



The Clear Choice
Water Filtration Systems

www.aquafilter.com

FUV-P4W_K

UV lamp

General Description:

AQUAFILTER FUV-P4W lamp is an effective way to deal with various microorganisms which can be found in water. Radiation emitted by this lamp effectively kills microorganisms.

The best performance (germicidal effects) is obtained at approx. 254 nm wavelength and with the intensity ranging from 3000 do 20000 mW*sec/cm². The primary mechanism by which UV inactivates microorganisms is the creation of pyrimidine dimers on the same DNA or RNA strand.

Once the dimers are formed the microorganisms are unable to reproduce. Another mechanism is a disruption of cell wall and therefore destruction of an entire microorganism.

The effectiveness of disinfection depends on the percent of UV radiation that might be absorbed by the a cell of microorganism. The degree of microorganism destruction or inactivation depends on various factors: time of exposure to the UV light, intensity, type of microorganism and water turbidity.

One of the main advantages of UV light is that it does not change natural physicochemical features of water. Undercounter systems, which are equipped with a UV lamp, filters out 100% of water input (100% of treated water - no recoil).

In addition, provide zero rejection factor - almost 100% of inlet water undergoes purification process and is suitable for consumption. **FUV-P4W** utilizes Phillips filament (4W). It is designed to work with undercounter water filtration systems and reverse osmosis systems.



Features:

- 99.9% effectiveness in water disinfection
- Approximately 12 months of UV lamp filament vitality
- Filtration without altering the physico-chemical water composition
- Longevity of UV light bulb is to 8000 working hours (approx. 1 year)
- No change to chemical and physical composition of water



P4-GT_K
UV light bulb for
FOV-P4W_K lamp

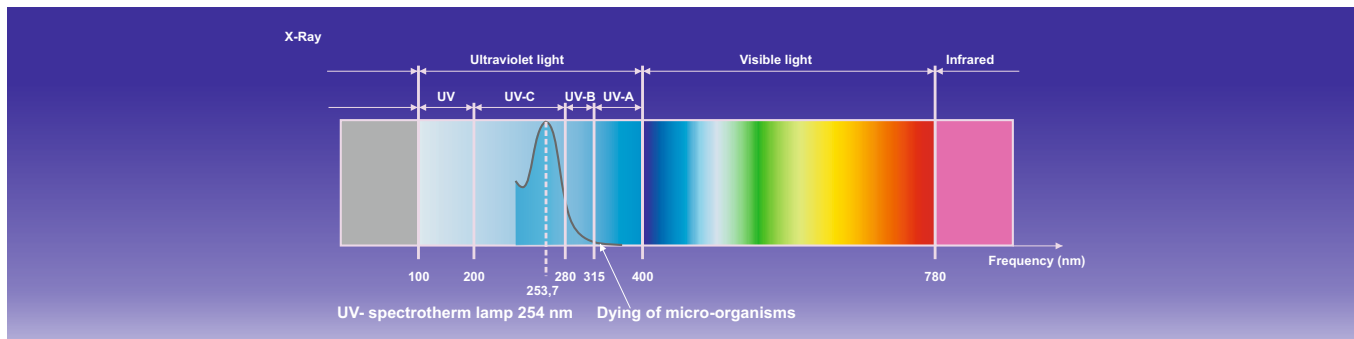




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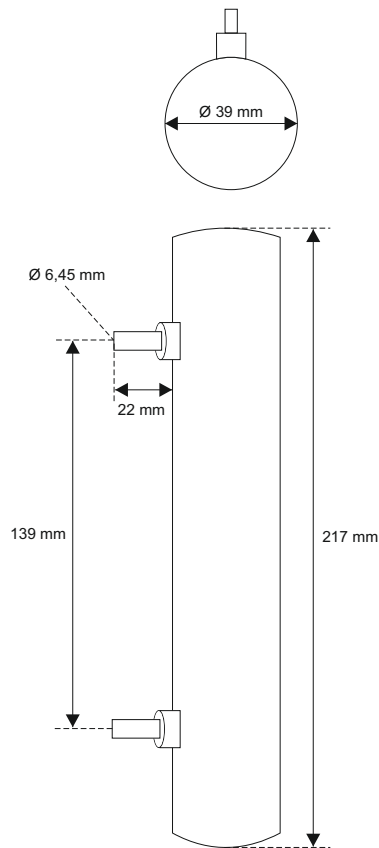
Spectrum of the ultraviolet light:



Effectiveness of water disinfection by UV radiation depends on the dosage and particular organisms immunity to this kind of radiation.

UV dosage required for 99.9% destruction of various organisms.

µW.s/cm² at 254 nm			
Bacteria		Mold Spores	
Bacillus anthracis	8,700	Aspergillus flavus	99,000
B. enteritidis	7,600	Aspergillus glaucus	88,000
B. Megatherium sp. (vegetative)	2,500	Aspergillus niger	330,000
B. Megatherium sp. (spores)	52,000	Mucor recemosus A	35,200
B. paratyphosus	6,100	Mucor recemosus B	35,200
B. subtilis (vegetative)	11,000	Oospora lacies	11,000
B. subtilis (spores)	58,000	Penicillium digitatum	88,000
Clostridium tetani	22,000	Penicillium expansum	22,000
Corynebacterium diphtheria	6,500	Penicillium roqueforti	26,400
Eberthella typhosa	4,100	Rhizopus nigricans	220,000
Escherichia coli	7,000		
Leptospira interrogans	6,000		
		Algae/ Protozoa	
Micrococcus candidus	12,300	Chlorella vulgaris (algae)	22,000
Micrococcus sphaeroides	15,400	Nematode eggs	92,000
Mycobacterium tuberculosis	10,000	Paramecium	200,000
Neisseria catarrhalis	8,500		
Phytomonas tumefaciens	8,500		
Proteus vulgaris	6,600		
Pseudomonas aeruginosa	10,500		
		Virus	
Pseudomonas fluorescens	6,600	Bacteriophage (E. coli)	6,600
Salmonella enteritidis	7,600	Hepatitis virus	8,000
Salmonella paratyphi	6,100	Influenza virus	6,600
Salmonella typhimurium	15,200	Polio virus	6,000
Salmonella typhosa (Typhoid)	6,000	Rotavirus	24,000
Sarcina lutea	26,400	Tabacco mosaic	440,000
Serratia marcescens	6,200		
Shigella dysenteriae (Dysentery)	4,200		
Shigella paradysenteriae	3,400		
Spirillum rubrum	6,160		
		Yeast	
Staphylococcus albus	5,720	Baker's yeast	8,800
Staphylococcus aureus	6,600	Brewer's yeast	6,600
Streptococcus hemolyticus	5,500	Common yeast cake	13,200
Streptococcus lactis	8,800	Saccharomyces cerevisiae	13,200
Streptococcus viridans	3,800	Saccharomyces ellipsoideus	13,200
Vibrio cholarea	6,500	Saccharomyces sp.	17,600



IMPORTANT NOTICE: Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system. UV lamp are designed for filtration with cold potable water. We recommend regularly scheduled maintenance and replacement of the filter cartridge in order for the product to perform properly. Improper installation and maintenance may result in property damage due to water leakage.

Limited Warranty: AQUAFILTER warrants that this product is free from defects in materials and workmanship. This limited warranty does not apply to failures that result from abuse, misuse, alteration or failure to properly comply with installation or cartridge change instructions.

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