

AR22001 | AUMA APPLICATION REPORT



AUMA's proven electric actuation technology is helping to boost green energy in Taiwan. 40 AUMA actuators are installed at Qingshui, Taiwan's first new-generation geothermal power plant. The operator's decision was based on AUMA's excellent product quality and professional after sales service.

GROUNDWATER AT 180 °C

Qingshui power plant is located in northern Taiwan in the geothermally very active Yilan area. Water is extracted at a temperature of 180 °C from a depth from 1,200 to 2,100 metres. After passing through a heat exchanger it is pumped back into the ground again. The heat exchanger generates steam to drive a turbine-generator combination. The new 4.2 MW plant was built in the same place as a former plant from the 1980s that had eventually been abandoned due to technical challenges. The designers of the new plant were therefore careful to choose technical equipment that can cope with the demanding conditions.

CORROSIVE ATMOSPHERE

AUMA has supplied 32 SA 07.6 and SA 10.2 multi-turn actuators with AC 01.2 actuator controls and GS gearboxes to the power plant. In addition, eight AUMA SEVEN HiMod actuators are used for high-precision positioning of control valves. As utmost reliability is a must, the plant operator appreciates the robust design and high-quality engineering of the AUMA actuators.

All the components of the plant, including the actuators, are exposed to high temperatures, high humidity and acid gases, making the geothermal environment extremely corrosive. The excellent, TÜV-certified corrosion protection of the AUMA actuators pays off in these demanding service conditions. Thanks to an extremely robust two-layer powder coating, AUMA actuators meet the requirements of the high C5-M corrosion category for areas with high salinity and almost constant condensation, in accordance with ISO 12944-6. AUMA actuators are thus ideally suited for geothermal environments.

COMPREHENSIVE SUPPORT

Throughout the project, AUMA experts provided extensive support to the customer, from choosing the optimum actuators for the different service conditions to professional on-site installation and commissioning. It is also very important to the customer that an AUMA service technician can be on site within 24 hours in case support is needed.



POWER

APPLICATION

Geothermal power plant

AUMA SOLUTION

- > SA actuators with intelligent AC 01.2 actuator controls
- > GS gearboxes
- > SEVEN HiMod actuators
- > Technical support for design, installation, commissioning

CUSTOMER BENEFITS

- > Excellent corrosion protection
- > Utmost reliability
- > Expert support

Project responsibility:
Top Advance Enterprises, Taiwan

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