

BioMix-DC Enhanced Anaerobic Mixing System

EBPR SELECTORS

BioMix-DC optimizes the anaerobic fermentation process by alternating a short mixing cycle with a long deep cycle. During the mixing cycle, bursts of compressed air are fired through patented engineered nozzles located at the floor of the tank. During the deep cycle, mixing is suspended for prolonged periods of time, allowing for solids to accumulate and increasing anaerobic solids retention time. This results in fermentation, volatile fatty acid (VFA) production, and ultimately improved biological phosphorus removal. Applications include anaerobic selectors, in-line fermentation, and sidestream fermentation.



KEY ADVANTAGES FOR ENHANCED BIOLOGICAL PHOSPHORUS REMOVAL (EBPR):



Energy Efficiency:

- 90% or greater energy savings compared to continuous mixing
- 40-60% less active mixing energy when resuspending solids compared to conventional mechanical mixing



Straightforward Operation:

- No mechanical or electrical components in the wastewater
- Non-clogging, self-cleaning parts in tank
- 100% redundancy with standby compressor



Process Optimization:

- Proven negligible oxygen transfer
- Designed to drive down process ORP
- Ability to adjust mixing frequency and intensity to optimize phosphorus removal and maximize VFA formation



Unparalleled Flexibility:

- Easily integrates with other BioMix applications in the facility
- Cycling parameters are operator adjustable or controlled via instrumentation feedback

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TO DISCUSS HOW BIOMIX-DC CAN HELP YOU OPTIMIZE
MIXING FOR BIOLOGICAL PHOSPHORUS REMOVAL.