

LEO LEO GROUP

LEO LEO GROUP CO., LTD.
<http://www.leogroup.cn>



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LEO GROUP PUMP (HUNAN) CO., LTD.



The first listed company in small pump industry in China
(with stock code 002131)

MISSION & VISION

Mission of LEO

To Focus on the development of safe and environment-friendly fluid machinery, and create value for all stakeholders.

Vision of LEO

To elevate the image of Chinese fluid machinery industry, being a sustainable developmental leading enterprise in this industry.

Culture of LEO

LEO people respect the core values of running business with virtue, pursuing success with perfection, winning victory with efficiency and going forward with right actions. Meanwhile, the principles of prompt decision, prompt R&D, prompt manufacturing and prompt service are followed to provide the customers high-value products & service, and to create value for all stakeholder continuously.

相爱·共荣
LOVE EACH OTHER

TO KNOW LEO

LEO Group Co., Ltd. (got listed in Shenzhen Stock Exchange with stock code 002131) is a national high-tech enterprise engaged in R&D, design, manufacture, sales and service of all series pumps. LEO is the first listed company in Chinese pump industry, one of the drafters of pump industry standard and the vice president of drainage and irrigation machinery branch of China Agricultural machinery industry association as well. It is mentionable that LEO has the only state-authorized technical center in this industry.

Our products have been sold to over 120 countries and regions, such as Europe, North America, Central & South America, Southeast Asia, Middle East, Africa, Oceania, etc., which play a crucial role in water conservancy, water resources, electric power construction, petrochemical industry, mining, metallurgy, fire-fighting, HVAC (Heating, Ventilation and Air Conditioning), agricultural irrigation, civil water supply and drainage, etc.

LEO has currently two pump businesses respectively for industrial and civilian applications. With four manufacturing bases in Xiangtan of Hunan, Wuxi of Jiangsu, Dalian of Liaoning, and Wenling of Zhejiang, LEO possesses a solid foundation to become a world-class pump and system solution provider rapidly.

With over 70 years' professional technology, LEO will continue her consistent creativity and development ability in each pump for human's health.

■ COMPANY GOAL

LEO aims to be a world-class pump and system solution provider.

■ COMPANY CORE BUSINESS

Focus on R&D, manufacture and sales of all series of pumps and systems in industrial and civilian fields.



NUMEROUS MEMBERS, ONE FAMILY

Based on market segment, Leo's industrial pump business is divided into 3 fields, namely water conservancy & water resources, power station and petrochemical industry. For each field there's a professional manufacturing base with relevant professional sales teams. There are one core manufacturing base named as LEO GROUP PUMP(HUNAN) CO., LTD., and another two subsidiary companies - WUXI LEO PUMP MANUFACTURING CO., LTD., DALIAN LEO HUANENG PUMP CO., LTD., who are all well-known industrial pump manufacturers in their own fields. With over 70 years' industrial pump manufacturing experience and extraordinary comprehensive strength, LEO becomes a leading company among all industrial pump manufacturers in China.



Core Manufacturing Base for Power Station and Large Water Conservancy Project

This base is the most important R&D, manufacturing and testing center of LEO group. The leading products include split-case centrifugal pump, large mixed-flow pump, vertical turbine pump, vertical axial flow pump and submersible pump, which are mainly used in power station, large water conservancy project, steel works, water utility, irrigation & drainage, sewage treatment etc.



Pump Manufacturing Base for Water Conservancy & Water Resources

This base grew out of Wuxi Xi Pump Manufacturing Co.,Ltd, a well-known manufacturer for water conservancy. The base is specialized in production of large and medium-sized pumps for urban water supply and drainage, farmland irrigation, water conservancy projects and large water diversion project. The main products cover 8 series with 995 specifications. With great honor, the model 300HW-8 mixed-flow pump won the first national quality award of Chinese pump industry. As a main supplier, the base provides large pumps for South-to-North Water Diversion Project, a national key project.



Pump Manufacturing Base for Petrochemical Industry

The predecessor of this base is Dalian Huaneng Corrosion-Resistant Pump Works, who's a well-know pump manufacturer in petrochemical industry. The base is specialized in production of petrochemical pumps for the upstream industry of oil and gas (including exploration, exploitation and storage) and downstream industry of petrochemicals (including crude oil refinery, heavy chemical industry, fine chemistry and coal chemical industry). The base focuses on design and manufacture of 30 series (OH, BB, VS, etc.) of petrochemical pumps with over specifications, which are in accordance with API and ISO standard. The production of large crude oil long distance pipeline pump (BB1 and BB3) and HTHP overloaded pump (BB3 and BB5) is available. LNG cryo-pump is already in development. The base is Class A supplier of CNPC and qualified sub supplier of Shenhua Group.

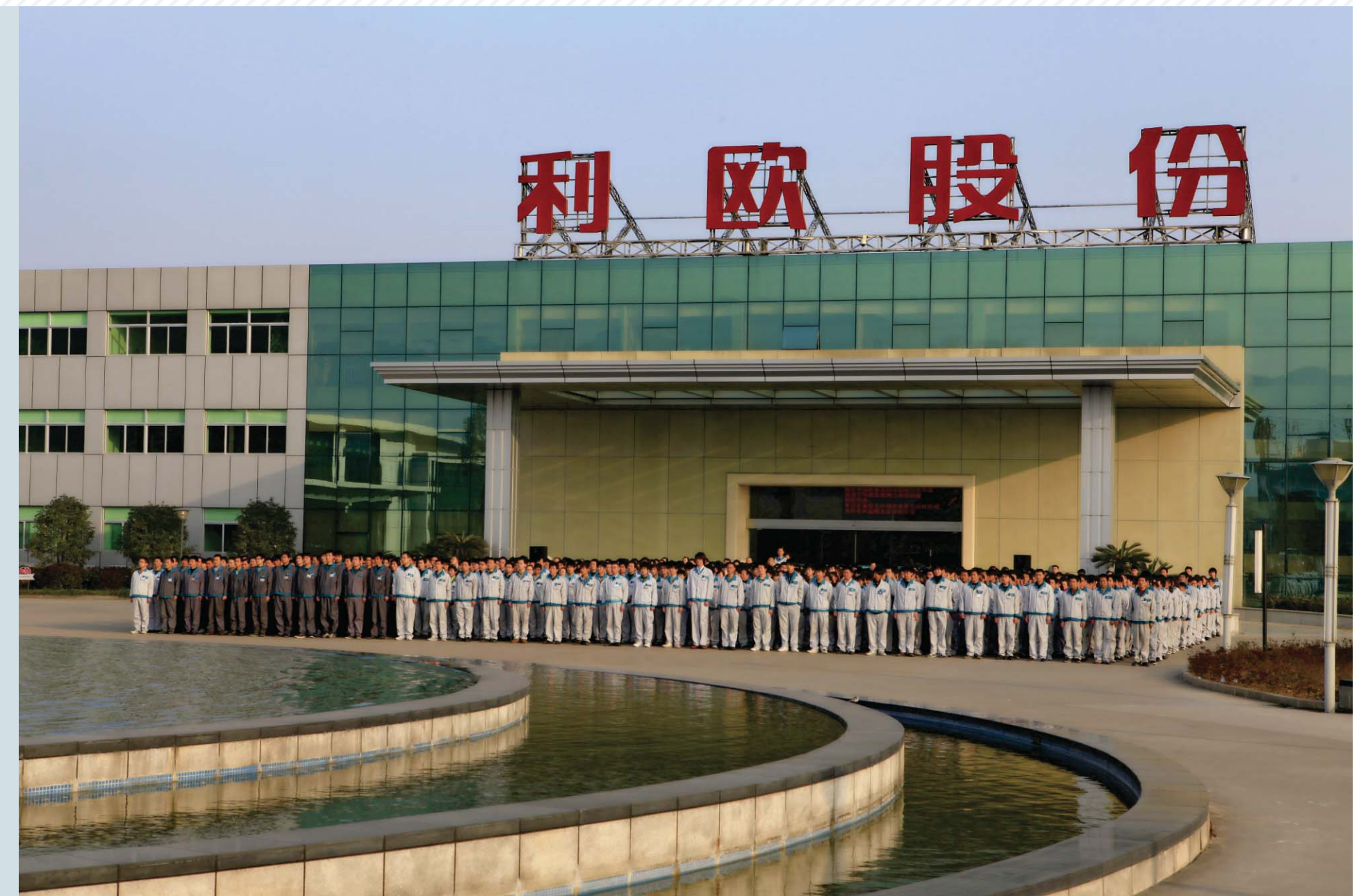
EXCELLENT TALENT SYSTEM

■ Outstanding talent team

To create a high-quality, high-performance, high morale workforce, and make the employees and enterprises to grow together, is the eternal theme of the Leo human resources management. LEO has established an efficient and perfect talent system, which creates a more equitable internal competitive environment, broader career development space, better growth platform, to bring up a group of elite who reach achievements by hard work, act after thorough consideration and own practical ability.

■ First-class management team

Leo management team consists of a large number of the industry's outstanding management talents, which has very rich experience in corporate management; and the manufacture management team have many years of experience in the domestic large-scale pump manufacturing enterprises, to ensure the orderly, efficient and stable operation of each manufacturing base. Excellent management team, advanced management concepts and efficient management system are the inexhaustible motive force for Leo's efficient operation.



EXCELLENT R&D CAPABILITY

LEO Technical Center

LEO Technical Center has strong R&D capability and professional technical teams. It consists of Hunan Engineering Technology Center, Leo Dalian Engineering Technology Center and Leo Wenling Engineering Technology Center, which supply support and service for 5 manufacturing bases. The Technical Center has over 500 engineers from all over the country, including over 100 engineers with senior technical title. The R&D of the Center traces new technology, new material and new process of pump industry in the world. Associating with localization demand of major equipment closely, the Center strives for providing safe, environmental friendly and energy-saving pump products and all-in-one solutions.

Leo Hunan Pump Technical Center, which is located in Hunan Province, composes of numbers of senior experts in power station pumps and water conservancy pumps. The center has made remarkable achievements in R&D of 1,000,000 kW supercritical seawater circulating pump and over 600,000 KW supercritical condensate pump, which will be introduced to the market. At the same time, the center has developed a new anti-wear and corrosion-resistant material, which has been successfully used on slurry pump and sea water booster pump. In terms of new technology, in order to increase the surface hardness of local parts, the center adopts international advanced special supersonic thermal spraying process, which can increase the surface hardness to HRC68; In terms of large water resources and water supply pump, by cooperating with the majority of domestic institutions and foreign famous pump companies, significant research has been made in large axial variable pulp controlling, high lift vertical volute pumps, high efficiency large caliber double suction pumps, high sediment content of wear-resistant material. Taking full advantage of the experimental facilities in Hunan base, the R&D results have been verified and solidified through comparison test and real pump test. Especially for the pump of key water conservancy projects during the national 12th Five-Year Plan, the center has developed large pumps and impressively achieved the goal of localization through the introduction of talent and cooperation with foreign research.

Leo Dalian Petrochemical Pump Technical Center, which is located in Dalian, Liaoning Province, has a R&D team composed of many domestic top experts, which engages in R&D, design of high-end pumps in petrochemical industry, coal chemical industry, long-distance pipeline, energy and fine chemicals industry. Meanwhile, they undertake the localization task entrusted by the State and do marketing of high-end products. The center is developing new version of OH, BB and VS products to meet API610 standard and actively exploring liquid transfer solutions under severe and extreme working conditions as well as researching the projects of ultra-low temperature, high temperature, high pressure, low cavitation, strong corrosion and energy recovery.

Leo Wenling Civil Pump Technical Center, which is located in Wenling, Zhejiang Province, has a technical team composed of numbers of senior engineers in design, manufacturing process and testing. This center engages in R&D of civil centrifugal pumps, pipeline pumps, jet pumps, peripheral pumps, submersible pumps, self-priming pumps, vertical stainless steel multistage pumps, etc.

The domestic first-class and the international advanced R&D level, makes remarkable achievements in product serialization, diversified, mechatronics, energy efficient and provide system solutions for end customers.

Leo Hunan Pump Technical Center

Leo Dalian Petrochemical Pump Technical Center

Leo Wenling Civil Pump Technical Center

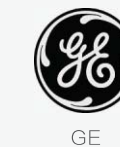
The only state-authorized technical center in pump industry.



LEO Technology Center became the only state-authorized technical center in pump industry after a comprehensive review of five ministries, including of the National Development and Reform Commission, the Ministry of Science and Technology.

Extensive international cooperation and exchanges

Leo attaches great importance to international cooperation with foreign pump enterprises company. A manufacturing cooperation agreement about petrochemical pump has been signed with Nuovo Pignone, a famous pump enterprises belongs to Oil and Gas Division of GE. And another manufacturing and technical cooperation agreement is signed with Clyde Union Pumps (The UNION pump and the WEIR pump of the original), one of the world's top ten pump company. Various forms of international cooperation ensures that Leo's R&D and manufacturing will par with the world's advanced level, to enhance the competitiveness of the products continuously.



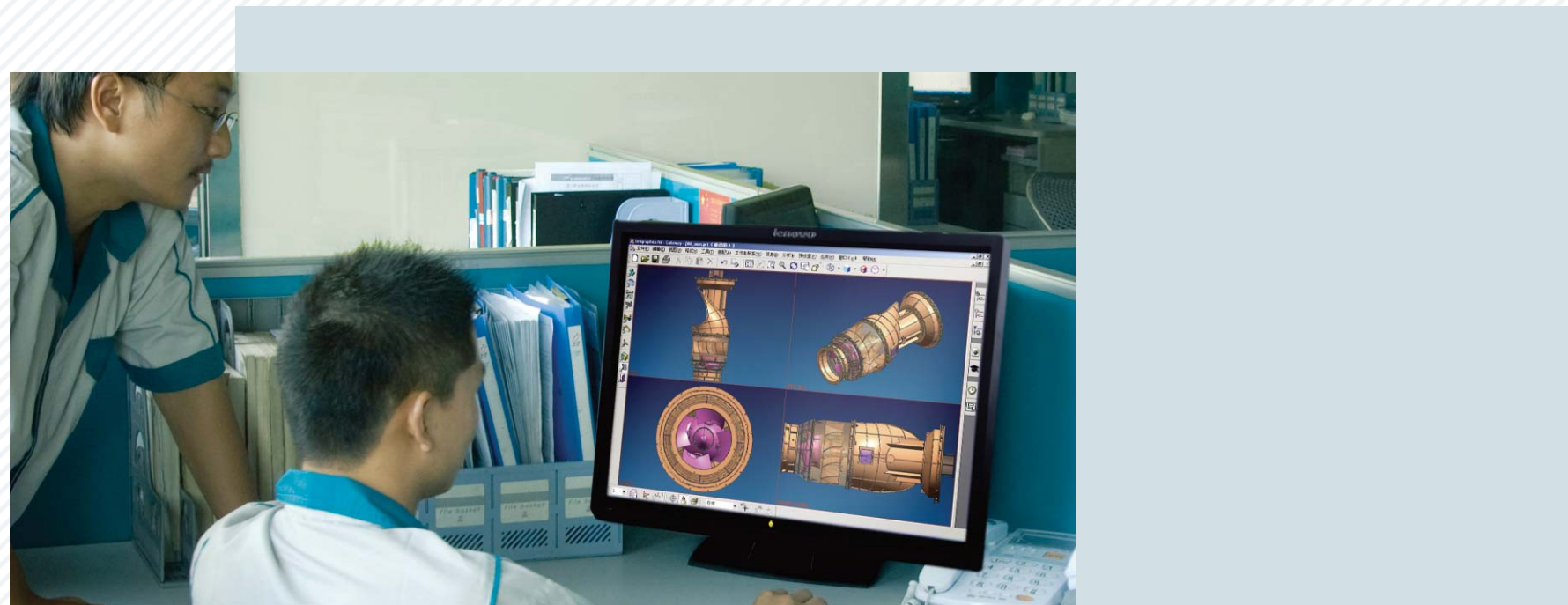
Close cooperation with universities



Advanced R & D Means

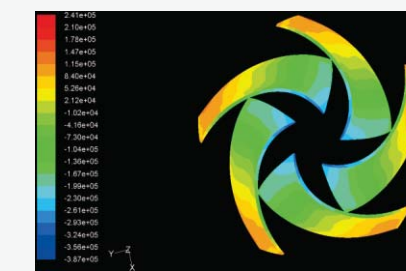
Domestic leading design means, including CFD 3-d fluid simulation analysis, CAE finite element analysis, flow channel and flow field analysis of high-speed photography, etc, ensures the closely integration of the advanced nature of the R&D of the hydraulic model, the rationality of mechanical structure and the reliability of the product life. Meanwhile, the company attaches great importance to the Cooperation of industry, education and academy by actively carrying out technical exchanges with the authorities at home and abroad.

LEO dedicates to providing our customers with high quality, high efficiency, energy saving and reliable products, to meet the diverse needs of our customers continuously.

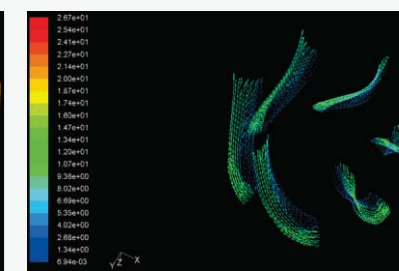


System software of CFD 3-d fluid simulation analysis

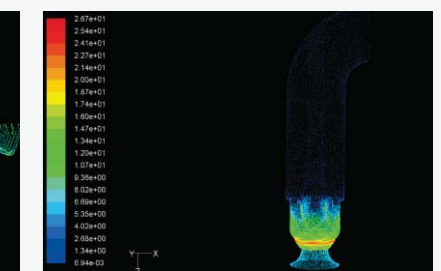
Flow field simulation analysis of main flow passage components



Total pressure distribution analysis of impeller blades face



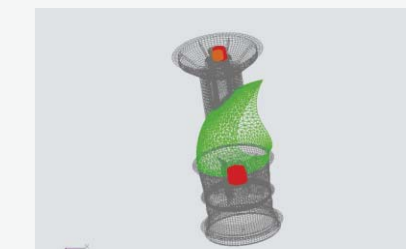
Velocity distribution analysis of guide vane blade surface



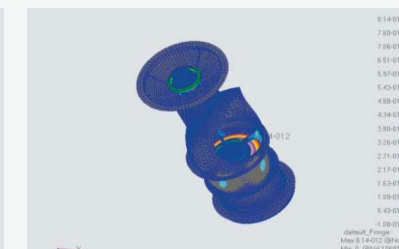
Pumps full-runner speed distribution analysis

Assisted analysis and design system software of CAE finite element

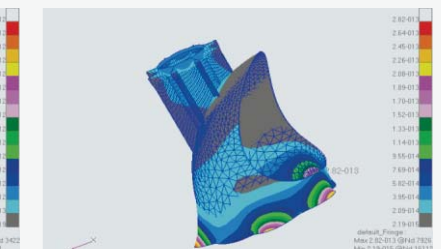
Main parts mechanical analysis



Load analysis of pump power



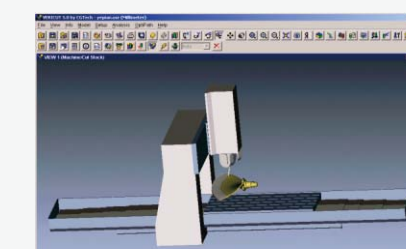
Overall displacement analysis of pump body



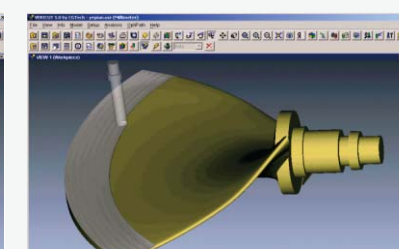
Bending displacement analysis

Analysis system software of CAM CNC machining

NC machining simulation analysis of the impeller blades



CNC machining simulation



CNC Machining of the impeller blades

MIGHTY MANUFACTURING CAPABILITY

Leo strives to become one of the largest, the most advanced and the strongest comprehensive strength pump manufacturers.



DVT800 CNC Vertical Lathe with Max. Machining Diameter of 8 m



CNC Floor-type Milling & Boring Machine TK6916X80



CNC Cylindrical Grinder MKW1380A



CNC Horizontal Lathe CAK80285D



5-Axis CNC Horizontal lathe- CAK80285D Machining Center- GMB1620



CW61125 Horizontal Lathe with Max. Machining Diameter of 8 m

■ Advanced manufacturing equipment

Leo has more than 1,000 units domestic advanced CNC machining equipment, heat treatment equipment, including 8 m CNC double column vertical lathe, 8 m CNC Horizontal Lathe, 5-axis machining centers, CNC Floor-type Milling & Boring Machine, 6 m CNC Cylindrical Grinder, annealing Furnace (5 m× 5 m×5 m),etc.



■ Major equipment

- DVT800 CNC Vertical Lathe with Max. Machining Diameter of 8m
- CW61125 Horizontal Lathe with Max. Machining Diameter of 5m
- CNC Horizontal Lathe CAK80485C
- CNC Floor-type Milling & Boring Machine TK6916
- Plano-Boring and Milling Machine TX2030-6
- 5-axis Machining Center GMB1620
- CNC Cylindrical Grinder MKW1380A
- Cylindrical Grinder M1350
- Internal Grinder M2120
- Balancing Machines H7500WX
- 3-Coordinate Measuring Machine RA7530
- 3-Coordinate Marking Machine BF-2500
- Faro Measuring Arm
- Annealing Furnace (5m×5m×5m)
- Trolley Resistance Furnace (3.6m×3.6m×1.5m)
- Deep Quenching tank (4m in diameter×7.2m)



PERFECT QUALITY CONTROL SYSTEM

LEO has established a perfect quality management system in accordance with ISO9001:2008. Advanced testing facilities are equipped. The laboratory of Leo's testing center has obtained CNAS approval, ISO17025 certificate issued by VDE, TDAP certificate and UL witness qualification. Meanwhile, with further 14001:2004 environmental management system certificate, OHSAS18001:2001 safety and occupational health management system certificate and safety certificate of approval for mining products, LEO has got qualifications of main industrial sectors. Thus, each pump produced for customer is under strict systematic quality control.



■ Superior Testing Capability

LEO has a world-class and domestic leading testing Center . The testing pool capacity is 14,000 m3. Max. testing flow is 36 m3/s. Max. unit testing power is 12,500 kW. Max. transformer capacity is 16,000 KVA. Available supply voltage includes 380V, 6KV and 10KV. There're two operation systems, i.e. one with power frequency and the other with frequency conversion (6-72 Hz) in the testing center. The pumps with inlet diameter between 800 and 4000 mm can be tested. 6 testing positions are available at the same time. Meanwhile, the testing site is under monitoring by full-automatic computer controlled system with 8 detectors and bilingual testing reports will be generated automatically. With max. lifting capacity of 80 tones, tests of real samples of large vertical pumps and horizontal pumps for important industrial applications can be realized.



Testboard for large and medium-sized pumps



Dry Pit Testboard



12m Assembly Pit



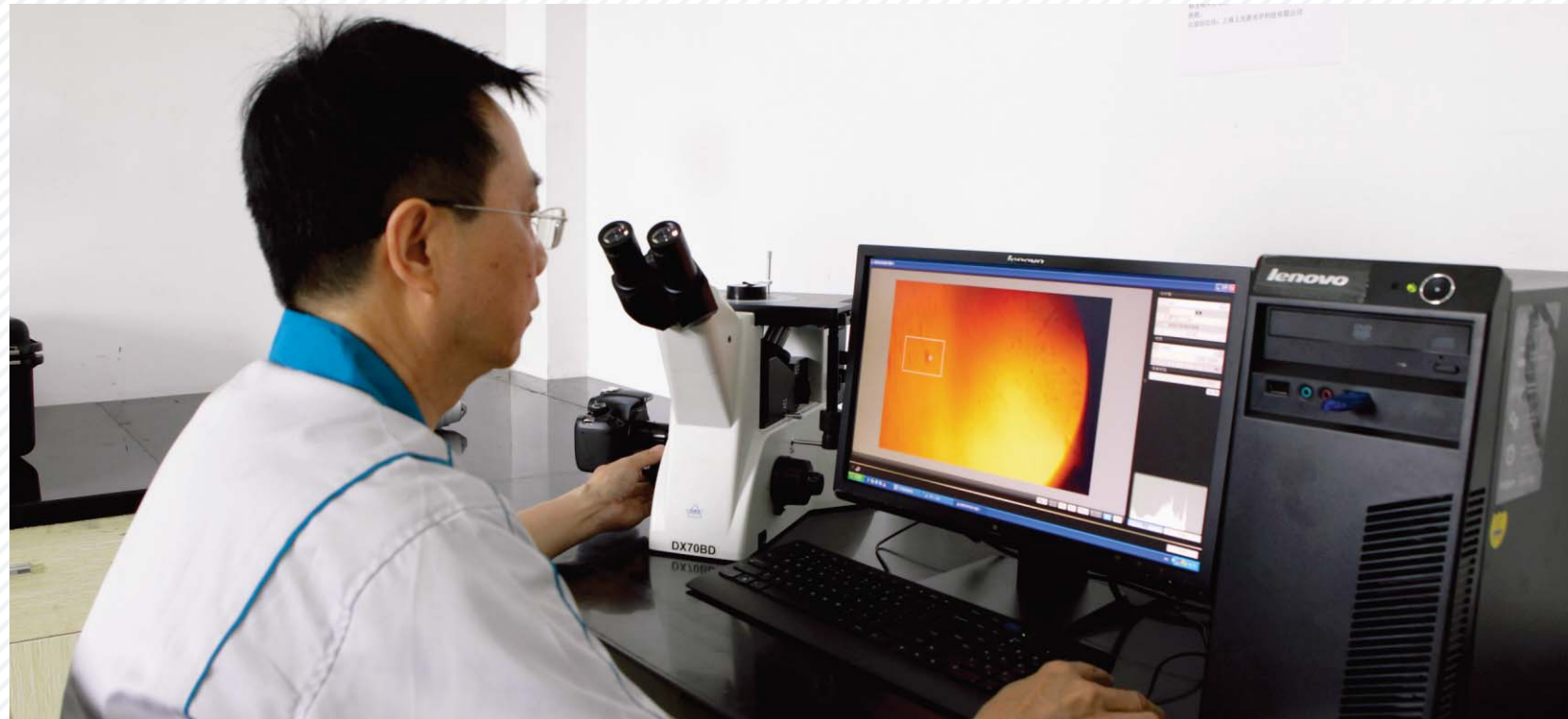
Electric Control Room in Test Station



Central Control Room of Host Computer in Test Station



Testboard for small and medium-sized pumps



■ The main physical and chemical testing equipment

Infrared carbon and sulfur analyzer	Analysis microscope
Impact notch projector	Impact Tester
Rockwell hardness tester	Ultrasonic flaw detector
Micro Vickers hardness tester	Direct reading spectrometer
Brinell hardness tester	Ray detector

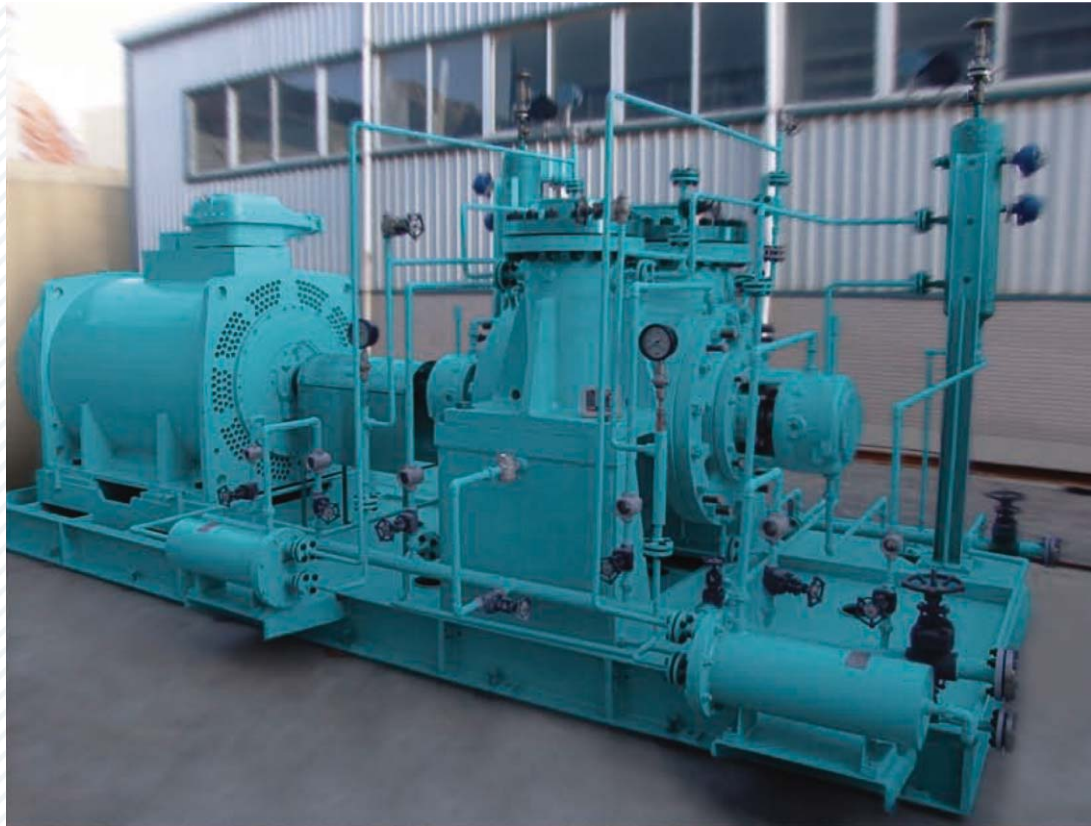
■ Advanced physical and chemical testing equipment

Leo testing center can provide a full range of inspection and issued project inspection reports, etc., including metallurgical analysis of materials, chemical analysis, mechanical performance analysis, the internal defect analysis of material, pressure capability detection of material, detection of the rotor balancing detection. And to ensure the high standard and high quality of LEO products by advanced physical and chemical testing equipment to realize scientific quality control.



PRODUCT SERIES

Our products have been sold far to over 120 countries and areas, such as Europe, North America, Middle & South America, Southeast Asia, Middle East, Africa, Oceania etc, covering 75 series and over 8000 models, which are widely used in water conservancy & water resources, power station, petrochemical industry, mining and metallurgical industry, civil. The company collects famous brands in the industry, and has a complete hydraulic model base, long manufacturing history and rich application experience. The products can be customized as request.





PERFORMANCE RANGE
Flow: 2000~120000m³/h
Head: 2~15m
Caliber: 500~3000mm

APPLICATIONS
Agricultural irrigation, water transportation for thermal power stations circulation, urban water supply and drainage, sewage, dock lift water and other water conservancy.

ZLB/ZLQ Single-suction vertical axial flow pump



PERFORMANCE RANGE
Flow: 1800~90000m³/h
Head: 5~50m
Caliber: 500~3000mm

APPLICATIONS
Water transportation for power plant circulation, industrial water, urban water supply, drainage works, steel mills, quays, agricultural irrigation

HLB/HLBK/HLKS/HLKT Vertical mixed flow pump



PERFORMANCE RANGE
Flow: 350~160000m³/h
Head: 0~35m
Caliber: 350~3500mm

APPLICATIONS
Agriculture irrigation, mining and shipping, municipal construction, water supply and drainage of power plant, circulating water transportation of power plant, docks and other water conservancy.

HD Single-stage vertical mixed-flow pump with guide vane



PERFORMANCE RANGE
Flow: 150~7000m³/h
Head: 5~60m
Caliber: 50~800mm

APPLICATIONS
Municipal projects, hospitals, agricultural irrigation, water conservancy, industrial water supply system, construction, hotels

QW Submersible sewage pump



PERFORMANCE RANGE
Flow: 100~11000m³/h
Head: 4~40m
Caliber: 100~800mm

APPLICATIONS
Municipal projects, hospitals, agricultural irrigation, water conservancy, industrial water supply system, construction, hotels

W Horizontal sewage pump



PERFORMANCE RANGE
Flow: 11.2~1400m³/h
Head: 10~100m
Caliber: 50~300mm

APPLICATIONS
Petroleum, chemical, metallurgy, electric power, iron and steel, mining, papermaking, electroplating, environmental, consumer, construction, sewage treatment

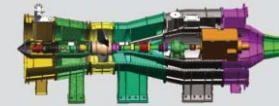
WLZ/WZY Vertical non-leakage self-priming pump



PERFORMANCE RANGE
Flow: 120~2450m³/h
Head: 36~360m
Caliber: 100~2200mm

APPLICATIONS
Condensate transportation for fire (nuclear) power thermal system, high suction performance drainage works

GLN Vertical barrel condensate pump



PERFORMANCE RANGE
Flow: 1200~150000m³/h
Head: 0~10m
Caliber: 350~3500mm

APPLICATIONS
Long-distance water diversion, urban flood control, water environmental governance, etc.

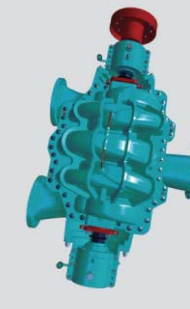
ZGB(Q) Tubular pump



PERFORMANCE RANGE
Flow: 60~8400m³/h
Head: 12.5~94.5m
Caliber: 150~1000mm

APPLICATIONS
Native water treatment plants, sewage treatment plants, iron and steel metallurgy industry, conveying of flow pool oxide scale water, power plants, mining, municipal engineering, agriculture water conservancy

LC/HDS Vertical long shaft pump



PERFORMANCE RANGE
Flow: 400~13000m³/h
Head: 40~185m
Caliber: 200~800mm

APPLICATIONS
Industrial and mining enterprises, urban water supply and drainage, long-distance water conveyance.

SKD Double-suction split-case multistage centrifugal pump



PERFORMANCE RANGE
Flow: 130~9000m³/h
Head: 3.5~22m
Caliber: 300~800mm

APPLICATIONS
Municipal projects, hospitals, agricultural irrigation, water conservancy, industrial water supply system, construction, hotels

HW/HWG Single-stage horizontal mixed flow pump



PERFORMANCE RANGE
Flow: 0.44~18000m³/h
Head: 3.4~120m
Caliber: 300~1800mm

APPLICATIONS
Municipal projects, hospitals, agricultural irrigation, water conservancy, industrial water supply system, construction, hotels, shipyards

HL/LW Single-stage vertical mixed flow pumps



PERFORMANCE RANGE
Flow: 135~38000m³/h
Head: 12~225m
Caliber: 150~1800mm

APPLICATIONS
The supply and drainage system or the cooling water circulation system of mining, steel, thermal power generation, petrochemical industry, etc; urban water supply, agriculture irrigation and other water conservancy

GS Efficient single-stage double-suction centrifugal pump



PERFORMANCE RANGE
Flow: 135~38000m³/h
Head: 12~225m
Caliber: 150~1800mm

APPLICATIONS
The supply and drainage system or the cooling water circulation system of mining, steel, thermal power generation, petrochemical industry, etc; urban water supply, agriculture irrigation and other water conservancy

GSR Efficient single-stage double-suction centrifugal pump



PERFORMANCE RANGE
Flow: 1080~54000m³/h
Head: 5~10m
Caliber: 350~2000mm

APPLICATIONS
Municipal projects, hospitals, agricultural irrigation, water conservancy, industrial water supply system, construction, hotels

QZ Submersible axial flow pump



PERFORMANCE RANGE
Flow: 1080~36000m³/h
Head: 5~28m
Caliber: 350~1600mm

APPLICATIONS
Municipal projects, hospitals, agricultural irrigation, water conservancy, industrial water supply system, construction, hotels, dock

QHD Submersible mixed flow pump with guide vane



PERFORMANCE RANGE
Flow: 8~432m³/h
Head: 20~280m
Caliber: 40~250mm

APPLICATIONS
Urban high-rise building water supply, central heating systems, fire systems, air conditioning systems, industrial and mining water supply system

DL Vertical multistage centrifugal pump



PERFORMANCE RANGE
Flow: 600~7200m³/h
Head: 4.5~18m
Caliber: 300~900mm

APPLICATIONS
Municipal projects, hospitals, agricultural irrigation, water conservancy, industrial water supply system, construction, hotels

QHL Submersible mixed flow pump



PERFORMANCE RANGE
Flow: 10~1000m³/h
Head: ~3200m
Pressure: 35MPa
Temperature: -80~450oC

APPLICATIONS
To convey high temperature, high pressure and corrosive medium in petrochemical and coal chemical industry.

EXECUTIVE STANDARD:
API610



PERFORMANCE RANGE
Flow: 100~600m³/h
Head: 800~3000m
Pressure: 42MPa
Temperature: -80~450oC

APPLICATIONS
To convey high temperature and high pressure medium in iron and steel smelting.

EXECUTIVE STANDARD:
API610

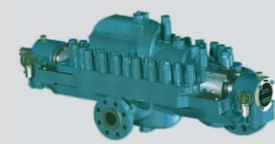


PERFORMANCE RANGE
Flow: 6~600m³/h
Head: ~1500m
Pressure: 25MPa
Temperature: 300oC

APPLICATIONS
To convey medium temperature, high pressure and clean medium in petrochemical and coal chemical industry

EXECUTIVE STANDARD:
API610

HDR、HTDR Double casing horizontal multistage pump (BB5) HQJ/HQJT/HQJTG Single/Double casing horizontal multistage pump (BB4/BB5) HAD/HDG Horizontal radially split multistage pump (BB4)



PERFORMANCE RANGE
Flow: 30~800m³/h
Head: ~1200m
Pressure: 15MPa
Temperature: 200oC

APPLICATIONS
Main pump for pipeline transportation, industrial process pump for petrochemical and coal chemical industry

EXECUTIVE STANDARD:
API610



PERFORMANCE RANGE
Flow: 95~3200m³/h
Head: ~600m
Pressure: 15MPa
Temperature: -80~450oC

APPLICATIONS
Medium of high temperature, high pressure, high flow and low cavitation in petrochemical and chemical industry

EXECUTIVE STANDARD:
API610



PERFORMANCE RANGE
Flow: ~10000m³/h
Head: 40~500m
Pressure: 2.5~5.0MPa
Temperature: ~20~200oC

APPLICATIONS
Main pump for pipeline transportation, industrial process pump for petrochemical and coal chemical industry

EXECUTIVE STANDARD:
API610

HKD Horizontal split-case multistage volute pump (BB3) HAS/HSAD Horizontal radially split pump (BB2) HSM Horizontal axially split pump (BB1)



PERFORMANCE RANGE
Flow: 2~800m³/h
Head: ~1500m
Pressure: 15MPa
Temperature: -200~250oC

APPLICATIONS
The low-temperature, low cavitation, flammable, easy-collapse condition for petrochemical, coal

EXECUTIVE STANDARD:
API610



PERFORMANCE RANGE
Flow: 10~400m³/h
Head: 15~60m
Pressure: 2.5MPa
Temperature: -20~200oC

APPLICATIONS
High particle content and high viscosity conditions in petrochemical, chemical, industry

EXECUTIVE STANDARD:
API610



PERFORMANCE RANGE
Flow: 2~800m³/h
Head: ~160m
Pressure: 2.5MPa
Temperature: ~500oC
Liquid Depth: ~10m

APPLICATIONS
Industrial process pump for petrochemical, chemical, coal chemical industry, dedicated pump for conveying of sulfur and high temperature lava.

EXECUTIVE STANDARD:
API610

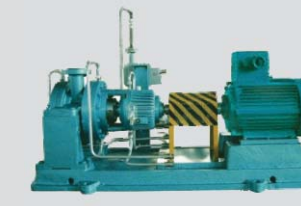
TD/DL Double casing vertical multistage pump (VS6) HLB/HSB Vertical cantilever submerged pump (VS5) HY/HL/HRY Submerged long shaft pump (VS4)



PERFORMANCE RANGE
Flow: 3~65m³/h
Head: 3~100m
Pressure: 2.5MPa
Temperature: ~180oC

APPLICATIONS
Petroleum, chemical industry

EXECUTIVE STANDARD:
API610



PERFORMANCE RANGE
Flow: ~2000m³/h
Head: 250m
Pressure: 2.5~13.5MPa
Temperature: -80~450oC

APPLICATIONS
Refineries, petrochemical industry, coal processing and cryogenic engineering

EXECUTIVE STANDARD:
API610



PERFORMANCE RANGE
Flow: 3~600m³/h
Head: ~1500m
Pressure: 2.5MPa
Temperature: -20~250oC

APPLICATIONS
Process pump for Pipeline pressure, petrochemical, chemical industry

EXECUTIVE STANDARD:
API610

TR Tank pump-TR series (VS1) HA/HE/HF/HU Petrochemical process pump (OH1/OH2) HGPN Pipeline Pump (OH3)



PERFORMANCE RANGE
Flow: ~2000m³/h
Head: ~160m
Pressure: 2.5MPa
Temperature: -80~300oC

APPLICATIONS
Process pump for petrochemical, chemical and coal industry



PERFORMANCE RANGE
Flow: 260~16000m³/h
Head: 2.5~7.50m
Pressure: 1.0MPa
Temperature: 0~180oC

APPLICATIONS
Mainly used for forced circulation of saturated solution which is easy to crystallize in evaporation and concentration equipments of alkali, salt, citric acid, sodium sulphate and other industries.



PERFORMANCE RANGE
Flow: ~7000m³/h
Head: ~25m
Pressure: 0.6MPa
Temperature: -20~155oC

APPLICATIONS
Forced circulation in the chemical process, city gas projects

HC Chemical process pump HZ/HZN Axial flow pump HSP Mixed flow pump



PERFORMANCE RANGE
Flow: ~38000m³/h
Ultimate Vacuum: 3.3KPa.A
Ultimate Pressure of Outlet: 0.7MPa.G
Temperature: ~100oC

APPLICATIONS
Chemical industry, flue gas desulfurization, metallurgical industry, sulfur recovery,etc.

EXECUTIVE STANDARD:
API610



PERFORMANCE RANGE
Flow: 2~600m³/h
Head: 5~80m
Pressure: 2.5MPa
Temperature: -20~120oC
Max. Suction Vacuum: 500~700mmhg

APPLICATIONS
Process pump for petrochemical, chemical and coal industry



PERFORMANCE RANGE
Flow: 0.1~12m³/h
Head: 20~160m
Pressure: 1.6MPa
Temperature: ~400oC

APPLICATIONS
Small flow and high head process pump for petrochemical, chemical and coal chemical industry.

HEZ Vacuum pump and Compressor UH Horizontal self-priming pump HDX Small flow multistage pump

SALES & AFTER-SERVICE NETWORK

Leo gives top priority to customers forever, providing solutions quickly is the service purpose.

Leo has perfect after-service system, equipping with professional sales and service teams in water conservancy and water resources, power station, petrochemical industry, mining and metallurgy, civil. Fifty-five sales offices around the country provide service for customers. After customer makes a request, a written reply within two hours and 36 hours field service will be given by Leo's after-sales service staff to ensure solving problems quickly.

■ National sales distribution network



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MAIN ACHIEVEMENTS



Exterior of Taizhou Yinjiang River Pump Station

TAIZHOU YINJIANG RIVER PUMP STATION

Model: 3000ZLQ35-4
 Flow: $Q=35\text{m}^3/\text{s}$
 Head: $H=4.0\text{m}$
 Speed of pump: $n=150\text{r}/\text{min}$
 Power: $N=2000\text{kW}$
 Speed of motor: $n=150\text{r}/\text{min}$

Axial flow pump of spindle-open installing.
 Two-way outlet conduit.
 Blades with full mechanical regulation.
 Installed capacity: 9 units (the first three are semi-regulated structure)
 Time of test run: 1998-1999

GUANGDONG JIAOMEN RIVER PUMP STATION

Model: 1600ZWB10-2.8
 Flow: $Q=10\text{m}^3/\text{s}$
 Head: $H=2.8\text{m}$
 Speed of pump: $n=250\text{r}/\text{min}$
 Power: $N=355\text{kW}$
 Speed of motor: $n=250\text{r}/\text{min}$

Semi-regulated horizontal axial flow pump of
 Installed capacity: 9 units
 Time of test run: 2005

JIANGSU WUXI MEILIANG LAKE PUMP STATION

Model: 2000ZGB 10-1.5
 Flow: $Q=10\text{m}^3/\text{s}$
 Head: $H=1.5\text{m}$
 Speed of pump: $n=140\text{r}/\text{min}$
 Power: $N=355\text{kW}$
 Speed of motor: $n=990\text{r}/\text{min}$

Semi-regulated shaft tubular pump with gearbox driving
 Installed capacity: 4 units
 Time of test run: 2007



BAOYING PUMP STATION OF SOUTH-TO-NORTH WATER DIVERSION PROJECT

Model: 3500HDQ34-7.6
 Flow: $Q=34\text{m}^3/\text{s}$
 Head: $H=7.6\text{m}$
 Speed of pump: $n=125\text{r}/\text{min}$
 Power: $N=3400\text{kW}$

Center hydraulic adjustable mixed flow pump with guide van.
 Installed capacity: 4 units



SHANGHAI TAIPU RIVER PUMP STATION

Model: 4100ZXB50-1.8
 Flow: $Q=52\text{m}^3/\text{s}$
 Head: $H=2.1\text{m}$
 Speed of pump: $n=73\text{r}/\text{min}$
 Power: $N=1600\text{kW}$
 Speed of motor: $n=730\text{r}/\text{min}$

Semi-regulated axial flow pump of direct driving, oblique 150 installed.
 Installed capacity: 6 units
 Time of test run: 2005



INTERIOR OF JIANGSU SUQIAN LIULAOJIAN PUMP STATION

Model: 3100ZLQ38-42
 Flow: $Q=38\text{m}^3/\text{s}$
 Head: $H=4.2\text{m}$
 Speed of pump: $n=150\text{r}/\text{min}$
 Power: $N=220\text{kW}$
 Speed of motor: $N=150\text{r}/\text{min}$

Vertical Axial flow pump. Cylinder installing of the spindle shaft. Blades with full mechanical regulation.
 Installed capacity: 4 units
 Time of test run: 2005



SHANGHAI YANGSHUPU PUMP STATION

Model: 1400QG55-3.5
 Flow: $Q=5\text{m}^3/\text{s}$
 Head: $H=3.7\text{m}$
 Speed of pump: $n=370\text{r}/\text{min}$
 Power: $N=40\text{kW}$
 Speed of motor: $n=370\text{r}/\text{min}$

Semi-regulated bidirectional submersible tubular pump.
 Installed capacity: 4 units
 Time of test run: 2006



LINJIABA PUMP STATION

Model: 2850ZGB25-2.4
 Flow: $Q=25\text{m}^3/\text{s}$
 Head: $H=2.4\text{m}$
 Speed of pump: $n=120\text{r}/\text{min}$
 Power: $N=1250\text{kW}$
 Speed of motor: $n=750\text{r}/\text{min}$

Full-adjusting rear bulb tubular pump.
 Installed capacity: 4 units
 Time of test run: 2008



Zhengzhou Yuzhong Energy LLC
Xinmi Power Plant Phase II
Circulation pump 2X1000MW

Model: 2200HLBK-26.6
Flow: 9.16m³/s
Head: 26.6m
Speed of pump: 370/330r/min
Power: 3150/2235kW



Guodian Kangping Power Generation Co., Ltd.
Circulation pump 2X600MW

Model: 2200HLBK-25.5
Flow: 8.62m³/s
Head: 25.5m
Speed of pump: 370r/min
Power: 2900kW
Quantity: 4



Guodian Xinyang Coal-electricity
Integration Co., Ltd.

Model: 2200HLBK-27
Flow: 9.72m³/s
Head: 27m
Speed of pump: 370/330r/min
Power: 3300/2340kW
Quantity: 4



Contract zone in Bagtjarylyk in Turkmenistan
A Regional ground engineering
Natural Gas Processing Plant Project

Model: OH2
Medium: Lean amine
Flow: 315m³/h
Head: 130m
Speed of pump: 2950rpm
Speed of motor: YB315L2-4/200kW



Sulfur Recovery Facility in CNPC Shijiazhuang
Branch

Model: BB4
Medium: Boiler water
Flow: 8m³/h
Head: 500m
Speed of pump: 2950rpm
Speed of motor: 45kW



Vacuum Pump System Site

Medium: Toluene
Gasometry: 146Nm³/h
Head: 500m
Speed of pump: 1475rpm
Power: 15kW



Huadian Yuannan Zhenxiang Power Station

Model: 2200HLBK-25
Flow: 9.17m³/s
Head: 25m
Speed of pump: 370r/min
Power: 3000kW
Quantity: 4



Tianjin Guodian Jinneng Thermal Power
Co., Ltd.

Model: 600SR185
Flow: 3800m³/h
Head: 185m
Speed of pump: 980r/min
Power: 2800kW
Quantity: 4



Rembang Thermal Power Plant in Indonesia

Model: Vertical mixed flow pump -1800HLBK-18
Flow: 7.17m³/s
Head: 19m
Speed of pump: 425r/min
Power: 1800kW
Quantity: 4



BB2 Pump in Xinjiang Jinhuyang Chemical
Co., Ltd.

Model: BB2
Flow: 260m³/h
Head: 315m
Speed of pump: 2950rpm
Power: 400kW



Glycol Technical Innovation in Fushun
Ethylene Plant

Model: BB2
Medium: Ethylene
Flow: 440m³/h
Head: 245m
Speed of pump: 2950rpm
Speed of motor: XF-LH400LL/420kW



CNPC Changqing Branch

Model: BB5
Medium: Bottom oil
Flow: 303m³/h
Head: 1720m
Speed of pump: 2950rpm
Speed of motor: 1600kW



Shanxi Hongte Coal Chemical Company

Model: BB4
 Medium: High-pressure water
 Flow: 150m³/h
 Head: 1560m
 Speed of pump: 2950rpm
 Speed of motor: YKS-2P10000V/1120kW



Qilu Petrochemical Dry Gas Seal Pump

Model: OH2
 Flow: 160m³/h
 Head: 60m
 Speed of pump: 2950rpm
 Speed of motor: 45kW



MDI Technical Innovation Project in Ningbo
 Wanhua Polyurethane Co., Ltd.

Model: BB2
 Medium: Rich methanol
 Flow: 315/153.5/307.2m³/h
 Head: 161m
 Speed of pump: 1450rpm
 Speed of motor: YB2450S2-4/220kW



Equipment in Storage Tank Farm in CNPC
 Qingyang Branch(Liquefied Light Hydrocarbon
 Groups Wheel Cylinder)

Model: VS6
 Medium: Liquefied gas
 Flow: 25m³/h
 Head: 508m
 Speed of pump: 2950rpm
 Speed of motor: YBPT250M-2/55kW



20,000 tons / year MaleicAnhydride Plant in
 Lanzhou Petrochemical Company

Model: VS6
 Medium: Liquefied gas
 Flow: 45m³/h
 Head: 140m
 Speed of pump: 2950rpm
 Speed of motor: YB180M-2W/22kW



BB2 Process Pump in Urumqi Petrochemical
 Company

Model: BB2
 Flow: 1600m³/h
 Head: 75m
 Speed of pump: 1475rpm
 Speed of motor: 500kW



Sulfur Recovery Projects in Indonesia

Model: VS4
 Medium: Liquid sulfur
 Flow: 8mm³/h
 Head: 120m
 Speed of pump: 2950rpm
 Speed of motor: YB225M-2WTH/45kW

Direct Coal Liquefaction in Shenhua Group

Model: BB2
 Medium: Middle distillates
 Flow: 695m³/h
 Head: 200m
 Speed of pump: 2950rpm
 Speed of motor: YB450S3-2/40kW

The western Pipeline Urumqi Transport Branch

Model: BB3
 Flow: 150m³/h
 Head: 760m
 Speed of pump: 2950rpm
 Speed of motor: 560kW