

Aetter Printing System

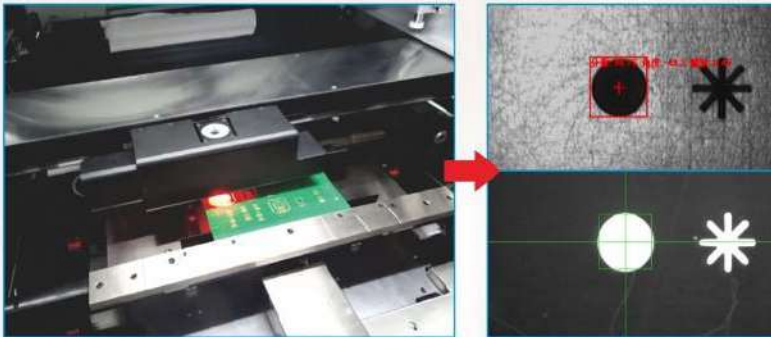
High performance ,High accuracy and More widely used



Description:

Aetter is a high precision quality screen printer , for Accuracy it has built-in ± 8 microns alignment , and ± 15 microns wet print repeatability ($\geq 2.0\text{Cpk}@6\text{sigma}$) with 8 seconds cycle time excluding print and stencil cleaning cycles. And accommodates PCB board from 50 x 50mm to 600*510mm, a 2 minutes product changeover time, and a new product set up time in 5 minutes. 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.

Vision system



CCD camera Simultaneously look up look down, Intelligent adaptive lighting system optical ring uniform and high brightness of the coaxial light the need for specialized fiducial marks—any pad, from 0.5 mm to 3 mm, can be used as a fiducial mark. Multiple light source selection allows the vision system to work with a range of PC

2D Inspection system



2D inspection and SPC tool are included. Real-time monitoring, data analysis and traceability feature to ensure optimum print quality

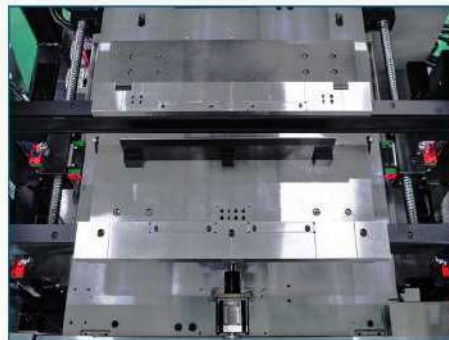
More reliability & efficiency

Direct drive ball screw system



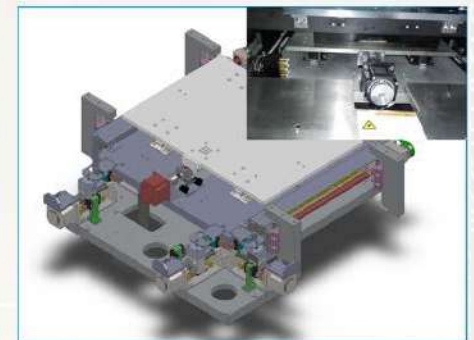
The squeegees transportation adopts the ball-screw with the servo direct connection, This robust design ensures the highest degree of reliability & repeatability.

Patent transport system



Transport rail is motorized width adjust with dual guide rails and dual ball-screw Ensures the long-term consistency and stability.

Intelligent platform height adjustment



The electric table Self height adjustment when catering to different PCB thickness

Independent squeegee's system



The Patent self-developed "electrical&air Pressure combined type" printing head ensures the printing precision after printing and as well as the solder paste molding and solder paste volume.

Z Axis directly connected by Servo motor



The lifting table is directly connected with servo motor and ball screw to precisely control the precision of lifting position and snap-off precision. improve the movement rigidity.

BTB



Unique design provide the possibility of reduction in operator headcount and floor space requirement

Intelligent auto solder paste dispensing system



The system automatically monitors the roller height of solder paste on the stencil in real time, and intelligently replenishes solder paste automatically. The amount of solder paste discharge is controlled by air pressure and diameter of solder paste outlet. Motor translation plus solder paste and the length is programmable.

Automatic dispensing system



In view of the different printing requirement, dispensing through glue, Solderpaste, dispense line, padding etc can be performed after the printing process.

MTM interface



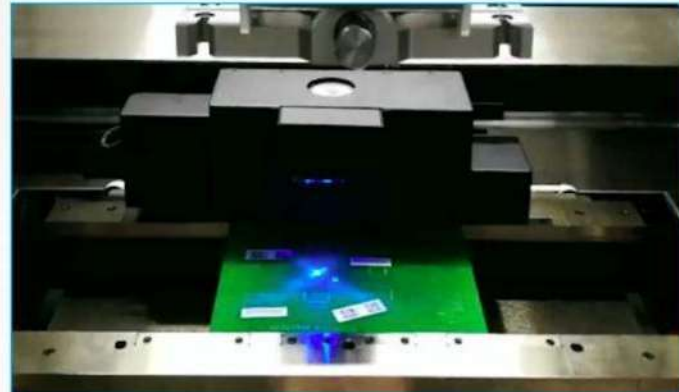
Intelligent adjustment of printing parameters base on feedback from SPI system

Print head pressure closed-loop system



Pressure feedback display, automatic feedback compensation, pressure equalization, printing process stability extended stencil, scraper life

Ready for industry 4.0



Through machine status, parameters can be uploaded automatically. Designed to support customers' advancement towards Industry 4.0 intelligence production, HC series provides seamless connection with users' MES system, enhancing product traceability and maintenance needs.

Environment control system

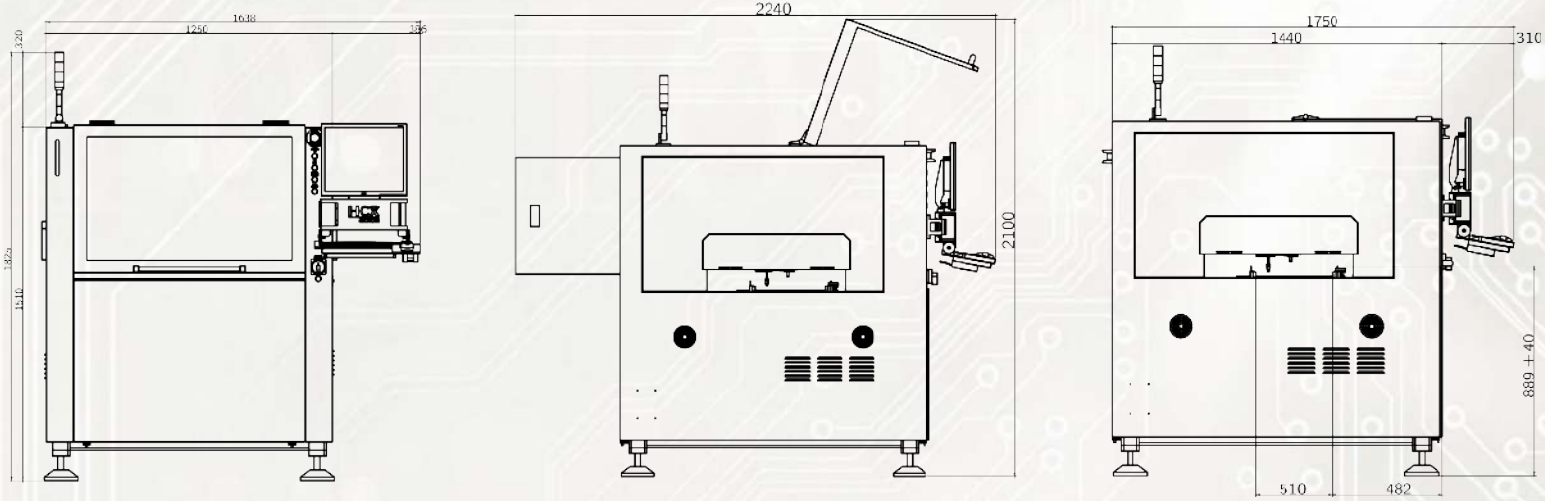


Real time monitoring of temperature & humidity to ensure operating characteristics are maintained.

PERFORMANCE	
Machine Alignment Capability	2 Cmk @ ± 8 microns (at 6Sigma)
Process Alignment Capability	2 Cpk @ ± 15 microns (at 6Sigma)
Core Cycle Time (excluding printing&cleaning time)	< 8 secs
Product Changeover Time	<5 mins
New Product Set-up Time	<10mins
BOARD HANDLING	
Max. Size(L x W)	600mm(X)x510mm(Y)
Min. Size(L x W)	50mm(X)x50mm(Y)
Thickness	0.2mm ~ 6mm
PCB Thickness Adjustment	Automatic
PCB Max Weight	5kg
PCB Edge Clearance	3mm
PCB Bottom Clearance	Programmable 13mm (25mm option)
PCB Warpage	Max 1% (Based on diagonal length)
Clamping Method	Motor controlled elastic side clamping + Manual retractable top clamp
Support Method	Magnetic support pins ,bars, blocks, vacuum suction (option auto flexible Pin)
CONVEYOR SYSTEM	
Conveyor System	One Stage with 3mm "U" type transport belts ,front rail fixed
Conveyor Direction	L to R ,R to L, L to L , R to R (software control)
Conveyor height	900 \pm 40mm
Conveyor Speed	100-1500mm/sec Programmable
Conveyor Width Adjustment	Automatic Programmable motorized rear rail
ESD Compatibility	Transport ball-screw and guides with surface resistivity between 10^6 and 10^{11} ohms
OPTICAL SYSTEM	
Field-of-View(FOV)	6.4mm x 4.8mm (option 10mm x 8mm)
Fiducial Types	Standard geometry, reference point, pad / hole
Fiducial Size	0.1mm to 3mm
Fiducial Recognition	Image matching, mathematical algorithm
Vision Methodology	Digital CCD camera Look up & down for Remote coaxial vision system four way independent coaxial/ Geometry pattern match/Annular LED light source
Fiducial Locations	Anywhere on substrate
2D Inspection	Max.100 windows to inspect mission & insufficient(std.)

PRINTING PARAMETERS	
Stencil Frame Size(L×W)	Adjustable 470mm×370mm to 820mm×737mm
Stencil Frame Thickness	20mm~40mm
Print Gap(snap-off)	0mm to 6mm
Snap-off Speed	Speed:0.1~125mm/sec Programmable with three step control
Table Alignment	Motorised via actuators X,Y, and Theta
Printing Table Adjustment Range	X: ±4mm , Y: ±6;mm , Theta: ± 2°
Printer Speed	10~200mm/sec
Squeegee Pressure	0~15kg (program control)
Squeegee Type & Squeegee Angle	Std.: OPC Squeegee 220 mm ~400mm Metal Squeegee (2set included) Option: Rubber Std. 60°, Option 45°, 50°, 55°
Clean System	Interchangeable Under Stencil drops of rain type cleaning system , fully programmable with wet/dry/vacuum wipe and the system can be programmed combination of dry wipe, wipe with solvent
OPERATOR INTERFACE	
Hardware	LCD Monitor, Mouse & Keyboard
Operating System(OS)	Windows 10
Operator interface	Interface in English with HCX Copyright
Control Method	Industrial PC controlled
I/O Interface	SMEMA Standard
FACILITIES REQUIREMENT	
Power Supply	AC:220 Volts AC± 10% Single phase@50/60HZ 1Φ 1.5Kw
Power Consumption	2.5KW
Tri Colour Beacon	Programmable with audible alarm
Documentation	Operator 、 installation 、 electrical Drawings ,On board technical manuals and installation video
Air Pressure	4~6kg/cm ²
Air Consumption	Around 0.007m ³ /min
Temperature	-20℃~+ 45℃
Humidity	30%~60% relative humidity(non-condensing)
Machine Dimensions	1250mm(L) x 1440mm(W) x 1510mm (excluding the height of indicating lighthouse)
Weight	Approx:1200Kg
OPTIONS	
SPI closed -loop	
Auto glue dispensing	
Auto solder paste dispensing	
Paste Rolling Diameter Monitoring System	
External Barcode Scanner for PCB Traceability	
2 machines back to back for dual lane SMT line	

Dimension



BTB Dimension

