NIJHUIS AECOMIX™
Anaerobic Wastewater Treatment Solutions

APPLICATIONS
• (Craft) Breweries, distilleries and wineries
• Soft drink, liquid food, coffee and beverage producers
• Convenience and food processing
• Potato and crisps processing
• Milk and liquid milk processing
• Edible oil processing
• Fish, meat and poultry processing
• Agricultural waste, manure and digestate and biogas processing

CUSTOMER BENEFITS
1. Turn a (waste)water treatment plant into a power generator
2. Reduce operational costs
3. High removal rates of BOD and VSS greatly reducing surcharge costs
4. Highly adaptable to local requirements and conditions
5. Reduced overall sludge production cost

Our award winning sustainable anaerobic AECOMIX™ solutions come in a variety of proven options, allowing Nijhuis to offer the best application. Whether you are interested in turning your (waste)water into a power plant, need to reduce industrial wastewater pollutant load to meet surcharge requirements or treat industrial wastewater for water recycling, Nijhuis can incorporate the proper AECOMIX™ technical approach, offering ECOlogical and ECOnomic benefits. AECOMIX™ technologies are applied to a MIXture of substances in wastewater and/or organic wastes.

Turn wastewater into power
Anaerobic treatment systems are based on a biological process operated and controlled under anaerobic conditions that effectively treats COD, BOD and VSS while producing biogas and very little biomass (without oxygen). Nijhuis anaerobic treatment experts have vast experience and know-how to properly select, design, build and operate anaerobic processes providing clients with the best treatment solution.
The Nijhuis AECOMIX™-TAURUS reactor system is a complete mixed anaerobic reactor suitable for all types of waste, manure, sludge and renewable energy crops. Under anaerobic circumstances, wastes and organic substances are digested into biogas and digestate. Additionally, a robust separation step such as a decanter centrifuge or screw press can be applied to separate the digestate into a liquid and solid fraction.

For efficient centrate water / digestate treatment, the Nijhuis AECO-NAR allows to threat the liquid fraction to accept challenging co-substrates in the digester, avoiding toxicity in the digester, increase biogas yield, reduce discharge costs and recover ammonia into fertilizer. Especially for manure applications, the complete manure treatment solution Nijhuis GENIUS turns manure into green minerals and clean water which consist of modular selectable technologies such as AECOMIX™-TAURUS, decanter, dissolved air flotation, AECO-NAR and UF/RO.

The anaerobic reactor technology, which is one of the simplest systems with all the anaerobic benefits, fits into any available tank on the market and produces biogas. The AECOMIX™-AnMBBR is a compact anaerobic carrier technology for greenfield and expansion purposes. The innovative technology setup will reduce the pre-treatment requirement, resulting in a higher biogas yield.

High-rate anaerobic technology offers high COD and BOD wastewater removals in a highly loaded anaerobic system, based on a granular sludge process, with minimized footprint. Nijhuis AECOMIX™-EGSB/UASB/IR includes a simple and efficient internal piping design and improved granular sludge retention offering a more compact, robust treatment system. A pre-treatment system will protect and greatly improve the robustness of high-rate anaerobic treatment technology.

In order to treat the effluent after the AECOMIX™ process to discharge or reuse requirements, Nijhuis offers several polishing, reusing and recovery solutions. For example, the effluent can be treated with aerobic treatment solutions (BIOCTOR) and being polished and reused with Sand Filtration (CSF), CarboPure (CP), membrane, ozone (NOS) and UV (NUV) technologies.