

# Ozone for Poultry Water & Air Disinfection



Green Technology
Chemical Free Water
100% Disinfection
150+ Installation

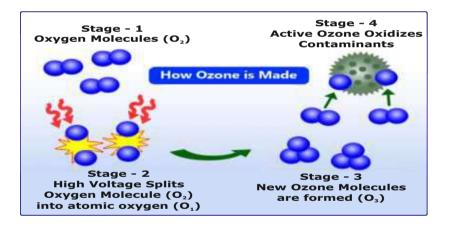
www.ozoneengineers.com

#### **About Ozone Engineers**

OZONE ENGINEERS has emerged as the leading Manufacturer of Ozone Generators and allied products from Coimbatore, Tamilnadu. Our goal is to be the worldwide best ozone system manufacturer by focusing on the continuous improvement of engineering research, customer satisfaction, top quality products and clean manufacturing practices. We manufacture the lowest cost, highest quality ozone products by utilizing diverse application expertise to serve multiple markets, while maintaining the optimum balance of innovation, quality, cost, safety and ozone efficiency.

## **Green Technology**What is Ozone?

Ozone is "active oxygen", nature's special element and a beautiful gift to mankind. Ozone is a triatomic allotrope of oxygen formed by recombination of oxygen atoms. It is a colourless gas with characteristic pungent odor and can easily be detected at low level of 0.02ppm. It is a very strong oxidant and is over 3000 times more powerful disinfectant than chlorine. Ozone is a one-stop solution to most of the water treatment related problems such as bacteria, virus, algae, fungi, colour, odor, COD and BOD. It disinfects, oxidizes, deodorizes and decolorizes. Ozone is generated by an electrical discharge through dry air or pure oxygen and is generated onsite because it decomposes to elemental oxygen in a short amount of time.



#### **Benefits of Ozone**

- > Ozone is 51% more powerful on bacterial cell walls than chlorine.
- > Ozone kills bacteria 3000 times faster than chlorine.
- > Ozone is the most powerful broad spectrum microbiological control agent available.
- > Ozone virtually eliminates all chemical usage.
- > Ozone is clean and environment-friendly, its only by-product is oxygen.
- Ozone extends the shelf life of food products.
- Ozone permits recycling of wastewater.
- > Ozone reduces TOC, COD & BOD from the water.

#### **Poultry Ozone - Disinfection of Drinking Water**

- > Drinking water for poultry is an important dietary requirement. Under normal conditions, birds will consume, approximately, double the quantity as food on weight basis.
- Feed conversion has been positively correlated to the presence of sulfate and copper concentrations in the water and ozone effectively oxidizes them and can be easily removed by filtration.
- > Increase in good water quality will enhance growth, egg production and will produce good egg quality.

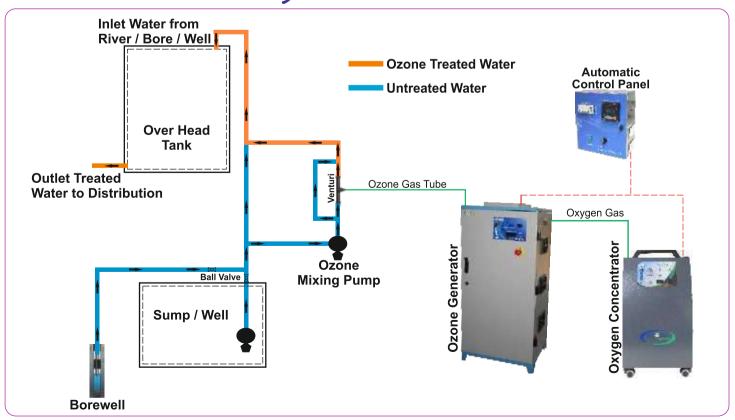
#### **Advantages**

- Increase in Dissolved Oxygen.
- > Improves Taste in Water.
- Oxygen Rich, Non Toxic Water.
- Reduced Waterborne Pathogens.
- Chemical Free Technology, No Harmful By-products.
- Low Maintenance & Operational Cost.
- No Escalation in Pathogen Resistance.
- > Environment Friendly Gas.
- > Ozone is a EPA approved Anti-microbial Disinfectant & Sanitizer.

#### **Benefits**

- ➤ Completely Kills Bacteria Like Coliform, E. Coli, Salmonella & etc. in water.
- > Oxidizes Dissolved Minerals. (iron, manganese, hydrogen sulphide, etc.,)
- Capital Investment / No Running Cost Besides Electricity.
- Reduces Bio-film Formation Due to Total Suspended Solids.
- Reduces CRD Complaints.
- Eliminate Use of Other Water Sanitizers.
- Improves Animal Metabolism.
- > Reduces MPN Count & Mortality
- > Improves Feed Conversion & Layer Output.

### Ozone System Process Flow



#### **Poultry Ozone - Air Treatment**

- Ozone is used in the poultry industry as an air disinfection /treatments for the storage, incubation of eggs and breeding of healthy birds.
- Ozone oxidizes ammoniacal gases, methane and carbon dioxide, creating a healthier environment for the birds and the staff working in the poultry.
- > Ozone is more effective than other air disinfecting systems such as chemical fogging and UV light.
- Hatching hens which are kept under ozonized conditions show an increase in the amount of eggs they lay, and a stronger consistency of the egg shell, because of the corresponding decrease in pathogenic illness and prevention of a toxic buildup of disinfectant chemicals. Ozone is used to disinfect incubation rooms and chambers, in the place of chemicals which cause a toxic build-up on the egg shell surfaces and weaken the immune system of the birds.

#### **Poultry Ozone Processing**

- Ozone being an effective oxidant, it is mostly used for processing, storage and transport of poultry and meat products.
- Ozonated water is effective as a disinfectant for poultry carcasses without loss of color and flavor.
- > Ozone during refrigerated storage of poultry has a pronounced effect on flora causing deteriorations and consequently prolongs the shelf life of poultry in cold storage.











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OZONE Engineers

we unite to make the world better

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