pozzani®

Water Treatment Products

POINT OF USE 8 WATT UV STERILISATION SYSTEM

POINT OF USE 8 WATT UV STERILISATION SYSTEM

Suitable for domestic or light commercial use

TECHNICAL SPECIFICATIONS

Specifications for chamber	
Flow rate	50 GAL/Hr 4ltr/min
Pressure rating	10 bar (147 psi)
Lamp life	5000 hours
Weight	860g
Construction	Food grade 316l stainless steel
Specifications for control box	
Power supply	220-240vAC 50Hz
Power rating	14VA
Construction	Plastic
Protection rating	IP54 with LFI
Weight	1kg

OVERVIEW

This equipment will provide a sterile point of use drinking water supply. It comprises of an 8 watt UV system complete with control box and audible lamp failure alarm all mounted on a 410mm x 320mm board, along with either a Kitchen Spring IX250 or IX600 water filter system.

Inlet water is firstly filtered through the chosen Kitchen Spring Filter System which removes the majority of suspended solids and dissolved organics. This is an essential step prior to UV treatment to ensure that the UV treatment is effective.

The UV chamber is constructed from food grade 316L stainless steel and incorporates a low pressure lamp housed within a high purity quartz sleeve which protects it from the liquid. It comes complete with push fit connectors, making set up as simple as possible.

The system has a lamp failure indicator (LFI) meaning should the lamp fail, a sensing system will activate a warning indicator and internal buzzer along with a volt free relay contact which can be used to initiate a remote warning device.

IMPORTANT INFORMATION

- The equipment is designed to sterilise a water supply which is otherwise potable. It is recommended that you have your water source properly tested if you are unsure of the water quality.
- The electrical plug requires a 3-5 amp fuse.
- The UV board should be installed in such a position that allows the UV bulb to be easily removed when needed.
- The power supply is 220-240vAC as standard but other ratings, including D.C low voltage supplies, are available on request.

Pozzani Pure Water Ltd
Warwick Road
Fairfield Industrial Estate
Louth, Lincolnshire, LN11 0YB

Telephone: (01507) 608100
Fax: (01507) 608090
Email: enquiries@pozzani.co.uk
Website: www.pozzani.co.uk

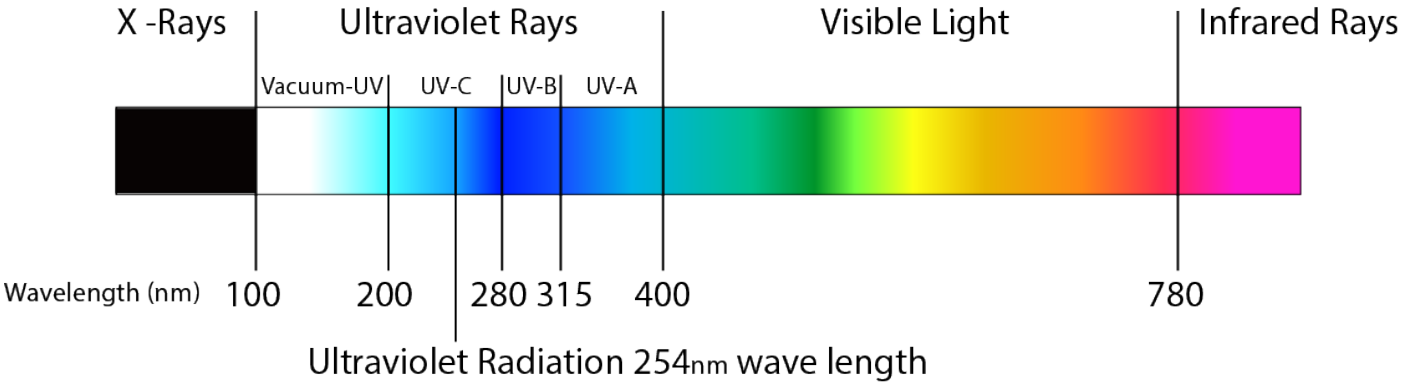
BENEFITS OF UV STERILISATION

- Effectively destroys 99.99% of microorganisms
- Reliable
- Cost effective
- Chemical free
- No water wastage
- Low energy usage
- Safe
- Does not change the taste or odour of water
- Quick method of sterilisation
- Low maintenance

HOW UV STERILISATION WORKS

UV or ultraviolet energy is a form of invisible radiation that is found on the electromagnetic spectrum between visible light and x-rays. It has a wavelength of between 10 nanometers to 400 nanometers. Although we cannot see UV light, we are infact exposed to it on a daily basis as it is present in sunlight and is the cause behind sunburn.

UV water treatment systems make use of UV light through use of a special lamp which emits radiation of a particular wavelength. The spectrum of UV light is itself divded into subtypes. UV-C light is short-wave and germicidal and it is this form of UV light at a specific wavelength of 254 nanometers whch is used to destroy microorganisms.



As water passes through a UV sterilisation system, the light emitted from the bulb strikes the cells of microorganisms. The light penetrates the outer cell membranes and through the cell bodies in order to damage the cells' nucleic acid (DNA), and this renders the microorganisms incapable of growing or reproducing. Unable to function, the microorganisms cannot replicate and therefore, are unable to infect any other organisms that they come into contact with.

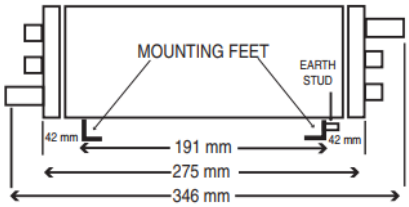
UV treatment does not chemically alter the water as nothing is being added except energy. It is a simple but highly effective process which can destroy 99.99% of microorganisms so long as the incoming water quality is sufficient and the flow rate of the water is within the system's specified parameters. If the incoming water contains certain contaminants these can reduce the transmission of the UV light through the water and shield the microorganisms from the required exposure. Similarly, if the flow rate of the water is too high, it will pass through the system without having adequate time where it is subjected to the UV light. For these reasons, it is highly recommended that UV sterilisation treatment is used following a suitable pre-filtration process and that the flow rate of the incoming water is taken into consideration when selecting a system.

CONTAMINANTS UV STERILISATION ADDRESSES

- Algae
- Bacteria
- Coliform
- Cryptosporidium
- Cysts
- E.Coli
- Giardia
- Mould spores
- Protozoa
- Salmonella
- Viruses
- Yeasts

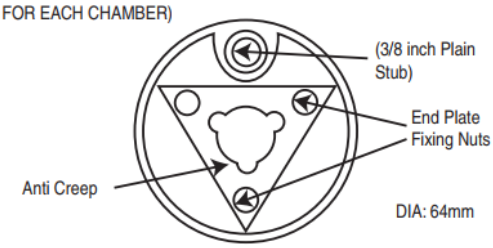
SYSTEM DIAGRAMS

8 WATT CHAMBER

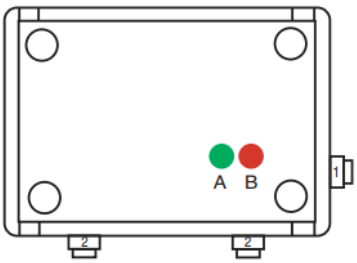


END VIEW

(SAME FOR EACH CHAMBER)



CONTROL BOX 4/2S & 6/2S & 8/2S



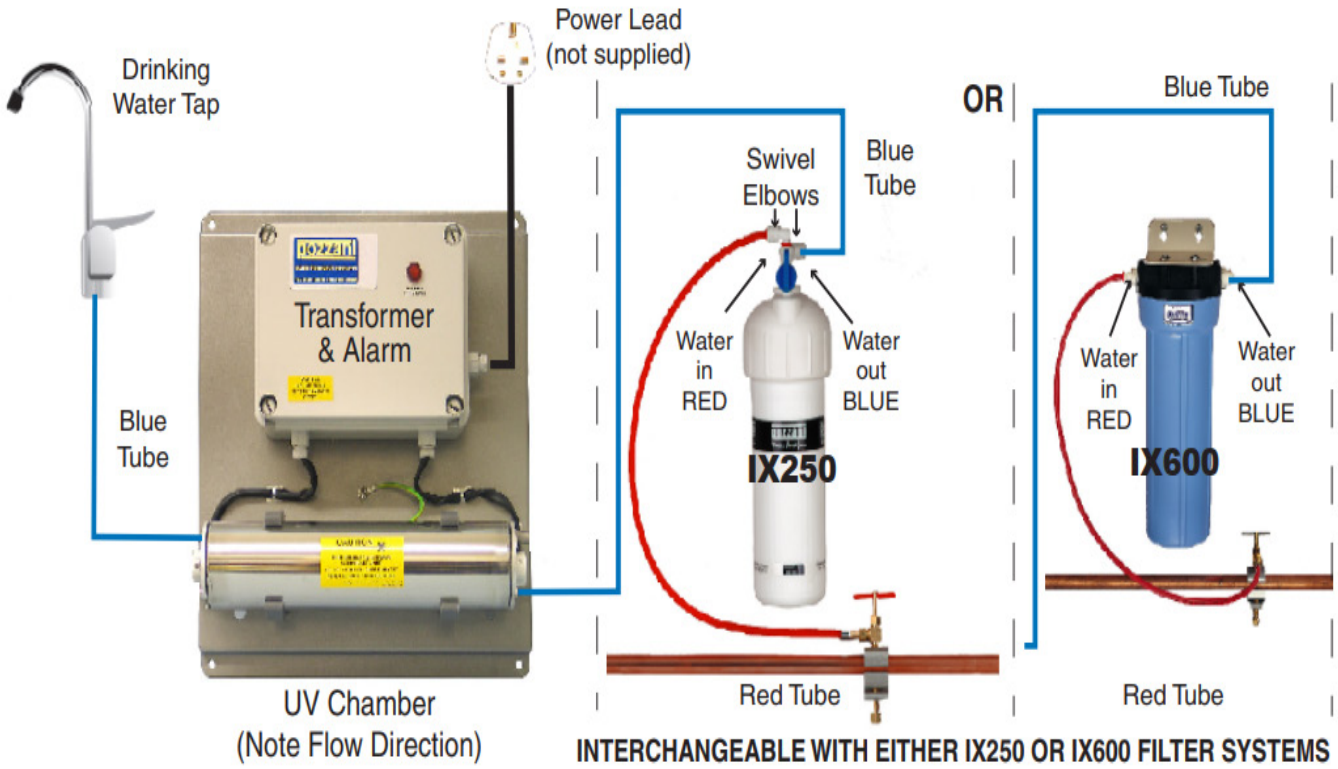
CONTROL BOX DIMENSIONS:

Width 200mm
Depth 80mm

CONTROL BOX DIAGRAM:

1 Power Inlet Gland
2 Power Outlet Glands

The following only apply to units with Lamp Failure Indicator:

A Power On Indicator
B Lamp OK Indicator

TYPICAL EXAMPLE OF UV AND PRE-FILTRATION INSTALLATION