

# **OZONE INDIA TECHNOLOGY**

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### UV DISINFECTION SYSTEM FOR WATER TREATMENT





### What is UV system-

Ultraviolet water system is the most effective method for disinfecting bacteria from the water. Ultraviolet (UV) rays penetrate harmful pathogens in water and destroy illness-causing microorganisms by attacking their genetic core (DNA).

### How does UV work?

Ultraviolet or UV energy is found in the electromagnetic spectrum between visible light and x-rays and can best be described as invisible radiation. In order to kill microorganisms, the UV rays must actually strike the cell. UV energy penetrates the outer cell membrane, passes through the cell body and disrupts its DNA preventing reproduction

## OZ INDIA <sup>™</sup> UV SYSTEM

OZ INDIA <sup>™</sup> ultraviolet disinfection system (UV system) are design reactor chamber by providing all area reach the uv radiation for effective water treatment. OZ INDIA <sup>™</sup> ultraviolet disinfection system (UV system) are design to treat almost any flow and reactor chamber stainless steel is versatile and will fit into a variety of different applications.

# ADVENTAGE OF OZ INDIA <sup>™</sup> UV SYSTEM

Environmentally-friendly -

chemical-free

UV disinfection does not 'add' anything to the water stream such as undesirable colour, odour, chemicals, taste or flavour, nor does it generate harmful by-products. It only imparts energy to the water stream.

User friendly and safe -

For operator No tools needed for maintenance

Simple installation, operation and maintenance

Cost-Effective and compact -

Requires less space than other methods

Cost effective for water treatment from other methods

**Effective Disinfection-**

Considered to be the primary mechanism for the inactivation/destruction of waterborne pathogens. UV disinfection effectively inactivates **pathogenic bacteria**, **spores**, **viruses and protozoa** (**including Cryptosporidium oocysts and Giardia cysts** 

UV Technology can effectively eliminate residual chlorine and chloramine present in water.

TOC (Total Organic Carbon) Reduction - For effective reduction of organics

UV APPLICATIONS IN WATER TREATMENT-

**DISINFECTION-**

- LIQUIDS: water, syrups, emulsions, brines.
- SURFACES: packaging, conveyors, food, working surfaces.
- GASES/AIR: food preparation, clean rooms, air conditioning.

**PHOTOCHEMICAL REACTIONS-**

- OXIDATION: TOC reduction, ozone destruction, chlorine removal.
- CATALYSIS: pesticide removal, effluent treatment, ground Recovery.
- DEODORISATION: sewage and industrial emissions.

# Applications

#### Swimming pools UV systems

Installation of UV water purifiers reduces the use of chlorine as primary disinfectant for swimming pools and ensures hygienically pure water, free of chemical residue and by-products.

#### Liquid Sugar UV Systems

The liquid sugar UV systems are specially designed to treat liquid sugar and syrups in a thin film manner - with the UV lamps close together to optimize the disinfection process. These UV systems are designed to treat opaque and thick liquids, liquid sugar, syrups with high osmotic pressure, glucose, juices and other base materials.

#### Drinking/ Beverage & Bottled water UV Disinfection

UV water purification can reduce, and in some cases replace, chlorine as primary drinking water disinfectant. Water sterilized with UV meets microbiological requirements according to drinking water regulations. UV water purification applications range from municipal to domestic water supplies and Vending machines water. UV is also used for preventing bacterial growth in water collection systems applicable in domestic rainwater collection systems.







#### UV systems for Process / ultra-pure water

Process water for medical, pharmaceutical industries and electronics and semiconductors process water disinfection and TOC (Total Organic Carbon) reduction is a quality control measure for ultrapure water applications in cosmetic, pharmaceutical and electronics industries and hospitals requiring exacting pure water standards for clinical applications .

#### Fish Farming and Aquaculture UV systems

Aquariums, Zoos, Aquaculture and Fish farms, Ornamental Ponds and Koi Ponds to control algae - Fish Farming/Aquaculture industry, to protect fish larvae from disease in hatcheries, to disinfect incoming water to the site and effluent from the farms.

#### Municipal wastewater/ Effluent Treat UV system-

UV is installed for disinfecting biologically treated wastewater in final effluent channels before discharge to the environment. The UV treatment of wastewater for re-use ensures that treat.

#### AHU COOLING COIL UV SYSTEM

This is a UVGI (Ultra Violet Germicidal Irradiation) System to be installed in Air Handling Units of HVAC. The condensation of moisture around the cooling coils creates growth of algae, mold, mildue, bacteria and viruses

The contamination of the air while passing over the coil and contamination from the work place, deteriorates the IAQ leading to Sick Building Syndrome and increased sickness of the inhabitants of the building. In case of cold storages, it leads to contamination and deterioration of food products.

#### Aquaculture UV System-

Aquaculture UV sterilization systems significantly reduce pathogen counts in incubation and rearing facilities and have proven to be the most cost-effective disinfection technology for the inactivation of many types of bacteria, viruses and parasites harmful to many species of fish

Our valuable world level client-









Fish Farm, Dubai HONEY SUGAR PRODUCT Ergon Sci Pipe & fitting Trading LLC, Dubai

Global Tech Enviro Experts, Odisha, Shoba Chemical Industries, Odisha Hyper filtration,

Limitex India, Pondicherry Solid Waste Management Company, Pondicherry

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