Contractor Installation Manual – Residential

(Rev. 11/02)

Materials Supplied by SeptiTech:

(1) Septic Tank. (When called for in contract.) Note: If an existing non-baffled septic tank will be used, a 300-gal tank with Zabel filter must be installed following original tank to work as a chambered septic tank.
(1) SeptiTech Processor with equipment pre-installed.
(1) Programmable Logic Controller with built-in alarm functions and wiring diagram for licensed electrician.
(1) Air intake muffler for processor.
(1) 4" x 4" x 2" Tee with brass 1-inch hose adapter (or Sch40 coupling) for pump back line.

Materials Supplied by Contractor:

1. Piping for both septic and air venting.
    a. 4-inch, schedule 40 PVC input piping and fittings.
    b. 2-inch, schedule 40 PVC for air lines, piping and fittings.
    c. 2-inch 160/200 psi P.E. for discharge to field (black pipe). Some areas require Sch40 pipe.
    d. 1-inch 160/200 psi P.E. for pump-back line (black pipe). Some areas require Sch40 pipe.
2. 2-inch rigid foam insulation to cover processor, air and water lines. (Includes seasonal homes).
3. All stone, fill, gravel, loam, seed and mulch.
4. Electrical conduit and appropriate wiring of house circuit and Processor.
5. Total leach field and finish grade. (Note: SeptiTech, Inc. is not responsible for design or installation of disposal field.)

Installing Septic Tank and SeptiTech Processor:

1. Bed both septic tank and processor using 6-inches of clean sand under tanks.
   Note: Maintain gravity feed between septic tank and Processor. If gravity feed is impossible, a pump station must be installed in order to minimize the possibility of water infiltration and to allow access for year round service. Contact SeptiTech for a quote on a pump station.

2. Begin filling tanks with clean water. Note: Do not use muddy or brackish water. When tanks are partly filled with clean water, begin backfilling around them with clean sand. Fill in 1-foot lifts, compacting lightly between lifts as tanks fill. Note: Be sure to tamp fill in lifts under tank and between ribs to prevent the formation of any air pockets.

3. Mound soil around Processor riser covers so that the lids are above finish grade level. (The use of additional risers is not authorized by SeptiTech, Inc.)

4. Fill SeptiTech processor with fresh, clean water to about 2-inches below media support pipes.
    a. The septic tank itself, can be allowed to be filled through use except in high water table conditions.

5. If an existing septic tank is being used:
    a. Tank must be pumped out and fitted with 4-inch baffle T's on the inlet and outlet pipes (16-inches below the outlet invert and 15-inches below inlet invert). Note: If it doesn't exist already, a Zabel filter must be installed at outlet end.
    b. If the existing tank to be used is not baffled , a smaller second tank must be installed in series with the existing tank. (For most residential installations, this will be a 300-gallon tank).

6. Insulate the SeptiTech processor with 2-inch rigid foam insulation on all sides and around top to form an insulating cap covering the top half of the tank. (Do not insulate or cover over the two access covers.) See drawing.

Installing the Leach Field:

1. Construct the leach field according to the approved plan meeting Federal, State and local plumbing codes.

Making Unit Pipe Connections:

1. **House sewer:** Connect the house sewer to the septic tank and the septic tank to the processor tank using 4- inch schedule 40 PVC, maintaining gravity flow. (Note: install the 4" coupling with 1" hose adapter at inlet to septic tank). Cover line with 2-inch foam board including overlap for butt joints.

2. **Pressure discharge line:** At the outlet end of the processor, install the 2-inch pressure discharge line (the waste water line to the leach field) using 160/200 psi P.E. line or 2" Sch40 PVC pipe. Use the fitting provided for this connection, lay the line in the trench and connect to leach field distribution box. Connection to the distribution box should ideally be from the underside. Cover this line with 2-inch foam board including overlap for butt joints.

3. **Pump-back line:** Install the pump-back line using a 1-inch, 160/200 psi P.E. pressure line or 1" Sch40 PVC pipe between the 1-inch fitting provided on the inlet end of the processor to the 1-inch fitting in the 4-inch, schedule 40, T-assembly previously installed on the input to the septic tank. Compact soil below line for support. Cover this line with 2-inch foam board overlapping butt joints.

4. **Air line connections:** Connect 2-inch air inlet to fittings on the processor using 2" PVC and terminate in a convenient location above ground (i.e. next to house, wall or tree) with invert pipes and muffler provided. Keep air inlet pipe at least 36" above ground level so that it will remain open in winter. (Note: keep constant pitch on air pipe back to processor so condensation can drain.)

5. **Important:** If there is a pump station in the system to feed the SeptiTech processor or for some other reason tanks cannot vent back up the house stack, install a separate air discharge pipe. (Call SeptiTech for details).

Electrical:

Electrical contractor is responsible for complete installation and check out. Important! Do not turn system on. Warranty requires a SeptiTech representative to test and turn on the system.

1. Unit is shipped with a wiring diagram in the controller. Use a 1-inch conduit from the house to the processor. The PLC controller is installed inside the house or basement. (Note: if exterior location is necessary, contact SeptiTech for a small strip heater.)
2. Complete connection of pulled wires to the SeptiTech processor junction box and controller per wiring diagram.

Final Site Preparation:

1. Top of risers must be above finished grade.
2. Divert water from gutters, driveways, walks and other surfaces that may collect at unit.
3. Keep heavy traffic away from all components of the system. (HDPE tanks are not H-20 Loading)
4. Loam, seed and mulch all disturbed areas to prevent erosion and to facilitate runoff.
5. Before leaving site, make certain septic and processor tanks are left watertight and mounded to prevent infiltration of ground water into the tanks.

SeptiTech is always available for technical advice or help. Please call 207-657-5252