



**UVGERMI**<sup>®</sup>  
ULTRAVIOLETS DE HAUTE TECHNOLOGIE

*Specialist in  
Legionella treatment solutions  
using ultraviolet reactors.*

● ○ ● MADE IN FRANCE

## TREATMENT OF **LEGIONELLA**

- HOT WATER CIRCUITS  
IN SANITARY FACILITIES
- POOLS,  
WATER THERAPY CENTRES
- WELL-BEING AREAS  
IN PUBLIC WATER PARKS
- MEDICAL EQUIPMENT  
USING AEROSOLS
- AIR-CONDITIONING CIRCUITS
- COLD WATER CIRCUITS  
WITH INSUFFICIENT INSULATION
- AIR HUMIDIFICATION, MISTING SYSTEMS
- COOLING TOWERS
- DECORATIVE FOUNTAINS

### THE ISSUE

Legionella is an infection caused by Legionella bacteria that is fatal in 15% of cases.

Humans can be contaminated by airborne transmission or inhalation of contaminated water diffused by aerosols. The germ responsible is a bacillus that lives in soft water; it proliferates at temperatures between 25 and 45°C, with conditions being optimal at 35°C. Legionella pneumophila can survive for several months in soft water and for over a year in a tap at room temperature.

Furthermore, certain elements used in plumbing (iron, zinc, potassium and some rubber components) stimulate its growth.



## THE PRINCIPLE

**UVc treatment** creates an extremely effective "anti-bacterial barrier". It is an **excellent complement** to a softening, bactericidal and biodispersant treatment.

**The principle is simple:** the UV radiation generated by the **UV GERMI** reactors destroy the pathogenic microorganisms in the water by causing photochemical reactions on their DNA and RNA.

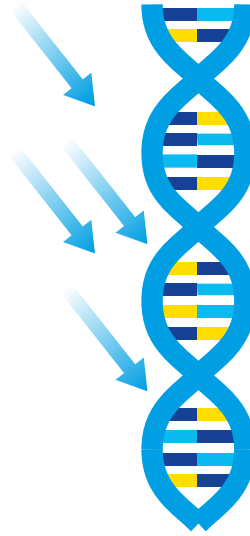
An abnormal bond is created on the DNA chain of the bacteria, which thus lose their capacity to reproduce. **Cell division is no longer possible** and bacterial proliferation is interrupted.

*Germi AP60,  
Compact range*



### BEFORE

Photons  
UV



### AFTER

Damaged  
DNA chain



## BENEFITS OF UVGERMI

# UVGERMI



### PROPERTIES

To ensure total destruction of all strains of Legionella and other bacteria that are toxic to humans, a UV dose of 40 mJ/cm<sup>2</sup> to 60 mJ/cm<sup>2</sup> is applied.

- REDUCTION OF BIOCIDES
- LOW ENERGY CONSUMPTION
- LOW MAINTENANCE COSTS
- SIMPLE INSTALLATION
- MADE IN FRANCE



## THE RANGE

We propose a compact range for small flow rates up to 6 m<sup>3</sup>/h, and an industrial range for larger flows, such as those of cooling towers.

To size our systems, we use modelling software developed by our design office to guarantee a UV dose of at least 40 mJ/cm<sup>2</sup> at the end of the lamps' service life.

### COMPACT RANGE

#### GERMI AP36 (up to 2 m<sup>3</sup>/h\*)

- 1 x 36 Watts
- Input-Output: 3/4" male screw
- Operating pressure: 6 bars
- Stainless steel 316 L
- Power supply: 230V / 50Hz
- Suitable for cold water and hot water up to 80°C

#### GERMI AP60 (up to 4 m<sup>3</sup>/h\*)

- 1 x 60 Watts
- Input-Output: 1" male screw
- Operating pressure: 6 bars
- Stainless steel 316 L
- Power supply: 230V / 50Hz
- Suitable for cold water and hot water up to 80°C

#### GERMI AP95 (up to 6 m<sup>3</sup>/h\*)

- 1 x 95 Watts
- Input-Output: 1" 1/4 male screw
- Operating pressure: 6 bars
- Stainless steel 316 L
- Power supply: 230V / 50Hz
- Suitable for cold water and hot water up to 80°C

\* With transmittance of 90% at 254 nm and a UV dose of 40 mJ/cm<sup>2</sup> at the end of the lamps' service life.

### OPTION FOR THE INDUSTRIAL RANGE


- **Polyester cabinet** with double doors for outdoor installation
- **Standardised UV intensity sensor**
- **Automatic or manual cleaning:** deposits may form on the quartz sleeves (suspended solids, lime scale, etc.) reducing the UVc intensity of the lamps. They must therefore be cleaned regularly.
- **Remote control and alarms** (lamp fault indicator).
- **Vertical installation** with air bleed.



Industrial range

## RECOMMENDATIONS

To ensure the **effectiveness of the UV treatment, shock treatment** of the pipes must be carried out before starting the reactor, either by **thermal disinfection** or by **chlorine disinfection**. The network must also be **analysed** to avoid leaving non-disinfected areas and to **eliminate dead zones** that could encourage bacteria development.



Do not hesitate to contact us  
for more information on our

## TREATMENT SOLUTIONS FOR **LEGIONELLA**

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