





Geothermal Project Traunreut



Operator Statement

"We are highly satisfied with the Hartmann components. They are running maintenance-free since the initial operation in early 2014."

Rochus Huber
Operational Manager
Geothermal Power Plant
Traunreut



Blue colored wellhead by Hartmann for the injection well.

Flexible in Design Modifications, Comprising Service

Consultant gec-co counts on Hartmann Valves & Wellheads for Well Completion

Geothermal energy is a perfect example for renewables. It is resource-saving, produces no pollution and the availability is almost unlimited. The city of Traunreut is an ideal location for geothermal energy since it is situated in the Bavarian Molasse Basin. With two wells drilled successful and the installation of the district heating transmission station, Traunreut feeds geothermal energy in the municipal network. 3000 housing units as well as industrial clients are supplied this way. The geothermal power plant will presumably produce climate-neutral electricity by 2016.

| Project | District Heating and Geothermal Power Plant Traunreut |
|----------------------------|---|
| Operator | Geothermal Power Plant Company Traunreut mbH (GKT) |
| Consulting engineers | gec-co Global Engineering Consulting – Company GmbH |
| Depth | TrGt1 4600 m (TVD) TrGt2 5000 m (TVD) |
| Max. temperature | 118º Celsius |
| Wellhead | API 6A Wellhead with high resistant true metal seated ball valves |
| Flow rate | 165 liter/second |
| Thermal power | up to 12 MW _{therm} |
| Electrical power (planned) | up to 5 MW _{el} |



View of the well site with the two wellheads on the left side.

Tough Components, Special Design

For the Traunreut project Hartmann Valves delivered wellheads for a powerful geothermal well doublet (up to 3000 PSI / 207 bar 13 3/8 Inch production tubing) comprising products according to API 6A including ball valves, assembly and service. Thereby the Geothermal Power Plant Company Traunreut mbH (GKT) as operator benefits from modular components in specialized construction. They are designed for high production rates, aggressive media and extreme temperatures. The wellhead is made of forged steel and is equipped with metallic sealing systems which can be closed safely even with scaling in the flow line.

High Flexibility and Comprising Service

Most notably an excellent support reveals Hartmann Valves as preferred partner in deep geothermal enterprises. In each project phase Hartmann Valves is capable and flexible to realize necessary design modifications, e.g. for the wellhead and the completion. Engineers and technicians accomplish the assembling service, technical information and professional advice on-site. For operators and permit authorities Hartmann Valves issues comprehensive documentation which allows a traceability of the certified materials used. All services are performed by Hartmann Valves interface-free at first hand. Projects with Hartmann Valves are characterized by a very close and efficient cooperation between manufacturer, engineering-partner and operator.

References

Hartmann Valves is a worldwide known system supplier for ball valves and wellhead equipment. Specialized in development, design and production of wellheads and production systems for geothermal applications, Hartmann supports several international projects. Our geothermal products have been running maintenance-free for more than 25 years and maintain a maximum operational availability, reliability and durability. In the Munich Molasse Basin we successfully realized many geothermal projects, e.g. Unterschleißheim (2002), Poing (2009), Kirchweidach (2012), Ismaning (2012), Unterföhring (2013), Taufkirchen (2014). Thus comparable Hartmann products are in service for a certain amount of operators in this area. Furthermore we supply geothermal projects in the Rhine Trough and abroad. As a foundation member of GeoEnergy Celle we have been driving the geothermal research and development in several projects for decades.

Consultant Statement

First-Class Effort and Excellent Expert Knowledge

"The deepest and most productive German well — gec-co GmbH has faced this challenge together with Hartmann Valves GmbH. We as consultant engineers were impressed by the large geothermal expert knowledge and the dedicated effort by the Hartmann team."



Thorsten Weimann (MBA), CEO







Further Information and Contact:

Helmut Berger Manager f.s.p. Sales Europe h.berger@hartmann-valves.com

+49 5085 9801-25

Hartmann Valves GmbH www.hartmann-valves.com

