UV WATER TREATMENT

Environmentally friendly and careful disinfection

Highlights

- Water treatment without the use of chemicals
- Does not influence the natural composition of the water
- 99.9 % reduction of all present micro-organisms
- Lucrative disinfection method

Treating water is not enough – groundwater resources must also be protected. More and more companies are aware of the environmental and economical savings that follow from reusing recirculated water. And to reuse water, disinfection is necessary.

UV Water Treatment ensures a careful disinfection of water. Unlike chlorination, the nitrogen and organic material in the water are not broken down and no harmful by-products are formed. UV Water Treatment consists of low-pressure lamps with UV-C light. With a wave length at 254 nm, the UV-C light cleans the water in an environmentally safe way. It has been determined that a wave length at exactly 254 nm has the largest killing effect on micro-organisms such as bacteria, vira and fungi. The UV-C beams penetrates and destroys the genetic material of the bacteria.

UV Water Treatment consists of several reactors made of acid-proof stainless steel. Inside the reactors, a UV-C lamp is placed in a protective quartz tube.

The system has been constructed to guarantee an irradiation of 400 J/m2 at all points of the reactor. The construction takes into account that the intensity of the lamp decreases in time. Therefore, all calculated capacities are based on the intensity of the lamp at the end of its lifetime.

To monitor the UV irradiation, the system is supplied with an approved UV sensor, which continuously measures the UV intensity and alarms if the UV irradiation is low.

The system is delivered with a serial coupling of the reactors. The flow of power through several reactors ensures charging, so there is a better utilization of the UV light in the individual reactor.
To determine which UV Water Treatment system is needed in the individual production site, the water transparency must be measured.

UV Water Treatment can be installed in an existing system and it does not take up a lot of space.

UV Water treatment is fully automatic and it does not require specially-trained staff to operate and maintain it.

SPECIFICATIONS / **UV WATER TREATMENT**

Technical specifications				
Type	LM2	LM3	LM4	LM6
Entrance and exit is connected with BSP	2”			
Rinse and test tap, BSP	3/4”			
Steel quality, UV-reactor	AISI 316L, W1.4404			
Maximum operation pressure, kPa	1000 (10 bar)			
Pressure test, kPa	1600 (16 bar)			
Maximum fall in pressure, kPa	20	40	60	100
Water temperature, area °C	15 - 40			
Max. surrounding temperature, °C	25			
Electrical connection V, Hz	230 V, 50 Hz			

Physical specifications				
Type	LM2	LM3	LM4	LM6
Length, mm	1432	1432	1432	1432
Horizontal distance between entrance and exit, measured in mm	0	1506	0	0
Height, mm	723	878	1033	1343
Control box width, mm	600	600	600	760
Control box height, mm	600	600	600	760
Vertical distance between entrance and exit, measured in mm	499	654	809	1119
Must hang freely. When changing a lamp the min. distance to a wall etc. should be, mm	1150	1150	1150	1150
Must hang freely. When changing a UV sensor the minimum distance to a wall etc. should be, mm	80	80	80	80
Reactor content, liter	9	18	27	45
Material quartz tube	Pure quartz			
Material rubber gasket	Viton rubber			

Distributor:

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