

印刷设计: 18923846808



Dongjing Electromechanical
Shenzhen Dongjing Electromechanical Equipment Manufacturing Co., Ltd.
www.dongjingjd.com



深圳市东精机电设备制造有限公司

Shenzhen Dongjing Electromechanical Equipment Manufacturing Co., Ltd.

地址ADD: 广东省深圳市宝安区沙井镇上高坡蚝一工业区三栋

电话TEL: 0755-29887148/29887182

传真FAX: 0755-29887881

邮箱E-MAIL: wxstsas@126.com

网址WEB: 串焊机: www.dongjingjd.com; AGV: www.djjd-agv.com; 非标生产线: www.djjd-fb.com



服务热线: 400-6698-918

深圳市东精机电设备制造有限公司
Shenzhen Dongjing Electromechanical Equipment Manufacturing Co., Ltd.

创造世界最优秀、最具创新性的产品！

携手东精 共创辉煌

实力 让我们引领行业

Use of the creative thinking and advanced technology,
innovation, and improve service levels

C 公司介绍 Company introduction

深圳市东精机电设备制造有限公司是一家专业从事精密自动化设备的研发、生产、销售、服务、自动化系统集成方案于一体的高科技公司。本公司拥有自主进出口权。同全球500强的几十家企业有长期合作。公司生产厂房、员工宿舍近5000平方米，资金投入3000万，拥有几十台套精密加工设备，工程技术人员30人，制造人员80人。

为了响应国家“十二五”及“十三五”规划——提高我国高端装备制造业，公司自2011年开始在新能源，新材料，电子通讯等领域同国内外各高等科研机构、团体、院校进行合作研发，具有最前沿的高端智能设备，我们生产的自动化设备有：太阳能电池片自动串焊机、智能物料AGV输送系统、智能机器人应用系统、产品自动测试系统、产品自动包装系统、自动传输系统等。

我们的目标是成为国际一流新能源、电子、通讯等领域的高端精密自动化设备制造、供应和服务商。

Shenzhen Dongjing Electromechanical Equipment Manufacturing Co., Ltd. is a company engaged in precision automation equipment R & D, production, sales, customer service and service automation integration professional in one.

The company is a high-tech enterprise with import and export rights. In recent years, with ninety companies in the global top 500 long term cooperation. Currently scale: nearly 5000 square meters workshop, dormitory, workshop (Taiwan) has dozens of sets of precision machining equipment, nearly all kinds of technical personnel, the scale of investment funds of over ten million.

In response to the national "Twelfth Five" and "Thirteen Five Plan" -- to improve China's high-end equipment manufacturing industry, the company at the beginning of the new energy, since 2011, new materials, electronic communications and other fields with the domestic and foreign colleges and scientific research institutions, organizations, institutions of cooperation research with the most cutting-edge high-end smart equipment: automatic transmission system, intelligence AGV transport system, intelligent robot application system, automatic test product system, product automatic packaging system, the company aims to become the world's top new energy, electronics, communications and other fields of high-end precision automation equipment manufacturing, supply, service providers!

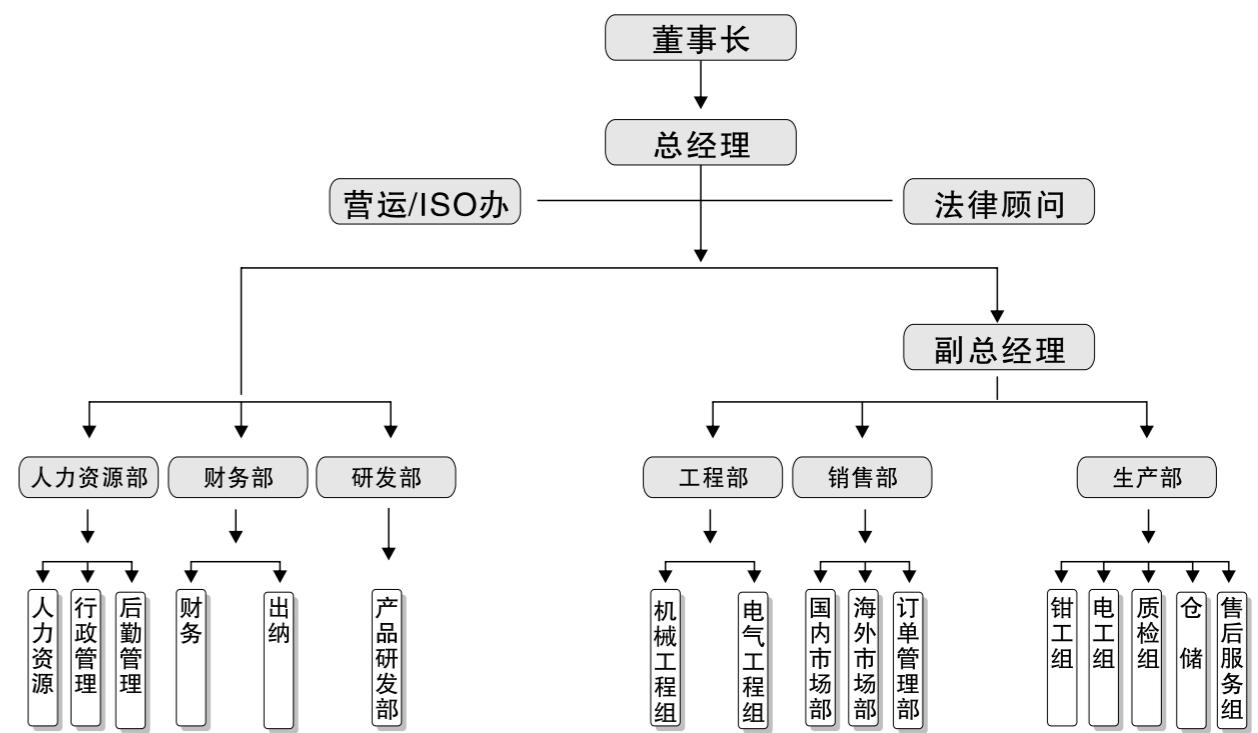


公司一角



→ 组织结构图

ORGANIZATION CHART



→ 企业文化 The enterprise culture

公司使命:
提高、解放人的劳动生产力

企业文化:
儒、释、道、法、敬天爱人

核心价值观:
★以人为本、人尽其才、共同奋斗、视人才为公司财富但不迁就人才；
★在自主创新的基础上以坦诚开放，合作共赢的态度与世界各核心技术团队发展引领行业格局的核心技术体系；
★推崇敬业和创新精神；
★追求事业，热爱生活，奉献社会，振兴民族；
★让员工，顾客，合作者成为利益共同体

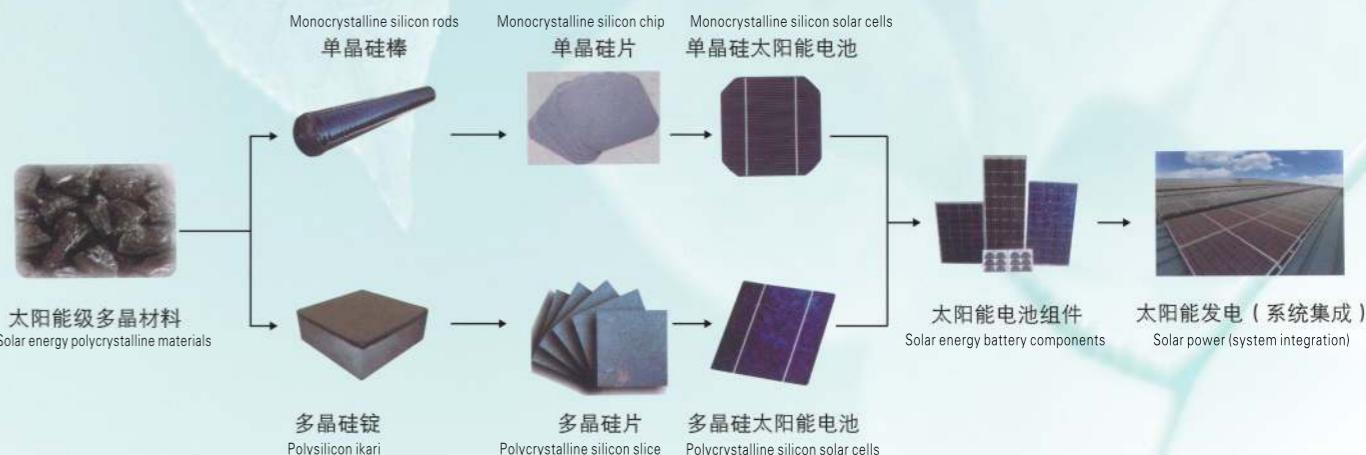
经营理念:
创新源于客户和人才智慧，卓越成果为客户服务

质量方针:
追求零缺陷、精品成就企业
创造百分百、服务一流企业
超越与卓越、赢得社会信赖和推崇

→ 企业资质 Enterprise qualification



○ 太阳能光伏生产制造过程 Solar photovoltaic (pv) manufacturing process



○ 太阳能光伏生产制造工艺介绍 Solar photovoltaic (pv) manufacturing process



第三代 多规格太阳能电池片串焊机

The third generation Solar cells in series welding machine of many specifications



四大特点：Four major features:



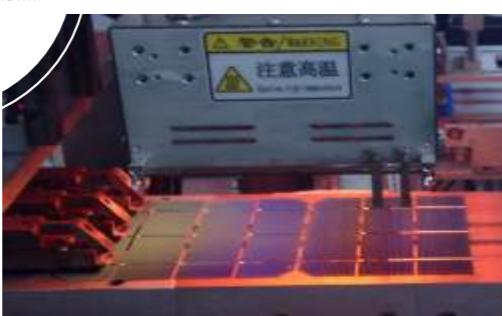
镀金纳米反射远红外焊接模组
Gold-plated nano far-infrared reflection welding module



三栅、四栅修正模块
Three grid, four grid correction module



网络远程诊断监控功能
Network remote diagnosis monitoring function



多规格小片任意组合
Small pieces of any combination of many specifications

设备特性 Equipment features

- 能够满足5吋、6吋完整片，及各种切割片的焊接要求（切割片的宽度不小于30mm）
Suitable for 5"、6" square cells and cutting cells (the cutting cells' minimum width is 30mm)
- 有多种特殊设计以满足切割片的焊接要求,大量参数可以通过触摸屏灵活调节
The parameters can be set optionally by the touch screen.
- 4分位转台结构供片方式可以用来装载不同形状的切割电池片，以满足拼接有关形状的要求
4-way arm rotating turn-table can load different shapes of cutting cells to meet the different requirements on connection
- 同栅线规格电池片，仅宽度变更的调整时间小于20分钟
For the same busbar cells, only changing the cells' width, the setting time is less than 20 minutes
- 不同栅线电池片之间的规格调整时间小于30分钟
For the different busbar cells, the setting time in changing the cells' type is less than 30 minutes
- 对于各种电池片有很高的适应性
High flexibility for various cells
- 每串电池串的电池片数量可以通过触摸屏调节
The number of solar cells for the strings is settable by the touch screen
- 可以设定所需生产电池串的数量
The number of wanted cell strings is settable
- 电池片之间的间距可以在2到30毫米的范围内调节
Adjustable range of the gap of cells is 2 to 30mm
- 工作可靠，极少需要维修
Operation reliable, less maintenance required
- 操作简单，培训一天即可正常使用
Simple operation, only need one day for training
- 一个操作工人可以同时看管2台设备
Only one worker for two machines

技术参数 (Technical Data)

| | |
|--------------------------------------|--|
| 工作能力 (Soldering capacity) | A级片： 600 ~ 700PCS/h |
| 电池片尺寸 (Cell dimension) | 30 ~ 125 × 125mm; 30 ~ 156 × 156mm |
| 电池片厚度 (Cell thickness) | 160微米以上 (From 160micron and up) |
| 焊带规格 (Ribbon sizes) | 宽度1.2~2.0毫米, 厚度0.12~0.23毫米 (Width is 1.2~2.0mm, Thickness is 0.12~0.23mm) |
| 破片率(Breakage) | A级片： ≤3% |
| 电池片焊接间距 (Cell welding spacing) | 1.5 ~ 10mm 可以0.1mm单位设定, 电池片间距误差: ≤ ± 0.2mm |
| 电池片盒供应能力 (Cell basket capacity) | 四个循环供料盒, 每盒每次最多可放置100片, 共400片 (Four baskets system to load up to 100 pcs each, total 400pcs) |
| 操作界面 (Operation control) | PLC触摸屏操控 (PLC touch screen) |
| 焊接方式 (Soldering technology) | 红外灯光源加热 (IR light) |
| 灯管寿命 (Soldering light life) | ≥1000小时 (≥1000Hr) |
| 焊接温度 (Soldering temperature) | 常温120~140°C可调 (Normal 120~140°C (adjustable)) |
| 电源要求 (Input power) | 50 ~ 60Hz/AC380V/16A |
| 平均功率 | 5KW |
| 峰值功率 (Peak power) | 10KW |
| 气源 (Compressed air) | 0.5Mpa以上洁净、干燥空气 (≥0.5Mpa clean&dry air) |
| 压缩空气消耗量 (Compressed air consumption) | 大约200升/分钟 (Approx 200 l/min) |
| 最大电池串长度 (Max.length of string) | 1950mm |
| 操作界面 (Operator interface) | 中文或英文 (Chinese or English) |
| 设备外形尺寸 (Dimension) | L3745*W1340*H1928mm |
| 设备重量 (Weight) | 大约1350公斤 (Approx 1350KG) |
| 保质期 (Warranty) | 12个月 (12 months) |

全自动硅料、硅块酸洗/碱洗机 JLK-QX5

Automatic silicon material, silicon block JLK - QX5 acid/alkaline cleaning machine



产品描述 The product description

- ◎ 硅料酸洗机原理：利用HF和HNO₃配成一定比例的液体对硅原料表面进行清洗，再经过喷淋+氮气鼓泡+快排、浸泡+氮气鼓泡、超声波+氮气鼓泡、吹干、烘干来完成对硅原料的清洗。
- ◎ 主要特性：本机清洗硅料的规格：具有无规则的形状和随机尺寸分布，其颗粒在15~200m之间。
- ◎ 控制系统：人机化触摸工业电脑，操作方便，易维护。
- ◎ 每篮清洗硅料重量约为15kg, 240kg每小时, 280kg每班(12小时), 1.478+E6kg/年产。
- ◎ 机械手单臂额定载荷50kg。
- ◎ 采用氮气保护酸槽到QDR槽，以防止硅料氧化。
- ◎ 采用热氮气吹干，利用风切原理，由两个滑台气缸控制。
- ◎ 配有自动补液装置，能及时补充损耗的液体。
- ◎ 机器配有4工位烘干经体，烘干后硅料可直接包装，无需再进烘干炉。
- ◎ 纯水和酸液自动供给，采用美国进口防酸隔膜泵，由吹气式液位开关和光电液位开关控制液位。
- ◎ 各管路采用+GF+气动隔膜和美国进口PFA管道控制。
- ◎ 配有两个机械手，可采用无线遥控按钮调整机械手。
- ◎ 机械中间采用隔板隔开，将酸性空间和无酸性空间隔开，中间水槽利用过渡气缸完成。
- ◎ 机械手采用松下伺服马达控制，精度达±0.1mm，可自动复位回原点。

When silicon material pickling machine principle: the use of HF and HNO₃ as a percentage of the liquid surface cleaning of silicon raw material, after spray + nitrogen Bubbling + fast row, soaking + nitrogen bubble, ultrasonic + nitrogen bubble, blow drying, drying to complete the cleaning of silicon materials.
 When main features: the machine cleaning of the specifications of the silicon material: with shape and size distribution without rules, the particles between 15 ~ 200 m.
 When control system: man-machine touch industrial computer, convenient operation, easy maintenance.
 Does each basket cleaning silicon material weight is about 15 kg, 240 kg per hour, 280 kg per shift (12 hours), 1.478 + E6kg/capacity.
 Manipulator arm rated load 50 kg.
 Acid to the QDR cao slot when using nitrogen protection, to prevent the oxidation of the silicon material.
 When using nitrogen blow dry, using the wind cutting principle, controlled by two slide cylinders.
 Equipped with automatic rehydration device, you can replenish depleted liquid in a timely manner.
 Drying the body when the machine is equipped with four workstation, drying silicon material can be directly after packaging, no need to into the baking furnace.
 When pure water and acid automatic supply, adopting the United States imported acid diaphragm pump, by blowing type liquid level switch and photoelectric liquid level switch control level.
 Does each line using + GF + import PFA pipeline control pneumatic diaphragm and the United States.
 Equipped with two manipulators, you can use wireless remote control button to adjust the manipulator.
 When mechanical middle clapboard separates, the acid separated by space and no acid space, sink of transition cylinder to finish in the middle.
 Manipulator with panasonic servo motor control, precision of + / - 0.1 mm, can be automatically reset back to the origin.



管路控制
自动控制纯水的进出
Line control
Automatic control of pure water in and out



机械手
自动提放花篮
manipulator
Put up a basket automatically



电控箱
整机自动化控制系统
Electric cabinet
The whole machine automation control system



控制面板
可视操作界面
The control panel
Visual interface



上料工位
手工放置花篮
Loading station
Manually placed basket



酸液管路
自动控制酸液
Acid line
Automatic control acid

硅料酸洗机主要技术参数

Silicon material pickling machine main technical parameters

- | | |
|---|---------------------------|
| A. 双机械手，机械手单臂额定载荷约50kg | E. 水源(用户提供) 纯水流量1.5T/h |
| B. 外形尺寸：长*宽*高 10430*2050*2740mm | F. 酸液(用户提供) HF和HON3自动供液系统 |
| C. 电源(用户提供) AC380V 50Hz 总功率115KW 三项五线制 | G. 产能：1.5T/H |
| D. 气源(用户提供) 气源流量1M3/h,压力0.4~0.6Mpa,干净无油水 | H. 压缩空气和氮气 |
| A. the double manipulator, about 50 kg manipulator arm rated load | |
| B. overall dimensions: length * width * height 10430 * 2050 * 2740 mm | |
| C. power supply (users) AC380V 50 Hz total power of 115 kw three five wire system | |
| D. air (users) air flow 1 m ³ /h, pressure is 0.4 ~ 0.6 Mpa | |
| E. water (users) pure water flow 1.5 T/h | |
| F. acid (users) HF and HON3 automatic feed liquid system | |
| G. capacity: 1.5 T/H | |
| H. clean oil compressed air and nitrogen | |

硅料酸洗机平面布局和工艺流程

Silicon material pickling machine layout and process flow



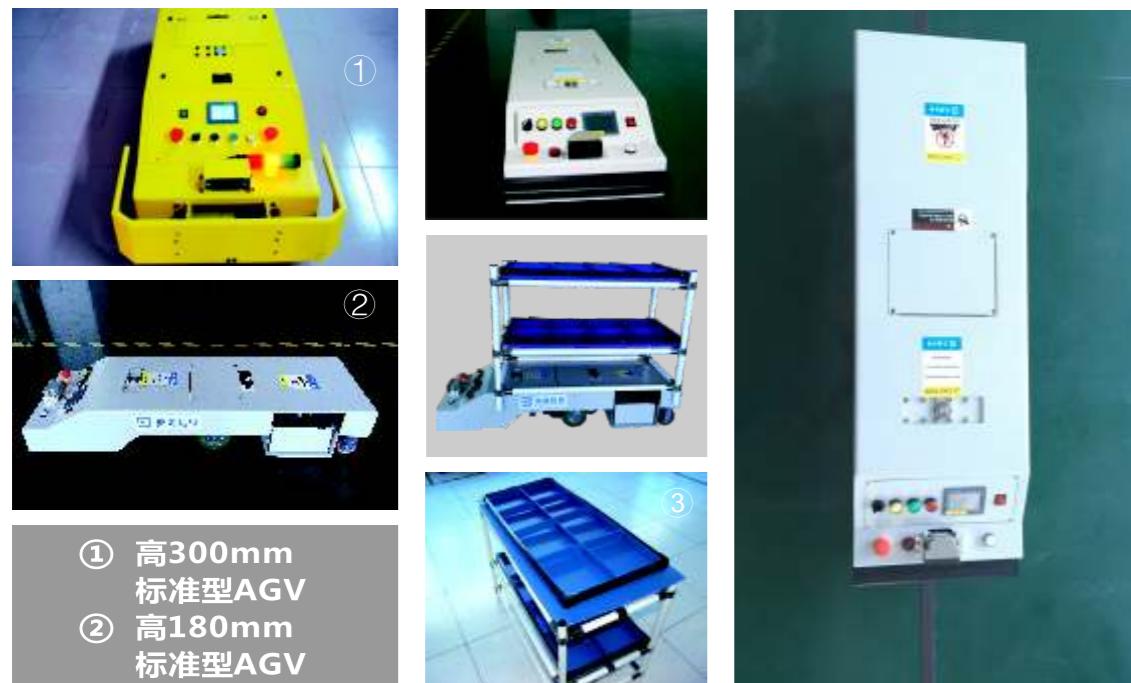
烘干线 → 吹干槽 → 超声槽 → 超声槽 → 热水槽 → 快排槽 → 酸洗槽 → 进料线 → 工艺流向

Dry line → Blow dry chamfer → Ultrasonic bath → Ultrasonic bath → Hot water tank → Fast row of slots → Pickling tank → The feed line → Process flow

硅片电池片物料无人输送机器人

Silicon electrical disk material conveying robot

- ◎ 结构外形美观，坚固耐用，批量生产，十年应用，功能强大；
- ◎ 带自动升降销，实现自动上下料，柔性好，广泛应用于生产输送部品替代传统装配线，如汽车部总装厂，分装线；
- ◎ 采用进口无刷伺服电机，红外（可选激光）AGV专用安全传感器，安全触边，双安全保护；
- ◎ 人机界面交互方便，参数用户灵活设置，单片机控制系统，性能稳定可靠，安装，维护方便；
- ◎ RFID数字标签指令控制，客户灵活编制AGV航线表及动作；
- ◎ Have beautiful shape structure, strong and durable, mass production and application for 10 years, powerful;
- ◎ With automatic lifting pin, realize the automatic up-down material, flexible, widely used in the production of transmission parts are alternatives to traditional assembly line, such as car assembly plant, packing line;
- ◎ When imported brushless servo motor, infrared (optional) AGV dedicated security sensors, security contact, double safety protection;
- ◎ When convenient man-machine interface interaction, flexible parameter user Settings, single-chip microcomputer control system, stable and reliable performance, installation, maintenance is convenient;
- ◎ When RFID digital label instruction control customer flexible prepare a list of the AGV routes and action;



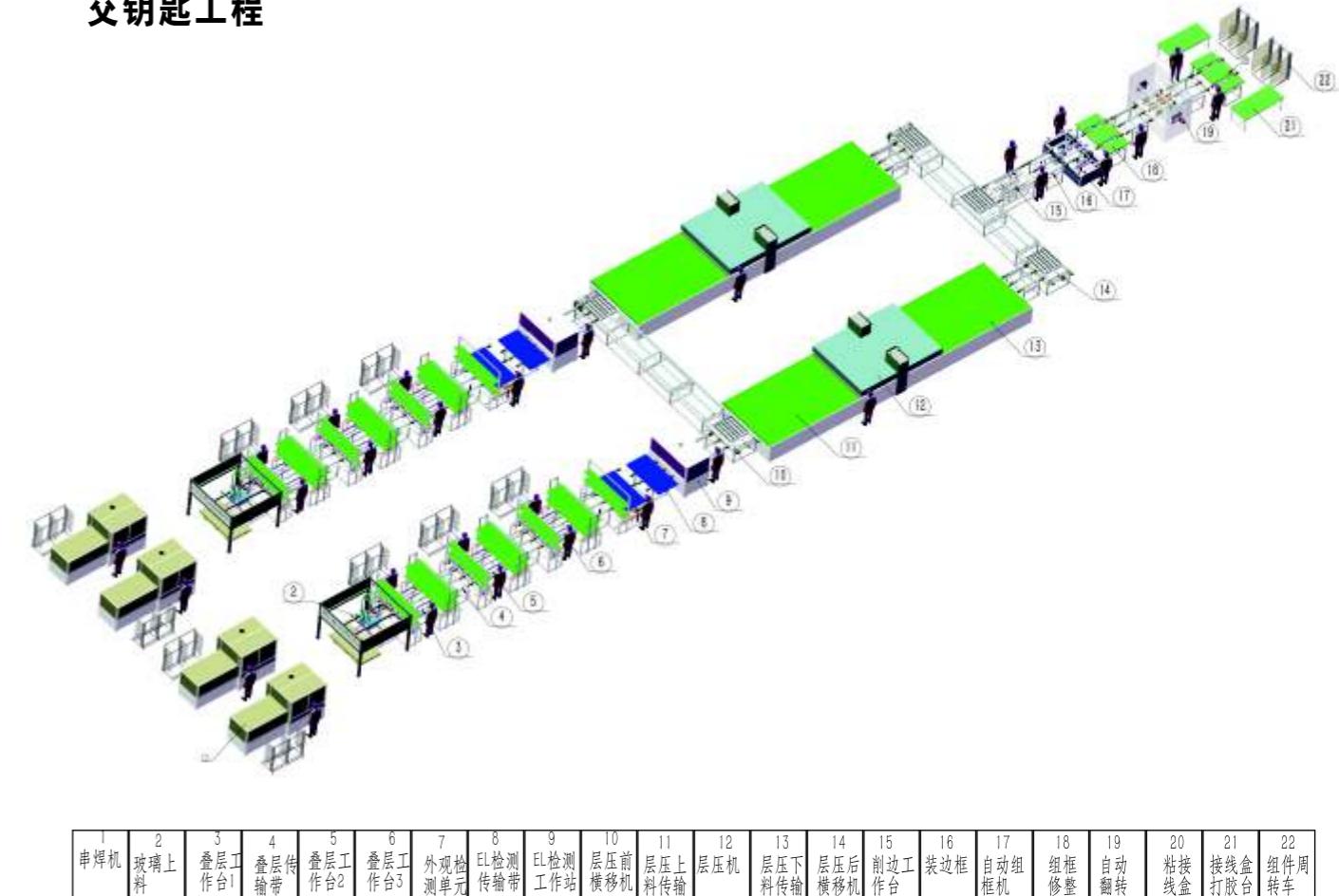
3.AGV物料架 The material plane

- 1) 规格: L950*W460*H700MM
 - 2) 层数: 2层
 - 3) 结构: 整体采用直径28MM黑色防静电精益管+专用接头制作
 - 4) 电池片放置周转盒: 采用5MM中空板制作, 分成8个放置区, 每个小区可放20片电池片, 每层可放1600片;
- 1) specification: H700MM * W460 * L950 2) layer: layer 2
 3) structure: overall using 28 mm diameter black anti-static lean tube + special joint production
 4) cell turnover box placement: made of 5 mm hollow plate is divided into eight place area, 20 pieces of cell can be put in every community, each layer can put 1600 pieces;

产品参数 Product parameters

| 型号 | SCBEM-200 | SCBEM-350 | SCBEM-500 | SCBEM-800 | SCBEM-1500 |
|----------|---|-----------|-----------|-----------|------------|
| 最大载重(Kg) | 200 | 350 | 500 | 800 | 1500 |
| 导航/方向/速度 | 磁带/前进/前进后退/5-60m/min | | | | |
| 外型尺寸(mm) | 1300*400*300/1500*400*400 | | | | |
| 停止精度(mm) | ± 10(可设计高精度二次定位) | | | | |
| 应用环境 | 温度:0℃~40℃;湿度: 50% ~ 90%;路面段差6mm以内 (速度15m/min) | | | | |

50MW太阳能电池组件自动生产线 交钥匙工程



太阳能电池组件生产线介绍

深圳市东精机电设备制造有限公司太阳能电池组件自动生产线交钥匙工程，始终致力于考虑您生产中的每一个细节，减少操作人员，降低占地面积。保证您在生产中提高效率，在增加产量的同时，为您创造有竞争力的成本优势。

我司的太阳能电池组件生产线设备包括：全自动串焊机、玻璃上料机械手、叠层传输工作、EL检测仪（包含前及终检）、层压机、自动削边机、自动组框机、IV检测仪、自动翻转机、及相关光伏组件生产的工装治具等设备。该方案设备先进、自动化程度高，位于行业内先进水平。同时流水线布局科学、合理、美观，性价比较高，操作维护方便。

太阳能电池组件生产线特点

- 智能化：采用总线控制技术，对生产过程控制诊断进行智能化处理。
- 在线控制：通过有效联系EL检测系统、绝缘测试系统及成品性能测试系统等检测系统，从而达到在线式检测控制。
- 远程监控：能够实时更新反馈生产数据，从而便于生产管理控制。
- 冗余控制：通过服务器冗余、控制器冗余等组合使用，从而保证整个系统长时间稳定连续运行。