

Septic System Pump Chamber Basics

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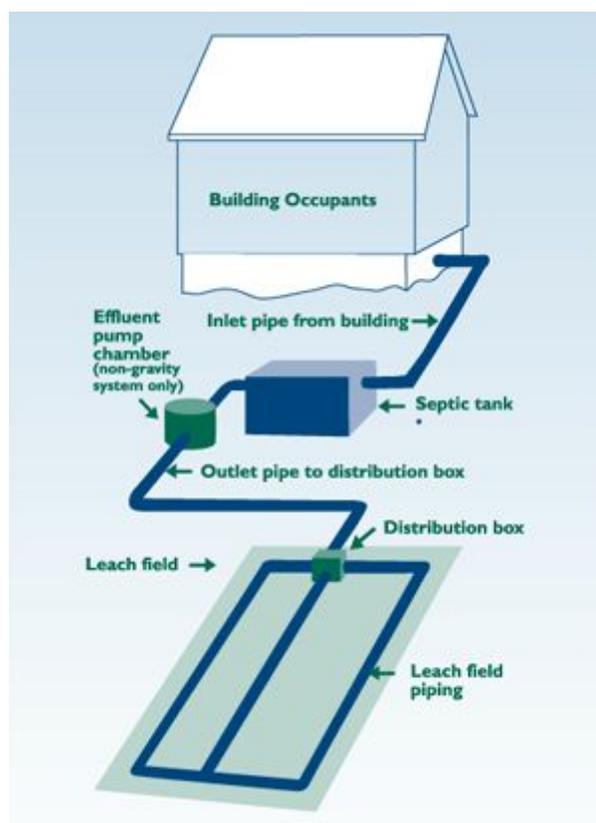
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Are you buying or selling your home and find that your septic system is having issues pumping waste to the septic tank? Is your existing pumping system broken or failing? Does your new system require a pumping system, when your old system did not have one? If you have these questions, or just want to learn about how Septic Pumping Systems work, this document will get you started! All-Clear Septic & Wastewater Services has put together this basic info to answer your basic questions and help you make the best decisions possible!

A Septic Pumping System is put into place when a standard gravity feed system will not work due to the quality of soil near the property or the available area is uphill from the septic tank. Different pumps can be used depending on the property, where the raw sewage must be pumped to the septic tank itself, treated wastewater is being pumped to the leaching area for reintroduction into the soil, or a pressurized system is put into place where the effluent is pumped significantly above the tank. In all cases great care must be taken to ensure the correct pump is used in each situation and it is robust enough to handle the anticipated volume to be moved.

The pump itself should reside within its own separate tank or compartment within a tank. This will prevent any raw sewage solids from clogging the pump or transferring into the leaching areas. An effluent filter may be placed in line of the system but shouldn't be in the same physical tank to prevent filtered and unfiltered waste from mixing. The ultimate goal is to keep the solids from clogging the pump, so don't put it in the septic tank alone!

With the pumping system properly installed in the tank, there are matters of pipe elevations, slope and length between the pump and the "drop box", which is a sort of distribution box for the leaching area, and the first box the pumped wastewater is moved to. This needs to be configured so the wastewater does not travel back down the inlet pipe, is moved equally among the various



leaching Septic System Pump Chamber Basics areas and is not unnecessarily deteriorated by the force of the water being pumped in. There are several techniques to do this, one of which is to have a T pipe on the inside of the box attached to the inlet pipe. This prevents the water from hitting the box at its full force and volume. Using a technique like this or any of the others available, the first “drop box” will not be deteriorated faster than normal.



The leaching area which the water is pumped to can be configured in several ways. Being elevated, the engineer must be aware of the soil composition so any chance of erosion, contamination or worse yet flow back to the property can be avoided. In a location with ample space, the leaching area can be placed far enough away from the home to eliminate the chance of this. In locations where this is not possible, the

engineer can design the field with multiple fields. The first field can handle the effluent received directly from the septic tank. This field has various forms of filtration media and a water-tight barrier surrounding it. The water filters through the gravels, dirt and sands to a return pipe, which returns the water to the redistribution tank, where it then is sent to the final leaching area in another location. This enables the system to use only one pump to get the water to the primary filtering field with gravity moving it to the final leaching field.

The ultimate decision to include a pump system will be made by the engineer in conjunction with local inspectors and regulators. You should always follow these recommendations in order to ensure there are no preventable failures in your systems and waste is moved and treated as effectively as possible. If you have questions or are looking for more information regarding your septic system, contact All Clear Septic & Wastewater Services at 508-763-4433 or info@allclearseptic.com!

