



Pool Issues

By Mike Bryson, December 2006

More and more I am asked the question, "what is the best alternative to using gas chlorine for sanitizing my pool water".

The truth is that there are more and more choices available to us than ever before. Long gone are the days where the only sanitizer available to us was gas chlorine. There is Salt Generator systems, Ozone systems, UV systems, erosion feeders, liquid injectors, enhanced filtration systems that use flocculants and coagulants and the list grows every year.

The confusing thing for us as operators and managers is what is the best system out there for my pool?

Unfortunately there isn't an easy answer for this question. Every building is different with different components and systems in place. The trick is to find what combination will work the best for your needs while not driving your budget into the black.

The very best people to talk to are some of the associates we have here on our website. There are some excellent companies there that will give you expert advice and help guide you through those hard decisions. Of course it always helps to get second and third opinions. One of the best networks we have as members of this association is by using the "Bull Pen" on our website. Its amazing how quickly you can get answers to any of your questions. I can guarantee that if you have a problem in your pool that there is someone else in the province that has gone through it as well.

If you are in the process of making changes to your pool operation I'd like to put down some information on different systems available to you and give you a **basic** idea of how they work.

Chlorine products:

These include all types of packaged chlorine. Gas chlorine is mixed into the water and pumped into the pool and dry chlorine is dissolved in water and added through an injection system.

Salt Generation System:

The Salt system has come a long way from when it first started being used several years ago. The cells are larger and a lot more efficient. The system works by turning your pool into a salt water one. The ppm of the water should be approxamitly 3000. The salt water is pumped through the electrically charged cells that cause the salt to break down and create sodium hypochlorite.

UV System:

UV energy is a broad spectrum of wave lengths below visible light. Within the UV range exists a range that is termed germicidal. This energy forms a bond in the DNA/RNA of pathogens, effectively killing them.

Ozone systems was first manually generated in 1857 and used for water treatment in 1895 in Oodshorn, Holland. Ozone is an atomic modification of oxygen, typically 1½ times heavier than

air currently the most powerful oxidizing agent for water. Ozone has a 99.9% kill rate on bacteria and is 3000x faster than chlorine. Destroys by 'cell lysing' - rupturing the membrane aids in filtration by neutralizing polarity of particles. pH adjustments minimal

Erosion feeders:

Many products such as solid chlorine compounds are added through the use of an erosion feeder. Two types:

- flow through, where the product is immersed in the vessel;
- spray type, where the product is sprayed to erode it.

Enhanced filtration

For years we have used DE and sand as filter Medias. They have worked well but there continues to be more and more improvements made all the time to help us filter our water that much better. European countries lead the industry in this area. They don't have the luxury of abundant water like we do here in Canada so they have to be careful how they filter their water. One system that has been showing up in Canada recently is the Deep bed multi level filter. Deep bed multi layer filters allow us to have various layers of sand and gravel which improves the backwash as well allows less water to be used for backwash. Greater free board for contact with flocculants and coagulation. If we clean the water more efficiently by filtration then we need less chemicals to sanitize it.

As you can see there are several different ways of keeping your water clean. The goal is always to make sure the water we maintain is safe for our patrons.