

## Shenzhen Southern Machinery Sales and Service Co., Ltd

### Wave soldering machine (S-WS300)



#### Specification

PCB Width	Max. 50~300mm
PCB transport height	750 ± 50mm
PCB transport speed	0~1.8M / Min
PCB transport angle (Welding Angle)	3~7 degree
Direction	L to R
PCB component height	Max. 100mm
Preheating length	1300mm
Wave amount	2
Preheating zone	3
Preheating power	6kw
Preheating temperature	Room temp~250°C adjustable
Heating method	Infrared (hot air optional)
Cooling zone	1
Cooling method	Centrifugal wind convection cooling knife up and down
Solder type	Lead free solder/common solder

Tin stove power	9kw
Tin amount	Approx. 280KG
Tin stove tempreature	Room temp <sup>~</sup> 300℃、Control accuracy ±1-2℃
Tempreature control	P. I. D+SSR
Machine control method	Siemens PLCcontrol +4.6 touching screen control
Flux capacity	Max5 . 2L
Flux flow	10 <sup>~</sup> 100ml/min
Fluxing method	Japan MSC rodless cylinder + Japan Meiji A - 100 Sprayer
Power	3 phase 5lines 380V(Can be suitable for 415V)
Start Power	Max. 9kw
Normal operation power	Approx. 2. 5kw
Air	4 <sup>~</sup> 7KG/CM2
Frame size	L2600×W1200×H1600MM
Dimension size	L3300×W1200×H1600MM
Weight	Approx. 1200kg
<b><u><i>The shell parts</i></u></b>	
Machine structure	Latest streamline shell design, the use of industrial channel steel frame, 2 mm thick steel plate bending shell, there are six body caster, another six foot cup up positioning placed with (adjustable body level and height); The front door for the two curved toughened glass, maximum Angle of design
Front door structure	Are fully enclosed extended two transparent toughened glass door open structure, each door set dual hydraulic gas spring stretch cover, to ensure maximum operating and maintenance space
Back door structure	Magnet appliance with button detachable structure of handling, the largest maintenance space
Machine top	Explosion-proof lights a set
Surface treatment	The whole machine spray computer grey
<b><u><i>Fluxing</i></u></b>	
Sprayer	USES the Japanese Meiji sprayer, spray range from 20 to 65 mm fan is adjustable, Sprayer height adjustable 50 ~ 80 mm, maximum flow 60 ml/min

Pneumatic system	Adopt import filters, valve and pipe joint, digital display pressure. And all the spray system trachea by SMC acid and alkali resistance, corrosion resistance of the trachea
The spray nozzle mobile system	Japan SMC rodless cylinder to drive, mitsubishi PLC intelligent control, use limit proximity switch and the board light eye to combination control, according to the speed and width of the PCB PCB board automatically detects induction spray.
Flux recovery system	Choose stainless steel bending molding tray below the nozzle, used to install wastewater and flux, drawn at random to cleaning;
Flux exhaust air filtration system	Convulsions system: double layer stainless steel wire mesh filter, the use of fluid characteristics of maximum filtering the excess flux
Isolation type air curtain	Is equipped with adjustable direction, barometric air knife, then blow to spray when excess flux recycling bins, prevent flux into the preheating zone, to ensure production safety .
Spray box structure	All 316 # stainless steel + aluminum alloy stent, cleaning and maintenance is convenient. High corrosion resistance and durability.
<b><i>Preheating</i></b>	
Preheating zone	1300 mm / 3 independent temperature control, super long preheating zone, can provide broad enough preheating adjustment space, can eliminate the negative aspects of a component on a PCB welding, adaptive low solid residue disposable rosin flux; Repeated impact, reduce PCB PCB heated evenly, can improve the production efficiency.
Temperature control mode	Mitsubishi temperature acquisition module, PID temperature control is accurate, reliable, imported thermocouple test system, do a thermocouple exception alarm function.

Heating element	USES the Taiwan exhibition heating element, heat fast, long life, small thermal inertia; Stainless steel mirror will transmit the heat to the bottom of the PCB and heat uniform temperature area, the temperature zone temperature complement each other, no deep groove phenomenon.
Preheating power	Total 6kw
Installation mode	Preheating system USES directly pull the drawer modular design, easy to maintenance and cleaning and maintenance
Preheating box cover	Using arc streamlined appearance design, filled with imported CSR high-density rock wool, enhance the heat preservation effect. The front end is equipped with the entire visible glass observation window
<b><u>Conveyor</u></b>	
High strength wear resistant guide rail	Southern Machinery special aluminum guide using high temperature wear resistance, stainless steel guide rail special thermal compensation anti-deformation telescopic structure to ensure that the guide plate deformation
Guide rail parallelism	Three synchronous slideway adjustable wide device, worm gear, worm higher precision screw the wide, the precision is less than 0.2 mm wide, 6 points support, keep the guideway parallel is consistent, without size head, the whole guide installation, not to be truncated, (with Angle ruler)
Adjustable wide way	Manual
With double claw	Southern Machinery special 1.5 MM titanium double claw (not deformation, non-stick tin), the thickness of the plywood $\cong$ 2.5 MM (into the plate for synchronous chain type feeder)
C/V Speed setting minimum unit	smallest unit 1mm / min 0-1800mm / min
C/V Speed variation range	Electronic closed-loop control within 0-10mm / min
Chain tightener	Chain tension adjustment

Conveyor motor	Taiwan lh-zd frequency conversion motor of 90 w, with overload limit and power protection device !
<b><u>Tin Stove</u></b>	
Tin stove material	4 mm thick lead-free material (316 l), high temperature resistant corrosion resistant, adapt to lead-free technology, long service life;
Economical to run	Controlled by PLC and photoelectric switch to plate spray up wave function and reduce unnecessary waste
Characteristics of the stove	Special structure of invasive nozzle (300 mm) wide, tin wave before and after (the first wave of disturbing the second wave of advection, wave) design (45 mm) for close range, the way into the tin for the next into the tin, reduce solder oxide, oxide slag gathered automatically, easy maintenance, do not produce black can uplift of tin slag powder; Tin furnace capacity of 280 kg
Low oxidation design	Tin furnace of high strength, high thermal stability, the use of liquid tin flow type design principle, decrease the impact of the tin oxide, oxide slag rarely work 8 hours straight, leaded solder 2.5 kg / 8 h, lead-free solder 3 kg / 8 h. Article tin impurities in different tin slag about deviation. Apply to Sn/Ag/Cu, Sn/zinc, Sn/Cu all kinds of lead-free solder
Movement of tin stove	Manual
Tin wave height adjustable	0-12MM
Wave motor	Italian company B&M high-temperature motor, frequency conversion accurately adjust the wave height, digital control

Heating element	Clip external use alloy casting board, Taiwan imports of resistance to dry heat pipes, stainless steel service life is long; External heating system, tin stove heating USES on the lower heating, more accurate, not explode tin! (hot plate can tear free handling, maintenance is convenient.) Our unique tin stove patent technology
<p><b><u>Cooling system</u></b></p>	
Cooling method	Lee knife use machine to produce centrifugal fan with forced convection air cooling export air temperature can reach below 30 °C, can obviously improve the lead-free solder eutectic generated when the cavitation and solder stripping problem.
<p><b><u>Automatic washing claw device</u></b></p>	
Imported high quality micro anti-corrosion chemical pumps, bilateral wash feet, propyl alcohol for cleaner, automatic cycle cleaning chain claw.	
<p><b><u>Software Control System</u></b></p>	
<ul style="list-style-type: none"> <li>● PC system adopts touch screen control is stable and reliable.</li> <li>● Using PC with mitsubishi programmer (PLC) communication, communication is stable and reliable, with mitsubishi communication software, communication rate highest adjustable 187.5 KBPS, instruct time &lt; = 0.2 milliseconds. Automatic identification of upper machine communication port, without having to select the communication port in the interface accordingly dialog. Telecommunication lines adopt mitsubishi private sidings (PC/PPI CABLE), anti-jamming is strong;</li> <li>● With PCB production report database, can automatically record the output of different types of PCB production, at the same time also can analysis report, print;</li> <li>● Real-time monitoring system for the user and machine operation status, automatically record and save the log in the day, the user can view and print the log;</li> <li>● Automatic fault alarm function, in the main window to view the alarm and alarm code project, also can alarm window to alarm list view to the alarm and alarm time project;</li> <li>● A thermocouple abnormal alarm function; Motor overload protection alarm</li> <li>● The nose, the tail is equipped with two emergency emergency system, special, please press the emergency situation.</li> </ul>	

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