

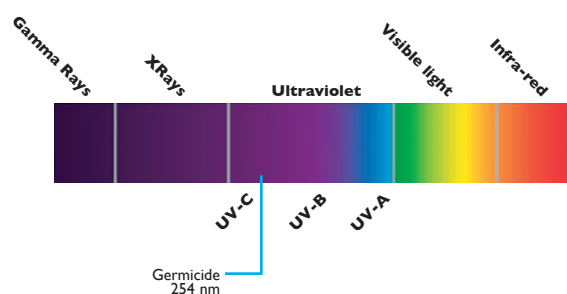
# MUNICIPAL DRINKING WATER SUPPLIES



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**

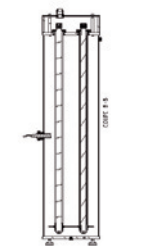
## IAM SERIES REACTORS/120-300W

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	
<b>IAM1090/120</b>	8,5	40	1 x 120 W	DN 65	98	9	
<b>IAM1150/120</b>	15	40	1 x 120 W	DN 80	94,7	15	
<b>IAM2205/120</b>	41	40	2 x 120 W	DN 100	98,7	20,5	
<b>IAM3273/120</b>	80	40	3 x 120 W	DN 150	98,5	27,3	
<b>IAM1150/300</b>	26	40	1 x 300 W	DN 80	112	15	
<b>IAM2273/300</b>	95	40	2 x 300 W	DN 150	116,5	27,3	
<b>IAM3273/300</b>	150	40	3 x 300 W	DN 150	116,5	27,3	
<b>IAM4273/300</b>	200	40	4 x 300 W	DN 200	116,5	27,3	
<b>IAM5273/300</b>	250	40	5 x 300 W	DN 200	116,5	27,3	

\* 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%

## IAM SERIES REACTORS/500W

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	
<b>IAM3355/500</b>	340	40	3 x 500 W	DN 300	180	35,5	
<b>IAM4508/500</b>	650	40	4 x 500 W	DN 350	180	50,8	
<b>IAM6508/500</b>	870	40	6 x 500 W	DN 350	180	50,8	
<b>IAM8711/500</b>	1000	40	8 x 500 W	DN 500	180	71,1	
<b>IAM10711/500</b>	1300	40	10 x 500 W	DN 500	180	71,1	
<b>IAM12711/500</b>	1700	40	12 x 500 W	DN 500	180	71,1	

\* 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
- For IAM 500 W Series: horizontal installation of the reactor, automatic standard quartz wiper system without dismantling, possibility of lamp power regulation

## 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 Austrian standard ÖNORM providing correct continuous operation of the sanitizer
- 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 IAM 120-300W Series: manual or automatic quartz wiper system, without dismantling



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Ultraviolet Solutions

