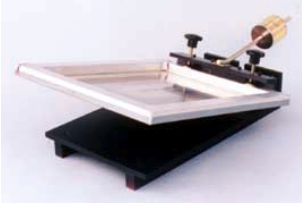
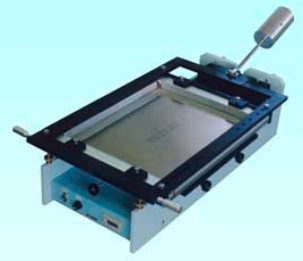

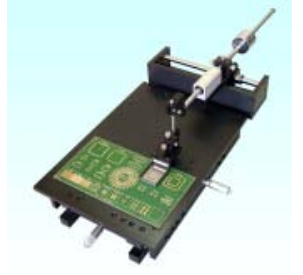


SMT SOLDERING EQUIPMENT

Printing of Solder Paste

◆ Manual Screen Printers

(These printers use metal masks to apply solder paste to printed circuit boards.)

 <p>SP-300L</p> <ul style="list-style-type: none"> • This is a low-cost, easy-to-use screen printer. • Capable of printing on boards up to Max 200×300 mm (A4). • Both a cast frame and pipe frame can be used. <p>(W)250×(D)600×(H)200mm 7kg</p>	 <p>SP-410M</p> <ul style="list-style-type: none"> • This is an ideal manual screen printer. • Capable of printing on boards up to Max 200×300mm (A4). • Both a cast frame and pipe frame can be used. • Has built-in counter and vacuum source. <p>(W)330×(D)800×(H)300mm 20kg</p>
 <p>SP-650</p> <ul style="list-style-type: none"> • This is a large manual screen printer. • Capable of printing on boards up to Max 350×450 mm (A3). • Both a cast frame and pipe frame can be used. • Fine-adjustment by micro meter X,Y,θ(±10μm). <p>(W)400×(D)1030×(H)480mm 25kg</p>	 <p>SP-100</p> <ul style="list-style-type: none"> • This is a screen printer for single LSI. (QFP, BGA, CSP) • This printer prints the solder paste of LSI 1 piece by using micro screen. • Fine-adjustment by micro meter X,Y(±10μm). <p>(W)250×(D)450×(H)160mm 8kg</p>

◆ Dispenser (Printing of Solder Paste)





 <p>HD-6780</p> <ul style="list-style-type: none"> • Dispenser applies solder paste and adhesives to a circuit board. • Usable as a vacuum pincette. <p>Air in : 2 to 7kgf/cm² AC120V/220V 8W (W)200×(D)190×(H)70mm 1.9kg</p>
--

◆ Micro Screen (QFP,BGA,CSP)

 <p>μS-100series</p> <ul style="list-style-type: none"> • This is a metal mask for single LSI. • Used for printing of solder paste and mounting of solder ball. • Custom made screen is available. <p>Material:SUS304 Thickness:0.08 to 0.25mm 14×28mm to 54×63mm</p>


Mounting of solder ball / BGA, CSP and MCM

Mount solder ball onto package of BGA and CSP with micro screen.

 <p>SP-100BR</p> <ul style="list-style-type: none"> • This is a low-cost, easy-to-use ball mounter for BGA. • Also this equipment can be used for printing of solder paste and flux. • A separate micro screen is necessary in each size of LSI. <p>(W)250x(D)450x(H)190mm 8kg</p>	 <p>BM-100</p> <ul style="list-style-type: none"> • This equipment is only for ball mounting of BGA, CSP and MCM. • It applies on 0.3 to 0.89mm\varnothing of a ball. • A separate micro screen is necessary in each LSI. <p>(W)240x(D)350x(H)410mm 10kg</p>
 <p>BM-100V</p> <ul style="list-style-type: none"> • BM-100V is equipped with a vision system on BM-100. • CSP of pitch 0.5mm and ball diameter 0.3mm\varnothing can be easily mounted. • A separate micro screen is necessary in each LSI. <p>(W)240x(D)350x(H)410mm 10kg</p>	 <p>BM-11series</p> <ul style="list-style-type: none"> • This is a low-cost, simple ball mounting device. • Because aerosol flux is sprayed, the print is unnecessary. • Position adjustment of a screen is unnecessary by using a special tool comes with the packages. <p>50x50mm to 80x80mm</p>

Mounting of parts

◆ Vacuum Suction Pincettes




VPseries

- This is the best for the handling of LSI or chip parts.
- 6 models for different uses.
- Picks up chips as small as 0603 up to large size QFP with the change of a nozzle.
- Operates with AC power supply.

(VP-40S)
(W)91x(D)132x(H)60mm
420g

◆ QFP Pick and Place Equipment





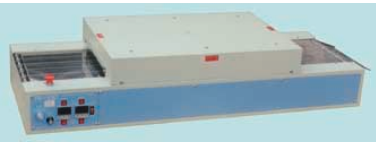



MP-7500series

- For manual Pick and Place of QFP.
- 3 models for different uses.
- For use on QFP of 0.3mm pitch and BGA, CSP.



(Model-3)
(W)640x(D)650x(H)500mm
35kg (Excluding CRT)

Reflow Soldering

◆ Far-Infrared Reflow Soldering Equipment

 <p>RF-110</p> <ul style="list-style-type: none"> • This is a manual type 1 zone reflow soldering equipment. • Heating time and temperature can be set up by timer and temperature controller. • It can reflow-solder both side of 200×200mm circuit board. • Temperature : Max 300°C • AC120V/220V 1.5kW (W)300×(D)550×(H)195mm 12kg 	 <p>RF-110N2</p> <ul style="list-style-type: none"> • This is a reflow soldering equipment of 1 zone and correspondence to nitrogen gas. • Oxygen density is 1000ppm or less. • It can reflow-solder both sides of 200×200mm circuit board. • Temperature : Max 300°C • AC120V/220V 1.5kW (W)340×(D)590×(H)210mm 14kg
 <p>RF-330</p> <ul style="list-style-type: none"> • This is a reflow soldering equipment of IR 2 zones. • Temperature : Max 300°C • Conveyer : W300mm, SUS mesh belt. • Applicable circuit board : Max300×300mm • AC220V, 4.3kW, 1Ø (W)1300×(D)500×(H)275mm 66kg 	 <p>RF-430series (Model-4)</p> <ul style="list-style-type: none"> • This is a reflow soldering equipment of IR 4 zones. • 4 model exist, such as correspondence to nitrogen gas or hot air convection. • Temp. Max 300°C • Conveyer : W300mm, SUS mesh belt. • Applicable circuit board : Max300×300mm • AC220V 8.3kW (W)1600×(D)660×(H)600mm 180kg
<p>Pb-free</p>  <p>RF-630</p> <ul style="list-style-type: none"> • This is a reflow soldering equipment of IR 6 zones. • Correspondence to lead-free reflow soldering. • Temp. Max 350°C • Conveyer: W300mm, SUS304 mesh belt. • Applicable circuit board : Max300×300mm • AC220V 6.5kW (W)1600×(D)590×(H)520mm 120kg 	<p>Pb-free</p>  <p>RF-460</p> <ul style="list-style-type: none"> • This is a reflow soldering equipment of IR 6 zones. • Correspondence to nitrogen gas and all lead-free soldering. • Temp. Max 350°C • Conveyer : W300mm, SUS mesh belt. • Applicable circuit board : Max300×300mm • AC220V 7.8kW (W)1500×(D)590×(H)640mm 150kg

◆ Reflow Soldering Equipment for Ceramic and Metallic Boards

 <p>RF-221</p> <ul style="list-style-type: none"> • This is a hotplate type reflow soldering equipment of 2 zones. • A Teflon belt moves over a hot plate and a circuit board is heated from the bottom through the Teflon belt. • Temp. Max 270°C • Conveyer : W140mm, Teflon belt. • Applicable circuit board : Max140×150mm / Ceramics and metal core boards. • AC120V 1kW • Top heater : SH-1 200W (Option) (W)800×(D)370×(H)234mm 25kg 	 <p>RF-250</p> <ul style="list-style-type: none"> • This is a hotplate type reflow soldering equipment of 5 zones. • For large-sized metal boards works with high heat capacity. • A circuit board is slides over a hot plate quickly, and a circuit board is heated from the bottom. • There is also a model corresponding to nitrogen gas. • Temperature : Max 400°C • Conveyer : W150mm • Applicable circuit board : Max150×150mm / Ceramics and metal core boards • AC220V 8.3kW • (W)1680×(D)550×(H)391mm 120kg
---	--

◆ Hot Plates



HT-1350

- Soldering, thermosetting of adhesives, etc. wide range of uses.
- Is fitted with a work plate making work after heating simple and safe.
- Temperature : Max 300°C
- Heating area : 120x140mm
- AC120V/220V 360W
- (W)250x(D)180x(H)100mm 2.5kg



HT-1420

- Exclusive rework hot plate for SMT circuit board.
- Equipped with a point marker, which makes working with even large boards simple.
- Temperature : Max 400°C
- Heating area : 50x50mm
- AC120V/240V 430W
- (W)200x(D)220x(H)270mm 3kg



HT-1800

- Two high precision independent hot plates are equipped.
- Two step heating, such as pre-heating and heating, can be performed.
- Temperature : Max 400°C
- Heating area : each 100x100mm
- AC120V/240V 1.2kW
- (W)430x(D)180x(H)100mm 5kg

◆ Vapor Phase Soldering Equipment ◆ Light-Beam Soldering Equipment



VF-500IS

- The VF-500IS is for an experimental use or pilot production use batch type vapor phase reflow soldering equipment.
- It allows reflow soldering by heating at a constant temperature of 215°C with heat of condensation emitted from the vapor of Fluorinert.
- Applicable board: Max100x100mm
- AC120V/220V 1kW
- (W)260x(D)260x(H)520mm 10kg



LP-8150MKII

- This is a manual light beam soldering equipment. Application to an automatic machine can be performed simply.
- Near-infrared rays emitted by the halogen lamp are collected by the reflecting mirror, which heat.
- Heat spot : 5mmØ diameter
- Temperature : Max 850°C
- AC120V/220V/240V 150W
- (W)230x(D)200x(H)300mm 6.5kg

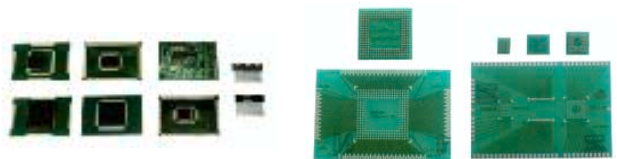
Epoxy Mold



PC-1000

- The PC-1000 is a powder coating equipment designed for the uniform coating of powder resin on Hybrid-IC and other electronic parts.
- It is only for SIP.
- Capable of handling everything from powder coating to curing.
- Applicable H-IC: Max90x40x20mm
- AC120V/220V 300W
- (W)350x(D)220x(H)200mm 4.5kg

SMT Training



- From 1005 chips to 160pin QFP and BGA training is possible for handling and soldering all kinds of surface mounted parts.

*Specifications are subject to change without notice.

2002.1-V1.0

JPL JAPAN PULSE LABORATORIES, INC.

Main Office: 425-3 Inari-cho, Isesaki-city, Gunma, 372-0804 Japan
Phone:81-270-23-1031 Fax:81-270-23-1943

Branch Office: 506-3 Komagata, Maebashi-city, Gunma, 379-2122 Japan
Phone:81-27-266-6381 Fax:81-27-267-1373

URL : <http://www.jpl.com/> E-mail : info@jpl.com

Agent