



Custom Engineered
Filtration Solutions

Simplifying Progress

SARTORIUS

Introduction to the Custom Engineered Filtration Solutions

These custom engineered filtration solutions are based on cartridge filtration technology and have been designed to ensure the removal of beverage specific micro-organisms and other contaminants by microfiltration. The careful selection of filters from pre- to final filtration guarantee optimal filtration flow and performance for production lines.

These systems are typically used for end filtration processes before bottling or BIB (Bag-In-Box) lines.

- Equipped with two or three filter stages and a pump.
- Fully adaptable to customer production processes & product characteristics.
- Intended for the bottling of beverages including beer, wine, sparkling wine, spirits, water and soft drinks.



Beverage Filtration

Segments: Wines, sparkling wines, flavoured wines, beer, water and soft drinks

Applications: Clarification, filtration, microorganisms retention

For: BIB (Bag In Box) & bottling

Benefits of the Custom Engineered Filtration Solutions

- **Process optimization**
No wine oxidation with a completely closed filtration system. Filtration for 1, 2 or 3 stages.
- **Repeatability**
Reliable bottling and optimization of wine production with integrity checking of final membrane filters.
- **Savings**
Longer cartridge life time with individual cleaning of each filtration stage. Limited water loss during sterilization step through the option of water recovery loop when connected to the CIP system.
- **Efficiency and safety**
Total process control with temperature and pressure sensors. Water leak valve and fully drainable skids by gas ensure no water comes into contact with the filtered beverage bottling processes. Sampling valve to check the beverage quality & filtration performances before bottling.



	Manual	Semi-Automated	Fully Automated
Customizable design	■	■	■
Control of production speed (coupled with a filling group)	■	■	■
Selection of filtration stages	■	■	■
Integrated pump for stand-alone system	■	■	■
Security valves (Manual)	■	■	
Security valves (Automated)			■
Basic control panel	■		
Advanced control panel with touch screen interface		■ (7")	■ (12")
Automated cleaning cycles (50°C)			■
Manual cleaning cycles (50°C)	■	■	
Automated sterilization cycles (90°C)		■	■
CIP Connection		<input type="checkbox"/> (basic)	<input type="checkbox"/> (advanced)
Kit for dosing oenological adjuvants	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Filter integrity test & report		<input type="checkbox"/>	■
Sterilization report (print or electronic)		■	■
Automated venting on housing			■
Re-injection of first liters of produced wine			■

■ included optional

Our Portfolio of Custom Engineered Filtration Solutions

The portfolio is composed of three ranges:

- Manual Solutions
- Semi Automated Solutions
- Fully Automated Solutions



Manual Filtration Solutions

- Customizable design to integrate complex environments and overcome user constraints.
- Applications requiring adjustment flexibility in running processes.
- Low initial capital investment.

Available models

- Single filtration line
- Twin filtration lines



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Applications: Clarification, filtration, microorganisms retention

For: BIB (Bag In Box) & bottling

Labor

Investment

Automation

Security

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Semi-Automated Filtration Solutions

- Customizable design to integrate complex environments and overcome user constraints.
- Gain in productivity and automated traceability with semi automated sterilization cycles.
- Limit water consumption with controlled processes.

Available models

- Single filtration line
- Twin filtration lines



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Labor	██
Investment	████████████████████████████████████
Automation	████████████████████████████████
Security	████████████████████████████████

Semi-Automated Filtration Solutions

- **Limit water usage**
time controlled rinsing & cleaning (20°C & 50°C)
& optimized flow control at all process steps
- **Protect cartridge life time**
temperature controlled cleaning (50°C)
- **Gain in productivity**
automated sterilization cycles (90°C) with time and temperature control
- **Traceability**
automated sterility report and optional integrity test report



CIP System for Semi-Automated Filtration Solutions (Optional)

Add control & robustness to your system:

- Filters incoming water ensuring protection for downstream systems.
- Ensures temperature and flow control throughout the cleaning and sterilization processes.
- Enables chemical cleaning and disinfection.
- Can cover both filtration and filling system needs.

Sustainability:

- Reduce energy consumption with timed filling of atmospheric tank during off-peak hours.
- Recover heat kcal for cleaning cycles at 50°C with heat exchanger technology.
- Limit water usage by recovering it from the sterilization process.

Available in 1500, 2000, 2500 L

- Stand-alone solution
- Electric resistors for heating



Options

- Kcal recovery kit
- Water recovery kit
- Chemical cleaning kit

Fully Automated Filtration Solutions

- Maximize productivity efficiency with autonomous operational activity.
- Secure your production with complete automated monitoring of your process.
- Easily and quickly optimize process to save on production costs.
- Customizable design to integrate complex environments and overcome user constraints.

Available models

- Single filtration line
- Twin filtration lines



Beverage Filtration

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Labor

Investment

Automation

Security



Fully Automated Filtration Solutions

- **Peace of mind**
a complete automated process enables you to rely on the process monitoring parameters to assure optimized production.
- **Full Traceability**
a data recorder provides knowledge of process conditions and process transparency.
- **Security**
comprehensive monitoring with electronic sensors, motorized valves and data software provide advanced process control.



Sartorius Stedim Biotech Skid 1077-11

Result of the integrity test of the final filter

Date:	22/03/2019
Start:	13:17:57
End:	13:32:54
Cartridge type:	0.65 μ
Test pres.:	1000 mb
Stabilisation:	5 min
Pres. start test:	1000 mB
Test duration:	10 min
End test pres.:	992 mB

Pressure drop:	
Accept. Limits:	83 mB
Meas. Value:	8 mB
Result:	Conform

◀ IT result on paper ticket

CIP System for Fully Automated Filtration Solutions (Optional)

Add control & robustness to your system:

- Filters incoming water ensuring protection for downstream systems.
- Ensures temperature and flow control throughout the cleaning and sterilization processes.
- Enables chemical cleaning and disinfection.
- Can cover both filtration and filling system needs.

Sustainability:

- Reduce energy consumption with timed filling of atmospheric tank during off-peak hours.
- Recover heat kcal for cleaning cycles at 50°C with heat exchanger technology.
- Limit water usage by recovering it from the sterilization process.

Available in 1500, 2000, 2500, and 3500 L

- Stand-alone solution
- Electric resistors for heating

CIP system is piloted from PLC of fully automated filtration system – providing fully automated CIP services



Options

- Kcal recovery kit
- Water recovery kit
- Chemical cleaning kit

CIP System
Fully Automated Filtration Solutions

Filter Cartridges

Prefiltration Step with Sartopure® IND

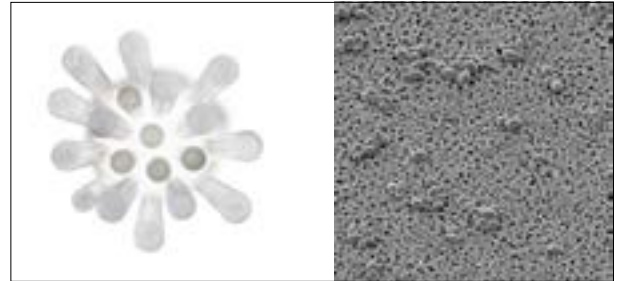
0.45 µm, 0.65 µm, 1.2 µm, 3 µm, 5 µm, 8 µm,
20 µm and 50 µm



1 standard 30" cartridge for 15 HI/hr

Final Filtration for Yeast and Bacterial Retention with either

- 1 µm and 0.65 µm Sartobev®
- 0.65 µm and 0.45 µm Sartocool® or
- 0.65 µm and 0.45 µm Vinosart® PS



1 standard 30" cartridge for 15 HI/hr



See attached files

Datasheet Sartobev PS

Datasheet Sartocool PS

Datasheet Sartocool PS 065

Datasheet Sartopure IND

Datasheet Vinosart PS

Global Presence

Sartorius Stedim Biotech has a worldwide presence, with manufacturing, sales and R&D sites in more than 20 countries in Europe, North America and Asia. More than 10,000 employees across the globe focus on single-use technologies and added-value services to meet the rapidly changing technology requirements of the industry it serves.

Sartorius Stedim Biotech has several decades of experience on the wine market, for which we have developed a range of specific products, adapted to the clarification, filtration and microbiological control steps. Our manufacturing sites of filter cartridges are certified ISO 90001:2015.

Benefit from Sartorius' expertise and experience to obtain the best quality and throughput rates in your production and filling processes.



For More Information, Visit
www.sartorius.com/food-and-beverage

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