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Wenjin Intelligent Equipment

深圳市稳进智能装备有限公司
Shenzhen Wenjin Intelligent Equipment Co., LTD

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专业锂电池模组 PACK 生产线与技术服务商

Professional Lithium Battery Module PACK
Production Line and Technical Service Provider



深圳市稳进智能装备有限公司
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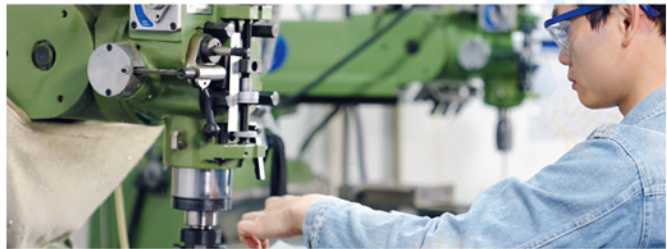
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公司简介

Company Profile



深圳市稳进智能装备有限公司坐落于创新之都深圳，是一家集研发、制造、销售与技术服务于一体的现代化企业。公司长期致力于新能源锂电池组装设备以及非标自动化 PACK 产线定制领域的深耕细作，现已形成丰富的产品线。主要产品分为三大类：圆柱电芯系列设备、方形铝壳电芯系列设备和软包电芯系列设备，同时为客户提供整厂 PACK 设备设计建造一站式解决方案。

公司始终秉持以科技为基石，致力于技术创新，不仅逐年显著提升研发投入，更斩获了多项具有突破性的技术专利。同时，公司广泛吸纳海内外行业的精英人才，组建了一支拥有深厚激光及自动化开发经验的研发团队。公司销售网络已覆盖全球，我们将继续秉承科技创新的理念，为客户提供高质量的产品和无微不至的技术服务以及强大市场竞争力的解决方案。

Shenzhen Wenjin Intelligent Equipment Co., Ltd. is located in the innovation capital of Shenzhen, and serves as a modern enterprise that integrates research and development, manufacturing, sales and technical services. The company has long been committed to new energy lithium battery assembly equipment and customized non-standard automation PACK production line, resulting in a diverse range of products. The main products are divided into three categories: cylindrical battery series equipment, prismatic battery series equipment and pouch battery series equipment, along with offering customers a comprehensive solution for design and construction of PACK equipment for the whole plant.

The company has always adhered to science and technology as the cornerstone, committed to technological innovation. We have not only significantly increased R&D investment year by year, but also won a number of breakthrough technology patents. At the same time, the company has extensively recruited elite talents from domestic and overseas, and formed an experienced R&D team specializing in laser technology and automation development. The company has established a global sales network. We'll maintain a commitment to scientific and technological innovation to provide customers with high-quality products, meticulous technical services and competitive market solution.

方壳锂电池工商业储能模组 PACK 自动生产线

Prismatic Lithium Battery Industrial And Commercial Energy Storage Module PACK Automatic Production Line

该非标定制生产线主要用于实现工商业储能模组 PACK 的配组、焊接、检测与装配功能，兼顾风冷、液冷产品工艺。线体包含：机器人上料 / 电芯扫码 / OCV 测试分选 / NG 排出及补料 / 自动极性检测及翻转 / 自动贴胶 / 散热板上线 / 散热板贴胶 / 胶后视觉检测 / 散热板自动贴电芯 / 自动堆叠 / 模组端板上线 (贴模组码) / 自动挤压 / 人工套钢带捆扎 / 自动二次扫码绑定 / 极性检测 & 极柱寻址 / 极柱清洗 / 人工安装 CCS / 激光焊接 / 模组测试 / 模组转线 / 液冷箱上线 / 液冷箱涂胶 / 模组入 PACK 箱 / 模组汇流排焊接 / PACK 组装 / EOL 测试 / PACK 吊装下线等组装过程。

The non-standard custom production line is mainly used to achieve matched group, welding, testing and assembly functions of industrial and commercial energy storage module PACK, taking into account both air cooling and liquid cooling product processes. The production line contains: robot loading/cell scanning code/OCV testing and sorting/NG discharge and replenishment/automatic polarity detection and flipping/automatic gluing/cooling plate loading/cooling plate gluing/ visual inspection after gluing/cooling plate automatic paste cell/automatic stacking/module end plate loading (sticking module code)/automatic extrusion/manual steel belt strapping/automatic secondary scanning code binding/polarity detection & pole addressing/pole cleaning/manual installation CCS/laser welding/module testing/module transfer other line/liquid cooling box loading/liquid cooling box gluing/module into the PACK box/module busbar welding/PACK assembly/EOL testing/PACK lifting offline, etc.



设备优势 Equipment advantage

■ 兼容性 Compatibility

兼容风冷、液冷产品工艺
Compatible with air cooling and liquid cooling processes

■ 自动化 Automation

主要工站皆采用自动化处理，效率高，节省人工
The main stations adopts automatic processing, with high efficiency and labor savings

■ 可追溯 Traceability

MES 系统可实时上传数据，对每个产品精准追溯
The MES system can upload data, which can realize accurate traceability of each product

设备参数 Equipment parameter

兼容范围 Compatibility range	方壳类锂电池 (100Ah-314Ah) Prismatic lithium battery(100Ah-314Ah)
产线效率 Production line efficiency	12PPM
产线尺寸 Production line dimension	L75m×W7m×H3m

方壳锂电池工商业储能模组 PACK 自动生产线

Prismatic Lithium Battery Industrial And Commercial Energy Storage Module PACK Automatic Production Line

该非标定制生产线主要用于实现工商业储能模组 PACK 的配组、焊接、检测与装配功能。线体包含：机器人上料 / 电芯扫码 / OCV 测试分选 / NG 排出及补料 / 电芯转线 / 极性检测 / 翻转 / 自动贴胶 / 自动堆叠 (5*2 堆叠塔) / 自动挤压 & 人工套钢带捆扎 & 绑定 / 极性检测 & 极柱寻址 / 极柱清洗 / 人工安装 CCS / 机器人激光焊接 / 模组测试 / 模组转线 / 液冷箱上线 / 液冷箱涂胶 / 模组入 PACK 箱 / PACK 组装与测试 / PACK 吊装下线等组装过程。

The non-standard customized production line is mainly used to achieve matched group, welding, testing and assembly functions of industrial and commercial energy storage module PACK. The production line contains: robot loading / cell scanning code / OCV testing and sorting / NG discharge and replenishment / cell transfer other line / polarity detection / flipping / automatic gluing / automatic stacking (5*2 stacking tower) / automatic extrusion & manual steel belt strapping & binding / polarity detection & pole addressing / pole cleaning / manual installation of CCS / robot laser welding / module testing / module transfer other line / liquid cooling box loading / liquid cooling box gluing / module into the PACK box / PACK assembly and testing / PACK lifting offline, etc.

设备优势 Equipment advantage

■ 高效率 High efficiency

满足高效率生产要求, 效率可达

Meet the requirements of high-efficiency production, with an efficiency of up to 18PPM

■ 自动化 Automation

主要工站皆采用自动化处理, 效率高, 节省人工

The main stations adopts automatic processing, with high efficiency and labor savings

■ 可追溯 Traceability

MES 系统可实时上传数据, 对每个产品精准追溯

The MES system can upload data, which can realize accurate traceability of each product



设备参数 Equipment parameter

兼容范围 Compatibility range	方壳锂电池 (280Ah-314Ah) Prismatic lithium battery(280Ah-314Ah)
产线效率 Production line efficiency	18PPM
产线尺寸 Production line dimension	L60m×W7m×H3m

方壳锂电池工商业储能模组 PACK 自动生产线

Prismatic Lithium Battery Industrial And Commercial Energy Storage Module PACK Automatic Production Line

该非标定制生产线主要用于完成工商业储能电芯模组 PACK 的配组、焊接、检测与装配。本线体由：机器人自动上料 / 电芯扫码自动分选 / 电芯贴胶 / 机器人堆叠 / 机器人搬运上线 / 自动扫码绑定 / 自动挤压 / 人工捆扎 / 自动 CCD 极柱寻址 / 自动 NG 排出 / 自动极柱激光清洗 / 人工放置 busbar / 自动激光焊接 / 总内压内阻测试 / 龙门吊转线 / 人工模组 PACK 组装与检测 / 龙门吊下线等工位组成。

The non-standard customized production line is mainly used to complete the assembly, welding, testing and assembly of industrial and commercial energy storage cell module PACK. This production line contains: robot automatic feeding/cell scanning and automatic sorting/cell gluing/robot stacking/robot handling on-line/automatic code scanning and binding/automatic extrusion/manual strapping/automatic CCD pole addressing/automatic NG discharge/automatic laser cleaning pole /manual placement of busbar/ automatic laser welding/total internal pressure and internal resistance test/hanging line/manual installation and detection of module PACK group/gantry crane line and other stations.

设备优势 Equipment advantage

■ 自动化 Automation

主要工站皆采用自动化处理，效率高，节省人工
The main station adopts automatic processing, high efficiency and labor saving

■ 兼容性 Compatibility

兼容不同尺寸的方壳电芯产品的组装
Be compatible with product assembly of prismatic lithium battery of different sizes

■ 可追溯性 Traceability

MES 系统可实时上传数据，对每个产品精准追溯
MES system can upload data in real time, which can realize accurate traceability of each product



设备参数 Equipment parameter

兼容范围 Scope of application	方壳类锂电池 (兼容风冷 / 液冷工艺) Prismatic lithium batteries (compatible with air/liquid cooling process)
产线效率 Production line efficiency	10-12PPM
产线尺寸 Production line dimension	L70m×W5.5m×H2.2m

方壳锂电池工商业储能模组 PACK 自动生产线

Prismatic Lithium Battery Industrial And Commercial Energy Storage Module PACK Automatic Production Line

该非标定制生产线主要用于实现工商业储能模组 PACK 的配组、焊接、检测与装配功能。线体包含：机器人上料 / 电芯扫码 / OCV 测试分选 / 电芯测厚 & 等离子清洗 / 正负极检测 / 翻转调向 / 电芯分流 / 人工贴胶 / 自动堆叠 / 自动挤压 & 人工套钢带捆扎 / 模组搬运上线 / 二次扫码 & 激光打码 / 极性检测 & 极柱寻址 / 极柱清洗 / 人工安装 CCS / 激光焊接 / 模组测试 / 模组转线 / 液冷箱吊装上线 / 液冷箱涂胶 / 模组入 PACK 箱 / PACK 组装与测试 / PACK 吊装下线等组装过程。

The non-standard customized production line is mainly used to realize matched group, welding, testing and assembly functions of industrial and commercial energy storage module PACK. The line body contains: robot feeding/cell scanning /OCV test sorting/cell thickness measurement & plasma cleaning/positive and negative electrode detection/reverse orientation/cell shunt/manual gluing/automatic stacking/automatic extrusion & manual steel strapping/module handling loading/secondary scanning & laser coding/polarity detection & pole addressing/pole cleaning/manual installation of CCS/ laser welding/module testing/ module transfer other line/liquid cooling box hoisting loading/liquid cooling box gluing/module into the PACK box /PACK assembly and testing /PACK lifting offline,etc.



设备优势 Equipment advantage

兼容性 Compatibility

兼容风冷、液冷工艺
Compatible with air cooling and liquid cooling processes

自动化 Automation

主要工位均采用自动化处理，产品良品率高，节省人工
The main work stations are automated processing, high product yield, labor saving

可追溯 Traceability

MES 系统可实时上传数据，对每个产品精准追溯
The MES system can upload data in real time and accurately trace each product

设备参数 Equipment parameter

兼容范围 Compatibility range	方壳类锂电池 (100Ah-314Ah) Prismatic lithium battery (100Ah-314Ah)
产线效率 Production line efficiency	12PPM
产线尺寸 Production line dimension	L60m×W7m×H3m

方壳锂电池工商业储能模组 PACK 自动生产线

Prismatic Lithium Battery Industrial And Commercial Energy Storage Module PACK Automatic Production Line

该非标定制生产线主要用于实现工商业储能模组 PACK 的配组、焊接、检测与装配功能。线体包含：机器人上料 / 电芯扫码 / OCV 测试分选 / 正负极检测 / 翻转调向 / 电芯贴胶 / 自动堆叠 / 自动挤胶 & 人工套钢带捆扎 & 绑定 / 模组搬运上线 / 二次扫码 & 激光打码 / 极性检测 & 极柱寻址 / 极柱清洗 / 人工安装 CCS / 激光焊接 / 模组测试 / 采集线安装与焊接 / 模组转线 / 液冷箱吊装上线 / 液冷箱涂胶 / 模组入 PACK 箱 / PACK 组装与测试 / PACK 吊装下线等工序。

The non-standard customized production line is mainly used to realize matched group, welding, testing and assembly functions of industrial and commercial energy storage module PACK. The line body contains: robot feeding/cell scanning / OCV test sorting/positive and negative electrode detection/turning direction/cell gluing/automatic stacking/automatic extrusion & manual steel strapping & binding/module transfer to assembly line/secondary scanning & laser coding/polarity detection & pole addressing/pole cleaning/manual installation CCS/laser welding/module testing/acquisition line installation and welding/module switching / Liquid cooling box hoisting to assembly line/liquid cooling box gluing/module into PACK box /PACK assembly and testing /PACK lifting offline, etc.



设备优势 Equipment advantage

兼容性 Compatibility

兼容风冷、液冷工艺
Compatible with air cooling and liquid cooling processes

自动化 Automation

主要工站皆采用自动化处理，产品良品率高，节省人工
The main work stations are automated processing, high product yield, labor saving

可追溯 Traceability

MES 系统可实时上传数据，对每个产品精准追溯
The MES system can upload data in real time and accurately trace each product

设备参数 Equipment parameter

兼容范围 Compatibility range	方壳类锂电池 (100Ah-314Ah) Prismatic lithium battery (100Ah-314Ah)
产线效率 Production line efficiency	12PPM
产线尺寸 Production line dimension	L60m × W5.5m × H2.6m

方壳锂电池工商业储能模组 PACK 半自动生产线

Prismatic Lithium Battery Industrial And Commercial Energy Storage Module PACK Semi-Automatic Production Line

该非标定制生产线适用于工商业储能和家庭储能；用于完成方壳储能电芯风冷、液冷 PACK 模组的配组、焊接、检测与装配，产线含有：电芯上料 / 电芯扫码 / OCV 测试 / 电芯测厚 / 机箱上料贴膜辅助线 / 人工堆叠入箱 / 自动挤压人工捆扎 / 人工扫码、条码绑定 / 自动极性检测 / 自动极柱清洗 / 人工放置导流排 / 激光自动焊接 / 人工检查焊接效果及清洁 / 自动总压内阻测试 / 龙门吊转线 / 人工 PACK 装配线 / 龙门吊下线等工位。

The non-standard customized production line is suitable for industrial and commercial energy storage and home energy storage. It is used to complete the assembly, welding, testing and assembly functions of the air-cooled or liquid-cooled PACK modules of prismatic lithium battery. The production line includes: cell loading/cell scanning/OCV test/cell thickness measurement/chassis loading film auxiliary line/manual stacking into the box/automatic extrusion and manual binding/manual scanning code、code binding/automatic polarity detection/automatic pole cleaning/manual placement of guide bar/laser automatic welding / manual inspection of welding effect and cleaning/automatic total pressure and internal resistance test/gantry crane line/manual PACK assembly line/gantry crane line and other stations.

设备优势 Equipment advantage

■ 高效化 High efficiency

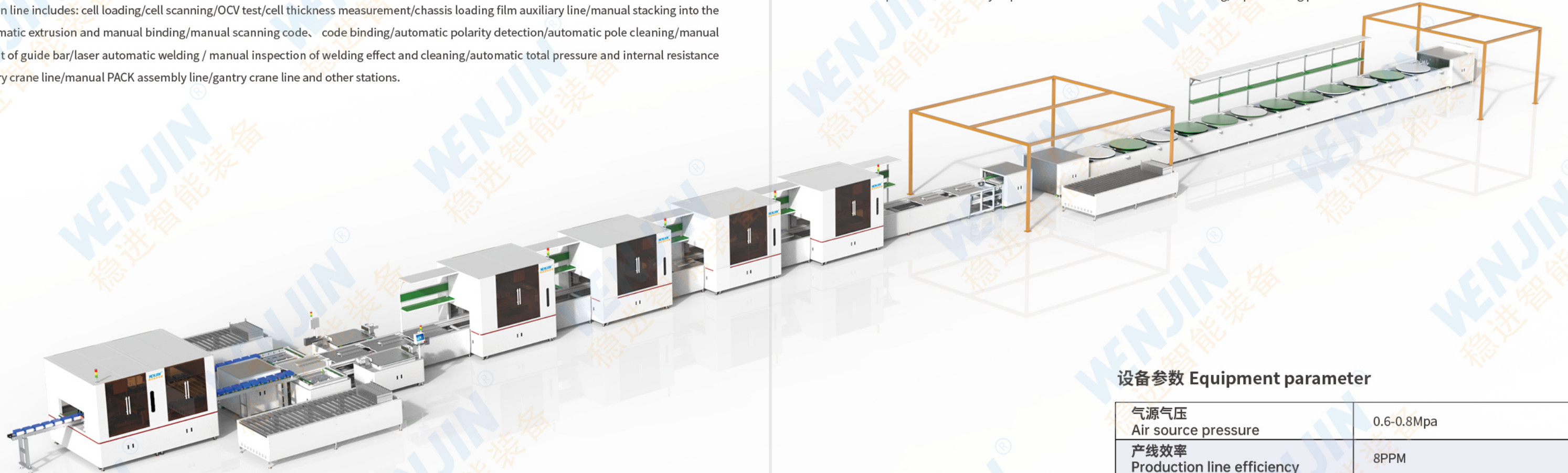
选用标准的倍速链模组保证产品的稳定性及质量
The standard double speed chain module ensures the stability and quality of the product

■ 柔性化 Flexibility

预留的人工工位可兼容更多不同要求的产品
It is compatible with more products of different requirements

■ 兼容性 Compatibility

兼容多款方壳锂电池及风冷、液冷工艺
It is compatible with a variety of prismatic lithium batteries and air cooling, liquid cooling process



设备参数 Equipment parameter

气源气压 Air source pressure	0.6-0.8Mpa
产线效率 Production line efficiency	8PPM
产线尺寸 Production line dimension	L60m × W5.5m × H2.6m

方壳锂电池家庭储能模组 PACK 半自动生产线

Prismatic Lithium Battery Home Energy Storage Module PACK Semi-Automatic Production Line

该非标定制生产线适用于家庭储能，用于完成方壳储能电芯模组 PACK 的配组、焊接、检测与装配，线体包含：空托盘自动上下回流 / 人工上料 / 电芯扫码自动分选 / 人工堆叠 / 自动挤压人工捆扎 / 人工扫码条码绑定 / 自动极性检测 / 自动极柱清洗 / 人工放置 busbar / 自动 busbar 焊接 / 人工目视检查焊接效果 / 人工焊后测试 / 龙门吊转线 / 人工完成模组 PACK 组装 / 龙门吊下线等工位。

The non-standard customized production line is suitable for home energy storage, and is used to complete the assembly, welding, testing and assembly of the prismatic energy storage core module PACK. This production line includes: empty tray automatic backflow/manual loading/cell scanning code and automatic sorting/manual stacking/automatic extrusion and manual strapping/manual scanning and code binding/automatic polarity detection/automatic pole cleaning/manual placement of busbar/automatic busbar welding/manual inspection of welding effect/manual post-welding test/crane wire transfer/manual completion of module PACK assembly/gantry hanging line and other stations.

设备优势 Equipment advantage

■ 高效化 High efficiency

选用标准的倍速链模组保证产品的稳定性及质量
The standard double speed chain module ensures the stability and quality of the product

■ 柔性化 Flexibility

预留的人工工位可兼容更多不同要求的产品
It is compatible with more products of different requirements

■ 一致性 Consistency

采用统一成熟的平移机架，保证外形美观
It adopts unified and mature translation rack to ensure beautiful appearance

设备参数 Equipment parameter

兼容范围 Scope of application	方壳类锂电池 Prismatic lithium batteries
气源气压 Air source pressure	0.6-0.8Mpa
产线效率 Production line efficiency	6-8PPM
产线尺寸 Production line dimension	L50m × W5.3m × H2.8m

软包锂电池模组 PACK 生产线

Soft PACK Lithium Battery Module PACK Semi-automatic Production Line

该定制生产线主要用于户外储能、二轮和三轮电动车软包锂电池模组 PACK 的配组、焊接、检测与装配。该线体包含有：人工上料 / 自动扫码 / OCV 测试 / 极耳整形 / 极耳裁切 / 裁切后整形 / 极性翻转 / 人工贴胶 / 人工堆叠 / 人工捆扎 / 人工装汇流板 / 极耳折弯 / 极耳整平 / 激光焊接 / 总内压内阻测试 / 龙门吊装转线 / PACK 人工组装 / 吊装下线。

The customized production line is mainly used for the assembly, welding, testing and assembly of soft pack lithium battery module Pack in outdoor energy storage, two-wheel and three-wheel electric vehicle. The production body includes: manual loading/automatic code scanning /OCV test/pole ear shaping/pole ear cutting/Pole shaping after cutting/polarity reversal/manual gluing/manual stacking/manual strapping/manual tooling bus-plate/pole ear bending/pole ear leveling/laser welding/total internal pressure and internal resistance test/gantry hoisting /PACK manual assembly/ hoisting down the assembly.

设备优势 Equipment advantage

■ 高效化 High efficiency

设备主要工作站皆采用自动化，有效提高生产效率
The main stations of the equipment are automated to improve production efficiency

■ 兼容性 Compatibility

兼容多规格单边极耳软包锂电池
It is compatible with single-pole ear soft pack lithium batteries of many specifications

■ 模块化 Modularization

模块化布局，便于设备维护，工序自由组合，操作灵活
Modular layout, easy to equipment maintenance, free combination of processes, flexible operation

设备参数 Equipment parameter

兼容范围 Scope of application	方壳类电芯 Prismatic lithium batteries
产线效率 Production line efficiency	6-8PPM
产线尺寸 Production line dimension	L54m × W3m × H2.8m

圆柱锂电池模组 PACK 自动生产线

Cylindrical Lithium Battery Module PACK Automatic Production Line

该线体用于圆柱锂电池模组 PACK 的自动化生产。整线包含：电芯整盒上料 / 自动取料 / 自动贴纸 / 自动扫码 / 电芯分选 / 二次扫码配组 / 机器人自动入支架 / CCD 极性检测 / 人工安装治具 / 正面点焊 / 模组翻转 / 反面点焊 / 模组翻转 / PACK 装配与测试等工序。

The production line is used for the automated production of the cylindrical lithium battery module PACK. The whole production line contains: Full box cell loading/automatic material retrieval/automatic sticker/automatic code scanning/cell sorting/secondary code scanning assembly/robot automatic entry bracket /CCD polarity detection/manual installation fixture/front spot welding/module flipping/reverse spot welding/module flipping /PACK assembly and testing,etc.

设备优势 Equipment advantage

■ 兼容性 Compatibility

兼容相近尺寸圆柱锂电池
Compatible with similar size cylindrical lithium batteries

■ 自动化 Automation

主要工站均采用自动化处理，效率高，节省人工
The main work stations are automated processing, high efficiency, labor saving

■ 可追溯 Traceability

MES 系统可实时上传数据，对每个产品精准追溯
The MES system can upload data in real time and accurately trace each product



设备参数 Equipment parameter

兼容范围 Compatibility range	18650/21700/26650/32700
产线效率 Production line efficiency	3000-4000pcs/h
产线尺寸 Production line dimension	L36m×W3m×H2.2m

运用领域
Application Areas

		
工商业储能 Industrial and commercial energy storage	户外 / 家庭储能 Outdoor/home energy storage	卡车换电 Truck power change
		
AGV 电池模组 AGV battery module	房车电源 Rv power supply	智能机器人 Intelligent robot
		
电动工具 Power tool	动力插车 Power plug	UPS 储备电源 UPS reserve power supply
		
汽车动力电源 Automotive power supply	扫地机器人 Sweeping robot	
		
渔船 / 船舶动力 Fishing boat/ship power	太阳能储能系统 Solar energy storage system	通讯基站电源 Communication base station power supply
		
	清洁工具 Cleaning tool	

合作伙伴
Partners

estarsolar 瑞峰新能源

BPI 倍特力

丰日电气集团
FENGRI ELECTRIC GROUP

LESSO 联塑

TOPBAND 拓邦

比克新动力
BAK NEW POWER

DERUN 德润

Phenix 凤凰

国轩高科
GOTION HIGH-TECH

ALPINE Mobile Media Solutions

云鼎新能源
YUNDING NEW ENERGY

HIGGSE 希格斯新能源

长征电气
CHANGZHENG

EVE 亿纬锂能
亿纬锂能

amprius 南京安普瑞斯

UTL 优特利能源

Huison 山东旭尊

DYNAVOLT TECH 猛狮科技

UTL

deerma 德尔玛

售后及个性化定制

After Sales And Personalized Customization



在线支持

Support Online

7x12 小时在线服务

7x12 Hours service online

我们提供 7x12 小时微信 /QQ/ 电话 / 邮件等方式的服务，随时解答客户使用中的问题



运行监视

Operational
Monitoring

远程在线运维支持

Remote online operation and maintenance support

我们可以根据客户授权，远程接入系统运行状态，提供必要的运维服务



上门服务

On-site Service

24 小时上门服务

24-hour on-site service

设备在保修期内的问题需要上门的情况，我们会及时提供 24 小时内上门到达现场服务（部份地区 48 小时到达）



定制开发

Customization and
Development

客户个性化定制开发

Personalized according to the need of customer

可根据客户需求，在功能、数据等方面提供有限付费的定制开发服务

NOTE