



MANUFACTURER INFORMATION

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TECHNOLOGY INFORMATION

Technology Name: Aero-Stream® Aerobic Septic System Restoration Process and Equipment

Narrative Description: The Aero-Stream® system utilizes a patented (7,264,727) process to convert a passive anaerobic septic system to an active aerobic wastewater treatment system. Installation of the system utilizes the existing tank, baffle and distribution components. There is no need to modify any of the existing components or add components other than supplied with the Aero-Stream® system. The entire system can be installed through a 3” minimum diameter opening in the tank. The air line exits the tank through a 5/8” diameter hole that must be drilled through the cleanout cover, riser, or tank lid. The electro-mechanical components are remotely mounted away from the tank typically near the foundation wall of the building near a 115 VAC power outlet. The process has several US and International Patents Pending.

Specifications: The Aero-Stream® product is a UL Listed corded outdoor appliance. It is designed and tested to operate outdoors in the elements. The system performance is not effected by rain/snow precipitation. The product operates by plugging the power cord into a standard 3-prong grounded 115 volt AC outlet. The Aero-Stream® system can be installed by the average homeowner within an hour.

- Compact design - 12” x 12” x 8”
- UL Listed corded outdoor appliance
- 8 foot power cord with a standard 3-prong grounded molded plug
- 115 volt AC, 65 - 80 watts of power depending on model
- Typical electrical operating cost is \$1.10 - \$1.35 per week
- Fully sound proofed enclosure emitting just 45 dBA of sound at 15 feet
- All kits include a 20 foot air line. 6’ - 8’ of air line is used inside the tank.
- All kits include a modulare GFCI (ground fault circuit interrupter) for added safety



- All kits include two (2) high efficiency bristle effluent filters.
- All kits include a sintered ceramic diffuser
- All kits include a fully illustrated Installation Guide and Free unlimited technical support.
- All systems can be remotely located up to 120' from the tank utilizing our air line extension kit.

Site Constraints/Installation Requirements:

1. After completing the order form on our web site or by placing an order by telephone, schedule to have your septic tank pumped out. The reason to pump the tank is to remove as much of the settled solids as possible from the anaerobic process.
2. After you receive the Aero-Stream® product (usually within 1 – 5 days of ordering) unpack the equipment.
3. Review the fully illustrated installation guide to become familiar with and identify your system components. You will need only a 3" diameter access opening in the tank to allow installation of the components in the tank. If you have any questions you can call our FREE technical support line TOLL FREE at 877-254-7093.
4. Drill a small 5/8" hole through the clean-out cover of the septic tank. If your clean-out cover is made of concrete, you will need to use a carbide tipped masonry drill bit which can be purchased at your local hardware store.
5. With the cover removed, lower the sintered air diffuser, air line and float into the septic tank. Feed the "free" end of the air line from the bottom side of the clean-out cover through the 5/8" hole drilled in step 4 above and continue to pull excess air line through the hole until there remains only 3'—4' of slack inside of the tank.
6. Lay the air line on the ground towards the nearest standard 3-prong (grounded) household power outlet.
7. Place the Aero-Stream® equipment on the ground near the 115 volt power outlet. The Aero-Stream® product is a UL Listed outdoor appliance. It is designed to be installed outdoors in the elements. It can withstand rain/snow with no effect. There is no need to cover/enclose or protect the unit. The Aero-Stream® product will operate 24/7 during the remediation period and uses only 70 watts of power or about \$0.13 of electricity a day.
8. Connect the air line from step 5 above to the Aero-Stream® equipment and plug the Aero-Stream® equipment into the 115 volt wall outlet.



9. The conversion process is now underway! You can now burry the airline 2” – 3” underground so it does not become a maintenance nuisance, as in when mowing the lawn or children playing in the yard.
10. The Aero-Stream® process equipment will immediately begin the significantly improved aerobic water treatment process. Within hours the tank will be converted to an aerobic environment cleaning the waste water significantly better. Within weeks noticeable improvements will be observed. Your septic system problems will be on the way of being resolved!

Applications: The Aero-Stream® process equipment can be installed in any type of existing passive anaerobic septic system. The aerobically treated effluent flows into the existing absorption component starving the bio-mat of a food source and also digesting the bio-mat. The recommended application suggests converting the process from passive a passive anaerobic process to an active aerobic process to remediate the system. After remediation, the Aero-Stream® system can be turned off and the system allowed to revert to the passive anaerobic process. After complete remediation, Aero-Stream®, LLC recommends operating the Aero-Stream® equipment every 3 years for a 9 month period to maintain the permeability of the bio-mat. The Aero-Stream® system can be operated continuously if reduction of BOD⁵, TSS, Fecal Coliform bacteria and Nitrates is required.

Performance: The Aero-Stream® process utilizes Micro-Bubble™ technology to achieve the maximum oxygen transfer ratio per input power. The Aero-Stream® process also utilizes a patent pending single tank Simultaneous Nitrification/Denitrification process. The process reduces the BOD⁵ by approximately +70%, reduces TSS by approximately +70%, and reduces Nitrate levels by approximately 95%. Higher reduction rates can be achieved, however are dependent on existing system configuration.

Inspection/Maintenance: The Aero-Stream® Aerobic Septic System Restoration Process Equipment requires no scheduled maintenance during the 12 - 18 month remediation period. The product will operate continuously for more than 20,000 hours with no service. When the Aero-Stream® unit does require service, we offer a flat rate \$150 factory refurbishing plan. Aero-Stream® will rebuild/replace any and all components to bring the unit back to original factory specifications. All factory refurbished units include a 6-month warranty.

The sintered diffuser can be cleaned as required with hydrogen peroxide or muriatic acid. Protective safety gear must be worn whenever handling chemicals.

The bristle effluent filters if installed, should be inspected after 6-month of initial operation and then annually thereafter. The filters can be discarded and replaced or cleaned several times with a garden hose and spray nozzle.

Costs: The Aero-Stream® process equipment is sold as kits. All of the components are included in the kits as well as a fully illustrated Installation guide. With the assistance of our Free telephone technical support service; there is not a customer that has not been able to install the Aero-Stream® product. The Aero-Stream® kits start at \$875 US for our QT800H with up to 3 occupants in the building. Buildings with 4 - 8 occupants require



our QT800HH that retails for \$975 US. The largest residential Aero-Stream® product will treat the wastewater for 9 - 13 occupants with a retail price of \$1075 US. Aero-Stream® also manufactures commercial models. All models can be ganged together to increase and match the requirements of the wastewater load.

ADDITIONAL TECHNOLOGY INFORMATION

Disposal of Treated Effluent: Effluent should be disposed of in the same manner prior to installing the Aero-Stream® equipment.

Cluster/Multiple Residence Potential: The Aero-Stream® equipment can be ganged together to obtain higher wastewater flow rates and strengths.

Longevity: The Aero-Stream® equipment is modular in design and will operate continuously for 20,000 hours with no service. All components can be serviced by Aero-Stream®, LLC or in some cases by the owner. All components that exceed the typical service life can be replaced. Aero-Stream® offers a Flat Rate factory refurbishing program. For a \$150 fee, Aero-Stream® will rebuild/replace any and all components in the Aero-Stream® product required to bring the unit back to original factory specifications. The refurbished product includes a 6-month warranty.

Secondary Beneficial Impacts/Adverse Impacts: The Aero-Stream® product resolves all health and environmental issues related to failing or failed septic systems. Symptoms such as surface ponding above the field or tank are eliminated as well as sewage back-ups into the building. The Aero-Stream system also eliminates the issue of storm water run-off during absorption component replacement by negating the need for replacement. The process reduces the BOD⁵ by approximately +70%, reduces TSS by approximately +70%, Fecal Coliform Bacteria by approximately 90% or more and reduces Nitrate levels by approximately 95%.

Potential Problems and Solutions: There are no known problems with the Aero-Stream® Aerobic Septic System Restoration Process and Equipment.