

PUMP PRIMING

It is very important that the pump, foot valve, and pump intake hose be completely filled with water, or "primed", prior to starting the engine. Dry running will not harm the engine or pump, but it will result in premature seal wear and/or failure. Dry running is particularly harmful to new seals. Priming the pump is very easy, and can be handled in two ways.

The first method is to vigorously shake the foot valve up and down while keeping it under water until the intake hose and pump are completely full. The foot valve acts as a one-way valve. Shaking it in an "up and down" motion forces water into the pump. The foot valve also helps to maintain prime when the engine isn't running. This is the preferred method of pump priming.

The second method is to attach the discharge hose to the pump's outlet and pour water down it until the intake hose and pump are completely full of water, then connect the discharge hose to the power jet, or suction nozzle. Either method should be performed until several inches of standing water can be seen in the discharge hose above the pump. This ensures that the inside of the pump is completely flooded.

If collapsible discharge hose, or "lay-flat", is used with the pump, priming becomes slightly more difficult. This is because the flattened hose creates an air pocket inside the pump housing. The air pocket can be removed by slightly loosening the discharge hose fitting (or garden hose cap) before shaking the foot valve up and down. Once the air has escaped, water will squirt out from around the fitting while the foot valve is being shaken.

Prior to starting the engine, slowly pull the starter rope as though starting the engine in slow motion. This rotates the impeller, and allows any trapped air to escape. Now the engine can be started. If pumping does not start within a few seconds, shut the engine off. This indicates that there is still some air trapped in the pump. Shake the foot valve a few more times, pull the starter rope again, and then start the engine. Water should begin pumping.

When working in shallow water, it's important that the foot valve doesn't draw air from the surface. This can lead to a loss of prime. If the foot valve is lying on or near the creek bottom, we recommend placing it in a submerged container to prevent it from passing sand or small rocks that may harm the pump or seals. Ideally, it's best that the foot valve hang vertically whenever possible. This reduces the likelihood of having to re-prime after periods of inactivity.