The Klammstein Hydropower Station

Application field:	Dams / Hydropower
Place:	Lend, Austria
Date:	2014-2015
Products:	1 x VAG EKN® Butterfly Valve DN 2400, PN 6 with VAG HYsec PRO Hydraulic Brake and Lift Unit

Project description:

The Klammstein Hydropower Station, located in the city of Lend, State of Salzburg, Austria, was built in the early 1940s. Achen Kraftwerke AG, the current operator, decided to increase the water flow rate of the water main from 15 to 19 m^3/s. However, for this purpose the pressure tunnel, the controller and some of the valves had to be refurbished as all essential components dated back to the 1940s.

But precisely 14 weeks before the scheduled re-commissioning of the power plant, it was found – after a detailed survey – that the original pipe-burst safety valve did not meet the new requirements. The standard delivery time for new pipe-burst safety valves in the desired dimension and rating (DN 2400, PN 6), however, usually lies between six and twelve months, depending on the supplier.

And so, the operator commissioned DI Kohlhofer GmbH, a planning company, to prepare an invitation to tender including all the necessary specifications as soon as possible and to send it to potential suppliers. Within three days, VAG prepared a complete, detailed offer containing all the technical documents, sample drawings and references required. In addition to this, VAG confirmed the customer that the products could be supplied within the desired delivery time of 12 weeks.

Transport of the VAG EKN® Butterfly Valve

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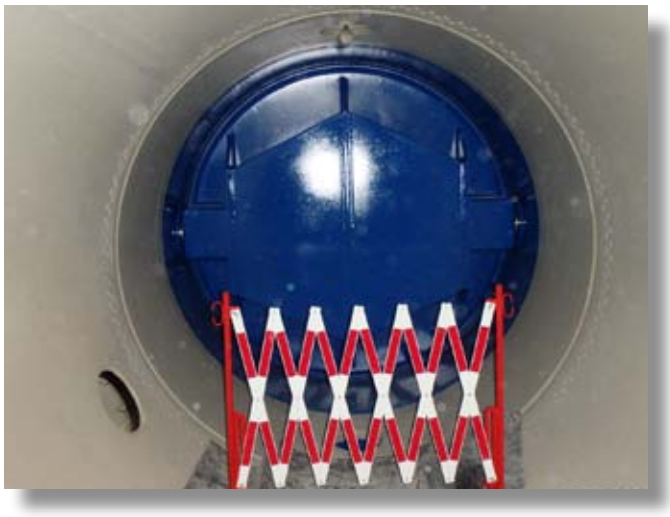
Just a few days later, the on-site inspection and a subsequent post-tender meeting with VAG took place. The operator did not hesitate and immediately awarded the contract for the production of the new pipe-burst safety valve to VAG: a VAG EKN® Butterfly Valve with HYsec PRO Hydraulic Brake and Lift Unit, which not only offers the customer technical advantages such as float control, stress analysis and paddle trip, but could also be delivered within a very short time. On the very same day, VAG sent the design test schedule of the butterfly valve to the customer.

Installation of the operational valve in the structure

Seven weeks after VAG's receiving the order, the welding works on the body and disk of the valve had already been completed, and the welding seams and materials were ready for the customer's acceptance inspection. The accredited test institute confirmed the perfect condition of the components so that VAG could continue production without delay. In week 5/2015, the time had come: the final acceptance inspection of the completed butterfly valve with factory-assembled brake and lift unit including all accessories took place at VAG's Mannheim plant in the presence of the operator and the expert. The VAG EKN® Butterfly Valve in fabricated steel design was 100% leak-tight, worked trouble-free and was free from any defects. Afterwards, VAG delivered the product to the power plant by express freight, and there the valve was unloaded with a crane and installed immediately into the pipeline. Since then, the butterfly valve with brake and lift unit has been working trouble-free and to the operator's highest satisfaction. VAG offers quality you can rely on.



View of the pipe-burst safety valve installed inside the penstock