GLPLUS

The power of Continuous Improvement...

GKG

Sales & Service by
JUKI

GLPLUS

The all-new GL PLUS

Advanced Performance, Enhanced Value

Swappable Monitor Position

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The monitor and keyboard can be mounted on eaither left or right side of the machine to suite the line configuration of user's SMT lines.

SPM (Stencil Position Memory) System

To set mechanical stop for the Y position when loading the stencil. Stencil position is saved with each file. This feature drastically reduces model changing time.
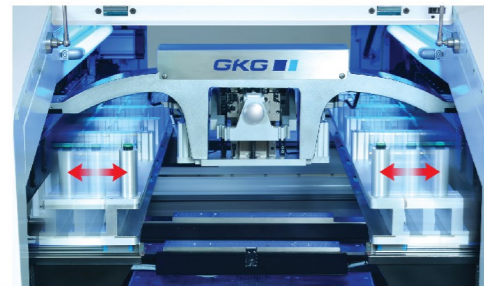
User Friendly OS

Window 7 or higher OS with easy to use iconic software provides intuitive user operating experience.

Vision and Optics System

The simultaneously Look Up/Look Down optical camera system adopted uniform ring light and high brightness coaxial light, equipped with adjustable brightness control can handle all kinds of fiducial marks with high resolution and precision.

APC (Automatic Pressure Check) System

During start up or whenever there is a change of model, both front and rear squeegees will automatically do a pressure check by the tact sensor to ensure that the optimum squeegee pressure is adopted.

2D Paste Inspection Function

The 2D paste inspection function can be used to inspect solder paste deposition at critical location such as micro BGA or QFP immediately after printing to ensure print quality.

Adjustable Stencil X Frame Mechanism

By a touch of pneumatically operated buttons, X Frame size can be adjusted to suit stencil size of 480 x 500 mm to 737 x 737 mm without using any stencil adaptor. Stencil can be easily slotted into the frame mechanism and clamped firmly by 8 plungers (4 on each side).
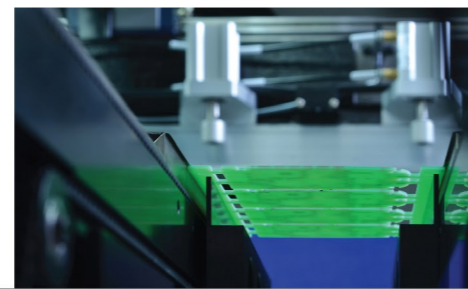
Arch Shape Squeegee Beam

The Arch Shape Squeegee Beam is made by solidly casted high intensity steel material. It provides the rigidity and the durability to the entire squeegee assembly for stable and balance squeegee movement.

Easy Access Swing Cabinet

All electrical parts such as servo motor drivers, power supply boards etc. are mounted neatly on a swing cabinet at the rear side of the machine for easy accessibility.
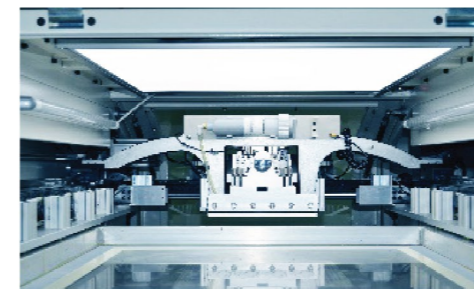
Automatic Stencil Wiper System

A two ways automatic wet/dry/vacuum stencil wiper allows user to select any combination of cleaning mode to best suit their application.

FAC (Flexible Automatic Clamping) System

It is a combination of retractable top clamp and motor controlled side clamp uniquely designed by GKG (Patented). With this standard feature, majority of today's available and challenging substrates can be securely clamped and print to achieve the highest productivity and quality paste printing process.
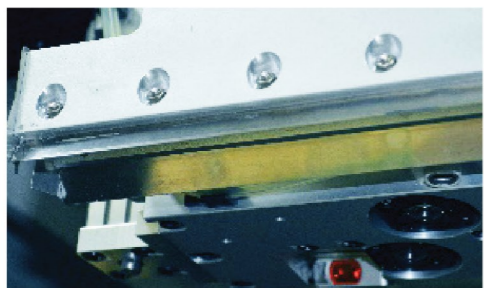
Under Stencil Inspection System

A LED light source providing illumination from the top, utilizing the fiducial camera to detect any clogged stencil aperture from the bottom. The printer can automatically activate the stencil cleaning cycle when clogged aperture is detected.
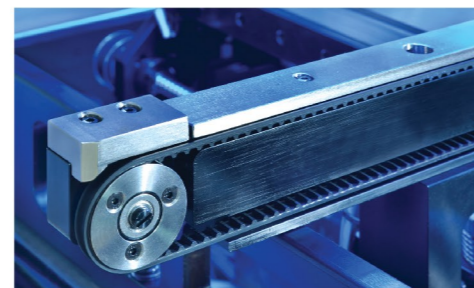
Auto Paste Replenishment System (Option)

Using cartridge (6 or 12 Ozs) or Can (500mg) solder paste packaging, automatically dispense solder paste onto the centre of squeegee with user pre-set interval of print cycles.
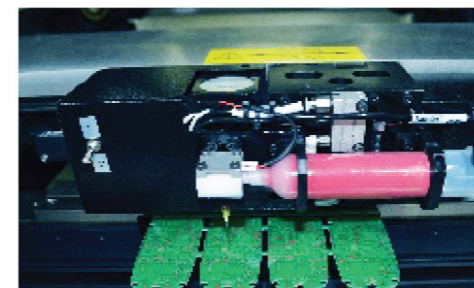
Paste Roll Height Monitoring System

A real time paste height monitoring system using laser technology. The laser is mounted on the back of the squeegee head and measures the solder paste bead diameter during the printing stroke.

Single Stage Conveyor with U-Shape Belt

Automatic conveyor width adjustment, software control flow direction (L>R, R>L, L>L, R>R) and the highly durable Anti-Static U-shapre belt are all standard features. Conveyor belt is driven by stepper motor with a precision control of PCB soft stop position.

Auto Glue Dispensing System (Option)

Provide basic function of glue dotting using syringe type dispensing needle after solder paste printing.

External Temperature Control Unit (Option)

Thermal couple is installed inside the printer for temperature feedback to maintain optimum operating temperature on stencil to prolong solder paste printing quality.

Performance

Process Alignment Capability	2 Cpk@ $\pm$25 microns 6 sigma
Machine Alignment Capability	2 Cpk@ $\pm$12.5 microns 6 sigma
Core Cycle Time	<8.5 secs (Excluding printing & cleaning)
Product Changover time	2 mins
New Product Set up time	10 mins

Board Handling

Maximum Size (L x W)	510 mm x 510 mm
Minimum Size (L x W)	50 mm x 50 mm
Thickness	0.4 mm to 6 mm
PCB Thickness Adjustment	Auto leveling
PCB Support Methods	Magnetic pins, support blocks, vacuum
PCB Clamping Methods	Retractable top clamp & motor controlled side clamp
PCB Max. Weight	5 Kg
PCB Edge Clearance	3 mm
PCB Bottom Clearance	23mm
PCB Warpage	Max. 1% diagonally
Conveyor Direction	L > R. R>L, R>R, L> L (Software controlled)
Conveyor Height	900 $\pm$40 mm
Conveyor Speed	Max. 1500 mm/sec
Conveyor Widthe Adjustment	Auto

Printing Parameters

Stencil Frame Size (L x W)	Adjustable, 480 mm x 500 mm to 737 mm x 737 mm
Print Head	Arc shape beam with 2 independent double linear guide motorzied heads
Print Mode	Single/ Double (Software select)
Printing Table Adjustment Range	X: $\pm$ 10mm; Y: 10 mm; θ: $\pm$2°
Squeegee Type	Metal: 280 mm, 350 mm, 520 mm (Std.) Other sized opt.
Squeegee Presure	0 ~ 10 Kgs (Programmable) come with APC (Std.)
Squeegee Speed	10~ 200 mm/sec
Squeegee Angle	Std. 60°, Option 45°, 50°, 55°
Cleaning System	Auto wet/dry/vacuum combination (User edit)

Optical System

Vision Method	Single camera simultaneously Look Up/ Look Down
Field of View (FOV)	8mm x 6 mm
Fiducial Type	Circle, triangle, square, diamond, cross
Fiducial Size	0.5 ~ 4.0 mm
2D Inspection	50 to 100 windows to inspect missing, insufficient (Std.)

Operator Interface

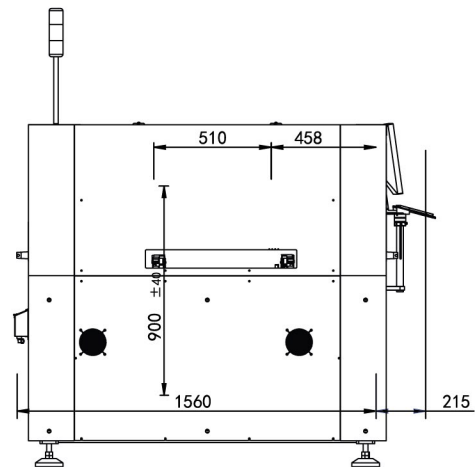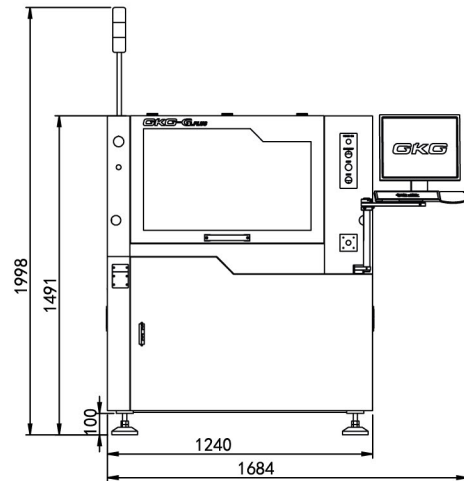|	
Hardware	LCD Monitor, Mouse & Keyboard (Swappable left or right position)
Operating System (OS)	Window 7 or higher
Control Method	Industrial PC controlled
I/O interface	SMEMA standard

Facilities Requirement

Power Supply	AC220V $\pm$ 10% 50/60 Hz, single phase
Air Supply	4 ~ 6 Kgf/cm^2
Power Consumption	3 KW
Dimension (Exclude signal lamp)	1240 (W)x 1560 (D) x 1491 (H) mm
Machine Weight	Approximately 1200 Kg

Options

Auto paste replenishment system, auto glue dispensing system, external temperature control unit, metal squeegees assembly with user specified length and angles, rubber squeegee.

Dimensions

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