



Treatment solutions for sea water using ultraviolet reactors.

MADE IN FRANCE

ULTRAVIOLET

TREATMENT FOR **SEA WATER**

- WATER TREATMENT CENTRES
- **AQUARIUMS**
- FISH FARMS
- SHELLFISH FARMS
- FISH PONDS
- **HATCHFRIFS**
- **INDUSTRY**



THE ISSUE

The development of parasites, bacteria and viruses can represent a serious threat to the production and conservation of fish and shellfish in the pools, ponds and hatcheries of fish farming operations. Algae proliferate, making the water murky. The chemicals used to destroy parasites, bacteria and viruses have proved toxic to marine organ-

NFFDS

Implement an effective treatment to destroy pathogenic microorganisms without using chemical substances.

Protect marine animal and plant life.

Use corrosion-proof materials that are also resistant to UVc radiation.

Control the proliferation of algae in decorative fountains, aquariums, and fish ponds.

Limit the release of polluted waste, containing a lot of microorganisms, into the marine environment.

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UVGERMI is a partner of some of Europe's

largest zoos and water parks:

- · NAUSICAA
- · BEAUVAL ZOO
- **· EURODISNEY**
- · CENTER PARCS ETC.

THE SOLUTION

The UV treatment of microorganisms is considered to be one of the **most effective** disinfection techniques against bacteria, viruses and protozoa.

Exposure to UV radiation is a physical treatment that destroys the microorganisms using light from the **UVc spectrum**, particularly at a **wavelength of 254 nm**, at which effectiveness is maximal.

This treatment method provides water of **very high bacteriological quality**.

The risks of epizootic episodes and illnesses are thus eliminated.

No chemical substances have to be used in addition to the reactors.

The treatment chambers made from food-grade HDPE and the polyester cabinets avoid **all corrosion in salt-water environments**.





- Low operating and maintenance costs
- Body and electrical cabinet resistant to corrosion
- Lamp service life up to 16,000 hours
- Monochromatic low pressure lamps Low power consumption
- Low load loss
- Made in France

TECHNICAL SPECIFICATIONS

HDPE range

DESIGNATION OF REACTOR	Average flow treated* (m³/h) at 25 mJ/cm²	Average flow treated* (m³/h) at 40 mJ/cm²	Total power (W)	Diameter Input/Output
GERMI REUSE1	3	0.5	60	DN25
GERMI REUSE1 POWER	6	3	95	DN40
GERMI BP 75 HDPE	13	8	150	RU** PVC 63/DN50
GERMI CP 75 HDPE	33	20	225	DN65
GERMI CD 120 HDPE	50	31	360	DN65
GERMI CD 300 HDPE	152	95	900	DN100
GERMI DD 300 HDPE	210	132	1200	DN100
GERMI FD 300 HDPE	325	203	1800	DN150
GERMI HD 300 HDPE	455	285	2400	DN200
GERMI JD 300 HDPE	625	390	3000	DN300
GERMI LD 300 HDPE	810	505	3600	DN300

^{*}Transmittance (at 254 nm over 10 mm)=90%

**RU: Union

Standard operating pressure 6 bars (please contact us about higher pressures)

Power supply: 230 V or 400 V TETRA - 50/60 Hz (depending on the model)

Single-ended, amalgam doped, low pressure UV lamps (guaranteed service life of 16,000 hours or 2 years, whichever comes first, except for 75 W lamps)

Electronic ballast for UV lamp control, with pre-heating **Polyester cabinet** (to avoid corrosion in marine environments)

Temperature probe with thermoregulator

OPTIONS for the industrial range

- UV intensity regulation according to water flow rate
- IP65: double-door cabinet
- Digital UVc intensity sensor with two configurable alarm thresholds and one 4-20 mA output
- Automatic PVC bleed for vertical installation
- Flange diameters different from standard and/or non-standard input/output









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