

**auma**<sup>®</sup>

*Solutions for a world in motion*



**Premium service**

across the overall lifecycle



We pair our outstanding products with excellent service. We at AUMA Service make sure that your AUMA actuators perfectly fulfil their tasks for smooth process flow.

We are your competent partner throughout your complete plant lifecycle. Professional and reliable, with heart and soul. Please do not hesitate to contact us. It will be our pleasure to jointly develop your tailored service schemes, perfectly adapted to your needs.

## Single source service

We offer premium service for all AUMA Group brands:

- > AUMA
- > SIPOS
- > DREHMO

## Your AUMA Plus

- + One contact across the complete lifecycle
- + Qualified and committed experts
- + Rapid assistance on site – on a global scale
- + Efficient processes
- + High operational safety
- + Increased plant availability

# AUMA Lifecycle Management

Our comprehensive services support you in all aspects of your actuators. Use the complex know-how of our experts to increase the efficiency of your processes, to maximise availability and to ensure long-term plant operation.

## Field Services

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-  Mounting & Installation
-  Commissioning
-  Troubleshooting & corrective actions
-  Repair & corrective maintenance

## Smart Lifetime Services

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-  Maintenance management
-  Digital PLUS services
-  Revisions & shutdown service
-  Retrofit

## Certified & Special Services

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-  SIL | Ex | Nuclear services
-  Fieldbus & communication

## Supply Services

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-  Spare parts & accessories

## Training

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-  AUMA Academy

AUMA Service – simply more performance





# Mounting & installation



A  
perfect  
start

# MOUNTING & INSTALLATION

## A perfect start

Competence and diligence during mounting and installation are decisive for your actuator's and valve's future. We at AUMA Service pave the way for a long lifetime.

## On the safe side

Professional mounting and installation are fundamental in avoiding failures and premature wear. Damage to valve, wiring faults or leaking cable connections – these are all factors for potential premature failures. The AUMA Service helps you to anticipate any failures.

## Competence makes all the difference

Our experts cater for professional mounting to the valve and a correct electrical connection. We optimise mounting positions and ensure the use of suitable cable glands. This ensures that the electronics are permanently protected against moisture ingress. Your actuators are ready for a long service life.



## Your AUMA Plus

- + Professional valve attachment
- + Correct wiring
- + Avoid subsequent troubleshooting and premature wear
- + Reliable long-term operation
- + Clear documentation

» From the very start, I pay attention to diligence. This allows our actuators to work for a long time without operational interruptions.«

Ronny Steinheuer  
AUMA Service



# Our performance scope for mounting & installation

## STANDARD SERVICES

- Inspection of mounting and installation situation on site
- Consideration of potential environmental influences
- Professional mounting of actuators on the valve
- Optimisation of mounting position of actuator and actuator controls
- Professional installation of electrical connections
- Creation of required documentation

## OPTIONAL SERVICES

- Selection and supply of appropriate cable glands
- Checking the wiring
- Instruction of the operating personnel on site



## Combinable services

The following services may also interest you:



### **Commissioning**

Highest performance right from the start



### **Spare parts & accessories**

Reliable replacement guaranteed



### **Maintenance management**

Ensure long-term availability



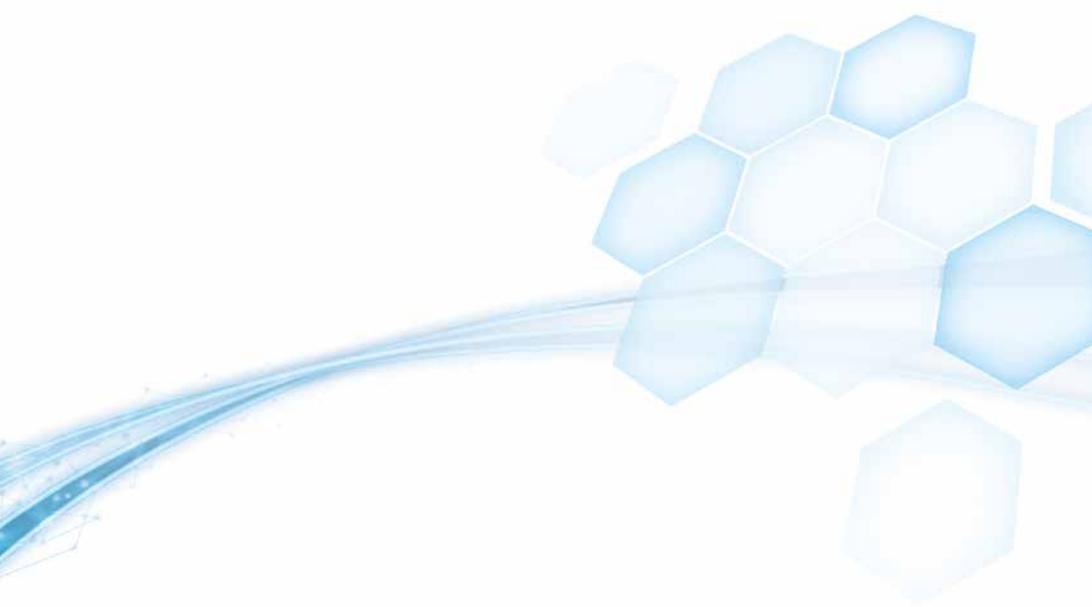
### **AUMA Academy**

Fit for the job



### **Digital PLUS services**

Asset Management made easy



AUMA Service – simply more performance

## Worldwide close to you

More than 70 countries – One Service.  
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 AUMA Service Worldwide





# Commissioning



Highest  
performance  
right from the  
start

# COMMISSIONING

## Highest performance right from the start

Thanks to our professional commissioning, we accomplish the prerequisite for smooth and efficient plant operation.

### Request for experts

To ensure that actuators and valves fulfil their intended tasks within the process flow, experience and know-how are prerequisites for successful commissioning. You will find both with AUMA service experts.

### Processes at optimum

We check the application conditions on site, detect potential weak points and immediately provide remedy. Process requirements are crucial factors of consideration for actuator setting. This avoids high readjustment costs. Your processes run at optimum.



### Your AUMA Plus

- + Optimum performance of your plant
- + High process safety
- + Perfect actuator setting
- + Clear documentation
- + Warranty extension by one year

» All parameters are perfectly adapted to process requirements. This is the only way to ensure that both actuator and valve can perfectly fulfill their tasks.«

Ronny Steinheuer  
AUMA Service



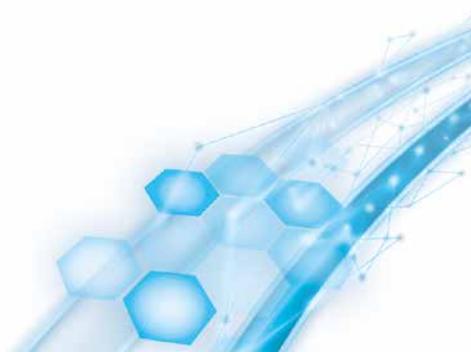
# Our performance scope for commissioning

## STANDARD SERVICES

- Review of actuator installation
- Consideration of potential environmental influences
- Professional parameter setting
- Optimum setting of end positions for travel and torque
- Performing functional testing and test runs
- Digital device recording
- Creation of required documentation

## OPTIONAL SERVICES

- Customer-specific parametrisation and setting
- Enabling and setting of special parameters, e.g. positioner, process controller, optimisation parameters, interlocks
- Functional upgrades and conversions including documentation updates, e.g. mechanical position indicator, I/O interface
- Integration tests with the DCS
- Process optimisation
- Instruction of the operating personnel on site



# Combinable services

The following services may also interest you:



### Mounting & installation

A perfect start



### AUMA Academy

Fit for the job



### Fieldbus & communication

To ensure correct process control



### Spare parts & accessories

Reliable replacement guaranteed



### Maintenance management

Ensure long-term availability



### Digital PLUS services

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# Troubleshooting & corrective actions



Fast support  
thanks to  
experienced  
experts

# TROUBLESHOOTING & CORRECTIVE ACTIONS

## Fast support thanks to experienced experts

Both, you and us, have a common objective: Minimise downtimes within your plant

### Fast and competent

Our service network is nationwide. In the event of failure, our experienced and continually trained experts will be on your site for intervention without delay. They are perfectly equipped with special tools, measurement equipment and spare parts to ensure efficient fault analysis and professional repair.

### Long-term safety

During troubleshooting, we do not merely examine the actuator, but also both process and communication with the DCS. Our objective is the permanent elimination of the cause of fault or error.



## Your AUMA Plus

- + Minimum downtimes
- + Avoiding follow-up costs
- + Reliable long-term operation
- + New parts under warranty
- + Clear documentation
- + Optimum performance of your plant

» I know all AUMA type ranges by heart. This helps to quickly identify the cause of the fault.«

Sven Wunsch  
AUMA Service



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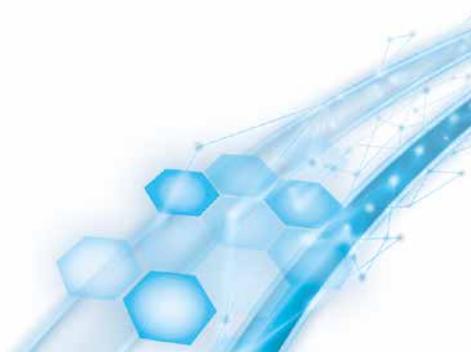
# Our performance scope for troubleshooting & corrective actions

## STANDARD SERVICES

- Examination of the device including the application on site  
e.g. ambient conditions, valve, process, DCS
- Fault detection and corrective actions directly on site
- If required, replacement of parts and repair
- Professional parametrisation and setting
- Performing functional testing and test runs
- Digital device recording
- Creation of required documentation

## OPTIONAL SERVICES

- Enabling and setting of special parameters,  
e.g. positioner, process controller, optimisation parameters, interlocks
- Functional upgrades and conversions including documentation  
updates, e.g. mechanical position indicator, I/O interface
- Process optimisation
- Instruction of the operating personnel on site



## Combinable services

The following services may also interest you:



### **Fieldbus & communication**

To ensure correct process control



### **Spare parts & accessories**

Reliable replacement guaranteed



### **Repair & corrective maintenance**

In the best hands



### **AUMA Academy**

Fit for the job



### **Maintenance management**

Ensure long-term availability



### **Digital PLUS services**

Asset Management made easy



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# Repair & corrective maintenance



In the best  
hands

# REPAIR & CORRECTIVE MAINTENANCE

## In the best hands

**Benefit from our solution expertise as a manufacturer. Our professional repair interventions create the basis for many years of reliable and fault-free operation.**

### On-site repair

We repair exactly what is needed with the utmost diligence and know-how. In our perfectly equipped service vehicles, we often carry the requested spare parts. This saves both cost and time making multiple service travels unnecessary.

### Repair at the AUMA Service Center

Overhaul, repair, or retrofitting – your devices are in the best hands at the workshop service of AUMA. Here, they are subjected to professional tests, maintenance and calibration.



## Your AUMA Plus

- + Reliable long-term operation
- + Perfect actuator setting
- + Clear documentation
- + Avoiding follow-up costs
- + New parts under warranty

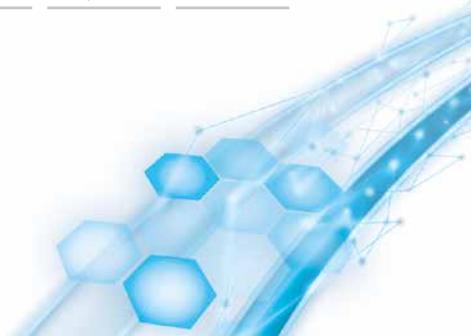
» For repairs, we need above all experience and expert knowledge, particularly in combination with sensitive electronics.«

Michael Groß  
AUMA Service



## Our performance scope for repair & corrective maintenance

	On-site repair	Repair at the AUMA Service Center
Examination of devices including the application on site	✓	
Preparation of a free cost estimate		✓
Repair and corrective maintenance	✓	✓
Professional parameter setting	✓	✓
Torque setting at test bench		✓
Complete test bench acceptance test		✓
Performing functional testing and test runs on site	✓	
Digital device recording	✓	
Creation of required documentation	✓	✓
New painting of actuator		option
Enabling and setting of special parameters, e.g. positioner, process controller, optimisation parameters, interlocks	option	option
Functional upgrade and conversions including documentation updates, e.g. mechanical position indicator, I/O interface	option	option
Instruction of the operating personnel on site	option	
Process optimisation	option	



## Combinable services

The following services may also interest you:



### **Maintenance management**

Ensure long-term availability



### **Spare parts & accessories**

Reliable replacement guaranteed



### **Digital PLUS services**

Asset Management made easy



### **AUMA Academy**

Fit for the job



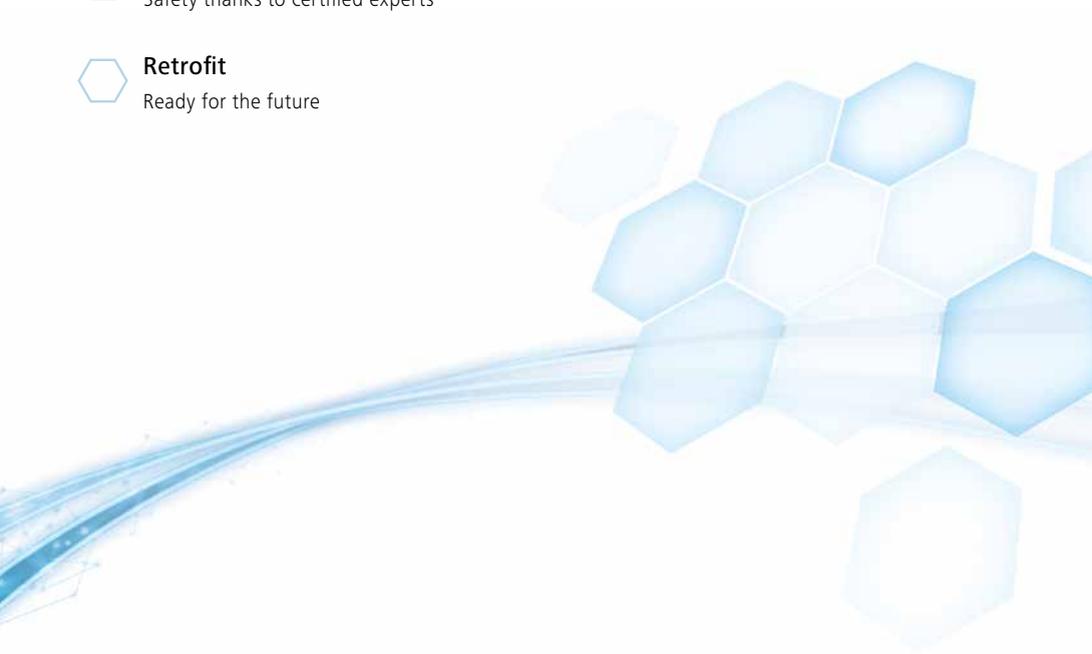
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Safety thanks to certified experts



### **Retrofit**

Ready for the future



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 AUMA Service Worldwide





# Maintenance management



Ensure  
long-term  
availability

**auma**  
Solutions for a world in motion

# MAINTENANCE MANAGEMENT

## Ensure long-term availability

Unexpected failures are not only annoying but incur incredible costs. With our complete maintenance packages, you take the required precautions.

### Prevention instead of downtimes

AUMA actuators are extremely low in maintenance with a long service life. Nevertheless, regular inspection is recommended in order to detect high loads at an early stage and to ensure reliable system operation on the long run.

### All-round carefree packages

With different service levels, we offer you defined maintenance measures at fixed prices. Our tailor-made offer covers simple functional tests right through to predictive maintenance with status analysis on the AUMA Cloud. We support you in planning and execution, offering you long-term safety.



## Your AUMA Plus

- + Reliable long-term operation
- + High plant availability
- + Maintenance budget can be planned
- + Avoiding additional service interventions
- + Extending the useful life of the plant

» After maintenance measures,  
our actuators are like new.«

Jürgen Engels  
AUMA Service



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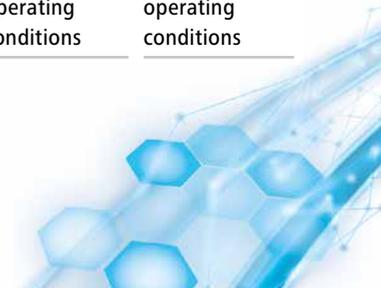
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SOLUTIONS FOR A WORLD OF MOTION

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- Wartungsplan
1. Elektrische Prüfbed. (E)
  2. Funktion. Handhab. (E)
  3. Funktion. Handhab. (E)
  4. Keine Korrosion im Motorraum (E)
  5. Keine Korrosion im Motorraum (E)
  6. Funktion. Handhab. (E)
  7. Funktion. Handhab. (E)
  8. Funktion. Handhab. (E)
  9. Funktion. Handhab. (E)
  10. Funktion. Handhab. (E)
  11. Funktion. Handhab. (E)
  12. Funktion. Handhab. (E)

## Our performance scope for maintenance management

	Service level 1 Performance check	Service level 2 Maintenance	Service level 3 Preventive maintenance
Inspection	✓	✓	✓
Functional test	✓	✓	✓
Analysis of the device status		✓	✓
Replacement of specified worn parts		✓	✓
Insulation test (if required)		✓	✓
Inspection of all components			✓
Replacement of defective components		option	✓
Condition-based replacement of further worn parts		option	✓
Lubricant change			✓
Replacement of all sealing elements			✓
Test bench acceptance test with test report (if test bench is available)			✓
Firmware update	option	option	✓
Leak tightness test	option	option	✓
Process optimisation	option	option	option
Digital device recording	✓	✓	✓
Digital status analysis		option	✓
Live analytic services			option
Warranty extension (on agreement)			✓
Record of all work performed		✓	✓
<b>Our recommendation for performance</b>	> at commissioning > 6 months after commissioning	as required, depending on the operating conditions	as required, depending on the operating conditions



## Combinable services

The following services may also interest you:



### **Digital PLUS services**

Asset Management made easy



### **Spare parts & accessories**

Reliable replacement guaranteed



### **SIL | Ex | Nuclear services**

Safety thanks to certified experts



### **AUMA Academy**

Fit for the job



### **Fieldbus & communication**

To ensure correct process control



### **Retrofit**

Ready for the future



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# Digital PLUS services



Asset  
Management  
made easy

**auma**  
Solutions PLUS

# DIGITAL PLUS SERVICES

## Asset Management made easy

Increasing digitisation opens up new possibilities. Use the potential of all hidden device data for data-based maintenance with the innovative service portfolio of the AUMA Service.

### Use potentials

Modern digital tools paired with expert knowledge – our digital device management is the ideal combination of digital data and the long standing experience of our AUMA Service experts. Our objective: Ensure long-term availability of your plant.

### Acting in good time

The key element of our digital services is the AUMA Cloud. Thanks to this central platform, you always keep your devices in view. The evaluation of comprehensive device data allows condition-based, predictive maintenance. It is our pleasure to help you.



## Your AUMA Plus

- + Overview on your devices
- + Early error detection during commissioning
- + Premature detection of maintenance and replacement requirements
- + Reliable long-term operation
- + High plant availability

» Thanks to the AUMA Cloud, data is easily understood. This allows us to take early measures and avoid unexpected failures.«

Pierre Kluge  
AUMA Service



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Solution for your business

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auma  
Solutions for your business



## Digital asset overview

We record all AUMA devices within your plant and create a detailed device overview in the AUMA Cloud. You have a perfect view of your devices at a glance, which is the basis for a successful asset management.

## Digital status analysis

We read comprehensive operational data from your AUMA devices and upload them for analysis to the AUMA Cloud. Detailed parameters help checking the commissioning or evaluating the wear of your plant components. Specifically schedule maintenance and replacement depending on the actual device status. This will save both time and expenditures and prevent unexpected downtimes.

## Our performance scope

	Digital asset overview	Digital status analysis
Reading of device information by scanning the DataMatrix code located on the name plate via the AUMA Assistant App. Upload to the AUMA Cloud.	✓	
Reading snapshot files with all operational and device data via AUMA Assistant App or AUMA CDT. Upload to the AUMA Cloud.		✓
Creating an asset overview on the AUMA Cloud	✓	✓
Create an asset overview in Microsoft Excel	✓	
Premium AUMA Cloud account for one year	✓	✓
Automatic calculation of device parameters		✓
Analysis of device parameters by an AUMA Service expert		option
Inspection	option	option
Firmware update	option	option
Leak tightness test	option	option
Process optimisation	option	option
	> All AUMA devices with DataMatrix Code on the name plate	> SA/SQ with AC 01.2 > SGx/SVx > PROFOX > TIGRON
Available for the following type ranges		



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 AUMA Service Worldwide





# Revisions & shutdown service



Complete  
service  
from experts

**auma**  
Solutions for a world in motion

# REVISIONS & SHUTDOWN SERVICE

## Complete service from experts

Regular inspections in power plants and process installations warrant for reliable operation. Our long standing experience with a large variety of projects, makes AUMA Service your ideal partner.

### Experienced partner

We conduct comprehensive inspections on actuators with the utmost diligence in very tight time frames or schedules. The actuators are subjected to a complete and thorough overhaul. This ensures that they will continue to provide full service in the years to come.

### Shutdown service

The shutdown service comprises in addition to the revision work on the device the complete organisation, from detailing planning to recommissioning. You have one single competent contact from scratch to finish.

### Your AUMA Plus

- + Planning and implementation form a single source
- + Adherence to deadlines
- + Warrant for plant availability
- + Minimum downtimes
- + Calculable costs
- + Extending the useful life of the plant

» Thanks to great experience and perfect team work we can meet the toughest deadlines.«

Sven Wünsch  
AUMA Service





## Our performance scope for revisions and shutdown service

	Inspection	Shutdown service
<b>Project management</b>		
Individual consulting	✓	✓
Site visit and on-site inspection	option	✓
Determination of required actions on site, e.g. scaffoldings	option	✓
Definition of the time line, number of devices and AUMA performance scope	✓	✓
Project management	option	✓
Detailed process and scheduling in agreement with the customers	option	✓
Planning and integration of external service providers	option	option
Determination and planning of required spare parts, auxiliary and operating material	✓	✓
Planning of required staff (AUMA staff or external service providers, if required)	✓	✓
<b>Implementation</b>		
Work preparations on site, e.g. equipment of workshop	✓	✓
Dismantling of actuators	option	✓
Transport of actuators to the on-site workshop	option	✓
Complete and thorough overhaul according to service level 3, including inspection and testing of all components, replacement of worn parts and repair or replacement of defective components if required. > also refer to separate short brochure on Maintenance management	✓	✓
Delivery of required spare parts	✓	✓
Mounting of adapters, space rods, flanges (for retrofit)		✓
Transport of actuators on site	option	✓
Mounting the actuators > also refer to separate short brochure on Mounting and installation	option	✓
Commissioning of actuators > also refer to separate short brochure on Commissioning	option	✓
Record of all work performed	✓	✓

## Combinable services

The following services may also interest you:



### **Maintenance management**

Ensure long-term availability



### **Spare parts & accessories**

Reliable replacement guaranteed



### **Mounting & installation**

A perfect start



### **AUMA Academy**

Fit for the job



### **Commissioning**

Highest performance right from the start



### **SIL | Ex | Nuclear services**

Safety thanks to certified experts



### **Retrofit**

Ready for the future



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# Retrofit



Ready for the  
future

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Solutions for a world in motion

# RETROFIT

## Ready for the future

Do you have old devices that no longer comply with current requirements or cannot cope with the increasing load? Make sure that your actuation technology is fit for the future and improve your plant performance. AUMA Service is your competent partner.

### Modernise to individual needs

From the simple functional enhancement through to retrofitting modern actuators controls, replacement of complete actuators and gearboxes right through to automation of manually driven valves: In close cooperation with experienced project managers, you can create the optimum modernisation scheme for your installation.

### One single source

We support you through all project phases, from detailed data acquisition on site to optimum selection and sizing of the new actuators right through to installation and commissioning by our AUMA service experts on site.



### Your AUMA Plus

- + Tailor-made solutions from one source
- + Improve the plant performance
- + Benefit from potentials of digitisation
- + Reduce operational costs
- + Extending the useful life of the plant

» It often happens that existing plants can be easily optimised by modern actuation technology.«

Hervé Lehmann  
AUMA Service



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Power for Process

auma

## Individual solutions

Among others, we offer the following modernisation solutions:

- Automation of manually operated valves
- Modernisation and replacement of available actuators or upgrading with modern actuator controls
- Replacement of old devices from other manufacturers
- Change from pneumatic to hydraulic actuation concepts to electric actuator technology

## Tailor-made adapters

Wherever actuators cannot be mounted directly onto the valves, we design and supply individually manufactured adapters like floor pedestals, space rods, and special flanges.

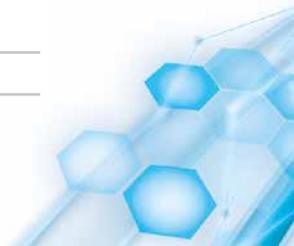
## Our performance scope for retrofit actions

### Project management

Analysis of requirements and individual consulting	✓
On-site inspection and technical data recording	✓
Selection and sizing of new electric actuators	✓
Construction and manufacture of adapters like floor pedestals, space rods, special flanges	option
Determination of required actions on site, e.g. scaffoldings	✓
Individual implementation preparations	✓

### Implementation

Dismantling of old devices (actuators or gearboxes)	✓
Mounting of adapters like floor pedestals, space rods, special flanges	option
Mounting the new actuators > also refer to separate short brochure on Mounting and installation	✓
Electrical connection of new actuators > also refer to separate short brochure on Mounting and installation	✓
Commissioning of new actuators > also refer to separate short brochure on Commissioning	✓
Record of all work performed	✓



# Combinable services

The following services may also interest you:



## **Mounting & installation**

A perfect start



## **Spare parts & accessories**

Reliable replacement guaranteed



## **Commissioning**

Highest performance right from the start



## **AUMA Academy**

Fit for the job



## **Digital PLUS services**

Asset Management made easy



## **Fieldbus & communication**

To ensure correct process control



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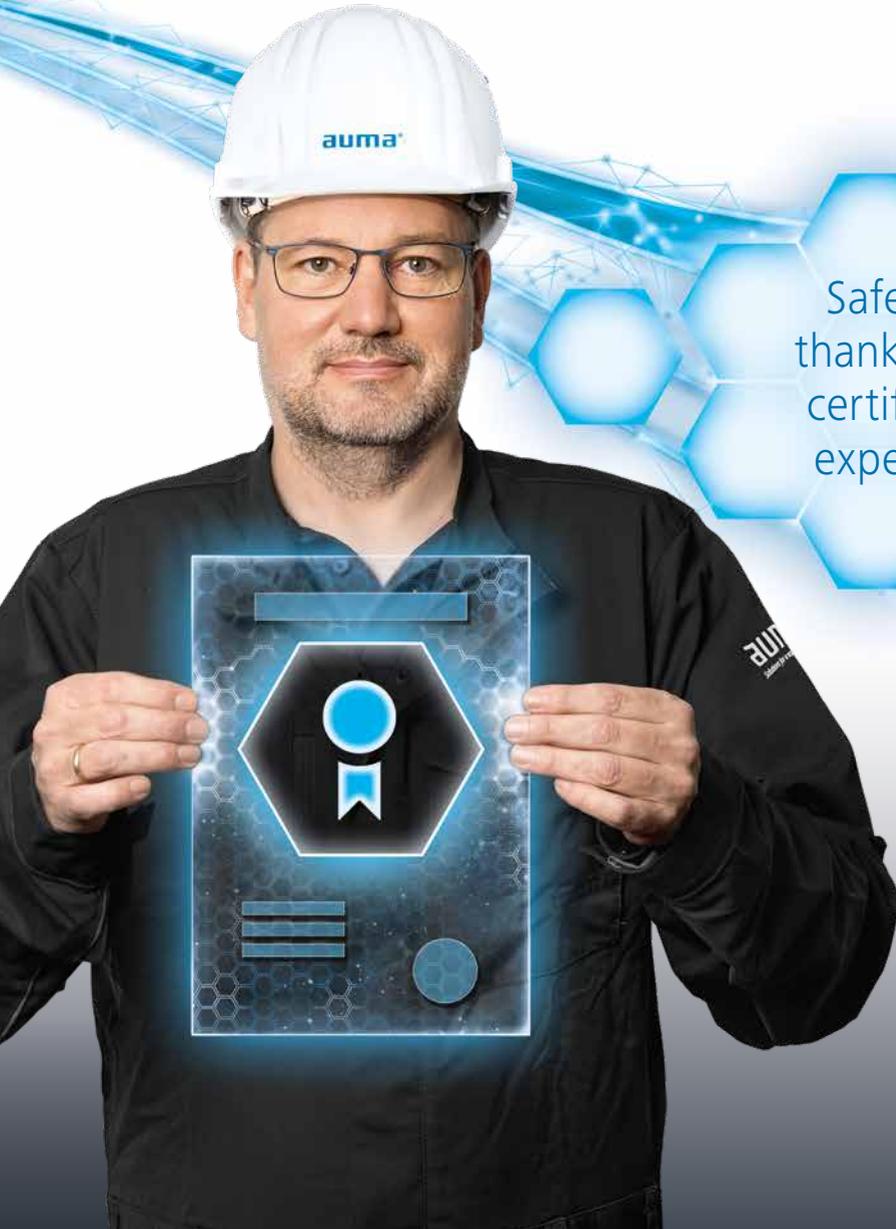
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# SIL | Ex | Nuclear services



Safety  
thanks to  
certified  
experts

## Safety thanks to certified experts

Your plant safety is our key concern. Our certified experts will assist you in complying with all specifications.

### Comply with obligations

In safety-relevant areas, a large number of regular inspections and maintenance work are specified for electric actuators. For these issues, the AUMA Service acts as your competent and experienced partner.

### Creating safety

Our AUMA service experts are comprehensively qualified to efficiently perform safety-relevant tasks within the the areas of functional safety, explosion protection and nuclear power plants in compliance with the applicable specifications.



### Your AUMA Plus

- + Compliance with legal obligations
- + Test schedules and documentation in compliance with standards
- + Relief for your operating staff
- + Cost reduction by saving own training expenses, tools and measurement devices
- + Warrant for plant availability

» When dealing with safety, we do not make any compromises.«

Hervé Lehmann  
AUMA Service



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auma  
Solutions for a world in motion



## Functional safety / SIL

Specific obligations must be complied with in SIL certified plant sections. For example, during commissioning and following corrective maintenance or modifications as well as at specified time intervals, proof-tests according to IEC 61508 must be performed.

AUMA service experts are certified and empowered to perform all test and maintenance interventions on the actuator.

### STANDARD SERVICES

- Review of wiring for actuator controls
- Professional setting of operational parameters
- Review and documentation of ESD safety function incl. tripping functions
- Review of documentation of safety-relevant signals
- Performance of proof tests, including compilation and handover of proof test documentation for each SIL capable AUMA product in compliance with IEC 61508
- Performance of tests and functional tests
- Maintenance and replacement of worn parts
- Implementation of required performance improvements

### OPTIONAL SERVICES

- Minor modifications of safety function
- Enabling and setting of special parameters, e.g. positioner, process controller, optimisation parameters, interlocks

## Explosive atmospheres

Within the EU, devices in potentially explosive atmospheres must be checked every three years in compliance with ATEX or IEC 60079-17. This is the case for example for digestion towers in sewage water treatment plants.

AUMA service are comprehensively qualified to perform the specified measures – a warrant for the explosion protection at all times.

### STANDARD SERVICES

- Review of wiring for actuator controls
- Professional setting of operational parameters
- Performance of tests and functional tests
- Maintenance and replacement of worn parts
- Implementation of required performance improvements

### OPTIONAL SERVICES

- Enabling and setting of special parameters, e.g. positioner, process controller, optimisation parameters, interlocks

## Nuclear power plants

Periodical inspections and thorough overhauls are specified for safety-relevant actuators deployed in nuclear power plants. AUMA service experts are appropriately certified and have long standing experience with these measures while respecting the specific safety regulations. They are furthermore qualified for inside containment services.

### STANDARD SERVICES

- Professional setting of operational parameters
- Performance of tests and functional tests
- Maintenance and replacement of worn parts
- Implementation of required performance improvements
- Complete and thorough overhaul of actuators

### OPTIONAL SERVICES

- Enabling and setting of special parameters, e.g. positioner, process controller, optimisation parameters, interlocks

## Combinable services

The following services may also interest you:

-  **Commissioning**  
Highest performance right from the start
-  **Maintenance management**  
Ensure long-term availability
-  **Digital PLUS services**  
Asset Management made easy
-  **Revisions & shutdown service**  
Complete service from experts
-  **Fieldbus & communication**  
To ensure correct process control



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globe. Wherever your installation – AUMA  
Service experts are always close to you.

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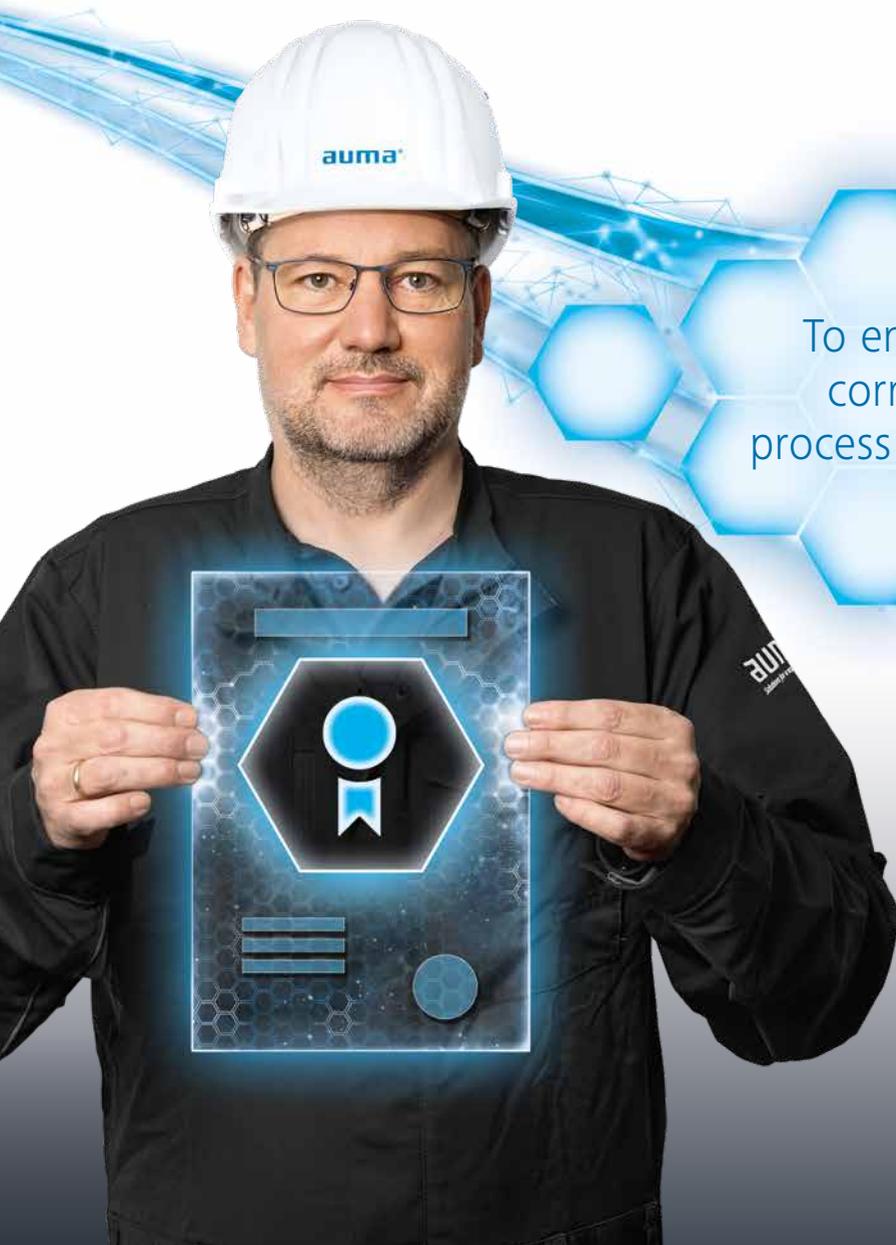
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 AUMA Service Worldwide





# Fieldbus & communication



To ensure  
correct  
process control

# FIELDBUS & COMMUNICATION

To ensure correct process control

Fieldbus, Industrial Ethernet, HART – AUMA actuators can be integrated into all common communication systems. Our comprehensive service performance ensures smooth device integration.

Expect more,  
get more

The competence of our service experts goes beyond the mere commissioning service. We support with device integration, commissioning the communication system including troubleshooting. We offer services for:

- > Profibus DP, Modbus RTU, Foundation Fieldbus
- > Profinet, Modbus TCP
- > HART and WirelessHART

Small cause –  
tremendous impact

Simple errors within the communication system can have major impacts. We can quickly provide remedy while applying methodical processes and specific analysis tools.

Our professional fieldbus commissioning helps in preventing sporadically occurring failures from the very beginning.

## Your AUMA Plus

- + High plant availability
- + High operation safety
- + Early detection of ageing at fieldbus components
- + Maintaining the plant assets

» With experience and the optimum methods we make sure that DCS and actuator are in perfect harmony.«

Michael Groß  
AUMA Service





# Our performance scope for fieldbus & communication

	Profibus DP	Modbus RTU	Foundation Fieldbus	Profinet	Modbus TCP	HART
Consulting with regard to DCS integration	✓	✓	✓	✓	✓	✓
Device integration and commissioning	✓	✓	✓	✓	✓	✓
Master simulation with functional testing	✓	✓	✓	✓	✓	✓
Fieldbus examination with report	✓	✓	✓	✓	✓	✓
Evaluation of fieldbus diagnostic data of actuator	✓	✓	✓	✓	✓	✓
Examination of sporadically occurring fieldbus failures	✓	✓		✓		
Telegram monitoring including analysis report	✓	✓				
Signal analysis for detecting ageing	✓					
Corrective actions	✓	✓	✓	✓	✓	✓
Firmware update	option	option	option	option	option	option
Digital device recording	option	option	option	option	option	option

## Consulting with regard to DCS integration

It will be our pleasure to provide you with a fieldbus integration test for our AUMA actuators. Our experts provide you with their advice for the actuator data and commands to be received and sent as well as the further actuator-specific configurations required. This benefits both parties, the DCS configuration and functional components work smoothly, right at the time of commissioning.

## Device integration and commissioning

We ensure the settings of fieldbus-specific device parameters and the actuator commissioning (including the end position settings, etc.).

## Master simulation with functional testing

Thanks to a simulation tool, our experts check the provided fieldbus communication between the DCS/plant control and the actuator. Actuator commands are sent and feedback signals received and evaluated.

## Evaluation of fieldbus diagnostic data of the actuator

Diagnostic data stored in actuator controls are often a valuable indication of possible error sources within the communication system.

## Examination of sporadically occurring fieldbus failures

Sporadic fieldbus failures may have numerous causes. Special tools and expert knowledge are valuable aids to exclude one by one potential error sources and to adjust the site in compliance with the applicable standards.

## Combinable services

### **Telegram monitoring including analysis report**

Using analysis tools allows examination and evaluation of the data transfer between DCS and actuator. We detect faulty or incomplete communication which can lead to misinterpretations between the sender and the receiver.

### **Signal analysis for detecting ageing**

The physical layer (cable installation, resistors, earthing, connection) can have an impact on signal strength and shape. Consequently, the standardised installation prescriptions must be met. Failure to respect the prescriptions at the time of installation will lead to unsolicited signal reflections which can cause sporadic failures. This is exactly what we examine with the signal analysis.

### **Corrective actions**

We will correct the detected failures on the grounds of these examinations.

The following services may also interest you:



### **Mounting & installation**

A perfect start



### **Commissioning**

Highest performance right from the start



### **Maintenance management**

Ensure long-term availability



### **Retrofit**

Ready for the future



AUMA Service – simply more performance

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 AUMA Service Worldwide





# Spare parts & accessories



Reliable  
replacement  
guaranteed

# SPARE PARTS & ACCESSORIES

## Reliable replacement guaranteed

For us, spare parts are central services since they importantly contribute to function, safety and lifetime of your AUMA actuators.

### Tested quality

As a manufacturer, we bear responsibility. Spare parts are still available after decades of device deployment. AUMA original parts are series parts subject to the standard production process. They undergo comprehensive quality control and meet the highest demands.

### Fast delivery

A comprehensive portfolio of spare parts and practical accessories are always on stock. Thanks to good availability, simple order processes and modern and high-performance logistics, our team guarantees fast delivery on site – on a worldwide scale.

## Your AUMA Plus

- + Guaranteed manufacturer quality
- + High availability
- + Fast delivery
- + Worldwide dispatch
- + Individual consulting
- + Long-term security of investment
- + High useful life of the plant

» Most spare parts are directly on stock and can be sent straight away.«

Dustin Grant  
AUMA Service





**auma**  
Innovazione per il mondo a misura

Colonna 1	Colonna 2	Colonna 3	Colonna 4	Colonna 5	Colonna 6	Colonna 7	Colonna 8	Colonna 9	Colonna 10
1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100



## Advice is our top priority

With joint efforts, we will identify your requirements, coordinate delivery and cater for fast replacement.

Of course, it will be a pleasure to advise you with spare parts stock for your standard devices. We will further assist you in ensuring high plant availability and anticipating emergencies – at a calculable budget.

## Our performance scope for spare parts & accessories

### STANDARD SERVICES

- Individual technical consulting
- Determination of suitable spare parts
- Spare parts and accessories from one source
- Worldwide coordination of spare parts logistics for on-site service interventions
- Worldwide supply

### OPTIONAL SERVICES

- Express delivery
- Delivery on time
- On-site delivery
- Individual consulting for spare parts stock
- Customer-specific marking of spare parts

## Emergency service

If you require replacement for a complete actuator at short notice in exceptional cases, please contact us immediately. We manufacture your replacement device to suit your needs at your precise technical specifications.

## Our performance scope for emergency service

### STANDARD SERVICES

- Individual technical consulting
- Specification of replacement actuator
- Manufacture and assembly
- Complete test bench acceptance test
- Torque setting at test bench
- Professional setting of operational parameters
- Creation of required documentation
- Worldwide supply

### OPTIONAL SERVICES

- Customer-specific parametrisation and setting
- Customer-specific painting of actuator
- Activation of special parameters
- Express delivery
- Alternative delivery, e.g. directly by the AUMA service experts

## Our classification for spare parts supply

Depending on the spare part, different previous knowledge and qualifications are required to ensure correct assembly and safe operation. For this reason, we have subdivided our spare parts portfolio in the following categories:

- **Spare parts for customer assembly**

- **Sub-assemblies and sets for customer assembly**

Pre-manufactured sub-assemblies and practical spare parts set, e.g. seal kits and ready-to-connect motor kits are reasonably designed for the device types and facilitate spare parts stock.

- **Spare parts for certified users**

These spare parts require special professional knowledge for dismantling and assembly. They are only available with the appropriate qualifications.

- **Spare parts for the AUMA Service**

Sensitive electronics sub-assemblies or components for explosion-proof actuators and SIL applications may only be replaced by the AUMA Service due to product liability and safety reasons.

## Combinable services

The following services may also interest you:



- **Maintenance management**

Ensure long-term availability



- **Revisions & shutdown service**

Complete service from experts



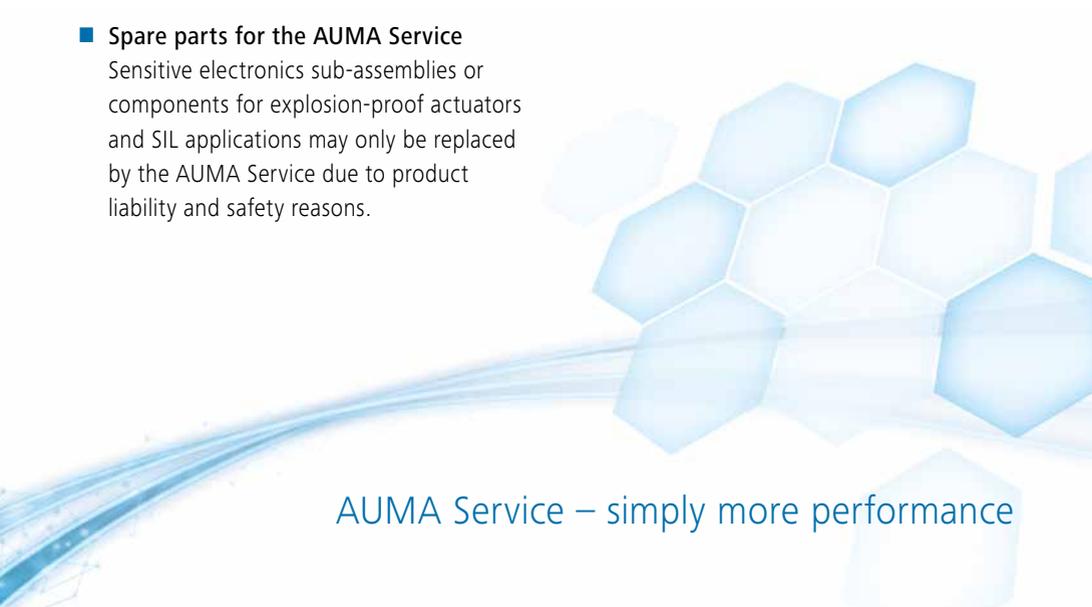
- **Retrofit**

Ready for the future



- **AUMA Academy**

Fit for the job



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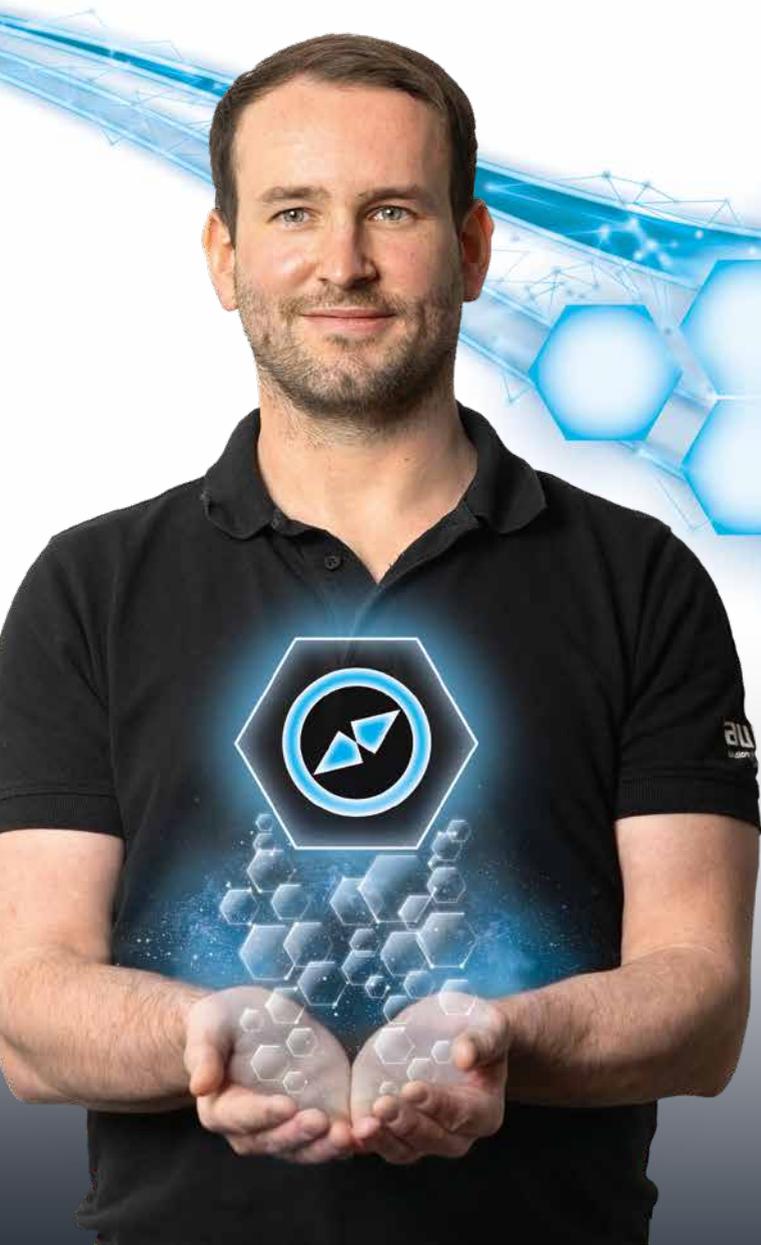
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 AUMA Service Worldwide





# AUMA Academy



Fit for  
the job

# AUMA ACADEMY

## Fit for the job

Highly trained staff ensure availability and efficiency of your plant. The variety of training options offered by the AUMA Academy contributes considerably to your success.

## Learning from experts

Benefit from direct communication with our experts. Our trainers will share their comprehensive experience and knowledge with you. They will provide you with complex insights in the actuator technology and give you useful practical hints while answering any of your questions.

## Make the best use of your actuators

The objective of our trainings is to teach you background knowledge and convey hands-on experience to make perfect use of the comprehensive capabilities of AUMA actuators. You will get familiar with both actuator and the valve and will be able to act independently ensuring perfect operation.

## Your AUMA Plus

- + Personal exchange with experienced experts
- + Individually tailored training content
- + Important practical knowledge for commissioning, maintenance, configuration, and inspection
- + High operation safety



»You will gain the necessary know-how to ensure that your actuator optimally harmonises with the DCS.«

Rick Holzer  
AUMA Academy



**auma**  
Smart. For. Smart. People.

## Welcome to the AUMA Academy

It will be our pleasure to welcome you in our specialised training centre at AUMA Headquarters in Muellheim, close to the Black Forest.

Our modern training rooms within the AUMA Academy offer the perfect setting for efficient learning. Thanks to the perfect equipment with work benches, devices and tools, each participant can get comprehensive and practical hands-on experience.

Besides the AUMA Academy in Muellheim, further training facilities are available at our locations and our Service Centers across Germany and the worldwide AUMA network.

## Complete packages

Our training is available as complete packages including hotel accommodation, half board, transfers, and evening entertainment. Simply book and travel to our premises. We will deal with all the rest.

## Individual training packages

On request, we will of course adapt our training content individually to your requirements. If necessary, we will also come to your premises and train your staff on-site, just to ensure the most comfortable and effective way to suit your needs.

## Online offers

We have further developed a variety of online training which we strive to enhance further. A considerable number of training content can be offered as an online service, like, for example, as tutorials or simply explained videos. It is up to you where, when, and what you wish to learn!

There is also the possibility to combine online sessions and on-site training. Simply contact us and we jointly find the best offer to suit your needs.



# Our standard training sessions

We offer regular trainings sessions on the following topics:

## A INTERFACE BETWEEN DCS AND VALVE

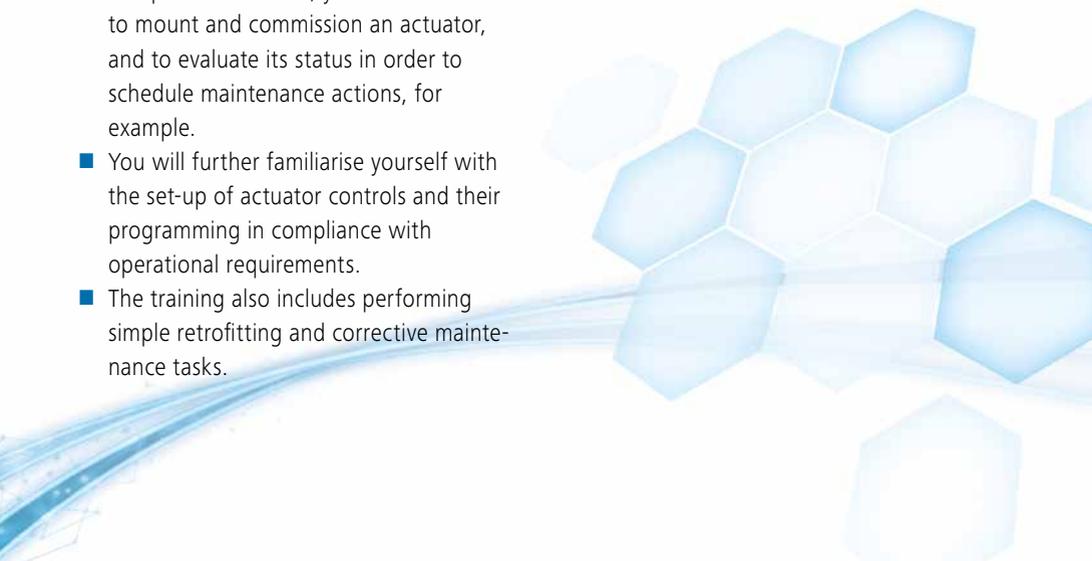
- Basic training for beginners and experts. Actuator selection made easy, e.g. for staff in purchasing and at consultants. As an expert, you may refresh your knowledge and get up-to-date information. With a major share of hands-on exercises to select the suitable actuator.
- You acquire basic knowledge of actuator technology and the functioning.
- You learn about specific actuator variants with their special properties.

## B COMMISSIONING AND CORRECTIVE MAINTENANCE

- Basic training for operators and plant staff with a high share of practical training.
- You learn about the design features and the multitude of actuator variants.
- In a practical session, you will learn how to mount and commission an actuator, and to evaluate its status in order to schedule maintenance actions, for example.
- You will further familiarise yourself with the set-up of actuator controls and their programming in compliance with operational requirements.
- The training also includes performing simple retrofitting and corrective maintenance tasks.

## C CONFIGURATION AND INSPECTION

- Basic training for operators and plant staff with a high share of practical training.
- You will learn how to appropriately configure actuators, for example using the AUMA Assistant App and the AUMA CDT software.
- You will further learn how to analyse diagnostic data via AUMA Cloud and to assess the status of your actuator in order to schedule target-oriented maintenance actions and request a service expert.



# auma®

Solutions for a world in motion



Learn more  
here

Is this a point of interest for you?  
Please check our website for detailed  
information and dates.

Simply book your training on line:  
[en.training.auma.com](http://en.training.auma.com)



This is an easy way  
to contact us

Do you have any further questions?  
Please contact us. We look forward to  
receiving your request.

### AUMA Academy

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