

PRESSURE DISTRIBUTION

A pressure distribution system is the second simplest septic system available. This system consists of a septic tank, a pump chamber and a drainfield (AKA leech field). The pump chamber can be incorporated into the septic tank, but is more commonly found in its own second tank. The septic tank must be placed accordingly so that it is downhill from the home/building's plumbing. A bio-microbial process in the septic tank treats the waste before it reaches the pump chamber. Further settling occurs in the pump chamber, ensuring that the pump does not send solid material to the drainfield. The pump chamber contains two floats: an on/off float (lower) and a high-water alarm float (higher). When the effluent in the pump chamber reaches the on/off float, the pump turns on and doses a set amount of effluent to the drainfield. There, a valve box evenly distributes the effluent between pressurized lateral lines. **The system must use a pump even if gravity flow can be achieved from the pump chamber to the drainfield.** This is to ensure that the drainfield is pressurized and all parts receive the same amount of effluent. Each lateral line has orifices that allow the effluent to reach the soil throughout the entire drainfield at the same rate. The effluent then filters through the soil and is clean by the time it reaches the water table.

If the water level in the pump chamber ever reaches the high-water alarm float, the alarm will go off, indicating that there is something wrong with the system.

Pressure distribution systems should have an operation and maintenance inspection done every two years of operation, not including the initial inspection to be done the year it is installed. Concurring reports may need to be turned in to the county.

Septic systems are sized according to the amount of waste they will be treating, usually estimated by the number of bedrooms in the home. For non-residential buildings, water usage usually determines the size.

The most basic drainfields include parallel, 60-foot-long lateral lines that are spaced six to eight feet on center. More intricately designed drainfields may include lateral lines of varying lengths (from 36 to 60 feet) that branch out from the valve box in multiple directions.

Upon installation, the only parts of the system that will be visible from above ground are 24-inch riser lids above the tanks, a valve box lid, and observation port lids at the ends of the lateral lines. Each of these lids will be flush with the final grade and can be walked on, mowed over or disguised to lessen noticeability.

Drainfields should be treated as fragile to increase their longevity. Large animals such as cows or horses should not be kept on drainfields and vehicles should not be driven over them. Vegetation with intrusive roots should not be planted near them. Finally, a home owner should be mindful of what is going into the system.