



Aeration Industries  
International  
a newterra company

# Argos<sup>®</sup> Sequencing Batch Reactor (SBR)

*Partnering for process flexibility with low cost of ownership*

Ideal for municipal or industrial applications, the Argos<sup>®</sup> SBR is comprised of the award-winning Aire-O<sub>2</sub> Triton<sup>®</sup> aerator/mixer and a proven fixed decanter design, along with advanced controls and monitoring systems. This provides a customized process operating strategy that offers improved process flexibility along with substantial capital investment and operational savings.

All phases of treatment occur in a single basin utilizing the Argos batch treatment operating strategy. The Triton mixes during the mixed fill phase then adds aeration into the mix for the react fill and react phases. The operating strategy is time-based with level override for meeting enhanced biological nutrient removal (BNR) requirements for low total nitrogen and phosphorus.

## WHY CHOOSE THE ARGOS<sup>®</sup> SBR?

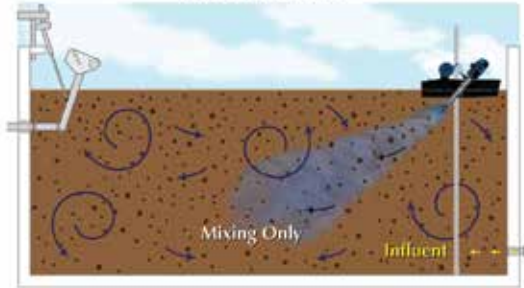
- Significant capital and maintenance savings over traditional SBRs
- Process flexibility
- Inspection and maintenance can be performed without draining the basin
- Reduced footprint with no need for additional buildings or enclosures

## FEATURING

- Triton will mix or mix/aerate up to 30 feet (10m) deep, as needed
- Easily integrates nitrification/denitrification & facilitates biological phosphorus removal
- Decanter utilizes a Variable Frequency Drive (VFD) and provides flexible discharge flow control and high quality effluent

# Standard Argos® SBR Operation

## Mixed Fill Phase



- Influent entering SBR
- Triton mixer **ON**, blower **OFF**
- Complete mix, anoxic environment
- Organic loading, denitrification, phosphorous release

## React Fill Phase



- Influent entering SBR
- Triton mixer **ON**, intermittent blower operation
- Complete mix, aerobic/anoxic environment
- Organic loading, BOD/COD removal, nitrification/denitrification and phosphorous uptake

## React Phase



- No influent enters SBR
- Triton mixer **ON**, intermittent blower operation based on effluent objectives
- Complete mix, aerobic/anoxic environment
- BOD/COD removal, nitrification/denitrification

## Settle Phase



- No influent enters SBR
- Triton mixer **OFF**, blower **OFF**
- Settling of mixed liquor suspended solids

## Decant Phase



- No influent enters SBR
- Triton mixer **OFF**, blower **OFF**
- Decanter lower to remove clarified effluent
- Activated sludge wasting

## Idle Phase



- No influent enters SBR
- Triton mixer **OFF**, blower **OFF**
- SBR ready for next fill cycle