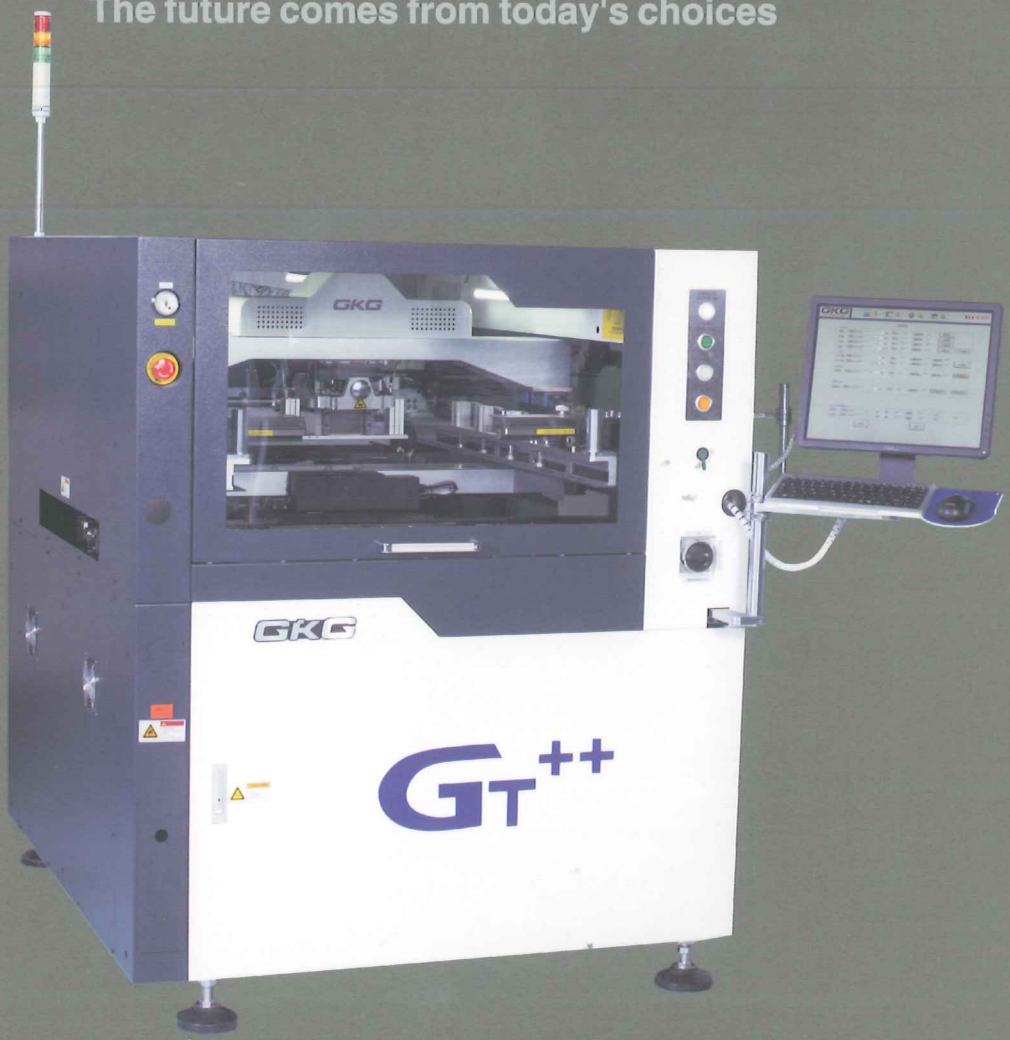
GT++

GKG

全自动锡膏印刷机
Fully Automatic Solder Paste Printer

未来，源自今天的选择
The future comes from today's choices

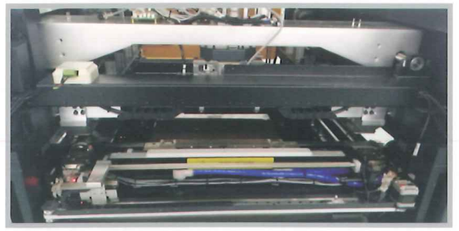


GT++ 全自动锡膏印刷机是一款针对于SMT高端应用领域的高端机型，GT++ BTB宽度仅2830mm，能完美满足03015，0.25pitch等细间距、高精度、高速度的印刷工艺要求。

GT++ automatic tin paste printing press is a high-end model for SMT high-end application , The width of GT++ BTB is only 2830 mm, which can satisfy the printing process requirements of 03015, 0.25 pitch, high precision and high speed.

GKG

标配功能介绍
Performance



滴淋式清洗系统
Drip cleaning system

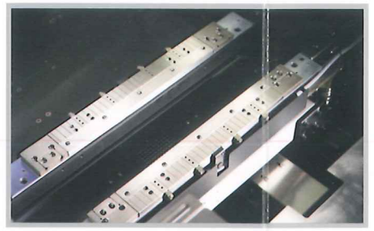
滴淋式清洗结构，有效预防溶剂管堵孔造成的局部无溶剂而引起的擦拭不干净。

Drip cleaning structure, effectively prevent the solvent tube blockage cause no solvent while cleaning and poor cleaning effect.

全新的刮刀结构设计
Total new squeegee blade structure design

通过滑轨与气缸新型刮刀结构，提高运行稳定性及延长使用寿命。

Through sliding rail and air cylinder new pattern squeegee blade structure, increase movement stability and prolonging the service life.



导轨定位系统
Guide Rail positioning System

国家实用新型发明专利。可拆卸，可编程的柔性侧夹装置，针对软板，翘曲形变之PCB，进行独特的顶部压平，通过软件编程，可自动伸缩，不影响锡厚。

New pattern patented guide rail can detachable, programmable flexible side clamp, specific to FPC, PCB warpage, perform a unique clamping plate device. Through software programming can automatically stretch out and draw back unaffected PCB thickness.

CCD数字相机系统
CCD digital camera system

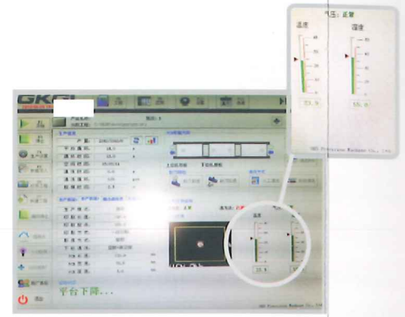
全新的光路系统--均匀的环形光和高亮度的同轴光，配以均可无极调节的亮度功能，使得各类型的Mark点均可很好的识别（包括凹凸不平的Mark点），适应镀锡，镀铜，镀金，喷锡，FPC等各类型不同颜色的PCB。

Total new optical path system, uniform circular light and high brightness of coaxial light source. With both light source system, brightness can adjust to an infinite loop, allowing different mark point can be easily recognize (including uneven mark point) such as tin plating, copper plating, silver plating, hot air soldering, FPC and various types of different PCB color.

高精度PCB厚度的调节顶升平台
High precision adjustable PCB thickness lift up platform

结构紧凑可靠，升降平稳，PIN针高度软件自动调节，可以精确的实现不同厚度的PCB板位置高度的调节。

Advance design, compact structure, high reliability, Smooth and stable lift up/down platform, pin height automatically adjust by software control. Precisely realize different types of PCB thickness position height adjust.



全新多功能界面
New multi-function interface

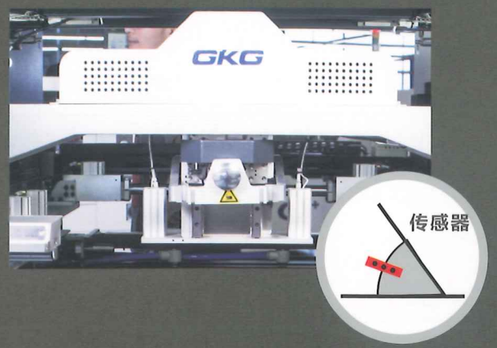
简洁，明了，便于操作。

Simplicity, Clearly understand, friendly user.

实时温湿度监控功能。

Actual temperature and humidity monitor function.

选项功能 Option



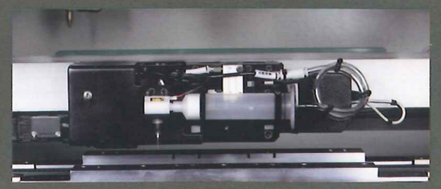
瓶式自动加锡及自动锡膏检测功能
Cylindrical type automatic add solder and solder paste inspection function

移动式自动加锡膏，保证锡膏品质及钢网中锡膏量。从而保证客户的印刷品质及提高生产率。

Mobile automatic add solder paste to ensure the quality of solder paste and the amount of solder paste in steel mesh. To ensure the quality and productivity of customers.

通过传感器，管理钢网上锡膏量，能够进行质量稳定且长时间连续印刷。提高生产率

precision sensor to manage amount of solder paste at stencil, be able to extend and continuous printing thus increase productivity



自动点胶系统
Automatic Dispensing System

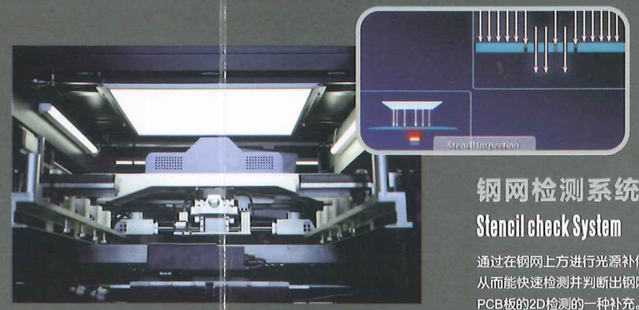
针对不同的印刷工艺要求，可在印刷完后，对PCB板进行准确的点胶、点锡、画线、填充等功能操作；同时点胶头上还配备有加热功能，可在环境温度较低时，对胶水进行加热，提高胶水的流动性。。

In view of the different printing requirement, dispensing through glue, solderpaste, dispense line, padding etc can be performed after the printing process. Dispensing head is equip with heating function to maintain glue viscosity with better flowability.

SPI联机
SPI On line

与SPI联机形成闭环系统，当收到SPI印刷不良的反馈信息后，机器会自动根据SPI反馈的偏移量自动进行调整，XY方向偏移可在3PCS内自动调整完成，并清洗钢网，提高印刷品质与生产效率，构成完整的印刷反馈系统。

With SPI close loop connection, when received SPI feedback on poor printing information, machine will automatic adjust per SPI data and correct. XY shifted auto adjust complete by within 3 pieces and clean stencil. This will improve printing quality and production efficiency. It form a complete printing feedback system.



钢网检测系统
Stencil check System

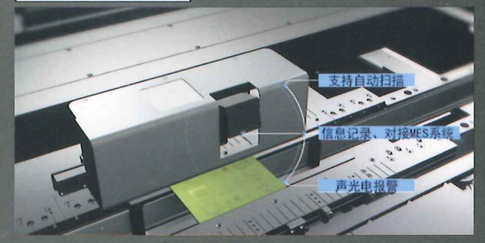
通过在钢网上方进行光源补偿，使用CCD对钢网的网孔进行实时检查，从而能快速检测并判断出钢网清洗后是否堵孔，并进行自动清洗，是对PCB板的2D检测的一种补充。

Through light source compensation at stencil and CCD real time inspection check on stencil holes which can rapidly detect, judge stencil after cleaning whether stencil holes is been block and auto clean. Is complement for PCB 2D inspection.

引领工业4.0的兼容性
4.0 the compatibility of leading industry

通过对机器状态，参数的自动上传或输出，为客户工业4.0智能生产提供强有力的保障。可实现与客户MES系统的无缝对接，实现产品的高度可追溯性；智能管控设备保养。
根据现场管理实现自行分配各层级工程人员使用权限。

Through to the machine status, parameters can be automatically upload or output support customer Industrial 4.0 intelligence production much more guarantee. With Industrial 4.0 it can seamless connection and realized with customer MES system, product traceability, intelligence control machine maintenance. Distribution according to the on-site management implementation engineers at the level of access.



BTB

双轨带来的两倍性能：
- 两台设备可保持单独控制，例如在每个轨道上运行不同的产品。
- 两台设备可随时再次分开。

Double track performance:
Two devices can be kept separately, such as running different products on each track.
The two devices can be separated at any time.

技术参数 / Specifications

基板处理 Substrate processing	GT++
最大基板尺寸（XxY） Maximum board size	510*510mm
最小基板尺寸（XxY） Minimum board size	50*50mm
基板厚度尺寸 Board thickness	0.4~6mm
最大基板重量 Maximum board weight	5Kg
基板边缘间隙 Board edge clearance	2.5mm
过板高度 Board height	23mm
传输高度 Transport height	900 ± 40mm
传输速度 Transport speed	分段控制，1500mm/s(Max) Program Control
传输方式 Transport direction	一段式运输导轨 One stage
基板夹持 Board clamp	自动伸缩式上压片 Patented over the top clamping
	柔性边夹 Side clamping
	真空吸附功能 Adsorption function
基板支撑方法 Support System	磁性顶针 Magnetic Pin
	等高块 Support Block
	自动调节顶升平台 Automatic Up-down table

影像 Vision	GT++
影像视域 CCD FOV	10*8mm
基准点类型 Fiducial mark types	标准形状基准点 Standard Fiducial mark shape
	焊盘 Pad
	开孔 Hole
摄像机系统 Camera System	上/下成像的视觉系统 Look up/down optics structure
	数字相机 CCDdigital camera
	几何匹配定位 Geometry pattern match

性能 Machine Performance	GT++
系统对准精度和重复精度 Repeat Position Accuracy	± 12.5um@6σ，CPK≥2.0
实际焊膏印置重复精度 Print Accuracy	± 18um@6σ，CPK≥2.0
基于第三方测试系统（德国CTQ）验证的实际焊膏印刷位置重复精度 Based on the third party test system(CTQ)Verify the actual solder paste printing position repeat precision	
印刷周期 Cycle time	<7.5sec (不包括印刷及清洗时间)

印刷参数 Printing Parameters	GT++
印刷脱模 Snap-off	0-20mm
印刷模式 Print Mode	单或双刮刀印刷 One/Twice
刮刀类型 queegee Type	胶刮刀/钢刮刀(角度45/55/60) Rubber/Steel Squeegee Blade(angle 45/55/60)
印刷速度 Print Speed	10~200mm/sec
印刷压力 Print Pressure	0.5~10Kg
框架尺寸 The template frame size	470*370mm~737*737mm
清洗方式 Cleaning System	滴淋式清洗系统 Drops of rain type cleaning system
	来回清洗 Back and forth cleaning
	干、湿、真空三种模式 Dry, Wet Vacuum three modes

设备 Machine paramter	GT++
功率要求 Power Source	AC:220 ± 10%,50/60HZ 3kw
压缩空气要求 Air Pressure	4~6 Kgf/cm²
耗气量 Air Consumption	约5L/min
工作环境温度 Operating Temperature	-20℃~+45℃
工作环境湿度 Operating Humidity	30%~60%
机器高度（去除三色灯） Machine dimension(without Tower light)	1500(H)mm
机器长度 Machine Length	1240(L)mm
机器宽度 Machine Width	1410(W)mm
机器重量 Machine WeightApprox：	Approx：约1100Kg

GKG保留对技术参数进行修改而不事先告知的权利。具体参数规格请向厂方咨询。
GKG reserves the right to modify technical parameters without prior notice. Please consult the factory for specific parameter specification.

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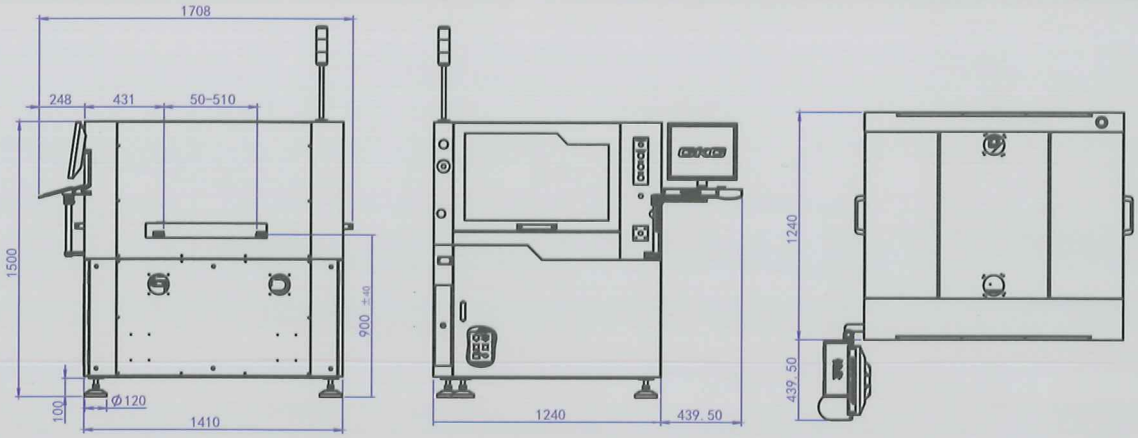
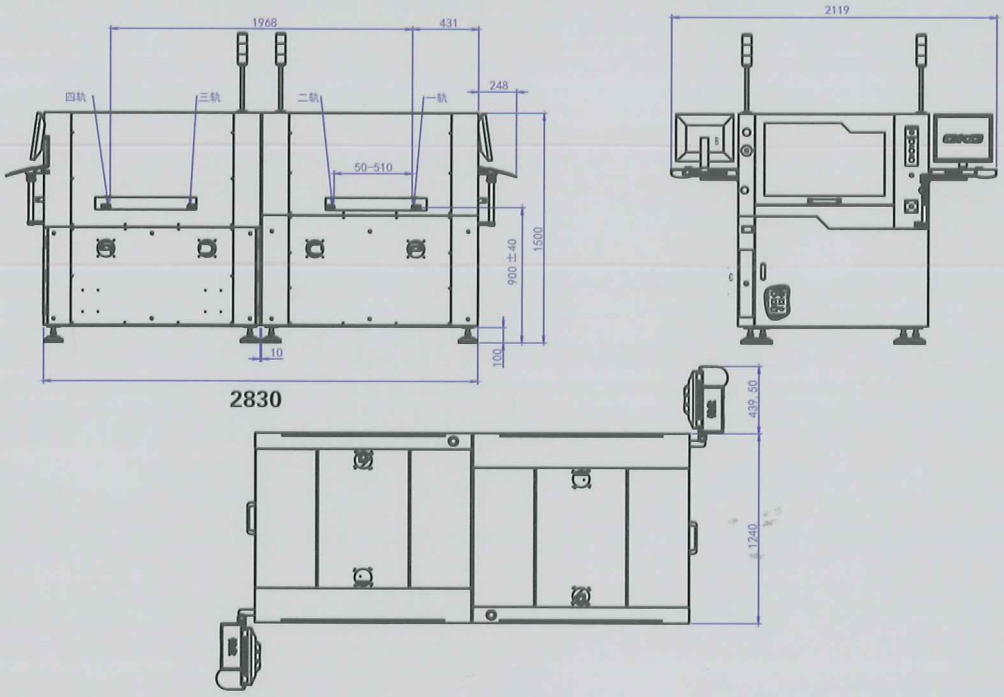
中国印制

本手册中的信息包含一般说明和/或性能特性，可能与所描述的具体产品不符，或可能随着技术发展进步发生变化。仅在达成协议的情况下，特定性能特性和/或功能才具有约束性。
The information contained in this manual contains general descriptions and performance characteristics that may be inconsistent with the product described, or may change with the development of technology. Specific performance characteristics and functions are binding only when an agreement is reached.

尺寸外观图 Dimensional appearance



BTB 尺寸外观图 Dimensional appearance



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