

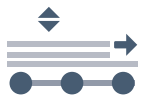
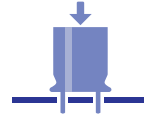
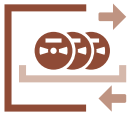
iCube

JUKI

JUKI Smart Solutions

Selective Soldering System

All-in-one inline selective soldering machine for increased productivity, reliability, and ultimate flexibility.



High quality, flexibility and reliability offered in a complete all-in-one package is what you get with the inline iCube Selective Soldering System. Feature rich and designed for high-end production, the iCube is the answer to all of your soldering needs.



FEATURE 1: Board Clamping System

Unique heavy duty topside board clamping system ensures stability of PCB during soldering.



FEATURE 2: Live Process View Camera

Live viewing of the soldering can assist in the process setup and continuous monitoring throughout the process. Both video and still images can be acquired from the software for archiving.

Dual pot systems include dual cameras.



FEATURE 3: Optional Dual Solder Pots

Unlike our batch Cube.460 system, the iCube dual nozzle is configured with dual soldering pots, which can be used either with dual nozzles and same alloy for ultimately flexibility, or with dual alloys and a single nozzle in each pot.

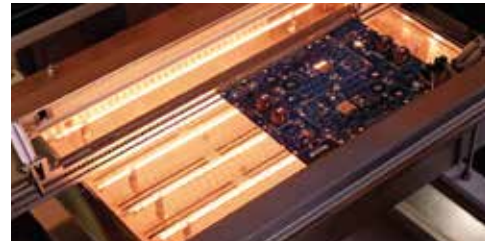


FEATURE 4: Micro-dot Drop-jet Fluxer

With a 130-micron orifice controlled by a closed loop servomotor, accurate flux deposition is guaranteed.

FEATURE 5: Bottom Side Preheater

Full size (20" x 18") fast reacting quartz IR preheater ensures precise preheating and flux activation before soldering.



FEATURE 6: Topside Heaters

Optional topside IR or convection heaters ensure the best soldering results even on the most challenging assemblies. Top heaters can be installed directly over the bottom preheat for additional preheating and/or directly over the solder pot(s) for continuous process heat.



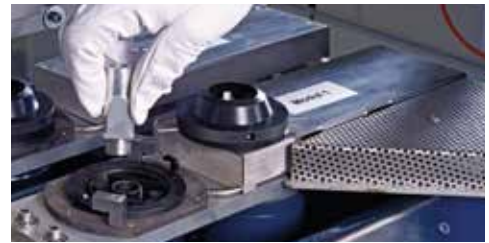
FEATURE 7: Heated Nitrogen at the Nozzle

Heated N₂ supplied at the nozzle tip is always a standard feature on JUKI machines and provides the best means of inerting the wave. Temperature, and off/on can be controlled in the software. This provides great assistance on the most challenging PCB' s.



FEATURE 8: Quick Change Nozzles

The new nozzle design allows for even quicker changeover times compared to previous models. The entire assembly can easily be removed for maintenance or allow for quick removal of the tip for changing to a different size. The tips are held in place by the locking cover to ensure constant positioning accuracy. There is no need for threading the nozzle which can cause it to fill with molten solder making them difficult to remove and replace.



FEATURE 9: Superior Build Quality

The iCube is built with superior quality and expert craftsmanship. The highest quality parts and material are designed into the machine beginning with the frame and on to the servomotors through to the solderpot platform. You can expect quality production for the life of the machine.



iCube Options

- Dual nozzles in separate solder pots for same or dual alloys
- Additional solder pots for different alloys
- Specialty solder nozzles
- Topside preheater (over bottom side preheater)
- Topside maintenance heater (over process area)
- Board warpage control
- Closed loop pyrometer control on the preheaters
- Spray Fluxer

Specification

Machine Specification iCube Inline

Dimensions	L 3000 mm; W 1550 mm; H 1310 mm (119" x 61" x 52")
Colour	RAL7035; RAL7021
Exhaust Opening	3 ports - Ø 150 mm (6")
Extraction Rate	400CMH per port (235CFM per port)
Power Requirements US	76A*, 208VAC 3 Phase, 50/60Hz or 34A*, 480VAC 3 Phase, 50/60Hz; 22kW max.

System Control

Control Concept	PC; Beckhoff PLC
Interface	Ethernet, USB
UPS	Optional
PC	Windows 7 PC; Flat screen monitor; keyboard; mouse
Offline Software	Offline software for easy programming
Axis Drive	Closed loop servo motor control for soldering and flux axis
Accuracy	±0.10 mm (±0.004")
Repeatability	±0.15 mm (±0.006")

Conveyor/PCB Size

Dimensions Min/Max Length x Width	Min. 80 x 50 mm/ Max. 510 x 460 mm (3.1" x 2" / 20" x 18")
Soldering Angle	0°
Bottom Side Clearance	20mm (.78") (standard) over the nozzle
Topside Clearance 1	100 mm (3.94")
Pin Chain Conveyor	Segmented conveyor with 3 mm bottom edge and 5 mm top edge

Flux System

Fluxing Head	Micro Drop (standard); Spray Fluxer (optional)
Recommended Flux	Alcohol based with < 5% solids recommended
Flux Container	5 litre pressurised pot with level indicator

Solder Pot

Solder Pot	Pb free capable
Solder Pot Capacity	25 to 30 kg (55 to 66 lbs.) depending on alloy
Additional Solder Nozzles	Ø4mm (ID) – Ø20mm (ID) (0.15" – 0.79")
Warm Up Time	Approx. 45 minutes
Solder Temperature	Max. 340°C
Solder Temperature Control	PID controlled
Solder Wave Height Control	Program controlled via titanium pin
Solder Wire Feeder	Motor driven up to 2mm (0.08"), solder wire max. 5 kg
Nitrogen Inertion	Recommended 10 PPM (99.999%) purity, Minimum 100 PPM (99.99%) purity
Nitrogen Consumption	Max. 40 liter/minute Single Nozzle / Max. 80 liter/minute Dual Nozzle

Preheat

Bottom Preheat	Quartz IR emitters
Top (Optional)	Quartz IR or Convection
Topside Maintenance Heat	Quartz IR to Convection



JUKI CORPORATION HEAD OFFICE
 The activities of research, development, design, sales, distribution, and maintenance services of industrial sewing machines, household sewing machines and industrial robots, etc., including sales and maintenance services of data entry systems.

*Please refer to the product specifications for details.
 ■JUKI Specifications and appearance may be changed without notice.

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