

EUCO®

Plug-Flow Anaerobic Digester for High-Solids Feedstock



Anaerobic Digester

EUCO® is a horizontal plug-flow digester operated at the mesophilic temperature range. It is designed for input materials with higher solids content and runs at an average total solids (TS) value of 17%. Solid material is loaded into the tank via the PASCO® feeder system.

EUCO® has a rectangular footprint and a horizontal paddle mixer extending the tank's full length; the tank is heated through the horizontal mixer shaft and the mixer is powered by drive units at both ends. The main function of EUCO® is to liquefy (hydrolyze) the solid feedstock to provide the second-stage digester with well broken down material. Biogas production also occurs during the hydrolysis stage in EUCO® and makes up about 50% of the total production when combined with a second stage digester, such as the COCCUS®.

Technical Components

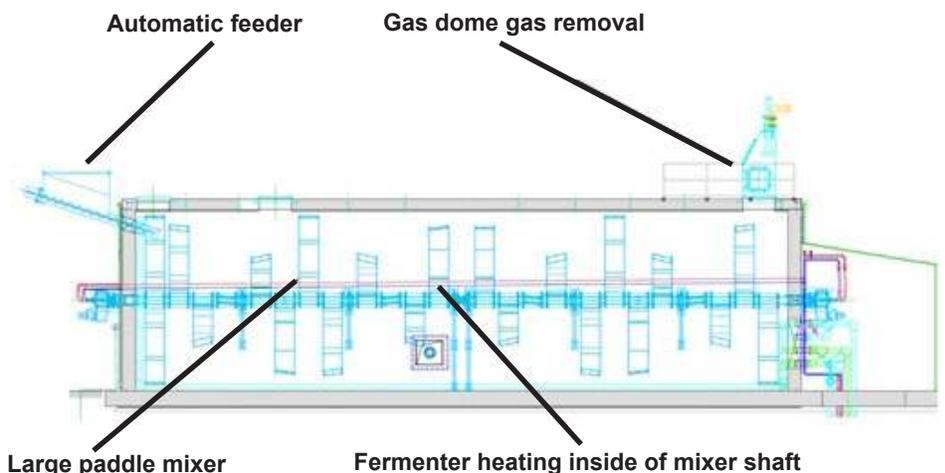
- Horizontal paddle mixer ensures even temperature distribution
- Concrete coating in gas space protects concrete and reduces maintenance cost
- Robust feeder for individually tailored feedstock charging
- All technical equipment installed in one building
- Frost-proof and low maintenance safety pressure valve

System Advantages

- Suitable for feedstock with high-solids content
- Handles high organic load
- Proprietary design paddle mixer prevents floating layer buildup and continual gas extraction
- Heating integrated into mixer shaft
- Low parasitic energy consumption
- Industrial grade components
- Fully automated operation
- Professional plant control system with PLC technology
- Short construction time
- Scalable

EUCO Titan®

The EUCO® Titan plant system is a combination of the EUCO® plug-flow digester and the COCCUS® complete mix digester. It is well suited to extract energy from material with a higher solids content.



Industrial Applications

Anaerobic Digestion Systems with Flexible Feedstock Options

The EUCO® Titan system—EUCO® digester combined with COCCUS® digester—has the flexibility to accept a wide range of solid and/or liquid materials from various industrial and municipal sources. This system has the potential to co-digest waste from industries including but not limited to:

- Municipal waste water treatment applications, including sludge and biosolids
- Beverage industry, including breweries and wineries
- Food processors, including vegetable and meat processors and bakeries

Systems can be tailored to suit the unique attributes of an individual waste stream, maximizing treatment efficiency and biogas output.

Waste Treatment

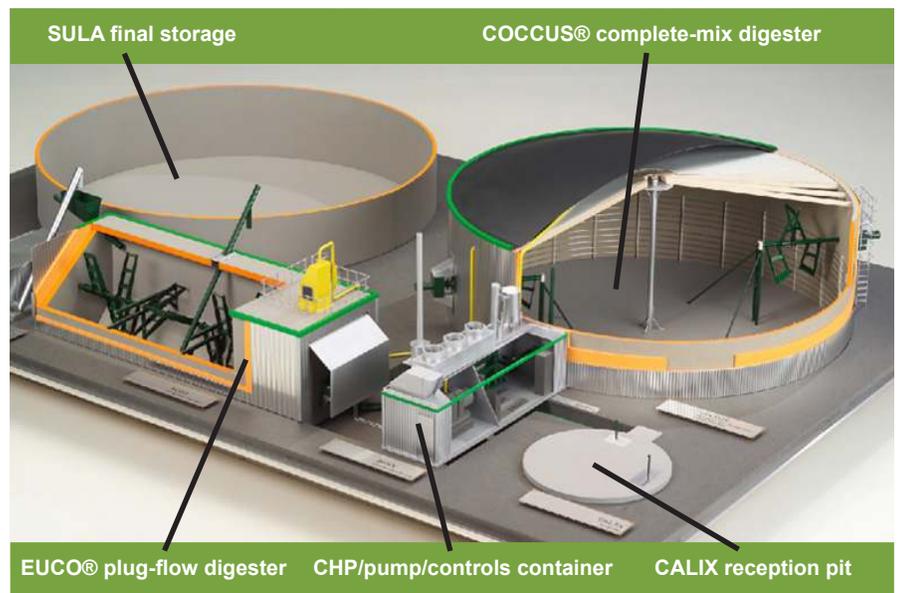
The EUCO® Titan system can be implemented as a waste treatment solution; treating waste onsite is a more cost-effective solution than hauling it away by avoiding transportation costs.

Auxiliary Systems

There are a number of ways to integrate EUCO® Titan into an existing process flow, such as a waste treatment operation. Additional systems can be connected to provide effluent storage, feedstock separation and tanks for supplementary feedstock.

Energy Independence

Creating renewable fuel, electricity, or heat helps make an operation energy independent and protects from fluctuating energy prices. Electricity can be used to power the processing operation and nearby buildings, process heat can be used to heat buildings or the water in food processing applications, and fuel can be used for fleet vehicles or gas grid injection.



Substrate	EUCO®	COCCUS®	Potential Continuous kW Output
10,000 tpy Corn Silage	EUCO 600	COCCUS 2400	~450 kW
25,000 tpy Corn Silage	2x EUCO 1000	2x COCCUS 4000	~1300 kW
6,000 tpy Mixed Food Waste & 4,000 tpy Vegetable Waste	EUCO 250	COCCUS 1600	~190 kW
10,000 tpy Cattle Manure w/bedding (~15% TS)	EUCO 250	COCCUS 1600	~105 kW
50,000 tpy Cattle Manure w/bedding (~15% TS)	EUCO 1000	2x COCCUS 4000	~650 kW