<u>Triple offset design – Metal seal – Self-aligning sealing ring:</u>



## ZETRIX® The ARI process valve – e.g. for district heating



ZETRIX® manual actuator ZETRIX®

electric actuator



ZETRIX<sup>®</sup> pneumatic actuator



hydraulic actuator



- 3-ex disc design
- Smart sealing ring with laminated stack
- Stellited seat
- ... plus numerous other options on request

Ask for more information about how the new ZETRIX<sup>®</sup> can benefit you!



www.ari-armaturen.com

## Wien Energie supplies power "just in time". Annual CO<sub>2</sub> saving of 11,000 tons predicted!

Power has to be available whenever it is needed – regardless of when it is actually generated. This has always been a problem in the past with alternative energy sources. Wien Energie, the Vienna energy service provider, has now achieved a major breakthrough. Since 2014, the world's first high pressure, high temperature accumulator of its kind has provided thermal energy equivalent to around 145,000 megawatt hours a year – absolutely flexibly according to demand at any time of the day or night – and simultaneously reduced CO2 emissions by 11,000 tons. Twenty-seven new ARI ZETRIX process valves in DN 300 and DN 400 are on board. These valves feature a triple offset (3-ex) design, metal seal and self-aligning sealing ring. The advantage: permanent leakproofness, durability and exceptional versatility for isolation and control even in harsh industrial environments.

The heat accumulator in Simmering is the first ever to have been built for such a complex high pressure, high temperature district heating network. The aim is to separate heat production from heat consumption and minimise the need for peak load boilers when demand for electricity and heat is heaviest. The system optimises the use of combined heat and power plants, thermal waste treatment facilities and distributed electricity generators by renewable energy.

CO2 emissions are reduced and daily district cooling peaks balanced out during the summer months. The altitude

difference in Vienna's district heating network, which has a total length of 720 miles, is up to 500 feet. The hot water for heating and warm water is therefore transported at high pressure and tempera-



tures between 95 and 150 degrees Celsius. The accumulator is charged for approximately 2200 hours a year and discharged for another 2200. The quantity of heat that is stored every year and later withdrawn to meet demand is in the order of 145,000 megawatt hours – equivalent to the annual consumption of some 20,000 typical households.

The new ZETRIX process valve plays a key role in this innovative technology concept. Its 3-ex design ensures a frictionless swivel

movement of the sealing ring into the seat and hence a maximum closing force with minimum effort. The metal seal principle provides permanent leakproofness. The self-aligning sealing ring guarantees tightness conforming to leakage rate A on both sides in accordance with DIN EN 12266 regardless of temperature variations. Numerous additional safety options are also incorporated.

All in all, this represented a truly remarkable debut for the new ARI-ZETRIX, which makes a valuable contribution to the Simmering project – the first of its kind in the world.

