

Industrial Filtration Skid Systems





Introduction to the Industrial Filtration Skids

These industrial skids 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 Industrial Filtration Skids

- **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		• (basic)	• (advanced)
Kit for dosing oenological adjuvants	•	•	•
Filter integrity test & report		•	•
Sterilization report (print or electronic)		•	•
Automated venting on housing			•
Re-injection of first liters of produced wine			•

• included • = optional



Our Portfolio of Industrial Filtration Skids

The portfolio is composed of three ranges:

- Manual Solutions
- Semi Automated Solutions
- Fully Automated Solutions





Semi-Automated Industrial Filtration System

- 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

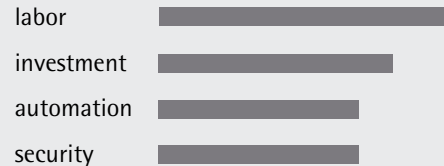


Beverage Filtration

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CIP System
Semi-Automated Industrial System

Semi-Automated Industrial Filtration System

- **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 Industrial System (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 Industrial Filtration System

- 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

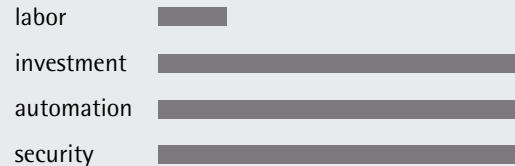


Beverage Filtration

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CIP System
Fully Automated Industrial System

Fully Automated Industrial Filtration System

- **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
Fully Automated Industrial System



CIP System for Fully Automated Industrial System (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.
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CIP system is piloted from PLC of fully automated filtration skid system – providing fully automated CIP services



Options

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

Description and Applications

Manual Industrial System

Semi-Automated Industrial System

Fully Automated Industrial System

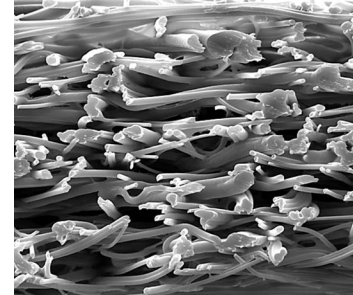
Filter Cartridges

Our Profile

Filter Cartridges

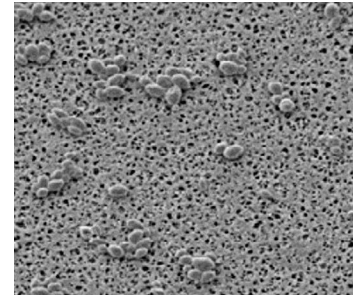
Prefiltration Step with Sartopure® IND

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



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

Data_SartobevPS_SGK2011-e
Data_SartocoolPS_SGK2001-e
Data_SartopureIND_SGK2006-e
Data_VinosartPS_SGK2005-e

Description and Applications

Manual Industrial System

Semi-Automated Industrial System

Fully Automated Industrial System

Filter Cartridges

Our Profile

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 8,125 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, please visit our website:
www.sartorius.com/food-and-beverage



Contact us

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
Mödecenterstrasse 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

Africa

Republic of South Africa

Sartorius South Africa (Pty) Ltd
Unit 4, Alphen Square South
853 16th Road
Midrand 1685, RSA
Phone +27.11.315.5444

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. AVALOS 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 Tepetzotlan s/n,
Colonia Barrio Tlacateco,
Municipio de Tepetzotlan,
Estado de México,
C.P. 54605
Phone +52.55.5562.1102
leadsmex@sartorius.com

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.
8-1-1, 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