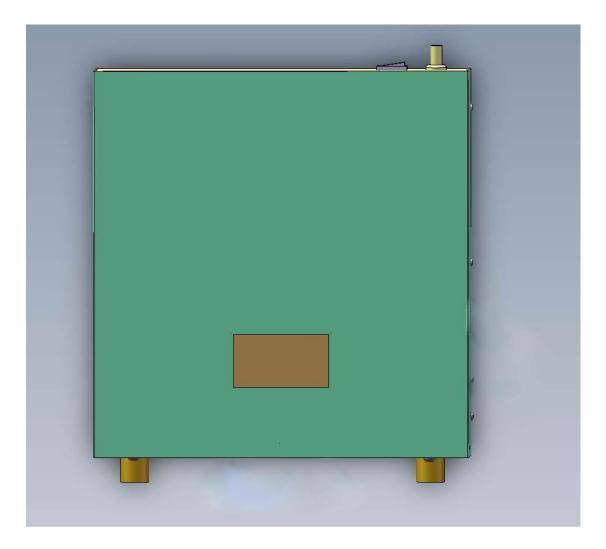


# Water Ozone Generator

# GSL-2200D





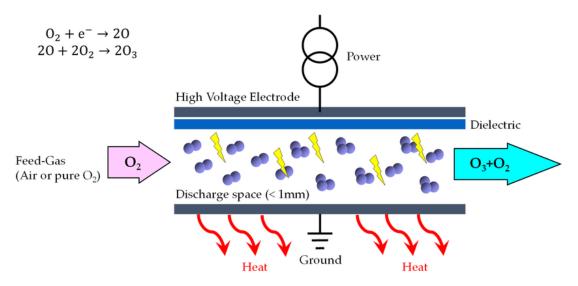
**GSL-2200D** 

Ozone is one of the strongest oxidisers. In practical usage, ozone has shown great effect for disinfection, sterilization, deodorization and decomposing pesticide residual. It's an efficient broad-spectrum fungicide. Ozone can kill bacterial propagule and spore, virus, fungus, etc. The removal rate of Escherichia coli, Streptococcus faecalis, Staphylococcus aureus is over 99%. Ozone can also kill hepatitis virus and cold virus.

One of the popular applications for ozone is to dissolve ozone into water and produce ozonated water. Ozone is unstable in water with oxidation-reduction reaction all the time, producing active monatomic oxygen, which has strong oxidation function and will decompose bacteria and microbial organic matter in water. Ozonated water can also remove unpleasant food odours; there is no secondary pollution, no residue, toxic free and is environmentally friendly.

### **Product Introduction**

Our wall mounted packaged ozone production system is an intelligent ozone water generator, specially designed for disinfection and sterilization for home and commercial applications. The unique design is user-friendly and facilitates quick installation with minimal fuzz. The corona ozone generator produces ozone from air, and includes a venturi system that mixes the tap water with gaseous ozone.



A flow sensor automatically switches the machine on when flow is detected. Conversely, the ozone generator is switched off when there is no flow.

#### **Features and Advantages**

- Instant on-demand ozonated water production
- > Use ozone quartz tube for high ozone concentration
- Micro gas-water mixing system
- > Intelligent micro-pressure switch start-stop system
- Unique wall-mounted design
- Uses tap water, air, external oxygen source
- > Fast and effectively reduces pesticide residue, bacteria, viruses and mould
- No toxic NOx by-product
- > Continuous output of highly concentrated ozonated water
- > Uses DC 5V for control system, ensuring safety
- > Easy operation, no daily maintenance required
- Small size, low noise

### Health and Safety Risks

Ozone is a powerful oxidant that is used all over the world to purify and sanitize the air and water in the environment. It is an extremely reactive gas molecule, capable of damaging the molecular walls and breaking the macromolecular components that underlie the life of bacterial cells, viruses, protozoa, fungi. It is a bluish-colored gas with a characteristic sour, pungent smell of freshly cut hay. The presence of high levels of ozone damages human health, that of animals and plants and produces the deterioration of materials. The main effects it has on humans are:

- Eye, nose, throat and respiratory tract irritation sense of pressure on the chest and cough (strong irritating action against the mucous membranes)
- The risks depend on the concentration of ozone present and on the duration of the exposure. The most sensitive individuals, such as asthmatics and the elderly, may be subject to asthma attacks even at low concentrations.

### Safe use

Before using the ozone generator, please read these instructions carefully as it represents an essential requirement for the proper functioning of the product and guarantees the SAFETY of the personnel responsible for its use. • this device complies with the safety standards for electrical and / or electronic (CE) appliances; • the power supply cable must be intact, must not be crushed to avoid short circuits and dangerous electrical discharges;

- Keep this booklet carefully. In case of transfer of the device, this booklet must also be delivered;
- if any damage is found during transport, do not put the device into operation;
- No liability is accepted for any damage resulting from improper use not covered by these instructions;
- Disconnect the power supply cable of the device from the electrical socket before proceeding with any check and / or cleaning activity;
- Do not keep the machine in humid places and / or high temperatures;
- Avoid the very frequent use of the device in metal storage warehouses as ozone gas is highly oxidising.
- Keep this electrical device out of the reach of children;

### Caution

- Before proceeding with the connection of the device to the power supply, make sure that the voltage corresponds to the required requirements (AC 220-240V / 50Hz);
- High voltage develops inside the device during ozone production.
- Do not use the device in environments where flammable or explosive gases / liquids may be present e electrostatic powder;
- Do not expose the device to rain or splashes of water, to avoid the risk of fire or electric shock;
- It is forbidden to modify and / or tamper with the device and will void the warranty.

# Application

Ozonated water of elevated concentrations can be widely used for daily life, food manufacturing, laundry and agricultural purpose. Common application methods include spraying, flushing, Immersing and sparging.

| Hands disinfection             | Use ozonated water to wash hands for<br>disinfection and sterilisation, prevent<br>disease, applicable for industries of high-<br>required hygiene and crowded public<br>places  |
|--------------------------------|--|
| Water purification             | Ozonated water of high concentration can<br>be used for water disinfection and<br>sterilisation, decompose and oxidise<br>impurities, remove residual chlorine,<br>oxidise heavy metal ions, increase<br>oxygen levels, decolourisation and<br>decrease water turbidity. |
| Fruits and vegetable           | Fully decompose residuals of pesticide<br>and chemical fertilizer, kill bacteria on<br>the surface, prolong the length of<br>preservation.   |
| Fish and eggs                  | Immersing fish, eggs and meat in the<br>ozonated water, can kill germs and<br>harmful microbe, remove residual<br>hormone, antibiotics, improve flavour in<br>red meat; remove fishy smell and odour<br>causing bacteria, extend shelf life of<br>produce.               |
| Beauty and health care         | Wash face, hair or shower, aids in<br>exfoliation of skin, alleviates stubborn<br>bacterial skin infections and activates<br>epidermal cells;  |
| Living goods and baby products | Disinfection and sterilisation for daily<br>household goods, like tableware,<br>clothes, especially children's toys, milk<br>bottles and underwear.  |

| Oral care               | Use ozonated water to brush teeth and<br>clean mouth, can prevent bead breath<br>and gingivitis;   |  |
|-------------------------|--|--|
| Family practice         | Prevent and help cure gynecological<br>disease caused by bacterial infection and<br>skin disease caused by fungal infection;                             |  |
| Pet disinfection        | Use ozonated water to clean pets, can<br>prevent germs breeding, remove bad<br>smell and inhibit flea infestations.                                      |  |
| Household cleaning      | Use ozonated water to clean living rooms,<br>kitchen and laundries can effectively kill<br>bacteria, remove bad smell, prevent<br>germs and moulds, etc. |  |
| Manufacturing equipment | Full high-pressure washing can kill bacteria on equipment surfaces, pipeline internals and packaging containers  |  |
| Poultry farm            | Use ozonated water to clean animals and<br>wash farms, can remove bad smell, kill<br>bacteria and germs, decrease disease.                               |  |
| Public area             | Disinfection, sterilisation and deodorisation in public space, like train stations, hospitals and schools.   |  |

# **Power supply**

Rated power: 12 W Voltage: DC 12V

# Input water

Type: tap water Water pressure: 3-8 kg/cm2 Temperature: 5-20 °C

#### **Outlet water**

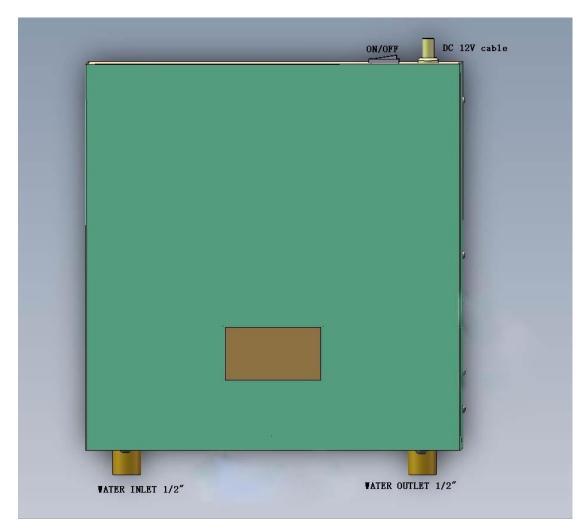
Ozonated water flow: 6L-20L/Min Ozone concentration: 0.4-1.0ppm

#### Appearance

Size: 300\*330\*70mm Net weight: 4.5 kgs

Note: Solubility of ozone is increased the lower the water temperature. Minimise backpressure in order to ensure differential pressure across venturi injector.

## **Machine and Connection Details**



Use only ozone compatible plumbing for ozone outlet . Please refer to Appendix for ozone compatibility of materials.

### Maintenance:

This equipment requires minimal maintenance.

- Check and repair any leaks at the water inlet and outlet.
- Any internal leaks should be referred to the supplier.
- Ensure that cooling fan grille is kept clean and remove any dust.
- Ensure electrical cord is kept in good condition.

### Warranty Card

| Model No      |                                  | Ozone output |           |          |  |
|---------------|----------------------------------|--------------|-----------|----------|--|
| Client's name |                                  | Phone No.    |           | Purchase |  |
|               |                                  |              |           | Date     |  |
| Client's      |                                  |              |           |          |  |
| Address       |                                  |              |           |          |  |
| Distributor   |                                  |              |           |          |  |
|               | Phone                            |              | Zip Code  |          |  |
|               | Receipt No                       |              | Client    |          |  |
|               |                                  |              | Signature |          |  |
|               | DISTRIBUTOR'S CHOP WITH ADDRESS: |              |           |          |  |
|               |                                  |              |           |          |  |
|               | Date:                            |              |           |          |  |
|               |                                  |              |           |          |  |
|               | Signature:                       |              |           |          |  |

Note:

- 1. Warranty period is 12 months from date of purchase;
- 2. The manufacturer's warranty covers any manufacturing defects due to faulty workmanship or internal electronic parts or ozone parts.
- 3. Transportation fees for replacing/repairing parts will be the expense of the customer.
- 4. The Warranty does not cover any modifications or unauthorised repairs by third parties, improper installations contrary to recommendations.

#### Enquiries:

Pacific Water Technology Pty Ltd 27 Staple Street, Seventeen Mile Rocks QLD 4073 AUSTRALIA Tel: 61 7 3376 9009 Email: sales@pacificwater.com.au Website: <u>www.pacificwater.com.au</u>

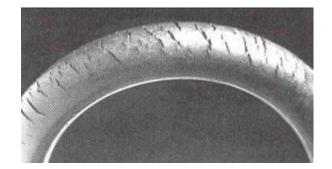
# Appendix:

Ozone Compatibility Chart:

# Our Rating System

|   | Rating    | Description                                  |
|---|-----------|--|
| А | Excellent | Ozone has **no effect** on these materials.  |
|   |           | They will last indefinitely.                 |
| В | Good      | Ozone has minor effect on these materials.   |
|   |           | Prolonged use with high concentrations of    |
|   |           | ozone will break down or corrode these       |
|   |           | materials beyond usefulness.                 |
| С | Fair      | Ozone will break down these materials within |
|   |           | weeks of use. Prolonged use with any ozone   |

concentration will break down or corrode<br/>these materials beyond usefulness.DPoorOzone will break down these materials within<br/>days or even hours of use. These materials<br/>are not recommended for any use with<br/>ozone.



#### Ozone cracking in natural rubber tubing

| Material              | Rating             | Material       | Rating |
|-----------------------|--------------------|----------------|--------|
| ABS Plastic           | В                  | LDPE           | В      |
| Acetal<br>(Delrin®)   | С                  | Magnesium      | D      |
| Acrylic<br>(Perspex®) | В                  | Monel          | С      |
| Aluminum              | C (wet<br>ozone) / | Natural Rubber | D      |

|                                       | B (dry<br>ozone)           |   |   |
|---------------------------------------|----------------------------|---|---|
| Brass                                 | В                          | Neoprene                                  | С |
| Bronze                                | В                          | Nylon                                     | D |
| Buna-N (Nitrile)                      | D                          | PEEK                                      | А |
| Butyl                                 | А                          | Polyacrylate                              | В |
| Cast Iron                             | С                          | Polyamide (PA)                            | С |
| Chemraz                               | А                          | Polycarbonate                             | А |
| Copper                                | В                          | Polyethylene                              | В |
| CPVC                                  | A (does<br>get<br>brittle) | Polypropylene                             | С |
| Cross-Linked<br>Polyethylene<br>(PEX) | A                          | Polypropylene<br>(glass-filled)<br>(GFPP) | С |
| Durachlor-51                          | А                          | Polysulfide                               | В |
| EPDM                                  | C (wet<br>ozone) /         | Polyurethane,<br>Millable                 | A |

|                                       | B (dry<br>ozone) |                                   |  |
|---------------------------------------|------------------|-----------------------------------|--|
| EPR                                   | A                | PVC                               | A (wet<br>ozone) / B<br>(dry ozone)<br>- does get<br>brittle |
| Ethylene-<br>Propylene                | A                | PVDF (Kynar)                      | A  |
| Fiber<br>Reinforced<br>Plastics (FRD) | D                | Santoprene                        | A  |
| Flexelene                             | В                | Silicone                          | А  |
| Fluorosilicone                        | A                | Stainless Steel -<br>304/316      | A  |
| Galvanized<br>Steel                   | С                | Stainless Steel -<br>Other Grades | В  |
| Glass                                 | А                | Steel (Mild)                      | D  |
| Hastelloy-C®                          | А                | PTFE                              | А  |

| HDPE          | А | Titanium | А |
|---------------|---|----------|---|
| Hypalon®      | С | Tygon    | В |
| Hytrel®       | С | Vamac    | А |
| Inconel       | А | Viton    | А |
| Kalrez        | А | Zinc     | D |
| Kel-F (PCTFE) | А |          |   |