

## Ozonizer CERTIZON C25 C50 C100 C200 C300



## Introduction

Thank you for buying this quality product from Sander! We are confident that you will be satisfied with this device. You will benefit in every respect from our many years of experience in the manufacture of aquarium technology.

Please familiarize yourself with the product before using it for the first time. To do so, carefully read through the instructions manual and safety information. Unpack the ozonizer and check it for shipping damage. Operate the device only as described below for the specified applications. Keep this instruction manual in a safe place for future reference. If you give, sell, or lend this device to a third party, please do not forget to include this instructions manual when you do so.

## Proper use in aquaria

Depending on the aquarium size, the CERTIZON ozonizers offer a rated output of 25, 50, 100, 200, or 300 mg of ozone per hour (as measured in dry air). Under ambient air conditions (approximately 40–80% air humidity), the ozone output decreases by approximately 50%.

The ozonizer generates ozone from the air and has been specially developed for aquaria. It is important that the ozone is injected into the water at a sufficient depth (approx. 20cm, 0.7ft). We recommend the use of a protein skimmer in marine water and freshwater applications.

Other applications of, or modifications to, the ozonizer constitute misuse and entail a risk of personal injury and/or damage to the device. The manufacturer shall assume no liability for injury/damage caused by misuse of the device. The device is not intended for commercial use.

Erwin Sander Elektroapparatebau GmbH shall not be held liable for any damages that occur as a result of any unauthorized modifications, re-engineering or amendments made to the ozonizer or its improper use.

## Categorization of Safety Information



IMPORTANT INFORMATION



ATTENTION, DANGER THROUGH ELECTRICAL ENERGY



ATTENTION, DANGER

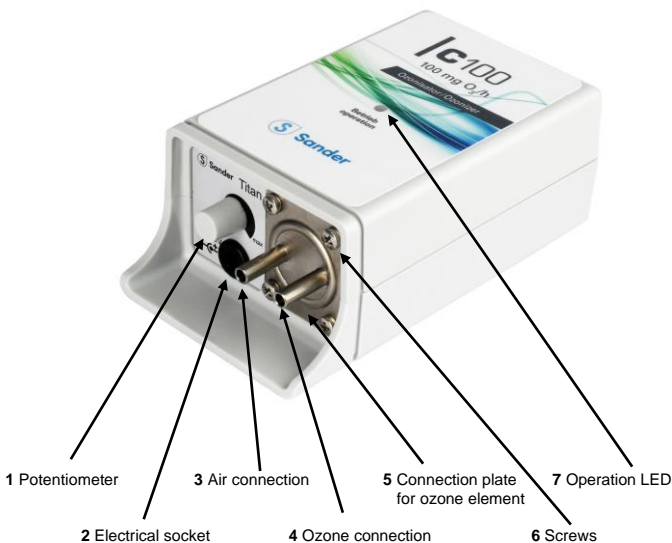


ATTENTION, DANGER THROUGH POISONOUS MATERIAL



ATTENTION, HOT SURFACES

## Device Setup



The air and ozone connections are designed for 4/6 mm tubes.

### Technical Information

| Model                 | C25                  | C50 | C100 | C200 | C300 |
|-----------------------|----------------------|-----|------|------|------|
| Ozone output (mg/h)   | 25                   | 50  | 100  | 200  | 300  |
| Power supply          | 100-240 VAC 50/60 Hz |     |      |      |      |
| Operating voltage     | 12 VDC               |     |      |      |      |
| Power consumption (A) | 0,25                 | 0,3 | 0,4  | 0,5  | 0,65 |

### Scope of supply

As soon as you have removed the device from its packaging, please check to ensure that all the necessary parts have been delivered and that they are in perfect conditions.

1 x CERTIZON Ozonizer, 1 x power supply unit, 1 x Instruction manual, 1x Ozone Info, 4 screws for closing the ozone element

## Safety information



The ozonizer is used at the owner's risk.



The ozonizer must not be allowed to fall into water or otherwise come into contact with water. Do not use the ozonizer in a flammable or explosive atmosphere.



The surfaces of the ozone element (5) can be hot. Allow the device to cool down before cleaning it.



Airborne ozone can be harmful to health if it enters the respiratory system.

Every effort must therefore be made to ensure that only the volume of ozone that is required in the application is produced. The permissible TLV (threshold limit value) for ozone is 0.1 ppm (200 µg/m<sup>3</sup>), although ozone can be sensed even at 1/5 to 1/10 of this value (0.02 ppm). In the USA, an IDLH (Immediately Dangerous to Life and Health) value of 5 ppm (10 mg ozone/m<sup>3</sup>) additionally applies [NIOSH, 1994].

If excess ozone is produced (ozone odor), the off-air discharged from the skimmer should be released into the atmosphere or passed through a residual ozone destructor.



Ensure that enough air passes through the ozone element (min. 50 L/h). If this minimum value is undershot, the ozonizer is at risk of overheating.



Children from the age of 8 years as well as disabled or handicapped persons or persons with no or small technical experience may use the ozonizer when under surveillance or after having received a thorough tuition about the use and safety measures.

Children may not play with the ozonizer. Children may do the cleaning and servicing of the unit only under surveillance.



The ozonizer housing must never be opened under any circumstances. Improper repairs can seriously endanger the user. If repairs are necessary, please contact a specialist dealer or the manufacturer directly.



Do not operate the ozonizer if it is damaged. Damaged ozonizers can seriously endanger the user.



The ozone generator may be operated only with the power supply unit that was delivered with the ozone generator.

## Warranty and limitations of liability

**i**

All ozonizers that we manufacture are covered under a 24-month warranty. During this period, any component(s) that fail(s) as a result of material defects or manufacturing faults can be replaced free of charge.

**i**

**Please note: The following types of damage are not covered by the warranty:**

- Any damage resulting from misuse by misuse (differing to the description in these instructions).
- Any damage resulting from unauthorized repair, disassembly, improper cleaning or opening the device.
- Damage caused by improper transportation, dropping, exposure to shocks, etc. after the purchase date.

**i**

The guarantee and liability of Erwin Sander Elektroapparatebau GmbH Company covers only the delivered Ozonizer CERTIZON Unit.

## Installation of the Ozonizer

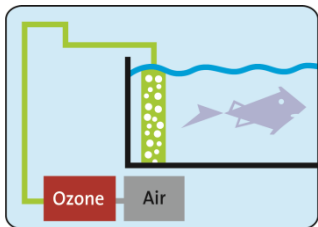
Installation example A: wall mounting

On the rear of the ozonizer is a suspension hole for mounting the ozonizer on a wall. If possible, the device should be installed at a level higher than the surface of the water (e.g. to prevent water from flowing back into the device in the event of a power outage).

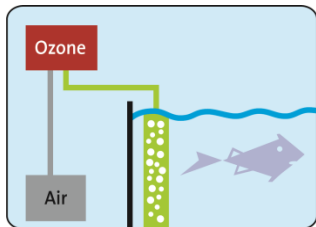
Installation example B: cabinet Installation

The ozonizer can also be installed in the cabinet under the aquarium (ensure adequate ventilation). In this case, however, a tube that extends at least 20cm (0.7ft) above the surface of the water should be fitted to prevent water from flowing back into the ozonizer.

Example A



Example B



## **Connecting the Ozonizer with protein skimmer (injector) or reactor operated with air stones**

The ozonizer has two tube connections. The first (3) is connected to an air tube leading to an air pump. The second (4) on the ozone element is connected to the air stones via the skimmer.

If ozone production is deactivated while the ozonizer is still connected to the skimmer, the air supply must remain switched on. This prevents water from entering the ozone generator.

### **Alternative: Connecting the Ozonizer with a protein skimmer with an injector**

Connect the injector to the ozone connector (4). Air is automatically sucked through the device. The air connection (3) remains free.

## **Start-up procedure**

Place the ozonizer and power supply unit on a dry surface. Plug the 12 VDC connector into the socket (2) on the ozonizer. The ozonizer is equipped with a regulation knob (potentiometer) (1), which allows continuously variable adjustment of the ozone output. Plug the power supply unit into a socket.

Guidance values are for 100-litres marine aquarium approx. 10 milligrams of ozone per hour, and approx. 5 milligrams of ozone per hour for 100-litres of freshwater aquarium.

The LED (7) lights up when the ozonizer is in operation, though not when the output is zero. Above zero, the LED (7) lights up and gets brighter as the output increases. At 100% output, the LED is permanently lit up.

To determine the ozone requirements, we recommend measuring the redox potential in the water with a Sander redox measuring and regulating device, which switches the ozonizer on and off automatically depending on the set target value. For this purpose, the ozonizer should be set to full output.

When the device is newly installed in the aquarium, we recommend gradually increasing the output over a period of roughly 14 days. This allows the living organisms in the water to slowly adjust to the improved water quality.

## Cleaning and Maintenance

To ensure that the ozonizer functions properly at all times, the ozone element must be cleaned regularly. The ozone element has therefore been designed to be easily opened and cleaned. If the device is in permanent use, we recommend checking the ozone element every three to six weeks for dirt and, if necessary, cleaning it.

### The cleansing procedure

- Before cleaning the ozonizer, set the ozone output to zero by turning the potentiometer down, and allow the device to run in this state for a few minutes. This ensures that any residual ozone is discharged from the ozone element.
- Switch the ozonizer off.
- Allow the ozone element (5) to cool down.
- Unplug the power supply unit.
- Remove the power plug (2) from the ozonizer.
- Remove the tubes from the tube connections.
- Unscrew the locking screws (6) for the connection plate (5) using a standard Phillips screwdriver.
- Remove the connection plate (5).
- Clean the ceramic and titanium plate using a cloth and warm water (and standard cream cleanser, if necessary); when doing so, also remove any dirt from the connecting nipples.
- Allow the device to dry thoroughly.

### Reassembling the device and switching it back on

- Place the connection plate back on the ozone element (5), making sure that the sealing ring is firmly seated in the groove.
- Reinsert the screws (6) partway and then tighten evenly.
- Reattach the tubes to the tube connections.
- Plug the 12 VDC connector back into the power connection (2).
- Plug the wall power supply unit back into the socket.
- Use the potentiometer (1) to set the desired ozone output.

## Faults

The ozone output can be reduced or interrupted through the ingress of water or dirt particles. Such impairments can be rectified by cleaning the device (see "Cleansing procedure").

If such impairments cannot be rectified by cleaning the device, please contact your specialist dealer or send the device directly to the manufacturer.

## Disposal



The packaging is made from eco-friendly materials which you can dispose of at any local recycling collection place.



To find out how to dispose of the device once it has reached the end of its service, please contact your local or municipal authorities.

Once the device has reached the end of its service life, do not dispose of it with your household waste; instead, in the interests of environmental protection, take it to a professional waste disposal facility. For information on where you can find your nearest collection point and opening hours, please contact your local authorities.