

Pressure Dosed Systems—Pumps, Floats, and Controls

Pressure Distribution to a Soil Treatment Area:

Designs for pressure distribution systems must include;

- Pipe diameter for transport lines and laterals.
- Orifice size and spacing.
- A minimum 30 inch residual head for holes larger than 1/8" and 60 inch residual head for 1/8" holes.
- Dose size and frequency.
- Pump information, minimum gallons per minute and total dynamic head.

Piping for pressure distribution may be hung in the top of chambers or placed on the floor.

If used with rock and pipe, the lateral piping must have at least 6" of gravel placed beneath the pipe and 2" above the pipe.

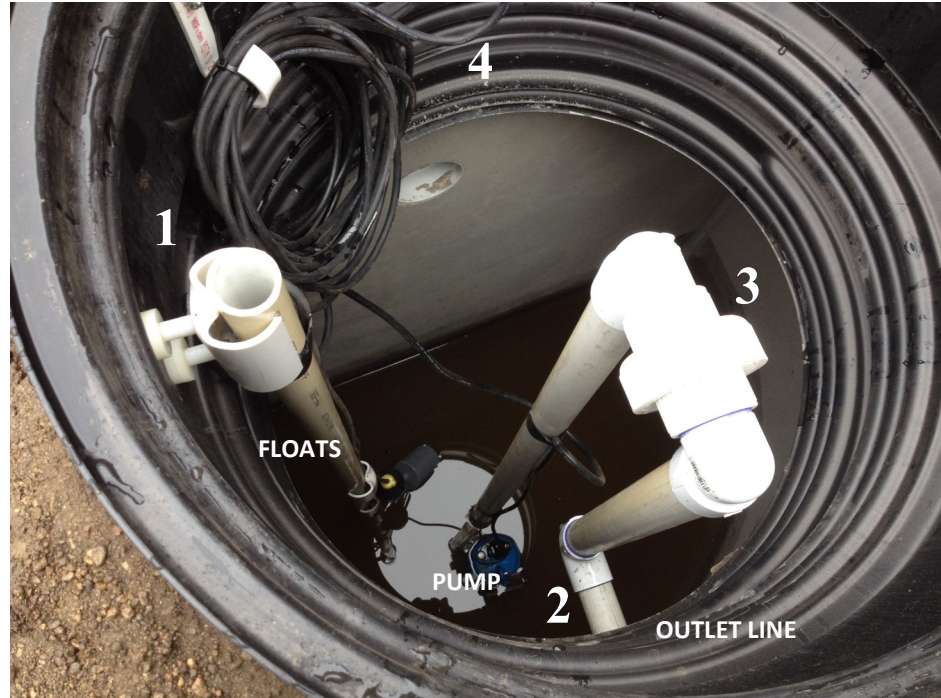
Orifices must be directed upward if using chambers, with drainage holes at either end of the lateral line or at an alternative spacing to allow piping to drain between doses.



Cleanouts are required at the end of each line on a system using pressure distribution. Valves like the one pictured below, or threaded caps may be used.



Systems utilizing a pump to lift wastewater to a soil treatment area at a higher elevation or to provide pressure distribution must meet Section 43.9.1 & 43.10.E.3 of the Larimer County On-Site Wastewater Treatment System Regulations. The following is a summary of the requirements;



1. High level alarm and pump control floats must be mounted to a separate stem from the pump outlet piping. This allows the pump to be removed and serviced without altering the float settings.
2. The discharge line must be protected from freezing through a weep hole placed on the outlet piping directed down into the tank or drain back through the bottom of the pump. The piping must be sloped back to the tank or to the soil treatment area for drainage.
3. A quick disconnect or union must be installed on the pump discharge line and be within 18" of the access lid of the tank. This allows the pump to be removed without cutting the outlet line or hanging down inside the tank to make repairs.
4. All electrical connections must be made outside of the tank and riser. Run electrical connections for the pump and floats outside the riser to prevent corrosion. Leave enough extra wire to allow for removal of components.
5. The control panel must include an audible and visual alarm and have a disconnect within line of sight of the pump chamber.
6. For pressure distribution, the control panel must include a mechanism to track pump run time, and the number of pump cycles.
7. A switch must be included in the panel that allows for manual operation of the pump.

Additionally,

- Control panels must be UL or ETL listed, and have the pump and high level alarm connected to separate control breakers.
- The pump must be located in a screened vault, or an effluent screen provided in the chamber prior to the pump.

