



UV Disinfection Systems A Series

Main Applications:
Drinking Water, Process Water,
Warm Water / Legionellae

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WEDECO UV installation Type A for drinking water in Alheim, Germany



The new generation of biosimetrically certified type A series systems satisfies all requirements for reliable and forward-looking disinfection of your potable or process water.

The efficient WEDECO Spektrotherm® lamps facilitate extremely compact design and guarantee maximum disinfection of water at all temperatures from hot to very cold. The type A series destroys bacteria, viruses, yeasts, parasites and cryptosporidia efficiently and environmentally compatibly, without using chemicals.

Potable water

Whether for well water, spring discharges or processed surface water – the new A series is always the right choice, especially for small and medium-sized water utilities and decentralized water supplies.

The certified systems (400 J/m²) ensure compliance with all microbiological parameters of the German drinking water ordinance, without causing any change to the smell or taste of the potable water.

Unlike chlorination, UV disinfection does not result in the formation of harmful by-products. Your potable water retains its natural quality. The WEDECO UV monitoring system (SEC) is certified to DVGW and ÖNORM and gives you reliable and continuous control of disinfection performance.



UV systems have also been successfully used in other processes, such as rinsing, cooling cycles and water recycling. Thanks to their high quality standard and known excellent disinfection performance, type A series WEDECO UV systems are used successfully in industrial processes worldwide.

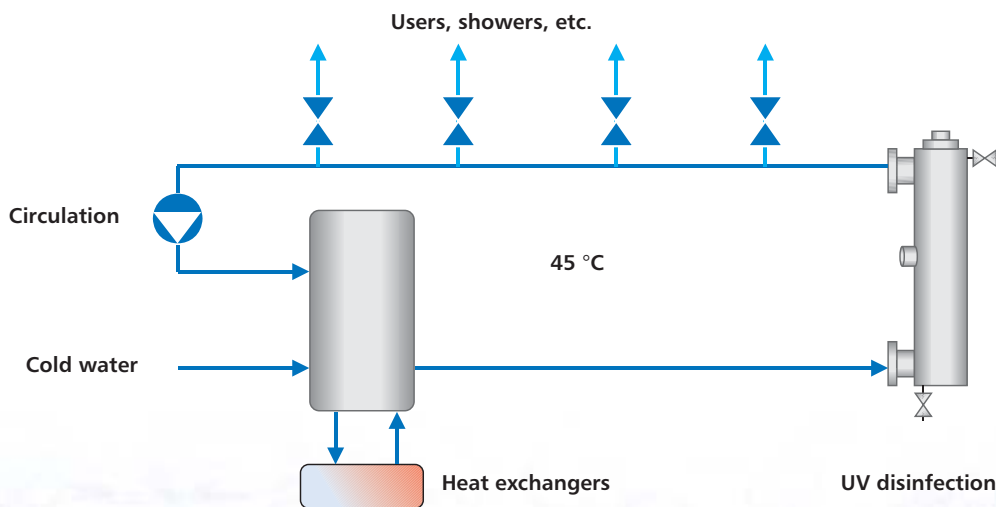
Process water

UV disinfection is ideal for improving the quality of raw water and preventing microorganisms from multiplying during the storage or treatment of process or production water. The production of high-quality food products, beverages, cosmetics and pharmaceuticals depends on the perfect micro-biological quality of the water that is used. UV disinfection causes a drastic reduction in the number of microorganisms without impairing water quality.

Warm water/legionellae

UV disinfection is an eminently suitable method of killing dangerous legionellae, which are often present in hot water systems. The Hygiene Institute of the University of Bonn has checked the effectiveness of the WEDECO A series for inactivating legionellae.

In comparison with conventional UV lamps, the temperature-stable Spektrotherm® lamp guarantees the best disinfection results, also in hot water.



Typical application: Integration of a UV system in a hot water circuit

A series – with new quality standard and superior Spektrotherm® technology

Spektrotherm lamp

At the heart of the A series is the high-performance Spektrotherm lamp. WEDECO developed and continuously improved this specially doped UV lamp for more than 10 years. Its excellent UV-C output is allied to high efficiency and outstanding temperature stability, i.e. its UV output remains virtually constant, irrespective of whether the surrounding water is hot or cold.

The high UV-C output means that the A series WEDECO UV systems have only one Spektrotherm® lamp, whereas conventional UV systems need several lamps. This, together with the long life of the Spektrotherm® lamp, results in very low operating costs for users of the A series.

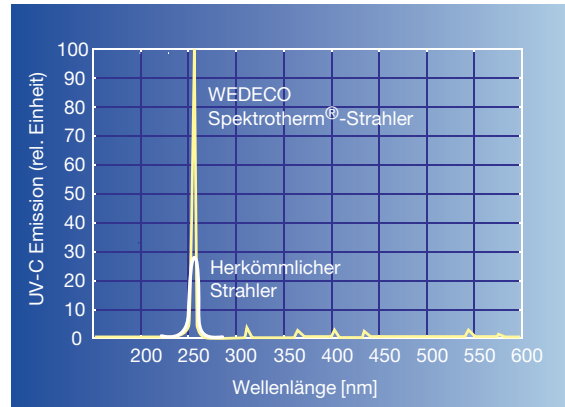
UV disinfection chamber

The UV disinfection chamber is made of electropolished high-grade stainless steel. The Spektrotherm lamp is fitted centrally. Specially developed and optimized flow baffles guarantee uniform exposure to the UV radiation and ensure the best disinfection results. In the disinfection chamber, a UV sensor is accommodated in a standardized tube with a measurement window. Other advantages of the A series are the option of vertical and horizontal fitting in the water pipes, minimal loss of pressure, and easy cleaning thanks to a removable protective quartz sleeve.

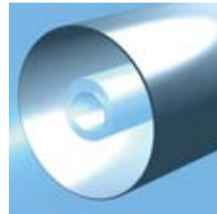
Spectrum emission controller (SEC)

The new spectrum emission controller (SEC) handles all control and monitoring functions of the UV system. The appropriate remote monitoring outputs are provided.

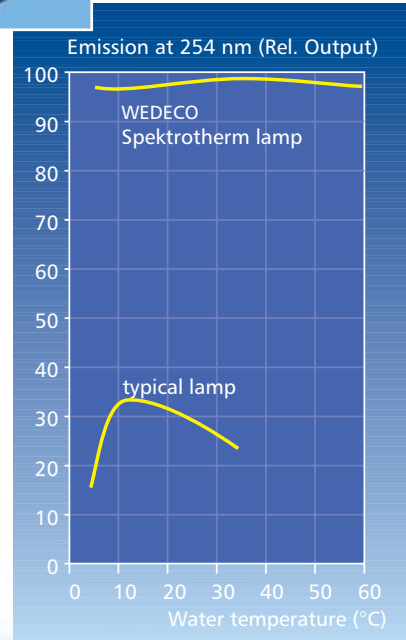
An easy-to-operate front panel with a large display provides continuous information about all operating conditions. The stable, calibrated UV sensor, certified to DVGW and ÖNORM, has been developed into an extremely precise instrument, which measures the radiation intensity. Disinfection performance is thus permanently under control.



UV output: Comparison of WEDECO Spektrotherm® lamp and a conventional lamp



Radiation geometry UV system, type A



Water temperature stability: Comparison of WEDECO Spektrotherm® lamp and conventional lamps

System Components



A 15

A 10

A 4



The new spectrum emission controller (SEC) handles all control and monitoring functions

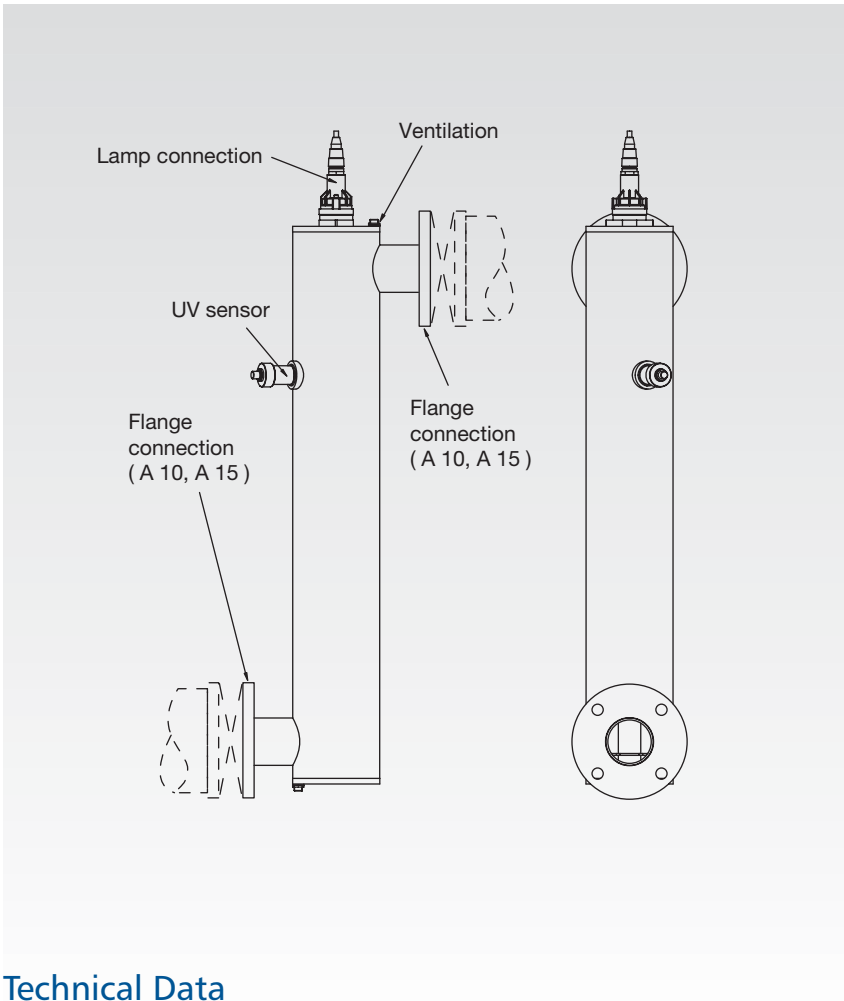
ADVANTAGES

- Biosimetrically tested
- Reliable disinfection with low power consumption
- Temperature stable Spektrotherm® lamp (high-performance, low-pressure UV lamp)
- New SEC monitoring electronics with calibrated UV sensor
- Long lamp life
- Simple operation and easy maintenance



The stable, calibrated UV sensor is an extremely precise measuring instrument

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Technical Data

Type	Max. flow rate* (m ³ /h)	Pipe connection	Power input (W)	Dimensions reactor W x H x D (mm)	Dimensions control box W x H x D (mm)
A 4	6.6	1 1/2 "	105	210 x 570 x 160	280 x 300 x 180
A 10	12.3	DN 50	170	300 x 895 x 160	280 x 300 x 180
A 15	16.1	DN 80	230	320 x 1,090 x 174	280 x 300 x 180

* UV dose = 400 J/m² at the end of lamp lifetime; estimated UV transmittance = 98 % per 1 cm.
All specifications are subject to change without notice.

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