

Unic Care Group

Since 2009

Ozone

Natural Disinfectant & Sanitizer
World best odour treatment system



Save

Tree | Water | Earth



started in 2009 doing Environmental consulting services and Trading
for Water & Waste water treatment and Air Pollution control

In 2011 developed and Slowly integrated to instrumentation automation controlling system
with remote monitoring solutions in the name of



In 2016, we have started



with complete Manufacturing setup and started the manufacturing of all our products

Ozone

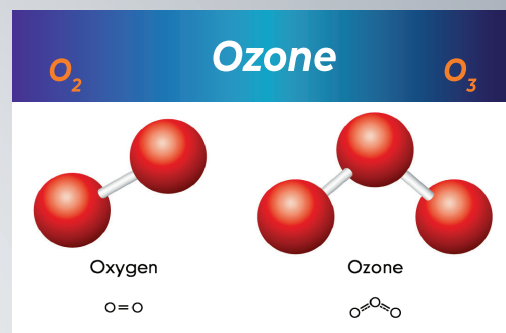
Ozone is an inorganic molecule with the chemical formula (O_3). It is a pale blue gas with a distinctively pungent smell. It is an allotrope of oxygen that is much less stable than the diatomic allotrope (O_2), breaking down in the lower atmosphere to (O_2).

Ozone Generators

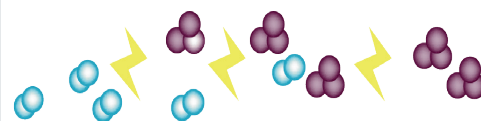
Ozone Generators produce ozone by adding energy to Oxygen molecules (O_2), Which cause the Oxygen atoms to part ways and temporarily recombine with other (O_2) molecules creating Ozone (O_3).

Ozone In Action

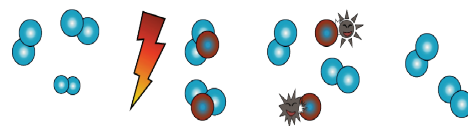
Once Ozone is produced it reacts with a pollutant, Often long-chain carbon (Organic) molecules, and breaks it down into less complex (and typically less harmful) molecules through a process called Oxidation.













Production of Ozone



Reaction of Ozone



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OZONE	VS	CHLORINE
Potential 2.07		Potential 1.36
Faster disinfectant (3000 times faster) Destruction of bacteria, viruses, yeast, molds, mildew and most organic & inorganic contaminants		Slow disinfectant
Neutralization time very much low		Neutralization time is high
No harmful by-products reverts back to oxygen		Harmful by-products will be present
Effectiveness can be measured with a simple ORP meter and ortho-toluidine		Can be measure with ortho-toluidine only
Kills all water borne pathogens on the given practical safe dosage		Required high dosage
Generated on site and does not required any storage		It requires separate storage space
At over dose the unused ozone escapes out of the water and reverts to oxygen		Over dose remains in the water
Disinfection qualities are not dependent on ph values		Disinfection qualities varies according to ph values
Oxidizes and destroys oil and other contaminants in water		Destroys not all contaminants in water





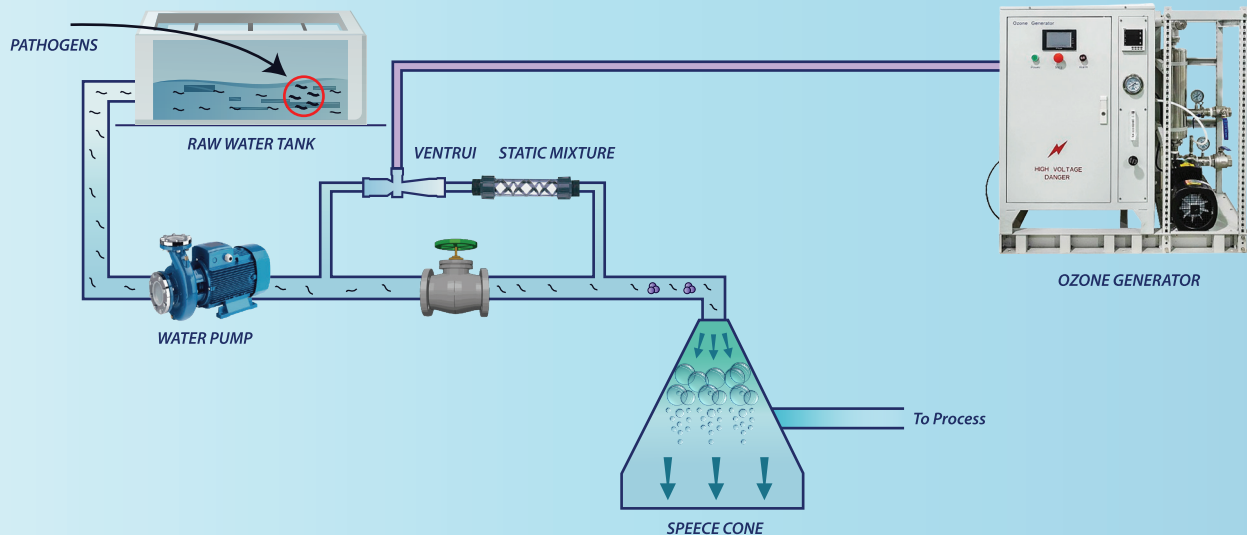



Iron | bacteria/Viruses
Hydrogen Sulfide | Manganese

ORP LEVEL (MV)	APPLICATIONS
0 - 150	No Practical use
150 - 250	Aquaculture
250 - 350	Cooling Towers
400 - 475	Swimming Pools
450 - 600	Hot Tubs
600	Water Disinfection
800	Water Sterilization

ORP LEVEL (MV)	Coliform Count in (100ml of Water)
200	300
300	36
400	3
600	0

Water Disinfection by Ozonator



Industrial Air & Odour Treatment System

What is Air Pollution ?

Air Pollution is the contamination of the natural air by mixing it with different pollutants such as harmful fumes and chemicals.



Main causes of air pollution

- Emissions from industrial plants & manufacturing activities
- Combustion from fossil fuels
- Farming chemicals and household products
- Natural causes of air pollution

Three types of steps can be taken to control air Pollution

- Separation of pollutants from harmless gases
- Avoidance of pollutants
- Conversion of pollutants to harmless materials

Air Pollution Control by Ozone

Ozone treatment for oxidation of odiferous gases has been acknowledged as a technically effective method for many years.

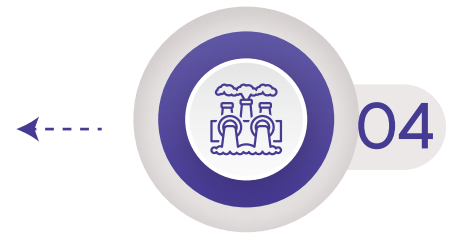


05



Ozone is one of the strongest oxidants known and quickly breaks down odour compounds.

It is these unique characteristics that allow Ozone to be put to use in control environmental pollution in the field of Animal Feed mills and Fish meal.



03

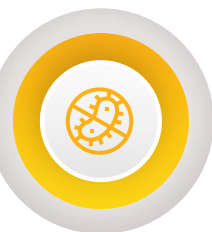


Ozone can be put to use to convert air borne pollutants such as ammonia, mercaptans, sulfides and other organic chemicals into inert, non-odorous by products.

After oxidizing substances, the target substances are broken down into their base components, Ozone then simply reverts to Oxygen.



01



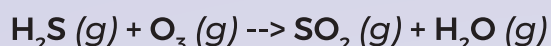
As well, it is a very effective disinfecting agent and will kill germs, viruses, bacteria, molds and yeasts.

Ozone solution for odour Treatment by Unic Care Ozonator

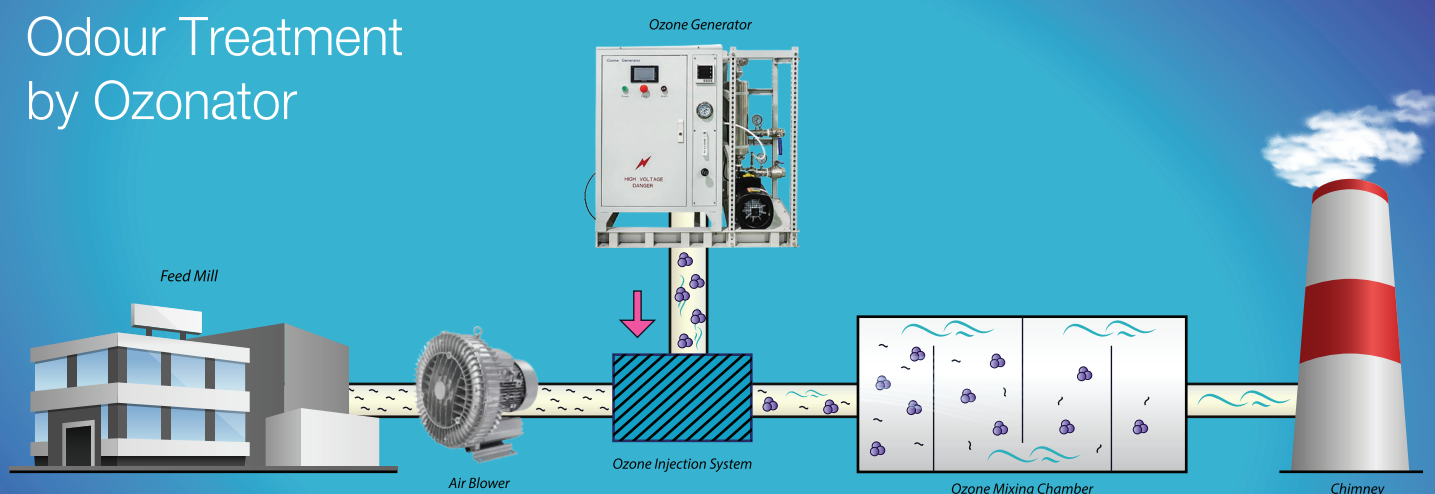
Since ozone is a powerful oxidation media, it quickly reacts with the odourous molecules.

These molecules are efficiently oxidized, leading to the formation of carbon dioxide and water, completely odourless and harmless compounds.

This oxidation mechanism valid both for odours from organic compounds, such as VOCs, and from sulfur compounds, such as H₂S.



Odour Treatment by Ozonator



01

Power Consumption



06

H₂S, NH₃ and VOC report for before ozone injection



02

Treated Water ORP Value



07

H₂S, NH₃ and VOC report for after ozone injection



03

Treated Water Flow Rate



08

Total running hours



04

Oxygen Flow Rate



09

Volume of air treated by ozone



05

Ozone chamber cooling water temperature



OZONE GENERATOR

Ai Report

Ozone Applications



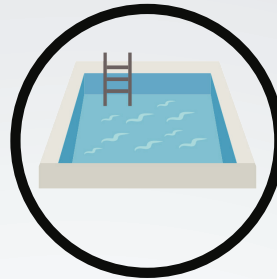
Aquaculture

- Prawn Hatcheries
- Fish Hatcheries



Food Processing

- Agriculture Food Processing
- Sea Food Processing
- Cold Storage



Swimming Pools

- Resorts
- Hotels
- Schools
- Sports
- Theme Parks
- Residential
- Public



Drinking Water

- Bottled Water & Beverages
- Mineral Water
- Municipal Water

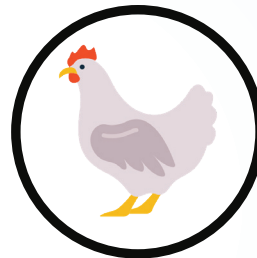


Hospitals

- Sterilisation
- Dentistry
- Dialysis

Laundry

Wash Purpose



Poultry

- Poultry Farming



Starch Industries

Bleaching Purpose

Other Applications

- Pharmaceutical
- Textile Industries
- Winery & Distilleries
- Odour Removal
- ETP & STP
- Semiconductor
- Sugar Industries
- Paper & Pulp Industries
- Cooling Towers

OUR PRODUCTS



OZONE GENERATOR



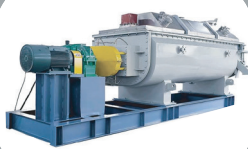
SLUDGE DEWATERING
SCREW PRESS



DISSOLVED AIR
FLOATATION SYSTEM



ONLINE EFFLUENT
MONITORING SYSTEM



PADDLE DRYER



WASTE WATER TREATMENT
PLANT PRODUCTS



STP & ETP
MANUFACTURER
& MAINTENANCE



WATER TREATMENT
PLANT PRODUCTS



PSA & VPSA OXYGEN
& NITROGEN PLANT



BIOGAS METHANATION
AND UPGRADATION PLANT



SPECIALISED
UV SYSTEM



INDUSTRIAL
CHILLER & AIR DRYER

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