Combine waste and wastewater in one single process

Our award winning sustainable anaerobic AECOMIX™ solutions come in a variety of proven options allowing Nijhuis to offer the best for a customers 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.

The award winning Nijhuis AECOMIX™-DGF system is a revolutionary and highly innovative solution, especially tailored for food and beverage plants to effectively treat raw wastewaters that contain high TSS and FOG concentrations. Additional benefits can be realized when the plant also digests factory wastes. The technology provides a simple and robust anaerobic solution for many substrates and a high COD removal efficiency of more than 95%.

APPLICATIONS
- Ice cream.
- Chocolate.
- Dairy.
- Vegetable and fruit.
- Palm Oil Mill Effluent (POME).

CUSTOMER BENEFITS
- Turn a (waste)water treatment plant into a power generator.
- A single step process solution to convert a mix of wastewater and organic wastes in one anaerobic reactor into an energy source.
- No pre-treatment required, resulting in lower OPEX.
- Highly adaptable to local requirements and conditions.
- Simple and stable process.
- Use of proven technologies like digestion and dissolved gas flotation.
- Less intensive biotreater resulting in a smaller footprint and lower OPEX for polishing.
REVOLUTIONARY AND HIGHLY INNOVATIVE SOLUTION WITH PROVEN TECHNOLOGIES

Wastewater can be fed directly to the AECOMIX™-DGF if coarse solids are present that need to be macerated. The (solid) waste streams may need pre-treatment such as shredding, maceration or pasteurisation before feeding them to the AECOMIX™-DGF.

The AECOMIX™-DGF reactor is a stirred tank, typically fitted with a membrane roof for gas storage. The net which supports the gas membrane also acts as a carrier for bacteria, causing some desulphurisation to occur in the biogas.

Gentle mixing and gentle separation preserves biomass and biomass activity. A good solids-liquid separation determines the quality of this type of process. A Dissolved Gas Flotation (DGF) is the ideal process unit as it is robust and at the same time gentle for the treatment of biomass. The clarified liquid is directly discharged or introduced to a polishing step.

Due to the high removal rates in the AECOMIX™-DGF process any aerobic post-treatment is very compact and requires less energy to meet final requirements.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Units</th>
<th>Ice Cream</th>
<th>Chocolate</th>
<th>Cheese</th>
<th>POME</th>
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<tr>
<td>COD</td>
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