

Saving

Water

Energy

Time & Money

Less Wastage

**Extended Shelf Life** 

**100% Disinfection** 



# Ozone for Poultry Processing

**Natural Sanitizer** 

www.lotusozone.com

Poultry processing requires continuous sanitation of the plant, equipment, and surfaces, as well as the poultry products themselves. Poor or inadequate sanitation practices can contribute to reduced quality, increased spoilage and the potential of foodborne diseases.

Ozone is an extremely effective antimicrobial that kills all known pathogens including E. coli, Listeria, Salmonella, Campylobacter, Bacillus and Norovirus. It can be utilized as an aqueous spray in poultry processing to minimize microorganism contamination on the birds themselves as well as the equipment and environment on the processing floor.

Aqueous Ozone can be sprayed directly on the carcasses post evisceration, inside/outside bird washer, post chiller, and continue to be used through cutting, packaging and further processing. This same Ozone spray can be utilized before, during and after processing as a surface disinfectant to keep equipment and the environment sanitized.

Natural Sanitizer Ozone is a very powerful oxidizer with 50% more oxidizing potential compared to Chlorine bleach. A natural disinfectant, Ozone is replacing traditional chemical oxidants in a growing number of industrial processes, including Food & Beverages, Dairy, Poultry and Seafood processing.

Ozone destroys all known pathogenic organisms through natural processes of oxidation, disinfection, and decomposition to oxygen (O2). As Ozone is powerful in cold water, it reduces the need for hot water and steam, saving water, energy, time and money.

## Key Points

- Effective raw poultry sanitation
- Effective post-lethality disinfection
- Flexible application modes
- No impact on organoleptic quality of product
- Destroys biofilm on surfaces
- Safe for workers
- No hazardous waste disposal
- USDA, FDA and USDA-Organic
  approved

#### Applications in Poultry Processing

Ozone can be adapted to any existing aqueous or gaseous configuration with minimal retrofit of water and power. Aqueous Ozone can be utilized through sprayers, showers, or cascades and can be plumbed into a flume. Gaseous Ozone can be applied into any confined storage location.







#### Ozone Advantages:

Ozone compares favorably with traditional disinfectants used in poultry processing. It has a broader spectrum of efficacy than Chlorine, Peroxyacetic acid, Acidified Sodium Chlorite, Hydrogen Peroxide and Quaternary Ammonia.

Unlike other disinfectants, Ozone will penetrate and destroy biofilm. Biofilm is endemic to cutting surfaces and processing room surfaces, and must be eliminated for reliable product safety. Ozone leaves no harmful byproducts and requires no rinsing.

### The various points of use are:

- Disinfect Process Water
- Carcass and Surface Sanitization with Ozonated Water
- Disinfect equipment, tools, storage area, bins, and refrigeration units
- Disinfect Clean-in-place (CIP) systems
- Odour control for process area with Air Ozonators
- Cold Store Rooms Disinfect and Sterilize continously with Air Ozonators

# Benefits of Ozone:

- Powerful disinfectant
- 100% Natural bio-cide and disinfectant
- No residual taste or odour
- Reduces waste, Effective against all common food borne pathogens
- Ambient air with low Ozone levels (<0.1 PPM) in the processing area will inhibit microbiological growth and controls airborne bacteria, virus, spores etc.
- Higher Ozone levels can be used for disinfection / sterlization when room is empty.
- Surface sanitation can be maintained by inhibiting microbiological growth of pathogens on the surface of produce, containers, and walls.
- Ozone was approved under USDA Organic Rule in 2000. Ozone reverts to molecular Oxygen and leaves no byproducts or residual contaminants behind.
- Ozone unlike halogenated chemicals (i.e. Chlorine, lodine, etc.) does not generate dangerous halogenated hydrocarbon by-products, such as THM's. Ozone destroys objectionable taste and odour causing compounds.
- Ozone is pH neutral, (does not change the acid/alkaline balance).
- Ozone is a single source organic sanitizer which kills a broad spectrum of bacteria, fungus and molds, yeasts, spores and cysts.

#### Additional Benefits:

• Ozone is a stand-alone organic sanitizer which simplifies sanitation, is cost effective, safe to use, saves water and energy, and is environmentally friendly (Ozone vs. Conventional Sanitation).

• Ozone, when used with proper protocols (SOP's) and employee training, is one of the safest and most environmentally friendly sanitizers.

• Ozone is produced as needed on site, dissipates after use and minimizes the purchase, storage, mixing and disposal of chemicals.

• Ozone is a cold sanitizer which saves energy and minimizes equipment maintenance costs and shutdown cycles.

• Ozone kills a much broader spectrum of bacteria, fungus and molds, yeasts, spores and cysts with 3,000 times faster action compared to halogenated chemicals (Chorine, lodine, etc.).

• Ozone was approved by an FDA Expert Panel as GRAS (Generally Recognized as Safe) for use as a sanitizer in 1997 and was approved by FDA Final Ruling for use with fruits, vegitables, meat, poultry, etc. in June 2001 (Food Additive Petition).

• Ozone in gas form is used in cold rooms to inhibit microbiological growth and extend shelf life.





Capacities: 10,000 Ltrs/Hr to 1,00,000 Ltrs/Hr





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