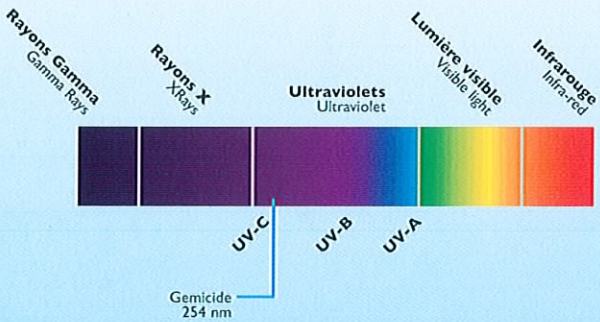
WATER FOR INDUSTRIAL PROCESSES

BIO-UV reactors are suitable for the treatment of water for industrial processes. The principal applications are as follows:

- Disinfection of water for industrial processes
- Disinfection of water for cleaning and rinsing
- Downstream protection of membrane-type treatment systems (reverse osmosis units, ultrafiltration etc...)
- Maintenance of the quality of stored water: raw water, treated water, organic-free water
- Production of organic-free water
- Destruction of residual ozone
- Dechloramination: Reduction of the chlorine-free rate
- Dechloramination: Reduction of the combined chlorine rate
- Reduction of Total Organic Carbon
- Advanced oxidation process :
  - Reduction of DCO
  - Reduction of organic micro-pollutants

PRINCIPLE

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 desactivated (including ***Legionella*** and ***Cryptosporidium***) and cannot reproduce.



EFFECTIVE DOSE

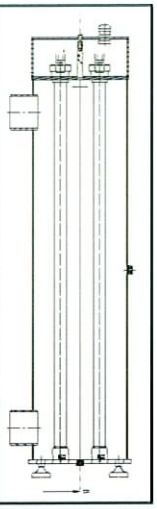
The reactors in the **BIO-UV** ranges are dimensioned according to the flow rate: it is the combination of the contact time in the reactor and the power of the lamp(s) that will ensure that the necessary dose (expressed in millijoules per square centimeter or mJ/cm²) sufficient to kill 99.9% of the micro-organisms (bacteria, viruses, algae in suspension,...) is received.

BENEFITS

- **Treatment simple to use and does not modify the physico-chemical characteristics of the water:** no change in the taste, smell, etc...
- **No disinfection by-products created that are harmful to human health**
- **No risk of under or over-dosing**
- **No chemical product monitoring and handling constraints**
- **May be combined with other treatment processes** (filtration, softening etc...)
- **Advanced oxidation treatment in the presence of catalysts**

BIO UV®
ULTRAVIOLET SOLUTIONS

IBP SERIES REACTORS

Description	Max.flow rate in m^3/h	Performance in millijoules per cm^2 at actual recommended flow rates	UV lamp : Number Power consumption	Connection	Height of reactor in cm	Diameter of reactor in cm	
IBP 10	3,2	40 mJ/cm^2	1 x 36 W	1"	95	8,57	
IBP 10 HO	4,6	40 mJ/cm^2	1 x 75 W	1"	95	8,57	
IBP 20	5,7	40 mJ/cm^2	1 x 36 W	1"1/2	95	15	
IBP 30 HO	8	40 mJ/cm^2	1 x 75 W	1"1/2	95	15	
IBP 2150 HO	13	40 mJ/cm^2	2 x 75 W	2"	95,5	15	
IBP 3150 HO	22	40 mJ/cm^2	3 x 75 W	2"	95,5	15	
IBP 4205 HO	39	40 mJ/cm^2	4 x 75 W	2"1/2	99	20	
IBP 5205 HO	54	40 mJ/cm^2	5 x 75 W	2"1/2	99	20	
IBP 5 AM	4,7	40 mJ/cm^2	1 x 40 W	1"	43,5	15	
IBP 10 AM	8,5	40 mJ/cm^2	1 x 120 W	1"	95	8,57	
IBP 30 AM	15	40 mJ/cm^2	1 x 120 W	1"1/2	95	15	
IBP 2150 AM	25	40 mJ/cm^2	2 x 120 W	2"	95,5	15	
IBP 3150 AM	41	40 mJ/cm^2	3 x 120 W	2"	95,5	15	

* 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 98%

ADVANTAGES

- Excellent disinfecting performance by optimization of UV emissions and of the hydraulic flow
- Compact reactors, easy to install
- Use of single-base lamps, patented sealing system and vertical design for an easy maintenance
- Optional UV sensor and monitor offering data reporting by a diode and contact type alarm
- Personalization of connection possible; DN flanges, clamps etc...
- Advanced oxidation combination with catalysts
- Lamp life optimized: 13 000 hours depending on the number of switchings on

BIO UV®
ULTRAVIOLET SOLUTIONS
ZAC de la Petite Camargue • CS90022 • 34403 LUNEL Cedex • FRANCE
Tél : +33 (0)4 99 133 911 • Fax : +33 (0)4 99 133 919 • e-mail : info@bio-uv.com
www.bio-uv.com

BIO-UV, Technical Partner of the French Swimming Federation

EPA Registered #075659-FRA-001