BIOBOX® Nitrate
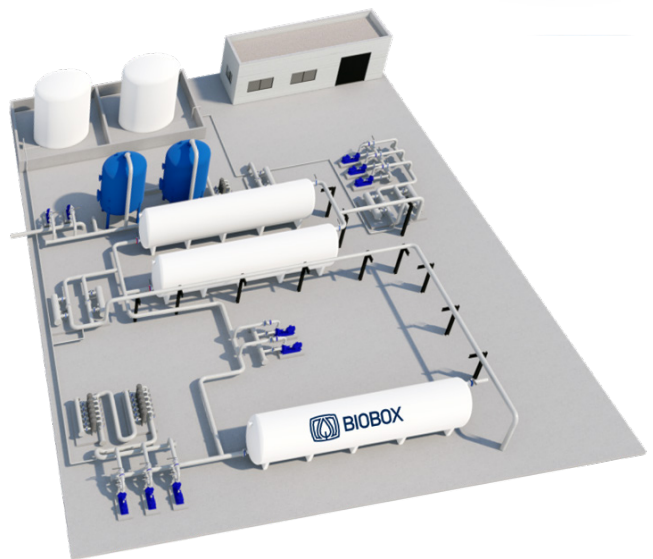
Biological Denitrification System

BIOBOX® Nitrate is a cost-effective and sustainable solution to remove nitrates from water. Through a patented technology that biologically transforms nitrates into harmless nitrogen gas, BIOBOX® Nitrate eliminates the contaminant without creating toxic waste products.
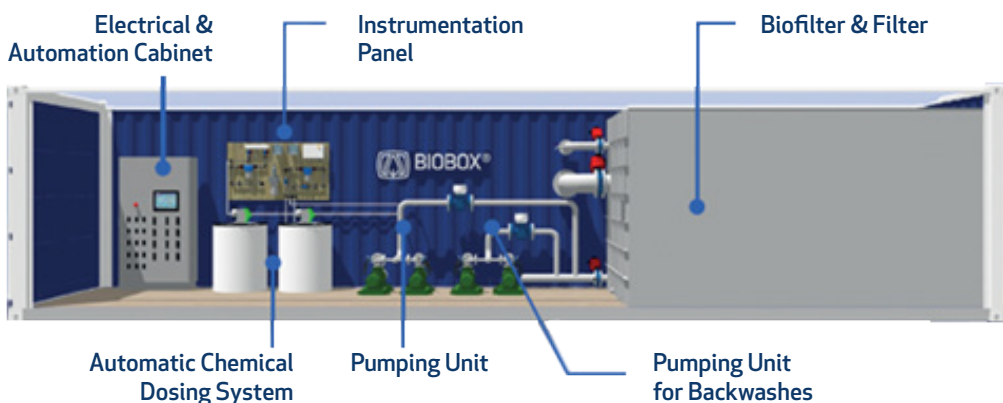
BIOBOX® Nitrate Advantages

- Modular containers or full-scale systems
- 100% automated with remote alerts and warning system
- > 95% NO_3^- elimination, transforms nitrate into harmless nitrogen gas ($NO_3^- \rightarrow N_2$ gas)
- Operates in water temperature from 3º-39ºC
- No pollutants are rejected
- Ensures minimal water loss, averaging between 3-5%
- Low energy consumption
- Low CAPEX & OPEX

BIOBOX® Nitrate System Components

Electrical & Automation Cabinet

Instrumentation Panel

Biofilter & Filter

Automatic Chemical Dosing System

Pumping Unit

Pumping Unit for Backwashes

ams

BIOBOX® Nitrate System Configurations

BIOBOX® Nitrate is the best alternative for nitrate removal. The technology helps facilities comply with regulatory requirements at lower operating and associated investment costs than ion exchange and reverse osmosis. Delivered in either a containerized (Figure 1) or full-scale design (Figure 2) , the BIOBOX® Nitrate technology can be customized to specific needs and flow rates. Up to 5 modules (Table 1) can be combined to treat up to 880 gpm; a full-scale plant is needed for larger flow rates. All systems feature 100% automation and 24/7 remote monitoring and control (Figure 3).
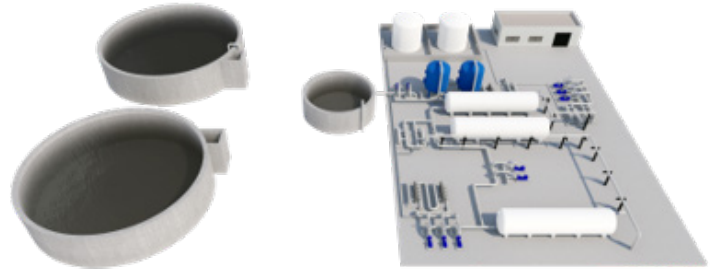

Figure 1: Containerized BIOBOX® Nitrate System

Figure 2: Full-Scale BIOBOX® Nitrate System

Table 1: BIOBOX® Nitrate System Configurations*	
# of Modules	Total Capacity
1	175 gpm
2	220 gpm
3	440 gpm
4	660 gpm
5	880 gpm
*To reduce 18 ppm of $N\text{-}NO_3^-$	

Figure 3: BIOBOX® Nitrate Systems Include 100% Automation and 24/7 remote monitoring and control

AMS is the US distributor for BIOBOX USA. Together AMS and BIOBOX USA offer a comprehensive treatment solution and support the customer from full-scale demonstration and testing to operator training and system maintenance.