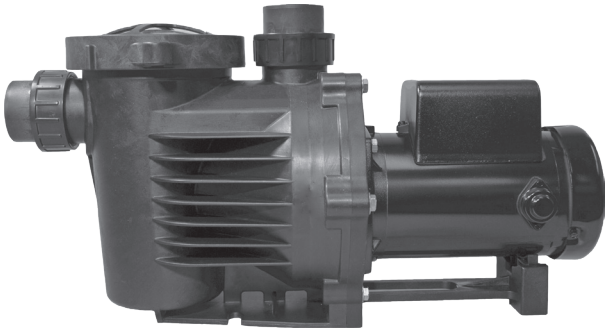
SELF-PRIMING EXTERNAL PUMPS

Understanding Priming & Pump Operation

for EXP4000, EXP5500, EXP6500, EXP7500, EXP6500HP, EXP9500HP

Proper start up and operation of your EasyPro EXP Series Self-Priming External Pump will help ensure years of trouble free service.



THE BASICS

Your pump is powered by an electric motor that directly affects your water flow rate. When the electric motor is turned on it utilizes centrifugal force to generate velocity of the water. The water then flows into the strainer pot from the water source, filtering out debris.

Water continues its flow into the eye of the impeller where the water meets the impeller vanes and converts kinetic energy into static pressure allowing the pump to maintain pressure and is then forced out of the pumps discharge port resulting in continuous water flow for your waterscape oasis.

THE PRIME

The EXP Series pump is considered a "true" self-priming pump. This means it is designed to prime and operate at varying heights up to 9 feet above the water source surface as well as varying horizontal lengths.

It is important to note that operating at maximum suction lift height may negatively affect the pumps overall performance. If, after starting the pump, you notice it takes more than three (3) minutes for water to start flowing into the priming pot after being filled with water and energized, it is recommended to install a rubber flapper type swing check valve.

The valve should be as low and as close to your source water as possible to maintain constant pressure and shorten prime time. The best location can even be underwater when possible as this can provide an air tight fit even without PVC adhesive.

Some swing check valves have true union connection fittings that offer easier access for cleaning when needed.

Never use a spring loaded check valve as it will reduce or stop flow.

WITH VALVE

*What to expect for priming cycle **with** swing check valve installed.*

Essentially, when utilizing a properly installed swing check valve the priming process is less time consuming and is more efficient. When installing a swing check valve, be sure your connections are properly seated and air tight. Then, simply fill the priming pot with water until the intake plumbing and priming pot are full. Replace the lid, securing tightly and turn on your pump.

With the swing check valve in place your pump is fully primed from the beginning. However, if after running your pump you observe the water level in the strainer pot decreasing continuously, this indicates there is either a blockage limiting the flow or a union fitting, connection on the intake pipe or lid that is not airtight. Check all connections for debris, crimping, or cracking and re-tighten or replace parts as needed.

WITHOUT VALVE

*What to expect for priming cycle **without** a swing check valve installed.*

In installation applications where the pump and plumbing are above the water level and no swing check valve is installed, the priming process will work as listed in the installation instructions. In this application the internal pressure in the pipe drops below outside barometric pressure which allows this pressure to slowly push water toward the pump. This slow push results in a longer priming cycle.
It is important to note that the incoming water flow may initially be very little or non-existent for the first few minutes. If three minutes pass with no water flowing into the priming pot, the pump should be shut off, connections rechecked, water refilled and system restarted.

With a valve or without a valve, the time it takes for your pump to complete the prime cycle is based on a variety of factors including pipe type, diameter, suction lift height, horizontal distance, motor speed and horsepower. The entire cycle can range from one to fifteen minutes to complete; however, as noted above, you should see water flowing into the pump within three minutes or less.

For system specific assessments including suction lift and friction loss guidance and operating questions, please call 800-448-3873 or email info@easypro.com.

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