



## CHLORINE GENERATORS

### Chlorine Generators for Commercial Pools

The ChlorKing chlorine generators are designed specifically for commercial pools and spas. The systems range in sizes and outputs to suite virtually any commercial pool and spa application.

The ChlorKing systems constantly manufacture sodium hypochlorite (hypochlorous acid) through the patented ChlorKing cell to provide consistent chlorine residual in the pool water, and provide the most enjoyable swimming experience available.

The ChlorKing Chlorine Generators are available to retrofit existing pump rooms or to design into a new swimming pool facility. Systems carry both NSF 50 and UL 1081 certification.

#### Features And Benefits ...

- **Easy to install**  
The ChlorKing systems are mounted onto any wall surface in the pump room, and plumbed into an existing circulation system, without cutting into existing pipes. ChlorKing systems use bypass flow and are not in-line.
- **Easy to use**  
ChlorKing offers the simplest operation available, using the KIS (keep it simple) process. A dial is mounted on the system, similar to a light dimmer at home, and a simple turn of the dial increases, or decreases chlorine production.
- **Wide range of outputs**  
ChlorKing offers systems that produce from 1.5 lb's to 25 lb's of equivalent chlorine per day, in a single cell, the largest available in the market.
- **Reliable performance**  
All components used in the manufacture of the ChlorKing systems are of industrial standard, and designed for 24/7 operation, allowing the ChlorKing systems to operate at maximum output continuously.
- **Models available**

1.5 lb / day	7.5 lb / day
2.5 lb / day	10 lb / day
3.5 lb / day	15 lb / day
5.0 lb / day	25 lb / day
- **ORP inputs**  
All ChlorKing systems have a separate ORP input which allows a regular controller to activate the chlorKing system. This allows pools to keep existing controllers to maintain ORP and PH levels.
- **Bather friendly**  
ChlorKing systems operate with 0.5% salinity in the water, this salinity level is slightly less than human tears and gives the water a "mineral spa" feel.
- **Low Operating Costs**  
ChlorKing systems operate using the salinity in the water to produce hypochlorous acid, which is what is measured as free chlorine on test kits. Because salt is not consumed in this process, the only makeup required is when water is lost due to backwashing or rainfall.





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### **Principle of Operation**

#### *Salt:*

Non-iodized, coarse, sun dried or pelletized salt (normally in 40 lb bags) is initially added to the Pool water to develop a concentration of 0.5% (5000 ppm). This concentration of salt in the water is similar to that of human tears and is therefore very gentle to the swimmers eyes, skin and mucous membranes.

#### *Electricity:*

A small amount of electricity is used by the ChlorKing system during the electrolytic process

#### *The Electrolytic Process:*

Hypochlorous acid is produced when an electrical DC current is passed between the positively charged anode plates and negatively charged cathode plates in the chlorinator cell.

This solution flows, after mixing into the water leaving the filter, directly into the swimming pool. The only by-product, hydrogen gas, which is produced in this process, is naturally dissipated. There is no waste product produced during this process.

#### *Sanitizing effect:*

While the filtration system, which is linked to to the electrical power supply of the chlorination system, is operating, the system will introduce electrolytically produced hypochlorous acid into the swimming pool on a continuous basis. The system does not operate unless the filtration system is operating.

This continuous introduction of hypochlorous acid will ensure the continuous sanitization of the pool water and provide the necessary chlorine residual required. It also provides an environment that reduces the formation of chloramines. When the hypochlorous acid produced by the chlorinator has destroyed the bacteria in the pool, it reverts to salt (sodium chloride). This means that salt is continually regenerated in the process and the only loss of salt is due to backwashing, leaks, or in the case of an outdoor pool, very heavy rainfall. During these occasions it will be necessary to add salt to the pool water to bring the concentration back to the desired level of 5000 ppm.

### **ChlorKing Specifications**

#### *Dimensions:*

##### *Mounting board:*

36"W x 16"H - horizontal  
16"W x 42"H - vertical

#### *Power requirements:*

110V, 8 - 12 amps on 1.5, 2.5 & 5.0 models  
220V, 6 - 30 amps on 3.5 - 25 models

#### *Power Enclosures:*

NEMA 3R (suitable for indoor and outdoor Installation)

#### *Reverse Polarity:*

Self cleaning timer default set at 3 hours.

#### *Control:*

Chlorine production available from 1 - 100% to ensure continuous sanitization levels.

#### *Flow Requirements:*

20 - 30 gpm at 30 psi max.

### **Cell Specifications**

#### *Plates:*

Titanium coated with ruthenium dioxide.

#### *Cell Housing:*

Combination PVC schedule 40 & 80.

#### *Operating temperature:*

59-104 °F

#### *Water Chemistry requirements:*

PH: 7.2 - 7.6 (7.3 ideal)  
Alkalinity: 80 - 120  
Hardness: 180 - 250 ppm  
Stabilizer: 30 - 80 ppm  
Salt: 4000 - 6000 ppm

### **Your Authorized ChlorKing Dealer**

