

Argos[®] Sequencing Batch Reactor (SBR)



Partnering for process flexibility with low cost of ownership

Ideal for municipal or industrial applications, the Argos[®] SBR is comprised of the award-winning Newterra[®] Triton[®] 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 mined 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[®] SBR

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

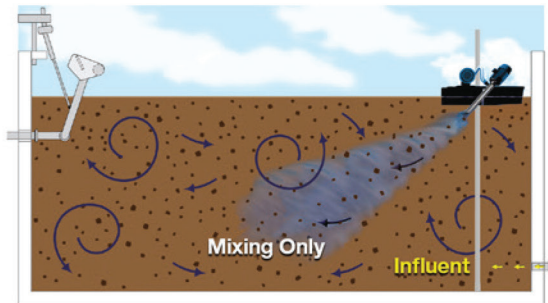
Features & Benefits of the Argos[®] SBR

- 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
- Control panels include Programmable Logic Controller, Touchscreen Human Machine Interface, level control with or without starters, and network communication options included
- Monitoring and control for process optimization and enhanced BNR instrumentation



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



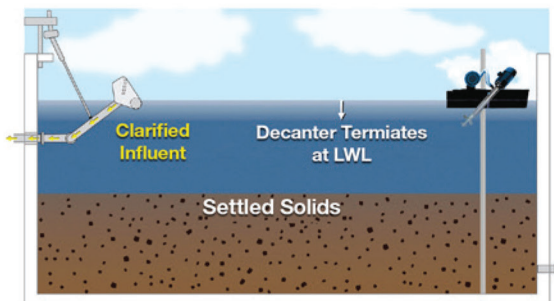
- No influent enters SBR
- Triton Mixer **ON**, intermittent blower operation based on effluent objectives
- Complete mix, aerobic/anoxic environment
- BOD/COD removal, nitrification/denitrification

Settle Phase



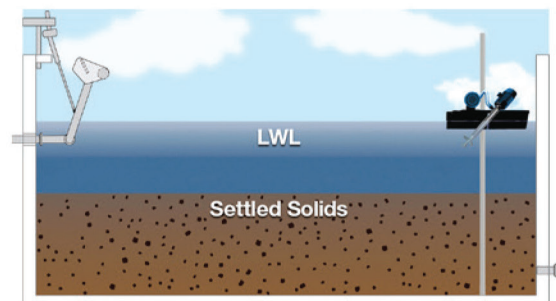
- No influent enters SBR
- Triton Mixer **OFF**, blower **OFF**
- Settling of mixed liquor suspended solids

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