Waterproof solution for high risk of flooding

E-Ring road, Doha, Qatar



AR21005 | AUMA APPLICATION REPORT









AUMA SA-UW actuators for continuous underwater use secure operation of underground emergency roller gates even when flooded.

HIGH RISK OF FLOODING

Ashgal, the Public Works Authority of Qatar, decided in the context of a project to extend the E-Ring road in Doha to also upgrade the stormwater network.

Several 2.7 m roller gates were installed in underground concrete chambers in order to be able to shut off stormwater pipelines in case of emergency. The actuators to operate the huge roller gates had to be installed inside the chambers. As the chambers may become flooded during heavy rainfall, Ashgal was looking for actuators that can be submerged in water for extended periods of time. The total chamber height is 24.5 m, and the actuators had to be mounted approximately 6 m below ground level.

AUMA'S WATERPROOF SOLUTION

AUMA proposed powerful SA 30.1-UW underwater actuators that are suited for continuous underwater use at up to 15 m head of water. While each actuator is mounted on an access platform inside the chamber, the AC 01.2 actuator controls are mounted separately from the actuator outside the floodable area using a wall bracket. All local operation can therefore be done safely and from a comfortable position using the AC 01.2 actuator controls.

TECHNICAL DETAILS

AUMA SA-UW actuators for continuous underwater use possess a sophisticated sealing system combined with excellent corrosion protection. Double sealed cable glands at the electrical connection, inner seals at all housing covers, and a solid shaft made of stainless steel safely prevent any ingress of water.



WATER

APPLICATION

Stormwater management

AUMA SOLUTION

- SA 30.1-UW actuators for continuous underwater use with intelligent AC 01.2 actuator controls
- > Separately mounted actuator controls
- > Technical support for design, installation, commissioning and testing

CUSTOMER BENEFITS

- > Reliable roller gate operation even during flooding
- > Convenient actuator control from non-floodable area

Project responsibility: AUMA Middle East, Bahrain

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