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UVGERMI[®]
ULTRAVIOLETS DE HAUTE TECHNOLOGIE

*Specialist in
industrial water treatment solutions
using ultraviolet reactors.*

● ○ ● MADE IN FRANCE

ULTRAVIOLET TREATMENT OF WASTE WATER and INDUSTRIAL WATER

- Treatment of effluents from water treatment plants before release into sensitive environments.
- Disinfection of purified water for re-use.
- Disinfection of water from industrial processes.

NEEDS

The microorganisms in the water must be destroyed without altering the physical and chemical properties of the water. The equipment used must be simple to install, with minimal operating and maintenance interventions. The French company UVGERMI designs and manufactures UV reactors and UV modules for open channel installations.

THE ISSUE

PROTECTING SENSITIVE RECEIVING ENVIRONMENTS

Water treatment plants are designed to treat the physical and chemical pollution contained in waste water.

However, no specific treatment is provided for biological pollution (virus, bacteria and protozoa). This means that pathogenic microorganisms, such as viruses, bacteria and protozoa, are not treated at present.

To limit the risk of contaminating the receiving environment, the quality of effluents released into the natural environment must be improved, particularly in a sensitive areas, such as bathing waters or near a source of drinking water.

ENABLING REUSE OF WASTE WATER FROM INDUSTRIAL PROCESSES

The growing scarcity of water is increasing the need to re-use water. It is essential that we save natural resources and limit our impact on the natural environment by re-using waste water, notably for irrigation and watering or as process water.

THE SOLUTION

UV disinfection is considered to be one of the **most effective techniques** for the destruction of microorganisms such as bacteria, viruses or protozoa.

Our specific lamps, using low pressure technology, generate radiation in the UVC part of the spectrum at the optimal wavelength of **253.7 nanometres**. This wavelength has a **germicidal effect** by neutralising the microorganisms. The DNA and RNA of these microorganisms are **damaged by the UV radiation**. Exposure to the radiation prevents the replication of their genetic material and stops the

microorganisms from proliferating, **which means they lose their pathogenic effects**.

This technology offers a much better **alternative to chemical disinfection** based on chlorination. It eliminates all the risks related to storing and handling chemical substances. Since no chemical substances are used, **the impacts on the receiving environment are reduced**.



AFTER
Damaged
DNA chain



BENEFITS

UVGERMI®

- Low operating and maintenance costs
- Monochromatic low pressure lamps
Low power consumption
- Body and cabinet resistant electrical to corrosion
- Low load loss
- Variation of lamp UVC intensity according to flow rate
- Lamp service life up to 16,000 hours
- Made in France

TECHNICAL SPECIFICATIONS

Industrial range

DESIGNATION OF REACTOR	NUMBER OF LAMPS	AVERAGE FLOW TREATED (m ³ /h) at 40 mJ/cm ² T=50%	AVERAGE FLOW TREATED (m ³ /h) at 40 mJ/cm ² T=70%	TOTAL POWER	DIAMETER Input/Output (DN flange)	POWER SUPPLY
GERMI AD120	1	1.65	4	120 W	DN32	230 V
GERMI AD200	1	2.59	6.2	200 W	DN40	230 V
GERMI BD 300	2	9.7	32	600 W	DN65	230 V
GERMI CD 300	3	15	38.8	900 W	DN65	230 V
GERMI DD 600	4	41	105	2.4 kW	DN125	230 V
GERMI FD 600	6	55	145	3.6 kW	DN150	Tri+N+E
GERMI HD 600	8	76	204	4.8 kW	DN200	Tri+N+E
GERMI JD 600	10	81	230	6 kW	DN200	Tri+N+E
GERMI LD 600	12	97	250	7.2 kW	DN250	Tri+N+E
GERMI ND 600	14	132	370	8.4 kW	DN300	Tri+N+E
GERMI RD 600	18	176	490	10.8 kW	DN300	Tri+N+E
GERMI VD 600	22	208	611	13.2 kW	DN350	Tri+N+E
GERMI ZD 600	26	246	696	15.6 kW	DN400	Tri+N+E
GERMI ZDD 600	30	284	797	18 kW	DN400	Tri+N+E

OPTIONS

- **Cabinet** made from IP65 polyester (exterior)
- **Automatic cleaning** of the quartz sleeves (mechanical or chemical)
- **Standardised digital UVc intensity sensor** (DVGW or ÖNORM) with two configurable alarm thresholds and one 4-20 mA output
- **Communication of general information** to the customer supervision station
- **Temperature probe** with thermoregulator (system security for no-flow conditions)
- **UV intensity regulation** according to flow rate available for certain models



Do not hesitate to contact us
for more information on our

TREATMENT SOLUTIONS FOR **WASTE WATER AND INDUSTRIAL WATER**



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