The AquaCAM-D® is a combination aerator/mixer/decanter designed for use in sequencing batch reactor systems (SBRs), treating flows as low as a few thousand gallons per day up to 100,000 gallons per day. The unit independently aerates and mixes the reactor to achieve anaerobic, anoxic and aerobic environments, while offering subsurface decanting of the final effluent. These capabilities make the AquaCAM-D ideal for low level phosphorus and total nitrogen applications. The unit has proven performance in a variety of municipal and industrial applications for both pretreatment and secondary wastewater treatment.

Features and Advantages

- Economical Enhanced Biological Nutrient Removal for Lower Flows
- Simple, Low Cost Installation
- Surface Accessible Components
- Proven Aqua-Aerobic Decanter
- Modular Design Promotes Easy Expansion
- Flexible Tank Options
- No Aeration Yard Piping or Blower Buildings
- Ideal for Cold Climates

Typical Applications

- Schools
- Residential Subdivisions
- Shopping Malls
- Parks, Camps, and Resorts
- Mobile Home Parks
- Nursing Homes
- Landfill Leachate
- Industrial Wastewater

Operation Description

High velocity movement of water through the air induction volute creates a pressure differential. Atmospheric air is drawn into the volute through the air intake port and forcefully discharged into the basin, enhancing oxygen transfer. By opening the unit’s electrically operated air valve, the Aqua CAM-D is operated as an aerator. Closing the air valve enables the unit to operate as a mixer, allowing for anoxic mixing during selected phases of the SBR cycle. Following the Settle phase of the SBR cycle, the submerged weir of the decanter opens and draws clear effluent from below the water surface. The AquaCAM-D is then ready to begin its next cycle of treatment.

Operation of the unit is controlled by a microprocessor with automatic level overrides to control the system during conditions of greater than peak flow.