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Acqua Nita Services, Inc.

October 06 Volume 3, Issue 3

Is Your Pool Filter the Right Size?

Pool filters come in several brands, types and sizes. The choice of filter really depends on the individual pool, its size, usage and location. The first step is to select a filter type. The best type of filter depends on the usage of the pool as well as the preferences of the pool owner/operator. The next step is to determine the size of filter that is needed for the pool. Once you have chosen the right type of filter for your pool, it is important to get it sized properly. It must be sized to match the pump which in turn must match the circulation needs of the pool. If the filter is undersized, it will fill up quickly and also can be damaged by the

The goal of your swimming pool filtration system is to turnover all of the water in your swimming pool in 8 to 12 hours.

force of the pump. On-site analysis must be done to insure that the filter matches up properly with the pump and the pool. For instance, if the plumbing runs on the equipment

are particularly long, then the resistance to flow in the piping will be greater and intake lines may need to be larger. It is always better to oversize the filter. With an oversized filter, the water flows

Square Footage of Filter for Different Pump Sizes

Pump Size (HP)	Flow Rate (GPM)	Sand Filter	DE Filter	Cartridge Filter
3/4	40	2.7	24	100
1.0	50	3.4	36	150-200
1.5	65	4.3	48	300
2.0	87	5.8	60	400

Maximum Flow Rate Through Filter Media (flow per sq ft)

Filter Type	Sand Filter	DE Filter	Cartridge
Max Flow Rate	15 GPM/sq ft	2.0 GPM/sq ft	0.25 GPM/sq ft

through the filter media at a slower velocity and

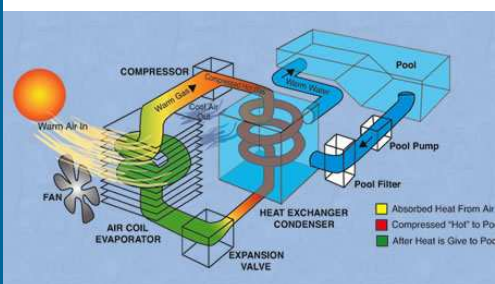
Pool Heating Systems

There are several different types of swimming pool heaters available today for every size in-ground pool or above ground swimming pool. The most common swimming pool heaters burn propane or natural gas to heat the water, and all follow the same basic design. Two other types of swimming pool heaters are Heat Pumps and solar heating systems. The heat pumps and solar heating system have been in use for many years in warmer states, and are quickly gaining popularity throughout the rest of the country.

Gas pool heaters

Today the most popular method of heating pools is the gas-fired pool heater. Heaters are built for either natural gas or propane. Gas swimming pool heaters might burn propane or natural gas to warm swimming pool water, and some manufacturers can provide an oil-burning model, which is very similar in construction. A gas pool heater consists of a series of finned copper tubes running back and forth above a burner tray. Gas is ignited on the burner tray to warm the copper tubing, and water from the filtration system is passed through. The pool water absorbs heat as it travels through the heated copper plumbing inside the pool heater, and then returns to the swimming pool. Plumbing installation for a gas swimming pool heater is very simple. There are only two connections, one is clean water from the pool filter entering the heater and the other is heated water coming out of the heater to return to the pool. Gas swimming pool heaters are a great source of quick, controlled heat for your pool, however the installation of the gas supply to the heater & the gas that your pool heater burns can be costly.

Heat pumps are initially more costly than gas heaters to purchase the equipment, but there are virtually no installation costs involved. Pool heat pumps use the same simple plumbing in and out, and are wired into your existing pool pump electrical



system or plug directly into a standard electrical outlet. A Heat Pump runs on electricity very efficiently, making

the operating costs of a pool heat pump much less than the cost to heat your pool with gas.

A heat pump does not directly use electricity to heat the pool water. A Heat Pump uses the same basic principals as an air conditioner, however it works backwards from a standard air conditioner. Rather than drawing the cold from the outside air the way an air conditioner does, a heat pump draws warmth from the outside air to warm the pool water. This makes a heat pump a cost effective alternative to gas heaters for warmer

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Continued on page 2 (Heaters)



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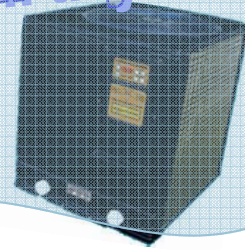
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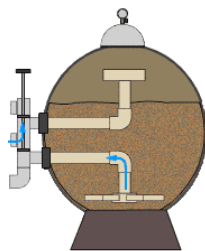
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that results in finer filtration and longer filter cycles.

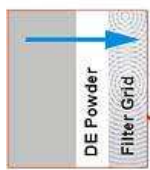


Sand Filter

The chart below identifies the filter size that best matches the pump horse powers:

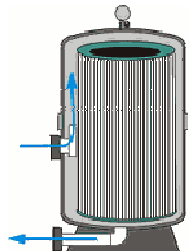
Now with that background, which filter is best?

I often get asked this question. There is only one correct answer to that question: There really isn't a best.



DE Filter

There are many factors to take into consideration. One of the top three are usage, size and preference.



Cartridge Filter

Heaters (Continued from Page 1)

areas of the country. A heat pump is not suggested for colder parts of the country because they are only effective when the outside air temperature is above 45 degrees.

Solar heating systems are by far the most cost effective and environmentally friendly method of heating swimming pool water. A solar pool heater system consists of large black panels, with a series of small tubes running back and forth on the face of the panel. The black panels heat up quickly in direct sunlight, and pool water absorbs heat as it passes through the plumbing on the face of the solar panels. A Solar Heating System is very easy to install and there are virtually no operating costs. You receive free heated water from the sun!

The disadvantage of pool solar heating panels is that they are very large. Most pool solar heating panels measure 4 ft. X 20 ft., and a general rule for sizing a pool solar heater system is that the surface area of the solar panels must equal at least half the surface area of the swimming pool. Solar panels must be placed as low to the ground & as close to the pool equipment as possible. As the heated water travels back to the pool, heat is lost through the plumbing so you want the smallest run of pipe possible. Because so many of the large panels are required, it is hard for most pool owners to find a place to install them. Most inground pool owners choose to mount their solar panels on the roof of their house or other structure near the pool. Unfortunately a second pool pump is usually required to provide enough pressure to push pool water up to solar panels installed on a roof.

For a detailed report on your pools heating needs call Acqua Nita Services at 954-224-7733.