

TAK 55 Smart™ UV System

SMART UV DISINFECTION OF WASTEWATER

WEDECO
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Ready to use UV disinfection for small treatment plants

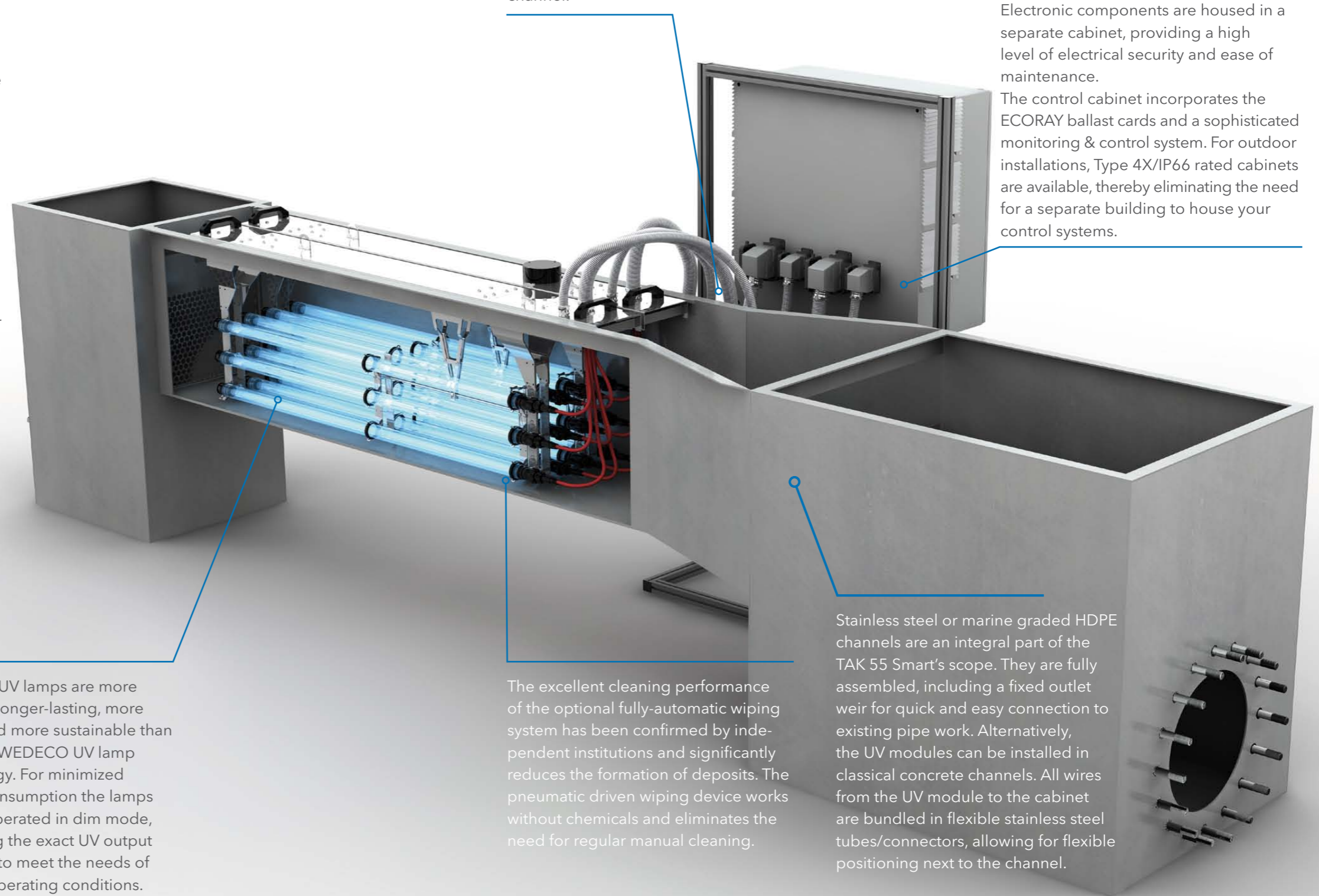
The WEDECO TAK 55 Smart UV system makes the disinfection of low wastewater flows as easy and cost-effective as possible, without any compromise in quality or flexibility.

Similar to its big brother the TAK 55, 'TAK Smart' systems, feature the same UV lamp configuration and set of common equipment options. Fully preassembled including the disinfection channel, it is available in five sizes and can be customized with different types of channel material, an optional automatic wiping system, various cabinet designs as well as sophisticated UV monitoring & control features.

Equipped with WEDECO's latest ECORAY® high intensity low pressure (Hi-Lo) UV lamps and ballasts, the system provides reliable performance while minimizing energy consumption. The Smart TAK systems do not require many lamps to meet their disinfection targets. Their 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 recently published IUVA protocol for the disinfection of secondary treated effluents. It even meets the most stringent validation requirements as outlined in the US EPA UVDGM 2006.

Altogether, the TAK 55 Smart is the perfect fit for small effluents of varying wastewater qualities: from sewer overflows to tertiary wastewater reclamation.

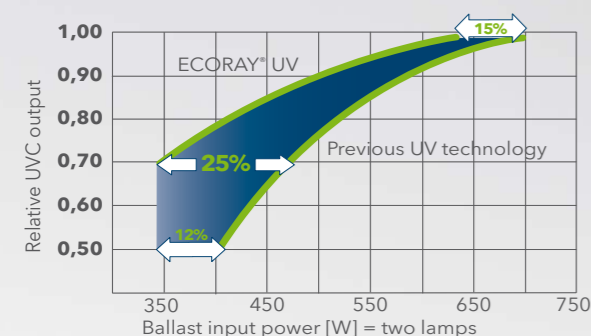


All wires from the UV module to the cabinet are bundled in flexible stainless steel tubes/connectors, allowing for flexible positioning beside the channel.

Electronic components are housed in a separate cabinet, providing a high level of electrical security and ease of maintenance. The control cabinet incorporates the ECORAY ballast cards and a sophisticated monitoring & control system. For outdoor installations, Type 4X/IP66 rated cabinets are available, thereby eliminating the need for a separate building to house your control systems.

Stainless steel or marine graded HDPE channels are an integral part of the TAK 55 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. All wires from the UV module to the cabinet are bundled in flexible stainless steel tubes/connectors, allowing for flexible positioning next to the channel.

The excellent cleaning performance of the optional 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.



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.

5 sizes, 240 customized solutions, 100% proven reliability

Features	TAK 55 Smart				
	1-1	2-1	3-1	2-2	3-2
UVT range in % (1cm)	40 - 80				
Type of UV lamp	ECORAY® low pressure high output				
Power per lamp	315 W				
Number of UV lamps / modules	2 / 1	4 / 1	6 / 1	8 / 2	12 / 2
UV module protection class	IP 65 (NEMA 4X)				
Lamp certification	3rd party on aging and UV-C output				
UV intensity monitoring	germicidal, ÖNORM compliant (optional)				
Automatic wiping system	./.	optional			
Dose pacing (variable power)	./.	optional			
Bioassay tested	Yes, compliant with IUVA and UVDGM protocol				
Individual lamp monitoring	yes				
UV dose display	./.	yes (requires optional UV sensor)			
Alarm display	yes				
Channel material	SS / HDPE / concrete (excluding scope)				
Piping connection DN/ANSI (for SS & HDPE channel)	DN150 / 6"	DN200 / 8"	DN300 / 12"	DN300 / 12"	DN400 / 16"
Cabinet location	Indoor (Type 12/ IP 54), outdoor (Type 4X/ IP 66)				
Active cooling of electronics	Yes (outdoor cabinets)				
Power consumption (kW)	0.8	1.4	2.0	2.7	3.9
Power supplies	3ph, 5 wires				
Optional maintenance accessories	Module stand, lifting crane, work platform				

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- 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, longstanding relationships with customers who know us for our powerful combination of leading product brands and applications expertise, backed by a legacy of innovation.

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