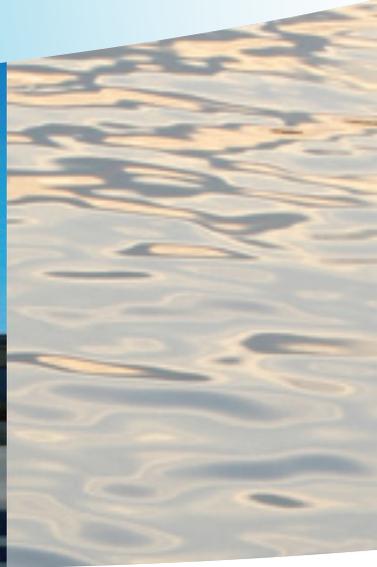




evoqua
WATER TECHNOLOGIES



ANAEROBIC DIGESTION SOLUTIONS

BIOLOGICAL TREATMENT FOR ORGANIC WASTEWATER



WHAT IS ANAEROBIC WASTEWATER TREATMENT?

Anaerobic digestion is a biological process in which organic wastes are broken down by microorganisms in the absence of oxygen. An anaerobic system can be used for pretreatment prior to discharging to a municipal wastewater treatment plant or before polishing in an aerobic process.

Anaerobic treatment is typically utilized to treat warm, high-strength industrial wastewater containing high concentrations of biodegradable organic matter. This energy-efficient process reliably removes biochemical oxygen demand (BOD), chemical oxygen demand (COD), and total suspended solids (TSS) from wastewater.

ADVANTAGES OF ANAEROBIC DIGESTION

Tap into Renewable Energy from Biogas

As organics are removed from the wastewater during the anaerobic digestion process, methane-rich biogas is produced. This valuable biogas can be captured, treated, and used as a source of renewable energy to displace fossil fuels or to generate heat or electricity.

Evoqua's ADI Systems has extensive experience supplying complete biogas handling, treatment, and utilization systems for the recovery of renewable energy from wastewater and organic waste. We offer biogas technologies to assist with waste-to-energy initiatives to help treatment plants recover money-saving resources.

Minimize Sludge Production

Compared to aerobic treatment systems, anaerobic systems use substantially less energy, require fewer chemicals, and incur lower sludge handling costs.

Anaerobic digestion produces very little excess sludge, but the agriculturally-beneficial sludge can safely be applied to land as fertilizer.





ADI SYSTEMS' ANAEROBIC DIGESTION TECHNOLOGIES

ADI Systems offers a wide range of anaerobic technologies specifically designed to meet the complex challenges of industrial wastewater treatment and organic waste solids management.

BVF® REACTOR

An ideal solution for virtually all biodegradable industrial wastewaters, the BVF® reactor can digest organic solids and fat, oil, and grease (FOG). It can handle a wider temperature range than most anaerobic technologies and generates approximately 90% less waste sludge than aerobic systems.

ADI ANAEROBIC MEMBRANE BIOREACTOR (AnMBR)

A cutting-edge technology that uses a membrane barrier to perform the gas-liquids-solids separation and reactor biomass retention functions, producing a superior effluent quality in a compact footprint.

ADI EXTERNAL CIRCULATION SLUDGE BED (ECSB)

A high-rate technology that can be built within small space constraints. It is designed primarily for soluble wastewater.

ADI® CONTINUOUSLY STIRRED TANK REACTOR (CSTR)

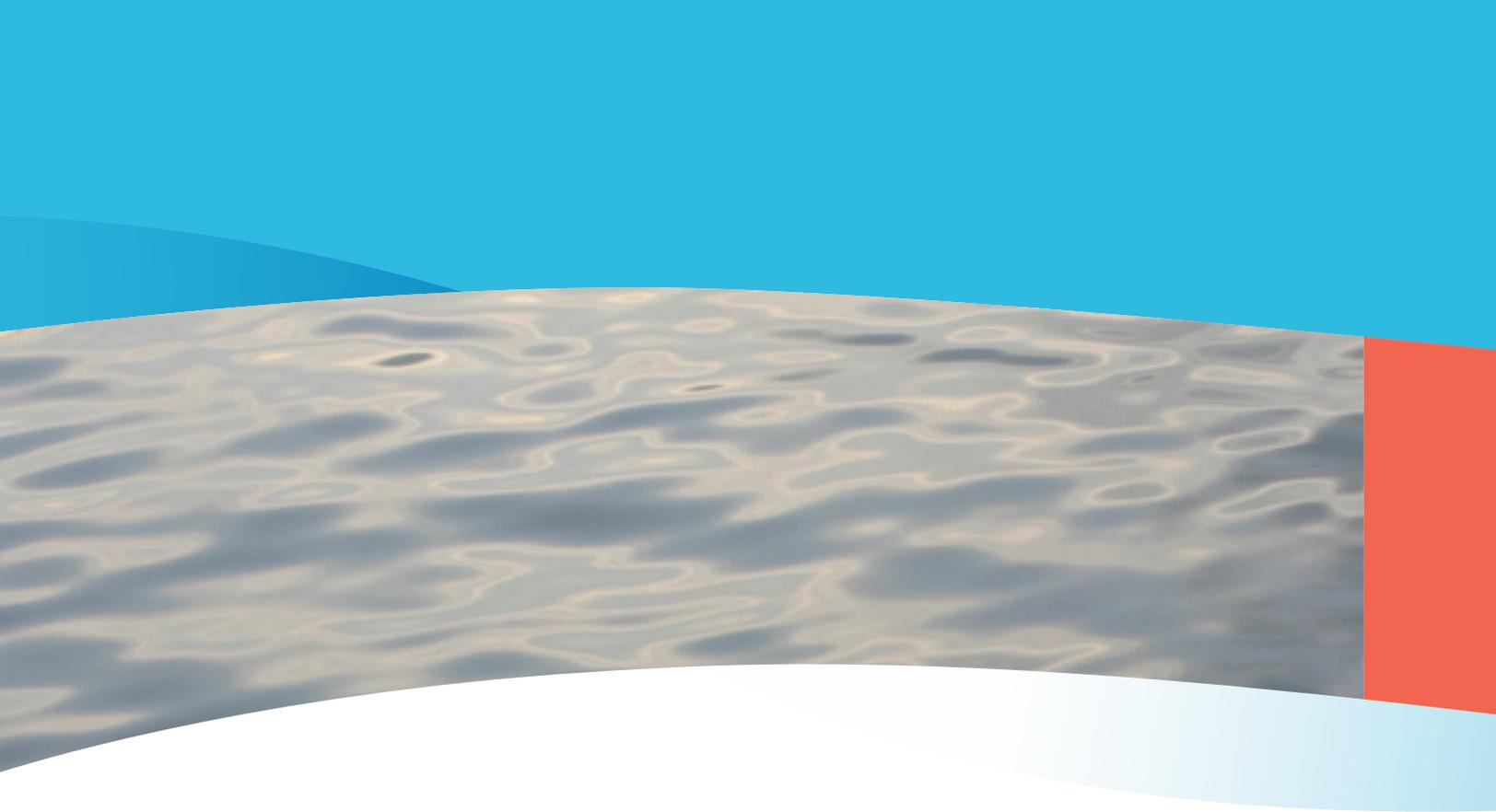
A complete mix tank-style reactor for very high solids and FOG digestion.

ADI-CGR® (CH₄ GENERATING REACTOR)

A low-rate in-ground reactor that is predominately used for biogas production.

ADI HYBRID REACTOR

A high-rate system that combines two proven anaerobic processes: upflow anaerobic sludge blanket (UASB) on the bottom and upflow fixed-film (UFF) on the top for optimum performance in a compact footprint.



PROJECT DELIVERY

ADI Systems customizes each system to meet the unique needs of the application. Design/build project delivery offers a number of benefits, including a single point of contact and responsibility, and consistency in design and construction quality throughout the entire project. Technology-only packages are also available.

ADI[®] Systems
an EVOQUA brand

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