01 Information based electronic lifting system

Improve the forming of the yarn, improve the efficiency of the winder, reduce the number of doffing, reduce the breaking rate of driving, and save labor.
Standard 4G transmitter module and energy meter, free spinning frame production management software.

02 Permanent magnet direct drive motor

New energy vehicle permanent magnet motor technology, the highest efficiency of 97%, direct spindle connection, low failure rate, small heat, high efficiency and energy saving.

03 Glory MES production management system and mobile spinning

Equipment data acquisition, Internet of Things intelligent platform, mobile phone APP focus on the production management of the textile industry, through the production process of data classification, sorting, analysis, to improve production efficiency, reduce management and material costs, boost corporate profits.

04 Professional intelligent transformation of textile equipment

With RIETER ZINSER TOYOTA COGNETEX JINGWEI ERFANGJI and other major brands of spinning frame.
Offer: RIETER spinning frame water cooled motor

05 Spinning machine specific VFD

Suitable for textile factory environment, special spinning curve, increase output by 5%.

06 Air conditioning water pump energy saving retrofit

National patented products, power saving rate of more than 15%.

07 Smart collective doffing system

Domestic and imported spinning frame can be reformed

08 Intelligent transformation of wool spinning frame with all-electric electronic drafting system

Front, middle and rear roller independent drive, accurate and fast process adjustment, bamboo satin color one machine can do more. Direct motor efficient and energy saving.

09 Fan constant pressure control system

Energy saving more than 15%, suction fan, compact spinning fan, textile factory all kinds of fans can be installed.

10 Electronic Component Maintenance for Spinning Equipment

江苏格罗瑞节能科技有限公司
Jiangsu Glory Energy Saving Technology Co.,Ltd.

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Jiangsu Glory Energy Saving Technology Co.,Ltd.

国家工业互联网应用创新体验中心（纺织行业）
National Industrial Internet Application Innovation Experience Center（Textile industry）

江南大学格罗瑞纺织智能技术中心
Glory Textile Intelligent Technology Center Of Jiangnan University

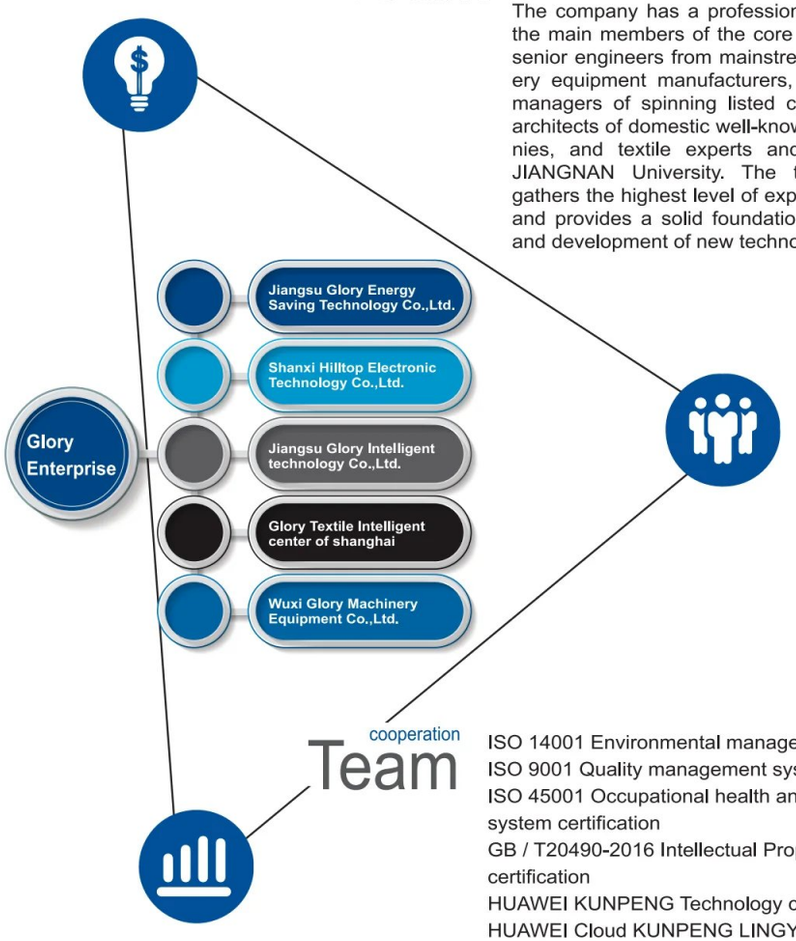


CORE INDUSTRY

Jiangsu Glory Energy Saving Technology Co., Ltd. and National Industrial Internet Application Innovation Experience Center (textile industry), is committed to the textile industry industry 4.0 management system, intelligent Internet of things system, environmental protection and energy saving equipment, new textile machinery equipment research and development and promotion of national high-tech enterprises. With the mission of "developing textile IOT and building smart textile", the company assists production managers to analyze the production site effect of "people, machines, materials, methods and environments", establish a mature service system relying on equipment implementation data for intelligent diagnosis, and help spinning enterprises upgrade from traditional production management to smart management system.

Team

The company has a professional technical team, the main members of the core team include core senior engineers from mainstream textile machinery equipment manufacturers, senior production managers of spinning listed companies, system architects of domestic well-known Internet companies, and textile experts and professors from JIANGNAN University. The technology center gathers the highest level of experts in the industry and provides a solid foundation for the research and development of new technologies.



cooperation Team

ISO 14001 Environmental management system certification
ISO 9001 Quality management system certification
ISO 45001 Occupational health and safety management system certification
GB / T20490-2016 Intellectual Property management system certification
HUAWEI KUNPENG Technology certification
HUAWEI Cloud KUNPENG LINGYUN Partner certification
HUAWEI Cloud Solution Partner Certification
China TELECOM solution Partner certification

QUALIFICATION

National level

◆ National high-tech enterprise
◆ First prize of the second Intelligent Manufacturing Innovation Competition of the 2022 World Intelligent Manufacturing Conference
◆ Ministry of Industry and Information Technology SME "chain" digital transformation typical case
◆ The Ministry of Industry and Information Technology in 2021, the digital transformation of small and medium-sized enterprises typical cases
◆ The fourth China Industrial Internet Competition best service ability award
◆ Jiangsu province four-star cloud enterprises
◆ Jiangsu Province Intelligent Manufacturing pilot service agency
◆ Jiangsu Province private science and technology enterprises
◆ Demonstration units of scientific and technological innovation
◆ HUAWEI Cloud The Solution Partner
◆ Jiangsu Province industrial and information industry transformation and upgrading special fund support in 2021
◆ The 18th Jiangsu Textile Technology Innovation Award
◆ Jiangsu Province key industrial Internet platform
◆ Jiangsu province specialized and special new enterprises
◆ WUXI City "TAIHU Lake Talent Plan" entrepreneurship leading talents
◆ National standard-Requirements for Industrial Internet Platform Selection of the Ministry of Industry and Information Technology
◆ Industry document-Construction Report of Intelligent Manufacturing Scene Database of Jiangsu Province
◆ Group standard-The Guide to the Digital Transformation of Small and Medium-sized Enterprises issued by the Ministry of Industry and Information Technology
◆T he sixth "Made in Jiangsu" Innovation Competition textile industry group first
◆ 2022 China Innovation Method Competition Jiangsu District final winner award
◆ The ninth Entrepreneurship Jiangsu Science and Technology Entrepreneurship Competition excellent enterprise-provincial

Informatized Electronic Lifting System

Product Features



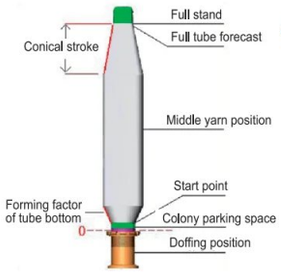
1 Improve Bobbin Forming Quality and Auto-Winder Unwinding Efficiency

The electronic lifting system adopts stepless speed regulation and runs more smoothly than a mechanical cam, thereby improving the yarn package forming quality.
During package winding, the speed is increased from 600–1200 m/min to 1200–2000 m/min.
Fewer poorly-formed packages reduce waste.

2 Increase Package Capacity and Reduce Doffing Frequency

The package capacity of electronic-cam packages can be increased by 5%–20%. Precise servo motor control adjusts the pitch and short traverse, making package forming more reasonable and increasing package capacity. This reduces doffing frequency and the workload of doffers and winder tube creel operators.



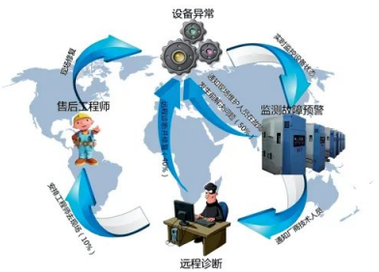


3 Reduce Spinning Doffing Breakages

At doffing, the ring rail automatically lifts 10 mm to tension the yarn and prevent it slipping off the traveller, reducing start-up end breakage.
At start-up, the ring rail can automatically move to the mid-position, easily opening the yarn balloon and effectively reducing start-up end breakage.
At doffing, the yarn end is automatically wound at the top, helping winder operators find it quickly.
Lower energy consumption, simple structure and low failure rate, and reduced losses caused by mechanical cam faults.

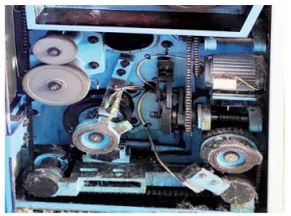
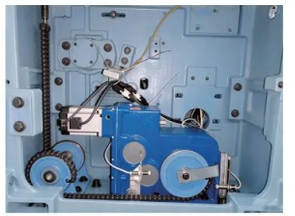
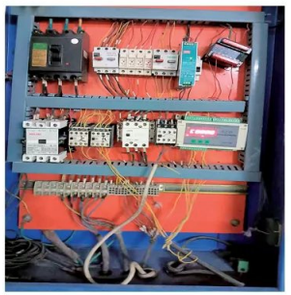
Product Advantages

1.Built-in power-failure position retention function. (The spinning frame must be equipped with a main holding cylinder)
2.Multiple monitoring functions are integrated to help customers track machine operating status and receive early warnings of mechanical faults.
3.Supports setting for body yarn and tail yarn parameters, with simple commissioning and low start-up end breakage. It solves the difficulty of finding yarn ends for automatic tray winders. (This function requires an optional main holding cylinder.)
4.Equipped with a 4G transmission module to support wireless networking.
5.Reserved interface for optional connection to spinning production management software. Supports process monitoring, output statistics, shift scheduling, production planning, energy consumption monitoring and equipment fault early warning.
6.Remote maintenance function: remote fault diagnosis and software upgrade via wireless network.



Informatized Electronic Lifting System

Transformation Cases


ROI Analysis

Take a 50,000-spindle plant producing 40s yarn as an example: package length before retrofit is 4,300 m and after is 4,950 m — a 15% increase in package capacity.
- 550 doffing stands, 8 doffers per shift, 8 × 3 shifts = 24 workers; annual doffer wages 6,000 yuan/month × 12 months × 24 = 1,728,000 yuan. Saving 15% → 259,200 yuan/year.
- Each doff stops the machine for 5 min. 550 × 5 = 2,750 min; 15% saved = 7 h saved. At 5.2 kg/h, that is 13 tons/h; with a gross profit of 2,000 yuan/ton → 26,000 yuan.
- Winding piecing: 0.5 man-hours per package; 4 man-hours saved per day → 280,000 yuan less labor cost per year.
- Winding: 18 tons of yarn saved; 0.012 yuan compressed-air cost per piecing → 450 yuan/day.

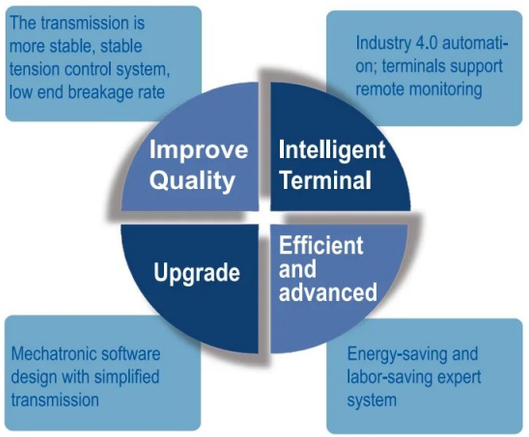
Total annual benefit: 259,200 + 26,000 + 160,000 + 280,000 = 725,200 yuan.

Partial List of Retrofitted Customers

TALAK · TEXHONG · 润澜集团 HEILAN · ESQUEL GROUP · HUAFU 华孚集团 · 華閥 · DAHAI 大海集团 · ZHIAK · 雪洋纺织 · YOUNGOR 雅戈尔 · YARVE · Thrive · ZHONGHUA 忠華 · 新华源集团 · 金鑫纺织

Fully Electronic Drafting System

Product Display

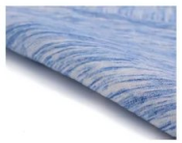


CNC headstock



A. Energy Saving & Environmental Protection

Power saving of 3% or more; permanent magnet motor delivers 5–8% energy saving with simplified transmission





B. Multi-Function Integrated Design

Supports slub yarn, rainbow yarn and multiple fancy yarns. No complex process calculation required. Input either yarn count and twist OR twist factor to start spinning. The draft ratio is continuously adjustable within 8–300.

C. Labor Reduction

Larger package capacity reduces doffing frequency and tube replacement work on winders.





D Fast and convenient process modification

E Noise Reduction

F Improve Yarn Quality

G Reduce drive-side end breakage and lower labor intensity

H Reduce yarn tangling

I Lower Spare Parts Consumption

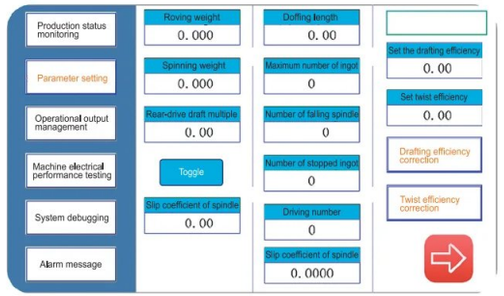
J Production process data and other management data are accessible via the network for enterprise management. Equipment fault early warning reduces downtime. Production reports are generated automatically, and a mobile APP is available for manager operation.

Fully Electronic Drafting System

INTELLIGENT HMI

Process parameters:

Process parameters: Based on the customer's spinning process and raw materials, simply input roving weight, yarn count, twist or twist factor to start spinning. No tedious calculation or gear replacement required, saving time and boosting efficiency.



Synchronous Control of Drive Systems:

Synchronous control of the main shaft, spindles, and front, middle and back rollers.

Control System:

Computer remote network control. Process parameters can be entered and monitored via the touch screen. Integrated tension sensor design; DC bus adopted for middle rollers to avoid large-scale end breakage.

Quality Monitoring

The fault monitoring function monitors the temperature and speed of the motor and electrical components



Yarn count alarm function / Alarm when yarn count deviation exceeds 5%

Yarn twist alarm / Alarm when twist deviation exceeds 3%

Monitor power consumption per ton of yarn



Find the most economical spindle speed

Partial List of Retrofitted Customers

TALAK 无锡一棉纺织集团

TEXHONG

遠東紡織

悦达集团 YUEDA GROUP

ZHANK 正凯

双弘 DOUBLE GREAT





Smart Collective Doffing System

Product Introduction

This intelligent collective doffing system is independently developed by our company to meet the current demands of textile mills. It effectively cuts labor demand, lowers labor intensity, shortens doffing time and guarantees bobbin quality, bringing remarkable economic benefits. Adopting multiple technical innovations and upgrades compared with existing products on the market, it features a novel structure, simple operation and stable, reliable performance. Boasting a long service life, it holds a leading position within China's industry. It can be directly fitted on new ring spinning frames and also retrofitted to old spinning frames.

Features

This intelligent doffing system consists of three modules: bobbin grasping and tube insertion, tube conveying and system control. All three modules are our independent intellectual property with software copyrights. All core components are self-developed.

1. China's Original Air Frame Component



The air frame adopts high-strength aluminum alloy as raw material.



1.1 Yarn Holder with Buffer Structure

The main body of the yarn holder is made of Japan Mitsubishi POM material with high-precision molds and imported Japanese fittings. The buffer spring is an imported precision screw buffer spring. During grasping and tube insertion, the buffer spring maintains constant pressure to realize automatic tube insertion with stable consistency. The positioning grooves and vent holes of the yarn holder are machined in one pass by machining centers, the first of its kind in China. The spindle gauge delivers high precision and consistent performance. The slider center aligns with the spindle. When grabbing, inserting and clamping the bobbin, the bobbin surface stays perpendicular to avoid spindle damage.



1.2 Split Arc Piston Rod and Piston Head Design

The piston rod directly acts on the yarn holder that contacts the bobbin, which is prone to wear. Conventional designs integrate the piston rod and piston head into one piece. While this improves service life, it brings a heavy workload for rod replacement. Our split integrated design solves this problem. The separate piston head can be replaced easily for low operating cost.

1.3 Ultra-long Service Life Airbag

Made of BASF special-process TPU from Germany via high-precision injection molding. It passes multiple airtightness tests, with anti-aging and tear resistance far exceeding domestic counterparts. The airbag's normal service life is five years or more; the production date is printed on each airbag.



Smart Collective Doffing System

1.4 Air Frame Design for Tool-Free Yarn Holder Assembly

The yarn holder and air frame adopt an inclined bottom suspension structure, so the clamping force of the yarn holder base and air frame fully acts on the airbag sealing ring, achieving reliable sealing and greatly extending yarn holder service life. (Tip: Check whether the clamping force fully presses onto the airbag sealing ring and whether the yarn holder base can be pushed into the air frame easily. Higher resistance means lower compression efficiency. If hammering is required for installation, the design is unreasonable.)

Stable and Reliable Combined Conveyor Track

2.1 High-strength Conveyor Rail Main Body: Fabricated by bending 4 mm cold-rolled steel plate without welding. It features high strength, deformation resistance, surface spray treatment, rust and aging resistance.
2.2 The guide device of the cold-drawn aluminum delivery rail effectively restrains bobbin swinging during conveyance. The rail surface is smooth without sharp edges, enabling smooth and stable transport of bobbin seats.
2.3 Easy-Maintenance Split Empty Bobbin Seat Holder: Made of reinforced nylon for all bobbin seats, assembled with high and short bobbin column parts. After assembly, anti-reverse ribs lock the structure to prevent loosening of the three bobbin seats during operation. It is user-friendly and quick to maintain.
2.4 Bobbin Conveying: Continuous operation with vertical steel belt, high efficiency, stable running, no impact and precise positioning.



3. Herringbone Arm Lifting and Inner Swing System

3.1 Driven by servo electric push rods, it delivers precise positioning and smooth transmission.
3.2 The air frame inner and outer swing mechanism adopts a single-cylinder structure.
3.3 The air frame opening width is only 1.32 m on side spinning frames, facilitating operation for workers on both spinning sides.

4. New Type of Short-Frame Automatic Tube Sorting Machine (Patent No.: 202121439035.7)

4.1 High tube discharging efficiency. Bobbins are sorted automatically by specification. Tube discharge time for short frames is 15 s or less, and about 30 s for long frames. It solves the pain point of low-cost equipment that only handles long tubes and cannot match the tube sorting cycle.
4.2 This tube sorting machine features a compact structure and a small footprint for retrofits. Only 0.5 m of channel length is required on the original frame.

Technical Indicators

- Gripping Success Rate = 100%
- Tube Insertion Success Rate = 100%
- Doffing Success Rate > 98%
- Doffing Time ＜ 3 min
- Empty and Full Bobbin Exchange Time ＜15 min (short frame)

Permanent Magnet Direct Drive Motor

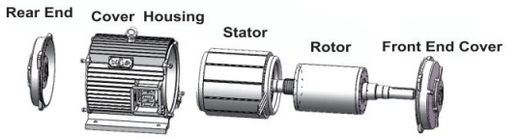
Problems with Conventional Spinning Frame Motors

- High energy consumption
- High failure rate
- Low efficiency

The high failure rate, frequent repairs and high energy consumption result in relatively low efficiency of conventional spinning frame motors.

The Main Structure of Rare Earth Permanent Magnet Motors





Permanent Magnet Synchronous Motors Used in Spinning Machines

01. Wide High-Efficiency Range
Significant energy savings when spinning different yarn varieties.

02. Small Size, Light Weight
Small size: two frame sizes smaller than the original motor; can be directly driven. Light weight: 60% lighter, reducing labor intensity.

03. Increased Bearing Life
The motor is directly connected to the main shaft, eliminating belts and pulleys. The motor bearings no longer bear lateral pressure, reducing bearing wear and extending motor life.

04. Efficient System Transmission
The direct connection between the motor and the main shaft eliminates losses from belt slippage, improving system transmission efficiency.

05. Lower Workshop Temperature, Reduced Air Conditioning Power
The high-efficiency motors generate less heat, effectively reducing workshop temperature and saving energy.

Before Renovation



After Renovation



Permanent Magnet Synchronous Motors: High and Steady Efficiency

Compact and Lightweight · Less Heat Generation · Lower Failure Rate

Energy Saving 5%–10% · Direct Main Shaft Connector · Longer Bearing Life · Reduced Labor

Spinning Machine-Specific VFD

Product Highlights





Enlarged Heat Dissipation Structure
No fan required; stable long-term operation in high-temperature, high cotton-fly environments.

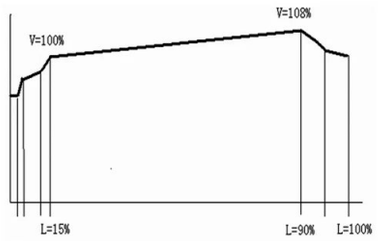
Durable
Uses military-grade PCB and components resistant to high temperature and humidity, delivering reliable quality and long service life.

Retrofit Example

FA503 VFD Retrofit
- Added VFD
- Replaced Electrical Control Cabinet
- Replaced Three Automatic Stroke Switches
- Replaced Lifting Mechanism
- Simple Wiring, Low Failure Rate







The chart shows end breakage reduced by 30% after installing a VFD on the 506 spinning frame. End breakage of thick and fine yarns accounts for 70% of total end breakage. Reducing spindle speed by 5%–8% for fine and thick yarns reduced end breakage by over 30%.

Spinning-Specific Spindle Speed Curve
- Output increased by 5%–10%.
- Reduced speed by 5%–8% for low- and high-count yarns, reducing end breakage of fine and thick yarns.
- Increased speed by 5%–15% for medium yarns based on machine condition.
- Overall spinning speed increased by 5%–10%.

Plan	Teat project	Beginnin	Middle	Ending	Total
First doffing with no frequency converter	Number of breakage per hour	25	10	7	42
First doffing with frequency convertern		17	8	5	30
Second doffing without frequency convertern		22	13	10	45
Second doffing with frequency convertern					

Energy-Saving Retrofit for Air-Conditioning, Water Pump

Energy-Saving Retrofit of Supply/Return-Air System Fans in the Air-Conditioning Room

The new airfoil fan uses fan-specific airfoils developed with advanced aviation technology, featuring a high lift-to-drag ratio, stable stall behaviour and low sensitivity to surface roughness. It also draws on aviation technologies such as propeller design, rotor design and aero-engine design theory, combined with three-dimensional (3-D) flow numerical simulation. As a result, the fan achieves high efficiency and a wide high-efficiency operating range.

For the air-conditioning systems of textile mills, the fans are tailor-made to suit their specific characteristics. This approach has achieved excellent results in actual air-conditioning chamber retrofit projects.



Patent No.: 7.201410465112.4

The fan	Model number	Operating frequency	Air volume	Ten thousand wind power consumption	Fan increase	Comprehensive power saving
Original fan	No 16	28.5kW	10.6	5.4A	15%	25%
Energy saving fan		25.4kW	12.2	4.2A		

Energy-Saving Target-Type Spray System

The energy-saving target-type spray system was independently developed by the Glory Intelligent R&D Center of Xi'an Polytechnic University. It is a new energy-saving spray system with multiple national patents and the following features:

1. Parameters are designed around the workshop's process requirements, so the system meets the mill's process needs while delivering good energy savings;
2. Based on the impinging-jet principle, water is atomized into a 180° spray with a wide sheet-like film, increasing the air–water contact area and improving heat-exchange efficiency. Nozzle density is as low as 4–8 per m² per row, greatly reducing pump energy;
3. Risers use lightweight, easy-to-disassemble and transport, corrosion-resistant, high-strength, long-life UPVC pipe; nozzles are ABS engineering plastic, acid-cleanable, corrosion-resistant and high-strength;
4. Target-type nozzles are easy to disassemble and few in number, making maintenance and cleaning convenient.





The second generation target sprinkler system

Application Cases

(1) Wuxi Far Eastern Industries Co., Ltd. reduced spray-system pump power consumption by about 20% after retrofit.

(2) Shandong Lingxian Hengfeng Co., Ltd. reduced spray-system pump power consumption by 15%–20% after retrofit.

Fan Constant Pressure Control System

Retrofit of the Cotton Suction Fan with Constant Pressure Control for Spinning Frames

The cotton suction fan removes the broken fibre ends produced at each spinning position, so that when a yarn breaks the fibre is sucked away immediately without disturbing the adjacent spindles. Different yarn counts require different negative pressures for cotton return and cotton suction: for fine counts with a low end-breakage rate, a lower negative pressure is sufficient. The negative pressure in the fluted suction tube is therefore normally set between 500 Pa and 1,200 Pa.







Advantages of Constant Pressure System

Electricity saving: a 1.5 kW fan consumes only about 1,500–2,000 kWh per year.

Constant suction pressure prevents the build-up of waste cotton: when the filter in the waste box is blocked, the pressure drops and the rollers are no longer wrapped by waste cotton.

Low-pressure alarm reminds the operator to clean the cotton waste.

Principle of Power Saving of the New Fan

- The fresh-air fan uses a closed impeller to form a closed flow channel, reducing energy loss.
- Patented airfoil blade technology greatly improves efficiency, and optimised air-inlet diversion balances the negative pressure.
- Reliable design with an explosion-proof aluminium alloy impeller.
- Power consumption is reduced by about 30%: on the 480-spindle short frame the suction fan motor drops from 2.2 kW to 1.5 kW; on the 1,080-spindle long frame it drops from 7.5 kW to 5.5 kW.
- Air pressure and air volume increased by 30%–40%.

The fan used in the origina spinning frame



New energy-saving fans used in current spinning frame



ROI Analysis

Measured on the short frame: about 400 kWh saved per fan per month, i.e. 5,000 kWh per fan per year.

Measured on the long frame: about 1,000 kWh saved per fan per month, i.e. 12,000 kWh per fan per year.

Professional Intelligent Transformation of Textile Equipment

Advantages of Glory Products

1. Spinning-specific VFDs for main machines; the perforated heat-dissipation fins suit the hot and humid spinning environment and ensure reliable operation;
2. Brand-new PLC and touchscreen modules, with software and display programs fully updated to ensure stable operation of the main machine and the doffing assembly, meeting user requirements and reducing downtime;
3. Zero-position proximity switch and related parts added to the collective doffing device;
4. Servo drives adopted in the lifting mechanisms for accurate positioning, stable and reliable operation and fewer failures;
5. Yarn package forming section retrofitted to electronic lifting, with a second-startup yarn-retention rate above 96%, good package formation, higher unwinding speed on the automatic winder, larger package volume and stable, reliable operation;
6. Peripheral sensors and low-voltage components replaced as required;
7. Circuit boards rewired and fitted with new components, improving the stability of the entire control system;
8. New functions customized to customer requirements for complete satisfaction.

Rieter K44 G33 Electrical Retrofit

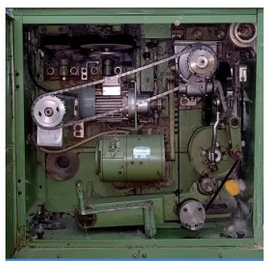


Before Retrofit



After Retrofit

Zinser 319 Electronic Cam Retrofit



Before Retrofit



After Retrofit

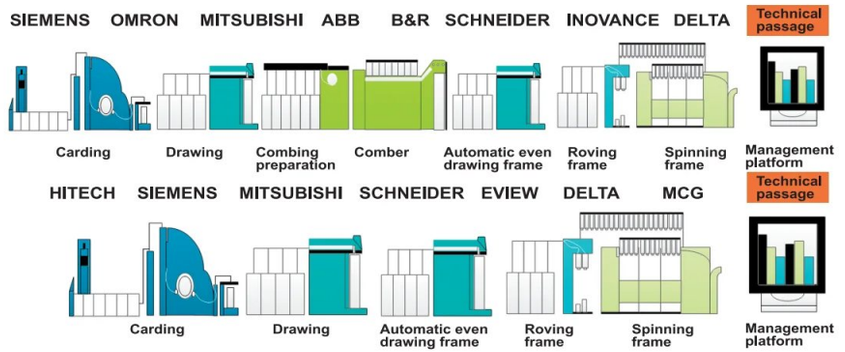
Glory Mes-Production Management System And Mobile Spinning

Textile Production Dashboard Management Platform

- Planning and Scheduling
- Process Parameters Management
- Material Information Tracking
- Workshop Site Management
- Data Collection and Dashboard Display
- Energy Management
- Equipments Management
- Quality Control and Analysis
- Manage Cockpit



Domestic First Textile-Specific Compatible Analysis Gateway



Our Customers

TEXHONG · TALAK 无锡一棉纺织集团 · YOUNGOR 雅戈尔 · 遠東紡織 · 江苏阳光集团 · 天纺 TIANFANG · 丹宇美 DAN YU MEI · ZHINK 正凯 · 双弘 DOUBLE GREAT · YUANWEN · 新明纺织 · TEX · Lxcy 隆希色纺 · Thrive · 忠華 ZHONGHUA

GLORY YUZHI Robotics

Textile Production-Line Handling Robot Series

Production-line handling for small sliver cans and spinning bobbin carts, connecting automatic gripping, inter-station transfer, and docking into continuous operations.



Small Sliver Can Handling Robot



Spinning Bobbin Cart Handling Robot

Which On-Site Needs It Suits

●Repeated Transfer Between Stations — Suitable for scenarios where identical containers are repeatedly picked, transported, and handed over between designated stations.
●Existing Plant Logistics Retrofit — First verify passage, turning, floor, and station conditions, then select the handling mechanism and docking method.
●Production-Warehouse Coordination — Can be combined with RCS+ robotics solutions, MES production management, and WMS warehouse management to plan logistics links between the production line and storage.

Core Technical Parameter Comparison

Parameter	Small Sliver Can Handling Robot	Spinning Bobbin Cart Handling Robot
Product Dimensions	1010×700×(1850–1900) mm / height customizable	1525 × 830 × 1540 mm
Product Weight	Approx. 450 kg	Approx. 750 kg
Load & Object	Rated load 50 kg / supports Φ500 / Φ600 mm empty & full sliver cans	Full-cart weight ≤180 kg / rated load moment 200 kg × 500 mm
Drive Method	Dual steering wheels	Single steering wheel
Drive Wheel Diameter	125 mm	250 mm
Operating Speed	0–1.5 m/s	0–1.5 m/s
Positioning Accuracy	SLAM positioning ±20 mm	SLAM positioning ±20 mm
Station Docking Accuracy	Laser ±20 mm / QR code ±5 mm	Laser ±20 mm / QR code ±5 mm
Power Battery	LiFePO4 48 V 84 Ah	LiFePO4 48 V 100 Ah
Continuous Operation Time	≥8 hours	≥8 hours
Charging Time	≤1.5 hours	≤2 hours
Energy Replenishment	Supports manual / automatic charging / battery swap	Supports manual / automatic charging / battery swap
Protection Grade	IP40	IP40
Communication & Expansion	WiFi / 5G / USB 2.0 + RJ45 100 Mbps	WiFi / 5G / USB 2.0 + RJ45 100 Mbps
Operating Environment	0–40 °C / 10–90% RH non-condensing	0–40 °C / 10–90% RH non-condensing







Intelligent Visual AI Yarn Breakage Detection System

System Functions

●99.8% High Detection Accuracy
●3 Seconds Fast Response
●Industry-customized AI Algorithms
●Edge Box, high-efficiency, intelligent, energy-saving
●Save ~90% of breakage-searching time

1.Textile machine breakage recognition: accurate identification, 24/7 unattended; breakage rate per 1000 spindles · hour down 35%; eliminate manual meter reading, digitize machine data.
2.Intelligent timely warning: acoustic-optical alarm, smart reminders on the monitoring screen; real-time data storage, custom table export, data support for performance management.
3.Record query: classify and query alarms; edge computing adapts to different machines/yarn types, generating optimal efficiency curves; integrates control-system data and cooperates with the main controller to proactively reduce breakages.
4.Abnormal data push: pushes abnormal data so staff focus on core business and make timely decisions.







Ai Intelligent Cloth Inspection Robot

Product advantages



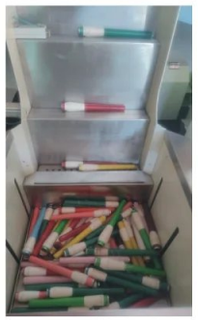
●Easy to install
Modular post-assembly design, convenient for upgrading and retrofitting traditional cloth inspection machines, setting machines and other textile production equipment.
●High-speed
Maximum speed up to 80 m/min, conventional speed 60 m/min.
●High precision
Pixel resolution: 0.1 mm × 0.1 mm; minimum identifiable defect size: 0.5 mm × 0.5 mm; fabric width accuracy error: within 2 cm.
●Human-machine interaction
Real-time interface display for each machine independently, with classification and alarm for defects of all sizes; the central system collects and synchronously displays the identification results of each machine.
●38 Types of Defects
Knot defect, broken yarn, needle defect, stop section, cross section, additional width, tenter burning, needle-board weft-tight defect, etc.
●Online Color Difference Detector
Real-time and standardized output of fabric inspection reports, clearly showing the key characteristics of the cloth, supporting local printing and online access.

Other Products and Services

Fully Automatic Tail Yarn Removal Device

Fully automatic tail-yarn removal with automatic loading — no manual feeding. The hopper lifts automatically and the loading plate reciprocates linearly, solving tangling from yarn unwinding. A tube-separating mechanism distinguishes bobbin heads/tails and conveys bobbins via a slideway to storage; the manipulator feeds the bobbin to the clamping cylinder, and a servo motor with a rotating platform and ejector rod strips the yarn.





Specifications: Weight 170 kg ·
Air consumption 1.9 m³/h
Power 140 W
Capacity 700 pcs/h
Dimensions 1.05 × 0.75 × 1.10 m.

Tail Yarn Remover for Blended Yarn Bobbins

Developed from flax bobbin tail yarn removal technology, this remover for bare spindle bobbins performs two cuts along the hook knife groove. The first cut forms the groove, and the second cut follows the groove located by the locator. Two independent blade groups enable fast and accurate removal of residual yarn.





Other Products and Services

Electrical Parts Repair Service

Our company provides long-term repair services for a wide range of textile electrical products, including PLCs, inverters (VFDs), touch screens and all kinds of circuit boards.







Inverters

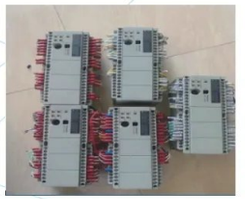




Touch Screen









PLC

Circuit Boards for Trützschler, Murata Rieter and Other Equipment



















Electronic Yarn Clearer for Automatic Winder