

## COMPANY PROFILE





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# ABOUT US

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Established in 1957 from the concept of Luciano Crespi, in 60 years of experience we have written the history of electrohydraulics

Now we are a Group operating in more than 80 countries, with 8 production sites in Italy, China, USA and India with over 750 professionals who share the same passion for innovation, technology and creativity

We are specialists, 100% dedicated to electrohydraulics, in a constant search of innovative solutions for any application, from the industrial ones with our high-performance axis controls, to the explosion-proof line for hazardous locations and the stainless steel one for corrosive environments and fluids



# MISSION

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We believe in the  
**value of technology** and  
we are constantly searching  
for **innovation** and **quality**  
thanks to our **people's value**



# ATOS GROUP

## NUMBERS

  
**170**  
MILLION  
TURNOVER

  
**750**  
EMPLOYEES

  
**70.000**  
M<sup>2</sup> PLANTS

  
**10%**  
INVESTMENTS R&D  
ON TURNOVER

  
**75**  
QUALITY  
STAFF

  
**1,5**  
MILLION  
COMPONENTS

  
**>100.000**  
PROPORTIONAL  
VALVES / YEARS

  
**15**  
MILLION  
FITTINGS

## PRODUCTION SITES



**Sesto Calende (VA)** - 27.000 m<sup>2</sup>

**Modena** - 6.000 m<sup>2</sup>

**Trieste** - 3.000 m<sup>2</sup>

**Angera (VA)** - 5.000 m<sup>2</sup>

**Inverio (NO)** - 10.000 m<sup>2</sup>



**Shanghai** - 7.000 m<sup>2</sup>



**York (PA)** - 5.000 m<sup>2</sup>



**Ahmedabad** - 7.000 m<sup>2</sup>



# ATOS GROUP

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## ORGANIZATION

### ATOS DIVISIONS

**VALVES** - proportionals & on-off - SESTO CALENDE, TRIESTE, SHANGHAI, YORK (PA), AHMEDABAD

**ELECTRONICS** - digital drivers, controllers & transducers - SESTO CALENDE

**CYLINDERS** - cylinders & servocylinders - MODENA

**PUMPS & SERVOPUMPS** - vane, piston & internal gear - SESTO CALENDE

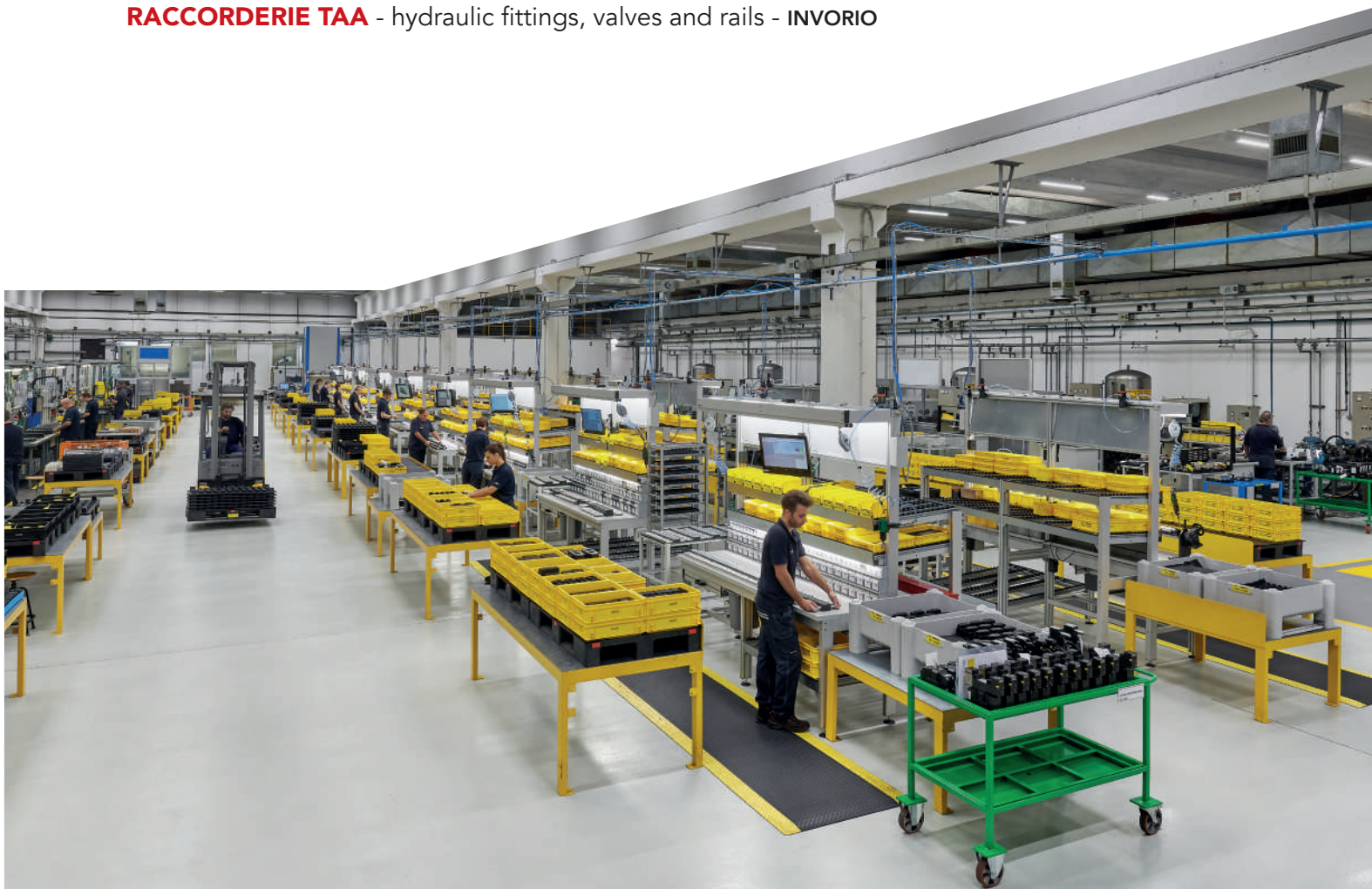
**FILTERS** - in line, return line, suction - SESTO CALENDE

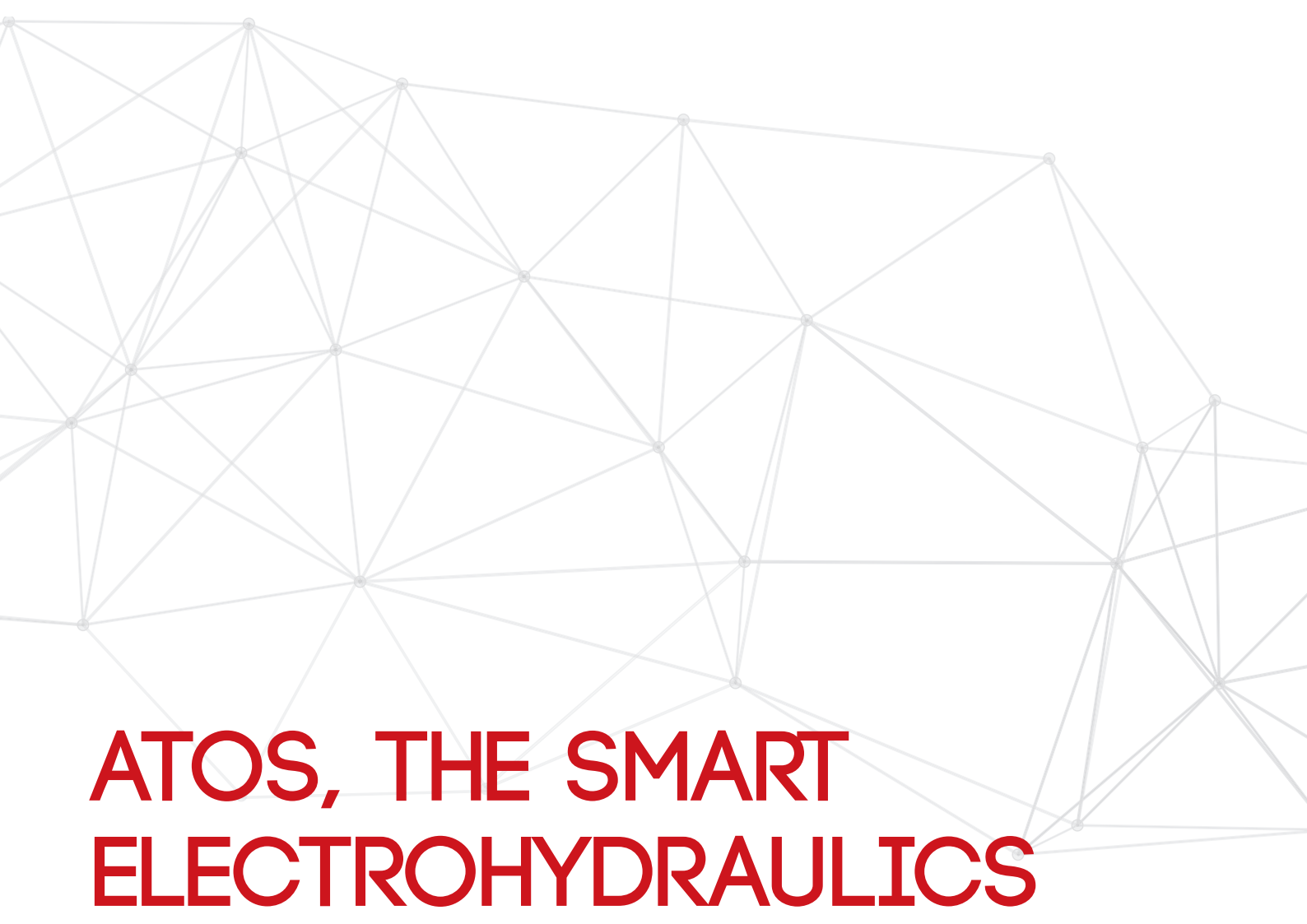
**SYSTEMS** - power units, blocks & servoactuators - ANGERA, SHANGHAI, YORK (PA), AHMEDABAD

### ATOS GROUP COMPANIES

**ATOS INDUCTION** - induction heating systems - SESTO CALENDE

**RACCORDERIE TAA** - hydraulic fittings, valves and rails - INVORIO





# ATOS, THE SMART ELECTROHYDRAULICS

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Smart Electrohydraulics is the vision that sums up the four values leading our actions: **responsibility**, **excellence**, **innovation** and **passion**

For Atos, being Smart means courage and determination to define new standards of excellence. A new approach in which each process is analysed and optimized: from design to production, from delivery to after-sales service

Smart Electrohydraulics is our response to market demands for advanced solutions that are easy to install and use



## SMART COMPANY

Technology and innovation drive the research into new sustainable and efficient solutions

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## SMART PRODUCTS

Atos products are unique in terms ease of use, intelligence and automation, always keeping the highest standards of reliability and safety

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## SMART PEOPLE

Our people act as a team, motivated to grow and encouraged to propose innovative ideas and improvements in all business fields

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## SMART PARTNER

Our relationships are transparent, reactive and proactive, in the spirit of collaboration which only a passionate approach can generate

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# SMART

# ATOS

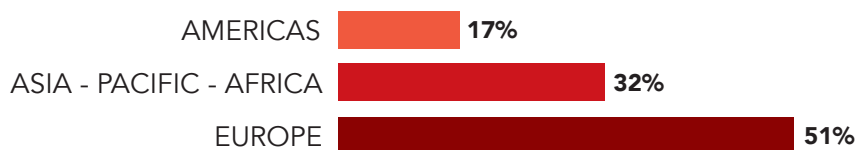
## WORLDWIDE

A sales network with 25 branches, 120 sales professionals and distributors in more than 80 countries, together with great responsiveness and focus on customers.

This is how our relationships become real partnerships



## SALES BY GEOGRAPHIC AREA



# ATOS

## NUMBERS

Proportional valves/year **over 100000**

**100%  
DIGITAL**



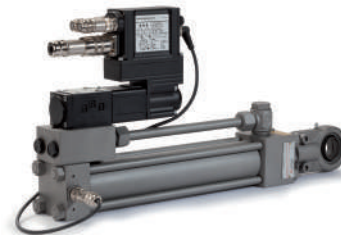
over **500000** NG6 on-off valves/year



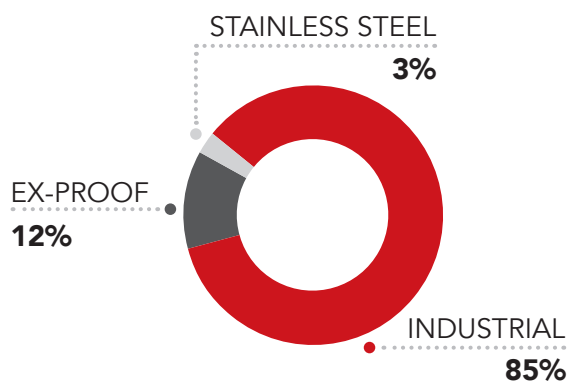
Ex-proof valves/years **over 40000**



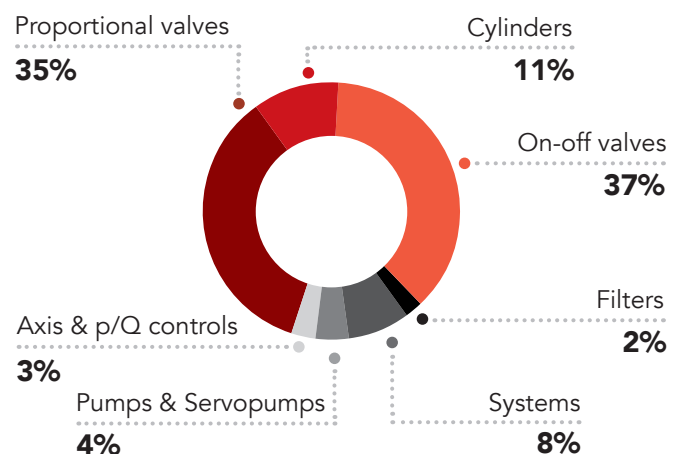
over **30000** Cylinders/year,  
10% are servocylinders



### SALES BY PRODUCT LINES



### SALES BY PRODUCT CATEGORIES



# THE ATOS DIFFERENCE

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## ATOS WINNING MIX

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Atos offers a unique and winning mix with the organization and methods of a multinational combined with the flexibility, responsiveness, service and customer focus, typical of a private company:

- 4 weeks delivery with 3 days ultra-fast channel
- 15% of Atos production tailored according to customer requirements
- exclusive configuration software for simple and guided selection of any product within the range
- pre and after-sales support network, directly supported and coordinated by the Headquarters

## TECHNOLOGY

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Our focus is innovation, developed through laboratory research, CFD/FEM analysis and simulations of extreme environments

We internally develop all the electro-hydraulic know-how: fluidics, mechanics and electronics, in order to quickly provide solutions for any application

## QUALITY

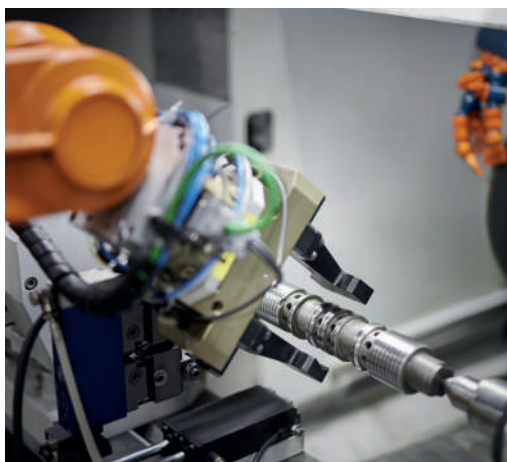
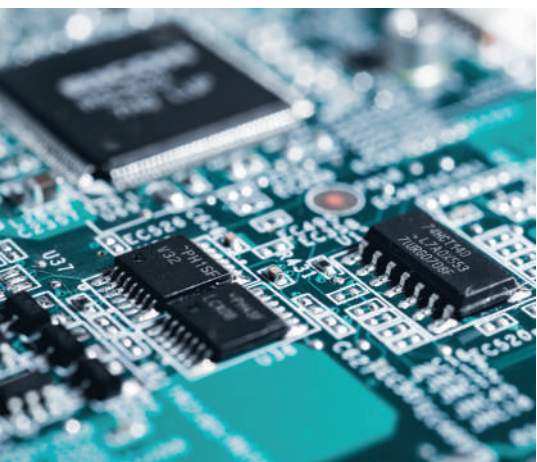
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Quality is the company's mission at all levels.

Atos is certified according to the main international standards, with the application of IATF automotive methods:

- ISO 9001 - Quality Management
- ISO 14001 - Environmental Management
- ISO 45001 - Health & Safety Management

A long list of certifications confirm the quality of Atos



# THE ATOS DIFFERENCE

## 100% DIGITAL ELECTROHYDRAULICS

The Atos proportional range sets new standards for industrial hydraulics



Atos CONNECT App and PC software allow easy access to configurations, advanced diagnostics, alarms history and built-in oscilloscope

Industry 4.0 fieldbus provide real-time access to functional parameters, diagnostics, transducers and feedback



## SMART TUNING

The multiple dynamic configurations allow Atos proportionals to adapt their functional characteristics to any application or specific phase of a work cycle, thus simplifying the system start up

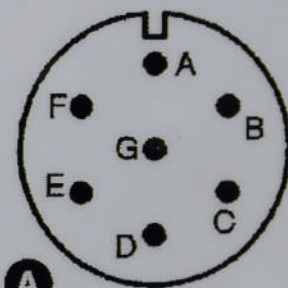
Each dynamic configuration can be easily customized with specific settings



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**E-RI-TEB-N-NP-01H**

DLHZO-TEB-SN-NP-040-L01 1



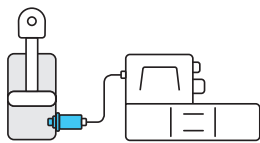
T-966

A: MAIN  
A: V+ ext.  
B: V0  
C: AGND  
D: Q\_INPU

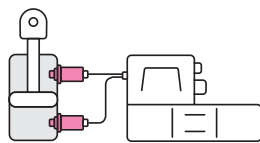
# THE ATOS DIFFERENCE

## P/Q CONTROLS

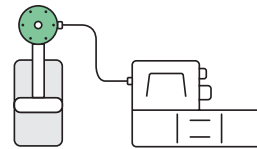
Integrate max pressure or force control to the standard flow regulation of proportional valves and pumps



**pressure control**  
1 pressure transducer



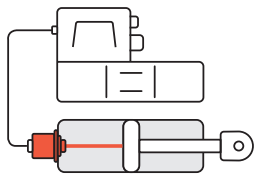
**force control**  
2 pressure transducers



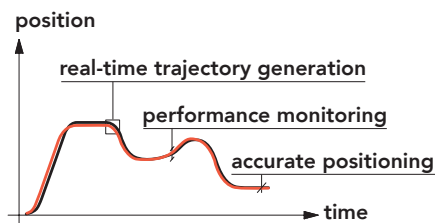
**force control**  
load cell

## AXIS CONTROLS WITH AUTOTUNING

Smart proportionals with on-board axis control cards perform position & speed control of any hydraulic actuator, increasing their performance



**motion control**  
position transducer



Available in p/Q executions for max force limiting during the motion cycle

## SAFETY ELECTROHYDRAULICS

Proportional and on-off safety valves are designed and developed in compliance with international standards:

- IEC 61508 & ISO 13849
- Machine Directive 2006/42/EC
- PED Directive 2014/68/EU

They are certified by DEKRA or TÜV for functional safety



# THE ATOS DIFFERENCE

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## ECP - ENHANCED CORROSION PROTECTION

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The exclusive Atos galvanizing process guarantees excellent surface protection for aggressive environments



## SPECIAL FLUIDS

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A range of options dedicated to Atos products, permits full compatibility with fire-proof or eco-friendly fluids



## LOW TEMPERATURES

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Atos components are available in specific executions to make them perform optimally even in cold environments



# THE ATOS DIFFERENCE

## HAZARDOUS ATMOSPHERES

The Atos Ex-proof line is certified to safely operate in mining or surface environments with potentially explosive mixtures of liquid, gas and dust



EUROPE



INTERNATIONAL



EURASIAN



NORTH AMERICA



CHINA



CHINA



INDIA



JAPAN

Flame-proof proportionals with on-board electronics allow solutions developed for industrial sector to be extended also to hazardous locations

Intrinsically safe valves provide the highest protection level in environments with very high risk of explosion - up to Zone 0

## EXTREME ENVIRONMENTS

The stainless steel line provides the highest resistance to low temperatures, corrosive environments and fluids



**X FULL**  
STAINLESS STEEL

**XS EXTERNAL**  
STAINLESS STEEL

**XW INTERNAL**  
STAINLESS STEEL

Stainless steel components can be supplied with Ex-proof certifications to operate in hazardous environments

# THE ATOS RANGE

## PRODUCT LINES

The Atos range is represented by 3 product lines and 7 categories to provide easy access to the wide and ever-evolving product portfolio



### INDUSTRIAL

High performance hydraulics meet advanced digital technology



#### SECTORS:

- Manufacturing
- Defense
- Wind
- Construction
- Agriculture
- Transportation



### EX-PROOF

Engineered for safe operation in hazardous environments



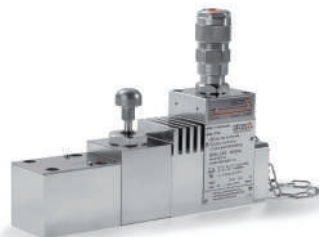
#### SECTORS:

- Oil & gas
- Mining
- Energy



### STAINLESS STEEL

The highest resistance to corrosive environments and fluids

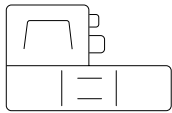


#### SECTORS:

- Marine
- Chemical
- Food

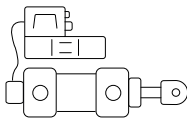
# THE ATOS RANGE

## PRODUCT CATEGORIES



### PROPORTIONAL VALVES

A unique range, from simple valves without transducers to servoproportionals



### AXIS & p/Q CONTROLS

Servosystems with digital axis cards for position, speed and force control of any hydraulic actuator



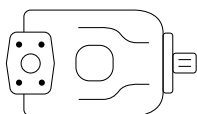
### ON-OFF VALVES

A full range of reliable components to satisfy the most demanding applications



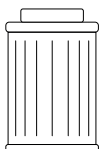
### CYLINDERS

ISO executions with rugged design, engineered for high speeds, low friction and extended operative life



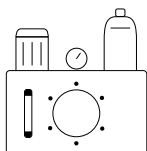
### PUMPS & SERVOPUMPS

Fixed or variable displacement, for high pressure applications with low noise and long service life



### FILTERS

Equipped with high efficiency microfiber elements for optimal fluid cleanliness



### SYSTEMS

Power units and hydraulic blocks tailored for any hydraulic application, environment and working condition



# PROPORTIONAL VALVES



## SERVOPROPORTIONAL DIRECTIONALS

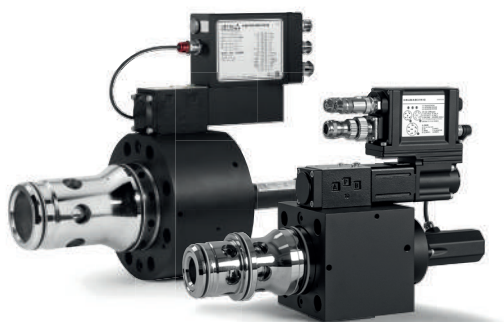
For high precision motion controls.  
Zero overlap executions with LVDT transducers

- 4/4, 4/3 way • ISO sizes 06 ÷ 35
- Qmax 3.500 l/min • Pmax 350 bar

## HIGH PERFORMANCE DIRECTIONALS

Positive overlap executions with LVDT transducers  
for high dynamic directional and speed controls

- 4/3, 4/2 way • ISO sizes 06 ÷ 35
- Qmax 3.500 l/min • Pmax 350 bar



## SERVOCARTRIDGES

High flow for highest dynamic control.  
With 2 LVDT transducers

- 3 way • sizes 25 ÷ 80
- Qmax 5.000 l/min • Pmax 420 bar

## HIGH PERFORMANCE CARTRIDGES

High flow speed controls with ultra-fast  
response time. With 2 LVDT transducers

- 2 way • ISO sizes 16 ÷ 125
- Qmax 25.000 l/min • Pmax 420 bar



## DIRECTIONALS

Full range of proportionals without LVDT transducers

- 4/3, 4/2 way • ISO sizes 06 ÷ 32
- Qmax 1.500 l/min • Pmax 350 bar

## FLOW CONTROLS

Pressure compensated speed controls.  
With or without LVDT transducers

- 2, 3 way • ISO sizes 06 ÷ 10
- Qmax 90 l/min • Pmax 210 bar



# PROPORTIONAL VALVES



## HIGH PERFORMANCE PRESSURE RELIEF

With pressure transducer for best accuracy and repeatability

- 2 way • ISO sizes 06 ÷ 32
- Qmax 600 l/min • Pmax 350 bar

## HIGH PERFORMANCE PRESSURE REDUCING

With pressure transducer for best accuracy and repeatability

- 2, 3 way • ISO sizes 06 ÷ 20
- Qmax 300 l/min • Pmax 350 bar



## PRESSURE RELIEF

Without pressure transducer

- 2 way • ISO sizes 06 ÷ 32
- Qmax 600 l/min • Pmax 350 bar

## PRESSURE REDUCING

Without pressure transducer

- 2, 3 way • ISO sizes 06 ÷ 20
- Qmax 300 l/min • Pmax 350 bar



## PRESSURE RELIEF CARTRIDGES

High flow with compact block design.  
With or without pressure transducer

- 2 way • ISO sizes 16 ÷ 80
- Qmax 4.500 l/min • Pmax 350 bar

## PRESSURE REDUCING CARTRIDGES

High flow with compact block design.  
With or without pressure transducer

- 2 way • ISO sizes 16 ÷ 40
- Qmax 800 l/min • Pmax 350 bar

\* All proportional valves are available with or without digital on-board drivers

# PROPORTIONAL VALVES



**SAFETY  
CERTIFIED**



## SAFETY PROPORTIONALS

Directional valves integrating safety functions.  
IEC 61508 & ISO 13849 certified

4/4, 4/3, 4/2 way • ISO sizes 06 ÷ 35  
Q<sub>max</sub> 3.500 l/min • P<sub>max</sub> 350 bar



## EMERGENCY HAND LEVERS

Auxiliary manual override to operate  
the valve in case of emergency



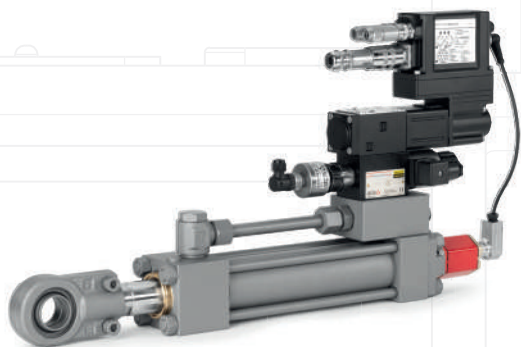
## DIN-RAIL ELECTRONIC DRIVERS

For directional, flow and pressure valves.  
Off-board executions suitable for electrical cabinet  
installation in case of aggressive environments,  
excessive temperatures and vibrations





# AXIS & P/Q CONTROLS



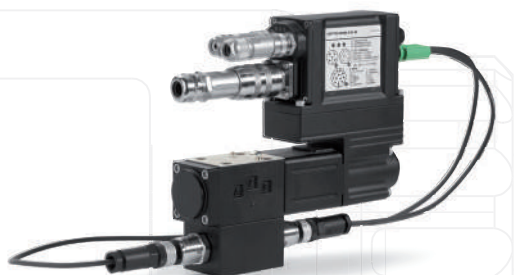
## AXIS CONTROLS

Servoproportional directional valves with on-board digital axis card

- 4/4, 4/3 way • ISO sizes 06 ÷ 35
- Qmax 3.500 l/min • Pmax 350 bar

## SERVOACTUATORS

Smart and compact units that integrate servocylinder and axis control valve to fully manage the motion cycle



## p/Q CONTROLS

Force or pressure controls for servoproportional and high performance directionals

- 4/4, 4/3 way • ISO sizes 06 ÷ 35
- Qmax 3.500 l/min • Pmax 350 bar
- 3 way • sizes 25 ÷ 80
- Qmax 5.000 l/min • Pmax 420 bar



## p/Q AXIAL PISTON PUMPS

High dynamics & accurate p/Q electronic control with power limiting

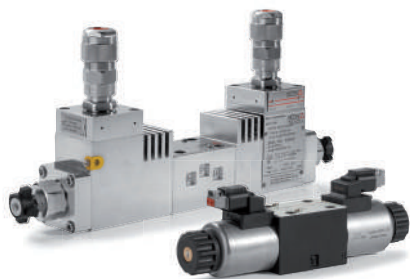
- Pumps displacement 29 ÷ 140 cm<sup>3</sup>/rev
- Pmax 280/350 bar



## DIN-RAIL AXIS CARDS

Off-board executions suitable for electrical cabinet installation. With or without valve drivers and p/Q control

# ON-OFF VALVES

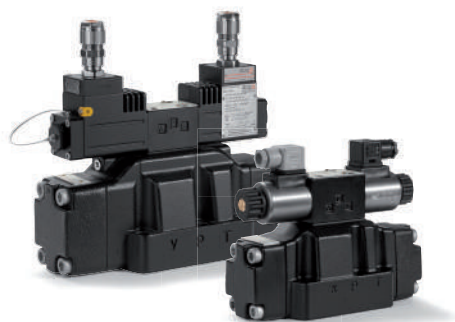


## DIRECT SOLENOID DIRECTIONALS

DIN, AMP, Deutsch or lead wire connections.

Low leakage and/or low power 8/15 W executions

- 4/3, 4/2, 3/2 way • ISO sizes 06 ÷ 10
- Qmax 150 l/min • Pmax 350/420 bar



## PILOTED SOLENOID DIRECTIONALS

DIN, AMP, Deutsch or lead wire connections

- 4/3, 4/2, 3/2 way • ISO sizes 10 ÷ 32
- Qmax 1.000 l/min • Pmax 350 bar



## LEAK FREE

Directional solenoid valves with zero leakage

- 2, 3 way • sizes up to 1"5/16
- Qmax 300 l/min • Pmax 350 bar



## MECHANICAL, HYDRAULIC, PNEUMATIC

Mechanical, hydraulic or pneumatic operated

- 4/3, 4/2, 3/2 way • ISO sizes 06 ÷ 32
- Qmax 1.000 l/min • Pmax 350 bar



# ON-OFF VALVES

**SAFETY  
CERTIFIED**



## SAFETY DIRECTIONALS

With inductive sensors to monitor the spool position in compliance with Machine Directive 2006/42/EC

- 4/3, 4/2, 3/2 way • ISO sizes 06 ÷ 25
- Qmax 700 l/min • Pmax 350 bar



## PRESSURE RELIEF

Subplate, screw-in and in-line executions

- 2 way • sizes up to ISO 32
- Qmax 600 l/min • Pmax 350 bar

## PRESSURE REDUCING

- 2 way • ISO sizes 06 ÷ 32
- Qmax 400 l/min • Pmax 350 bar

## SEQUENCE & UNLOADING

- 2 way • ISO sizes 06 ÷ 32
- Qmax 600 l/min • Pmax 350 bar

**SAFETY  
CERTIFIED**



## PRESSURE EQUIPMENT DIRECTIVE

Pressure relief valves PED certified. Subplate, screw-in and in-line executions

- 2 way • sizes up to ISO 32
- Qmax 600 l/min • Pmax 420 bar



## INTRINSICALLY SAFE

The electronic barrier limits the power to 2 W

### Directional solenoid valves

- 4/3, 4/2, 3/2 way • ISO sizes 06 ÷ 25
- Qmax 700 l/min • Pmax 350 bar

### Leak free solenoid valves

- 2, 3 way • ISO size 06
- Qmax 12 l/min • Pmax 350 bar

# ON-OFF VALVES



## HIGH FLOW CARTRIDGES

Directional, pressure, flow & check controls

- 2 way • ISO sizes 16 ÷ 100
- Qmax 9.000 l/min • Pmax 420 bar



## SAFETY CARTRIDGES

With functional covers integrating inductive sensor to monitor poppet position

- 2 way • ISO sizes 16 ÷ 100
- Qmax 7.500 l/min • Pmax 420 bar

## CHECK

Screw-in, subplate, in-line executions

- 2 way • sizes up to ISO 32
- Qmax 500 l/min • Pmax 350 bar



## FLOW

Pressure compensated valves

- 2 way • ISO size 06
- Qmax 24 l/min • Pmax 250 bar

Throttle valves

- 2 way • sizes G 3/8 ÷ G 1 1/4
- Qmax 250 l/min • Pmax 400 bar

## PRESSURE SWITCHES

Mechanical or electronic



## MODULARS

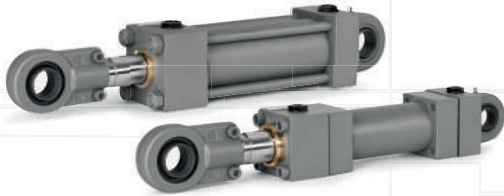
Directional, flow, check, pressure relief, reducing, compensator and sequence controls

- 4/3, 4/2, 3/2 way • ISO sizes 06 ÷ 25
- Qmax 300 l/min • Pmax 350 bar

atos



# CYLINDERS



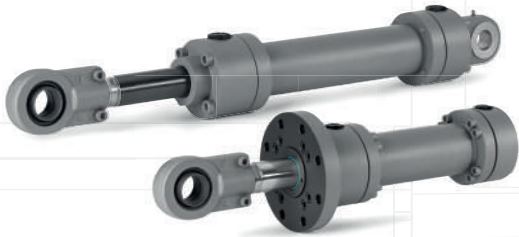
## SQUARE HEADS

With tie-rods

- ISO 6020-2 • bore  $\varnothing$  25 ÷ 200 mm
- Max speed 4 m/s • Pmax 250 bar

With counterflanges

- ISO 6020-2/3 • bore  $\varnothing$  63 ÷ 400 mm
- Max speed 4 m/s • Pmax 250 bar



## ROUND HEADS

With counterflanges

- ISO 6020-1 • bore  $\varnothing$  40 ÷ 200 mm
- Max speed 4 m/s • Pmax 250 bar

With counterflanges

- ISO 6022 • bore  $\varnothing$  50 ÷ 320 mm
- Max speed 4 m/s • Pmax 320 bar



## SERVOCYLINDERS

Low friction with built-in position transducers.  
Safety executions integrate IEC 61508 certified transducers and/or rod locking systems



## SPECIAL CYLINDERS

For demanding applications and harsh environments.  
On request: ceramic rod treatments, Geomet coatings or stainless steel executions

# PUMPS & SERVOPUMPS



## SERVOPUMPS

High performance and energy saving  
variable speed servopumps with p/Q control

- Fixed displacements  $11 \div 125 \text{ cm}^3/\text{rev}$   
Qmax 350 l/min • Pmax 250/330 bar



## VANES

- Fixed displacements  $10 \div 150 \text{ cm}^3/\text{rev}$   
Pmax 210/300 bar

## RADIAL PISTONS

- Fixed displacements  $2 \div 15 \text{ cm}^3/\text{rev}$   
Pmax 350/500 bar



## AXIAL PISTONS

Pressure, flow, load sensing,  
constant power or p/Q controls

- Variable displacements  $29 \div 160 \text{ cm}^3/\text{rev}$   
Pmax 280/350 bar

## MULTIPLE

Modular assembly with fixed or variable  
displacement pumps for flexible  
hydraulic power management

# FILTERS



## IN LINE

- Filtration ratings F03 ÷ F20  
Qmax 450 l/min • Pmax 420 bar

## RETURN LINE

- Filtration ratings F06 ÷ F25  
Qmax 750 l/min • Pmax 8 bar

## SUCTION

- Filtration ratings W125  
Qmax 450 l/min



# SYSTEMS



## POWER UNITS

For industry, Oil&Gas, energy and marine sectors.  
Engineered for 24/7 operation, remote control  
and energy saving

Certified according to PED or Machine Directive,  
conform to CE regulations

Stainless steel executions for operations in aggressive  
environments or with water-based fluids.  
Certified by ABS, BV, DNV GL, RMRS,  
RINA, CCS, DEKRA, TÜV



## BLOCKS

Standard or special executions  
with CE, PED or safety certifications.  
Cast iron, stainless steel,  
carbon steel or aluminium alloy



## MODULAR GROUPS

Modular compositions obtained  
by assembling ISO standard  
components

# THE ATOS WAY

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## SOLUTION PROVIDER

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Strong electrohydraulic experience makes Atos the ideal partner for the selection of innovative systems aimed at improving the machinery performance, also meeting special requirements

## SERVICE CENTERS

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Thanks to the worldwide network of official service centers, Atos provides high-level after-sales technical support. The highly qualified staff is trained to provide overhaul and repair services on the whole product range, using only original spare parts covered by warranty

## SEMINARS & TRAININGS

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Atos provides continuous technical training for internal personnel and customers through specific seminars covering the latest developments in electrohydraulics





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