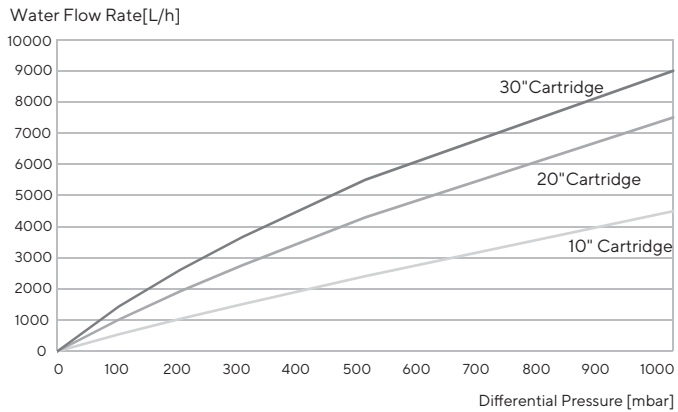
Capsules

Valid for OO-Connector

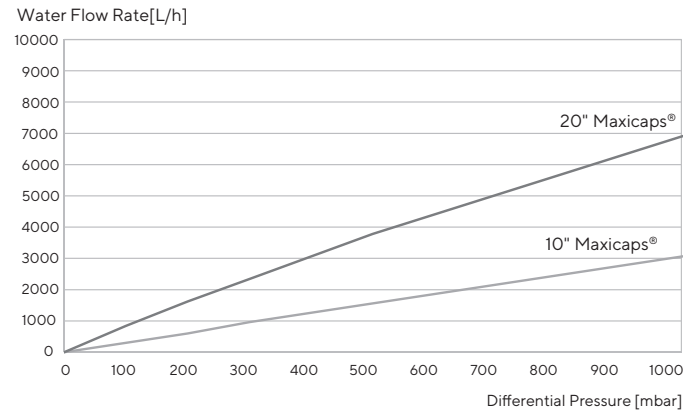


Liquid Flow Rates for Sartofluor® Cartridges LG | Maxicaps®

Cartridges LG



Maxicaps®



Ordering Information



Cartridges GA

518 25 07 T ■ - - GA

Filter Size
0: 0.375 m² | 4.05 ft²
1: 0.75 m² | 8.1 ft²
2: 1.5 m² | 16.1 ft²
3: 2.25 m² | 24.2 m²



Cartridges LG

518 25 07 T ■ - - LG

Filter Size
1: 0.5 m² | 5.4 ft²
2: 1.0 m² | 10.8 ft²
3: 1.5 m² | 16.1 m²



Mini Cartridges

518 15 07 T ■ - - - B

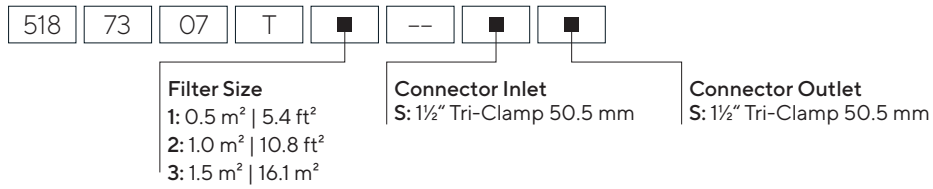
Filter Size
7: 0.05 m² | 0.5 ft²
8: 0.1 m² | 1.1 ft²
9: 0.2 m² | 2.2 ft²



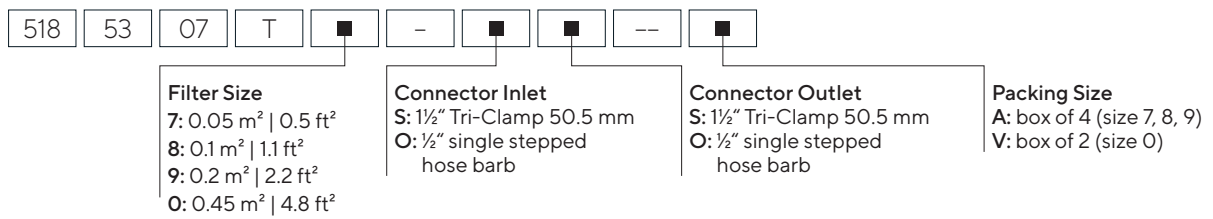
Junior

518 14 07 T 7 - - - B

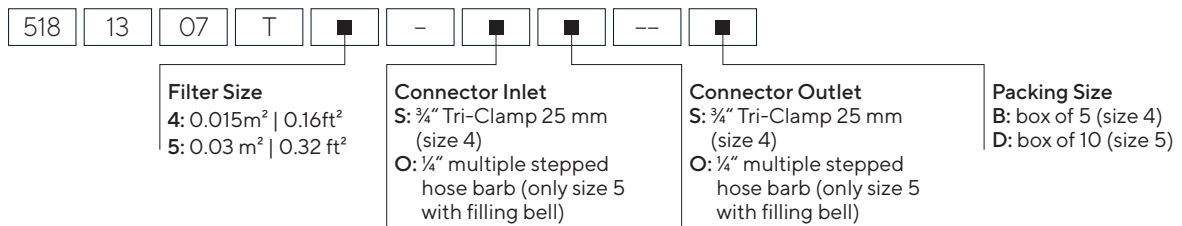
Maxicaps®



Midicaps®



Capsules



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