Infiltrator™ Water Technologies
Part of ADS

Whitewater-DF Series & More Wastewater Treatment Facts Functions and Myths

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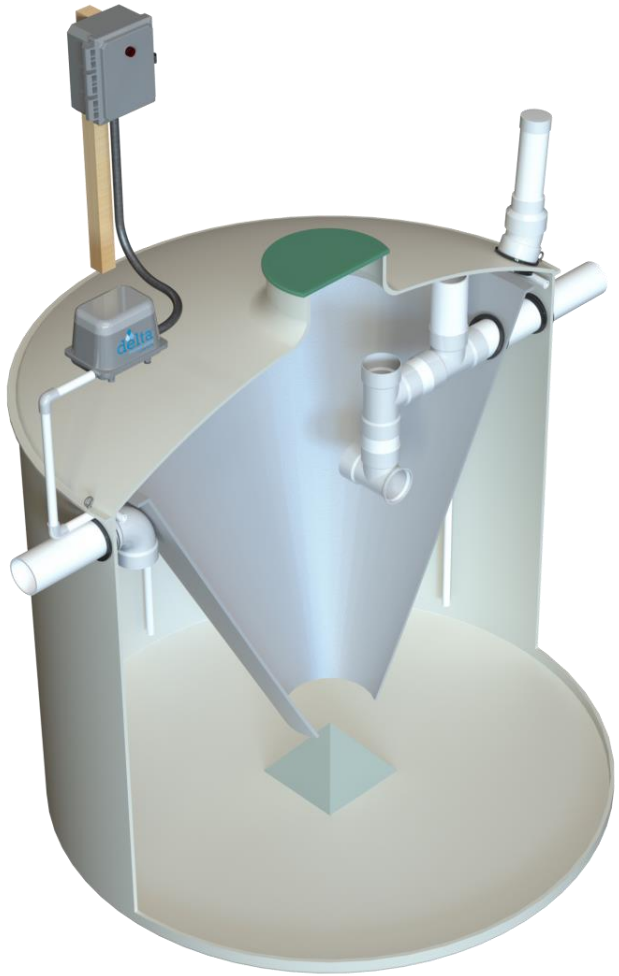
Presented at NOWRA 2025 Mega-Conference, October 19-22, 2025.


Where's Septic Sam?
10 YEARS

The materials being presented represent the speaker’s own opinions and do NOT reflect the opinions of NOWRA.

Agenda



- **Whitewater Overview**
- General Specifications
- Installation
- Maintenance
- Troubleshooting
- NSF/ANSI Requirements
- Selling your Value as the Service Provider
- Questions

Whitewater-DF Series Overview

- Sized to meet daily flow requirements
  - Available in 500-1500 gallons per day (GPD)

- Third party certifications
  - NSF/ ANSI Certification
    - Standard 40
    - Class 1 – CBOD 25 mg/l; TSS 30 mg/l

Whitewater-DF Benefits

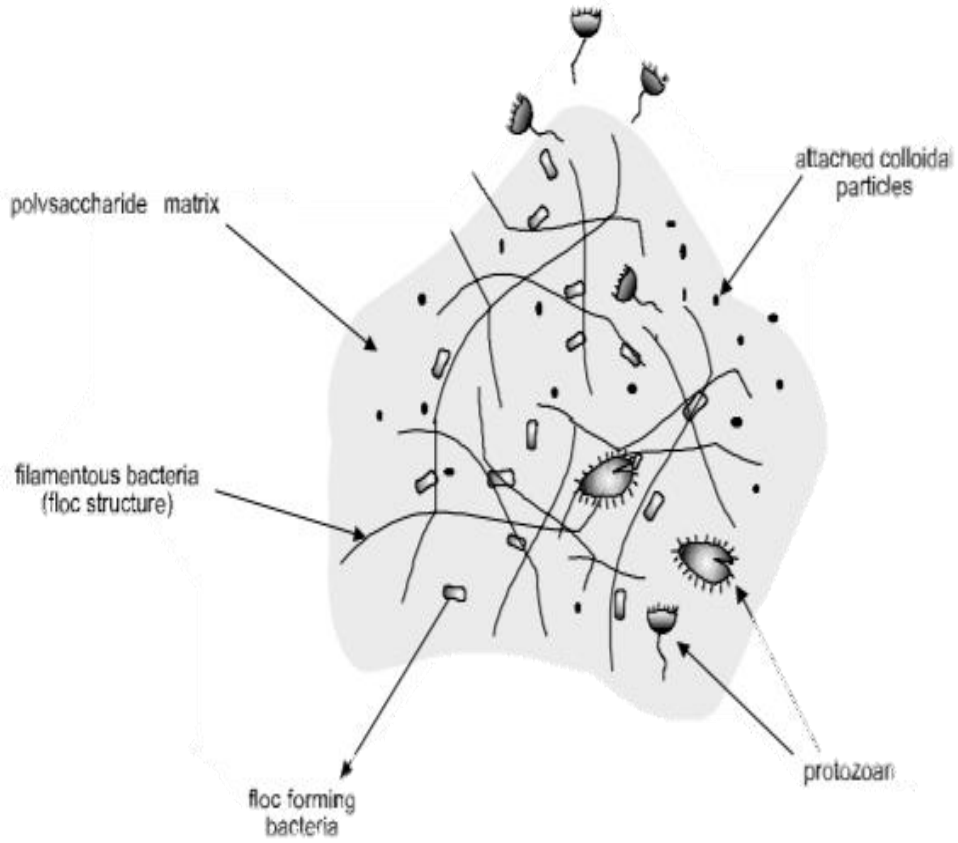
- Patented air-ports – equal air distribution, non-clogging
- Discharge piping assembly serves as a baffle and weir
- Linear aerator – quiet, low power consumption, inexpensive to repair and/or replace, minimal back pressure
- Easy access for maintenance
- Can be used in conjunction with a variety of disposal methods (if allowed by code):
    - Conventional drainfield (gravity or pressure)
    - Drip
    - Direct surface discharge
    - Spray irrigation

Whitewater-DF System Components

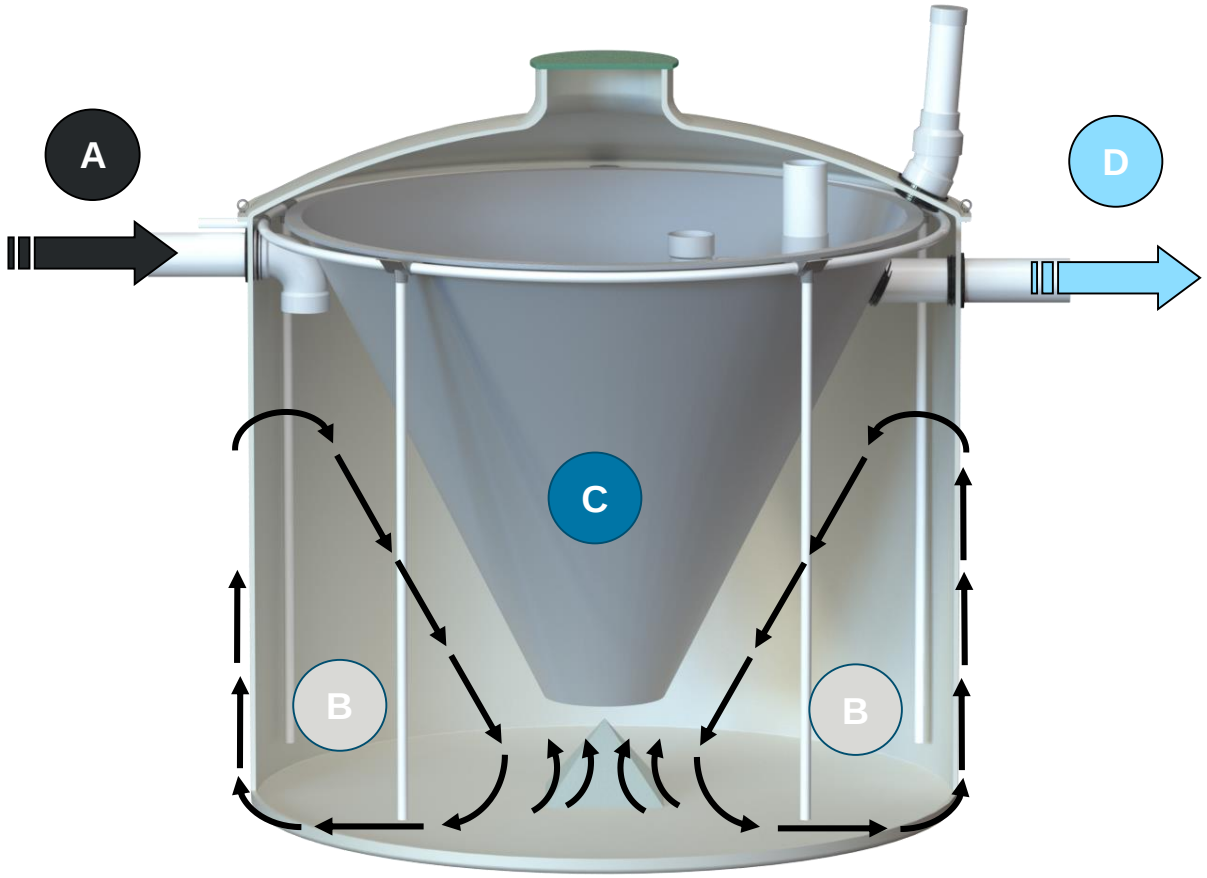
- Aeration Chamber: aerated chamber for the development of aerobic microorganisms
- Clarifier: a quiescent chamber for the separation of the clear water from the microorganisms
- Air Pump
- Control Panel
- Note: Primary Tank: screening, trapping solids acts as a conventional septic tank

Whitewater-DF

- Aerobic treatment unit utilizing the suspended growth process
- Activated sludge process with extended aeration
- Microbes are mixed with nutrients and organics
- Organisms form active mass of microbes



Whitewater-DF Process Flow



A Wastewater enters system from septic tank or dosing tank.

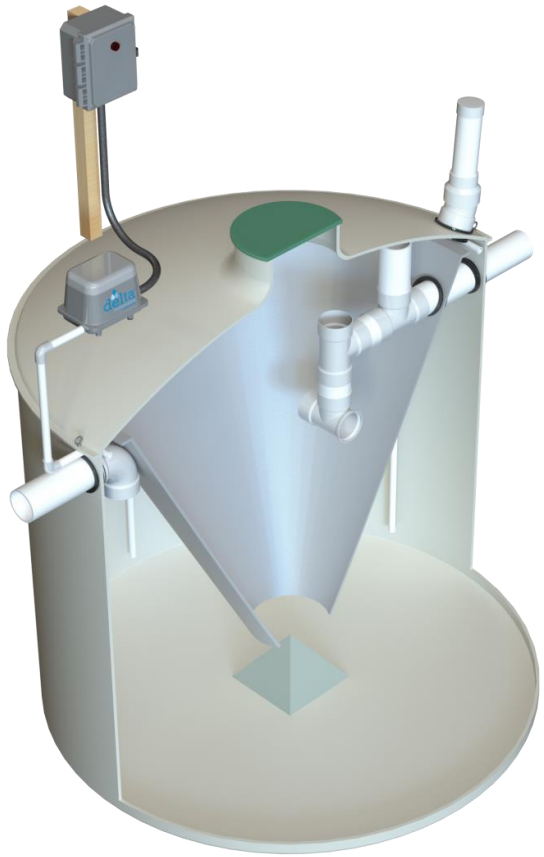
B Wastewater circulates with the floc in an oxygen rich environment, and the solids are digested.

C Treated effluent enters the clarification chamber.

D Effluent exits the system to move to the dispersal system.

Discharge piping inside of Whitewater-DF Unit

Agenda



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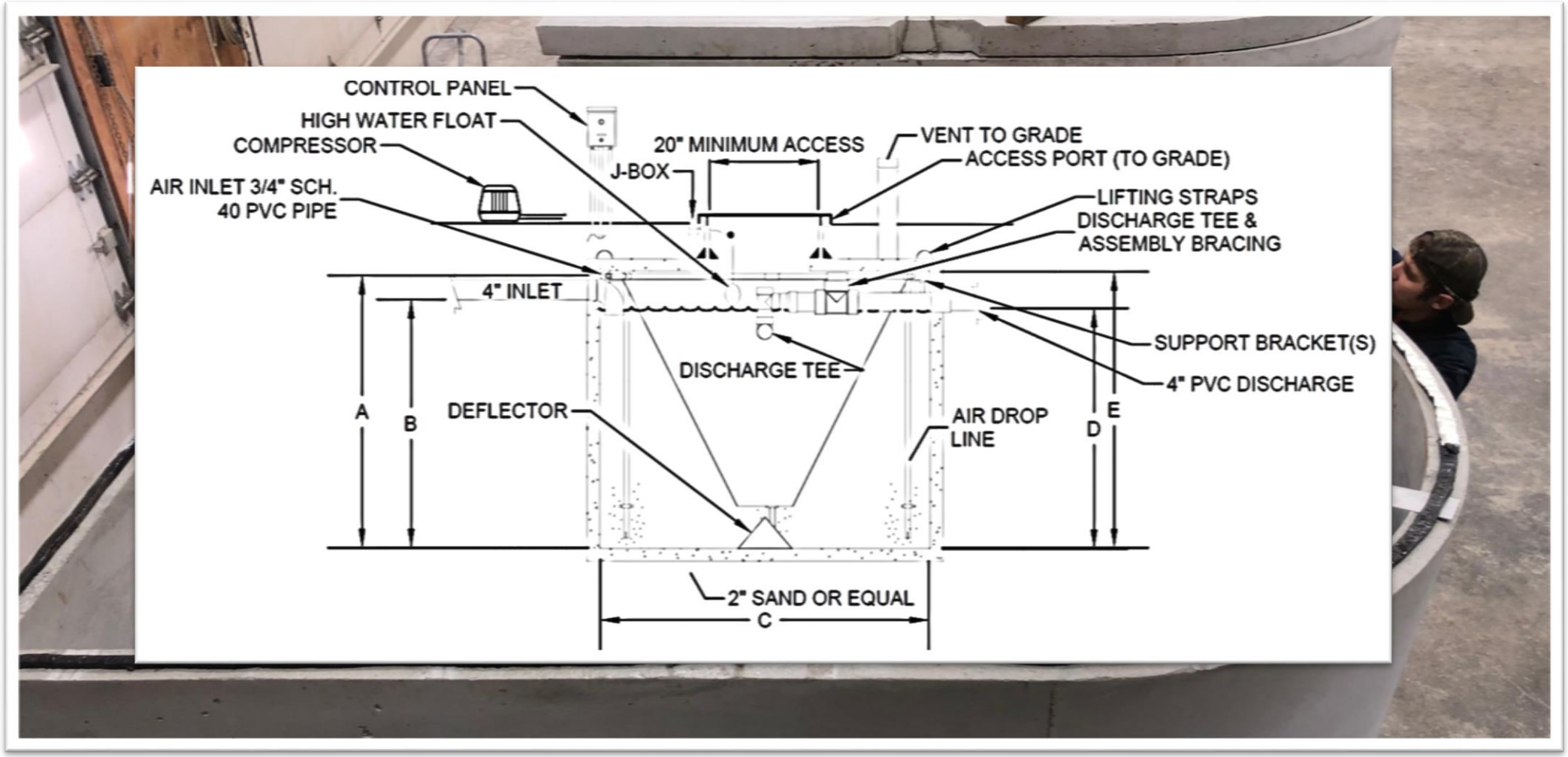
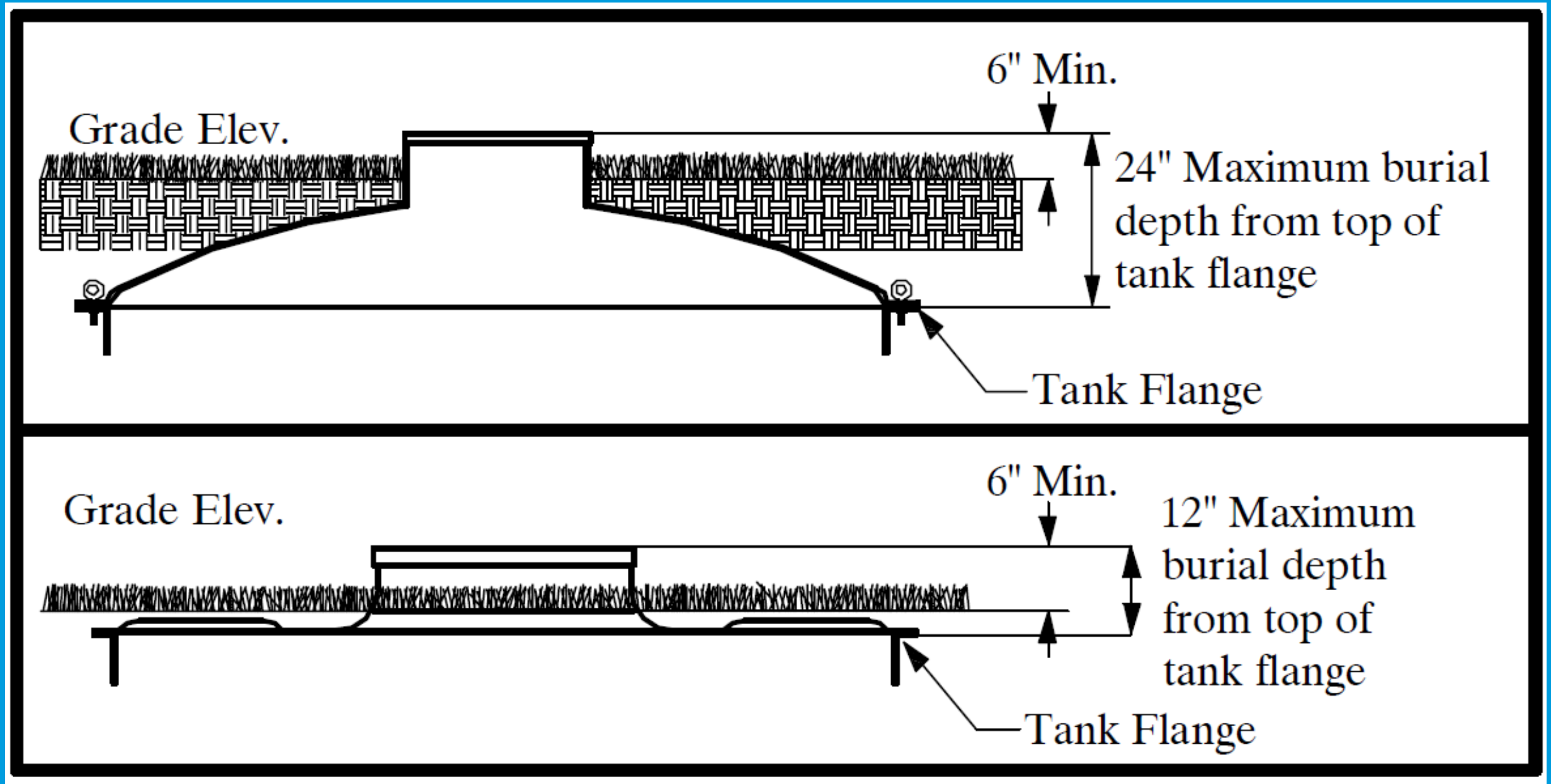
Whitewater Technical Specifications

Model	GPD	Diameter	Height	Electrical	Inlet/Outlet
DF50FF/CA	500	6' (1828 mm)	5' (1524 mm)	115V	4" (1219 mm)
DF60FF/CA	600	6'3" (192 mm)	5'9" (1753 mm)	115V	4" (1219 mm)
DF75FF/CA	750	6'9" (2057 mm)	6'2" (1890 mm)	115V	4" (1219 mm)
DF100AFF/CA	1,000	8' (2438 mm)	6' (1829 mm)	115V	4" (1219 mm)
DF150FF/CA	1,500	8' (2438 mm)	8'6" (2591 mm)	115V	4" (1219 mm)

Whitewater-DF Concrete Unit



Whitewater-DF Fiberglass Lid Options & Burial Depth



Domed reinforced lid

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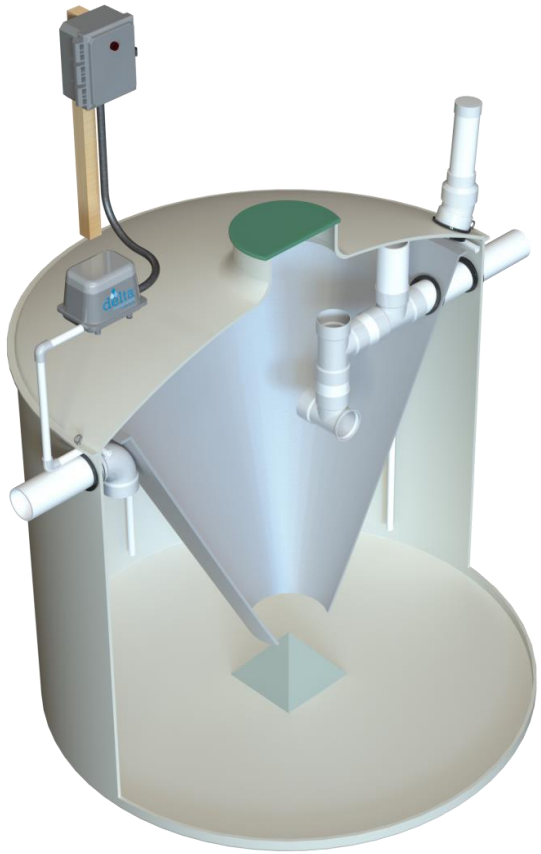

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Whitewater-DF Unit Installation

Treatment Unit:
- Fiberglass
- Concrete

Pretreatment Tank?
- Aerator
- Airline
- Control Panel
- Other Components

Aerator Overview

The air filter for the aerator should be cleaned every 3-6 months. Brush out or rinse with warm water if necessary.

Note: Do not use oil or other solvents.

Aerator Installation

Installation

- ✓ Near control panel to ease maintenance
- ✓ Within 100’ of the Treatment Unit
- ✗ Do not install in low-lying areas

Important to Note

- This is on 24 hours a day
- It isn’t silent but noise levels are less than a typical Home A/C unit

Be careful of…

- ⃠ Do not run without proper water level in tank
- ⃠ Installing near home windows/doors
- ⃠ Installing near outdoor living areas

Control Panel Installation

- Mount panel to suitable mounting surface
- Use all four mounting holes.
- Connect conduit once it’s mounted.
- Connect pressure air tubing to barb on aerator.
- Air tubing should be protected.

Safety

1. Always secure tank lids to prevent unauthorized entry.
2. Only qualified service providers should open tank access ports.
3. Confined space precautions should be followed when entering a septic tank.
4. Do not use an open flame near a septic tank access point.
5. All electrical work should be performed by a qualified electrician.

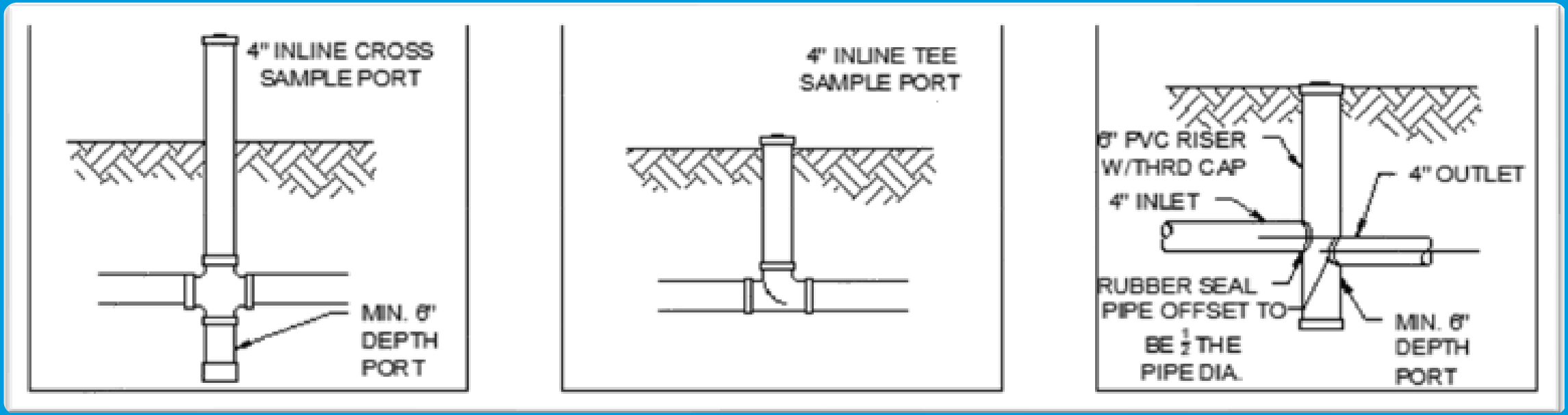
Only authorized service providers should service a septic system and its components. Deadly hazards such as lethal gases and high voltage electricity are associated with a septic system.

Vent Inspection

- Ensure the vent is not broken and free from any blockages.
- If a charcoal filter is present clean/replace as needed.

Sampling Procedure

- Sampling is required under specific approvals.
- Samples must be taken in the finished effluent discharge line after all treatment components or from the cascading edge of the inletting pipe to the pump tank.



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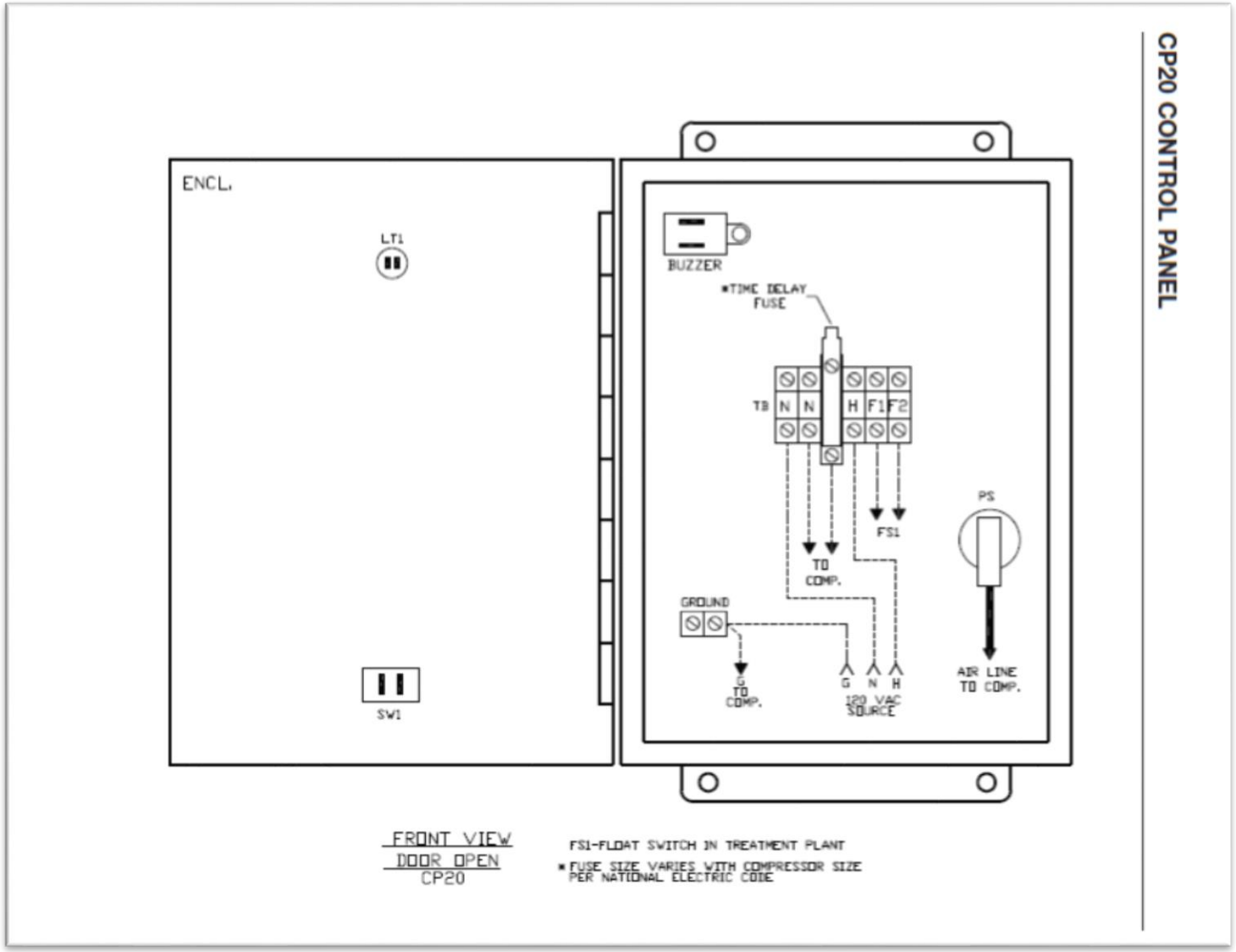
Wiring Control Panel



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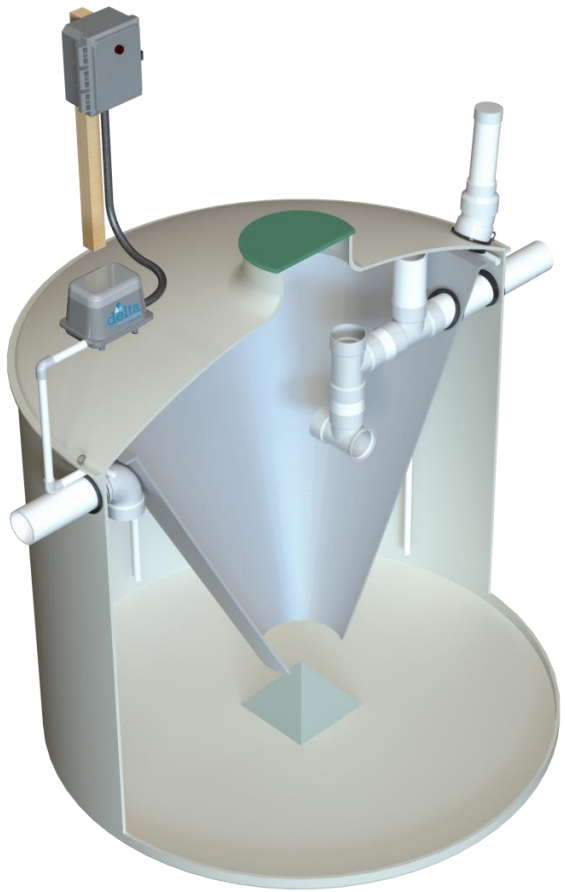

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Whitewater-DF Maintenance

Treatment Tank Solids Measurement

- Depth of sludge determines pump out requirement
  - Turn off aerator for 15 minutes to measure
  - Concrete Kit: ≤ 12” sludge depth

- Pumping frequency is a function of use
  - Heavily used systems will need to be pumped more frequently

Whitewater Solids Removal Procedure

- Leave the aerator ON
- Skim floating solids off
- Pump out two-thirds of the aeration chamber volume with the hose placed at the treatment system bottom
- Add water to back to the tank.
- Verify the panel is showing normal operating conditions

NOTE: THE COST ASSOCIATED WITH PUMPING THE TREATMENT SYSTEM IS NOT COVERED UNDER WARRANTY AND IS NOT INCLUDED IN THE SERVICE POLICY.

Primary Tank Inspection

Primary Tank should be inspected during each site inspection and pumped every 3-5 years as needed.

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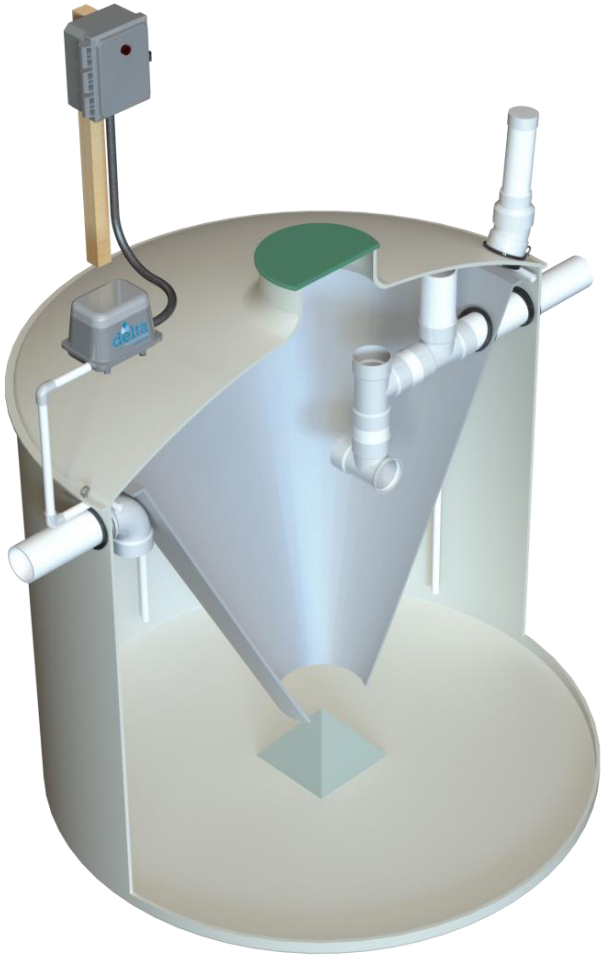
Aerator Inspection

- The air filter for the aerator should be cleaned every 3-6 months
- Brush out or rinse with warm water if necessary.

Note: Do not use oil or other solvents.

Agenda



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Troubleshooting

Issue	Foul Odors	Aerator Issues	Control Panel Alarms	Action
Improper Installation	✓	✓	✓	Ensure system is level and installed per instructions
Broken Airlines	✓	✓	✓	Repair Lines
System is Overloaded	✓	✓	✓	Discussion with Homeowner
System was abused (chemicals, medications, etc)	✓			Discussion with Homeowner
Drainfield is clogged causing back-up	✓	✓	✓	Repair drainfield
Loud Noise from Aerator	✓	✓	✓	Check aerator for possible bearing failure
Control Panel	✓	✓	✓	Reset pressure switch per instructions

Troubleshooting Alarms

1) Open treatment tank lid:

- If high level in tank:
  - Talk with homeowner, pump tank, find cause of blockage or high level

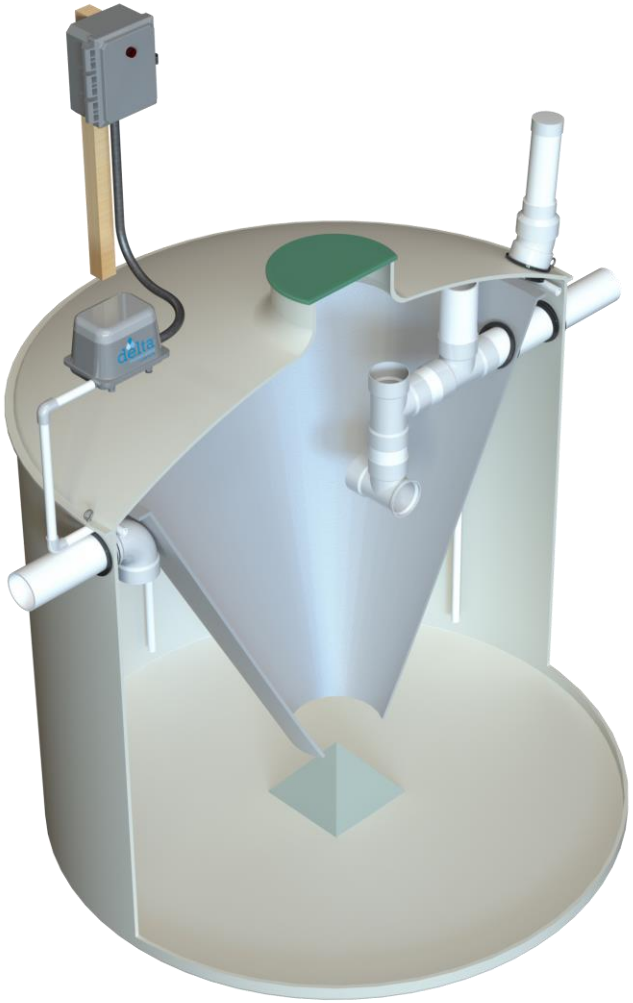
If not high-level alarm. Then…

2) Check Aerator:

- Is aerator running?
- If yes, check filter to make sure it is clean
- If yes, check clear tubing – airline to panel
- If yes, check PVC airline to treatment tank

3) Components…

Agenda



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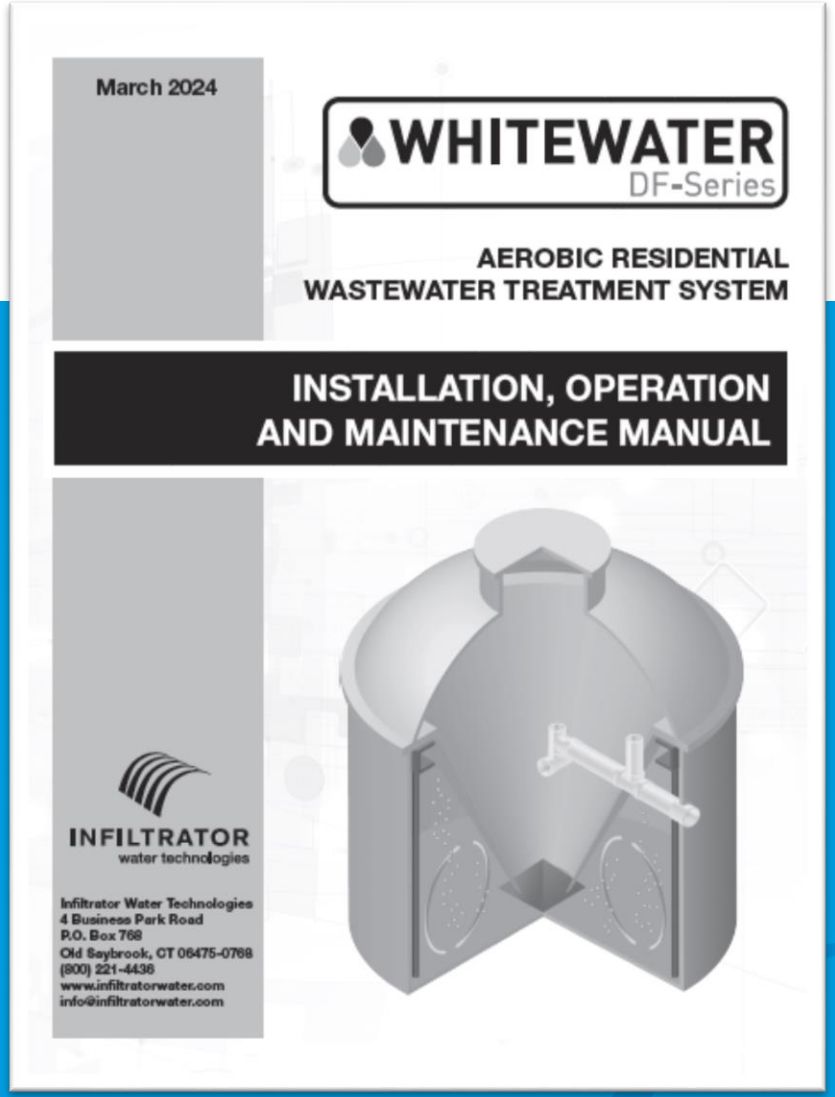
Serial Numbers



NSF/ANSI Warranty

https://qrco.de/bfAP7N

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NSF/ANSI Warranty Form for Infiltrator Advanced Treatment Systems

Model Installed: **ECOPOD E50NX Single Tank**
Serial Number: [redacted]
Tank Type: **IM-1530**
Lid Material: **Plastic**

Purchase Date: **07/08/2025**
Permit Date: **07/07/2025**
Installation Date: **07/08/2025**

Type of Installation: **Residential**
Discharge: **Subsurface**

USER/PROPERTY OWNER: [redacted]
Phone: [redacted]
Address: [redacted]
Email: [redacted]

DISTRIBUTOR: [redacted]
Phone: [redacted]
Address: [redacted]
Email: [redacted]

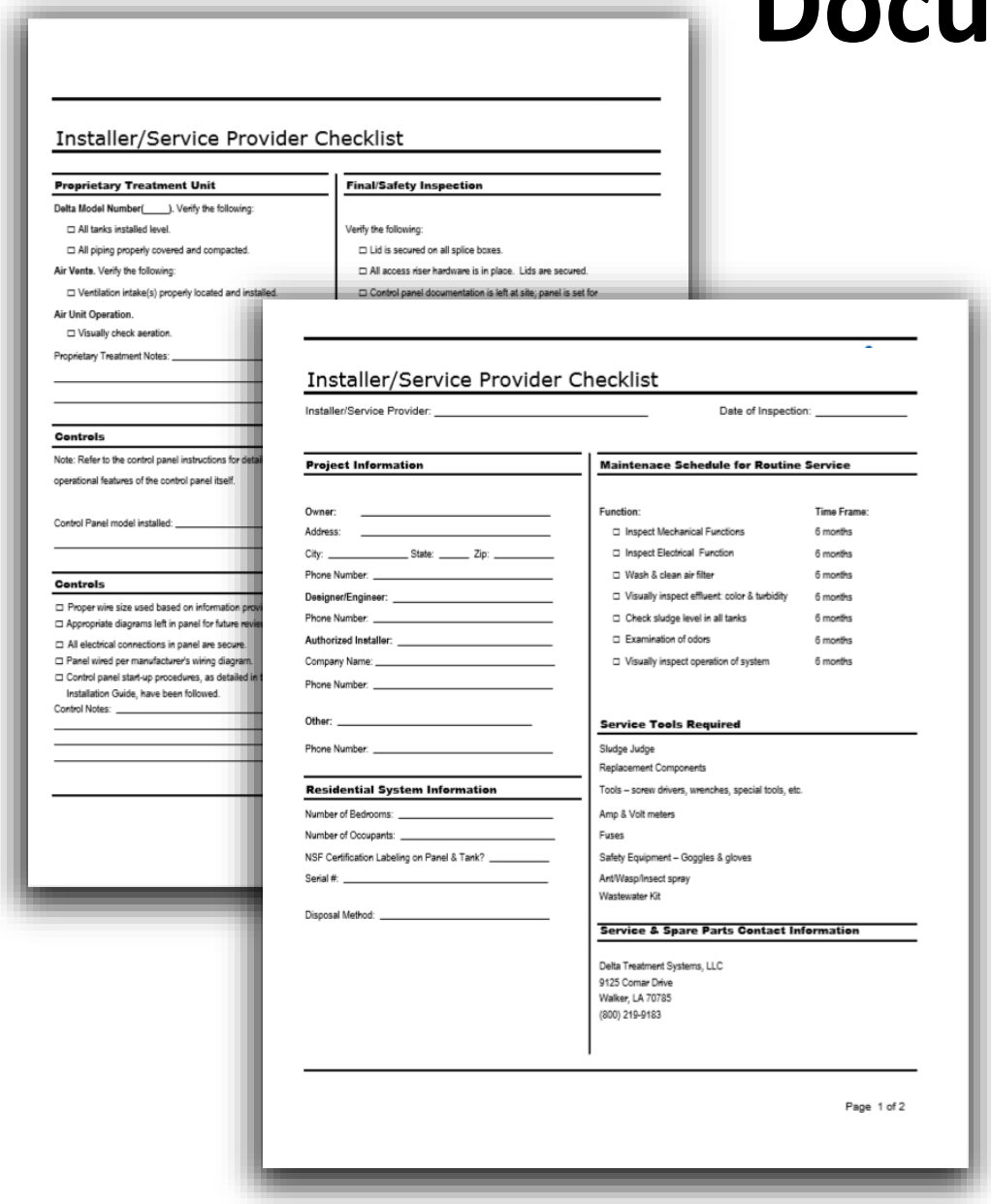
INSTALLER: [redacted]
Phone: [redacted]
Address: [redacted]
Email: [redacted]
License Number: [redacted]

SERVICE PROVIDER: [redacted]
Phone: [redacted]
Address: [redacted]
Email: [redacted]
License Number: [redacted]

PARISH/COUNTY: [redacted]
Phone: [redacted]
Email: [redacted]

Copies of this form have been electronically sent to the user/property owner, distributor, installer, service provider, local health department, and Infiltrator Water Technologies.

Documentation



Installer/Service Provider Checklist

Proprietary Treatment Unit

Delta Model Number(____). Verify the following:

- ☐ All tanks installed level.
- ☐ All piping properly covered and compacted.

Air Vents. Verify the following:

- ☐ Ventilation intake(s) properly located and installed.

Air Unit Operation.

- ☐ Visually check aeration.

Proprietary Treatment Notes: _____

Controls

Note: Refer to the control panel instructions for detai
operational features of the control panel itself.

Control Panel model installed: _____

Controls

- ☐ Proper wire size used based on information prov
- ☐ Appropriate diagrams left in panel for future revis
- ☐ All electrical connections in panel are secure.
- ☐ Panel wired per manufacturer's wiring diagram.
- ☐ Control panel start-up proceedures, as detailed in
  Installation Guide, have been followed.

Control Notes: _____

Final/Safety Inspection

Verify the following:

- ☐ Lid is secured on all splice boxes.
- ☐ All access riser hardware is in place. Lids are secured.
- ☐ Control panel documentation is left at site; panel is set for

Installer/Service Provider Checklist

Installer/Service Provider: _____ Date of Inspection: _____

Project Information

Owner: _____
Address: _____
City: _____ State: ____ Zip: _____
Phone Number: _____
Designer/Engineer: _____
Phone Number: _____
Authorized Installer: _____
Company Name: _____
Phone Number: _____

Other: _____

Phone Number: _____

Residential System Information

Number of Bedrooms: _____
Number of Occupants: _____
NSF Certification Labeling on Panel & Tank? _____
Serial #: _____

Disposal Method: _____

Maintenace Schedule for Routine Service

Function:	Time Frame:
☐ Inspect Mechanical Functions	6 months
☐ Inspect Electrical Function	6 months
☐ Wash & clean air filter	6 months
☐ Visually inspect effluent: color & turbidity	6 months
☐ Check sludge level in all tanks	6 months
☐ Examination of odors	6 months
☐ Visually inspect operation of system	6 months

Service Tools Required

Sludge Judge
Replacement Components
Tools – screw drivers, wrenches, special tools, etc.
Amp & Volt meters
Fuses
Safety Equipment – Goggles & gloves
Ant/Wasp/Insect spray
Wastewater Kit

Service & Spare Parts Contact Information

Delta Treatment Systems, LLC
9125 Cornar Drive
Walker, LA 70785
(800) 219-9183

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- Critical that each site visit is documented
- Copies of the site inspection report should be filed for future certification audits
- Copies of the inspection report should be sent to the homeowner
- When necessary, copies of the inspection report should be sent to the health department

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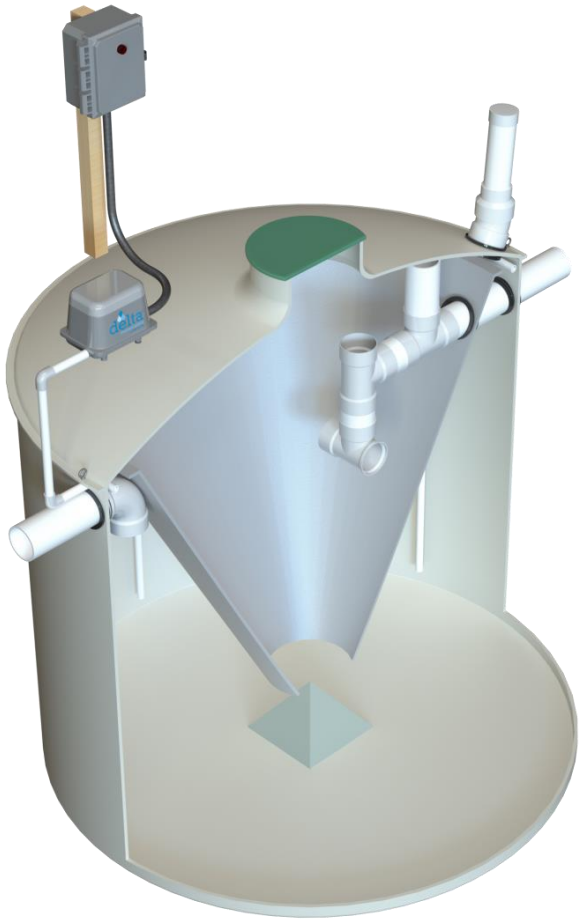

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Homeowner Care & Operation

Homeowner Care & Operation

Homeowners should be advised to:

- Not build or fill over their system.
- Not allow heavy traffic near their system.
- Not allow water to stand over their system.
- Avoid using strong chemicals, cleaning fluids, etc., Which will kill helpful bacteria in the system.
- Avoid flushing grease, food scraps, cigarette butts, sanitary napkins, and other inorganic waste down the drain.
- Have their system inspected by professional every 6 months.
- Have their system serviced (pumped out) every 3 to 5 years.

Homeowner Care & Operation

Note: The following should not be used or disposed of into the system:

- Greases, fats, oils, pesticides, herbicides, or any other toxins.
- Garbage disposal should be used sparingly. Dispose of food waste, grease, etc., in a solid waste bin.
- Paints, household chemicals, automobile fluids, etc.
- Nonbiodegradable items such as cigarette butts, disposable diapers, feminine hygiene products, condoms, hair, coffee grounds, rags, paper towels, bandages, latex, plastic or metallic objects, etc.
- Avoid using strong chemicals, cleaning fluids, etc., which will kill helpful bacteria in the system.

Homeowner Care & Operation

- Maintenance inspection:
  (performed by maintenance provider)
- Inspect and make any necessary adjustments to mechanical and electrical components.
- Inspect effluent quality's color, turbidity and check for any odor.
- Take a sample from the aeration tank to check the sludge level.
- The homeowner must be notified in writing if any improper operation is observed and cannot be corrected at the time of service.

Homeowner Care & Operation

Common reasons the warning alarm will sound:

- Power interrupted
- Air supply malfunctioned
- High water level in the treatment plant

If the alarm is activated:

- Check for a blown fuse or thrown circuit breaker
- Confirm the aerator is running
- Contact service provider

Ensure the system is properly functioning:

- Aerator should not be noisy
- No strong septic odors
- Clean the air filter on the aerator as needed

Homeowner Care & Operation

- Each inspection is an opportunity to educate the property owner about their system.
- Provide the property owner with a report card for their system
- Advise the property owner on good habits to help the longevity of their system.
- Most importantly, it’s a time to sell a property owner on the value of your service!

MYTH 1

Septic Odors from a Treatment Tank are Normal.

https://www.frontrangeseptic.com/causes-septic-tank-odor/

Question: What are common reasons for septic odors?

- Overload of organic loading
- Hydraulic overloading
- Broken airline
- Certain household cleaners

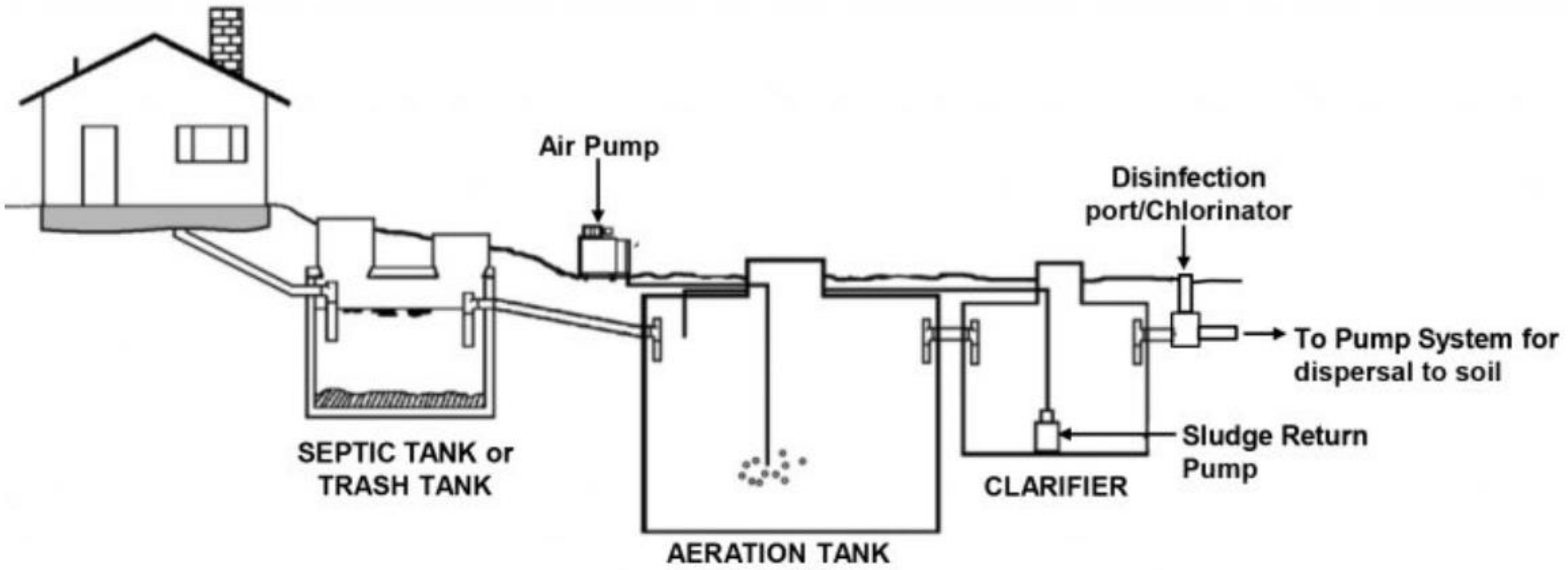


Figure 1. Schematic illustration of an aerobic treatment system treatment train (adapted from CIDWT, 2009). Note: the pump system includes a Pump Tank –not included in figure because no treatment takes place in it.

MYTH 2

NSF-Certified Treatment Units can be Used for Commercial Applications

MYTH 3

You can Size any Treatment System Based on Hydraulic Loading Alone.

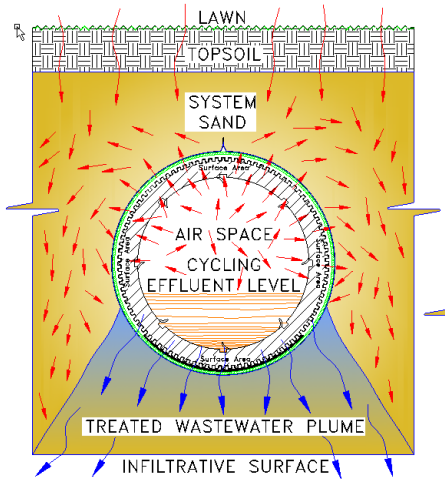
MYTH 4

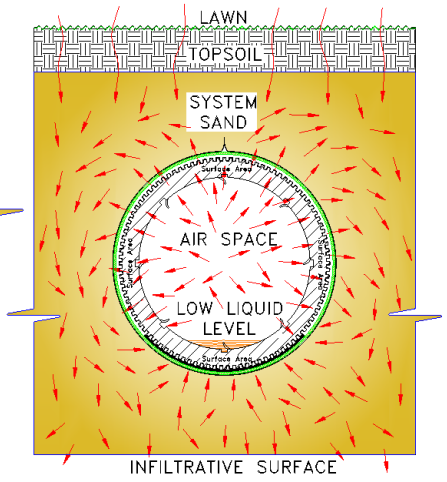
All Treatment Systems are Mechanical

https://www.frontrangeseptic.com/causes-septic-tank-odor/

Combined Treatment and Dispersal (CTD) Systems

- Disperse wastewater throughout drainfield
- Provide secondary treatment through select sand fill





Questions?

Infiltrator Water Technologies
(800) 221-4436
info@infiltratorwater.com