



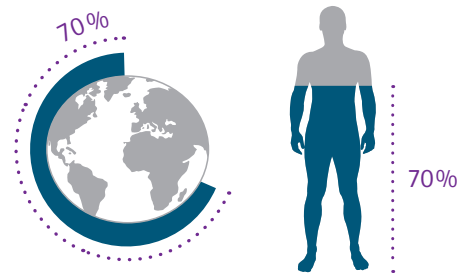
AQUAbase
PURITY FOR LIFE



THE ESSENCE OF LIFE

THE COMMON DENOMINATOR OF ALL LIVING THINGS

H₂O – a simple chemical formula with profound significance. A compound uniquely intertwined with our understanding of life, purity, and vitality, it is the prerequisite for and the common denominator to all life on Earth. Water covers some 70% of the Earth's surface, and almost the same percentage can be found in every single one of us.



WHY IS PURE WATER SO IMPORTANT FOR DIALYSIS?

During hemodialysis treatment, patients are exposed to large quantities of dialysis fluid, which is 99.3% water, separated from the patient's blood solely by a very thin, semi-permeable dialyzer membrane. Clinical studies have revealed that contaminants in dialysis water are contributory factors for both acute and chronic morbidity and are responsible for serious complications in hemodialysis patients.¹ Consequently, water quality is a key factor in modern dialysis.

Because it's so crucial to your patients' health and wellbeing, there's just no substitute for the highest possible level of water purity for dialysis treatment. At B. Braun, we can look back at over 25 years of experience in dialysis water purification and have evolved over the years into a world leader in this field. Our new AQUAbase reverse osmosis purification unit was designed with the same philosophy of quality, customer value and safety that goes into everything we manufacture.

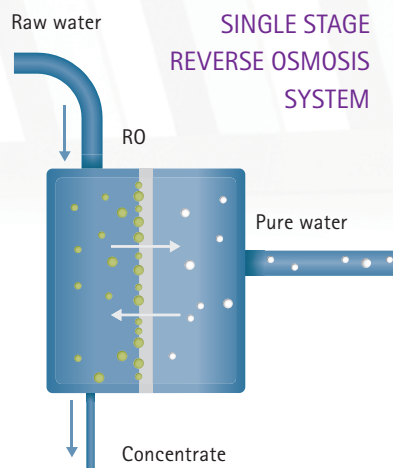
¹ Cannata-Andía JB, Fernández-Martin JL. The clinical impact of aluminium overload in renal failure. *Nephrol Dial Transplant* 17 [Suppl 2]: 9-12, 2002 | Usuda K, Kono K, Yoshida, Y. The effect of hemodialysis upon serum levels of fluoride. *Nephron* 75:175-178, 1997 | Calderaro RV, Heller L. Outbreak of hemolytic reactions associated with chlorine and chloramine residuals in hemodialysis water. *Rev Saude Publica* 35:481-486, 2001 | Yamagami S, Adachi T, Sugimura T, Wada S, Kishimoto T, Maekawa M, Yoshimura R, Niwa M, Terano Y, Shaldon S. Detection of endotoxin antibody in long-term dialysis patients. *Int J Artif Organs* 13:205-210, 1990



AQUAbase

ESSENTIAL WATER PURIFICATION

The AQUAbase series offers the essentials of dialysis water purification without compromising on quality or reliability. Combining stainless steel piping construction, highly efficient water consumption and the option of fully automated heat disinfection, the AQUAbase series represents an economical solution and a very sensible investment.



A REASONABLE INVESTMENT

- Available as a single stage reverse osmosis device
- Medical device standard (Medical Device Directive 93/42/EEC and other guidelines)
- High water recovery rates of up to 75% (geared-to-consumption)
- Durable stainless steel design
- Small footprint
- Heat disinfectable by integrated flow-through heater (option)



MORE THAN JUST A WARM-UP EXERCISE

AQUAbase IS SAFETY IN ITS PUREST FORM

Due to the many benefits in terms of both safety and cost, automated heat disinfection of dialysis water treatment systems has become standard technology in many areas of the world.

AUTOMATED HEAT DISINFECTION OF THE ENTIRE SYSTEM

The AQUAbase system gives you the option to integrate a flow-through heater directly into the reverse osmosis device. The heating unit can simultaneously supply the reverse osmosis device and the entire main ring system with hot water during the automated disinfection process.

COST REDUCTION AND SAFETY

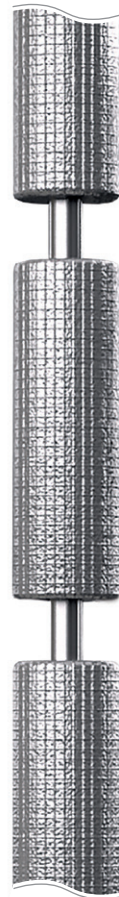
The complete elimination of chemical disinfectants not only enhances patient safety but also reduces operational costs. Because it's fully automated, it can help lighten staff workload and reduce maintenance times.

JUST GO WITH THE FLOW

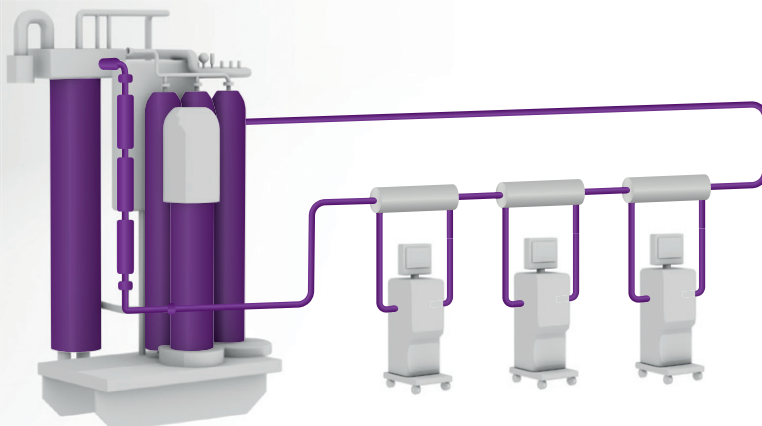
The system can show off its full capabilities when used in combination with the AQUAstream concept. This unique design avoids stagnant permeate (dead spaces) in the ring main and prevents microbiological contamination where it originates. Pressure differential bulbs provide a constant flow up to the dialysis machines. This translates to reliable day-to-day operation, ensuring high quality outcomes while reducing the need for time-consuming cleaning and disinfection.

UPGRADEABLE

Because requirements can change during the course of the system's lifetime, AQUAbase lets you upgrade to a heat disinfection system on location whenever you choose.



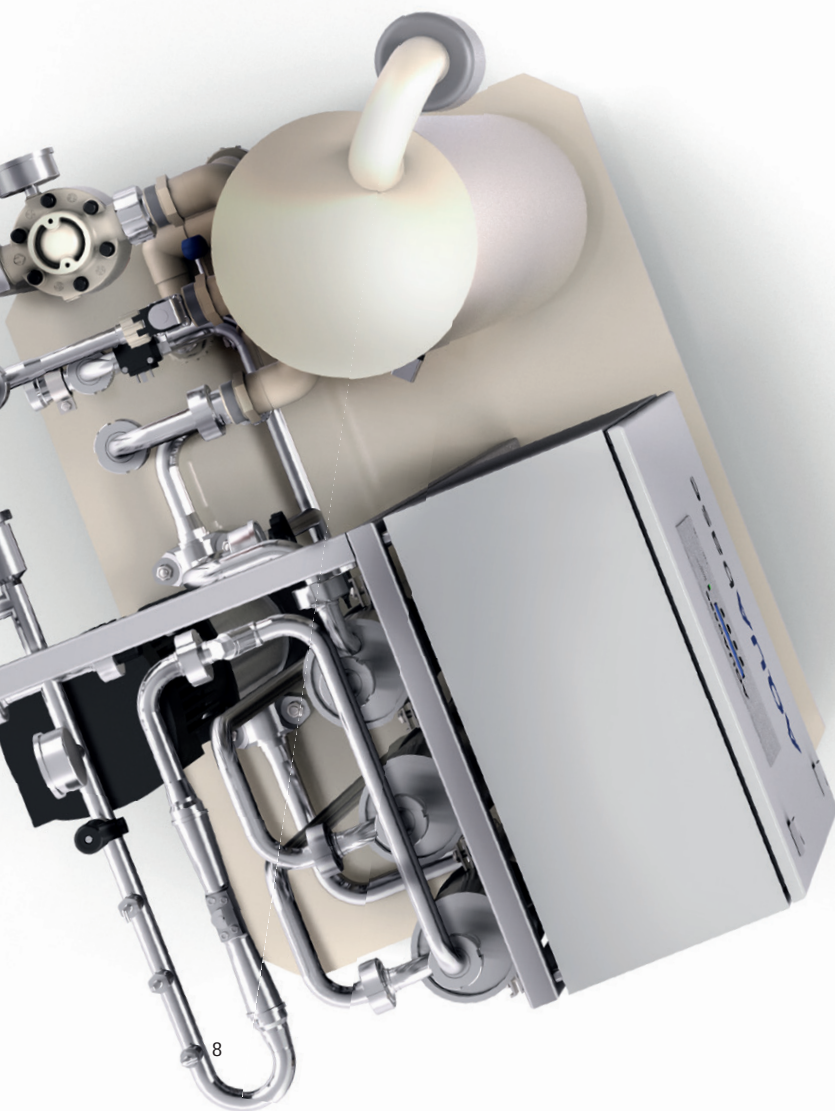
INTEGRATED AUTOMATED HEAT DISINFECTION (90°C)





SUSTAINABLE IN MANY WAYS

WHEN A SMALL DEVICE SHOWS TRUE GREATNESS





Everything we do has an impact on the environment. B. Braun Avitum always strives to make the most efficient use of our environmental resources. Since dialysis treatment is a highly resource-intensive form of therapy, sustainability was paramount during the development of AQUAbase.

CHEMICAL-FREE SYSTEM

The AQUAbase series of reverse osmosis systems can be completely thermally disinfected. This chemical-free disinfection method translates to both a high degree of patient safety and environmental compatibility.

INTEGRATED WATER CONSERVING TECHNOLOGY

Innovative water conserving technology improves the use of fresh water, allowing a water recovery rate up to 75%.

Healthcare systems around the world are under pressure to reduce treatment and operational costs. AQUAbase is both an environmentally and a financially sound investment.

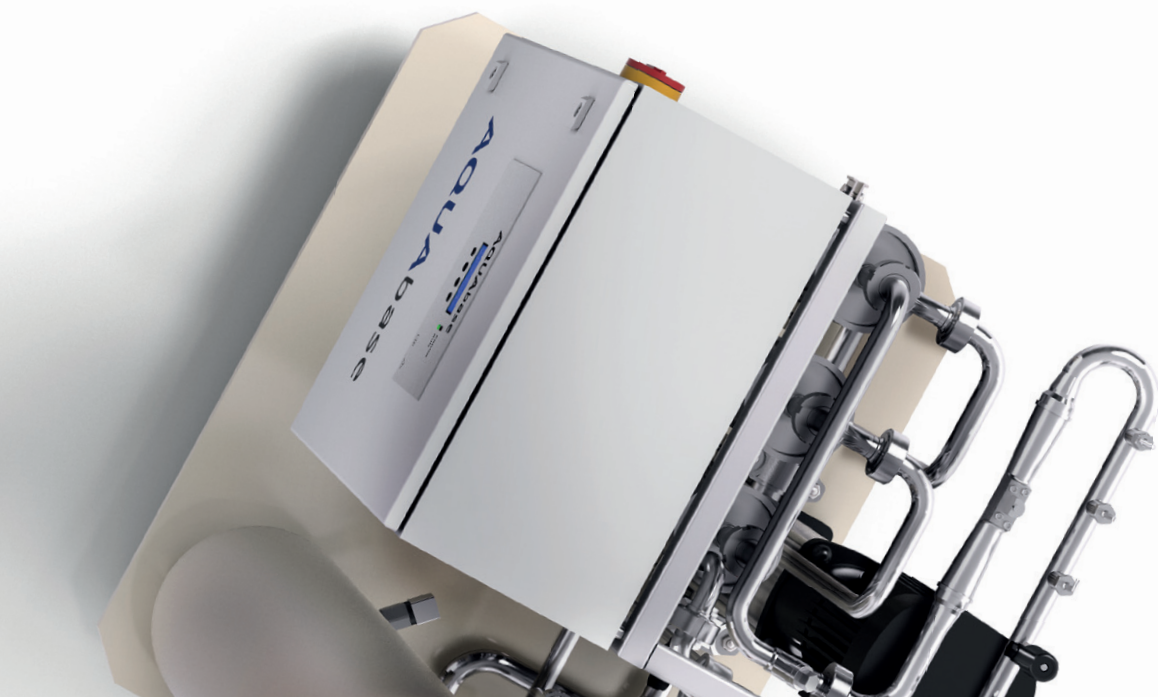
MINIMIZED LIFETIME COSTS

The consumption of resources such as water and electricity is a major cost factor in healthcare operation. Its impact is likely to increase over time, as the cost of water and electricity is expected to rise in the future. Because of the reduced space requirements, its water conserving technologies, stainless steel design and automated heat disinfection capability, the AQUAbase will provide cost effective dialysis over the complete system lifetime.

FLEXIBLE UPGRADABILITY

The option to upgrade heat disinfection and the possibilities to increase capacities makes the AQUAbase reverse osmosis device a future-proof investment that can always keep pace with demand. AQUAbase can be easily expanded to provide up to 900 l/h (HT 250 to 750 l/h).

Low initial investment, high efficiency and maximum flexibility for the future. That's what AQUAbase was designed for.



AQUAbase PACKAGES

AQUAbase	AQUAbase Classic	AQUAbase Comfort	AQUAbase Premium
	Standard Package	Advanced Package	Full Package
Pretreatment equipment	Pending on raw water conditions	Pending on raw water conditions	Pending on raw water conditions
RO device series	▪ AQUAbase	▪ AQUAbase	▪ AQUAbase
Disinfection (other than chemical)	-	-	▪ Integrated heat disinfection
Ring main supply	▪ PVC ▪ AQUAstream	▪ PEX ▪ AQUAstream	▪ Stainless steel ▪ PEX ▪ AQUAstream
Media supply center	Wide range of supply centers available	Wide range of supply centers available	Wide range of supply centers available

ALL PACKAGE COMPONENTS CAN BE COMBINED INDIVIDUALLY.

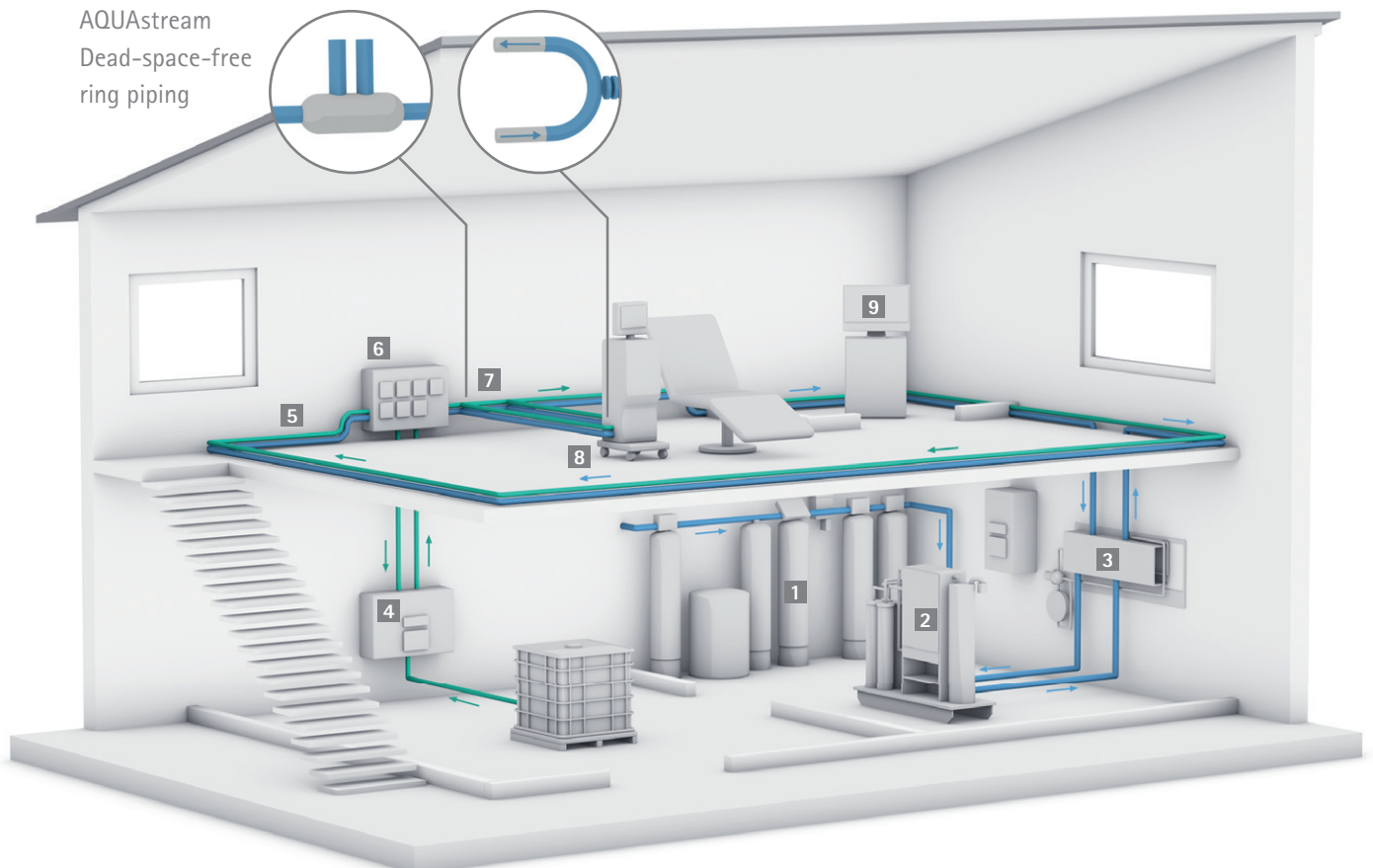
Learn more about the benefits of the new AQUAbase and our other innovative products.

For further information, download the dedicated app by scanning the QR code alongside.



IN A PERFECT FLOW

AQUAsystem – A COMPREHENSIVE SOLUTION FOR DIALYSIS WATER TREATMENT



- 1 Pretreatment
- 2 AQUAboss/AQUAbase reverse osmosis device
- 3 Heat disinfection solutions

- 4 Central concentrate supply
- 5 Ring piping solutions
- 6 Media providing centers
- 7 Pressure differential bulb

- 8 Secondary ring piping
- 9 Process visualization

Perfection is when everything fits together flawlessly. With the AQUAsystem, B. Braun Avitum strives to offer the best possible system solution by always focusing on the customer's key needs: Increasing the quality of life of the patient and reducing the total cost of ownership.

This complete system can handle even the most demanding requirements. With its dead-space-free, closed circuit system, intuitive process visualization and monitoring software, it's much more than just the sum of its parts.

Together with the AQUAsystem, we offer comprehensive planning and maintenance services, as well as individually tailored service models from a single source. As always, you can rely on our years of experience in the field of dialysis, certified production processes, and quality "made in Germany".

AQUAbase PACKAGES

AQUAbase	AQUAbase Classic	AQUAbase Comfort	AQUAbase Premium
	Standard Package	Advanced Package	Full Package
Pretreatment equipment	Pending on raw water conditions	Pending on raw water conditions	Pending on raw water conditions
RO device series	▪ AQUAbase	▪ AQUAbase	▪ AQUAbase
Disinfection (other than chemical)	-	-	▪ Integrated heat disinfection
Ring main supply	▪ PVC ▪ AQUAstream	▪ PEX ▪ AQUAstream	▪ Stainless steel ▪ PEX ▪ AQUAstream
Media supply center	Wide range of supply centers available	Wide range of supply centers available	Wide range of supply centers available

ALL PACKAGE COMPONENTS CAN BE COMBINED INDIVIDUALLY.

Learn more about the benefits of the new AQUAbase and our other innovative products.

For further information, download the dedicated app by scanning the QR code alongside.



AQUAsystem REVERSE OSMOSIS DEVICE SERIES

Liters/hour	200	750	1700	2650	3600
AQUAbase	250-900 l/h				
AQUAboss single stage	500-3000 l/h				
AQUAboss double stage	500-3600 l/h				
Machine supply	6	25	55	85	120



AQUAsystem – OVERVIEW

AQUAbase

The AQUAbase is our basic, single stage water treatment system.

AQUAboss

AQUAboss offers the choice of single- or double-stage water treatment systems, our premium device series.

AQUAstream

This system offers highly hygienic, dead-space-free ring piping solutions. The unique design concept ensures constant flow to the dialysis machine connection and incorporates unique welding technology for its stainless steel tubing.

AQUAsupport

We offer customized service and support packages for planning, construction, training, service and maintenance.

AQUAvision

AQUAvision is our specially developed, network-capable process visualization and monitoring software. This intuitive user interface is designed to simplify operation, documentation and error analysis.

AQUAclav

With our steam sterilization services for stainless steel distribution systems, your water purification system complies with pharmaceutical industry standards.

AQUAsystem – CHARACTERISTICS

RELIABILITY

- Over 25 years of experience in dialysis water purification
- Medical device standard
- Durable stainless steel design
- Redundant double stage technology
- Global service and support network
- Expert pre- and post-sale consulting

SAVINGS

- High water recovery rates
- Geared-to-consumption during operation and standby
- Efficient cleaning and disinfection technologies
- Heat-on-demand
- Chemical-free disinfection solutions
- Easy service

WATER QUALITY

- Constant flow throughout the entire water treatment system
- Double stage filtration technology
- Automated membrane flushing feature (impulse backwashing)
- PLUS: AQUAclav sterilization services for water purification systems to pharmaceutical standards

B. Braun Avitum AG | Schwarzenberger Weg 73-79 | 34212 Melsungen | Germany
Tel. +49 5661 71-0 | dialysis@bbraun.com | www.bbraun-dialysis.com



Learn more about the benefits of the new AQUAbase and our other innovative products.

For further information, download the dedicated app by scanning the QR code alongside.