

# **Beginners Guide to Pool Ownership**

If you have just taken over a swimming pool and are not sure how to maintain it then this beginner's quide is for you. If you have had a pool before you may also find this quide useful.

There are several types of in-ground pool, but the most popular are a liner pool and a concrete pool. Concrete pools can be made of solid concrete or have block work walls on a concrete floor. Liner pools have a vinyl waterproof lining.

## Here is a list of things your pool should have:

A sump or main drain to draw water from low down in the pool

Skimmers (one, two or maybe more) to draw water off the surface with a basket inside to trap floating debris.

Inlets where the filtered water enters back into the pool

## In the plant room you should have:

A pump

A filter

A Chlorinator

Various shut off valves.

And somewhere in the system a heater

#### Various Items:

As well as this you should have the following pool equipment
Winter Debris Cover
Solar (bubble) Cover
Flexible vacuum hose
Vacuum head
A telescopic pole
A leaf net
Something for attaching your vacuum hose to the skimmer outlet

A testing kit for your chemical levels

(Optional) An automatic pool cleaner

## Your collection of chemicals should include:

Stabilised Chlorine Un-stabilised (Shock) Chlorine Dry Acid (and/or Soda Ash) Algaecide Flocculant



## **Water Quality:**

Never drain your pool unless under the guidance of a swimming pool expert. The ground pressure on the outside of the pool is equalised by the pressure of the water on the inside. If the inside pressure is removed the sides of the pool could collapse.

The sump draws water from the bottom of the pool and the skimmer sucks water from the surface of the pool dragging with it any floating debris which is then retained in the skimmer basket. The ideal water level is about half way up the opening of the skimmer. The Skimmer is also where you attach things that require suction such as your vacuum hose or an automatic pool cleaner. Typically you will have a sort of clear plastic dome that replaces the 'hat' of the skimmer basket to which is attached your hose. A better way to get suction is to screw an adaptor to the outlet of the skimmer and push your hose on to that. But the latter method involves getting most of your arm wet.

About a foot or so under the water line will be the inlets for the water returning from the pump. These should have a female screw fitting on them for fixing pool cleaners that work on return flow. They may have an 'eye' fitting screwed in to increase the speed at which the water flows in to help circulation.

Between the inlets, the sump and the skimmer good circulation should be achieved to keep all areas of the water moving to the filter.

## The Pipes:

Pipes, usually of 1.5 inch (40mm) diameter go from the sump and skimmers to your pool room. Here they should have a shut off valve on each pipe. If you have more than one skimmer they will probably have joined up to just one pipe by now. You can shut off the either or both of the pipes if you need to. Next should be the pump.

## The Pump:

Most pumps have a little bowl attached before the pump itself. In the bowl is another basket to sieve out any debris that could damage the pump. This is sealed off by a lid, usually transparent so you can watch the flow and the debris. The pump is just an electric motor that spins a sort of propeller which draws the water out of the pipes. Pumps can be temperamental little blighters. In order to get going they must be 'primed'. This means that they must have some water in them to start off with. To prime the pump firstly switch the shut off valves on both pipes to the closed position. Then fill up the bowl with water to the top. Put the lid back on and switch the pump on and as quickly as possible turn the valve from the sump on. The water that was in the bowl disappears and creates a vacuum and (hopefully) the water in the sump pipe starts on its way to the pump. Wait about two minutes and if no water at all has appeared then in swift motion turn off the valve and then the pump. Any water that may have been sucked up should stay in the pipes. Re-prime the pump and follow the instructions above again. It may take 4 or 5 attempts. If you have some flow, even a trickle, be patient the water is coming. When you have full bore flow you can turn the skimmer valve on. The pump will go dry for a short time while the air in the skimmer pipes is sucked out then the flow should return. It is not a good idea to let the pump go too long with no water in it. The water helps to cool the pumps workings and without water it can be damaged. Never take the strainer basket out and keep it nice and clean. Debris in the pump is very damaging and too much debris in the skimmer puts too much pressure on the pump.



Generally you should keep the pump going for about 8hrs per day. If you have cheap electricity at night then that is the time to have it on. However, if your heater is a heat pump then it's not a bad idea to have the pump and heater on all the time with the thermostat set on the heat pump to click in and out as needed.

#### The Filter:

From the pump the water goes to your filter. The typical filter is a big fibre glass bubble filled with sand with a glass top. There should be a pressure gauge and on the side or maybe the top of the filter is a Multi-Port Valve. This valve directs the water in any one of six directions. It is usually set to 'Filter'. This directs the water to the top of the filter where is is pumped under pressure down through the sand in the filter. The sand is nothing special just a course sand with a uniform grain size. Any dirt and foreign bodies in the water are trapped between the grains of sand. Every week you should 'backwash' your filter to clear out the dirt from between the sand grains. To backwash firstly switch off your pump and turn the multiport valve to 'Backwash'. Now switch the pump back on. Never turn your multiport valve when the water is flowing. The water is now directed to the bottom of the sand and bubbles upwards through the sand loosening it and picking up the dirt. Leave it backwashing for 2 to 3 minutes. Keep an eye on the glass top of the filter and you will see a grey or greenish muck being washed out through the waste outlet. Switch off the pump and set the multiport valve to 'Rinse' switch on and rinse for about 10 seconds. This sends the water back the right way, down through the sand but out to waste. If you don't clean the filter the sand will fill up with dirt and the pump will find it harder to pump the water through and the pressure on the gauge will go up. Look at the pressure gauge frequently if you see a rise in the pressure then backwash. If you don't you could damage your pump.

#### More about the filter:

Although the gap between sand particles is very small and the sand picks up most of the dirt in your pool dead algae are very small and can dodge between the sand grains and back into the pool. This is why we sometimes have to help the filter out with a filter aid. The most common, and most effective, is the good old floc tablet or sparkle tab. The tablet goes in your skimmer, dissolves and then settles on your filter sand forming a layer on the top. It catches the dead algae on the way past and keeps them until you backwash. It is important not to leave the floc layer in too long or the pressure can build up and burst through the layer and all the algae go back in the pool. Always backwash at least every 48 hours after putting floc tabs in. Many people think that if they can't get the green colour out of their pool it must be that the filter is not working properly. They often think they need new filter sand because theirs is worn out. This is highly unlikely. However, if you mention it to most local pool retailers they will agree with you and hasten on round and put new sand in your filter and charge you lots of money. If you can't get the green colour out of your pool 99 times out of 100 it is because you haven't killed the algae and as fast as you are filtering them out they are multiplying in your pool. They must be dead before you filter them.

#### The Heater:

Next in line for the filtered water is the heater. There are many types of heater and each has its own way of heating and problems that come with it. A brief description of the main types follows.

The gas and oil heaters work by burning the fuel to heat the water as it passes through special pipes in the unit. Electric heaters work by passing the water over a heating element not unlike a kettle. Heat Pumps are refrigerators in reverse they use a relatively small amount of electricity to compress a gas which then expands and draws heat from the air to heat the water. They are an efficient way to heat

water but they work best when you don't need them i.e. when it is hot and most inefficiently when you need them most i.e. when it is cold. The same applies to solar heating which mostly consists of small bore black rubber piping that soaks up the heat from the sun. As always there is a trade off to be had with heaters. The heat pumps cost the most up front but are cheap to run when its warm, the gas and oil heaters are cheaper but more expensive to run, they are best in cold weather though. Electric are the cheapest to install but most costly for heat. Solar is cheap always round but only work well when the sun is out.

Please check out our other guides for more help and advice for your swimming pool or spa or if you have any questions then feel free to contact us.



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