



Get the Best Out of  
Your Quality Control -  
Beverage Testing Smart and Simple  
Solutions for Quality Control from  
Start to Finish

Simplifying Progress

**SARTORIUS**



## Efficient Quality Control for the Best of Brews

Quality Control solutions by Sartorius help you focus on consumer safety and your own unique taste. Because taste is key.

### Spoilage Detection

Despite beer's intrinsic antimicrobial properties and having a Hazard Analysis and Critical Control Point (HACCP) system in place, contamination can still occur at many stages of your brewing process. The main contaminants include: *Lactobacillus brevis*, *Lactobacillus lindneri* and *Pediococcus damnosus*, as well as molds, wild strain yeasts and *Saccharomyces* species, all of which can survive hostile conditions.

### Product Highlight:

Nutrient Pad Sets\*



An attractive alternative to agar plates for time-saving microbiological quality control of water and brewery samples.

### Water Testing

Although cities routinely perform microbiological and chemical water monitoring, contamination of the water used in breweries, can occur during the production process affecting the quality and flavor of your beer, so regular testing of water supplies, piping, tubing | gaskets and water from external wells is essential.

### Product Highlight:

Microsart® Manifold\*



Daily microbiological procedures are facilitated. Choice of different sizes.

### Analytical QC

To ensure your beer meets the highest quality standards, you need to perform quality control with analytical testing, on your incoming raw ingredients, during intermediate production steps, as well as before final release.

To run any analytical or sensory tests, you need the right tools for sample preparation, such as pipettes, laboratory balances, ultrapure water, syringe filters, and filter papers.

### Product Highlight:

Filter Papers\*



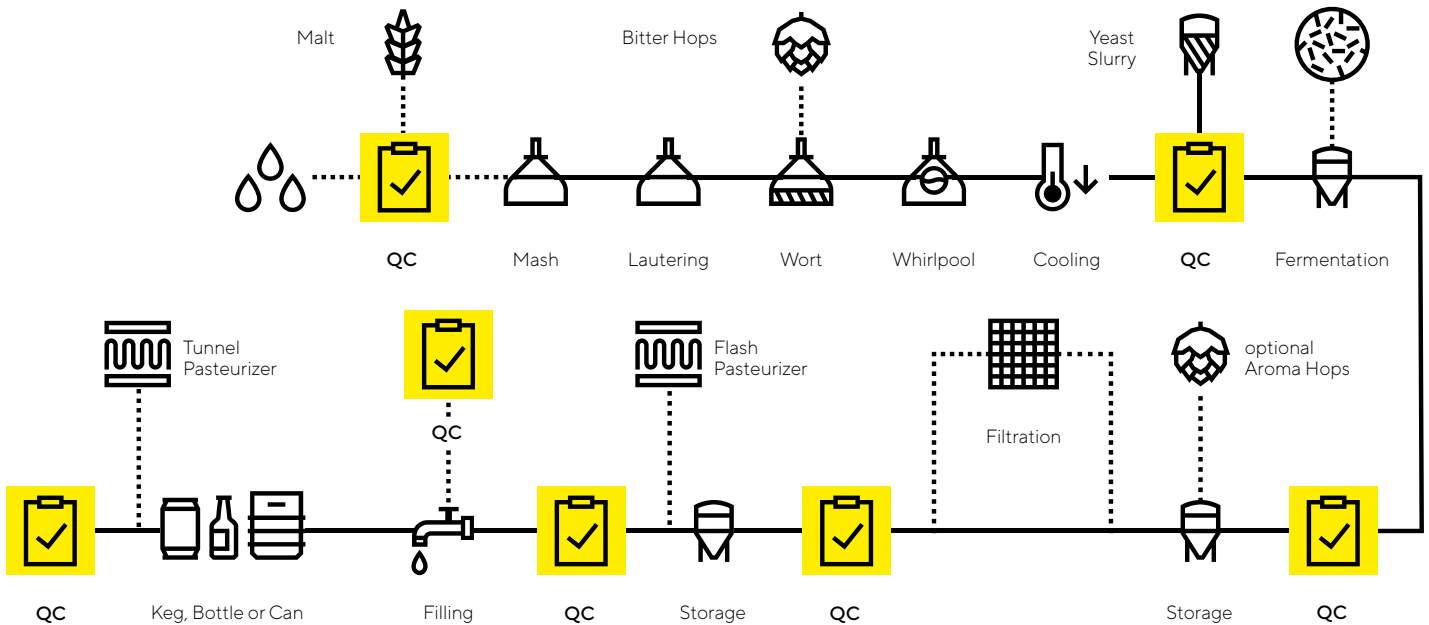
For a filtration step prior to the testing procedure to pre-process the sample and to remove yeast cells after fermentation.

 Find out more

For more information, please visit [www.sartorius.com/beer-qc](http://www.sartorius.com/beer-qc)

# Flow Chart of Your Beer Process

At each QC point Sartorius offers applications and solutions for testing during your brewing process



This workflow may not exactly represent your brewery workflow, however it generalizes the QC checkpoints.

## Moisture Determination

Knowing the moisture of your materials will prevent decline in quality during storage and optimize the extraction process.

Additionally, to get the maximum from your brewing by-products, you can sell your spent grain as livestock feed or to a distillery. Testing moisture content is critical to avoid fungal contamination and to ensure you get the best price.

### Product Highlight:

Moisture Analyzer MA160\*



A flexible all-rounder offering fast and reliable moisture analysis for the widest variety of samples

## Check Weighing

Our balances are a great partner for quantity control during your filling process. Using the Check Weighing program with defined limits and visual aids means you can accurately control your actual contents or nominal gross weights. With the integrated temperature sensor or time controlled self-adjustment, the accuracy is guaranteed every time regardless of the conditions.

### Product Highlight:

Entris® II Laboratory Balance\*



Featuring isoCAL, LED touch technology and 12 built-in applications.

## Air Monitoring

Process hygiene is critical in beer production and knowing which microorganisms are present in your brewery is the first step to ensuring a contamination free operation. Introducing contaminants at any stage in your brewing process may cause changes in flavour and odor, as well as oxidation and spoilage, leading to poor quality beer, which may be unsafe to drink.

### Product Highlight:

MD8 Airport\*



A portable device to monitor microbiological air quality in the production area and at the filling line.

\* See an overview of all products on page 12 and 13.



## Where the Art of Good Wine Making Meets Quality Control

From vine to barrel, to bottle, to cellar – Sartorius’ dedicated Quality Control solutions for wine testing help you create the perfect vintage for generations to come.

### Spoilage Detection

Despite having a Hazard Analysis and Critical Control Point system (HACCP) in place, contamination can still occur at various stages of your wine production.

The main contaminants of wine include: *Lactobacillus*, *Oenococcus*, *Pediococcus*, *Acetobacter*, yeasts and molds. These microbes can affect the flavor, smell and mouthfeel of your wine and impact your reputation and brand.

### Moisture Determination

At the end of production, you can make the most out of your grape marc by recycling or selling as livestock, to a distillery or to a cosmetic manufacturer. Testing the moisture content of your grape marc is critical for preventing fungal contamination to ensure ensuring you are selling grape marc with a known moisture content.

### Product Highlight:

Nutrient Pad Sets\*



An attractive alternative to agar plates for time-saving microbiological quality control of water, wine and brewery samples.

### Product Highlight:

Microsart® Manifold\*



Daily microbiological procedures are facilitated. Choice of different sizes.

### Product Highlight:

Moisture Analyzer MA160\*



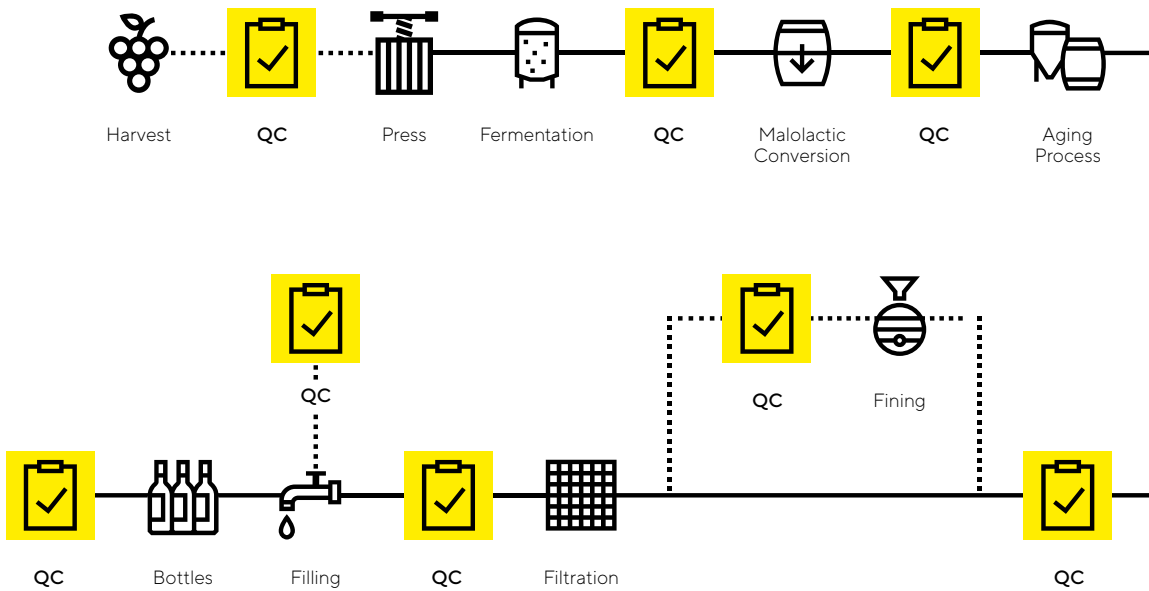
A budget-friendly model for users who require a fast, 100% reliable analyzer for recurring samples that is easy to operate.

 Find out more

For more information, please visit [www.sartorius.com/wine-qc](http://www.sartorius.com/wine-qc)

# Flow Chart of Your Wine Process

At each QC point Sartorius offers applications and solutions for testing during your vinification process



This workflow may not exactly represent your winery workflow, however it generalizes the QC checkpoints.

## Analytical QC

To make certain the quality and flavor of your wine meets your customer's high standards, you need to perform analytical quality control testing. To guarantee the high quality of your results you need the right tools for sample preparation, such as pipettes, laboratory balances, syringe filters, filter papers and water purification systems.

### Product Highlight:

Arium® mini UV\*



A compact ultrapure water system specially designed for labs with requirements up to 15 liters per day.

## Air Monitoring

When producing wine, knowing which microorganisms are present in your production environment is critical. Wine is most at risk of contamination when it is being decanted from the barrel into bottles, as sugar in the wine acts as a growth medium for many microorganisms present in ambient air. Microbial contamination will impact the shelf stability thereby, changing its flavor, odor & mouthfeel.

### Product Highlight:

MD8 Airport\*



A portable device to monitor microbiological air quality in the production area and at the filling line.

## Check Weighing

Accurately determining if your wine bottles are over or under-filled is a critical step in ensuring product quality and maintaining your brand's reputation with customers. Using the Check Weighing program means that with minimal training, your staff can control the weight of filled wine bottles accurately and cost-effectively.

### Product Highlight:

Entris® II Laboratory Balance\*



Featuring isoCAL, LED touch technology and 12 built-in applications.

\* See an overview of all products on page 12 and 13.





## High Throughput Quality Control Solutions for Bottled Water

Smart, ready-to-use Quality Control systems by Sartorius provide all you need to meet these requirements. Quick and convenient- for the purest water quality.

### Water Testing

Your bottled water must be of an appropriate purity standard for drinking water and microbial contamination can occur at your

water's source or during the treatment and bottling process. Therefore, regular, routine testing at any step of bottling, as well as source

water from external springs and wells, is crucial for maintaining your water's quality and safety.

### Product Highlight:

Biosart® 250 Funnel\*



Reusable funnel with a volume of 250mL, adapts to a cellulose nitrate membrane filter on the Microsart® Manifold.

### Product Highlight:

Microsart® Manifold\*



Daily microbiological procedures are facilitated. Choice of different sizes.

### Product Highlight:

Microsart® e.Motion Dispenser\*



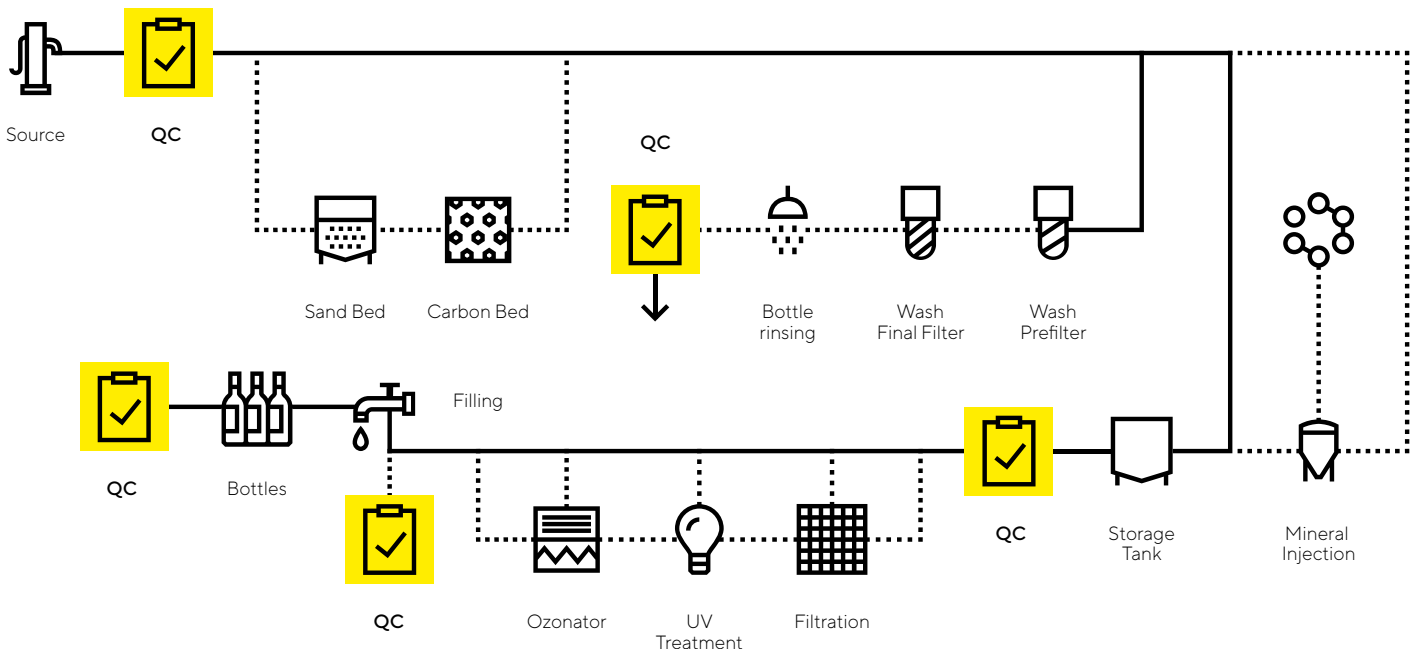
An automatic membrane filter dispensing either by touch of a button or hands-free.

 Find out more

For more information, please visit [www.sartorius.com/water-qc](http://www.sartorius.com/water-qc)

# Flow Chart of Your Water Process

At each QC point Sartorius offers applications and solutions for testing during your water bottling process



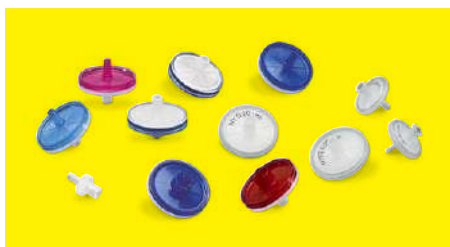
This workflow may not exactly represent your workflow in your bottled water manufacturing, however it generalizes the QC checkpoints.

## Analytical QC

To safeguard the quality of your bottled water, you have to perform analytical tests. To get the best results from your tests you need the best tools for sample preparation, such as pipettes, laboratory balances, syringe filters, filter papers and water purification systems.

### Product Highlight:

Minisart® Syringe Filters\*



Optimized for aqueous liquids and solvents and is compatible with DMSO, other amides, ketones, esters and ethers

## Air Monitoring

Hazard Analysis and Critical Control Point is essential when bottling water and knowing which microorganisms are present in your production area ensures a contamination free operation. Contamination can occur during your water treatment and bottle filling process, leading to microbes growing in the water, potentially making it unsafe to drink.

### Product Highlight:

MD8 Airport\*



A portable device to monitor microbiological air quality in the production area and at the filling line.

## Check Weighing

Our balances are a great partner for quantity control during your filling process. Using the Check Weighing program with defined limits and visual aids means you can accurately control your actual contents or nominal gross weights. With the integrated temperature sensor or time controlled self-adjustment, the accuracy is guaranteed every time regardless of the conditions.

### Product Highlight:

Cubis® II Premium Laboratory Balance\*



A completely configurable, high performance portfolio of lab balance hardware and software.

\* See an overview of all products on page 12 and 13



## Reliable Quality Control for Soft Drinks

Quality Control solutions by Sartorius help you to focus on consumer safety and to maintain product integrity.

### Water Testing

Alongside concentrates, flavors, syrups and phosphoric acid-, water is a key ingredient in producing your soft drinks. Therefore, the water you use must adhere to purity standards expected of drinking water as your customers expect their soft drinks to taste the same and be safe to drink the world over.

### Spoilage Detection

With higher levels of microbial nutrients, lower acidity and milder carbonation level, as well as less chemical preservatives, today's soft drinks are at risk of contamination and spoilage from a wider range of microorganisms than ever before. Microbial contaminants include beside yeasts and molds also, *Acetobacter*, *Alicyclobacillus*, *Bacillus*, *Clostridium*, *Gluconobacter*, *Lactobacillus*, *Leuconostoc*, *Saccharobacter*, *Zymobacter* and *Zymomonas*.

### Analytical QC

To safeguard the quality of your soft drinks, you have to perform analytical tests. To get the best results from your tests you need the best tools for sample preparation, such as pipettes, laboratory balances, syringe filters, filter papers and water purification systems.

### Product Highlight:

Microsart® e.Motion Dispenser\*



An automatic membrane filter dispensing either by touch of a button or hands-free.

### Product Highlight:

Microsart® Manifold\*



Daily microbiological procedures are facilitated. Choice of different sizes.

### Product Highlight:

Tacta® Pipettes\*

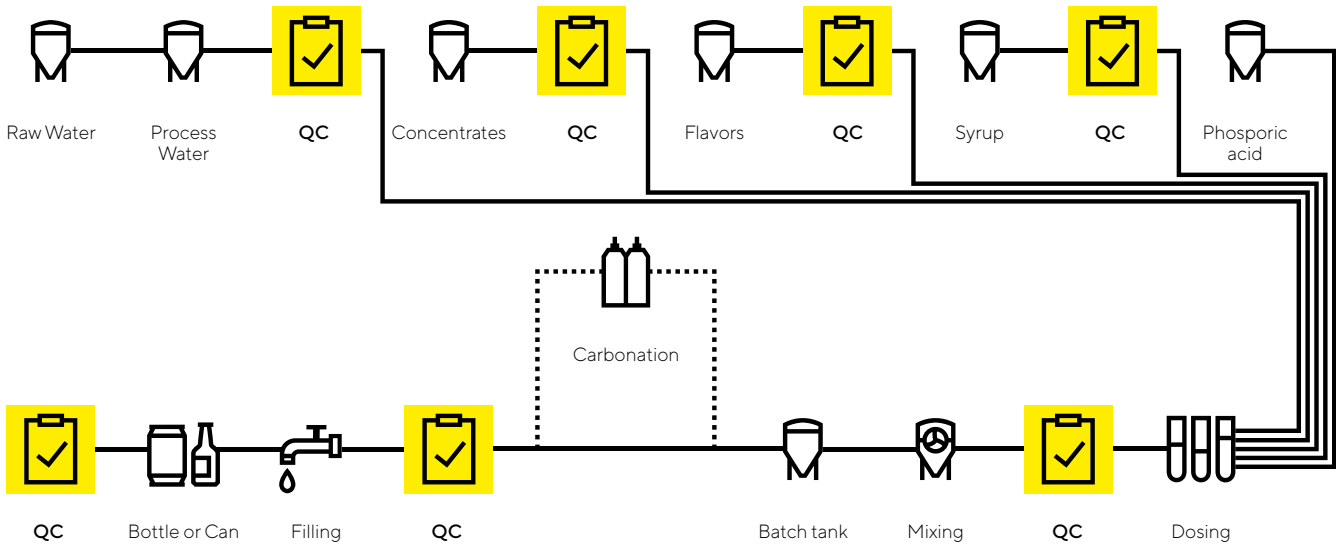


Superb comfort and incontestable reliability to achieve minimal variation throughout the working day.



# Flow Chart of Your Soft Drink Process

At each QC point Sartorius offers applications and solutions for testing during your manufacturing process



This workflow may not exactly represent your workflow in your soft drink manufacturing, however it generalizes the QC checkpoints.

## Air Monitoring

When producing your soft drinks, Hazard Analysis and Critical Control Point is critical as is knowing which microorganisms are present in your production environment. Your soft drinks are most at risk of contamination when bottles are open and being filled with soft drinks as sugar in the drinks acts as a growth medium for many microorganisms present in ambient air.

## Check Weighing

Our balances provide you with a reliable method to check the weight of your soft drink cans or bottles. Using the Check Weighing program with defined limits and weighing visual aids means, you can control your soft drink content or nominal gross weights accurately and cost-effectively.

## Product Highlight:

MD8 Airport\*



A portable device to monitor microbiological air quality in the production area and at the filling line.

## Product Highlight:

Cubis® II Premium Laboratory Balance\*



A completely configurable, high performance portfolio of lab balance hardware and software.

## Find out more

For more information, please visit [www.sartorius.com/softdrink-qc](http://www.sartorius.com/softdrink-qc)

\* See an overview of all products on page 12 and 13



## Quality Control Solutions for Spirit Distillation

Routine testing at different points in production is key; from raw materials, to production and proofing water through to ambient air in the bottling area. Trust your spirits with routine Quality Control testing from Sartorius.

### Water Testing

To prevent contamination to occur in your distillery, regular weekly testing of water supplies is recommended. Water is also added at the proofing stage of your spirit production to bring the spirit to the right alcohol by volume. The water quality must be of a purity standard appropriate for drinking water, or there is a risk of “floc haze” appearing after bottling due to chemical contaminants precipitating out or to a microbial biofilm.

### Product Highlight:

Microsart® Manifold\*



Daily microbiological procedures are facilitated. Choice of different sizes.

### Moisture Determination

To ensure the consistency and quality of your spirits, you need to have confidence in the quality of your raw materials. To do this, you must prevent fungal contamination in your raw materials by checking their moisture content before you start fermentation and distillation.

In case you sell your spent grain as livestock feed, testing its moisture content is critical to avoiding fungal contamination and making sure you get the best price.

### Product Highlight:

Moisture Analyzer MA160\*



A budget-friendly model for users who require a fast, 100% reliable analyzer for recurring samples that is easy to operate.

### Spoilage Detection

Despite the anti-microbial properties of spirits and having a Hazard Analysis and Critical Control Point system (HACCP) system in place, microbial contamination can occur before distillation and in your proofing water.

This can lead to the formation of floc or haze in your spirits, which can affect your shelf life stability and customer’s confidence in your brand.

### Product Highlight:

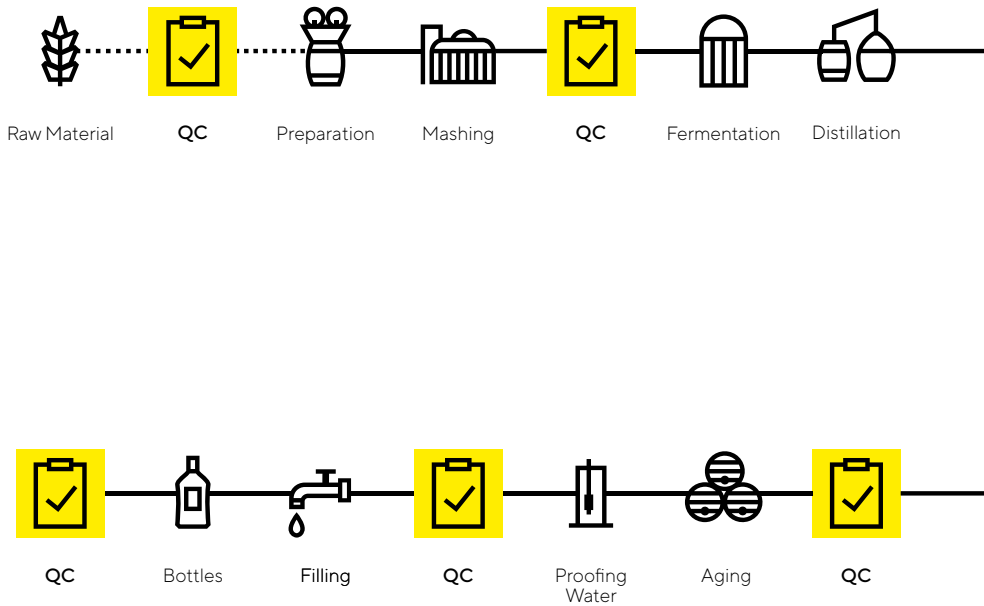
Biosart® 100 Monitors\*



Ready-to-use sterile filtration unit in 100ml volume. Combine a funnel, a lid, a filter base, a gridded membrane filter and a cellulose pad in one unit.

# Flow Chart of Your Spirit Distillation Process

At each QC point Sartorius offers applications and solutions for testing during your manufacturing process



This workflow may not exactly represent your distillery workflow, however it generalizes the QC checkpoints.

## Analytical QC

Analytical QC will help profiling your spirits to meet your customer's high standards. To guarantee the high quality of your results you need the right tools for sample preparation, such as pipettes, laboratory balances, syringe filters, filter papers and water purification systems.

## Check Weighing

To accurately determine if your spirit bottles are over or under-filled, is a critical step in ensuring product quality and maintaining your brand's reputation with customers.

Using the Check Weighing program means that with minimal training, your staff can control the weight of filled spirit bottles accurately and cost-effectively than you would using a built-in weighing system for your production line.

## Product Highlight:

Arium® mini UV\*



A compact ultrapure water system specially designed for labs with requirements up to 15 liters per day.

## Product Highlight:

Cubis® II Premium Laboratory Balance\*



A completely configurable, high performance portfolio of lab balance hardware and software.

## Find out more

For more information, please visit [www.sartorius.com/spirit-qc](http://www.sartorius.com/spirit-qc)

\* See an overview of all products on page 12 and 13.



# Product Overview

## High-quality Solutions for High-quality Beverages

Safety first: Whatever beverage you produce – beer, wine, bottled water, softdrinks, or spirits - you cannot afford to compromise on quality. Sartorius helps you meet the industry's growing challenges with ever-increasing levels of safety, process optimization and quality control as well as legislation demands. Easy-to-use, up-to-date, ready-to-go: We keep your business flowing.

Discover the variety of product solutions Sartorius offers for the applications in your quality control process.

### Air Monitoring

Category	Product
Air Monitoring	MD8 Airport

### Analytical QC

Category	Product
Water purification system	Arium® mini UV
Filter	Filter papers
Laboratory balance	Cubis® II
Laboratory balance	Quintix®
Bottle-top Dispenser	Prospenser
Pipette	Tacta®
Pipette Tips	Optifit tips
Syringe Filters	Minisart® syringe filters
Filtration system	Claristep®

### Check Weighing

Category	Product
Laboratory balance	Cubis® II
Laboratory balance	Quintix®
Laboratory balance	Entris® II

## Moisture Determination

Category	Product
Moisture analyzer	MA160
Moisture analyzer	MA37

## Spoilage Detection

Category	Product
Membrane filters	e.motion Dispenser Membrane filters
Automatic Membrane Dispenser	Microsart® e.motion Dispenser
Filtration Manifolds	Microsart® Manifolds
Liquid transfer pump	Microsart® e.jet pump
Reusable funnels	Biosart® 250 funnels
Single-Use funnels	Microsart® 250 funnels
Single Use Filtration Device	Microsart@filter
Dehydrated media pads	Nutrient Pad Sets (NPSs)
Monitors	Biosart® 100 Monitors
Nutrient Media Broth	Biosart® 100 Nutrient Media
Bottle-top Dispenser	Prospenser

## Water Testing

Category	Product
Membrane filters	e.motion Dispenser Membrane filters
Automatic Membrane Dispenser	Microsart® e.motion Dispenser
Filtration Manifolds	Microsart® Manifolds
Liquid transfer pump	Microsart® e.jet pump
Reusable funnels	Biosart® 250 funnels
Single-Use funnels	Microsart® 250 funnels
Single Use Filtration Device	Microsart@filter
Dehydrated media pads	Nutrient Pad Sets (NPSs)
Monitors	Biosart® 100 Monitors
Nutrient Media Broth	Biosart® 100 Nutrient Media
Bottle-top Dispenser	Prospenser Plus

### Find out more

For further information, please visit our respective beverages quality control webpages:

[www.sartorius.com/beer-qc](http://www.sartorius.com/beer-qc)

[www.sartorius.com/wine-qc](http://www.sartorius.com/wine-qc)

[www.sartorius.com/water-qc](http://www.sartorius.com/water-qc)

[www.sartorius.com/softdrink-qc](http://www.sartorius.com/softdrink-qc)

[www.sartorius.com/spirit-qc](http://www.sartorius.com/spirit-qc)





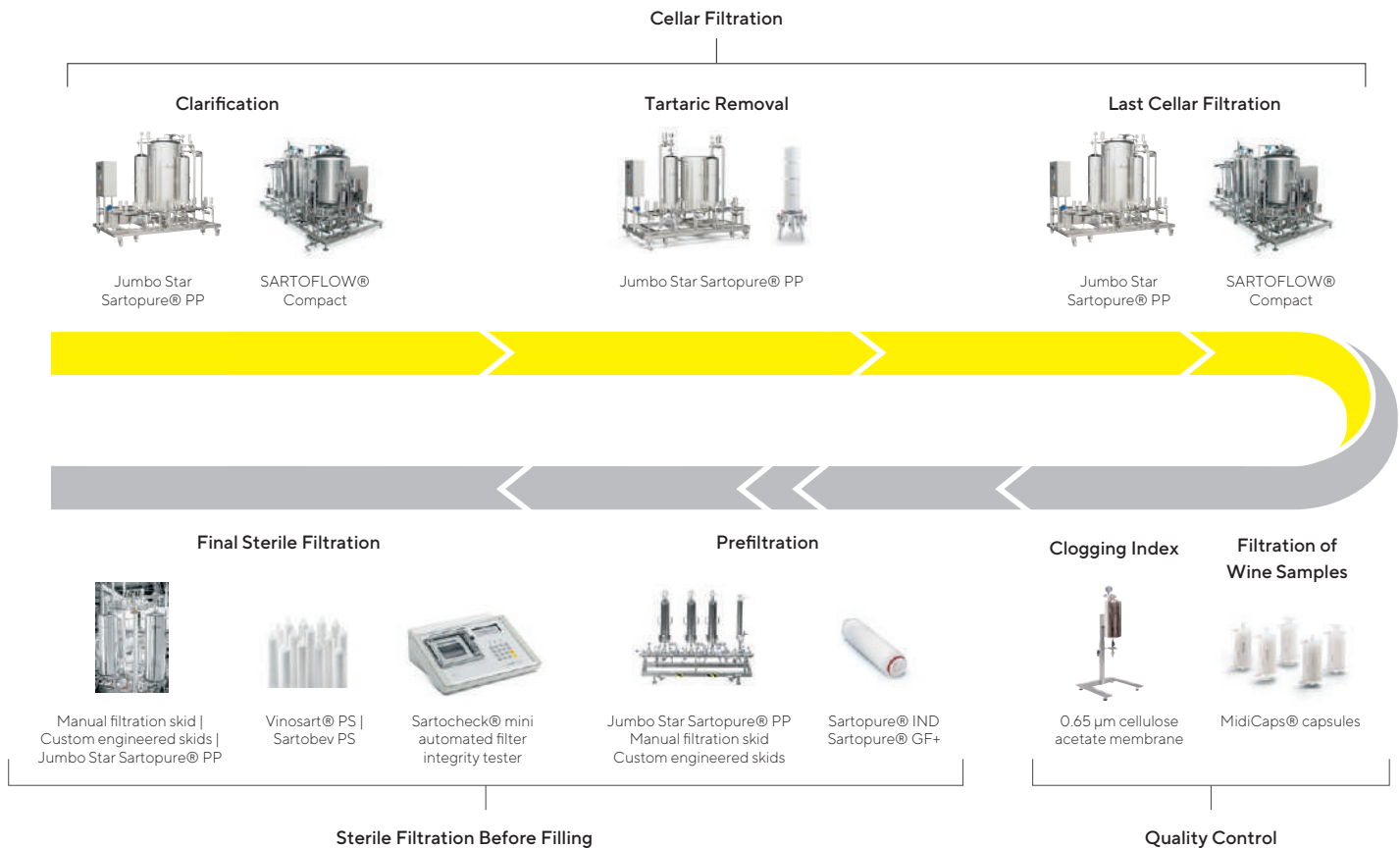
# Filtration of Beverages

Sartorius has several decades of experience in the beverage market and has developed a range of specific products, addressing the clarification, filtration and microbiological control steps along the differing beverage industry process chains, offering solutions from raw material to final finished product. Next to solutions for quality control Sartorius offers various equipment for the production process in your beverage environment.

## Wine Filtration for a Pure & Top Quality

We've designed our cartridges so that filtration doesn't affect the body, aroma or taste of your wines. Our sealed system excludes any contact with oxygen. You can clean, sterilize and re-use our cartridges several times, which helps keep costs down. You can use them for clarification to fine filtration right up to total retention of microorganisms if required. Each product provides high throughput with 100% error-free operation. Safe, reliable and accurate, the range's smart design combines manual and automated systems. Match and enhance your own wine-manufacturing expertise.

### Wine Production Process (Applications & Products)



### Why Use Our Filtration Consumables?

Specifically designed for wine, our dedicated product ranges provide an optimal solution for every filtration step all the way to final filtration.

They help preserve the organoleptic character of your wines, help you control and successfully repeat your processes.

### Product Highlight:

Vinosart® PS

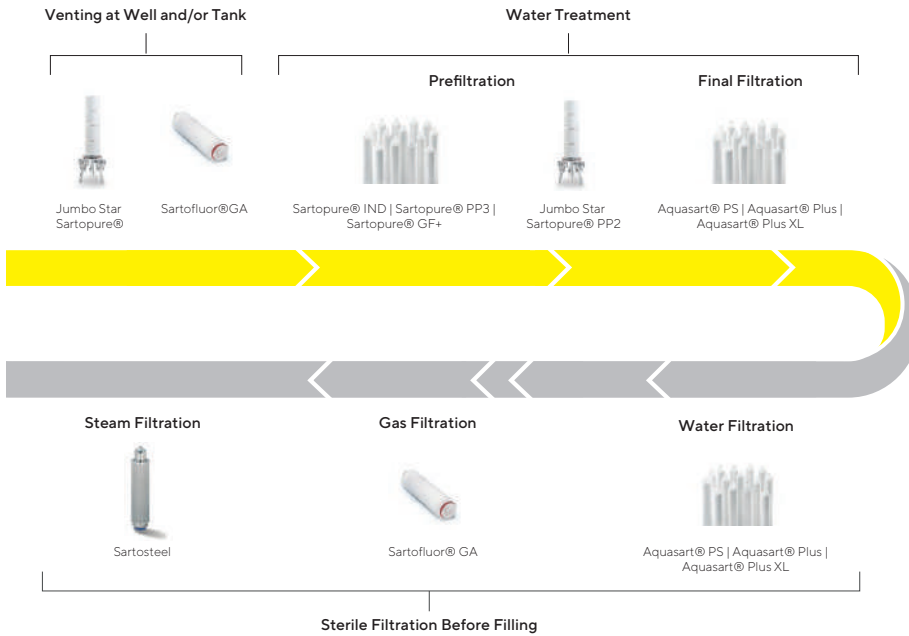


0.45 µm and 0.65 µm filters cartridges designed for the final filtration prior bottling of wine and sparkling wine.

# Pure Water Ensured by Filtration

Our filtration systems, using pre-filters and final filters, ensure the highest quality and microbiological purity of your water, whether it's still or sparkling, spring, mineral or purified water. Each product provides high throughput with 100% security to meet your specific requirements. Match and enhance your own water-production expertise.

## Water Production Process (Applications & Products)



## Why Use Our Filtration Consumables?

Water needs to be filtered to ensure safe drinking and to conform to stringent health regulations around the world. In the case of process water, filtration is used to assure uncontaminated water. Even if there is pollution upstream, our filtration products help to ensure safe water.

### Product Highlight:

Aquasart® Plus XL filter cartridges

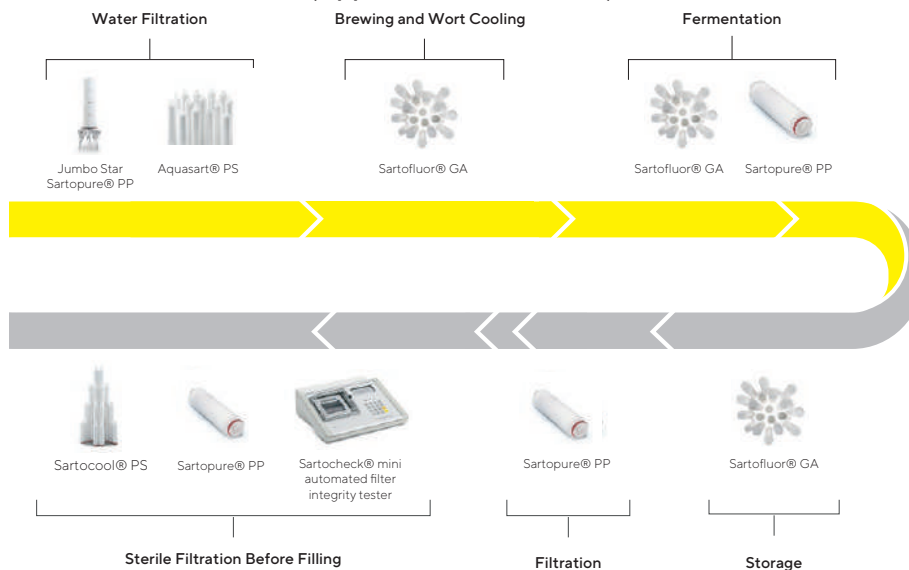


Aquasart® Plus XL achieves maximum service life performance and minimizes filtration costs.

# Beer Filtration for the Purest Taste

Beer brewing is a complex yet fascinating process. With the rise in popularity of craft beers there have been many new entrants into the market. We supply beer filtration systems all round the world, offering a world-class membrane filter. Whichever of our systems you choose you'll be getting an easy-to-operate, low-maintenance system that produces maximum process security. They are also straightforward to integrate into existing production processes.

## Beer Production Process (Applications & Products)



## Why Use Our Filtration Consumables?

From large scale to micro breweries, the aim is the same: a pure beverage that retains its distinctive characteristics of taste. Our product range impacts on the brewing process at several key stages.

### Product Highlight:

Jumbo Star Sartopure® PP filters with pleated surfaces




Jumbo Star Sartopure® PP2 5 µm has proved an excellent filtration system for beer after the conditioning phase, maximizing production yield, whilst reducing the beer maturation process from 14 to 7 days, ensuring the same quality standard of turbidity and yeast concentration.

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