



Perfect for test/small lot production or R&D

Eco-design for small-footprint and low cost

Desktop type to place anywhere



### Cream solder printer with guide ST-310FGT

Improves printing stability by squeegee guide Print angle and pressure can be set (adjustable) Reciprocating print with left & right self balance feature Usable for 0603 chip or 0.5 chip BGA print Corresponds to frameless mask (optional) Easy positioning by micro adjustment dial for XY θ Work holder and suction base can be build in



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# ST-series

#### XY θ micro adjustment function



Position adjustment of plate and board is very easy. (X, Y,  $\theta$  axis adjustment) This function is useful for mounting on displaced printing position or for checking impact on reflow.

#### Enlarged display for micro adjustment



Best for hard-to-see micro parts or pitch parts printing. Enlarged image on monitor makes positioning easy.

#### Work base with suction function



Suitable to fix thin board like flexible board or to fix multiple boards for simultaneous printing.



Simple printer for small mask

Setup 150mm mask frame to the printer ensures high precision printing.

Equipped with micro meter XYZ  $\theta$  axis adjustor.

#### Specification

Item	ST-310F	ST-310FM	ST-310F1G	ST-310FM2G	ST-320F
Mask frame size [mm]	250×250~450×450 H 15~40	550×650 [mm] H 30 [mm]	340×300~360×450 H 20~30	550×650[mm] H 20~30[mm]	360×450 [mm] H 20∼30 [mm]
Work base size [mm]	250x310x6 (Aluminum flat late)	320x430 [mm] (max work size 250x330)	250x310x6 (Aluminum flat late)	320x430 [mm] (max work size 250x330)	250x330x6 (Aluminum flat late)
X/Y/ 0 plate adjustment	Dial X/Y: ±4.5mm 0: ±2 degree	Dial X/Y: ±3mm θ: ±2 degree	Dial X/Y: ±4.5mm θ: ±2 degree	Dial X/Y: ±3mm θ: ±2 degree	Dial X/Y: ±4.5mm θ: ±2 degree
Plate removal	Manual front open/close method		Manual open/close method		Depending setting value of mask open/close motor
Plate level	Micro adjustment screw (approx. 10mm)				
Mask opening/closing method	* * * *				Motor (2-step setup)
Squeegee	L=240mm/hardness level 70-80 1 wooden grip included	L=300mm/hardness level 70-80 1 grip included	L=240x40x7mm Hardness level 75-80	L=300x40x7mm Hardness level 75-80 Back-and-forth double squeegee	L=250x40x7mm Hardness level 75-80 Back-and-forth double squeegee
Printing direction	****				Forward/backward/back-and-for
Squeegee up/down movement	* * * *		Manual up/down method (with lock function)	Air cylinder method	
Printing pressure setting	* * * * * Cylinder end stopper (micro adjustment screw)				
Printing pressure angle	* * * *		Changeable screw fixation (45-55 degree)		
Left-right balance	****				Auto alignment (stopper attached)
Printing pressure speed	* * * *				1-50 [mm/s] (variable motor)
Air supply/Power supply	* * * *				0.4~0.7 [Mpa] AC100[V] 600 [VA]
Outer size [mm]	360x560x120 [mm] (balancer not included)	435x750x220 [mm] (balancer not included)	425x810x360 [mm] (rear gas damper included)	600x960x410 [mm] (rear gas damper included)	570x800x400 [mm] (balancer not included)
Weight [kg]	approx. 23 [kg]	approx. 40 [kg]	approx. 32 [kg]	approx. 46 [kg]	approx. 70 [kg]

XAbove specification is subject to change in accordance with functional improvement.



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