

Desenvolvedor, fabricante e reparador de cilindros hidráulicos desde 1976 Designer, manufacturer and repairer of hydraulic cylinders and systems since 1976



Designer, manufacturer and repairer of custom hydraulic cylinders and systems for all types of applications and industries, expert in heavy-duty and high-tech solutions.

Thanks to our experience and engineering skills, we develop the bestadapted solutions according to our customers specifications. Our products are fitted with state-of-the-art technologies to guarantee an extended lifetime in all kind of environments.

With large machining capacities and five decades of know-how, we are able to produce a wide range of cylinders, from standard designs to the most technical, and from small to extra-large dimensions.

As a provider of complete and tailor-made hydraulic solutions, our supply scope includes everything from the hydraulic power unit to the control panels.

REGNIER INDUSTRIES, a dynamic team of experts, committed to helping our customers for five decades.

## "A PIECE OF FRENCH INDUSTRIAL HISTORY"

In 1970's, Sir. Dominique REGNIER, with already years of experience in hydraulics, starts his own business with a 10.000,00 Francs fund (today more or less 3.000,00 USD). At this time, the staff of two, begin laying the foundations of what would become a highly reputed brand in the world of hydraulic equipment.

#### He has been created REGNIER

In 1982, following the development in the south of France, Sir. Dominique REGNIER decides to establish an autonomous production site in Aix-en-Provence to offer the advantage of proximity to an increasing number of customers in that region.

In 2010, Sir. Laurent REGNIER mechanical engineer takes over the group management. With an entrepreneurial and international spirit, he decides to open a firm in South America.

In 2014 the commercial office is created in the city of Rio de Janeiro, Brazil.

In 2016 a plant focused on hydraulic cylinders maintenance is inaugurated in the city of Serra, Espírito Santo, near the city of Vitória to serve its international clients.

Since that time, the company has continued to grow, developing its know-how and experience through a wide range of projects in ever expanding industrial sectors. To support this progress, sizeable investments have enabled our production capacities to increase and incorporate the technologies evolution in this sector. Furthermore, the design office uses the latest CAD and calculation solutions to develop REGNIER INDUSTRIES products.

In 2021, Sir Laurent REGNIER, , Managing Director has decided to buy the whole group without any help of his family to became the unique Owner and create REGNIER GROUP INDUSTRIES. A new era has been created.



#### **AN INTERNATIONAL GROUP**

# OUR INSTALLATIONS

Our facilities are strategically located in France and Brazil, nearby major ports and airports. REGNIER INDUSTRIES may easily deliver all around the world. Our units in Europe and Latin America allow us to offer our services worldwide.

#### NORTH" UNIT - FRANCE

- Hydraulic cylinders manufacture and maintenance factory;
- Close to CDG' airport and port of Le Havre.

#### SOUTH" UNIT - FRANCE

- Hydraulic cylinders manufacture and maintenance factory;
- Close to Marseille' airport and port.

#### 🗱 "RIO" UNIT - RIO DE JANEIRO - RJ - BRAZIL

- Sales and engineering office;
- Customer support team, close to Rio de Janeiro' port and airport.

#### VIX" UNIT - SERRA - ES - BRAZIL

- Sales and engineering office;
- Hydraulic cylinders manufacture and maintenance factory. Close to Vitória' airport and port. At few hours from the State of Rio de Janeiro and Minas Gerais, access to express via BR-101.





# ENGINEERING

## **OUR ENGINEERING SOFTWARE**

FINITE ELEMENTS ANALYSIS

Ø 600 +0.6

CAD/CAM 3D DESIGN

000

#### **OUR ASSETS**

## ENGINEERING

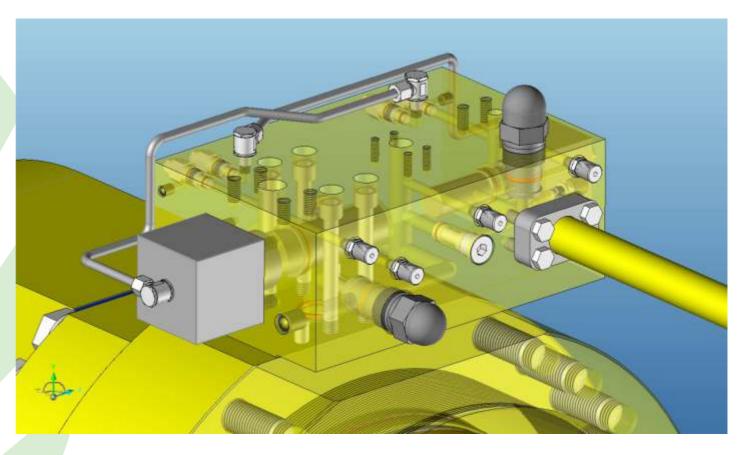
- Experienced team of engineers;
- Using state-of-the-art tools of CAD and calculation (Finite Element Analysis);
- Working closely with classification societies (DNV, GL, ABS,...);
- Dedicated to the project to ensure responsive exchanges with the customer's design office.

On every project, our engineers are committed to designing the best-adapted products to meet the operating conditions and environmental requirements - even the most challenging ones. As a true proactive partner, we strive to find reliable and cost-effective solutions for our customers.

Our expertise is based on years of design for a wide range of projects, and on the follow-up of our products while operating on production lines.

Our designs comply with general construction standards. Upon the customer's request, we will adapt our design to comply or exceed the requirements for certification from classification societies (DNV, GL, ABS,...).

Our design office uses the latest CAD and Finite Element Analysis Technologies.



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#### A Destinataire

Début

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## PROJECT MANAGEMENT OFFICE - PMP.

30%

60%

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10 Mai

## etude BE

#### conception 3D

prototypage

tion 3D

We can deal with large projects as well as unitary production thanks to our production process flexibility and the project management structure.

Consulting before and during the project. Beyond a simple quotation according to specifications, REGNIER INDUSTRIES as a proactive partner, offers the best-adapted technical and financial solutions to the customer's needs.

A team dedicated to the project, composed of a project manager, engineers and technicians.

Certifications management with certifying organisations such as DNV, Germanischer Lloyd, ABS, Bureau Veritas...

Understanding our customers' needs to get accurate and quick updates on the project progress, REGNIER INDUSTRIES has developed in partnership a tool to answer these requirements:

- Web system available on all workstation (computer, Tablet, Smart- phone...), via the link on our website;
- Standard cylinders 3D configurator;
- Access the planning, featuring real time progress rate;
- Comment and approval of drawing before manufacturing;
- Message board for project and tasks.

Our objective: continually improving information quality and responsiveness.

# PROJECT MANAGEMENT







#### HOW WE MASTER OUR CRAFT

## QUALITY

From its creation in 1976, REGNIER INDUSTRIES has made Quality Control an integral part of its business. At REGNIER INDUSTRIES, quality is more than a stamp, label or certificate it is a state of mind engrained in the firm culture, and a global commitment from every member of our team.

# REGNIER INDUSTRIES IS CERTIFIED NBR ISO 9001:2015



#### The Quality process:

- Manufacturing traceabillity: operators, machine, part coding ...;
- Materials traceabillity: coding, certificates;
- Documents traceabillity: all our technical file are archived FOR LIFE, since 1976;
- ITP;
- Data Book.

#### Mechanical control:

- Dimensions control: systematic control by operators, sampling by n+1. Measurement tools certified;
- Non Destructive Testing: Ultrasonic, Magnetic Particle inspection, liquid penetrant testing;
- Certificate provided.

Hydraulic controls:

- Systematic testing of every REGNIER INDUSTRIES product, certificate provided;
- (Static pressure test, stroke measurement...);
- Test bench (300 L/min, 5000 L, 600 bars and 900 bars).

#### Qualifications:

- Welders: all our procedures and welders are certified (WPS, WPQ, WPQR);
- Painting: process mastered in-house, ACQPA according to C5Ma.

#### Certifications:

- Certifications management with third party certifying organizations such as;
- DNV, Germanisher Lloyd, ABS, Bureau Veritas...

## LARGE PRODUCTION FACILITIES A WEALTH OF EXPERTISE

## MANUFACTURING

**REGNIER INDUSTRIES workshops have all the production facilities needed to manufacture its products.** 

We master every step of the production's process in-house, therefore we guarantee the high level of quality of our products and full traceability.

With considerable know-how and large machining capacities, we are able to produce a wide range of cylinders, from a standard design to the most technical and from small to extra-large dimensions.

Our process is ISO 9001 certified. The strict application of our procedures guarantee the full traceability of our products. Our Quality system is recognized by our customers.

Production capacities:

- Bore up to 1,300 mm (51 inches);
- stroke up to 16 m (52 feet).

In-house production, including:

- Wide range of conventional and CNC lathing, milling, drilling machines;
- Vertical honing machine;
- Chromium plating facility;
- Painting cabin;
- Sandblasting and metal spray cabin.

An engineering office in direct contact with the production department





A complete machining workshop to manufacture our products.

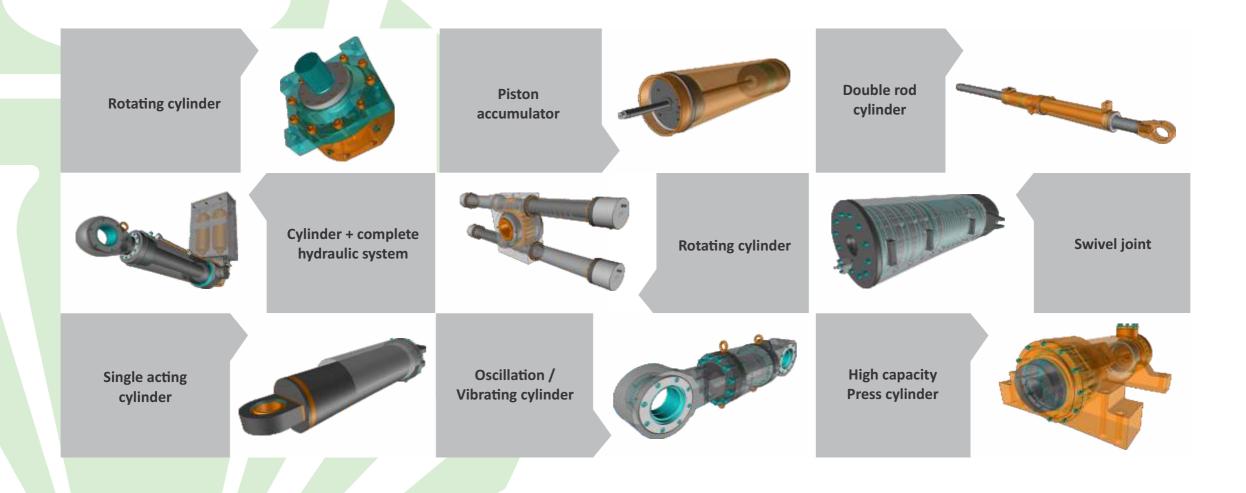
# MANUFACTURING





REGNIER INDUSTRIES PROVIDES A WIDE RANGE OF COMPLETE TAILOR-MADE HYDRAULIC SOLUTIONS: CYLINDERS AND POWER UNITS.

## PRODUCTS



#### STANDARD CYLINDERS SERIES ISO6020/1 - ISO 6022

## PRODUCTS

Trunnion

MT4

Hydraulic cylinders for low pressure up to 160 bar ISO 6020/1 standard

The working pressure can be increased up to 210 bar thanks to materials and components quality.

- Various mounting types;
- Adaptations according to your needs : raw material, sealing system, coating, cushioning, fluid types, painting...

Ø BORE	40	50	63	80	100	125	140	160	180	200	220	250
Ø ROD	22	28	36	45	56	70	80	90	100	110	120	140
	28	36	45	56	70	90	100	110	120	140	140	180

Assemble your standard cylinders in few clicks... in the desired 3D format... DWG, DXF, SAT, STEP, IGES, PDF...

www.regnier.topbox-configurator.com

Flange

MF3

Clevis

**MP5 - MP3** 

#### HYDRAULIC CYLINDERS FOR HIGH PRESSURE UP TO 250 BAR ISO 6022 STANDARD

## PRODUCTS

Hydraulic cylinders for high pressure up to 250 bar ISO 6022 standard

The working pressure can be increased up to 300 bar thanks to materials and components quality.

- Various mounting types;
- Adaptations according to your needs: raw material, sealing system, coating, cushioning, fluid types, painting...;
- Various types of stroke measurement.

The bolted design provides an excellent reliability as well as easy maintenance to this heavy-duty cylinder. This product meets the highly demanding requirements of heavy industry.



Dimensions in/en mm

Describe Assemble Download your standard REGNIER INDUSTRIES cylinder on our on-line configurator

www.regnier.topbox-configurator.com



COMPLETE HYDRAULIC SYSTEM REGNIER INDUSTRIES IS ALSO YOUR PARTNER FOR HYDRAULIC SOLUTIONS:

Design and supply of complete hydraulic system with cylinders, hydraulic power unit and control panel.

**Design** office

3D models design and complete

system drawings. Client approval

for production.

Preliminary engineering and quotation



Solution's study according to your specifications. Offer's quotation.



the complete hydraulic system including cylinders, HPU, controls. Installation and commissioning

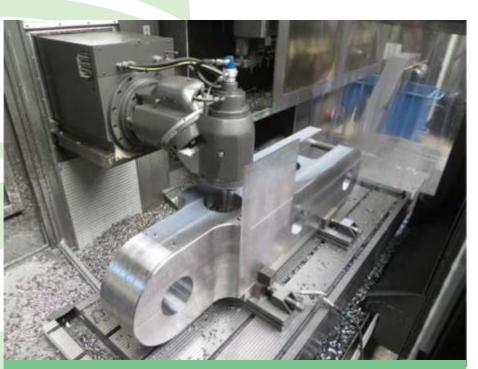


According to your needs, REGNIER INDUSTRIES can do the installation and the commissioning on-site, or supervise these operations carried out by your teams

## PRODUCTS

#### **SPECIAL MACHININGS**

## MACHINING



Manufacturing of forged and machine-welded frames

We offer our large production capacities and know-how as manufacturer for special machinings works. Ex: press columns, synchronism shaft, propeller shaft, flanges, telescopic tubes, honing, chromium plating...



Special manufacturing: telescopic tubes for coil handling

#### **ROD COATING TECHNOLOGY**

## TECHNOLOGY

Following our experiences and technical progress, we have extended our range of coatings to bring our customers the best adapted solution according to the cylinder location and application.

We offer a wide range of coatings, including :

- Chromium plating;
- Nickel-chromium plating;
- Ceramic : Excellent corrosion, chemical and wear resistance;
- Thermal sprayed metal.

The best coating, it withstands the most severe environments, offering excellent resistance to corrosion, wear and shock. This coating has an expected lifespan of more than 20 years.

			Chrome	Nickel Chrome	Chrome on stainless steel	Ceramic	Thermal Sprayed Metal
<b>Corrosion resistance</b>			+	++	+	+++	++++
Surface Hardness			+	+	+	+++	++++
Wear resistance			+	++	+	++++	++++
Scratch resistance			+	+	+	++++	++++
<b>Bending resistance</b>			+	++	+	++	+++
Surface roughness (Ra	/Ry)		++	+	++	++++	++ +

#### SENSORS TECHNOLOGY

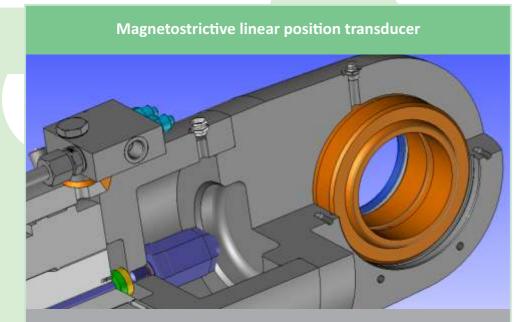
## TECHNOLOGY

#### **STROKE MEASUREMENT:**

The safety and automation development in industry and infrastructures has led to the development of controls such as stroke measurement, to monitor the cylinder function. With this in mind, REGNIER HYDRAULIC has integrated sensors into its cylinders for more than 20 years.

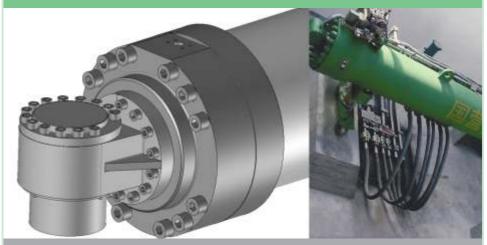
To extend the possibilities of stroke measurement, REGNIER INDUSTRIES has developed its own sensor: the Senso'R.

The Senso'R is able to measure strokes up to 20 m, and is also the only option for the stroke measurement on telescopic cylinders. In addition, it has the advantage of combining the two types of measurements : linear measurements, position measurements.



- Stroke: up to 7 m;
- Precision: +/- 50  $\mu m$  (+/- 1  $\mu m$  with SSI output).

Gorges Dam, lock gate cylinders fitted with REGNIER INDUSTRIES SENSO'R linear stroke measurement system



- Stroke: up to 20 m;
- Precision: +/- 0,5 mm;
- Max. operating speed : 1 m/s;
- Acceleration up to 1 m/s2;
- External pressure :

submersible up to 2,500 m.

#### **TECHNICAL MAINTENANCE ASSISTANCE**

## MAINTENANCE

REGNIER INDUSTRIES also uses its production facilities to perform maintenance of all types and brands cylinders. We undertake a complete cylinder overhaul and we suggest improvements to increase its reliability.

All of our workshops are available for cylinder maintenance :

- "NORTH" UNIT FRANCE;
- "SOUTH" UNIT FRANCE;

"VIX" UNIT-SERRA-ES-BRAZIL.

Each workshop has its own express service.

Our technicians travel worldwide to bring technical assistance on-site :

- On-site maintenance;
- Assistance to commissioning;
- Breakdown troubleshooting;
- Equipment follow-up;
- Technical study.

We favour partnerships in order to make technical progress which then leads to economic progress. With that in mind we set up maintenance contracts with our customers.





## RECEIVE YOUR MAINTENANCE ANALYSIS AND QUOTATION WITHIN 72H

Capacities : ø from 40 to 300 mm – Stroke up to 3,000 mm 3,000 seal kits and spare parts in stock MAINTENANCE



REGNIER INDUSTRIES's express department repair hydraulic cylinders from small to medium dimensions, in short lead time, up to less than 7 days.

Ideal for clients facing unexpected breakdown and having no spare cylinder.

The express department is an independent workshop in our factories, with a dedicated staff equiped with all means of machining and control needed for cylinder maintenance.

RENEWABLE ENERGIES







**TUNNEL DRILLING** 















REGNIER INDUSTRIES is an experienced supplier for the Marine & Offshore industry, our products meet the highly demanding requirements of quality, reliability and corrosion resistance of this harsh environment.

We supply cylinders and systems for many offshore applications such as :

- Pipelay systems (tensioners, squeezing...);
- Deck Handling equipment (cranes, lifts, A-frames, PLET Handling device);
- Skidding cylinders;
- Jacking cylinders;
- Dredges equipment;
- Ship control (rudder actuators, roll stabilizer actuators, sails tensioner);
- Winches;
- Submarine systems (submarine periscops, trench digging plow, submersibles);
- Windmill pitch actuator.



Cylinders 250 x 200 stroke 7,500 mm for telescopic boom on offshore cranes (Platforms in Africa).

### REFERENCES OFFSHORE



Two A-frame crane cylinders, diameter 500 mm x 350 mm, stroke 4,500 mm, fitted with hydraulic manifold and linear stroke measurement.









98 hydraulic cylinders, diameter 280 mm x 180 mm, stroke 1,050 mm with ceramic coating, fitted with manifolds, hydraulic controls and accumulators.

Ceramic rod coatings, part of our range of special coatings for Offshore applications.





Two skidding cylinders diameter 520 mm x 250 mm, stroke 1,250 mm with ceramic coating, fitted with linear stroke measurement.



PLSVs' hydro acoustic shackle working at 3,000 m depth. Manufactured by REGNIER INDUSTRIES France and improvement by REGNIER INDUSTRIES Brazil.





FPSO' Hydraulic cylinder (crane). 360 mm x 260 mm, stroke 3,600 mm . Reliably maintenance done by REGNIER INDUSTRIES Brazil.



#### REFERENCES OFFSHORE



Offshore crane's hydraulic cylinder. Manufactured by REGNIER INDUSTRIES France in 2011 and maintenance done at REGNIER INDUSTRIES Brazil in 2018.



Passive heave compensator used for well intervention vessel. 450 mm x 240 mm, stroke 12,000 mm. Maintenance with reliability done by REGNIER INDUSTRIES Brazil.



HONING





Cleaning, Machining Elimination of corrosion attrition



REFERENCES OFFSHORE

HONING

### REFERENCES CIVIL ENGINEERING HYDRO-POWER

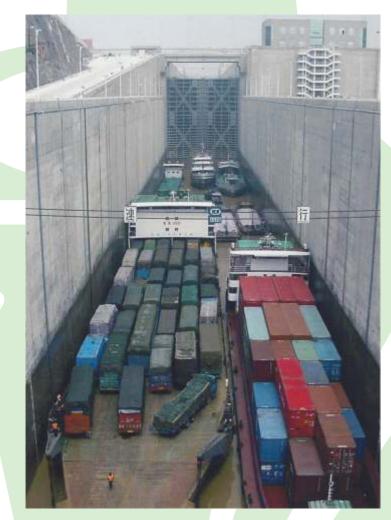
High quality is required for the critical and long-lasting cylinders used in Civil Engineering. REGNIER INDUSTRIES is a long time partner for this segment, we have worked on many projects worldwide. We produce cylinders in accordance with specific standards and regulations.

We supply cylinders and systems for many civil engineering applications such as:

- Radial gates;
- Sluice gates;
- Flood gates;
- Lock gates;
- Spherical valves;
- Lifting Bridges and Gangways (Roll On Roll Off).



Hydraulic cylinders and systems, fitted with linear stroke measurement, for automatic river level regulating system.



Lock of the Three Gorges Dam, (China).



Three Gorges Dam (China), lock gate cylinders fitted with REGNIER INDUSTRIES's SENSO'R, linear stroke measurement system.

## REFERENCES CIVIL ENGINEERING HYDRO-POWER



Manufacturing of a wide range of hydraulic cylinders and systems for radial gates dams.



Four hydraulic cylinders, diameter 360 mm x 140 mm, stroke 7,000 mm with ceramic coating, fitted with linear stroke measurement SENSO'R.

### **REFERENCES** STEEL INDUSTRY

REGNIER INDUSTRIES works with numerous loyal customers in steel industry, equipment manufacturer as well as end users. Thanks to our know-how and our long time collaboration with end users, we manufacture heavy-duty and reliable products, fully adapted to the hard working conditions and agressive environment of Steel Industry.



2 hydraulic cylinders diameter 360 mm x 220 mm, stroke 1,050 mm, for descaler.

### **REFERENCES** STEEL INDUSTRY



Rolling Mill squeezing cylinders.



Mud gun cylinder for blast furnaces.



Standards bolted cylinders of higher quality, optimum reliability for heavy-duty applications.



1,000 Ton hydraulic press cylinder diameter 600 mm x 560 mm, stroke 1,200 mm, with double speed design, used on straightening machines.



Squeezing cylinder for hot strip mill.



Turret lifting cylinder, diameter 655 mm x 605 mm, stroke 720 mm.



Cylinders are strategical mechanism in handling equipament, in addition to their actuator role, they guarantee the safety of a system severely tested by its operation conditions (fast and frequent movement, pressure peak, environment agressions...). Therefore, toughness and quality are key words in this domain.

### REFERENCES HANDLING EQUIPAMENT

HARS

Manufacturing and maintenance of superior quality cylinders for grapple to handle steel scrap, aggregates, wood...



Hydraulic cylinders diameter 275 mm x 180 mm, stroke 2,000 mm, for balanced cranes.

## REFERENCES HANDLING EQUIPAMENT

Cable tensioning cylinders for cable cars.

Suspension cylinders for heavy load transporter



Manufacturing and maintenance of cylinders for earth-moving and public works.







Manufacturer of custom and highly technical cylinders, we have been designing actuators for the nuclear industry for many years. Our all-stainless steel products, operating with demineralized water are totally adapted to the nuclear environment, their higher quality allows long life cycles and therefore less maintenance works.

Our products comply with the highly demanding rules of quality of the nuclear industry, with materials and tools adapted to this particular environment.

**DEFENSE** - On the battlefield failure is not permitted, especially for machines that therefore require the highest level of reliability. From the most simple design to the most complicated, the high level of quality of REGNIER INDUSTRIES's products is the guarantee of their efficiency and durability.

The Aerospace industry require manufacturing tools of high quality and precision. REGNIER INDUSTRIES's products combine heavy load and precision in the movement thanks to the quality in design and manufacturing.

Research studies can be performed in the quiet of a laboratory or outdoor in the nature facing extreme conditions like freezing cold or high pressure deep into the ocean.

In any case, REGNIER INDUSTRIES can develop an actuator for your special application and requirements.

Ex : lifting pillars of Concordia research base in Antarctica, automatic pipeline replacement in deep water, test bench for flex pipeline, Handling equipement for research center pool, valve actuator underneath rocket Ariane V launch site...

Ex: Forging press for jet blades, pulling machine, test bench to bend airplane wings, test bench of vibration on helicopter rotor hubs...

## **REFERENCES** NUCLEAR, RESEARCH, AEROSPACE, DEFENSE

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**Nuclear** - Hatch opening cylinder for airlocks used in the process of uranium and plutonium separation.

> **Research** - Hydraulic cylinders to actuate the pillars of research station Concordia, Antarctica. With temperatures down to -81,9°C (record registered in 2007), the cold was a major issue for the design. In these extreme conditions, all the materials used in the cylinders endure a severe test...

Nuclear - Full stainless steel cylinder, operating with water, used for Handling in nuclear environment.

> Research - Hydraulic cylinder diameter 580 mm x 280 mm, stroke 1,500 mm, for flexpipe test bench

## **REFERENCES** NUCLEAR, RESEARCH, AEROSPACE, DEFENSE





#### **REFERENCES** PAPER, AUTOMOTIVE, TUNNEL BORING, CEMENT

**Tunnel Boring** - Large cylinders, special actuators or complex swivel joints, REGNIER INDUSTRIES fulfill your needs with tailor-made design adapted to the severe conditions that mechanical equipment endure in a tunnel borer.

**Paper Industry** - As an OEM (Original Equipment Manufacturer) for a famous paper machine manufacturer, REGNIER INDUSTRIES's hydraulic cylinders are present all around the world. We supply also directly the paper industries with new cylinders and repairs.

Ex : actuators on paper machines, winding machines, calenders.

**Cement** - Like many applications, strategical equipment of cement plants are actuated by hydraulic cylinders:

- Grinding Mills: REGNIER INDUSTRIES manufactures and repairs cylinders adapted to the grinding mill function, such as 600 mm bore cylinders, that works at high frequency;
- Clinker cooler: hydraulic cylinder for the transport tracks;
- Grapple cylinders to handle materials: steel rods with surface hardening for protection against rock impacts;
- Single acting cylinders to actuate;
- The valve of gas duct.



Automotive - REGNIER INDUSTRIES's cylinders and systems operate at every stage of the automotive manufacturing process, from the foundry for engine blocks to the final assembly line

#### **REFERENCES** PAPER, AUTOMOTIVE, TUNNEL BORING, CEMENT



Full stainless steel cylinders for paper industry

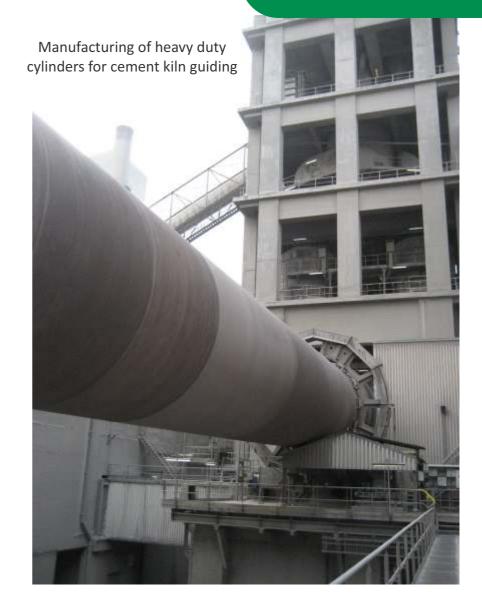




Swivel joint diameter 400 mm, 22 connections, for tunnel borer.



Single acting cylinder, diameter 600 mm, for crusher.





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