BAYERISCHE QUALITÄT SEIT 1985

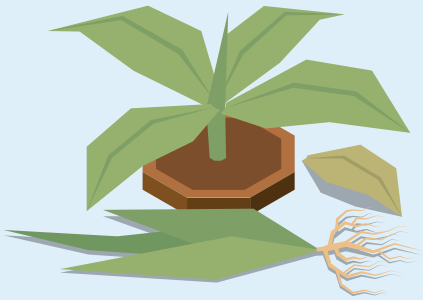
BIOGAS HOCHREITER

Innovation aus einer Hand

Energy for the future

Biomethane

CROP RESIDUES



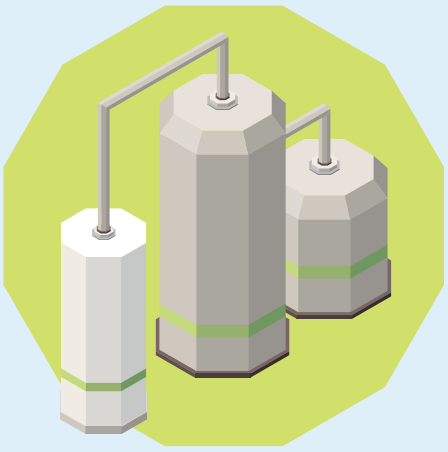
ANIMAL LEFTOVERS

ORGANIC RESIDUES

SEWAGE/ FLOTATION SLUDGE

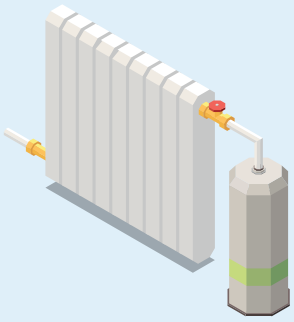
ANAEROBIC DIGESTION

BIOMETHANE



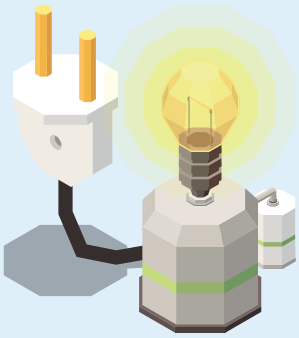
BIOFUEL

HEATING



BIOGAS

ELECTRICITY



DIGESTATE

FERTILIZERS

BIOME

Available anytime and fast, versatile

Biogas consists primarily of 50-60% methane, with the remaining components being CO2 and a small amount of trace gases. The latter are considered impurities and must be separated from the other components before injection into the natural gas network.

The separation of biogas into high-quality biomethane can be done using various methods.

A further process for upgrading of biogas is the well-known absorber-stripper system with amine. The process has been used for many years in the oil and gas industry for removal of CO2, H2S other acidic gasses, and is known for being a robust and reliable system.

Due to the efficient process a high concentration of methane in the separated biomethane stream of 99% can be achieved. An efficient amine upgrading system can remove down to less than 50 ppm CO2 in the biomethane stream, and thereby prepare the gas for liquefaction to produce bioLNG.

The robust technology and process of the upgrading process, results in low operational expenses, as well as a high up-time, with an average up-time of 99% including service.

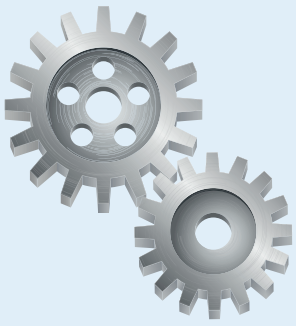
THANE

in use, resource-saving in production

With membrane technology, the biogas is compressed and then the methane is filtered using modern separation modules. Typically, multiple membrane tubes are used simultaneously. This process is relatively simple and now technologically well-developed, ensuring reliable operation.

In pressure swing adsorption, the biogas undergoes a pressure increase as the first step. Then, through strong and rapid pressure changes, the carbon dioxide molecules are adsorbed in special columns. This process is repeated several times in multiple columns, and biomethane is extracted from the raw biogas.

During the production of biomethane, carbon dioxide is also produced. This can be used in greenhouses, chemical plants, and for beverage and food production.



Facts

- Biomethane is climate and environmentally friendly
- It has a better CO2 balance than fossil fuels
- It is an advanced fuel that is compliant with RED III
- It can be used either as gaseous Bio-CNG or as liquid Bio-LNG

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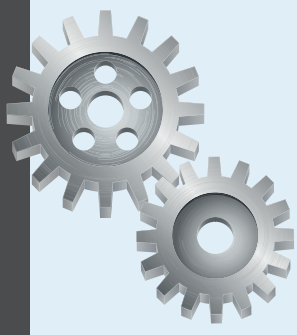
Biogas plant technology

Tsunami paddle agitator



Facts

- 18.5 or 22kW electrical power
- Low energy consumption due to frequency converter operation
- 43,422 m³/h circulation capacity with simultaneous low speed of 9 rpm
- Paddle diameter 5.20 meters
- Available with 2 or 4 paddles
- Easy maintenance, as the drive unit is outside the tank
- Suitable for digesters, post-digesters and storage tanks
- 3-stage, reliable planetary gear unit
- As an option: with floating body for changing filling levels

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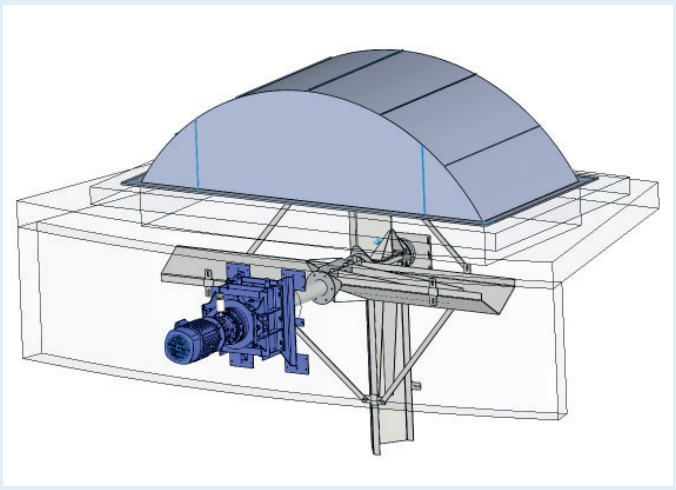
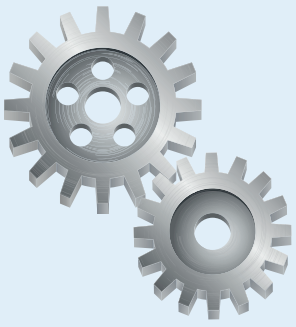
Biogas plant technology

Mississippi Paddle agitator





Facts

- 18.5 kW electrical power
- Low energy consumption due to frequency converter
- 26,675 m^3/h circulation performance
- Paddle diameter 4.20 meters
- Suitable for digesters and post-digesters
- 3-stage, reliable planetary gearbox
- Easy to maintain, as the drive unit is outside of the tank
- As an option: available with central lubrication system

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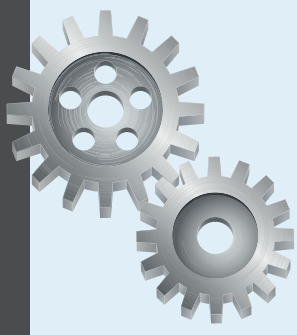
Biogas plant technology

Steinauer agitator



Facts

- 18.5 or 22 kW electrical power
- Low energy consumption due to frequenzy converter operation
- 43,900 m³/h circulation capacity
- Smooth adjustment of the stirring capacity
- Paddle diameter 4.20 meters
- Available with 4 to 6 paddles
- Suitable for digesters, post-digesters and storage tanks
- 3-stage, reliable planetary gearbox
- Easy maintenance, as the drive unit is outside the tank

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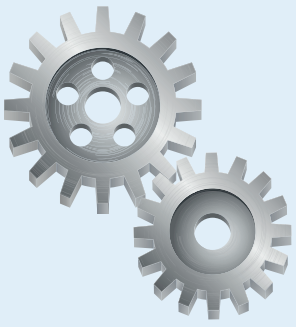
Hochreiter **Pump station**



Facts

- 18.5, 22 and 30 kW electrical power
- Body made of stainless steel with 5 inlets in DN300
- Integrated manifold from 5 to 11 outlets
- High degree of prefabrication due to a beforehand frame construction with pneumatic gate valves
- Large pumping capacity due to a centrifugal pump
- Automatic central lubrication system
- As an option: with flow measurement

Biogas plant technology

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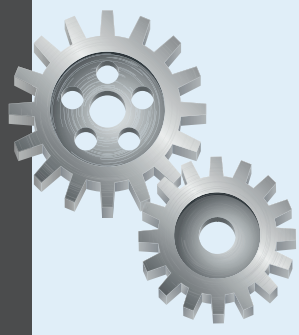
Biogas plant technology

Hochreiter **Fuada Sepp**



Facts

- Single feeder with 10 m³, 20 m³, 24 m³, 34 m³, 40 m³ or 50 m³
- Double feeder with 68 m³, 80 m³ or 100 m³.
- 7.5 - 11 kW electric power per auger
- With ceiling, or side entry, or with vertical conveying technology
- Solid screws and screw tubes (opt. completely made out of stainless steel)
- Stainless steel sump
- Large digital display
- Visualized control panel
- Reliable drive units with planetary gearboxes

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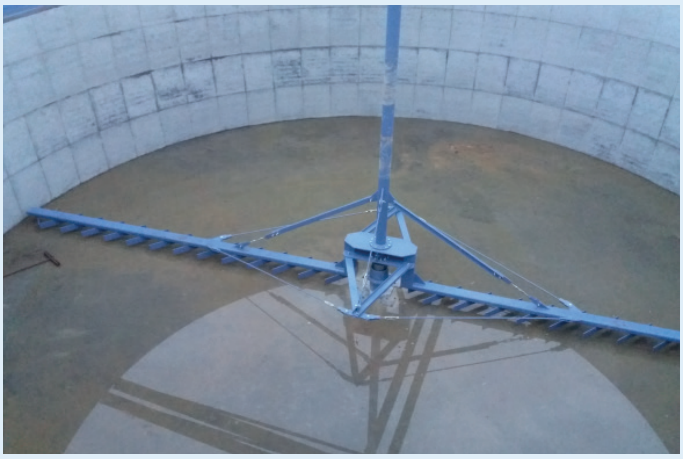
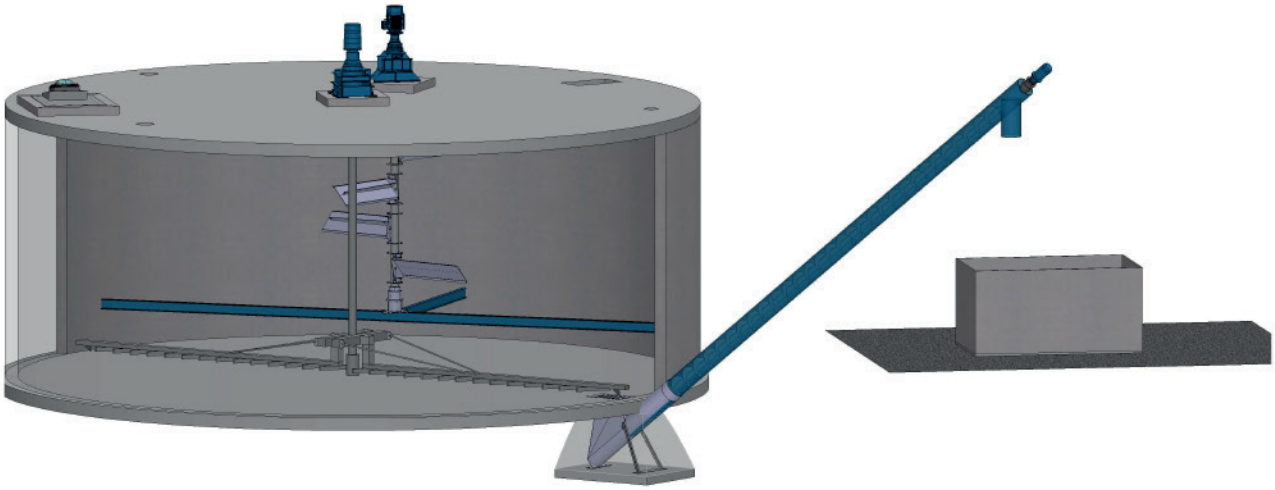
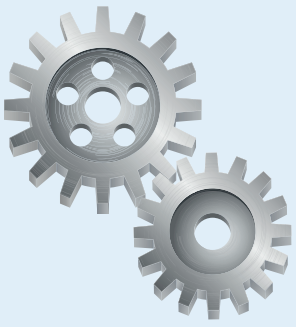
Biogas plant technology

Hochreiter **Sand scraper**







Facts

- Economical 1.35 kW connection load
- Max. 16 diameter tank
- Single or double rake arm
- Suitable for sinking materials such as: sand, stones, etc.
- Reliable planetary gearbox
- Sand discharge screw with massive screw windings.
- Up to 95% reduced sediment residue
- Economical operation due to low rotation (1 rpm)

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Energy for the future

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