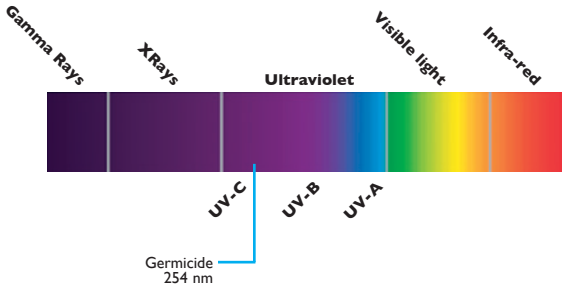
BIO UV
Ultraviolet Solutions

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 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 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**

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IAM SERIES REACTORS/120-300W

Description	Max.flow rate in m³/h * for 30 millijoules	Max.flow rate in m³/h * for 40 millijoules	UV lamp : Number Power consumption	Connection DN	Height of reactor in mm	Diameter of reactor in mm
IAM 1090/120	11,3	8,5	1 x 120 W	DN 65	952	90
IAM 1150/120	20,4	15	1 x 120 W	DN 80	952	150
IAM 2205/120	54,6	41	2 x 120 W	DN 100	958	205
IAM 3273/120	106,5	80	3 x 120 W	DN 150	1010	273
IAM 1150/300	34,7	26	1 x 300 W	DN 80	1120	150
IAM 2273/300	126	95	2 x 300 W	DN 150	1165	273
IAM 3273/300	200	150	3 x 300 W	DN 150	1165	273
IAM 4273/300	267	200	4 x 300 W	DN 200	1165	273
IAM 5273/300	333	250	5 x 300 W	DN 200	1165	273

* 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 m³/h * for 30 millijoules	Max.flow rate in m³/h * for 40 millijoules	UV lamp : Number Power consumption	Connection DN	Height of reactor in mm	Diameter of reactor in mm
IAM 3355/500	453	340	3 x 500 W	DN 300	2045	355
IAM 4508/500	866	650	4 x 500 W	DN 350	2183	508
IAM 6508/500	1160	870	6 x 500 W	DN 350	2183	508
IAM 8711/500	1333	1000	8 x 500 W	DN 500	2200	711
IAM 10711/500	1733	1300	10 x 500 W	DN 500	2200	711
IAM 12711/500	2266	1700	12 x 500 W	DN 500	2200	711

* 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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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