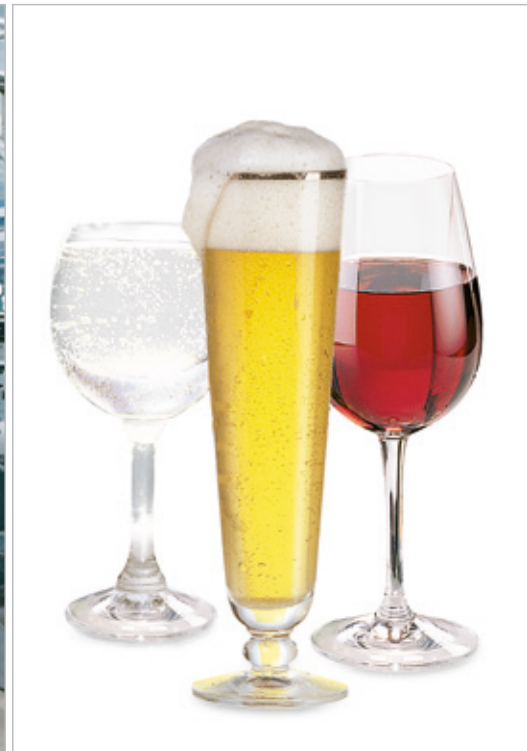




sartorius stedim
biotech

Standard and Jumbo Star Filter Cartridges for the Food & Beverage Industry



turning science into solutions

Filter Cartridges

Optimize your processes with our experience and product portfolio

Sartorius Stedim Biotech has decades of experience in providing the F&B sector with innovative products for the reliable and economical filtration of beverages. Sartorius Stedim Biotech is one of the leading manufacturers of filter cartridges in this sector. Its Plant 2001 is setting new quality standards worldwide.

We offer support for all filtration processes

To meet the needs of purification and filtration processes, Sartorius Stedim Biotech offers support that ranges from manual laboratory-scale filter systems with flow rates of 100 l/h to fully automated process-scale systems with flow rates higher than 100,000 l/h.

The broad range of products fulfills all these requirements to a T, focusing on the following:

- Wine | Sparkling wine
- Beer
- Water
- Alcohol
- Soft drinks
- Air | other gases

Developed Specifically for Food & Beverage Applications

Optimally designed filtration systems

The Sartorius Stedim Biotech array of products provides reliable and economical solutions for the entire field of filtration. The filter cartridges are available for the following applications:

- Prefiltration and clarification
- Prefiltration upstream of the final filtration
- Final filtration before filling

Sartorius Stedim Biotech supplies a wide variety of different combinations, enabling you to select the cartridge configuration that is best for your specific filtration equipment. This means that you can filter your beverages and be assured of their microbiological stability and minimized filtration costs.

Depth prefilter cartridges

Sartorius Stedim Biotech depth filters consist of different materials that are either spiral-wound or pleated around a core.

- Pleated polypropylene depth filter cartridges, which are made of heat-sealed polypropylene fibers, do not release any fibers even when the cartridges are exposed to mechanical stress during filtration.
- Pleated glass fiber depth filter systems; the efficiency of depth filtration is enhanced by the adsorptive effect of the glass fiber material. This increases the filtration effect particularly in media containing colloids.
- Pleated Jumbo filter cartridges for high-volume flow rates and maximum throughput.
- Stainless steel depth filters for steam filtration



Membrane prefilter cartridges

Sartorius Stedim Biotech membrane prefilter cartridges are made of a combination of nonwoven polypropylene glass fiber and membrane filter materials.

The advantage of this combination is its enhanced adsorptive effect to trap colloid impurities while achieving absolute retention of beverage-spoilage microorganisms.

This ensures maximum protection of downstream filter systems.

Final membrane filter cartridges

Sartorius Stedim Biotech final membrane filter cartridges are preferred wherever and whenever 100% retention ratings for beverage-spoilage microorganisms are essential. These membrane filters are generally used in the final filtration stage and installed directly upstream of the filling unit. They alternatively enable the sterile filtration of air or gases. Sartorius Stedim Biotech supplies the following membrane types that can be optimally combined for a wide variety of applications:

- Polyethersulfone (PESU)
- Cellulose acetate (CA)
- Polytetrafluoroethylene (PTFE)

Quality assurance ranging from the raw material to the finished product

During manufacture, all filter cartridges are required to pass strict quality control tests. These tests guarantee a consistently high level of quality throughout all stages, ranging from raw materials to final products.

Each and every membrane filter is integrity tested to assure its 100% integrity. Only filter cartridges that have passed these strict tests are approved for use in your applications.

Membrane filter cartridge integrity testing

You can easily check the integrity of all membrane filters with our testing systems. The membrane filters are usually integrity-tested before and after the filtration of each batch so that 100% reliable filling is guaranteed. The following test methods are available:

- Pressure-hold test for membrane filter cartridges designed for the filtration of liquids
- Water intrusion test (WIT) for hydrophobic air and gas filter cartridges

Applications and technical support

Whether you have a technical question regarding the specifications of our filter products or require assistance in filter selection, Sartorius Stedim Biotech is always there to assist you. Each one of our subsidiaries has a technical support department to provide the right solutions for your applications.

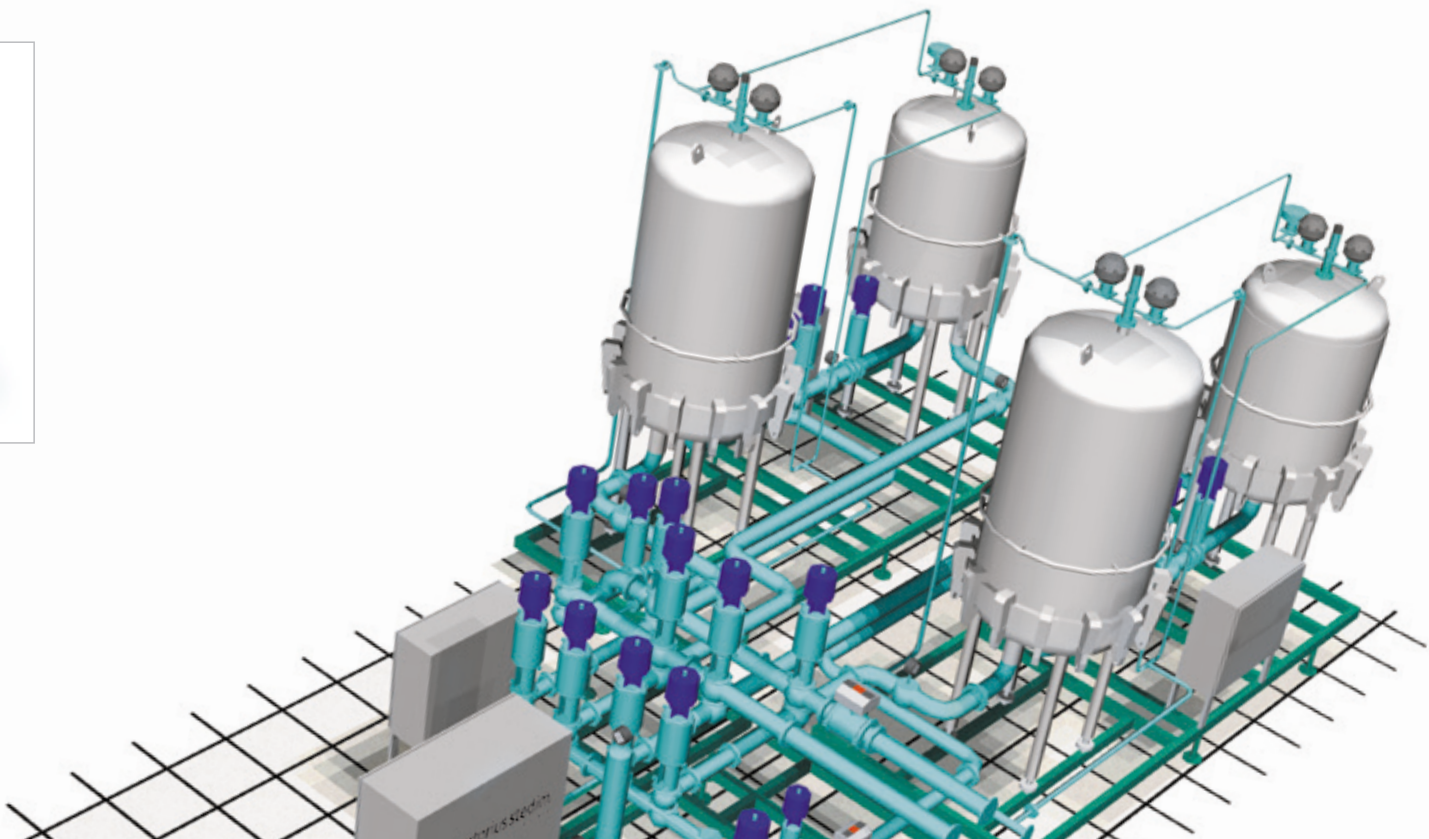
Training seminars

Sartorius Stedim Biotech offers a comprehensive training program to provide filter users with a better understanding of complex filtration technology.

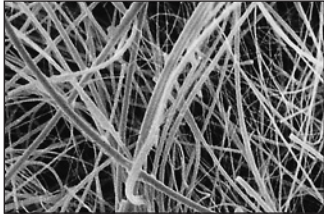
This seminar series covers topics including:

- General filtration technology
- Integrity testing
- Crossflow filtration and technology
- Process design
- Validation of filtration processes

These are available at your site for the training and continued education of personnel in your facility. For more information or immediate assistance, please contact your local Sartorius Stedim Biotech representative.



Sartopure® PP2



The prefilter cartridge with particle-removing depth filter material

Applications

Retention of particles; reduction of microorganisms by fractionized depth filtration

Cartridge construction

Protective nonwoven PP* layer
Nonwoven PP* depth filter layers
Nonwoven PP* drainage layer (heat-sealed, non-fiber-releasing)
Outer support, core and end caps: PP*
O-rings: silicone

Available retention ratings

50 µm	3 µm
20 µm	1.2 µm
8 µm	0.65 µm
5 µm	

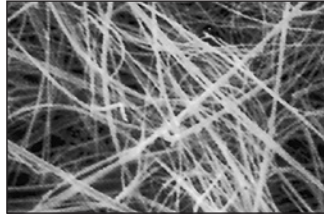
Adapter types**

21, 25, 27, 28

Available heights**

10", 20", 30", 40"

Sartopure® GF Plus



The depth filter cartridge with a charged, nonwoven prefilter for maximum protection

Applications

Retention of particles and colloids, reduction of microorganisms by fractionized depth filtration

Cartridge construction

Protective nonwoven PP* layer
Nonwoven glass fiber layers
Nonwoven PP* drainage layer (heat-sealed, non-fiber-releasing)
Outer support, core and end caps: PP*
O-rings: silicone

Available retention ratings

1.2 µm
0.65 µm

Adapter types**

21, 25, 27, 28

Available heights**

10", 20", 30", 40"

Sartofine®



The depth filter cartridge with a high retentive capacity for particles

Applications

Retention of particles and colloids; reduction of microorganisms by fractionized depth filtration

Cartridge construction

Nonwoven PP* depth filter layers with fractionized retention zones (heat-sealed, non-fiber-releasing)
Outer support, core and end caps: PP*
O-rings: silicone

Available retention ratings

40.0 µm	3.0 µm
20.0 µm	1.0 µm
10.0 µm	0.7 µm
5.0 µm	0.5 µm

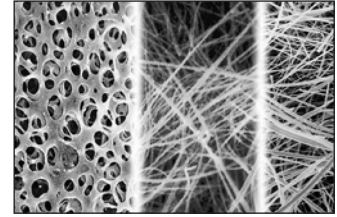
Adapter types**

00, 03, 05, 07, 08

Available heights**

10", 20", 30", 40"

Jumbo® Star



The large-area filter cartridge for easy handling and high flow rates

Applications

Retention of DE particles; reduction of colloids and bio-burden in water, wine and beer, alcohol production and venting of large tanks.

Cartridge construction

Pleated construction with filter areas up to 42 m². Pleats are made of polypropylene, glass fiber, zeta material and cellulose acetate.

Available retention ratings

0.2 µm to 20 µm

Adapter types**

40

Available heights**

10", 20", 30", 40"

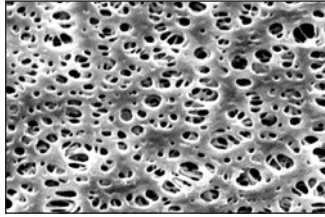
Basic order number

Refer to Jumbo® Star product information

* PP = polypropylene

**Standard versions are underlined and in bold-face type

Sartocool PS



The high-performance membrane cartridge for cold sterilization of beer

Applications

Retention of yeast and beerspoilage bacteria

Cartridge construction

Protective nonwoven PP* layer
Polyethersulfone membrane
Nonwoven PP* drainage layer
Outer support, core and end caps: PP**
O-rings: silicone

Available pore size

0.45 µm
0.65 µm

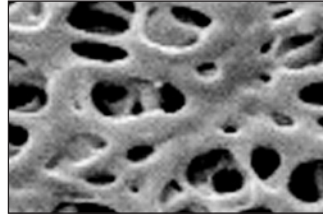
Adapter types **

21, 25, 27, 28

Available heights**

10", 20", 30", 40"

Vinosart® PS



The high-performance membrane filter cartridge for wine and sparkling wine filtration

Applications

Specially developed for the retention of microorganisms, particles and colloids in all types of wine and sparkling wine.

Cartridge construction

Protective nonwoven PP* layer
Single-layer PESU membrane
Nonwoven PP* drainage layer
Outer support, core and end caps: PP*
O-rings: silicone

Available pore sizes

0.45 µm
0.65 µm

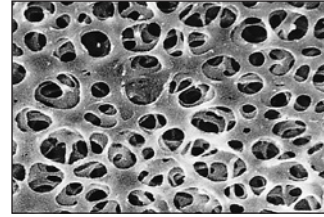
Adapter types**

21, 25, 27, 28

Available heights**

10", 20", 30", 40"

Sartobev PS



The classic membrane filter cartridge for filtration of wine and sparkling wine

Applications

For the retention of microorganisms, particles and colloids in all types of wine and water

Cartridge construction

Protective nonwoven PP* layer
PES membrane
Nonwoven PP* drainage layer
Outer support, core and end caps: PP*
O-rings: silicone

Available pore sizes

0.65 µm
1.00 µm

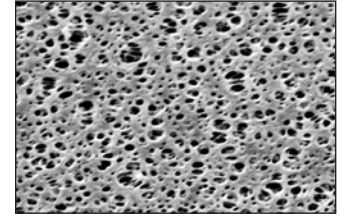
Adapter types**

21, 25, 27, 28

Available heights**

10", 20", 30", 40"

Aquasart PS



The high-performance membrane filter cartridge for water filtration

Applications

Retention of small particles and colloids present in mineral water | process water

Cartridge construction

Protective nonwoven PP* layer
Polyethersulfone membrane
Nonwoven PP* drainage layer
Outer support, core and end caps: PP*
O-rings: silicone

Available pore size

0.2 µm

Adapter types**

21, 25, 27, 28

Available heights**

10", 20", 30", 40"

* PP = polypropylene

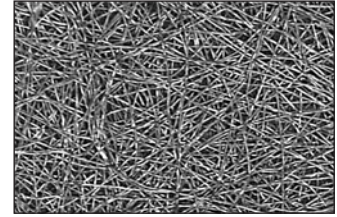
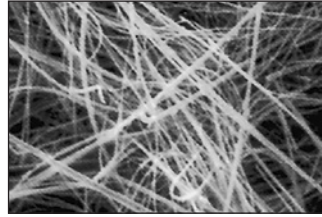
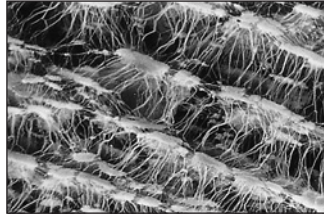
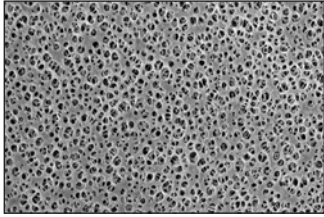
**Standard versions are underlined and in bold-face type

Aquasart Plus

Aerosart

Sartopure GA

Sartosteel



The innovative membrane filter cartridge for liquids to guarantee the lowest filtration costs

Applications

Final filtration of non-carbonated mineral water as well as near-water beverages

Cartridge construction

Protective nonwoven PP* layer
Double layer Polyethersulfone
Nonwoven PP* drainage layer
Outer support, core and end caps: PP*
O-rings: silicone

Available pore size

0.2 µm

Adapter types**

21, 25, 27, **28**

Available heights**

10", 20", 30", 40"

The hydrophobic PTFE membrane filter cartridge

Applications

Sterile venting of tanks
Sterile filtration of air
Sterile filtration of gases
Sterile filtration at fermenter and bioreactor inlets and outlets
Sterile filtration of aggressive media and solvents (LG)

Cartridge construction

Protective nonwoven PP* layer
PTFE membrane
Nonwoven PP* drainage layer
Outer support, core and end caps: PP*
O-rings: silicone
Optional: EPDM, Fluoroelastomer

Available pore sizes

0.2 µm

Adapter types**

25, 27, **28**

Filtration areas

0.75 m² per 10" element

The special prefilter cartridge for tank venting

Applications

For venting tanks and containers in applications that do not necessarily require an integrity testable filter.

Cartridge construction

Protective nonwoven PP* layer
Hydrophobic nonwoven glass fiber layers
Nonwoven PP*
Outer support, core and end caps: PP*
O-rings: silicone

Available retention ratings

0.2 µm for gases

Adapter types**

21, 25, 27, **28**

Available heights**

10", 20", 30", 40"

Stainless steel filter cartridge for filtration of steam

Applications

For the removal of particles from steam and gases.

Cartridge construction

Sintered nonwoven stainless steel media: AISI 316L
Reinforced on both sides with sintered-on mesh support: AISI 316L
Core and outer support: AISI 316L
O-rings: silicone

Available pore size

3 µm

Adapter types**

21, 25, 27, **28**
















































































Available heights**

10", 20", 30"

* PP = polypropylene

**Standard versions are underlined and in bold-face type

Ordering Information

Cartridge	Adapter type ()	Pore size [µm]	Height 2 (20")	Height 3 (30")	Height 4 (40")
Pre- and depth filters					
Sartopure PP2	21, 25, 27, 28	50.0	559  50P2	559  50P3	559  50P4
		20.0	559  20P2	559  20P3	559  20P4
		8.0	559  01P2	559  01P3	559  01P4
		5.0	559  42P2	559  42P3	559  42P4
		3.0	559  02P2	559  02P3	559  02P4
		1.2	559  03P2	559  03P3	559  03P4
		0.65	559  05P2	559  05P3	559  05P4
		Sartopure GF Plus	21, 25, 27, 28	1.2	555  03P2
0.65	555  05P2			555  05P3	555  05P4
Sartopure GA	21, 25, 27, 28	0.2	559  07P2----GA		
Sartofine	00, 03, 05, 08	40.0	558  40W2	558  40W3	558  40W4
		20.0	558  20W2	558  20W3	558  20W4
		10.0	558  10W2	558  10W3	558  10W4
		5.0	558  42W2	558  42W3	558  42W4
		3.0	558  02W2	558  02W3	558  02W4
		1.0	558  03W2	558  03W3	558  03W4
		0.7	558  05W2	558  05W3	558  05W4
		0.5	558  06W2	558  06W3	558  06W4
Jumbo® Star	Refer to the Jumbo Star product information brochure, Order number SGJ1502-e				
Sartosteel	21, 25, 27, 28	3.0	570  02S2	570  02S3	
Membrane prefilters					
Vinosart PS	21, 25, 27, 28	0.45	542  06A2	542  06A3	542  06A4
		0.65	542  05A2	542  05A3	542  05A4
Sartocool PS	21, 25, 27, 28	0.45	530  06A2	530  06A3	530  06A4
		0.65	530  05A2	530  05A3	530  05A4
Aquasart PS	21, 25, 27, 28	0.2	541  07A2	541  07A3	541  07A4
Aquasart Plus	21, 25, 27, 28	0.2	538  07H2	538  07H3	538  07H4
Sartobev PS	21, 25, 27, 28	1.00	531  24A2	531  24A3	531  24A4
		0.65	531  05A2	531  05A3	531  05A4
Aerosart	25, 27, 28	0.2	515  07T2---E--C	515  07T3---E--C	

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