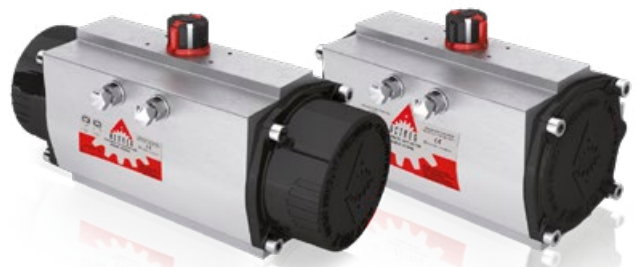




**ACTREG**

POWER IN AUTOMATION



PNEUMATIC ACTUATORS  
**Rack & Pinion**

A photograph of an industrial facility at dusk. The scene is dominated by a large, cylindrical storage tank with a rusted, weathered top section. The tank is surrounded by a complex network of pipes, walkways, and structural steel. Several bright, rectangular industrial lights are mounted on the structure, casting a glow on the scene. The sky is a deep, dark purple, suggesting twilight. The overall atmosphere is industrial and somewhat somber due to the low light.

**We are specialized  
in the manufacture  
of high quality  
actuators**



**ACTREG**, established in 1992, is a multinational company specializing in the manufacture and sales of high quality actuators for industrial valves for either On/Off or modulating duty.

The expertise and know how has made **ACTREG** leader in actuation technology.

**ACTREG** provides world coverage thanks to the strategic locations of its factories and offices.

The international distribution network ensures quick availability and more important, personalized service for valve manufacturers, valve stocking distributors and contractors.



## Power in automation

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ESTABLISHED IN  
**1992**

---

INTERNATIONAL  
**Distribution**

---

DESIGN &  
**Quality**

---

LEADERS IN  
**Technology**

---

PERSONALIZED  
**Service**

We are a manufacturer of rack and pinion aluminium housing actuators with torque figures up to 6.500 Nm and scotch yoke actuators for heavy duty service up to 700.000 Nm. Our products offer reliable and dependable automation for industrial valves.



The precision in design and quality provides a long and safe operational performance in valve control.



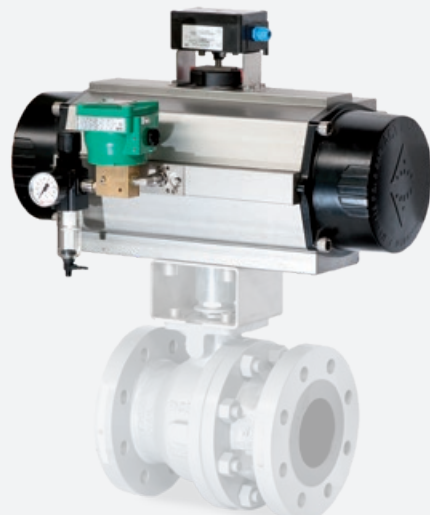
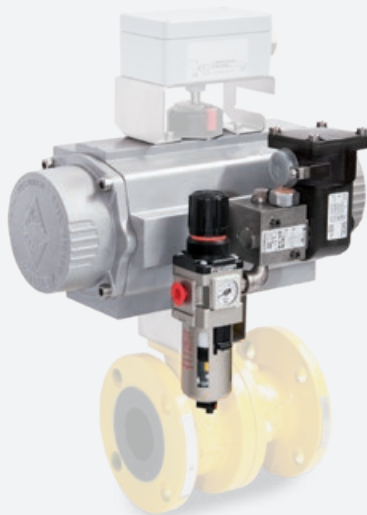
**ACTREG** has invested in quality assurance, state-of-the-art machining and testing facilities in order to assist customers in safely controlling their processes.



**ACTREG** engineers are happy to help you with your automation requirements.

## OUR MISSION

Is to be the world's most reliable company in actuators management through our industry expertise, innovative solutions and community commitment.



## RACK AND PINION Aluminium housing

TORQUES UP TO  
**6.500 Nm**

ACTUATORS IN  
**14 different sizes**

## CERTIFICATES

**ACTREG S.A.U.** has a Quality Management System certified in accordance with the requirements of ISO 9001:2015 for the design, development, manufacturing and distribution of pneumatic actuators and accessories for valves.

ADA/ASR 10 up to size 300 are classified as category SEP in accordance with Pressure Equipment Directive 2014/68/EU. ADA/ASR 500 up to size 4000 are classified as Category I, Procedure module A.

All **ACTREG** actuators are classified for use in potentially explosive atmospheres as Group II Category 2, suitable for zones 1, 2, 21 and 22 in accordance with directive 2014/34/EU "ATEX".

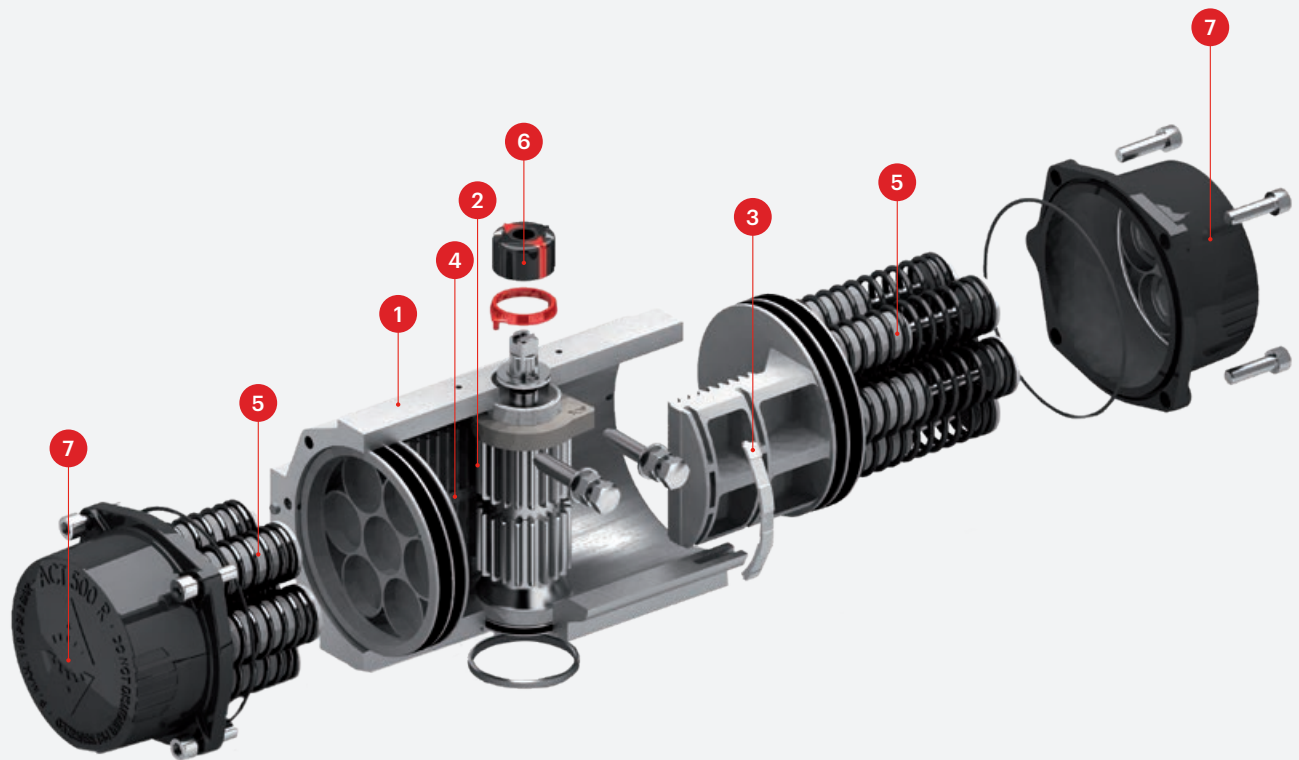
All **ACTREG** actuators are tested and certified according to IEC61508:2010 and have a SIL3 capability. In addition, we can supply the final elements loops for SIF, with a full SIL calculations including valves and ancillaries, so we can provide a SIL certificate for the complete final element units.

TR-CU (Technical Regulations of Customs Union) certificates for Eurasian countries (EAC).

TYPE approval for Pipping systems offshore standard, marine and machinery systems and equipment.



# MAIN FEATURES & CHARACTERISTICS



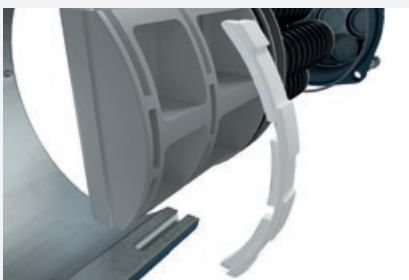
## 1 BODY

The body is hard anodized aluminum with low surface roughness making it extremely abrasion resistant. Every single actuator is tested and provided with a unique serial number for traceability. This heat number is stamped on the body.



## 2 RACK AND PINION TRANSMISSION DESIGN

In order to avoid backlash the ACTREG transmission gear has been optimized to have a zero backlash and zero pitch error. The internal rack and pinion of the actuator is uniquely designed, which ensures engagement of 3 teeth at all times during operation.



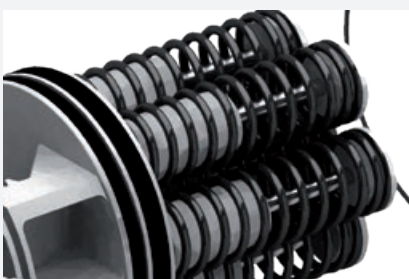
### 3 SLIDE GUIDE DESIGN

To avoid metal-to-metal internal friction between the piston and actuator body **ACTREG** uses a special slide guide with just 4 points friction, thus reducing wearing and increasing the torque output.



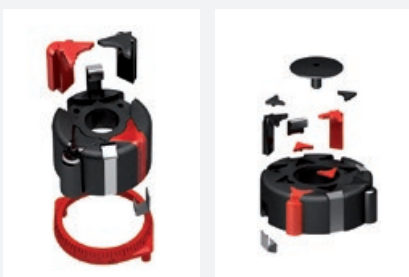
### 4 GUIDED PISTONS

**ACTREG** pistons have an integral guide to void axial movements and prevent stem blow out, whilst also increasing the life expectancy of the actuators.



### 5 SPRINGS

The pre-compressed springs cartridges allow an easy fit for the required torque to open or close the valve which offers safe replacement and manipulation.



### 6 POSITION INDICATOR

Multi-function indicator suitable for mechanical or inductive switches is a standard feature. There are many different combinations so no need for external indicators.



### 7 DIFFERENT END CAPS FOR SPRING OR DOUBLE ACTING

**ACTREG** differentiates the end caps for spring return or double acting actuators. This feature assists visual identification and the flat cap design results in reduced air consumption for the double acting iteration.

# TYPES OF ACTUATORS

## Double Acting & Spring Return

Rack and pinion design

Linear torque

Rotation angle  $90^\circ \pm 5^\circ$

Antifriction sliding bearings

Long life without maintenance

Mounting of solenoid valves acc. NAMUR Std.

Mounting of devices acc. NAMUR VDI/VDE 3845 Std.

Total safety for springs replacement

Coupling according to ISO 5211 and DIN 3337 (Octogonal drive)

Multi-function position indicator suitable for mechanical and inductive direct switches

### WORKING TEMPERATURE:

**-30 °C to 100 °C**

▶ in Standard Construction

**-15 °C to 150 °C**

▶ with FKM O-rings (high temperature execution)

**-40 °C to 80 °C**

▶ with Silicone O-rings (low temperature execution)

**-60 °C to 80 °C**

▶ with Silicone O-rings, (extreme low temperature)

### MAXIMUM WORKING PRESSURE:

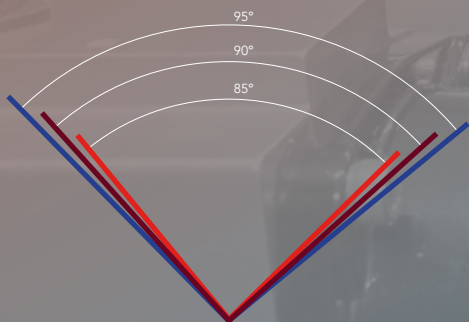
8 bar (116 psig).  
(Except ADA10 at 10 barg)

## Bi-Directional Travel Stops

ACTREG pneumatic actuators are provided with bi-directional pinion travel stops.

Side located stops allow a full  $\pm 5^\circ$  travel adjustment between  $85^\circ$  and  $95^\circ$ . These travel stops are designed to absorb the maximum rated torque of the actuator and the maximum impact loads associated with recommended travel speed.

Adjustment of the travel limits are accomplished by unscrewing the locking nuts, turning the respective left and right stop studs to reduce or increase the travel angle and screwing the locking nuts.



## Coatings for special applications

Actreg Pneumatic actuators are protected against external corrosion by proper material selection or surface treatment.

### STANDARD EXECUTION Anticorrosive C3 according to EN-ISO 12944-2

PARTS	DESCRIPTION	COATING
BODY	Hard anodized	25-30 $\mu\text{m}$
END CAPS	Epoxy painted	80-90 $\mu\text{m}$
STEM	Carbon Steel + ENP	25-30 $\mu\text{m}$
SCREWS	A2	

### EXECUTION A Anticorrosive C5 according to EN-ISO 12944-2

PARTS	DESCRIPTION	COATING
BODY	Epoxy painted	200-300 $\mu\text{m}$
END CAPS	Epoxy painted	140-180 $\mu\text{m}$
STEM	SS 316	25-30 $\mu\text{m}$
SCREWS	A4	

### EXECUTION B Anticorrosive C4 according EN-ISO 12944-2

PARTS	DESCRIPTION	COATING
BODY	Epoxy painted	80-90 $\mu\text{m}$
END CAPS	Epoxy painted	80-90 $\mu\text{m}$
STEM	Carbon Steel + ENP	
SCREWS	A2	





**ADA**  
DOUBLE ACTING ACTUATOR



**ASR**  
SPRING RETURN ACTUATOR

## Multifunction position indicator ACTREG & P+F partnership



Inductive switch indicating open or closed position



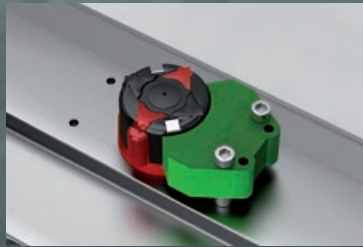
Mechanical switches indicating open and close



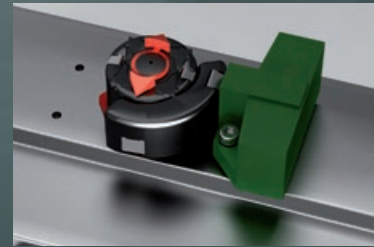
Inductive switches indicating open and closed position



Namur connection for direct mounting switch box



Inductive switches indicating open and closed position (45° detecting switches...)



Inductive switches indicating open and closed position (up/down detecting switches...)

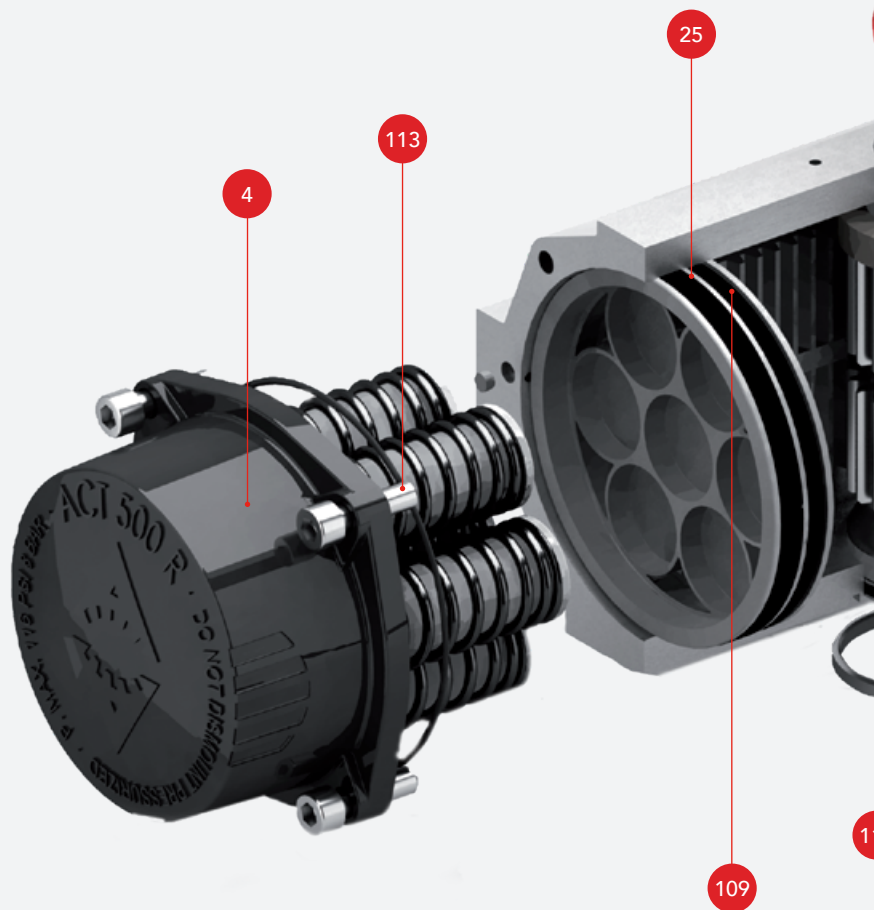
**New position indicator** (standard on high performance actuators) suitable for dual sensors. Includes 3D visual degrees and open/close indications.



# PARTS & MATERIALS

- 1 Body**  
Aluminium Hard Anodized
- 2 Piston**  
Aluminium
- 3 Pinion**  
Nickel Plated Carbon Steel
- 4 End Caps**  
Aluminium Epoxy Coated
- 5 Soft Pinion Washer \***  
Polyamide PA 6,6
- 6 Slide Piston \***  
Polyamide PA 6,6 + 30% G.F.
- 7 Lug \*\***  
Nickel Plated Carbon Steel
- 8 Pinion Washer**  
Stainless Steel
- 10 Upper Pinion Bearing**  
Polyamide PA 6,6 (bronze for sizes 500 and 2100)
- 12 Stop**  
ASTM A 105
- 14 Spring's Long Support**  
Polyamide PA 6,6
- 15 Spring's Short Support**  
Polyamide PA 6,6
- 16 Leveling Screw**  
Stainless Steel
- 18 Bolt**  
Stainless Steel
- 19 Spring**  
DIN 2076 · D-5.6
- 20 Position Indicator**  
Polypropylene
- 21 Cam**  
Polypropylene
- 23 Centering Ring**  
Nickel Plated Carbon Steel
- 25 Slide Guide \***  
Polyamide PA 6,6 + 30% G.F.
- 26 Lower Pinion Bearing \***  
Polyamide PA 6,6
- 109 O-Ring \***  
NBR
- 110 O-Ring \***  
NBR
- 111 O-Ring \***  
NBR

## SPRING RETURN ACTUATOR (ASR)



- 113 Bolt**  
Stainless Steel
- 118 O-Ring \***  
NBR
- 119 O-Ring \***  
NBR
- 125 Washer**  
Stainless Steel
- 471 Slip Washer \***  
Stainless Steel
- 934 Nut**  
Stainless Steel
- 985 Nut**  
Stainless Steel

## POSITION INDICATOR

FROM SIZE 20 TO 850

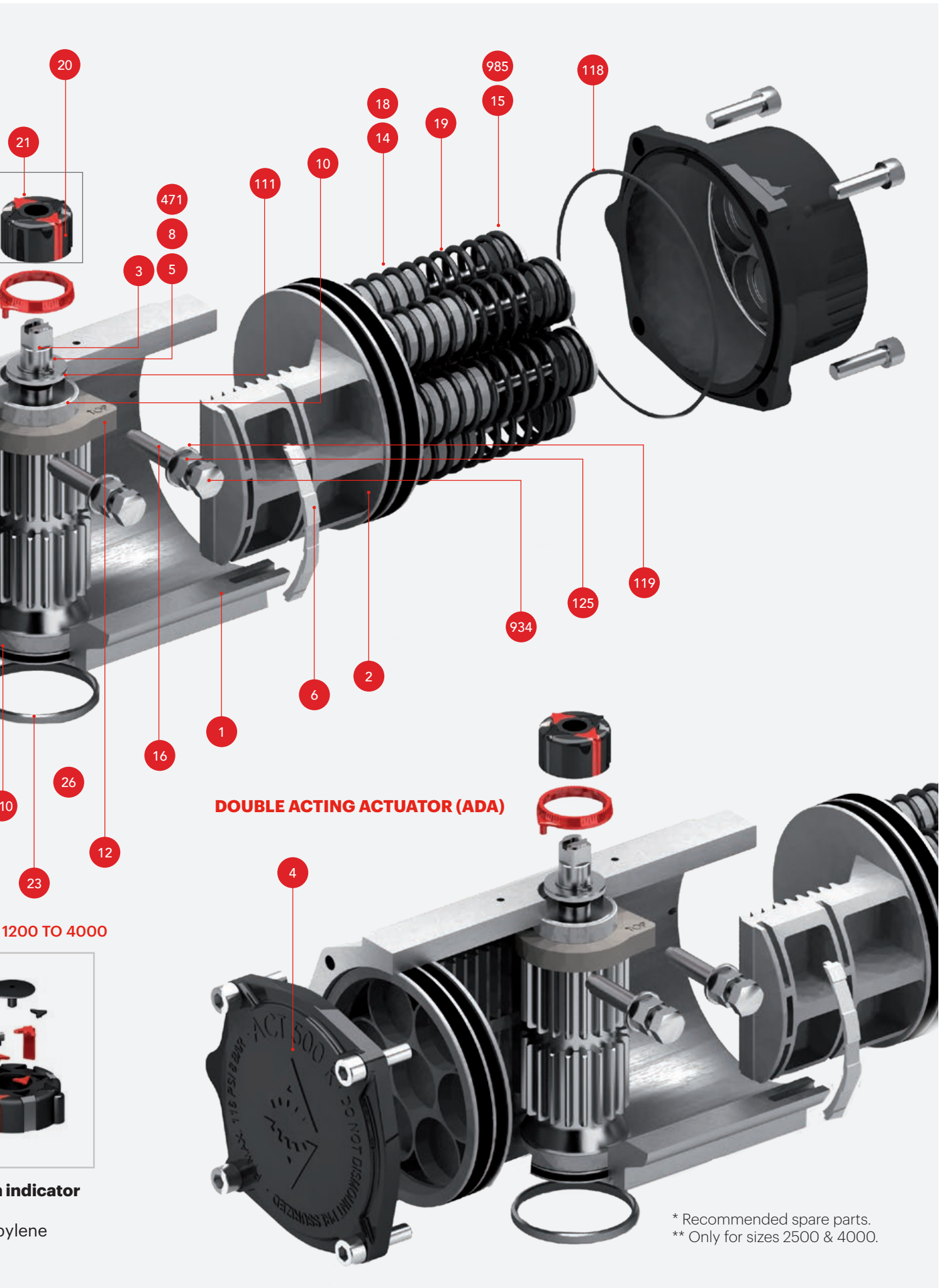
FROM SIZE



**Inserts**  
Stainless Steel



**Position & Cams**  
Polypropylene



## SPECIAL EXECUTIONS



### **HIGH PERFORMANCE ACTUATORS**

Special actuators with C5 painted, quad rings for dynamic seals, stainless 316 pinions and A4 screws, special position indicator 3D.



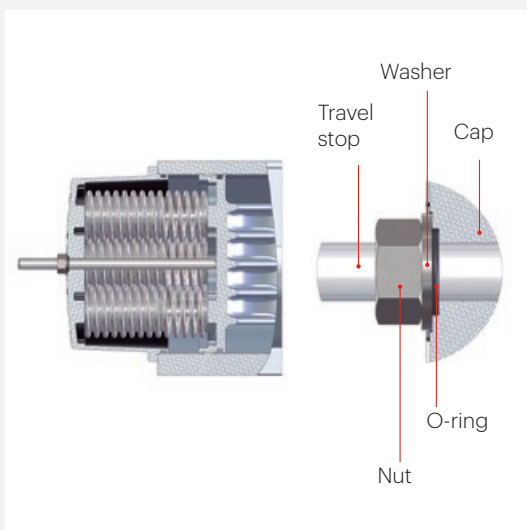
### **LOCKING DEVICE WITH PADLOCK**

In order to mechanically block the actuator and open or close position, Actreg actuators can be supplied with special stopper, longer adjustment screws and padlock preventing undesirable manipulation.



### **FAST ACTING ACTUATORS**

We can guarantee a close/open time in less than 0.5 seconds for all sizes. These actuators are suitable to achieve a very short time in emergency operation or pneumatic operation.



## 100% TRAVEL ADJUSTMENT STROKE

The stroke adjustment arrangement is possible in only one direction (open/or close). This adjustment stroke allows us to mechanical block the actuator to the desired degrees, from 0° to 90°.



## FIREPROOF ACTUATORS

Refineries, gas processing, petrochemical or offshore installation is a major cause of concern for fire and explosion. We offer different options from fixed passive protections up to full fire-retardant enclosures.



## PRIVATE LABELLING ACTUATORS

Actreg offers a complete private labelling actuators with different colours and custom label design to convert Actreg actuators in another required trademark.

## OTHER PRODUCTS

Check out the rest of our range of specialized products to complement your needs.



### SY SERIES

Heavy duty applications

Hydraulic or pneumatic actuators

Scotch yoke design

Up to 258616 Nm in double acting and 111245 Nm in Spring return

Modular design

ATEX / CE / VDI/VDE 3845 / ISO 5211



### SK SERIES

Compact pneumatic actuators

Scotch yoke design

Steel construction

Namur connection for solenoid valves

VDI/VDE 3845

ATEX, SIL3, PED



### LINEAR PISTON ACTUATORS

Steel actuators for heavy duty applications

Hydraulic or pneumatic

Up to 400.000 N

Spring return or double acting



### SWITCH BOXES

Micromechanical switches or inductive switches

Inductive switches for direct mounting

ATEX execution



### DECLUTCHABLE GEAR BOXES

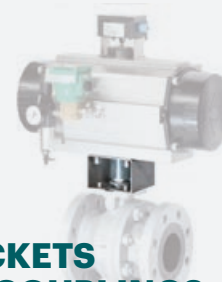
Aluminium Housing

Sealed to IP-65

ACTREG's Actuators direct mounting

Compact design-low weight

Double adjustment stroke



### BRACKETS AND COUPLINGS

Stainless steel, carbon steel or other materials upon request

Machined for every kind of valve



### PNEUMATIC CONTROL DESIGNS

Solenoid valves, filters, quick exhaust valves, tubing, regulators...

Line Break systems

Emergency shut down systems

Design and manufacturing control cabinets



### SPECIAL ACTUATORS

Fire-proof

Fast acting actuators

100% adjustment stroke actuators

Special coatings

Locking device



### AIR RESERVOIRS

Up to 3000 Liters

PED or "U" stamp

Carbon steel, stainless steel, special alloys

# Always looking for maximum reliability

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**[www.actreg.com](http://www.actreg.com)**



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