



sartorius

# arium<sup>®</sup> mini – Ultrapure Water System More Time for Your Research Thanks to Unique Bagtank Technology



turning science into solutions

## Bagtank Technology – Innovation for Efficient Research

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

You can always rely on the arium® mini and its unique Bagtank system to deliver consistently high water quality that even exceeds ASTM Type 1 requirements. Because the results you achieve are more reliable, you save valuable time while increasing your efficiency.

As a pioneering and market leading manufacturer of disposable products for biopharmaceutical production, our success story continues: we have now integrated our innovative Bagtank technology into microdevices for daily laboratory use.

The closed Bagtank system reliably protects the pure water from secondary contamination by atmospheric components. Unlike conventional tank systems, the closed Bagtank system also prevents the formation of a permanent biofilm.

Depending on your needs, you can easily replace the bag (in just 5 minutes) and start always with a new basis every 6 months. This not only saves you immense effort and time spent cleaning and rinsing the system, you also avoid the use of chemicals.



## Your arium® mini Benefits

- **Reliable**

Delivers consistently high water quality for reliable and reproducible results

- **Efficient**

Avoids tank cleaning thanks to its unique Bagtank technology

- **Intuitive**

Can be operated even with gloves via a multi-colored touch display

- **Compact**

With a footprint of only 28 cm in width, it fits into any laboratory environment



## Your Requirements in the Focus – Comfortable Operation and Highest Quality Standards

In addition to the Bagtank, as our core feature we put a special focus on user-friendliness. With this in mind, we've equipped the arium® mini with a color touch screen featuring clear icons so that you can comfortably control the system – even when wearing lab gloves. This not only speeds up your workflows, it also makes them more secure thanks to active fault prevention – all in all, your daily lab work becomes easier and more efficient.

To ensure the best ultrapure water quality and the reliability of your process, we have also integrated the highest quality standards into all functional areas. For example, you can set a limit for conductivity. If this limit is exceeded, further dispensing of water will either be stopped or accompanied by a warning, as configured.

### Integrated Illumination for Easier Visual Support

- Pulsating light during water dispensing
- Impulse signals accompany error messages
- Dimmed light in standby mode

### arium® Scientific Pack for Highest Ultrapure Water Quality

- Highest cartridge capacity thanks to efficient filler materials
- Optimal flow over the resin mixed bed
- Designed for quality standard ASTM Type 1

### arium® Sterile Filter for Effective Sterility

- Validated according to HIMA and ASTM F-838-05
- Meets quality standards in accordance with USP
- Safely removes microorganisms using 0.2-µm membrane

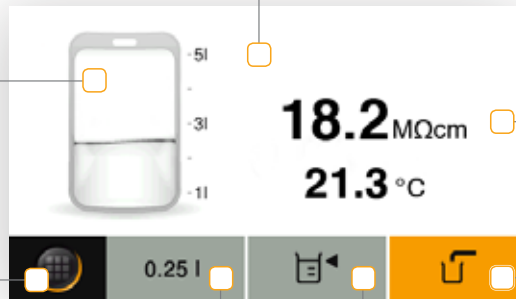


Current bag filling volume displayed

Color touch display with easy-to-clean surface

Product water quality and temperature displayed

Menu | Home function for settings and care programs



Manual dispensing

Volume-controlled dispensing in 50-ml increments

Last volume dispensed is saved by "Favorites" function



### Intuitive Menu Navigation for Optimal User Comfort

- Icon-supported interface with touch display
- Display of current measured values and messages
- Favorites function to dispense recurring volumes

### arium® UV Lamp for Critical Analyses (185 | 254 nm\*)

- Optimal temperature gradient thanks to horizontal installation
- Degradation of organic components (TOC) by irradiation (< 5 ppb)
- Inactivates microorganisms by damaging their DNA

### arium® Pre-treatment Cartridge for Effective Purification

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



## **Integrated Bagtank technology – A revolution in Laboratory Water Purification**

arium® mini is the only ultrapure water system with integrated Bagtank technology. The 5-liter bag developed for the arium® mini is made of the proprietary material S71. Originally developed for the pharmaceutical industry, this multilayer, specialized film conforms to the biocompatibility standards of ISO and USP. Its quality and composition allows you to optimally store your pre-treated pure water for the production of Type 1 ultrapure water.

The bag is laterally integrated into the system. This enables a footprint-reducing and compact device width of only 28 cm. The system can thus be integrated into any laboratory environment almost independently of the available space. The place of installation can also be chosen flexibly.

The integrated Aqua Stop system lets you enjoy active leakage protection while ensuring maximum safety in your laboratory.



## Intelligent Technology – Systematic Ultrapure Water Purification

With intelligent technology the arium® mini permanently protects against secondary contamination and consistently ensures the highest water quality.

The closed Bagtank system automatically regulates pressure equalization so that no CO<sub>2</sub> can penetrate. This additionally prevents ion contamination and maintains consistently low conductivity. As an added benefit, you profit from particularly high cartridge capacity because there is less demand placed on the ion exchangers.

Moreover, you can prevent the formation of a permanent biofilm and thereby additional TOC loading. Depending on your requirements, you replace the bag every 6 months and simply start with a new basis.

### 5-liter Bag for Minimal Maintenance

- Easy bag replacement in less than 5 minutes
- No use of cleaning agents needed
- Practical and safe connection using quick connector

### Innovative Technology Prevents Secondary Contamination

- Optimum water quality by preventing permanent biofilm
- Closed system guarantees purity
- Stable quality thanks to the special high-gas barrier multilayer S71 film

### Sophisticated Power Backup Functions

- Integrated pump for increasing water pressure
- Filling arium® mini with pre-treated water: 2 minutes
- Filling arium® mini plus with RO permeate: 8 liters per hour

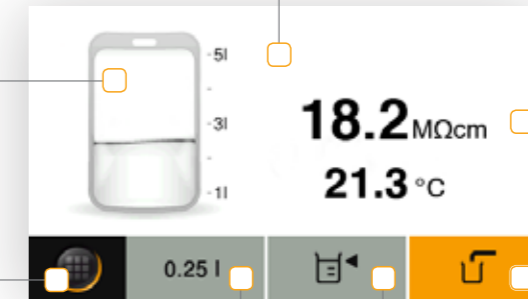


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## The Right arium® mini Version for Your Everyday Applications

### arium® mini

Standard Version – Without Direct Water Connection

The device is fed via the integrated bag, which is filled by means of a built-in pump. Pre-treated water is automatically transferred from a vessel in the bag and thus serves as feed water for the production of Type 1 ultrapure water.

### arium® mini plus

Advanced Version – with Direct Connection to the Drinking Water Supply Line

Combined with a pre-treatment stage, the device is connected directly to the potable water supply. The processed water is then produced directly into the bag. The final production of Type 1 ultrapure water is then carried out with the specially developed arium® Scientific purification cartridge.

Water Quality	arium® mini	arium® mini plus
Type 1 Water	■	■
Type 3 Water		■

Applications	arium® mini   mini plus	arium® mini UV   mini plus UV
Buffer and media preparation	■	■
Histology	■	■
Preparation of reagents, blank samples etc.	■	■
ELISA (enzyme-linked immunosorbent assay)	■	■
AAS   GF-AAS (atomic absorption spectrometry)	■	■
Photometry	■	■
SPE (solid phase extraction)		■
IC (ion chromatography)		■
LC-MS (liquid chromatography-mass spectrometry)		■
GS-MS (gas chromatography coupled with mass spectrometry)		■
HPLC (high-performance liquid chromatography)		■



## Services available for your arium® mini

Optimize the performance of your ultrapure water system and look forward to many years of trouble-free operation by availing yourself of the professional installation, extended warranty and preventive maintenance services we offer.

Our service specialists undergo continuous and thorough training in order to guarantee you'll always receive the best possible on-site service.

- Comprehensive feedwater analysis and corresponding device configuration
- Installation and startup for quick and safe usability
- Maximum safety by extended warranty
- Extended service life through regular checks tailored to your needs



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