



Krieg & Fischer Ingenieure GmbH

## Biogas Plant WERLTE



Location	Werlte, Germany
Construction Period:	2002/2003
Input substrat:	Manure, fats, liquid waste
Fermenter:	Steel tanks: 2 x 3,200 m <sup>3</sup>
CHP	Gas engine 2 x 1,262 kW, gas processing (PWA)
Special Features:	Reception Hall, gas holder above secondary digester tank, 50,000 m <sup>3</sup> storage capacity, gas processing and supply
Cost:	Approximately EUR 6 Mio excl. Gas processing

The biogas plant WERLTE is a large central community plant with a throughput of approx. 110,000 m<sup>3</sup>/a. The original owner and operator is Biogas Werlte GmbH & Co. KG., representing about 100 farmers. Currently EWE Biogas GmbH & Co. KG. has undertaken the operation of the plant. The plant is capable of receiving and processing all kinds of liquid and pumpable input substrates. Full stream pasteurisation with manure and waste at 70° C for 1 hour with complete heat recovery is applied. Both, the waste and manure pass through this process step thus providing a very high level of bio-security. The fermentation takes place in parallel within twin primary and secondary digesters and tanks for storage of digestate. Both of the gas engines are containerised. The plant was recently extended to include a biogas processing system that uses pressure swing adsorption to remove CO<sub>2</sub>. 500 m<sup>3</sup> of the generated biogas will be processed per hour to biomethane, compressed and supplied to the natural gas distribution system.

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Responsibility of Krieg & Fischer Ingenieure GmbH:

Conception, Preplanning, Permission, Detailed and Final Construction, Tenders Supervision and Start-up