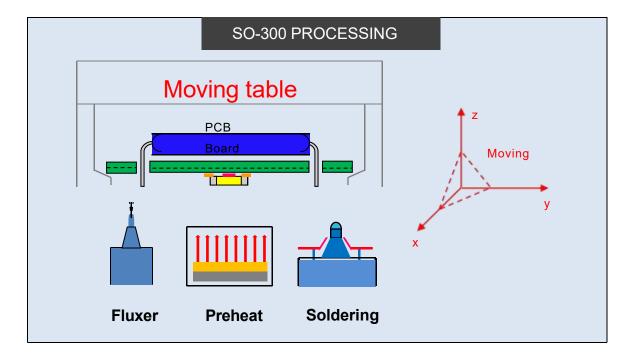
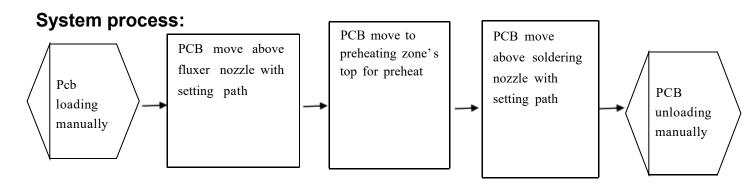


# SO-300 Specification:



1





### Advantageous:

- <sup>a</sup> All in one machine, in same XYZ motion table combine selective fluxing and soldering, compact & full function.
- b PCB board movement, fluxer nozzle and solder pot fixed.
- c High quality soldering.
- d Can used beside production line, flexible for production line forming.

 Full PC control. All parameters can set in PC and saved to PCB menu, like moving path, solder temperature, flux type, solder type ,n2 temperature etc, best trace-ability and easy to get repeat soldering quality.

Standard machine include:

Serial	ltem	Content	Quantity
1	Controlling system	PC & monitor Live on monitor camera motion control	1 set
2	PCB Motion table	xyz motion table 3 axis equipped with ball screw & linear guild rail	1 set
		3 axis equipped with servo motor & driver	
3	Imported fluxing jetting valve   Fluxing system   flux tank   flux pneumatic system		1 set
4	preheating system	IR heater at bottom	1 set
5	Soldering pot	15kg capacity solder pot, impeller, tunnel, servor motor solder temperature controlling system n2 inline heating system	1 set

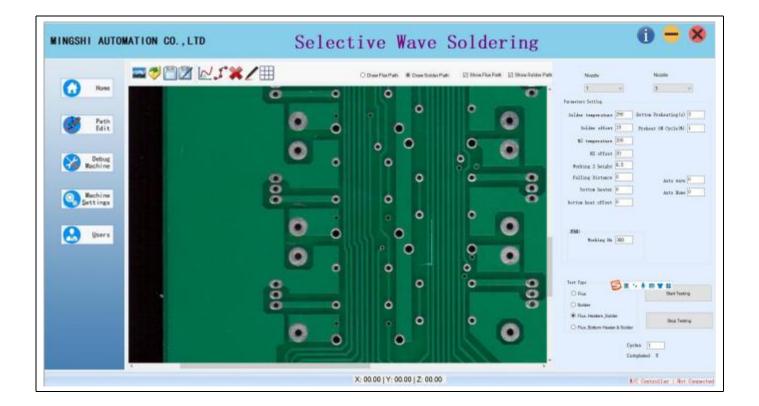


		(4mm x 3pcs, 5mm,6mm) Standard equipped solder nozzle	
6	Machine chassis	machine frame/cover & painting	1 set

## **Machine explanation**

#### Part1: Software

f All software system developed by base on Windows7 system, with good trace-ability.



<sup>g</sup> Use scanned picture as background for path programming, moving speed, dwell time, empty move speed, Z height , wave height etc all programmed for different solder site.

Nozzle		Nozzle		
1	~	3	~	
Parameters Setting				
Solder temperature	290 Bott	om Preheating	(s) 3	
Solder offset	15 Prel	heat ON Cycle	(%) 1	
N2 temperature	200			
N2 offset	20			
Working Z height	8.5			
Falling Distance	0	Auto wa	ave 0	
bottom heater	0	Auto Ho	ome 0	
bottom heat offset	0			
波峰1				
Working Hz	25			

- h Show solder process with live on camera.
- i Critical parameters are totally under monitoring by PC software, like temperature, speed, pressure etc.



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PCB Information				Main Parameter		1	
Project Name :	Test Proje	ect		Preheating temperature :	0	(25"-300"C)	
Date Created :	00/00/00	Last Updated	E 00/00/00	Preheat offset:	0		
PCB Dimension	0	0	0	N2 temperature :	0	(25°-400°C)	
	Width	Length	Thickness	N2 offset;	0		
PCB Material :	test	PCB La	ver: 0	Solder temperature :	0	(25'-380'C)	
PCB Clearence	0	Upper 0	Bottom	Solder offset:	-	(20 - 300 0)	
			- Proventin	Working RPM :	6	(25-700)	
Flux		2128 I.V.		1		(20-700)	
Name :		Nozzle :		Idle RPM :	0		
Flux name	~	Flux Jet	~	Working Z height:	0		
Solder				Auto wave calibrate cycle :	0		
Name :		Nozzle :		Fiducial check cycle :	0		
Solder name	0	Solder 2mm		Board Heat Time (Sec):	0		

#### Part2: motion system

- j Motion table was designed base on lighting concept.
- k Panasonic servo motor & driver provide stable driving power, screw pole & linear guild rail for guidance. Precious position, less noise, stable movement.



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#### Part 3: fluxing system

 $1 \ {\rm Japan}$  original injection valve, adapt to various flux

<sup>m</sup> Flux is stocked by PP plastic pressure tank, make sure pressure stable without influenced of amount of flux.

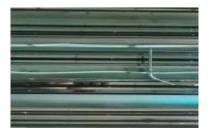


#### Part 4: Preheat

n Bottom preheating is standard equipped in machine,

Position is adjustable.

• Heating ratio is adjustable by PC, from 0 ---100%



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#### Part 5: solder pot

 ${\rm p}$  Solder temperature, N2 temperature, wave height, wave calibration etc all able

to set in software.

 $_{\rm q}$  Solder pot is made of Ti, not leakage. With cast iron heater outside, robust & quick heat up.

N2 online heating system, to wet the soldering perfectly and reduce the solder dross.



### Part 6: PCB conveyor:

r Load board manually and unload board manually

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### Part 7: machine chassis

s Metal welding structure, with thick metal plate as base, so to reduce vibration and make machine more stable.

#### **Machine specs**

Machine name	SO-300			
General				
dimension	L1220mm X W1000mm X H1450mm			
general power	5kw			
consumption power	13kw			
power supply	Single-phase 220V 50HZ			
net weight	380KG			
reuiqred air source	3-5 Bars			
required air flow	8-12L/min			
required N2 pressure	3-4 Bars			

required N2 flow	greater than 2 m <sup>3</sup> /hour				
required N2 purity	» 99.998%				
required exhausting	500800CMB/H				
carrier or PCB					
carrier	Using by requirement				
max solder area	<b>L300 X W300MM</b> (Size customized able)				
PCB thickness	0.2mm6mm				
Pcb edge	3mm				
Controlling & conveyor					
Controlling	Industrial PC				
PCB Loading board	Manual				
PCB Unloading board	Manual				
Operating height	900+/-30mm				
PCB conveyor up clearance	50MM				
PCB conveyor bottom clearance	30MM				
Motion table					
motion axis	X, Y, Z				
motion control	闭环伺服控制 Servo control				
position accuracy	+ / - 0.1 mm				
Chassis	Steel structure welding				
Flux management					
flux nozzle	jet valve				
flux tank capacity	1L				

flux tank	Soldering flux container				
Preheat					
preheat method	Bottom infrared preheating				
heater's power	3kw				
temperature range	25240c degree				
solder pot					
standard pot number	1				
solder pot capacity	15 kgs /Furnace				
solder temperature					
range	PID				
melting time	6090 Minutes				
max solder temperature	350 C				
solder heater	1.2kw				
solder nozzle					
nozzle dim	Customized shape				
material	alloy steel				
standard equippednozzle	Standard configuration of 5 pieces per furnace (inner diameter of 3mm, 4mm, 5mm, 6mm, and 8mm)				

N2 management			
N2 heater	standard configuration		
PID Control N2 temp range	0 - 350 C		
N2 consumption	1-2m <sup>3</sup> /h/pot		