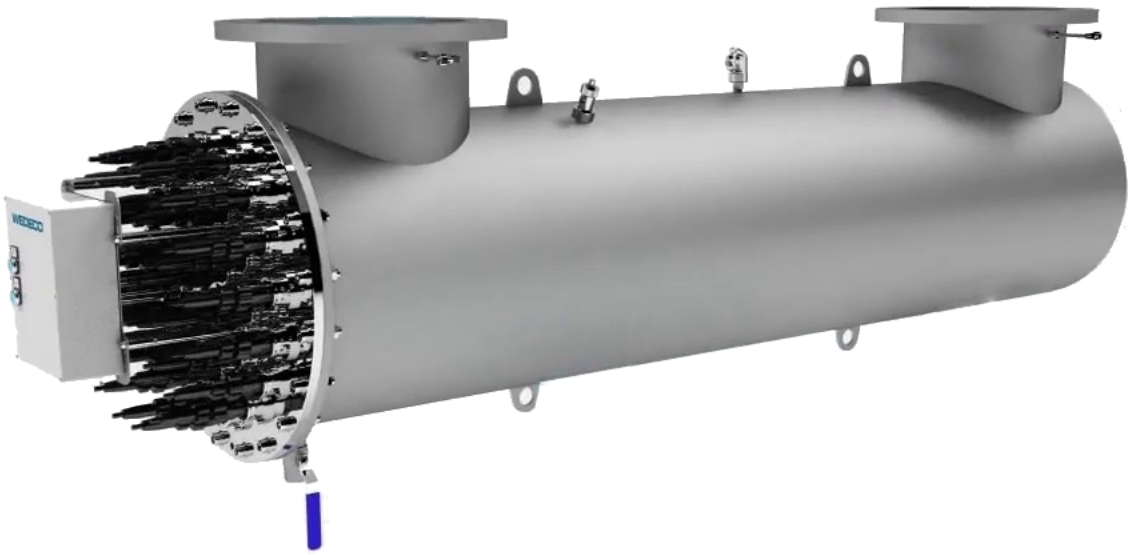
LBX - UV Series



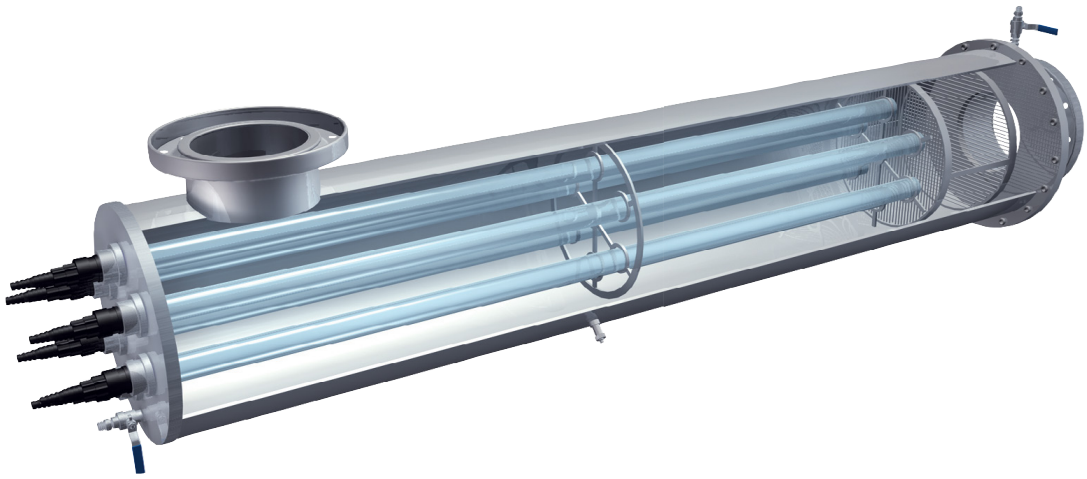
UV system for wastewater disinfection or for fluids with low UVT

The LBX series fulfils all the requirements for safe, economical and environmentally friendly disinfection of liquids with low UV transmittance:

- **Waste water / grey water**
- **Drinking water**
- **Process water**
- **Sugar syrup**

The LBX series combines the WEDECO Spektrotherm®HP UV lamp with a hydraulically optimised reactor chamber. In order to effectively treat liquids with a low UV transmittance, the lamps are positioned very close to one another in a so-called "thin-film" design. Electronic ballasts configured specifically for the Spektrotherm®HP UV lamps are used to increase eficiency and lamp lifetime. The result is an extremely compact design, improved economy and maximum disinfection performance even for challenging liquids of lower quality.

LBX systems have been extensively tested to meet the U.S. Environmental Protection Agency's UV Disinfection Guidance Manual (USEPA's UVDGM 2006) and the National Water Research Institute (NWRI) guidelines, including the most stringent California Title-22 Water Reuse standards. The extensive validation envelope allows for proven disinfection performance over a wide range of UV transmittance (UVT) and a variety of target organisms including Adenovirus.



Applications

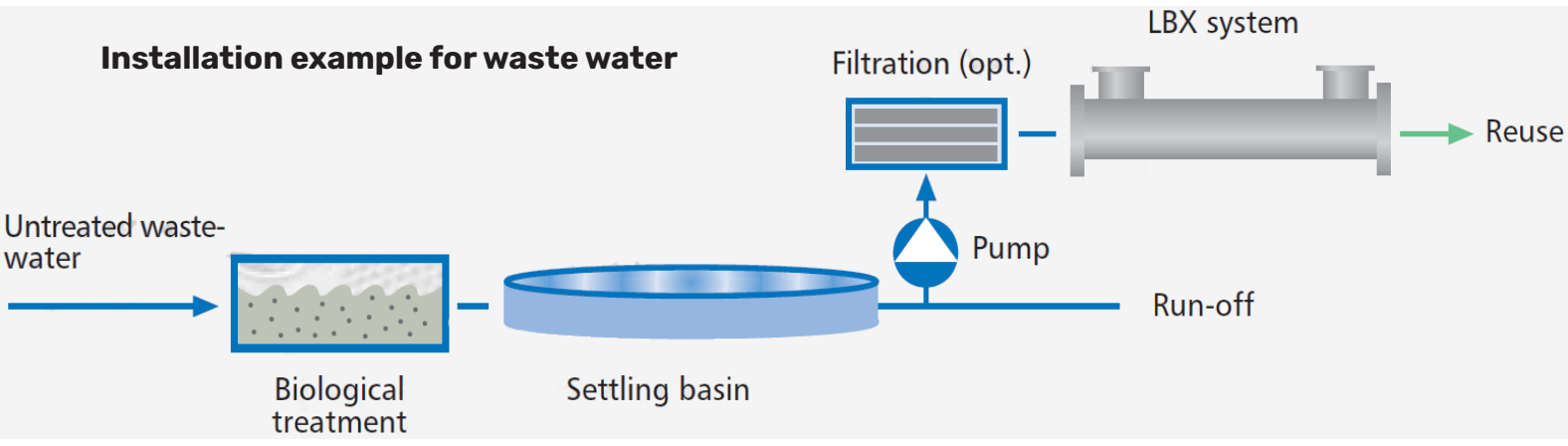
Waste water
UV is used successfully for waste water treatment all over the world. The LBX series opens up new possibilities for the treatment of pressurized waste water and grey water. Examples of applications are:
• Irrigation of fields, parks, golf courses
• Industrial process water at water treatment plants
• Waste water disinfection on ships

Drinking water
The LBX series is ideal for drinking water with very low UV transmittance due to the presence of certain substances (e.g. humic acids).
Fields of use include:
• Surface / storm water with a high humic matter content
• Filter backwash water

Process water
• Recycling of all types of process water
• Cost savings through reduction of fresh water consumption and reuse of waste water

Sugar syrup
The thin-film design of the LBX series also makes it extremely well-suited for the disinfection of viscous substances such as sugar syrup. Yeasts and sporeforming organisms are the main microbiological contaminants found in untreated sugar syrup.

Installation example for waste water

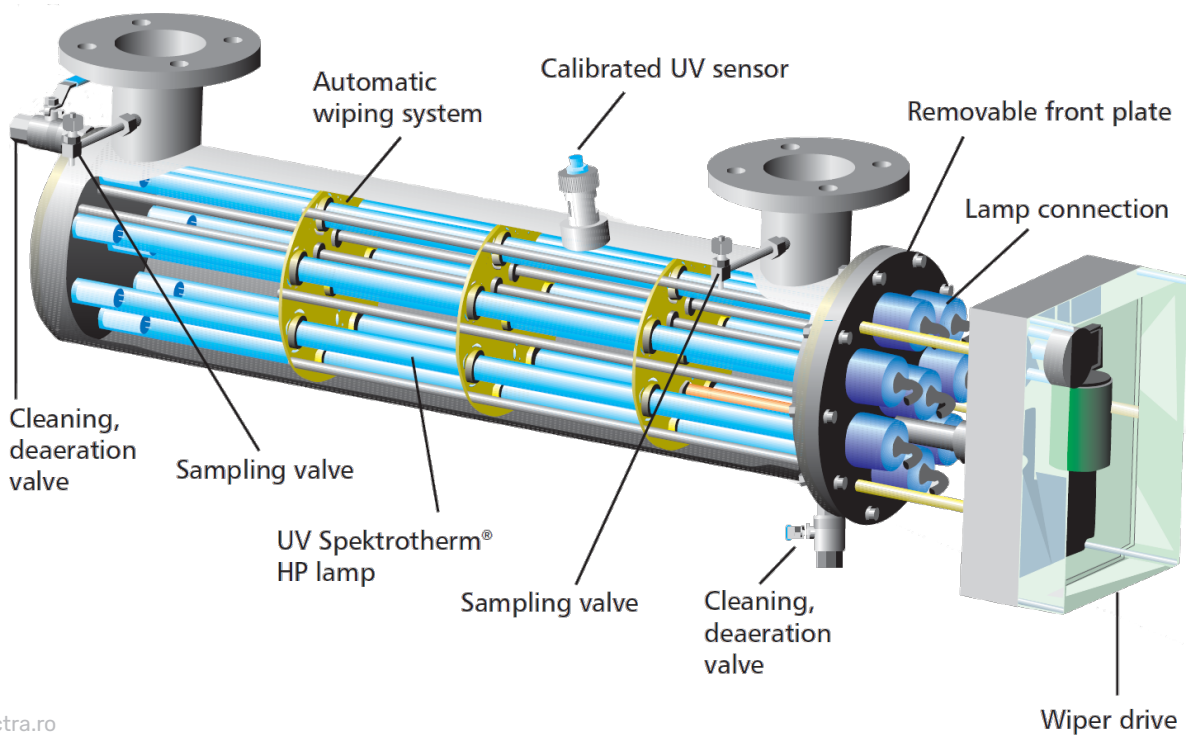


TECHNICAL SPECIFICATIONS

Model #	90	120	200	400	550	850	1000	1500
Standards	CE, UL, cUL							
Flow Rate (m³/h / GPM)**	83 / 365	127 / 559	216 / 951	347 / 1528	536 / 2360	717 / 3157	911 / 4011	1346 / 5926
Bioassay Tested	Yes *	N/A		Yes *	N/A	Yes *		
UV LAMPS AND MONITORING SYSTEMS								
Power Per Lamp (W) Approx.	315							
Number of UV Lamps	4	6	10	16	24	32	40	60
Lamp Certification	3rd Party on Aging and UV-C Output							
UV Intensity Monitoring	Germicidal, ÖNORM Compliant							
Dose Pacing (Variable Power)	Optional							
Individual Lamp Monitoring	Yes							
UV REACTOR								
Protection Class	IP 65 / NEMA 4X							
Automatic Wiping System	Optional							
Reactor Material	Stainless Steel 1.4404 / 1.4435 (ASTM 316L)							
Flange Sizes	DN 150 / ANSI 6"		DN 200 / ANSI 8"	DN 250 / ANSI 10"	DN 300 / ANSI 12"	DN 400 / ANSI 16"		DN 500/ ANSI 20"
Reactor Shape	U or Z					L	U or Z	L
Reactor Length (MM / Inch) Approx.	1530 / 60		1540 / 61			2400 / 95		
Operating Pressure (Bar/ PSI), Max.	16 / 232	10 / 145						
UV SYSTEM CONTROL CABINET								
Controller	EcoTouch or PLC							
Common Outputs	System Status, Lamp status, Alarm Messages, Process Values							
Bus Communication	Yes							
Protection Class	IP 54 / cUL Type 12 (4X Optional)							
Supply Voltage (V / V / Hz)	CE: 400/230 +/- 10%, 50 Hz (TN-S Net) cUL: 480/277 +/- 10%, 60 Hz (5 Wire WYE; L1,L2,L3,N,GND)							
Power Consumption (kW) Approx.	1.72	2.38	3.7	5.69	8.33	11.19	13.84	20.57

* Compliant with NWRI and UVDGM protocol

** UV Dose according to the "point source summation" method: 40 mJ/cm²; UVT = 65% per 1 cm at the end of the lamp lifetime.



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