

诚招各地经销合作者  
Sincerely invite all distribution partners

Heshi®

和氏工业技术集团  
HESH Industry Technology Group

## 转向器在线质量检测智能装配线

Intelligent assembly line for on-line quality inspection of steering gear

客户代表  
Customers



Tel : 0756-6348028  
13431909300  
Fax : 0756-6324320  
E-mail: hesh@zh-heshi.com  
Website: www.zh-heshi.com  
Add:  
总部: 广东省珠海市金湾区红旗镇青年路13号  
No. 13 Qingnian Road, Hongqi Town, Jinwan District, Zhuhai City, Guangdong Province  
重庆基地: 重庆市永川区凤凰湖工业园区星光大道999号  
No. 999 Xingguang Avenue, Fenghuang Lake Industrial Park, Yongchuan District, Chongqing



官网二维码  
Official website

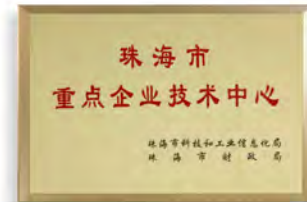
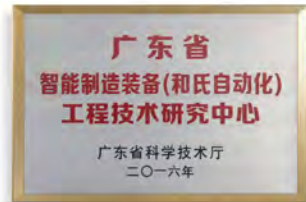




## 集团简介

Group Introduction

股票简称：和氏技术  
股票代码：832281



和氏工业技术集团始创于2004年，总部位于珠海（股票简称：和氏技术，股票代码：832281），形成涵盖汽车、家电、电子、军工、新能源等领域的高端智能装备、工业标准件、投资管理三大产业的集团公司。和氏大力推动资源优化整合，在十多个地区建立了研发机构及控股、参股公司，其中多家为国家高新技术企业。和氏坚持以“改善客户的效率、安全和环境”为使命，专注于高端装备智能制造，特以智能工厂集成为主要产品，着力打造自主品牌核心竞争力，立足中国，服务世界。

HESH Industry Technology Group (Stock Code: HESH Technology, Stock Code:832281.), established in 2004, headquartered in Zhuhai, is a multinational enterprises group, specializing in high-tech intelligent equipments, industrial standard parts, financial investment covered automotive, house appliance, electronic, aviation, new energy industries etc. HESH Group has been persisting on resources integration and established tens of research institutions and joint-venture companies, some of them are National High-tech companies. With the mission of "improving customer efficiency, safety and environment", HESH Industry Technology Group focuses on high-end equipment intelligent manufacturing, specially on smart factory integration, and strives to build the core competitiveness of its own brand with innovative technology, based on China and serving the world.



## 转向器在线质量检测智能装配线

Intelligent assembly line for on-line quality inspection of steering gear

转向器在线质量检测智能装配线，用于各种类型的汽车转向器的装配与检测，包括电动助力转向器（EPS）装配检测线、循环球式转向器装配检测线、齿轮齿条式转向器装配检测线。

Intelligent assembly line for on-line quality inspection of steering gear is used for assembling and testing various types of automobile steering gear, including electric power steering (EPS) assembling and testing line, circular ball steering gear assembling and testing line, rack and pinion steering gear assembling and testing line.



电动助力转向器（EPS）装配检测线  
Electric power steering (EPS) assembling and testing line



电动助力转向器  
Electric power steering gear



循环球式转向器装配检测线  
Circular ball steering gear assembling and testing line



循环球式转向器  
Circulating ball steering gear



齿轮齿条式转向器装配检测线  
Rack and pinion steering gear assembling and testing line



齿轮齿条式转向器  
Rack and pinion steering gear

## 结构特点

Structural characteristics

- ◎ 具备易损件寿命管理功能；
- ◎ 具备在线检测和防错功能；
- ◎ 配备安全光栅，采用单手按钮操作；
- ◎ 具备零件在位控制检测系统，防止漏装；
- ◎ 具备追溯功能，追溯要求符合汽车行业标准；
- ◎ 配备工控机，符合人机工程学要求，便于操作；
- ◎ 夹具设计应采用快速更换装置，以适应不同产品的快速换型；
- ◎ 压力-位移监控程序绘制压力-位移曲线，提供质量保证。

- ◎ It has the function of lifetime management of consumable;
- ◎ It has the function of online detection and error prevention;
- ◎ It is equipped with safety grating and operated by one-hand button;
- ◎ It has in-situ control and inspection system for parts to prevent missing assembly;
- ◎ Has traceability function, traceability requirements in line with the standards of the automotive industry;
- ◎ Equipped with industrial computer, it meets the requirements of ergonomics and is easy to operate;
- ◎ Fast replacement device fixture design to adapt to the replacement of different products;
- ◎ Pressure-displacement monitoring program draws pressure-displacement curve to provide quality assurance.



**EPS装配检测线**  
EPS assembling and testing line



壳体压机  
Shell pressing



蜗杆压机  
Worm pressing



壳体蜗杆合成台  
Shell worm assembling



输出轴压机  
Output axis pressing



机械调中台  
Mechanical adjusting



传感器焊接台  
Sensor welding



传感器电子对中台  
Sensor electronic adjusting



转向轴总成与壳蜗组件合成台  
Steering axle and volute assembling



芯轴总成磨合台  
Mandrel testing



NVH评价台  
NVH testing



上转向轴组件装配台  
Upper steering shaft assembling



上转向轴滑移力检测台  
Upper steering shaft testing



上柱管轴承装配台  
Upper pipe bearing assembling



上转向轴总成、  
上柱管分总成合成台  
Upper steering shaft、  
Upper pipe sub-assembling



调节手柄装配台  
Adjusting handle assembling



上下柱管分总成装配台  
Upper and lower pipe assembling



柱管总成与芯轴总成装配台  
Pipe assembly and mandrel assembling



调节机构检测台  
Regulating mechanism testing



电机、ECU装配台  
Motor and ECU assembling



性能检测台  
Performance testing



激光打码台  
Laser marking



## 壳体压机

Shell pressing



- 壳体压机用于C-EPS壳体压装蜗轮轴承及卡簧。
- 壳体压机上配置伺服电缸，双压头切换机构，轴承自动上料机构、卡簧上料机构，卡簧装配到位检测机构等，压装力位移监控。

- The shell pressing is used for C-EPS shell pressing worm wheel bearing and clamping spring.
- The shell pressing is equipped with servo cylinder, double pressure head switching mechanism, bearing automatic feeding mechanism, clamp spring feeding mechanism, clamp spring assembly in place detection mechanism, etc., and the clamping force and displacement monitoring.

## 输出轴压机

Output axis pressing



- 输出轴压机用于C-EPS输出轴、蜗轮压装，以及滑动轴承装配。
- 输出轴压机上配置伺服电缸，双压头切换机构，蜗轮压装机构、滑动轴承压装机构，压装力位移监控，注油脂机构。

- Output axle pressing is used for C-EPS output shaft, worm wheel pressing and sliding bearing assembly.
- The output axle pressing is equipped with servo cylinder, double pressure head switching mechanism, worm wheel pressing mechanism, sliding bearing pressing mechanism, pressure and displacement monitoring, grease injection mechanism.

## 蜗杆压机

Worm pressing



- 蜗杆压机用于C-EPS蜗杆压装轴承及四齿联轴器，装配O型圈。
- 蜗杆压机上配置伺服电缸，双压头切换机构，轴承自动上料机构等，压装力位移监控。

- The worm pressing is used for C-EPS worm pressing bearing and four-tooth coupling, assembling O-ring.
- The worm pressing is equipped with servo cylinder, double pressure head switching mechanism, bearing automatic feeding mechanism and so on, pressure and displacement monitoring.

## 壳体蜗杆合成台

Shell worm assembling



- 壳体蜗杆合成台用于C-EPS壳体组件与蜗杆组件的装配。
- 壳体蜗杆合成台上配置伺服电缸，双压头切换机构，轴承自动上料机构等，压装力位移监控，手动拧紧锁紧环。

- The shell worm assembling is used for assembling C-EPS shell assembly and worm assembly.
- The shell worm assembling is equipped with servo cylinder, double pressure head switching mechanism, bearing automatic feeding mechanism, pressure and displacement monitoring, and manual tightening of locking ring.

## 机械调中台

Mechanical adjusting

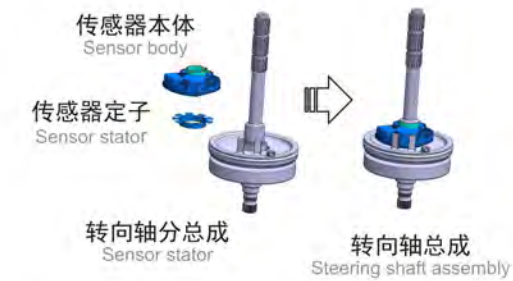


- 机械调中台用于C-EPS转向轴分总成的机械调中加工和检测。
- 具有自动上下料、自动调整位置及对中、钻铰一体化、吸尘排屑、钻头断刀报警、自动选销与压销、销钉铆接固定、对中检测、数据自动存储等功能。

- Mechanical adjusting is used for machining and testing of C-EPS steering axle sub-assembly.
- It has the functions of automatic feeding and unloading, automatic adjustment of position, integration of centering and reaming, dust collection and debris removal, alarm of drill tool breaking, automatic pin selection and pin pressing, pin riveting and fixing, centering detection, automatic data storage, etc.

## 传感器焊接台

Sensor welding



- 传感器焊接台用于C-EPS转向轴分总成焊接传感器定子及传感器本体。
- 传感器焊接台上配置伺服电缸，双压头切换机构，传感器定子压装机构，传感器本体压装机构，焊接头组件机构，输出轴分总成旋转机构，烟雾抽排装置，压装力位移监控。

- Sensor welding is used for welding sensor stator and sensor body of C-EPS steering axle assembly.
- The sensor welding is equipped with servo cylinder, double pressure head switching mechanism, sensor stator pressing mechanism, sensor body pressing mechanism, welding joint assembly mechanism, output shaft sub-assembly rotating mechanism, smoke extraction device, pressure and displacement monitoring.



## 传感器电子对中台

Sensor electronic adjusting



- 传感器电子对中台用于C-EPSC转向轴总成的传感器对中。
- 传感器电子对中台上配置双工位，输入轴夹紧及驱动机构，输出轴夹紧机构等。

- Sensor electronic adjusting is used for sensor alignment of C-EPSC steering axle assembly.
- Sensor electronic adjusting is equipped with dual position, input shaft clamping and driving mechanism, output shaft clamping mechanism, etc.

## NVH评价台

NVH testing



- NVH评价台用于C-EPSC芯轴总成的噪音评价。
- 单工位，通过电子听诊器主管判定噪音异响，通过振动传感器收集及反馈噪音异响的频率或频谱。

- NVH testing is used for noise evaluation of C-EPSC spindle assembly.
- Single station, through the electronic stethoscope supervisor to determine noise abnormal sound, through the vibration sensor to collect and feedback the frequency or frequency spectrum of noise abnormal sound.

## 转向轴总成与壳蜗组件合成台

Steering axle and volute assembling

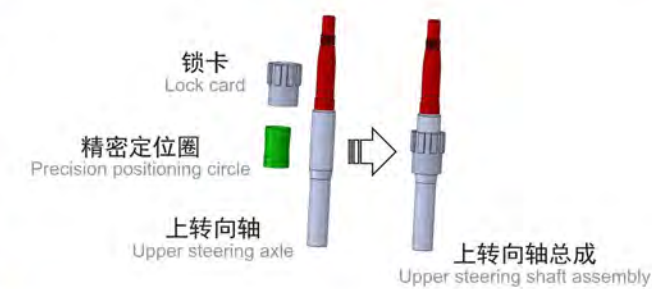


- 转向轴总成与蜗壳组件合成台用于C-EPSC转向轴总成与壳蜗组件组合装配。
- 转向轴总成与蜗壳组件合成台上配置伺服电缸，转向轴总成压装机构，注脂机构，蜗杆驱动机构，伺服拧紧枪系统，压装力位移监控。

- The steering axle assembly and volute assembling of steering shaft assembly and volute assembly is used for assembly of C-EPSC steering shaft assembly and volute assembly.
- The steering axle assembly and volute assembling are equipped with servo cylinder, steering shaft assembly press-fit mechanism, grease injection mechanism, worm drive mechanism, servo tightening gun system, pressure-load displacement monitoring.

## 上转向轴组件装配台

Upper steering shaft assembling



- 上转向轴组件装配台用于C-EPSC转向管柱分总成的上转向轴压装精密定位圈及锁卡。
- 上转向轴组件装配台设计双工位，通过移栽工装，伺服压机分别压装精密定位圈及锁卡，手工装配O型圈。

- The upper steering shaft assembling is used for pressing the precise positioning ring and locking ring on the upper steering axle of the C-EPSC steering string sub-assembly.
- The upper steering shaft assembling is designed with two workstations. The O-ring is manually assembled by transplanting the tooling and pressing the precise positioning ring and locking clip on the servo press.

## 芯轴总成磨合台

Mandrel testing



- 芯轴总成磨合台用于C-EPSC转向管柱总成的芯轴总成的磨合检测。
- 芯轴总成磨合台上配置有两个磨合工位，一次可装夹两件减速机构分总成，可以同时或独立进行磨合，对于磨合次数、频率、负载、转速均可调节参数，试验过程中可随时中断试验。

- The mandrel testing is used for the running-in detection of the mandrel assembly of the C-EPSC steering column assembly.
- The mandrel testing, One can clamp two parts of deceleration mechanism sub-assembly, which can run-in simultaneously or independently. The running-in times, frequencies, loads and rotational speeds can be adjusted, and the test can be interrupted at any time during the test process.

## 上转向轴滑移力检测台

Slip force testing for upper steering shaft



- 上转向轴滑移力检测台用于C-EPSC减速机构分总成的芯轴花键注塑后与上转向轴总成的滑移力测试匹配。
- 上转向轴滑移力检测台配备伺服电感、拉压力传感器、芯轴总成输出轴端夹紧机构、拉拔夹紧机构、激光标线仪等。

- The slip force testing for upper steering shaft is used to test the slip force of the spindle spline of the C-EPSC deceleration mechanism sub-assembly after injection and matching with the upper steering axle assembly.
- The slip force testing for upper steering shaft is equipped with servo inductor, tension pressure sensor, output axle end clamping mechanism of mandrel assembly, drawing clamping mechanism, laser marking instrument, etc.



## 上柱管轴承装配台

Upper pipe bearing assembling



- 上柱管轴用于C-EPS上主管压装轴承及卡簧，及手工装配垫圈。
- 上柱管轴上配置伺服电缸，双压头切换机构，轴承自动上料机构、卡侧铆机构，铆接到位检测机构等，压装力位移监控。

- The upper pipe bearing assembling is used for pressing bearing and clamping spring of the upper main pipe of C-EPS, and for manual assembling gaskets.
- The upper pipe bearing assembling is equipped with servo cylinder, double pressure head switching mechanism, bearing automatic feeding mechanism, side riveting mechanism, riveting position detection mechanism and so on, pressure and displacement monitoring.

## 上转向轴总成、上柱管分总成合成台

Upper steering shaft, Upper pipe sub-assembling



- 上转向轴总成、上柱管分总成合成台用于C-EPS上转向轴总成、上柱管分总成组合装配(拉轴、装卡簧)。
- 上转向轴总成、上柱管分总成合成台双工位设计，拉轴工位和卡簧装配工位，包含拉轴产品放置工装、拉轴机构、卡簧装配产品放置工装、卡簧压装机构、CCD检测机构等。

- The Upper steering shaft, Upper pipe sub-assembling are used for the assembly of the C-EPS upper steering shaft assembly and the upper column tube sub-assembly (pull shaft, clamping spring).
- Dual-station design of Upper steering shaft, Upper pipe sub-assembling, including clamping axle product placement tooling, pulling axle mechanism, clamping spring assembly product placement tooling, clamping spring pressing mechanism, CCD detection mechanism, etc.

## 调节手柄装配台

Adjusting handle assembling

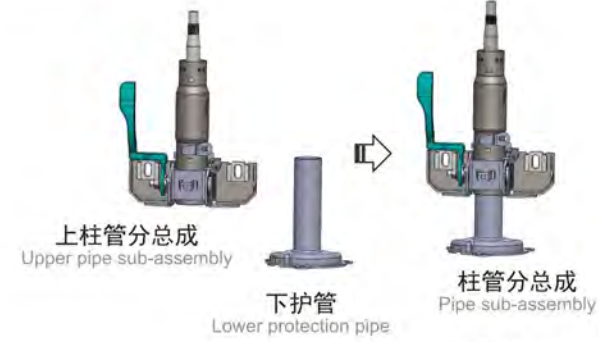


- 调节手柄装配用于C-EPS转向管柱分总成的柱管总成调节手柄组件的装配。
- 调节手柄装配设计时将考虑零部件组合后装配的适装性同时要考虑零部件漏装或错装的检测。

- The adjusting handle assembling is used for assembling the adjusting handle assembly of the column and tube assembly of the C-EPS steering column sub-assembly.
- The adjusting handle assembling design of the handle, the fitness of assembly after assembly of parts and components will be considered, and the detection of missing or wrong assembly of parts and components should also be considered.

## 上下柱管分总成装配台

Upper and lower pipe assembling



- 上下柱管分总成装配台用于C-EPS上柱管分总成和下护管压合装配。
- 上下柱管分总成装配台配备伺服电缸，上柱管分总成放置工装，下护管放置工装、上柱管分总成内孔涂油脂机构等。

- The upper and lower pipe assembling is used for pressing and assembling of upper column and tube sub-assembly and lower guard pipe of C-EPS.
- The upper and lower pipe assembling is equipped with servo cylinders, the upper column pipe sub-assembly is equipped with tooling, the lower guard pipe is equipped with tooling, and the inner hole greasing mechanism of the upper column pipe sub-assembly is equipped with oil coating mechanism, etc.

## 柱管总成与芯轴总成装配台

Pipe assembly and mandrel assembling



- 柱管总成与芯轴总成装配台用于C-EPS柱管分总成和芯轴总成装配，手动装配螺丝3pcs，装配线束。
- 柱管总成与芯轴总成装配台配备伺服电缸，拉压力传感器、芯轴总成输出轴端夹紧机构、拉拔夹紧机构、激光标线仪、带电信号气动扳手等。

- Pipe assembly and mandrel assembling is used for C-EPS pipe assembly and mandrel assembly, manual assembly screw 3pcs, assembly line harness.
- The Pipe assembly and mandrel assembling of the cylinder assembly and the mandrel assembly is equipped with servo cylinder, tension pressure sensor, output shaft end clamping mechanism of the mandrel assembly, drawing clamping mechanism, laser marking instrument, pneumatic wrench with electric signal, etc.

## 调节机构检测台

Regulating mechanism testing



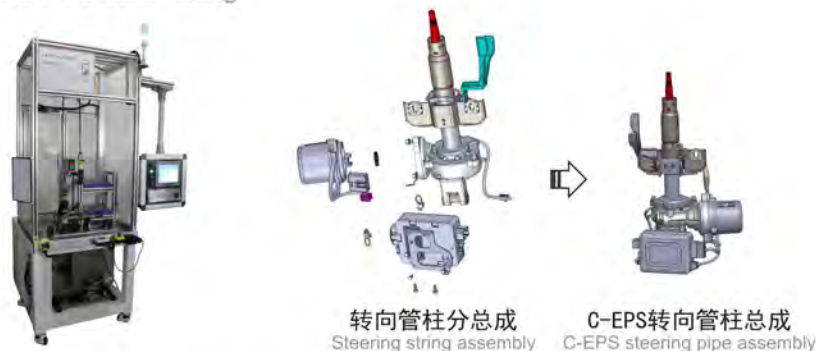
- 调节机构检测台用于C-EPS转向管柱分总成调节机构的轴线和径向滑移力、保持力检测、手柄开启力检测。
- 调节机构检测台配备伺服电缸、轴线推拉检测机构、径向推拉检测机构、产品定位夹紧工装、手柄开启力检测机构、锁紧螺母自动调节机构等。

- The regulating mechanism testing is used to test the axis and radial slip force, retaining force and handle opening force of the adjusting mechanism of the C-EPS steering string sub-assembly.
- The regulating mechanism testing is equipped with servo cylinder, axis push-pull mechanism, radial push-pull mechanism, product positioning clamping tooling, handle opening force detection mechanism, locking nut automatic adjustment mechanism, etc.



## 电机、ECU装配台

Motor and ECU assembling



- 电机、ECU装配台用于C-EPS转向管柱分总成电机、弹性联轴器、控制器支架、控制器等零部件的装配。
- 工件要求夹持不转动，装配电机和控制器是应保证垂直和径向进行螺钉认扣作业。

- Motor and ECU assembling is used for assembling parts of C-EPS steering string, such as motor, elastic coupling, controller bracket, controller and so on.
- Workpiece clamping is not required to rotate, assembly motor and controller should ensure vertical and radial screw identification and buckling operation.



## 性能检测台

Performance testing



- 性能检测台用于C-EPS转向管柱总成的最终功能性检测，可以满足电机电流特性、输入、输出特性、空载力矩、传感器特性、噪音频谱分析等检测项目。
- 性能检测台为立式结构，输出端扭矩传感器要求选用双量程传感器（0-20nm/20-100nm），下驱动采用大功率直流无刷电机直接驱动。
- 性能检测台带有双通道振动传感器，独立噪音频谱分析功能或软件。
- 性能检测台能够满足有刷和无刷产品的测试。
- 性能检测台能够判定控制器程序及版本号。

- Performance testing is used for the final functional test of C-EPS steering string assembly. It can satisfy the motor current characteristics, input and output characteristics, no-load torque, sensor characteristics, noise spectrum analysis and other detection items.
- The Performance testing is a vertical structure. The output torque sensor requires a dual-range sensor (0-20nm/20-100nm), and the downward drive is driven directly by a high-power DC brushless motor.
- The Performance testing is equipped with two-channel vibration sensor, independent noise spectrum analysis function or software.
- The Performance testing can satisfy the test of brush and brushless products.
- Performance testing can determine the controller program and version number.

## 激光打码台

Laser marking



- 激光打码台用于C-EPS转向管柱总成的激光打标。
- 激光打码台从此工序开始工件周转均采用桁架式机械手，以减轻作业强度。
- 激光打标机能够完成二维码、数字、字符、汉字或简单图示的自动打印。

- Laser marking is used for laser marking of C-EPS steering string assembly.
- The laser marking is used in the turnaround of the workpiece of the laser coder from the beginning of this process in order to reduce the intensity of operation.
- Laser marking can print two-dimensional codes, numbers, characters, Chinese characters or simple graphics automatically.

## 齿轮齿条式转向器装配检测线

Rack and pinion steering gear assembling and testing line

- 壳体预装压机 Shell pressing → 齿条内插管合成工作台 Rack intubation assembling → 主装配设备 Main assembly equipment → 在线质量检测 On-line quality inspection



## 循环球式转向器装配检测线

Circular ball steering gear assembling and testing line

- 侧盖总成合成台 Side cover assembling → 侧扇总成合成台 Side fan assembling → 上盖、壳体压机 Upper cover and shell pressing → 转阀总成合成台 Rotary valve assembling → 螺母总成合成台 Nut assembling → 转阀总成与螺母总成合成台 Rotary valve assembly and nut assembling



## 设备特点

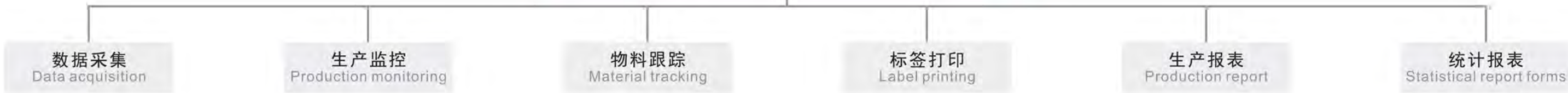
Characteristics

- 以输送线为物流运输主体，输送速度可调，最大范围满足生产节拍需要，进一步提高生产效率。输送线采用上下双层结构，上层为工作层，下层为随行夹具返回自动循环层。工件安装在统一标准的随行夹具上；
- 装配检测线效率高：装配线自壳体装入随行夹具后，各工序依次完成后下线，避免了因物流不畅造成的工件多次装夹和拆卸，大大提高了生产效益，降低了工人的劳动强度；
- 装配检测线具有故障报警功能：设备采用工控机+PLC进行控制；采用传感器检测工件有无；系统发生故障时自动报警并停机；
- 采用条码管理，大件如壳体单件扫，小件如轴承、油封等扫批次号；关键数据能上传；
- 装配检测线都设置有相应的工步操作提醒指示，并增加跳步、漏装报警提醒防错装置，个别工序使用自动装配检测；
- 装配检测线安全性能好：装配检测线的移载，压装以及旋转活动机构均有防护，保证工人的人身安全。

- With the conveying line as the main body of logistics transportation, the conveying speed can be adjusted to meet the needs of production rhythm to the maximum extent and further improve production efficiency. The conveyor line adopts the upper and lower double-layer structure, the upper layer is the working layer, and the lower layer is the following fixture to return to the automatic circulation layer. The workpiece is mounted on the following fixture of the unified standard.
- High efficiency of the assembly line: after the assembly line is loaded with the accompanying fixture from the shell, each working procedure is finished and off-line in turn, which avoids the repeated clamping and disassembly of the workpiece caused by the poor logistics, greatly improves the production efficiency and reduces the labor intensity of the workers.
- The assembly detection line has the function of fault alarm: the equipment is controlled by industrial computer + PLC; the sensor is used to detect the workpiece; the system automatically alarms and stops when the fault occurs;
- Using bar code management, large parts such as shell single sweep, small parts such as bearings, oil seals and other sweep batch number; key data can be uploaded;
- The assembly inspection line is equipped with corresponding step operation warning instructions, and the jump and miss alarm warning and error-proof devices are added, and the automatic assembly inspection is used in individual processes.
- The safety performance of the assembly inspection line is good: the loading, pressing and rotating mechanism of the assembly inspection line are protected to ensure the personal safety of workers.



# 质量管理与追溯系统 Quality management and traceability system



## 数据采集 Data acquisition

- 记录每一个加工循环信息, 包括工件条码, 开始加工时间, 加工结束时间, 状态, 加工类型 (正常/返工), 操作工工号, 工站, OP, 物料号, 加工班次等。
- 支持从PLC中直接获取, 从PC的数据文件中获取, 也支持通过串口获取。
- Record each processing cycle information, including workpiece bar code, start processing time, end processing time, status, processing type (normal/rework), operator number, workstation, OP, material number, processing shift, etc.
- It supports direct acquisition from PLC, data files from PC, and serial port acquisition.

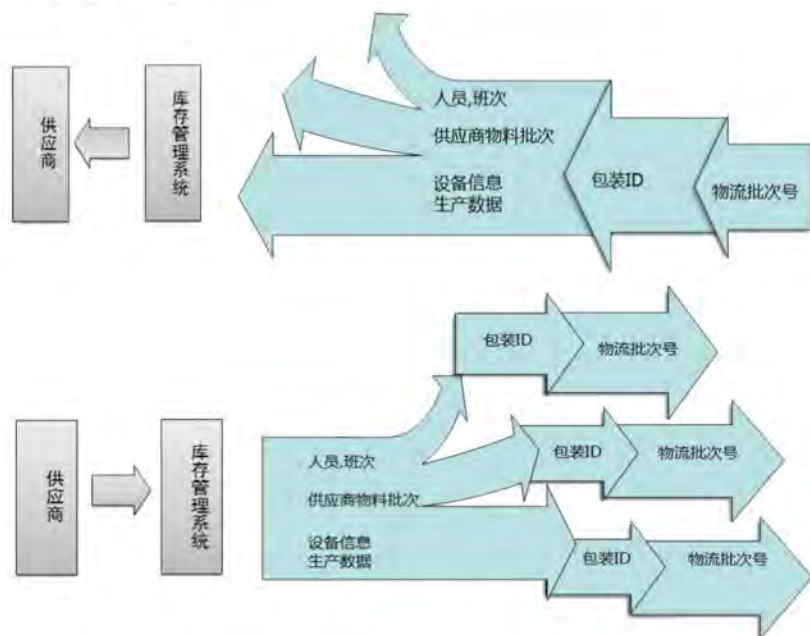


## 生产监控 Production monitoring

- 查看: 所有工站的实时状态, 正在加工的产品类型, 在制品列表, 每个工站的实时加工日志。
- 操作: 启动或停止生产线、产品类型、工站。

## 物料跟踪 Material tracking

- 从ERP系统下载BOM数据;
- 物料扫描;
- 物料批次号跟踪;
- 零件流水号跟踪;
- 人员设备跟踪。
- Download BOM data from ERP system;
- Material scanning;
- Material batch number tracking;
- Part Pipeline Number Tracking;
- Personnel and equipment tracking.



## 标签打印 Label printing

- 根据各种定义的规则生成流水号或者批次号;
- 可以对打印标签进行配置;
- 可以定义和使用计数器;
- 可以打印工件流水号;
- 支持多类型打印机。

- Generate pipelining number or batch number according to various defined rules;
- Print labels can be configured;
- Counters can be defined and used;
- Workpiece flow number can be printed;
- Supporting multi-type printers.



## 生产报表 Production report

- 显示每个产品的型号、操作人员、性能指标等。
- 可以根据客户需求定制不同的报表形式及样式。
- 可直接生成产品检测报告、测试报告、出场报告等。
- Display each product model, operator, performance indicators, etc.
- Different report forms and styles can be customized according to customer requirements.
- It can directly generate product inspection report, test report, appearance report, etc.

## 统计报表 Statistical report forms

- 日报表: 按每日统计每种产品的生产量、通过率、成品率等。即时显示生产线的成品、合格品、在制品等产品信息;
- 原材料: 根据物料批次号查询所有使用该批次物料的工作件;
- 单个产品: 根据工件或者零件流水号, 查询该工件所有加工历史和详细工艺数据;
- 平均耗时: 根据耗时时段统计加工件数量, 每个工位单独统计;
- 产量统计: 可以对指定日、指定周或指定月进行产量统计。
- Daily report: According to the daily statistics of each product's production, pass rate, finished product rate, etc. Real-time display of products, qualified products, products in process and other product information;
- Raw materials: According to the batch number of materials to inquire all the parts using the batch of materials;
- Individual product: According to the workpiece or part flow number, inquire all the processing history and detailed process data of the workpiece;
- Average time-consuming: According to the time-consuming period, the number of processed parts is counted, and each station is counted separately;
- Output statistics: Output statistics can be carried out on designated days, weeks or months.

### 动力转向器检验报告

产品型号:	产品编号:
扭矩油压特性曲线:	
最大扭矩: NM	曲线对称性: %
最大工作油压: Mpa	1Mpa 对称性: %
零扭矩油压: Mpa	回正率: %
不灵敏区扭矩: NM	自由间隙: "
内 泄 露: mL/mm	总圈数: 圈
外 泄 露:	功能试验:
操作员:	检验员:

