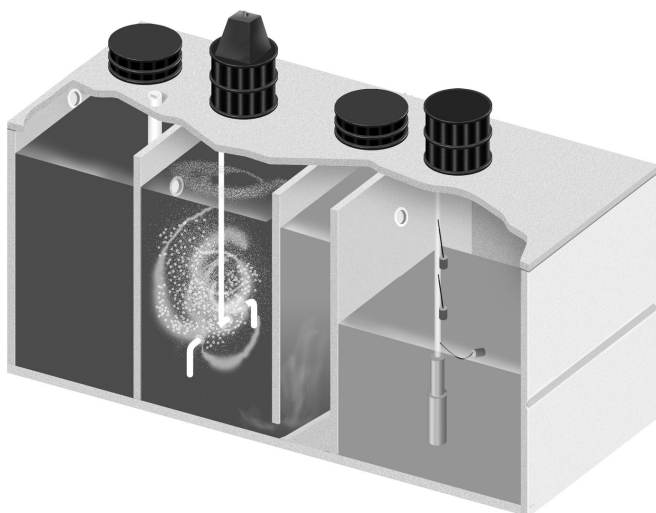


PRO FLO WASTEWATER TREATMENT SYSTEMS

For All Models: 500, 600, 800, 1000 & 1500



IMPORTANT! It is important that you read and understand your System Owner's Manual. This manual contains information you should know and procedures you should follow in order to help ensure your new Pro Flo Aerobic System operates to its full potential. This manual also contains safety precautions you should be aware of in order to help keep you, your family, and visitors safe.



System Owner's Manual

FOR ALL MODELS

500, 600, 800, 1000 & 1500

System Owner's Manual



Pro Flo Aerobic Systems

Street Address:

20222 FM 362
Waller, Texas 77484

Mailing Address:

P.O. Box 1425
Waller, Texas 77484-1425

Telephone: 936-372-5222

Fax: 936-372-5235

www.profloaerobic.com

WE ARE COMMITTED TO QUALITY AND CUSTOMER SATISFACTION.

Third Edition, Revised November, 2018

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Introduction

Thank you for purchasing the Pro Flo Wastewater Treatment System. Your new Pro Flo system uses the very best technology the industry has to offer for individual on-site wastewater treatment. The Pro Flo system is a mechanical, aerobic, wastewater treatment system that processes household sewage into a clear odorless liquid within a 24-hour time frame. The Pro Flo Models 500, 600, 800, 1000, and 1500 were certified against the ANSI/NSF Standard No. 40, approved and listed by NSF International, and meet and/or exceed the criteria for a Class I system to treat both black and graywater.

Pro Flo Aerobic Systems has over 30 years of experience in the wastewater industry. Our company works hard to keep costs as low as possible, yet we stay on the cutting edge of technology by continuously updating and offering consumers the very best products. We are committed to producing a superior quality product that will give you years of outstanding performance, and we are committed to customer service and satisfaction.

Please help us by sending in your warranty card located at the back of this manual.

Once again, thank you for choosing the Pro Flo. And remember,

“Start with the Pro, and end with the BEST!”

How Your New Treatment System Functions

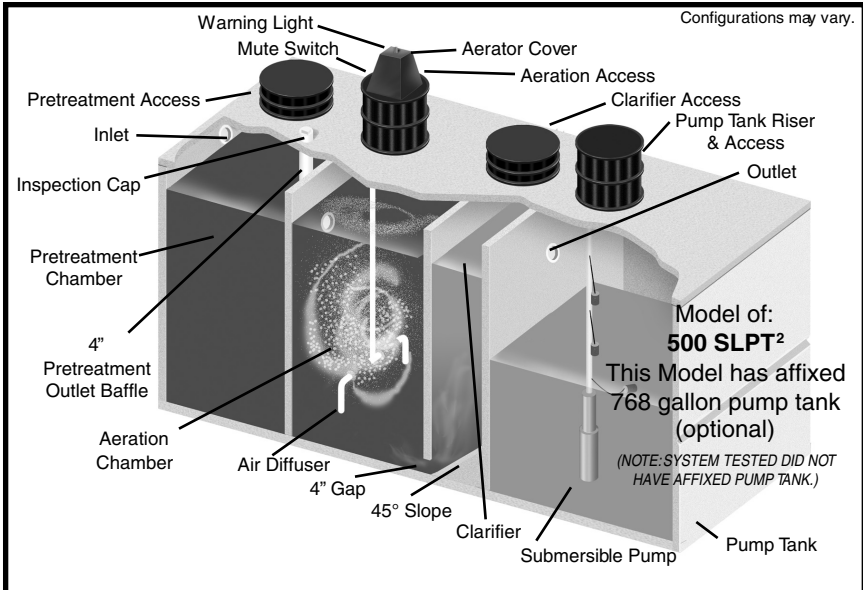
The Pro Flo Wastewater Treatment System is similar to large municipality sewage treatment plants. It uses an extended aeration activated sludge process. This type of treatment depends primarily on the use of air. When air is introduced to the wastewater, it promotes the growth of aerobic bacteria and other microorganisms that break down the organic material found in regular household sewage.

Raw unsettled waste/water from your home enters directly into the pretreatment tank. Inside the pretreatment tank, the solids separate from the liquid and the liquid flows into the aeration chamber. Inside the aeration chamber, simple hydraulic displacement is accomplished by the introduction of air. Air is introduced into the aeration chamber by passing from the aerator motor through the air diffuser and into the system. This air promotes the growth of aerobic organisms in much larger amounts than would naturally occur. It is these aerobic organisms (bacteria) that break down the organic material. As the wastewater leaves the aeration chamber, it enters the "quiet zone" better known as the clarifier. No mixing occurs inside the clarifier.

In the clarifier, any "leftover" solids separate from the liquid and settle to the bottom of the clarifier. This solid material is called sludge. Sludge contains dissolved oxygen and the sludge bacteria are activated by oxygen. This activated sludge is returned to the aeration chamber where it is mixed and digested again. The sludge then mixes with incoming wastewater. This mixture of returned sludge, wastewater, and dissolved oxygen is referred to as mixed liquor. The mixed liquor flows back into the clarifier, the solids separate and return once again to the aeration chamber. This never-ending cycle produces a clear, odorless, high quality effluent that is ready to be released to the environment.

(See the diagrams on the following pages illustrating basic system design and flow path.)

Pro Flo Treatment System Diagram



500 SL²

397 – Gallon Pretreatment Tank
620 – Gallon Aeration Chamber
219 – Gallon Clarifier Chamber
*Pump Tank Sold Separately

600 SL

447 – Gallon Pretreatment Tank
748 – Gallon Aeration Chamber
268 – Gallon Clarifier Chamber
*Pump Tank Sold Separately

800 SL

*Pretreatment Tank Sold Separately
(Pro Flo recommends the pretreatment tank be no smaller than 550 gallons)
913 – Gallon Aeration Chamber
304 – Gallon Clarifier Chamber
*Pump Tank Sold Separately

1000 S

*Pretreatment Tank Sold Separately
(Pro Flo recommends the pretreatment tank be no smaller than 800 gallons)
1109 – Gallon Aeration Chamber
371 – Gallon Clarifier Chamber
* Pump Tank Sold Separately

500 SLPT²

397 – Gallon Pretreatment Tank
620 – Gallon Aeration Chamber
219 – Gallon Clarifier Chamber
768 – Gallon Pump Tank

600 SLPT

447 – Gallon Pretreatment Tank
748 – Gallon Aeration Chamber
268 – Gallon Clarifier Chamber
796 – Gallon Pump Tank

800 PTSL

768 Gallon Pretreatment Tank affixed
913 – Gallon Aeration Chamber
304 – Gallon Clarifier Chamber
*Pump Tank Sold Separately

1500 S

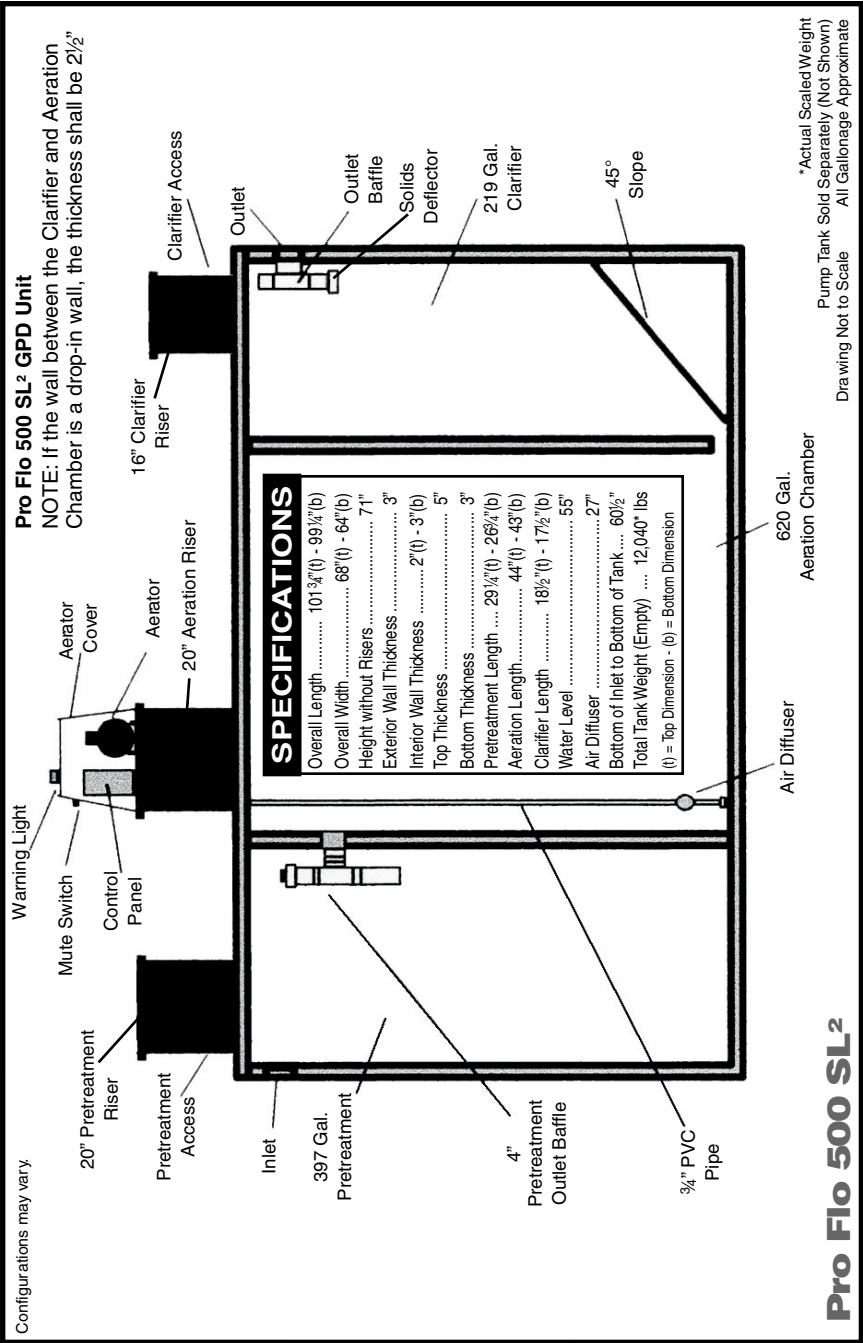
*Pretreatment Tank Sold Separately
(Pro Flo recommends the pretreatment tank be no smaller than 1125 gallons)
1657 – Gallon Aeration Chamber
540 – Gallon Clarifier Chamber
* Pump Tank Sold Separately

Configurations may vary.

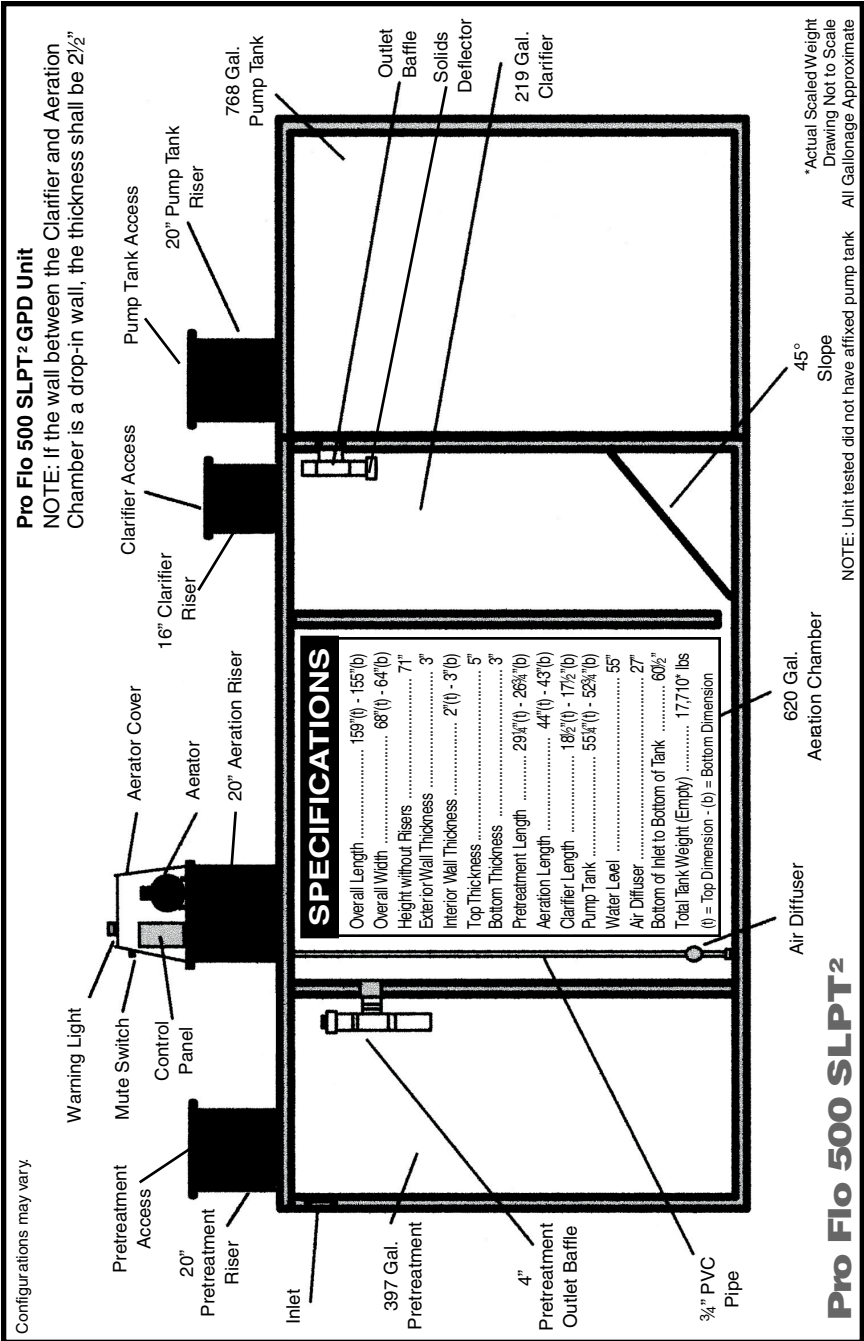
Model of:
500 SLPT²
This Model has affixed
768 gallon pump tank
(optional)

(NOTE: SYSTEM TESTED DID NOT
HAVE AFFIXED PUMP TANK.)

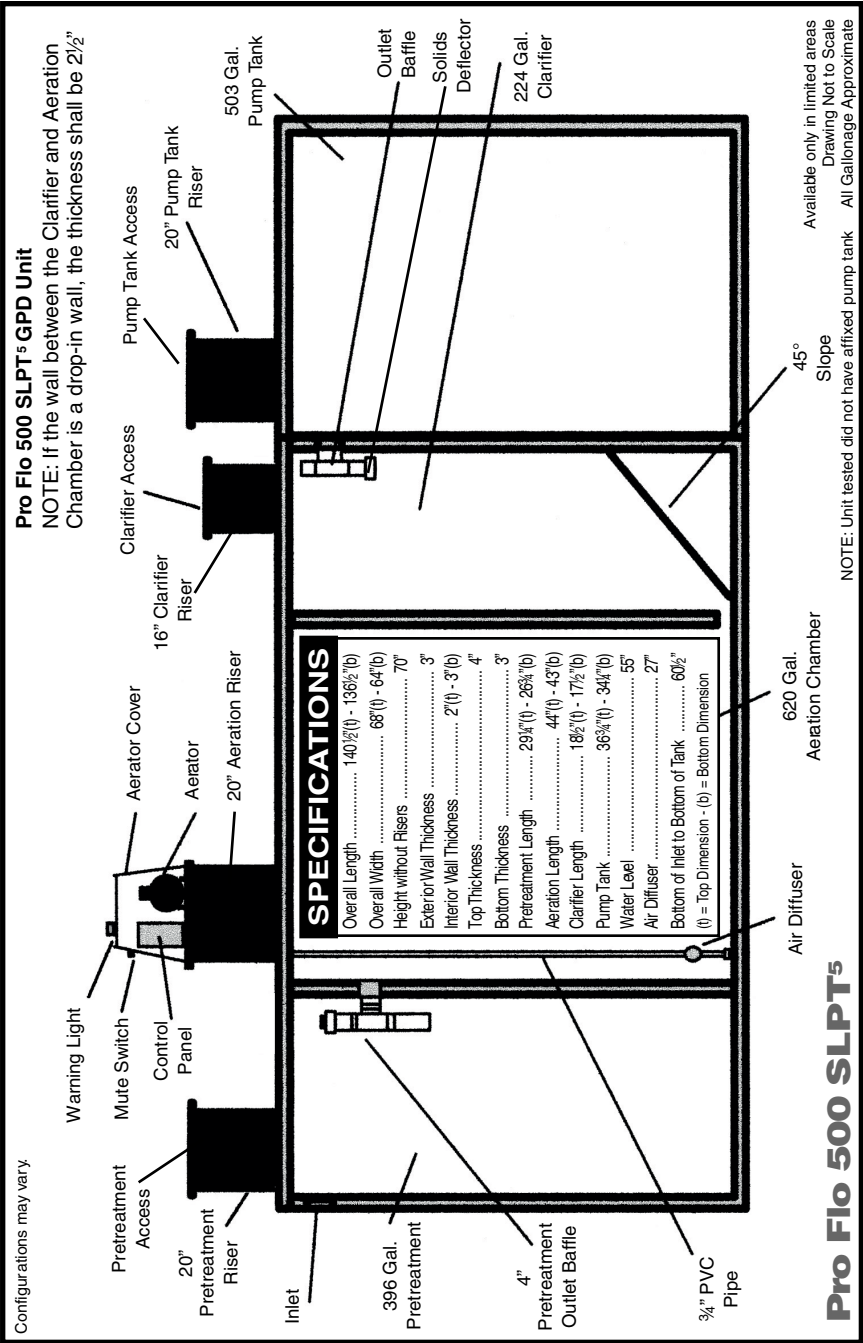
Pro Flo 500 SL² System Diagram



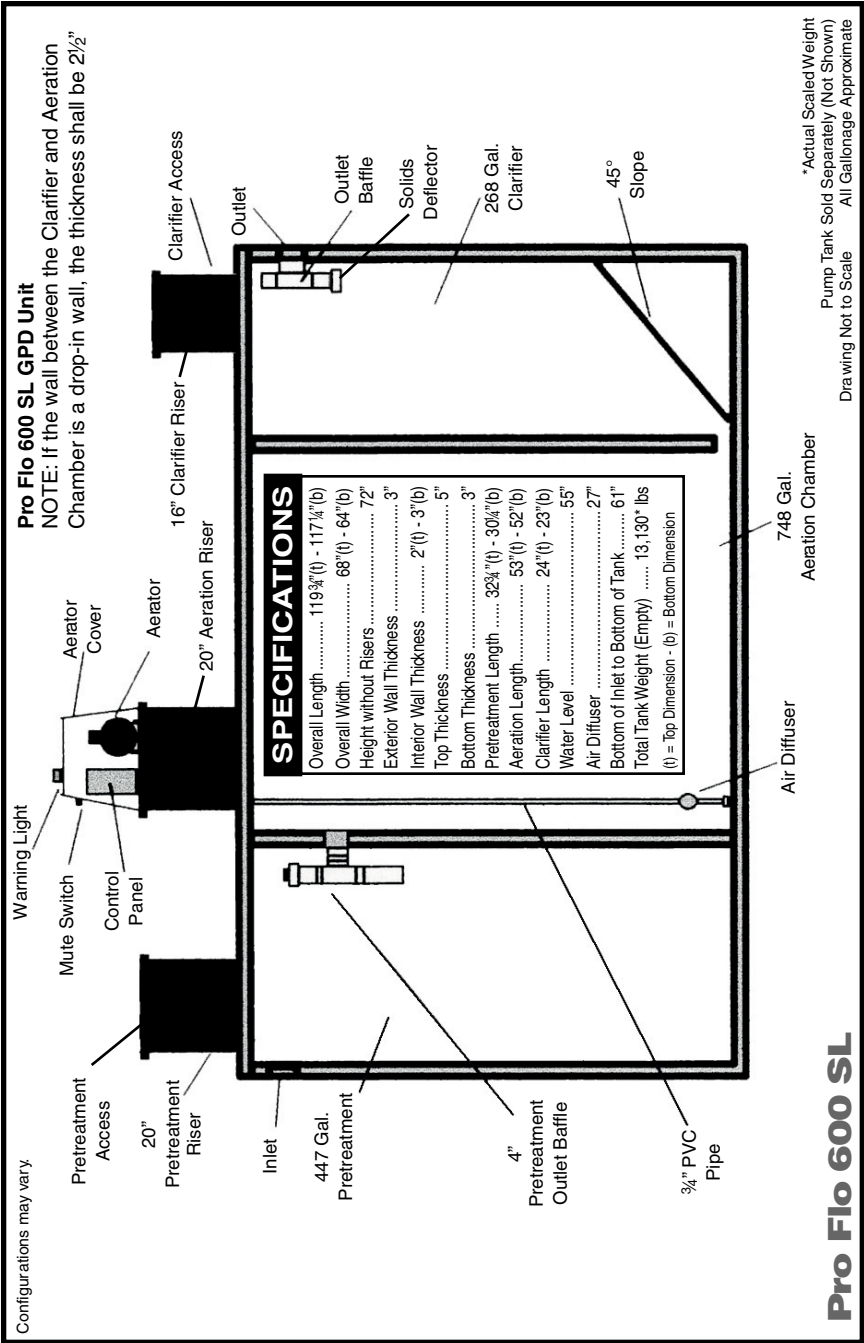
Pro Flo 500 SLPT² System Diagram



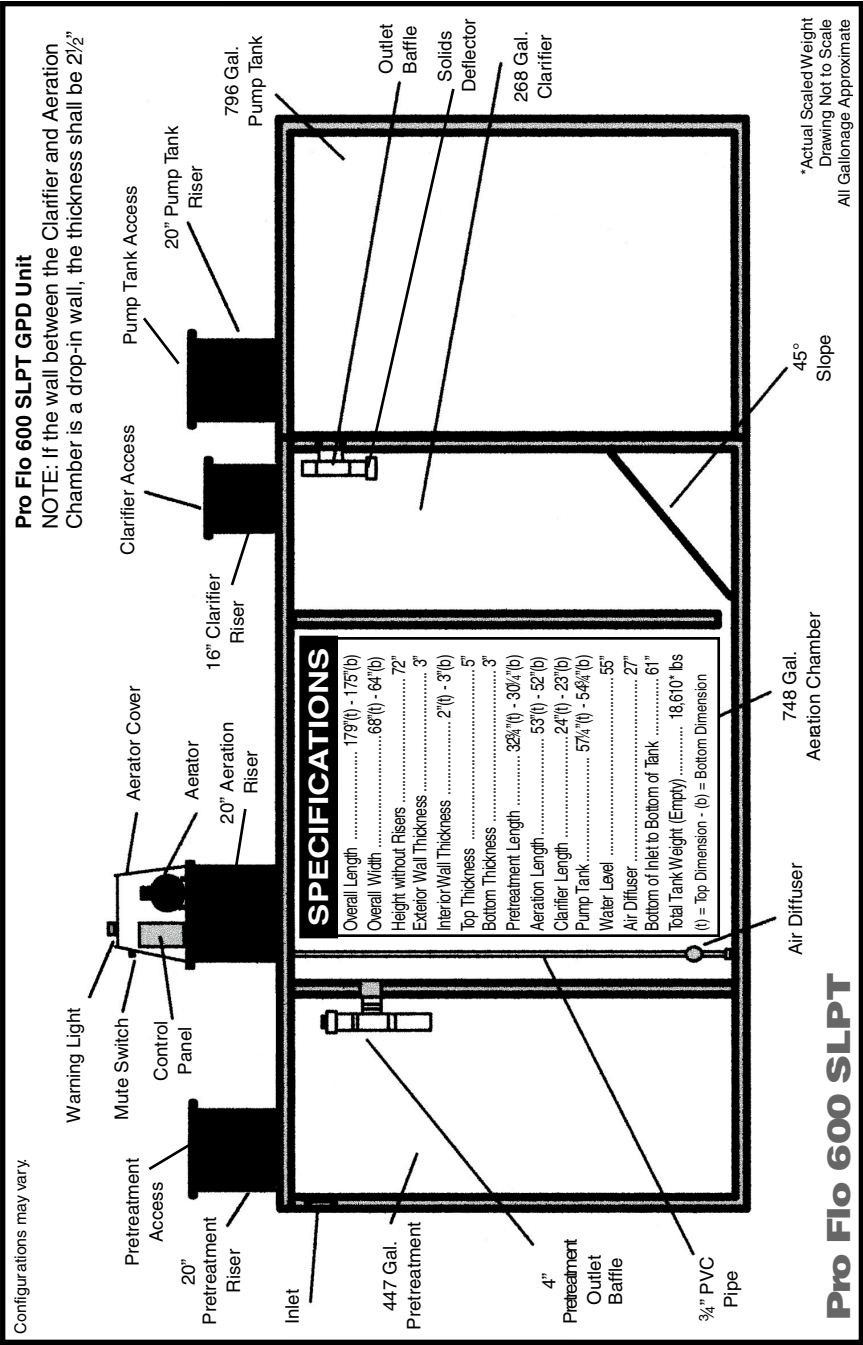
Pro Flo 500 SLPT⁵ System Diagram



Pro Flo 600 SL System Diagram



Pro Flo 600 SLPT System Diagram

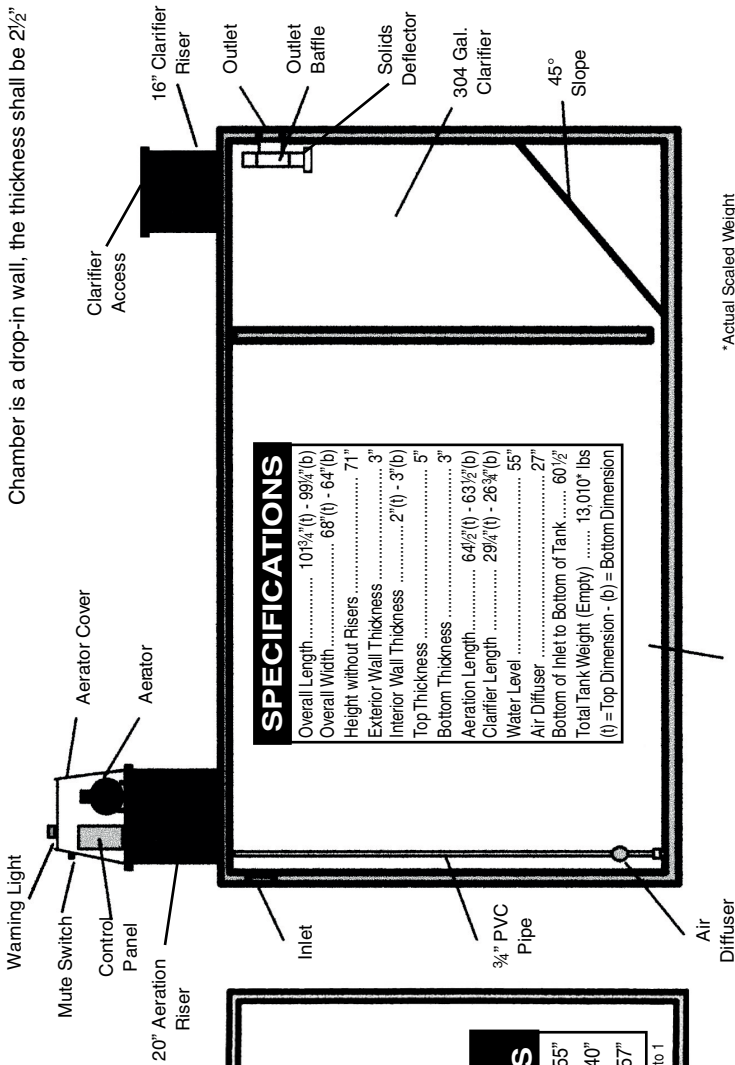


Pro Flo 800 SL System Diagram

Pro Flo 800 SL GPD Unit

NOTE: If the wall between the Clarifier and Aeration Chamber is a drop-in wall, the thickness shall be 2½"

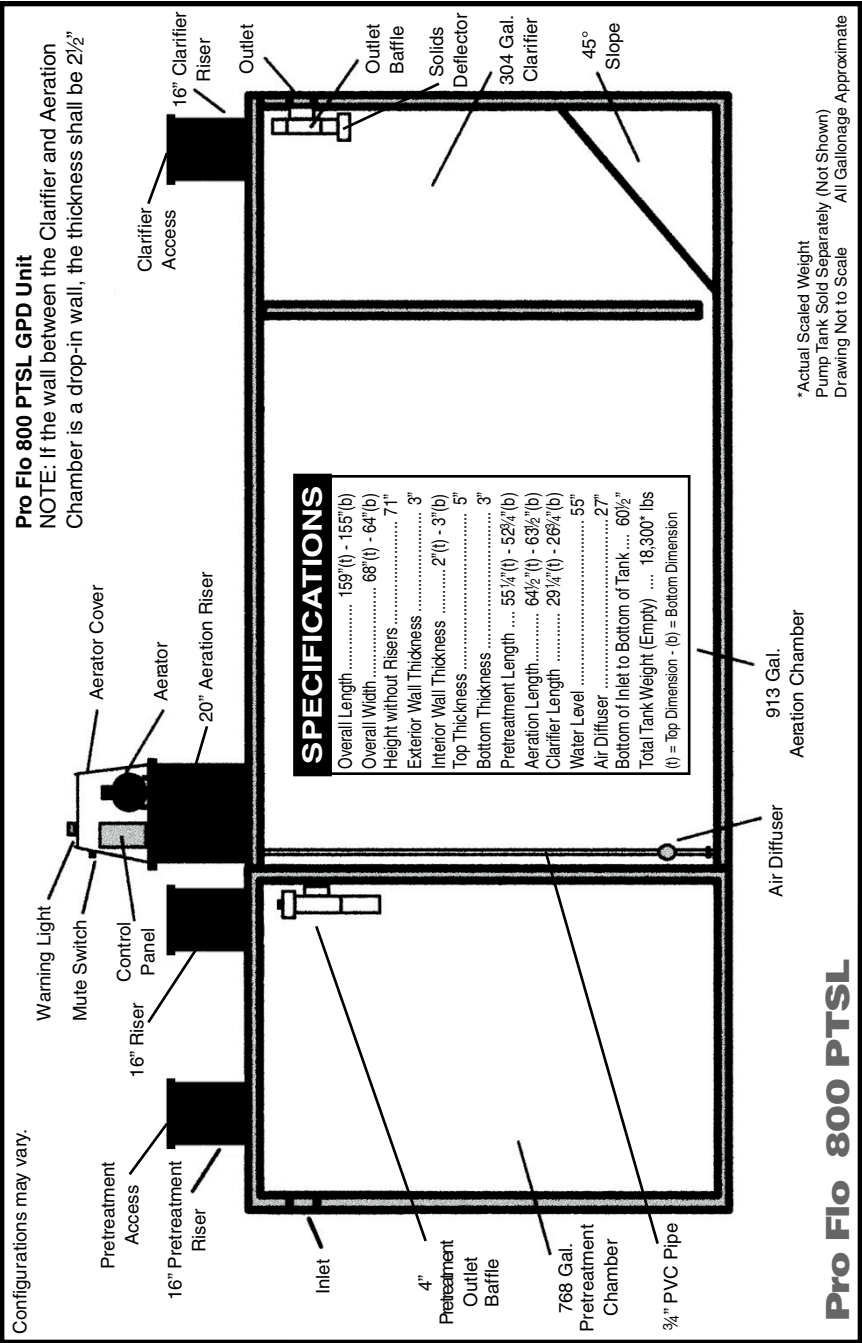
Configurations may vary.



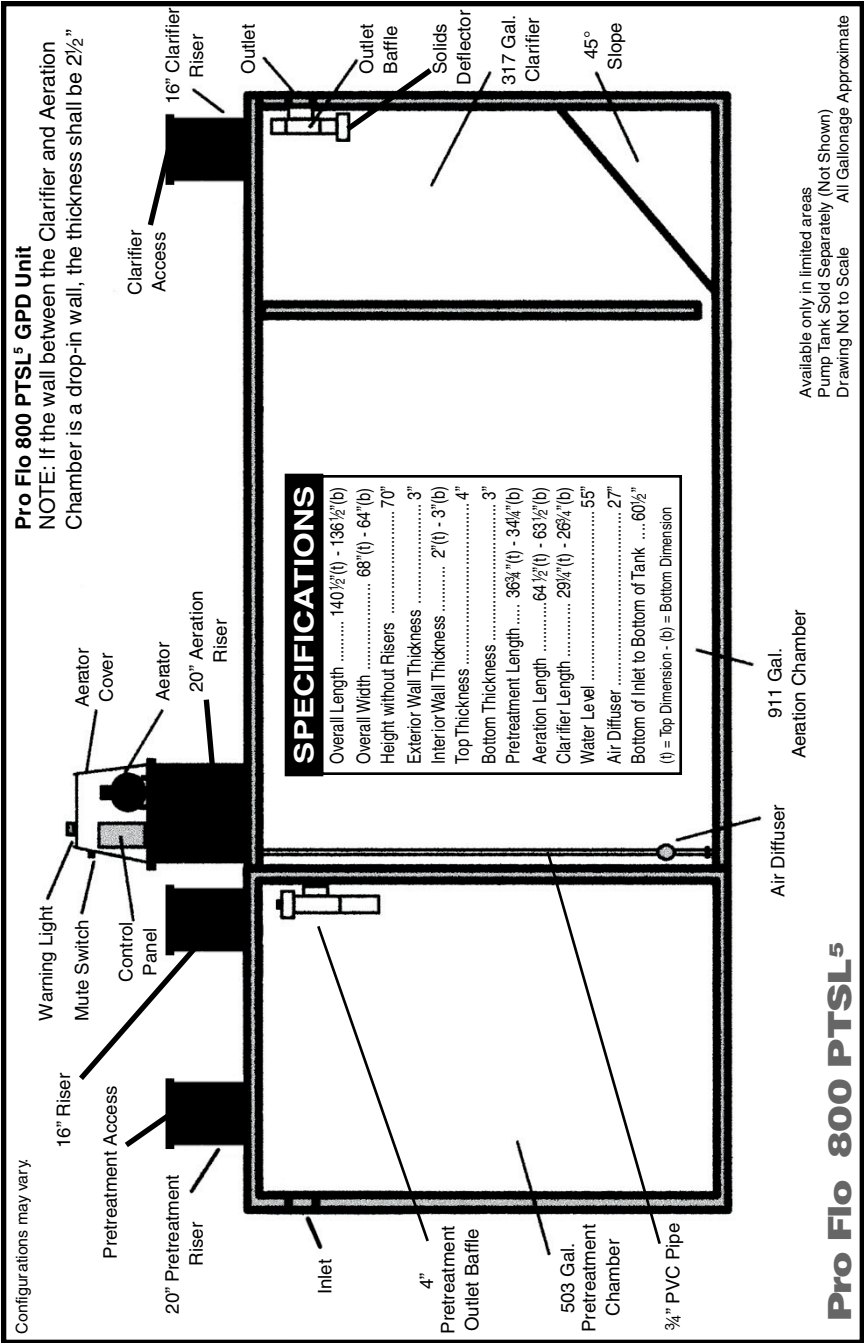
*Actual Scaled Weight
Pretreatment Tank Sold Separately
Pump Tank Sold Separately (Not Shown)
Drawing Not to Scale All Gallonage Approximate

Pro Flo 800 SL

Pro Flo 800 PTSL System Diagram



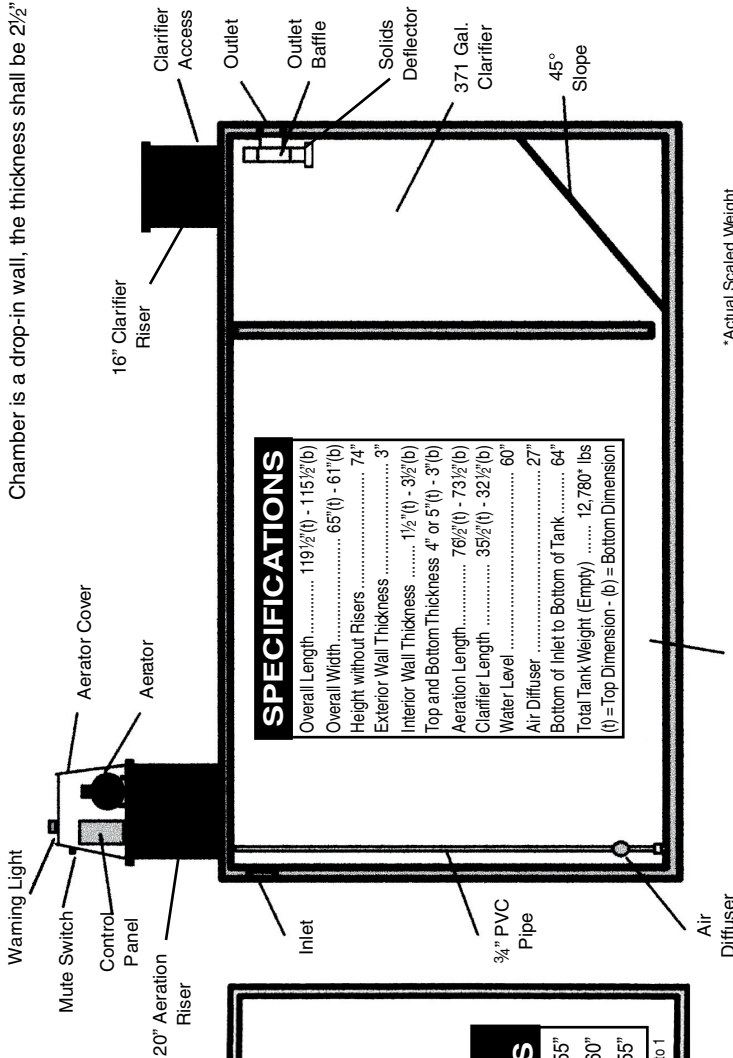
Pro Flo 800 PTSL⁵ System Diagram



Pro Flo 1000 S System Diagram

Pro Flo 1000 S GPD Unit

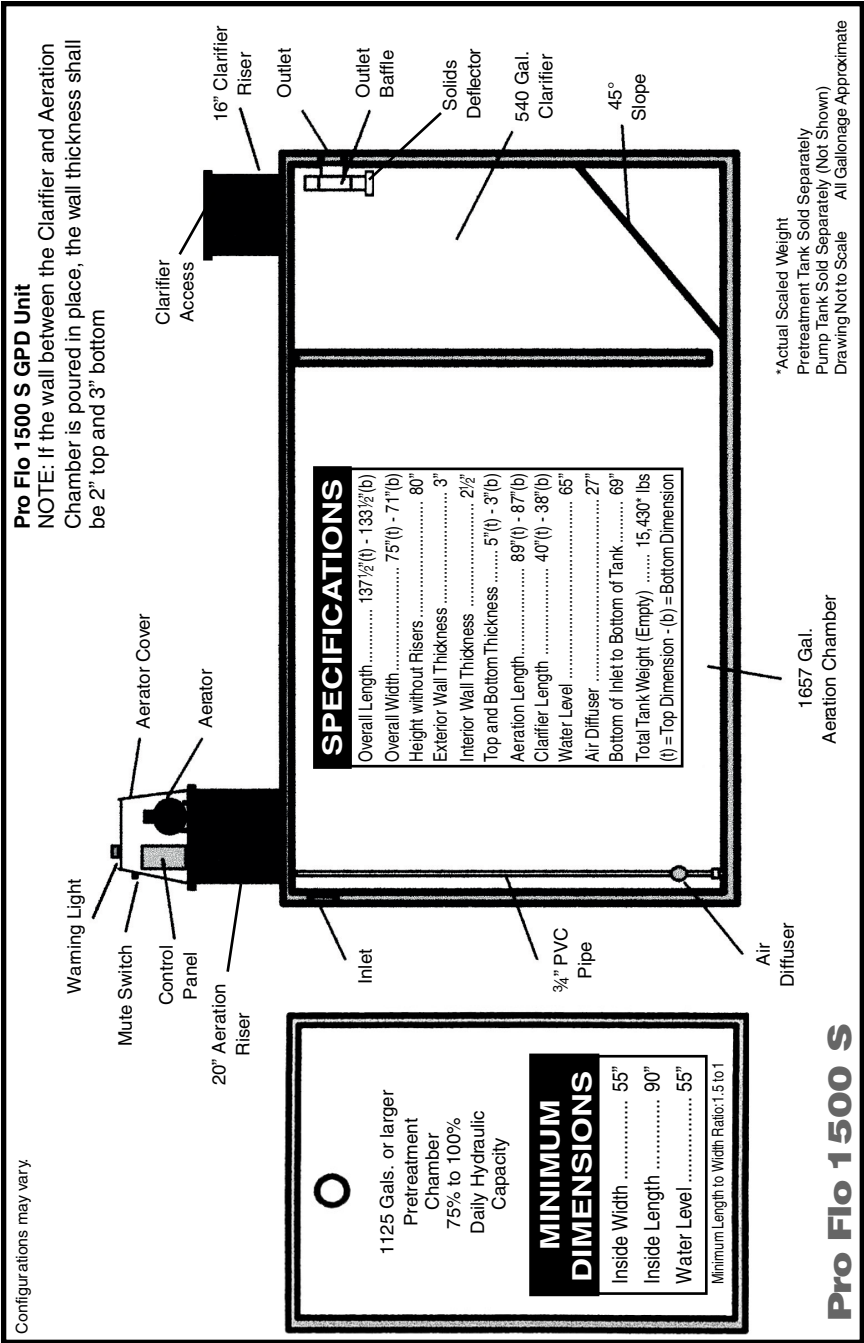
NOTE: If the wall between the Clarifier and Aeration Chamber is a drop-in wall, the thickness shall be 2½"



*Actual Scaled Weight
Pretreatment Tank Sold Separately
Pump Tank Sold Separately (Not Shown)
Drawing Not to Scale All Gallonage Approximate

Pro Flo 1000 S

Pro Flo 1500 S System Diagram



Treatment System Startup

Upon installation completion, your new system needs to be filled with water before its first use. The installer usually performs this step after the tanks are set. Once the system has been filled with water and all electrical and plumbing connections have been made, you are ready to start using your new system.

In order for the Pro Flo to be biologically stable, a population growth of microorganisms (bacteria) will need to develop. This development process may take from four (4) to twelve (12) weeks. It is these bacteria that make the treatment system operate.

Owner Maintenance, Care, and Operation Instructions

Pro Flo Home Wastewater Treatment Systems have been designed and built to provide long term, reliable, and cost efficient service. Our treatment plants will operate with a minimal amount of attention; however, there are a few things you should know in order for your new system to maintain its biological stability and give you years of outstanding performance.

Your local regulating authorities have sized your new Pro Flo Wastewater Treatment System for your home. This means you should try to maintain a certain amount of daily flow into the system.* You can find the size of your system in the back of this manual or on the label that is attached to the motor cover or control panel on the system. The amount of flow the system should obtain per day is as follows:

Size	Safe Zone
500 Gallons Per Day	350 - 500 Gallons Per Day
600 Gallons Per Day	450 - 600 Gallons Per Day
800 Gallons Per Day	550 - 800 Gallons Per Day
1000 Gallons Per Day	800 - 1000 Gallons Per Day
1500 Gallons Per Day	1300 - 1500 Gallons Per Day

*Gallons used per day not to exceed the plant's rated capacity

Note

You will need to monitor your frequency of washing clothes and dishes as this could complicate the treatment process if most of the wastewater from your house is graywater. Graywater does not contain enough organic material to help the treatment process. To avoid disrupting the biological stability of your system, try to spread your laundry and dishwashing over several days instead of doing it all in one or two days.

The Pro Flo Wastewater Treatment System is much like a living organism. It needs certain things to work and perform properly. Your new system can treat most any type of household wastewater. This includes the waste/waters from showers and baths, clothes and dishes, and toilets. However, as great as the system performs in treating common household sewage, it cannot treat everything flushed from the house. For a more descriptive list of items that the Pro Flo cannot treat, see the section in this manual titled **"Items That Are NOT Safe To Use In Your New System."**

Note

Toilets are known to leak water at times from the seal in the tank, so it may be a good idea to test your toilet(s) occasionally. Place a few drops of food coloring or dye into your tank. Observe the bowl for a few moments. If you notice dye or coloring entering your bowl, your seal in the tank is leaking. You will need to replace the flapper in the tank. By performing this simple test, you not only reduce your water usage, but you also prevent diluting the needed bacteria from your system.

Items That Are Safe to Use in Your New System

Think of your new Pro Flo system as a way for bacteria to live. This means anything you use in your home could affect the performance of the system.

It is acceptable to use household cleaners as long as they are not over used. By following the directions on the labels, you should be fine with the amount of chemicals being introduced into the Pro Flo system.

Other than regular household sewage and minor use of cleaners, no other products should be introduced into the Pro Flo system.

Items That Are **NOT Safe to Use in Your New System**

The proper operation of the Pro Flo system depends upon proper organic loading and the life of the aerobic bacteria inside the system. Pro Flo Aerobic Systems is not responsible for the infield operation of our systems other than the mechanical components. We cannot control the loading of substances into the system that may upset its biological balance. We can only provide a System Owner's Manual that outlines the materials that should be kept out of the system.

☹ Do not put strong disinfectants, bleaches, toilet cleaners or sanitizers, other than small amounts used in daily house cleaning and laundry, into the Pro Flo (follow the manufacturer's instructions). Do not use liquid fabric softeners.

- ☹ Do not put chemicals that have high volumes of bacteria killing agents into your system. Do not put commercial, industrial, or chemical waste into your system.
- ☹ Do not allow any discharge, backwash, and/or exhaust from any type of water softener to enter the system. Do not allow surface water to pond around the system. Do not allow non-sewage water flows caused by rain or ground water infiltration, storm water infiltration, leakage from improperly maintained plumbing fixtures, excessive volumes of water, etc. to enter the system. Do not allow air conditioner condensation lines, other than those a/c lines installed to directly discharge into the pump tank, to flow into your Pro Flo.
- ☹ Do not put coffee grounds, shrimp shells, or any level of cooking grease and/or oils into the system.
- ☹ Do not allow pet shampoo or pet dip to flow into the system.
- ☹ Do not put solvents, paints or paint thinners, drain cleaners, harsh detergents, heavy metals, or any other toxic materials into your system.
- ☹ Do not put disposable diapers, paper towels, tampons, sanitary napkins, condoms or any rubber/plastic products, large quantities of paper products, tobacco products (including cigarette filters), or similar items into the Pro Flo. Do not put non-biodegradable items into your system.
- ☹ Pro Flo Aerobic Systems strongly discourages the use of a garbage disposal. However, if you choose to use a garbage disposal, a grease/trash trap should be installed in front of the Pro Flo system. The grease/trash trap will stop undesirable waste materials from entering the Pro Flo system.
- ☹ Do not put chemicals that are designed to clean out drains or correct "septic tank" problems into your system.

Please be aware that some medications you may be taking, such as antibiotics, may upset the biological stability of the system.

IMPORTANT!

The Pro Flo Wastewater Treatment System is not a "septic tank". Septic tanks use and/or work by a different form of bacteria. The use of chemicals that correct septic tank problems could greatly affect the aerobic bacteria in your new system. If you have any doubts about a certain chemical, please call your authorized installer, distributor, or the home office of Pro Flo Aerobic Systems at 936-372-5222.

The Aerator

Your system may be equipped with a quiet, energy efficient linear aerator. The aerator is located under the aerator cover on top of the system (location may vary). The amperage draw of each aerator depends on the model. A linear 500 g.p.d. & 600 g.p.d. (gallons per day) aerator draws about 1.6 amps and the linear 800 g.p.d. and 1000 g.p.d. aerators draw about 2.1 amps each. The linear aerator for the 1500 g.p.d. system draws about 3.4 amps.

If you purchased a 1000 g.p.d. or 1500 g.p.d. model, your system may have a carbon vane aerator which runs louder than a linear aerator. The carbon vane 1000 g.p.d. aerator draws about 3 amps. The carbon vane aerator for the 1500 g.p.d. system draws about 10.4 amps.

You should get used to the sound of your aerator on your new system. If you notice extreme sound changes, you should call for service.

WARNING!

Never attempt to service or clean your filter on your aerator yourself. Call your authorized service representative. As with any electrical device, there is a chance of electrical shock if you attempt to service the system yourself.

The Control Panel

Each Pro Flo Wastewater Treatment System has its own control panel. This panel is located under the aerator cover on top of the system (location may vary). This control panel is equipped with a complete "Systems Malfunction" alarm system. If for any reason the air pressure in the aeration system drops or the system has high water, the alarm will sound and the red light will come on. If you hear your alarm system sounding, something is not working properly with your system. You will need to call your service provider for repair. Their number will be located on a label on the aerator cover or the control panel. A mute switch is located on the aerator cover (location may vary) to allow the sound to be interrupted until your service provider arrives.

WARNING!

Never attempt to service the control panel yourself. Call your authorized service representative. As with any electrical device, there is a chance of electrical shock if you attempt to service the system yourself.

Periodic Pumping and Cleaning

Determination of the need for pumping can be made only by a trained service person by testing the tank's contents and/or effluent. The pumping should be done by a competent septic tank cleaning company. Your system should be cleaned every 3 to 5 years depending on your daily loading. You should expect to obtain one inch of sludge at the bottom of your system every year. If you use more water than what the system was designed to handle, you will have more build up in less time. This means you may need to have your system pumped and cleaned more frequently.

Your Responsibilities

WARNING!

It is the sole responsibility of the owner to understand, observe, and follow any and all safety rules and requirements pertaining to the entire electrical system, aerator operation, and system discharge concerning the owner, their families, friends, or guests.

There are a few procedures that you will need to follow in order for your new Pro Flo Wastewater Treatment System to work to its full potential. These procedures include but are not limited to:

1. Make sure the aerator is never exposed to water or fire ants. Your warranty does **NOT** cover water or fire ant damage.
2. Make sure the system is not exposed to vehicular traffic. This could cause damage to the tank(s). Your warranty does **NOT** cover tank damage due to vehicular (motorized) traffic.
3. Do not attempt to clean the aerator filter or service any part of the system yourself. Doing so could result in electrical shock and may cause severe bodily damage or death.
4. The Pro Flo Wastewater System will NOT produce water that is safe for human consumption. Always be sure children are not allowed to play on or around any part of the system. Do not allow pets or livestock around the system or any of its components.
5. Do not allow non-biodegradable materials (i.e. plastics, coffee grounds, etc.), chemicals, solvents, grease, oil, paints or any other type of non-domestic wastewater to enter the Pro Flo Treatment System. For a detailed list, see the section titled "Items That Are NOT Safe to Use in Your New System."

Detecting Malfunctions or Problems

If you notice the alarm sounding, call your installer or service provider for assistance. The only thing the alarm system does not detect on its own is the actual treating of the wastewater. If you experience odor problems or notice the system is not producing the normal high quality treated output (effluent), call your installer or service provider.

Infrequent Use of the Pro Flo

Should the system be used intermittently or if extended periods of nonuse are anticipated, it is recommended that the system be allowed to remain on and in operation. You should not allow the contents of the system to go septic due to nonuse.

What To Do For Service

On every system installed, you should see labels on the aerator cover or the control panel and on the aerator. The label on the aerator cover or the control panel will have the necessary information for obtaining service. Usually this company or person is the person who installed your system. If you need service on the system or you notice the system is not working properly, contact the authorized service representative on the label. Do not attempt to service, alter, repair, or modify the system yourself or use replacement parts or components other than those supplied by an authorized Pro Flo representative.

Service Contracts and Obligations

An initial 2-year service contract is included in the price of your new Pro Flo Wastewater Treatment System. This contract includes, at a minimum, a total of four (4) system inspections within two years. This is a requirement of the NSF Standard No. 40 and your local regulating authorities.

Note

In some states it is a requirement for you to have a continual service contract with a licensed service provider who is authorized to service the Pro Flo Wastewater Treatment System.

If you notice that you are not receiving the proper service inspections from your installer or service provider, please do not hesitate to contact the home office of Pro Flo Aerobic Systems at 936-372-5222. We will help you handle your situation and make sure you receive proper service.

At the end of the initial 2-year period, you have the option of purchasing an additional service contract through your Pro Flo representative. We encourage you to purchase this additional contract at that time.

The Pro Flo system is designed to achieve a high degree of treatment necessary to protect both environmental and public health concerns. As with any piece of equipment, proper user care, in addition to regular service inspections and routine maintenance, will help ensure optimum treatment efficiency as well as reducing long-term operating costs.

IMPORTANT!

The Pro Flo system must be installed and maintained in compliance with all state and local laws and regulations. This includes compliance with all regulations concerning proper effluent disposal as well as the pumping and disposal of sludge (treatment system solids). Many states already require the use of a chlorination system behind all mechanical plants for total effluent disinfection prior to final discharge. Pro Flo recommends the use of a chlorination system behind its mechanical plants for total effluent disinfection prior to final discharge. Pro Flo also recommends that children and animals should not be allowed to play or come in contact with the effluent or the effluent discharge area.

Warranties

Your new Pro Flo Wastewater Treatment System comes with a 2-year limited manufacturer's warranty. This warranty covers the aerator, pump, floats and control panel.

See the Limited Warranty on the following page for a full description of terms and conditions.

PRO FLO AEROBIC SYSTEMS LIMITED TWO YEAR WARRANTY

Pro Flo Aerobic Systems warrants the parts in each treatment process/system to be free from defects in material and workmanship for a period of two years from the date of installation treating residential wastewater. Sole obligation under this warranty is as follows: Pro Flo Aerobic Systems shall fulfill this warranty by repairing or exchanging any component part, F.O.B. factory, that in Pro Flo Aerobic Systems', LP judgment shows evidence of defects, provided said component part has been paid for and is returned through an authorized dealer, transportation prepaid. The warrantee must also specify the nature of the defect to the manufacturer.

The warranty does not cover treatment processes/systems that have been flooded by external means or that have been disassembled by unauthorized persons, improperly installed, subjected to external damage, or damage due to altered or improper wiring or overload protection.

This warranty applies only to the treatment process/system and does not include any pumping of tanks, residential wiring, plumbing, drainage, or disposal system. Pro Flo Aerobic Systems is not responsible for any delay or damages caused by defective components or materials, for loss incurred because of interruption of service, or for any other special or consequential damages or incidental expenses arising from the manufacture, sale, or use of this process/system.

Pro Flo Aerobic Systems reserves the right to revise, change, or modify the construction and design of the treatment process/system for residential wastewater or any component part or parts thereof without incurring any obligation to make such changes for modifications in previously sold equipment. Pro Flo Aerobic Systems also reserves the right in making replacements of component parts under this warranty, to furnish a component part which, in its judgment, is equivalent to the component part replaced.

Under no circumstances will Pro Flo Aerobic Systems be responsible to the warrantee for any other direct or consequential damages, including but not limited to lost profits, lost income, labor charges, delays in production, and/or idle production, which result from defects in material and/or workmanship of the system.

This warranty is expressly in lieu of any other expressed or implied warranty, excluding any warranty of merchantability or fitness, and of any other obligation on the part of Pro Flo Aerobic Systems.

This warranty gives you specific legal rights. You may also have other rights that vary from state to state.

The manufacturer's warranty does not apply to the following:

1. Misuse, abuse, or any repair or alteration performed by anyone other than Pro Flo personnel or authorized representatives.
2. Use of components other than authorized Pro Flo replacement components.
3. Non-sewage water flows caused by rain or ground water infiltration, storm water infiltration, leakage from improperly maintained plumbing fixtures, water softener backwash/discharge/exhaust, or air conditioner condensation line infiltration, etc.

4. Failure to maintain electrical power to the treatment system in accordance with the requirements of the manufacturer (Pro Flo Aerobic Systems) or the authorized service representative.
5. The disposal into the Pro Flo of non-biodegradable materials (i.e. plastics, coffee grounds, etc.), chemicals, solvents, grease, oil, paints or any other type of non-domestic, non-biodegradable wastewater. See the section in this manual titled "Items That Are NOT Safe to Use in Your New System."
6. Daily sewage flows into the Pro Flo that exceed the plant's hydraulic or organic design capabilities.
7. Any usage contrary to the Pro Flo System Owner's Manual and/or the Pro Flo representatives' recommendations.
8. Damage to components caused by sewer gases, water and/or fire ants.

Sources For Obtaining Replacement Parts or Components

Pro Flo Aerobic Systems carries a full line of replacement parts and/or components that may be obtained from your local installer, distributor, or by writing or calling Pro Flo Aerobic Systems, P.O. Box 1425, Waller, TX 77484-1425. Telephone No. 936-372-5222.

General Information

You have the Pro Flo:

- ☐ 500 gallon per day wastewater treatment system
- ☐ 600 gallon per day wastewater treatment system
- ☐ 800 gallon per day wastewater treatment system
- ☐ 1000 gallon per day wastewater treatment system
- ☐ 1500 gallon per day wastewater treatment system

Aerator Serial Number _____

Date of Purchase _____

It is very important that you send in the warranty registration card. This will start your warranty on your new Pro Flo Wastewater Treatment System. Be sure this information is sent no later than 60 days after the system is installed.

Thank you for purchasing the Pro Flo Wastewater Treatment System.

NOTES

[illegible]

----- *- Cut here -* -----

Please fill out and return to the following address within 60 days of installation.

Pro Flo Aerobic Systems
Attn: Pro Flo Warranty Dept.
P.O. Box 1425
Waller, TX 77484-1425

Name _____

Address _____

City _____ State _____ Zip _____

Phone Number _____

Name of installer _____

Installer's Phone Number _____

Aerator Serial Number _____

Date of Purchase _____

This will start your warranty on your new Pro Flo Wastewater Treatment System. Please retain the System Owner's Manual for your records.

