



## UV systems for disinfection of drinking and process water

UV light can efficiently reduce microbiological growth in water. UV radiation with a wavelength of 254 nanometers kills bacteria, viruses, algae, and fungi by destroying the DNA of the microorganisms. Disinfection by UV light is applicable to almost all water types.

### Advantages







The UV systems are developed and produced with a view to high efficiency, great reliability of operation, easy installation, long life, and minimum maintenance. EUROWATER offers comprehensive technical consultancy as well as training of operating personnel.

### Description of UV systems

Flow rates of standard systems: Up to 500 m<sup>3</sup>/h. The EUROWATER product range comprises several systems for disinfection of both drinking water and process water.

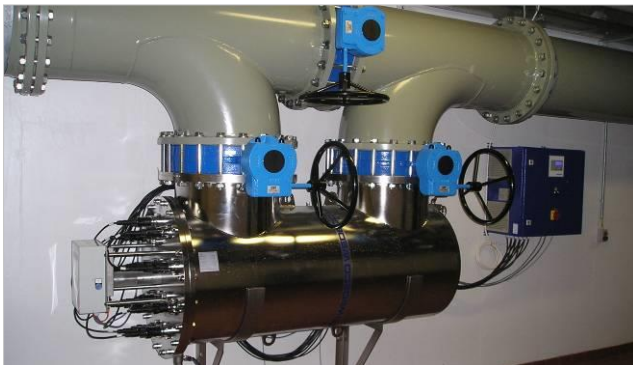


UV system type Spektron 70 with a flow rate of 108 m<sup>3</sup>/h. The system is installed in a dairy.

| Type / flow rate   | Application   | Remarks   |
|--|---|---|
| <br><b>Wedeco type Aquada</b><br>Flow rate: 1-11 m <sup>3</sup> /h<br>Operating temperature: 5-25°C                 | <ul style="list-style-type: none"> <li>• Drinking water</li> <li>• Process water</li> </ul>   | Available in types Altima, Proxima and Maxima, the systems consist of a cylindrical reactor of stainless steel with a UV lamp in a quartz pipe. Available with or without UV sensor.  |
| <br><b>Wedeco type A</b><br>Flow rate: 4-16 m <sup>3</sup> /h<br>Operating temperature: 5-60°C                      | <ul style="list-style-type: none"> <li>• Drinking water</li> <li>• Process water</li> </ul>   | The systems consist of a cylindrical reactor of acidproof steel with Spektrotherm® UV lamp in a quartz pipe. Equipped with UV sensor. Certified in accordance with the Austrian ÖNORM and the German DVGW standards. Biosimetrically tested.  |
| <br><b>Wedeco type BX</b><br>Flow rate: 30-500 m <sup>3</sup> /h<br>Operating temperature: 5-60°C                   | <ul style="list-style-type: none"> <li>• Drinking water</li> <li>• Process water</li> </ul>   | The systems consist of a cylindrical reactor of acidproof steel with Spektrotherm® UV lamp in a quartz pipe. Equipped with UV sensor. Also available in PE. Selected systems are certified in accordance with the Austrian ÖNORM and the German DVGW standards. Biosimetrically tested. |
| <br><b>Wedeco type E/ME</b><br>Flow rate: 1-100 m <sup>3</sup> /h<br>Operating temperature: 5-25°C (E), 5-60°C (ME) | <ul style="list-style-type: none"> <li>• Drinking water</li> <li>• Process water</li> <li>• Ultrapure water</li> <li>• Special design for pharmaceutical use</li> </ul> | The systems consist of a cylindrical quartz pipe through which the water flows. Several UV lamps are on the outside of the quartz reactor. Reactor and lamps are in a stainless steel housing. Equipped with UV sensor. The systems are sanitizable.                                    |
| <br><b>Wedeco type Spektron</b><br>Flow rate: up to 500 m <sup>3</sup> /h<br>Operating temperature: up to 30°C      | <ul style="list-style-type: none"> <li>• Drinking water</li> <li>• Process water for production of food and beverages</li> </ul>  | The system is equipped with temperature monitoring and UV sensor. Certified in accordance with the Austrian ÖNORM and the German DVGW standards. Biosimetrically tested.  |
| <br><b>Rental plant type BX 100-F</b><br>Flow rate: up to 150 m <sup>3</sup> /h                                     | <ul style="list-style-type: none"> <li>• Drinking water</li> <li>• Process water for production of food and beverages</li> </ul>  | As a temporary solution, EUROWATER offers UV rental systems for disinfection of water. The systems are ready for use after connection of water and electricity.   |



## Selected references



### UV disinfection system as safety installations in the event of bacteriological contamination at waterworks

Wedeco BX1200W. Nominal flow rate: 600 m<sup>3</sup>/h, maximum flow rate: 1200 m<sup>3</sup>/h

The UV disinfection system functions as a safety installation in the event of a bacteriological contamination. The waterworks will be able to continue the supply of drinking water.



### Guarantee of bacteria-free process water after filtration in an activated carbon filter at dairy

Wedeco B60. Flow rate: 50 m<sup>3</sup>/h

The dairy has installed an activated carbon filter for removal of pesticides in the groundwater with subsequent UV system to ensure that no microbiological growth can occur.



### Waterworks: Liquor and process water for malting, 40 m<sup>3</sup>/h Reuse of water: Process water for malting, 60 m<sup>3</sup>/h Brewery and malt factory

The brewery has its own waterworks to produce liquor and process water for the malting. The plant for the waterworks comprises sand filtration for removal of iron, manganese and ammonium in the groundwater, filtration through activated carbon for removal of pesticides and a UV system type Wedeco B60 as a safety installation.

The plant for reuse of water comprises a hydroanthracite filter for removal of suspended matter after mechanical, chemical and biological treatment of the reused water and a UV system type Wedeco BX to ensure that no microbiological growth occur.



### UV disinfection system as hygienic barrier at waterworks

Wedeco B40 (before activated carbon filter) and Wedeco Spektron 25S (after activated carbon filter). Flow rate: 35 m<sup>3</sup>/h

The plant comprises a UV disinfection system to destroy bacteria in the raw water. Since raw water also contains pesticides, these are removed in an activated carbon filter. An extra UV system after the activated carbon filter functions as a safety installation in the event of microbiological growth.