

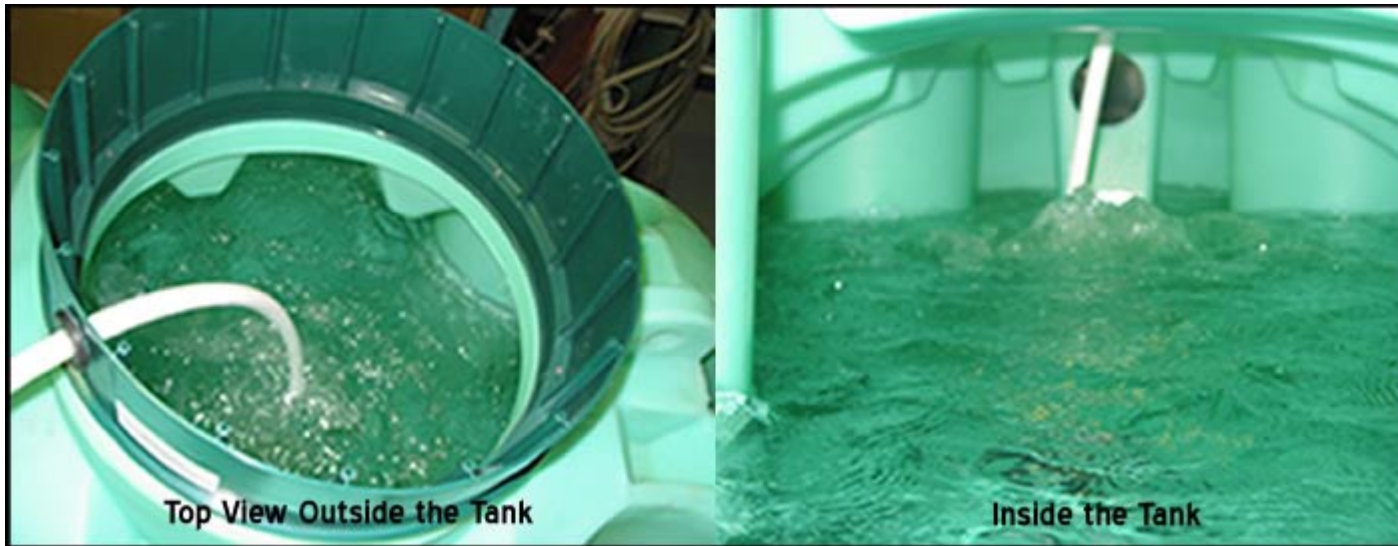
SepAerator™ Applications

The SepAerator™ (Septic Tank Aerator) is a unique product that has been designed to change the dynamic of how a conventional septic tank works. Septic tanks are manufactured in a variety of sizes and are used primarily to capture and break down solids and other various liquids that are flushed down the drain. The septic tank has baffles reducing those solids from floating directly across the top of the tank and discharging into the secondary treatment system, such as field absorption, mounds, or virtually any type of secondary treatment system. Septic tanks utilize anaerobic bacteria, which will break solids down over an extended period of time. The septic tank should eliminate the majority of solids getting into the secondary treatment system, however most septic tank discharges are still approximately 70% raw sewage. This raw sewage then passes into your secondary treatment system where Mother Nature's natural aerobic processes must take over and clean this raw sewage before it is absorbed into the soils. The problem with this process is that over a period of time this sewage could seal or clog the pores in the soils, dramatically reducing the soil absorption capacity. Once this happens your secondary system fills with sewage until it backs up into your septic tank and potentially into your home or boils out of the ground.

Proven Effective to Rejuvenate Failed Fields

The SepAerator™ is designed, tested, and proven to not only eliminate this clogging process, but will work very effectively to rejuvenate an already failing secondary treatment system. Sounds too good to be true, but the technology behind the SepAerator™ is sound. When the proper amount of oxygen is added and correctly dispersed into a septic tank the wastewater breakdown process changes from anaerobic to aerobic. Aerobic organisms will grow rapidly in much larger quantities than would occur naturally, under these conditions. These bacteria break down the organic solids in the wastewater. The SepAerator™ will provide an adequate amount of oxygen into the tank through a combination of fine air and coarse air diffusion. The SepAerator's™ unique diffuser assembly will cause the solids to break down very quickly by the constant movement of the liquids and solids in the tank. As the solids and sewage continue to move, the aerobic bacteria, which is growing and thriving in this oxygenated environment, can easily attach themselves to those solids and devour them very quickly.

The results are that in a short period of time the same septic tank that was discharging 70% raw sewage into the secondary treatment system will produce a 90 to 95% clear and odorless discharge. Clear effluent is much more easily absorbed into soils than raw sewage. With an adequate amount of oxygen being introduced into the septic tank some aerobic bacteria being generated in the tank will discharge into the secondary treatment system and begin working on the sewage that has been clogging the existing secondary treatment system. Usually within just a few weeks, there will be a dramatic improvement in most secondary treatment systems with results that could be expected to drop the liquid level significantly. With the assistance of the SepAerator™, Mother Nature can do her job much easier and more effectively.



An example of water movement created by the SepAerator™

The SepAerator™ utilizes a linear or rotary vane air pump and a diffuser assembly that was in the development stages for several years. The high quality air pumps use approximately \$5.00 per month worth of electricity. The SepAerator™ can be purchased as a Premium package that includes the air pump, diffuser assembly, housing, platform, Air Driven Particle Recirculator, extend-n-lok, and misc. parts to complete assembly. Many other options are available such as alarms, control panels, riser and lid combinations that make the SepAerator™ components readily accessible. The alarm will provide both audio and visual alarm should the air pressures on the pump drop to one pound. The alarm can be mounted either inside the dwelling served or outside on the air pump housing, which is the preferred method. The control box has an on/off disconnect switch, reset button, and side mounted 115v receptacle greatly simplifying air pump maintenance.

Components of the SepAerator™ in a Single Compartment Septic Tank

The installation of a SepAerator™ in a single compartment septic tank requires the installation of the following components. The SepAerator™ Premium package that includes the air pump, diffuser assembly, Air Driven Particle Recirculator, and misc. small parts to complete assembly. Risers and lids are optional but should be installed over the outlet portion of the tank for service access to the Air Driven Particle Recirculator.

Note: The SepAerator™ diffuser assembly should be installed close to the inlet side of the tank and away from the discharge area. The risers and lids should rise from the septic tank to a minimum of 3 inches above the ground surface. Watertight adapter rings must be installed to the top of the tank over each opening for the risers to attach too. It is recommended that the septic tank filter be cleaned every 3 to 6 months by removing and

washing with a garden hose. The septic tank filter is necessary especially on a single compartment septic tank to keep any solids that will constantly be moving in the septic tank, with the operation of the SepAerator™, from floating out of the tank and into the secondary treatment system.

Optional equipment would include risers and lids as well as an alarm and control panel. The alarm will sense low air pump pressures ensuring the pump is operating properly. The alarm has both an audio and visual warning device that will activate when air pump pressures drop to one pound usually signaling the air pump diaphragms need replaced. The control panel consists of an on/off switch, reset button, and a 115V receptacle.

Components of the SepAerator™ in a Dual Compartment Septic Tank

The installation of a SepAerator™ in a dual compartment septic tank or a tank with more than two compartments would require the installation of the following components. The SepAerator™ Premium package includes the air pump, diffuser assembly, housing, platform, Air Driven Particle Recirculator, and misc. assembly items.

Note: The SepAerator™ diffuser assembly must not be installed in the compartment where the discharge pipe is located.

Risers, lids, and septic tank adapter rings should be installed to allow access to the Air Driven Particle Recirculator..