DELTA TREATMENT SYSTEMS
ECOPOD-D®
FBBR WASTEWATER TREATMENT SYSTEM

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ECOPOD-D COMMERCIAL FBBR

The ECOPOD-D submerged fixed film system is a continuation of Delta Treatment Systems’ tradition of combining simplicity and technological excellence to create innovation. The ECOPOD-D is a fixed bed bio-reactor (FBBR), designed to significantly reduce nutrients, BOD and TSS utilizing microbiology present in the wastewater.

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 act as a growth medium for naturally occurring bacteria. The media is completely submerged in a reactor tank, which works as a recirculation 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 bacterial masses.
Why Use ECOPOD-D® Commercial FBBR?

- Effluent quality of less than 10 mg/L BOD/TSS typical domestic waste water
- Designed with the same technology as our NSF/ANSI 40 & 245 approved unit
- Simply designed and self-contained
- Easy to operate and maintain
- No inner tank screens, diffusers or moving parts to service
- Low sludge production – reduces sludge removal costs
- No mixed liquor suspended solids; eliminates possible washouts
- Suitable for seasonal or intermittent use
- Integral clarifier – no external clarifier required
- Low operating and maintenance cost
- No return activated sludge pump
- Design and engineering assistance available

ECOPOD-D Versatility

The ECOPOD-D is designed to meet your individual project treatment goals. It can be built to act as a primary treatment system or in conjunction with another technology to provide secondary or tertiary treatment. Additionally, the system can be configured to work with virtually any disposal method. Ask your Delta Representative about a complete package solution, pairing the innovative ECOPOD-D technology with our pre-engineered commercial drip disposal system.

Tank Fabrication Options

- Steel Fabrication
- Stainless Steel Fabrication
- Fiberglass Fabrication
- Concrete Fabrication utilizing pre-cast tanks sourced locally to project site, if available, or pour in place tanks

ECOPOD-D advanced wastewater treatment system is a submerged fixed film system designed to treat 1,500 GPD to 100,000 GPD of domestic wastewater.

ECOPOD-D for Specific Uses

ECOPOD-D Units are engineered to specifications according to different wastewater flows and characteristics. The Delta Treatment Systems team has designed ECOPOD-D systems for variety of applications, including:

- Schools
- Campgrounds and trailer parks
- High strength waste commercial applications (i.e. fast food restaurants, taverns, hatcheries, etc.)
- Apartment complexes and subdivisions
- Retail stores
- Office buildings
- Small cities and rural communities
- Lagoon water nitrification
- Stormwater run-off, petroleum hydrocarbon reduction for truck stops and gas stations
Delta Projects – Serving a Multitude of Applications

Retail

Lagoon Water Nitrification

Subdivisions

Schools