

# 汽车零部件 智慧生产解决方案

## INTELLIGENT SOLUTIONS

to automobile parts production



[www.jinlan-mech.com](http://www.jinlan-mech.com)



吴江市金澜机械制造有限公司

Wujiang Jinlan Machinery Manufacture Co., Ltd.

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## 关于我们 COMPANY PROFILE

历经十多年的技术创新，金澜已确立全球汽配智能生产解决方案服务商的巩固地位。我们为汽车零部件行业提供滴漆绝缘，组装和测试共3大核心技术，覆盖发电机、起动机、EPS、新能源驱动系统等多个应用领域，致力于让制造环节变得简单、智能和高效。

基于优质的方案设计，一体化安装调试，技术咨询和培训，为客户量身定制系统化生产解决方案。目前已获得50多项国家专利，部分已通过PCT国际授权，同时获ISO和CE认证等。市场覆盖欧洲和亚洲多个国家，与多家知名品牌建立了稳固合作关系，包括Valeo、BOSCH、UAES、ZF等。凭稳定品质和周到的服务，赢得客户高度青睐。

With over 10 years' technical innovation, JINLAN has consolidated its position as the global provider of intelligent solutions to automobile parts manufacture. We serve the industry with 3 key technologies, varnishing insulation, assembling and testing, which are widely applied in industries of generator, starter, EPS and new energy drive system. What we do is to make your production flow smarter, more effective.

Based on quality project planning, standard workflow of installation/commissioning and the technical consultation, we can customize reliable production solutions for customers. With over 50 national technical patents, series of certificates for quality system and technical safety, our products have been spread to many countries in Europe and Asia. We have established partnership with some global top brands, including VALEO, BOSCH, UAES, etc., gained trust and praise from them with stable quality and hearty service.



十多年设计制造经验  
Decades for design/  
manufacturing



全球顶尖合作伙伴  
global top business  
partners



多项国家发明专利  
many national  
invention patents



9000平标准生产车间  
9000 square meters  
standard workshop



## 资质荣誉

QUALIFICATION&HONORS

**2012**

对外贸易经营权;  
出口欧洲+CE认证  
Exported to  
Europe/CE certification

**2007**

金澜成立  
Jinlan was founded

**2015**

ISO9001扩充绝缘处理产线  
ISO9001/added  
insulation production line

**2013**

省民营科技企业/  
知识产权管理体系认证  
Private S&T enterprise/Copyright  
management certificate

**2017**

省企业信用贯标  
市智能制造协会理事单位  
Provincial enterprise credit implementing  
standard/Suzhou intelligent  
manufacture council member

**2016**

国家高新技术企业/  
市企业技术中心  
National high-tech enterprise/  
Suzhou enterprises' technology center

**2018**

增加转向系统测试产线  
added steering  
system test line

**2019**

新厂房及标准车间建设中  
new plant under construction





# 质量控制

## QUALITY CONTROL

我们拥有超9000平米标准生产车间，实行严格的6S管理和生产流程控制。凡设备出厂前，均经过多个性能指标的专业测试，以及全方位的安全风险评估，并经过国际权威机构如SGS的质量安全监测，确保设备运行的稳定性。

We have a standard workshop of 9000 square meters, implement 6S management and production workflow control. Before delivery, each equipment will experience numerous performance test and safety risk analysis before reaching the end user's door. All equipment will pass quality and safety inspection by international authority including SGS, etc., to ensure its working stability.



# 产品工艺

## PRODUCT TECHNOLOGY

我们为电机制造行业提供三大系列的智能生产解决方案：绝缘技术、组装技术和测试技术。设备自动化水平，如节拍循环周期、生产精度和数据追溯等可根据客户要求进行个性化调整和设计。可通过机器人与客户车间已有的其他生产线实现精准对接。

We serve the electrical motor industry with insulation, assembling and testing technologies. The automation level, the cycle time, production accuracy, data traceability, etc., can be customized based on your technical specification. The production line can be working in precise connection with the other production lines at your factory.

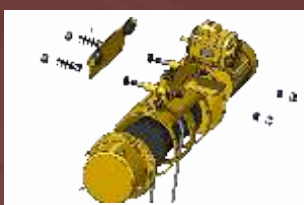
## 绝缘技术 Insulating technology



包含滴漆、浸渍及涂覆技术，在定子线圈上滴注或浸渍绝缘树脂，达到绝缘效果。主要应用于新能源电机定子产品。

Including trickling, dipping and coating technologies. Adopted for dispensing or dipping the stator with varnish to achieve insulation effect, mainly applied for the new energy motor industry.

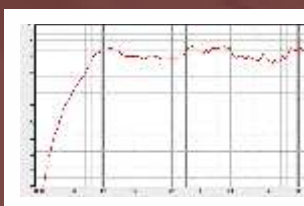
## 组装技术 Assembling technology



具有多年自动化产线设计、研发和制造能力，为众多一线汽车零部件制造商提供整体解决方案和项目实施。

With competency of design, research and development of automatic production lines, we serve many top automobile manufacturers with complete solutions and technical services for the project implementation, for dozens of years.

## 测试技术 Testing technology



提供产品测试解决方案及设备制造。涵盖从定子绕组的电性能测试，到电机产品整体性能测试。

Providing the product testing solution and the equipment construction, which includes electrical performance of the stator coil and the complete motor product performance test.



# 绝缘技术

## INSULATING TECHNOLOGY

采用伺服滴漆模组，高精度称重和数据监控系统，避免传统技术线圈和铁芯表面树脂残留问题，极大提高树脂利用率 and 产品品质。具有以下技术优势：1.多样化装夹方式，实现柔性产品切换；2.温度分区控制；3.滴嘴位置智能调整。该工艺可与涂覆技术整合运用，可根据客户要求调整自动化程度、生产节拍和滴漆精度等技术参数。

With servo trickling system, high accuracy scale and data traceability control system, the machine avoids contamination on the stack and increases the resin use rate and product quality. It boasts of distinct competitiveness of: temp zone control, smart nozzle positioning and flexible model transfer. The automation level, cycle time and varnishing accuracy can be adjusted. This can also be integrated and applied with epoxy coating technology.



### 滴漆 Trickling

在定子线圈绕组滴注绝缘树脂并进行高温固化，主要应用于新能源电机领域。

Dispensing insulating varnish on the stator coil before high-temp varnish solidification, mainly used in new energy motor industry.



### 浸渍 Dipping

在真空条件下，把完成绕组后的定子浸入绝缘树脂，通过一定压力的作用，使漆液迅速渗透并充满绝缘结构内层。

In vacuum condition, dip the stator after winding into the insulating varnish, to make it permeated inside the insulating structure fast through some pressure.



### 涂覆 Coating

对定子焊接端数环氧材料并进行高温固化，形成保护层，包含材料的流化、循环回收过程。

Coat the stator welding terminal with epoxy material and make the coating solidified with high temp to form the protective layer, including the material fluidifying, and recycling.

# 绝缘技术应用

## INSULATION TECHNOLOGY APPLICATION



发电机  
Generator



电动工具  
Electrical tool



新能源电机  
New energy motor



压缩机  
Compressor



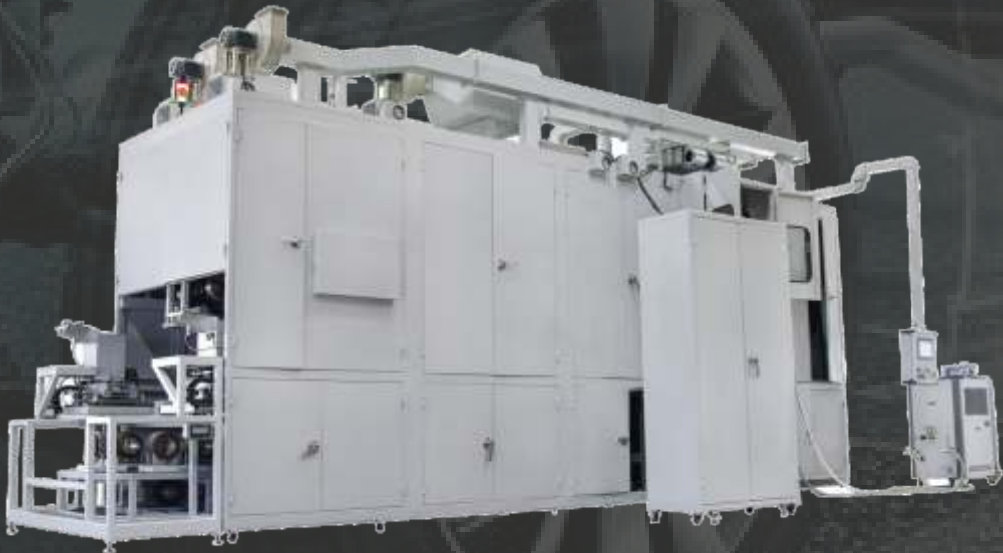
其他电机  
Other motors

# 项目图片

## PROJECT SAMPLES

绝缘技术广泛应用于各种规格定子和转子，多种夹具方案设计可供您选择，方便快速换型。多年来，我们一直为客户提供贴心周到的整体产线规划咨询服务，量身定制系统化生产解决方案。

The insulating technology can be widely applied for different model stator and rotor. Many fixture solutions are optional for you, flexible for model transfer. JINLAN has served customers with complete project planning, technical consultation and the tailored production solutions.



定子滴漆机（中国）  
stator varnishing machine-China



自动上下料  
Automatic load/unload



精准称重  
accurate weighing



双组份物料混合  
AB material mixing



GMG定子滴漆机（法国）  
GMG stator varnishing machine-France

技术参数表

项目类型	产品说明	备注
适用产品范围	扁线、圆线	
加热温度范围	最高220℃	
上下料方式	手动/自动	可直接与前后线对接
产品装夹方式	内撑/外夹	根据产品类型设计
树脂原料类型	单组份/双组份	
输出精度	1%-10%	多种配置，视要求而定
单台设备节拍	≥45s	视具体产品而定

MACHINE PARAMETERS

Item	Product Specification	Remarks
Applicable product type	Flat copper wire/round copper wire	
Heating temp range	Max 220 °C	
Load/unload system	Inner supporting/external clamping	Can be connected with the production lines both in front and at the back
Product clamping	manual/robot	To be designed according to the product model
Varnish type	Single component/two-component	
Output accuracy	1%-10%	Multiple configuration, to be designed based on customer specification
Single machine cycle time	≥45s	Depending on product model



柔性产品切换  
flexible model transfer



数据追溯  
data traceability



全自动产线  
full automatic production

选配功能表

项目类型	产品说明	备注
滴漆量监控	≥1g	滴漆前后重量对比
自动换型	三轴伺服，滴嘴位置自动调整	可同时生产多规格产品
树脂温度控制	10-50℃	加热和冷却系统，会对树脂保温
流量监控	压力/流量监测	防堵及失效监控
数据追溯控制	扫码和RFID	记录产品工艺信息，实时数据查询
消防控制	二氧化碳/水消防	与工厂集中消防设备联机
冷却系统	冷却温度≤45℃	外置式/内置式

OPTIONAL FUNCTIONS

Item	Product Specification	Remarks
Varnishing quantity monitor	≥1g	Weight comparison before and after trickling process
Automatic model transfer	3-shaft servo, nozzle position can be adjusted automatically	used for production of several product models
Varnish temp control	10-50℃	Temp be protected in heating and cooling working system
Flow rate monitor	pressure/flow rate monitor	Anti-clogging/fail-safe monitor
Data traceability control	code scanning/RFID	Record process information, realize real-time data inquiry
Firefighting control	CO <sup>2</sup> /water firefighting	Connected with central firefighting facility at customer factory
Cooling system	Temp after cooling≤45℃	external/built-in



# 组装技术

## ASSEMBLING TECHNOLOGY

采用柔性模块化设计和数据控制系统，在安全使用的前提下，可灵活进行流程控制和技术参数调整，设备操作高度智能，设备维护更加便捷。人体工程学的设计，最大限度的提升您的使用体验。

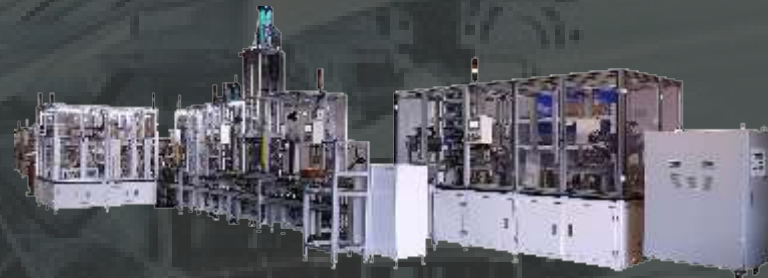
With flexible modular design and data control system, the production line will be easy for process control and parameter adjustment when ensuring its safety use. Equipment can be operated intelligently and be maintained easily. The ergonomic design also improves the user experience greatly.

### 转子装配线

对转子进行磁缸充磁，总体装配和质量检测，以提高产品生产效率和质量等级。

### Rotor assembly line

Automatically finish the magnetic cylinder magnetizing, general assembling and performance test, to improve the production efficiency and quality level.



### Model 3专用充电枪装配测试线

大幅减少操作人员，提升产能及产品质量。专用EOL及插拔力测试功能，与数据追溯系统结合，实现产品质量控制。

### Model 3 specialized charge gun assembly line

Can reduce operators a lot, improve the output and quality. The functions of EOL test and plug force test, integrated with data traceability, ensure better product quality control.



# 数据追溯系统

## DATA TRACEABILITY SYSTEM

生产数据  
实时采集

Real-time data  
collection

设备运转  
状态监测

Machine work  
status monitor

品质问题  
追溯分析

Quality tracking  
and analysis

生产排程  
管理

Production  
scheduling

异常报警  
分析

Fault alarm and  
analysis

# 测试技术

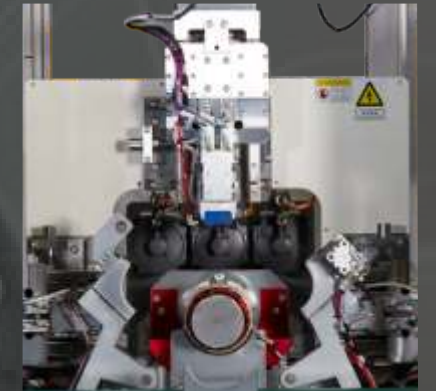
## TESTING TECHNOLOGY

### 定子测试机

集成自动切线及整形功能于一体，对定子进行多项参数测试，形成数据记录，自动判断产品性能。

### Stator test machine

Integrated with the function of both auto wire cutting and finishing, this line will do test on different parameters, determine its performance status with the data record.

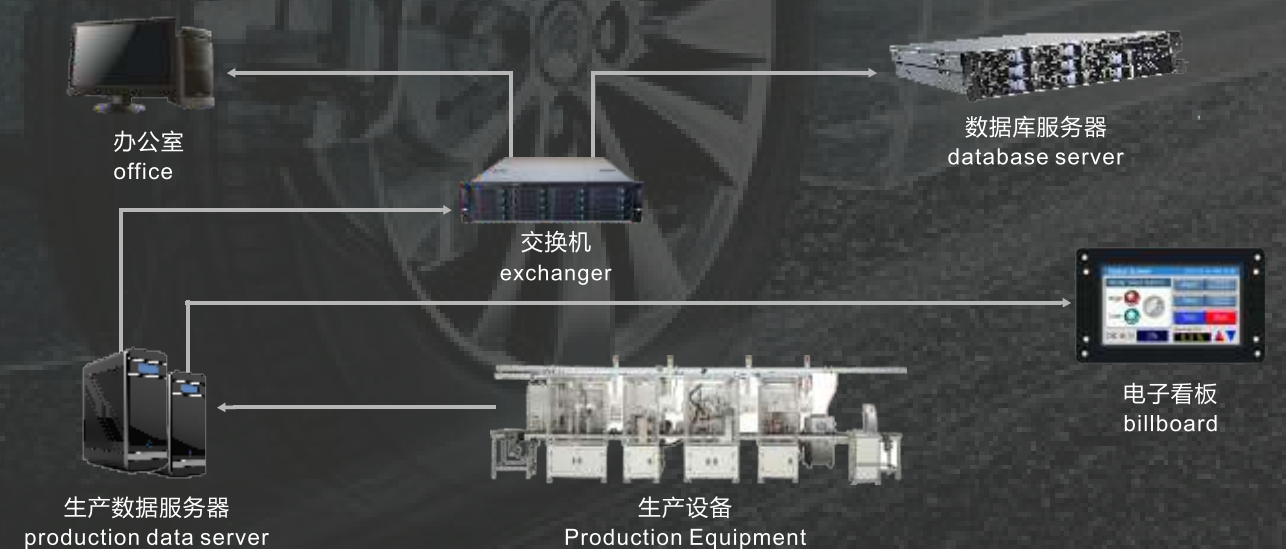


### 转向系统动力头测试线

EPS动力系统的测试调校设备，包含扭矩、噪音、反馈、震动等性能参数的测试，实现数据采集分析及ECU的控制等一体化。

### EPS power head test line

Applied for EPS power system testing and calibration, including performance inspection on torque, noise, feedback and vibration. Integrated with both data acquisition/analysis and ECU control.





# 应用领域

## PRODUCT APPLICATION

目前，金澜的智能化设备广泛用于汽车发电机、起动机、汽车座椅、转向系统和新能源电机和控制器等众多领域。产品采用模块化控制系统，在保持多规格产品兼容性的同时可提供多样化配置。设备自动化程度，以及数据管理系统可根据客户需求进行定制。其自动化产品线覆盖组装、测试和绝缘处理等多个生产工艺环节，几乎满足客户所有生产需求。

十几年来，我们保持初心，始终以客户需求为第一位，坚持设计优化和创新。未来我们会在电机和转向系统等关键技术领域深耕发展，致力于为客户提供优质的方案规划和设计，稳定可靠的智能生产解决方案。

The intelligent equipment we have manufactured is widely applied in the industries of starter, alternator, car seat, steering system and electrical car motor and controller, etc. Our equipment adopts modular control system, with multiple options for configuration, so much easier for product model transfer. The level of automation and data management system can be customized based on technical specification from customers. Our products cover such production processes as assembly, testing and insulating treatment, which nearly meets all the requests from customers.

Devoted as we are for the past decades of years, we will stay true to our original self and always put customers' needs first. We will insist on design optimizing and innovation. In the coming years, we will further the research and development on key technologies especially the stator insulation and steering system, committed to the best project planning/design, reliable production solutions and technical services for you.



新能源电机  
new energy car motor



新能源控制器  
new energy car controller



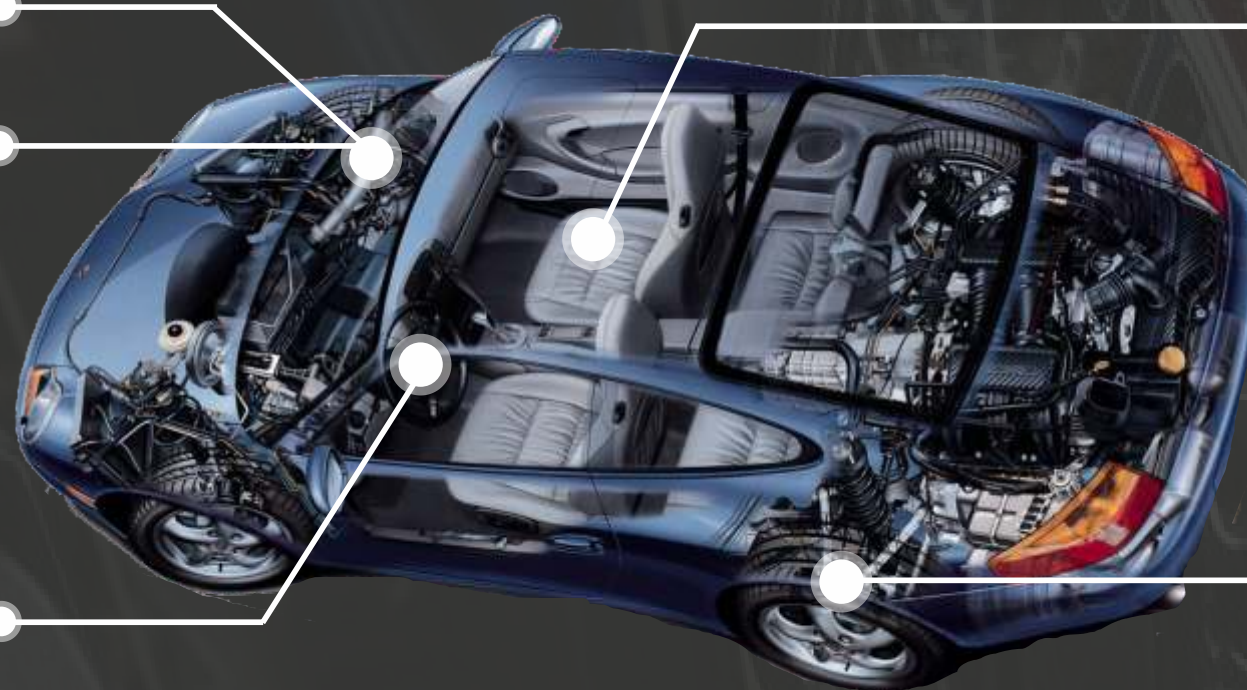
发电机  
alternator



起动机  
starter



转向系统  
steering system



汽车座椅  
automobile seat



制动系统  
brake system

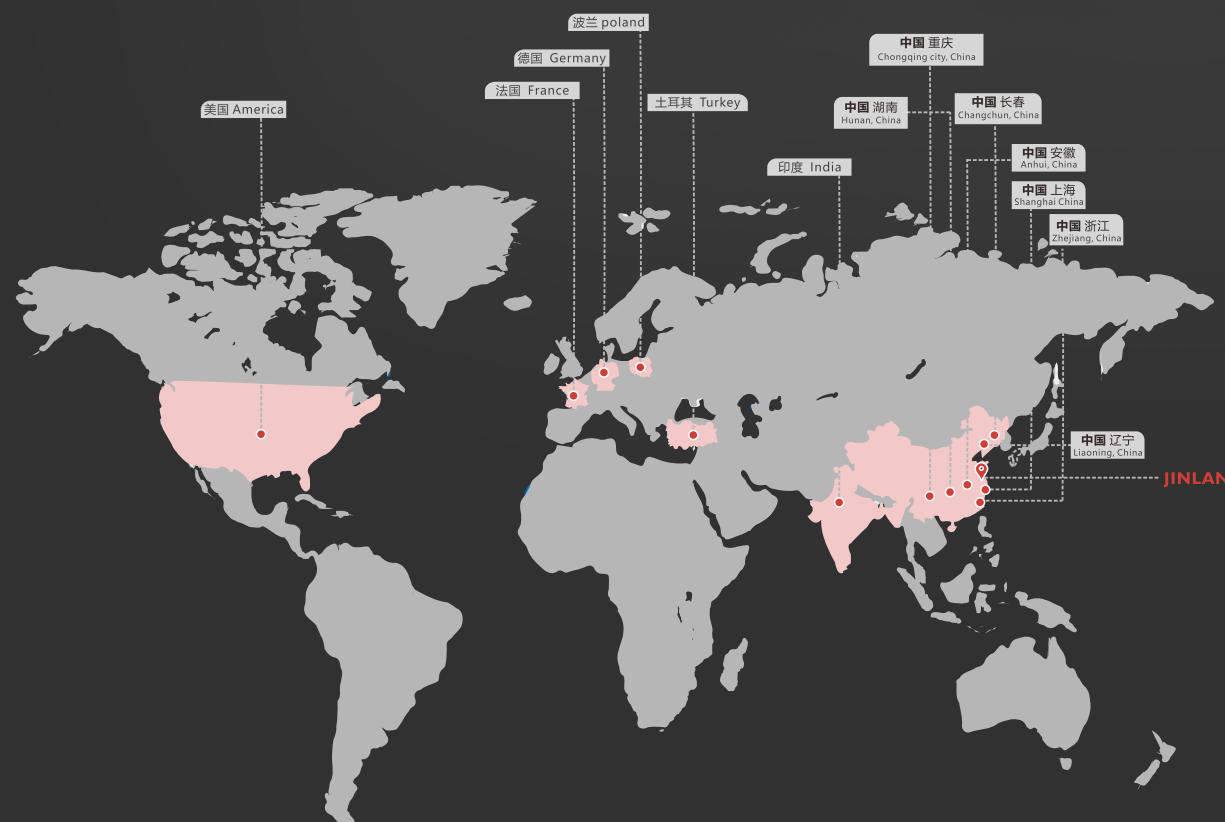


# 服务网络

## SERVICE NETWORK

近年来，我们不断完善组织发展机制，积极扩大品牌宣传推广力度。目前我们的产品除中国市场外，已拓展到欧洲、美洲、亚洲等多个国家和地区，凭一流的设计，稳定的品质和技术服务，赢得多个全球知名制造商的支持和信赖。

In recent years, we have made much efforts on developing our enterprise management mechanism and i ncreasing the brand publicity. Our products are widely used not only in China, but spread to lots of countries in Europe, Asia and America. With the top design, stable quality and technical service, we have won much support and trust from many famous manufacturers.



# 我们的客户

## OUR PARTNERS



# 未来发展

## FUTURE DEVELOPMENT

### 人才培养

#### Talent objective



未来将形成选拔、培训、考核和激励的人才发展机制，并例行化运作，为适应公司新的发展需求提供高素质人才储备。

In the following years, a talent developing mechanism of select, training, assessment and encouraging will be well established and routinized, to provide high-quality talent reserve to meet the needs of further development.

### 业务拓展

#### Business expansion



业务量在全球范围呈现高速增长。极大的拓展海外市场和技术服务范围。深化绝缘处理、专业测试和全工艺产线规划方面的发展。

The total turnover will show high-speed increase. Overseas market share and service network will be expanded a lot. More emphasis will be placed on insulation, specialized test and whole-process planning.

### 发展战略

#### Developing Strategy



未来将进一步拓展与国际知名制造商的业务合作，引入更多优势行业资源，提升综合竞争力。为客户提供更优质更全面的产品及服务。

We will further establish partnership with top manufacturers between countries, integrate more advantageous resources, to enhance our comprehensive competitiveness and serve customers with all-round quality products and services.



## 使命

### MISSION

为客户提供优质的服务与产品，共赢发展！  
To serve customers with the best service and product , win-win development.



## 愿景

### VISION

做世界级的智能制造服务商！  
To be the global intelligent manufacture service provider.



## 价值观

### VALUES

技术是根本，质量是生命！  
Technology is the cornerstone. Quality is the source of life.