

DOMINIQUE DUTSCHER SAS

Arium® Mini –
Compact Ultrapure Water Systems

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.

For even more flexibility, our Arium® Mini Extend versions (Arium® Mini Plus Extend and Arium® Mini Essential Extend) are equipped with a flexible, removable dispensing unit.

Type of System	Feed Water*	Water withdrawal via flexible, removable dispensing unit
Arium® Mini	Pretreated water from a supply container	
Arium® Mini Essential	Directly connects to a pretreated water supply line (RO | DI | EDI)	
Arium® Mini Essential Extend	Directly connects to a pretreated water supply line (RO | DI | EDI)	✓
Arium® Mini Plus	Directly connects to tap water	
Arium® Mini Plus Extend	Directly connects to tap water	✓

* For details, see the inlet water specifications.





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Your Arium® Mini Benefits

Flexible
Different versions for different inlet water and connection options, as well as the desired water withdrawal

Compact
Space-saving footprint with a width of only 28 cm (+9 cm for versions with attached dispensing unit) to easily fit in any lab environment

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

Innovative
Depending on the type of system, our unique Bagtank technology saves time as no intensive tank cleaning with hazardous substances is required

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

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.

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Integrated illumination for easy visual support

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

Intuitive menu navigation for total ease of operation

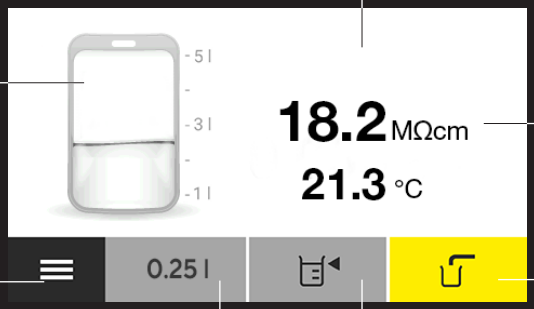
- Con-guided interface with touch-activated display
- Displays current measured values and messages
- Favorites function for repeated dispensing of identical volumes

Arium® 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

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

Current filling volume displayed for the bag (Arium® Mini, Mini Plus and Plus Extend)



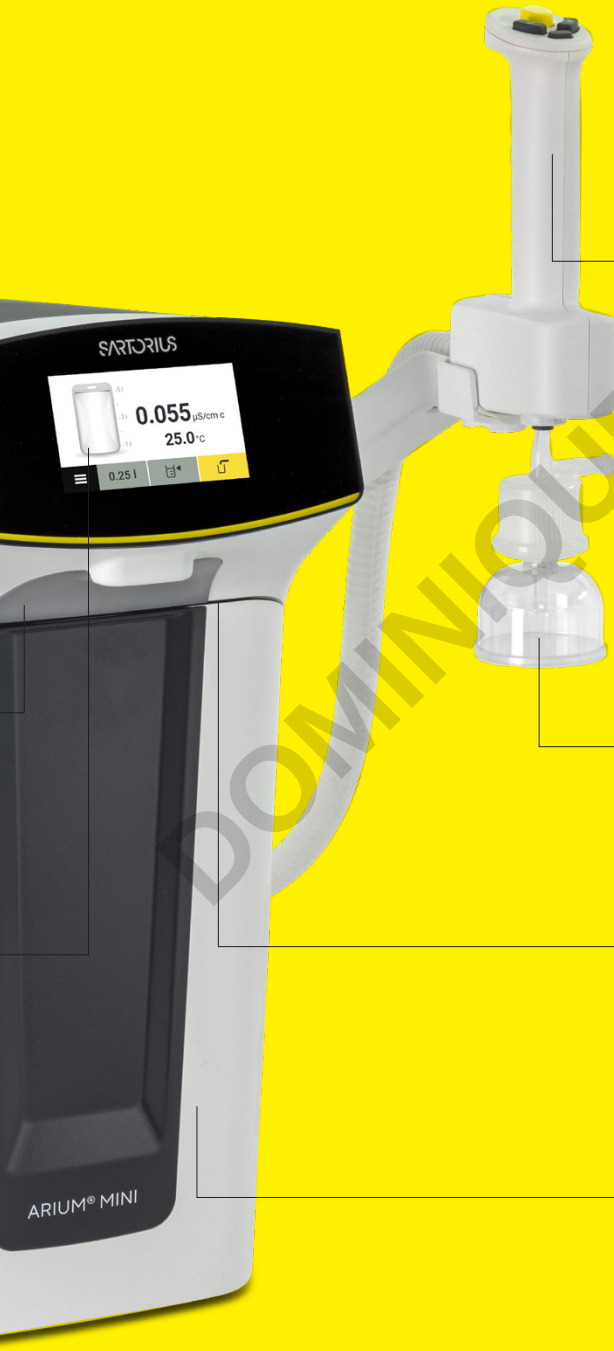
Purified water quality and temperature displayed

Menu | Home function for settings and cleaning and care programs

Manual dispensing

Last volume dispensed is saved by the Favorites function

Volume-controlled dispensing in 50 mL increments



Flexible water dispensing via removable dispensing unit (Extend versions only)

- Combination of system and dispensing unit for minimum space requirement
- Manual and volume-controlled water withdrawal, as well as the last volume dispensed via the display and the dispensing unit
- Easily removable with magnetic mount for ergonomic and splash-free filling into a wide variety of containers

Arium® Sterile Plus for effective microbe removal

- Validated according to ASTM F-838-05
- Meets quality standards in accordance with the USP
- Reliably removes bacteria to < 0.001 CFU/mL using a 0.45/0.2 µm double layer membrane

Arium® UV Lamp for organic sensitive analysis (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

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Integrated Bagtank Technology in Arium® Mini, Mini Plus and Mini Plus Extend – 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 disposable bag integrated as a tank system on the side of Arium® Mini, Arium® Mini Plus and Arium® Mini Plus Extend 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.

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Intelligent Technology – Systematic Purification to Obtain Ultrapure Water

Arium® Bags ensure 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_2 can penetrate. This additionally prevents contamination by ionic impurities and maintains consistently low conductivity.

Moreover, you can prevent the formation of a permanent biofilm, and therefore eliminate additional TOC loading by replacing the bag frequently.

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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 permanennt biofilm
- Closed system guarantees purity
- Stable quality thanks to special multilayer S71 bag material

Well-thougt-out functions for reliable performance

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



Maximum flexibility thanks to integrated, removable dispensing unit

Our Arium® Mini Extend versions (Arium® Mini Plus Extend and Arium® Mini Essential Extend) have an integrated, removable dispenser, providing you even more flexibility. By combining the dispensing unit with the ultrapure water system, the device remains compact and fits into any laboratory due to its small footprint.

You can operate the manual- and volume-controlled water dispensing directly from the handheld or the intuitive display. The last volume dispensed is also accessible and adjustable via both the dispensing unit and the display.

The flexible dispensing unit enables comfortable and ergonomic filling into variously sized vessels and participates in the devices water circulation to maintain consistently high water quality.

More flexibility in everyday laboratory work

- Easily removable dispensing unit with magnetic mount for ergonomic and splash-free filling into a wide variety of containers
- Control of manual and volume-controlled water dispensing from the display and the flexible dispensing unit
- Simplified recurring volume dispense
- Can be combined with Sterile Plus final filter or Cell Plus filter



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The Right Arium® Mini Version for Your Daily Applications

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

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

Applications	Arium® Mini Arium® Mini Essential Arium® Mini Essential Extend Arium® Mini Plus Arium® Mini Plus Extend	Arium® Mini UV Arium® Mini Essential UV Arium® Mini Essential Extend UV Arium® Mini Plus UV Arium® Mini Plus Extend UV	Arium® Mini Arium® Mini Essential Arium® Mini Essential Extend Arium® Mini Plus Arium® Mini Plus Extend combined with Arium® CellPlus Filter
General			
Buffer and media preparation	■	■	■
Histology	■	■	■
Preparation of reagents, blank samples, etc.	■	■	■
ELISA (enzyme-linked immunosorbent assay)	■	■	■
AAS | GF-AAS (atomic absorption spectrometry)	■	■	■
Photometry	■	■	■

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Applications	Arium® Mini Arium® Mini Essential Arium® Mini Essential Extend Arium® Mini Plus Arium® Mini Plus Extend	Arium® Mini UV Arium® Mini Essential UV Arium® Mini Essential Extend UV Arium® Mini Plus UV Arium® Mini Plus Extend UV	Arium® Mini Arium® Mini Essential Arium® Mini Essential Extend Arium® Mini Plus Arium® Mini Plus Extend combined with Arium® CellPlus Filter
Analytic			
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)		■	
UPLC (Ultra High Performance Liquid Chromatography)		■	
Analysis of trace elements		■	
TOC Analysis		■	
PFAS Analysis		■	
VOC Analysis		■	

Applications	Arium® Mini Arium® Mini Essential Arium® Mini Essential Extend Arium® Mini Plus Arium® Mini Plus Extend	Arium® Mini UV Arium® Mini Essential UV Arium® Mini Essential Extend UV Arium® Mini Plus UV Arium® Mini Plus Extend UV	Arium® Mini Arium® Mini Essential Arium® Mini Essential Extend Arium® Mini Plus Arium® Mini Plus Extend combined with Arium® CellPlus Filter
Life Science | Molocular Biology			
Electrophoresis			■
Endotoxin analysis			■
Immunocytochemistry			■
PCR | RT-PCR (polymerase chain reaction)			■
DNA Sequenzing			■
Nutrient media for mammalia cell culture			■
Northern Blot			■
Southern Blot			■
Western Blot			■
NGS (Next-Generation Sequencing)			■

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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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