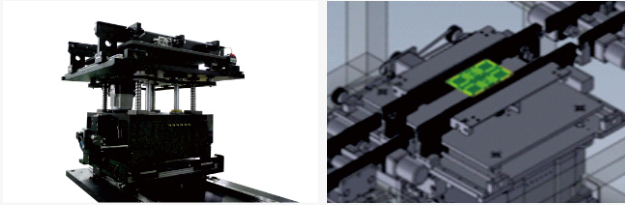**US-X**

Smart & Efficient Printer

The World Fastest Printer

*The unique ESE printing table features four ball screws and three LM guides. This design precisely and firmly positions and supports the print table, allowing even squeegee pressure across the entire width of the print table and resulting in an accuracy of 12.5 microns and wet printing repeatability 25.5microns @ 6 sigma [US-2000X] [* US-2000XQ 10 microns accuracy and wet printing repeatability 20microns @ 6sigma]*

US-2000XH realizes highest cycle time based on ESE own technology
core cycle time – 4 sec
cycle time including cleaning – 10sec w/ optimized condition

	US-2000X	US-2000XQ	US-7000X	US-2000XH
PCB size	50mm x 50mm – 500mm x 400mm	50mm x 50mm – 500mm x 400mm	50mm x 50mm – 650mm x 510mm	100mm x 50mm – 550mm x 400mm
Mask Frame size	550mm, 580mm, 650mm, 736mm	550mm, 580mm, 650mm, 736mm	650mm, 736mm, 800mm, 850mm	550mm, 580mm, 650mm,736mm
Cycle time	10sec	9sec	10sec	7sec
Alignment accuracy	±12.5 um @ 6 sigma	±10 um @ 6 sigma	±12.5 um @ 6 sigma	±12.5 um @ 6 sigma
Printing repeatability	±25 um @ 6 sigma, Cpk ≥2.0	±20 um @ 6 sigma, Cpk ≥2.0	±25 um @ 6 sigma, Cpk ≥2.0	±25 um @ 6 sigma

ESE CO.,LTD

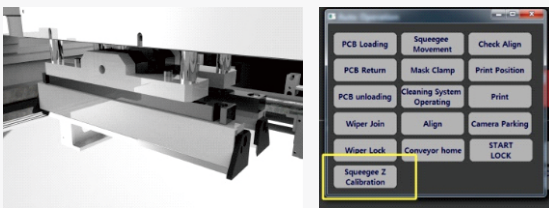## Most stable mechanism table with 3 stages

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

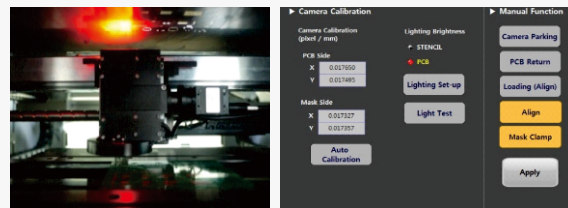## Perfect Clamp and Programmable Clamp pressure

Z(Top) clamp guides a stable PCB loading and Y clamp(Side clamp) securely holds board for production
Z & Y clamp working sequence and pressure can be adjustable as per PCB condition.
Y (Side) clamp pressure programmable as option

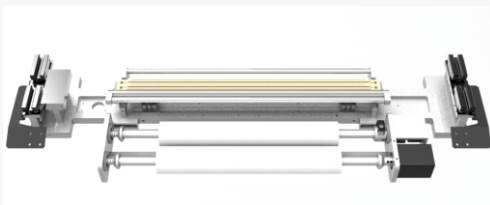## Squeegee Automatic Calibration Equipped

Cylinder and Motor driven printing head makes an uniform printing result.
Depends on substrate condition and solder paste, standard squeegee or Enclosed print head squeegee can be applied.
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
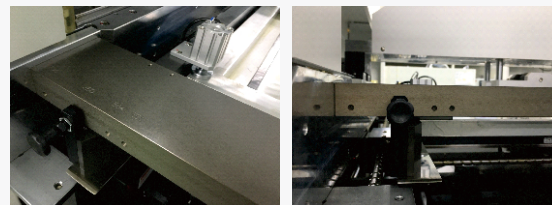Field of View 11mm x 8mm

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