

DOMESTIC DRINKING WATER AND SMALL COMMUNITIES



The **BIO-UV** reactors in the UV HOME and IBP ranges are used to :

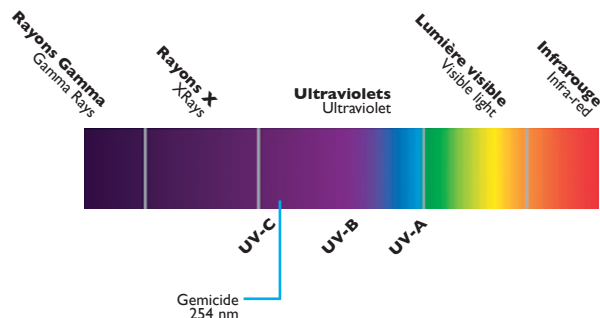
- make **raw water** coming from local drinkable resources (wells, boreholes, catchments etc.)
- make **water in the system** safe to drink, particularly after dechlorination using active charcoal
- make recycled **rainwater** safe for domestic use only

BIO-UV reactors ensure that the water complies with bacteriological quality limits (in accordance with the Order dated 25/12/2003) and complies with the Ministry of Health's directive concerning UV treatment. Prior filtration may be necessary.

PRINCIPLE

The sun emits invisible light: ultraviolet light. This natural phenomenon is reproduced inside the reactors in the **BIO-UV** Group's ranges using powerful lamps, 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...), the 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** ranges are dimensioned according to the pump flow rate, as 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.

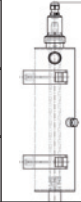
BENEFITS

- **Treatment easy to use. 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.)

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UV HOME 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	
UV HOME 2	2,2	40 mJ/cm ²	1 x 33 W	3/4"	44,6	9	
UV HOME 3	3,2	40 mJ/cm ²	1 x 55 W	3/4"	71,7	9	

* Contact us for other flow rates

** The performance of these devices was calculated at the end of the lamps' life and with a transmission of 98%
Lamps' life : 13000 hours.

ADVANTAGES

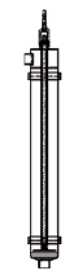
- Compact reactor, easy to install
- Separate electrical cabinet for free mounting on the wall
- Inlet/outlet in « L » with inlet under the reactor and outlet on the top of the reactor
- Simple and economical technology regarding investment and operating
- Option : UV intensity sensor



The UV HOME 2 and 3 sanitizers are available alone or with an additional filtration system (2 or 3 filters depending on the water quality).

2 Filters Kit	3 Filters Kit
UV HOME 2 Sanitizer Washable screen filter 60 μ - Cartridge filter 10 μ	UV HOME 2 Sanitizer Washable screen filter 60 μ - Cartridge filter 10 μ - Carbon Filter
UV HOME 3 Sanitizer Washable screen filter 60 μ - Cartridge filter 10 μ	UV HOME 3 Sanitizer Washable screen filter 60 μ - Cartridge filter 10 μ - Carbon Filter

IBP HO + 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 HO +	4,6	40 mJ/cm ²	1 x 87 W	1"	106,7	9	
IBP 30 HO +	6,6	40 mJ/cm ²	1 x 87 W	1"1/2	107,2	11,4	
IBP 40 HO +	9,3	40 mJ/cm ²	1 x 105 W	1"1/2	132,6	11,4	
IBP 2150 HO +	13	40 mJ/cm ²	2 x 87 W	2"	107,7	15	
IBP 3150 HO +	22	40 mJ/cm ²	3 x 87 W	2"	107,7	15	
IBP 4205 HO +	39	40 mJ/cm ²	4 x 87 W	2"1/2	110,4	20,5	
IBP 5205 HO +	54	40 mJ/cm ²	5 x 87 W	2"1/2	110,4	20,5	

* Contact us for other flow rates

** The performance of these devices was calculated at the end of the lamps' life and with a transmission of 98%

ADVANTAGES

- Excellent disinfecting performance by optimization of UV emissions and 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
- Lamp life optimized : 13 000 hours depending on the number of switchings on




 Ultraviolet Solutions

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