



Contractor Installation Manual – Commercial

(Rev. 10/02)

Materials Supplied by SeptiTech:

- (1) Septic Tank as called for in contract.
- (1) Precast Concrete Tank(s) to house the Processor and Decant Chamber. Note: Tank size will vary based on system size.
- (1) All material necessary to install SeptiTech Processor system inside concrete tank(s).
- (1) Programmable Logic Controller with built-in alarm functions and autodialer.
- (2) Air vent for Processor with muffler.
- (1) 4" x 4" x 2" Tee with brass 1-inch hose adapter.

Materials Supplied by Contractor:

1. All external piping for Septic Tank, SeptiTech Processor/Decant Tank
 - a. 4-inch, schedule 40 PVC input piping and fittings. (Septic tank to SeptiTech Processor)
 - b. 2-inch, schedule 40 PVC for air lines, piping and fittings. (SeptiTech Processor to Air Vent)
 - c. 2-inch 160/200 lb. P.E. for discharge to field (black). (SeptiTech Processor to Leach Field)
 - d. 1-inch 160/200 PE for pump-back line (black). (SeptiTech Processor to Septic Tank)
2. 2-inch rigid foam insulation to cover all tanks as well as air and water lines.
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.
6. Stainless steel clamps.
7. PVC primer and glue.

Installing Septic Tank and SeptiTech Processor:

1. Bed all tanks using 6-inches of clean sand under tanks. Note: Maintain gravity feed between all tanks. If gravity feed is impossible, a pump station must be installed in order to keep SeptiTech Processor at grade level to minimize the possibility of water infiltration and to allow access for service. Contact SeptiTech for a quote on a small in-tank pump station option.
2. The precast concrete tank company will install the tank in sections on top of clean sand. Begin backfilling around tanks with clean sand. Fill in 1-foot lifts, compacting lightly between lifts.

3. Once SeptiTech personnel complete installation of SeptiTech Processor (inside Processor Tank) , fill all tanks with clean water. Note: Do not use muddy or brackish water. Onsite SeptiTech representative will provide specification for correct fill levels.
4. If an existing septic tank is being used:
 - a. Tank must be cleaned 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 septic tank is not baffled, a smaller second tank must be installed in series with existing tank. (SeptiTech will specify appropriate sized tank).
5. Insulate the SeptiTech Processor with 2-inch rigid foam insulation on all sides above second section of concrete tank and around top to form an insulating cap covering the top half of the tank. (Do not insulate or cover over access covers.) Complete backfilling with clean sand.

Installing the Leach Field:

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

Making Unit Pipe Connections:

Note: Unit pipe connections made by the contractor will not be completed until installation of Processor Tank subassemblies are completed by SeptiTech.

1. Sewer: Connect the sewer to the Septic Tank and the Septic Tank to the Processor/Decant 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 these lines with 2-inch foam board including overlap for butt joints.
2. Pressure discharge line: At the outlet end of the Processor (Decant Chamber) Tank install the 2-inch pressure discharge line (the waste water line to the leach field) using 160/200-pound P.E. line. 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-pound P.E. pressure line between the 1-inch hose 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 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.

5. 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. Important! Do not turn system on. Warranty requires a SeptiTech representative test and turn on system.

1. Unit is shipped with a wiring diagram in the controller. Install the PLC controller inside in an environment that will not freeze.
2. Feeder circuits required:

M1200/M1500	One (1) 120 volt @ 15 amp
	One (1) 240 volt @ 30 amp
M3000	One (1) 120 volt @ 15 amp
	One (1) 240 volt @ 40 amp
Dual (2) M3000	One (1) 120 volt @ 15 amp
	Two (2) 240 volt @ 40 amp
3. Complete connection of pulled wires to the SeptiTech processor junction box and controller per wiring diagram.

Final Site Preparation:

1. Top of riser should be 2” above finished grade.
2. Divert water from gutters, driveways, walks and other sources of surface water that may collect at unit.
3. Keep heavy traffic away from all components of the system.
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.
6. If the septic tank is lower than the processor, an in-tank lift pump can be provided at an additional cost. This will necessitate an air discharge line as noted above. Contact SeptiTech for details.

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