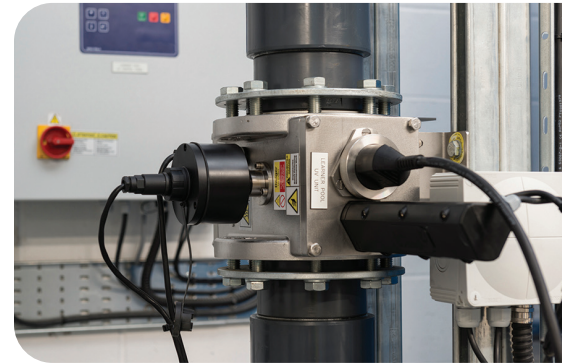# xylem + ● evoqua

Wafer® UV System:
Ultraviolet Disinfection System
for the Aquatics Industry

The Wafer® Ultraviolet (UV) disinfection system differs from any other system currently on the market, with a unique chamber making it the most compact UV disinfection system available today at about one third of the size of comparative UV offerings. With a significantly reduced maintenance envelope, the Wafer system offers an easy to install and retrofit solution that will fit into the tightest of mechanical rooms.

Not only does the Wafer UV System represent the most compact UV solution available, it also features a hydraulically optimized design that provides efficient treatment of chlorine resistant pathogens such as Cryptosporidium, as well as reduction of chloramines delivering a more pleasant and safer environment for pool users. The strong odor associated with swimming pools will also be eliminated, and the facility will be protected from the corrosive effects these chemicals can have.

The Wafer System is tested to and is compliant with the latest regulatory requirements, giving installers and operators the knowledge that they are providing not only the most efficient solution, but a fully compliant one.
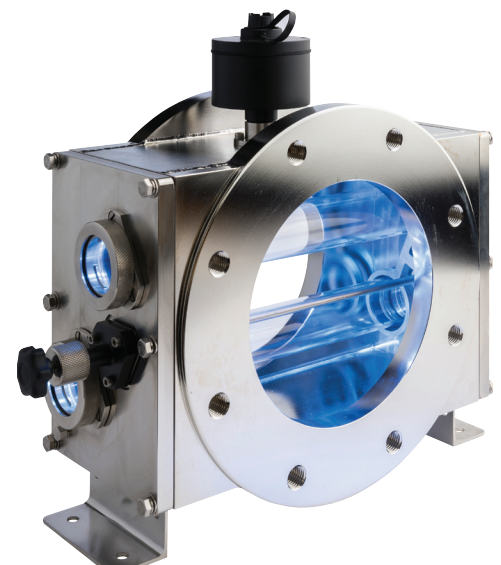
The Wafer System also includes a number of advanced features. The automatic wiper and Twistlok™ lamps are designed to reduce maintenance intervals and to ensure that any maintenance is simpler, faster to undertake, and as safe as possible.

Operators will benefit from the inclusion of the Spectra control system as a standard, which includes a wide range of features such as data stream monitoring, process interlocks, and programmable set points. A key Spectra control feature includes variable power stepping from 100% to 30% at no extra cost, allowing operators to optimize the operational power of their system to match bather loads and pool operating schedules.

PERFORMANCE AND INSTALLATION

- Smaller installation footprint
- Horizontal or vertical installation
- Efficient and enhanced power control
- Higher performance
- Simpler and faster to maintain
- Increased safety
- Modbus® connectivity

The Wafer UV System offers a compact treatment solution for applications requiring 200–3,500 gpm in a single high output UV generator.

In addition, the Spectra controller features a reactive boost function that automatically operates the lamps at maximum power from a combined chlorine alarm signal, when teamed with a suitable chlorine controller. This is a feature specifically designed for swimming pool applications to break down problematic chloramines as soon as they are detected.

Incorporating the latest electronic power supplies, the Spectra 3 is now more compact and simpler to operate. It includes full integration to any BMS system utilizing several configurable inputs and outputs, plus the facility to connect to any MODBUS® network.

Features	Standard Chamber Specification	Options
Lamp Life	9,000 Hours	
Lamp design	TWISTLOK™ Quick Release, Enhanced Safety–Medium Pressure	
Lamp and Wiper Access	Single-Ended Access	
Design Pressure	10 Barg Design (15 Barg Test)	
Number of UV Intensity Sensors	1-off (2-off for model WF-430-12)	
Variable Power	100% to 30% Power (Automatic Dose Pacing)	
Connection Type	ANSI 150	
Generator Material	316L Stainless Steel	
Internal/External Finish	Electropolished	
Internal Surface Finish	3.2 Ra	
Quartz Type	High Purity Quartz Sleeves	TiO2 Doped quartz
Mounting	Fixed Brackets	
Cleaning system	Automatic Wiper System	
Temperature Probe	AT-487 (PT-100)	
Vent Port	1/2" BSP (Air Release Valve supplied for horizontal installations)	
Drain Port	1/4" BSP	
Sacrificial Anode	Included	
Ingress Protection (UV Chamber)	IP55	
Installation	Horizontal or Vertical (Lamps must be horizontal)	
Features	Standard Control Panel Specification	Options
Material	Epoxy Coated Mild Steel-RAL 7035	Stainless Steel (304)
Control Type	Spectra 3 Microprocessor	
Power supply	Electronic Ballast	
Ingress Protection	IP54 / Nema 12	IP66 / Nema 4x
Ventilation	Forced Air cooled (Fan)	
Interface	Spectra Membrane	Spectra Touch
Communication	Modbus (RS-422/RS-485)	Call for options
Protection	Door Locked Isolator	
Operating Temperature	Max Working Ambient +45°C	
Digital Inputs	3-off selectable	Additional 3-off selectable
Digital Outputs	3-off selectable	Additional 3-off selectable
Analogue Inputs	1-off selectable	Additional 1-off selectable
Analogue Outputs	1-off selectable	Additional 1-off selectable