

Biogas - Large-Scale Plant Construction

Planning · Construction · Operation · Improvement

Biogas Plant Construction
for Industry
and Agriculture



Krieg & Fischer Ingenieure GmbH



Biogas: On a large scale

Planning and construction of biogas projects on a large scale is becoming increasingly important. An ever increasing number of plants with agricultural and industrial input materials are being implemented worldwide.

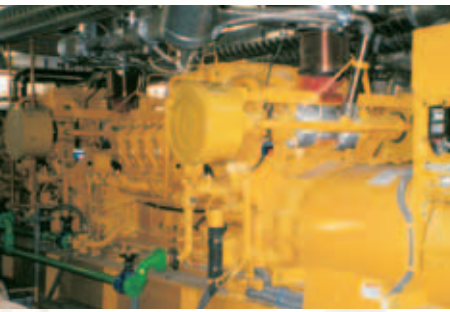
In this context, complex process techniques with technical equipment that was previously only used in the construction of chemical plants and in the treatment of highly

contaminated industrial waste water are being employed.

Digesters with volumes of up to 5,000 m³ and heat and power plant (HPP) outputs reaching far into the megawatt range have long been state-of-the-art. Thus, plants on a high technical level and specially adapted to the type of input material are being implemented – worldwide.

Consideration of local conditions and utilisation of intermediate products of varying quality – be it manures in agriculture or for utilisation in recycling processes in industry – contribute substantially to the cost-effectiveness of the biogas plants. The production of large quantities of electricity and heat obtained from the utilisation of the resulting biogas also contribute substantially to this.





Our Service Offering

Krieg & Fischer Ingenieure GmbH is an engineering office for biogas engineering which has more than 15 years of experience in this field. Our team of highly qualified engineers is interdisciplinary and thus provides competent service in the fields of chemical and process engineering as well as in the fields of machine and plant engineering.



In particular, we have extensive experience in the area of large-scale plant construction and are among the leading providers of such services. Complex anaerobic process technologies for the fermentation of different waste and waste-water flows with large dry substance fractions are our speciality. We provide know-how from preplanning up to initial operation worldwide, both as independent provider and in co-operation with our partners. We have planned and implemented biogas plants in Europe, Asia and America.

We consider ourselves to be a service provider for our customers. We regard service as our most important product. Just contact us!



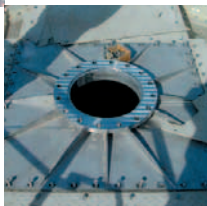
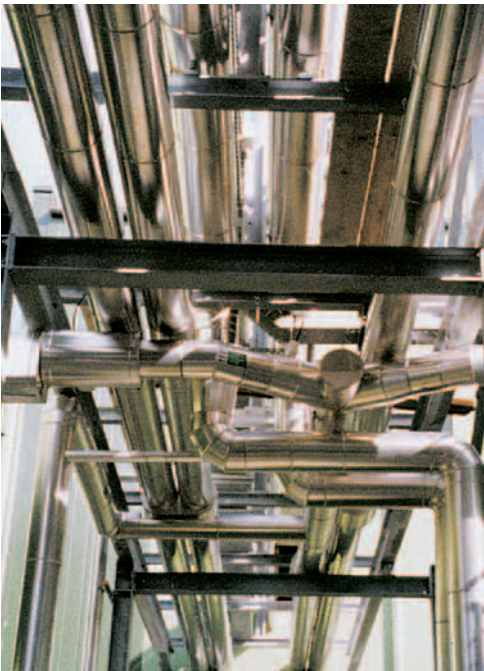
References – Experience



Krieg & Fischer Ingenieure GmbH have approximately 80 reference biogas plants – about a dozen of them are large-scale ones: agricultural and industrial one- and two stage, mesophilic and thermophilic wet and dry fermentation plants; biogas plants for fermenting cattle, pig and poultry manure; cofermentation plants; and biowaste fermentation plants. The fermentation of extremely different substrates such as biowastes, manure, potato pulp, fats, kitchen wastes and many other organic wastes are part of this processed waste spectrum. Our plants are located in Germany (D), Japan (J), Italy (I), Lithuania (LT), Austria (A), Slovakia (SK), Switzerland (CH), the Netherlands (NL) and on the Seychelles (SE).

Reference list for large-scale biogas plants (extract)

- BLÜMEL, built 1994, biowaste, 2 x 800 m³ digester volume, HPP (heat and power plant) 330 kW_{eI}, D
- KRAFT, built 1994, cattle manure, fats, 800 +1,000 m³ digester volume, HPP 800 kW_{eI}, D
- BEKKAI, built 2000, cattle manure, cofermentation products, 1,500 m³ digester volume, HPP 200 kW_{eI}, J
- WIETZENDORF, 2001/2002, potato pulp/waste water, 4 x 2,500 m³ digester volume, HPP 8.4 MW_{eI}, D
- BÖCKERMANN, built 2002, pig manure, cofermentation products, 2,500 m³ digester volume, HPP 340 kW_{eI}, D
- JOHANNESBURG (extension), built 2002, pig/cattle manure, cofermentation products, 1,400 m³ digester volume as new building, HPP 650 kW_{eI} as new building, D
- TODENDORF, built 2002, pig manure, cofermentation products , 2,500 m³ digester volume, HPP 320 kW_{eI}, D
- SCHORNBUSCH, built 2002/2003, maize, fats, cofermentation products , 1,500 m³ digester volume, HPP 500 kW_{eI}, D
- WERLTE, built 2002/2003, pig/cattle manure, cofermentation products, 2 x 3,200 m³ digester volume, HPP 2.5 MW_{eI}, D



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