

## Frequently Asked Questions

**1. Can I reduce the pipe size?**

Yes, but the pipe size should not be reduced smaller than the pump solids passing capabilities. Reducing the pipe will increase friction causing the flow rate to decrease. The pipe size depends on the system requirements. Generally, the minimum diameter pipe size is 1 1/2" for effluent pumps but local codes may dictate pipe size.

**2. Can I use a smaller basin?**

Refer to local codes. A smaller basin will hold less water per inch causing the pump to cycle more often. We recommend using a 18" diameter basin.

**3. Why use an air vent hole in my discharge pipe?**

The air vent hole allows air trapped under the check valve to escape. A symptom of not having an air vent would be the pump runs but no water is being discharged.

**4. Why should I use an external switch?**

Two reasons: (1) to keep the pump partially or fully submerged and (2) to provide for an adjustable pumping range for proper dosing.

**5. What are solids size guidelines?**

Pumps rated for effluent applications usually have a solids size rating of 1/2" to 3/4" spherical diameter.

**6. How long can I expect the pump to last?**

This depends on the application and proper system design. Septic systems that are too small, abused by using strong caustic drain openers, and improperly maintained can cause significant reduction in the pump's life.

**7. Can I use a sump pump?**

Pumps that are rated as "Sump/Effluent" by the manufacturer can be used in the septic system. Only a pump specified as being suitable for effluent or sewage should be used in a septic system.

**8. When, why do I need a check valve? What kind? Where should it be located?**

A check valve should only be used if the total volume of liquid capable of draining back into the pump chamber is greater than approximately 25% of the volume per cycle. If a check valve is installed, all piping must be below the frost line. As always, consult your local codes.

**9. When is it appropriate to use a time dose system rather than a level switch demand system?**

When the application field is not of sufficient size or quality to handle normal dosing. Or there could be an abnormally high flow in a short timeframe, i.e.: at a rural church. Some alternative disposal technologies also require dosing.

**10. How deep do you set the pump? Does it have to be covered with water?**

The depth of your pump will depend on your local codes. Because of the gases involved with septic tanks, we recommend keeping the pump completely submerged. This will prevent the gases from attacking the watertight gaskets.

**11. If a 1/3 HP pump is good, is a 1/2 HP pump better?**

No. A system should be sized to the pump performance not the horse power. A larger pump could cause too much pressure for the system. The pump size should be based on the performance of the pump, not its horsepower rating.

**12. What are the advantages and disadvantages of mercury and mechanical?**

The advantage of mercury is that you have self-renewing contacts. Mercury by nature is a good conductor, especially for low currents, i.e. it's intrinsically safe. The advantage of mechanical is that you don't have the disposal concerns and depending on the switch, it works better with higher amperage pumps.

**13. How can I adjust my pumping range?**

For a single float you simply adjust the tether length of the switch to achieve the proper pumping range. For a two-float installation, you would adjust the distance between the floats.

**14. Can I cut the piggyback plug off my switch and wire direct?**

Although not recommended, it can be done if the proper voltages are being connected, i.e.: 120 volt current to 120 volt switch. Wrong voltages could lead to failures if there are electronic parts in the circuit.

**15. Can I splice in the tank?**

This is a violation of the National Electrical Code.

**16. Can I bury my float switch cable?**

The cable used on float switches is not rated for direct burial. Therefore, it should not proceed beyond the junction box unless it is inside a conduit.

**17. What types of onsite wastewater treatment systems other than STEP and LPP use pumps?**

Drip or spray irrigation, bio and media filtration and secondary or aerobic pretreatment.

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