

FACT SHEET 6: SALT CHLORINATORS

PEOPLE ASSUME SWIMMING IN A SALT CHLORINATED POOL MUST BE LIKE SWIMMING IN THE SEA, BUT IT'S QUITE DIFFERENT.

Salt chlorination is a complex process that sanitises the pool with chlorine generated by electrolysis.

Electrolysis is achieved by passing a mild saline solution through an electrolytic cell. This converts sodium chloride gas by dissolving it in water to become sodium hypochlorite (liquid chlorine). So the pool actually produces its own chlorine to sanitise itself.

THE CELL

A clear plastic case houses electrodes - one anode, and one cathode - made of or coated with exotic metals like platinum, titanium and iridium. The cell and electrodes may differ in size and configuration depending on the brand, but the principles remain the same.

CONTROLS

Most chlorinators come with controls to regulate the amount of chlorine produced and are fitted with a gauge to show the set level.

Some units come with time clocks and in-built facilities for pool lights, and other options.

SELECTING A SUITABLE UNIT

The right salt chlorinator for your needs will not only depend on the size of the pool or spa. Larger pools do need larger chlorinators but the bathing load also has an impact - high usage consumes more chlorine.

The size of the filtration system is also a factor. Poor water flow will require longer running time. And in summer, high water

temperatures and strong sunlight reduces the available chlorine.

HOW MUCH SALT?

The amount of salt needed varies depending on the type of chlorinator.

Most models require only weak salt solutions of between 0.3% to 0.7% (3000 ppm to 7000ppm) to effectively chlorinate a pool.

These levels are between one fifth to one tenth the level of salt in sea water.

Follow the manufacturer's recommendations strictly to avoid damage to the chlorinator and to insure adequate chlorine production.

Replacement salt is only required to replace normal consumption, and loss from filter backwashing, splashout and any overflow due to rainfall.

MAINTENANCE

There are maintenance free cells available. Other cells will require periodic cleaning to remove the calcium deposits that build up on the electrodes during electrolysis. Again, follow manufacturer's instructions strictly to avoid damage to the assembly.

OTHER CHEMICALS

Salt chlorinated pools need to achieve the same chemical balance as traditionally chlorinated pools.

Total Alkalinity, pH, Calcium Hardness and chlorine levels should be checked regularly.

Chlorine stabiliser (isocyanuric acid) should be added to the pool and maintained at

approximately 30-50ppm, to reduce chlorine loss due to UV rays.

During periods of high pool usage it may be necessary to manually supplement with sodium hypochlorite (liquid chlorine) to maintain correct chlorine levels, and regular superchlorination or shock dosing should be carried out.

As with all chemical issues, check with your Spasa Accredited Pool Shop for expert guidance.

