



REPESENTE

山东鹰眼机械科技有限公司

SHANDONG

HAWK-EYE MECHANICAL
TECHNOLOGY CO.,LTD.

致
匠
心
匠心精神

专业
品质
创新

Represented by Harikrushna Machines Pvt. Ltd.

PROFESSIONAL
QUALITY
INNOVATION

ABOUT US 公司简介

山东鹰眼机械科技有限公司,坐落于环境优美、物产丰富的全国文明城市--山东省烟台市。公司主要从事制药机械设备的研发与生产。目前已拥有全自动灯检机系列、全自动检漏机系列、胶囊片剂检测机、瓶外壁清洗烘干机、后道整段包装线等系列产品。广泛应用于药品、食品、化妆品等行业。公司已获得：国家高新技术企业、创新型中小企业、专精特新中小企业。拥有几十项发明专利证书。

公司拥有先进的生产技术、科学的生产管理体系和便捷的物流支持。鹰眼公司高层敏锐察觉市场方向。联合院校研发出前瞻性的机械设备，使企业更有创造力、活力和生命力。标准化、系列化和通用化融入我们的每一张设计图纸；现代化的数控机床保证了零部件制造的精密度；与各大院校紧密合作，培养高科技人才，使鹰眼始终紧跟市场潮流，及时洞察市场的变化，来成就客户创造价值。企业宗旨：“一流管理、一流技术、一流产品、一流服务” 鹰眼将以质优价廉、性能良好、高效服务的理念来为您免除后顾之忧。

公司主要客户有：国药集团、华润集团、修正集团、汇仁集团、仁和集团、康恩贝集团、远大集团、哈尔滨珍宝岛、江苏恩华药业、济民可信集团、绿叶制药、葵花药业、山东东阿阿胶集团、天津天士力、江苏九旭药业、上海宝龙药业、广东香雪制药、等。

欢迎新老客户前来考察指导！

我们的核心竞争力

专业、服务、品质、技术

我们的使命

打造高效稳定的包装灯检，检测机器

我们的愿景

打造具有工匠精神的员工团队

Shandong Eagle Eye Machinery Technology Co., Ltd. is located in Yantai, Shandong Province, a national civilized city with beautiful environment and abundant products. The company is mainly engaged in the research and development and production of pharmaceutical machinery and equipment. At present, we have automatic lamp inspection machine series, automatic leak detection machine series, capsule tablet inspection machine, bottle wall cleaning and drying machine, the whole packaging line and other products. Widely used in medicine, food, cosmetics and other industries. The company has obtained: national high-tech enterprises, innovative small and medium-sized enterprises, specialized new small and medium-sized enterprises. Has dozens of invention patent certificates.

The company has advanced production technology, scientific production management system and convenient logistics support. Hawkeye executives are keenly aware of the direction of the market. Joint colleges and universities to develop forward-looking mechanical equipment, so that enterprises more creative, vitality and vitality. Standardization, serialization and generalization are integrated into each of our design drawings; Modern CNC machine tools ensure the precision of parts manufacturing; Close cooperation with major colleges and universities, training high-tech talents, so that Eagle Eye always keep up with the market trend, timely insight into market changes, to achieve customer value creation. Enterprise purpose: "first-class management, first-class technology, first-class products, first-class service" Eagle Eye will be the concept of high quality and low price, good performance, efficient service to relieve you of worries.

The company's main customers are: Sinopsin Group, China Resources Group, Modified Group, Huiren Group, Renhe Group, Kangenbei Group, Broad Group, Harbin Zhenbao Island, Jiangsu Enhua Pharmaceutical, Jimin Trusted Group, Luye Pharmaceutical, Sunflower Pharmaceutical, Shandong Donge Ejiao Group, Tianjin Tisly, Jiangsu Jiuxu Pharmaceutical, Shanghai Baolong Pharmaceutical Guangdong Xiangxue Pharmaceutical, etc.

Welcome new and old customers to visit and guide!



6S现场管理 匠心制造 精益生产

6S field management Elaborate manufacturing Lean production

机加一角 A corner in mechanical machining



鹰眼机械为您创造安全、稳定和放心。

Hawk Eye Machinery creates safety, stability, and peace of mind for you.

仓库配件 Warehouse accessories



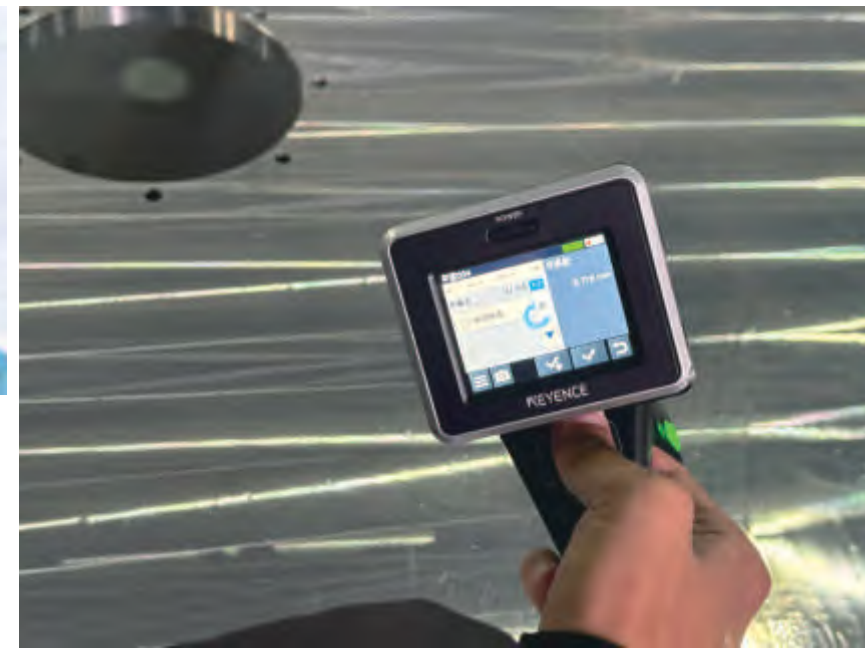
携手高校 Join hands with universities

汇聚全球领先技术 Gather the world's leading technologies

满足客户精准的灯检需求的同时为客户提供整段后道包装线解决方案
While meeting customers' precise lamp inspection needs, we also provide them with complete end-of-line packaging line solutions.

运行调试 Operation Debugging





完美 的品质在于坚持不懈的努力
The perfect quality lies in unremitting efforts

QUALITY CONTROL 品质控制

数控检测仪器
Numerical control
testing instrument



机械式传动
Mechanical drive



零部件加工
Parts processing



数控加工中心
CNC machining center



设备经久耐用
Durable equipment



YY-HZDJJ-SD

全自动灯检机

AUTOMATIC MULTI-FUNCTIONAL INSPECTION MACHINE



名称	长(m)	宽(m)	高(m)
全自动灯检机	3.7	2.5	2.3

检测产品类型 APPLICATIONS

1-20ml安瓿瓶、西林瓶系列

1-20ml ampoule bottle, Cillin bottle series

主要性能特点 MAIN CHARACTERS

SD技术:药液中可见异物光纤切割检测技术(1/4)。

SD可以检测低至中黏度澄清度较好的液体中的可移动异物。

SD technology: Optical fiber cutting detection technology for visible foreign bodies in pharmaceutical liquid (1/4).

SD can detect movable foreign bodies in liquids with low to medium viscosity and good clarity.

异物种类 TYPES OF FOREIGN OBJECTS

纤维

Fiber

棉绒金属异物

Cotton fluff and metal foreign matter

玻璃异物

Glass foreign matter

橡胶异物

Rubber foreign matter

有色异物

Colored foreign matter



光纤穿过瓶子并被后面的传感器接收。
可动异物会切割光纤而被捕捉。
检测过程是连续的,而不是间断拍照。

The fiber passes through the bottle and is picked up by a sensor at the back.
Movable objects can cut through optical fibers and be captured.
The inspection process is continuous, rather than intermittent photography.



YY-HZDJJ-SD灯检机采用山东鹰眼研发的SD光纤切割光技术检测可动异物,误检率低。
待检产品先被高速旋转,带动起异物旋转。
刹车,瓶子停止转动,而瓶内制品仍旋转。

YY-HZDJJ-SD lamp detector adopts SD light developed by Shandong Eagle Eye
The fiber cutting optical technology can detect movable foreign bodies, and the false detection rate is low.
The product to be inspected is first rotated at high speed to drive the foreign body to rotate.
Brake, the bottle stops rotating, while the contents of the bottle still spin.



检测时间 - 与相机对比
Detection time - compared with the camera

连续检测没有间隙
Continuous detection without any gap.

间隙检测存在未检的风险
Gap detection poses the risk of undetected wind. Continuous detection ensures no gaps.

技术参数 TECHNICAL PARAMETER

项目	Project	YY-HZDJJ-SD	YY-HZDJJ-SD
机型	Model	400型、600型	400 type, 600 type
原理	Principle	SD光纤切割检测异物 照相检测瓶头及外观	SD optical fiber cutting foreign matter detection, photo detection of bottle head and appearance
检测项目	Testing items	可动异物检测 装量检测 瓶头检测	Movable foreign matter detection, filling volume detection, bottle head detection
产能	production capacity	国标2毫升400瓶/分钟600瓶/分钟	National standard 2 ml 400 bottles/minute 600 bottles/minute
灯检精度	light inspection accuracy	理论优于 30μm	Theoretically better than 30 μm
转速	rotational speed	400-3600 转/分钟	400 - 3600 revolutions/minute



YY-HZDJJ-600DG

回转灯检机

ROTARY LAMP INSPECTION MACHINE



名称	长(m)	宽(m)	高(m)
回转灯检机	1.84	2.5	2.2

检测产品类型 APPLICATIONS

1-30ml管制瓶/模制瓶系列

1-30ml tube bottle/molded bottle series

主要性能特点 MAIN CHARACTERS

检测原理 DETECTION PRINCIPLE

机器视觉非接触式检测 Non-contact inspection by machine vision

检测功能 DETECTION FUNCTION

- (1) 粉饼缺陷：表面可见异物，如玻璃、纤毛、黑点等；破碎、产品变色、液化状；

(2) 瓶盖缺陷：塑盖和铝盖有无、缺损、脏污、划痕、凹陷，胶塞缺失，位置等；

(3) 瓶身外观：裂纹、划痕、破损、泡点以及容器内外的污染物等；

(4) 空瓶。

(5) 密封性缺陷：产品密封不良，瓶内进入空气
- (1) Powder compact defects: Visible foreign substances on the surface, such as glass, lint, black spots, etc.; broken, product discoloration, liquid-like state;

(2) Bottle cap defects: Presence or absence, damage, dirt, scratches, dents of plastic and aluminum caps, missing rubber stoppers, position, etc.;

(3) Bottle body appearance: Cracks, scratches, damage, bubbles, and contaminants inside and outside the container, etc.;

(4) Empty bottles.

(5) Sealing defects: Poor sealing of the product, air entering the bottle.

技术参数 TECHNICAL PARAMETER

外形尺寸(长*宽*高):1840X2500X2200(不含进/出瓶网带尺寸,可按客户要求联线)	External dimensions (length * width * height): 1840X2500X2200 (excluding the dimensions of the bottle inlet and outlet conveyor belts, can be connected as per customer requirements)
净重:≈3000Kg	Net weight: ≈ 3000 Kg
适用规格:30ml以内的管制瓶/模制瓶	Applicable specifications: Control bottles/molded bottles of 30 ml or less
检测速度:600p/min	Detection speed: 600 p/min
电源功率:<12KW	Power supply: < 12 KW
剔除方式:伯努利气动剔除	Rejecting method: Bernoulli pneumatic rejection
压缩空气:0.3-0.5MPa	Compressed air: 0.3 - 0.5 MPa
主要材质:304不锈钢、聚甲醛等	Main materials: 304 stainless steel, polyoxymethylene, etc.
工作温度&湿度:温度0~35℃,湿度15%~80%	Working temperature & humidity: Temperature 0 - 35°C, humidity 15% - 80%

规格件为拨轮、栏栅、挡瓶板等，产品规格变化时需更换规格件。
The specification parts include the dial, the grid, the bottle stopper plate, etc. When the product specifications change, the specification parts need to be replaced.





YY-HZDJJL-600X

回转式全自动灯检检漏一体机

AUTOMATIC MULTI-FUNCTIONAL INSPECTION MACHINE



名 称	长 (m)	宽 (m)	高 (m)
安瓿灯检检漏一体机	5.6	2.5	2.3

检测产品类型 APPLICATIONS

1-20ml安瓿瓶系列

1-20ml ampoule series

主要性能特点 MAIN CHARACTERS

本系列灯检机采用高分辨率工业相机, 使被检物体数十倍放大, 使得可见异物的可视性更强。

可在线检测无菌液体内40μm以上的玻璃碎屑、铝屑、橡皮屑、毛发、纤维等异物, 确保不合格品准确剔除, 拥有独立自主知识产权的软件专利。

瓶头采用3相机检测, 检测效果更好。

瓶子在进入检测转盘前, 瓶头不合格品就进行剔除, 防止因瓶头泡头、拉丝封口、裂纹等问题, 导致检测转盘内碎瓶, 影响检测。

菜单分级制, 只有管理员才能对参数进行设定修改, 避免了操作工误操作修改参数的可能;

合格品图像予以保存, 方便用户分析存在的问题以便进行工艺的改进, 具有在线检测图像回放功能; 便于在线监测;

检测参数可以自由设定, 按客户要求达到最佳效果予以保存; 全部采用进口伺服电机作为驱动, 保证了设备运行的精准性;

离心皮带采用知名品牌, 具有极高的耐磨性; 操作界面能有效显示设备上每一个相机的工作状态, 从而保证了产品检测的安全性;

电气控制系统采用欧姆龙运动控制面, 每个电机均独立精准输出, 运动位置精确无错位, 有效的避免了传统PLC通过光电传感器触发信号带来的信号卡顿与延迟, 实现跟踪速度的一致性和相机采图毫秒率的无偏差性, 使得检测效果及设备稳定性有了质的飞跃;

机器故障信息反馈设定;

预留通讯接口, 便于故障远程诊断;

光源亮度、相机状态、高速旋瓶状态实时监测, 故障信息会即时显示到控制面板上同时报警停机; 整机高度完全适合一般女性操作工。



This series of lamp detector adopts high-resolution industrial camera, which magnifies the inspected object tens of times, making the visibility of visible foreign objects stronger.

It can detect glass debris, aluminum debris, rubber shaver, hair, fiber and other foreign matter above 40μm in sterile liquid online to ensure the accurate removal of unqualified products, and has independent intellectual property rights of the software patent.

The bottle head is detected by 3 cameras, and the detection effect is better.

Before the bottle enters the testing turntable, the unqualified products of the bottle head are removed to prevent the broken bottles in the testing turntable due to the problems of the bottle head bubble, wire drawing sealing, cracking and so on.

Menu hierarchical system, only the administrator can set parameters to modify, to avoid the operator misoperation to modify the possibility of parameters;

The image of qualified product is saved, which is convenient for users to analyze the existing problems in order to improve the process, and has the function of online detection image playback, which is convenient for online monitoring;

Detection parameters can be freely set, according to customer requirements to achieve the best effect to save; All imported servo motors are used as drivers to ensure the accuracy of equipment operation;

Centrifugal belt adopts well-known brand, with high wear resistance; The operating interface can effectively display the working state of each camera on the device, thus ensuring the safety of product testing;

The electrical control system adopts Omron motion control surface, each motor is independent and accurate output, and the motion position is accurate without misalignment, effectively avoiding the signal delay and delay caused by the traditional PLC triggered signal through the photoelectric sensor, achieving the consistency of the tracking speed and the non-deviation of the millisecond rate of the camera, making the detection effect and equipment stability have a qualitative leap;

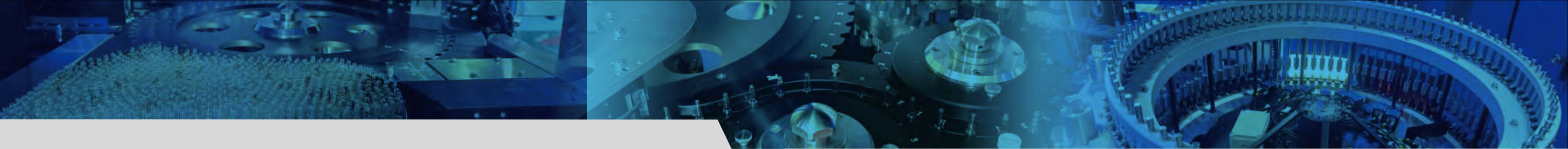
Machine fault information feedback setting;

Reserved communication interface for remote fault diagnosis;

Real-time monitoring of light source brightness, camera status, high-speed bottle status, fault information will be displayed on the control panel at the same time alarm shutdown: the height of the machine is completely suitable for general female operators.

技术参数 TECHNICAL PARAMETER

设备型号:YY-HZDJJLJ(500型、600型)	Model:YY-HZDJJLJ(500. 600 Model)
适用范围:1-20ML安瓿瓶	Scope of application: 1-20ml ampoules
检测项目:液体内可见异物(如玻璃屑、金属屑、毛发、纤维、白点、白块、装量、外观)	Test items; foreign matters visible in liquid (such as glass chips, metal chips, hairFiber, white spot, white block), loading capacity, appearance)
检测速度:600瓶/分钟(以2ML为例)	Detection speed: 600 bottles / min (taking 2ml as an example)
内容物分辨率:≥40μm	Resolution:>40 μ m
微孔分辨率:≥0.1μm	Micropore resolution:≥0.1μm
噪音:≤75db	Noise≤75db
功率:9K	Power: 9kw
电压:AC 380V 50Hz	Voltage: AC 380V,50 Hz
净重:4200KG	Net weight:4200kg



YY-HZDJJ-600X

回转式全自动灯检机

AUTOMATIC MULTI-FUNCTIONAL INSPECTION MACHINE



名称	长 (m)	宽 (m)	高 (m)
回转式全自动灯检机	3.7	2.7	2.3

检测产品类型 APPLICATIONS

1-20ml安瓿瓶、西林瓶/口服液、滴眼液

1-20ml ampoules, vials / oral liquid, eye drops

主要性能特点 MAIN CHARACTERS

- 1.本系列灯检机采用高分辨率工业相机,使被检物体数十倍放大,使得可见异物的可视性更强。
- 2.可在线检测无菌液体内40μm以上的玻璃碎屑、铝屑、橡皮屑、毛发、纤维等异物,确保不合格品准确剔除。
- 3.软件拥有独立自主知识产权的企业。
- 4.瓶盖瓶头采用3相机检测,检测效果更好。瓶子在进入检测转盘前,瓶头不合格品就进行剔除,防止因瓶头裂纹,导致检测转盘内碎瓶,影响检测。
- 5.菜单分级制,只有管理员才能对参数进行设定修改,避免了操作工误操作修改参数的可能;
- 6.不合格品图像予以保存,方便用户分析存在的问题以便进行工艺的改进,具有在线检测图像回放功能,便于在线监测;
- 7.检测参数可以自由设定,按客户要求达到最佳效果予以保存;
- 8..采用全部进口伺服电机作为驱动力保证了设备运行的精准性离心皮带采用知名品牌,具有极高的耐磨性;
- 9.操作界面能有效显示设备上每一个相机的工作状态,从而保证了产品检测的安全性;
- 10.电气控制系统采用欧姆龙运动控制器,每个电机均独立精准输出,运动位置精确无错位,有效的避免了传统 PLC 通过光电传感器,触发信号带来的信号卡顿与延迟,实现跟踪速度的一致性和相机采图毫秒级的无偏差性,使得检测效果及设备稳定性有了质的飞跃;
- 11.机器故障信息反馈设定;
- 12.预留通讯接口,便于故障远程诊断;
- 13.光源照度、相机状态、离心旋瓶状态实时监测,故障信息会即时显示到控制面板上同时报警停机整机高度完全适合一般女性操作工。

技术参数 TECHNICAL PARAMETER

适用范围:1-50毫升
检测项目:液体内可见异物(如玻璃屑、金属屑、毛发、纤维、白点、白块)、装量、外观)
检测速度:400-600瓶/分钟(以2ML为例)
分辨率:>40μm
噪音:≤75db
功率:10KW
电压:AC 380V 50Hz
净重:4200KG
外形尺寸:3700x2500x2300mm(长x宽x高)
工作台高度:930mm

1. This series of light inspection machines uses high-resolution industrial cameras, magnifying the inspected objects by dozens of times, making visible foreign substances more visible.
2. It can detect foreign substances such as glass shards, aluminum shavings, rubber debris, hair, and fibers larger than 40μm in sterile liquids online, ensuring that substandard products are accurately removed.
3. The software is owned by an enterprise with independent intellectual property rights.
4. The bottle cap and bottle head are inspected by three cameras, providing better inspection results. Unqualified bottle heads are removed before the bottles enter the inspection turntable, preventing broken bottles due to bottle head cracks and affecting the inspection.
5. The menu is hierarchical, and only administrators can set and modify parameters, avoiding the possibility of operators mistakenly modifying parameters.
6. Images of substandard products are saved for users to analyze existing problems and improve the process. It has an online inspection image playback function for convenient online monitoring.
7. Inspection parameters can be freely set and saved when the best effect is achieved according to customer requirements.
8. All imported servo motors are used as the driving force to ensure the accuracy of equipment operation. The centrifugal belt is made of a well-known brand and has extremely high wear resistance.
9. The operation interface can effectively display the working status of each camera on the equipment, ensuring the safety of product inspection.
10. The electrical control system uses Omron motion controllers, with each motor independently and precisely outputting, ensuring accurate movement positions without misalignment. This effectively avoids signal lag and delay caused by traditional PLCs using photoelectric sensors to trigger signals, achieving consistent tracking speed and millisecond-level deviation-free camera image capture, resulting in a significant improvement in inspection results and equipment stability.
11. Machine fault information feedback setting.
12. Communication interfaces are reserved for remote fault diagnosis.
13. Real-time monitoring of light source illuminance, camera status, and centrifugal bottle rotation status. Fault information is immediately displayed on the control panel and an alarm is triggered to stop the machine. The overall height of the machine is completely suitable for female operators.

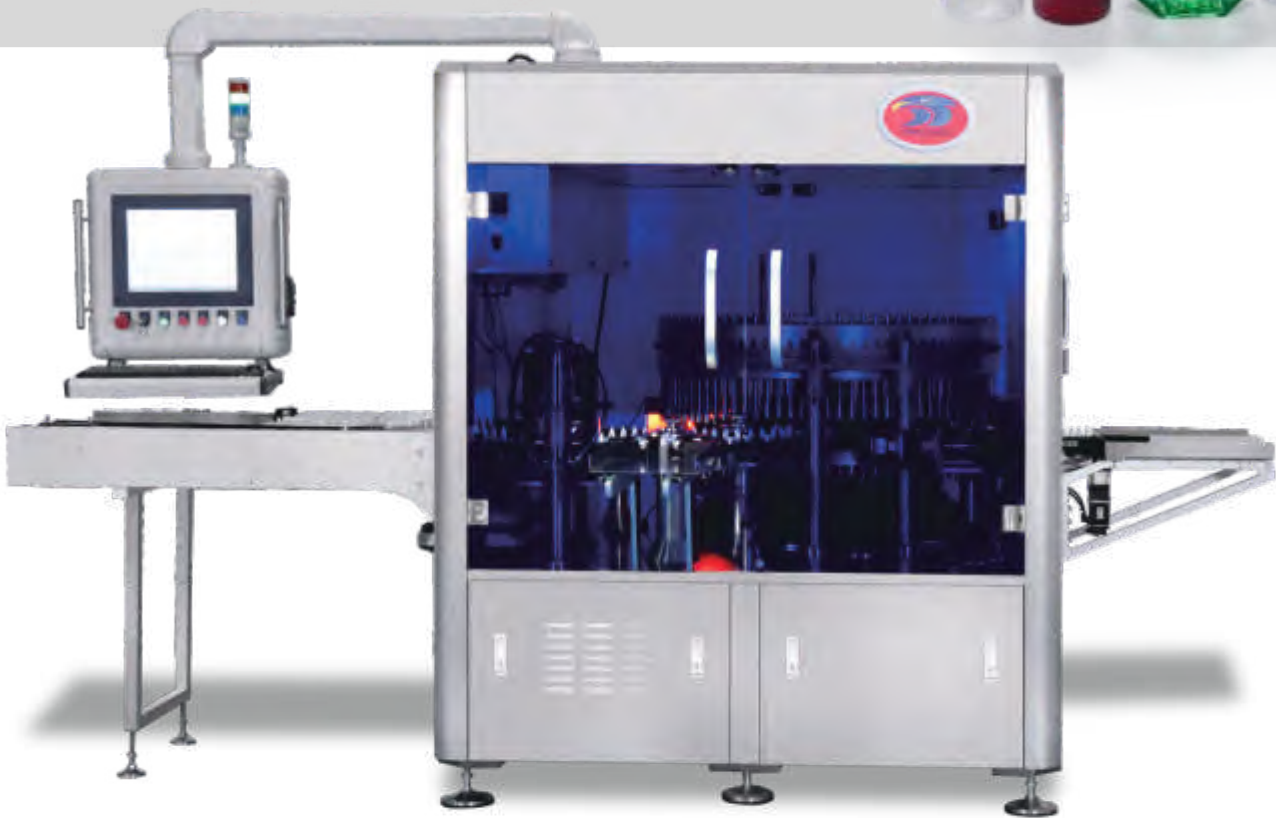
Mscope of application:1-50 ml
Test items: foreign matters visible in liquid (such as glass chips, metal chips,hair Fiber, white spot, white block), loading capacity,appearance)
Detection speed:400-600 bottles/ min (taking 2ml as an example)
Resolution:>40μm
Noise: 75db
Power:10KW
Voltage:AC 380V,50 Hz
Net weight:4200kg
Owerall dimension:3700x2500x2300 mm(L x W x H)
Table height:930mm



YY-HZDJJ-600X

滴眼液全自动回转式灯检机

EYE DROPS AUTOMATIC ROTARY LAMP INSPECTION MACHINE



名称	长 (m)	宽 (m)	高 (m)
滴眼液全自动回转式灯检机	3.7	2.7	2.3

检测产品类型 APPLICATIONS

1-20ml 聚氨酯/PVC圆瓶类滴眼液系列
1-20ml polyurethane /PVC round bottle eye drops series

主要性能特点 MAIN CHARACTERS

全自动灯检机运用机器视觉技术、自动化控制原理,通过机械方法使被检测产品高速旋转、瞬间制动;采用特殊光源系统、超高速精密工业相机获取被检测产品系列图像;运用公司自主研发的智能图像处理算法软件系统对图像进行对比、计算、分析,完成对产品的检测。检测出的不合格品,通过自动控制系统的执行机构予以剔除。

The fully automatic lamp inspection machine employs machine vision technology and automation control principles. It uses mechanical methods to make the inspected products rotate at high speed and brake instantly. It adopts a special light source system and ultra-high-speed precision industrial cameras to obtain a series of images of the inspected products. It uses the intelligent image processing algorithm software system independently developed by the company to compare, calculate and analyze the images, completing the inspection of the products. The substandard products detected are removed by the actuator of the automatic control system.

本系列设备主要由下列部分组成 This series of equipment is mainly composed of the following parts.

- ①进瓶部分:被检产品由进瓶输送带传至进瓶拨盘,再输送至检测旋转台;
- ②检测部分:被检产品高速旋转,经多重特殊光源检测,形成多幅影像供处理系统比对、辨别;
- ③出瓶部分:被检产品经检测后由出瓶拨盘,使用摆臂剔除的方式,将合格品和不合格品分别导入收瓶盘;
- ① Bottle feeding section: The inspected products are conveyed by the bottle feeding conveyor belt to the bottle feeding turntable and then to the inspection rotating platform.
- ② Inspection section: The inspected products rotate at high speed and are inspected by multiple special light sources, forming multiple images for comparison and identification by the processing system.
- ③ Bottle discharging section: After inspection, the inspected products are conveyed by the bottle discharging turntable and the qualified and unqualified products are respectively introduced into the bottle receiving tray by the swing arm rejection method.

技术参数 TECHNICAL PARAMETER

适用范围: 5-10ML滴眼液	Scope of application: 5-10ML eye drops
检测项目: 液体内可见异物 (如毛发、纤维、白点、白块)、装量、外观	Testing items: Visible foreign matter in liquid (such as hair, fibers, white spots, white blocks), fill volume, appearance
检测速度: 400瓶/分钟	Testing speed: 400 bottles per minute
分辨率: $\geq 40\mu\text{m}$	Resolution: $\geq 40\mu\text{m}$
噪 音: $\leq 75\text{db}$	Noise: $\leq 75\text{db}$
功 率: 6.5 KW	Power: 6.5 KW
电 压: AC 380V 50Hz	Voltage: AC 380V 50Hz
净 重: 3500KG	Net weight: 3500KG
外形尺寸: 3700X 2700 X 2300 MM(长x宽x高)	Overall dimensions: 3700X 2700 X 2300MM (length x width x height)
工作台高度: 930MM	Workbench height: 930MM



YY-HZDJJ-600L

回转灯检机

Rotary lamp inspection machine



名称	长(m)	宽(m)	高(m)
回转灯检机	3.4	2.8	2.3

检测产品类型 APPLICATIONS

1-20ml安瓿瓶系列
1-20ml ampoule series

主要性能特点 MAIN CHARACTERS

全自动灯检机运用机器视觉技术、自动化控制原理,通过机械方法使被检测产品高速旋转、瞬间制动;采用特殊光源系统、超高速精密工业相机获取被检测产品系列图像;运用公司自主研发的智能图像处理算法软件系统对图像进行对比、计算、分析,完成对产品的检测。检测出的不合格品,通过自动控制系统执行机构予以剔除。

可见异物检测:采用机器视觉原理,通过:“平稳进瓶->高速旋瓶->急停->拍照->高速计算->分拣”这一系列过程,将包含可见异物的产品从正常产品中分离出来。

设备内部使用柱式结构,内部空间较大,易于清扫和维护;同时,透明的门设计,易于观察内部运行状态。

卡槽式设计,更换规格件方便快捷。

光透射法和光反射法的光衍射法结合使用,不通顺。以及特殊光路整定方法使得全自动灯检机的检测系统稳定高效。

The fully automatic light inspection machine employs machine vision technology and automation control principles. It uses mechanical methods to make the inspected products rotate at high speed and then brake instantly. It adopts a special light source system and ultra-high-speed precision industrial cameras to obtain a series of images of the inspected products. The company's self-developed intelligent image processing algorithm software system is used to compare, calculate and analyze the images to complete the inspection of the products. The unqualified products detected are removed by the actuator of the automatic control system.

Visible foreign matter detection: Based on the principle of machine vision, it goes through a series of processes: "smooth bottle feeding -> high-speed bottle rotation -> emergency stop -> photo taking -> high-speed calculation -> sorting", to separate the products containing visible foreign matter from the normal products.

The interior of the equipment uses a columnar structure, providing a large internal space that is easy to clean and maintain. At the same time, the transparent door design makes it easy to observe the internal operation status.

The slot design makes it convenient and quick to change the specification parts.

The combination of light transmission method and light reflection method and light diffraction method is not smooth. And the special light path setting method makes the detection system of automatic lamp detector stable and efficient.

技术参数 TECHNICAL PARAMETER

规格:3400*2800*2300mm±50mm	Specification: 3400*2800*2300mm ± 50mm
检测项目:玻璃、玻璃屑、毛发、白点、白块、纤维等可见异物以及口服液瓶盖、包边不良、装量、异色	Inspection items: Visible foreign matters such as glass blocks, glass chips, hair, white spots, white blocks, fibers, etc., as well as oral liquid bottle caps, poor edge wrapping, filling volume, and color differences.
检测速度:600瓶/分钟	Inspection speed: 600 bottles per minute
分辨率:≥40μm	Resolution: ≥ 40μm
噪音:≤75db	Noise: ≤ 75db
功率:9KW	Power: 9KW
光源照度:1000-4000LX	Light source illuminance: 1000 - 4000LX



YY-HZDJJ-500L

回转灯检机

Rotary lamp inspection machine



名称	长(m)	宽(m)	高(m)
回转灯检机	2.86	2.08	2.2

检测产品类型 APPLICATIONS

1-50ml西林瓶/口服液瓶系列
1-50ml Cillin bottle/oral liquid bottle series

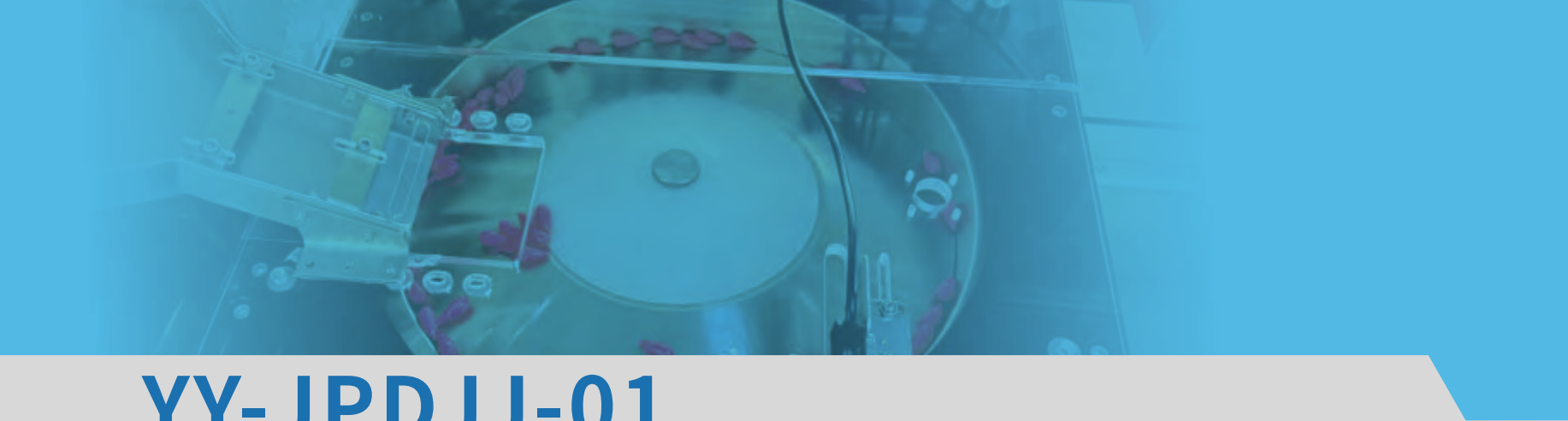
主要性能特点 MAIN CHARACTERS

- 1.本系列灯检机采用高分辨率工业相机,使被检物体数十倍放大,使得可见异物的可视性更强。
 - 2.可在线检测无菌液体内40μm 以上的玻璃碎屑、铝屑、橡皮屑、毛发、纤维等 异物,确保不合格品准确剔除。
 - 3.外观检测:根据具体的检测需求,设计给光、拍照、处理系统,一般采用静态的方式进行。
- 西林瓶灯检机检测项目包括:铝盖上凹、铝盖下凸、无铝盖、包边、项圈等。
- 4.软件拥有独立自主知识产权。
 - 5.菜单分级制,只有管理员才能对参数进行设定修改,避免了操作工误操作修 改参数的可能;
 - 6.不合格品图像予以保存,方便用户分析存在的问题以便进行工艺的改进,具 有在线检测图像回放功能,便于在线监测;
 - 7.检测参数可以自由设定,按客户要求达到最佳效果予以保存;
 - 8..采用全部进口伺服电机作为驱动力保证了设备运行的精准性离心皮带采 用知名品牌,具有极高的耐磨性;
 - 9.操作界面能有效显示设备上每一个相机的工作状态,从而保证了产品检测 的安全性;
 - 10.电气控制系统采用欧姆龙运动控制器,每个电机均独立精准输出,运动位 置精确无错位,有效的避免了传统PLC通过光电传感器,触发信号带来的信号 卡顿与延迟,实现跟踪速度的一致性和相机采图毫秒级的无偏差性,使得检测效果及设备稳定性有了质的飞跃;
 - 11.机器故障信息反馈设定;
 - 12.预留通讯接口,便于故障远程诊断;
 - 13.离心瓶座采用高强度合金材料,正常运行2年内无须更换,极大地节省了使 用及维护成本;
 - 14.光源照度、相机状态、离心旋瓶状态实时监测,故障信息会即时显示到控制 面板上同时报警停机整机高度完全适合一般女性操作工。
 - 15.以及特殊光路整定方法使得全自动灯检机的检测系统稳定高效。



技术参数 TECHNICAL PARAMETER

适用范围: 2-50ML 服液瓶、西林瓶	2-50ML liquid bottle, cillin bottle
检测项目: 液体内可见异物(如玻璃屑、金属屑、毛发、大纤维、白点、白块)、装量、外观	Foreign bodies (such as glass shavings, metal shavings, hair, large fibers, white spots, white pieces), contents, and appearance can be seen in the liquid
检测速度: 400-500瓶/分钟 (以10毫升口服液瓶为例)	400-500 bottles/min (10 ml oral liquid bottle as an example)
分 辨 率: ≥40μm	Resolution: ≥40μm
噪 音: ≤70db	Noise: ≤70db
功 率: 7 KW	Power: 7 KW
电 压: AC 380V 50Hz	Voltage: AC 380V 50Hz
净 重: 4200KG	Net weight: 4200KG
外形尺寸: 2860X2080X2200 MM(长x宽x高)	Overall dimensions: 2860X2080X2200 MM (length x width x height)
工作台高度:930MM	Workbench height: 930MM



YY-JPDJJ-01

胶囊片剂检测机

CAPSULE TABLET TESTER



名 称	长 (m)	宽 (m)	高 (m)
胶囊片剂检测机	2.0	1.2	2.0

检测产品类型 APPLICATIONS

适用片剂:素片、包衣片、糖衣片、单面/双面印刷·有割线刻印

Applicable tablets: plain tablets, film-coated tablets, sugar-coated tablets, single-sided/double-sided printed tablets with score lines and engraved marks

主要性能特点 MAIN CHARACTERS

- 1.采用多台CCD多次各象限的重叠检测,漏检率极低。常规要求下检测准确率99.5%。

2.可准确的检测出胶囊的各种或内部或外部缺陷,如:叉劈,套环,脏污,小孔,空胶囊,异物胶囊,半填充,顶凹等。

3.特别是可以检测印字缺陷。

4.运行中漏粉胶囊不会影响到其他胶囊,且非常清洁非常方便。

5.搭配真空上料装置可以实现无人操作。

6.采用高速高精度的工业CCD及工业电脑,设备运行稳定,检测速度可达200000粒/H,可24小时运转。
1. By using multiple CCDs for repeated quadrant overlap detection, the rate of missed detection is extremely low. Under normal requirements, the detection accuracy rate is 99.5%.

2. It can accurately detect various internal or external defects of the capsule, such as: split, sleeve ring, dirt, small hole, empty capsule, foreign body capsule, half-filled, top concave, etc.

3. Especially, it can detect printing defects.

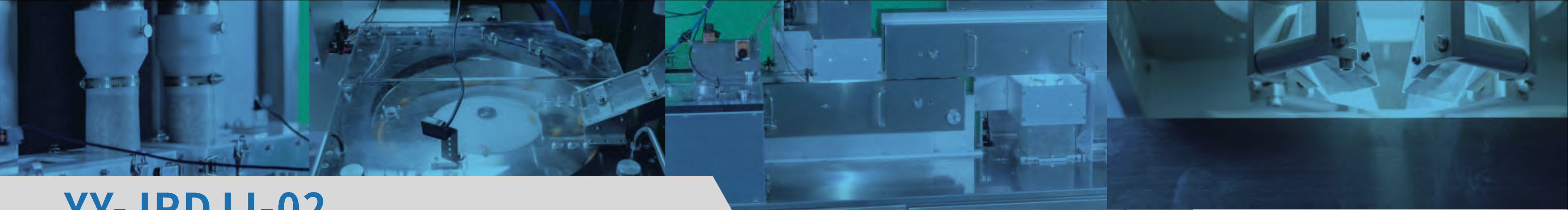
4. The powder leakage of a capsule during operation will not affect other capsules, and it is very clean and convenient.

5. When combined with a vacuum feeding device, it can achieve unmanned operation.

6. Equipped with high-speed and high-precision industrial CCD and industrial computer, the equipment operates stably, with a detection speed of up to 200,000 capsules per hour, and can run for 24 hours.

技术参数 TECHNICAL PARAMETER

设备型号:剂胶囊外观检测机 YY-JPDJJ-01	Model: Capsule appearance testing machine YY-JPDJJ-01
适用剂型:圆形片:直径5-12mm、厚2-8mm异型片:宽5-12mm、厚2-8mm、长5-21mm	Applicable Dosage Forms: Round Tablets: Diameter 5-12mm, Thickness 2-8mm; Irregular Tablets: Width 5-12mm, Thickness 2-8mm, Length 5-21mm
检测项目:污点、刮伤、异物附着、断裂、缺角、变形、异色、变色、印刷模糊、印刷渗漏、包衣不良、刻印不良	Inspection Items: Stains, Scratches, Foreign Matter Adhesion, Breakage, Missing Corners, Deformation, Color Difference, Color Change, Blurred Printing, Printing Leakage, Poor Coating, Poor Engraving
检查面:表背面、侧面	Inspection Surfaces: Front and Back, Sides
检查精度:50μm大小以上的黑点缺陷	Inspection Precision: Black Spot Defects Larger than 50μm
检测速度:5000-10000粒/分钟(以直径5毫米为例)	Inspection Speed: 5000-10000 Pieces/Minute (Take a diameter of 5 mm for example)
灯检亮度:≤ 3000LX。	Light Inspection Brightness: ≤ 3000LX
功率:3KW	Power: 3KW
电压:220V	Voltage: 220V



YY-JPDJJ-02

胶囊片剂检测机

CAPSULE TABLET TESTER



名 称	长 (m)	宽 (m)	高 (m)
胶囊片剂检测机	2.0	1.2	2.0

检测产品类型 APPLICATIONS

适用剂型:软胶囊、异型软胶囊等。
Applicable dosage forms: soft capsules, special-shaped soft capsules, etc.

主要性能特点 MAIN CHARACTERS

- 1.采用多台CCD多次各象限的重叠检测，漏检率极低。常规要求下检测准确率99.5%。

2.可准确的检测出胶囊的各种或内部或外部缺陷，如:叉劈，套环，脏污，小孔，空胶囊，异物胶囊，半填充，顶凹等。

3.特别是可以检测印字缺陷。

4.运行中漏粉胶囊不会影响到其他胶囊，且非常清洁非常方便。

5.搭配真空上料装置可以实现无人操作。

6.采用高速高精度的工业CCD及工业电脑，设备运行稳定，检测速度可达200000粒/H，可24小时运转。
1. By using multiple CCDs for repeated quadrant overlap detection, the rate of missed detection is extremely low. Under normal requirements, the detection accuracy rate is 99.5%.

2. It can accurately detect various internal or external defects of the capsule, such as: split, sleeve ring, dirt, small hole, empty capsule, foreign body capsule, half-filled, top concave, etc.

3. Especially, it can detect printing defects.

4. The powder leakage of a capsule during operation will not affect other capsules, and it is very clean and convenient.

5. When combined with a vacuum feeding device, it can achieve unmanned operation.

6. Equipped with high-speed and high-precision industrial CCD and industrial computer, the equipment operates stably, with a detection speed of up to 200,000 capsules per hour, and can run for 24 hours.

技术参数 TECHNICAL PARAMETER

设备型号:剂胶囊外观检测机 YY-JPDJJ-02	Model: Capsule appearance testing machine YY-JPDJJ-02
适用剂型:圆形片:直径5-12mm、厚2-8mm异型片:宽5-12mm、厚2-8mm、长5-21mm	Applicable Dosage Forms: Round Tablets: Diameter 5-12mm, Thickness 2-8mm; Irregular Tablets: Width 5-12mm, Thickness 2-8mm, Length 5-21mm
检测项目:污点、刮伤、异物附着、断裂、缺角、变形、异色、变色、印刷模糊、印刷渗漏、包衣不良、刻印不良	Inspection Items: Stains, Scratches, Foreign Matter Adhesion, Breakage, Missing Corners, Deformation, Color Difference, Color Change, Blurred Printing, Printing Leakage, Poor Coating, Poor Engraving
检查面:表背面、侧面	Inspection Surfaces: Front and Back, Sides
检查精度:50μm大小以上的黑点缺陷	Inspection Precision: Black Spot Defects Larger than 50μm
检测速度:2500-5000粒/分钟(以5毫米为例)	Inspection Speed: 2500-5000 Pieces/Minute (Taking 5mm as an Example)
灯检亮度:≤ 3000LX。	Light Inspection Brightness: ≤ 3000LX
功率:3KW	Power: 3KW
电压:220V	Voltage: 220V

YY-JNJc

多通道胶囊灯检机

MULTI-CHANNEL CAPSULE INSPECTION MACHINE



设备说明 Equipment Instructions:

YY-JNJc7200型胶囊外观检测机采用先进高速相机全方位照相, 通过 AI+CPU处理, 通过算法运算, 与稳定的机械结构相结合, 配套可靠的控制系统, 能够对胶囊的顶凹、半截、凹陷、破损、异物、黑点、毛发、异色、瘪壳、叉劈、劈裂、插错、等缺陷等缺陷进行检测; 对胶囊外观进行高速 360度全方位的精确检测, 缺陷被快速辨别, 检测出来不合格有缺陷的被准确快速剔除. 解决了人工检测的主观情绪、疲劳因素、精准度和速度等问题, 从而大幅度降低了 制药企业的生产成本。

The YY-JNJc7200 capsule appearance inspection machine adopts advanced high-speed cameras for all-round photography. Through AI + CPU processing and algorithmic computation, combined with a stable mechanical structure and a reliable control system, it can detect defects such as top concavity, half capsules, depressions, damages, foreign objects, black spots, hair, abnormal colors, flat shells, fork splits, splits, and wrong insertions of capsules. It conducts high-speed 360-degree precise detection of capsule appearances, quickly identifying defects and accurately and rapidly eliminating unqualified and defective capsules. This solution addresses the issues of subjective emotions, fatigue, accuracy, and speed in manual inspection, significantly reducing the production costs of pharmaceutical enterprises.



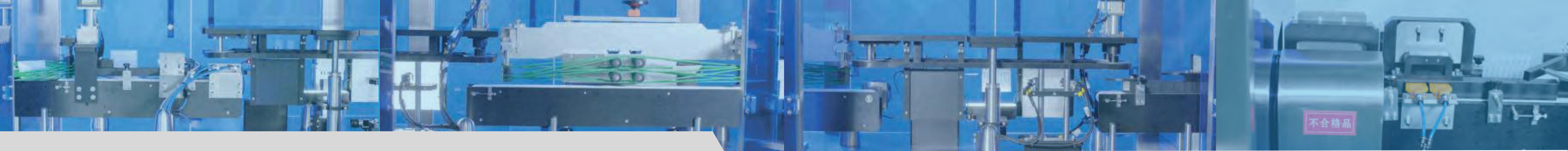
设备主要特点 Main features of the equipment:

- ① 核心算法100%自主研发, 完全自主知识产权。
- ② 单粒胶囊360°无死角全面全方位检测, 缺陷胶囊“无所遁形”。
- ③ 结构简单, 易拆解、易清洗; 便于操作、维护;
- ④ 可利用压缩空气实现自动供料;
- ⑤ 根据通道数量的不同可与不同产量的充填机连线使用, 也可单机使用;
- ⑥ 采用机器视觉检测原理和高速图像处理技术, 自动筛选、剔除缺陷产品;
- ⑦ 检测信息模板化, 可重复调用; 核心检测软件定制化, 可针对客户产品特点灵活设计;
- ⑧ 检测数据实时存储, 检测结果、实时图像、运行状态动态显示;
- ⑨ 软件采用模块化设计, 易于升级、改进、维护;
- ⑩ 可实现通道和供料斗内无存囊;
- ⑪ 胶囊自动排序后, 单粒逐一检测, 单个通道速度可达每道2粒/秒;
- ⑫ 适用胶囊规格: 通过更换模具可适用于00#、0#、0#加长、1#、2#、3#、4#、5#的机制硬胶囊; 设有不同的操作权限分级控制管理;
- ⑬ 带有可移动脚轮, 移动方便灵活;
- ⑭ 整个过程无需人工接触胶囊, 减低了人为风险。

- ① The core algorithm is 100% independently developed, with complete independent intellectual property rights.
- ② Each capsule is inspected 360° without any blind spots, ensuring defective capsules have nowhere to hide.
- ③ The structure is simple, easy to disassemble and clean; it is convenient to operate and maintain.
- ④ Compressed air can be utilized to achieve automatic feeding.
- ⑤ Depending on the number of channels, it can be connected to filling machines of different production capacities or used as a standalone machine.
- ⑥ It adopts machine vision inspection principles and high-speed image processing technology to automatically screen and remove defective products.
- ⑦ Inspection information is templated and can be reused; the core inspection software is customized and can be flexibly designed according to the characteristics of the customer's products.
- ⑧ Inspection data is stored in real time, and inspection results, real-time images, and operational status are displayed dynamically.
- ⑨ The software is designed in a modular way, making it easy to upgrade, improve, and maintain.
- ⑩ It can ensure no capsules are left in the channels or feeding hoppers.
- ⑪ After the capsules are automatically sorted, each one is inspected individually, with a speed of up to 2 capsules per second per channel.
- ⑫ Applicable capsule sizes: By changing the molds, it can be used for 00#, 0#, 0# extended, 1#, 2#, 3#, 4#, and 5# hard gelatin capsules. Different operation permission levels are set for management and control.
- ⑬ It is equipped with movable casters for easy and flexible movement.
- ⑭ The entire process does not require manual contact with the capsules, reducing human risks.

技术参数 TECHNICAL PARAMETER

适用型号:#00 (EL)、#0 (EL)、#1、#2、#3、#4、#5	Applicable models: 00(EL), #0(EL), #1, #2, #3, #4, #5
产能:最高3600-7200粒/分钟	Production capacity: Up to 3600-7200 pieces per minute
可检缺陷类型:顶凹、半截、凹陷、破损、异物、黑点、毛发、异色、瘪壳、叉劈、劈裂、插错等缺陷	Detectable defect types: top depression, half-cut, indentation, damage, foreign matter, black spots, hair, discoloration, flat shell, fork split, split, wrong insertion, etc.
设备尺寸 (mm):1800*900*1450	Equipment dimensions (mm): 1800 * 900 * 1450
压缩空气消耗量:0.6Mpa, 0.22um过滤, 30L/min	Compressed air consumption: 0.6 Mpa, 0.22um filtration, 30L/min
压缩空气连接:输入胶管外径为10mm	Compressed air connection: Input hose outer diameter is 10mm
电源供应及功率:220V, 单相, 50Hz; 6Kw;	Power supply and power: 220V, single phase, 50Hz; 6Kw;



YY-LPDJJ

BFS联排灯检机

BFS ROW LAMP INSPECTION MACHINE



工作流程 Work process:

- 1.上料装置, 由进瓶网带、卧转立翻瓶和加速网带组成;
- 2.检测区域, 检测工位分为两部分第一组工位采用自下而上的检测方式主要检测装量、瓶身和瓶底的黑点、白点, 第二组工位主要检测瓶头外观、封口、接缝;
- 3.出瓶部分, 由剔废网带和出瓶网带组成。剔废可以实现分类剔除。

BFS安瓿瓶的100%全方位检测

用智能的LED照明, 光学仪器, 图像处理和评估来可靠 地识别损坏, 变形, 异物颗粒, 错误灌装, 产品颜色偏 差, 杂质, 黑色燃烧痕迹, 外观缺陷和封盖错误。

- 1. The feeding device, consisting of an in-bottle conveyor belt, a horizontal-to-vertical bottle inverter and an acceleration conveyor belt;
- 2. The inspection area, where the inspection stations are divided into two parts. The first group of stations adopts an inspection method from bottom to top, mainly inspecting the filling volume, black and white spots on the bottle body and bottom. The second group of stations mainly inspects the appearance of the bottle top, sealing and seams;
- 3. The bottle ejection section, composed of a reject conveyor belt and an out-bottle conveyor belt. The rejection can achieve classified rejection.

100% comprehensive inspection of BFS ampoules

Reliably identify damage, deformation, foreign particles, incorrect filling, product color deviation, impurities, black burn marks, appearance defects and sealing errors with intelligent LED lighting, optical instruments, image processing and evaluation.



技术参数 TECHNICAL PARAMETER

- ◆稳定产量: 0~150排/分钟 (1ml—10ml)
- ◆Stable output: 0 - 150 rows per minute (1ml - 10ml)
- ◆功率: 4kW, 380V 50Hz
- ◆Power: 4kW, 380V, 50Hz

BFS灯检机设备技术优势 Technical advantages of BFS light inspection machine equipment

- ◆对包装不造成任何损害, 即无损检测。
- ◆Does not cause any damage to the packaging, that is, non-destructive testing.
- ◆对所有产品进行检测, 即在线检测。
- ◆All products are tested, that is, online testing.
- ◆有足够的灵敏度, 能够检测到微小的黑点、白点。(≥40μm异物)
- ◆Has enough sensitivity, can detect small black spots, white spots. (≥40μm foreign body)
- ◆BFS灯检机主要是针对国内联排产品特性, 全方位检测,
- ◆BFS lamp detector is mainly for the characteristics of domestic rooming products, all-round detection,
- ◆检测部位包括: 头部、尾部、正反面。(两组工位, 八个相机)
- ◆Detection parts include: head, tail, front and back. (Two sets of stations, eight cameras)
- ◆能够消除外界因素或人为因素的干扰。
- ◆Can eliminate the interference of external factors or human factors.
- ◆能够经过验证
- ◆Can be verified

名称	长(m)	宽(m)	高(m)
BFS联排灯检机	5.2	1.15	2.05

检测产品类型 APPLICATIONS

BFS联排塑料安瓿系列
BFS row plastic ampoule series



YY-ADJJ

全自动直线式灯检机

AUTOMATIC STRAIGHT LINE LAMP INSPECTION MACHINE



名 称	长 (m)	宽 (m)	高 (m)
全自动灯检机	2.45	1.4	1.8

检测产品类型 APPLICATIONS

冻干粉、粉针、水针、口服液

Freeze-dried powder, powder injection, water injection, oral liquid



主要性能特点 MAIN CHARACTERS

- 1.采用国外知名品牌高速工业相机和全自动图像跟踪分析软件，确保检测精度及稳定性。
 - 2.采用双轨道分别进瓶及检测，延长待检产品通过监测区域时间提高检测精度。
 - 3.采用全自动检测，检测速度和精度可以实时调整，发现不合格品自动剔除。
 - 4.拥有故障自检功能，便于操作人员快速精确处理故障，提高生产效率。
 - 5.产品通过检测区域保持匀速自转，有利于全面检测产品是否存在质量问题，拥有计数功能，检测产品总数和不合格产品数量在显示屏上同步显示，并会对不合格品进行归类计数，有助于分析产品质量状况，改进工艺流程。
 - 6.检测速度、瓶体旋转速度可进行无极调速，运行速度(频率)均在触摸屏上显示。
 - 7.光源的高度、角度、水平度、光照强度均可进行调整。
 - 8.用世界知名品牌电气元件，确保设运行的稳定性与可靠性设备主要部件采用世界知名品牌电气元件，确保设备运行的稳定性。
1. Adopt foreign famous brand high-speed industrial cameras and automatic image tracking and analysis software to ensure inspection Measurement accuracy and stability.
 2. The use of double track respectively into the bottle and test, extend the product to be tested through the monitoring area to improve the time Detection accuracy.
 3. Automatic detection, detection speed and accuracy can be adjusted in real time, automatically find unqualified productsDelete.
 4. With fault self-test function, easy for operators to quickly and accurately deal with faults, improve production efficiency.
 5. The product keeps a constant speed rotation through the detection area, which is conducive to the comprehensive detection of whether there are quality problems in the product. With the counting function, the total number of detected products and the number of unqualified products are displayed simultaneously on the display screen, and the unqualified products are classified and counted, which helps to analyze the product quality status and improve the process flow.
 6. The detection speed and rotation speed of the bottle can be stepless speed regulation, and the running speed (frequency) is displayed on the touch screen.
 7. The height, Angle, levelness and light intensity of the light source can be adjusted.
 8. Use world-famous brand electrical components to ensure the stability and reliability of the operation of the equipment. The main components of the equipment use world-famous brand electrical components to ensure the stability of the operation of the equipment.

技术参数 TECHNICAL PARAMETER

设备型号:YY-ADJJ
检测速度:400瓶/分钟、800 瓶/分钟
光源照度:1000LX-4000LX
设备重量:700KG
电源功率:4KW

Model:YY-ADJJ
Inspection speed: 400 bottles/ min, 800 bottles / min
Inspection brightness: 1000LX-4000LX
Weight:700KG
Power supply: 4KG



YY-JLJ-600

全自动高压放电检漏机

AUTOMATIC HIGH VOLTAGE DISCHARGE LEAK DETECTION MACHINE



名称	长(m)	宽(m)	高(m)
全自动高压放电检漏机	3.0	2.2	2.0

检测产品类型 APPLICATIONS

1-20ml安瓿瓶、西林瓶/口服液瓶系列
1-20ml ampoules, vials / oral liquid bottles series

主要性能特点 MAIN CHARACTERS

进出瓶采用星轮伯努利原理机构, 碎瓶率低;
防碎瓶装置, 当有药品被卡在前端时, 前端后退, 接近开关感应到, 设备停机。防止碎瓶;
安全可靠的剔除系统:
参数设置简单, 用户经短时间培训即可上机操作;
检测电极置于下方, 方便清洁, 药品由直立变成平躺和平躺变成直立姿态变换顺畅, 不易碎瓶;
备有通讯接口, 可实现远程诊断;
检测的灵敏度可按照客户需求予以调整;
不断优化的软件系统, 友好的操作界面:
检测灵敏度和参数可以方便设定, 满足用户需求;
预留通讯接口, 实现远程监测, 可提供免费远程在线技术服务;
不合格图像予以保存, 可在线调阅不合格图像以方便用户统计和工艺调整;
工作状态中的自我监测系统(当重要的操作点发生故障机器自动报警)设备的检测速度和检测灵敏度可根据需要在一定范围内调节;
设备采用全伺服驱动, 动作稳定可靠、传动部件基本免维护;
检测过程中, 能对不良品与合格品自动分道;
合作研发高压电源技术, 底蕴深厚, 具有完整的知识产权。
人机批量检测对比, 设备各项数据优于人工检测;
控制系统:设备采用PLC系统进行自动控制, 设置3级密码保护程序, 能够防止参数被随意修改。
模具更换:设备能够通过更换模具适应不同规格的产品, 模具的更换简便快捷, 能够准确对位, 各规格模具有明显标示区分;
实时监测检测电压, 当电压低于报警值时, 设备自动停机, 当设备出现连续废品时, 且数量大于设定值时, 设备自动停机;
设备具有开门停机功能, 外罩贴有电磁防护膜;
设备具有臭氧回收功能;
操作台的进料口和尾部收瓶位置安装有急停按钮;
便于操作和维修保养;
出现任何报警时的过程数据将作为运行数据被储存;

The bottle entry and exit adopt the star wheel Bernoulli principle mechanism, with a low bottle breakage rate.
Anti-break bottle device: When a medicine is stuck at the front end, the front end retreats, and the proximity switch senses it, causing the equipment to stop. This prevents bottle breakage.
Safe and reliable rejection system:
Simple parameter setting, users can operate the equipment after a short training period;
Detection electrodes are placed at the bottom, making cleaning convenient. The transformation from upright to lying down and from lying down to upright positions of the medicine is smooth, reducing the risk of bottle breakage;
Equipped with communication interfaces for remote diagnosis;
Detection sensitivity can be adjusted according to customer requirements;
Constantly optimized software system with a user-friendly interface:
Detection sensitivity and parameters can be easily set to meet user needs;
Reserves communication interfaces for remote monitoring and provides free remote online technical services;
Unqualified images are saved, and users can access them online for statistics and process adjustment;
Self-monitoring system during operation (the machine automatically alarms when important operation points fail). The detection speed and sensitivity of the equipment can be adjusted within a certain range as needed;
The equipment uses full servo drive, with stable and reliable actions and basic maintenance-free transmission components;
During the detection process, it can automatically separate defective and qualified products;
Jointly developed high-voltage power supply technology with deep experience and complete intellectual property rights.
Batch detection comparison between human and machine, the equipment's various data are superior to manual detection;
Control system: The equipment uses a PLC system for automatic control, with a 3-level password protection program to prevent parameters from being modified at will.
Mold replacement: The equipment can adapt to different specifications of products by replacing molds. Mold replacement is simple and quick, with accurate positioning, and each specification of molds has clear markings for distinction;
Real-time monitoring of detection voltage. When the voltage is lower than the alarm value, the equipment automatically stops. When the equipment produces consecutive defective products and the quantity exceeds the set value, the equipment automatically stops;
The equipment has a door-opening stop function, and the outer cover is equipped with an electromagnetic protection film;
The equipment has an ozone recovery function;
Emergency stop buttons are installed at the feed port and the bottle collection position at the tail of the operation table;
Convenient for operation and maintenance;
Process data during any alarm will be stored as operation data.

技术参数 TECHNICAL PARAMETER

设备型号:YY-JLJ-600	Model: YY-JLJ-600
适用范围:1-20ML安瓿瓶、口服液瓶、西林瓶	Applicable range: 1-20ML ampoules, oral liquid bottles, and vials
检测项目:裂纹、微孔等造成药液泄露的缺陷	Inspection items: Cracks, micro-holes and other defects causing liquid leakage
检测速度:600瓶/分钟(以2ML为例)	Inspection speed: 600 bottles per minute (taking 2ML as an example)
分辨率:>0.1μm	Resolution: >0.1μm
功率:3KW	Power: 3KW
电压:AC 380V 50Hz	Voltage: AC 380V 50Hz
净重:1500KG	Net weight: 1500KG



BFS 高压放电检漏机

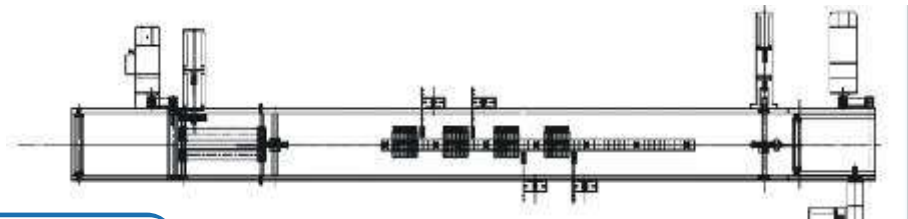
BFS HIGH VOLTAGE DISCHARGE LEAK DETECTOR



工作流程workflow: 分别为上料装置, 由进瓶网带和加速网带组成; 检测网带, 检测网带分成多段; 出瓶部分, 由剥废网带和出瓶网带组成。
The feeding device is composed of bottle inlet belt and accelerating belt; testing belt, testing belt is.

检测产品类型 APPLICATIONS

联排塑料安瓿2ml-15ml
Plastic ampoules in a row 2ml - 15ml



名称	长 (m)	宽 (m)	台面高 (m)
全自动瓶头检测机	3.7	2.5	2.3

主要性能特点 MAIN CHARACTERS

Shandong Hawk Eye BFS joint leak detection machine is based on Nica, Japan joint plastic ampoule leak detection machine, discharge detection samples through high frequency and high voltage, and distinguish through the current value change of qualified and unqualified products.
Comprehensive detection, mainly detect the head, middle and melt seal. The key technology for row detection accuracy is to detect the corresponding angle and position of the electrodes for each product. Shandong Eagle Eye designs detection electrodes for different shapes of each product. The detection accuracy is more guaranteed.

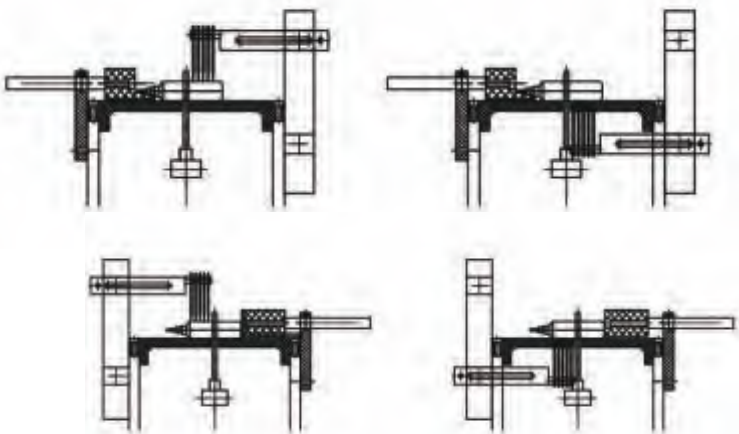
高压放电检测设备技术优势 Technical advantages of high-voltage discharge testing equipment

- ◆对包装不造成任何损害, 即无损检测。
- ◆对所有产品进行检测, 即在线检测。
- ◆有足够的灵敏度, 能够检测到微小的泄露。(≥3μm100%检出)
- ◆BFS检漏机主要是针对国内联排产品特性, 全方位检测, 检测部位包括: 头部、尾部、正反面。(4电极全覆盖)
- ◆能够消除外界因素或人为因素的干扰。
- ◆能够经过验证。
- ◆No damage is caused to the packaging, namely, nondestructive testing.
- ◆All products are tested, that is, online testing.
- ◆With sufficient sensitivity to detect minor leaks.(3 μ m100% detected)
- ◆BFS leak detection machine is mainly aimed at the characteristics of domestic row products, all-round detection, detection parts include: head, tail, front and back.(4 electrode full coverage)
- ◆Eliminating the interference of external factors or human factors.
- ◆Be verified.

电极布置 Electrode layout:

- ◆正极和负极在检测时均要与药品接触或者距离非常近(2-3mm), 且距离可调; 以方便使用过程中形成稳定的检测回路。
- ◆正负极之间有足够的距离, 保证检测时, 正负极之间不直接接通。

- ◆Both positive and negative electrodes shall contact drugs or have very close distance (2-3mm) and the distance is adjustable; to facilitate stable detection loop during use.
- ◆There is enough distance between the positive and negative poles to ensure that the positive and negative poles are not directly connected when testing.



技术参数 TECHNICAL PARAMETER

设备型号:BFS 高压放电检漏机	Backup model :BFS high voltage discharge leak detector
稳定产量:0~140排/分钟	Stable output: 0~140 rows/min
电容量: 2kW (含高频高压电源功率), 380V 50Hz	Capacity: 2kW (including high frequency and high voltage power supply), 380V 50Hz
高频:600Hz	High frequency :600Hz
高压:0~22kV可调	High voltage :0~22kV adjustable
高频高压电源功率:200W	High frequency high voltage power supply :200W



YY-PTJCJ

全自动瓶头检测机

AUTOMATIC BOTTLE HEAD TESTING MACHINE



名称	长(m)	宽(m)	台面高(m)
全自动瓶头检测机	2.09	1.1	1.5

检测产品类型APPLICATIONS

1-20ml 安瓿瓶 1-20ml ampoules

主要性能特点 MAIN CHARACTERS

- 主要针对安瓿水针瓶头进行检测；
- 检测内容包含：焦头、碳化、黑点、泡头、平头、瘪头、尖头、拉丝、瓶身高度；
- 进出瓶采用星轮伯努利原理机构，碎瓶率低；
- 防碎瓶装置，当有药品被卡在前端时，前端后退，接近开关感应到，设备停机。防止碎瓶；
- 安全可靠的剔除系统；
- 参数设置简单，用户经短时间培训即可上机操作；
- 备有通讯接口，可实现远程诊断；
- 检测的灵敏度可按照客户需求予以调整不断优化的软件系统，友好的操作界面；
- 检测灵敏度和参数可以方便设定，满足用户需求；
- 预留通讯接口，实现远程监测，可提供免费远程在线技术服务；
- 不合格图像予以保存，可在线调阅不合格图像以方便用户统计和工艺调整；
- 工作状态中的自我监测系统(当重要的操作点发生故障机器自动报警)设备的检测速度和检测灵敏度可根据需要在一定范围内调节；
- 设备采用全伺服驱动，动作稳定可靠、传动部件基本免维护；检测过程中，能对不良品与合格品自动分道；
- 检测软件具有AI识别功能，软件知识产权完全自我研发，人机批量检测对比，设备各项数据优于人工检测；
- 控制系统：设备采用PLC 系统进行自动控制，设置3级密码保护程序，能够防止参数被随意修改；
- 模具更换：设备能够通过更换模具适应不同规格的产品，模具的更换简便快捷，能够准确对位，各规格模具具有明显标示区分；
- 当设备出现连续废品时，且数量大于设定值时，设备自动停机；
- 设备具有开门停机功能；
- 操作台的进料口和尾部收瓶位置安装有急停按钮；便于操作和维修保养；
- 出现任何报警时的过程数据将作为运行数据被储存；



技术参数 TECHNICAL PARAMETER

适用范围：1-20ML (安瓿瓶)	Scope of application: 1-20ML (ampoule)
检测项目：安瓿瓶焦头、碳化、黑点、泡头、平头、瘪头、尖头、拉丝、瓶身高度等顶部缺陷	Inspection items: top defects of ampoules such as carbonized tips, black spots, bubble tips, flat tips, dented tips, pointed tips, drawn-out tips, and bottle height.
检测速度：600瓶/分钟（以2ML为例）	Detection speed: 600 bottles per minute (taking 2ML as an example)
功 率：3KW	Power: 3KW
电 压：AC 380V/220V 50Hz三相五线制	Voltage: AC 380V/220V 50Hz, three-phase five-wire system
净 重：1500KG	Net weight: 1500KG



YY-PWQX

瓶外壁清洗烘干机 OUTSIDE BOTTLE CLEANING DRYER



名 称	长 (m)	宽 (m)	高 (m)
瓶外壁清洗机烘干机	2.24	1.4	1.84

清洗类型 CLEANING TYPE

1-20ml安瓿瓶、西林瓶/口服液瓶系列
1-20ml ampoules, vials / oral liquid bottles series

主要性能特点 MAIN CHARACTERS

清洗烘干工序, 分四个工位进行:

粗洗工位:瓶子从进瓶网带装置进入到进瓶大拨瓶盘,瓶子在前进的过程中,到达设计好的冲洗工位,进行4方位温水(温度可调节)预粗洗,在粗洗过程中,安装有毛刷对瓶外壁进行全方位清洗。

精洗工位:从进瓶大拨瓶盘出来的瓶子进入到过渡大拨瓶盘,瓶子在前进的过程中,到达设计好的冲洗工位,进行4方位纯化水精洗。水冲洗工位采用纯水高压清洗,利用水泵的高压来冲洗瓶子外壁及瓶底。喷水嘴采用独特的外形设计,能够全方位冲洗瓶子外壁及瓶底。冲洗瓶子落下来的水,回收收到粗洗水箱,减少能耗,粗洗水槽内的水,通过溢流管路,排到地漏。

热风吹净工位:从水精洗工位出来的瓶子,进入热风吹净工位热风吹净采用公司独特的空气加热技术,利用热风吹净瓶子外壁附着的水。气嘴采用独特的外形设计,能够全方位、多角度吹净瓶子外壁的水。

压缩空气吹净工位:从过渡大拨瓶盘出来的瓶子,传送到出瓶大拨瓶盘,进入压缩空气吹净工位,压缩空气采用洁净的压缩空气吹净瓶子外壁及瓶底附着的水。气嘴采用独特的外形设计,能够全方位吹净瓶子外壁及瓶底的水。

出瓶工序:完成气吹净的瓶子,经过出瓶轨道送出清洗机。可与下道工序连接。

The cleaning and drying process is divided into four stations:

Rough washing station: the bottle enters the bottle from the bottle inlet mesh belt device into the bottle into the bottle large dial, the bottle in the process of progress, to the designed washing station, 4 directions of warm water (temperature adjustable) pre-rough washing, in the rough washing process, the installation of a brush for all-round cleaning of the bottle outside the wall.

Fine washing station: tThe bottle from the bottle tray into the transition bottle tray, the bottle in the process of progress, to the design of the washing station, 4 directions purified water fine washing. Water washing station adopts pure water high pressure cleaning, and uses the high pressure of the pump to wash the outer wall and the bottom of the bottle. The spray nozzle has a unique shape design, which can wash the outer wall and the bottom of the bottle in all directions. Rinse the water falling from the bottle, recycle it to the rough washing tank, reduce energy consumption, the water in the rough washing tank, through the overflow pipeline, discharge to the floor drain.

Hot air blowing station: The bottle comes out of the water fine washing station and enters the hot air blowing station. The hot air blowing station adopts the company's unique air heating technology, and uses the hot air to blow the water attached to the outside wall of the bottle. The air nozzle adopts a unique shape design, which can blow the water on the outer wall of the bottle in an all-round and multi-angle.

Compressed air blowing station: the bottle from the transition bottle tray is transferred to the bottle out of the bottle pan, into the compressed air blowing station, compressed air uses clean compressed air to blow the water attached to the outside wall of the bottle and the bottom of the bottle. The air nozzle has a unique shape design, which can blow the water from the outer wall and the bottom of the bottle in an all-round way.

Bottle out process: The bottle is completed by air blowing and sent to the cleaning machine through the bottle out track. Can be connected to the next process.

技术参数 TECHNICAL PARAMETER

设备型号:YY-PWQX
稳定生产速度:600瓶/分钟
总功率:7.2Kw 380V/50HZ380V/50HZ三相五线 (根据客户需求不同,水加热可以关闭)
压缩空气:0.6Mpa 700L/min
纯水:0.2~0.3 Mpa 1000L/h
重量:1500Kg

Equipment model :YY-PWQX
Stable production speed :600 bottles/min
Total power :7.2Kw 380V/50HZ380V/50HZ three-phase five-wire (Depending on customer needs, water heating can be turned off)
Compressed air :0.6Mpa 700L/min
Pure water :0.2~ 0.3Mpa 1000L/h
Weight :1500Kg



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