



# LEAFC-33

## CCD Registering Screen Printer

### 全自動CCD影像對位導電玻璃網印機



#### ■ 適用範圍

適用於各種硬材質印件之高精度網印作業，例如：光電產業之LCD框膠、觸控面板、ITO導電玻璃、背光模組擴散片、導光板、EL冷光板、...等印刷。

配備CCD影像自動對位，修正上料之對位誤差，提高精準度。

**Application:** Suitable for high precision screen printing production include hard printing material, such as LCD Cell Sealant, Touch panel, ITO, Diffusers for Back Light module, Light Guide Plate, EL panel, Embedded Resistor, etc.

Equip with CCD Registering device correct inaccuracy of alignment when loading material to improve precision.

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## 產品特性：

- CCD影像自動對位高精密網印機，搭配左右跑檯，快速作業，對位精準 $\pm 0.01\text{mm}$ 內，性能優越，生產良率大幅提昇。
  - 機台結構，強固質輕，配合頂級進口伺服馬達加上精密導向定位週到，運作穩定、安靜且更滑順快速。
  - 印刷檯面一體成型鑄鋁材質，檯面平整度 $\pm 0.05\text{mm}$ ，具印刷膜厚高均勻性。
  - 機台印刷座四柱汽缸同步鎖定裝置設計，確保印刷膜厚精度。
  - 伺服馬達拾網及傳動印刷搭配高精密數位恆壓印刷頭，讓印壓得以完整展現恆壓效果。
  - 人機介面觸控螢幕操作設定簡便，可記憶100組生產條件，並具故障自動檢測及故障排除之顯示。
  - 專為ITO導電玻璃自動線印刷設計的自動入、出料段，直接提昇產能與品質良率。
  - 連結前後製程的網印機入、出料段，係透過無塵專用的非接觸式動力環輪輸送ITO Glass印件，並由牙叉式機械手臂移載進入檯面進行精密CCD自動對位印刷。充分達到自動線生產所需的特性。
  - 設有安全復歸，自動偵錯系統、安全光柵、急停按鈕、警示燈柱等安全設計。
  - 另可選配靜電消除棒，光電專用防塵罩、自動入/出料機構等功能。
- The aligning accuracy within  $\pm 0.01\text{mm}$ , and provide sliding table, to improve excellent function and production yield rate.
  - The structure of machine is lighter and stronger, and provides top servo motor and drive motor, more stable, quiet, and fast.
  - The integrated table made by aluminum, the flatness within  $\pm 0.05\text{mm}$ , and the printing evenness is excellent. Provide four post locking system on printing device, to ensure thickness of printing membrane accuracy.
  - The servo motor for peeling function and high precision digital constant pressure printing head, to showing constant pressure effect completely.
  - Operation by touch panel, easy to set and operate, the memory of HMI save 100 units conditions of production, and provide other function, such as auto exanimate breakdown and display trouble shooting.
  - The auto loading/unloading device for ITO auto assembly to improves capacity and yield rate.
  - The loading/unloading section to connect front/back process to deliver ITO glass through contactless power link for anti-dust production only.
  - Provide safety device, such as safety return to origin, auto detect error system, safety optical grating, Emergency switch, alarm light, etc.
  - Optional accessory: antistatic bar, anti-dust cover for optical industry, auto loading/unloading device.

項目 Item	規格 Specification
印刷檯面尺寸 Table dimensions	500x600 mm
最大印刷面積 Printing Area(MAX)	360x360 mm
最小印刷面積 Printing Area(MIN)	150x150 mm
印件厚度 Thickness of printing material	0.3~5 mm
檯面水平精度 Level Precision of Table	$\pm 0.05\text{ mm}$
檯面往復精度 Movement precision of table	$\pm 0.005\text{ mm}$
檯面吸氣尺寸 Vacuum Area of Table	360x360 mm
檯面吸氣孔徑尺寸 Diameter of vacuum hole	$\phi 1.5\text{ mm}$
檯面吸氣孔間距尺寸 Interval of vacuum hole	20x20 mm
刮印方式 Printing Mode	單刮刀印刷+單拾網 Printing by single squeegee+ single peeling
CCD取像範圍 CCD Capture Area	X $\pm 180\sim 75\text{ mm}$ Y $\pm 180\sim 75\text{ mm}$
CCD鏡頭視野 CCD Shot sight	10x7.5 mm
影像對位精度 Registering precision	$\pm 0.005\text{ mm}$
整合精度 Integration Precision	$\pm 0.01\text{ mm}$
對位整合時間 Registering integration Time	<1sec
最大裝框尺寸 Frame Dimension(MAX)	850x850 mm
最小裝框尺寸 Frame Dimension(MIN)	650x650 mm
網框厚度 Frame Thickness	30-40 mm
網框高度(洗版位) Frame Height(Cleaning Position)	400 mm
檯面高度 Table Height	1000 $\pm 30\text{ mm}$
刮刀印壓 Printing Pressure	1-6 kg
拾網間隙 Gap	0-25 mm(人機介面設定) Setting by touch panel
印刷網版與檯面間距 Space between Screen and Table	0-15 mm(人機介面設定) Setting by touch panel
印刷行程 Printing Stroke	0-500 mm(人機介面設定) Setting by touch panel
印刷/回墨速度 Printing/Cover Ink Speed	20-600 mm/sec(人機介面設定) Setting by touch panel
刮刀傾角 Squeegee Inclination	$\pm 40^\circ$
印刷頭旋角 Printing Device Swing Angle	$\pm 15^\circ$
適用電源 Main Power	3 $\phi$ , 220V/380V, 50/60Hz
耗電量 Power Consumption	7.2 kw
壓縮氣源 Air Pressure	6~8 kg/cm <sup>2</sup>
耗氣量 Air Consumption	70 L/Min
印刷檯面玻璃頂料PIN Head Device on Table	4支+吸氣孔Vacuum hole+高氟O型環嘴Pad(PEEK) 非接觸式動力滾輪 Contactless power link roller 玻璃居中整定 Center glass 牙叉式機械式手臂移載 Fork robot carrier 玻璃輸送寬度手動調整 Delivering width of glass adjust by manual
自動入料段 Auto Loading	牙叉式機械式手臂移載 Fork robot carrier 非接觸式動力滾輪 Contactless power link roller 玻璃輸送寬度手動調整 Delivering width of glass adjust by manual
自動出料段 Auto Unloading	牙叉式機械式手臂移載 Fork robot carrier 非接觸式動力滾輪 Contactless power link roller 玻璃輸送寬度手動調整 Delivering width of glass adjust by manual
機器尺寸 Dimension	4600x2180x2350 mm
機器重量 Weight	3020 kg