

## Sartofluor®

Cartridges GA and LG,  
Mini Cartridges,  
Junior, Maxicaps®,  
Midicaps® and 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.

# Introduction

## Applications

- Bioreactors (inlet | outlet)
- Storage tank venting
- Filling equipment venting
- Freeze dryer
- Autoclave venting

Sartofluor® GA: Filtration of air and gas

Sartofluor® LG\*: Filtration of air and 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  $\geq 10^7$  *Brev. diminuta*/cm<sup>2</sup> in aerosol and liquid
- Retention of  $\geq 10^7$  Bacteriophage MS2/cm<sup>2</sup> 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 Specifications

Available Sizes	Filtration Area [m <sup>2</sup>   ft <sup>2</sup> ]	WIT Test Pressure [bar   psi]	Sartocheck® 4+ and older		Sartocheck® 5 and 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]			
<b>Cartridges GA</b>								
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
<b>Cartridges LG</b>								
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
<b>Mini Cartridges</b>								
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
<b>Junior</b>								
Size 7	0.05   0.54	2.5   36	–	–	–	0.7   10	2.0	1.0   14.5
<b>Maxicaps®</b>								
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
<b>Midicaps®</b>								
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
<b>Capsules</b>								
Size 4	0.015   0.16	–	–	–	–	0.7   10	0.8	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 and 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 and 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 and 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\*:  
Min. 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)

\* No tests are conducted beyond the specified sterilization cycles. Sartorius is not liable for any additional cycles initiated by the customer.

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

## Technical References

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

Maxicaps® | Midicaps® | Capsules

Validation Guide: DIR No.: 3035788

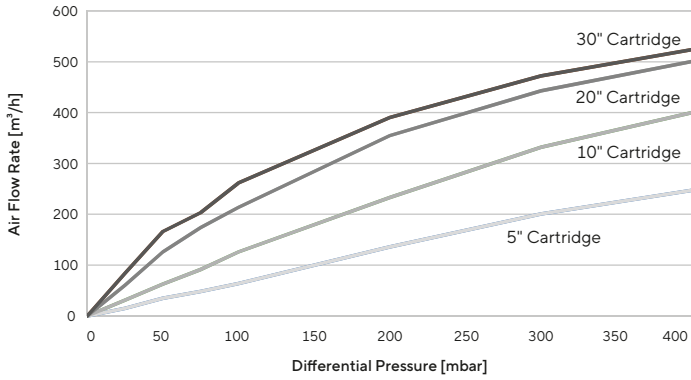
Extractable Guide: DIR No.: 2461994

## Performance

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

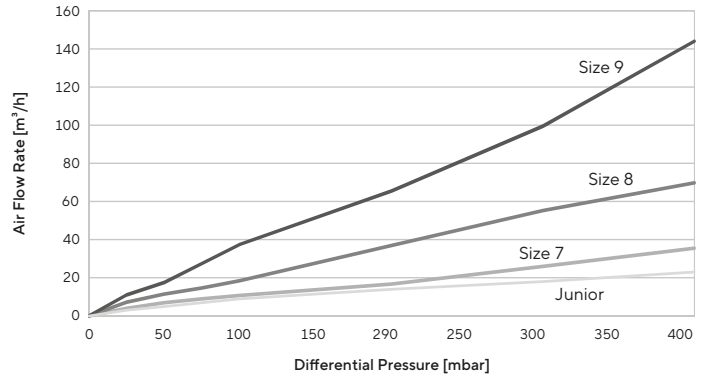
### Cartridges GA

Under atmospheric pressure conditions



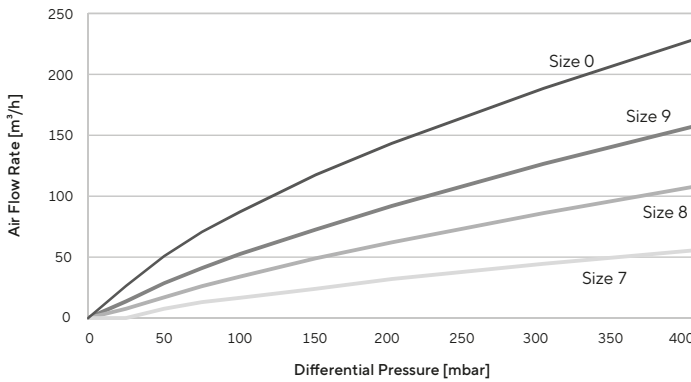
### Mini Cartridges

Under atmospheric pressure conditions



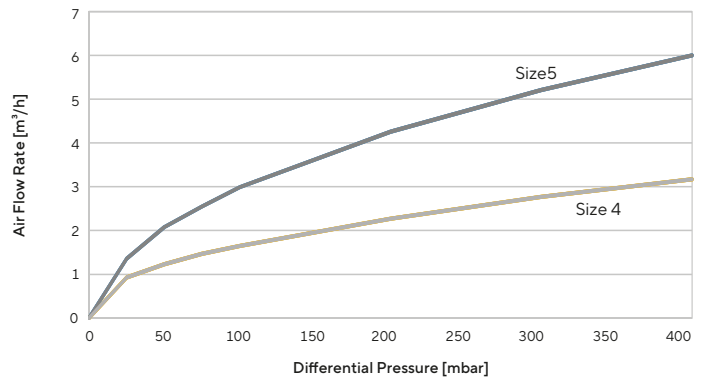
### Midicaps®

Valid for SS-Connector



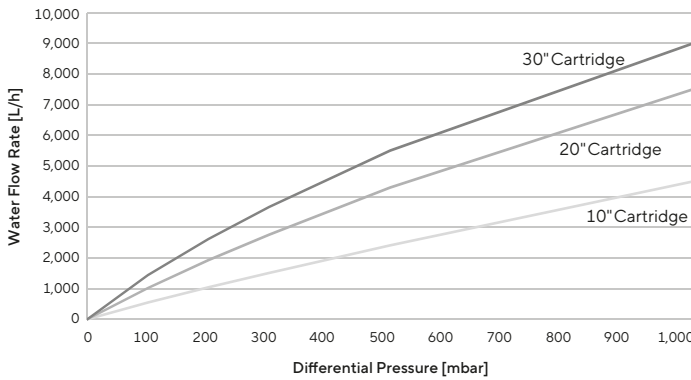
### Capsules

Valid for OO-Connector

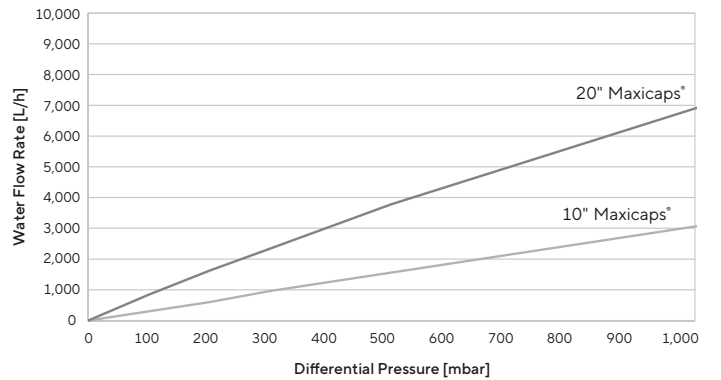


## Liquid Flow Rates for Sartofluor® Cartridges LG | Maxicaps®

### Cartridges LG



### Maxicaps®



# Ordering Information



## Cartridges GA

518 25 07 T ■ - - GA

**Filter Size**  
0: 0.375 m<sup>2</sup> | 4.05 ft<sup>2</sup>  
1: 0.75 m<sup>2</sup> | 8.1 ft<sup>2</sup>  
2: 1.5 m<sup>2</sup> | 16.1 ft<sup>2</sup>  
3: 2.25 m<sup>2</sup> | 24.2 m<sup>2</sup>



## Cartridges LG

518 25 07 T ■ - - LG

**Filter Size**  
1: 0.5 m<sup>2</sup> | 5.4 ft<sup>2</sup>  
2: 1.0 m<sup>2</sup> | 10.8 ft<sup>2</sup>  
3: 1.5 m<sup>2</sup> | 16.1 m<sup>2</sup>



## Mini Cartridges

518 15 07 T ■ - - - B

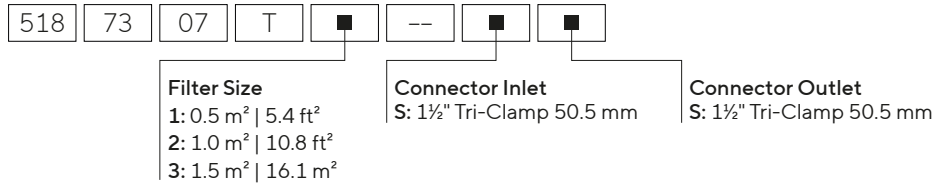
**Filter Size**  
7: 0.05 m<sup>2</sup> | 0.5 ft<sup>2</sup>  
8: 0.1 m<sup>2</sup> | 1.1 ft<sup>2</sup>  
9: 0.2 m<sup>2</sup> | 2.2 ft<sup>2</sup>



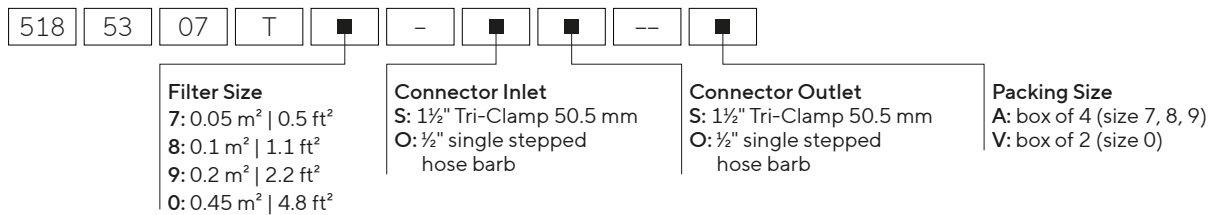
## Junior

518 14 07 T 7 - - - B

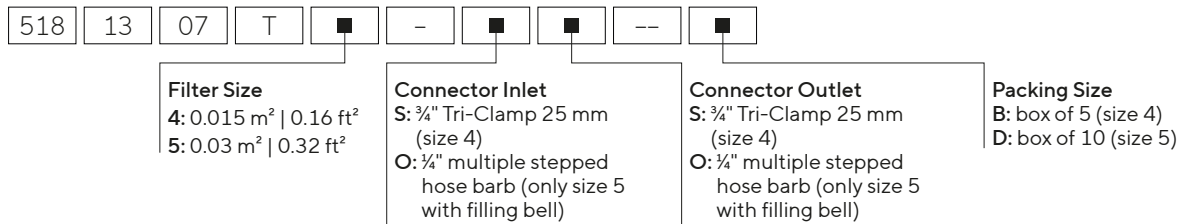
### Maxicaps®



### Midicaps®



### Capsules



Check the availability of your desired configuration with your Sartorius sales representative or online at [www.sartorius.com](http://www.sartorius.com)

**Germany**

Sartorius Stedim Biotech GmbH  
August-Spindler-Strasse 11  
37079 Goettingen  
Phone +49 551 308 0

**USA**

Sartorius Stedim North America Inc.  
565 Johnson Avenue  
Bohemia, NY 11716  
Toll-Free +1 800 368 7178



**For more information, visit**  
[sartorius.com](https://www.sartorius.com)