

# DENIFOR™

DOWNFLOW DENITRIFICATION AND  
FILTRATION SYSTEM FOR THE TREATMENT  
OF SECONDARY EFFLUENT



WASTEWATER

## HIGHLY EFFICIENT REMOVAL OF NITRATES AND SUSPENDED SOLIDS IN A SINGLE STEP

### ⊕ PERFORMANCE AND SAVINGS

Excellent Alternative for Tertiary Treatment offering significant capital and operational cost savings along with excellent pollutant removal capability, all in a compact footprint

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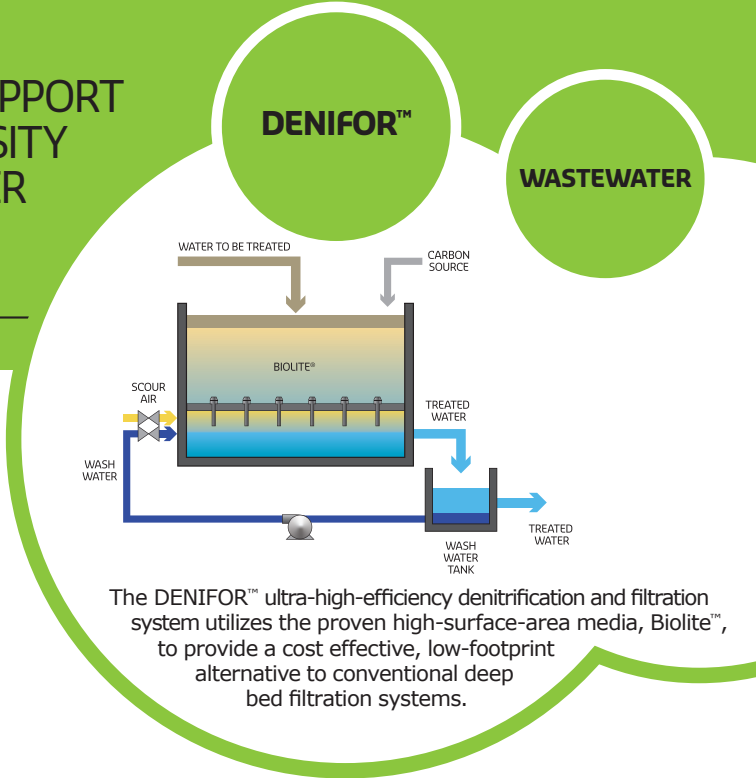
# INNOVATION

USES HIGH-SURFACE-AREA MEDIA TO SUPPORT A LARGER MICROBIAL POPULATION DENSITY IN THE SAME VOLUME, ALLOWING HIGHER NITRATE-N REMOVAL RATES IN A SMALLER FOOTPRINT

## KEY FIGURE:

# 60%

potential savings on capital costs due to less filter media requirement



The DENIFOR™ ultra-high-efficiency denitrification and filtration system utilizes the proven high-surface-area media, Biolite™, to provide a cost effective, low-footprint alternative to conventional deep bed filtration systems.

## DESCRIPTION

The DENIFOR™ Denitrification Filtration System, based on the established BioFOR® technology, provides biological denitrification and suspended solids removal in a single step.

The process involves allowing secondary effluent to flow by gravity through a bed of the high-surface-area media Biolite™, which has a large biological population in the same volume which produces an effluent that meets the highest level of technological standards.

The Biolite™ advantage helps reduce capital expenditure and provides an excellent alternative for WWTPs with site constraints due to its much lower footprint requirement.

The downflow nature of the system provides excellent suspended solids capture in addition to the high Nitrate-N removal rates.

Options are available for shallow-filter beds, which provides the opportunity to retrofit existing tertiary filtration systems and also helps reduce the size of backwash pumps, as compared to deep-bed filters, thereby reducing operating costs.

## ADVANTAGES

- Two processes in a single step—i.e. biological denitrification and tertiary filtration with an option to retrofit
- Effluent produced meets the highest level of technology standards in Nitrate-N and suspended solids removal
- Operator-friendly and cost-effective alternative to conventional tertiary systems
- Compact footprint
- Flexible design options with different bed depths allow custom system design, to meet the specific site requirements

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