



DURON UV System

GREENER, MORE EFFICIENT, SIMPLY BETTER

WEDECO
a xylem brand

Shining new lights on our original ideas

WEDECO is well-known for efficient UV disinfection solutions for nearly 40 years. Vertically arranged UV lamps have been used successfully for a long time for drinking water disinfection. Now the wastewater market can benefit from this in-depth knowledge and experience - with the innovative DURON® UV system.



UV wastewater disinfection at its best

Clean, safe, energy efficient wastewater treatment:

The DURON is WEDECO's new durable, green and efficient UV System meeting the disinfection needs of all mid-sized to large wastewater treatment sites.

Meeting the market needs

Conventional wastewater treatment is not sufficient to meet the ever-decreasing discharge limits. In addition, water shortages drive more and more communities around the country to invest in wastewater reuse. The best way to cope with these challenges is with WEDECO's UV systems for wastewater disinfection. Irradiation with UV light is a reliable, well-established way to inactivate 99,99 % of all pathogens like bacteria, viruses, and parasites- without any negative impact to the water quality or formation of by-products.

Modern guidelines like the UV Disinfection Guidance Manual (UVDGM), IUVA Protocol or the NWRI Guideline for Wastewater Reuse give operators the assurance that the UV disinfection systems are designed to meet highest disinfection requirements.

Leading edge green disinfection efficiency

DURON was designed as the ideal fit for all mid-size to large sewage plants needing an environmentally friendly disinfection option that is easy to install, operate and maintain.

The enhanced proprietary ECORAY® lamp and ballast technology using the new 600W lamp is the perfect balance of power vs. efficiency. In addition the lamps are arranged in a 45° vertically inclined geometry. This design ensures not only an optimized performance efficiency, but also a reduced channel depth and quick and easy lamp replacement. Coupled with very flexible module installation arrangement and a low lamp count of six or twelve lamps per module make the system an excellent fit to any site specific conditions required.

Energy consumption is continuously minimized at all operating conditions with OptiDose, WEDECO's proven intelligent dose control coupled with WEDECO's ECORAY lamp and ballast technology, that saves up to 20% energy.

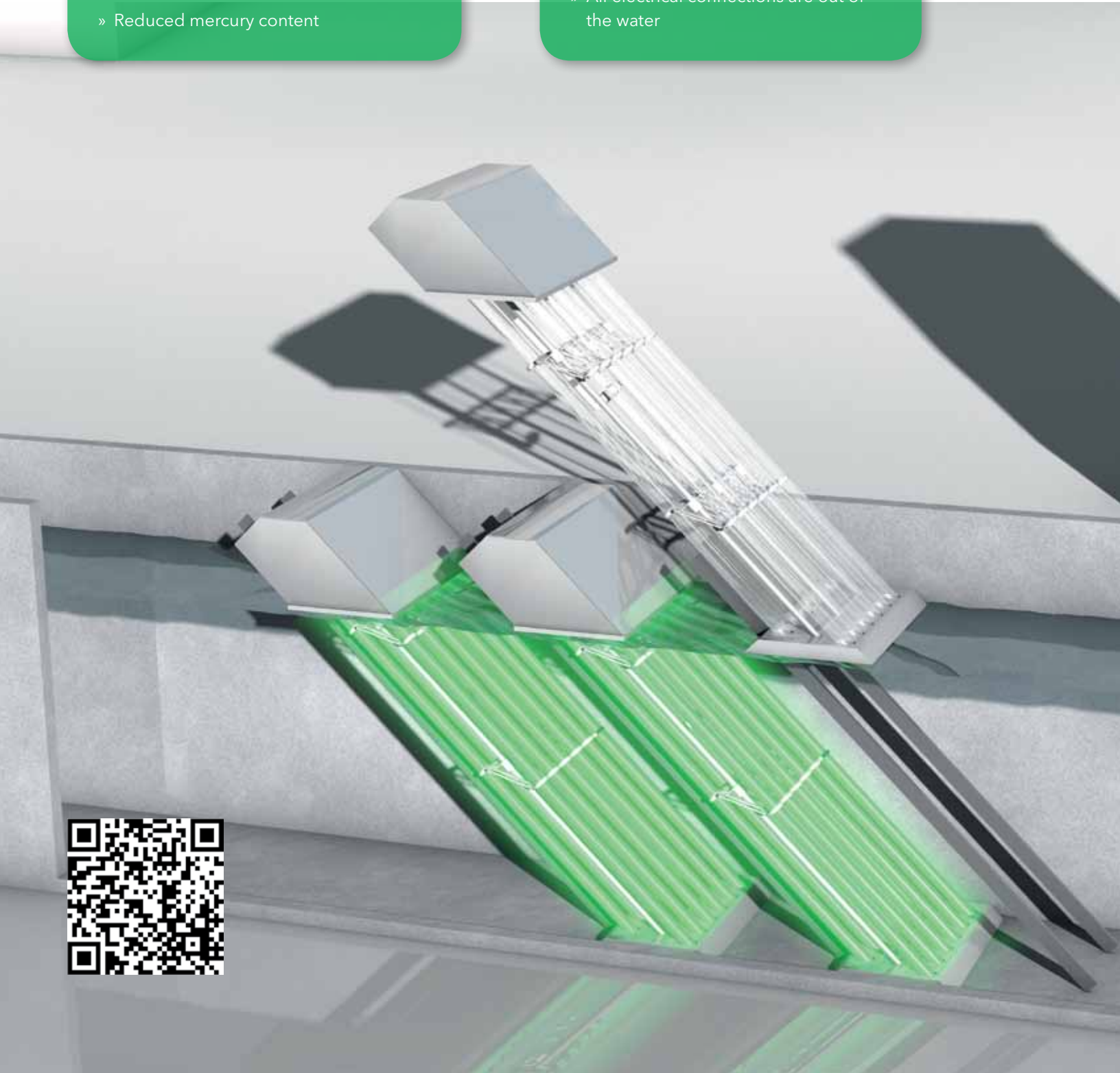


Enhanced ECORAY® lamp & ballast technology for minimized operating costs

- » Reduced lamp count by high power 600 W lamps
- » Up to 20% energy savings especially in dimmed mode by proprietary Ecoray lamp & ballast technology
- » Easy to handle lamp length
- » Reduced mercury content

Unique 45° vertical inclined UV lamp arrangement

- » Staggered lamp arrangement for high disinfection performance
- » Fast & easy lamp change with UV modules remaining in the channel
- » Channel depth is reduced for lower construction costs
- » All electrical connections are out of the water



Worry free UV system automation

- » OptiDose automatically adjusts UV dose by intelligent dose control
- » Closed loop monitoring of UV intensity, UVT and flow rate to quickly adapt to water quality changes
- » Control cabinets designed for indoor or outdoor use
- » Automatic chemical free self cleaning system

Unique automatic UV module lifting for easy & safe maintenance works

- » High UV system uptime as each module can be lifted individually, while other banks remain in operation
- » Individual adjustable service height for easy and ergonomic service
- » Easy winterization of UV modules
- » No additional footprint for UV module lifting required

Full disinfection performance proof by sophisticated validation concept

- » Independent 3rd party bioassay validations
- » Compliant to latest NWRI standard
- » Compliant to IUVA guideline and US EPA's UV Disinfection Guidance Manual (UVDGM)
- » Multiple-surrogate bioassay method allows optimized sizing to treat specific target
- » Large UVT range tested to allow for validated design for whatever wastewater quality

Excellent fit to site specific conditions by flexible module arrangement

- » Variable number of UV modules in series
- » Variable number of modules in parallel
- » Variable number of channels in parallel
- » UV system size increase in steps of 6 lamps

Separate electronic cabinets to ensure safety and protection

- » Ballast separation from UV lamp modules for operational stability
- » Active cooling of electronic components for longer life and increased reliability
- » Easy & safe access to all electronic components



Full automation for your convenience

Bioassay validation testing by a third party engineering firm gives the plant owner the peace of mind that the WEDECO DURON will meet and exceed even the most demanding disinfection requirements. The DURON has been tested to the NWRI guidelines as well as the US EPA's UV Disinfection Guidance Manual and the new International Ultraviolet Association (IUVA) Protocol. Our validation approach allows the system sizing to target specific pathogens so that the system can be tailored for each specific wastewater facility. In addition, WEDECO's state of the art sensor based UV system control allows the DURON to operate as economically as possible while maintaining robust disinfection.

DURON:

Easy service and low maintenance

A chemical free self cleaning system enables continuous high performance and minimal maintenance.

UV lamp replacement is easily done without lifting the modules out of the channel. When lifting is required (for winterization or wiper ring replacement) a compact integrated mechanism lifts the modules with the push of a button, so there's no need for an overhead crane. These features make DURON a fully automated system with minimal maintenance requirements.

In addition, a reliable, unique worldwide service system is at your disposal wherever you are. That way, the equipment will run longer, more efficiently and more sustainably. What's more, by providing specialist technical and process support we will enable you to reduce the total cost of ownership.



Advantages

- » DURON eliminates need for chemical based disinfection
- » DURON ensures highest disinfection performance by new design.
- » Enhanced 600 W ECORAY lamp & ballast technology reduce lamp count and energy consumption
- » Intelligent UV system control for continuous energy consumption, too.
- » Full UV system automation for minimal maintenance effort
- » Fast lamp replacement with easy to handle lamp length
- » Flexible, modular concept to tailor the system to whatever site conditions
- » Unique automatic module sliding mechanism for easy module lifting
- » Unique certified worldwide TotalCare service at your disposal



Wherever you are in the world, you can keep your WEDECO UV and ozone systems running at peak efficiency with Xylem TotalCare Services. Xylem TotalCare offers pro-active services which will keep your equipment running longer, more efficiently and more sustainably over the whole life of the product.

Xylem |'zīləm|

- 1) The tissue in plants that brings water upward from the roots;
- 2) a leading global water technology company.

We're 12,000 people unified in a common purpose: creating innovative solutions to meet our world's water needs. Developing new technologies that will improve the way water is used, conserved, and re-used in the future is central to our work. We move, treat, analyze, and return water to the environment, and we help people use water efficiently, in their homes, buildings, factories and farms. In more than 150 countries, we have strong, long-standing relationships with customers who know us for our powerful combination of leading product brands and applications expertise, backed by a legacy of innovation. For more information on how Xylem can help you, go to www.xylem.com

WEDECO

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