



SWIMMING POOLS & SPAS

From Olympic Sized Pools to Residential Pools and Spas, HydroFLOW Technology offers a range of benefits.

It kills Bacteria and Algae without the use of chemical disinfectants, improves the performance of chlorine and reduces the

amount required, prevents limescale buildup, improves water clarity and the overall filtration system.





HydroFLOW Water Conditioner

- Kills bacteria and algae, reducing chlorine usage by over 60%
- Reduces level of chloramines which minimizes "Pool Smell"
- Dissolves limescale and prevents build-up of new limescale
- Removes scum lines
- Improves water quality and clarity
- Reduces the duration and frequency of backwashing
- Reduces amount of acid for pH control
- Eliminates the need for flocculants
- Lowers energy consumption
- Reduces maintenance costs
- Non-intrusive to the system_

Bacteria and Algae

HydroFLOW Technology kills bacteria and algae without the use of chemical disinfectants, making pools safer and more enjoyable. The bacteria and algae are killed by using "pure water". If a bacteria is dropped into distilled water that contains no salt at all then water is forced into the bacteria from the outside. This is due to the process called "osmosis" – water moves from an area of low salt concentration (outside the bacteria) to an area of high salt concentration (inside the bacteria).



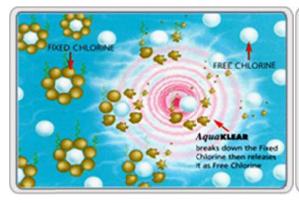
This causes the bacteria to swell and eventually burst. HydroFLOW exploits this effect to kill the bacteria in the pool. The HydroFLOW signal causes the bacteria to become electrically charged. The bacteria then attract a layer of "pure water", containing no salt at all. The water from this layer is forced into the bacteria due to osmosis and the bacteria are killed.

Reduction in Chlorine and "POOL SMELL"

All pools need a method of combating bacteria and algae. The usual treatment is to add chlorine to the water, which acts as a disinfectant. However its' effectiveness is reduced when it combines with various organic chemicals such as urea (found in sweat and other substances). When combined with these, chlorine forms chemicals called chloramines, generally referred to as fixed chlorine. Not only are chloramines a less effective disinfectant but free chlorine must be added constantly to the pool as it is continually being converted to chloramines. Chloramines also create the characteristic "chlorine smell" or "swimming pool smell" as well as causes the painful "red eye" effect.

Breaking down chloramines back into free chlorine creates a stronger disinfectant and reduces the "pool smell".

One method commonly utilized is the "Shock Treatment", adding a large doze of chlorine and more expense. HydroFLOW Technology produces a signal that applies an electric field to the chloramines molecules pulling them apart, releasing the chloramines and converting them back to free chlorine. It eliminates the need for shock treatment, reduces the amount of chlorine that needs to be added and reduces the "swimming pool" smell.





Protection Against Limescale

Limescale occurs when minerals dissolved in water get deposited on the surfaces of heaters, pipes and other areas as hard mass. It reduces the effectiveness of heaters and can damage them. It can also block pipes and valves, reduce water flow and

impede the valves' function. Removing limescale is a time consuming, expensive task and may involve acid treatment.

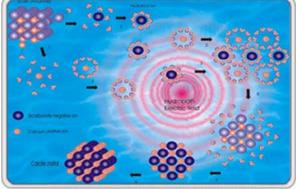
HydroFLOW technology prevents limescale without the use of chemicals by encouraging the minerals to form into tiny

clusters in the water rather than form clusters on the surfaces. These tiny crystals are washed away by the water flow and

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removed by the filter.





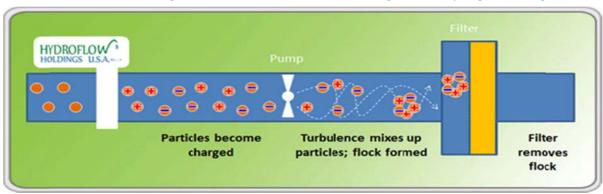


Water Clarity

As the small suspended particles get removed from the water you will notice an improvement in clarity. This can be seen if you have an underwater light. The light will no longer show a beam effect indicating, that the water has become cleaner.

Improved Filtration

Filters remove small suspended particles from the water. However the smaller the particle, the harder it is for the filter to remove it. HydroFLOW Technology works by applying an electric charge to the small particles so that they stick together to form large clumps (process is called flocculation). These larger clumps are then more easily removed by the filter. Also, the larger clumps do not penetrate deeply into the filter so the filter is easier to clean. Some domestic pools will use a chemical such as alum to perform this job. Not only is HydroFLOW technology able to flocculate without adding chemicals but the flocks are stringer and stay together longer.



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Zymetec Hydro Technology Co.,ltd

ตัวแทนจำหน่ายอย่างเป็นทางการในประเทศไทย
2388 Ek-kachai 109 Rd. Bangbon Bangkok 10150
Tel:+66 (02)4506038,092 539 4945,084 432 6778
E-mail:water@zymetec-th.com
www.hydroflow-th.com
www.zymetec.com