



Arium<sup>®</sup> Mini –  
Compact Ultrapure  
Water Systems  
for 10 Liters per Day

Simplifying Progress

**SARTORIUS**

# Arium® Mini – Innovation for Efficient Research

Ultrapure water is the basis for successful analyses. Yet analytical methods are becoming more and more sensitive and thus more susceptible to interference. Consistently high water quality is decisive in ensuring the reproducibility of your results and in preventing time-consuming repeat analyses.

You can always rely on the Arium® Mini series of laboratory water systems to consistently deliver the highest water quality.

Regardless of the type of feed water you have, use Arium® Mini or Arium® Mini Plus with our unique Bagtank technology or connect Arium® Mini Essential directly to your deionized water supply line as needed.

Type of System	Feed Water*
Arium® Mini	Pretreated water from a supply container
Arium® Mini Essential	Directly connects to a pretreated water supply line (RO   DI   EDI)
Arium® Mini Plus	Directly connects to tap water

\* For details, see the inlet water specifications.





## Your Arium<sup>®</sup> Mini Benefits

### Reliable

Delivers consistently high water quality for reliable and reproducible results; optionally available with UV lamp

### Intuitive

Easy to operate using the touch-activated color display; with direct access to all important dispensing options

### Innovative

Depending on the model type, with unique Bagtank technology to save you from the hassle of time-consuming tank cleaning

### Compact

Space-saving footprint with a width of only 28 cm to easily fit in any lab environment

# Focused on Your Requirements – Convenient Operation and the Highest Quality Standards

Conveniently operate Arium® Mini using the touch-activated color display with self-explanatory icons – even while wearing laboratory gloves. This will not only speed up your workflows, but will also make them more accurate and reliable as a result of active error prevention – your daily lab work will become easier and more efficient.

To ensure the best ultrapure water quality and the reliability of your process, we have also implemented the highest quality standards into all functional areas. For example, you can set a limit for the purified water quality. If this limit is exceeded, further dispensing of water will be prevented or accompanied by a warning, depending on your menu configuration settings selected.

## Integrated illumination for easy visual support

- Flashing light during water dispensing
- Pulse signal emitted to accompany error messages
- Dimmed light in standby mode

## Arium® Scientific pack for the highest ultrapure water quality

- The highest cartridge capacity thanks to efficient purification materials
- Optimal flow over the semiconductor-grade mixed-bed resin
- Designed for quality standard ASTM Type 1

## Arium® Sterileplus for effective microbe removal

- Validated according to HIMA and ASTM F-838-05
- Meets quality standards in accordance with the USP
- Reliably removes bacteria to  $<0.01$  CFU/mL using a  $0.22\ \mu\text{m}$  membrane



Current filling volume displayed for the bag (Arium® Mini & Mini Plus)

Touch-activated color display with easy-to-clean surface

Purified water quality and temperature displayed

Menu | Home function for settings and cleaning and care programs



0.25 l



Manual dispensing

Last volume dispensed is saved by the Favorites function

Volume-controlled dispensing in 50 mL increments



#### Intuitive menu navigation for total ease of operation

- Con-guided interface with touch-activated display
- Displays current measured values and messages
- Favorites function for repeated dispensing of identical volumes

#### Arium® UV Lamp for critical analyses (185 | 254 nm)

- Optimal temperature gradient due to horizontal installation
- Degradation of total organic carbons (TOCs) by irradiation (< 5 ppb)

#### Arium® Pretreatment Cartridge for effective purification

- Effective adsorption using high-quality activated carbon
- Special catalyst removes oxidants
- Impurities retained by reverse osmosis



## Integrated Bagtank Technology in Arium® Mini and Mini Plus – A Revolution in Laboratory Water Purification

As a pioneer and market leader in the manufacture of single-use products for biopharmaceutical production, we have written the next chapter in our success story by implementing our innovative Bagtank technology in laboratory water systems.

Originally developed for the pharmaceutical industry, our single-use bag integrated as a tank system on the side of Arium® Mini and Arium® Mini Plus protects intermediately stored pure water reliably from secondary contamination.

The 5-liter bag, consisting of our specially manufactured proprietary S71 film material, is multilayer and compliant with ISO and USP standards for biocompatibility. With the quality and composition of the Arium® Bag, you can optimally store your pretreated pure water for later production of Type 1 ultrapure water.

Moreover, you will enjoy the benefits of active protection against leakage provided by the integrated Aqua Stop system.

# Intelligent Technology – Systematic Purification to Obtain Ultrapure Water

Arium® Bags ensures continuous protection against secondary contamination and therefore the highest water quality at all times. The closed Bagtank system automatically regulates pressure equalization so that no CO<sub>2</sub> can penetrate. This additionally prevents contamination by ionic impurities and maintains consistently low conductivity. As an added benefit, you will profit from the especially high cartridge capacity because there is less demand placed on the ion exchangers.

Moreover, you can prevent the formation of a permanent biofilm, and therefore eliminate additional TOC loading. Depending on your requirements, you will just need to replace the bag every six months to start off fresh.

## 5-liter Bag for minimum maintenance

- Easy bag exchange in less than 5 minutes
- No need to use chemicals for cleaning
- Practical and leak-tight connection using a quick-connect coupling

## Innovative technology to prevent secondary contamination

- Optimum water quality by prevention of a permanent biofilm
- Closed system guarantees purity
- Stable quality thanks to special multilayer S71 bag material

## Well-thought-out functions for reliable performance

- Integrated pump to increase the water pressure
- Filling Arium® Mini with pretreated water: 2 minutes
- Filling Arium® Mini Plus with RO permeate: 8 liters per hour



# The Right Arium® Mini Version for Your Daily Applications

Feed Water	Arium® Mini	Arium® Mini Essential	Arium® Mini Plus
Tap water			■
Pretreated water (RO   DI line)		■	
Pretreated water (from supply container)	■		

Purified Water	Arium® Mini	Arium® Mini Essential	Arium® Mini Plus
Type 1 water	■	■	■
Type 3 water			■

Applications	Arium® Mini   Mini Essential   Mini Plus	Arium® Mini UV   Mini Essential UV   Mini Plus UV	Arium® Mini   Mini Essential   Mini Plus combined with Arium® Cellplus Ultrafilter
<b>General</b>			
Buffer and media preparation	■	■	■
Histology	■	■	■
Preparation of reagents, blank samples, etc.	■	■	■
ELISA (enzyme-linked immunosorbent assay)	■	■	■
AAS   GF-AAS (atomic absorption spectrometry)	■	■	■
Photometry	■	■	■



Applications	Arium® Mini   Mini Essential   Mini Plus	Arium® Mini UV   Mini Essential UV   Mini Plus UV	Arium® Mini   Mini Essential   Mini Plus combined with Arium® Cellplus Ultrafilter
<b>Analytic</b>			
SPE (solid phase extraction)		■	
IC (ion chromatography)		■	
ICP-MS (inductively coupled with plasma mass spectrometry)		■	
GS-MS (gas chromatography coupled with mass spectrometry)		■	
HPLC (high-performance liquid chromatography)		■	
LC-MS (liquid chromatography coupled with mass spectrometry)		■	

Applications	Arium® Mini   Mini Essential   Mini Plus	Arium® Mini UV   Mini Essential UV   Mini Plus UV	Arium® Mini   Mini Essential   Mini Plus combined with Arium® Cellplus Ultrafilter
<b>Life Science   Molecular Biology*</b>			
Electrophoresis			■
Endotoxin analysis			■
Immunocytochemistry			■
PCR   RT-PCR (polymerase chain reaction)			■
DNA Sequencing			■
Nutrient media for mammalia cell culture			■

\*Only in combination with an Arium® Cellplus filter.



## Sartorius Services

### **We ensure the quality of your results**

At Sartorius, quality products go hand in hand with professional service. With our wide service offering, we will help guarantee the safe, reliable and optimal performance of your Arium® Mini. Just ask us and we will even cover the entire life cycle of your laboratory water system – from commissioning to equipment qualification to regular maintenance. Together with you, we will ensure the consistently high quality of your laboratory water purification.

### **Services at a glance**


- Installation and commissioning  
Your advantage: Your system will operate reliably at peak performance from day one
- Equipment qualification (IQ | OQ)  
Your advantage: You will meet all regulatory requirements (GMP | GLP)
- Regular preventative maintenance, including calibration, inspection and testing of your system and exchange of consumables
- Your advantages: Optimal operation of your system; reliable results; prevention of downtime or even equipment failure

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