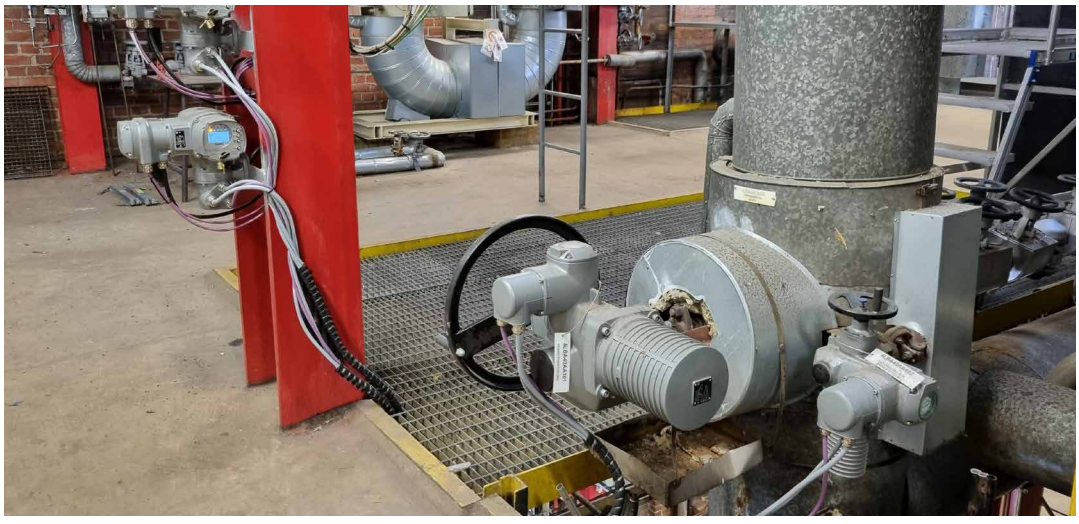
# Electric actuators maximise the efficiency of heat supply

## Nokianvirran Energia biomass cogeneration plant, Nokia, Finland

**AR24002 | AUMA APPLICATION REPORT**



**By retrofitting AUMA actuators, the degree of automation at the Nokianvirran Energia biomass power plant was significantly increased, thus maximising process efficiency.**

**The AUMA Service team took over the complete project management.**

Nokianvirran Energia Oy built a steam cogeneration plant in Nokia in 2016, which produces process steam for a paper mill and a tire manufacturer's plant as well as district heating for some of the customers of a large energy company. The aim was to replace the fossil natural gas previously used for energy generation with renewable wood-based fuels from the region.

### AUTOMATING SUSTAINABILITY

The challenge was that it took around 30 minutes to start up the boiler from zero to full power, the valves had to be operated manually and there were repeated interruptions in the steam supply. The customer's desire for a higher degree of automation meant that additional AUMA SA 07.6 and SA 14.2 actuators, each with intelligent AC 01.2 actuator controls, were added during the overhaul in 2022. They now enable the system to be started up in just six minutes. Thanks to Profibus interfaces in the actuator controls, the actuators can be remotely controlled with Profibus DP from the central control room. In areas subject to heavy vibraion or high process temperatures, the modular product design allows the actuator controls to be mounted separately on wall brackets, at a distance from the actuators, to protect the electronics in the actuator controls.

### PROJECT IMPLEMENTATION FROM A SINGLE SOURCE

One of the main reasons for the customer's decision in favour of AUMA was that the entire solution was provided by a single supplier: The AUMA team took care of data acquisition and on-site dimensioning, planning and the entire order processing, from quotation to ordering and delivery, as well as installation, commissioning and customer training on site. AUMA Finland's many years of expertise were particularly valuable when it came to measuring the essential dimensions at the valve attachments and producing the tailor-made adapters required to mount the actuators. The actuators could thus be perfectly adapted to the valves with only minor field modifications. This meant that the existing manually operated valves could be successfully converted to use electric actuators, so it was not necessary to replace the entire valves.

### POWER

#### APPLICATION

Biomass cogeneration plant

#### AUMA SOLUTION

- Retrofit | Automation
- SA 07.6 and 14.2 actuators with intelligent AC 01.2 actuator controls
- Profibus DP-V0/V1
- Project management & on-site service

#### CUSTOMER BENEFITS

- Higher system efficiency
- State of the art equipment
- Remote-controlled operation of the actuators
- Complete project implementation by AUMA Service

Project responsibility:
AUMA Finland

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