

Wave soldering ovens

Acrab 450 & 350



Introduction:

I.C.T Acrab lead-free wave soldering machine has long-term positive feedback from customers. Its unparalleled heating performance and temperature control system meet the requirements of various welding processes, especially energy saving design has been a leading-edge product advantage, maximum reducing the using cost for customers.

Features:

- 1.Nozzle: Japan Kuroda Seiko nozzles, adjustable atomizing area, ensuring the long time spray uniformity and reliability.
- 2.Spray control: computer control or manually adjust switch, precise control the spray time, spray speed, economy and environmental protection, digital FLUX flow, spray flow, angle, density, width and other parameters can be recorded.
- 3.Cleaning device: automatic cleaning, modular design, easy maintenance.
- 4.Temperature Protection: third-party over-temperature protection, multiple protection layers to ensure safe operation.
- 5.Products comply with CE, CCC, UL and other standards and specifications.
- 6.User-friendly design: fault detection (such as heaters abnormal alarm, etc.), regular maintenance reminders,economy functions, emergency manual transmission function and tool-free maintenance, reduce equipment failure rates.
- 7.Heating module: horizontal reflow design makes each heating zones not influenced by adjacent zones to ensure accurate temperature curve, while ensuring high production capacity and heat exchange capacity, and achieve high adaptive capacity (to meet the soldering of automotive electronics, communications, electronics, computers and mobile phones, and other consumer electronics.).
- 8.Moving parts: Computer adjustment, stepper motor control, accuracy and stability, to ensure accurate spray.
- 9.Temperature control: PLC + PID independent temperature control, real-time monitoring preheat temperature.
- 10.Core components: using imported components to ensure long-term stability of equipment operation, reduced maintenance costs.
- 11.Can choose different configurations of flux processing system, to ensure the furnace hall clean.
- 12.Closed-loop transmission speed control systems, transportation control accuracy $\pm 2\text{mm} / \text{min}$, ensuring speed more stable.
- 13.Dross Collection: Automatic dross return channel,the most energy-efficient channel design.

TOP Advantage:

Simple: combined with advanced international concepts, based on the Oriental-designed operating system, easy to learn, easy to maintain.

Expertise: learn imported reflow oven's advanced design concepts, and the components are using imported top brands.

Hedging: Import hardware configuration,low failure rate in production,more than a decade service life.

Safety: Based on the general rules of international design, close to imported reflow rating, the highest security level.

Stable: mature software, hardware and top production processes ensures stability of each equipment.



Design Concept

Simplistic

Flexibility

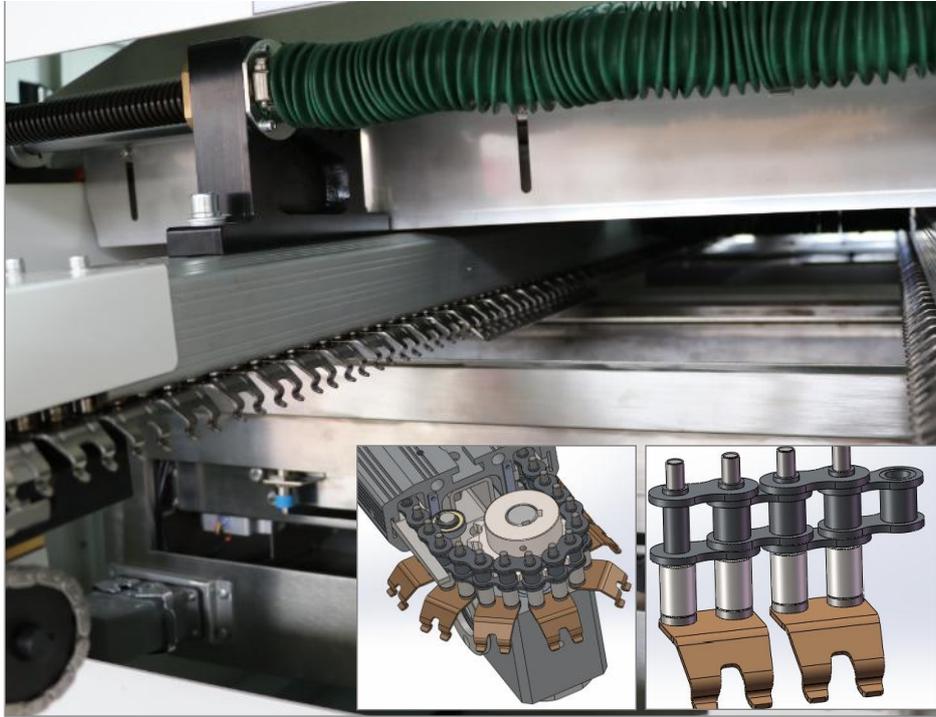
Open Design

Modular Structure

Easy Maintenance

Tool-free Concept





Conveyor System

Roller type double hook finger, force point increases roller sleeve, effectively reduce friction and wear.

Increase guide bracket and guide wheel, prevent chain knotting and clamping, and ensure transport stability.

Titanium finger no wetting and no deformation.

Full load > 60 kg.



Heat-resistant and high-density aluminium support, no deformation.

Transportation angle can be adjusted to ensure different welding processes.

Japanese transport motor, frequency conversion control, high accuracy of transport speed.

Central support is optional.

Titanium finger are optional.

Spray System



316 stainless steel material, corrosion resistance.

Sealing structure design to prevent flux pollution.

Tool-free plug-in filter with self-contained air extraction system.

Cover is opened manually, conducive to maintenance.

Selective spray optional.



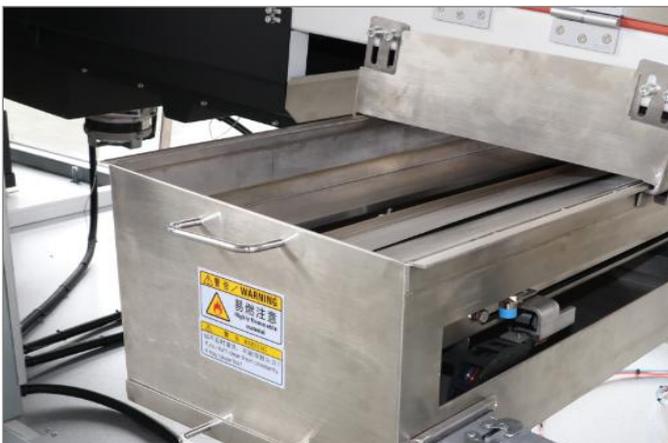
Japanese high precision nozzle, uniform spraying volume.

Automatic cleaning function, prevent clogging.

The spraying range can be adjusted, suitable for different size PCB, saving flux.

Hose adopts anticorrosive material.

Barrier-type safety design, flux will not leak.

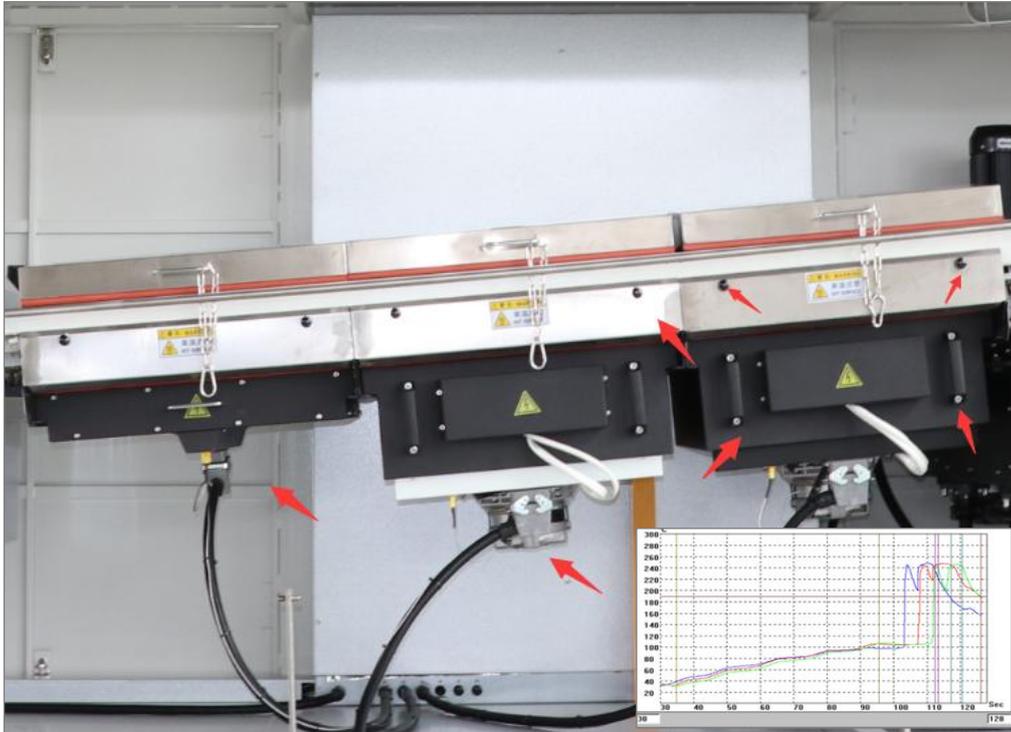


The whole drawer modular retractable structure.

TE brand plug-in link structure, tool-free maintenance mode, more maintenance space, reduce maintenance time.

Stepper motor drive mode, stability higher than cylinder.

All using anti-corrosion materials.



Preheating System

Efficient and stable heat conduction.
Design structure for maximizing preheating area.

All round high temperature cotton design to ensure temperature stability.

Heat-generating and heat-conducting parts and motors adopt top brands.

Addressing the technological challenges of different Products.



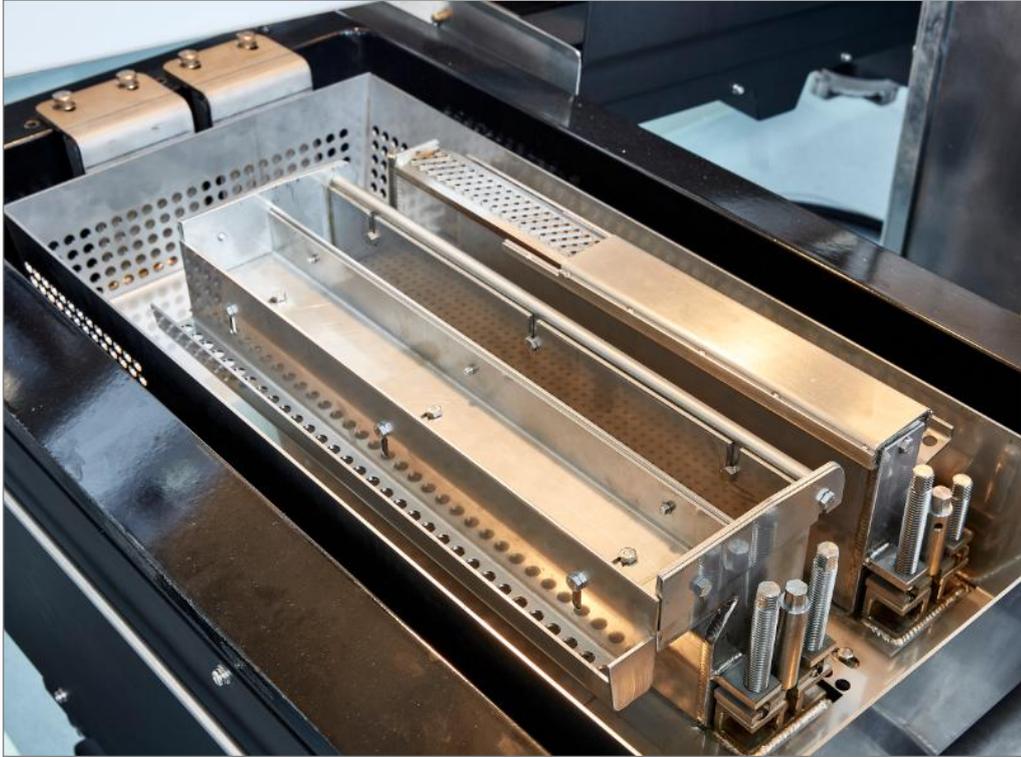
Modular design concept .

Drawer structure.

Maintenance plug-in design. tool-free maintenance mode.

IR and hot air preheating structure.

Flexible interchange of different preheating modules.



Soldering System

- Steady solder flow channel design.
- Wave peak stationarity less than 0.5mm
- Easy maintenance design structure.
- Minimum oxidation of tin slag.
- Wave peak Inverter Control.



- Modular design concept .
- Maintenance plug-in design.
- Cast iron pot, prevent pot deformation
- Heat-generating and heat-conducting and motors adopt top brands.
- Automatic tin feeding device is option
- Central support is optional.



Cooling System

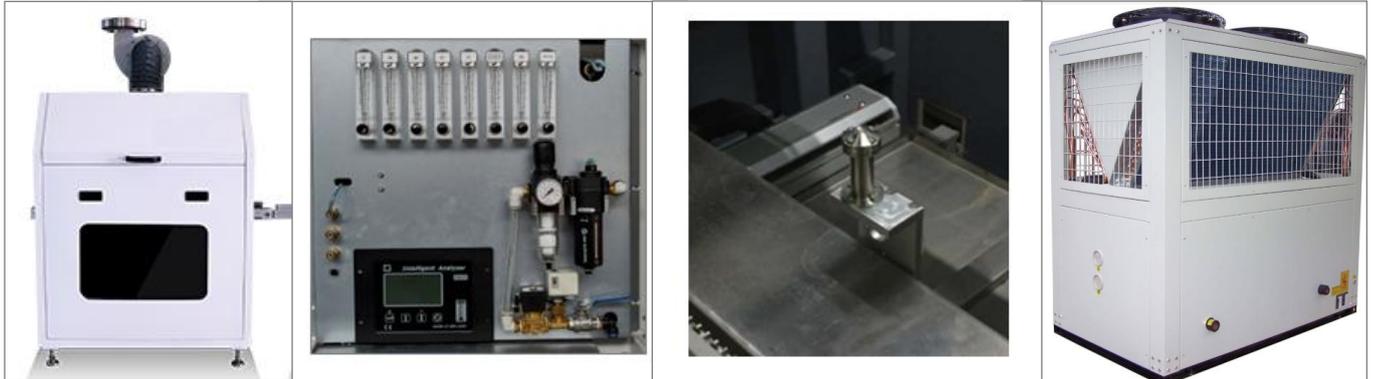
- Top and bottom convection modes.
- High Power Cooling Fan.
- Chiller is optional.



Control System

- Humanized Operating Interface.
- Standard circuit design, safe and reasonable.
- Top brand for core parts

Option :



External flux sprayer

Nitrogen protection

Selective flux spray

Chiller

Materials List :

No.	Item	Brand	Original
1	Nozzle	Kuroda	Japan
2	High Temp. Motor	I.C.T	Taiwan
3	Heating Wire	OMEGA,Hotset	Japan, Gemany
4	Guide rail	I.C.T	Taiwan materials
5	Sensor	OMRON, LEUCE, KEYENCE	Japan
6	Stepper motor	SANYO, Leadshine	Japan. China
7	Finger	I.C.T(titanium)	China
8	Soler pot	I.C.T(cast iron)	China
9	Software	I.C.T	China
10	Motor	BPMC, Oriental	Japan
11	Switch	SMC, Schneider	Japan, France
12	Bearing	NSK	Japan
13	Soft Cable	IGUS	Gemany
14	Tanks chain	IGUS	Gemany
15	PC	LENOVO,DELL	China,Gemany
16	Solid relay	Carlogavazzi	Switzerland
17	Frequency converter	Delta	Taiwan
18	Button	Schneider	France

Parameter:

Specifications	Acrab350	Acrab450
Dimension:(mm)	4420X1420X1750	4420X1520X1750
Weight(kg)	Approx.1600kg	Approx.1900kg
Power Supply	3P5W,380/220V 50Hz	3P5W,380/220V 50Hz
Startup Power	33kw	33kw
Operation Power	8kw	8kw
Control System	PC+PLC	

