

GLLM series

Accurate/Versatile/Intuitive
precision dispensing robot

**Designed for general
dispensing applications with
precision and the best total
cost of ownership**

適用於廣泛精密塗膠製程
最佳投資成本效益的設備

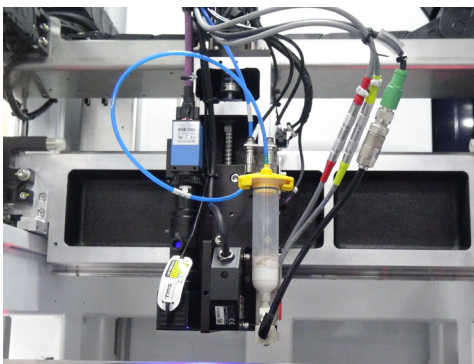


SUITABLE FOR MOST OF PRECISION DISPENSING APPLICATIONS

GLLM series is suitable not only for the electronic and other industries for precision dispensing requirements such as smt glue dot dispensing, encapsulation, potting, COB, underfill, LCD display, solder paste jetting, camera lens bonding, camera module epoxy sealing, smart phone glass/ metal case bonding, dam & fill and conformal coating.

適合所有一般精密塗佈應用

GLLM 系列不僅適用於電子亦適用於其他各種行業精密塗膠的應用。例如: SMT點膠、封膠、灌注、COB、underfill、LCD面板晶片邊緣保護/軟板彎曲保護、噴錫、鏡頭接合、鏡頭模組封裝、smart phone玻璃接合、dam&fill、PCB保護膠塗佈。



ECONOMIC DESIGN WITH QUALITY

In the market there are many low cost dispensing robots. However, customers have to trade off the reliable dispensing quality. Thanks to the software simulation, GLLM series is a designed to provide both reliable quality and cost efficiency. GLLM series is driven by a high resolution linear driving system with robust machine base and gantry system. All gantries are calibrated by software to ensure its levelness and precision.

具經濟效益及高品質需求

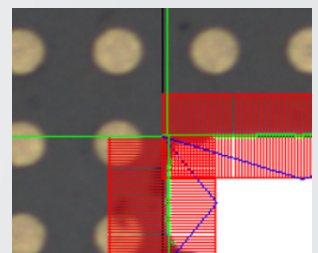
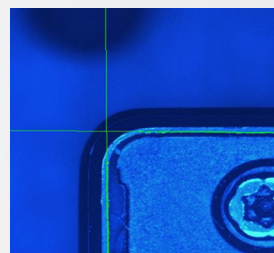
市場上充斥許多低價的塗膠設備，卻需以塗膠品質作為代價，最終付出的成本遠高於低價的設備，GLLM系列預先透過軟體模擬分析，以最精簡而又合乎機構應力要求的設計達到經濟及高品質的要求。GLLM系列使用高解析度線碼運動架構在經過退火及精密加工的基座上，且龍門已完成軟體校正其水平度以確保機台的精度及速度品質。

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

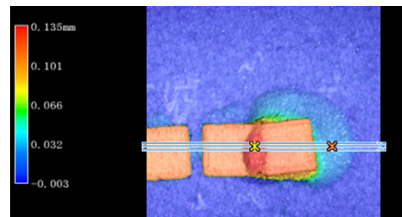
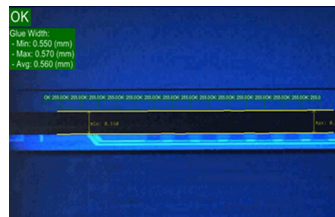
除一般的尋角及模板比對功能，SSI擁有許多獨自開發的濾鏡及影像演算法做特殊影像處理，能克服任何困難辨識的物件進而完成精準的對位功能。



ADVANCED MOTION CONTROL SOFTWARE

Stream Vision **V2K** is the most advanced dispensing software ever developed for dispensing applications with intuitive teaching to eliminate complicated programming procedures. SSI Stream Vision has all important features to make any critical dispensing application easy and efficient including laser height detection, high speed fiducial-on-fly vision alignment, 3D profile printing, closed loop dispensing weight auto calibration and many other unique features developed for special dispensing requirements. Powerful **V2K** software capabilities basically is able to handle any critical and complex dispensing applications. following are some important features :

- 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



最先進的塗膠專用軟體

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

GLLM Robot Specifications :

- | | |
|---|--|
| ▪ 行程 X-Y-Z Max Travel (mm) : 420*700*50 | ▪ 速度 XYZ Speed(mm/sec) : 800, 800, 250mm/sec |
| ▪ 點膠行程 X-Y-Z Dispensing Area (mm) : 360*420*50 | ▪ 加速度 XYZ Acceleration(mm/sec^2) : 0.4G, 0.4G, 0.25G |
| ▪ 本體外觀尺寸 Dimensions (mm) : 850(W)*1660(D)*1790(H) | ▪ 反覆精度 Repeatability(XYZ ±um @3Sigma) : 5, 5, 5 |
| ▪ 操作空間 OP area (mm) : 1483(W)*2551(D)*2211(H) | ▪ 位置精度 Position Accuracy(XYZ ±um @3Sigma) : 10, 10, 10 |
| ▪ 重量 Robot Weight : 800 kg | ▪ 解析度 Resolution(XYZ um) : 0.1, 0.1, 0.1 |