

The Customized Solution for Hydraulic Cylinders



Quality - Reliable - Efficient

www.henglihydraulic.com

THE WORLD'S LEADING HYDRAULIC CYLINDER MANUFACTURER IN TERMS OF CAPACITY AND INNOVATION

Hengli hydraulic cylinder production base is capable of producing 450,000 excavator cylinders and 150,000 special cylinder.

JIANGSU HENGLI HYDRAULIC CO.,LTD.

For 28 years Hengli has engaged in the research and development of designs, and manufacture of hydraulic cylinders. Hengli utilizes world class equipment in the manufacturing of their hydraulic cylinders and has the biggest research and development center in Asia. The product design and process technology meet the tests of time for our customers. At the same time, Hengli focuses on the details of customers' requirements and adheres to many international standards (such as standard of class societies, like DNV, ABS, GL and so on), as well as Hengli's own standards to deliver quality cylinders.

Hengli is focusing on the construction equipment, marine & offshore, mining and metallurgical forging markets among any others. Hengli provides design schemes for many sizes of hydraulic cylinders and adopts advanced processes such as surface treatment technology, control system and sealing. When we design optimization schemes for partners, we offer superior integrated services.

For more information, please visit:
www.henglihydraulic.com

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RESEARCH AND DEVELOPMENT INNOVATION AND DESIGN

Achieving excellent quality of products through experimentation and data

Large-scale hydraulic cylinders are widely in many machines and many mobile and industrial equipment, and some equipment are in extreme environments requiring permanent operation and high reliability. Only systematic product design and production processes can guarantee a hydraulic cylinder thrives in such extreme conditions. Hengli meets these needs using our research and development equipment, and Hengli's product design process to guarantee the reliability of our products.

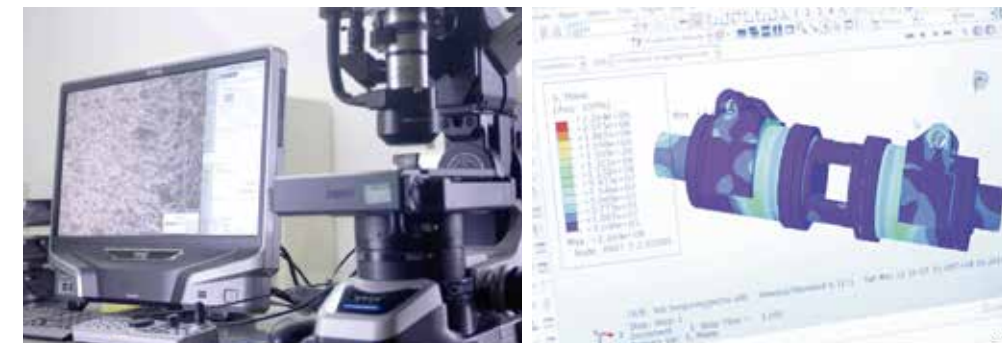
Design is the warranty of product quality

We use calculations to study the forces on a hydraulic cylinder; at the same time, we can investigate further using finite element analysis software to do detailed analysis to effectively ensure the design meets the demands.

For verification of the seals and cylinder design, we conduct a series of tests, which include stress testing, pulse pressure testing, and stroke endurance testing.

Our research and development center solves complex and diverse development challenges and leads our innovations in hydraulic cylinders. The requirements of hydraulic cylinders are being stretched to meet requirements requiring us always to research, survey, and test new materials and techniques.

- ▼ We analyze the components of hydraulic cylinders and materials to guarantee all details are in place to produce hydraulic cylinders consistent with the application requirements.



- ◀ To verify the quality of the cylinder's welding seam, Hengli uses a 3D Super Depth Digital Microscope.
- ◀ Hengli's software imitatively calculates every component of the cylinder to ensure the excellent property of products.
- ▼ The check of a hydraulic cylinder's quality.



MANUFACTURING

Leading equipment and technology create world class products

Excellent products are the result of process, technology, materials and people. Only leading production equipment can create high quality products. Hengli has the world's largest hydraulic cylinder manufacture base staffed with experienced and professional employees. The introduction of Five-axis Machining Center, surface treatment equipment and automatic inspection equipment serves for the quality of our products and satisfaction of our customers.

The custom cylinder workshop is 45000 m² (480,000 ft²). There are 5 production lines with annual output of 141,500 pieces. We can process cylinders from 40mm (1.6 in.) to 1,500mm (60 in.) bore diameters with stroke capability up to 15,000mm (590 in.)

▼ There are imported Five-axis Machining Center and American MAG large-scale machining center.



Leading thermal spraying surface treatment processing

The piston rod is the core component of a hydraulic cylinder. In its usage, it will suffer exposure to harsh environments and wear. In order to improve the wear resistance of the piston rod surface and lengthen its service life, it must be equipped with outstanding surface treatment processing technology, seal technology and hydraulic medium. In the field of hydraulic cylinder technology, Hengli cylinders are always your best choice.

- ▼ Large-scale horizontal electroplating production line.
- ▼ The surface processing of piston rod.



Tacchi CNC External Honing Machine

LIFELONG SERVICE MANAGEMENT

Provide high-quality products to customers and pursue maximum value

Hengli's proprietary technology allows for extended life cycles for their cylinders saving our customers maintenance costs and improving productivity of their equipment.

Quality management is the core of the product life cycle

Customers expect high-quality products. In order to meet our customer's requirements, we focus on in-process inspections and verification to ensure reliable quality. The foundation of a good relationship is trust and open communication, and this is what Hengli works for with our customers to develop a strong partnership for quality end products.

After-sales maintenance

Hengli's professional after-sales service team and network is always available to support our products. In Europe, Hengli's owned center provides convenient localization services to service our products. Hengli can provide all kinds of technical support and consult on spare parts management and transportation, on-site trouble-shooting, regular inspection, maintenance training and other value added services.

Hengli's Lifetime service management program will highly improve the efficiency of overall equipment and relieve the complexity of your project.

- Inspect each process, avoid downstream contamination, process stability.



SHIPPING

Packaged to survive the harshest seas and elements

In various shipping projects like ocean transportation, the cylinder must be packaged to avoid contamination and corrosion during the trip and in a structure to avoid sea and ocean environmental damage . Hengli’ s internal packaging experts work with our customers to insure products arrive ready for assembly. We work with different logistics systems and countries to make international shipments customer friendly.

Design Feature:

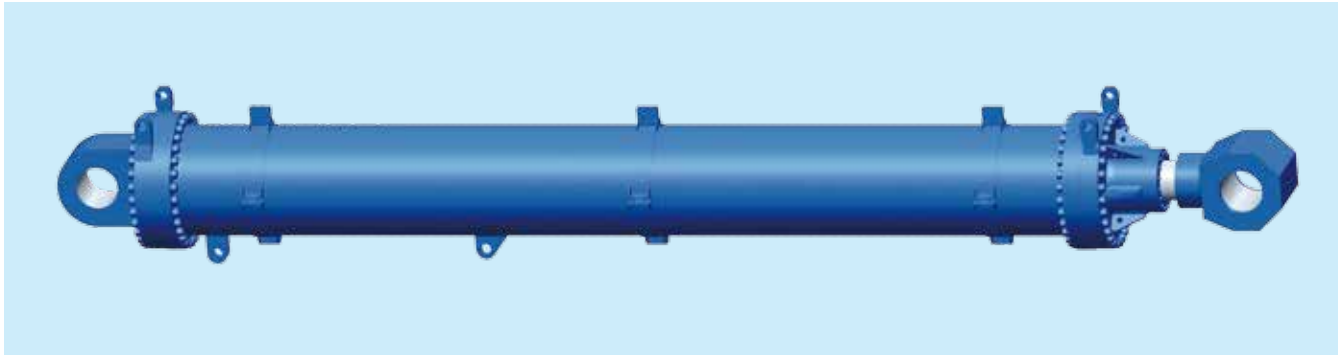
- Adopt highly professional computer management and simulation design to ensure excellent design of products.
- Professional surface layer processing technology of piston rod improves the abrasive and corrosion resistance.
- Hengli has special seal structural design, and adopts seals from international famous brands.
- To achieve better corrosion resistance and easier assembly/disassembly, choose self-lubricating composite material to manufacture bearings.

Application: Crane Bulk ship Pile driving barge Dredge boat
Steering engine Hatch cover Marine ship



Crane in marine construction ship

Diameter of tube: 500mm
Diameter of piston rod: 380mm
Stroke: 5,170mm



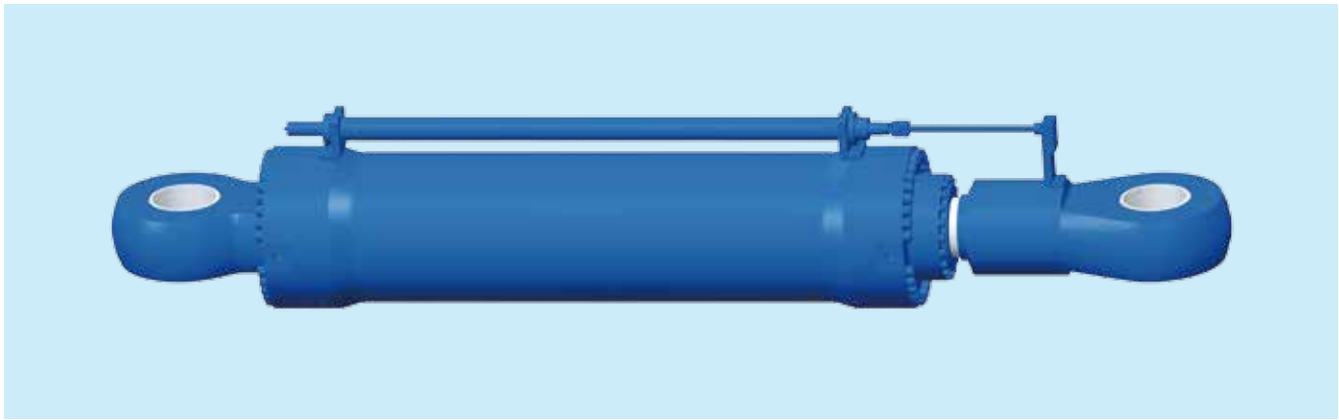
Cylinder in pile-driving ship

Diameter of tube: 900mm
Diameter of piston rod: 560mm
Stroke: 11,740mm



Wind power installation vessel lifting Cylinder

Diameter of tube: 600mm
Diameter of piston rod: 280mm
Stroke: 2,150mm



OFFSHORE ENGINEERING

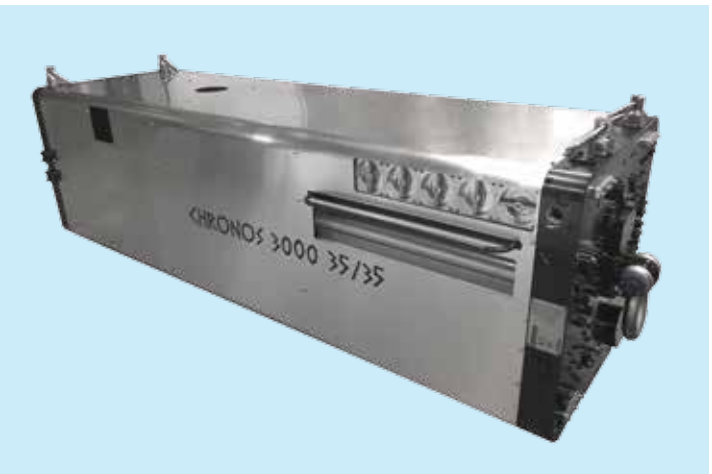
A hydraulic cylinder is designed and produced to face strict and extreme environments

This kind of hydraulic cylinder specially designed according to harsh offshore environments meeting the strictest requirements in safety, corrosion resistance and heavy load operation. Our firm keeps close cooperation and communication with customers and experts; continuously trying new technology to ensure its superior capability, no matter deep-sea work, extreme work or other hazardous environments.

Design Feature:

- For abrasive resistance and corrosion resistance in strict environment of ocean.
- Special structural design, famous seal brand is adopted to ensure excellent seal property.
- It adopts special welding solution to adapt long term low temperature environment, then conform all classification societies and customers' requirements.
- Professional integrated pipeline structural design.
- Adopt leading property test equipment.

Application: Marine drilling platform
Multi-function engineering working boat



Inline Heave Compensation

Our state-of-the-art inline heave compensator is a highly integrated system, which is a flexible, movable, independent system, avoiding manual operation, giving high safety, stability and efficiency.

- Easy preparation and integration.
- Mobile and flexible, compatible with all existing cranes and winches.
- 95% compensation accuracy on average.
- 50% less manufacturing cost compared to crane based AHC.
- Increased wire rope lifetime, which has to be replaced every second year at large cost on AHC crane.
- Better overall performance, especially for splash zone crossings and resonance protection with PHC on.
- From deck-to-deck transfer to 3000m water depth.
- By having two units on the vessel we can ensure close to 100 % uptime as we always will have a backup unit.
- Allows usage of fiber rope, which significantly increases crane capacity.
- Complete recording of motion data for evaluation and verification.



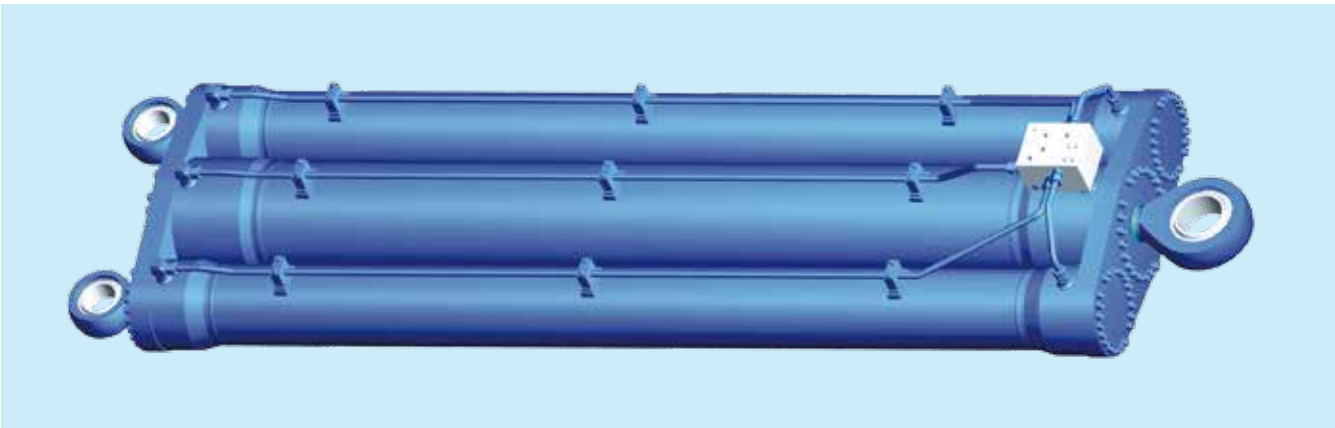
Riser tensioner cylinder

Diameter of tube: 546mm
Diameter of piston rod: 470mm
Stroke: 3,810mm



BOP blowout preventer shifting unit cylinder

Diameter of tube: 220mm、 300mm
Diameter of piston rod: 70mm、 110mm
Stroke: 2,820mm×2



PORT MACHINERY

Reliable guarantee of heavy duty operational equipment

Due to the geographical environment, different kinds of port machinery hydraulic cylinders must meet harsh working conditions of heavy corrosion, overload and high frequency. Hengli has more than ten years of research experiences on this area, fully understanding port equipment and used leading technology and processing equipment. Cylinders manufactured are fully to customer’ s requirements and costs minimized.

Design Feature:

- Higher corrosion resistance, abrasive resistance, high durability.
- Use of word-class international sealing and bearing materials.
- Special structural design to meet high frequency action.
- Use of special material results in lightweight design to ensure fast and low-cost disassembly and maintenance.

Application: Caisson transfer system Bridge engineering
Continuous ship unloader Heavy duty truck Bridge crane
Reach stacker Ship cranes Empty container forklifts



Heap and reclaimer pitching cylinder

Diameter of tube: 360mm
Diameter of piston rod: 200mm
Stroke: 1,200mm



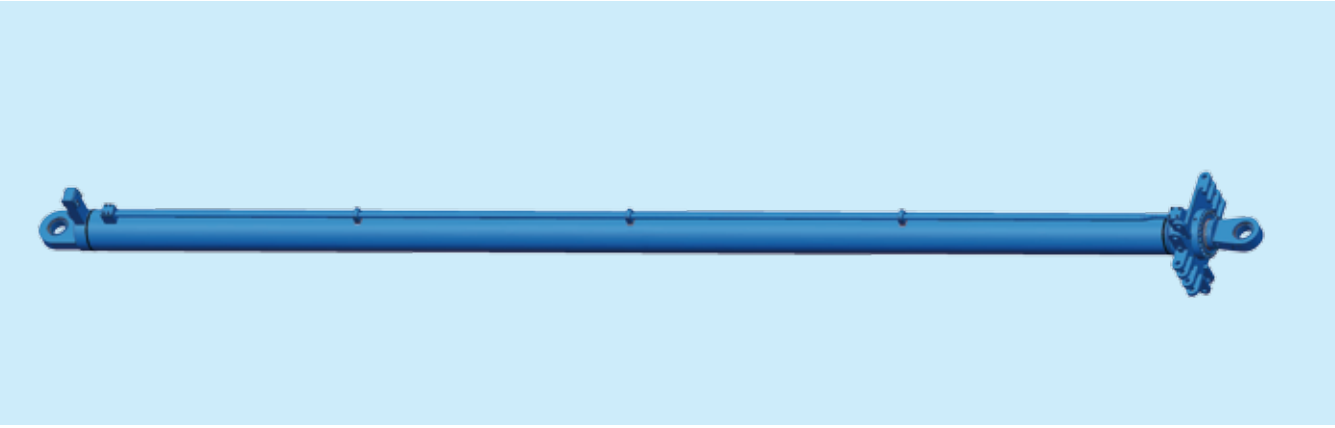
Lifting bridge improve cylinder

Diameter of tube: 470mm
Diameter of piston rod: 220mm
Stroke: 4,750mm



Reach stacker forklifts cylinder

Diameter of tube: 220mm
Diameter of piston rod: 180mm
Stroke: 6,700mm



MINING INDUSTRY AND TUNNELING EQUIPMENT

It provides continuous power and control of handling operation

During mining and tunneling, equipment is operated underground. The work environment is extremely harsh with vibratory shocks and very high side load forces and torque, so a high reliability of the cylinder is required. Hengli's professional research and development team and experience occupies a leading position in this area. The cylinder we manufactured can meet all kinds of technical requirements in mining and underground construction markets.

Design Feature:

- We have many years of research experience, and can provide the best solution.
- We have approved structural design solution to ensure proper sealing.
- Unique piston and piston rod connection assures the reliability under dynamic work.
- Special surface layer processing technology improve abrasive resistance and corrosion resistance.

Application: Crawler loader Tunneling boring machine Rotary drilling
Special vehicle Open mining operation system Mining truck
Hydraulic mining shovel Well carry-scraper



Off-highway mining truck wheel suspension cylinder

Diameter of tube: 273.5mm
Diameter of piston rod: 228.52mm
Stroke: 318.52mm



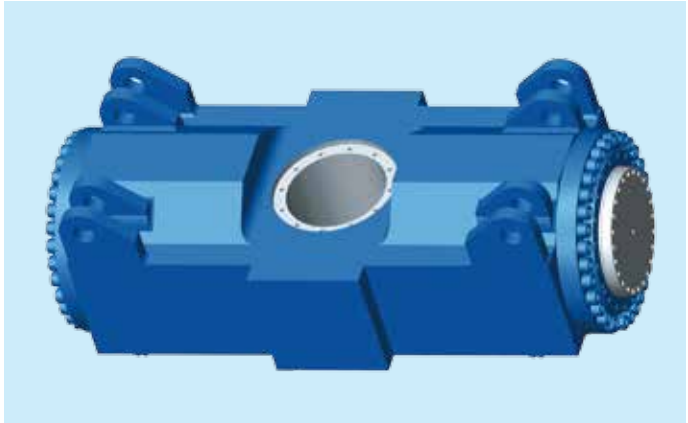
360T mining excavator cylinder

Diameter of tube: 360mm
Diameter of piston rod: 260mm
Stroke: 3,150mm



TBM Tunnel boring machine gripper cylinder

Diameter of tube: 750mm
Diameter of piston rod: 610mm
Stroke: 400mm×2



METALLURGICAL AND FORGING EQUIPMENT

Go through successive abuses of high temperature, dust, and high frequency environment

For metallurgical forging industry, high temperature and frequent actions are fully considered and discussed before designing the cylinder. Our hydraulic engineers pay most attention to the working life and durability of these products. The achievements of Hengli over the years in this industry are sufficient to show our reliability as a manufacturer of these cylinders.

Design Feature:

- Use steel forgings with good quality which has enough strength and stiffness, is durable in use and highly reliable.
- Special structural design and use seal elements of famous brands to guarantee excellent sealing property.
- Choose copper alloy with good abrasive resistance as plunger guide which bears certain side-loading.
- Adopt quenching and chrome plating on plunger surface to improve the surface hardness.

Application: Extruder Ring rolling mill Steel scrap recycling line
Aluminum production line Smelter Rolling mill line
Continuous casting line Casting production line
High-speed forging press

Main cylinder for high-speed forging machine

Diameter of tube:	1,035mm
Diameter of piston rod:	1,020mm
Stroke:	2,300mm



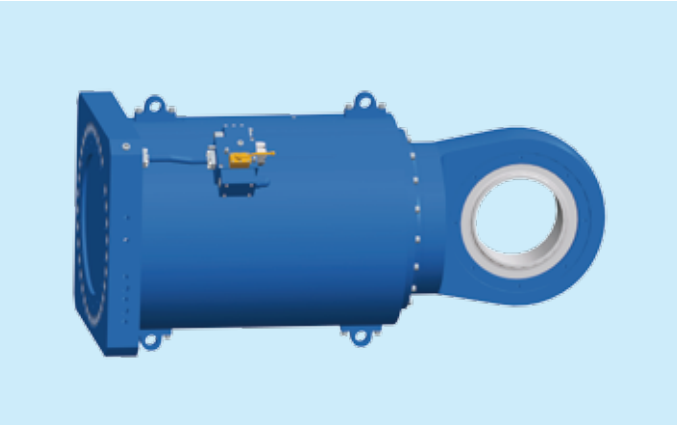
100 MN head hydraulic press machine main sliding block cylinder

Diameter of tube:	805mm
Diameter of piston rod:	780mm
Stroke:	3,600mm



Ladle turret of continuous casting line cylinder

Diameter of tube:	880mm
Diameter of piston rod:	800mm
Stroke:	720mm



ENERGY TECHNOLOGY

Extremely strict customized matching plan

Hengli has provided top energy technology projects domestic and abroad with customized hydraulic cylinders. The cylinders are a rigorous design, reliable and durable products. Our engineers take active part in scientific research projects and provide optimal design and performance standard for each project.

Design Feature:

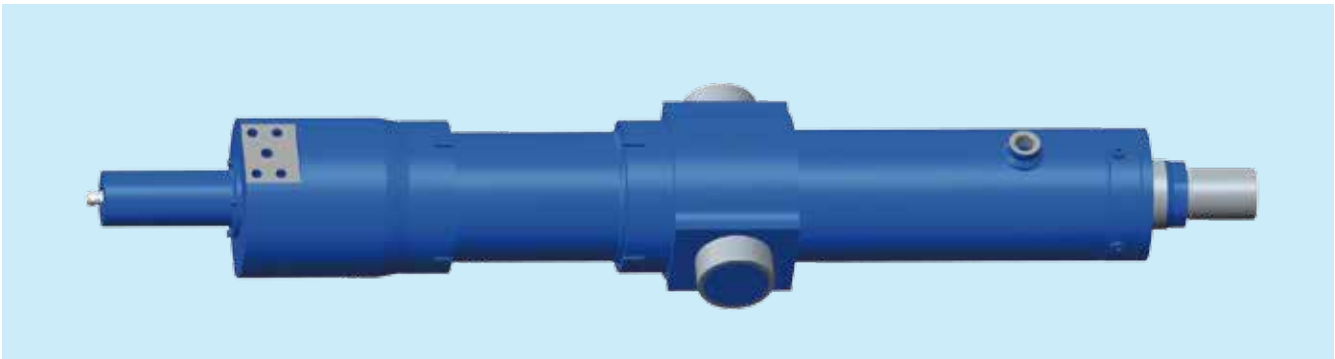
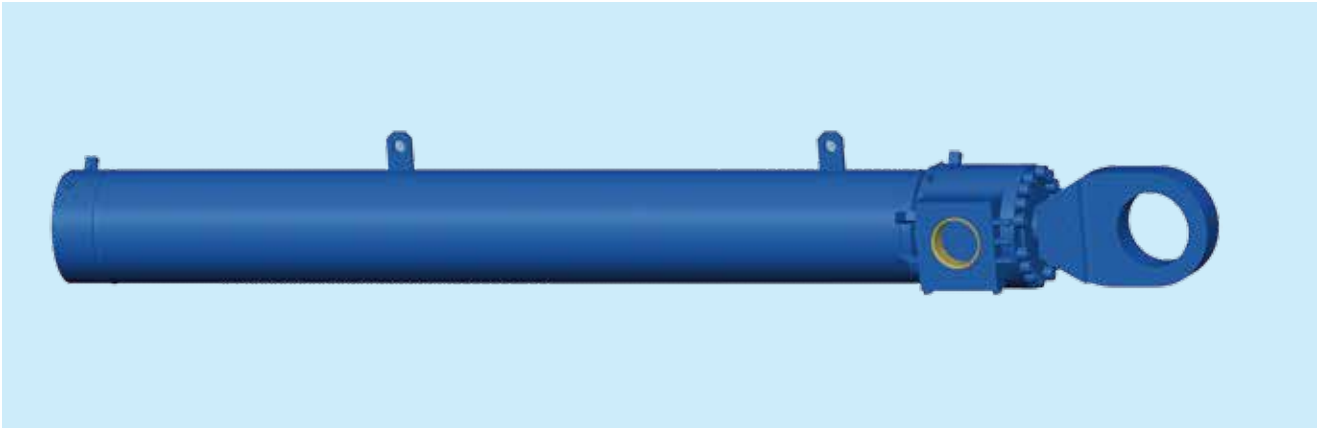
- Control and simulate the design with highly specialized computer to ensure the excellent property of products.
- Improve the abrasion and corrosion resistance of piston rods with professional surface processing technology.
- Strengthen seal structure and enhance the durability of products.
- Adopt lightweight design which allows additional customized hydraulic control systems of all kinds.

Application: Solar cylinder Wind power cylinder
Large radio telescope system cylinder
Petroleum machinery derrick lifting cylinder



Solar cylinder

Diameter of tube: 280mm
Diameter of piston rod: 120mm
Stroke: 2,508mm



Wind power cylinder

Diameter of tube: 140mm
Diameter of piston rod: 90mm
Stroke: 760mm



Petroleum machinery derrick lifting cylinder

Diameter of tube: 525mm
Diameter of piston rod: 500mm
Stroke: 3,010mm



CUSTOMER INSPIRED PROJECTS

Special structural design, optimal durability

Lightweight compact design which meets the requirements in extreme environment of these projects with high durability. Hengli is your partner in the industries of water conservancy, vehicle, cement, bridge etc, who provide you with the optimal design as a hydraulic system integrated supplier.

Design Feature:

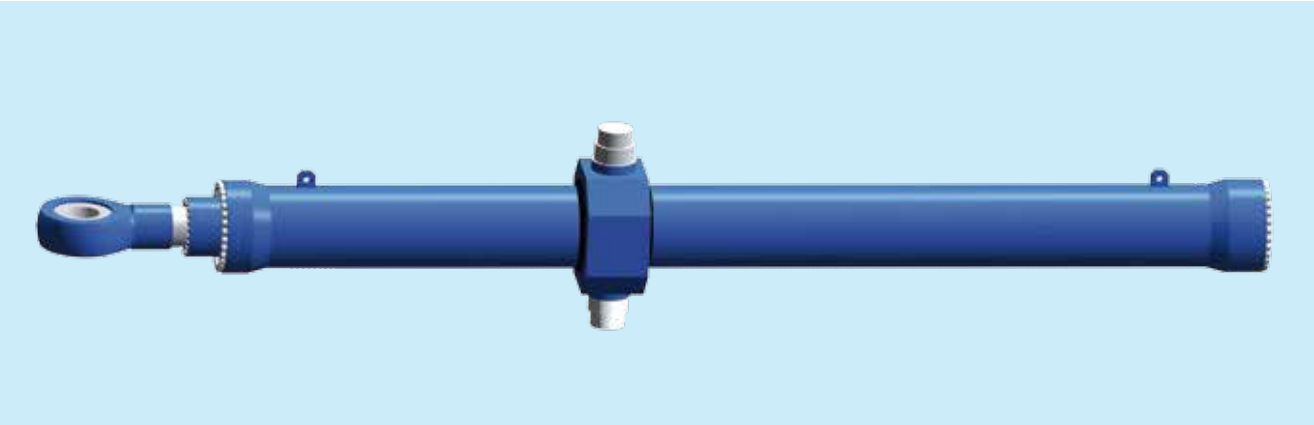
- Special surface coating technology improves abrasion resistance and corrosion resistance.
- Application of world-class seal and bearing material.
- Use special materials and optimal structural design according to customers' and engineering requirements to conform with the use condition.
- Lightweight design ensures quick and low-cost disassembly and maintenance.

Application: Water conservancy project Equipment in cement industry
Large construction engineering machinery
Paper manufacturing machinery



Deep hole radial gate of hydroelectric dam cylinder

Diameter of tube: 500mm
Diameter of piston rod: 280mm
Stroke: 6,300mm



Extension cylinder for truck crane

Diameter of tube: 300mm
Diameter of piston rod: 250mm
Stroke: 13,975mm



Cement vertical mill cylinder

Diameter of tube: 400mm
Diameter of piston rod: 200mm
Stroke: 320mm





HENGLI HYDRAULIC

As a benchmarking company of Chinese high-end hydraulic transmission industry, Hengli Hydraulic is always devoting to the innovation and development in the following four areas: production design, manufacturing process, quality improvement and management improvement. We, Hengli Hydraulic, is making effort to realize the intelligent manufacture at the same time the high-efficiency and energy saving of the hydraulic components and try to reshape the "Made in China" image through technology innovation. Meanwhile we are committed to creating a new pattern of the world's hydraulics industry and contribute to global technological innovation.

Hengli Hydraulic is dedicated to designing and developing hydraulic transmission products and solutions that meet the real needs of local customers for the global market based on the diverse market demands, in particular the field of mobile machinery and tunnel engineering. We, Hengli Hydraulic, take advantage of our years of application experience to provide the customer the most optimized solutions, thus establish strong partnerships with our customers and maintain a sustainable development in a competitive market.

What we provide

- Hydraulic Cylinder
- Hydraulic Piston Pump & Motor
- Hydraulic Control Valve for Mobile Machinery
- Industrial Valve
- Hydraulic Pump Unit and System
- High performance Hydraulic Test Bench
- High-precision Casting
- Pneumatic Components and integrated System
- Cold-drawn Seamless Steel Pipe
- Surface Coating-Thermal Spray Treatment

For more detailed information, please visit our website at
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We are looking forward to working with you!

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