



AQUA-AEROBIC SYSTEMS, INC.
A Metawater Company

AQUASBR® SEQUENCING BATCH REACTOR

FOOD & BEVERAGE INDUSTRY

Since 1986, Aqua-Aerobic Systems has installed more than 1,200 AquaSBR® Sequencing Batch Reactor (SBR) systems worldwide in a variety of applications ranging from a few gallons per minute (GPM) to thousands of GPM.

The AquaSBR is an activated sludge process that cycles through all the treatment phases of treatment in a single reactor. The system operates in a True Batch treatment mode to achieve only the highest quality effluent. The standard controls strategies are optimized to manage varying flow rates based on known and changing flows and loadings commonly experienced in industrial applications. The featured Aqua MixAir® system minimizes the energy consumption, equalizes the loading within the reactor, and optimizes biological nutrient removal.

The time-based controls of the AquaSBR provides flexibility of operation, allowing for full control of the environment. Combined with advanced process control, such as the IntelliPro® Process Management System, operation of the system is enhanced with passive or active control, comprehensive trending and data analysis.

In addition to the process advantages the AquaSBR offers a small footprint and components that are accessible and easily retrieved from the side of the basin.

Milk Processing 7.2 MGD (5,000 GPM) - California



- Six-basin AquaSBR® system, one of the largest industrial SBR system in the USA
- Installed November 2009
- Treats processing waste from six large milk processing facilities
- Effluent re-use, applied to nearby farmland

Beverage Processing 0.4 MGD (276 GPM) - N. Carolina



- Dual-basin AquaSBR® system
- Installed November 1995
- SBR treats trickling filter effluent
- Capability to bypass trickling filter and treat raw process wastewater
- Designed to meet direct discharge levels of treatment

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Vegetable Processing

0.33 MGD (229 GPM) - Texas



- Dual-basin AquaSBR® system initial phase installed in 2014
- Expanded to a four-basin system in 2022
- System includes advanced process control system (IntelliPro®)
- Meets single digits BOD, TSS and NH3-N

Chocolate Processing

0.205 MGD (142 GPM) - Illinois



- Dual-basin AquaSBR® system
- Installed September 1996
- Operates in a single basin mode due to low loading conditions
- Effluent meets the required mass limit to discharge to a POTW

Meat Processing

0.2 MGD (139 GPM) - Kentucky



- Single basin AquaSBR® system in initial phase installed in 1989
- Upgraded to three-basin SBR in 1996
- Plant re-rated to add capacity in early 2000s
- Pile cloth media filter added in 2021
- Meets direct discharge requirements with single digit BOD, TSS and NH3-N

Cheese Processing

0.091 MGD (63 GPM) - Pennsylvania



- Dual-basin AquaSBR® system
- Installed December 2016
- Pre-treatment for POTW, discharge to another AquaSBR system
- Designed to meet nutrient removal requirements