



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.

The most reliable sterile venting device

The 0.2 µm single-layer hydrophobic PTFE membrane offers superior moisture repellence and the highest 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

Sartofluor®

Available Sizes	Filtration Area [m ² ft ²]	Max. Diffusion @ 0.7bar 10.2 psi [ml/min]	Min. Bubble Point [bar psi]
Cartridges GA			
Size 0	0.375 4.05	6.0	1.0 14.5
Size 1	0.75 8.1	11.0	1.0 14.5
Size 2	1.5 16.1	22.0	1.0 14.5
Size 3	2.25 24.2	33.0	1.0 14.5
Cartridges LG			
Size 1	0.5 5.4	7.0	1.0 14.5
Size 2	1.0 10.8	14.0	1.0 14.5
Size 3	1.5 16.1	21.0	1.0 14.5
Mini Cartridges			
Size 7	0.05 0.54	2.0	1.0 14.5
Size 8	0.1 1.1	3.0	1.0 14.5
Size 9	0.2 2.2	4.0	1.0 14.5
Junior			
Size 7	0.05 0.54	2.0	1.0 14.5
MaxiCaps®			
Size 1	0.5 5.4	7.0	1.0 14.5
Size 2	1.0 10.8	14.0	1.0 14.5
MidiCaps®			
Size 7	0.05 0.54	2.0	1.0 14.5
Size 8	0.1 1.1	3.0	1.0 14.5
Size 9	0.2 2.2	4.0	1.0 14.5
Size 0	0.45 4.8	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: 1000054589

Extractable Guide: SPK5749-e

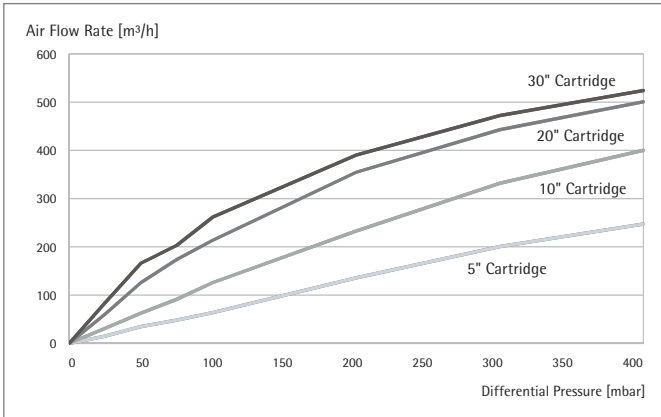


Performance

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

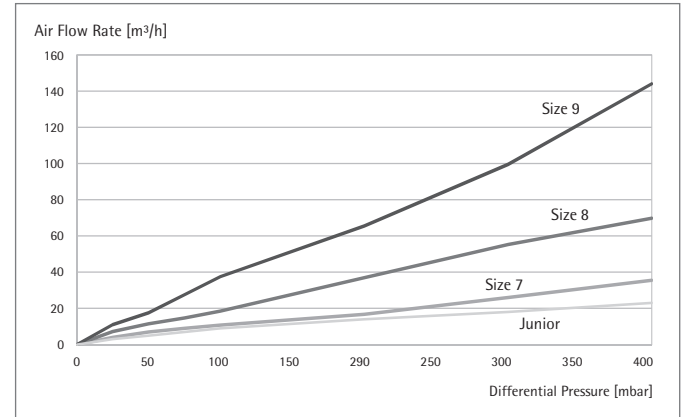
Cartridges GA

Under atmospheric pressure conditions



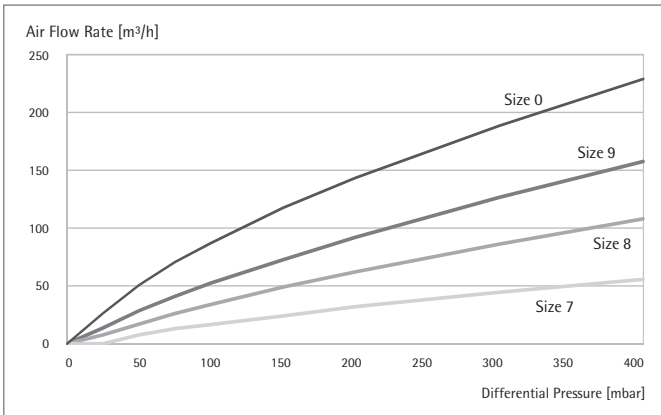
Mini Cartridges

Under atmospheric pressure conditions



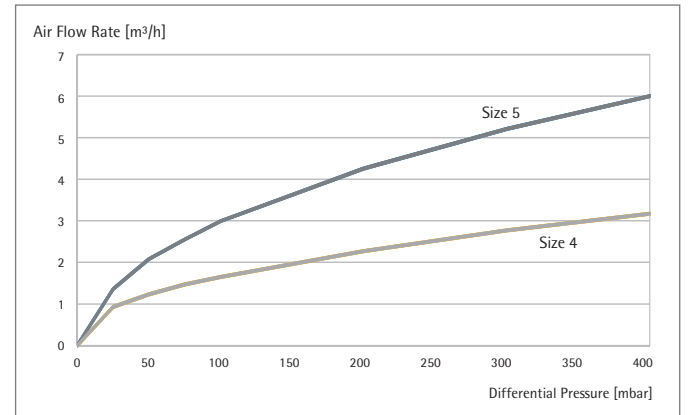
MidiCaps®

Valid for SS-Connector



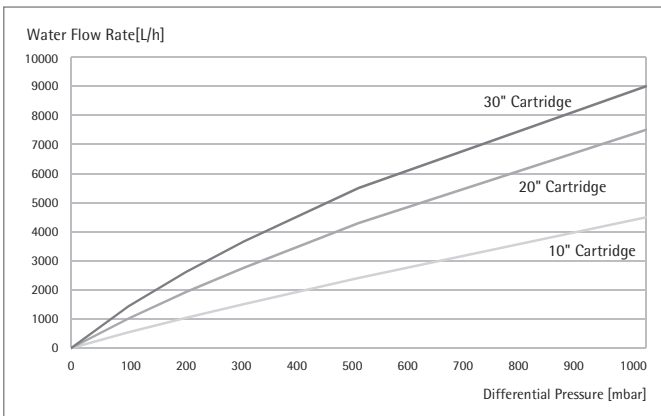
Capsules

Valid for OO-Connector

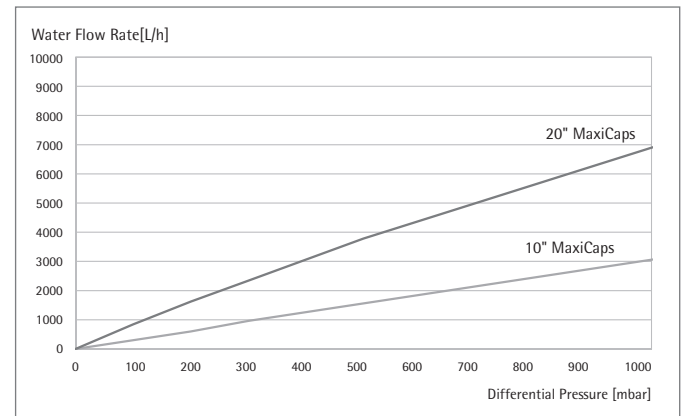


Liquid Flow Rates for Sartofluor® Cartridges LG | MaxiCaps®

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

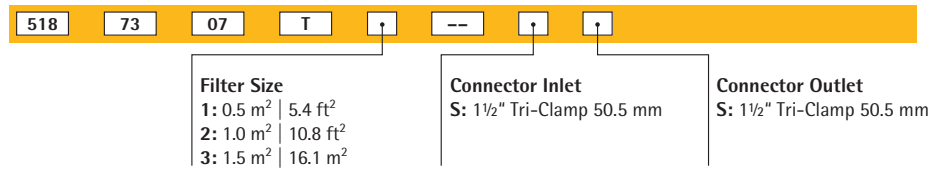


Junior

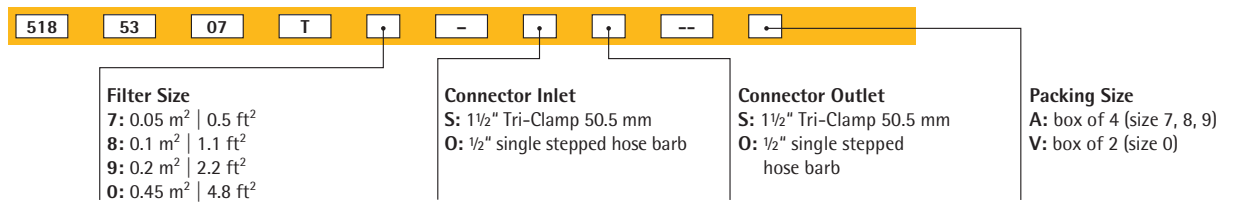
518 14 07 T 7 - - - B



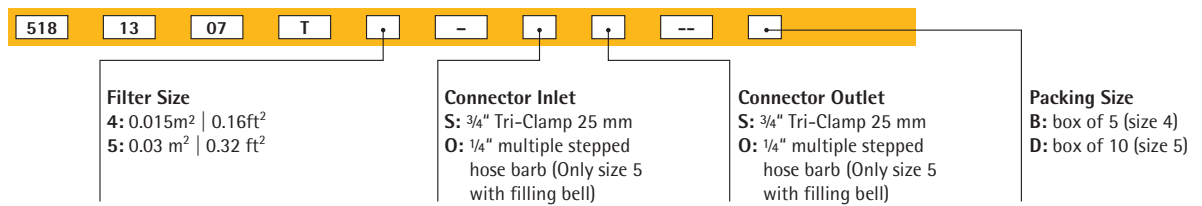
MaxiCaps®



MidiCaps®



Capsules



Check the availability of your desired configuration with your Sartorius sales representative or online at:



www.sartorius-stedim.com

Sales and Service Contacts

For further contacts, visit www.sartorius-stedim.com

Europe

Germany

Sartorius Stedim Biotech GmbH
August-Spindler-Strasse 11
37079 Goettingen
Phone +49.551.308.0

Sartorius Stedim Systems GmbH
Robert-Bosch-Strasse 5-7
34302 Guxhagen
Phone +49.5665.407.0

France

Sartorius Stedim FMT S.A.S.
ZI des Paluds
Avenue de Jouques - CS 91051
13781 Aubagne Cedex
Phone +33.442.845600

Sartorius Stedim France SAS
ZI des Paluds
Avenue de Jouques - CS 71058
13781 Aubagne Cedex
Phone +33.442.845600

Austria

Sartorius Stedim Austria GmbH
Modecenterstrasse 22
1030 Vienna
Phone +43.1.7965763.18

Belgium

Sartorius Stedim Belgium N.V.
Rue Colonel Bourg 105
1030 Bruxelles
Phone +32.2.756.06.80

Hungary

Sartorius Stedim Hungária Kft.
Kagyló u. 5
2092 Budakeszi
Phone +36.23.457.227

Italy

Sartorius Stedim Italy S.r.l.
Via dell'Antella, 76/A
50012 Antella-Bagno a Ripoli (FI)
Phone +39.055.63.40.41

Netherlands

Sartorius Stedim Netherlands B.V.
Phone +31.30.60.25.080
filtratie.nederland@sartorius-stedim.com

Poland

Sartorius Stedim Poland Sp. z o.o.
ul. Wrzesinska 70
62-025 Kostrzyn
Phone +48.61.647.38.40

Russian Federation

LLC "Sartorius Stedim RUS"
Vasilyevsky Island
5th line 70, Lit. A
199178 St. Petersburg
Phone +7.812.327.53.27

Spain

Sartorius Stedim Spain, S.A.U.
Avda. de la Industria, 32
Edificio PAYMA
28108 Alcobendas (Madrid)
Phone +34.913.586.098

Switzerland

Sartorius Stedim Switzerland AG
Ringstrasse 24 a
8317 Tagelswangen
Phone +41.52.354.36.36

U.K.

Sartorius Stedim UK Ltd.
Longmead Business Centre
Blenheim Road, Epsom
Surrey KT19 9 QQ
Phone +44.1372.737159

Ukraine

LLC "Sartorius Stedim RUS"
Post Box 440 "B"
01001 Kiev, Ukraine
Phone +380.44.411.4918

Americas

USA

Sartorius Stedim North America Inc.
5 Orville Drive, Suite 200
Bohemia, NY 11716
Toll-Free +1.800.368.7178

Argentina

Sartorius Argentina S.A.
Int. A. Ávalos 4251
B1605ECS Munro
Buenos Aires
Phone +54.11.4721.0505

Brazil

Sartorius do Brasil Ltda
Avenida Senador Vergueiro 2962
São Bernardo do Campo
CEP 09600-000 - SP- Brasil
Phone +55.11.4362.8900

Mexico

Sartorius de México, S.A. de C.V.
Libramiento Norte de Tepotzotlan s/n,
Colonia Barrio Tlacateco,
Municipio de Tepotzotlan,
Estado de México,
C.P. 54605
Phone +52.55.5562.1102
leadsmex@sartorius.com

Peru

Sartorius Peru S.A.C.
Avenue Alberto del Campo 411
Floor 12 - The Office
15076 - San Isidro, Lima
Phone +51.1.441 0158

Asia | Pacific

Australia

Sartorius Stedim Australia Pty. Ltd.
Unit 5, 7-11 Rodeo Drive
Dandenong South Vic 3175
Phone +61.3.8762.1800

China

Sartorius Stedim (Shanghai)
Trading Co., Ltd.
3rd Floor, North Wing, Tower 1
No. 4560 Jinke Road
Zhangjiang Hi-Tech Park
Pudong District
Shanghai 201210, P.R. China
Phone +86.21.6878.2300

Sartorius Stedim (Shanghai)
Trading Co., Ltd.
Beijing Branch Office
No. 33 Yu'an Road
Airport Industrial Park Zone B
Shunyi District, Beijing 101300
Phone +86.10.8042.6501

Sartorius Stedim (Shanghai)
Trading Co., Ltd.
Guangzhou Branch Office
Room 1105
Xing Guang Ying Jing Building
No. 119, Shui Yin Road
Yue Xiu District, Guangzhou 510075
Phone +86.20.3836.4193

India

Sartorius Stedim India Pvt. Ltd.
#69/2-69/3, NH 48, Jakkasandra
Nelamangala Tq
562 123 Bangalore, India
Phone +91.80.4350.5250

Japan

Sartorius Stedim Japan K.K.
4th Fl., Daiwa Shinagawa North Bldg.
8-11, Kita-Shinagawa 1-chome
Shinagawa-ku, Tokyo, 140-0001 Japan
Phone +81.3.4331.4300

Malaysia

Sartorius Stedim Malaysia Sdn. Bhd.
Lot L3-E-3B, Enterprise 4
Technology Park Malaysia
Bukit Jalil
57000 Kuala Lumpur, Malaysia
Phone +60.3.8996.0622

Singapore

Sartorius Stedim Singapore Pte. Ltd.
10 Science Park Rd
The Alpha #02-13/14
Singapore Science Park II
Singapore 117684
Phone +65.6872.3966

South Korea

Sartorius Korea Biotech Co., Ltd.
8th Floor, Solid Space B/D,
PanGyoYeok-Ro 220, Bundang-Gu
SeongNam-Si, GyeongGi-Do, 463-400
Phone +82.31.622.5700



▶ www.sartorius-stedim.com