

Water Transmission Pipeline in Oman

VAG valves regulate and control more than 300 kilometres of water transmission line

4 VAG On-Site 6/07



The Sohar Water Transmission project is important for the long-term supply of the inhabitants and communities along the Strait of Hormuz in the northern area of the Sultanate of Oman. VAG valves guarantee that this mega project runs smoothly and efficiently, and that citizens are supplied with water from the water desalination plants.

Project overview

- Project: Sohar Water Transmission Pipeline in Oman
- Valves:
- VAG EKN® Butterfly Valves with electrical actuator DN 300 – DN 1200 PN 10/16/25
 - VAG EKN® Butterfly Valves with hand wheel DN 300 – DN 1200 PN 10/16/25
 - VAG DUOJET® Automatic Air Valves DN 80
 - VAG SKR Slanted Seat Tilting Disk Check Valves with damper
 - VAG EKO^{plus} Gate Valves with hand wheel
 - VAG EKO^{plus} Gate Valves with electrical actuator
 - VAG Plunger valves up to DN 1200

Project duration: 2005 – 2007

Valve supplier: VAG-Armaturen GmbH

Client: Ministry of Housing, Electricity and Water in Muscat, Sultanate of Oman



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A growing population and a lack of natural drinking water led the Ministry of Housing, Electricity, and Water to take measures in 2005: Three hundred kilometres of pipeline were needed to close the gap in the existing national supply system so the northern regions could be supplied with water. The Ministry of Housing, Electricity and Water's international tender was won by Gammon India Ltd. in February 2006. The engineering, procurement, and construction contract covered everything from the planning and development of the project through to putting the system into operation, making the selection of the project partners of strategic importance because they would be responsible for the key technologies used in the individual components.

Everything from a single source

At the beginning of March 2006, the Indian-Oman joint venture awarded Al-Mutawaa, VAG's representative on the Arabian Peninsula for more than 20 years, with the development and installation of the regulating and control devices for the water transmission system. VAG valves successfully stood the test against international competitors. The ability to provide service locally and intensive consultations relating to the entire project also helped to win the customer's trust. VAG's personal presentation also convinced the customer that VAG is fully capable of providing expertise, service, and technology - on time and according to the strictest quality standards.

Safety with a system

A valve system was to be designed to control the transport volume on-demand in order to guarantee the performance and safety of the prestigious national project. The precision of the manufactured components and the quality of the materials used were key to ensuring the security of supply for more than 320,000 people. The heart of the system consisted of six plunger valves in the nominal sizes DN 300 to DN 1200, fitted with specially made multiple orifice and slotted cylinders to ensure the performance values and flow curves that VAG engineers measured on site for each valve were achieved. As per the contract, TÜV Germany checked the values and carried out the final acceptance of the valves. All of the valves were subjected to strict material, pressure and coating tests, and were found to be of excellent quality.

Precise assembly and logistics

Precise specifications and manufacturing ensured accurate and smooth installation on site. Each of the valves had to be transported across thousands of kilometres and be installed according to prescribed timetables; otherwise, contract penalties would be enforced. Logistics and transport were continuously monitored on site to ensure that the beginning of operations would not be delayed. In addition to the above-mentioned six plunger valves, 340 VAG EKO[®] plus Gate Valves, 159 VAG EKN[®] Butterfly Valves and 197 VAG DUOJET[®] Valves move

and control water between the desalination plant and the supply point in northern Sohar across a distance of 300 kilometres. And last but not least, a slanted-seat tilt-swing check valve prevents water backflowing in the event of a power outage.

Conclusion

The Oman Ministry of Housing, Electricity and Water and the executing party Gammon India Ltd. were looking for high-quality products and the competence of an experienced solution provider when they awarded the contract. VAG proved to be the partner with reliable product and project competence. VAG were able to fulfil every aspect of the demand of this prestigious national project, which will ensure that the citizens of Oman are supplied with water for many years to come.