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HOST
BIO-ENERGY INSTALLATIONS

CELEBRATING 25 YEARS FULL OF ENERGY




BIOENERGY SYSTEMS

Nr. 1 in Waste to Bioenergy

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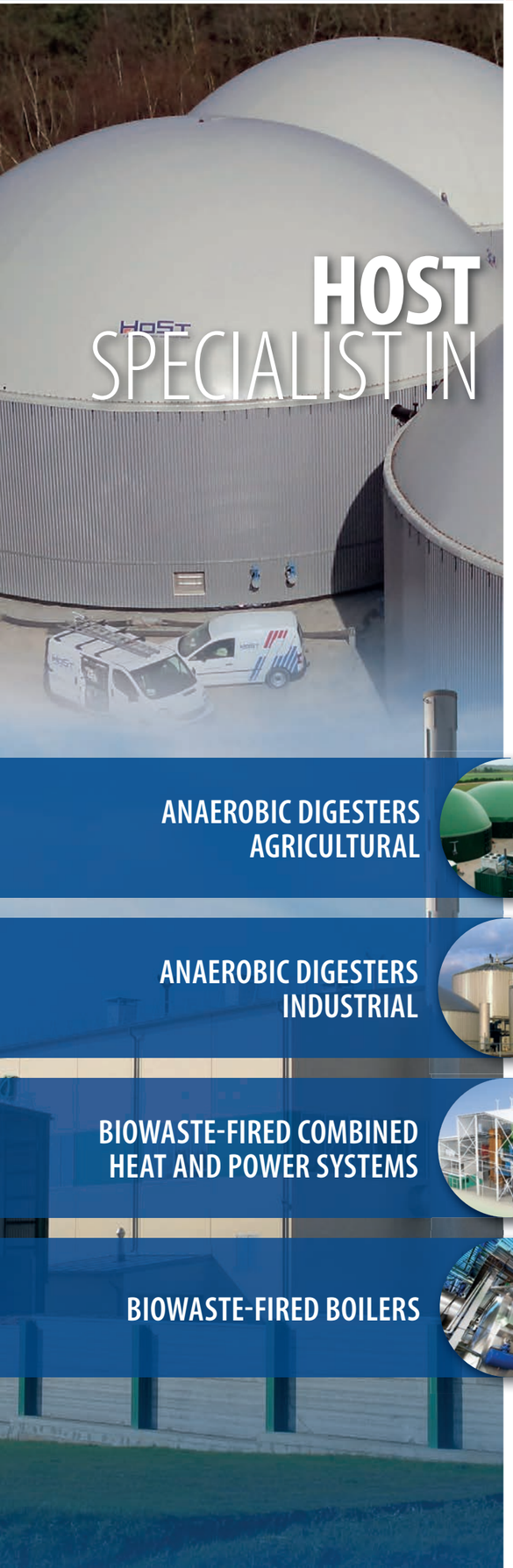

HOST SPECIALIST IN

ANAEROBIC DIGESTERS AGRICULTURAL

ANAEROBIC DIGESTERS INDUSTRIAL

BIOWASTE-FIRED COMBINED HEAT AND POWER SYSTEMS

BIOWASTE-FIRED BOILERS

BIOMASS ENERGY SYSTEMS

HoSt is the largest supplier of bioenergy systems in the Netherlands and delivers complete systems, from anaerobic digesters for agriculture and industry, wood-fired boilers and combined heat and power plants to fluidised-bed gasifiers.

HoSt came into existence as the result of a joint-venture between Holec Projects and Stork, two well-established suppliers of energy systems. From 1999 onwards HoSt has been a fully independent business whose activities focus 100% on the technological development of systems for the processing of biomass flows and the supply of systems for the sustainable generation of energy from biomass.

HoSt has built up extensive experience in the processing of diverse waste flows from the food-processing industry and agricultural by-products such as straw, chaff and grass cuttings.

HoSt has designed and constructed more than 40% of Dutch biogas plants. Four out of every five HoSt projects are currently being realised outside the Netherlands. For example, systems have been installed in countries such as Belgium, Poland, Romania, the UK, Latvia and Portugal.

HoSt operates as a turn-key supplier. In addition to the design, construction and assembly of installations, HoSt also provides a wide range of other services, such as feasibility studies, planning applications, financial support, start-up, supervision of process operations, process monitoring and optimisation of systems supplied.

HoST BIO-ENERGY INSTALLATIONS

ANAEROBIC DIGESTERS – AGRICULTURAL

Microferm: compact system of 65 - 150 kWe in two designs

with a combined heat and power (CHP) unit for the production of power and heat, or a biogas upgrading system where the biogas is refined to natural gas quality. The system processes fresh slurry and is suitable for slurry volumes of between 3,500 m^3 and 7,000 m^3 per year.

Farm-type digesters from 250 kWe to 2500 kWe

These anaerobic digesters are designed with a flexible supply system suitable for a wide range of solid biomass flows. The concrete digester tanks, fitted with special mixers enable extremely dense biomass flows to be mixed. With its sophisticated design, which almost doubles the capacity in comparison to the traditional concept, the large volumes of gas production per digester enable quick returns on initial investment.

ANAEROBIC DIGESTERS – INDUSTRIAL

From sludge digestion to category 3 waste material

In industrial anaerobic digesters organic waste flows are processed without the addition of slurry. For example, HoSt has constructed numerous systems for the digestion of slaughterhouse waste. To this end, for the processing of category 2 material, various thermal pressure hydrolysis (THP) systems have been supplied, as a result of which the conversion of biomass is improved significantly. HoSt also supplied systems for processing unpacked food products, industrial food product and for the processing and maximum energy recovery of industrial and municipal primary and secondary sludge.

BIOWASTE-FIRED CHP INSTALLATIONS

High-yield biowaste-fired CHP plants

HoSt supplies biowaste-fired combined heat and power (CHP) plants between 1 MWe and 10 MWe. These relatively small plants are high-yield as a result of combining a self-cleaning high-pressure boiler and a high-efficiency steam turbine.

BIOWASTE-FIRED BOILERS

Biowaste-fired grate boilers of 3 MWt to 50 MWt

For low emissions and additional flexibility when it comes to wood quality, the robust furnace is designed with a hydraulic input, a stepped grate and stepped incineration. Flue gases are re-circulated under the grate and in the furnace so that manageable incineration and minimum emissions result.

HOST SERVICES

PROCESS ANALYSIS

In order to optimise management and control of the digestion process, HoSt provides a process analysis:

- no process failure as a result of acidification, salification, etc.;
- increase in gas production;
- reduction in feeding costs;
- defining of fertilisation value of the digestate.

PROCESS IMPROVEMENT WITH ENZYMES

Enzymes for digesters are produced with the aid of fungi. With the aid of enzymes the mixing process and the mass transfer are improved and the breakdown of long chains of scum formation avoided.

LABORATORY

HoSt has its own laboratory with four small-scale digesters. By simulating actual digesters the digestion process can be optimised and biogas yields can likewise be defined for each specific product per customer.

PROCESS SUPPORT AND MAINTENANCE

Because of the sophisticated operating controls on the systems, HoSt is able to monitor and optimise processes remotely. In combination with our maintenance programmes, this ensures high-efficiency installations.

FURTHER INFORMATION

For more information, please contact us directly or visit the HoSt website: **www.host-bioenergy.com.**

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