



# Claristep<sup>®</sup> Filtration System

The Easy Choice – Syringeless and Fast

Simplifying Progress

**SARTORIUS**

# Claristep® Filtration System – The Power of Simplicity

Preparing samples by clarification is an essential step prior to nearly all analytical techniques, such as high pressure liquid chromatography (HPLC). This filtration step to eliminate particles is crucial for maintaining the integrity of chromatography columns and for maximizing their operating life time. In addition, as the sensitivity of automated analytical instruments continues to improve, they increasingly require less volume to operate in order to maximize throughput. Therefore, fast clarification of small volumes that does not add leachables or extractables to the original sample is indispensable for achieving the best analytical results.

To meet these requirements, Sartorius has developed a new, easy-to-use and straightforward filtration setup. The manually operated Claristep® Filtration System consisting of a station and filter units offers a novel way for clarifying your samples prior to analysis.

- Up to 8 samples are processed simultaneously
- No syringe required
- No need for a vacuum source or a power supply
- For low sample volumes ranging from 60 µL to 600 µL
- Hold-up volume < 30 µL



### Claristep® Station

The Claristep® Station consists of a base, a lid and an exchangeable tray for easy and accurate positioning of sample vials and Claristep® Filter units. The patent-pending design features unique grooves in the station's lid and matching guide ridges on Claristep® Filter units to enable intuitively correct alignment and convenient handling of the system.



### Claristep® Filter Units

Claristep® Filter units are made of the purest materials. Another major benefit is that the contact time of the samples with the filters and the caps is extremely short, ensuring optimal, contamination-free results. Filtered liquids are collected in any 12 × 32 mm outer diameter vials of your choice based on the analytical method to be performed.



### Automatic Guiding System

The grooves automatically guide the filter unit caps into the correct positions for simultaneous and accurate cap closure.



# Sample Preparation for Analytics – Use the Most Ergonomic Clarification Solution

Filter 8 samples simultaneously – without needing any power supply or a vacuum | pressure source. Simply place the filters on your vials, gently close the station and press on the station lid to filter – that's it!



Close the station lid. The grooves align the caps automatically, securely sealing every single Claristep® Filter unit for the most convenient processing.

Apply slight uniform pressure with your hand to start sample clarification. You will feel a certain resistance while liquid is pressed through each membrane.



Press down on the station lid so that the left and right corners touch the base plate. Hold the lid in place for 3 seconds to ensure all sample liquid is filtered through.



Claristep® Filter units press liquid through each membrane by an air pocket that forms over each filter unit when the station lid is closed. This air pocket is released when you stop holding down the lid – you will feel it in your fingertips!

Before clarification, the samples are pipetted in the filter reservoir.



After clarification, the filtrates are collected in sample vials.

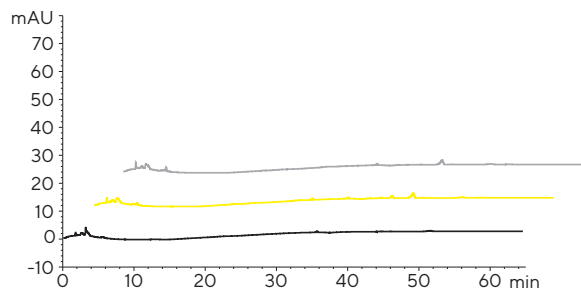


# Reliable Removal of Particles – Filter Samples Without Adding Extractables and Leachables

Claristep® Filter units with RC membranes are optimized for solvents and aqueous solutions. They provide maximum chemical compatibility and exceptionally low non-specific binding of analytes.

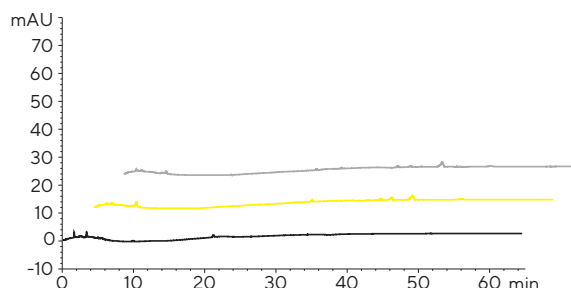
## HPLC Certification

### Methanol



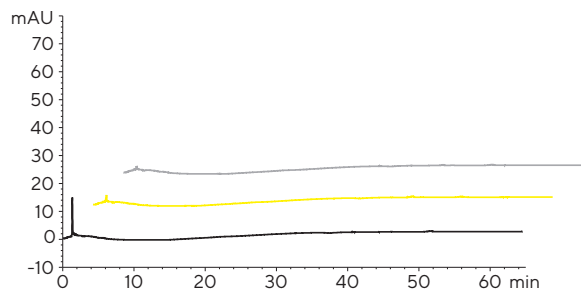
— Filtered with Claristep® RC 0.2 µm  
— Filtered with Claristep® RC 0.45 µm  
— Unfiltered Methanol

### Acetonitrile



— Filtered with Claristep® RC 0.2 µm  
— Filtered with Claristep® RC 0.45 µm  
— Unfiltered Acetonitrile

### Water



— Filtered with Claristep® RC 0.2 µm  
— Filtered with Claristep® RC 0.45 µm  
— Unfiltered Water

## HPLC Procedure

Column (C18):  
5 µm × 250 mm × 4.0 mm

Flow Rate: 1 mL/min,  
Wavelength: 220 nm

Injection Volume: 20 µL,  
Analysis Time: 65 min,  
Temperature: 40°C,  
Mobile Phases:  
A) Acetonitrile  
B) Water

Gradient:  
Hold 60% A for 10 min,  
60% to 100% A in 20 min,  
100% A for 30 min

# Sample Preparation Techniques – Choose the Best Solution for Your Needs

Do you process dozens of samples each day? A syringeless solution will help you reduce time, effort and waste – and minimize hand stress. If you need to analyze only a few samples a day, you will benefit from our proven combination of a syringe and syringe filter. The choice is all yours!

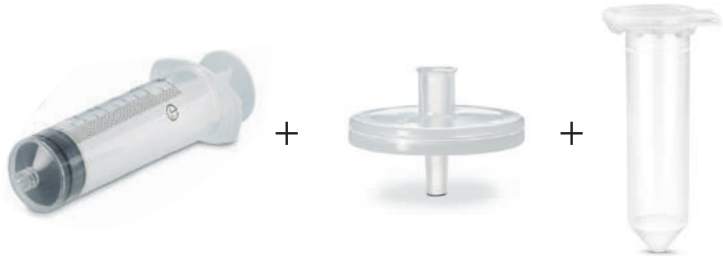
## Claristep® Filtration System



8×fold

or

## Syringe Filters for processing one sample at a time



# Analytical Sample Volumes Run Small – Get the Particle-free Volume You Really Need

If you need to fill only 12×32 mm vials, a syringeless solution will help you save time and reduce sample loss!

## Syringeless Solution



0.06 – 0.6 mL

or

## Different Diameters for different sample volumes



1 – 200 mL



1 – 100 mL



0.5 – 15 mL



0.05 – 1 mL





# Claristep® Components and Ordering Information

## Claristep® Filters

Claristep® Filters are available in a choice of two pore sizes.

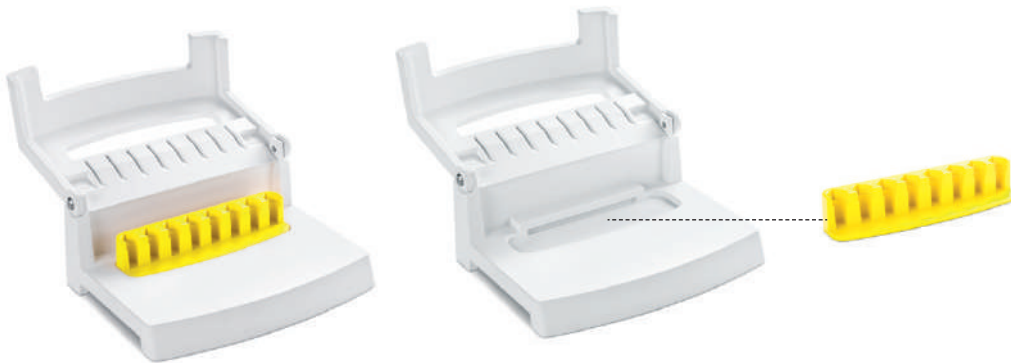


Ø mm   EFD <sup>1</sup>	Membrane	Housing	Pore Size	Sterile	Qty   Pk	Order No.
9.7 mm	RC	PP	0.2 µm	No	96	17C07FT---96
9.7 mm	RC	PP	0.2 µm	No	480	17C07FT--480
9.7 mm	RC	PP	0.45 µm	No	96	17C06FT---96
9.7 mm	RC	PP	0.45 µm	No	480	17C06FT--480

<sup>1</sup> Effective Filtration Diameter  
RC = Regenerated Cellulose

## Claristep® System

The Tray can be removed and exchanged.



Name	Qty   Pk	Order No.
Claristep® Station complete	1	17C--M8
Claristep® Single Tray	1	17C--S1

# Additional Components Needed

The free choice of 12 × 32 mm sample vials and lids is enabling you to choose the right vial for your particular sample and application, e.g. for light sensitive substances you can use brown glass. For small sample volumes you can use vessels with inlays. You can use glass or plastic, screw caps and | or slid lids – whatever you prefer.

## 12 × 32 mm sample vials



# Minisart® Syringe Filters

## Removal of Particles and Microorganisms from Liquids and Gases

Syringe filters are used for many routine preparation steps in laboratories all over the world. They are convenient, ready-to-use disposables for sterile filtration of liquids and removal of particles from solutions and gases. Depending on the reagents filtered, syringe filters have to fulfill certain requirements to best serve customer's application.

Minisart® with PP housing is optimized for filtration prior to analytics and withstands even harsh solvents and chemicals. Minisart® NML with housing made of methacrylate butadiene styrene (MBS) are the perfect choice for sterile filtration and clarification of additives, buffers, reagents and gases.



# Sartolab® RF | BT

## Vacuum Filtration Units

Sartolab® RF | BT vacuum filtration units are convenient filtration units designed for the filtration of volumes from 50 mL to 1 L. Sartolab® RF as a complete system includes a receiver flask or a conical tube to the filtration funnel. Sartolab® BT is a bottle top filter (filtration funnel) without a receiver flask, enabling customers to use their own receiver flasks and/or to expand the filtration capacity, depending on the particle load of the filtered liquid, by filling more than one receiver flask. All filtration units can be used as stand-alone system or with the Sartolab® Multistation, which allows parallel filtration of up to 6 samples.



# Sartolab® P20

## Pressure Filtration Devices

Sartolab® P20 filtration devices are ready-to-use filters for the clarification and sterile filtration of media and aqueous solutions in batches from 100 mL to 10 L. They are available either with 0.2 µm or 0.45 µm PES membranes, with or without a prefilter made of high purity quartz microfibers. An additional version containing the quartz microfiber prefilter only is also available for clarification purposes.




🌐 Find out more  
For more information, please visit  
[www.sartorius.com](http://www.sartorius.com)

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