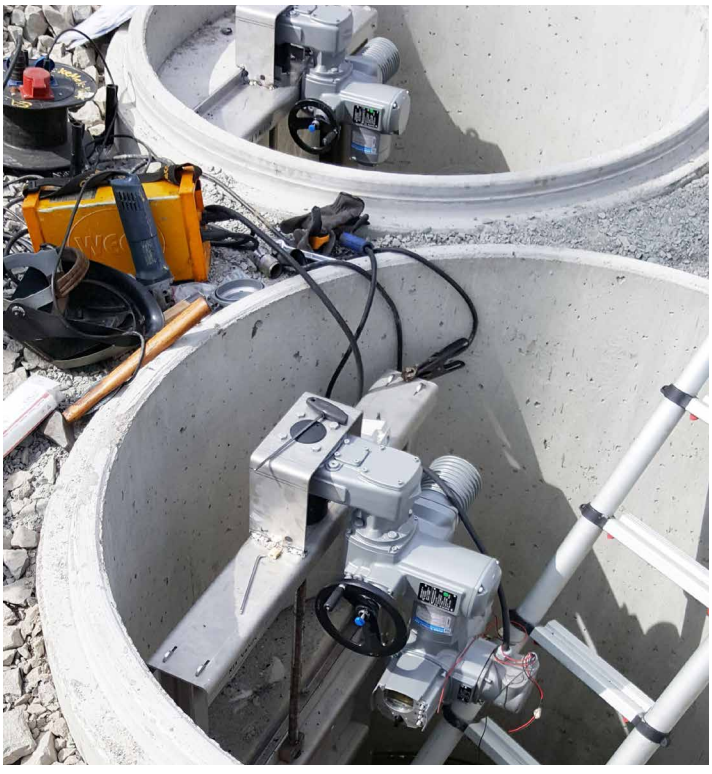
Modular solution for pit installation helps protect groundwater

Hallsberg railway yard, Sweden

AR17003 | AUMA APPLICATION REPORT

Modular design makes it possible: Tight space around pit-mounted sluice gates at the Hallsberg railway yard in Sweden made actuator positioning a challenge.



WATER

APPLICATION

Stormwater management

AUMA SOLUTION

- SA actuators with intelligent AC 01.2 actuator controls
- GST spur gearboxes
- Modbus RTU
- On-site service

CUSTOMER BENEFITS

- Modular design enables space-saving mounting position

To cut the risk of water pollution at Hallsberg junction, the largest railway yard in Scandinavia, Trafikverket, the Swedish transport authority, needs to be sure that, in the event of an accident, fuel and chemicals do not contaminate the groundwater.

As part of an expansion project, Trafikverket asked AUMA to automate three existing 800 x 800 mm sluice gates mounted in pits below ground level. The sluice gates are part of a dedicated drainage system that directs contaminated water into an underground chamber. The new actuators should allow local as well as remote operation, and be able to withstand temporary submersion.

TIGHT SPACE CHALLENGE

AUMA supplied three SA 10.2 multi-turn actuators with GST 10.1 spur gearboxes and AC 01.2 actuator controls to Trafikverket. The actuator controls provide both an easy-to-use user interface for local operation and a Modbus RTU interface for control system integration. Thanks to enhanced IP68 enclosure protection the devices withstand continuous immersion up to 8 m heads of water for a maximum of 96 hours.

The AUMA actuators and their accessories fitted the bill, but there was a challenge: the narrow gap between each gate and the cover of its pit made installation tricky. Service technician Mikael Randestam took advantage of AUMA's modular design, which provides great flexibility in mounting positions. He was able to mount the actuators pointing downwards so that they would fit the available space – an unconventional but effective solution, using only AUMA standard components.

"AUMA helped us in a critical situation, we are very pleased with the cooperation. They quickly carried out an on-site study, helped us to work out a good solution for the system requirements, and also carried out the mounting."

Jonas Isaksson
Technical Manager Remote Control, Atkins Group

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