

Owner's Manual

(Rev. 12/02)

SeptiTech, Inc.

Waste Water Pre-Treatment Systems

Thank You

Thank you for purchasing a SeptiTech wastewater treatment system. We appreciate the trust you have placed in our company and its technology.

How SeptiTech Pre-Treatment Works

SeptiTech technology relies on a re-circulating trickling filter to treat septic wastewater to a very clean state before it is discharged to a leach field or other disposal method. A trickling filter depends on living microorganisms that naturally exist in the environment to consume waste in sewage. Because the SeptiTech system relies on these living microorganisms to perform waste reduction and treatment, it is energy efficient and environmentally friendly.

The treatment system is composed of three major components: a septic tank, a SeptiTech processor and usually a leach field. Wastewater first flows from the house to the septic tank where solids settle to the bottom and are subjected to anaerobic (without oxygen) treatment. Liquid effluent from the septic tank then flows to the SeptiTech biological trickling filter processor where processing takes place.

During processing, wastewater is sprayed over and trickles through the “filter media” again and again. The filter media consists of small, high surface area beads contained in a mesh pillow. The beads provide approximately 230 square feet of surface area per cubic foot of filter media, giving a vast area inside the processor for millions of colonies of microbes to grow, reproduce and consume waste. Microbes are fast acting in consuming the sugars, starches and solid matter in the waste. Microbes also require oxygen to live, and fresh air from the outside is introduced during the re-circulation process. Dead microbes are washed out of the media pillows and into the bottom of the processor where they are pumped back to the septic tank. This pump back process also assists with the de-nitrification process and helps to remove harmful nutrients in the form of nitrogen compounds such as nitrates, nitrites, ammonium and ammonia.

After treatment by microorganisms in the media, the effluent flows to a decant chamber and is then pumped to the leach field where it is dispersed to the soil in even, frequent and measured doses to maximize the absorptive surface area in the leach field (or soaker hose).

Treated water discharged from the processor is clear, odorless and extremely low on pollutant measures such as bio-chemical oxygen demand (BOD) total suspended solids (TSS) and has reduced levels of nitrogen compounds. As a result, the leach field serves more as a mechanism to release water back into the environment hydraulically than as part of the treatment process. The treated water does not have sufficient organic matter to cause the formation of a biological mat slime layer that is typically the cause of septic leach field failure. Consequently, your SeptiTech system will insure the long-term health of your leach field.

Warranty & Service

The SeptiTech processor and accompanying septic tank are warranted for two years for all parts and maintenance. The manufacturer recommends that after two years (and the State of Maine requires) a contract for continued care and maintenance of the system be acquired from either SeptiTech or an approved vendor.

Included in the two years of maintenance are:

1. Annual inspection by a SeptiTech technician or an authorized representative.
2. Free parts and service labor for any repairs or upgrades that must be made during the period of the warranty.

Owner Care & Maintenance

Every septic wastewater treatment system will benefit if treated with care. Thank you for respecting your new SeptiTech system and for following the recommended care steps outlined below. These steps are normal recommended care for any septic tank – leachfield system.

1. Pumping Septic Tank:

SeptiTech recommends that you pump your septic *tank* once every 3-5 years. Note: the septic tank is not the same unit as the SeptiTech processor. SeptiTech processors should never require pumping.

2. Use of Bleach:

Your septic tank and SeptiTech treatment system relies on bacterial action to work. Therefore, please avoid the heavy use of bleach as much as possible. If bleach must be used, use it sparingly and spread out its use over time so the bacteria in the system are not all depleted. Likewise, do not flush antibiotic pills into the system as they can also kill the bacterial action in the septic and processor tanks.

3. Disinfecting a Well:

Occasionally a contaminated well needs to be disinfected (usually with Clorox bleach). If you need to do this, do not run the chlorinated water through your septic system. Open the outside water faucets and let the water run for several hours or as long as necessary to flush the chlorine out of the well. Pump the well for several hours after you no longer smell chlorine, in the mean time don't use any water in the house.

4. Trash & Garbage Disposals:

Always keep sanitary napkins, cigarette butts, coffee grounds, paper towels, excessive cooking grease, paints and non-biodegradable materials out of the system. Use of sink grinders (garbage disposals) can result in heavy and inconsistent load of organic materials into the system and are therefore not recommended.

5. Discharges from Potable Water Treatment Systems:

Discharges from water treatment systems, such as water softeners or water filtration systems that require back flushing, are not considered wastewater and should never be pumped into a septic system. This flow can and should to be diverted into a separate, properly constructed dry-well.

6. Plumbing Fixture Maintenance:

Plumbing fixtures such as toilet bowl fill valves and faucets should be maintained to insure that leaks do not cause excess water to enter the septic system.

7. Additives:

Never use toilet tablets or products such as *Drain-O* as these products will deplete necessary bacteria from the septic system. Never use septic tank additives of any kind. Most are harmful to the system and none have any positive effect.

8. Alarm:

The computer in your SeptiTech control panel monitors all the important functions of the SeptiTech processor. It will set off an alarm if any of several events occur such as a failure to discharge water from the tank. Should your alarm sound; first read and record the fault message displayed on the key pad on the front cover of the controller and next, press the re-set button to silence the alarm and call SeptiTech for service. (207-657-5252). A service telephone number will be affixed to the cover of the panel.

9. Important Notice for Home Generator Users

SeptiTech does not recommend use of this unit with a generator. However, in cases where a generator must be used, the following procedures followed:

- a. Turn off both SeptiTech circuit breakers at house service panel before generator power is applied.
- b. Once generator is on, turn on SeptiTech breakers one-at-a-time at house service panel.

- c. When electrical power is restored, turn off SeptiTech breakers at house service panel before disconnecting generator and returning to house power. Then turn on SeptiTech breakers one-at-a-time at house service panel.

SeptiTech's warranty requires that these procedures be followed to prevent power surges damaging PLC controller and/or service pumps.

In the event of a system alarm during power changeover, push re-set button once to silence alarm and re-set system. If this action does not clear alarm, call SeptiTech service immediately. 207-657-5252.