

# A/B series

## Advanced dispensing desk top robot

桌上型先進塗膠平台



SSI A & B series desk top robots are unlike others in the market. SSI desk top robots are designed for customers who are looking for being able to use it as efficiently and accurately as in mass production. SSI desk top robots are very robust, fast response, accurate.

SSI 的A/B桌上型系列不同於其他桌上型塗膠平台，A/B系列桌機的設計旨在提供一個不但適合開發試作的桌上型塗膠平台，更能勝任大量生產所需的效率、精度及穩定性。

### **MOST ACCURATE AND RELIABLE HARDWARE DESIGN AND MANUFACTURING**

All SSI desk top robots are designed for high accuracy and long term reliability through using high quality components and machined parts to ensure the precision and long term stability. Both A and B series are not only suitable for development , prototyping but also perfectly good for heavy duty production.

### **最精密可靠的硬體架構設計及製造**

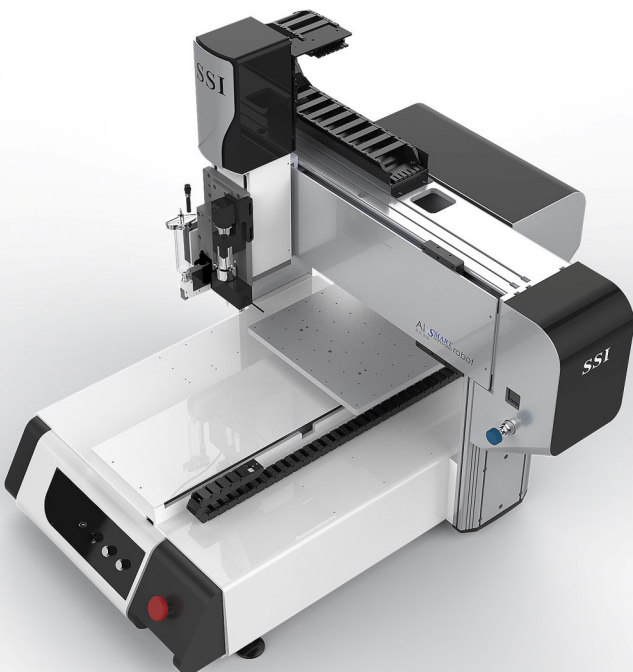
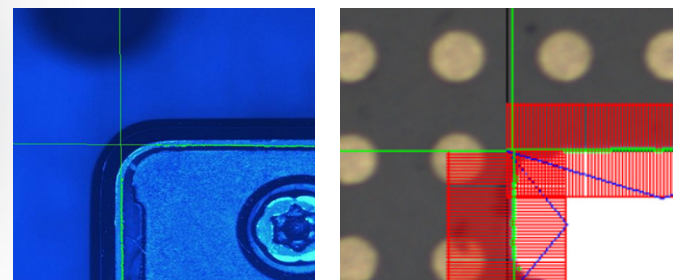
所有SSI桌上型robots的設計都基於提供高精度、高可靠性及高穩定性設計製造，其所使用的電子及控制元件皆為世界名品牌，所有加工零件皆經嚴格的品質檢驗後再經過經驗的技術人員組裝測設。

### **SUPREME VISION ALIGNMENT TECHNOLOGY**

In addition to typical corner finder or template comparison, Stream Vision has SSI exclusive software filters to handle difficult image processing for precise alignment.

### **獨特的對位技術**

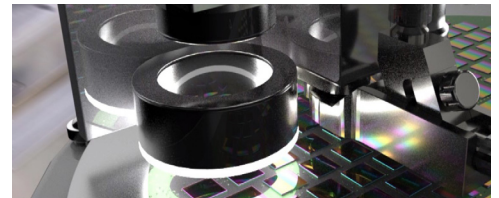
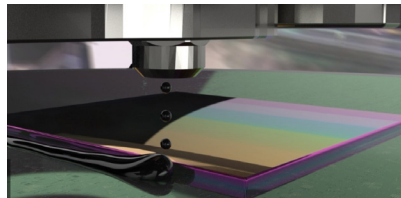
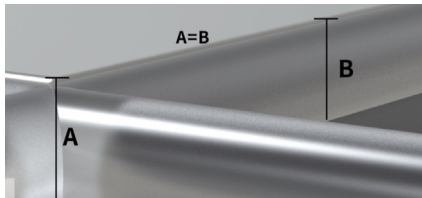
除一般的尋角及模板比對功能，SSI擁有許多獨自開發的濾鏡及影像演算法做特殊影像處理，能克服任何困難辨識的物件進而完成精準的對位功能。



## MOST ADVANCED VISION SOFTWARE

SSI robots are using the most advanced vision software fully developed by SSI software team over a decade, which integrates most sophisticated motion control, vision alignment and AOI in the same software package. SSI exclusive dispensing software **V2K** major features include:

- CAD file input and dispensing route auto editing and optimization
- Fast global alignment for panelized PCB
- Intuitive user interface for quick direct teaching
- Exclusive vision algorithms and image filters for critical vision alignment
- Synchronized dispensing and motion speed to ensure the consistent dispensing height at the start, the end and the crossing point.
- Automatic dispensing weight measurement and calibration
- Fiducial on fly
- Height detection on fly for 3D
- Remote teaching
- 5 axis motion control on Z axis
- Post dispensing AOI



## 先進的運動控制軟體

Stream Vision **V2K**是SSI公司耗時10幾年開發最先進的塗膠控制軟體，具直覺式教導邏輯，大幅節省編輯複雜程式的時間及人力成本，簡單易用不需特殊的技術人員操作。Stream Vision 具備所有塗膠複雜動作所需的軟體功能，包括飛奔測高、飛奔辨識對位、3D塗佈、膠量自動校正等。**V2K**強大的軟體能力能對應任何複雜困難的塗膠應用，下列為部分的軟體功能：

- CAD檔輸入及塗膠路徑自動編輯及優化
- 多連版全景高速影像對位，比傳統快幾倍的對位技術
- 直觀式的使用者介面，易學易用
- 具有獨特影像處理技術、演算法及照明技術對應困難的應用
- 塗膠與運動同步的Stream Jet 軟體功能，能維持完整塗膠路徑一致相同的高度，包括起始、結束及交接點
- 膠量自動量測及調整
- 對位飛越辨識
- 高度飛越辨識
- Z軸5軸自由運動控制
- 塗膠後自動光學檢測

## VERSATILE DISPENSING APPLICATORS FOR ALL PRECISION APPLICATIONS DIFFERENT

Different fluids and applications need different dispensing applicators to meet the challenge of watery, thick or streaming materials for wide range of dot sizes, line width and dispensing heights. SSI offers the complete fluid dispensing technologies to satisfy different application requirements.

- Piezo jet valve for high speed jetting
- Progressive Cavity Pump (PCP) for precision high viscosity contact dispensing
- Deposition pump for < 100 um dispensing
- Solder paste jetting valve
- Thin film ultrasonic spray coater
- 10:1 high precision mixing and dispensing
- High precision air spray

## 對應不同應用的塗膠裝置技術

不同的流體及應用需要不同的點膠技術對應，從稀釋的流體到濃稠拉絲的膏狀物，從膠寬、膠高、大小，SSI 提供完整的點膠技術解決方案，適用各種塗膠運用的點膠技術，包括：

- 高速壓電閥
- 高黏度流體體積式螺桿閥
- 極小點<100 um用半接觸式D閥
- 錫膏噴射閥
- 低反射精密噴霧閥
- 10:1高精度雙液混合及塗膠
- 超音波薄膜coating 設備
- 各種高精度氣壓閥

## USEFUL OPTIONS

- Laser height detection for high reflection glass
- Universal nozzle cleaning device
- Micro scale for dispensing weight calibration
- low fluid level detection (option)
- 1:1~10:1 high precision mixing and dispensing systems

## 提高效率的選擇配備

- 對應高反射性如玻璃的雷射測高感應sensor
- 萬用針頭及噴嘴清洗裝置
- 微量磅秤
- 低液位偵測
- 1:1~10:1 大流量自動供料、混合及塗膠系統

### Model A/B 400 Series Robot Specifications :

- 行程 X-Y-Z Max Travel : 400mm\*400mm\*100mm
- 點膠行程 X-Y Dispensing Area : 300mm\*300mm
- 外觀尺寸 Dimensions : 770mm(W)\*785mm(D)\*810mm(H)
- 重量 Robot Weight : ~100 kg
- 速度 XYZ Speed(mm/sec) : 800, 800, 250mm/sec
- 加速度 XY Acceleration(mm/sec<sup>2</sup>) : 0.25G, 0.25G
- 反覆精度 Repeatability(XYZ ±um) : A:±5um, B: ±10um

### Stream Vision Software :

- Infinite nested recognitions
- TemplateMatch-including(rotation)
- Corner Finder
- Dispenser Type
- Counter Mode
- Jet Mode
- Channel Filter