

## Environmentally Friendly on-site Chlorine Generators

ChlorKing® on-site sodium hypochlorite generators are designed specifically for commercial swimming pool applications. They are available in a wide range of sizes and output to suite any pool.

The **X-GEN** systems constantly manufacture dilute sodium hypochlorite from a brine concentration of 0.5% using single or multiples of the patented ChlorKing® cell stacks.

The unique design, simplicity and ease of use makes it the most viable alternative to all traditional forms of chlorine available on the market today, and with ChlorKing's financing options, (pay by the pound or equipment lease) it's more affordable than ever.

### Features And Benefits ...

- **Easy to install**

**X-GEN** systems comprise of a power supply, brine tank, and hypochlorite generation tank. All components are easily installed in any application for use in both indoor and outdoor pools.

ChlorKing® offers the simplest operation available, using the KIS (keep it simple) principle. The prudent use of dosing pumps, and water jet vacuum eductors, in various configurations, makes the ChlorKing® range of **X-GEN** systems the most user friendly on the market. Because the pool water is recalculated through the **X-GEN** production tank, the salt that has been added during the production process is re-used and the pool will never exceed our set point. This unique process makes the **X-GEN** system perfect for any application.

- **Models available**

20 lbs / day  
40 lbs / day



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- **Construction**

This rugged design using FRP, polycarbonate, polyethylene, and schedule 80 piping is perfect for applications where corrosion is typically an issue. Power components are mounted on the pump room wall and are all water cooled for premium performance. An easily removable electrode stack with quick disconnect leads ensures that routine maintenance is as simple as possible.

- **Reliable performance**

All components used in the manufacture of the ChlorKing **X-GEN** systems are designed for intermittent or 24/7 operation, allowing for continuous operation at maximum output. Regular pool ORP / pH controllers have the ability to turn production in the **X-GEN** tank "on" or "off" as required.

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- **Maintenance**

X-GEN systems generate dilute hypochlorite using DC power applied to anode and cathode plates in the electrode stack. Intermittent manual dilute acid cleaning of the cathode plates in the electrode stack / stacks is required to remove any calcium buildup. Frequency of this cleaning will depend on the calcium hardness level in the water and can range from weekly to monthly. Each cleaning will take about 10 minutes.

- **Low Operating Costs**

ChlorKing® **X-GEN** systems operate using a saturated brine solution that is fed to the production tank. Two to three lbs of salt is required to produce 1 lb of equivalent chlorine as a dilute solution of sodium hypochlorite. As salt is an inexpensive commodity and the only additional cost associated with production is electricity, operating costs are low, and return on investment is very attractive.

## Principle of operation ...

- **Salt**

As a raw material non-iodized, coarse, sun dried or pelletized salt is added to the brine saturator tank. Saturated brine from this tank is then fed into the production tank where it is converted into 2,500ppm of sodium hypochlorite using ChlorKing's patented cell.

- **Electricity**

As the other raw material, electricity is used in the ChlorKing electrolytic process for the conversion of raw salt directly to a 2,500ppm solution of sodium hypochlorite

- **The Electrolytic Process**

Sodium hypochlorite is produced when DC current is passed between the positively charged anode plates and negatively charged cathode plates of the **X-GEN** cell stack. The 2,500ppm sodium hypochlorite solution is then fed, via a dosing pump, or vacuum educator, to the user. The only by-product, hydrogen gas, which is co-produced in

the process, is naturally, or using a dilution extraction system, dissipated into the atmosphere. There is no waste product produced during the process.

## Advantages ...

- **Why Produce Chlorine On-Site?**

The transportation and storage of bulk chlorine has become an ever increasing problem, and many authorities, both Federal and local are seeking safer solutions. On-site production of chlorine as a solution of sodium hypochlorite alleviates those unnecessary risks, and puts an end to the ongoing supply problems. The sole raw material, salt, is an inert, safe compound that is readily available, and safe to transport and store.

## The easily removable ChlorKing® cell



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