



ENGINEERING
EXCELLENCE



Underground Storage Facilities



Wierchowice, Poland (PBG's archive)

Underground Storage Facilities

Fields of Expertise

- Cavern storage, peak shaving plants, seasonal storage plants, conversion of depleted fields for storage purposes, wide experience in reciprocating and turbo compression units, wide experience with different gas treatment technologies
- Strong relationships with our international recognized partners enable ILF to execute subsurface engineering for porous and cavern storage structures
- ENECO Gas Storage Plant Epe, Germany, Compression rate 200,000 Sm³/h, Withdrawal rate 400,000 Sm³/h, 2 caverns
- Jemgum Gas Storage Plant - Phase 1c, Germany, Extension by 1 compressor 600,000 Sm³/h
- Empelde Gas Storage Plant, Germany, Extension by 1 compressor 3.6 MW and revamp works

Highlights

- Injection trains using largest reciprocating compressors, each 100,000 Sm³/h
- Injection trains using integrated high speed turbo compressor units, each 150,000 Sm³/h
- Withdrawal train using Adsorption technology, 360,000 Sm³/h
- Withdrawal trains using absorption technology, each 400,000 Sm³/h
- Peak load storages with switching times between Injection and withdrawal of less than 30 min.

Selected References

- Epe Essent Gas Storage Facilities, Germany, Compression rate 200,000 Sm³/h, Withdrawal rate 2 x 400,000 Sm³/h, 4 caverns
- Puchkirchen Gas Storage Plant, Austria, Extension from 290,000 Sm³/h input/output to 520,000 Sm³/h, 5 additional storage wells (satellite Haag), Porous storage structure
- Wierchowice Underground Gas Storage, Poland, Compression plant rating 37 MW, Storage capacity 1.2 x 10⁹ Sm³
- Crystal Gas Plant Etzel, Germany, Compression rate 300,000 Sm³/h, Withdrawal rate 600,000 Sm³/h, 4 caverns

ILF Services

ILF provides all services required for the successful implementation of gas storage projects. These services include:

- Feasibility study
- Conceptual design
- Permit application design and environmental and social impact assessment
- Detailed design
- Preparation of tender documents
- Construction design
- Construction supervision
- Commissioning supervision
- Potential study and elaboration of master plans to identify economically and ecologically feasible storage sites in a specific area
- Geological and geotechnical consulting services
- Steady-state and transient process simulations
- Multiphase-flow simulations
- Sludge handling engineering
- Cavern construction and completion engineering
- Services for rehabilitation for existing gas storage plants



Jemgum, Germany

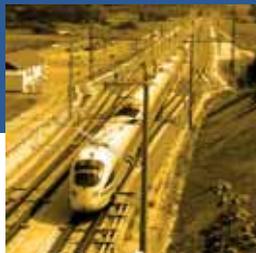
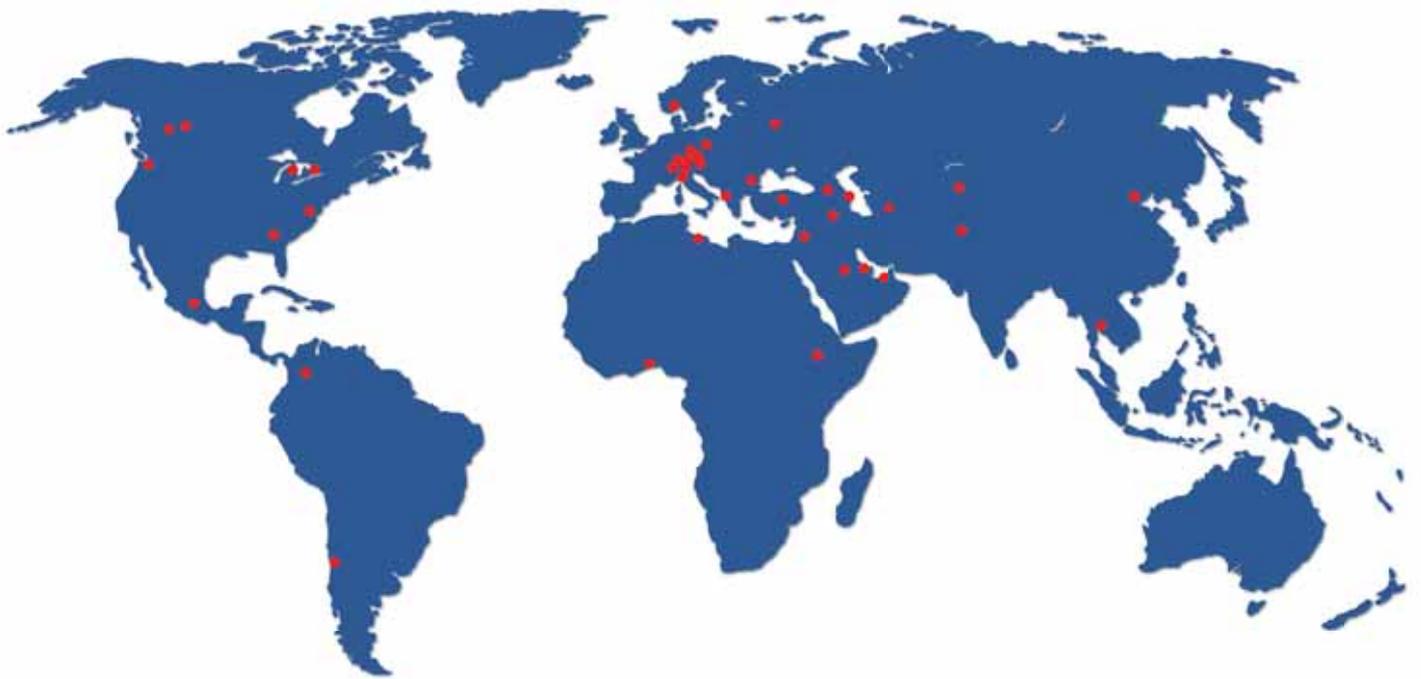


Empelde, Germany



Epe, Germany





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