BIO UV
Ultraviolet Solutions

DOMESTIC DRINKING WATER AND SMALL COMMUNITIES

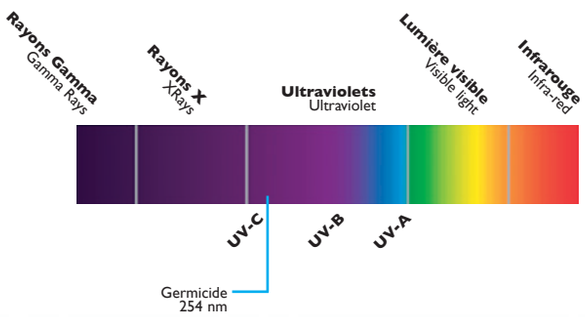
The **BIO-UV** reactors in the UV HOME and IBP ranges are used to :
- make raw water coming from local drinkable resources (wells, boreholes, catchments etc.)
- make water in the system safe to drink, particularly after dechlorination using active charcoal
- make recycled rainwater safe for domestic 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 desactivated (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/cm^2) 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 * for 16 millijoules	Max.flow rate in m^3/h * for 30 millijoules	Max.flow rate in m^3/h * for 40 millijoules	UV lamp : Number Power consumption	Connection	Height of reactor in mm	Diameter of reactor in mm	Stainless Steel
UV HOME 2	5,5 24GPM	2,9 13GPM	2,2 10GPM	1 x 33 W	3/4"	446	90	304L
UV HOME 3	8 35GPM	4,3 19GPM	3,2 14GPM	1 x 55 W	3/4"	717	90	304L
UV HOME 4	11,5 51GPM	6,1 27GPM	4,6 20GPM	1 x 87 W	1"	1067	90	316L
UV HOME 6	16,5 73GPM	8,8 39GPM	6,6 29GPM	1 x 87 W	1"1/2	1072	114	316L
UV HOME 9	23,3 103GPM	12,4 55GPM	9,3 41GPM	1 x 105 W	1"1/2	1325	114	316L

* 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 additionnal 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 * for 16 millijoules	Max.flow rate in m^3/h * for 30 millijoules	Max.flow rate in m^3/h * for 40 millijoules	UV lamp : Number Power consumption	Connection	Height of reactor in mm	Diameter of reactor in mm
IBP 10 HO +	11,5	6	4,6	1 x 87 W	1"	1067	90
IBP 30 HO +	16,5	8,8	6,6	1 x 87 W	1"1/2	1072	114
IBP 40 HO +	23,3	12,4	9,3	1 x 105 W	1"1/2	1326	114
IBP 2150 HO +	32,5	17	13	2 x 87 W	2"	1083	150
IBP 3150 HO +	55	29	22	3 x 87 W	2"	1083	150
IBP 4205 HO +	97	52	39	4 x 87 W	2"1/2	1096	205
IBP 5205 HO +	135	72	54	5 x 87 W	2"1/2	1096	205

* 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

BIO UV
Ultraviolet Solutions
850 avenue Louis Médard • 34400 LUNEL • FRANCE
Tél : +33(0)4 99 133 911 • Fax : +33(0)4 99 133 919
e-mail : export@bio-uv.com
www.bio-uv.com

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PARTENAIRES TECHNIQUES