

PRODUCT SPECIFICATION & EVALUATION



Product Name: Anaerobic Sludge Digester

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DESCRIPTION & SPECIFICATIONS

Anaerobic Sludge Digester is a natural treatment method to transform organic waste into energy:

- It produces a Biological decomposition of organic matter in an environment without air supply
- Production of gas as recoverable energy (biogas)
- Used for organic waste with a high carbon content (soluble COD)
- Low volume sludge production
- Undigested matter can be dried and used as biomass fuel
- Residual organic matter used for composting and land spreading

Key Product Features:

- High efficiency.
- Production of sludge with high fertilizer value.
- Renewable energy production: biodegradable organic matter is converted into biogas.
- 65 - 80% methane (CH₄), a source of green energy
- Production of electrical energy.

Fig. 1 – Anaerobic Digesting System (Pictured is award winning, BV Dairy Site in the United Kingdom)



The Anaerobic Digesting system uses CAF technology as a sludge thickener and final water clarifier to improve better methane production.

PROCESS

Anaerobic digestion processes are used in the treatment of biomass from waste effluent, sludge, and organic matter produced by industry.

- Is a very compact and efficient proven process reducing COD loadings by 60-80%
- Produces significantly less volumes of sludge than aerobic processes (lower energy consumption)
- Reduces the risk of odour
- Can be applied to high strength liquid or semi-solid organic wastes with high COD loading (6 to 100g/l) including:
 - Sludge from aerobic treatment of industrial effluent
 - Organic waste from industrial plants
 - Waste from commercial services
 - Sludge from municipal treatment plants
 - Municipal waste

STRENGTHS

The following product performance targets, have been demonstrated in live operation:

- Highly efficient COD removal
- Production of green energy
- High reliability: using the Hydro-CAF technology
- Excellent ability to handle variable influent loads
- Biomass retention using the Hydro-CAF technology
- Compact, extremely low footprint with no odor emissions

RECOMMENDED DEPLOYMENT SCENARIOS:

The technology is suited for sludge from aerobic treatment of industrial effluent, Waste from catering service waste from Meat & Poultry, Pig and Cattle Manures, Food waste, dairy waste, brewing, public water utilities and others applications. The anaerobic Digester can be applied to concentrated liquid or semi-solid organic wastes with high dissolved COD loads. Volumes (3 to 100g/l)

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