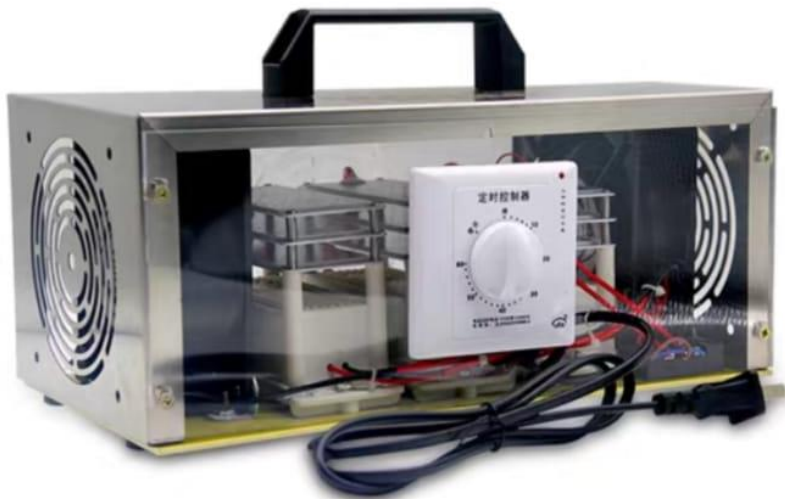


# Ozone Generator

Ozone is the most powerful oxidative agent that occurs naturally in the air. Ozone using its free radical oxygen molecule to oxidize virus, bacteria as well as mold. Suitable to use in residential, office, hospital, clean room, lab and etc.



## Key Benefits:

- Strong oxidizing power with short reaction time
- Equipment with timer
- Widely used around the world to treat enclosed environments
- Gas form, better penetration
- Manpower not required
- Portable
- No known resistance against ozone
- Neutralize bacteria, viruses, mold and other pathogens
- Do not create moisture environment
- Zero chemical residue and stain



## Performance

Coverage area : 200 Sqm  
Input Voltage : 220V  
Output : 80000mg / h

## Dimension

Net Weight : 6kg  
Dimension (cm) : 42 x 20 x 17  
Material : Stainless Steel

# References

One good way to do that is by deploying ozone gas.

Ozone gas has been proven to kill the SARS coronavirus and since the structure of the new 2019-nCoV coronavirus is almost identical to that of the SARS coronavirus, it is relatively safe to say that it will also work on the new coronavirus though it must be noted that there is no studies to date except one that is current ongoing in China at the Institute of Virology In Hubei with regards to this. Progress of that study has shown that it works and the study should be concluded by the end of this week and officially published in the journal Virology.

There are more than 17 scientific studies that show Ozone gas is able to destroy the SARS coronavirus.

Ozone is a naturally occurring gas created from oxygen atoms. The oxygen molecule is made up of 2 oxygen atoms. These oxygen molecules are broken into atoms by the corona discharge during lightning storms or by UV light from the Sun. Single oxygen atoms cannot exist alone without regrouping back into di-atomic oxygen molecules. During this recombination stage some atoms will regroup into loosely bonded tri-atomic oxygen. This new molecule is called Ozone or O<sub>3</sub>.

Ozone generators are able to make ozone from normal air and are normally used as room disinfectants.

The antipathogenic effects of ozone have been substantiated for several decades. Its killing action upon bacteria, viruses, fungi, and in many species of protozoa, serve as the basis for its increasing use in disinfecting municipal water supplies in cities worldwide.

Typically, viruses are small, independent particles, built of crystals and macromolecules. Unlike bacteria, they multiply only within the host cell. Ozone destroys viruses by diffusing through the protein coat into the nucleic acid core, resulting in damage of the viral RNA. At higher concentrations, ozone destroys the capsid or exterior protein shell by oxidation.

**A developer of technological solutions with an ozone generator (O<sub>3</sub>) may have found a new weapon against the coronavirus. After conducting gas tests in the laboratory of the Federal University of Santa Catarina, Wier, the startup in question, found that it was efficient in eliminating 99.9% of samples of two types of viruses in closed environments and with a high flow of people – one of which has similarities with Sars-CoV-2, which causes covid-19.**

Ozone disinfection replaces chemical reagent fumigation sterilization, to achieve energy-saving of air conditioning system in clean room.

GMP implementation guideline requires continual operation of air conditioner in area of cleanliness class 100 and class 10000. For clean area with non continuous operation, when in non production shift, conditioning system should be on duty operation, to keep indoor positive pressure. In order to ensure the cleanliness, generally air conditioning is in continuous operation, only in this way can avoid the clean room being polluted by suspended particles and microbial contamination. Regarding disinfection and sterilization of clean room with ozone, it could be done when the asepsis room does not work. Stop the running of all air conditioning units and turn on the fan for air disinfection and sterilization 2 hours before going to work.

Due to the use of ozone for disinfection, it can avoid the problem of secondary pollution produced by chemical fumigation but also alleviate the pressure on the air filter, which will extend the working life of the filter, thereby saving maintenance costs.

## Inactivation of Influenza Virus by Ozone Gas

Tanaka Hiroshi, Sakurai Mie, +1 author Matsuzawa Yoshiaki · Published 2009 · Chemistry

More than 99.99% of influenza A virus particles attached to a plastic carrier were inactivated by exposure to 10 ppm (V/V) - ozone gas for 210 min at 23 to 29°C and a relative humidity of 64 to 65%. When the virus was exposed to 20 ppm (V/V) - ozone gas for 150 min, more than 99.999% was inactivated. In

Source:

<https://www.thailandmedical.news/news/ozone-can-be-used-to-destroy-the-new-coronavirus-and-disinfect-areas>

<https://www.semanticscholar.org/paper/Inactivation-of-Influenza-Virus-by-Ozone-Gas-Hiroshi-Miei/54eb8b2c34c600e4ffa5893a869a84a9bf4a32a8>

<http://www.o3tech.cn/blog/about-ozone/application-of-ozone-in-clean-room-with-air-conditioning.html>

<https://www.somagnews.com/ozone-gas-eliminate-coronavirus-99-9-efficiency/>