

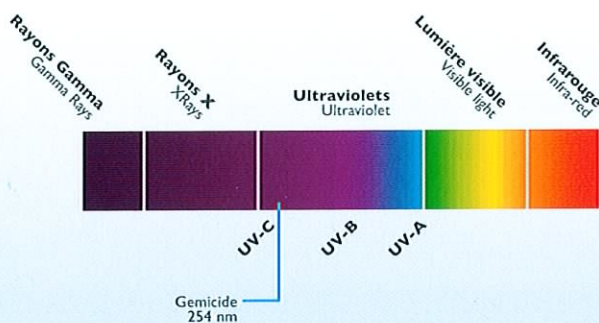
# MUNICIPAL DRINKING WATER SUPPLIES



The **BIO-UV** reactors in the IAM range have been developed to meet the most stringent requirements for the production of drinking water. They can be used to disinfect raw water (from wells, catchment systems etc.) and guarantee that water bacteriological quality limits are met in accordance with the Order dated 25/12/2003, before distribution in public drinking water systems. They can also be used in pre-treatment, either to reduce the use of oxidizing biocidal agents and, therefore, the by-products of oxidation, or to treat specific micro-organisms (particularly *Cryptosporidium* and *Giardia*).

## 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 deactivated (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  $\text{mJ}/\text{cm}^2$ ) sufficient to kill 99.9% of the micro-organisms (bacteria, viruses, algae in suspension,...) is received.

## BENEFITS

- **Treatment that is simple to use:** Reduces the handling of chlorine and monitoring. It is therefore particularly well-suited to rural communities with diversified water resources
- **Physical treatment with no change in the physico-chemical quality of the water:** the original taste and smell of the water are preserved, improving the image of environmentally conscious communities
- **Disinfection by UV enables the treatment of chlorine-resistant parasites liable to have an adverse affect on human health**
- **Economic investment and operation**

**BIO-UV**<sup>®</sup>  
ULTRAVIOLET SOLUTIONS

## IAM SERIE REACTORS

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 DN	Height of reactor in cm	Diameter of reactor in cm
IAM1090/120	8,5	40 mj/cm <sup>2</sup>	1 x 120 W	DN 65	95	8,57
IAM1150/120	15	40 mj/cm <sup>2</sup>	1 x 120 W	DN 80	95	15
IAM2205/120	41	40 mj/cm <sup>2</sup>	2 x 120 W	DN 100	99	20
IAM3273/120	80	40 mj/cm <sup>2</sup>	3 x 120 W	DN 150	99	26,7
IAM1150/300	26	40 mj/cm <sup>2</sup>	1 x 300 W	DN 80	112	15
IAM2273/300	95	40 mj/cm <sup>2</sup>	2 x 300 W	DN 150	116,5	26,7
IAM3273/300	150	40 mj/cm <sup>2</sup>	3 x 300 W	DN 150	116,5	26,7
IAM4273/300	200	40 mj/cm <sup>2</sup>	4 x 300 W	DN 200	116,5	26,7
IAM5273/300	250	40 mj/cm <sup>2</sup>	5 x 300 W	DN 250	116,5	26,7
IAM6355/300	390	40 mj/cm <sup>2</sup>	6 x 300 W	DN 250	118	34,98
IAM7355/300	430	40 mj/cm <sup>2</sup>	7 x 300 W	DN 250	118	34,98
IAM8355/300	490	40 mj/cm <sup>2</sup>	8 x 300 W	DN 250	118	34,98
IAM9355/300	550	40 mj/cm <sup>2</sup>	9 x 300 W	DN 250	118	34,98



\* 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%

### CHARACTERISTICS

- Passivated, micro-bitted 316L stainless steel reactor
- Flanged connection
- 100% draining
- High performance amalgam low pressure UV lamp
- Electronic ballasts without starter
- Lamp operating indicator light
- Lamp alarm indicator light and alarm contact
- Digital hour counter and reset
- Selective UV sensor at 254 nm and control monitor with display of UV intensity and 4-20mA output for remote management

### ADVANTAGES

- High quality of manufacture and high disinfecting performance
- Inlet and outlet sanitary sampling valves
- Use of amalgam low pressure lamps to achieve required performance levels irrespective of the temperature of the water (particularly cold mountain water)
- Dedicated electronic ballasts guaranteeing maximum lamp UV efficiency and integrated control
- UV monitoring sensor complying with German standard DVGW W 294 providing correct continuous operation of the sterilizer
- LCD display of UV intensity, remote management via a 4-20mA output
- Personalization of reactors according to the installation, operation and maintenance constraints (diameter of flanges, inlet/outlet positioning, vertical/horizontal reactor, etc.)
- Single-base lamps and patented sealing system for an easy maintenance
- Option: manual or automatic quartz cleaning system, without dismantling

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