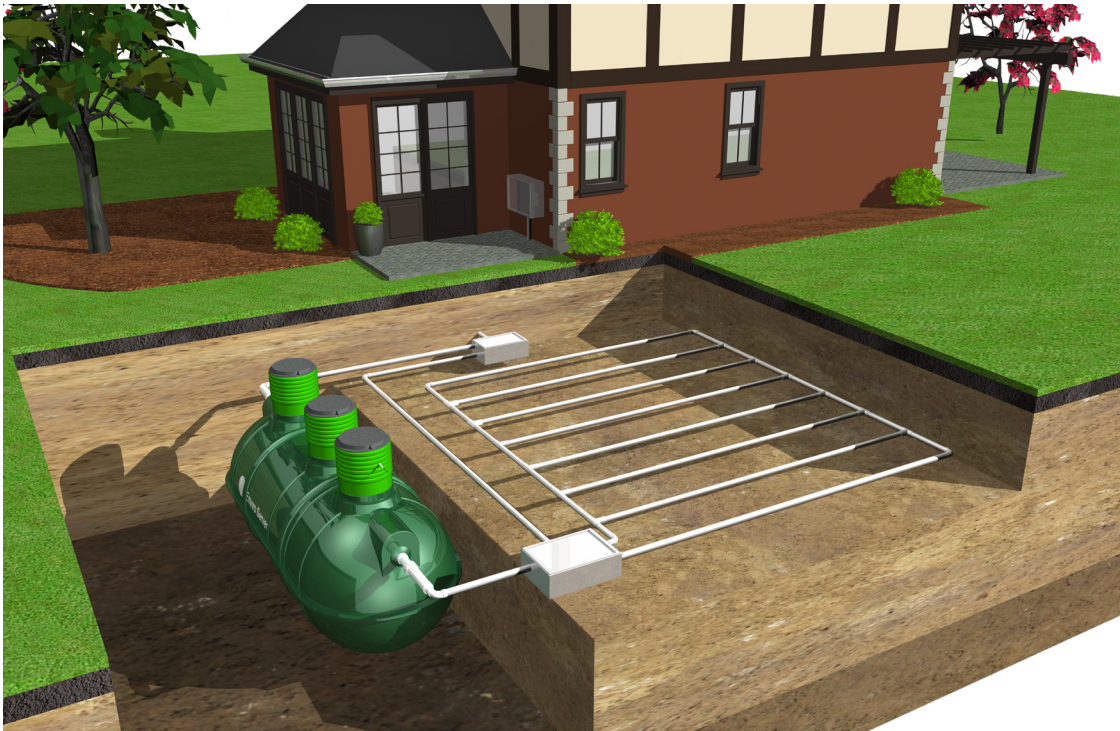


## WATERTIGHT TESTING ENVIROSERVER ES SERIES



MicroSepTec performs an air pressure holding test of every tank prior to leaving the factory. A watertight test is recommended in the field to verify no unseen damage has occurred to the tank in delivery and to ensure certain chambers and tank are watertight.

**Note:** Local code will have precedence on the amount of time required for watertight test procedures. The EnviroServer tank is designed specifically for underground storage and should be backfilled according to installation procedures to prevent tank from rupturing during watertight testing.

**Note:** Typically, watertight testing of fiberglass tanks does not require 24 hours hold time as fiberglass does not adsorb water as a concrete tank would.

**Note:** Cure time of sealant depends on manufacturer of sealant. Ensure cure time is met prior to performing watertight testing.

**Note:** MicroSepTec recommends a watertight test be performed after riser adapters and risers have been installed and prior to any component installation of the system. The watertight test should be performed to a level of no more than two inches above highest riser seam.

**Note:** If the watertight test will be performed with components installed in the EnviroServer system, use the following precautions

- ◇ The upper diffuser plumbing should be installed and ensure it is extended to above the water level for the watertight test level or connected to the air compressor fittings to ensure water and debris do not enter the diffusers. Water and debris inside the diffuser plumbing may adversely impact the performance and longevity of the membrane diffusers.
- ◇ Water should not enter airlines to prevent damage to other components (e.g. pressure switches, needle valve, solenoid valve, diffusers, etc.).

## PROCEDURES FOR WATERTIGHT TESTING

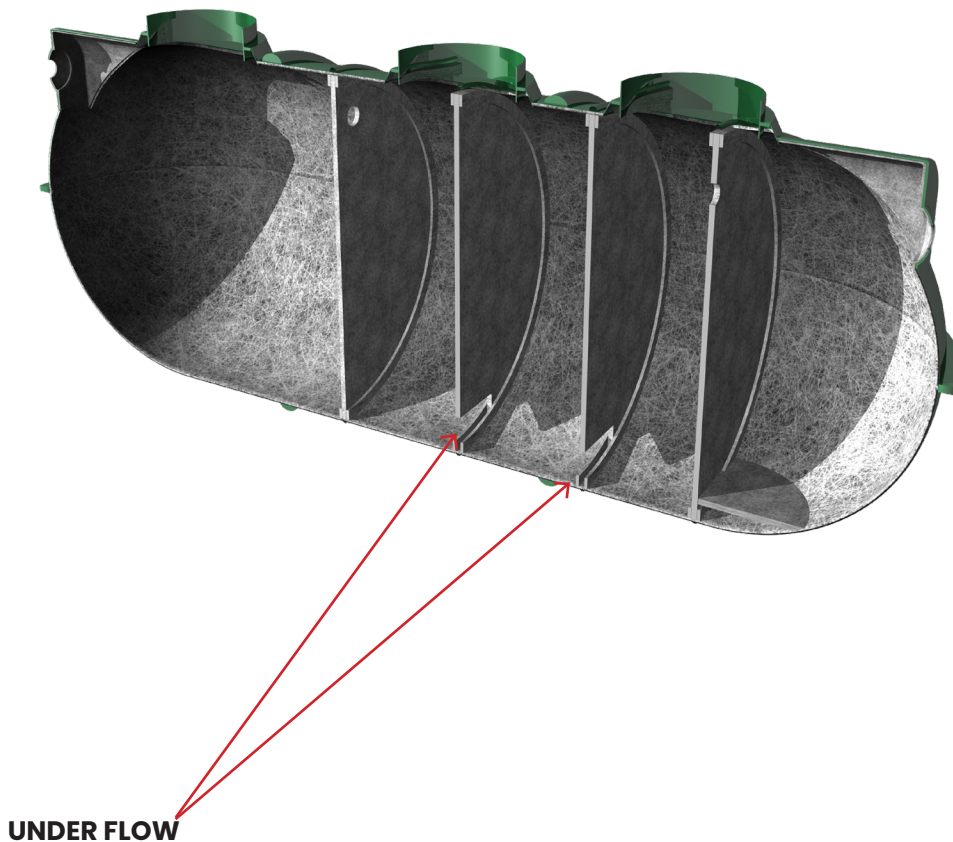
**Note:** Follow MicroSepTec procedures for tank installation, using only approved primary and secondary backfill specifications

Note: Watertight test may start during the backfill procedure to ballast tank and to test that the Aeration Chambers and Final Clarifier do not have leaks between the Primary Clarifier and Effluent Storage compartments. Leaks between the Primary Clarifier and the First Aeration Chamber or the Final Clarifier and Effluent Storage are not typical.

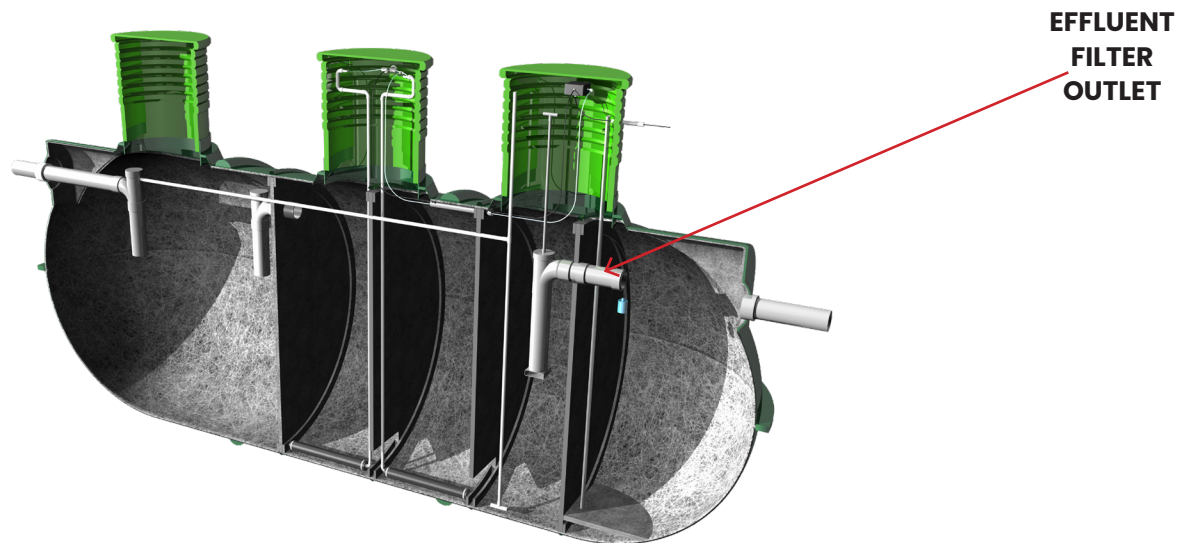
- ◇ During the backfilling and watertight testing, ensure the lids cover the man-ways to prevent debris from entering the tank

**All local, state, and OSHA safety and excavation regulations must be followed during the tank installation procedure**

- ◇ Once the first lift of primary backfill has been completed and tank level has been verified, start filling the middle three compartments from the middle riser
  - ◇ Water underflows between the first aeration chamber, second aeration chamber and final clarifier



- ◇ The water level inside the tank and backfill material outside the tank should always be at about the same elevation. If the water level is higher than the gravel, the tank could be damaged by the hydrostatic pressure, and if the gravel level is higher than the water level, the tank may lift
- ◇ Continue checking the primary clarifier and effluent storage compartment to ensure no water is leaking into the compartments from the middle three compartments
  - ◇ If water leaks into effluent storage chamber, contact your MicroSepTec distributor or MicroSepTec to arrange for the leak to be corrected
- ◇ Continue the backfill procedure and checking water in the primary clarifier and effluent storage for leaks until just prior to the water reaching the level of the effluent filter outlet



- ◇ If no water has entered the primary clarifier of the effluent chamber, it is safe to continue the backfilling and watertight test procedure
- ◇ Seal off the influent and effluent piping with watertight caps or plugs
  - ◇ Install and seal risers (and, if applicable, riser adapters) to the tank according to manufacturer's recommendations and allow seal to cure
  - ◇ MicroSepTec recommends monolithic risers to 2"-3" above finished grade
  - ◇ If jointed risers will be used, ensure they are installed according to manufacturer's recommendations and allow sealant to cure
- ◇ Continue filling the tank to no more than 2" above the man-way (the risers will rupture if they aren't supported by dirt)
- ◇ Let the water stand for at least one hour and allow water temperature to stabilize. Local code may require longer hold times
- ◇ If the water drops, check to see that the inlet and outlet plugs are not leaking. Check to ensure no leaks around any of the joints of the riser or riser adapter. Repair any loose fittings or leaking joints and return water back to a level of 2" above the highest seam
- ◇ If the water level does not stabilize, allow it to drop until it stabilizes and inspect for leaks at that elevation. Contact the local MicroSepTec distributor once the leak is identified