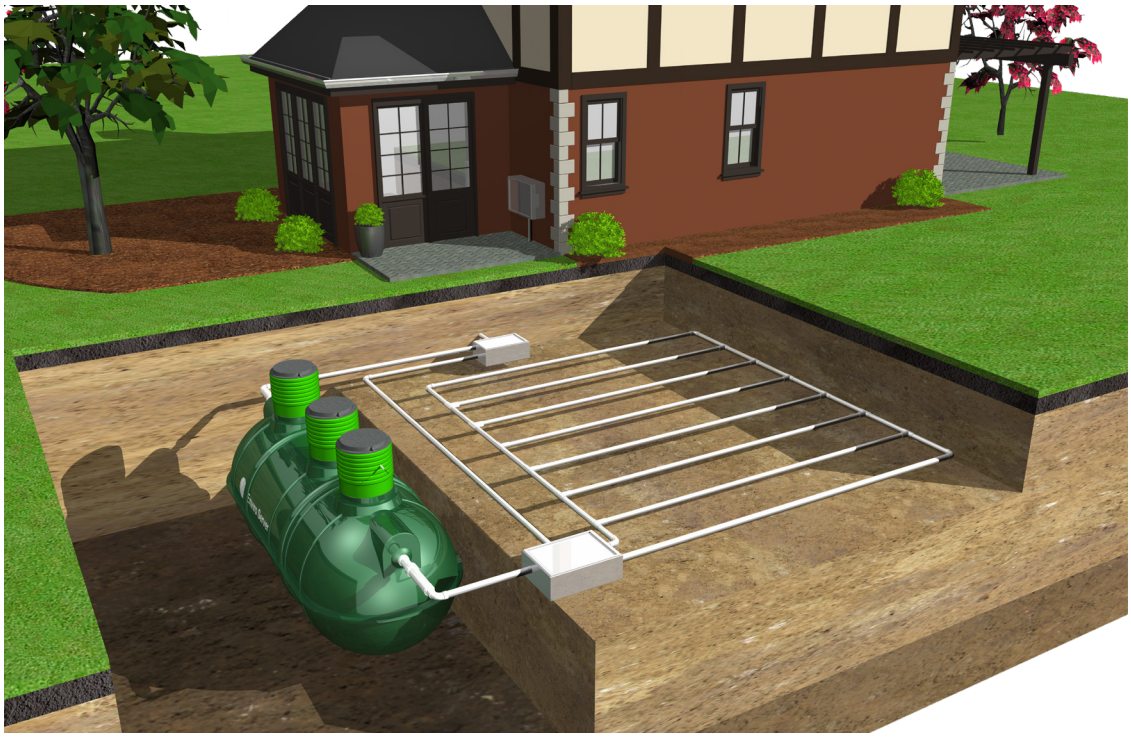
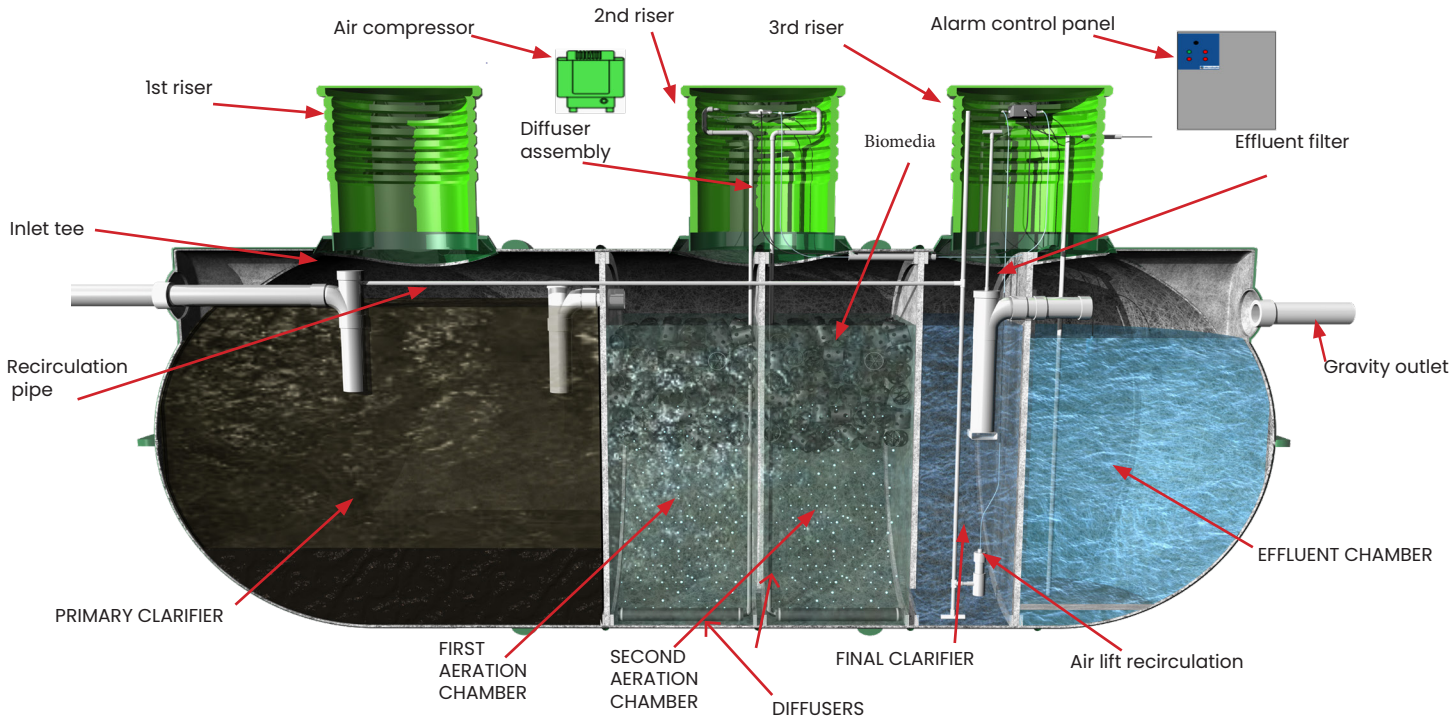
Pumping The EnviroServer ES Series



Periodic pumping in an important element of the proper maintenance of a wastewater treatment system, and the EnviroServer is no exception. Many jurisdictions mandate pumping frequency but, absent a local requirement, the health of the system should determine frequency. Pumping should be only conducted by a company that is familiar with the EnviroServer System. Following manufacturer's recommendations on the proper procedures for pumping the system is important to ensure continued efficient operation of the system.

The system should not be completely emptied, as the EnviroServer tank could float out of the ground under certain conditions and complete removal of the bacteria will inhibit performance in the short term.

FOLLOW SAFETY PRECAUTIONS WHEN PUMPING THE ENVIROSERVER. REMEMBER THERE COULD BE DANGEROUS SEPTIC GASES INSIDE. MAKE SURE TO BE AWARE OF YOU SURROUNDINGS, DO NOT ALLOW SPECTATORS DURING THE ROUTINE PUMPING. KEEP CHILDREN, PETS, AND OTHER NONE-ESSENTIAL PEOPLE AWAY FROM OPEN SEPTIC TANKS.



PROCEDURES FOR PUMPING THE ENVIROSERVER ES SERIES

- Locate the EnviroServer ES Series on the site
  - The EnviroServer should be located near the house
  - There will be three green lids that should be visible above ground
- A special hex key is required to remove the tamper proof bolts that secure the lids
  - Key can be purchased from a MicroSepTec distributor or through a local Home improvement store
  - Key is a tamper resistant 3/16" Hex bit, 1/4" Hex Shank
- Remove the three lids of the EnviroServer
  - When removing the lids be careful to not allow debris to enter the tank. Debris that enters the final clarifier may not be removed during pumping and could have harmful effects on the system or certain components.
- There are five compartments in the EnviroServer, accessed by the three risers
  - **The first riser provides access to the Primary Settling (septic) Chamber**
  - **The second riser provides access to two Aeration Chambers (second and third compartments)**
  - **The third riser provides access to the Final Clarifier and Effluent Chamber (fourth and fifth compartments).**
  - **Not all compartments may need to be pumped – see below**
- The effluent filter in the third riser should be cleaned during pumping
  - Remove the effluent filter and clean over the first riser
  - Reinstall filter in the housing ensuring it is replaced so the flow arrow is pointing towards the 5th compartment and completely seated in the housing

PRIMARY CLARIFIER CHAMBER (1ST RISER, 1ST COMPARTMENT OF THE SYSTEM)

Water enters Primary Clarifier from the facility via an inlet tee, and overflows to the aeration chambers through two 3" Sanitary Tees

- If the scum and sludge layers combine to account for more than one third of the total column of water, the primary clarifier will need to be pumped.
- Pump all the liquids and solids out of the chamber ensuring it is as clean as possible

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AERATION CHAMBERS (2ND AND 3RD COMPARTMENTS, SECOND RISER)

Water enters the First Aeration Chamber via two 3" sanitary tees in the Primary, then underflows to the Second Aeration Chamber before underflowing to the Final Clarifier. Therefore, the water level in the middle three compartments will always be the same.

- These compartments are not normally pumped. Only pump if requested by Authorized Service Provider
- This compartment houses an array of plumbing, airlines, and the system media.
- Be careful not to disconnect, pinch or damage the airlines or the diffusers at the bottom
- Only pump off solids and scum from the top of the water in these compartments
- Do not pump out any of the media. It is 3" by 3" and is buoyant when the aeration is on

FINAL CLARIFIER (4TH COMPARTMENT, THIRD RISER)

Water enters the Final Clarifier via an underflow from the Second Aeration Chamber, and overflows via an effluent filter to the Effluent Chamber. Because water underflows from the Aeration Chambers, the water level in all three middle chambers is the same.

- DO NOT pump this compartment dry, unless instructed to do so by an Authorized Service Provider
- Be careful not to dislodge or damage the recirculation pump in the process as this will adversely affect treatment
- Pumping this compartment dry will also pull the water through the underflow path from the Aeration chambers and will cause the system to lose all built up beneficial microorganisms for the proper operation of the system

EFFLUENT CHAMBER (FIFTH COMPARTMENT, THIRD RISER OF THE SYSTEM)

Water overflows into the Effluent Chamber via an effluent filter. In some configurations, water passes through a UV disinfection unit immediately after the filter, and exits through the gravity outlet or a discharge pump(s)

- Pump all the liquids and solids from the chamber
- Be careful not to damage, disconnect, or pinch any of the airline fittings
- Be careful not to disconnect any of pump fittings, floats, or electrical connections that might be in the effluent chamber

RETURN THE SYSTEM TO NORMAL OPERATIONS

- If, during pumping, any electrical fittings, airline fittings or plumbing are inadvertently disconnected, please contact the Authorized Service Provider so they can ensure all the components are in proper operation
- Ensure that the effluent filter has been reinstalled in the filter cartridge, that the flow arrow is pointing towards the effluent chamber, and that the filter is seated completely in the housing
- Replace the lids ensuring no debris falls into the EnviroServer system
- Use the original safety screws in the lids to secure lids to risers
- Ensure all tools have been removed from the site

If any problems are encountered, contact the Authorized Service Provider or MicroSepTec to ensure any issues are resolved prior to leaving the site