



Let nature clean  
your spa or whirlpool



## Ozonators Whirlpool & Spa



Let nature clean your spa or whirlpool

- Natural sanitation
- Compact design
- Easy to install
- Low power consumption
- Long lifetime for spa applications



**BALBOA**  
water group

# Model Overview

ARTICLE NUMBER	DESCRIPTION	
20-5130	Whirlpool ozonator 50 mg/h, 230V/50Hz, Incl. transformer, cable 0.5 m., 1.5 m 6 mm I.D. tube, check valve and clamp. With Corona Discharge Chip — lifetime 500 hours. Recommended airflow: 2 -10 l/min.	
21-5134	Spa ozonator 178 mg/h, 230V/50Hz, Incl. transformer, cable 0,5 m., 1.5 m 6 mm I.D. tube and check valve. With UV lamp - lifetime 20,000 hours. Recommended airflow: 1.4 l/min.	

## Water Jets

We recommend water jet 21-2650 and front 30-2662 for ozone installation.



21-2650

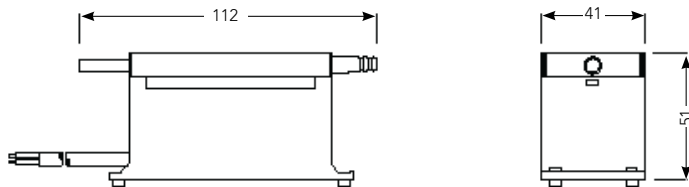


30-2662

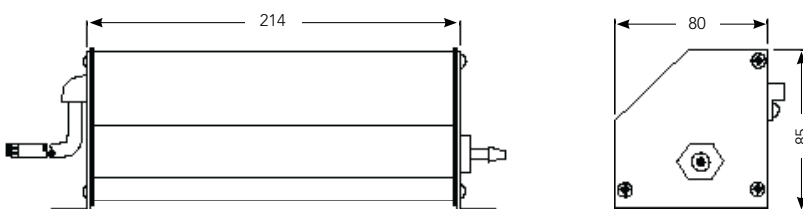
## Measurement Drawings

### Measurement Drawings

20-5130



20-5134

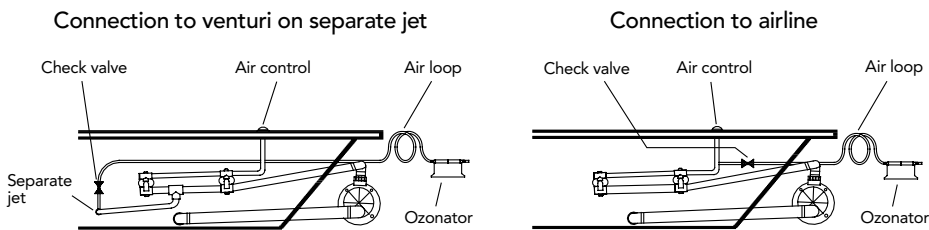


Dimensions in mm.

# Ozonators

How does it work?

Ozonators works by converting oxygen into ozone. When an air stream passes a corona discharge (CD) chip or an UV lamp – ozone is created. The airflow is created through a small tube mounted on the ozonator and on the airline of the whirlpool. See recommended airflow on page 2. The flow created by the whirlpool pump creates a venturi suction, which draws oxygen through the ozonator. The oxy-gen is then transformed into ozone and added to the water, where it dissolves. See principle drawings for more details.



It is recommendable to activate the ozonator together with a therapy pump in a whirlpool or together with a filtration pump on a spa.

For optimal sanitizing effect ozone must be added as deep as possible in the tub. The venturi airspeed is optimal for creating ozone. Higher airspeed will reduce the lifetime of the ozonator and eliminate the effect.

Ozone improves both the water quality in your whirlpool and also helps chemical sanitizers work more efficiently.

## Production Technologies



### Ultraviolet (UV) Light – Light Energy

This is how ozone is produced in the upper atmosphere via UV rays of the sun.

#### UV Ozonators:

Use a UV lamp to produce ozone.

A special UV lamp gives off a specific frequency instantly converting oxygen ( $O_2$ ) molecules into ozone ( $O_3$  active oxygen molecules) inside the ozonator.



### Corona Discharge Chip (CD) – Electrical Energy

This is how ozone is produced in the lower atmosphere via lightning.

#### CD Ozonators:

Use a CD electrode to produce ozone.

Oxygen ( $O_2$ ) passes through an air gap between a high voltage electrode and a stainless steel grounding electrode. The “energy field of electrons” created by the high voltage electrode instantly converts oxygen ( $O_2$ ) molecules into ozone ( $O_3$ ).

# FeaturesBenefits

In whirlpools and spas

People are often insecure about using ozone to purify the water in whirlpools, spas or swimming pools, because of stories about harmful ozone smog in the air. Installing an ozonator yourself, instead of using strong chlorine chemicals, is safe, natural and not related to ozone smog from cars.

- Ozone is the most powerful oxidizer and disinfectant which can safely be used in whirlpools and spas.
- Ozone is the alternative water sanitizer to traditional chemicals such as chlorine and bromine.
- Ozone kills bacteria 3,000+ times faster than chlorine and bromine.
- Ozone will not burn eyes or leave them red and irritated.
- Ozone will not irritate or dry out skin.
- Ozone will not leave a chemical film on material or skin.
- Ozone will not discolour or damage hair or clothing.
- Ozone eliminates disease-causing micro-organisms.
- Ozone does not have to be purchased or stored. Ozone is generated on-site and is introduced into the water automatically.
- Ozone does not affect the pH balance in the water, thus minimizing pH adjustments.
- Ozone eliminates much of the routine maintenance because it does such an effective job of keeping the water clean. It does so by oxidizing oils and other oxidizable substances (e.g. bathing oils, lotions), which helps prevent the greasy edge around the whirlpool and spa forming. It actually removes particles from the water (moving it closer to its natural state) without having to add more chemicals.
- Ozone makes chlorine work more effeciently.
- In the quantities needed for water purification, ozone does not irritate humans or equipment.
- Ozone leaves no by-products. In contrast, chlorine leaves a chemical by-product called hypochloric acid and additional salts in water applications.
- Ozone and chlorine work perfectly together: Ozone is a constant oxidizer that destroys organics and microorganisms very effectively, but only when in contact with water. You will still need to keep a very low residual level of chlorine in the water.