

## PZ3-X

### Portable Spas or Custom Installations

#### SPECIFICATIONS

<b>Electrical</b>	230 VAC / 0.42 amps / 96.6 Watts
<b>EMI and Transient Protected</b>	Up to 2,000 VAC
<b>Shipping Weight (approx)</b>	1.13kg
<b>Arc Life (nominal)</b>	20,000 hours
<b>Max Ozone Output (grams per day)</b>	PZ3-24 : 10
<b>Storage Temperature</b>	-1°C – +70°C
<b>Operating Temperature</b>	-4°C – +60°C
<b>Connector</b>	(std) 3 Wire Pigtail
<b>Ballast</b>	U.L. Listed File #474D Type 1
<b>Arc Lamp</b>	50 volt, Hot Cathode V.U.V., Purified Quartz Arc Design for long life and consistent ozone output
<b>Generation Tested</b>	100% Burn in, Hypot and O <sup>3</sup> output
<b>Ozone Purity</b>	99.9% free of Hydroxyls and Nitrous Oxide
<b>Size</b>	340mm - 430mm x 76mm Dia



A complete ozone generator cartridge for “ozone ready” spas, the PZ3-X sets the reliability standard for the industry. The state-of-the-art translucent end caps are an added feature, glowing when the lamp is on. For maximum ozone / water mixing, the PZ3-X can be used with the patented bypass venturi injector kit.

## PZ5

### Portable, 24-Hour Spa Ozonation For Spas and Custom Applications

PZ5 Series features our ozone generator cartridge and internal, custom-built mini compressor for custom applications. The system is ideally designed to stand alone, injecting ozone into all water applications, such as spas, jetted tubs, aquariums or small ponds. The PZ5 Series comes complete with our exclusive Mycropore™ diffuser to allow maximum ozone absorption plus our ozone resistant check valve. For a quick and easy installation, install the PZ5 with an SPPZ05 bypass venturi injector kit.

#### SPECIFICATIONS

<b>Electrical</b>	230 VAC / 50 hz / 12-24 VAC/AC / 0.75 amps / 172.5 Watts
<b>Shipping Weight (approx)</b>	2.72kg
<b>Max Airflow Rate</b>	8 CFH @ 0 PSI 3 CFH @ 2 PSI
<b>Max Ozone Output</b>	8 grams/day
<b>Operating Temperature</b>	-4°C – +60°C
<b>Connector</b>	(std) 3 Wire Pigtail, Len Gordon, AMP Molex, All J & J
<b>Ballast</b>	U.L. Listed File #474D Type 1
<b>Size</b>	394mm x 76mm x 190mm
<b>System Capacity</b>	(Maximum) Residential Spa 3630 litres
<b>Housing</b>	Aluminium or High Impact Polymer



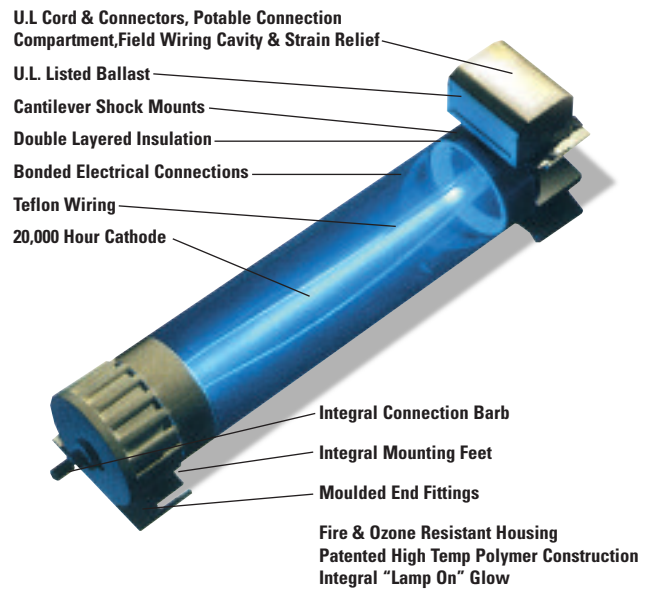
## RELIABILITY, SAFETY & QUALITY

Our ozone generator cartridge is used in all Prozone systems to provide simple and reliable maintenance by totally isolating the arc tube from vibration, corrosion, temperature, shock and handling by service personnel. Since offered in 1981, our cartridge has set the reliability standard for the industry.

Prozone's unique construction of its V.U.V. ozone generator tube makes it the most effective, reliable and safest product in the industry.

## INNOVATIVE ENGINEERING

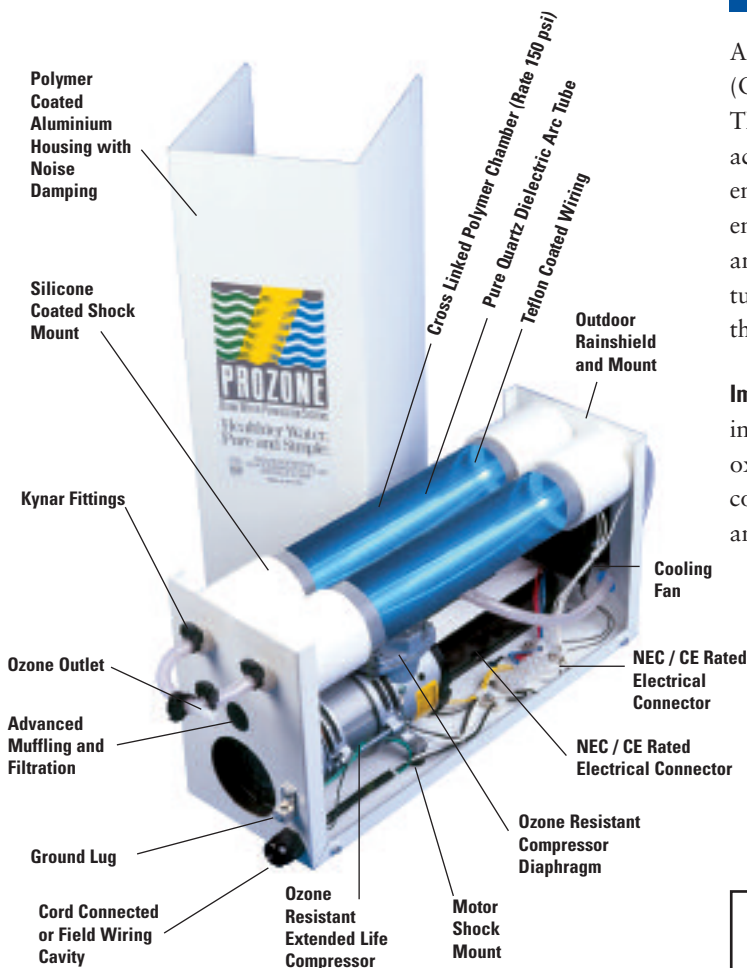
The output of V.U.V. ozone generators are optimised by the airflow, lamp power, lamp size and chamber configuration. Each system's output varies according to methods of application. Systems listed are rated at maximum flow rates and at nominal power levels.



## OZONE PRODUCTION THEORY

All ozone is produced directly or indirectly by oxygen gas ( $O_2$ ) being energised to split and reform into Ozone ( $O_3$ ). This is accomplished by applying an alternating voltage across a gas. The higher the frequency the higher the energy in the gas and the lower the voltage required to energise the system. In the case of VUV ozone producing amps, the energy of the alternative current is applied to a tube of quartz containing mercury gas which then excites the oxygen outside the quartz tube to form ozone.

**Important:** Prozone ozone generation systems must be used in conjunction with either chlorine or bromine. Ozone oxidises combined the chlorine and bromine freeing it to be continuously re-used. This reduces chemical consumption and eliminates eye and skin irritation.



If you should require further technical information please do not hesitate to contact us.



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# PROZONE

## Water Purifiers for Pools & Spas

### BENEFITS

- Reduces the need for harsh, costly chemicals
- Save on maintenance, time and money
- Helps to eliminate eye and skin irritation, hair damage and chemical odours
- Have crystal-clear water that smells fresh, feels softer and is more refreshing
- Utilises aerospace technology that has made purification safe and cost effective for even the smallest applications
- More than 2 million pools and spas use V.U.V. Ozone Systems
- Ozone has been used for over a century by large water systems worldwide
- The EPA recently made ozone a requirement for drinking water in the USA



### *Prozone creates Healthier Water*

*The Advantages are crystal clear.*

*Ozone is the natural water purifier of the century and Prozone is the simplest, most effective system on the market today. Prozone purifies pool and spa water, makes it sparkling clean and clear and reduces the need for chemicals by up to 90%.*

# Here's How Prozone Works

**O**zone is generated when a molecule of oxygen is illuminated by high energy ultraviolet light. Ozone is formed when three atoms of oxygen are bound together instead of the normal two. The extra oxygen atom makes ozone a highly energetic oxidiser. Ozone destroys algae, viruses and bacteria on contact – with no harmful by-products. It also breaks down harmful chemicals and acts as a flocculent, causing Total Dissolved Solids to be suspended and easily removed by the water filtration process. Ozone oxidises combined chlorine and bromine, freeing them to be continuously re-used. Therefore the use – and cost – of chemicals is greatly reduced.

## PERFECT FOR POOLS

Prozone Water Purification Systems can easily be installed in new pools or retrofitted to existing pools. The Prozone system attaches to the water circulation system quickly and easily, generating ozone and injecting it into the the return, where it instantly purifies the water. In the process, ozone biologically destroys bacteria, virus and algae and oxidises metals which bond together for easy removal by the filter.

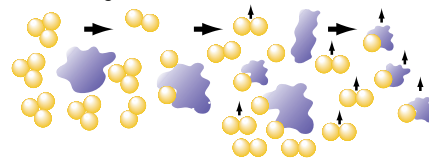
## IDEAL FOR SPAS

The Prozone Water Purification System offers clear advantages for spas. The chemistry of a spa can change faster and more dramatically than a pool. High water temperatures – as well as increased amounts of body chemicals and organic matter given off by bathers – creates a breeding ground for contaminants and reduces the effects of chemicals.

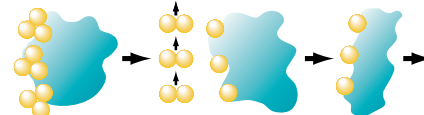
That's why a Prozone system is a better solution. It completely disinfects the water while the circulation is running. So the spa not only stays sanitary, Prozone keeps the water as you expect – *clean, clear and safe.*



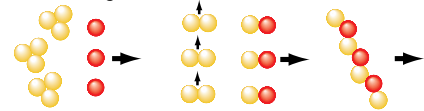
O3 Attacking Bacteria or Virus



O3 Attacking Organism



O3 Attacking Metal Ions and Minerals

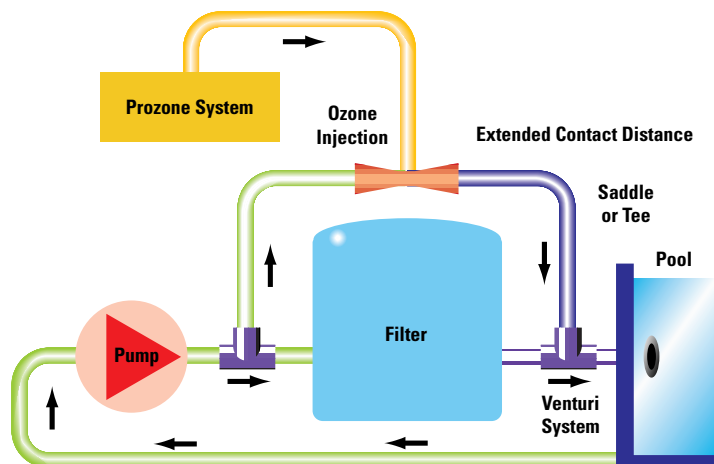


## PIONEERS OF OZONE TECHNOLOGY

Prozone, pioneers of the original ozone generator cartridge, produced the first Ultra Violet Ozone Generating cartridge in 1977 for the swimming pool and spa industry. Since then, Prozone engineered systems integrating the cartridge configuration into applications such as swimming pools, aquasculptures, cooling towers and drinking water.

Prozone also pioneered the patented Bypass Venturi mixer and Mycropore diffuser. Prozone's Bypass Venturi systems provide the ultimate in ozone absorption while operating in conjunction with the existing circulatory system. It's simplicity and effectiveness have become the industry standard for low-cost, easily implemented ozone systems. The diffuser provides superior mixing and absorption by continuously injecting tiny ozone bubbles into the water.

Combining these elements with our ozone generators provides the industry's most simple and reliable systems.



Prozone Patented By-Pass Basic Installation

## PZ7-1 & 2



### Venturi Systems for Residential In-Ground Pools

The PZ7 Series generator features our unique patented Bypass Venturi configuration for quick installation on the return line of the pool. This allows maximum ozone/water mixing to purify the water before it reaches the pool. The heavy extruded aluminium adds to its durability with clear gasketing that glows when the system is on.

The PZ7-1 is rated for up to 15,000 gallons (68m<sup>3</sup>) residential in-ground pools. The PZ7-2 is rated for pools up to 25,000 gallons (113m<sup>3</sup>).

### Dynamic Venturi Injector Bypass Theory

A bypass contactor system gets its water directly after the circulation pump where pressure is high and returns the water to the last low pressure point returning to the pool. This pressure drop drives an injector venturi, which draws ozone/air from the ozonator and mixes it with the water returning to the pool. Additional contact tubing is added to ensure all of the ozone is absorbed before the water returns to the pool.



### SPECIFICATIONS

	PZ7-1	PZ7-2
<b>Electrical</b>	230 VAC / 0.4 amps 92 Watts	230 VAC / 0.8 amps 184 Watts
<b>Shipping Weight (approx)</b>	3.6kg	4.5kg
<b>Size</b>	431mm x 158mm x 85mm	
<b>Nominal Air Flow</b>	25 CFH	50 CFH
<b>Maximum Airflow</b>	35 CFH	75 CFH
<b>Arc Life (nominal)</b>	20,000 hours	20,000 hours
<b>Max Ozone Output</b>	12 grams/day	20 grams/day
<b>Ozone Contact Density</b>	.5mg/litre	.5mg/litre
<b>Storage Temperature</b>	-1°C – +70°C	-1°C – +70°C
<b>Operating Temperature</b>	-4°C – +49°C	-4°C – +49°C

## PZ2-1 & 2

### Compressor System for Pools, In-Ground Spas and Commercial Water Purification Systems

The PZ2-1 & 2 are fitted with high output compressors for maximum ozone production. Installation is fast and easy by simple saddle connection to the return line. They feature our patented bypass for optimal ozone absorption and extended system life. A degassing column is available to remove excess air bubbles

### SIZING FOR POOLS & SPAS

	Chlorine	Bromine
<b>PZ2-1 (for Pools)</b>	20,000 gallons (90m <sup>3</sup> )	10,000 gallons (45m <sup>3</sup> )
<b>PZ2-2 (for Pools)</b>	40,000 gallons (180m <sup>3</sup> )	20,000 gallons (90m <sup>3</sup> )
<b>PZ2-1 (for Spas)</b>	800 gallons (3.6m <sup>3</sup> )	400 gallons (1.8m <sup>3</sup> )
<b>PZ2-2 (for Spas)</b>	1600 gallons (7.2m <sup>3</sup> )	800 gallons (3.6m <sup>3</sup> )

### SPECIFICATION

	PZ2-1	PZ2-2
<b>Electrical</b>	230 VAC / 1.5 amps 345 Watts	230 VAC / 2.1 amps 483 Watts
<b>Shipping Weight (approx)</b>	8.3kg	9.5kg
<b>Size</b>	152mm x 228mm x 533mm	
<b>Air Flow</b>	20 CFH or 40 with Bypass Venturi	
<b>Arc Life (nominal)</b>	20,000 hours	20,000 hours
<b>Max Ozone Output</b>	12 grams/day	24 grams/day
<b>Ozone Contact Density</b>	.5mg/litre	1mg/litre
<b>Compressor Life (nominal)</b>	20,000 hours	20,000 hours
<b>Storage Temperature</b>	-1°C – +70°C	-1°C – +70°C
<b>Operating Temperature</b>	+4°C – +57°C	+4°C – +57°C

## PZ2 Series



### PZ2 - Large Commercial Systems

PZ2 units provide superior ozone generation by pressurising the lamp cartridges and superior ozone mass transfer into water from the turbulence created by the compressed air stream. PZ2 units require no operator interface once they are set-up. No recurring maintenance or special skills are required. The PZ2 Series has a hardware warranty for a full one year on residential and commercial systems.

### Custom Engineered For Each Application

The PZ2 Series ozone generators are custom engineered for each application. This allows for a fast and easy installation with a simple coupling connection to the plumbing. All units have pressurised cartridges combined with high airflow compressors to produce maximum ozone output. Systems may be combined to treat any swimming pool systems up to 7,500,000 litres. They are designed for use in the most demanding environments and can withstand heavy impacts. Since the PZ2 Series systems have multiple redundant design, there is no down-time due to cartridge failure.

### SPECIFICATIONS

PZ2	
Electrical	220/240 VAC / 60hz
Universal Solid State Inverter Ballast	110 – 290 VAC
Arc Life (nominal)	20,000 hours
Compressor Life	Nominal: 40,000 hours
Storage Temperature	-15°C – +70°C
Operating Temperature	-4°C – +60°C

### COMMERCIAL SIZING

	Chlorine	Bromine	Maximum Ozone Output Grams per hr
PZ2-4	80,000 Gal (363m <sup>3</sup> )	40,000 Gal (181m <sup>3</sup> )	2 grams per hour
PZ2-8	160,000 Gal (727m <sup>3</sup> )	80,000 Gal (363m <sup>3</sup> )	4 grams per hour
PZ2-12	240,000 Gal (1090m <sup>3</sup> )	160,000 Gal (727m <sup>3</sup> )	6 grams per hour
PZ2-16	320,000 Gal (1454m <sup>3</sup> )	240,000 Gal (1090m <sup>3</sup> )	8 grams per hour
PZ2-24	480,000 Gal (2181m <sup>3</sup> )	320,000 Gal (1454m <sup>3</sup> )	12 grams per hour
PZ2-48	960,000 Gal (4363m <sup>3</sup> )	480,000 Gal (2181m <sup>3</sup> )	24 grams per hour

### DEGASSING COLUMN

The Prozone degassing column removes excess air after the water ozonated to prevent bubbles from entering the pool. The unit consists of a column with an air vent attached to the top. Excess air is removed by using the natural buoyancy of bubbles and a counter flow design that allows for the removal of 99% of injected air. A degassing column can be an optional extra for any PZ2 system.

