



沈鼓集团股份有限公司
SHENGU GROUP CO.,LTD.

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1 General Introduction

❖ Company Profile

Founded in 1952, the ShenGu Group, known internationally as SBW Group, is a strategic and leading enterprise in China's heavy equipment manufacturing industry. Engaged in the research, development, design and manufacture of high-tech and high-quality large scale centrifugal compressors, large axial-flow compressors, high piston force reciprocating compressors, large pumps, and etc., which are widely used in oil & gas, petrochemical, fertilizer, chemical, air separation, energy saving & environmental protection, metallurgy & coking, power, renewable energy, and other fields.



❖ Company Culture

Mission

To equip the world with top quality product
through intelligent manufacturing

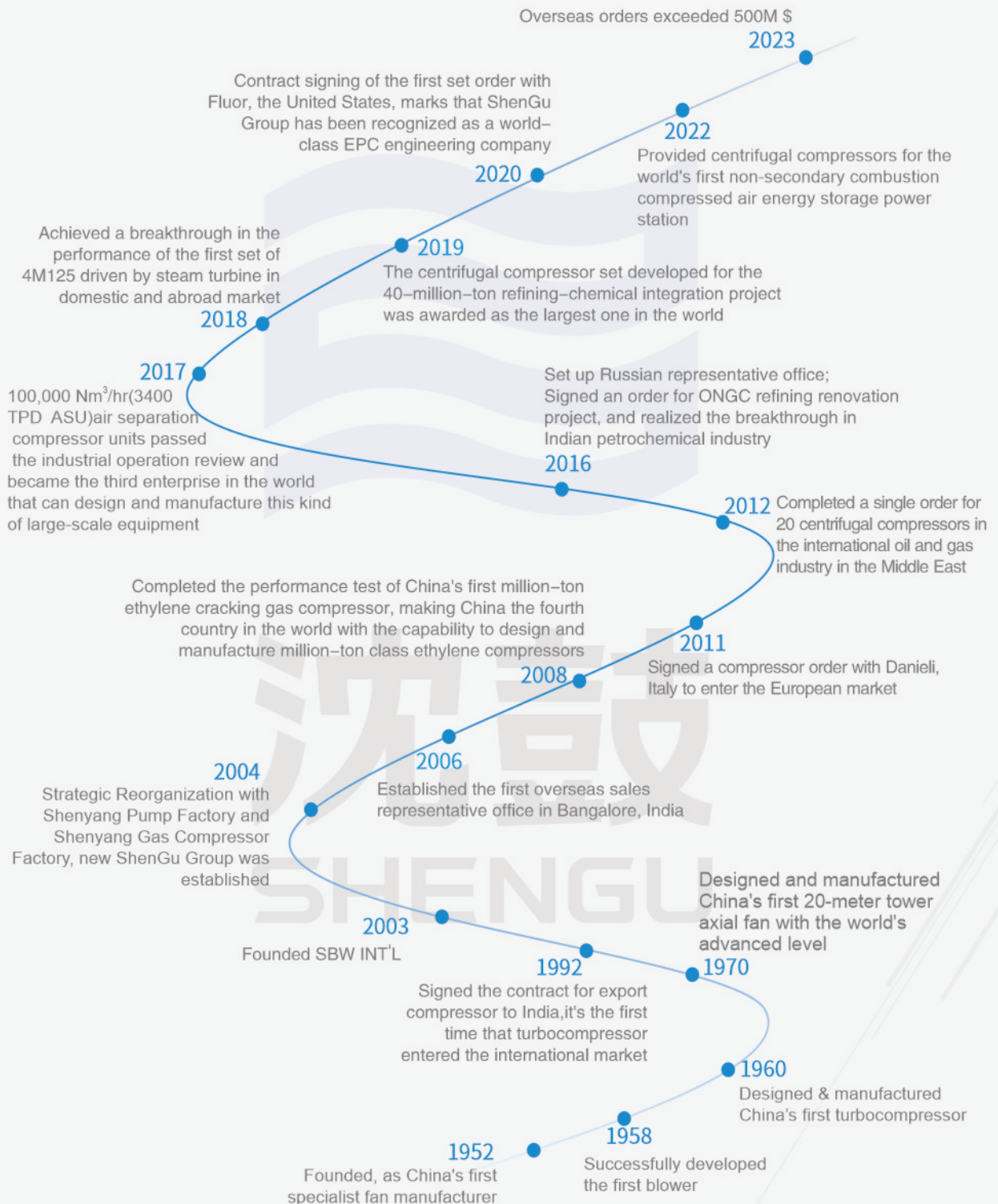
Vision

To lead the world in rotating equipment
for the global energy and chemical industries

Core Value

Serving Customers,Focusing on Quality,
Continuing to Innovate,Pursuing Excellence

Milestones



Products are now exported to more than 30 countries globally with over 1200 sets.

 Certification

Chairmans' Visit



National Awards

ShenGu Group is the first industrial enterprise in the general machinery industry to win the "China Industry Award", which is known as the "Oscar of Chinese Industry", equivalent to the Outstanding Industrial Design Award of the United States and the G-Mark Design Award of Japan.



全国质量奖
CHINA QUALITY AWARD

ShenGu Group was awarded "National Quality Award" in 2023, which is a nationwide quality award equal to the Deming Award in Japan, the Baldolich National Quality Award in the United States, and the EFQM Excellence Award in Europe.

2 Business Segments

Main Applications



Oil & Gas

▼ Oil

- 400 bar oil field exploitation
- 20 million tons/year oil refining

▼ Gas

- 20 billion m³/year ethane recovery processing
- 8 million tons/year liquefied natural gas (LNG)
- 80 billion m³/year gas gathering and pressurization and natural gas transmission
- Recycling of -162°C LNG cold energy
- CNG



Petrochemical

- 3 million tons/year PX
- 2 million tons/year ethylene
- 1.2 million tons/year PDH
- 1.5 million tons/year PTA
- 3.6 million tons/year methanol
- 1.2 million tons/year methanol to olefins
- 4 billion m³/year coal to natural gas
- 4 million tons/year coal to oil



Fertilizer

- 800,000 tons/year of synthetic ammonia
- 1.25 million tons/year urea
- Green ammonia



Chemical

- 600,000 tons/year to 800,000 tons/year of polyethylene-polypropylene
- 1 million tons/year ethylene oxide/ethylene glycol (EO/EG)
- 36/650,000 tons/year propylene oxide/styrene (PO/SM)
- 100,000 tons/year methyl methacrylate (MMA)
- 660,000 tons/year acrylonitrile
- 100,000 tons/year acrylic acid
- 100,000 tons/year phthalic anhydride
- High-end chemicals/new chemical materials



Air Separation

- 20,000 ~ 150,000 Nm³/h O₂ air separation



Energy Saving & Environmental Protection

- 1 million m³/day sewage treatment
- 40MW low temperature waste heat comprehensive utilization (ORC)



Metallurgy/Coking

▼ Metallurgy

- 5000m³ blast furnace ironmaking
- 300MW gas and steam combined cycle power generation
- 2 million tons/year DRI

▼ Coking

- Comprehensive utilization of 6 million tons/year coke oven gas tail gas



Power

▼ 1000MW Thermal Power

- Boiler feed pump
- Condensate pump
- Circulating pump



New Energy

▼ Hydrogen Energy

- 40KW hydrogen fuel cell
- 30 tons/day hydrogen liquefaction
- 100,000 tons/year hydrogen pipeline

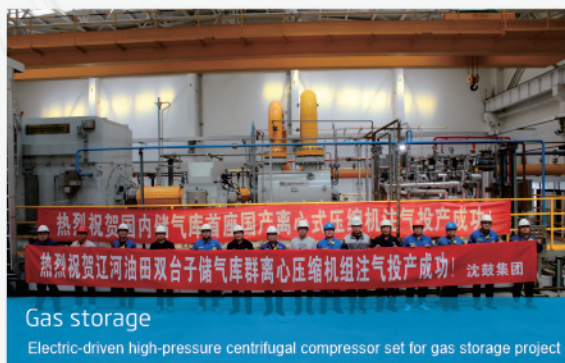
▼ Others

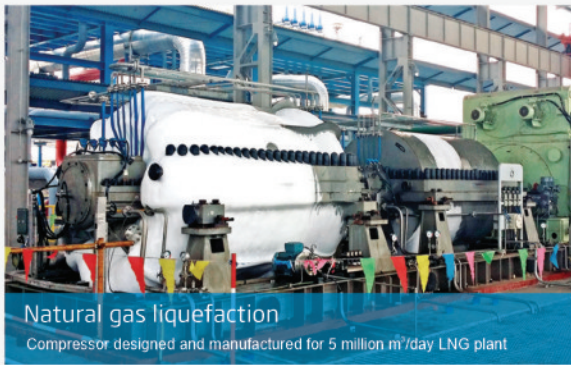
- 10 million m³/day 40MPa gas storage
- 300MW compressed air storage
- Polycrystalline silicon
- Green ammonia
- Green hydrogen

Solutions for Energy & Chemical Sectors

◆ Leading high-end equipment in many fields

Provided world-class high-end equipment and solutions for onshore and offshore oil and gas collection, storage and transportation, petrochemical, coal chemical, natural gas chemical, air separation, metallurgy and other fields.





◆ Owned core technology

Solved the technical difficulties of the core equipment and auxiliary equipment for the entire supply chain of enterprises, and achieved an overall advanced technical level in the world.

◆ Responding to low-carbon and energy-saving policies

Committed to improve efficiency and save energy, to reduce vibration and noise levels, and to apply intelligent control and digital simulation, all with the aim of achieving green, efficient, intelligent and safe process operation, improving customer experience to achieve their carbon reducing goals.



❑ Emerging Industries & Decarbonisation

Exploring the emerging markets of carbon capture, storage and utilization; comprehensive hydrogen utilization including production, storage, transportation, and hydrogen-based power generation; the coupling of clean power generation with chemical processes, such as 'green ammonia' and 'green ethanol'; new energy recovery processes for industrial steam, waste heat and residual pressure; and offshore equipment engineering.



◆ New energy power generation



◆ Energy storage



◆ Carbon capture, storage and utilization



◆ Chemical products made from carbon dioxide

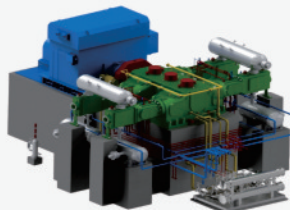


◆ Hydrogen energy

Upstream hydrogen production



Midstream storage & transportation



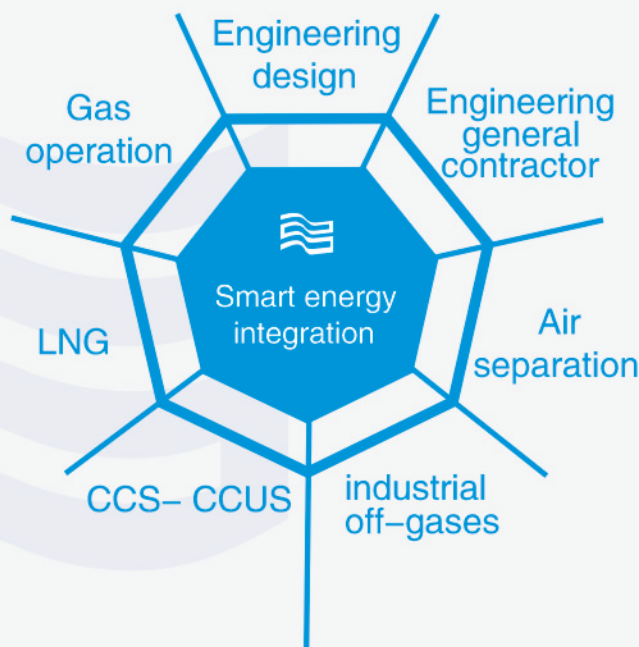
Downstream application



Industrial & Contracting Service

◆ EPC & Plant Operation

Dedicated to serve customers and satisfy customers' exclusive needs, providing engineering general contracting and operation solutions for industry customers, and first-class services in various operation modes such as BT, BOO, BOT and BOOT.

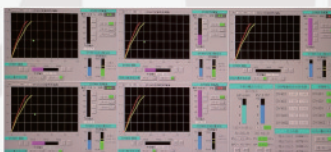


◆ Digitization • Intelligente



Intelligent maintenance

- > Load distribution control technology
- > Small flow grid-connected control technology
- > SCL tracing control technology
- > Decoupling control technology
- > One-key start control technology



Intelligent operation



Intelligent simulation

◆ Financial Services

Through rich and flexible financial modes such as financial leasing and buyer's credit to provide customers with professional and fast customized financial service solutions to meet their development needs.

◆ Full Lifecycle Care

Strongly adheres to the principle of “always satisfying users”, and provides comprehensive guarantees and service support to ensure the good operation of the products. Customers are provided with whole life-cycle after-sales service through the worldwide after-sales system.



Installation Services



Operational Guarantee Services



Machinery Overhauls



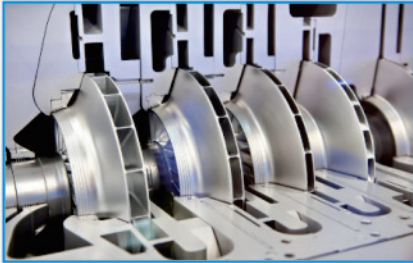
Upgrades



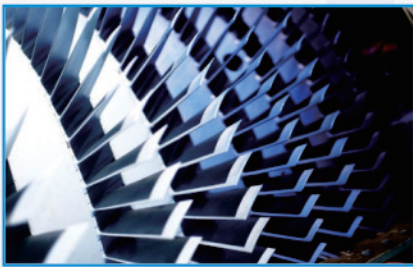
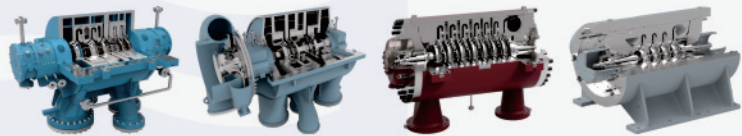
Remote Monitoring & Fault Diagnosis

Wide Product Range:

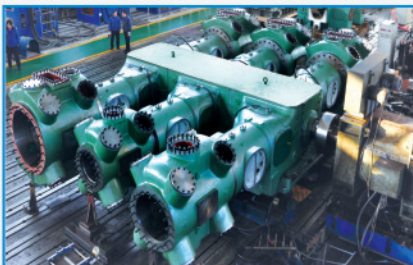
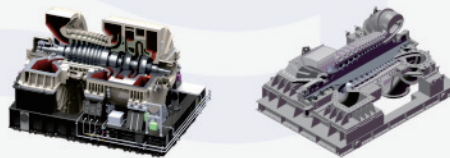
Your one-stop Solution



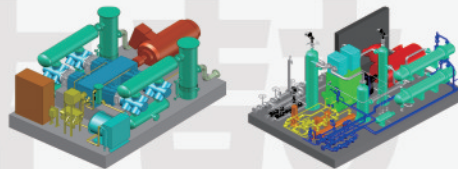
Centrifugal compressors



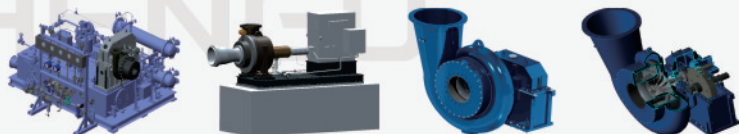
Axial flow compressors



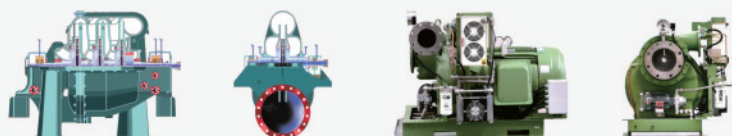
Reciprocating compressors



Integrally geared centrifugal compressors

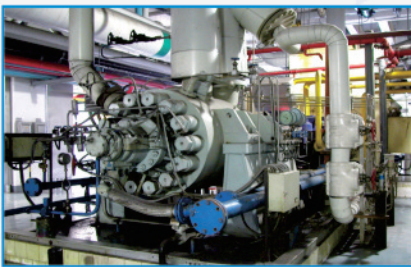
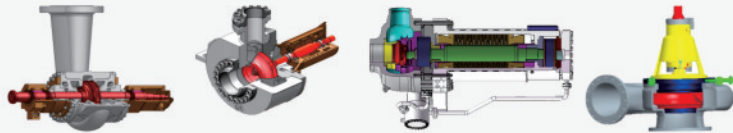


Blowers

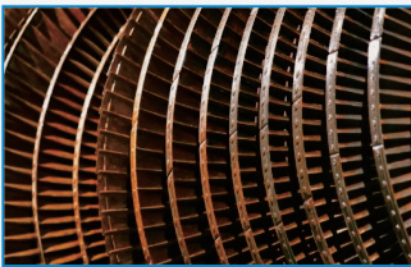
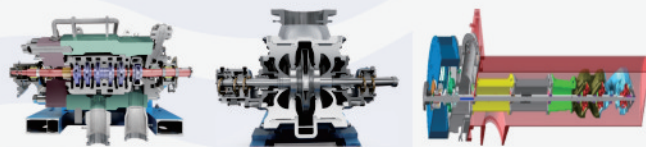




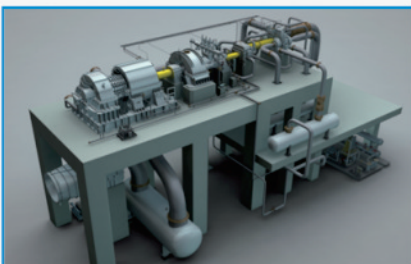
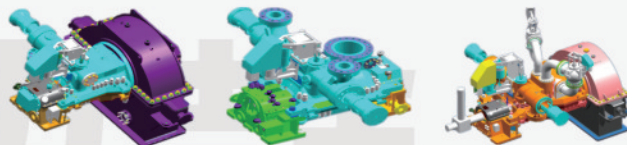
Power plant pumps



Petrochemical pumps



Steam turbines



Auxiliary system and key components



3 Comprehensive Strength

❖ R&D Capability

ShenGu Group has always been guided by the strategy of innovation-driven development, constantly improving the technological innovation system. The Group's technological innovation capability far exceeds general machinery industry standards in China.

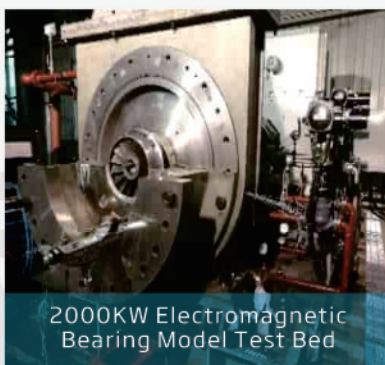
◆ Advanced R&D experimental platform



R&D test centre



HPC platform



2000KW Electromagnetic Bearing Model Test Bed

◆ Patent technology system and scientific and technological achievements

Obtained 500 authorized patents, won 264 science and technology awards, 6 China patent awards, 7 national science and technology progress awards, 170 provincial and ministerial science and technology achievement awards and 87 municipal science and technology achievement awards.

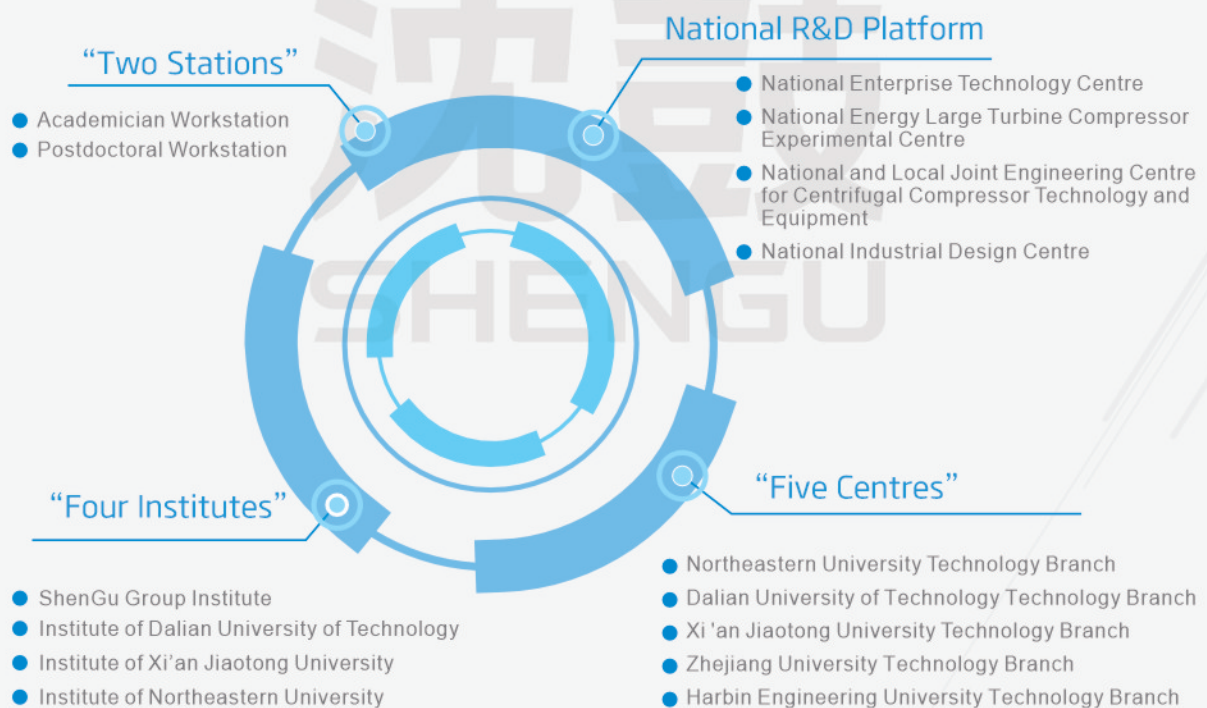
◆ Scientific and technological innovation team

With 2,308 technicians, and has successfully trained more than 100 national medal-winners and other outstanding high-achievers.



◆ Innovative scientific research system

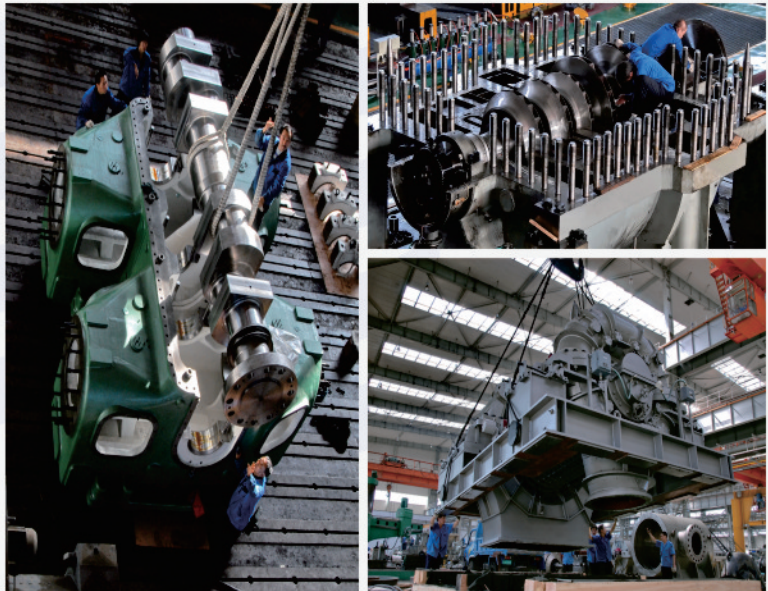
Consistently invest 6% of annual sales revenue to scientific research and development. The partnership of IUR (Industry-University-Research) is maintained with permanent links through “two Stations, four Institutes and five Centres”.



❖ Manufacturing & Test Capability

◆ Advanced Manufacturing Process

ShenGu Group's material processing capabilities are second to none within China, with world-class advanced manufacturing capability. With 3,850 production tools, including 630 metal cutting machines, 120 of which are high precision advanced numerical control machines using CAD/CAM techniques, which ensures the Group's ability to produce the world-class, large scale, highly efficient, safe and reliable equipment.



◆ World Leading, Large-Scale Testing Facilities

With over 50 test stations, which allow for both the mechanical run-testing and performance testing of even the largest of ShenGu Group rotating equipment designs, with a 30MW gas turbine powered test bay, and with motor drives of up to 50MW, providing comprehensive data on all aspects of equipment operation.



50MW Motor Test Bed



30MW Gas Turbine Test Bed



*SERVING
CUSTOMERS*

*FOCUSING
ON QUALITY*

Shenyang Headquarters:

E-mail: info@sbw-intl.com

Address: No. 16A Development Road, Economic & Technical Development Zone, Shenyang, China