

How Swimming Pool Pumps Work



This page describes the various parts and the operation of a pump.

The first time you look at a pool pump, it looks like a big unfamiliar thing that makes you a little apprehensive. The purpose of this page is to help you to become familiar with the basic parts of your pool pump (and their names) and understand how your pool pump works.

Pool Pump Parts

There are several basic components to every swimming pool pump

- **The pump pot** - this is where the water enters the pump. It also holds the pump basket.
- **The pump basket** - this is the basket that traps the leaves that come into the pump, so that they do not clog the impeller.
- **The pump lid** - this is the lid that you take off so you can empty the pump basket periodically.
- **The pump housing** - this is the place where the pumping actually takes place. The impeller is found inside this housing.
- **The impeller** - this is sort of like a fan blade. Water enters through the center of the impeller and is "slung" outward by the spinning action.
- **The diffuser** - this small but important item funnels the water into the center of the impeller and then diffuses it outwards.
- **The motor** - this is the electric motor that turns the impeller.

Pool Pump Operation

As the impeller spins, it sucks water through the piping on the front of the pump, into the pump pot, through the basket and into the impeller. The water is then forced outward from the impeller, through the diffuser and out the top of the pump.

Once the pump is fully primed, you should see little or no air in the pump pot. If the pump will not fully prime or has a lot of air in the pump pot during normal operation, please refer to our section on [common pool pump problems](#).