



Arium® Comfort I

Space-Saving
Twin Technology

For further information, visit
www.ultrafiltrionics.com

Email: sales@ultrafiltrionics.com

Phone: 781-961-4775



Advantages

- Time-saving – Use of innovative bag technology, eliminates costly tank cleaning
- Optimized water consumption – Automatic with iJust
- Easy to use – Display with touch function and intuitive menu navigation
- Quick – Favorites function with direct access for recurring volumes

Product Description

Sartorius offers the compact, environmentally friendly, reliable, and easy-to-use Arium® Comfort I for producing ASTM

Type 1 ultrapure water and Type 3 pure water combined in a single system. The system contains state-of-the-art reverse osmosis technology and a unique cartridge specifically for the production of high-quality ultrapure water. Compared to conventional water systems, the Arium® Comfort I optimizes water consumption using the integrated iJust control unit. The unique touch display with intuitive menu navigation ensures always ease of use.

With the optionally integrated TOC monitor, its compact design, the flexible display and the SD card slot, the Arium® Comfort I is the ideal choice for demanding laboratory applications.

Innovative Bag Technology

The pure water is stored in the enclosed Arium® Bagtank system. This guarantees optimal storage of the pure water and protects against secondary contamination. Time-consuming tank cleaning intervals are eliminated thanks to the interchangeable Bag.

Display With Touch Function

Simply navigate intuitively in the easy-to-use and clear menu by lightly touching the display – even with gloves. Even the opening of the dispensing valve can be controlled by the unique touch display.

iJust

iJust stands for innovative technology that optimizes the product water quality and water consumption. The intelligent Arium® software controls a valve on the concentrate outlet in accordance with the measurement data for CaCO₃ and CO₂.

- Optimized, economical water consumption
- The highest product water quality at all times
- Guarantees a longer life of the downstream ultrapure water systems

“Favorites” Function

With the new favorites function it is possible to save recurring volumes and retrieve them as required by direct access.

Technical Specifications

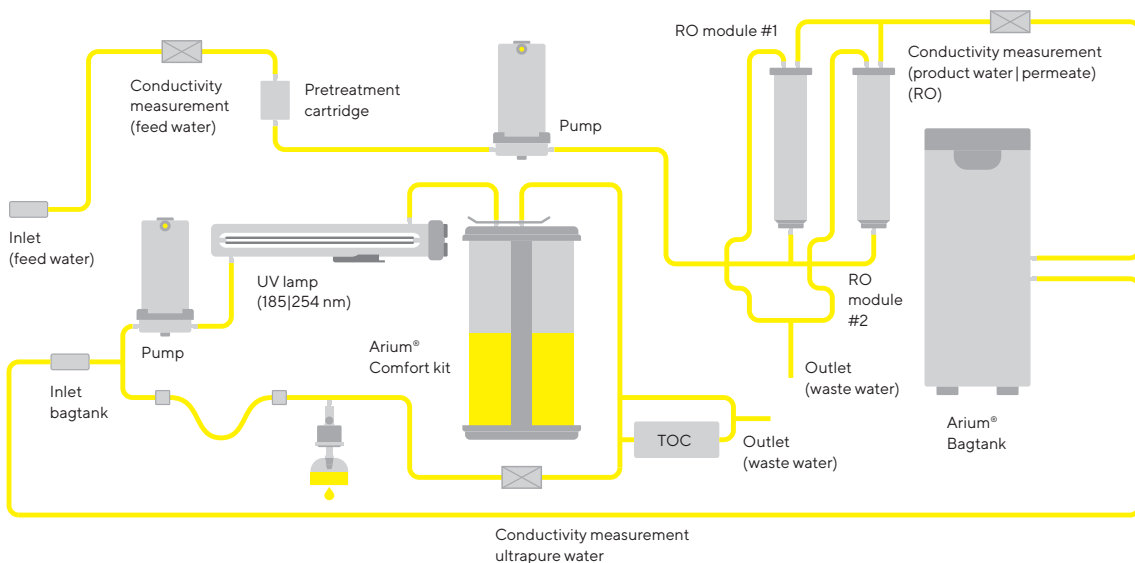
Dimensions: width × height × depth	43.5 × 50.1 × 47.6 cm
Empty weight	approx. 23 kg
Operating weight	approx. 31 kg
Power supply	100 – 240 VAC (± 10%); 50 – 60 Hz, 130 VA (max.)
Operating temperature	2 °C – 35 °C at max. 80% relative humidity
Storage temperature	5 °C – 45 °C at max. 80% relative humidity
Data output	SD card slot, RS-232 interface

Feed Water Quality

Exclusively potable tap water pursuant to the drinking water standards of the USA, the European Union, or Japan.

Input pressure ¹	0.5 – 6.9 bar, recommended >2 bar
Temperature	2 – 30 °C
Specific conductivity	<1,500 µS/cm compensated to 25 °C
TOC	<2,000 ppb
Max. total hardness (max. CaCO ₃)	360 ppm
Free chlorine	<4 ppm
Iron (total Fe content)	<0.1 ppm
Fouling Index (SDI)	<5
Turbidity	<1 NTU
pH value	4 – 10

¹ Dynamic pressure | flow pressure 100 L/h



Flowchart Arium® Comfort I (H2O-I-2-TOC-T)

Water Applications

Lab Water System Quality

Water Quality	Comfort I	Comfort I UV
Type 1 Ultrapure Water	■	■
Type 3 Reverse Osmosis Water	■	■
Lab Water System by Daily Water Consumption	Comfort I	Comfort I UV
Type 1 ultrapure water 10 – 40 Liter/day	■	■
Type 3 reverse osmosis water <140 Liter/day (8 L/h)	■	■
Type 3 reverse osmosis water <200 Liter/day (16 L/h)	■	■
Feed Application	Comfort I	Comfort I UV
Water for Laboratory devices (Autoclaves Washing Machine etc.)	■	■
General Laboratory Application	Comfort I	Comfort I UV
Buffer, media and pH solutions	■	■
Histology	■	■
ELISA (Enzyme-Linked Immunosorbent Assay)	■	■
AAS (Atomic Absorption Spectroscopy)	■	■
Solutions for chemical analysis and synthesis	■	■
GF-AAS (Graphite Furnace Atomic Absorption Spectrometry)	■	■
Preparation of reagents	■	■
Photometry	■	■
Molecular Biology Lifescience Application	Comfort I ¹	Comfort I UV
Electrophoresis	■	
Northern Blot	■	
Southern Blot	■	
Western Blot	■	
Endotoxin analysis	■	
Immunocytochemistry	■	
Production of monoclonal antibodies	■	
PCR (Polymerase Chain Reaction)	■	
DNA Sequencing	■	
Nutrient media for cell culture (Mammalia & plant)	■	
Chromatography	■	
Analytical Application	Comfort I	Comfort I UV
SPE (Solid phase extraction)		■
Trace metal analysis		■
IC (Ion chromatography)		■
ICP-MS (Inductively Coupled Plasma Mass Spectrometry)		■
GC-MS (Gas Chromatography – Mass Spectrometry)		■
HPLC (High-Performance Liquid Chromatography)		■
TOC analysis		■

All displayed applicable systems starting with the minimal requested water quality criteria:

¹ Only when equipped with Cell Plus final filter

Product Water Quality

Water purification method	Adsorption by means of spherical activated carbon, catalyst, reverse osmosis, deionization, UV irradiation, optional end-position particle and sterile filtration	
Water type	ASTM Type 1 ultrapure water	Type 3 reverse osmosis water
Output ¹	120 L/h	8 or 16 L/h
Water dispensing flow rate ²	Up to 2 L/min	Up to 3 L/min ³
Volume-controlled dispensing ³	2 L/min in 50 mL, 100 mL, 1L or 5L steps, depending on the total amount dispensed between 0.1L and 60 L	-
Volume accuracy ²	3% between 0.25 L and 60 L	-
Typical conductivity ²	-	<20 µS/cm
Typical resistivity ²	-	<0.05 MΩ × cm
Conductivity ⁴	0.055 µS/cm compensated to 25 °C	-
Resistivity ⁴	18.2 MΩ × cm compensated to 25 °C	-
TOC content ⁶ (system with UV lamp)	≤2 ppb	-
TOC content ⁶ (system without UV lamp)	<5 ppb	-
Bacteria ⁷	<0.001 CFU/mL	<0.001 CFU/mL
Particle content ⁷	No particles > 0.22 µm	No particles > 0.22 µm
Endotoxins ⁸	<0.001 EU/mL	-
RNase concentration ⁸	<1 pg/mL	-
DNase concentration ⁸	<5 pg/mL	-
Typical ion retention	-	up to 98%
Retention of dissolved organic substances (MW > 300 Dalton) ⁹	-	>99%
Particle and microorganism retention	-	>99%

¹ Depending on the feed water pressure, temperature, and condition of the RO modules

² Depending on feed water and constant operating conditions

³ When using an Arium® Bagtank with pump, depending on hydrostatic pressure, connected accessories or end filter

⁴ Measured value output adjustable to 25 °C, compensated or uncompensated

⁵ Constant of the ultrapure water measurement cell: 0.01 cm¹

⁶ Determined with municipal water (Goettingen), TOC <1,000 ppb

⁷ When using an Arium® Sterile Plus (Sartopore® 2 150)

⁸ When using an Arium® Cell Plus

⁹ Depends on the type of organic contamination in the feed water

Ordering Information

Arium® Comfort I systems for the production of ASTM Type 1 ultrapure water and Type 3 reverse osmosis water

Scope of supply: 1 Arium® Comfort I, Water Guard, RO (reverse osmosis) module(s) and connection kit, optionally with UV lamp and TOC monitor

Order number without UV lamp without TOC monitor	Order number incl. UV lamp	Order number incl. UV lamp incl. TOC monitor	Description
H2O-I-1-T	H2O-I-1-UV-T	H2O-I-1-TOC-T	Arium® Comfort I bench-top device, flow capacity Type 3 pure water 8 L/h
H2O-I-1-B	H2O-I-1-UV-B	H2O-I-1-TOC-B	Arium® Comfort I wall-mounted device, flow capacity Type 3 pure water 8 L/h
H2O-I-2-T	H2O-I-2-UV-T	H2O-I-2-TOC-T	Arium® Comfort I bench-top device, flow capacity Type 3 pure water 16 L/h
H2O-I-2-B	H2O-I-2-UV-B	H2O-I-2-TOC-B	Arium® Comfort I wall-mounted device, flow capacity Type 3 pure water 16 L/h

For under-bench installation of the Comfort I devices please order a comparable bench-top device, as well as the conversion kit described under the accessories (H2O-ACK-D).

Accessories

Arium® Bagtanks

Innovative tank system

- Integrated ventilation filter with non-return valve provides reliable protection against CO₂ pollution
- High flexibility through the 4 rollers available as an option
- Easy and fast exchange of the Arium® Bags
- No chemical cleaning required



Description

The pure water is stored in the innovative enclosed Arium® Bagtank system. This system protects the prepared pure water against secondary contamination. The Sartorius Bagtank system enables consistent water quality over a prolonged period, thereby ensuring permanent, reproducible results. Unlike conventional water reservoirs, the Arium® Bag eliminates time-consuming tank cleaning intervals thanks to the interchangeable technology.

Arium® Bagtanks are housings which are equipped with Arium® Bags. The Arium® Bagtanks are available in 20 L, 50 L, and 100 L volumes. Their design is adaptable and saves space in any laboratory environment, and the optional rollers make this an extremely flexible system.

Integrated distributor pumps are a standard component of the 50 L and 100 L Bagtanks. A distributor pump is also available as an option for the 20 L Bagtank. In addition, a wall holder for the space-saving and user-friendly installation of this tank is also available.

Water dispensing flow rate

With pump ¹	up to 3.0 L/min
With pump, remote dispenser and Sterile Plus filter ¹	up to 2.0 L/min
Without pump ²	up to 1.5 L/min
Pump pressure	3 bar

Intended Use

Device type:

- Arium® Comfort I

¹ Bagtank 20 is supplied without a pump as standard, pump optionally available

² Value only applies to Bagtank 20, dispensing site at the same height or lower than the tank outlet

Technical Specifications | Ordering Information

Materials	
Bagtank	Stainless steel plastic
Bag	S71 film
Tubing	PE silicone

Dimensions, excluding rollers and wall bracket [H × W × D]

Bagtank 20	80.8 × 16.6 × 43.7 cm
Bagtank 50	85.2 × 25.4 × 58.7 cm
Bagtank 100	85.2 × 51.4 × 58.7 cm
Bag 20 L	86.5 × 43.0 cm
Bag 50 L	90.0 × 58.1 cm

Empty weight without Arium® Bag | Operating weight with filled Arium® Bag

Bagtank 20	19 kg 40 kg
Bagtank 50	33 kg 84 kg
Bagtank 100	47 kg 148 kg

Number of bags per tank

Bagtank 20	1 × 20 L
Bagtank 50	1 × 50 L
Bagtank 100	2 × 50 L
Power supply ¹	240 VAC (± 10%), 50 Hz, 120 VA (max.) ²
Power supply US versions ¹	115 VAC (± 10%), 60 Hz, 170 VA (max.) ¹
Operating temperature	2°C – 35°C at max. 80% relative humidity
Storage temperature	5°C – 45°C at max. 80% relative humidity

Water connection input

1 × 3/8" PLC quick-connect coupling

Water connection output

Bagtank 20	1 × 3/8" PLC quick-connect coupling
Bagtank 50, Bagtank 100	2 × 3/8" PLC quick-connect coupling

Order number	Description
H2O-AOV-20 ³	Arium® Bagtank 20 L, without pump, 1 pc
H2O-AOV-50 ³	Arium® Bagtank 50 L, with pump 240 VAC, 50 Hz, 1 pc
H2O-AOV-50-US ³	Arium® Bagtank 50 L, with pump 115 VAC, 60 Hz, 1 pc
H2O-AOV-50-W ³	Arium® Bagtank 50 L, without pump, 1 pc
H2O-AOV-100 ³	Arium® Bagtank 100 L, with pump 240 VAC, 50 Hz, 1 pc
H2O-AOV-100-US ³	Arium® Bagtank 100 L, with pump 115 VAC, 60 Hz, 1 pc
H2O-AOV-100-W ³	Arium® Bagtank 100 L, without pump, 1 pc
H2O-ADP-20	Pump Arium® Bagtank 20 L, 240 VAC, 50 Hz, 1 pc
H2O-ADP-20-US	Pump Arium® Bagtank 20 L, 115 VAC, 60 Hz, 1 pc
H2O-ATR	Rollers for Arium® Bagtank 50 & bag-tank 100, including fastening material, 4 pcs
H2O-CBS-20	Arium® 20 L Bag for Arium® 20 L Bagtank, 2 pcs
H2O-CBS-50	Arium® 50 L Bag for Arium® 50 L and 100 L Bagtank, 2 pcs
H2O-ATB	Wall mount for Arium® Bagtank 20, 1 pc

¹ Bagtank 20 is supplied without a pump as standard, pump optionally available

² Value only applies to Bagtank 20, dispensing site at the same height or lower than the tank outlet

³ Note: The Arium® Bag is not included in the scope of delivery of the Arium® Bagtank

Arium® Conversion Kit

Flexibly placeable, simple and space-saving integration

- Optimal integration into your laboratory furniture
- Space-saving arrangement of the system through variable wall installation of the display | dispenser unit
- Full operation directly on the display | dispenser unit

Description

In conjunction with an Arium® bench-top system, the Arium® Conversion Kit also enables the installation of the device as a built-in version.

By extending the tube routing as well as the display | dispenser unit, the system can be ideally integrated into your laboratory furniture.

This version creates more space on and above the laboratory bench, as the control unit with display and water dispenser can be mounted on the wall in various ways.



Technical Specifications | Ordering Information

Materials	
Tubing	PVDF
Tube length	3.4 m
Cable length	3.0 m

Order number	Description
H2O-ACK-D	Arium® Conversion Kit, including wall mounting kit for the display dispenser unit*

* The Arium® Conversion Kit can only be used in conjunction with an Arium® bench-top device. Conversion of the system should only be carried out by Sartorius Service specialists.

Intended Use

Device type:

- Arium® Comfort I

Arium® Smart Station

Remote dispensing at high flexibility

- Compact: Save space integrating in your lab
- Intuitive: Touch-activated color display with direct access to all important functions
- Flexible: Stepless height adjustment to fill different size containers
- Accurate: Precise volume dispense for reliable buffer and sample preparation

Description

The Arium® Smart Station is designed for flexible remote dispensing of pure and ultrapure water directly at the point of use. While dispensing water into a broad range of different sized containers, the Smart Station offers constant control of every important quality parameters, at all times. The ergonomic design supports left- and right-hand operation and can be easily adjusted to your need.

In addition, for maximum flexibility you can connect up to three Smart Stations to the ultrapure water cycle. Using the extended connection set, the distance between each Smart Station can be set up to 4 meters. Based on your needs different point of use filters can be added.



Arium® Smart Station Ultrapure:

Supply ultrapure water from Arium® Comfort



Arium® Smart Station Pure:

Supply pure water from Arium® Bagtank



Technical Specifications | Ordering Information

Dimensions Smart Station Bench-Top	
Control box with stand (w × d × h)	213 × 213 × 598 mm (8.4 × 8.4 × 8.2")
Operating range fixed dispense arm (d × w × h)	428 × 476 × 835 mm (16.9 × 18.7 × 32.9")
Tubing Length: Distance to water system bagtank	2 Meter
Operating range flexible hand held	0.7 Meter
Weight	Approx. 4.9 kg (10.8 lbs)

Dimensions Smart Station Wall-Mounted	
Control box (w × d × h)	172 × 157 × 343 mm (6.8 × 6.2 × 13.5")
Operating range dispense arm (d × w × h)	242 × 90 × 300 mm (9.5 × 3.5 × 11.8")
Tubing Length: Distance to water system bagtank	2 Meter
Operating range flexible hand held	0.7 Meter
Weight	Approx. 2.4 kg (5.3 lbs)

General Specifications	
Volume-controlled dispensing	50 mL – 50 Liter
Volume accuracy	± 5% between
Power supply	100 – 240 VAC; 50 and 60 Hz, 2.5 A (max.) 2 °C – 40 °C
Power cord (IEC 60320-1 / C14)	Country specific


Order number	Description
H2O-ARST-UP-T	Arium® Smart Station Ultrapure for benchtop installation
H2O-ARST-UP-B	Arium® Smart Station Ultrapure for wall-mounted installation
H2O-ARST-P-T	Arium® Smart Station Pure for benchtop installation
H2O-ARST-P-B	Arium® Smart Station Pure for wall-mounted installation

Benchtop and wall-mounted edition can be assembled for left or right hand side, without additional equipment required.

Intended Use

Device type:

- Arium® Comfort I
- Arium® Bagtank

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