Specification of YSL Inline Selective Soldering YSLHPS-12

1. Company profile

YSL was built in 2014, founded by professionals from SMT. Main productions: multipoints/signal-point selective soldering machines, lead-free all hot air reflow soldering machine, lead-free wave soldering machines and SMT peripheral equipment.

YSL is committed to environmental protection and energy saving electronic equipment R&D and manufacturing.

2. Introduction of selective soldering machine

2.1 Brief introduction:

- 1. Selective wave soldering is a special form of wave soldering which is developed to meet the needs of the development of the through hole components;
- 2. Selective soldering, each solder joint soldering parameters can be tailored, engineers have enough space to adjust each solder joint soldering parameters (such as: amount of flux, soldering time, soldering wave height) adjusting to the best, defect rate will be reduced largely, even to achieve zero defects.
- 3. Configuration: Single Track, Two Soldering pots. Welding two piece of PCB at the same time to double the throughput. Fixtures needed.



1.2 Structure:

1.2.1 Fluxing module:

- 1.Imported German nozzle (130 microns in diameter);
- 2.selective spray flux, soldering flux saving at least
- 90%; Spray flux width can be as small as 2mm, reducing pollution, cleaning free ion; XY axis servo motor control, high positioning accuracy;

2.2.2 Preheating Module:

- 1. Segmented modular layout, preheating more flexible;
- 2.IR preheating at the bottom, improve the efficiency, hot air convection on the top, preheating even;
- 3.Ensure the lead-free soldering, multilayer board, hot melt components, long and dense pitch components preheating.

预热模块

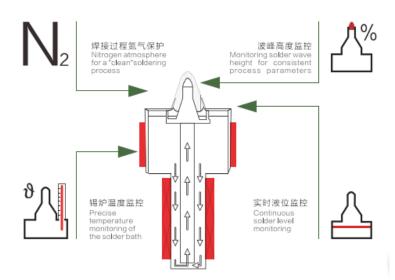


1.2.2 Soldering module:

- 1.XYZ three axis servo motor control, high control precision;
- 2.imported servo system and linear conveyor;
- 3. Ti alloy cylinder, plugging nozzle, convenient replacement, simple and quickly;
- 4. Minimum nozzle diameter 3mm, according to the different through hole components, adopting PTP soldering or drag soldering;

- 5. The wave peak is 5mm controlled, which can greatly increase the Tin climbing rate;
- 6. Nitrogen protection, Tin dross can be as less as 1kg/ week;
- 7. Tin furnace temperature, wave height, solder liquid level" real-time monitoring, and real-time compensation, at all times maintaining a smooth peak state.
- 8.Imported German "electromagnetic pump", no mechanical moving parts, no wear, to ensure the long-term stability of the peak!





3 Technical data:

Place of Origin Solder nozzle moving			
Soldering Mode			YSLHPS-12
Dimension (L*W*H · mm)		Place of Origin	China
Opened height		Soldering Mode	Solder nozzle moving
Weight(KG)		Dimension (L*W*H, mm)	2453mm*1733mm*1645mm
PCB width (Max.mm)		Opened height	2060mm
PCB Length (Max.mm)		Weight(KG)	Appx. 1000 kg
Transport Parameters		PCB width (Max.mm)	450 mm
Transport Parameters		PCB Length (Max.mm)	510mm
PCB transport direction		Transport width adjustment	50-450 (mm)
Parameters PCB transport direction L to R Conveyor fix mode Front Conveyor height 850±20 (mm) Flux and preheating module transport speed 9.8m/min Solder module transport speed 9.8m/min Positioning speed(mm/s) 400 mm/s Spray speed (mm/s) 20mm/s Nozzle max. speed (m/min) 7m/min Positioning accuracy (mm) ±0.2 mm Spray width (mm) 28 mm (nozzle size 130 μm) Flux module x axis distance 510mm Flux module y axis distance 450mm Flux content 2L Flux type RO/RE/OR level LoVL1/M0 according to IEC61190-1-1 Spray pressure 0.51.0 bar nozzle 130 μm, alternative diameter (Germany imported) Preheating mode Dynamic preheating / IR preheating Heating speed (°C/s) 0.4°C/s Top heater power 4KW Top heater voltage 220V Bottom heater voltage 220V CDA pressure 0.5-0.7MPa Solder pot and drive 3-axis servo control	_	Transport width adjustment mode	automatic
Conveyor fix mode		PCB transport direction	L to R
Flux and preheating module transport speed 11m/min	. aramotoro	Conveyor fix mode	Front
Solder module transport speed 9.8m/min		Conveyor height	850±20 (mm)
Positioning mode			11m/min
Positioning speed (mm/s) 400 mm/s Spray speed (mm/s) 20mm/s Nozzle max. speed (m/min) 7m/min Positioning accuracy (mm) ±0.2 mm Spray width (mm) 28 mm (nozzle size 130 µm) Flux module x axis distance 510mm Flux module y axis distance 450mm Flux content 2L Flux type RO/RE/OR level LO/L1/M0 according to IEC61190-1-1 Spray pressure 0.51.0 bar nozzle 130 µm, alternative diameter (Germany imported) Preheating mode Dynamic preheating / IR preheating Heating speed (°C/s) 0.4°C/s Top heater power 4KW Top heater power 10.4KW Bottom heater power 220V CDA pressure 0.5-0.7MPa Solder pot and drive 3-axis servo control Additional top heater above solder pot? Solder head position middle pump Germany imported induction pump Solder nozzle fix mode Plug in and out		Solder module transport speed	9.8m/min
Spray speed (mm/s) 20mm/s Nozzle max. speed (m/min) 7m/min Positioning accuracy (mm) ±0.2 mm Spray width (mm) 28 mm (nozzle size 130 µm) Flux module x axis distance 510mm Flux module y axis distance 450mm Flux content 2L Flux type RO/RE/OR level LO/L1/M0 according to IEC61190-1-1 Spray pressure 0.51.0 bar nozzle 130 µm, alternative diameter (Germany imported) Preheating mode Dynamic preheating / IR preheating Heating speed (°C/s) 0.4°C/s Top heater voltage 220V Bottom heater power 10.4KW Bottom heater power 220V CDA pressure 0.5-0.7MPa Solder pot and drive 3-axis servo control Additional top heater above solder pot? Solder nozzle fix mode Plug in and out		Positioning mode	2-axis servo control
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pump Germany imported induction pump Solder nozzle fix mode Plug in and out		Solder content	13KG * 2
Solder nozzle fix mode Plug in and out		Solder head position	middle
		pump	Germany imported induction pump
Solder nozzle spray mode Immersing		Solder nozzle fix mode	Plug in and out
and the second s	ı	Solder nozzle spray mode	Immersing

Soldering	(immersing?)	
module	Nozzle lifetime	2-3 months
	Nozzle change time (S)	20s
	Min. nozzle diameter(mm)	3 mm, external diameter 4.5 mm
	Max. Nozzle diameter(mm)	Internal diameter 25mm external diameter 29mm
	Max. wave height ((mm)	5mm
	Max. soldering temperature (°C)	350 °C
	Heat time (Min)	Approx. 75 Min.
	X/Y positioning speed (mm/s)	200 mm/s
	Z positioning speed (mm/s)	100 mm/s
	Soldering speed (mm/s)	10 mm/s
	Positioning accuracy (mm)	±0.15 mm
	Soldering X Max. distance(mm)	510mm
	Soldering Y Max. distance(mm)	450mm
	Max. Z axis distance(mm)	58mm
	Max. pot moving speed(m/min)	5.8m/mim
	Max. air consumption(m ³ /h)	5 m ³ /h
	connector	NW 8
	Exhaust tube diameter	2 X Φ150mm 、3 XΦ150mm
	Overall exhaust level(m ³ /h)	300 m3/h、450 m3/h
Gas parameters	Exhaust level for each connector(m³/h)	150 m3/h
	Inlet pressure(bar)	3 bar-6bar
	Nitrogen supply (L/Min, single pot)	Approx. 25L/Min
	Recommended level of purity	5.0 (equal to 99,999 % or max. 10 ppm of other gases).
	Ambient temperature	1040 °C
	Air humidity	2095 % (Non-condensing)
Ambient conditions	Continuous sound level	< 60 dB (A)
	Main switch	lockable
	Emergency off switch	3 x
	Exhaust monitor	Pressure transducer
	hood	Software control /trigger with switch
	Abnormal alarm	Higher or lower temperature warning
	Board drop warning	3 color signal light: yellow-warm, green-constant temperature, red- abnormal
Electronic parameter	Main voltage	3 x 220/380 V, N
	Voltage tolerance	±10 %
	Main frequency	50 / 60 Hz
	Back-up fuse	3 x 80 A (slow-blow)
	Normal power consumption*	25 kW
	Normal current consumption	60.5 A