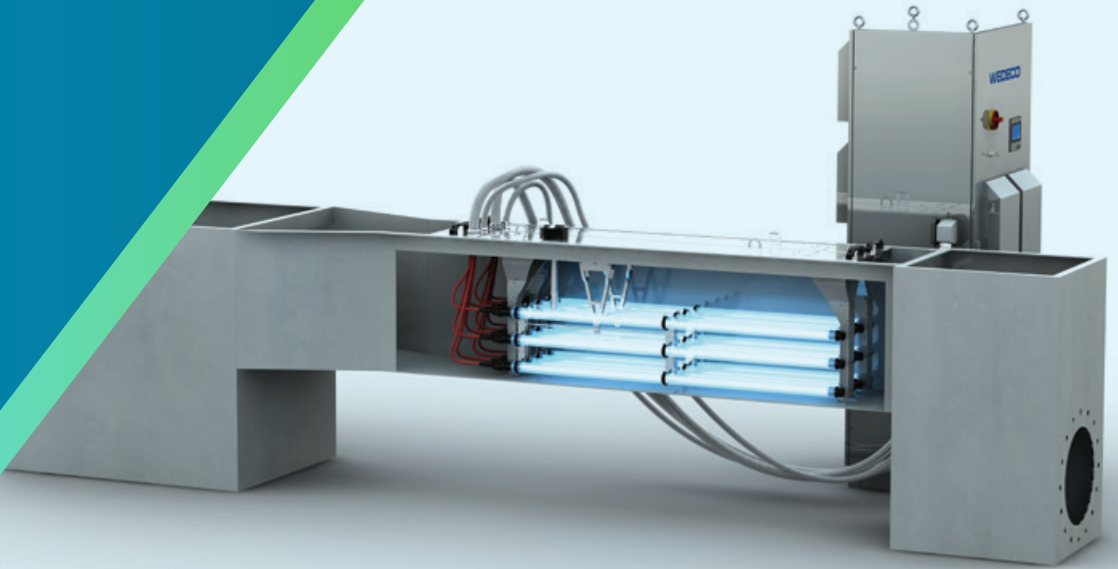


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TAK Smart™ UV System

Validated performance for small treatment plants

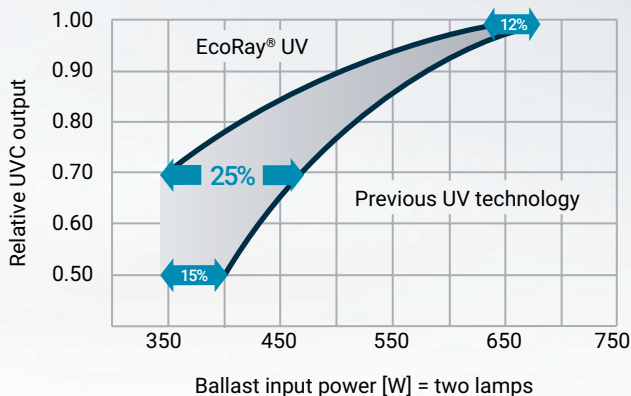
Cost effective UV treatment with minimal operator involvement

The WEDECO® TAK Smart UV system makes the treatment of low wastewater flows as easy and cost-effective as possible, without any compromise in quality or flexibility.

Similar in concept to the TAK 55, the TAK Smart system features the same UV lamp configuration and set of common equipment options. Fully preassembled including an automatic wiping system, sophisticated UV monitoring and control features, it is available in seven sizes. Design options include a single or a double bank configuration, which can be fitted either in a concrete channel or comes as a packaged system with a stainless steel channel.

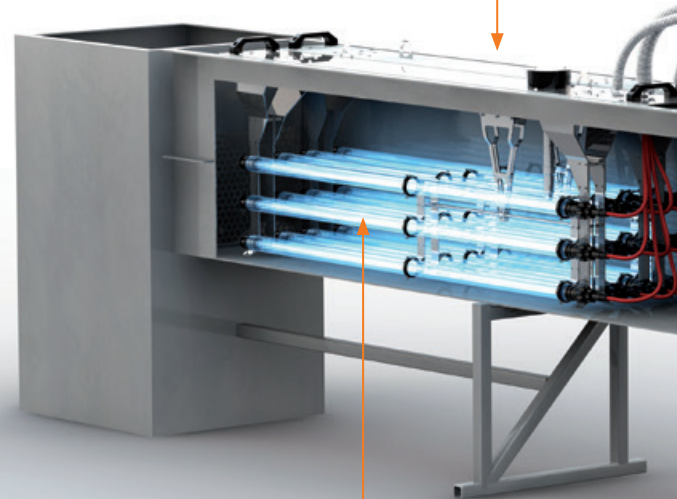
Equipped with the latest Xylem EcoRay® high intensity low pressure (Hi-Lo) UV lamps and ballasts, the system provides reliable performance while minimizing energy consumption. The low lamp count, coupled with the long service life of EcoRay lamps, results in exceptionally low maintenance costs.

To meet the highest UV disinfection standards, the system has been extensively tested in line with the latest IUVA protocol for disinfection of secondary treated effluents. The system is validated according to USEPA UVDGM 2006 and NWRI.¹



Altogether, the TAK Smart system is the perfect fit for small effluents of varying wastewater qualities: from sewer overflows to tertiary wastewater reclamation.

Optional second UV bank setup provides duty/duty or duty/standby operation for non-stop performance.



EcoRay UV lamps are more efficient, longer-lasting, more stable and more sustainable than previous WEDECO UV lamp technology. For minimized power consumption the lamps can be operated in dim mode, delivering the exact UV output required to meet the needs of various operating conditions.

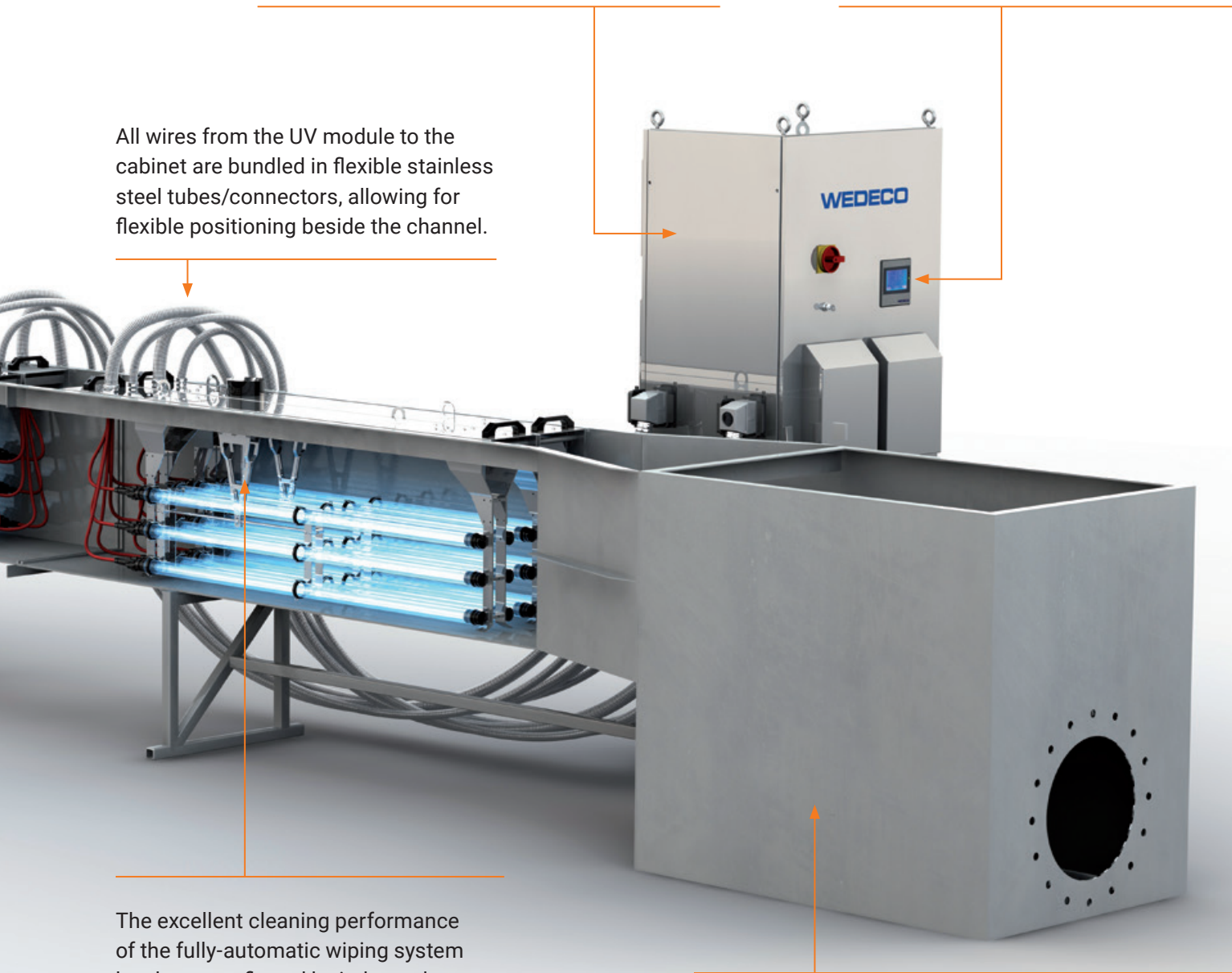
Electronic components are housed in a separate cabinet, providing a high level of electrical security and ease of maintenance. For outdoor installations, Type 4X/IP56 rated cabinets (with A/C option) are available, thereby eliminating the need for a separate building.

The cabinet also features the unique EcoTouch™ controller, unifying system dose, real time variable lamp power, lamp status, alarms, SCADA connectivity, and closed loop control with industry leading UV intensity sensors.

All wires from the UV module to the cabinet are bundled in flexible stainless steel tubes/connectors, allowing for flexible positioning beside the channel.

The excellent cleaning performance of the fully-automatic wiping system has been confirmed by independent institutions² and significantly reduces the formation of deposits. The pneumatic driven wiping device works without chemicals and eliminates the need for regular manual cleaning.

Stainless steel channels are an integral part of the TAK Smart system scope. They are fully assembled, including a fixed outlet weir, for quick and easy connection to existing pipe work. Alternatively, the UV modules can be installed in classical concrete channels.



Compact design, easy installation, 100% reliability

TAK Smart

Features	2-1	3-1	2-2	3-2	4-2	4-3	4-4
UV transmittance range	40–80%						
Flow rates	up to 1,030 m ³ /h (6.5 MGD)						
UV lamp type	EcoRay® low pressure high output						
Power per lamp	315 W (low pressure high output)						
Lamp certification	Third party on aging and UV-C output						
Validation	acc. to UVDGM (2006)						
Number of banks	1 or 2 banks						
Number of lamps/modules	4/1	6/1	8/2	12/2	16/2	24/3	32/4
UV module protection class	IP 65 (NEMA 4X)						
Automatic wiping system	Mechanical wiping system						
UV intensity sensor	Standard						
Waterlevel control	Finger weir						
Electrical control cabinet							
Ballast type	EcoRay, electronic (constant or variable power output)						
Controller	EcoTouch™						
Outputs	UV dose (4–20 mA), Volt-free contacts for: System running, high priority alarm, low priority alarm						
Inputs	Remote On/Off (230V or volt-free) Water flow rate (4–20 mA)						
SCADA	System status, lamp status, alarm messages, process values						
Installation location	Indoor or outdoor						
Panel rating	Type 12/IP 55 or Type 4X/IP56						
Air conditioning (AC)	Optional						
Electrical supply	3 ph, 5 wire, 50/60 Hz						
Accessories							
Module stand, spare module							

- 1 Smart UV disinfection systems have undergone third-party validation testing in accordance with the UVDGM (USEPA, 2006) and NWRI. 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.
- 2 Information available upon request.

xylem.com

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