

xylem



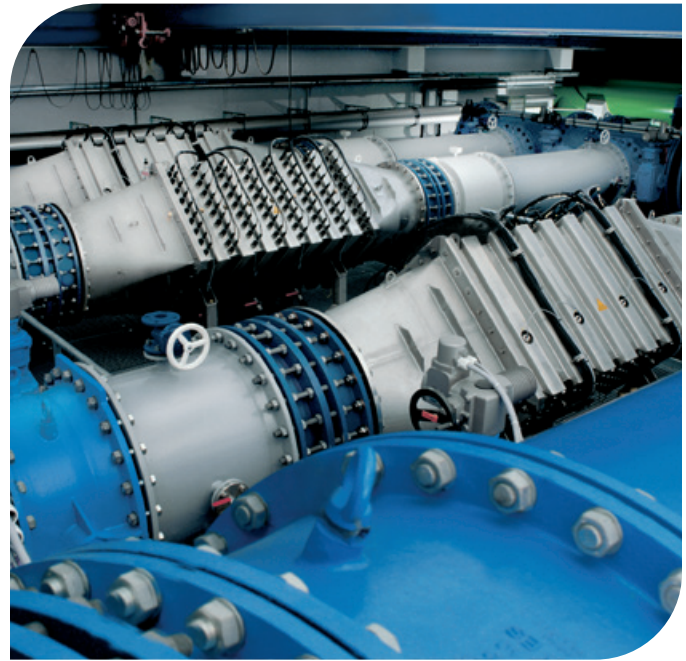
WEDECO® K series UV System

Efficient UV treatment for municipal drinking water supply

Treat reliably. Think sustainably.

The potable water supply is a particular challenge for large cities and municipalities. Enormous quantities of water must be sourced, treated and distributed in urban areas every day. The WEDECO® brand K series reactor is a proven solution for the efficient treatment of large quantities of drinking water with UV light. With hundreds of installed K series reactors worldwide, you can be confident that you have the right technology in place to meet the present and future water demands of your treatment plant.

Requirements that play an important role for water utility operators are sustainability, environmental compatibility and low energy consumption. These factors must be taken into account when choosing the right technology. When these factors are considered, the WEDECO brand K series reactor stands out with unique features.



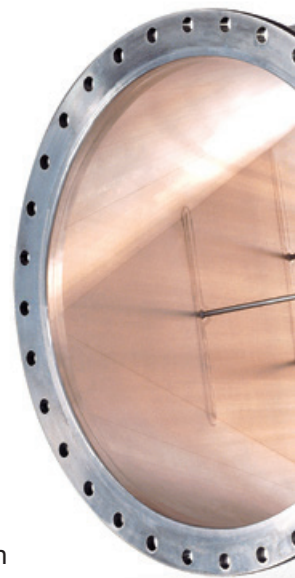
Advantages at a glance¹

- Treatment of up to 6,300 m³/h drinking water per unit
- Very low energy consumption thanks to efficient EcoRay® UV lamps
- Outstanding temperature stability of the UV lamps
- Long lamp life
- Very low head-loss (inline-installation)

WEDECO K series

The strength of the WEDECO K Series reactor lies in the combination of its Inline installation and the use of energy-efficient high intensity low pressure UV lamps. Treatment of drinking water of flows up to 6,300 m³ per hour are possible, while minimizing the energy requirements.

Depending on local conditions, a range of different sizes and flow rates per system are available. Most importantly, every WEDECO UV K series reactor can be designed to accommodate future drinking water requirements. Additional lamp rows can be integrated into the system for future use, based on water demand.



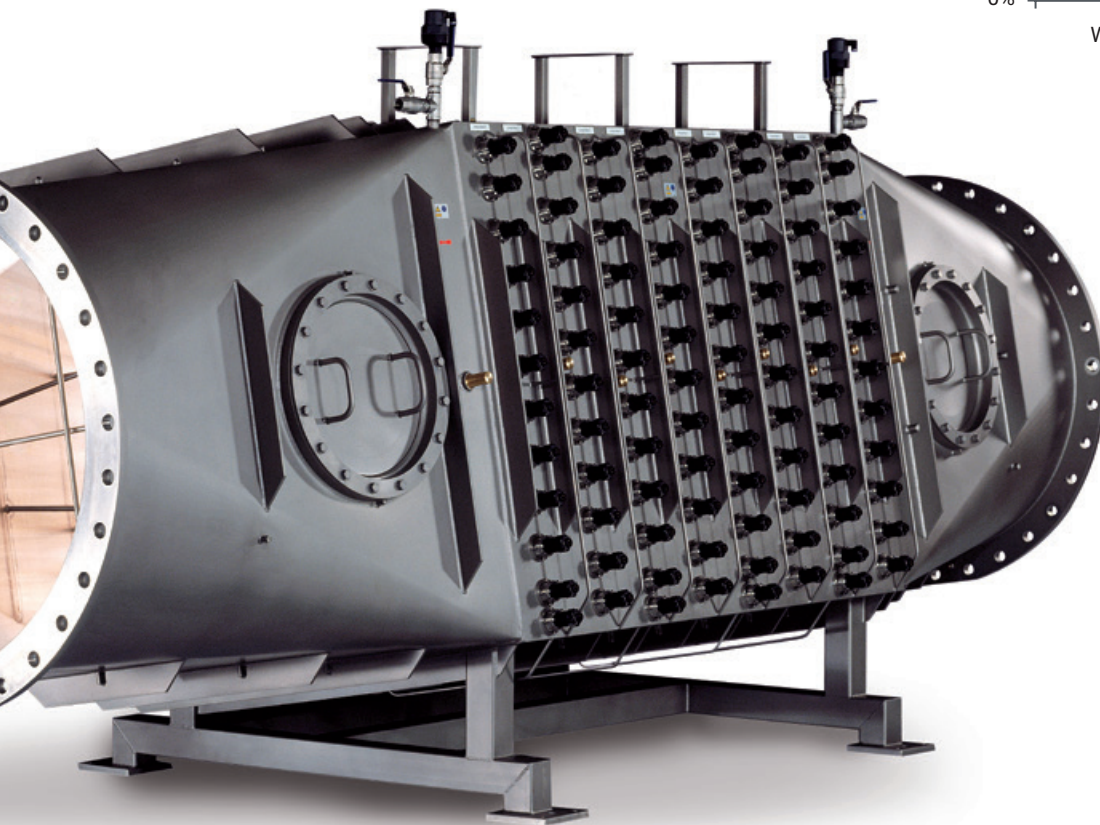
¹ For more details contact Xylem WEDECO at treatment@xylem.com.

Energy-efficiency: the decisive advantage

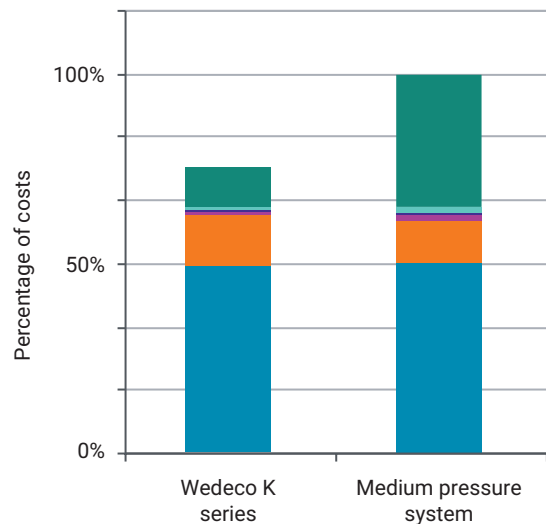
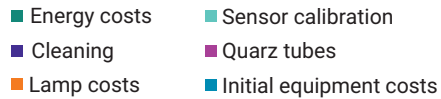
The WEDECO® brand K series reactor features our lowest energy and service life cost. WEDECO K series reactors set benchmarks in terms of economic efficiency—with a very low electric current consumption, long lamp service lives, and variable control—all with low investment cost. Further, due to the low lamp operating temperature, cleaning requirements for the quartz sleeves are minimized.

Validated disinfection capabilities²

WEDECO brand K series reactors provide highly effective dosing output. Even relatively turbid water with transmittance values as low as 70% can be treated effectively.



Lifetime costs analysis³



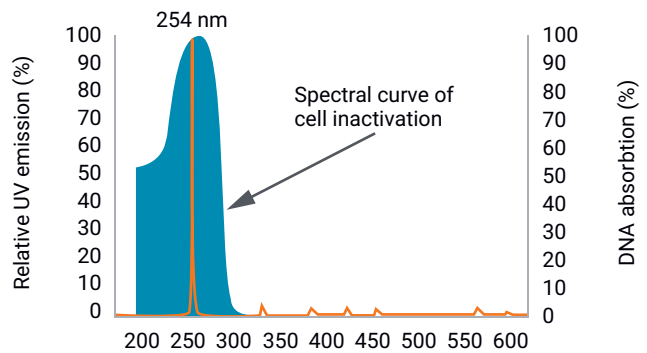
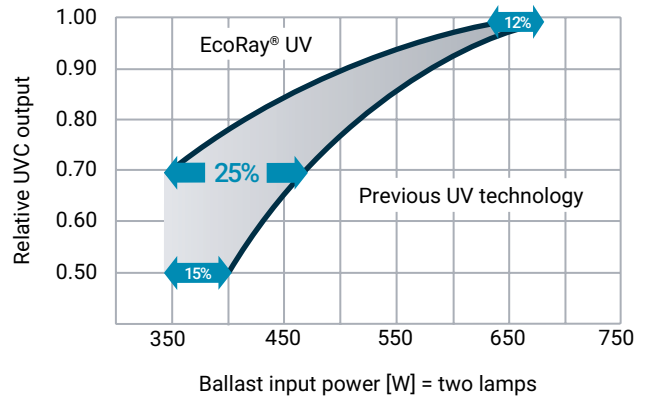
² The Xylem WEDECO brand K series UV disinfection systems have undergone third-party validation testing in accordance with the UVDGM (USEPA, 2006). Validated products are tested to confirm a minimum inactivation equivalent of 3 log (99.9%) for target microorganisms in accordance with the UVDGM. Performance is not claimed nor implied for any product not yet validated; unvalidated products use single point summation calculations to provide delivered dose recommendations. Performance limitations depend on feed conditions, overall installed system design, and operation and maintenance processes; please refer to Operations Manuals. For more information contact treatment@xylem.com.

³ Energy savings, investment costs, lamp life, and operating and maintenance requirements depend on a number of factors. Contact Xylem WEDECO for more details.

More efficient. Simply better.

WEDECO® brand K series reactors are equipped with the latest Xylem EcoRay® UV lamp and ballast technology. In combination with the option of variable power output control, EcoRay lamps provide excellent energy efficiency under varying operating conditions. In dim mode, EcoRay lamps realize average energy savings of up to 20 percent.⁴

In addition, EcoRay UV lamps provide long-lasting, trouble free operation due to their rugged design and excellent, validated low-aging properties.⁴



EcoRay UV lamps emit primarily at a wavelength of 254 nm, which has been found to be optimum for effective microbial inactivation.



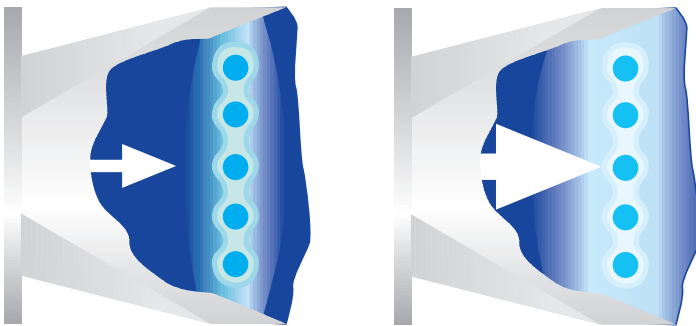
⁴ Energy savings and lamp life depend on a number of factors. Contact Xylem for more details.

Variable power. Fixed performance.

The effectiveness of Xylem's EcoRay® lamps used in the WEDECO® K series reactor is enhanced by EcoRay intelligent electronic ballasts that are especially fine-tuned to the lamps—and with optional dose pacing control, the output of the UV lamps can be optimally adjusted based on varying flow rates and water quality. Only the exact amount of energy needed for effective treatment is provided, resulting in considerable savings. Limiting energy use to the optimum level also results in longer lamp life and reduced cleaning requirements. Further, during periods of low water use, rows of lamps can be switched off, providing even further savings in energy consumption and also resulting in extended lamp life.

Advantages at a glance

- Constant UV dose irrespective of changes in water quality or flow thanks to continuous output regulation of the UV lamps
- Fully automatic pIC control and visualization with bus or SCaDa connection
- Maximum treatment reliability
- Optimization of energy costs
- Easy operation and monitoring
- No overdosage



With dose pacing control, UV radiation can be adjusted according to water quality and flow.

Leading sensor technology

The UV intensity in the water is influenced by the age of the lamp, the cleanliness of the quartz tube and the UV transmission in the water. This is why in the WEDECO brand K system the actual UV radiation emitted is constantly monitored using integrated sensors.

This calibrated sensor features high UV selectivity, highly stable operating performance and long service life.



UV monitoring device with sensor for determining radiation intensity

Know-how in treatment technology

you can rely on the know-how of our engineers and technicians to help you choose the right system for your needs. all recommendations for the design of your system are based on many years of experience, complex calculation methods, and take account of local validation and certification standards.

Our broad knowledge and unrivalled expertise in the field of UV treatment along with our full range of highly developed WEDECO® UV systems make Xylem a reliable partner for the application of UV technology in the treatment of drinking water.

WEDECO service

Our global network of local service centers and partners offer comprehensive service to support secure, efficient and reliable operation. Our first priority is to support you and to maintain your systems for the duration of their service life. Xylem WEDECO systems also provide proactive maintenance to improve the reliability of your system while minimizing energy consumption.

Twenty-four WEDECO K 143 UV systems at Vancouver's Seymour–Capilano filtration plant treat up to 1.8 billion liters per day, making it one of the largest UV treatment facilities for drinking water in the world.





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