

How the **microtech-aligator** Swimming Pool Ionisation System saves 75% of Chlorine costs

Chlorine is extensively used to kill algae and bacteria to provide a safe swimming environment. The typical concentration of chlorine to achieve this is 3ppm or 3 parts of chlorine to 1 million parts of water.

The Aligator System uses an ionisation process to generate metallic ions of copper, silver and zinc into the water. The positively charged ions are attracted to and subsequently kill the algae and bacteria. The particles remain positively charged and flocculate together to be removed from the pool water by the filter. The presence of the low level of copper, silver and zinc ions in the pool water maintains a continuous background level of sanitation to prevent the formation of e-coli, bacteria etc, without adding any toxicity to the water.

A low level of 1 ppm free chlorine is still required, in accordance with the recommendations of the PWTAG (Pool Water Treatment Advisory Group), to take care of water clarity and to deal with sweat, urine, suntan oil, body oil, make-up and organic matter such as leaf debris.

Therefore, by using the Aligator System, the free chlorine can be reduced from 3 ppm down to 1ppm and the saving will be 2ppm, this is equivalent to 67% of 3ppm.

The percentage savings are directly equivalent to financial savings in the cost of chlorine.

The graph (right) shows the direct relationship between reducing the chlorine level and the percentage savings in chlorine cost. By reducing the chlorine level from 3ppm to 1ppm the saving achieved, as read from the horizontal axis is 67%.

One of the most important benefits of the Aligator system is that the disinfection provided by the copper and silver ions is residual and remains in the pool. Unlike the chlorine it does not evaporate in sunlight and is not affected by short term power cuts. In addition to the chlorine cost savings of 67% by reducing the chlorine from 3ppm to 1ppm, further chemical cost savings may be made because the silver and copper ions produced by the Aligator system removes the need for additional flocculents, water clarifiers and algaecides. The exact savings related to these chemicals will depend on the individual pool size and usage, but using the Aligator system removes the need for these additional, often expensive chemicals.

