

# Munich

## Munich Airport Extension of Supply Centre



### Client

Flughafen München GmbH  
[Munich Airport]

### Period

1999 - 2004

### Project Cost

13.500.000 €

### Abstract

In order to safeguard supply of the energy for the new Terminal 2 in Munich Airport, the existing supply centre had to be extended in consideration of the demands. The extension concept was drafted for the existing facilities, including the combined heat, power and cooling stations with 2 gas Otto engines and an absorption cooling system. For installation of the technical facilities, a new section was added to the existing building. The hot water gained through operation of the power station is used for heating of the buildings in winter and as an operating power for absorption cooling machines in summer. The produced electric power is added to the airport network for electricity generation.

Besides extension of the supply centre, the existing cooling station and further cooling tower modules were adjusted to the entire capacity. Furthermore, the existing 3 turbo cooling machines were replaced by larger units. For installation of medium and low voltage facilities, a new transformer station was built. The engineering general design services were provided within a consortium.

### Scope of Service

pre-design, design, approval design,  
execution design, preparation of tender  
documents, site supervision, documentation  
planning of structural framework  
technical equipment

project control

### Technical Data

2 gas Otto engines (natural gas)	3.7 MW <sub>el</sub> 4.3 MW <sub>therm</sub>
1 absorption cooling system	5.5 MW <sub>cooling</sub>
3 turbo cooling machines	6.9 MW <sub>cooling</sub>
2 wet cooling towers	12.0 MW
Enlargement north, interior space	9,500 m <sup>3</sup>
Transformer station west, interior space	1,000 m <sup>3</sup>
Integration of the existing CHP	
7 gas-diesel motors	1,600kW <sub>el</sub> 2,400 kW <sub>therm</sub>