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# ACTUATOR TECHNOLOGY MADE IN GERMANY.

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## Welcome to AVAMO.

We are a manufacturer of modern actuator systems and control units. We have made it our mission to develop and produce solutions that meet the demands of our time. In particular, critical infrastructures in industries such as the chemical, energy or oil and gas sectors require reliable solutions that meet the highest standards.

Our AVAMO actuators are specifically designed to meet these requirements and guarantee reliable performance even under the toughest conditions. We are aware that the functionality of your pipelines, systems and machines is of crucial importance for the smooth operation of your business processes.

As a German company we are committed to quality and innovation. We rely on a state-of-the-art machine park, proven production methods and a high level of in-house manufacturing to ensure that our actuators meet the highest standards.

Our product range offers tailored solutions - whether you need individual pieces or mass production. We are happy to support you in planning and conception to find the best solution for your needs.

**Thank you for your interest in our products.**  
**Best regards,**

*Frank Stallkamp*

Frank Stallkamp // CEO



## Engineering...



Our experienced engineering-team adapts quickly to your specific needs to provide custom solutions. AVAMO actuators also benefit from years of experience in actuator design to craft the best solution for you.

## Production...



Our actuators meet the highest standards. With state of the art machinery and a nearly a decade of history in machining, we manufacture the answers to even the most complex demands.

## Assembly...



AVAMO actuators stand for quality made in Germany. From the actuator to the control unit and the piping, everything is assembled in our own production line - handmade by our experienced assembly-team.

**...Precision made in Germany!**



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## The complete work-flow in our hands

AVAMO actuators are simple in design, easy to manufacture, and therefore cost-effective and durable. We manufacture all actuators in our own facilities and also carry out the final inspection here. This keeps our processes short, guarantees high manufacturing precision, and makes us largely independent of suppliers.

As a result, we offer a wide range of actuators, such as Scotch-Yoke, linear, compact or electric actuators. Our offer includes solutions for rotary and linear valves, including control or on/off applications. The adaptable design allows the actuator to be adapted to many applications without exceeding your budget.

**Development, manufacturing, assembly, certification - all in one place!**

- 1** *Finished actuators*  
One by one, approved and wrapped.
- 2** *Build from scratch*  
Modern 3D-CAD System SOLIDWORKS.
- 3** *Innovation*  
Creative solutions to fit your needs.
- 4** *Mass production*  
Tailor-made solutions for you.
- 5** *Everything at store*  
High level of in-house manufacturing.
- 6** *Complex parts*  
From one-off customized solutions to automated batch production.
- 7** *Production*  
Our product - ready to face any challenge.
- 8** *Assembly*  
Actuators, handmade by our assembly-team.
- 9** *Modern Machines*  
State of the art machinery on 4000 m<sup>2</sup>.





#### ROTARY ACTUATOR

## PNEUMATIC-HYDRAULIC AVAMO ASP/ASH

The AVAMO ASP/ASH actuator series are designed based on the experience we made developing previous actuator series. The system is field proven and highly reliable. The design ensures optimal performance to operate ball, butterfly and plug valves even in the harshest environmental conditions.

The actuator is designed for longevity, ensured by bronze slide blocks and nickel or Ionit Ox plated cylinders. Chromium plated rods and custom paint jobs provide an excellent protection against corrosion.

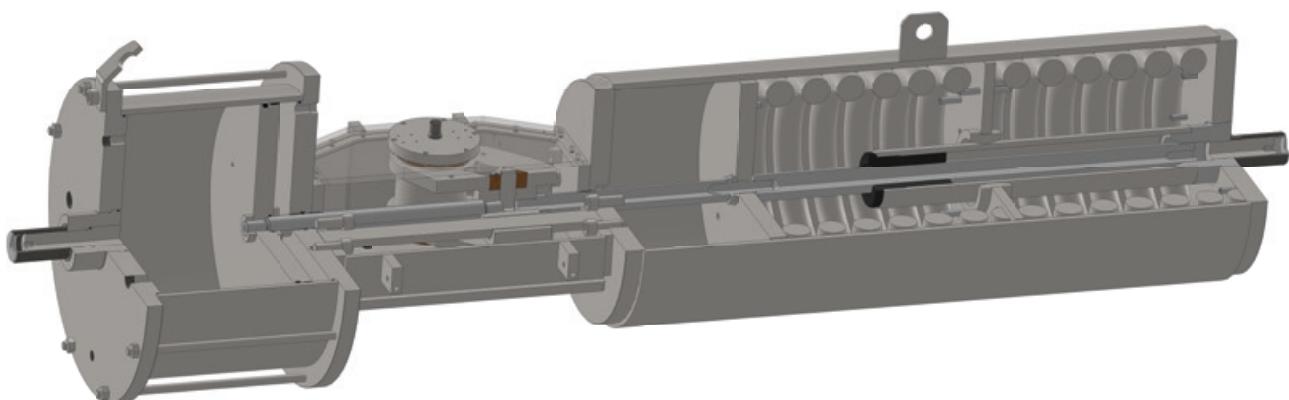
The AS-series can be used for on/off or modulating applications. It is available in a double- or single-acting version and provides up to 600.000 Nm of torque.

#### Versatility

AVAMO AS actuators have a modular design and can be equipped with several options. The Scotch-yoke mechanism can be driven by an air, gas or oil cylinder, and is either available as single- or double-acting version. We also fit a spring inside of the cylinder for emergency-shut-down-applications if necessary. The cylinder can be fitted on either side of the actuator to create a fail-close or fail-open configuration.

# Features

Design	Symmetric or canted Scotch Yoke lever
Control pressure	Pneumatic up to 12 bar Hydraulic up to 210 bar
Torque	up to 600.000 Nm
Temperature range	-30° - +110°C (standard) -40° - +60°C (low temp) -60° - +60°C (extreme temp) 0° - +160°C (high temp)
Centre body	Maintenance free, corrosion protected, welded construction
Cylinder	Cylinder with nickel, chromium or Ionit Ox plated running surfaces against corrosion providing a long lifetime for gaskets
Function	Double- or single-acting
End Stops	Adjustable leak free end stops +/- 5°
Available options	Manual emergency override
Stroking times	< 0,3 seconds
Certifications	ATEX 2014/34/EU PED 2014/68/EU Applicable up to SIL 3 as per 61508 Machine directives 2006/42/EG TR-TS approval





## ROTARY ACTUATOR

# COMPACT AVAMO ACP

The AVAMO ACP compact Scotch Yoke actuator has been developed for both on/off- or modulating-operations and is available as a single- or double-acting version in a compact design. The unique design ensures optimal performance to operate ball, butterfly and plug valves even in the harshest environments.

The actuator is designed for longevity, ensured by bronze slide blocks and nickel or Ionit Ox plated cylinders. Chromium plated rods and custom paint jobs provide an excellent protection against corrosion.

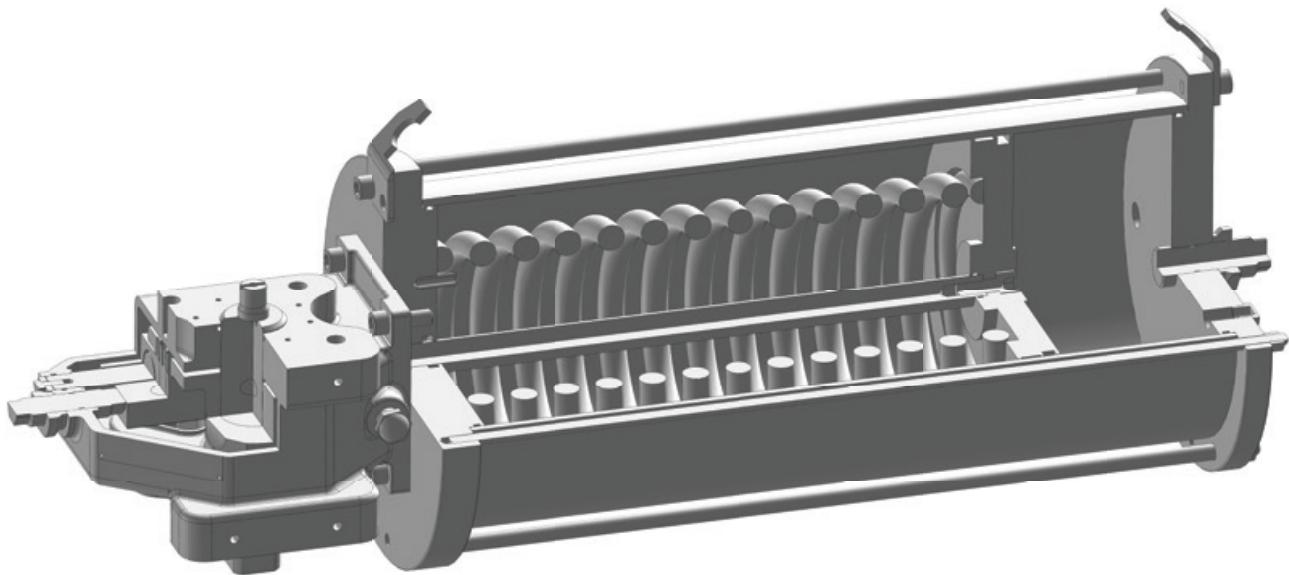
The ACP series can be used for on/off or modulating applications. It is available in a single- or double acting version and provides forces up to 4.500 Nm of torque.

## Versatility

AVAMO ACP actuators have a modular design and can be equipped with several options. The Scotch-yoke mechanism can be driven by an air or gas cylinder and is either available as a single- or double-acting version. We also fit a spring inside of the cylinder for emergency-shut-down-applications if necessary. This creates either a fail-close or fail-open configuration.

# Features

Design	Symmetric Scotch Yoke design
Control pressure	Air or dry sweet natural gas: up to 12 bar
Torque	up to 4.500 Nm
Temperature range	-30° - +110°C (standard) -40° - +60°C (low temp) -60° - +60°C (extreme temp) 0° - +160°C (high temp)
Body	Maintenance free, corrosion protected cast iron construction
Cylinder	Corrosion protected cylinder surface providing a long lifetime for gaskets
Function	Double- or single-acting
End Stops	Adjustable leak free end stops +/- 5°
Available options	Manual hand wheel (integrated in endcaps) Fast stroking times Fully automated Custom paint specifications
Certifications	ATEX 2014/34/EU PED 2014/68/EU Applicable up to SIL 3 as per 61508 Machinery Directive 2006/42/EC TR-TS approval





#### ROTARY ACTUATOR

## ELECTRO-HYDRAULIC AVAMO ASEH

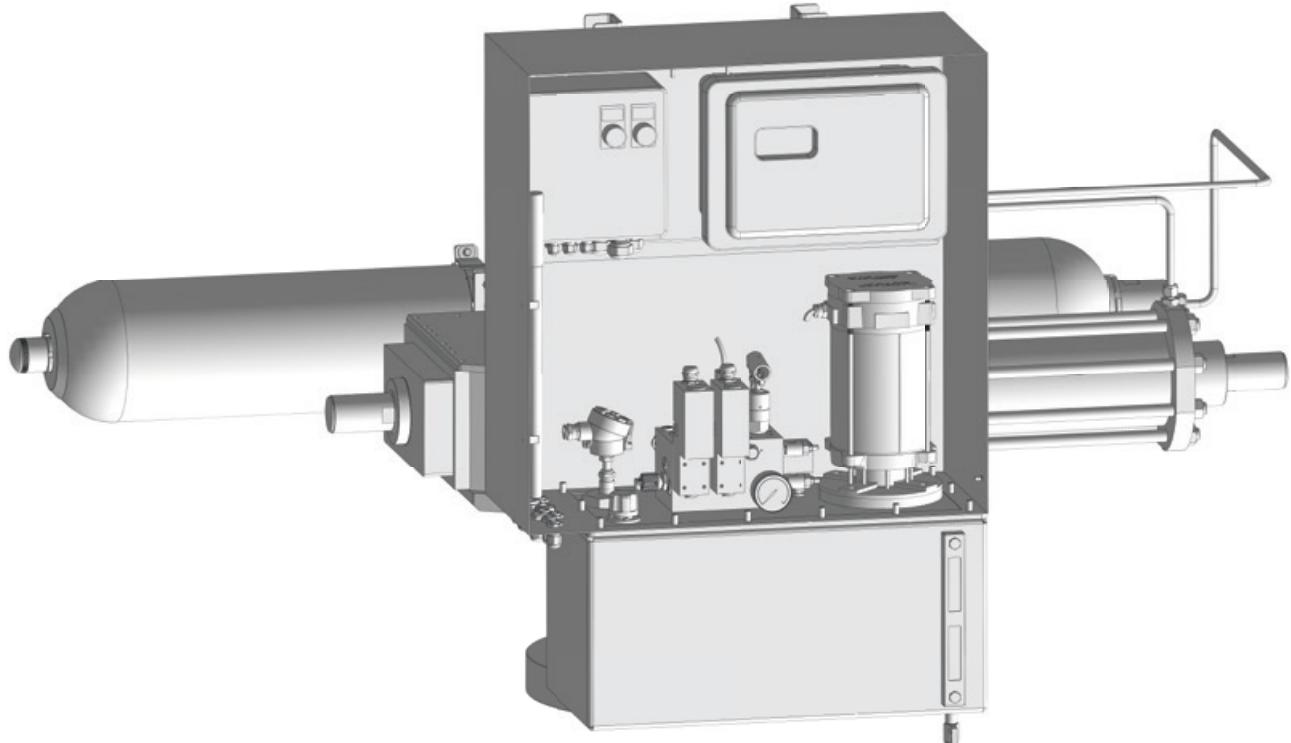
The AVAMO ASEH heavy duty self-contained electro-hydraulic Scotch Yoke actuators have been developed for both on/off- or modulating-operations and are available as a single- or double-acting version. ASEH actuator solutions are used when there is only electrical power available. The actuators operate ball, butterfly or plug valves with torque up to 600.000 Nm.

Our standard version consists of a compact and maintenance-free design with a SMART Control Unit. The SMART Control Unit is ready for hardwired communication as well as for MODBUS or Profibus communication.

The actuator is designed for longevity, ensured by bronze slide blocks and nickel or Ionit Ox plated cylinders. Chromium plated rods and custom paint jobs provide an excellent protection against corrosion.

# Features

Design	Symmetric or canted Scotch Yoke lever
Control pressure	Hydraulic up to 350 bar
Torque	up to 600.000 Nm
Temperature range	-30° - +110°C (standard) -40° - +60°C (low temp) -60° - +60°C (extreme temp) 0° - +160°C (high temp)
Centre body	Maintenance free, corrosion protected, welded construction
Cylinder	Cylinder with nickel, chromium or Ionit Ox plated running surfaces against corrosion providing a long lifetime for gaskets
Function	Double- or single-acting
End Stops	Adjustable leak free end stops +/- 5°
Available options	Manual emergency override
Stroking times	< 0,3 seconds
Certifications	ATEX 2014/34/EU PED 2014/68/EU Applicable up to SIL 3 as per 61508 Machine directives 2006/42/EG TR-TS approval





#### ROTARY ACTUATOR

## DIRECT GAS AVAMO ASG

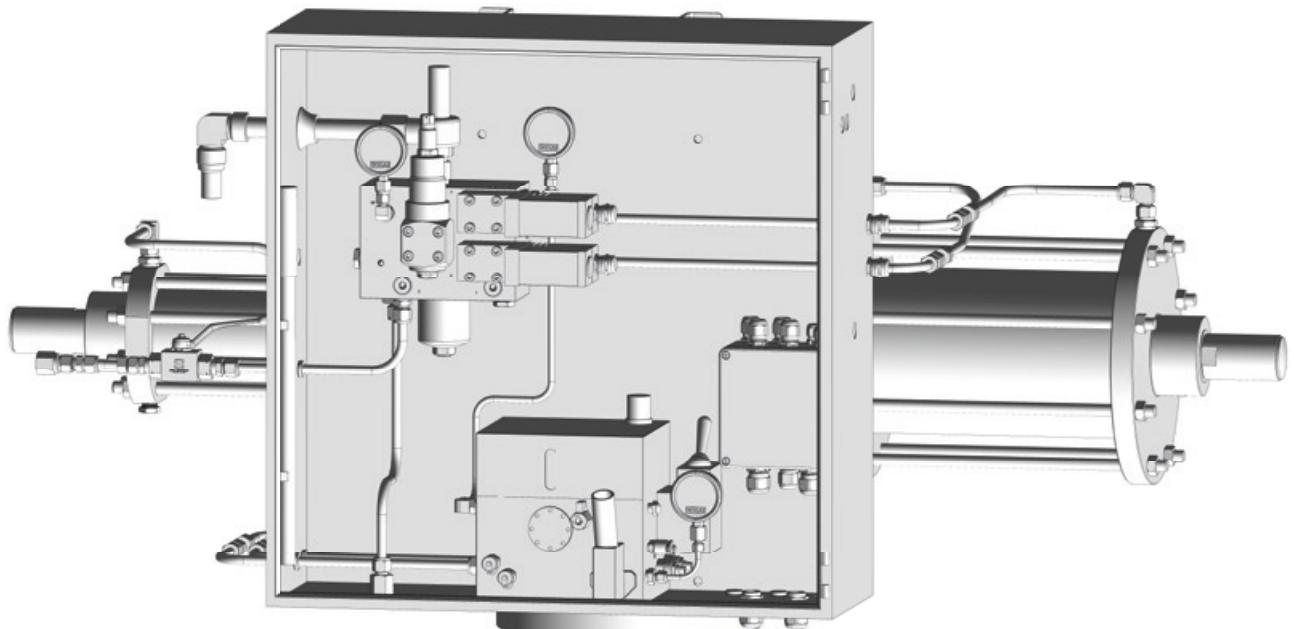
Our AVAMO ASG Direct Gas actuators are designed to directly use the existing pipeline pressure and work with natural sweet and sour gas. The ASG is based on our field-proven scotch-yoke actuators and adapted to its unique working environment. Its design ensures optimal performance to operate ball, butterfly and plug valves even in the harshest environmental conditions.

The actuator is designed for longevity, ensured by bronze slide blocks and nickel or Ionit Ox plated cylinders. Chromium plated rods and custom paint jobs provide an excellent protection against corrosion.

AVAMO ASG actuators have a modular design and can be equipped with several options. The actuator is available as a single- or double-acting version and can be used for on/off or modulating applications. We also apply a spring cylinder for emergency-shut-down-applications if necessary. The cylinder can be fitted on both sides of the actuator to either create a fail-close or fail-open configuration.

# Features

Design	Symmetric or canted Scotch Yoke lever
Control pressure	Natural Gas up to 200 bar
Torque	up to 600.000 Nm
Temperature range	-30° - +110°C (standard) -40° - +60°C (low temp) -60° - +60°C (extreme temp) 0° - +160°C (high temp)
Centre body	Maintenance free, corrosion protected, welded construction
Cylinder	Cylinder with nickel, chromium or Ionit Ox plated running surfaces against corrosion providing a long lifetime for gaskets
Function	Double- or single-acting
End Stops	Adjustable leak free end stops +/- 5°
Available options	Manual emergency override Sour gas version etc. Stroking times < 0,3 seconds
Certifications	ATEX 2014/34/EU PED 2014/68/EU Applicable up to SIL 3 as per 61508 Machine directives 2006/42/EG TR-TS approval





#### ROTARY ACTUATOR

## GAS OVER OIL AVAMO ASGO

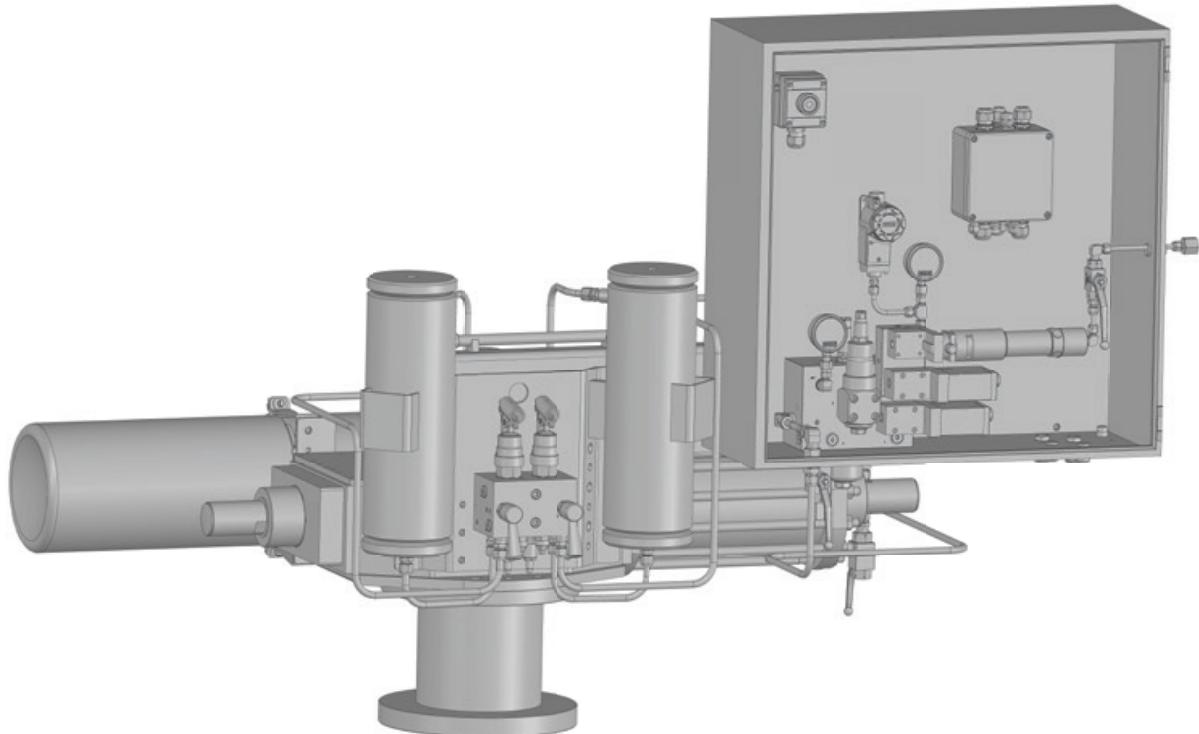
The AVAMO ASGO actuator series is designed to drive a hydraulic actuator by natural gas. By pushing down oil in a vertical vessel by gas, the two mediums stay separated and the pressure gets transferred. The used actuator is our field proven AS range with a scotch yoke mechanism.

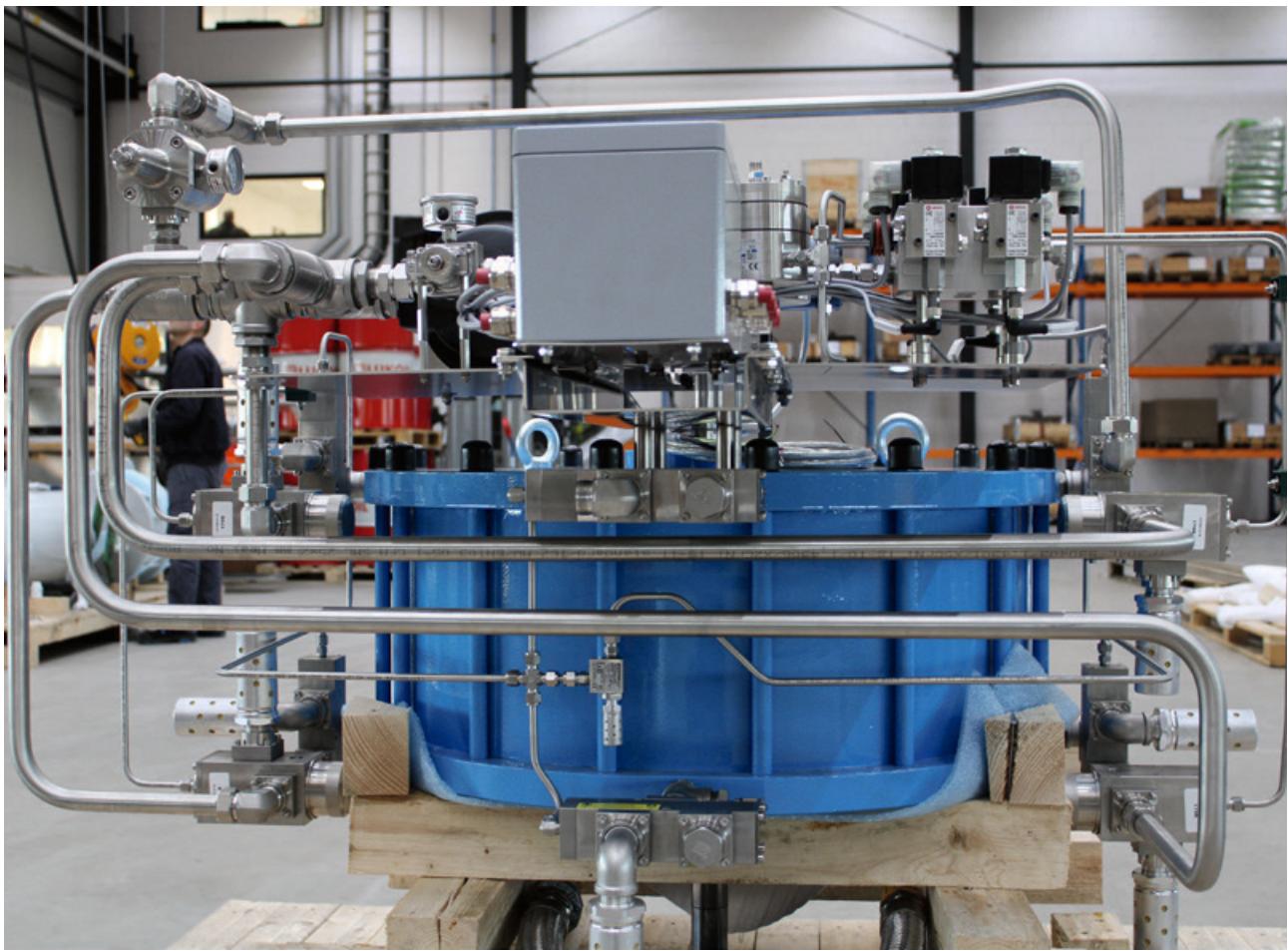
The actuator is designed for longevity, ensured by bronze slide blocks and nickel or Ionit Ox plated cylinders. Chromium plated rods and custom paint jobs provide an excellent protection against corrosion.

The ASGO series can be used for on/off or modulating applications. It is available as a double-acting version and delivers torque up to 600.000 Nm.

# Features

Design	Symmetric or canted Scotch Yoke lever
Control pressure	Natural Gas up to 200 bar
Torque	up to 600.000 Nm
Temperature range	-30° - +110°C (standard) -40° - +60°C (low temp) -60° - +60°C (extreme temp) 0° - +160°C (high temp)
Centre body	Maintenance free, corrosion protected, welded construction
Cylinder	Cylinder with nickel, chromium or Ionit Ox plated running surfaces against corrosion providing a long lifetime for gaskets
Function	Double- or single-acting
End Stops	Adjustable leak free end stops +/- 5°
Available options	Manual emergency override Sour gas version etc.
Stroking times	< 0,3 seconds
Certifications	ATEX 2014/34/EU PED 2014/68/EU Applicable up to SIL 3 as per 61508 Machine directives 2006/42/EG TR-TS approval





#### LINEAR ACTUATOR

## PNEUMATIC AVAMO AL

Our AVAMO AL actuator series features typical linear actuators which will be produced according to customer requirements. We will not have a typical standard due to the fact that all globe or gate valve manufacturers have their own philosophy and stroke length of the valve.

The actuator is designed for great longevity, ensured by nickel or Ionit Ox plated cylinders. Chromium plated rods and custom paint jobs provide an excellent protection against corrosion.

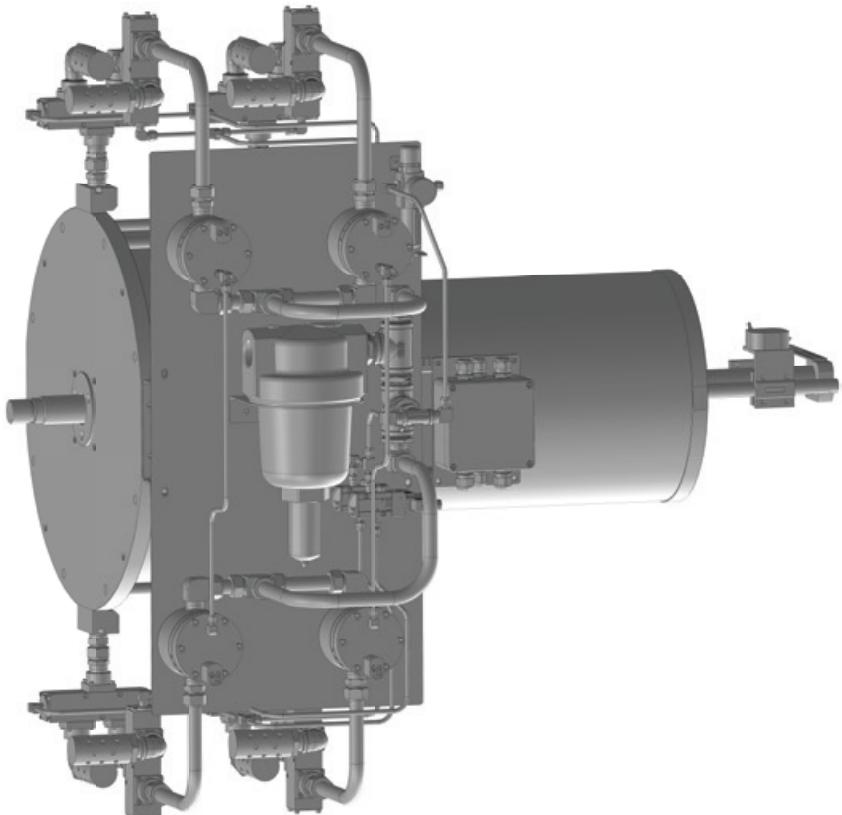
The AL series can be used for on/off or modulating applications. It is available in double- or single-acting versions and delivers forces up to 5.500.000 N.

#### Versatility

AVAMO AL actuators have a modular design and can be equipped with several options. The linear actuator can be driven by air, gas or oil and is either available as single- or double-acting version. We also apply a spring cylinder for emergency-shut-down-applications if necessary. The cylinder can be fitted on either side of the actuator to create a fail-close or fail-open configuration.

# Features

Design	Piston actuator
Control pressure	Pneumatic up to 12 bar Hydraulic up to 350 bar Natural gas up to 200 bar
Force	Up to 5.500.000 N
Temperature range	-30° - +110°C (standard) -40° - +60°C (low temp) -60° - +60°C (extreme temp) 0° - +160°C (high temp)
Cylinder	Cylinder with nickel plated running surfaces against corrosion providing a long lifetime for gaskets
Function	Double- or single-acting
End Stops	optional
Available options	Manual hand wheel / Hand pump Fully automated Custom paint specifications Adjustable and leak free end stops
Stroking times	< 0,5 seconds
Certifications	ATEX 2014/34/EU PED 2014/68/EU Applicable up to SIL 3 as per 61508 Machinery Directive 2006/42/EC TR-TS approval





#### IDEAL ADD-ON

## SEAMLESS INTEGRATION OUR CONTROL UNITS

**Perfectly aligned: control units and actuators from a single source**

Actuators are truly efficient when all components work together seamlessly. Our control units are the ideal complement to our high-quality actuators. Developed in-house and equipped with our proprietary control boards, they form a system that ensures maximum efficiency and reliability.

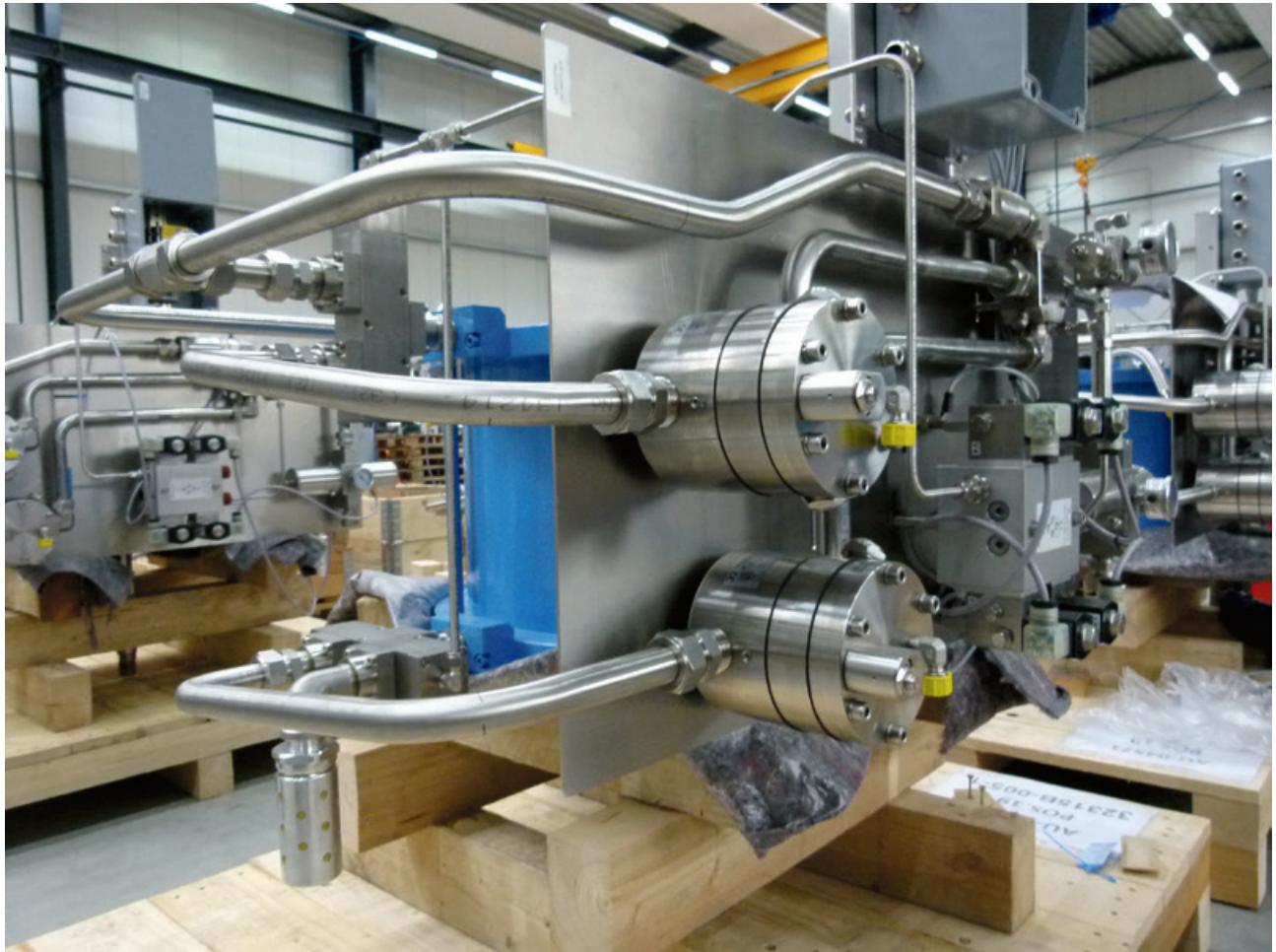
Our entire production process takes place in-house: from design – including customized solutions for individual customer requirements – to assembly and testing. Each control unit is tested together with its corresponding actuator to guarantee perfect alignment and the highest quality. This approach results in solutions that meet your requirements, even in challenging environments, and deliver lasting performance.

Benefit from our comprehensive „all-in-one“ approach: Our extensive expertise in mechanical engineering, combined with a strong focus on innovation and customer orientation, ensures customized solutions for your applications.

With our actuators and control units, you receive a system that functions smoothly – from concept to implementation.

# Customer Benefits

- In-house development and assembly
- Each unit tested together and **perfectly matched** to our actuators
- Proprietary control-board **developed by AVAMO**
- Designed according to **customer requirements**
- Everything from **a single source**



## Quality...



Each actuator is tested during the factory acceptance and digitally recorded using a Shopfloor-system before it is shipped. Every certificate concerning your actuators will be stored in our ERP-system for future references.

## Service...



Custom designs, new concepts for control units or after-sale-support – the AVAMO-team always comes up with a competent solution. Trained and certified service-staff will support you around the globe.

## Certificates...



Our company and products are extensively certified, ensuring secure quality and compliance with current industry standards and DIN norms. Our certificates also reflect our customers' satisfaction and the sustainability of our solutions.



## Contact

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## Our service-partners



AVAMO is a brand of  
NTF Korfhage Maschinenbau GmbH