

# Munich

## Gut Großlappen Sewage Treatment Plant Central Power Station



Regierungsbaumeister  
**SCHLEGEL**



### Client

Münchner Stadtentwässerung  
[Munich Urban Drainage]

### Period

1991 - 1996

### Project Cost

40.000.000 €

### Abstract

For usage of gas from purification plants (biogas), the Munich Municipal Sewage Company is in charge of an existing digester gas plant, composed of 5 gas Otto engines with an overall capacity of 8 MW. In order to equip the gas Otto engines appropriately and apply technical and electrical facilities, a central power station was built as a two-storied building with cellar and a floor space of 43 x 25 m. Each of the gas engines has a mechanical capacity of 1.8 MW. Therefore, an electrical capacity of 1.6 MW can be produced by the generator drive. The waste heat from motor cooling, lubricant cooling and waste gas can be used with 2.4 MW for heat supply. The gas Otto engines are equipped with lean fuel-air technology, by means of which the acceptable exhaust values can be maintained. The entire plant has been optimised since 2003, based on the actual operation values and with regard to usable electrical and heat energies as well as the energy input.

### Scope of Service

pre-design, design, approval design,  
execution design, preparation of tender  
documents, construction supervision, site  
supervision

planning of structural framework  
technical equipment

commissioning

### Technical Data

Capacity	5 gas spark-ignition engines
Fuels	sewage gas and natural gas
Producible electric power	5 x 1.8 MW
Producible thermal power	5 x 2.4 MW