



# FREQUENTLY ASKED QUESTIONS CONCERNING *Irrigation Pumps*

**Q1. What is the maximum depth these pumps can pull water from?**

A1. The maximum depth our irrigation pumps can pull water from is 20 foot.

**Q2. Why is the pump tripping the breaker?**

A2. The irrigation pump could be tripping your breaker due to the following reasons, the pump is wired incorrectly, the amp on your breaker is not large enough or the impeller is clogged. Please check all of these items, if you are still having the same issue please call the number listed on your manual.

**Q3. Why is the pump not priming?**

A3. The irrigation pump is not priming due to there being a leak in the suction line, please review your suction line, you do not have a check valve and/or foot valve installed in your suction line or your check valve and/or foot valve has failed.

**Q4. Why is the pump running but not producing water?**

A4. There are numerous reasons of why the pump is not producing water:

- First check to ensure the pump is full of water, remove the priming plug and check for water.
- The pump was not primed correctly, please reprime the pump.
- There are air leaks in your suction line, check all connections on the suction line and shaft seal.
- The foot valve or check valve is leaking or stuck shut, replace valve.
- The suction and/or discharge pipe size is too small, replace pipes with the same size of the suction and discharge ports on the pump.
- The water level is below the suction pipe inlet, lower the suction line into the water and reprime the pump. If the water level is below 20 ft, a deep well pump will be needed.
- The impeller could be plugged, remove pump housing and clean impeller.
- The foot valve and/or strainer are buried in mud or sand, clean valve or strainer and raise it in the water source.
- The pipes could be frozen, thaw pipes and bury the pipes below the frost line.

**Q5. Why is the pump not building pressure and producing a low volume of water?**

A5. The irrigation pump is not building pressure and producing a low volume of water because of the following issues:

- The irrigation pump has not been primed properly
- There is a leak in the suction line
- A check valve and/or foot valve installed in the system is leaking
- The discharge line valve may be closed
- The foot valve in the discharge line may not be under water

**Q6. Why is the irrigation pump short cycling?**

A6. The irrigation pump is short cycling due to one of the following reasons:

- There could be a bad diaphragm in the solenoid valve
- The zones in the sprinkler system may be sized too small for the large volume of water produced by the sprinkler pump
- A water logged tank
- There is a leak in the sprinkler system piping

**Q7. What wire size do I need for my pump?**

**A7.** The wire size we recommend will depend on the horsepower pump you have, voltage you are running and also the distance from the pump to the electrical source, please refer to the graph below.

Distance	Recommended Wire Size (AWG)					
	1 HP - 115V	1 HP - 230V	1 1/2 HP - 115V	1 1/2 HP - 230 V	2 HP - 115V	2 HP - 230V
0-100 ft	10	14	10	14	8	12
101 - 200 ft	8	14	8	14	8	12
201 - 300 ft	6	14	6	12	6	10
301 - 400 ft	6	12	4	10	4	10
401 - 500 ft	4	10	4	10	4	10

**Q8. Why is the pump cavitating?**

**A8.** The irrigation pump is cavitating because you have a leak in your suction line, please review your suction line.

**Q9. Why is the irrigation pump not keeping its prime?**

**A9.** The irrigation pump is not keeping its prime due to there being a leak in the suction line or you are having an operation issue with your check valve and/or foot valve. Please review the suction line for leaks and be sure your check valve and/or foot valve is operating correctly.

**Q10. What voltage does this pump work on?**

**A10.** We manufactured our irrigation pumps to be able to operate on 115 or 230 volt current. Please be sure that the pump is wired correctly for the voltage you have.

**Q11. Does a check valve or foot valve need to be used with a irrigation pump?**

**A11.** We suggest that a check valve or foot valve is utilized in the suction line as close to the water source as possible. The valve will keep the pump primed between uses, if you do not install one the pump will need primed each time it is used.

**Q12. Can the irrigation pump be left outside in the weather with no cover?**

**A12.** We highly suggest providing some sort of cover to protect the pump from the outdoor elements. Be sure that you are leaving enough room inside of the cover for air to flow through and the pump to operate and not overheat.

**Q13. Can the discharge and suction pipes be smaller than the connections on the irrigation pump?**

**A13.** A smaller pipe should never be used on the discharge or suction connections to the irrigation pump, this could cause an issue with pump performance. A smaller pipe on the suction side could cause the pump to not be able to draw water and a smaller pipe on the discharge side will reduce your flow and cause excess back-pressure to the pump and could damage it. Please be sure that your suction and discharge pipes are the same size as the connections to the irrigation pump.

**Q14. Why is the irrigation pump turning itself off but not tripping the breaker?**

**A14.** We manufactured our irrigation pumps with thermal overload protectors on them, if the pump overheats, it will turn itself off and will then turn back on when it has cooled itself down.

**Q15. Does this irrigation pump contain a pressure switch?**

**A15.** Our irrigation pumps do not contain a pressure switch, this pump will run manually unless hooked up to your irrigation timing system or a pressure switch.