DELTA TREATMENT SYSTEMS
RESIDENTIAL TREATMENT
CONDENSED CATALOG
Introduction to Delta Treatment Systems

Delta Treatment Systems is a firm dedicated to the research, development, manufacturing and marketing of commercial and residential wastewater treatment systems and related adjunct products, on a world wide scale.

Delta Treatment Systems is a wholly owned subsidiary of Infiltrator Water Technologies, a global leader in providing innovative products for the water and wastewater industry. Delta Treatment Systems offers a full spectrum of wastewater treatment products to the onsite and commercial marketplace. Products include: NSF/ANSI Certified aerobic wastewater treatment systems, pre-engineered drip/filter disposal systems, and custom electrical alarm and control panels, pumps and accessories (unlisted & U.L. listed).

Delta Treatment Systems products are highly effective and have numerous applications, from single family residences to small commercial jobs. Additionally, the effluent can be discharged to a surface, drip disposal, or other dispersal methods. Delta offers design layouts, combination controls, and necessary components for a wide variety of onsite wastewater treatment needs.

Delta Treatment Systems Mission

A respected leader in wastewater treatment with decades of technical design and manufacturing experience, Our mission is to be a leading provider of solutions to the Decentralized Wastewater Treatment Industry. Delta Treatment Systems is dedicated to the highest quality products, technology and services.

Uses at a Glance

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Introducing ENVIRO-AIRE Series

Enviro-Aire Aerobic Treatment Units are designed to enhance the effectiveness of an on-site wastewater treatment system. Traditional septic tanks rely solely on anaerobic microorganisms to treat wastewater—a slow and inefficient process.

Adding the Enviro-Aire Aerobic Treatment Unit to an on-site system provides a three-step process to treat incoming wastewater. This three-step process results in a highly treated effluent suitable for a variety of disposal methods as required by today's challenging site conditions.

Three Step Process

1. Raw wastewater enters unit from residence/facility. The primary chamber separates the sludge (gross solids) and scum (floating solids) from the raw wastewater.

2. Settled effluent enters the aeration chamber where aerobically-charged bacteria are mixed into the liquid and digest the biological waste.

3. The mixed liquid enters the clarifier chamber where clean water is separated from the microorganisms. Clean water exits through a discharge tee and the microorganisms return to the aeration chamber to continue the digestion process.

Components

Features and Benefits

- NSF/ANSI 40
- Disposes of wastewater quietly, efficiently, and with no offensive odor
- Patented non-clogging air diffuser bar maintains constant air flow
- FHA and VA acceptable
- Low initial capital cost and operation
- No inner tank filters, screens or diffusers to service
- Enhances any on-site disposal system
- For use in adequate soils, smaller lots, high water tables, recreational areas or other difficult sites
- 2 year limited warranty

NSF's certification Program is accredited by the American National Standards Institute
Introducing WHITEWATER UC Series

The clear choice for wastewater on-site disposal system is the Delta Treatment Systems Whitewater Aerobic Treatment Unit (ATU). The Whitewater ATU was tested under NSF/ANSI 40 with an average effluent quality of 6 mg/L BOD5 and 8 mg/L TSS. In using the Whitewater Aerobic Treatment Unit you can be proud that you are directly contributing to a cleaner, safer environment.

Whitewater works by using the bacteria nature provides. As a result of air being pumped into the system, the bacteria thrive and grow in much greater numbers than would occur naturally. This “overpopulation” of bacteria speeds the process of breaking down sewage, making it safe for release into the environment.

The process occurs entirely within the self-contained Whitewater ATU which is comprised of an outer mixing tank and a cone-shaped settling chamber. Raw, unsettled domestic wastewater enters directly into the mixing tank where mixing occurs through an air distribution system.

The UC unit utilizes a special three airdrop design to create a circular water movement pattern in the tank for enhanced sludge return and improved treatment.

More Compact Footprint for Specific Uses

Whitewater Aerobic Treatment Units are manufactured to specifications according to wastewater flow requirements. Units are available from 500 gallons per day to 1500 gallons per day.

Where larger wastewater flow requirements are required, Whitewater Modular Systems are available.

Components

Features and Benefits

- NSF/ANSI 40
- Disposes of wastewater quietly, efficiently, and with no offensive odor
- UC50 operates on same power as a light bulb
- FHA and VA acceptable
- State approved and accepted by sanitarians
- Low initial capital cost & operation
- No inner tank filters, screens or diffusers to service
- For use where conventional septic systems are inadequate
- Unit provides 99% reduction of viruses with disinfection
- 2 year limited warranty

Options

- Primary tank
- Pump tank
- Drip systems
- Control and alarms
- Ultraviolet disinfection

Manufactured According to Need

Two choices of fabrication are offered, consistent with your preference or regulatory requirements:

- Solid fiberglass tank with fiberglass cover
- Concrete tank with concrete cover*
- Available with pretank, pretank with pump tank, and pump tank
- Configuration can be built for individual selections
- Full offering of pump, controls, and accessories available

*Based on regional availability
Introducing WHITEWATER DF Series
The clear choice for wastewater on-site disposal systems is the Delta Treatment Systems Whitewater Aerobic Treatment Unit (ATU). The Whitewater ATU was tested under NSF/ANSI 40 with an average effluent quality of 6 mg/L BOD5 and 7 mg/L TSS. In using the Whitewater Aerobic Treatment Unit you can be proud that you are directly contributing to a cleaner, safer environment.

Whitewater works by using the bacteria nature provides. As a result of air being pumped into the system, the bacteria thrive and grow in much greater numbers than would occur naturally. This “overpopulation” of bacteria speeds the process of breaking down sewage, making it safe for release into the environment.

The process occurs entirely within the self-contained Whitewater ATU which is comprised of an outer mixing tank and a cone-shaped settling chamber. Raw, unsettled domestic wastewater enters directly into the mixing tank where mixing occurs through an air distribution system.

The mixed liquid then enters the settling chamber from the bottom. The settling chamber maintains a quiet condition which allows solids to settle down and re-enter the mixing chamber for more processing. The liquid is hydraulically displaced upward and is discharged as clear, no offensive odors, treated water which meets or exceeds state water quality standards.

WHITEWATER For Specific Uses
Whitewater Aerobic Treatment Units are manufactured to specifications according to wastewater flow requirements. Units are available from 400 gallons per day to 1500 gallons per day.

Where larger wastewater flow requirements are required, Whitewater Modular Systems are available.

Components

Features and Benefits
- NSF/ANSI 40
- Disposes of wastewater quietly, efficiently, and with no offensive odor
- DF40 & DF50 operate on the same power as a light bulb
- FHA and VA acceptable
- Low initial capital cost and operation
- No inner tank filters, screens or diffusers to service
- Enhances any on-site disposal system
- For use in smaller lots, high water tables, recreational areas or other difficult sites
- Unit provides 99% reduction of viruses with disinfection
- Nitrites less than 10 MG/L with proper operation
- 2 year limited warranty

Options
- Primary tank
- Pump tank
- Drip systems
- Control and alarms
- Ultraviolet disinfection

Manufactured According to Need
Two choices of fabrication are offered, consistent with your preference or regulatory requirements:
- Solid fiberglass tank with fiberglass cover
- Concrete tank with concrete cover*
- Available with pretank, pretank with pump tank, and pump tank
- Configuration can be built for individual selections
- Full offering of pump, controls, and accessories available

*Based on regional availability
Introducing the ECOPOD Series

The ECOPOD-Series is the clear choice for an on-site wastewater disposal system where nitrogen reduction is required. It was tested under NSF/ANSI 40 and 245 with an average nitrogen reduction of greater than 50% and met and exceeded Class 1 requirements with an average effluent quality of 9 mg/L BOD5 and 8 mg/L TSS.

The ECOPOD Advanced Wastewater Treatment System is Delta’s patented FFBR (fixed film bioreactor) system. Five models are available to accommodate daily flows ranging from 500 to 1,500 GPD, with customizable options available for commercial applications. The ECOPOD is ideal for individual residential installations, cluster designs, and small-to-medium commercial wastewater treatment applications, and intermittent use applications.

Wastewater enters a pretreatment tank where debris and settleable solids settle to the bottom and are decomposed by anaerobic bacteria. The effluent enters the ECOPOD from the primary tank where it is introduced into an oxygen rich environment. Air is provided by an external air compressor. Biomass develops which is capable of digesting biodegradable waste into carbon dioxide and water.

The ECOPOD houses an engineered plastic media specifically designed to treat domestic wastewater. It is submerged in a tank of liquid, which works as a dilution zone. There are no moving mechanical parts or filters in the ECOPOD. In this system, conditions are favorable only to attached growth bacteria, meaning common disadvantages such as rising sludge, floating sludge or washouts are eliminated. In addition to CBOD and TSS reduction, ammonia nitrogen is reduced as nitrification of the ammonia and denitrification of nitrates occurs within the single reactor tank. There are no moving mechanical parts, inner tank filters, screens or diffusers to service in the ECOPOD. And because it operates as a true attached growth system, there is no mixed liquor. A 60%+ removal rate of total nitrogen is common without any type of recirculation or cycling of the blower. The result of this process is a clear discharge with no offensive odors that meets or exceeds state water quality standards.

ECOPOD For Specific Uses

ECOPOD units are manufactured to specifications according to wastewater flow requirements. Units are available in the following sizes:

- Model E50 treating 500 gallons per day
- Model E60 treating 600 gallons per day
- Model E75 treating 750 gallons per day
- Model E100 treating 1000 gallons per day
- Model E150 treating 1500 gallons per day

Features and Benefits

- Built with technology which meets NSF/ANSI 40 and 245
- Quiet, efficient and effective
- FHA and VA acceptable
- Simply designed and self-contained
- Simple to operate
- Simple to maintain
- Minimum sludge production reduces pump-out costs
- True attached growth process – no mixed liquor
- No mixed liquor suspended solids, eliminates washouts
- Long intervals between pump outs
- Quiet operation – external aerator
- Suitable for intermittent usage
- Completely submerged reactor disposes of wastewater quietly, efficiently and with no offensive odor
- Remote monitoring system available
- 2/5/10 year limited warranty
- Modular design
- No moving parts below grade
- Patented non-clogging air delivery system
- Self cleaning media requires no service
- Media lasts the lifetime of the system

Manufactured According to Need

Two choices of fabrication are offered, consistent with your preference or regulatory requirements:

- Fiberglass construction
- Concrete construction
- Round or rectangular

Component Specifications

<table>
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<tr>
<th>Component Specification</th>
<th>ECOPOD Model E50</th>
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<tr>
<td>Treatment Capacity</td>
<td>500 GPD</td>
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<tr>
<td>Volumetric Capacity</td>
<td>500/700 Gallons</td>
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<tr>
<td>Electrical Requirement</td>
<td>115/1/60</td>
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<td>Aerator Compressor</td>
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Introducing ECODRIP Series

Delta Treatment Systems manufactures complete pre-engineered drip disposal systems which include design layouts, controls, filter systems, and all necessary components. Two pre-engineered systems—1/2 horsepower and 1 horsepower—meet the needs of 90% of all applications. The pre-engineered package includes: CP 8000 filter system controller, float level switches, filter assembly, high head pump, zone valve, emitter tubing, pressure regulator, vacuum/air release valve, and emitter tube fittings. The professional series control panel utilizes a programmable logic controller CP 8000 to automate all functions in a NEMA 4X hinged door enclosure.

Custom and manual system designs are available.

Components

Features and Benefits

- Pre-engineered design
- Hydraulically balanced
- Suited for difficult lots
- 10 year drip tubing warranty
- One source responsibility treatment and disposal
- Suited for all Delta Treatment Systems treatment units
- Easy installation
- Supported by trained professionals
- PLC based controller
- Simple operation and maintenance
CONTROL SERIES

Alarm and Control Panels from Delta Treatment Systems

Delta Treatment Systems alarm and control panels are the intelligent choice in control panel technology. Delta Treatment Systems provides a variety of control panels designed to meet specific customer needs. All panels can be supplied with U.L. and/or Canadian U.L. 508A listings upon request. Custom panels can be furnished to meet specific local requirements.

Model CP42T
Compressor
Dosing pump
High level alarm/audible-light
NEMA 3R steel enclosure
24 hr. time clock with 15 minute on/off intervals
3 breakers: compressor/pump/control

Model CP52T
Compressor
Dosing pump
High level alarm/audible-light
Dual pressure switch for high level alarm and compressor fail
NEMA 4X fiberglass enclosure
24 hr. time clock with 15 minute on/off intervals

Model CP52RCT
Compressor
Dosing pump
High level alarm/audible-light
Dual pressure switch for high level alarm and compressor fail
NEMA 4X fiberglass enclosure
Programmable timer: seconds/minutes/hours

Model CP8115
Auto headworks filter control
Dosing pump
Time dosing
High and low level alarm/audible-light
Override timer
Hydraulic zoner compatible
Numerous other functions and indicators

Model CP9115
Auto headworks filter control
Dosing pump
Time dosing
High and low level alarm/audible-light
Override timer
Electric solenoids compatible – up to 8 fields
Numerous other functions and indicators

Model CP20
Compressor
High level alarm/audible-light
NEMA 3R steel enclosure

Model CP40
Compressor
Dosing pump
High level alarm/audible-light
NEMA 3R steel enclosure

Model CP2210
Compressor
High level alarm/audible-light
NEMA 4X fiberglass enclosure

Liquid Level Float Switches
Mini mercury high liquid float switch complete with bracket
- 115 volt, single phase
Pump mercury float switch complete with bracket
- 115 volt, single phase; 14 amp rating
- 230 volt, single phase; 13 amp rating