SARTORIUS

Product Datasheet



Arium® Comfort I

Space-saving Twin Technology

DOMINIQUE DUTSCHER SAS

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
- 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 ultrapure water quality. Compared to conventional water systems, the Arium® Comfort I optimizes water consumption using the integrated iJust control unit. This unique touch display with intuitive menu navigation ensures the utmost 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 $CaCO_3$ and CO_2.

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

"Favorites" function

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

Technical Specifications

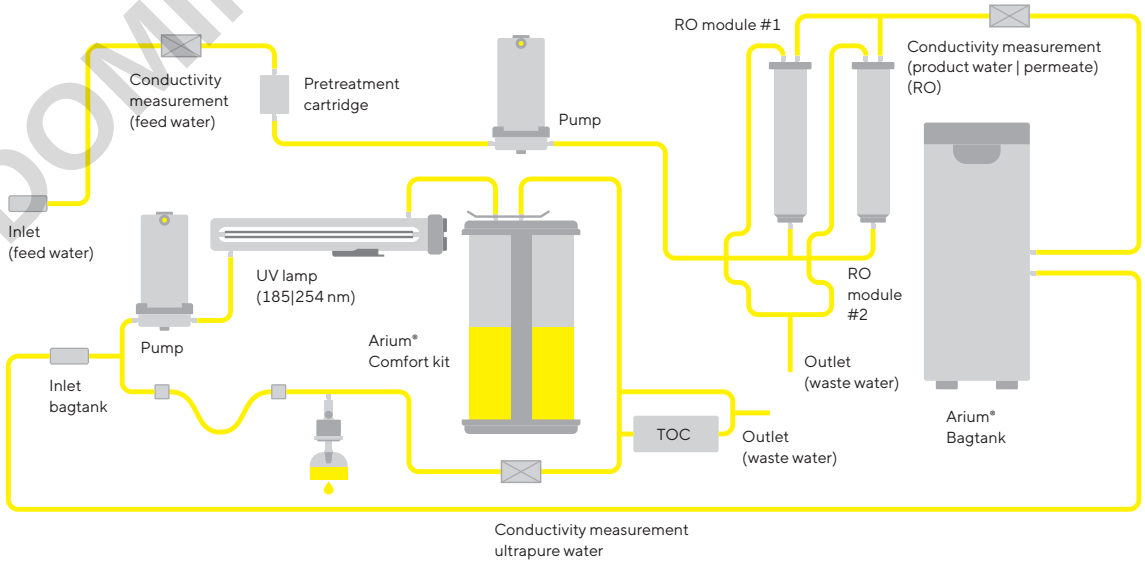
Dimensions: width × height × depth	43.5 × 50.1 × 47.6 cm
Empty weight	approx. 23 kg
Operating weight	approx. 31 kg
Power supply	100 – 240 VAC (±10%); 50 – 60 Hz, 130 VA (max.)
Operating temperature	2 °C – 35 °C at max. 80% relative humidity
Storage temperature	5 °C – 45 °C at max. 80% relative humidity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

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Water Applications

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 approx. 10 – 40 Liter/day	▪	▪
Type 3 reverse osmosis water approx. 140 Liter/day (8 L/h)	▪	▪
Type 3 reverse osmosis water approx. 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	▪	▪

Molocular 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 Sequenzing	▪	
Nutrient media for cell culture (Mammalia & plant)	▪	

Analytical Application	Comfort I	Comfort I UV
SPE (Solid phase extraction)		▪
Trace metal analysis		▪
IC (Ion chromatography)		▪
ICP-MS (Inductively Coupled Plasma Mass Spectrometry)		▪
LC-MS (liquid chromatography with 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

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Product Water Quality Type 1

Water purification method	Adsorption by spherical activated carbon, ion exchange and UV oxidation (optional)
Water type	ASTM Type 1 ultrapure water
Water dispensing flow rate[1]	Up to 2 L/min
Volume-controlled dispensing intervals	0.05 in 0.05 L step, 0.1 – 2.0 L in 0.1 L steps, 2.0 – 20 L in 1 L steps, 20 – 95 L in 5 L steps
Volume accuracy[2]	3% between 0.25 L and 95 L
Conductivity[3,4]	0.055 µS/cm compensated to 25 °C
Resistivity[3,4]	18.2 MΩ × cm compensated to 25 °C
TOC content[5] (system with UV lamp)	≤ 2 ppb
TOC content[5] (system without UV lamp)	< 5 ppb
Bacteria[6]	< 0.001 CFU/mL
Particle content[6]	No particles > 0.2 µm
Endotoxins[7]	< 0.001 EU/mL
RNase concentration[7]	< 1 pg/mL
DNase concentration[7]	< 5 pg/mL

[1] Depending on the feed water pressure, temperature, and condition of the RO modules
[2] Depending on feed water and constant operating conditions
[3] Measured value output adjustable to 25 °C, compensated or uncompensated
[4] Constant of the ultrapure water measurement cell: 0.01 cm^{-1}
[5] Determined with municipal water (Goettingen), TOC < 1,000 ppb
[6] When using an Arium® Sterile Plus (Sartopore® 2 150)
[7] When using an Arium® Cell Plus

Product Water Quality Type 3

Water purification method	Adsorption by spherical activated carbon, catalyst and reverse osmosis
Water type	Type 3 reverse osmosis water
Production output[1]	8 or 16 L/h
Water dispensing flow rate[2]	Up to 3 L/min[3]
Typical conductivity[3]	< 20 µS/cm
Typical resistivity[3]	> 0.05 MΩ × cm
Typical ion retention	up to 98%
Retention of dissolved organic substances (MW > 300 Dalton)	> 99%
Particle and microorganism retention	> 99%

[1] Depending on the feed water pressure, temperature, and condition of the RO modules
[2] When using an Arium® Bagtank with pump, depending on hydrostatic pressure, connected accessories or end filter
[3] Depending on the feed water quality and temperature

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Additional product water specifications when connected to an Arium® Smart Station[1] with final filter

Particle content[2]	No particles > 0.2 µm
Bacteria[2]	< 0.001 CFU/mL
Endotoxins[3]	< 0.001 EU/mL
RNase concentration[3]	< 1 pg/mL
DNase concentration[3]	< 5 pg/mL
Water dispensing flow rate[4]	Up to 2 L/min
Volume-controlled dispensing	0.05 – 50 L in 50 mL steps

[1] Connected to an Arium® Bagtank or an Arium® Comfort
[2] When using an Arium® Sterile Plus (Sartopore® 2 150)
[3] When using an Arium® Cell Plus
[4] Depending on the connected Arium® Bagtank, hydrostatic pressure, connected accessories and end filter

Accessories and final filters for the Arium® Smart Station can be found in the Arium® Smart Station data sheet.

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).

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Accessories

Arium® Bagtank



The most innovative tank system

- Integrated ventilation filter with non-return valve provides reliable protection against CO_2 pollution
- High flexibility through the 4 rollers available as an option
- Easy and fast exchange of the Arium® Bags
- High user safety due to the avoidance of cleaning chemicals

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 offers a high level of user safety and time savings, as there is no need for a complicated cleaning procedure with chemicals.

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

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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 × ⅜" PLC quick-connect coupling

Water connection output	
Bagtank 20	1 × ⅜" PLC quick-connect coupling
Bagtank 50, Bagtank 100	2 × ⅜" PLC quick-connect coupling

[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

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 & bagtank 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

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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.

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Technical Specifications | Ordering Information

Dimensions	
Tubing	1/4"
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.

For maximum flexibility, you can connect three Arium® Smart Station Ultrapure to the Arium® Comfort. By this you can expand the ultrapure water dispensing points up to four. Thereby, the distance between the individual dispensing points and the device can be extended to 4 meters, each. To take pure water directly from the Arium® Bagtank. you can connect an Arium® Smart Station Pure.

Depending on your needs and application, different final filters can be added to the Smart Station.

Arium® Smart Station Ultrapure:
Supply ultrapure water from Arium® Comfort



Arium® Smart Station Pure:
Supply pure water from Arium® Bagtank



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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	0.05 – 50 L in 50 mL steps
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 assembeled for left or right hand side, without additional equipment required.

Accessories and final filters of the Arium® Smart Station can be found in the data sheet Arium® Smart Station.

Intended Use

Device type:

- Arium® Comfort I
- Arium® Bagtank

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Arium® Foot Switch

Greater convenience during ultrapure water dispensing

- Water dispensing at a press of the foot
- Facilitates work in the clean room and minimizes the risk of contamination
- Low installation height enables Comfortable, fatigue-free switching



Description

Easy-to-connect foot switch to start and stop the water extraction process. The sturdy foot switch enables work to be performed with both hands, e.g. for switching vessels, and minimizes the risk of contamination in the clean room.

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Technical Specifications | Ordering Information

Material	Nylon, glass fiber-reinforced
Dimensions [W × H × D]	14.0 × 4.5 (max.) × 10.6 cm
Cable length	2 m
Power supply	100 – 240 VAC | 50 – 60 Hz
Connection	Phoenix plug, 2-pin

Order number	Description
H2O-AFS1	Arium® Foot Switch, 1 pc

Intended Use

Device type:

- Arium® Comfort I

Arium® Printer

GMP data documentation made easy

- Acquisition and documentation of current measurement data
- High printing speed
- Compact and robust design
- Thermal transfer printing process (for durable prints in regulated areas)
- Direct thermal printing method possible (for less stringent requirements in standard use)



Description

To assist with qualification and documentation tasks, current measured values are output via an RS-232 interface to the printer.

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Technical Specifications | Ordering Information

Dimensions [W × H × D]	241.3 × 139.9 × 177.4 mm
Interface	RS-232 (max 115,200 bps) – USB 2.0 (full speed)
Power supply	External universal switching power supply ▪ Input: 100 – 240 V~ ▪ Output: 24 V–; 2.5 A

Order number	Description
YDP30	Printer, 1 pc
SB-12-01-0250	Connection cable Arium® (required), 1 pc
69Y03285	Set of standard paper and ink ribbon for thermal transfer printing (GMP-compliant)
69Y03287	Standard paper for direct thermal printing

Intended Use

Device type:

- Arium® Comfort I

Arium® Water Guard

Early detection of leakages protects the laboratory
- Highly sensitive optical sensor
- Audiovisual alarm signals
- Automatic water stop in the case of leakage
- High-quality material, no corrosion
- Easy to install
- Integrated wall mounting bracket for solenoid valve



Description

Only the early detection of water leakages provides optimal protection against water damage in the laboratory. Leakages are registered by the highly sensitive optical sensor.

In contrast to conventional sensors, this sensor functions independently of conductivity measurement values as these are so low in the ultrapure and pure water that the activation of the guard would not be guaranteed. Once a leak is detected, the water guard automatically locks the feed water inlet line. An acoustic warning is triggered immediately and the system status can be constantly controlled using the integrated LED display. With its sensitive optical sensors and high-quality materials, the Arium® Water Guard is perfect for all ultrapure and pure water systems.

Technical Specifications | Ordering Information

Sensor dimensions	
Diameter	5 cm
Height	2.5 cm
Cable length	2 m

Tubing connections	
Input	⅜" Plug-in connector
Output	⅜" Plug-in connector
Power supply	100 – 240 VAC | 50 – 60 Hz

Order number	Description
610AWG1	Arium® Water Guard, 1 pc

Intended Use

Device type:
- Arium® Comfort I

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Consumables

Arium® Sterile Plus



Sterile and particle-free water dispensing

- Excellent service life and flow rates
- Integrity tested
- Validated according to HIMA and ASTM F-838-05
- Meets WFI quality standards pursuant to USP incl. USP plastic class VI test
- Production in accordance with DIN ISO 9001
- Easy to install
- Automatic venting
- Certified quality

Description

The Arium® Sterile Plus (Sartopore® 2 150) is a sterile, ready-to-use membrane filter capsule containing a hydrophilic, heterogeneous polyethersulfone double membrane for excellent service life and flow rates. Attached, to the point of use, via a quick connector, the capsule reliably removes particles and microorganisms in the final step of water treatment. A hydrophobic PTFE membrane at the farthest point "upstream" allows for easy and clean ventilation of the capsule.

All membrane filter units are validated as sterile filters for biopharmaceutical application according to the HIMA and ASTM F-838-05 guidelines (documentation available). During the manufacturing process, every capsule is integrity-tested to meet the highest quality standards and safety regulations.

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Technical Specifications | Ordering Information

Materials	
Membranes	Asym. Polyethersulfone
Bell assembly	Polycarbonate
Other plastics	Polypropylene

General Specifications	
Pore size	0.45 µm × 0.2 µm
Filtration area	0.015 m²
Input and Output	¼" Plug-in connector
Sterilization (max. 3 cycles)	Autoclaving at 134 °C, 2 bar, 30 min.
Max. diffusion	1 mL/min @ 2.5 bar
Min. bubble point	3.2 bar

Typical Specifications	
Bacteria	< 0.001 CFU/mL
Particle content	No particles > 0.2 µm

Order number	Description
5441307H4--CE	Arium® Sterile Plus (Sartopore® 2 150 Capsule), 1 pc

Intended Use

Device type:

- Arium® Comfort I
- Arium® Smart Station Ultrapure
- Arium® Smart Station Pure

Arium® Cell Plus Ultrafilter

For effective removal of endotoxins in cell culture applications

- Effective removal of RNase | DNase
- Reliable removal of endotoxins
- High flow rate performance
- Certified quality
- Sterile-packaged



Description

The Arium® Cell Plus is a point-of-use ultrafilter for efficient removal of endotoxins, RNase, DNase, microorganisms and particles.

Designed for Arium® Comfort water systems, this sterile-packaged ultrafilter provides the highest safety for your critical cell culture applications. A protective bell supplied with the ultrafilter additionally prevents retrograde contamination.

Moreover, the high-grade material selected for Arium® Cell Plus enables excellent total throughputs and optimal flow rates.

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Technical Specifications | Ordering Information

Materials	
Membrane	Polysulfone
Composite material	Polyurethane (PUR)
Housing	Acrylonitrile butadiene styrene (ABS)
Protective bell	Polycarbonate (PC)

Typical Specifications	
Flow rate (depends on the inlet pressure and type of system)	Up to 2.0 L/min
Endotoxins	< 0.001 EU/mL
Bacteria	< 1 cfu/100 mL
RNase concentration	< 1 pg/mL
DNase concentration	< 5 pg/mL

General Specifications	
Cut-off	15,000 Daltons | 0.005 µm
Inlet and Outlet	¼" Plug-in connector
Dimensions (height × diameter)	169 × 50 mm
Max. operating pressure	6 bar (87 psi)
Max. inlet temperature	50 °C
Effective membrane area	0.5 m^2

Order number	Description
H2O-CUF	Arium® Cell Plus Ultrafilter, 1 pc

Intended Use

Device type:

- Arium® Comfort I
- Arium® Smart Station Ultrapure
- Arium® Smart Station Pure

Arium® Comfort Pretreatment Cartridge

Reliable protection of the Comfort RO module

- Fast and effective adsorption of impurities through high-grade activated carbon
- Highly efficient catalyst for removing free chlorine



Description

The combination of spherical, catalytically active activated carbon with an added catalyst constitutes the best protection for a downstream reverse osmosis (RO) membrane. It reliably removes oxidation agents, such as free chlorine and ozone, heavy-metal ions and particulate contaminants from the feed water of the system.

A special catalyst is an integral part of pre-treatment. It is particularly efficient at removing free chlorine at a lower temperature and | or higher pH value compared to activated carbon alone.

The patented cartridge design ensures minimal time expenditure with ultra-easy installation and exchange.

Technical Specifications | Ordering Information

Materials	
Housing	High-quality polypropylene
Cleaning media	Spherical, catalytic activated carbon
Feed water requirements	See “Technical Specifications” page 2

Order number	Description
H2O-CPFCO-1	Arium® Comfort Pretreatment Cartridge, 1 pc

Intended Use

Device type:

- Arium® Comfort I

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Arium® RO Modules

Reverse osmosis modules with low-energy membranes

- Highly efficient reverse osmosis membranes, optimized water consumption
- Low-energy membranes for ecological and economical operation
- Backflush with product water increases the service life
- Easy replacement
- Constant flow
- Consistently high water quality



Description

The Arium® RO modules consist of two independent membranes whose design guarantees easy installation and reliable operation. Each of the two modules contains a low-energy reverse osmosis membrane in a polypropylene housing.

The housing has connections for feed water, permeate (product water) and concentrate (discarded water). The RO modules enable an ideal water yield, thereby optimizing the water consumption. At the same time, up to 98% of the salts are typically retained. Thanks to the backflush with permeate, particles and salts are removed from the surface of the membrane.

This results in a longer service life and lower system maintenance costs. In addition, this backflush function on restarting the system after a standstill allows for the immediate dispensing of high quality water.

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Technical Specifications | Ordering Information

Materials	
RO membranes	Low-energy membrane made of polyamide
Housing	Polypropylene

Dimensions for each module	
Height	30.8 cm
Diameter	7.8 cm
Weight	0.468 kg
Product Water Quality	See “Technical Specifications” page 2

Order number	Description
613CPM4	Arium® RO Module, 1 pc
613CPM4--------V	Arium® RO Module, 2 pcs

Intended Use

Device type:

- Arium® Comfort I

Arium® Comfort kit

Deionization cartridge featuring top-down technology

- High performance capacity thanks to efficient ion exchange resins
- Fast and effective adsorption of impurities through high-grade activated carbon
- Optimized crossflow behavior, prevents separation of the resin mixed-bed
- Patented connection method, easy replacement of consumables



Description

The cartridge sets are optimized for the removal of both organic and inorganic constituents. The set was designed specifically to match the unit and delivers ultrapure water that even exceeds the ASTM type 1 quality standard. This consistent level of high-quality water ensures optimal reproducibility of your results.

Optimized filling materials, such as highly effective activated carbon coupled with highly efficient ion exchange resins, deliver long lasting performance and low-maintenance operation.

The top-down flow technology produces ideal purification kinetics and prevents any mixing of cleaning media. The cartridge was designed with the applicable standards for flow rate in the cross section and contact time with the medium in mind.

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Technical Specifications | Ordering Information

Materials	
Housing	High-purity polypropylene
Fixing screws	Stainless steel
Cleaning media	Spherical, catalytic activated carbon Ultrapure mixed bed ion exchange resin in semiconductor quality
Further data on product water quality	See “Technical Specifications” page 2

Order number	Description
H2O-C-PACK	Arium® Comfort Kit, 1 pc

Intended Use

Device type:

- Arium® Comfort I

Arium® UV Lamp (185 | 254 nm)

Ultrapure water, free of TOC

- Horizontal installation, optimized temperature gradient
- Effectively destroys organic compounds
- Easy replacement



Description

The horizontally arranged UV lamp provides particularly reliable results. In contrast to vertical devices, the temperature gradient is less pronounced and thus prevents the influence on the activity of UV waves.

The two different wavelengths reliably remove organic impurities up to a TOC (total organic carbon) content of ≤ 2 ppb*.

DOMINIQUE DUTSCHER SAS

Technical Specifications | Ordering Information

Typical Specifications	
TOC value for product water*	≤ 2 ppb

Order number	Description
611CEL1	Arium® UV Lamp (185 | 254 nm), 1 pc

Intended Use

Device type:

- Arium® Comfort I (UV & TOC version)

* Feed water < 50 ppb TOC

Arium® RO Cleaning Set

Maximum service life of the RO module
- Effective removal of scaling and metal deposits
- Elimination of organic compounds
- Dispersion of colloids
- Stable pH values
- Gentle on materials



Description

Two-stage cleaning kit for removing scaling and organic impurities.

The alkaline substance contains non-foaming surfactants that dissolve organic compounds, disperse colloids and can be quickly removed again from the membrane surface. Cleaning efficiency depends on the pH value that is steadily maintained by buffer substances through a large temperature range.

The acidic cleaning agent to remove scaling contains chelate and reducing agents in order to dissolve metallic deposits. The ideal pH value also remains consistently low over a wide range during cleaning in this case thanks to the buffers.

Technical Specifications | Ordering Information

Ingredients	
Alkaline cleaner	HEDTA, ethanolamine, triethanolamine
Acidic cleaner	HEDTA, phosphoric acid, citric acid

Order number	Description
H2O-CCS	Arium® RO Cleaning Set, 1 pc

Intended Use
Device type:
- Arium® Comfort I

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Sartorius Service

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 operation ofyour Arium® systems. Just ask us and we will even cover the entire life cycle of your laboratory water system – from commissioning to qualification to regular maintenance. Together with you, we will ensure the consistently high quality of your laboratory water purification.

Our 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

Get more information now at:
www.sartorius.com/en/services

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