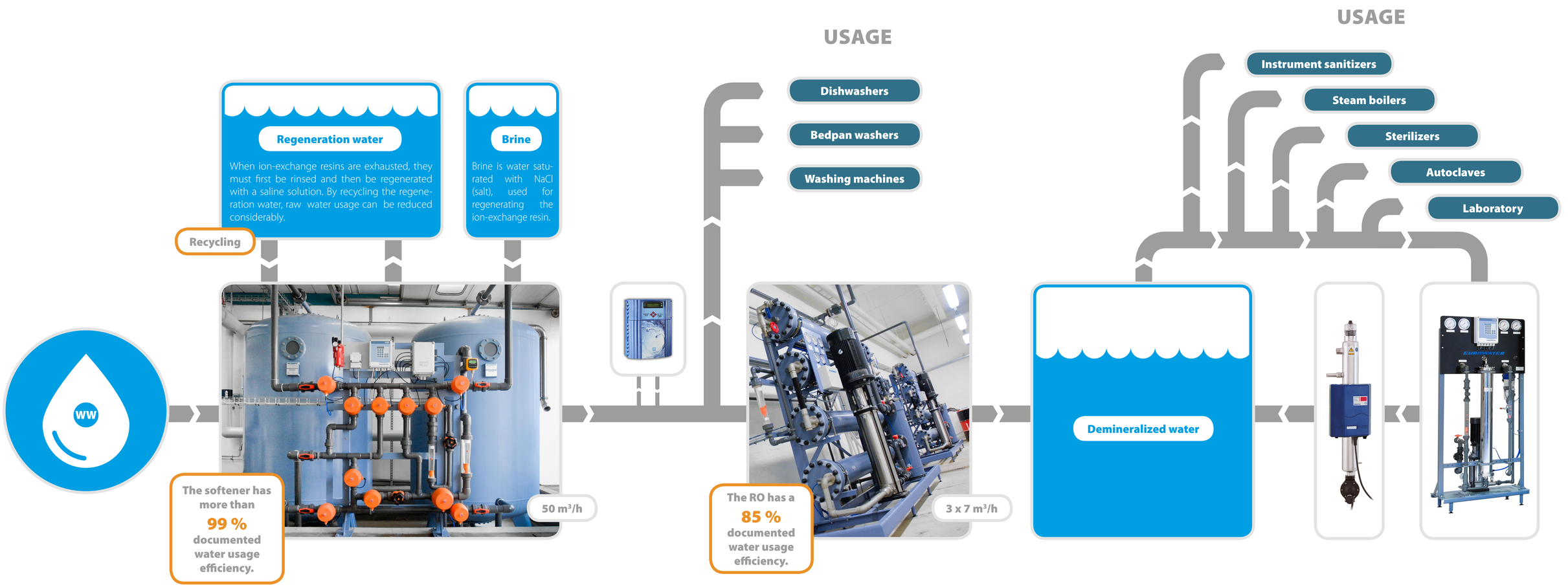
Odense University Hospital water treatment system



Waterworks

Even though water from Danish waterworks is very clean, there are still minerals such as calcium and magnesium present which can cause operational malfunction in technical installations.

Softening

Softening by ion exchange prevents calcium and magnesium deposits in technical installations by removing the calcium from the water and replacing it with sodium, which does not scale.

Hardness measurement

The hardness of the water is constantly measured. If it exceeds a set value, the Testomat unit transmits a signal, which initiates the regeneration process, ensuring a very high water usage efficiency.

Membrane filtration

Reverse osmosis is used for producing demineralized water. It retains more than 98 % of the salts in the water and removes pyrogenic substances as well as microorganisms. RO-PLUS technology increases the water consumption efficiency to about 85%.

Buffer storage

The water usage fluctuates over the course of a day. Storing the demineralized water in a buffer tank reduces both power, salt and water consumption significantly.

UV disinfection **Membrane filtration**

The water from the buffer storage is continually recirculated through the UV and RO plant in a loop. Disinfection with UV light effectively eliminates virtually all microbiological growth in the water by destroying the DNA of microorganisms such as bacteria, virus, algae, and fungi. And because RO membranes retain organic material, it serves as a second hygiene barrier.

Energy and water efficient water treatment system

The hospital is one of three university hospitals in Denmark. Thousands of patients are treated at OUH every day and it is an expressed ambition to ensure that every patient receives highly qualified treatment and feels well treated in terms of nursing and care. In this ambition, **access to water in the right quality at the right place** plays an important role.

The water treatment system is based around a **centralized plant** where the raw water is supplied by the local waterworks.

The hospital requires a **reliable and robust** water treatment and it has been important to exploit new and energy efficient technologies in order to minimize the consumption of water, consumables and energy.

Odense University Hospital (OUH) has gained considerable savings due to reduced water, salt and energy consumption based on water treatment plant. Compared to the previous installation they **save more than 10.000 m³ water per year.**

Units in the plant

- STFA 30 duplex softening unit
- Testomat on-line hardness measurement
- Equipment for recycling regeneration water
- 3 x RO-PLUS C2-6+2 reverse osmosis units
- Wedeco Aquada UV disinfection unit
- RO B1-1 reverse osmosis disinfection unit

ANNUAL SAVINGS

Modernizing your plant can save you a considerable amount of water and power!
Contact EUROWATER today and learn how.

Phone: +45 87 93 83 00
Email: info@eurowater.com

SCAN HERE TO LEARN MORE
eurowater.com/ouh

EUROWATER
PURE WATER TREATMENT