



Mobigas – The modular biogas plant on a container basis

Source:

Pöttinger Entsorgungstechnik GmbH & Co KG

Section:

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Company: Pöttinger Entsorgungstechnik GmbH & Co KG

Location: Grieskirchen, Austria

Description:

The Mobigas biogas plants of Pöttinger Entsorgungstechnik GmbH & amp; Co KG consist of fermenter containers and technology containers and enable the recycling of organic wastes to be adapted to changing requirements. A ferment container of this new plant can hold up to 30 m² of organic waste and produce biogas in a three-stage process. The first phase is aerobic and the material is aerated in the fermenter. In the second phase, the ventilation is stopped and the anaerobic process begins. A percolate is sprayed onto the material and the fermenter container is heated by a floor heating system. Biogas production starts and takes about 4 weeks. When the material is evaluated, the fermenter container is again vented and the process is stopped. From the resulting gas, electric and thermal energy can be obtained directly by means of a combined heat and power unit. The entire system is controlled by the technical container, which includes gas analysis, gas storage and gas utilization. Material that has not been recycled in the gasification process can be recycled as compost, fertilizer or earthenware. The CO₂ reduction is around 0.2 tonnes per ton of substrate used.

Thanks to its innovative design, the system can be extended from 3 to 10 containers, thus optimally adapting to regional capacities. The annual capacity can thus be varied between 500 and 2,000 tonnes of organic waste. Since the individual containers of the plant can be dismantled and transported easily (normal hook-and-run vehicle is sufficient), seasonal capacity fluctuations can also be compensated via loan containers.

The modular biogas plant was developed by Pöttinger Entsorgungstechnik GmbH & amp; Co KG in co-operation with the company Müller Abfallprojekte GmbH and enables an optimal utilization of the energy potential of organic waste. Mobigas offers a mobile and adaptable solution for the energetic utilization of low biological waste quantities. Thanks to the compact

container-based design (a plant with 5 fermenter containers and a technology container measuring 10x30 meters), it can also be integrated into regional composting plants. Biogenic waste can thus be used more efficiently as a resource and recycled directly in the region.

By decentralized energy generation from renewable sources of energy, fossil fuels can be replaced, which on the one hand leads to a reduction of CO2 emissions and on the other hand contributes to the energy supply of a region. The worldwide active company Pöttinger Entsorgungstechnik GmbH & Co KG has set a pioneering step in this direction.

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