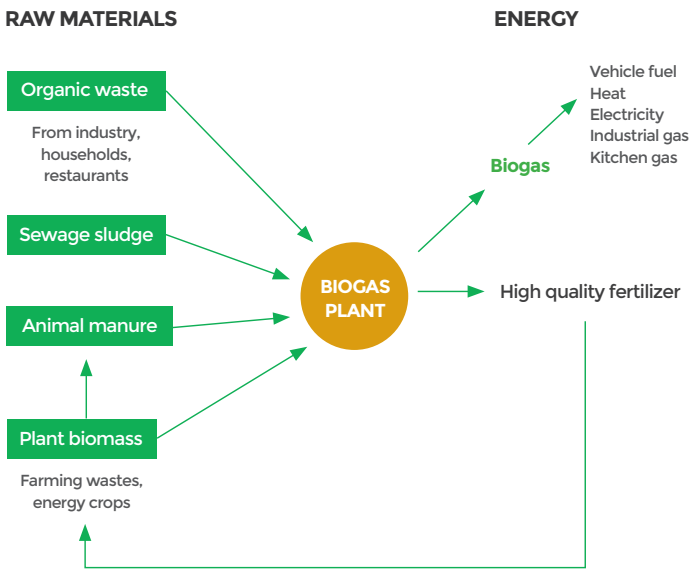
BioGTS®
BIOGAS
Value from organic waste

Biogas technology offers a means for efficient conversion of organic wastes into renewable energy, valuable biofuels and high quality fertilizers. Biogas can be used for energy production in a similar way to natural gas: e.g. for electricity, heat, vehicle fuel and industrial gas. Biogas is a very clean fuel with close to zero greenhouse gas emissions and up to 99% lower particle emissions than conventional vehicle fuels. Biogas production is a closed process with very low emissions to the environment, and thus, an efficient means of cutting down the emissions from waste treatment.

BioGTS® Biogas Process is based on a modular design which is cost-efficient and easily scalable. Competitive advantages of the BioGTS® Biogas Process include the high energy yield compared with the compact reactor structure, flexibility of the process towards the quality of the feedstocks, low investment and operating costs, easy scalability and plug-in installation.

Potential feedstocks for biogas production in the BioGTS® Biogas Process include organic biowaste from municipalities and industries, agricultural wastes including animal manures and farming wastes from crop production, green waste from gardens and parks, sewage sludge, as well as purposely grown energy crops.



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BioGTS® Biogas Process*

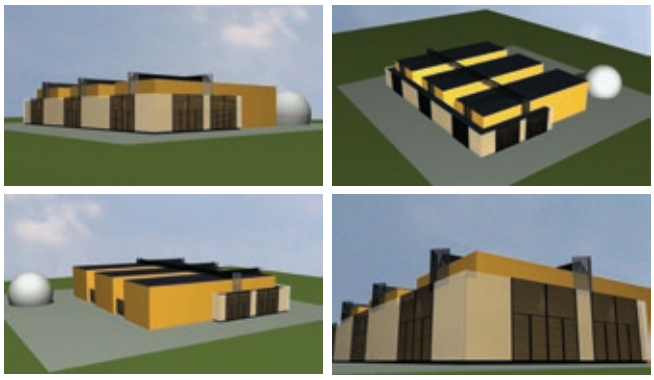
BioGTS® Biogas reactor design is based on compact and cost-efficient horizontal container-shaped reactors, which are built from prefabricated modules. This kind of reactors require less surface area, enable quick "plug-in"-installation and start-up, and are easy to scale up. The process is continuously operated and fully automated.

- Anaerobic digestion process based on plug-flow operation in horizontal container reactors
- Compact modular reactor structure, which is easy to scale, and requires little surface area
- Cost-efficient reactor structures with significantly lower investment costs and shorter investment payback periods than conventional biogas processes
- High energy yield per reactor volume especially when operated as dry process
- Flexible process, which can be operated either as wet or dry anaerobic digestion process depending on the quality of the available feedstocks - Possibility to operate even at a high feedstock solid concentration of up to 35%
- Wide raw material base – Suitable for treatment of many raw materials that are difficult to handle in traditional biogas processes
- Inorganics potentially present in the feedstock (sand, plastics etc.) do not cause problems in the process as in conventional biogas processes
- Thermophilic process, operated at 50-55°C, for higher performance, higher gas output, better energy balance and improved hygienic quality of the digestate

Compact, modular reactor structure, examples:

BioGTS® Biogas plant, feedstock 10 000 t/y, 27 t/d of agricultural biomass

BioGTS® Biogas plant, feedstock 20 000 t/y, 55 t/d biowaste



BioGTS® Biogas plant, feedstock 73 000 t/y, 200 t/d of biowaste.

*International patent pending

Let us help turn your waste into valuable resources

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