



Aeration Industries  
International  
a newterra company

# Aire-O<sub>2</sub> Bio-film™ Fixed Film Media System



*Increase plant performance, capacity, and year-round nitrification.*

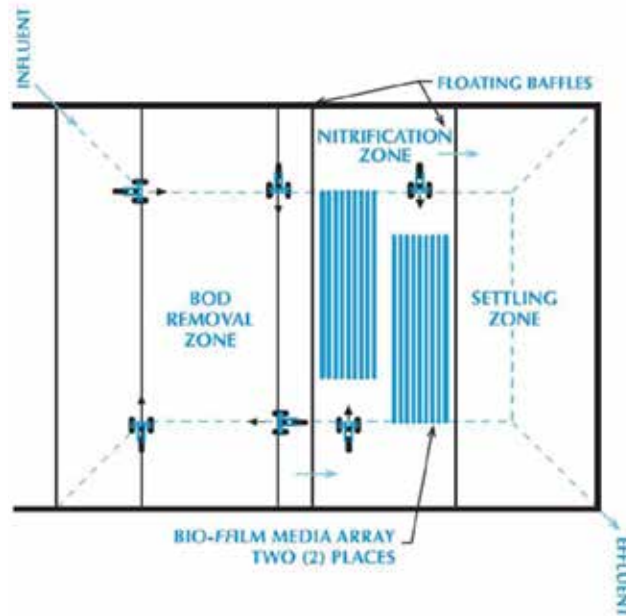
The Aire-O<sub>2</sub> Bio-film™ fixed film media system offers a cost-effective wastewater facility upgrade that increases plant performance, capacity, and facilitates year-round nitrification. The Bio-film system is a submerged, attached-growth media process using proprietary fabric technology with a highly effective surface area.

Suspended in vertical sheets, the media is paired with the Aire-O<sub>2</sub> Triton® process aerator/mixer to create dedicated treatment “arrays”. The process aerators provide horizontal mixing and aeration between the fixed film media sheets for solids suspension, nutrient treatment, oxygen diffusion, and biomass sustainability. Installation and maintenance are easy with the float-mounted Bio-film system, *eliminating the need for new construction and plant downtime.*

## WHY CHOOSE THE AIRE-O<sub>2</sub> BIO-FFILM™ FIXED FILM MEDIA SYSTEM?

- The concentrated biomass creates conditions for a high degree of nitrification year-round, even during cold weather
- Process is self-regulating and requires no maintenance
- Dense biomass communities on the fixed film increase Solids Retention Time (SRT) in the system and provide the added benefit of facilitating simultaneous nitrification/denitrification processes
- Adding Bio-film media decreases F/M ratio, which allows for the possibility of applying higher influent loadings to the process
- All necessary equipment is float-mounted and simple to install directly into existing lagoons. No new construction is required
- Fixed film process is stable and resistant to organic, toxic, and hydraulic shock loadings

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## FEATURING

- Lagoons can be divided into discrete cells using floating baffles to optimize process treatment
- Aire-O<sub>2</sub> Triton® aerators/mixers provide complete mix conditions
- The fixed film and Aire-O<sub>2</sub> Tritons create the perfect environment for nitrifiers
- System creates multiple passes of wastewater through the Bio-film channels, maximizing treatment efficiency
- Media can simply be added to enhance BOD removal