Navigator

DESEN ™ 德森精密 DESEN PRECISION

产品技术参数
Product technical parameters

	标准配置 Standard Configuration	规 格 Specification
	印刷精度 Machine Alignment Capability	≥2 Cpk@±25μm@,6σ
	重复印刷精度 Process Alignment Capability	≥2 Cpk@±10μm@,6σ
	循环时间 Cycle Time	7s
	最大可印刷面积 Maximum Print Area	510mm(X) x510mm(Y)
	网框尺寸 Screen Frame Size	470mm x 370mm~900mm x 900mm
	网框厚度 Screen Frame Thickness	25mm – 38mm
	印刷机框架 Printer Construction	整机一体成型框架 One piece optimized welded frame
	设备控制 Machine Control	四块运动控制卡控制 Four control motion control card
	操作系统 Operation System	Windows XP, 可选配Win7 Windows XP, Win7（option）
	操作界面 Operator Interface	17寸DELL显示屏、键盘和鼠标，DESEN V2软件，显示器放在右手边。 17 "DELL display screen, keyboard and mouse and DESEN V2 software, display on the right hand side.
	多功能图像处理系统 Multi function image process system	Mark点软件测量，二次定位，组件识别功能 Fiducial Mark software measurement,twice position,device identification function
	刮刀压力闭环反馈系统 Scraper pressure close loop feedback system	软件控制,气压及丝杆直连一体化闭环控制 Program control, air pressure and screw direct integration closed-loop control
	钢网自动定位模块 Automatic positioning module of stencil	钢网放入钢网支撑架中，刮刀头自动实现钢板定位 Put the stencil into the support frame,the squeegee automatically realizes the positioning of the stencil
	基板支撑定位系统 PCB support positioning system	支持等高块，支撑pin，支撑平台（平台靠近固定轨道边预留定位孔） Can use block, support pin, platform (platform close to the fixed track edge reserved for positioning holes)
	智能清洗系统 Intelligent cleaning system	多尺寸擦拭纸通用，擦拭纸耗量少，清洗剂控制模块 The diffrent size of wipe paper can be used ,less paper consumption,solvent agent control module
	设备接口 Machine Interface	SEMI Input/Output 4芯 国际标准接口 SEMI Input/Output 4 core international standard interface
	通讯接口 Connectivity	RJ-45LAN(网络)和USB2接口可用 RJ-45LAN(networking) and USB2 interface available
	三色智能LED警示灯 Three color intelligent LED warning light	可编程控制和声光报警 Programmable with audible alarm
	设备重量 Approximate Weight	1400kg含包装(设备本身+配置选项) 1400kg boxed (dependent upon configured options selected with machine) 1200kg不含包装(设备本身+配置选项) 1200kg unboxed (dependent upon configured options selected with machine)
	设备尺寸 Approximate Dimensions	1320（长）X1690（宽）X1525（高）mm 1320（L）X1690（W）X1525（H）mm
	说明书 Documentation	硬拷贝手册包括:Opeartor、安装和电气图纸。 技术手册和教程上支持操作符的功能。 Hard copy manuals comprising:Opeartor,Installation,and Electrical Drawings. On board technical manuals and tutorials supporting operator functions.
	高性能高精度平台 High performance and high precision platform	平台处理方式采用退火工艺+小刀快铣方式，减少平台内金属应力残留，长期使用后不易变形，精度保证。 The platform processing method adopts the annealing process and the knife quick milling method, and the residual of the metal stress in the platform is reduced.Easy deformation, precision assurance.

	智能传输系统 Transfer System	规 格 Specification
	皮带类型 Type	U型齿轮皮带,前轨道固定 U gear belt, front rail fixed
	ESD兼容性 ESD Compatibility	黑色运输皮带和导轨的表面电阻率＞110Ω Black transport belts and guides with surface resistivity of greater than 110 Ω
	宽度调整 Width Adjustment	程式可调后轨道移动 Programmable motorized rear rail
	运输方向 Transport Direction	L→R,L→L, R→L, R→R
	最小基板尺寸 Substrate Handling Size (minimum)	50mm (X) x 50mm (Y)
	最大基板尺寸 Substrate Handling Size (maximum)	510mm (X) x 510mm (Y)
	基板厚度 Substrate Thickness	0.4mm – 5 mm
	基板重量 Substrate Weight (maximum)	≤3kg
	基板翘曲量 Substrate Warpage	含基板厚度翘起7mm Up to 7mm including substrate thickness
	基板固定 Substrate Fixture	柔性侧夹，Z向薄片压板装置 Flexible side clamp, Z to the wafer clamp device
	基板下方净空高度 Substrate Underside Clearance	程式可调10mm→25mm Programmable 10mm to 25mm
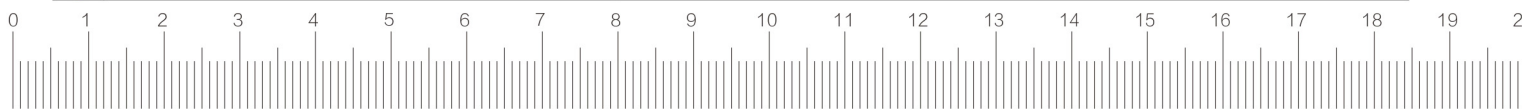
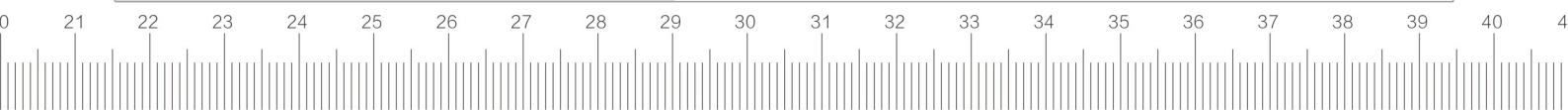| 电气配置及环境要求	规 格 Specification
电 压 Voltage	电压：220V，±10%，单相50/60Hz。 220Volts +/-10%.Single phase 50/60Hz
功 率 Power	3kw
过载保护 Over Current Protection	外部电路断路保护，≤25A An external circuit breaker ≤25 Amps is required to be fitted in line with the machine supply
气 源 Air Supply	参照ISO质量标准2.3.3，耗气量每分钟0.5L/min； To ISO standard quality class 2.3.3,Air Consumption0.5L/min
温 度 Temperature	25±3℃
湿 度 Humidity	相对湿度30%–70% 30%–70% relative humidity (non condensing)

认 证 Certification	规 格 Specification
CE	98/37/EC，89/336/EEC，73/23/EEC
噪音级 Acoustic Noise Level	小于87dB Less than 87dB

制程参数 Process Parameters	规 格 Specification
刮刀压力 Print Pressure	0kg – 10kg
印刷速度 Print Speed	6mm/sec – 200mm/sec
印刷间隙 Print Gap	0mm – 20mm
脱 模 Substrate Separation	脱模速度:0.1 – 20mm/s Speed:0.1mm/sec – 20mm/sec 脱模距离:0mm – 3mm Distance:0mm – 3mm
脱模方式 Separation option	先起刮刀再脱模，先脱模再起刮刀，保持预压力脱模（面脱模，线脱模） Separation after squeegee up; Squeegee up after separation; Separation by keeping squeegee on the stencil (Area Separation,Line Separation)
适用浆料 Apply paste option	锡膏，油墨，银浆 solder paste，printing ink, silver paste

识别系统 Vision	规 格 Specification
视觉系统 Vision System	Mark点软件测量，二次定位，组件识别功能 Fiducial Mark software measurement,twice position,device identification function
图像定位系统 Fiducial Recognition	自动对准示教，最小识别0.1毫米的基准点 Automatic fiducial teach and find incorporating 0.1mm fiducial capture
基准点数量 Fiducials	2个或4个mark基准点定位系统 Two or Four Fiducial Marks Alignment System
基准点类型 Fiducial Types	□ 方形，○ 圆形，△ 三角形，＋ 十字形，用户自定义类型 □ square，○ round，△ triangle，+ cross，user-defined types
基准点尺寸 Fiducial Size	0.1mm～3mm
基准点位置 Fiducial Locations	基板上任意位置 Anywhere on substrate
基准点位置补偿 Fiducial Error Recovery	自动光学调整 Auto lighting adjustment 基准点自动搜寻 Auto fiducial search
相机光源 Camera Lighting	手动调节 Manual adjustment

平台和清洗结构选项配置 Handing & Cleaner Options	规 格 Specification
最大平台尺寸 Substrate Handing Size(maximum)	长板选项—选项一：尺寸可增大至610*610mm，选项二：尺寸可增大至710*610mm 取像范围最大650*610mm Long board options-Option 1: Maximum extend to 610*610mm, Option 2: Maximum extend to 710*610mm. CCD scope Maximum 650*610mm
网板底部清洁 Under Stencil Cleaning	最大清洁尺寸滴淋式610mm, Largest clean drops drench type 610 mm size

软件与通信 Software & Communications	规 格 Specification
软件智能备份模块 Software intelligent backup module	数据库自动备份，软件升级后不丢失 Database automatic backup, software upgrade is not lost
保养预警功能 Maintenance early warning function	机台丝杆，滑块，电机等自动提示保养讯息 Machine wire rod, slide block, motor and other automatic maintenance message
印刷参数智能模块 printing parameter intelligent module	选择生产基板类型，自动给出最优的参数设置 Customer select the type of production,like FPC,LED,Phone PCB… the printer can give the parameter automatically.
锡膏自动回收系统 Recovery system of solder paste	定时或定次数软件控制刮刀将印刷行程外的锡膏回收到印刷行程中 The fixed frequency to recovery the solder paste into the printing area.
SPI联机 SPI close loop	与SPI联机形成闭环系统构成完整的印刷反馈系统。 Form a closed loop system with SPI on line,form a complete printing feedback system.

选项功能
Option Function

自动加锡功能
Automatic supply solder paste function

- 通用锡膏罐直接添加
  General solder paste pot add directly
- 可定时定次数添加
  Can decide timing times add
- 可实时监控网板上锡膏滚动直径，触发自动添加功能
  Can be real-time monitoring the roll diameter of the solder paste on screen,trigger automatically add functionality

锡膏量监测系统
The rest of solder paste on the stencil monitoring system

- 通过锡膏检测感应器检测前刮刀下方剩余锡膏滚动直径，智能提示客户加入锡膏。
  The solder paste inspection sensor before the scraper below remaining paste rolling diameter, intelligent prompt customers to join the solder paste.

UPS断电保护
UPS power off protection

- 断电后一定时间（15分钟）内PC可以保持供电，保护生产数据。并提供两通道功能:控制及直通。
  After power off a certain time (15 minutes) PC can keep the power supply, the protection of production data. And provides two channel functions: control and through

平台真空
Vacuum platform

- 印刷平台预留真空孔
  Vacuum hole for printing platform

条码识别功能
Bar code recognition function

- 可以扫描客户PCB板上的一维码或二维码，并将相关信息记录下来，与客户的MES系统对接。可同时满足两个扫描端口。
  1.固定式扫描
  2.手持式扫描
  3.自动扫描（支持印刷面有条码）
  Can scan one dimensional code or two-dimensional code on the customer PCB board, and record the relevant information, and the customer's MES system docking. Two scanning ports can be satisfied simultaneously.
  1.Fixed scan
  2.Hand-held scanning
  3.Automatic scanning (support for printing surface with bar code)

磁性刮刀
Magnetic scraper

- 磁性吸附刮刀片，取代螺孔定位方式，更换方便快捷
  The magnetic adsorption blade, replace the screw positioning, convenient and quick

智能温湿度控制系统
Intelligent temperature and humidity control system

- 顶置式温度可调，湿度可显控制系统；
  Temperature can be shown and adjustable on the up set system
- 外置式温湿度一体化恒温恒湿控制系统
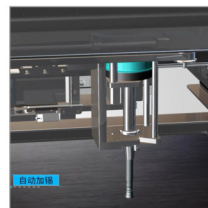 Humidity can be shown and adjustable on the side set system

工业4.0
Industri 4.0

- 条码追溯功能
  Bar code trace function
- 产量分析及实时统计运行信息功能
  Production analysis and real-time statistical information function operation
- 报警智能提示系统及处理方案
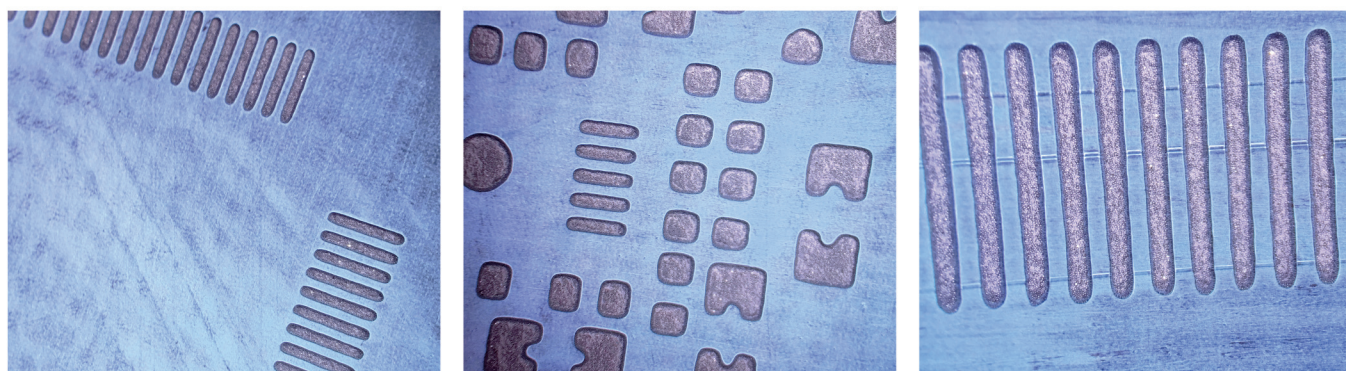 Alarm intelligent prompt system and processing solutions

自动点胶功能
Automatic dispensing function

- 可实现打点，划线，区域填充
  It can realize dot, line, area filling
- 最小点直径0.8mm
  The minimum dispensing diameter of 0.8 mm

MES制造执行系统
Manufacturing Execution System
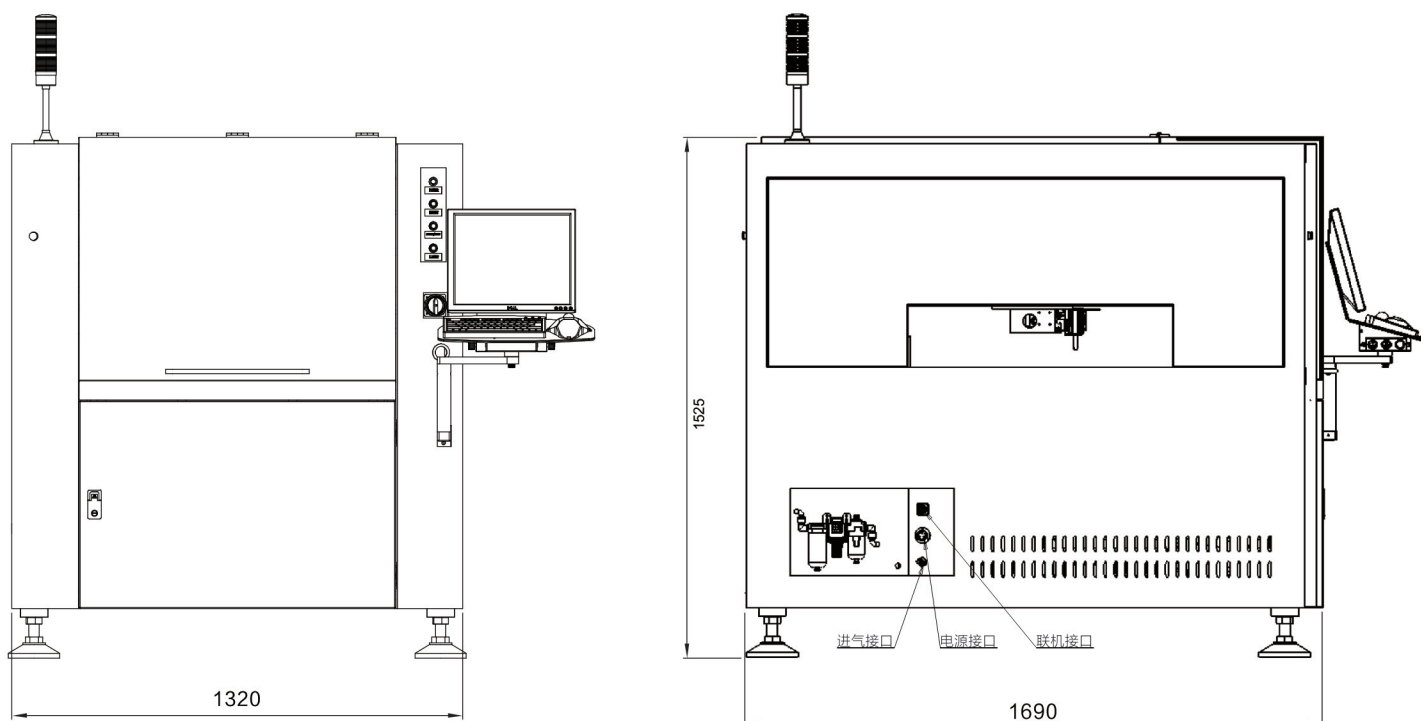
1320

1525

1690

进气接口　　　电源接口　　　联机接口

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