

A close-up photograph of a woman with dark hair and glasses, wearing a white lab coat. She is holding a test tube up to the light, looking at it intently. The background is a bright, out-of-focus laboratory setting.

Purified Water in Best Quality

GENERATION, STORAGE, DISTRIBUTION
AND MONITORING

WE GENERATE PURE CONFIDENCE

Purified Water – the simplest thing in the world? Not for your production requiring water in the highest purity grade, manufactured according to the international pharmacopoeia and at industrial scales. That is why you should place your confidence in a partner that accepts this challenge in full – from the requirements/water analysis and the engineering via manufacturing to the life cycle service: BWT Pharma & Biotech.

EXCELLENCE IS OUR STANDARD

Is standard-conforming water quality ensured every second? Does the manufacturing process meet state-of-the-art requirements regarding efficiency, sustainability and cost-effectiveness? BWT builds, delivers and installs convincing turn-key solutions and uses a wide range of proven standard components.



COMMUNICATING EFFICIENTLY

From pre-treatment to the Point of Use: BWT implements turn-key solutions for your Critical Utilities project – in the fastest way possible and with a central project manager as your responsible contact person.

FINDING HIDDEN POTENTIAL

Sure, many systems and procedure are similar. And yet every requirement is different. BWT can find hidden optimization potential because our experience reaching back over fifty years and thousands of successful projects of all types and sizes.



"With BWT, you can turn water into solutions."

EXCEPTIONAL PRODUCTION

Another advantage: our production sites. BWT handles its own development, production, inspection and documentation all over the world – from proven EDI modules to completely pre-qualified, performance-tested, pre-assembled turnkey-ready systems for Purified Water and Highly Purified Water, Water for Injection (WFI) as well as Pure Steam.

AUDIT-FRIENDLY

BWT offers a clearly laid-out and pharmaceutical-compliant validation and documentation package. To ensure speedy approval processes and comfortable verifications and audits.

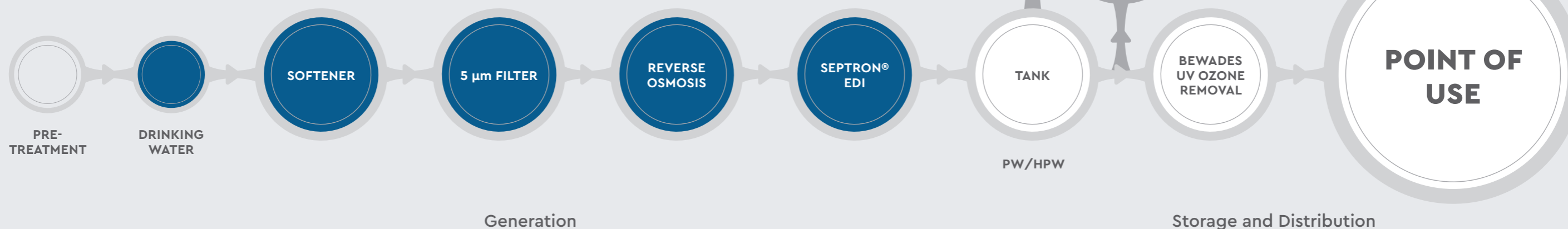
And while we're talking about confidence: BWT's optimally available systems ensure that your processes are safe. You should have the best service – and so you should choose BWT.

THE SAFE PATH TO YOUR DEFINED WATER QUALITY

Generate Purified Water as safely and efficiently as possible and in the defined quantities – it requires experience and process knowledge in order to achieve the ambitious objective: reliable water quality to the point. BWT knows the processes and has been committed to the continuous technical optimization of processes for decades – from pre-treatment to storage and distribution.

UNIQUE AND PATENTED: EDI BRAND BWT-SEPTRON®

The result of the pre-treatment determines the design of the reverse osmosis and EDI systems. Together, they form the technical core elements of BWT's modern pharmaceutical water systems. Across Europe, BWT is the only manufacturer of EDI modules in pharmaceutical quality, optionally with integrated ultrafiltration, enclosure made of stainless steel 316L, 100 percent tested, certified and made in Switzerland. For maximum safety in your production.



OPTIMAL PRE-TREATMENT

The starting substance is potable water – its composition is the basis of the pre-treatment technology. BWT convinces with high-grade solutions, including for the most difficult raw water conditions. You're welcome to benefit from our experience all over the world!

The underlying technologies in the generation of PW is identical across all BWT system. After softening and pre-filtration, the potable water reaches the process of reverse osmosis, which is then followed by electrode ionization (EDI) as a final step.

THE BWT PRINCIPLE: THE RIGHT SIZE IS SAFER

BWT's correctly dimensioned systems are more economic and offer more safety in an ongoing operation. In combination with the right tank, they offer better continuity in operation. Components experience less wear, and unnecessary downtimes and inefficient circulation operation are avoided. You can count on correspondingly lower investments.

STORAGE AND DISTRIBUTION INCLUDED

Purified Water must be stored and distributed in a way that assures its quality is preserved. A challenge that you can easily leave to BWT's integrated storage and distribution. The solution is called LOOPO. The system analyzes, sanitizes, monitors, controls and documents the complete process – fully automatic.

COMPONENTS OF A NEW PROCESS EFFICIENCY

SEPTRONLINE, OSMOLINE, OSMOTRON® – that's all you need to know to get a good handle on your PW production process. BWT's LOOPO system manages the subsequent cold storage and distribution of the produced Purified Water and Highly Purified Water.



LOOPO C

The turnkey compact system with ozone and UV technology for cold storage, distribution, sanitization and quality monitoring of PW and HPW. Designed as a space-saving rack construction, pre-assembled to be operationally ready, pre-tested and pre-qualified.



The powerful core elements of your processes: SEPTRON® modules.

SEPTRONLINE

This compact standard line was specially developed for the high standards of the pharmaceutical and biotech industry. The system offers BWT's high performance standards for a modest budget. This extremely space-saving system requires soft feed water, can be delivered quickly, and is well automated and chemically sanitized. SEPTRONLINE is a convincing option with full-fit reverse osmosis and the unique SEPTRON® EDI module. Optionally with integrated ultrafiltration for HPW. Available in different standard sizes with easy options to expand their performance.



OSMOLINE

The modular standard device is mounted on an open frame, compact and offers selected options. Additional advantages include state-of-the-art AQU@View automation, panels with multi-block valves for safe and easy sample removal as well as optional hot water sanitization. You can count on high-end technology without softening in a compact and budget-friendly frame!

OSMOTRON®

The reference product of integrated PW/HPW generators, on the market for over 20 years, optimized on an ongoing basis. The standardized, pre-qualified system, tested to be connection-ready, will meet the expectations of even the most demanding customers with its flexibly adjustable platform – this solution is a technological leader, with over 1,000 units in operation across the world.



SEPTRONLINE PERFORMANCE IN THE COMPACT FORM

SEPTRONLINE reliably delivers the desired water quality, without unnecessarily taking up space in your production – a convincing, budget-friendly, compact standard system for the production of PW and HPW according to the European and American pharmacopoeia. It is also ideal as a feed water production unit for WFI or PS generation.



Choose the quickest and easiest path to PW production – compact, completely standardized with reverse osmosis and EDI.

ECONOMIC

The system delights users with its high performance, coupled with low water consumption. Fast commissioning, a high availability level, easy expandability and low maintenance make SEPTRONLINE an exceptionally economic alternative.

SOLELY THEIR PERFORMANCE MAKES THEM STAND OUT

Concentrate on your core tasks! Unobtrusive, quiet, user-friendly devices make your daily work easier and more pleasant: SEPTRONLINE compact systems. They feature minimum space requirements and are perfectly designed to generate from 100 to 2,400 l/h PW or HPW. Including reverse osmosis and EDI, chemical sanitizable.

A SOPHISTICATED COMPACT SOLUTION

The standardized PW/HPW SEPTRONLINE systems offer the entire know-how and technical brilliance of a development that has evolved over decades. Sophisticated in form and function, space-saving, hygienic due to its use of full-fit membranes, block-valve technology and SEPTRON®. There is also a SEPTRON® Biosafe option with integrated UF for the production of HPW.



OSMOLINE SOLUTIONS IN SERIES

The standard series OSMOLINE is suitable for the generation of PW and HPW in smaller quantities. The system is a convincing option due to its open frame construction. This ensures low space requirements, which is ideal for labs and small pharmaceutical production sites that still attach importance to a hot-water sanitizable system, AQU@View automation and good ergonomics.



A central panel for all quality-relevant measuring points: It couldn't be more comfortable.

OPEN FOR MORE COMFORT

While SEPTRONLINE hides its technology behind a closed construction design, OSMOLINE presents itself in an open compact frame and offers selected modular options – the central sample removal panel at operating height, a well-known, popular, proven feature of the OSMOTRON®.

A HOT TIP

With its highly modern AQU@VIEW automation and optional hot water sanitization, OSMOLINE can expand your performance horizons to levels you would only expect from larger systems.



OSMOLINE is the perfect solution for PW/HPW generation from 0.4 – 1.6 m³/h if softened water is already available.



The system is pre-qualified before delivery and is completely FAT-tested ex works.

OSMOTRON® LEADING THE WAY FOR OVER 20 YEARS

OSMOTRON® is the reference product for PW/HPW generators. The series was launched back in 1996 market – as the first system for the generation of pharmaceutical water that contains all processes pre-assembled on a stainless steel frame. Of course the series has been optimized continuously since then. Today, way over 1,000 systems are in use worldwide. The current version is called OSMOTRON® PRO.



WATERPROOF FROM A TO Z
OSMOTRON® PRO is a standardized pre-qualified system that is tested to be connection-ready and meets the highest standards.

All components and sample removal points are optimally accessible.

FEATURES IN A NUTSHELL

The OSMOTRON® PRO is designed for maximum connectivity. Highlights: Multi-block valves for softening control, proven SEPTRON® modules with BioSafe option as well as the practical panel for easy sample removal. With its flexible and varied material, equipment and automation options, you can adjust the systems perfectly to your needs and budget.



PERFORMANCE AT YOUR SERVICE

OSMOTRON® PRO on a compact frame is available in different standardized models with nominal capacities from 400 l/h to 12,000 l/h. In the multi-skid construction, nominal capacities of up to 30,000 l/h per individual unit can be implemented.

EFFICIENCY FROM THE HEAD

The optional multi-block valve heads for softener control increase safety and enable continuous performance and high efficiency with minimum piping required.



It is said to be the best Purified Water system of all time: OSMOTRON® PRO.

SEPTRON® EDI MODULE – THE INGENUOUS HEART OF OUR SYSTEMS

BWT is the only European manufacturer of modules for electro-deionization (EDI) in the pharmaceutical industry. Our SEPTRON® and SEPTRON® BioSafe models are patented EDI modules that are used as core components in all of BWT's treatment plants.



ENVIRONMENTALLY FRIENDLY

SEPTRON® and SEPTRON® BioSafe are used for the reverse desalination of ion-deficient water (permeate). The modules operate on the basis of the combination principle of ion exchange and electro-dialysis. An electrical current is used instead of chemicals. The seal-free EDI spiral wound module uses an electrical field through which the ions of the feed flow are transported according to their charge. The ions reach the concentrate chamber via the ion exchanger membranes and are then flushed out of the module.

MATCHING PERFORMANCE CAPACITIES

When it comes to the quality of EDI modules, BWT does not make any compromises. SEPTRON® modules are 100 % factory-tested and certified. Their enclosure is made of high-grade 316L stainless steel. Different standard sizes guarantee efficient and economic system configurations for all common applications.

100 % individual testing – performance test with certificate

Enclosure made of 316L stainless steel

Excellent TOC reduction – high SiO₂ and CO₂ reduction

Seal-free spiral wound technology

SEPTRON® BIOSAFE

The first and only EDI module with an integrated ultrafiltration for particle and germ removal and pyrogen reduction. The final barrier of the module ensures maximum safety in the result. Ideal for particularly cost-effective production of HPW or to ensure maximum safety with the microbiological best PW.

TAILOR-MADE FOR PHARMACEUTICAL AND BIOTECH APPLICATIONS

Good to know: While other EDI modules were originally developed for the power plant or semi-conductor sectors and are thus in foreign territory in the pharmaceutical sector, SEPTRON® was custom-tailored for the needs in the pharmaceutical sector: seal-free, made of high-grade traceable materials and with minimal dead spots.

PROVEN OVER AND OVER
SEPTRON® modules are specially developed for use in the pharmaceutical, biotech and cosmetics industries. This is where they generate the best PW yield, as is proven daily in thousands of systems all over the world.



LOOPO C FOR SYSTEM EFFICIENCY IN ITS PUREST FORM

Generating Purified Water is only the first step. It also needs to be stored and made continuously available in the produced quality at the Points of Use. This is a job for LOOPO C, the compact system for the storage, distribution, sanitization and monitoring of Purified Water and Highly Purified Water.



CLEAN FINISH

LOOPO C completes your system concept – with a highly efficient BWT component. The LOOPO C is also designed as a rack in order to save space. The „C“ means that the device takes over the cold storage and distribution of PW and HPW with a highly effective and continuous ozonization of the storage tank and pump, particularly critical components from a microbiological perspective. The distribution system can be sanitized automatically and regularly up to the Point of Use.

ECONOMIC ENDURANCE RUNNER

A cost-effective advantage due to ozone technology: LOOPO C works in efficient continuous operation – without additional periodic sanitization with chemicals or steam. The device is quick to install and bring to operational readiness. The maintenance work required and operating costs are wonderfully low.



PERFECT INTERACTION

BWT's LOOPO C and PW generators are optimal coordinated to each other. Uniform components, uniform AQU@VIEW control, optional with Point of Use Manager, data logger and shared graphic visualization as well as a uniform documentation and validation package facilitate the process of acquisition, setup, official approval and operation.

LOOPO C offers the hygienic advantages of the electrolytic ozone generator STERITRON. Advantages: no added substances from outside, effective germ reduction as well as TOC and endotoxin depletion even at low ozone concentrations.

SERVICE CREATING VALUE FROM WATER

Your Critical Utility system is operating in the middle of your production? That makes system availability all the more important as a factor. Good to know: Even after you have started using the system, BWT will still be by your side, as a reliable, competent partner. Our AQU@SERVICE offers all services related to the operation of your system as a one-stop shop covering the complete life cycle of your system.



QUALIFICATION GIVES YOU WINGS

Safe system operation in a regulated environment: Only the qualified service of the original manufacturer can ensure this in the long term. AQU@SERVICE will provide you with „waterproof“ documentation. Your administration and coordination efforts will be reduced significantly, and external audits and inspections will be carried out quickly and efficiently.

QUICK SERVICE AT ANY SCALE

We're aware of flexibility as a competitive factor. In an emergency, we'll be on site in a flash, no matter where in the world. The agility principle also applies to more complex endeavors. For example, BWT can qualify, validate and document your conversion project. Or would you rather invest in a new system? AQU@SERVICE Upgrade will quickly answer any questions you may have and manage the recommended measures as a matter of routine.

EXPERIENCE DICTATES WE DON'T TAKE HALF-MEASURES

BWT employs over a hundred specialized service engineers worldwide. Decades of experience make all the difference. One result among many: the manufacturer-independent AQU@SERVICE Audit. A BWT service engineer determines the condition, performance and potential of your system and recommends concrete measures to be taken to optimize your system – an interesting option even for users of third-party brands.

"Let us do it - for you!"



AVAILABILITY

Vitaly important for you – and thus also for BWT.



PERFORMANCE

More performance with lower energy consumption! Sustainability through optimum use of resources.



QUALITY

For our products. For your processes. For all our lives.



SAFETY

Enjoy the good feeling of being in the best hands!



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FOR YOU AND PLANET BLUE.