

# TAK Smart™ UV System

VALIDATED DISINFECTION PERFORMANCE FOR SMALL TREATMENT PLANTS

**WEDECO**  
a xylem brand

# Cost effective UV disinfection with minimal operator involvement

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

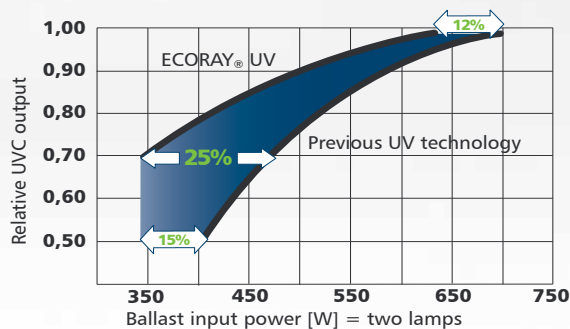
Similar to its big brother TAK 55, the TAK Smart system features the same UV lamp configuration and set of common equipment options. Fully preassembled including an automatic wiping system, sophisticated UV monitoring and control features, it is available in seven sizes. You can select a single or a 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 Wedeco 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. It even meets the most stringent validation requirements as outlined in the US EPA UVDGM 2006.

Altogether, the TAK Smart 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 disinfection 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 Wedeco 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 institutions 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's 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

Features	TAK Smart							
	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 m³/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	Wedeco 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	3ph, 5 wire, 50/60 Hz							
Accessories								
Module stand, spare module								

## Xylem |'ziləm|

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

We're 16,000 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 [xylem.com](http://xylem.com).



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