

精准驱动 力量随行

Precision in Motion, Power at Your Side
A Global Leader in Linear Motion System Solutions



1 CHAPTER

公司简介

Company profile

Profile

History

Organizational Structure

Executive Team Introduction

Honors and Certifications

Ecosystem

Partners

Our Profile



Founded in 2008, HB Motion specialize in the R&D, manufacturing, and sales of linear drive systems. As one of the first Chinese companies to enter the industrial and new energy markets with electric actuators, we combine innovation, smart manufacturing, and market leadership.

We serve industries such as solar tracking, solar thermal mounting, industrial robots, specialty vehicles, agriculture, smart assembly lines, cleaning equipment, medical devices, and smart homes — delivering efficient, reliable drive solutions for automation and intelligent applications.

101MILLION

Annual Turnover

18YRS

Industry Expertise

850+

Global Customer Base



Mission

Convert every Newton of output into customer productivity.



Vision

Become a global leader in linear drive system solutions.

Our History

2008-2012

Set Sail Production Capacity Leap

Founded
Capacity Doubled, Industry Categories Expanded
Set the Course for Industrial Actuators

2014-2015

Industry Upgrade Smart Transition

Production Line Expansion, Factory Relocation
Entered New Energy Sector
Smart Automated Assembly Line Added
Solar Tracking Product Line Launched
Monthly Capacity: 20,000 Units

2017-2020

Green Manufacturing Standard Leadership

Built PV & Solar Thermal Test Base
3 Automated Lines Online
Set Internal PV/Thermal Standards
Added Multi-point Tracking Products
Upgraded Lab with Real-time Data
Ready with Electrical Solutions
Purchase Own Factory Premises
Enhance Laboratory Testing
Equipment
Research and Develop 3 High-
Protection Industrial Electric Linear
Actuators
Broaden Product Range and Apply in
Smart Manufacturing Equipment

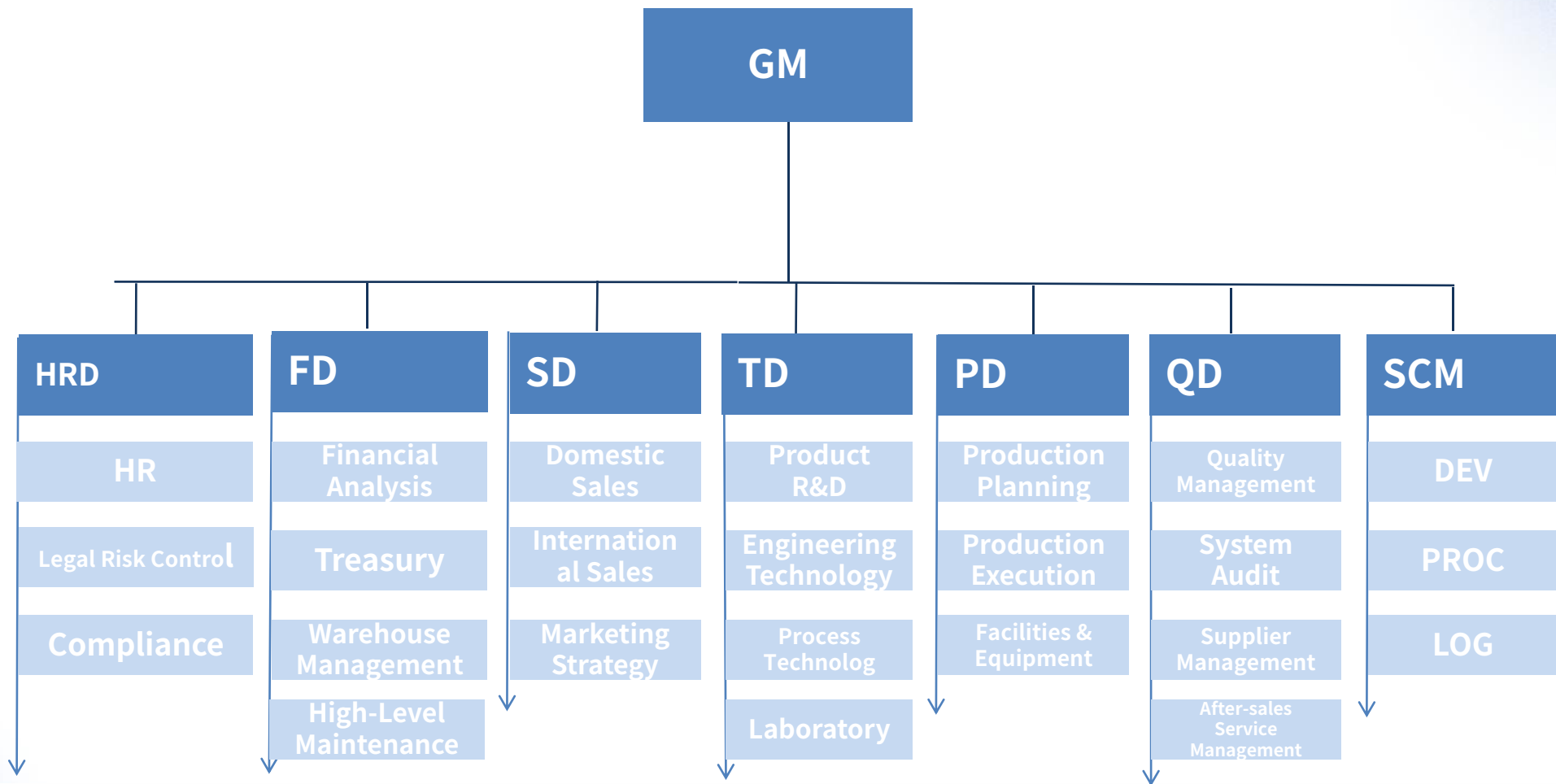
2021-now

Technological Leap Capital Empowerment

Algorithm Upgrade – 30-Year Target
22-Ton Load Testing
Military Certification Achieved
NEEQ Listing
First General Agent in Korea
.....



Organizational Structure



Executive Team Introduction



Zijun. Sun
Director, DGM

Support the General Manager in formulating and executing corporate strategies and operating plans to achieve company goals.
Lead R&D and technical management, defining technology roadmaps and new product development to drive innovation.
Ensure implementation and compliance with environmental, health, and safety (EHS) policies, regulations, and standards.

Hong jin.Wang
Chairman,GM

Formulate and implement the company's overall strategy and annual operating plans; establish and improve the company's management system and organizational structure; preside over the daily operation and management of the company to achieve the company's operational and development objectives. As the primary person responsible for environmental, occupational health, and safety production, bears full responsibility for the unit's environmental, occupational health, and safety work.



Executive Team Introduction



Yunfei. Du
Director, QD

Support the General Manager in formulating and implementing corporate strategies and operating plans to achieve company management and development objectives.

Oversee the daily management of the Quality Management Department, set annual departmental goals, and monitor/evaluate goal achievement.

Establish the company's product quality control system standards and drive the implementation of the quality management system.

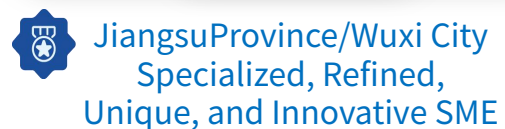
Prevent defects through quality planning and controls, and continuously improve overall product quality.

Haitao. Yang
Director, SD

Support the General Manager in formulating and implementing corporate strategies and operating plans to achieve company management and development objectives.

Develop and drive comprehensive sales strategies and plans, and effectively manage customer relationships.





Ecosystem



Engaged in R&D, manufacturing, and sales of linear actuation systems. With over 10 years in the industrial sector, it is among the early Chinese companies integrating R&D, manufacturing, and marketing for electric actuators in industrial and new energy fields.



Wuxi Hongqi Precision Transmission Co.,Ltd

Focuses on the high-end equipment manufacturing sector.

Wholly-owned subsidiary of Hongba:
Dedicated to providing precision and reliable transmission system solutions for global industries including industrial automation, robotics, aerospace, and new energy.



Wuxi Hongsen Smart Energy Co., Ltd

Focuses on photovoltaic power generation, solar thermal utilization, and smart energy system integration.

Wholly-owned subsidiary of Hongba:
Provides comprehensive new energy solutions, integrating R&D and design, engineering procurement and construction (EPC), intelligent manufacturing, and smart operation and maintenance.

Partners

 宇通重工	 MAXWELL 迈为股份	 徐工集团	 DEC 东方电气 DONGFANG ELECTRIC	 HANGCHA
 三一重工 SANY	 盈峰环境 INFORE ENVIRO	 LIUGONG 柳工	 Mahindra	 高仙机器人
 TIGA	 TLD	 上海电气 SHANGHAI ELECTRIC	 SNOWBEAR	 mounting systems
 PROGRESSIVE AUTOMATIONS	 Data Signs	 Blumaq	 FAM	 MINGNUO 明诺 OFFER YOU A FRESH WORLD!
 MCM ENGINEERING	MULTIPORT SDN BHD (MALAYSIA)		 中国商飞上海飞机制造有限公司 COMAC Shanghai Aircraft Manufacturing Co., Ltd.	

Our developed and manufactured electric actuators, solar actuators, ball screws, electro-hydraulic actuators, and electric cylinders serve a wide range of applications.

2 CHAPTER

产品研发
R&I profile

Product Overview

Application Areas

Scientific Management

Service Capabilities

R&D Team

Laboratories, Production Workshop,
Functional Testing

Key Equipment & Processes

Industrial Automation Main Product Overview



HB-DJ806



HB-DJ809



HB-DJ825



HB-DJ820



HB-DJ830



HB-DJ819



HB-DJ830P



HB-DJ850



HB-DJ815



HB-DJ808



HB-DJ805G



HB-DJ830G



HB-DJ805H



HB-DJ812

We offer a wide range of linear actuator products, with dozens of models available, supporting load capacities from 100kg to 2 tons, suitable for various applications.

Industrial Automation Application Fields



Engineering Vehicles and Machinery



Robot Arm End Effectors



Agricultural Machinery



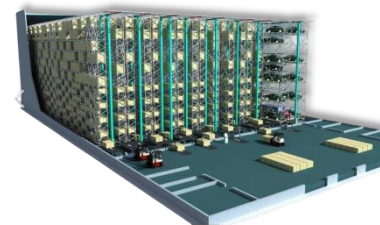
Laser Cutting Machine Head Movement



Semiconductor Manufacturing Precision Positioners



Servo Presses and Spot Welding Precise Positioning



Automated Warehouse System Rack Movement



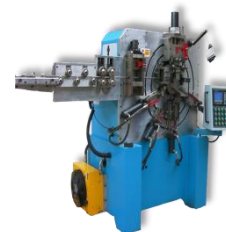
Valve Control Systems



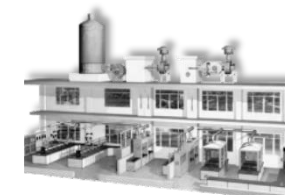
Food Automation Systems



Intelligent Assembly Systems



Metal Forming Equipment



Ventilation and Livestock Industry Solutions

New Energy Main Product Overview



HB-DJ833R HB-DJ817E HB-DJ833K HB-DJ828 HB-DJ817G\T HB-DJ817K HB-DJ865A HB-DJ833W HB-DJ817H HB-DJ868A

We offer a wide range of linear actuator products, with dozens of models available, supporting load capacities from 100kg to 5 tons, suitable for various applications.

New Energy Application Fields



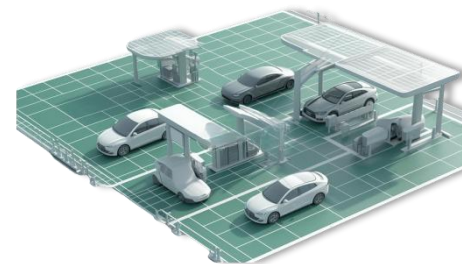
Solar Photovoltaic Tracking System



CSP



Wind power generation applications



Charging applications



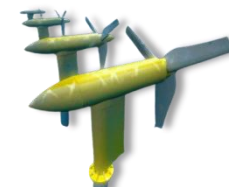
Energy storage applications



Gate Control for Hydropower Stations



Raw Material Conveying System for Biomass Power Plants



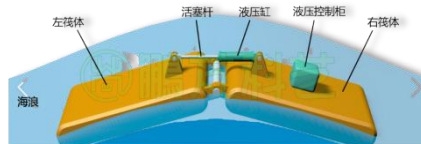
Blade Angle Adjustment for Tidal Energy Conversion Devices



Internal Component Replacement System for Nuclear Reactors



Valve Control in Hydrogen Production Facilities



Position Adjustment for Wave Energy Conversion Devices



Seat Adjustment for New Energy Vehicles

Home Healthcare Main Product Overview



HB-DJ-801



HB-DJ-803



HB-DJ-810



HB-DJ-820



HB-DJ-822



HB-DJ-823



HB-DJ-825

We offer a wide range of linear actuator products, with dozens of models available, supporting load capacities from 100kg to 600kg, suitable for various applications.

Home Healthcare Application Fields



Medical Bed Equipment Adjustment



Multi-functional Sofa Adjustment System



Diagnostic Imaging Equipment Adjustment



Vehicle Automation for Disabled Persons



Electric Adjustable Desk



Dental Chair Height Adjustment



Surgical Table Position Adjustment



Height Adjustment of Medical Trolleys



Motion Control of Rehabilitation Training Devices



Auxiliary Mobility for Electric Wheelchairs



Electric TV Stand



Home Bed Lift and Tilt

Servo electric cylinder actuators



Articulated arm



Folded-type Electric cylinder



Inline Electric Linear cylinder



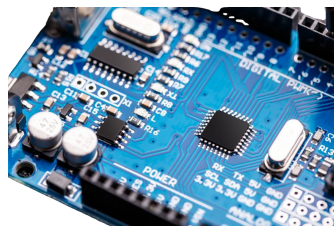
Integrated cylinder

Servo electric actuators currently include four core product categories, supporting a wide load range and suitable for industrial automation, intelligent manufacturing, and applications involving complex linear motion. They offer precision, flexibility, and programmability.

Servo electric cylinders Application Fields



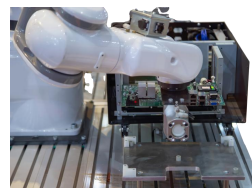
Industrial Automation



Semiconductors & Electronics



Robotics



Electrical Equipment



Food Processing



Agricultural Machinery



Aerospace & Transport



Packaging & Printing



Automotive



Smart Home

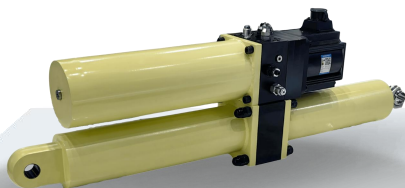


Logistics & Warehousing



Medical & Healthcare

Electro-hydraulic actuators



HB-DJ 855



HB-DJ 854



HB-DJ 850



HB-DJ 853

Electro-hydraulic products also feature four core categories, capable of supporting loads exceeding tens of tons. They are ideal for heavy machinery, demanding operating conditions, and standalone marine ecosystems, delivering high power and heavy-load capabilities.

Electro-hydraulic actuators Application Fields



Metallurgy and Forging Equipment



Aerospace Launch Platforms



Bridge Lifting and Installation,
Large-scale Structural Movement Platforms



Military Aircraft Actuation,
Missile Launch Platforms



Heavy Construction Machinery



Shipbuilding and Marine
Engineering

Scientific Management

Inventory Management

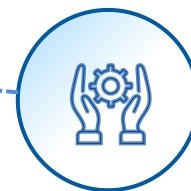
Precise Forecasting and Optimization, Intelligent Warehouse System, Efficient Logistics System, Scientific Management with ERP



Scientific Management

Quality Control

ISO, CE, EMC Certifications, High-Quality Standards, Continuous Improvement Mechanism, Full Lifecycle Quality Service



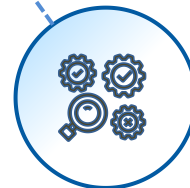
Delivery Efficiency

Flexible Production Scheduling, Multi-channel Distribution Network, Logistics Tracking Services



Cost Advantage

Excellent Supply Chain Management, Lean Production Model



Full Industry Chain Service System

Professional R&D Team

Product Technology

Pre-sales Service

Full-chain Inspection System

Customized

Rapid After-sales Response

30+500_k 24_h 72_h 96%

Branches

Sets Annual
Production Capacity

Domestic
Response Time

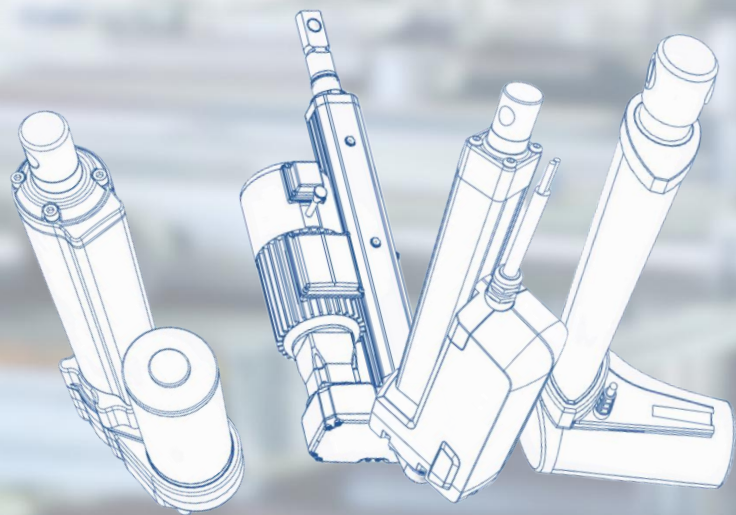
International
Response Time

Customer
Satisfaction Rate

Rapid Localization Services, Outstanding Global Services



R&D Team



40+

R&D Personnel

4

Senior Engineers and Above

52%

Bachelor's Degree or Higher

7%

Master's Degree or Higher

15YRS+

Average Industry Experience

8%

Annual R&D Expenditure Ratio

6-12 MONTHS

New Product Development Cycle

Laboratories



Complex Environment Simulation

We are able to simulate usage environments such as temperature and humidity, hydraulic shock, salt fog, ultraviolet light, chemical corrosion, impact, vibration, electromagnetic interference, etc.



Comprehensive Risk Management in Development

The development process employs methods such as QFD, FMEA, APQP to minimize risks associated with product and process development.



Extreme Condition Reliability Design

In addition to achieving regular performance, we also consider how to handle potential extreme scenarios to enhance the reliability and safety of our products.

Laboratory - Precision Measurement Equipment

- High-precision three-dimensional measurement ensures product quality and manufacturing accuracy.
- Enhances production efficiency and automation level.



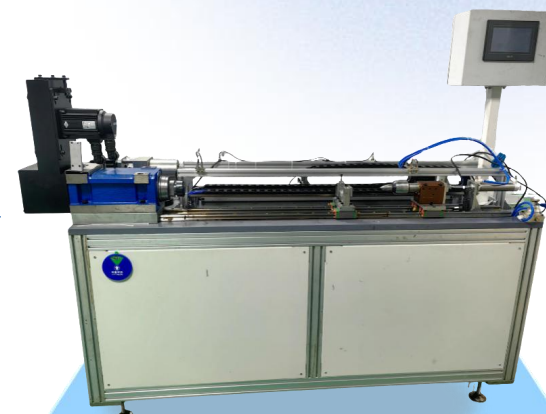
Automatic 3D Coordinate Measuring Machine

- By decomposing complex samples into volatile components, combined with gas chromatography separation and mass spectrometry detection, it achieves efficient and precise identification and quantitative analysis of harmful substances restricted by RoHS 2.0 (such as phthalates).



TD-GC-MS

- Accurately measures the lead of screws or gears, ensuring compliance with design specifications and guaranteeing the accuracy and efficiency of mechanical transmission.



Lead Screw Inspection Machine

- Through optical magnification of workpiece images, uses coordinate and angular numerical systems for size analysis, integrating computer software assistance technology to achieve more efficient two-dimensional measurement.



Optical Comparator

- Precisely measures and analyzes the surface roughness of objects.
- Ensures product quality and process precision.



Surface Roughness Tester

- By detecting the characteristic X-rays emitted after sample excitation by X-rays, quickly analyzes elemental composition and content.



EDX-RF

Laboratory - Load & Immersion Test Equipment

Ultra-low
Temperature Load

Verifies the load-bearing capacity of materials and equipment under extreme low-temperature conditions, ensuring their reliability and safety.



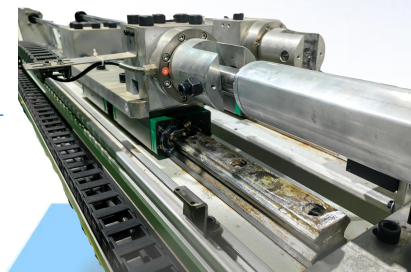
UV Aging Test
Chamber

Simulates long-term UV exposure to assess the durability and service life of materials.



Load Testing

Evaluates the performance, stability, and durability of products under specified harsh conditions, ensuring they meet design requirements for practical applications.



Dust-proof Test
Chamber

Simulates the impact of dust environments on products, assessing their ability to function properly when dust particles enter internal components.



High/Low Temperature Test
Chamber

Simulates extreme temperature environments to evaluate product performance, reliability, and durability under high or low temperatures.



Immersion Testing

Tests the waterproofing properties of products in water or humid environments, ensuring their safety and functionality when exposed to water or moisture.



Laboratory - Motor & Salt Spray Testing

Salt Spray Test

Evaluates the corrosion resistance of materials or products in a salt spray environment to ensure their reliability and service life under such conditions.



Precision Salt Spray Tester

Accurately simulates a salt spray environment, assessing the corrosion resistance of materials or products under specific salt concentration conditions, ensuring their quality and long-term reliability.



Programmable Tester

The test process can be automatically executed, simulating complex environmental conditions or operating scenarios for efficient and accurate evaluation of performance and reliability.



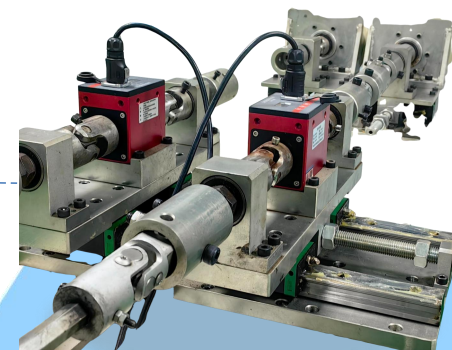
Magnetic Powder Brake Motor Magnetic Powder Clutch

- The magnetic powder brake motor generates a constant torque through magnetic powder, suitable for small power applications. The magnetic powder clutch motor utilizes the magnetic field's transmission characteristics for mechanical power transmission, suitable for larger rotational force testing scenarios.

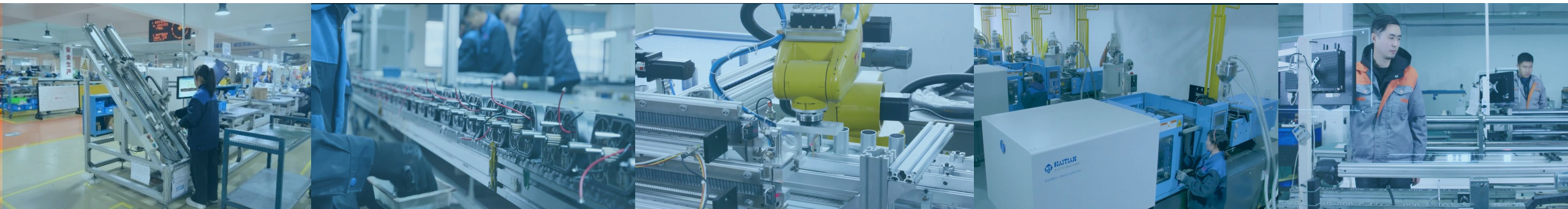


Torque Tester

Measures the rotational force (torque) to evaluate the performance of mechanical components or power systems under various input speeds and powers, ensuring reliability.



● Production Workshop



5

Flexible
Assembly
Lines

2

Automated
Production Lines

1

End-of-Line
Intelligent Inspection
System

1

AQL Final
Inspection Station

25000_m

Floor Area

● Product Function Testing



Insulation, safety, and EMC checks for all electronic components.



Performance verification under extreme temperatures and weather conditions.



Vibration: Withstand 3-axis continuous vibration.
Shock: Withstand up to 50G shock.
Impact: Withstand up to 30G impact.

Key Equipment & Processes



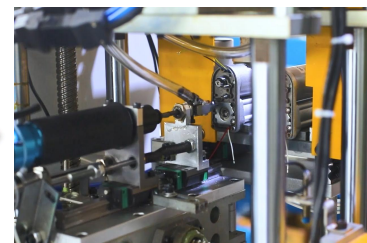
Raw Materials



Material Cutting



Punching



Drilling



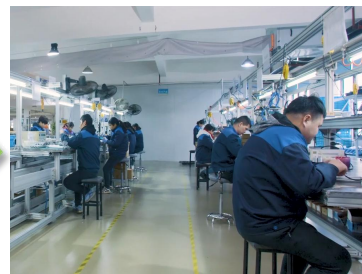
CNC Lathe Machining



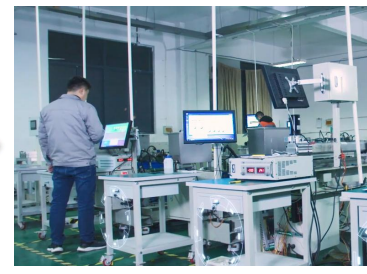
Bending



Motor Assembly



Assembly



Testing



Packaging & Logistics

3 CHAPTER

生态体系
ECOSYSTEM

**Wuxi Hongsen Smart
Energy**

**Wuxi Hongqi Precision
Transmission**

Linear Actuator Solar Tracking System

Solar Panel Efficiency **Increase 8%-28%** ↑

Linear Actuator Features

Low Maintenance Level
Low Power Consumption
Stable Quality
Performance

Application Scenarios

Photovoltaic
Solar Thermal Industries



General Type



High Altitude
Series



Extreme Cold Region Series



Uneven Terrain Series



Wind and Sand Prevention Series



Water Surface Photovoltaic Series



Photovoltaic-Solar Thermal Complementary Series



Applications

Horizontal single-axis tracking system



HB-DJ833R Season tracker by Manual operation, 50MW 2025, China



HB-DJ817G-50MW, 2024, China



HB-DJ817G-Green House, 2023, Israel



HB-DJ828 32MW, 2022, India



HB-DJ828, 100MW-2018, China



HB-DJ833K Electrical linkage, 20MW, 2024, Germany



HB-DJ817T Electrical linkage, 10MW, 2024, Turkey



HB-DJ828Turkcell 5MW, 2023, Turkey

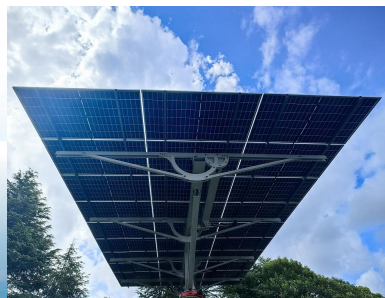


HB-DJ-828, 50MW-2018, China

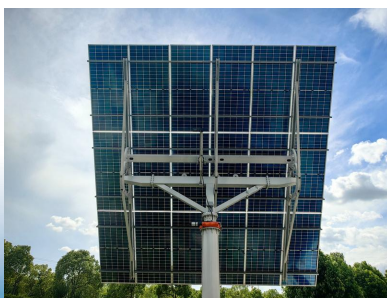


HB-DJ828, 100MW-2018, China

Dual-axis tracking system



80° dual axis, 2025, China



50° dual axis, 2025, China



Sunflower, 2025, China



HB-DJ865-Xinjiang, 50MW, 2019, China



HBDJ816-Qinghai, 50MW, 2018, China



HBDJ816-Qinghai, 2015, China

CSP

Product Types

Ball Nut T-type Screw Rod Planetary Roller Screw Pair

High Precision Ground Screw Rod

Rolled Screw Rod Pair

Application Scenarios

Widely Used in Heavy Industry and Machinery Manufacturing



Machine Tool Manufacturing



Automotive
Electronics



New Energy Lithium
Batteries



LCD Panels



Precision Instruments



Medical Equipment



Laser
Equipment



Industrial Robots



Packaging Machinery



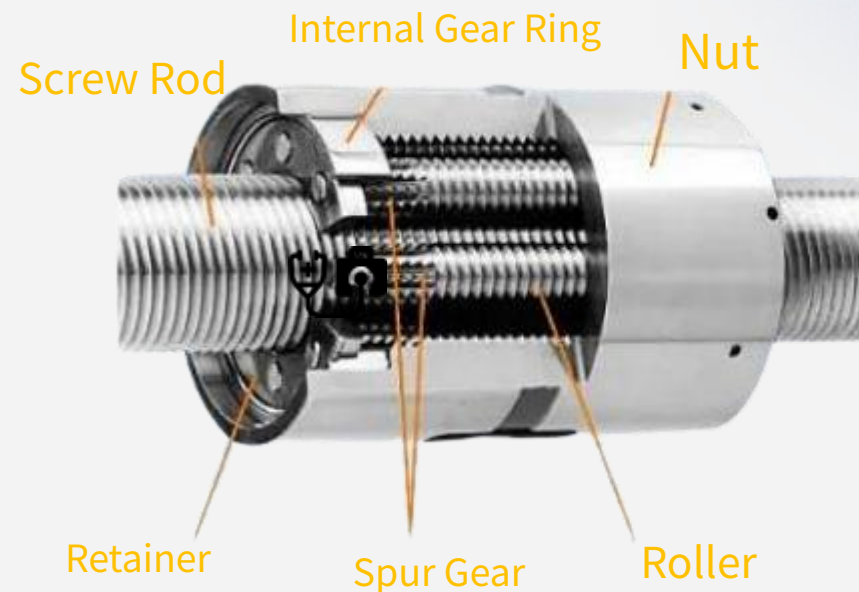
Semiconductor Industry



Machine Tool Manufacturing



Machine Tool Manufacturing



- **Industry Leader** Developed by the Japanese THK team.
- **Processing Capabilities:**
 - Ball screw pair diameter **processing capability** $\phi 12 \sim \phi 63$
processing length ≤ 2 meters
 - Planetary roller screw pair diameter **processing capability** $\phi 18 \sim \phi 60$



Applications

Industries

Aerospace

Oil Industry

Military Industry

Nuclear Industry

Automotive Manufacturing

Biotechnology and Chemical Industry

Semiconductor

Equipment

Optical Instruments

Valve Control

Laser Equipment

Press Machine

Printing Equipment

Continuous Casting Machine

Machine Tool

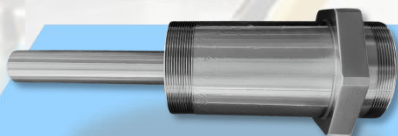
Electric Actuator

Medical Devices

.....

Measuring Instruments

Model: HSRF3010
Minimum Outer Diameter of Nut: 64mm
Dynamic Load(MAX): 12200kgf
Static Load(MAX): 21400kgf



Small Allowable Outer Diameter of the Nut



Commonly Used in Miniature Ball Screw Assemblies

Model: HISR3006
Minimum Outer Diameter of Nut: 60
Dynamic Load(MAX): 11700kgf
Static Load(MAX): 20000kgf

Customer Technical Requirements

High Safety

Compact Design

Strong Load-bearing Capacity

High Positioning Accuracy

High Precision

Long Service Life

Extremely High Reliability

High Acceleration Performance

High Transmission Accuracy

Application Subcategories

Automation Equipment

Metal Forming Machine

Medical Devices

Injection Molding Machine

Automotive Production Line Technology

Precision Machine Tool

Adhesive Coating

Entertainment Simulator

Servo Press Machine

Self-Piercing Riveting

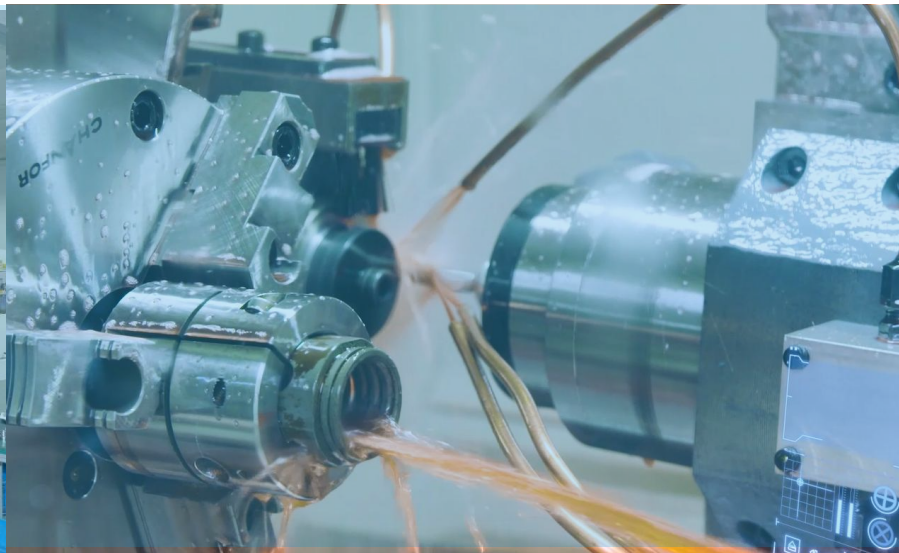
Servo Spot Welding

Hongqi workshop

- **Fully equipped** for **vertical production** of ball screw and planetary roller screw pairs;
- Uses **top-tier imported** testing equipment to ensure precision;



**Features CNC lathes
(precision machining)**



**gantry milling machines
(milling & drilling)**



**CNC grinders
(precision grinding)**

4 CHAPTER

发展前瞻

VIEWS

Future Development

Global market expansion

High-end customized solutions

Capital market plans

Sustainability and social responsibility

Future Development

Linear Actuators Smarter

Built-in control module. Connects with external devices via CAN bus or Modbus for precise control. Can send back internal data and status as needed.

Hydraulic Cylinders Application Focused

Compact hydraulic cylinders developed for tough conditions like shocks, vibrations, and high protection needs. Complements the linear drive product line.

Servo Cylinders Efficient

Designed for industrial automation – high load, high precision, high speed, and fast cycle times. Series developed with standardization and mass production to improve performance and promote wider use of electric automation.

Screw Series Diverse

Multiple types developed for heavy load, high speed, and fast cycle applications – including planetary roller screws and reverse-type ball screws.

Global market expansion

About
90 Million
Domestic Market Annual Sales Revenue

About
60 Million
International Market Annual Sales Revenue

Over 30 countries and regions including North America, Europe, East Asia, Russia, Australia, Central Asia, Eastern Europe, etc.

In Five yrs

High-End Customization

01

Understand Needs

Clarify customer application scenarios
Analyze core performance requirements
Confirm industry standards and certifications

02

Modular Design

Standardize core components
Flexible external interface configuration
Reserve function expansion capabilities

03

Custom Development

Talk → Design → Test →
Deliver → Support

06

Internal Support

Establish a custom database
Form specialized teams
Introduce simulation tools
Rapid prototyping capability

05

Value-Added Services

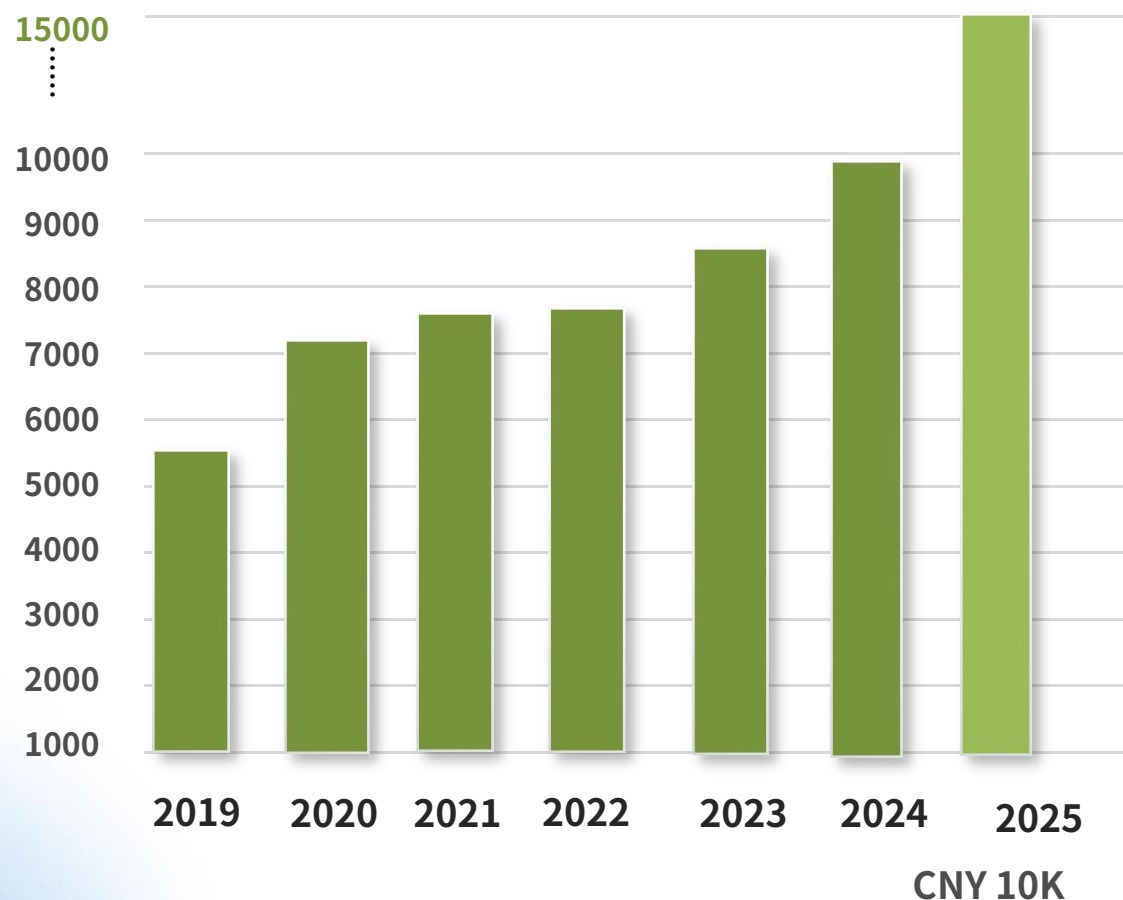
To-B Training, co-development,
predictive maintenance,
long-term spare parts & repair.

04

Real Cases

Examples:
Waterproof + smart control,
quiet motor + precision feedback,
strong parts + compact design.

Capital market plans



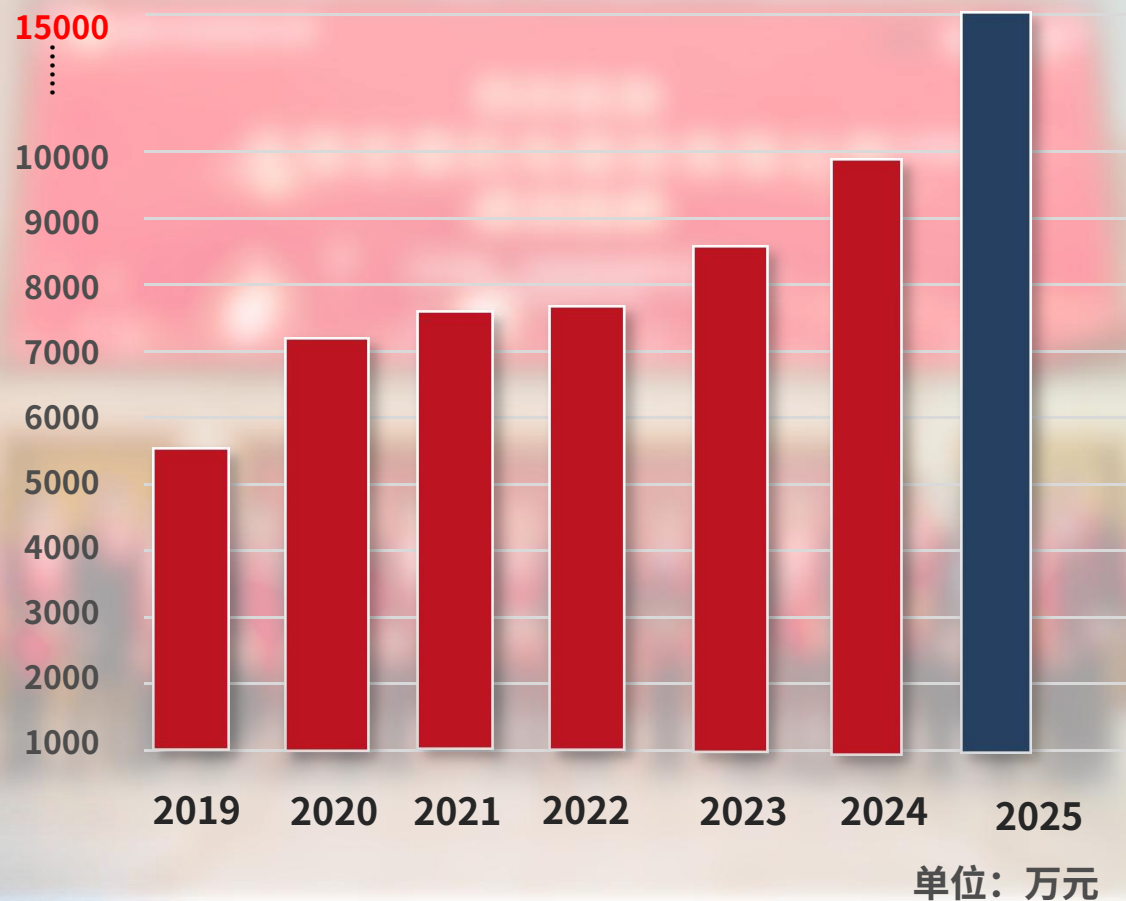
In 2022, we signed a deal with Guolian Minsheng Securities. With help from advisors, we started preparing to list on the NEEQ and later go public on the Beijing Stock Exchange.

We became a joint-stock company in late 2022.
June 2024: Listed on the NEEQ (Stock Code: 874428)
Dec 2024: Gave key employees stock incentives
Plan to file for BSE IPO in about 3 years

FY2026 Total Capital Allocation

150 million CNY

Capital market plans



In 2022, we signed a deal with Guolian Minsheng Securities. With help from advisors, we started preparing to list on the NEEQ and later go public on the Beijing Stock Exchange.

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FY2026 Total Capital Allocation

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Sustainability and Social Responsibility

“Use our own tech, for our own use”

To support government environmental and carbon reduction goals and fulfill our corporate social responsibility, we invested 950,000 RMB to build a 400 kW solar power system on our factory rooftop.

Estimated generation **450,000+** kWh/year
CO₂ emissions reduced **495+** tons/year



Employee Benefits and Development

Career Advancement

We provide job opportunities for over **200** employees and offer a smooth and unobstructed career advancement path.

Training System

Each year, we offer more than **5** professional training sessions, covering job skills, industry conferences, etc. We also conduct "old leading new" and "mentorship" programs to promote mutual growth and enjoyment in work.

Humanistic Care

We equip employees with **self-developed desk products** to ensure a comfortable working environment.

Additionally, we use self-developed **inductive recycling devices** to make resource recycling in the park more humane and warmer.



Sustainability and Social Responsibility



- By the end of 2025, we had supplied mounting structures, actuators, and other products for projects with over **8.55GW** of installed capacity.
- Estimated annual power generation **113,920 million kWh**.
- CO₂ emissions reduced **94.462 million tons/year**

Calculation Basis:

Annual power generation = Installed capacity × 8,760 hours × Capacity factor

CO₂ reduction = Annual power generation × CO₂ emissions per kWh (based on coal-fired power)