



The WINNER 2018 Global Technology Award



LED & Big board printer US-LX

The automatic screen and stencil printing system US-8500X based on Standard US-X platform was developed to cover LED, LCD and much larger PCB up to 850mm.

Also super larger board up to 1500mm can be covered by ESE US-LX series and they were designed specially for LED lighting customers.

ESE large printer includes all standard US-X printer features & function and most flexible system in this industry field.

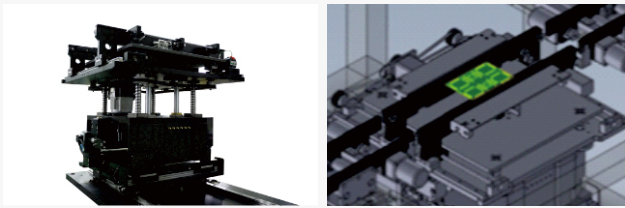
Up to 10kgs* PCB weight on US-LX can be handled and flexible design allows customer mask stencil size loading including ESE standard configuration.

Including Standard clamping system, special designed side vacuum clamp tool kit supports much perfect board clamping and printing result from a warpage

Especially, US-LX printer has X direction printing & cleaning system for much efficient production and maintenance etc.

	US-8500X	US-LX 1	US-LX 3	US-LX 5
PCB size	70mm x 70mm - 850mm x 610mm	100mm x 80mm - 1000mm x 650mm	100mm x 80mm - 1300mm x 650mm	100mm x 100mm - 1500mm x 650mm
Stencil size	736mm, 800mm, 850mm, 980mm	736mm, 980mm, 1300mm, 800mm	736mm, 980mm, 1500mm, 800mm	736mm, 980mm, 1800mm, 800mm
Cycle time	13sec	35sec	40sec	45sec
Alignment accuracy	± 12.5 um @ 3 sigma	± 12.5 um @ 3 sigma	± 12.5 um @ 3 sigma	± 12.5 um @ 3 sigma
Printing repeatability	± 25 um @ 3 sigma	± 25 um @ 3 sigma	± 25 um @ 3 sigma	± 25 um @ 3 sigma

Most stable mechanism table with 3 stages



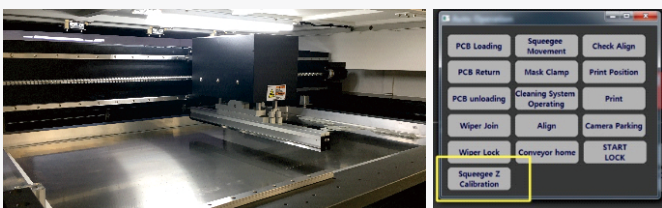
4 ball screws with high precision & stiffness and additional 3 shafts.
Servo control for table axis (X, Y and Theta) and Z1 & Z2
Equal printing pressure break up to guarantee high accurate printing quality and long run use without a trouble

Perfect Clamp and Programmable Clamp pressure



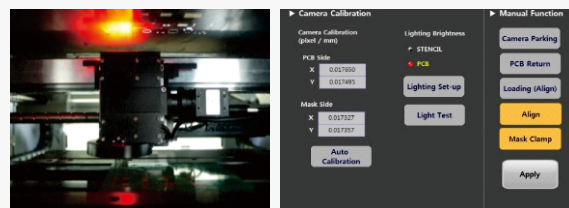
Z clamp, Y clamp(Side clamp) and Side vacuum clamp guide a stable PCB loading and much perfect PCB clamping and unlike other printer Top clamp.

X direction Squeegee Automatic Calibration Equipped



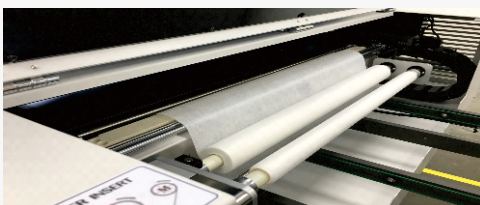
Cylinder and Motor driven printing head makes an uniform printing result.
Squeegee Z center position auto calibration equipped with software

Camera Automatic Calibration Equipped



Camera X and Y axis driven & controlled by ball screw and Servo
Camera recognizes any mark on PCB and Stencil at a time
Camera 4 LED lights applied for much perfect 2D inspection and recognition as per mark color, PCB color
Field of View 11mm x 8mm

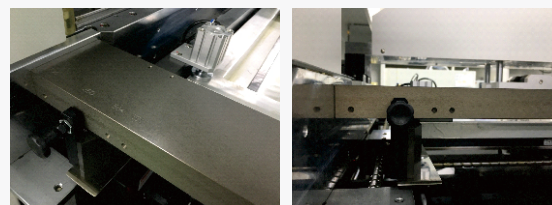
X direction Cleaning Advanced Design Wet-Dry-Vacuum Cleaning



Wet-dry-vacuum per production condition, No clog solvent nozzle and even solvent spray

Cleaning speed and Cleaning mode (direction, repeat, group etc) can be programmable

Easy & fast Mask frame change



With Easy to use Plunger for Mask stencil change
Depends on US-X model, 550mm ~ 1800mm Mask frame can be loaded
Mask frame thickness 20mm ~ 40mm can be loaded and
Max 45mm thickness frame can be loaded