

DELTA TREATMENT SYSTEMS COMPLETE SOLUTIONS DECENTRALIZED WASTEWATER MANAGEMENT

www.deltatreatment.com

## **DELTA TREATMENT SYSTEMS** Decentralized Wastewater Management

#### State-of-the-Art, Environmentally Conscious Wastewater Solutions for Developers

Delta Treatment Systems gives developers a superior alternative to the expense and impact of gravity-fed sanitary sewer systems. The Delta Treatment Systems total wastewater management system provides design flexibility using proven technologies to create stand-alone systems that can be used in any locale.

Developers traditionally have had two choices in managing wastewater: locate a new development where connections could be made to a community's established sanitary sewer system, or deal with the hassles of local and state onsite wastewater regulations, lot sizes, loss of lots, discharge limitations and approvals.

The Delta Treatment Systems total wastewater management system provides new design alternatives that are superior to gravity-fed systems or septic systems. Delta Treatment Systems gives you the freedom to build anywhere without concern for elevation, soil type, or distance to the nearest municipality.

#### It's Happening More and More

Municipal wastewater treatment plants are simply unavailable to developers of new residential communities. 33% of new residential communities must utilize decentralized wastewater treatment. Delta Treatment Systems' complete wastewater management solution gives developers the freedom to build anywhere.



# The Clear Choice

#### The Clear Choice for Residential Developers

Delta Treatment Systems was established to bring together engineered systems of the most innovative and effective wastewater treatment solutions. The advantages of Delta Treatment Systems' complete on-site wastewater management solutions and make them the clear choice for residential developers.

#### Wastewater Collection Systems

As the world evolves from septic tanks and large gravity systems to more innovative wastewater solutions, STEP collection systems continue to lead the way. In addition to a complete line of pumps, housings, controls and connectors, Delta Treatment Systems engineering can assist you in specifying the best package for your installation.

### Ecopod<sup>®</sup> Series Advanced Wastewater Treatment Systems

Accelerating nature's way of processing wastewater, Ecopod Series advanced wastewater treatment systems provide an onsite, biological method for converting wastewater into a clear effluent with no offensive odors that meets or exceeds state water quality standards.

#### Drip Disposal Systems

Clear, treated wastewater can be effectively disposed of with a subsurface emitter drip disposal system. Delta Treatment Systems can provide controls, filters, components and the engineering design to work for your application.



# 3-System Wastewater Management Solution

### Natural Process Wastewater Treatment

When waste enters a stream, it becomes food for bacteria present in the water. As long as there is sufficient oxygen in the stream, the bacteria consume all organic material over time.

Delta Treatment Systems uses the same process to break down domestic wastewater, only it does it faster and more efficiently. Self-contained Delta Treatment Systems Whitewater<sup>®</sup>, ECOPOD<sup>®</sup> and ECOPOD-D<sup>®</sup> systems receive wastewater from individual homes or businesses and process it through a submerged fixed film process to purify the wastewater by the oxidation of organic waste using naturally occurring bacteria. In this oxygen-rich environment, a colony of bacteria, called a biomass, develops and is capable of digesting biodegradable waste into carbon dioxide and water. The result is a clear effluent with no offensive odors.



- **1** STEP Collection Systems
- 2 ECOPOD<sup>®</sup> Series Advanced Wastewater Treatment
- **3** Drip Series Effluent Disposal



## Collection

#### **1** Wastewater Collection Systems

### Introducing ECOFILTER

Delta Treatment Systems developed the ECOFILTER in answer to environmental concerns and the growing number of S.T.E.P. Collection wastewater systems. S.T.E.P. Collection systems transport effluent from individual septic tanks through a piping system to either a dispersal or wastewater treatment system. Delta Treatment Systems has years of wastewater treatment experience and extensive use of subsurface drip disposal technology.

#### Easy Access and Maintainance

The ECOFILTER by Delta Treatment Systems has been designed to allow easy access through a 24" opening for service and maintenance. This design gives the service provider the ability to pull and clean the filters without the time-consuming removal of the pump. In addition to saving time and money, the unit has an innovative float system that is easy to remove with a positive locking mechanism. All this makes ECOFILTER the ideal solution for effluent pumping applications.

#### Materials and Construction

The Delta Treatment Systems ECOFILTER is constructed of polyethylene and polypropylene, which are superior materials for wastewater applications. Our design and construction techniques, coupled with these materials, provide long service life for your system.

#### The System

Delta Treatment Systems offers a complete pump system. Our engineered system includes the pump filter vault, the high-head turbine submersible pump, and float controls. We will design a system to fit your needs and the special requirements of your project.

#### Filtering

The Delta Treatment Systems ECOFILTER draws effluent from the middle layer of your septic tank. This area is considered the "clear zone" of a septic tank. In a properly functioning septic tank, gross solids will settle to the bottom of the tank and grease and scum will rise to the top of the tank's water level, creating this "clear zone". Septic effluent from this zone enters the ECOFILTER, where the remaining unwanted solids are filtered from the pump system. The unit is designed to maximize the surface area of the filter to prolong the filter's life, providing you the ideal solution for your wastewater needs.



Rotational molded polyethylene housing with UV inhibitors for durability and shelf life.



- Drainfields
- Textile Filters
- Sand Filters
- Peat Filters Mounds
- Trickling Filters
- Aerobic Units
- Wetlands
- Lagoons
- Effluent Irrigation

#### Features and Benefits

- Installs quickly in new or existing concrete or fiberglass tanks
- Easy access design allows filter cartridge removal without pulling the pump or vault; simplifies filter inspection and maintenance
- Removes a significant amount of suspended solids
- Accommodates simplex or duplex configuration
- Float stem bracket allows easy removal and adjustment of float assembly
- Sturdy, molded polyethylene and corrosion-proof construction ensure long life



The ECOFILTER features a dual compartment design housing which can be used for your simplex or duplex application needs.

## Treatment and Disposal

#### 2 ECOPOD Series Advanced Wastewater Treatment

ECOPOD<sup>®</sup> Series Advanced Wastewater Treatment Systems use proven technology to convert wastewater into treated effluent. The systems are advanced wastewater treatment units for use where conventional septic systems are inadequate. The ECOPOD-D<sup>®</sup> is a specially fabricated containment unit that houses an engineered plastic media specifically designed to treat wastewater. The treated effluent is discharged as a clear, effluent with no offensive odors, which meets or exceeds state water quality requirements. All units are simply designed, self-contained, and easy to maintain.

Delta Treatment Systems has two versions of the ECOPOD Series. ECOPOD-D models are sized to treat between 1,500 and 250,000 gallons per day and are ideal for commercial applications such as schools, subdivisions, fast food restaurants, apartment complexes and commercial buildings

ECOPOD-N models are sized to treat between 500 and 1,500 gallons per day and are ideal for individual residential installations and small-to-medium commercial applications.





**ECODRIP** 

#### **3** Drip Series Effluent Disposal

Delta Treatment Systems drip technology completes the wastewater system through a

controlled process of pumping effluent into a multizone network of field emitter tubing. Clear effluent from System Two treatment is stored, filtered and pumped to specified zones at determined dose times.

The Drip Series uses a programmable logic controller to automate all functions. Zone selection, dosing times and counters provide the latest in drip technology.

Flow aspects of the drip technology include a Delta

Treatment Systems high-head submersible turbine pump, 100-micron filter assembly, multizone valve or electric solenoid valves, drip emitter tubing, pressure regulators, and vacuum release valves to prevent air locks or siphoning.

The Delta Treatment Systems Drip Series comes either as a pre-engineered package or Delta Treatment Systems will develop a custom system based on particular requirements. Every Drip Disposal System includes design layouts, controls, filter system and all the necessary components.





Series

### Complete Wastewater Systems



··Collection



Our ECOFILTER systems can also be integrated into collection systems or integrated into decentralized treatment options if connecting to a large collection facility is prohibited. Rest assured, all of the pumps, controls and systems being supplied are from a single source. Delta ECOFILTER systems come complete with all fittings, hardware, influent hub, and instructions so the contractor has the complete package at the job site.

### · Treatment

- Residential systems
- Commercial systems

### Disposal Drin Disposal Sys





### Drip Disposal Systems

- Commercial light –Up to 10,000 GPD
- Commercial Up to 250,000 GPD
- Pre-engineered packages are available

#### Other disposal options:

- Spray
- Drain field



### Other Delta Treatment Systems Products









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