Mini Selective Wave Soldering

Features :

1. It is a multi-purpose machine. It can be used for single-point soldering, single-edge soldering, removal of ICs and parts, or special soldering.

2. Solder pot is made of corrosion resistant alloy . Solder pumping mechanism and heater are made from special steel alloy material . No corrosion and no bursting apart problem in lead free soldering.

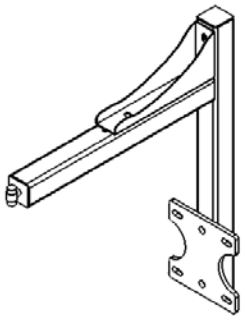
3. This machine is compact and versatile . It is easy to be transported and space saving.

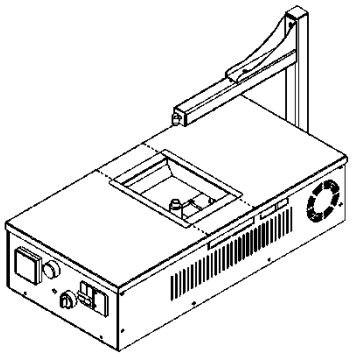
4. Various types of nozzles can be customized.

5. Solder wave controlled by infinitely variable speed.

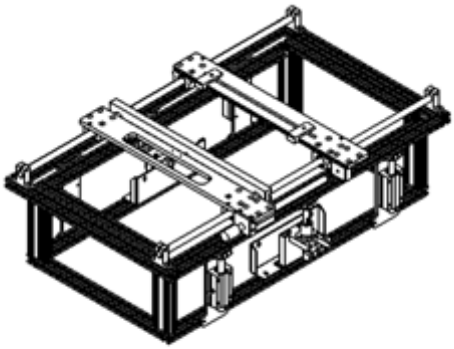
Machine option:

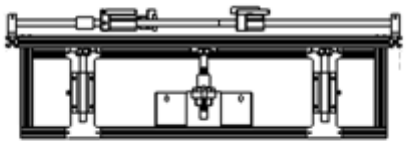
1- Laser positioning device

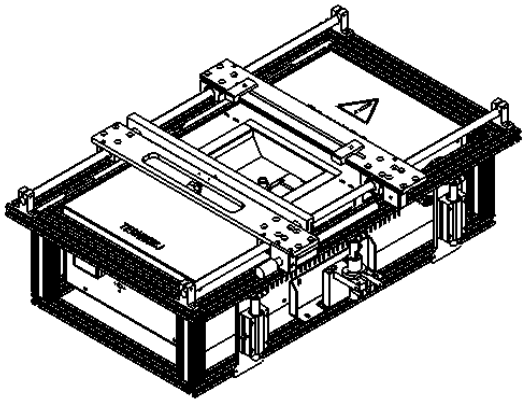




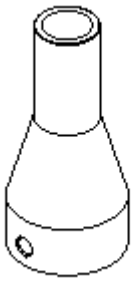
2-PCB auxiliary support structure

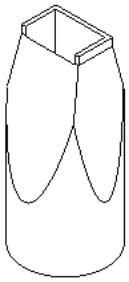


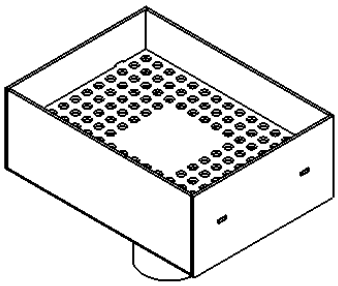


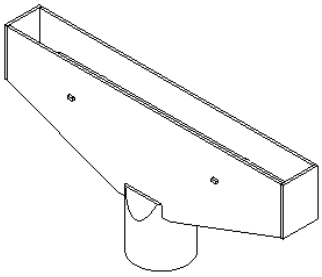


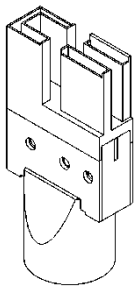
3-Nozzle model option :











Operating conditions:

1.Operators need to wear protective clothing, goggles and protective gloves.

2.For the first use, please confirm whether the voltage of the device matches the voltage of the connected socket and whether the socket is grounded.

3.Please turn off the power when the device is not in use.

4.Please confirm the cross section and current carrying capacity of the extension cable when using the extension cable.

5.Do not block the cooling vents of the device.

6.Please ensure that someone is on duty when the equipment is heating.

7.When replacing the nozzle, please turn off the jet flow, and put the replaced nozzle in a safe place.

8.For the equipment with the optional laser positioner installed, please do not look directly into the laser beam.

Cautions:

Use environment attention

1.This equipment can only be used in factories with good environment, please contact the manufacturer for use in other harsh environments.

2.Do not place in direct sunlight, humid air or places with severe vibration.

3.Do not place it in an inclined or unstable position.

4.To prevent other chain disasters in case of solder leakage, please use a steel workbench.

5.To prevent the odor caused by the high temperature melting of the solder, the use environment needs to be ventilated or installed with ventilation equipment.

6.Please leave enough space around the device.

Solder selection

1.Please use solder within the shelf life.

2.Recommended OSn60%, Pb40% combined solder. or lead-free solder (Sn, Ag, Cu).

3.Using inappropriate solder has the risk of reducing equipment life and affecting the soldering effect.

4.Please do not mix different types of solder.

5.What circumstances do you need to replace the solder?

*Solder fluidity is poor after high temperature heating.

*Solder is dull after high temperature heating.

*Too much solder oxide.

*There are too many impurities in the solder after being used for many times.

Power parameter:

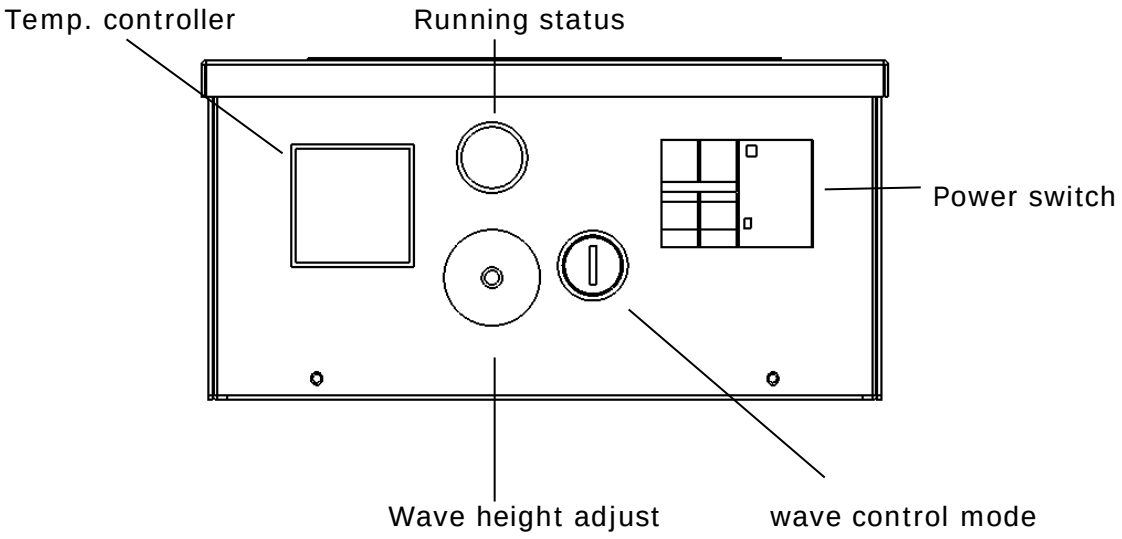
1.Power supply: 220v,single phase,50/60hz, 1.6kw
(option :110v)

2. Temperature setting range: room -300℃

3.Motor: AC-1200rpm ,DC-3000rmp

4. Built-in protection: overload protection, leakage protection

Operation panel:



1.Temp. controller: used to set the temperature of solder.
For detailed operation instructions of the controller, please refer to the instruction manual of the attached.

2.Wave height adjustment: control the wave height.

3.Over temperature alarm: When the PV value of the temp. is greater than the SV value by 20℃, the alarm will start, and the alarm will be released when the PV value recovers to less than the SV value +20℃ after manual troubleshooting.

4.Wave control mode: the following three gear options

*Wave keep: The wave starts all the time in this gear.
*Wave stop: The wave is closed in this gear.
*Manual mode: The wave is controlled by the external input signal in this gear.
When the input signal is closed, the wave will start, otherwise the wave stop.

Notice! External input signal plug with 220(110v) voltage, please do not touch when the machine is powered on. Please cover the protective cover when the external input signal plug is not in use.

5.Power switch: The main power supply of the equipment, the switch has its own overload protection and leakage protection functions, which need to be checked every month.

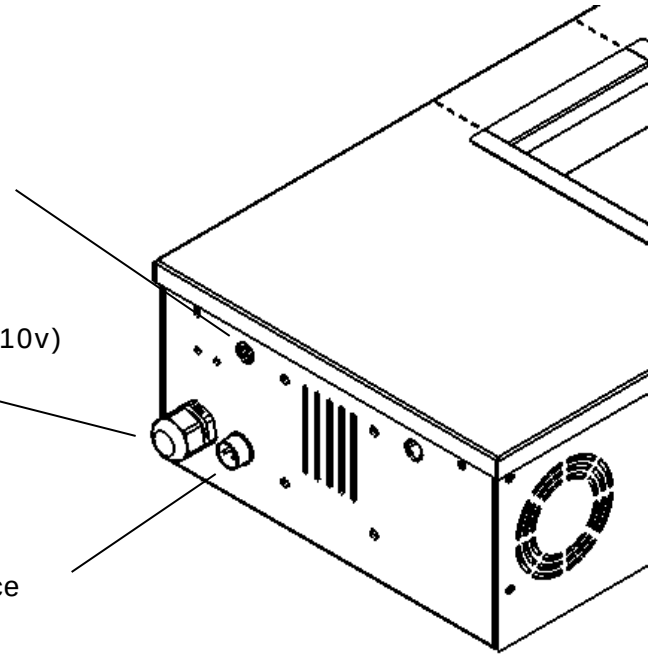
Input :

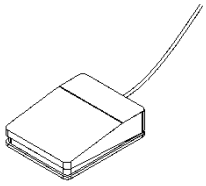
Nitrogen filling interface

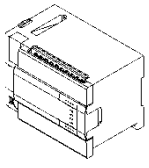
Power supply:220v(option:110v)

External signal input interface

pedal /PLC/others



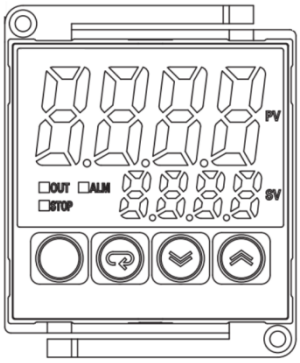




Notice: If you are not familiar with external signal circuits, please seek professional electrician help.

How to use:

1.The temp. controller set

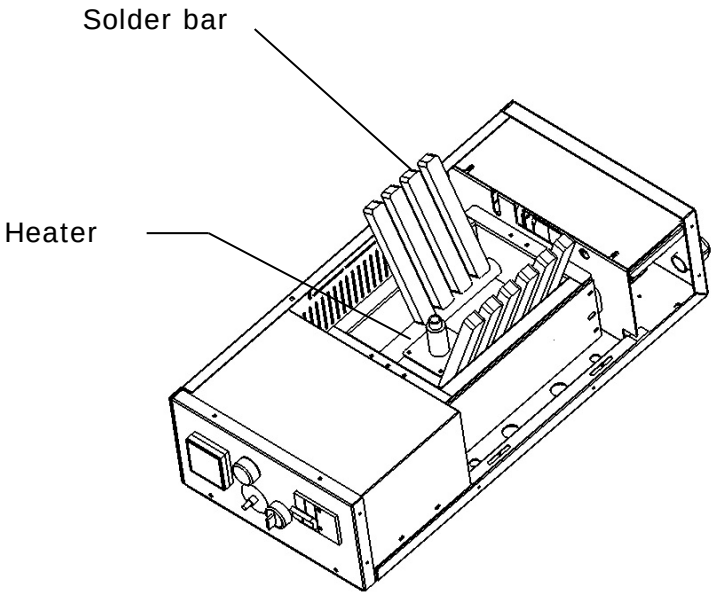


* Please refer to the temp. controller manual.

* The factory setting is that the wave can only be started when the PV value is within the SV value of ±10°C, and the ALM indicator light will light up when the start condition is reached.

* The factory setting is that the alarm will start up when the PV value is higher than the SV value by 20°C.

2.Melt solder



* Set the temperature to 280°C to melt solder.

* If there is no solder in the pot, please do not set the SV value of the temp. higher than the PV value to avoid dry burning.

* Solder needs to be added to at least 80% of the pot to ensure stable wave flow.
*Wear protective clothing/ goggles/high temperature gloves.

3.Start wave

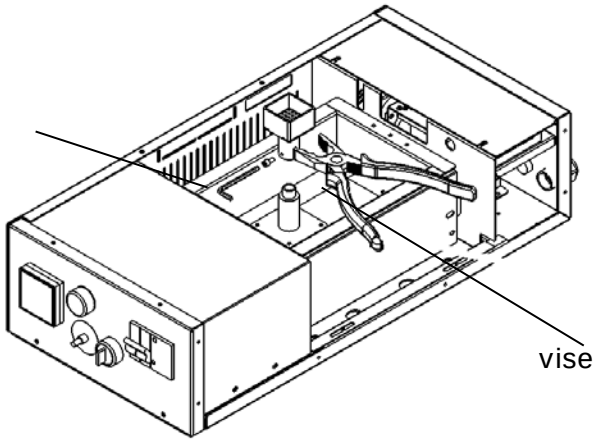
*Make sure the solder is completely melted before starting.

*The wave height starts from 0 and slowly adjusts to the required height.

* There is a risk of clogging of the nozzle when using a nozzle size smaller than 2.0mm. When the nozzle is blocked, please stop wave in time to avoid blowout. Remove the nozzle and immerse it in the solder until the nozzle is dredged, then put it back into the device and start the wave again. If the nozzle is blocked and cannot be removed, you can use a heat gun to blow the hot nozzle.

4. Replace the nozzle

hexagonal wrench



*Prepare the vise and hex key.
*Operate at high temperature, please take personal protection.

Main parameters
Specifications :
Power Source AC 220V , 50/60HZ 1PH, 1.5KW (option:110V)
Pot capacity About 15 Kgs
Variable Temperature range 0- 399 Degrees , can be set any degree freely, with intelligent control,
Dimensions :L760 x W250 x H250mm (Subject to change)
Net Weight 20 Kgs

Nozzles can be customized or choose standard size,

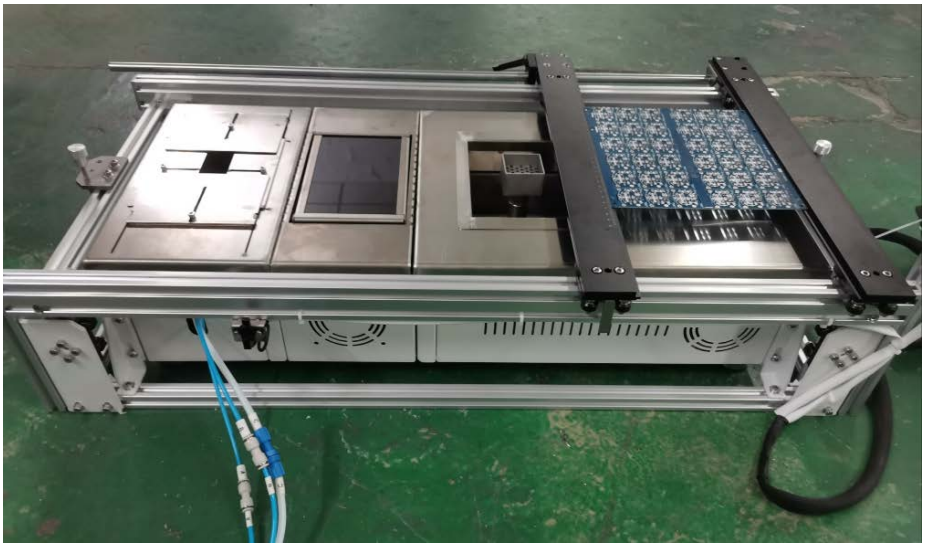
the rectangular nozzle is listed below:

Model	External size(mm)	Internal size(mm)	Apply
PB-16	13*25	11*23	14～16Pin IC
20	13*30	11*28	18～20Pin IC
28	21*40	19*38	24～28Pin IC
34	8*47	6*45	Flat plug-34Pin
40	8*54	6*52	Flat plug-40Pin
42	21*60	19*58	36-40Pin IC
50	8*67	6*65	Flat plug-50Pin
60	60*60	58*58	Transformer/pcb
100	26*63	24*61	54-64Pin IC
1040	20*100	18*98	Plug,other
1050	12*42	10*40	Plug,other
1080	12*52	10*50	Plug,other
10100	12*82	10*80	Plug
10130	12*102	10*100	Plug
13100	15*102	13*100	Plug
13120	15*122	13*120	Plug
2525	27*27	25*25	PGA
3030	32*32	30*30	PGA
3535	37*37	35*35	PGA
4040	42*42	40*40	PGA

the circular nozzle is listed below:

Diameter: 2.0/3.0/4.0/5.0….12mm

Variant models with preheat and flux spray unit



1- Preheat unit
After applying flux to the PCB, the preheating unit heats the PCB to a certain temperature.

The purpose is to activate the flux, evaporate the trace moisture in the flux, reduce the temperature difference between the PCB and the solder, and ensure excellent soldering results.

The activation temperature of flux typically ranges from 80 to 150 degrees Celsius. You can consult your flux supplier for the specific value.

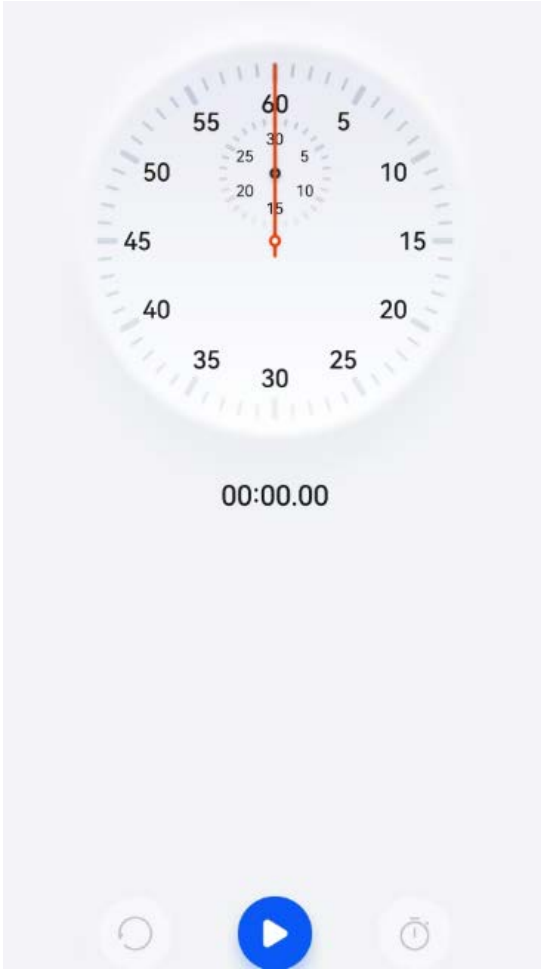
The preheating is controlled by the timer. How do we set the timer time?

For example:
Assuming the flux's activation temperature is 100°C, the PCB needs to be heated to 100°C. How do we set the timer time?

The user needs to prepare an infrared thermometer in advance, similar to the following:

Then set the preheating timer to 3 minutes to allow continuous heating for that duration.

When everything is ready (the PCB is placed in the preheating zone and the infrared thermometer is prepared), you can use the stopwatch function on your phone to time.



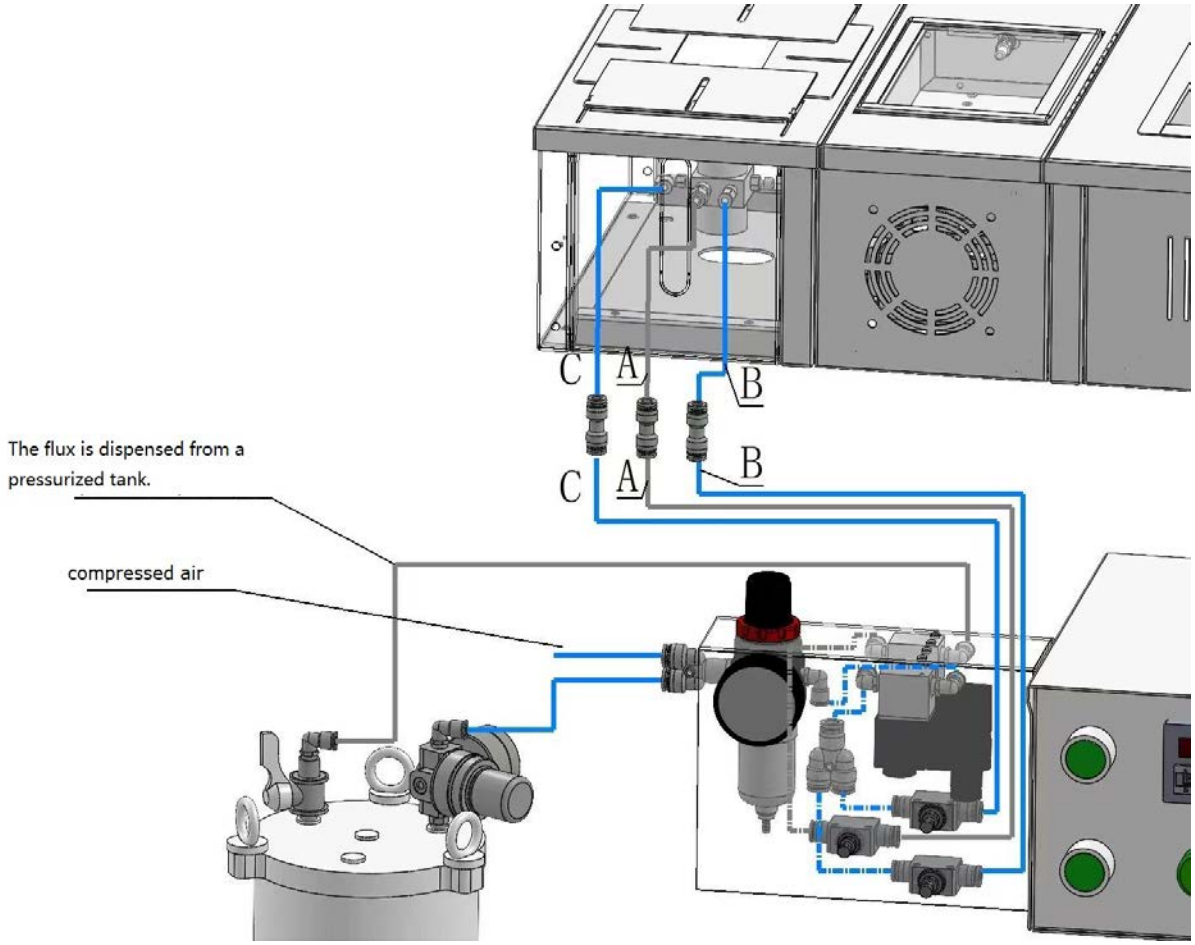
Press the preheat button and start the timer simultaneously.

When the PCB reaches 100°C, the time displayed on the stopwatch at that moment is the duration that should be set for the timer.

2- Flux spray unit

The spray unit needs compressed air, so the user needs an air compressor that can output at least 0.6Mpa compressed air.

Schematic Diagram of Air Pipeline Connections



Pressure range: 0.5-0.6Mpa

The flux nozzle can be controlled by three adjustment valves, namely:

Air pressure
Volume
Pattern

The nozzle start is controlled by a reset button, and the spray time is usually 1-2 seconds for coating.