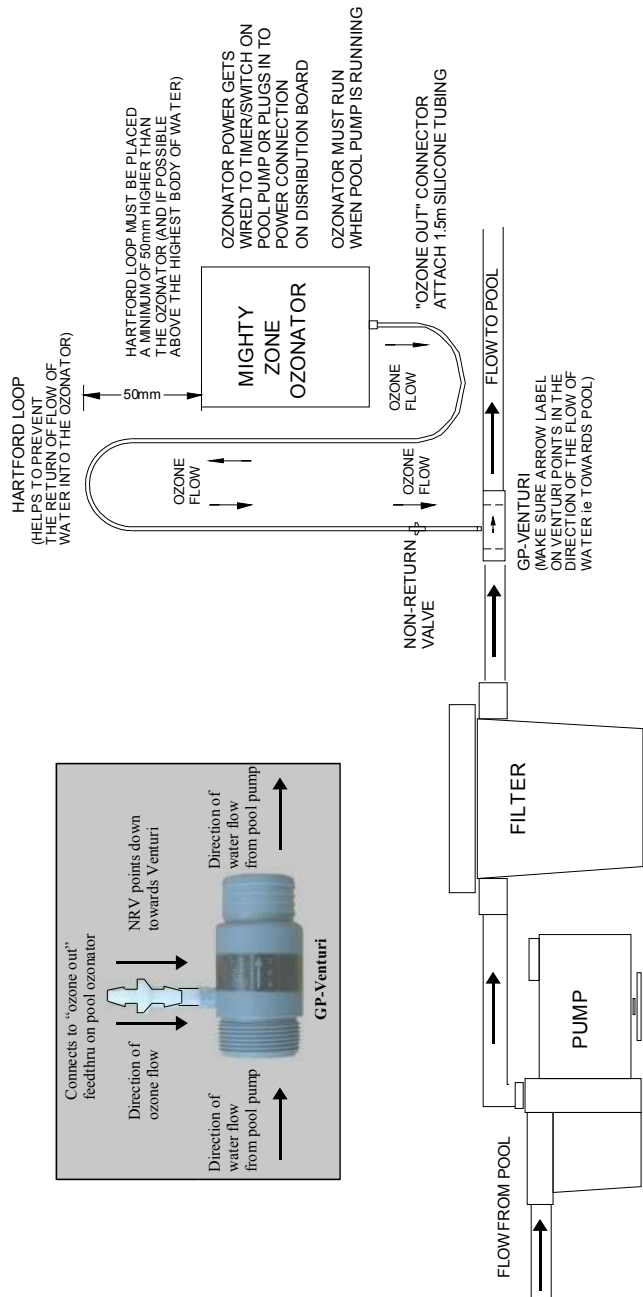


# POOL INSTALLATION DIAGRAM



Distributed by:



Ozone Purification & Treatment Systems

76 Stamford Hill Rd, Durban, South Africa

Ph: 031-3094177

Fax: 031-3094005

Cell: 083 788 4118

Email: [info@chemfreeaqua.com](mailto:info@chemfreeaqua.com)

Web: [www.chemfreeaqua.com](http://www.chemfreeaqua.com)

## POOL OZONE GENERATOR

### MZPF-2000 / 4000

## OPERATION MANUAL & INSTALLATION GUIDE

**POOL OZONE GENERATOR  
MODEL NO: MZPF-2000 / 4000**



**SPECIFICATIONS**

Model	: Mighty Zone MZPF-2000 / 4000
Input	: 220 V.A.C. @ 50Hz
Input Power	: 65 Watts / 80 Watts
High Frequency	: 18 kHz to 30kHz
Ozone Output	: 2000mg/hr / 4000mg/hr
Ozone Cell	: Quartz glass & Stainless Steel
Ozone Distribution	: Venturi
Cooling	: Air Cooled with Fan
Fuse	: 1.6A 5x20mm Fast Blow
Cell Protection	: Internal Air Filter & Non-return valve
Electronic Protection	: Over-temperature protection
Enclosure	: Polycarbonate
Dimensions	: 280mm H x 145mm W x 140mm D
Weight	: Approx 2.5 kg / 2.75 kg
Ozone Outlet	: Fits Silicone Tubing 5-7mm ID
Max Ambient Temp.	: 30 °C
Mounting	: Polycarbonate Mounting Feet
Guarantee / Warranty	: 12 months (terms & conditions apply)

**Pool Sizing**

Many Factors influence the size of required Ozone Generator:-

- Water temperature
- Bather load
- Pump run-time
- Location
- Pool Material
- Weather
- Dirt, mildew and contaminants.

Use the following guideline to assist you:

- MZPF-2000 : < 30000 litres
- MZPF-4000 : < 50000 litres

**Pool Kit:-**

- 1x MZPF-2000 / MZPF-4000 Ozone Generator
- 1x Mighty "V" Venturi
- 1x Non-return valve
- 1½ metres of Silicone Tubing

Specifications subject to change without notice

**Installation**

- Pump should recycle pool volume every 1 to 3 hrs. Maximum off time 3hrs / cycle
- The Ozone generator must be installed in a covered ventilated space near the multi-port valve.  
**NOTE:** The fan vents of the Ozone Generator must not be obstructed.
- Connect the Ozone Generator supply to the timer output feeding supply (220V 50Hz) to the Pump. Brown ~ Live, Blue ~ Neutral, Green and Yellow ~ Earth (**NB:** Earth must be connected )  
These Connections should be done by a qualified person!
- The Venturi screws into the return output of the Multi-port valve. Use plumbers tape to aid with sealing. ( Use label on venturi to assist you in fitting the venturi in the correct direction )
- The Venturi output can be connected directly to the flexible return hose by inserting over the barbs and using a tube clamp ( 40mm Tube). If the return line is 50mm rigid tube use a 50mm junction.
- Glue and slide the one side of the junction over the venturi output side first, the return tube can then be glued to the other side of the junction ( use PVC glue )
- Test the suction by switching on the pump and placing a finger tip over the the ozone inlet port. Once the suction is working switch off the Pump.
- Using a 60mm piece of the Silicone tube supplied, install the Non-Return Valve with the tapered face joining to the Venturi ozone inlet. ( The Non-return valve must be installed in the direction which allows air flow in to the injection point but blocks any return flow).
- Switch on the pump again and test the suction in the same way but this time placing your finger tip over the inlet to the Non-return valve. If the suction is working switch off the pump.
- The Ozone output from the Ozone generator must be connected to the other side of the Non- return valve with the remaining silicone tube.
- This section of tube must include a Hartford Loop – see diagram on following page.
- The red neon on the front of the ozone generator will glow if the ozone cell is generating ozone.

**Pool Water Preparation**

- 1) Backwash Pool
- 2) Adjust total alkalinity with Hydrochloric acid or Sodium Bicarbonate 80-100ppm
- 3) Adjust pH 7.2 to 7.8 (HCL acid to lower and Sodium Bicarbonate to increase )
- 4) Shock treat with Hydrogen Peroxide 35% ( 100mL / 1000 Litres pool water )
- 5) Ozone is used as primary Sanitizer and Sodium Bromide as secondary / residual Sanitizer  
Sodium Bromide should test 1-2 ppm (Dosage: 20g per 1000 Litres of water every 6 months)

**Pool Water Maintenance:**

- Shock treat with Hydrogen peroxide
- Maintain total alkalinity with Hydrochloric acid or Sodium Bicarbonate 80-100ppm
- Maintain pH 7.2 to 7.8 (HCL acid to lower and Sodium Bicarbonate to increase )
- Shock treat with Hydrogen Peroxide 35% ( 100mL / 1000 Litres pool water )
- Keep pool clear of leaves and debris
- Check and clean basket daily. Backwash regularly.
- Use Algacide if required – consult supplier for ozone compatible type

**Ozone Generator Maintenance:** Please check weekly.

- Check Non-return valve for signs of water returning into the tube to the ozone generator  
- replace if necessary.
- Check the silicone tube for deterioration - replace if necessary
- Check internal air filter for blockage

**Fault Diagnosis**

- Red Neon does not glow when pump is on – check Ozone Generator switch is on - Check Fuse
- Large bubbles come from pool return jet and strong smell of ozone:-  
Locate the airflow restrictor which is situated between the Non-return Valve and the Venturi ozone inlet. Restrict the air flow by screwing the screw on the airflow restrictor clockwise until the large bubbles disappear. A spray of small bubbles must be present. Use the fingertip test on the air inlet port to the ozone generator to check that suction is still present .