

tucano. plus

*The new Essemtec Tucano plus
fully automatic printing system*



- Print format 600x560 mm
- Auto-setup functionality
- Quick changeover
- Selectable camera lighting colour (RGB)
- Programmable conveyor system
- Dry, wet and vacuum cleaning
- Reliable and robust design
- 2D inspection for stencil and PCB

Printing process

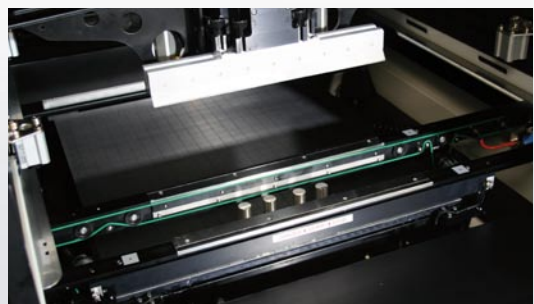
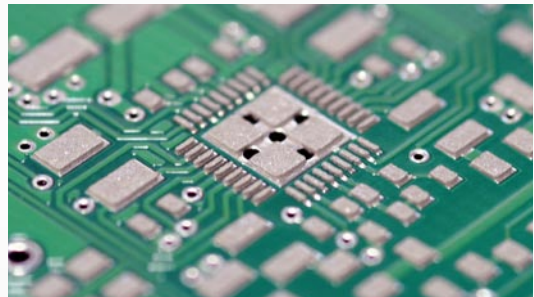
The print process defines the quality of the end-product. All following process steps are based on initially printed structures, regardless of whether adhesive, paste or other are supplied. Due to its flexibility the Tucano can be adapted perfectly to virtually every print task in high-mix productions.

Easy to operate

The software system of the Tucano is well structured and provides ease-of-use. Different operator levels can be defined. The program generation for new applications is totally simplified.

Time saving changeovers

Adjusting a new product is simplified due to the auto set-up functions: the stencil is automatically drawn into the machine, positioned and clamped. The transport system automatically adjusts to the right width.



Process specifications

PCB dimensions	Max. print area	600x560 mm (23.94x22.83 inches)
	Board thickness	0.2 – 5 mm (0.0079-0.197 inches)
	PCB Edge Clearance (Clamping)	2 mm
Stencil frame	Stencil adapter	Available for most standard stencils
	Stencil frame clamping	Pneumatic clamping, height 25-40 mm (1-1.57 inches)
	Loading, positioning and ejection	Fully automatic with manual override
Transport system	Conveyor extensions	Automatic left for loading, right for unloading
	Board clamping	Pull down foil clamps
	Type	3mm ,O' section polyurethane, single stage belt conveyor
	PCB Edge	Clearance 5mm
	Transport direction	Programmable: Left to Right, R to L, R to R, L to L
	Transport height	900-970 mm (35.43-38.19 inches)
	Maximum underside clearance	25 mm (0.79 inches)
	Substrate max. Weight	max. 3 Kg
	SMEMA	SMEMA Standard other protocols available

Print parameters

Alignment	automatic dual camera vision system
Vision illumination color	programmable red/green/blue LED
Alignment range	+/-10 mm, +/-2.5 degrees
Cycle time	10 s + print time
Print speed	Programmable, 1-250 mm/sec (0.039-9.84 inches/sec)
Process Alignment Capability	+/-25 µm @ 6 Sigma Cpk of greater than or equal to 2.0 Based upon actual wet printing with positional accuracy and repeatability verified by a 3rd party measurement system.
Machine Alignment Capability	+/-12.5 µm @ 6 Sigma Cpk of greater than or equal to 2.0 Qualification is performed using production environment process variables; print speed, table lift and camera movement are included in the capability figure.
Snap Off Speed	Programmable, 0.1 – 20 mm/sec (0.0039-0.79 inches)
Printing pressure	Programmable, 0-20 kg (0.1 kg increments)
Squeegees	Metal or Polyurethane double squeegee, 150-608 mm width, double squeegee, self-leveling (5.9-23.94 inches)
Operation modes	Print, print/print, flood/print, print/flood, 1 or 2 deposits. Others on request