AP430/AP430L/AP660 Automatic Inline Stencil Printers

Fully Automatic, High-Accuracy SMT Stencil Printers

AP series are high-precision, fully automatic SMT stencil printers with a print area 400x300 mm, 450x350 mm and 600 x 600 mm. This size reaches 1200x300mm for AP1200 model which is ideal for LED panel applications.

High quality prints are guaranteed with the printer's 4-point ball screw drive and programmable speed control for both the blades and stencil-PCB separation. Fast PCB alignment is achieved with the system's dual-camera system.
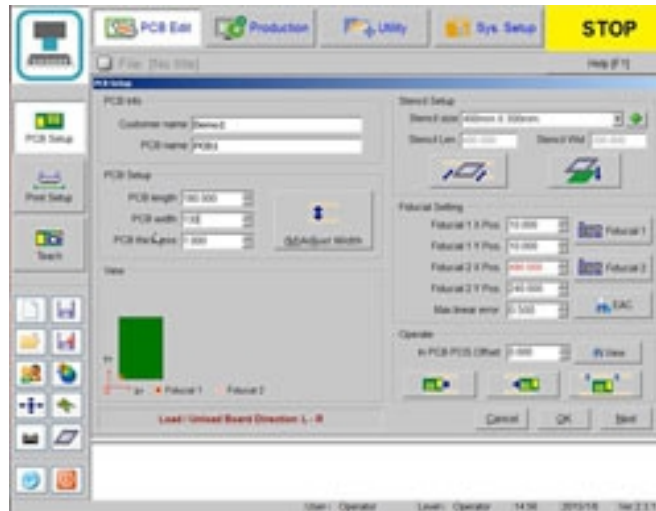

Fast, easy job changeover
AP series, which accommodates stencils from 470 x 300 mm to 900 x 900 mm, makes job set up simple: input the stencil size, insert the stencil into the frame mounter until it reaches the stopper, and the system software will handle the rest. Be ready for the next production assignment in a matter of seconds.
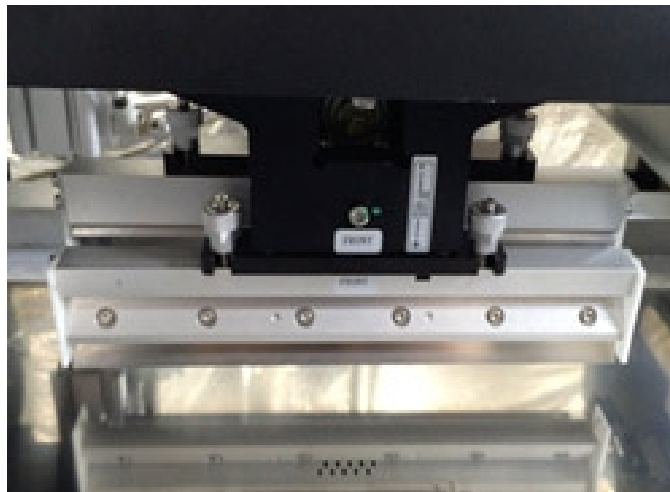
Fully programmable

Windows-based AP series is easy to program, allowing the printer to be up and running quickly after install. All parameters, including print speed (programmable from 20 to 120 mm/s), stroke length, squeegee pressure, etc., are fully programmable via the graphical user interface. During operation, all details, including process status, of the current job are displayed on screen.

Dual, independent print heads increase throughput

AP series printer's two print heads are independently controlled by high-precision ball-screw drives with a programmable transport speed. Print pressure is uniformly and accurately controlled. Self-leveling squeegees automatically adjust to the stencil surface to ensure perfect registration on every print.

SMEMA-compatible for inline integration

The efficient single-stage PCB transport system is SMEMA-compatible to interface with the other production equipment on your line.
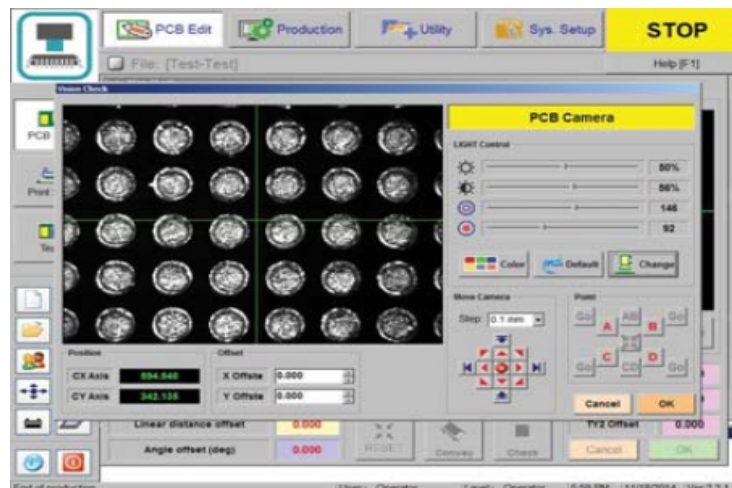
Integrated understencil wiping

Automatic wet/dry/vacuum understencil cleaning is included with the AP660. The system can be programmed to clean the stencil using any combination of dry wipe, wipe with solvent ("wet wiping"), or wipe followed by vacuum to draw material out from the apertures.

2D Inspection

2D inspection function allow the inspection of short circuit, deviation and coverage rate of solder paste.

AP series Stencil Printer Key Features

- Dual-camera vision for fast PCB orientation
- Print accuracy of ±0.02 mm and repeatability of ±0.008 mm
- Dual squeegees with dual-stroke control for efficient solder paste use
- Flexible mounting for single- or double-sided boards
- Fast job setup and changes
- Excellent parallel separation of stencil and PCB with programmable speed control for well-defined prints
- Accepts stencils from;
    - 470 x 300 mm to 736 x 736 mm, AP430 model
    - 520 x 300 mm to 736 x 736 mm, AP 430L model
    - 736 x 736 mm to 900 x 900 mm, AP660 model
    - 400 x 300 mm to 1600 x 630 mm- AP1200 model
- Accommodates PCBs from;
    - 50 x 50 mm to 400 x 300 mm, AP430 model
    - 50 x 50 mm to 450 x 350 mm, AP 430L model
    - 50 x 50 mm to 600 x 600 mm, AP660 model
    - 100 x 50 mm to 1200 x 300 mm, AP1200 model

- 2D inspection function with short circuit, deviation and coverage rate of solder capabilities

AP430,430L,660,1200 – Specifications

Printing Speed	20 to 120mm/s (servo controlled)
Vision Alignment System	Automatic (AT-Align system, any shape)
Stencil Frame Size (External Dimensions)	470 x 300 mm to 736 x 736 mm 520 x 300 mm to 736 x 736 mm 736 x 736 mm to 900 x 900 mm 400 x 300 mm to 1600 x 630 mm
Board Size	Min: 50 x 50mm, Max: 400 x 300mm Min: 50 x 50mm, Max: 520 x 300mm Min: 50 x 50mm, Max: 600 x 600mm Min: 100 x 50mm, Max: 1200 x 300mm
Board Thickness	0.4 to 5 mm
Board Warpage	Max PCB 1% of diagonal line
Blade Type	Metal or plastic, 45° or 60°
XY Adjustment	±10mm
Radial Adjustment	±2°
Registration Repeatability	±0.008mm (±0.01mm for AP1200)
Transport cycle time	15s (exclude printing & cleaning)
Transport height	900±20mm
Transport direction	Left-Right / Right-Left / Left-Left / Right-Right
PCB Fixation	Screw clamping system and vacuum
CCD FOV	5 x 7 mm
Vision Fiducial	Standard fiducial and any pads, 0.5 to 3 mm
Air & Power Requirements	220VAC 50-60 Hz power, 75psi (5 bar) air
Dimensions (L x W x H)	AP430: (1450x1120x1525mm), AP430L:(1450x1120x1525) AP660(1900x1506x1550mm), AP1200:(2300x1704x1878mm)
Weight	650kg, 780kg, 1000kg, 1200kg

APseries Automatic Stencil Printers Include:

- Fully automatic fine-pitch, vertical-lift stencil printer
- Automatic vision alignment
- PCB support—side clamp, vacuum hold-down tooling
- Dual squeegee assembly with single & dual stroke control
- Pair of metal squeegees included
- SMEMA Interface
- Wet/dry/vacuum understencil wiping system
- Industrial PC with LCD monitor and Windows operating system
- Autotronik-smt control software
- One year parts warranty