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The specialist of industrial water treatment solutions through ultraviolet reactors.

● ○ ● MADE IN FRANCE

THE **ULTRAVIOLETS** TREATMENT FOR **WASTEWATER** AND **INDUSTRIAL WATER**

- Treatment of effluents from wastewater treatment plants before release into sensitive environments.
- Disinfection of treated effluents for reuse.
- Disinfection of industrial process water.

NEEDS

The aim is to destroy microorganisms found in the effluent, without modifying the physical and chemical parameters of the discharged water. The equipment used must be easy to install with minimum operation and maintenance. UVGERMI, established in France and the UAE, designs and manufactures UV reactors as well as UV modules to be installed in open channels.

THE ISSUE

PROTECT A SENSITIVE RECEIVING ENVIRONMENT

Wastewater treatment plants (WWTP) are designed to treat the physical and chemical contamination found in wastewater.

However, no specific treatment is provided for the biological contamination (viruses, bacteria or protozoa), i.e. pathogenic microorganisms such are not currently removed. To limit the risk of contaminating the receiving environment, the quality of effluents discharged into the environment must be improved.

With increasingly stringent requirements regarding the quality of effluents discharged into the environment especially when it is discharged into a sensitive area such as bathing waters, shellfish farming areas or near a drinking water abstraction point.

ALLOW THE REUSE OF WASTEWATER

With water becoming scarce, recycling has now become a necessity. Natural resources must be saved and our impact on the environment must be limited by reusing wastewater, especially for irrigation and watering.

THE SOLUTION

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

Our specific lamps, using low or medium pressure technology, emit rays in the UVC spectrum at the optimum wavelength of 253.7 nm. This wavelength has a germicidal effect by neutralising microorganisms in the effluent. Their DNA and RNA are damaged by UV radiation. This exposure prevents the replication of their genetic material and therefore, their multiplication. They then lose their pathogenic effects.

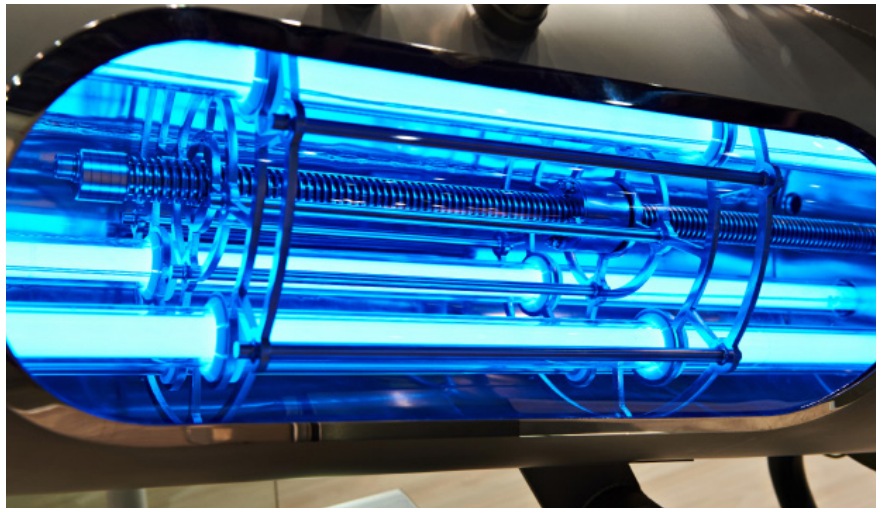
All biological agents can be destroyed by UV radiation. The power of UVC is applied and the contact time will determine the type of pathogens targeted.

This technology is a much better alternative **to chemical disinfection** using chlorination. This solution is risk-free with regards to the storage and handling of products. Without the use of chemicals, **nuisances in the receiving environment are greatly reduced.**

BEFORE
UV Photons



AFTER
Damaged
DNA sequence



PROS OF UV GERMI

UV GERMI

- Low operating and maintenance costs
- Low pressure monochromatic lamps with low electrical consumption
- Corrosion-resistant body of reactor and electrical panel
- Low head loss
- Lamps intensity variation according to the flow
- Long-life lamps guaranteed up to 16 000 hours
- Made in France

TECHNICAL SPECIFICATIONS

Industrial Range

NAME OF THE REACTOR	NUMBER OF LAMPS	AVERAGE FLOW RATE (m ³ /h) AT 40 mJ/cm ² T=50%	AVERAGE FLOW RATE (m ³ /h) AT 40 mJ/cm ² T=70%	TOTAL ELECTRICAL POWER (W)	IN/OUT (DN FLANGE)	POWER SUPPLY
GERMI AD200	1	2,59	6,2	200	DN40	230V
GERMI BD 300	2	9,7	24,1	600	DN65	230V
GERMI CD 300	3	15	38	900	DN65	230V
GERMI DD 600	4	41	105	2400	DN125	230V
GERMI HD 600	8	76	204	4800	DN200	Tri+N+T
GERMI LD 600	12	97	260	7200	DN250	Tri+N+T
GERMI ND 600	14	132	370	8400	DN300	Tri+N+T
GERMI RD 600	18	176	490	10800	DN300	Tri+N+T
GERMI VD 600	22	208	611	13200	DN350	Tri+N+T
GERMI ZD 600	26	246	696	15600	DN400	Tri+N+T
GERMI ZDD 600	30	284	797	18000	DN400	Tri+N+T

OPTIONS

- Steel or polyester cabinet (Indoor/Outdoor installation)
- **Automatic cleaning system for quartz sleeves** with wiper seals
- **Standardized Uvc digital sensor** (DVGW or ÖNORM) with 2 configurable alarm thresholds and a 4-20 mA output
- **General information report** by customer supervision
- **Temperature sensor** with thermoregulator (Security system in case of no flow)
- **UV intensity regulation based on the flow rate**



Feel free to contact us if you need
any further information about

WASTEWATER AND INDUSTRIAL WATER TREATMENT SOLUTIONS



UVGERMI®
ULTRAVIOLET HIGH TECHNOLOGY

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