CI5S型全自动空心胶囊检验机

Inspection Machine Model CI5S

For Fully CCD Auto Inspection Of Empty Capsules

苏州新能力制药机械有限公司
Suzhou Sunny Pharmaceutical Machinery Co., Ltd

中国●江苏省苏州市吴中区木渎木舜东路18号
金桥工业园25工业区2号厂房
No.2 Plant bldg, Sector-25 Jinqiao in dustrial park,No.18
Muxu road east,Mudu,Wuzhong district,Suzhou, Jiangsu,China

电话(Tel):86-512-65986563
传真(Fax):86-512-65982563
Email:sales@sunnypm.com
Http://www.sunnyPM.com

工作原理 Working Principle:

投入到贮料器中的胶囊自动振动下料进入胶囊定向轮系统，通过胶囊定向轮系统可以准确地将胶囊的体和帽排列整齐后落到不锈钢的输送链板上，输送链板将胶囊一边360度旋转一边前进输送到检查区域。第一检查区域的1台高精度彩色CCD相机，检查胶囊的表面颜色差异、色斑、皱褶、体帽套合部的缺陷。第二检查区域的2台高精度黑白CCD相机多次重复检查胶囊的表面、内部和体帽套合部的缺陷。第三检查区域的2台高精度彩色CCD相机检查胶囊的颜色差异和体帽端部的各种缺陷。通过高速工业电脑对拍摄的图像进行处理后，被判断不合格的胶囊，在拣选单元被准确地自动剔除。

Capsules are put into the hopper above and fed down through rectification roller system. The rectification rollers make capsules put on carrier bar in order with cap upward and body downward or vice versa. The carrier bar conveys capsules to inspection sections and simultaneously the capsules are continuously rotating on carrier bar. In 1st inspection section one high precision color CCD camera is installed to inspect the defects of color difference, color specks, folds and the defects in overlapped areas of cap and body. In 2nd inspection section two high precision black and white CCD cameras are installed to repeatedly carry out 360-degree inspection of capsules, so that the defects of capsule appearance, inner parts and overlapped areas of cap and body can be easily detected. In 3rd inspection section two color CCD cameras inspect defects of color difference and the ends of cap and body. Then industrial computer processes all images taken by CCD cameras and identifies defective capsules according to pre-set parameters which are automatically and accurately rejected in rejection section.

第一、二检查区域, 全面检查胶囊表面及内部的缺陷和长度尺寸.

The defects on outer appearance and inner side of capsule will be inspected in 1st and 2nd inspection sections and at the same time defects relating to cap length, body length and total length are also inspected.

第三检查区域, 全面检查胶囊混色，体帽头部的缺陷.

The defects on two ends of capsule and foreign color capsule will be thoroughly inspected in 3rd inspection section.

功能及特点 Functions & Features:

1. 先进的图像处理算法，设计原理上没有误判的产生。80um以上的毛发、气泡和污点、胶囊帽、体边部的微小缺陷、体、帽长度和胶囊结合后总长度的尺寸差异。
2. 离线检查软件功能强大，客户可以独立针对各种缺陷自行设置要求的检查参数，符合质量控制要求。
3. 先进的特制光源不仅可以完全分辨深色且钛白粉重的胶囊内部缺陷，而且可以检查透明胶囊。
4. 采用多台CCD多次各象限的重叠检测，漏检率极低。
5. 图像软件操作简单，历史参数及各种数据的记录存档及调用便于对下批次同样胶囊的检查
6. 高速工业电脑数据处理系统及指令系统，保证发现的缺陷胶囊被准确剔除。
7. 新一代的CI5S全自动胶囊检验机可以检测各种颜色不透明胶囊，全透明胶囊，植物胶囊和半透明胶囊（帽体分别为透明和不透明）,功能更全面，达到真正的全方位检测。

1. Powerful image and data processing software can ensure high accuracy inspection. Error detection is avoided theoretically. It can detect hair, bubble and dirt with size more than 80 microns. It can also detect tiny smudges in side areas, the defects of body length, cap length and total length.
2. The intelligent off-line software allows the machine to inspect and sort capsules based on customer-set criteria, which is more compatible with the quality control requirements.
3. Advanced high-penetration light source combined with high performance CCD cameras can ensure that tiny defects in deep color capsule and the capsule with too much titanium oxide can be clearly inspected and also transparent capsule can be inspected.
4. The inspection machine adopts several CCD cameras and multi-quadrant overlap inspection method which simultaneously takes images. The missing rate is very low which is fully up to the requirements of the production process.
5. The operation of image software is easy. Parameters can be stored in memory for quick and easy retrieval.
6. Industrial computer data processing system combined with advanced encoder can ensure that defective capsules can be accurately rejected.
7. New type automatic capsule inspection machine Model CI5S is much more efficient and functional than previous capsule inspection machines. CI5S can inspect various opaque gelatin capsules, transparent gelatin capsules, vegetable capsules and translucent gelatin capsules (transparent cap and translucent body or vice versa).

主要技术参数 Main Technical Parameters

型号 Model:	CI5S
CCD照相机 CCD camera(s):	2只黑白, 3只彩色 2 black & white, 3 colorful
检查帽, 体头部 To inspect domes:	可以 CAN
产量 Capacity :	100,000粒/小时 100,000 pcs/hr
外形尺寸 Dimensions:	L2300 X W700 X H1600 mm
重量 Weight :	350KG
电源及功率 Voltage & power :	1ϕ220V 1KW

苏州新能力制药机械有限公司
Suzhou Sunny Pharmaceutical Machinery Co., Ltd
中国.江苏省苏州市吴中区木渎木胥东路18号金桥工业园25工业区2号厂房
No.2 plant bldg.,Sector-25 Jinqiao Industrial Park, No.18 Muxu Road East, Mudu, Wuzhong District, Suzhou, China
电话(Tel): 86-512-65986563
传真(Fax):86-512-65982563
Http://www.sunnyPM.com
E-mail:sales@sunnypm.com