FILTER COMPARISON
SAND FILTERS & CARTRIDGE FILTERS

Comparing Sand Filters and Cartridge Filters

Proper filtration is imperative to the good health of your pool water and subsequently those using the pool. The filter's purpose is to collect the fine particles of waste from the pool water assisting to keep it crystal clear and healthy for you to use.

The three common denominators which determine the quality of your pool water are Sanitation, circulation and filtration. If any of these factors are off then your pool water will become non optimal and require immediate attention to avoid more serious problems occurring which can be time consuming and potentially expensive.

Sand filters have been used for swimming pools for many years and have proven to be an economical and easy solution to filtering a large pool area using the force of the pump to push the water through the filter. They generally trap between 20 – 100 microns in terms of pool water debris using a common 45-55 mm silica sand. These types of filters usually cost less to purchase, are easy to install and use, as well as maintain. Backwash weekly when using a sand filter to be sure it is working to its optimum capacity. Always size the sand filter to accommodate larger bather loads. This type of filtration system is best suited to people who do not want to pay a lot of attention to the pool or who are away from their pools a fair bit as the system will easily work if the pool has been sitting for a period of time.

The down side to owning a sand filter is they are not as effective with a low powered pump producing less gallons per minute (GPM) as they require sufficient force to properly circulate the water through the sand. If the top few inches of the sand filter is not removed and replaced annually and the remaining sand not cleaned using a biguanide cleaner the potential for the sand to clump due to organic waste collecting in it and calcification increases which can lead to poor water balance which can further lead to poor health and pool issues. When pool sand deteriorates due to accumulated pool waste and seasons of backwash the quartz edge on the sand becomes warn down and is no longer effective in being able to grab the microns of debris from your pool water. The entire sand filter should be completely refilled with new sand about every seven years. Sand filters are generally compact, affordable, easy to install and user friendly but can also waste water and chemicals in the backwash process and depending on the municipality create an additional cost in waste water going into the city drainage

systems.

Cartridge filters have entered the marketplace with a fair level of success and are becoming increasingly more popular not simply because of their efficiency in helping to keep the pool water absolutely crystal clear but they also save on the cost of electricity, water and chemicals since there is no need to back wash when using them. Able to collect 10 – 15 microns from the water means they are at least twice as efficient than a sand filter. Cartridge filter systems are also quite simple to install and maintain taking up little room on the equipment pad. The cartridges themselves last between 2-3 years depending on use and care. They are fairly easy to clean as well. Simply remove the cylinder from the unit and rinse well with the garden hose and re-insert into the unit (You can also use a degreasing agent or cartridge cleaning solution to assist in removing build up). Cleaning a cartridge filter is much less messy than cleaning a sand filter. This type of filtration is also desirable when using a low powered pump which produces less GPM.

Cartridge filter systems are best suited to the more equipment conscious pool owner who is present enough to check the system regularly to ensure the filter is not clogged with debris. If the cartridge is left unattended and becomes clogged the potential to burn out the motor on your pool pump increases along with possible water issues which can be expensive to treat. Although these filters cost more to own the quality of the pool water will be noticeably clearer. This is ideal for pool owners who have invested in expensive lighting for a beautiful evening swimming environment and will make the pool water appear extremely clear through the light beams as they stream across your pool. Sand filters generally will not provide that much clarity in the water and as a result tiny particles can be seen at night when the lights are in use. Cartridge filters may become the industry standard in the future as water waste costs increase provincially and sand filters become too expensive to operate as such because of the backwash action which is required. Cartridge filter systems take up less room on an equipment pad than a sand filter, are considerably easier to maintain and produce higher quality pool filtration overall.

Whichever system you choose should depend on how much attention and time you have to pay to your equipment, how clear you wish your water to be, the water and electricity costs to run your pump and backwash into the city system and finally how much you wish to spend on the purchase of the actual unit.