

# AQUACULTURE, PISCICULTURE, AQUARIUMS

## Treatment of salt water and corrosive water

(For fresh water, see the special 316L stainless steel range)

The **BIO-UV** Group has developed and patented a range of special reactors for disinfecting salt water and/or corrosive water, able to meet the most stringent requirements of professionals and thus optimize their operation in total safety. Our HDPE range makes it possible to treat all flow rates. The **BIO-UV** HDPE reactors treat these various applications and many sites on a daily basis and their operators swear by them and are totally satisfied with their performance.

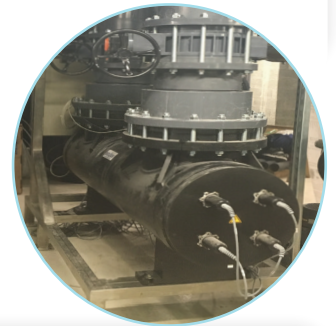
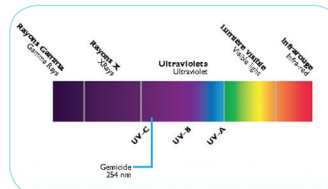


## Benefits

- **UV reactors adapted to the flow rates to be treated (1.8 to 820 m<sup>3</sup>/h). For higher flow rates, up to 1000 m<sup>3</sup>/h, contact us**
- **Reactors that take account of the specific turbidity of the water:** ensuring the effectiveness of the passage through the UV rays
- **Power in millijoules ensuring true efficiency right to the end of the lamps' life and guaranteeing the effective destruction of undesirable micro-organisms (particularly certain viruses)**
- **Permanent back-up** at the service of professionals
- **Healthy, crystal-clear water guaranteed**
- **Avoids the use of any chemical substances**
- **Simple design** for an easy maintenance
- **Simple and quick to install**
- **No risk to flora and fauna**
- **Completely environmentally friendly**
- **BIO-UV HDPE reactors: a durable guarantee against corrosion**

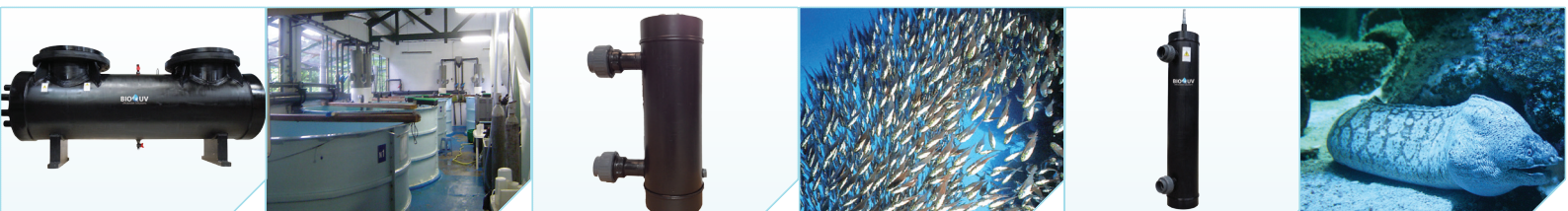
## Principle

The sun emits invisible light : ultraviolet light. This natural phenomenon is reproduced inside the reactors in the **BIO-UV** Group's product ranges using powerful lamps, the result of leading-edge technology, that emit UV-C rays. At 254 nanometers, the optimum wavelength for destroying micro-organisms (viruses, bacteria, algae, yeasts, mould...), UV-C rays penetrate to the heart of DNA and disturb the metabolism of cells until they are totally destroyed. All germs are thus deactivated (including **Legionella** and **Cryptosporidium**) and cannot reproduce.



## Effective dose

- The reactors in the **BIO-UV HDPE** ranges are dimensioned according to the flow rate: it is the combination of the contact time in the reactor, the power of the lamp(s)
- The consideration of the specific transmission factor of the salt water (85%), less than that of fresh water, that will ensure that the necessary dose (expressed in millijoules per square centimeter or mJ/cm<sup>2</sup>) sufficient to kill 99.9% of the micro-organisms (bacteria, viruses, algae in suspension,...) is received.



## HDPE HO SERIES REACTORS (very High Output lamps)

Description	Max.flow rate in m <sup>3</sup> /h*	Performance in millijoules per cm <sup>2</sup> at actual recommended flow rates**	UV lamp : Number Power consumption	Connection D	Height of reactor in mm	Diameter of reactor in mm
PE 330 HO	1,8	30	1 x 33 W	D 32	472	110
PE 870 HO	7,1	30	1 x 87 W	D 50	1001	160
PE 1160 HO	7,1	30	1 x 87 W	D 75	1070	160
PE 2160 HO	10,6	30	2 x 87 W	D 75	1070	160
PE 3160 HO	15,8	30	3 x 87 W	D 75	1070	160
PE 4250 HO	30,7	30	4 x 87 W	D 140	1070	250
PE 5250 HO	38	30	5 x 87 W	D 140	1070	250
PE 6250 HO	45,1	30	6 x 87 W	D 140	1070	250

## HDPE AM SERIES REACTORS (very High Output AMALGAM lamps)

Description	Max.flow rate in m <sup>3</sup> /h*	Performance in millijoules per cm <sup>2</sup> at actual recommended flow rates**	UV lamp : Number Power consumption	Connection D	Height of reactor in mm	Diameter of reactor in mm
PE 2315 / 300 AM	56,5	30	2 x 300 W	D 200	1330	315
PE 3315 / 300 AM	89	30	3 x 300 W	D 200	1330	315
PE 4315 / 300 AM	117,5	30	4 x 300 W	D 200	1330	315
PE 5315 / 300 AM	144	30	5 x 300 W	D 200	1330	315
PE 6315 / 300 AM	169	30	6 x 300 W	D 200	1330	315
PE 4315 / 400 AM	180	30	4 x 400 W	D 250	1919	315
PE 7315 / 300 AM	197	30	7 x 300 W	D 200	1330	315
PE 4500 / 500 AM	258	30	4 x 500 W	D 400	1932	500
PE 6315 / 400 AM	260	30	6 x 400 W	D 280	1919	315
PE 6500 / 500 AM	383	30	6 x 500 W	D 400	1932	500
PE 8500 / 500 AM	556	30	8 x 500 W	D 400	1932	500
PE 12500 / 500 AM	820	30	12 x 500 W	D 400	1932	500

\*Contact us for other flow rates

\*\*The performance of these devices have been calculated at the end of the lamps' life and with a transmission of 85%

## Advantages

- **High performance HDPE reactors** with high intensity (HO) or Amalgam (AM) UV-C lamps using state-of-the-art technologies
- Very long lamp life (12 000 to 13 000 hours depending on the number of switchings on)
- Dedicated electronic ballasts guaranteeing maximum UV output of lamps and integrated monitoring
- Single-base lamps with patented sealing system for an easy maintenance
- Lamp operating indicator light for each lamp
- Insignificant pressure loss
- Inlet/outlet connections using unions supplied
- Drain plug
- Maintenance: lamp change and cleaning of the quartz sheath very quick and simple



## BIO-UV Group

850 avenue Louis Médard - CS 90022  
34403 LUNEL Cedex - FRANCE  
Tel. 0033(0)4 99 133 911 - Fax. 0033(0)4 99 133 919  
E-mail : [export@bio-uv.com](mailto:export@bio-uv.com) - [www.bio-uv.com](http://www.bio-uv.com)

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