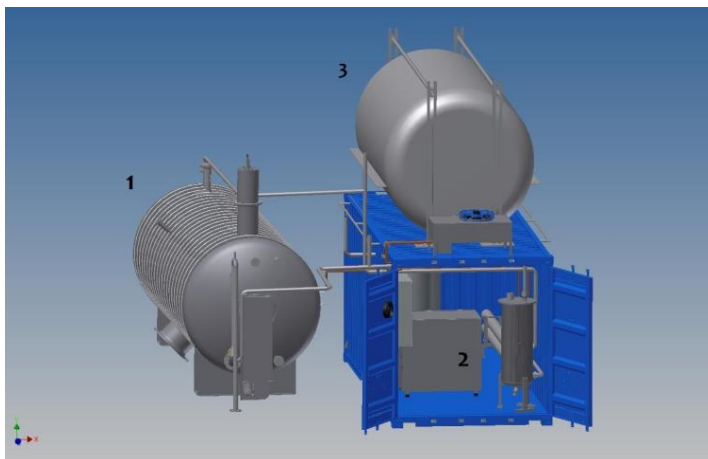


MICRO BIOGAS PLANT - MODULAR DESIGN

Micro biogas plants allow harmless processing of different types of organic wastes into biogas while reducing greenhouse gas emissions and odors. Biogas produced in micro biogas plant significantly influence on reducing energy dependence of farm and greenhouse gas emissions. Processed substrate - output from digester is also used as a high quality organic fertilizer. With replacement of fossil fuels with biogas in agricultural production, carbon footprint of end products can be significantly lowered (food, raw materials, bio fuels).

Biogas can be used on the farm:

- on cogeneration unit for the simultaneous production of electricity and heat or
- burning to produce heat



Components of micro biogas plant: 1 – digester, 2 – energetic container with units for: processing of input substrate, cleaning of biogas, biogas powered cogeneration (electrical and thermal energy production), thermal energy storage and electronic regulation of process of biogas production, 3 – biogas holder integrated in container for mechanical protection, 4 – dosing system for adding solid biomass connected with milling unit for mechanical preprocessing of solid biomass with milling

Micro biogas plant is designed for wet or dry process for production of biogas. Biogas is using on CHP unit for producing electrical and thermal energy. Produced electrical and thermal energy can be used on the farm, surplus electricity can be send to the public or local electricity grids, excess heat can be used on farm or for district heating. The range of electric power units on CHP is 10 - 50 kW_e.

Micro biogas plant is result of joint development work between firm Omega Air and the Agricultural Institute of Slovenia.

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