





### **Features & Benefits**

- Treats flows from 200 to 100,000 gpd
- Cost effective treatment with efficient installation and operation
- Treats high strength wastewater
- Internal flow stabilization treats intermittent flows
- Fully automated pump system
- · Self adjusting process control
- Small footprint / Compact design
- Gravity flow system
- Quiet operation
- Sealed and insulated for seasonal conditions
- Durable UV resistant fiberglass construction
- Minimal energy usage
- Remote monitoring control options

# BIOCLERE™ Wastewater Treatment Systems

#### The Bioclere Advantage

Bioclere is a modified trickling filter over a clarifier. It is designed to treat wastewater with varying organic and nutrient concentrations as well as intermittent flows. Bioclere's natural fixed film treatment process is stable, simple to maintain and inexpensive to operate.

Bioclere reduces biochemical oxygen demand (BOD5) and total suspended solids (TSS) to levels that meet or exceed NSF/ANSI 40 and EPA standards. As water trickles through the biofilter, organic material is consumed by a

population of microorganisms that form on the surface of the media. Sloughed solids from the biofilter filter are returned to the primary tank as secondary sludge and treated water is displaced to the next treatment component or the disposal area.

Bioclere is a modular technology. Units can be installed in parallel to accommodate large flows or in series to achieve high levels of treatment. The systems are sealed and insulated to minimize the impact of seasonal temperature variations on the treatment process.

#### **Nitrogen Reduction**

Bioclere systems can be designed to consistently convert and reduce nitrogen. Total nitrogen is reduced substantially and cost effectively by recirculating nitrified water from the Bioclere back to the primary settling tank. Large Bioclere systems may incorporate a second stage nitrifying Bioclere and a tertiary anoxic reactor to achieve < 10 mg/l total nitrogen.

#### **Applications include**

Residential, commercial, institutional, light industrial and municipal wastewater treatment.

#### 250 ■ Typical Raw Influent 200 ---■ Primary Tank Concentraction (mg/l) ■ Effluent 150 100 -**Bioclere's recirculation process** reduces nitrogen and dilutes 50 primary tank effluent. 0 **BOD** TSS TN

Bioclere 16/12-350 was NSF/ANSI Standard 40 certified by NSF International in 2002. The above performance results (BOD & TSS) are based on a sixmonth accumulative average from NSF's certification testing.



U.S. Environmental Protection Agency's (EPA) technology verification program. Total nitrogen results can be viewed at www.EPA.GOV/ETV. Above TN results are based on achievable standards.

## **Standard Single Bioclere<sup>TM</sup> Installation**:



