

Electric actuators

Innovative solutions for hydraulic  
steel structures and hydropower



**auma**<sup>®</sup>

# Excellence for a sustainable future

Discover the game-changers in sustainable energy generation. Electric actuators by AUMA have proven their reliability in the most varied hydropower and hydraulic steel structure applications.

Let us inspire you with the many advantages of our innovative solutions.

## Integral intelligence

- > Integral sensor technology for process control and diagnostics
- > Operation data logging
- > Intelligent control functions like setpoint control, speed profiles and automatic deblocking

## Cost-efficient to operate

- > Low standby consumption
- > Low in maintenance and durable

## Free of oil and environmentally sound

- > No risk of water pollution by leaking oil

## Rugged and reliable

- > High enclosure protection IP68 as standard
- > Outstanding corrosion resistance C5
- > Continuous underwater use as an option

## Easy to install

- > Only power supply and signal cables required
- > Comfortable commissioning either via app, remote control or at the device



## Fit for the digital future

- > Easy integration into any DCS: Interfaces for parallel signal transmission, fieldbus, Industrial Ethernet and HART
- > Data-based diagnostics and maintenance recommendations via CORALINK, the digital ecosystem by AUMA

# ELECTRIC ACTUATORS BY AUMA



## Comprehensive range of services

- > Solutions for hydroelectric power plants and hydraulic steel structures of any size and design
- > Multi-turn, part-turn and linear movements
- > High performance AUMA SA actuators with gearboxes or spindle-driven cylinders for weirs, sluice gates and lock gates
- > Small, smart AUMA PROFOX actuators for highly precise turbine control
- > Fail safe solutions by gravity with defined operating speed

# Electric actuators with cylinders

Whether you are looking for a muscleman or an endurance runner, you will find both in electric actuators with spindle-driven cylinders.

Discover the diverse range of applications of our environmentally friendly alternative to oil hydraulics.

From sluice gates weighing several tons right through to the precise turbine control: AUMA actuators in combination with spindle-driven cylinders revolutionise the world of actuator solutions in hydropower and hydraulic steel structures.

They offer efficient, economical as well as environmentally friendly solutions for the most sophisticated requirements.

## Your AUMA Plus

- > Pulling and compression forces up to 3,000 kN
- > Strokes up to 12,000 mm
- > With or without self-locking
- > Rugged and resistant thanks to the encapsulated design
- > High-performance solutions for heavy weights and frequent operations
- > Fail safe function without power supply via gravity and defined operating speed

## Applications

- > Fish-belly flap gates
- > Sluice gates
- > Rolling and sliding gates
- > Lock gates
- > Bascule bridges, lifting bridges and swing bridges
- > Weight-loaded valves
- > Turbine control

# SOPHISTICATED DEMANDS



# Electric toothed rack actuators

You need a versatile as well as a rugged and reliable actuator solution?

Our modular electric toothed rack actuators offer virtually unlimited options.

Electric actuators with toothed racks by AUMA withstand the most adverse weather conditions and have proven their worth for decades in the water level control of rivers and canals.

## Your AUMA Plus

- > Forces up to 650 kN
- > Strokes up to 3,000 mm
- > Encapsulated housing protecting bearings and pinions from ingress of dirt and humidity
- > Single or tandem sluice gate drive
- > Cardan drive shafts
- > Hardened toothed racks as an option
- > Simple maintenance
- > Easy parts replacement

## Applications

- > Rolling and sliding gates
- > Water level control
- > Simple lock gates
- > Swivel-mount for radial lock gates



DURABLE  
AND  
RELIABLE

# Electric stem actuators

When it comes to simple and rugged solutions, actuators with stems are an ideal choice.

Electric stem actuators offer a rugged solution with a simple design for higher forces and strokes. AUMA supplies suitable actuators and stems depending on stroke and force requirement.

## Your AUMA Plus

- > Forces up to 1,500 kN
- > Strokes up to 9,000 mm
- > Stem diameter up to 190 mm
- > Rising or non-rising stem
- > With or without self-locking
- > Simple penstocks and dual penstocks
- > Cardan drive shafts
- > Stems made of various materials
- > Automatic stem lubrication as an option

## Applications

- > Rolling and sliding gates
- > Water level control
- > Weirs
- > Lifting elements

ALWAYS THE  
PERFECT  
LEVEL



# Electric actuators for emergency shut-off valves

There are situations in which the closing element must reliably open or close to prevent major damage. An emergency shut-off valve for stopping a turbine must reliably work even in the case of a power failure, for example.

Electric AUMA actuators offer simple and reliable fail safe solutions to open or close the closing elements using gravity, even without power supply.

## Your AUMA Plus

- > Safe opening or closing even without power supply
- > Weightload as mechanical energy buffer
- > Defined operating speed thanks to integrated brake unit

## Applications

- > Isolating valves at feed pipes
- > Weight-loaded valves
- > Fish-belly flap gates
- > Roller gates
- > Radial lock gates

SAFE WITHOUT  
POWER



# Electric actuators for turbine control

Always at its best: The correct regulation of the water inflow is crucial for efficient operation of your water turbine.

Precise, fast, reliable – these are the core properties of electric actuators meeting even sophisticated turbine control requirements. The comprehensive AUMA product portfolio includes the suitable electric actuator solution for turbines of any design and performance.

## Your AUMA Plus

- > Electric actuator solutions for linear, multi-turn and part-turn movement, with and without lever arrangements
- > Variable speed motor for high-precision flow control
- > Premium positioning accuracy
- > Fail safe solutions
- > Solutions for underwater applications

## Applications

- > Adjustment of spear heads and jet deflectors in Pelton turbines
- > Guide vane adjustment for Francis turbines
- > Guide vane adjustment for Kaplan turbines
- > Shut-off valves at inlet and outlet



PREMIUM  
PRECISION

# Expert service for your plant

From analysing your specific requirements and recommending suitable solutions to providing comprehensive on-site services: At AUMA, we are at your side with advice and support throughout the entire lifecycle of your plant.

Our experienced experts are happy to provide you with quick and competent support for all questions concerning AUMA electric actuator solutions.

## Your AUMA Plus

- > Competent advice throughout all lifecycle phases of your plant
- > Comprehensive sales and service network
- > Selection and sizing of the suitable actuators
- > installation and commissioning on site
- > Maintenance and repairs
- > Maintenance contracts

Do you wish to make use of the potential of our electric actuator solutions? Please do not hesitate to contact us.

## Contact us now!

[quotations@auma.com](mailto:quotations@auma.com)

Or directly contact your local partner within the worldwide AUMA sales and service network.

[www.auma.com](http://www.auma.com)

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