

成功 客户的成功才是我们真正的

K2TECH 机器视觉

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K2TECH

杭州乔戈里科技有限公司

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K2 TECH
杭州乔戈里科技有限公司



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公司简介

客户的成功才是我们真正的成功

乔戈里，又名 K2，世界第二高峰但却是世界最难攀登的山峰。乔戈里科技以“创造改变生活”为宗旨，以研发高端智能工业自动化设备为目标，专注致力于机器视觉这一高新技术的研发、推广、普及及应用，是国内屈指可数的集研发、生产、销售、服务于一体的机器视觉设备制造商和机器视觉系统集成商之一。

自成立以来，公司已成功研发完成了多个行业的机器视觉技术检测设备，为包括航天集团、航空集团、军工企业、多家大型上市公司、外资企业解决了制造或生产过程中的质量检测问题，技术处于国内行业领先水平。目前公司产品主要应用领域包括汽车零部件、医疗食品、大幅面产品、国防军工行业四大行业。



企业价值观

- 敢于创新惠及社会
- 以用户为中心
- 绝不偷工减料
- 追求合理利润
- 不进行商业行贿
- 每一位员工都是不可或缺的功臣

Company Introduction

Qogori, or K2, the second highest mountain yet the most difficult peak to conquer in the world, is the origin of our company name. Holding to the concept of “Innovation changes life” , Qogori Technology Company aims to develop high-end intelligent industrial automation devices. We focus on R&D, promotion, popularization, and application of machine vision high-tech. As one of the few mechanized vision equipment manufacturers and system integration suppliers, our company integrates R&D, production, sales and service into one.

Since its foundation, with top technology domestically, our company has researched and developed optical automatic inspecting devices in many fields, which help multiple companies solve quality inspection problems in manufacturing or production, including Aerospace Science and Technology Corporation(CASC) , Aviation Industry Corporation of China (AVIC), military industry enterprises, several large listing corporations and foreign companies. At present, our company products mainly target the industry of auto parts, medical food, large-area appearance and national defense.

Corporate Values

- Be innovative and do good to society
- Customers first
- No cheat in labor or materials
- Reasonable profit
- No bribery
- No member is dispensable

The success of our business depends ultimately on the success of our customer's business

公司资质 Company Qualifications

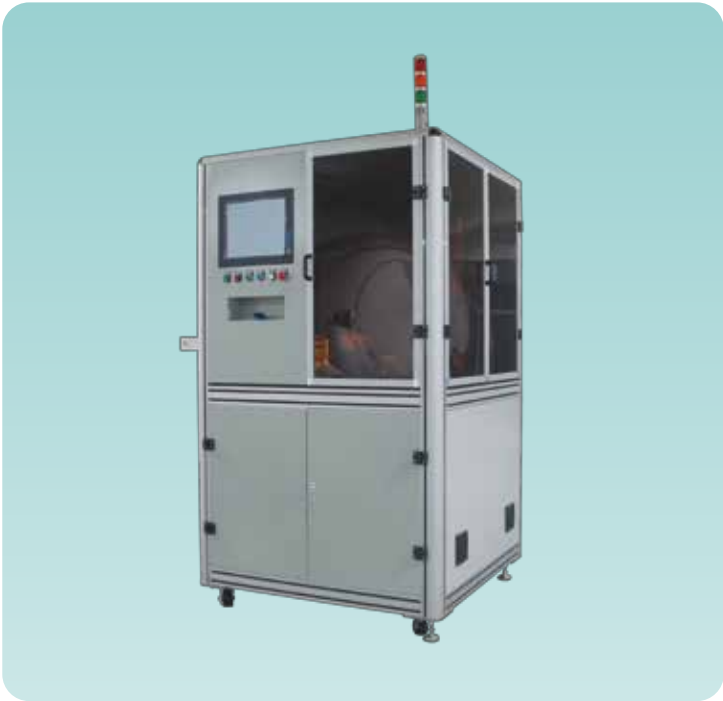
- 国家重点支持高新技术企业
 - 软件企业
 - 浙江省科技型中小企业
 - 杭州市高新技术企业
 - 杭州市科技型中小企业
 - 杭州市“雏鹰计划”企业
- National Key High-tech Enterprise
 - Software Enterprise
 - Small and Medium Sized Sci-tech Enterprise in Zhejiang Province
 - High-tech Enterprise in Hangzhou City
 - Small and Medium Sized Sci-tech Enterprise in Hangzhou City
 - Eyas Plan Enterprise in Hangzhou City



部分客户名单 Parts of Customer List



汽车零部件外观缺陷光学自动检测机



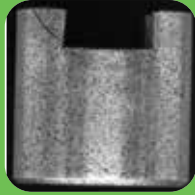
汽车零部件外观缺陷光学自动检测机最大检测速度达 10000 工件 / 小时，相当 2-4 个熟练工同时工作。该设备可快速完成工件翻转，从而实现工件正反面快速检测；该设备可采取多种上料方式，可在不同型号的工件检测之间快速切换，一台设备能够满足多种类型工件的检测，解决了同类产品一台设备只能检测一种类型工件的难题。

Optical Automatic Inspection Machine for Auto Parts Appearance Defects

Optical Automatic Inspecting Machine for Auto Parts Appearance Defects, works at a high efficiency as 10000pcs/hr, that equal to the manual labor of 2 to 4 skilled workers simultaneously. This device is able to fast rotate workpiece for front and back inspection, and it provides multi feeding methods. Moreover, it is able to quick switch for different workpiece models, that is to say multi-model device, which solve problem one-model-only device services one model workpiece.

技术指标 Technical Specifications

检测项目 Inspection Items			
上下端面的崩损、端面伤、错位、裂纹，侧面的裂纹及投影面的外观缺陷等。 Both ends of surface chip, damage, dislocation, crack, side crack, plane of projection etc.			
检测范围 Inspection Range	直径 5~35mm 厚度 5~15mm Ø 5~35mm H 5~15mm	检测要求 Requirements	工件表面干净,无油污 Clean workpiece, grease free
光学分辨率 Optical Resolution	0.03 毫米 0.03mm	平均无故障时间 Mean Time to Failure	10000 小时 10000hrs
检测速度 Efficiency	玻璃圆盘—10000 工件 / 小时 传输带—3600 工件 / 小时 Glass Disk-10000pcs/hr Belt-3600pcs/hr.	设备电源 Voltage	220 伏,50 赫兹 220V, 50HZ
功率 Power	2000 瓦 2000W	设备气源 Air Pressure	0.5 ~ 0.8 兆帕 0.5 ~ 0.8MPa
尺寸 / 重量 Dimension/Weight	1.2 米 × 1.2 米 × 1.8 米 / 200 千克 1.2m×1.2m×1.8m /200kg	系统工作环境 Work Environment	温度 5℃到 30℃; 湿度小于 70 Ambient Temperature 5℃to30℃; Humidity less than 70
其它特性 Other Characteristics		1、实时显示检测状态及 NG 品数量报警。 2、设备软件具有远程技术支持功能。 1. Real-time detection status, and quantity of NG products warning. 2. Device software supports remote debugging.	



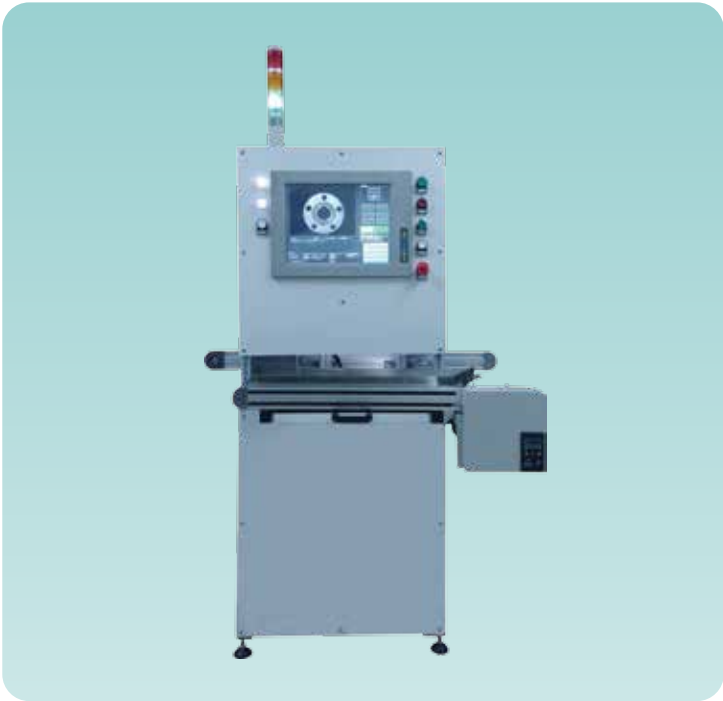
尺寸测量
Dimensional measurement

倒角
Bevel

外侧圆周及内倒角测量
Measurement
circumference of outer ring
& inner bevel

裂痕
Rip

全自动机器视觉在线检测设备



全自动机器视觉在线检测设备用于检测粉末冶金、精密陶瓷、精密冲压件、电子元器件、汽车零部件等外观缺陷检测，是用于生产线上的实时检测设备。该设备在检测过程中可实时显示被测工件的外观缺陷及设备检测状态，具有缺料自动报警等功能。该设备还可以根据客户具体需求扩展至双工位及多工位检测，适应性较好。

Visual Automatic Online Inspecting Machine for Appearance Defects

Visual Automatic Online Inspecting Machine for Appearance Defects is used for real-time inspection of appearance defects on powder metallurgy, precise porcelain, precise stamping parts and electronic components, auto spare parts, etc. The device displays appearance defects of workpiece and inspection status in real time, and gives warning for input material shortage. It also allows expansion to double-item inspection and multi-item inspection to meet individual customer needs.

技术指标 Technical Specifications

检测项目 Inspection Items			
缺料、崩损、凹坑、划痕、压伤、磕碰、标识不清错误、磨削不均、错位、漏序、孔内多料、废料、磨糊、生锈、内孔大小等。 Shortage material, chip, pit, scratch, crush, crash, mistake on recognition, grinding uneven, dislocation, missed procedure, more material in hole, wastage, grinding burnt, rusty, endoporus size.			
检测范围 Inspection Range	直径 50~300mm 厚度 5~30mm Ø 50~300mm H 5~30mm	检测要求 Requirements	工件表面干净,无油污 Clean workpiece, grease free
光学分辨率 Optical Resolution	0.05 毫米 0.05mm	平均无故障时间 Mean Time to Failure	10000小时 10000hrs
检测速度 Efficiency	3600~7200 个 / 小时 3600~7200pcs/hr	设备电源 Voltage	220 伏,50 赫兹 220V,50HZ
功率 Power	2000 瓦 2000W	设备气源 Air Pressure	0.5 ~ 0.8 兆帕 0.5 ~ 0.8MPa
尺寸/重量 Dimension/Weight	1.2米×0.9米×1.5米 / 100千克 1.2m×0.9m×1.5m /100kg	系统工作环境 Work Environment	温度 5℃到 30℃; 湿度小于 70 Ambient Temperature 5℃to30℃; Humidity less than 70
设备功能 Function	可实现多种型号工件的外观缺陷检测，可扩展为多工位，对工件进行多面检测。 Device is able to inspect more different models of workpiece, which allows expansion to multiple-item inspection to meet multiaspect inspection.		
其它特性 Other Characteristics		1、实时显示检测状态及NG品数量报警。 2、设备软件具有远程技术支持功能。 1. Real-time detection status on display, and quantity of NG products warning. 2. Device software supports remote debugging.	



外观缺陷检测机器人



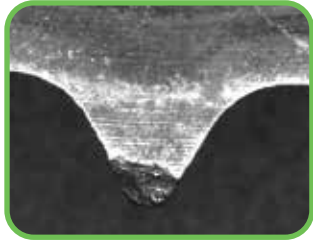
外观缺陷检测机器人用于检测汽车零部件、磁性材料、粉末冶金件、精密陶瓷件、电子元器件等工业零配件中大尺寸工件的外观缺陷、识别工件上的字符并自动分拣。所检测外观缺陷包括崩损、少齿、气孔、沙眼、裂纹等；可识别英文和阿拉伯数字等字符。该设备采用了工业机械手，相对于传统机构的检测设备可检测更多不同型号的工件，灵活性和适应性较好。

Inspecting Robot for Appearance Defects

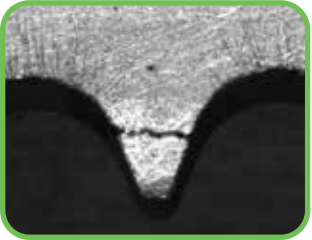
Inspecting Robot for Appearance Defects is used on middle-and-large sized industrial spare parts, including auto spare parts, magnetic material, powder metallurgy parts, precision ceramic parts, electronic components etc, for appearance defects. It can also distinguish markings on workpieces while sorting automatically. Appearance defects include chip, teeth shortage, stoma, tiny hole, crack etc. Moreover, English letters and Arabic numbers are readable. An industrial robotic arm is employed in the device, which compared to devices with traditional mechanical structure, our device is able to inspect more different models of workpiece to increase flexibility and adaptability.

技术指标 Technical Specifications

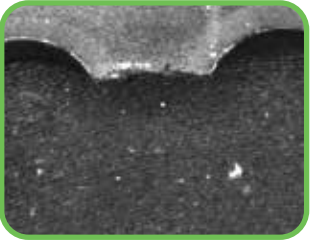
检测项目 Inspection Items			
崩损、少齿、气孔、沙眼、裂纹、字符。 Chip,teeth shortage,stoma,tiny hole,crack,character.			
检测范围 Inspection Range	Ø 75-115mm,工件高度范围 H5~40mm; 字符不小于七号字。 Ø 75-115mm,workpiece height at H5~40mm; Character size not less than 5.5.	检测要求 Requirements	工件表面干净,无油污 Clean workpiece, grease free
光学分辨率 Optical Resolution	0.05 毫米 0.05mm	检测精度 Detection Accuracy	0.3 毫米 0.3 mm
检测速度 Efficiency	600 个 / 小时 600pcs/hr	平均无故障时间 Mean Time to Failure	10000小时 10000hrs
功率 Power	4000 瓦 4000W	设备电源 Voltage	220 伏,50 赫兹 220V,50HZ
尺寸/重量 Dimension/Weight	2米×1.8米×1.8米 / 300千克 2m×1.8m×1.8m /300kg	设备气源 Air Pressure	0.5 ~ 0.8 兆帕 0.5 ~ 0.8MPa
设备功能 Function	实现大齿轮缺陷、字符识别并分拣 Realize defects and character of big gears are distinguished and sorted.	系统工作环境 Work Environment	温度 5℃到 30℃; 湿度小于 70 Ambient Temperature 5℃to30℃; Humidity less than 70
其它特性 Other Characteristics			
实现工件缺陷检测、字符识别并分拣。 Realize defects and character of workpiece are inspected, distinguished and sorted.			



崩损
Chip



裂纹
Crack



缺齿
Shortage teeth



混料
Mixed material



表面凹坑
Appearance pit



漏淬火
Non- quenching

齿轮外观缺陷光学自动检测机



齿轮外观缺陷光学自动检测机专用于小尺寸的齿轮、斜齿等的外观缺陷检测和尺寸测量。经过客户多年使用验证,该设备性能可靠,操作便捷。操作人员只需将待测齿轮放入振动盘内,系统即可自行分检,操作简单,自动化程度高。该设备可根据客户要求增加储料仓,储存大批量工件,当振动盘缺料时,料仓会自动下料到一定位置,减少工件的加料频率。

Optical Automatic Inspecting Machine for Gear Appearance Defects

Optical Automatic Inspecting Machine for Gear Appearance Defects is exclusively used for appearance defects and dimensional measurement of small gears, helical gear, etc. Verified by years of customer use, the device is reliable and easy to operate. Operators only require to put gears into the shaking disk, and the system will sort automatically. Storage silo can be added if in need, so that large quantities of gears can be put in store to reduce feeding frequency, because the storage silo will supply material to particular position automatically.

技术指标 Technical Specifications

检测项目 Inspection Items			
裂缝、崩角、缺齿、毛刺、粘粉、尺寸测量等。 Crack, chip,teeth shortage, burr, powder stucked, dimensional measurement etc.			
检测范围 Inspection Range	直径 10~30mm 厚度 5~15mm Ø 10~30mm H 5~15mm	检测要求 Requirements	工件表面干净,无油污 Clean workpiece, grease free
光学分辨率 Optical Resolution	0.05 毫米 0.05mm	平均无故障时间 Mean Time to Failure	10000 小时 10000hrs
检测速度 Efficiency	3600~7200 个 / 小时 3600~7200pcs/hr	设备电源 Voltage	220 伏,50 赫兹 220V,50HZ
功率 Power	2000 瓦 2000W	设备气源 Air Pressure	0.5 ~ 0.8 兆帕 0.5 ~ 0.8MPa
尺寸 / 重量 Dimension/Weight	2 米 × 0.8 米 × 1.5 米 / 150 千克 2m × 0.8m × 1.5m /150kg	系统工作环境 Work Environment	温度 5℃到 30℃; 湿度小于 70 Ambient Temperature 5℃to30℃; Humidity less than 70
其它特性 Other Characteristics			
实时显示检测状态及 NG 品数量报警、缺料报警,支持远程调试。 Real-time detection status on display, and quantity of NG products warning, shortage material warning, supports remote debugging.			



粘粉 / Powder stucked

毛刺 / Burr

崩损 / Chip

裂纹 / Crack

滚子外观缺陷光学自动检测机



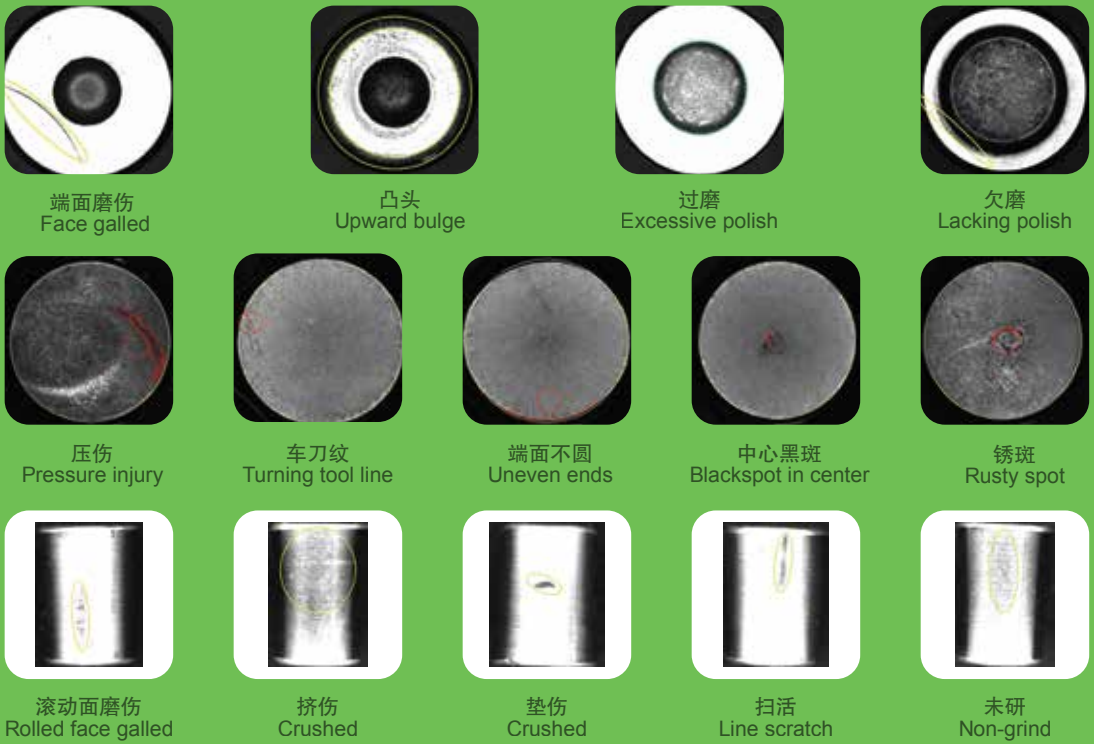
滚子外观缺陷光学自动检测机用于滚子外圆 360 度和两端外观缺陷的检测，并对 NG 品进行自动分拣。该设备采用自有专利技术，突破了 360 度检测和检测速度之间的矛盾，做到了 360 度检测的速度为 10000 件 / 小时。同时结合我公司多年的光学缺陷检测领域的经验和技術，在检测的准确性和稳定性方面可以做到领先同行的水平。

Optical Automatic Inspecting Machine for Roller Appearance Defects

Optical Automatic Inspecting Machine for Roller Appearance Defects realizes all-round 360 degree inspections, covering both ends of roller, and automatic sorting of NG products. The device, developed on our company' s patented technology, solves the conflict between efficiency and 360 degree inspection, and achieves high efficiency as 10000pcs/hr. With advanced technology and years of experience in optical defects inspection field, our company manage to achieve top level accuracy and stability in China.

技术指标 Technical Specifications

检测项目 Inspection Items			
外圆外观缺陷：滚动面磨伤、挤伤、垫伤、扫活、漏序、未研等缺陷 Cylindrical surface defect: rolled face galled, crushed, pressed, line scratch, missed procedure, non-grind and so on.		两端端面外观缺陷：端面磨伤、凸头、过磨、欠磨等缺陷 Both ends surface defect: face galled, upward bulge, excessive polish, lacking polish and so on.	
检测范围 Inspection Range	Ø 5~30mm L 10~50mm (需分档检测) (shifting detection required)	检测要求 Requirements	工件表面干净,无油污 Clean workpiece, grease free
光学分辨率 Optical Resolution	0.05 毫米 0.05mm	平均无故障时间 Mean Time to Failure	10000小时 10000hrs
检测速度 Efficiency	10000 粒 / 小时 10000pcs/hr	设备电源 Voltage	220 伏,50 赫兹 220V,50HZ
功率 Power	2000 瓦 2000W	设备气源 Air Pressure	0.5 ~ 0.8 兆帕 0.5 ~ 0.8MPa
尺寸/重量 Dimension/Weight	1.8米×0.8米×1.5米 / 200千克 1.8m×0.8m×1.5m /200kg	系统工作环境 Work Environment	温度 5℃到 30℃; 湿度小于 70 Ambient Temperature 5℃to30℃; Humidity less than 70
其它特性 Other Characteristics		1、实时显示检测状态及NG品数量报警。 2、设备软件具有远程技术支持功能。 1. Real-time detection status on display, and quantity of NG products warning. 2. Device software supports remote debugging.	



软胶囊外观缺陷光学自动检测机



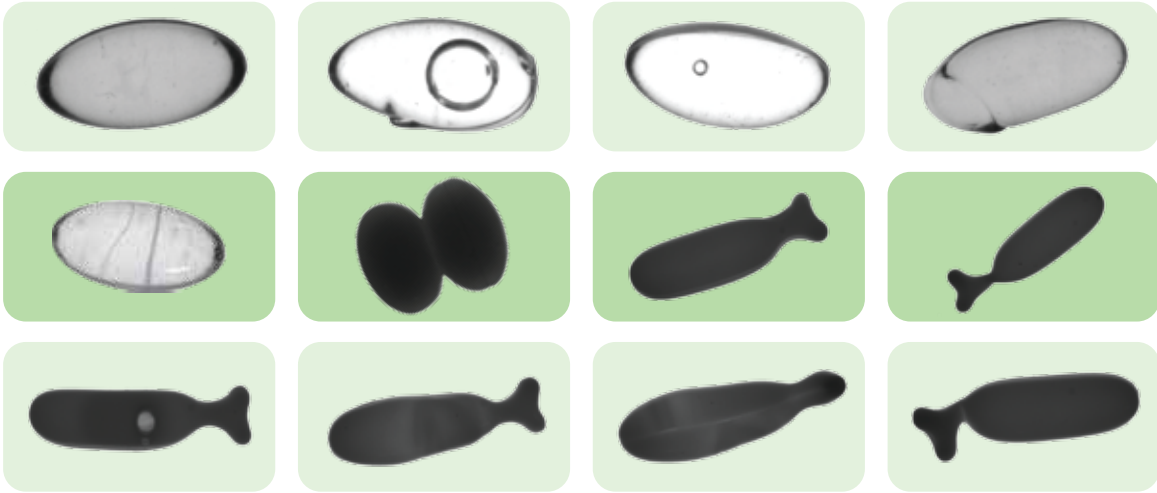
- 设备用于检测橄榄型软胶囊的异形、尺寸超差、气泡、黑点 / 异物、破损 / 破洞、接缝不齐等缺陷。
- 自动上料、排序、拍照检测和 NG 品分拣；
- 有缺料报警、异常报警、按箱计数报警停止等；
- 采用最新嵌入式无风扇工业计算机，体积小，消除因环境因素造成的计算机死机故障；
- 影像系统和传动系统电气隔离，并采取电气双保险，以保证精密元器件不受损坏；
- 操作界面采用工业触摸屏，操作简易，降低了对工人文化水平的要求。
- 采用进口气动元件，气动元件寿命是国产的三倍。
- 能够 24 小时连续生产且噪声小于 65 分贝。

Optical Automatic Inspecting Machine for Soft Capsule Appearance Defects

- Used for inspecting defects of oval-shaped soft capsules for deformations, unqualified sizes, bubbles, black spots/foreign bodies, oil leakage, oil penetration, damage/holes, mixed colors, bad seams etc.
- Automatic feeding, ordering, inspection photographing, and NG products sorting.
- Material shortage warning, abnormal conditions warning, to stop counting boxes warning.
- Small embedded fan-less computer is employed to overcome system crash problems caused by environmental factors.
- Image system and drive system are separated with double layers electrical protection in order to prevent delicate components from being damage.
- User friendly industrial touch screen interface is adopted for easy operation, and no demand on operators' educational level.
- Reliable imported pneumatic components are used, and the service life is three times longer than local counterpart.
- Able to run 24 hours constantly and maintain low noise level (less than 65dB).

技术指标 Technical Specifications

检测项目 Inspection Items			
异形、尺寸超差、气泡、黑点/异物、漏油、渗油、破损/破洞、混色、接缝不齐等缺陷。 Defects of deformations, unqualified sizes, bubbles, black spots/foreign bodies, oil leakage, oil penetration, damage/holes, mixed colors, bad seams, etc.			
检测尺寸 Inspection Dimension	橄榄型软胶囊：直径 7 ~ 10mm, 长度 12 ~ 15mm Oval soft capsule: Diameter: 7 ~ 10 mm, Length: 12 ~ 15 mm		
模具规格 Mould Specification	模具孔的适应范围为：直径 ±1mm，长度 ±1.5mm Range for the mould holes:Diameter: ±1mm, Length: ±1.5mm		
检测精度 Detection Accuracy	尺寸测量精度 Measurement Precision	±0.1mm ±0.1mm	斑点和气泡最小检测尺寸 0.2x0.2mm Minimal size for spots and bubbles 0.2x0.2mm
光学分辨率 Optical Resolution	0.05 毫米 0.05mm	平均无故障时间 Mean Time to Failure	10000小时 10000hrs
检测速度 Efficiency	≥9万粒/小时 ≥90000pcs/hr	设备电源 Voltage	220 伏, 50 赫兹 220V, 50HZ
功率 Power	2000 瓦 2000W	设备气源 Air Pressure	0.5 ~ 0.8 兆帕 0.5 ~ 0.8MPa
尺寸/重量 Dimension/Weight	2米 × 1米 × 2米 / 150千克 2 m×1 m×2 m / 150kg	系统工作环境 Work Environment	温度 5℃到 30℃; 湿度小于 70 Ambient Temperature 5℃to30℃; Humidity less than 70



硬胶囊外观缺陷光学自动检测机



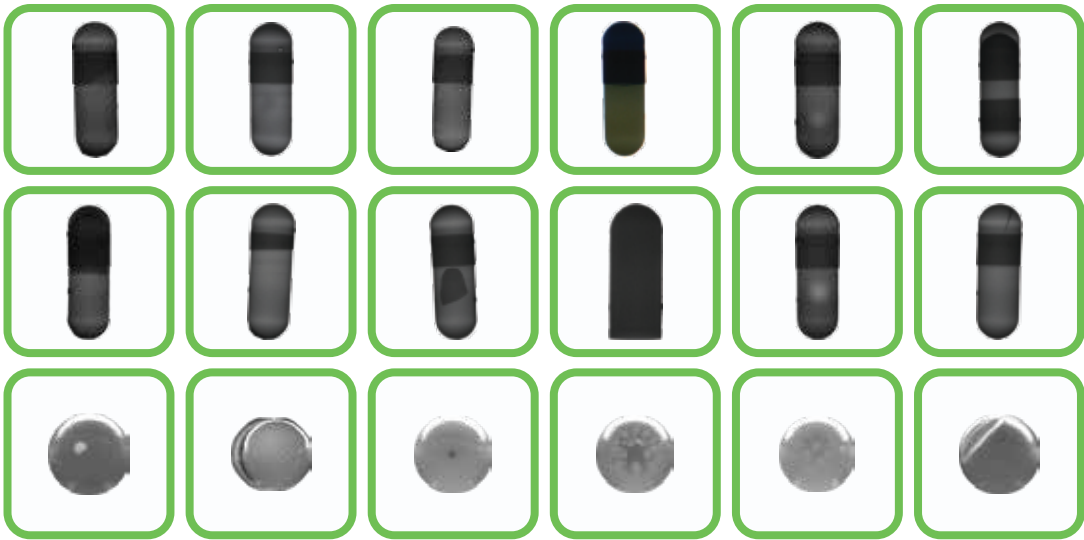
- 可实现胶囊 360 度全检，包括胶囊两头，无盲区，准确率高。
- 可实现透明胶囊、半透明胶囊、有色胶囊、植物胶囊等所有检测。
- 可实现检测标准分级，客户自行选择胶囊缺陷检测标准以适应不同质量要求。
- 操作界面采用工业触摸屏，操作简易，降低了对工人文化水平的要求。
- 采用进口气动元件，气动元件寿命是国产的三倍。
- 采用最新嵌入式无风扇工业计算机，体积小，消除因环境因素造成的计算机死机故障；
- 影像系统和传动系统电气隔离，并采取电气双保险，以保证精密元器件不受损坏；
- 能够 24 小时连续生产且噪声小于 65 分贝，机身温度保持常温。

Optical Automatic Inspecting Machine for Hard Capsule Appearance Defects

- Distinctive features of 360 degree all-round inspection, covering both ends of capsule, with high accuracy.
- Applicable to transparent capsules, semi-transparent capsules, color capsules, and plant capsules.
- Changeable inspection standards to suit individual customer quality need.
- User friendly industrial touch screen interface is adopted for easy operation.
- Reliable imported pneumatic components are used, and the service life is three times longer than local counterpart.
- Small embedded fan-less computer is employed to overcome system crash problems caused by environmental factors.
- Image system and drive system are separated with double layers electrical protection in order to prevent delicate components from being damage.
- Able to run 24 hours constantly and maintain low noise level (less than 65dB).

技术指标 Technical Specifications

检测项目 Inspection Items			
黑斑、气泡、破口、破洞、裂缝、切丝、双套、帽短、帽长、短体、长体、内部异物、厚薄不均、单片、生胶、混丝、皱皮、梅花头、顶凹、变形、混色等。 Black spots, bubbles, breach, holes, crack, shred, double cap, short cap, long cap, short body, long body, foreign bodies inside, uneven thickness, single piece, crude rubber, thread mixed, crinkled leather, star pattern, pitted top, deformation, etc.			
检测规格 Detection Specifications	00#、0#、1#、2#、3#、4#		
检测精度 Detection Accuracy	0.05 毫米 0.05mm	平均无故障时间 Mean Time to Failure	10000小时 10000hrs
检测速度 Efficiency	≥10万粒/小时 ≥100000pcs/hr	设备电源 Voltage	220 伏, 50 赫兹 220V, 50HZ
功率 Power	2000 瓦 2000W	设备气源 Air Pressure	0.5 ~ 0.8 兆帕 0.5 ~ 0.8MPa
尺寸/重量 Dimension/Weight	1.8米×0.8米×1.5米 / 200千克 1.8m×0.8m×1.5m / 150kg	系统工作环境 Work Environment	温度 5℃到 30℃; 湿度小于 70 Ambient Temperature 5℃to30℃; Humidity less than 70
设备功能 Function	实现多种型号工件的外观缺陷检测。 Able to perform appearance detection for different workpiece models.		
其它特性 Other Characteristics	实时显示胶囊外观质量和检测状态，设备故障、缺料自动报警，且支持远程调试。 1. The device displays appearance quality of capsule and inspection status in real time. 2. Warning for device failure and input material shortage. 3. Support remote debugging.		



成功案例 Successful Case



工件图 Work Drawing

