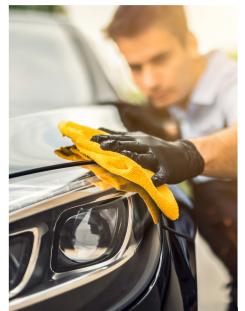


## Ozone solutions for air and water treatment







Tunnel car wash Manual self-car wash Hand car wash

## What is Ozone?

Ozone (O3) is a very powerful oxidation agent. It is easily soluble in water, and has a fantastic capacity to eliminate micro-organisms that are part of water pollutants. Once the effect has taken place, it dissolves, returning to an oxygen state.

## Uses of ozone

Ozone is, both in water and air a powerful disinfectant, bactericide, virucide, and fungicide. The main applications of ozone are for disinfection, deodorization of the environment and for the treatment and purification of water. With this, the elimination of pathogenic micro-organisms and bad odours is achieved.



# Air treatmnet

### How does it work?

For an effective air purification, a calculation must be made of the volume of the place to be disinfected in order to estimate the time it takes to apply it. It is recommended that no one is present during the time the air ozonator is in closed spaces, and restrict access for 20 minutes. This is the time that ozone needs to become Oxygen again. This way, any type of ozone side effect is limited. Our devices will keep a safe environment inside the vehicle after being treated, free of viruses, bacteria and other pollutants.

## Why offer it to my customers?

The ozone machines to purify air fulfil a wide number of functions, which can be very beneficial for the health. These functions are:

- Thoroughly cleans the air in the interior areas of our premises and frees it from any type of pollen, dust, toxic particles and harmful gases.
- · Eliminate air germs, bacteria, viruses and any other particles that can be spread through the air
- · Increases the proportion of oxygen in disinfected spaces
- · Creates negative ions that improve air quality and generate cleaner, fresher air

## What viruses has it been proven to inactivate or kill?

An study dates of 30th June 2008 that took place in Vancouver, Canada, proved that the following viruses and its family type would be inactivated, render them harmless: **influenza**, strain H3N2, human isolate (from BC Centre for Disease Control), propagated in MDCK cells; **HSV** (herpes simplex virus type 1, BC-CDC), propagated in Vero cells; **rhinovirus** types 1A and 14 (RV 1A and RV 14, from ATCC), propagated in H-1 cells; **Adenovirus** types 3 and 11 (ATCC), in A549 cells; **mouse coronavirus** (MCV, from Dr. Pierre Talbot) in DBT cells. Sindbis virus (SINV), **yellow fever virus (YFV)**, **vesicular stomatitis virus (VSV)**, **poliovirus** (PV, vaccine strain), **vaccinia virus (VV)**, all ATCC strains, were grown in Vero cells. All the stock viruses were prepared as clarified cell-free supernatants, with titers ranging from 106 to 109 pfu (plaque-forming units) per mL.

An study dates of 27th July 2020 that took place in Swansea University, UK, stated that using molecular modeling, this study evaluated the reactivity of ozone toward representative key molecules in the structure of SARS-CoV-2. The results show that ozone is able to attack the proteins and lipids of the virus's spikes and envelope, particularly the amino acids tryptophan, methionine and cysteine, and the fatty acids, arachidonic acid, linoleic acid, and oleic acid.

HSE (Health and Safety Executive), in charge of reducing work-related death, injury and ill health. Includes ozone under its guidelines for "Disinfecting premises using fog, mist, vapour or ultraviolet (UV) systems during the coronavirus outbreak", as a recommended way to clean and disinfect spaces.

An study conducted by researchers at the **Georgia Institute of Technology** using two pathogens similar to the novel coronavirus, the study found that ozone can inactivate viruses on items such as Tyvek gowns, polycarbonate face shields, goggles, and respirator masks without damaging them – as long as they don't include stapled-on elastic straps.

# Water treatment

The ozonation of water for car washes and gas stations is an effective method for the treatment and disinfection of water. Ozone machines are the best treatment to disinfect, and the most used system to eliminate the coronavirus. Ozone is the gas with the highest disinfectant and sterilizing power that exists, and according to the WHO, in concentrations 0.1-0.2 mg / L.min, a 99% elimination of viruses similar to COVID-19 is achieved.

It is a natural disinfectant that allows us to avoid the use of chemical agents. Ozone is also faster and more efficient, as it is capable of disinfecting air, water, food, surfaces, fabrics and furniture, among other elements. In addition, it has a great power to eliminate and neutralize odours. This is possible because ozone degrades all kinds of compounds, transforming them into inert and harmless by-products that lose their properties. In a few seconds it becomes oxygen again, so it does not leave any residue and is completely environmentally friendly.

## Ozonated water advantages

- Cleaning in an ecological and efficient way.
- Eliminate bad odors.
- **Economic savings** of up to 90% in the use of chemical products and energy as it does not require hot water.
- **Return on investment** in short-mid term: with the use of the Ozone System we achieve great results in less time and fewer steps with the consequent increase in production in your business.
- It complies with the legislation for the **control of Legionellosis**, which establishes the hygienic-sanitary criteria for the prevention and control of legionellosis.
- Sterilization, disinfection and purification, important concepts in water treatment, avoid contagion.
- **Protects the facilities**, our system does not leave any type of residue, therefore, it makes a progressive cleaning.

## What machines should I use?

#### Gz series (water)

### GZ2 (<2000 L); GZ3 (<3000 L); GZ7 (<7000 L); GZ12 (<12000 L)

The ozone water purifier for Car washes and Gas Stations is an ozone system for the disinfection treatment of tanks and process waters with our GZ bubbling system, indicated for car washes. The Ozone system for washing and disinfection of vehicles is indicated for tanks of up to 7 m3, without pressurizing, with potable, pure and ultra-pure waters of origin. The ozone water purifier for car washes and gas stations is a method of water cleaning (purification).

### GP series cannon (air)

The GP portable ozone cannon is used for shock treatment for the disinfection of common spaces. It is recommended to perform powerful disinfection and removal treatments, without the presence of people.





Manufacturer Certifications



**VERITAS** 





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Thank you for your trust

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