

PCB Lab Equipment

ZP6101 Surface Mount Backflow Soldering Machine



I.Function: Surface mount backflow soldering machine

II. Technical parameter: 1. In welding process, PCB is in static state/ The surface components should be in correct position, and avoid not be soldering.2. Soldering zone use far infrared ray heat, and high temperature motor force to be heated. 3. Equip with nitrogen protection connector, and use nitrogen to make protection.

4. Soldering zone use fuzzy control technology, you can only set 3 units of technical parameter, then you can control the whole temperature curve, and you can follow temperature change, blue backlight LCD display. 5. It use 320×240mm dot matrix high resolution LCD display, the dimension of LCD is 113mm Dot matrix high resolution LCD80mm. 6. The solding machine can be connected to PC, and use backflow curve to record save software. 7. The welding machine has 4 ways temperature sensor interface, sensor head is PT100, it can correct welding temperature curve through backflow analysis 8. Dimension: 600×450×500mm 9. Peak power: 3.5KW

ZP6118 Laser Plotter System



I. Introduction: Laser plotter system consist of laser plotter, raster image processing card, light painting output control software. It can process customer designed photo, image, letter, data. It can process one side, two sides, it can express Gerber file, can output PCB file, software function is strong, it is easy to use.

Image size: 400mm×300mm(12inchX16inch)

Scan density: 4000/8000DPI

Scan mode: External drum 8 roads parallel scan

Repeat accuracy: ±10μm

Scan speed: 6minutes/12minutes/18minutes

Operate mode: single sheet manual, semi-automatic selectable

Dimension: 850 mmX480mmX1100mm

Interface: all signals connect to PC is TTL level

Adapt range: AD, printing, silk print, PCB

ZP6102 PCB Exposer Etching Developing Equipments (Set)



I. Machine functions
1. Vacuum dual exposure 2. Imaging function 3. Circuit board corrosion function 4. Circuit board via hole function
II. Feature
1.It uses environment protection transparent material, students can see the whole process for go through holes.
2.Drawer type exposure function, it has vacuum sucker function, time control function, image function is made of transparent material.
III. Technical parameter
1.Circuit board plate making precision: 4-6mil, 0.1-0.15mm
2.Max image function dimension: 300×200mm(Transparent corrosion slot 1 set)
3. Max corrosion dimension: 300×200mm(Transparent corrosion slot 2 sets)
4. Max holes dimension: 300×200mm(Transparent corrosion slot 2 set)
5. Temperature controller: 45-65, and it is adjustable
6. Minimum through hole precision: ϕ 0.3mm
7. Pump work pressure: 1.2KW
8. Work power: 220V, 50Hz
9. Dimension: 1700×1200×400mm

ZP6103 Precision Guillotine Shear Machine



Use special pressure transmission device, the operation is labor-saving, fast. With an auxiliary linking piece fixture, convenient operation positioning. Imported tungsten carbide cutting tool material, a long life. Has a transparent safe protection devices. Use more security Configuration: 1 CPU. The use of products: according to the specifications apply copperplate, PVC materials out

I. Overview

1. The biggest cut thickness: 0.4- 4.0 mm: Maximum shear wide: 350 mm
2. Appearance volume: 500 * 400 * 500 mm
3. Machine net weight: 30 Kg

ZP6106 Hand Drilling Machine



Product use: complete the circuit board via, components, board a hole drilling. The properties of product: with the soft switch, push rod can automatically start power supply, convenient operation, good stability and big head used together with drilling, drilling high quality, easy to operate.

I. Introduction

Driving way: dc motor drive directly drill chuck
 Speed: 10000 r/min
 Working voltage: 220 V/frequency 50 Hz
 Work power: 100 W
 Basic specifications and data:
 Drilling ability: 0.5-10 mm
 Mesa size: 170 * 170 mm
 The effective size: 140 mm
 Ontology height: 380 mm
 The length, width, high: 325 * 250 * 215 mm (packing size)

ZP6104 Drilling Carving Machine



I. Function
1. Realize automatic matching chemical plate making drilling
2. Realize the physical sculpture ones. Can carve double panel
II. Structure
1. Mechanical transmission mechanism of X, Y, Z is using linear guide rail, the slider preloaded device, ensure the slider no clearance
2. Whole machine structure and the aluminum parts, whole milling flat, smooth surface, guide rail support stability
3. XYZ the axis is using German imported ball screw, smooth movement, carving high precision, small vibration whole machine tools
4. Spindle motor: 300 W water-cooled frequency conversion motor, 0-60000 R/MIN, stable life is long, ensure the communication work more than 10 hours motor don't burn.
5. PCB installation: special fixture card installed, easy to use, can also drilling 5 blocks, rather than through the double-sided adhesive stick.
III. Technical parameter
1. Control method: high speed digital signal processor (DSP)
2. Can pass a computer control more than two sets carving machine
3. USB interface way
4. PCB file storage ways PCB \ Gerber

ZP6105 High Speed Directional Control Pulse Punching Metallized Equipment



I. Structure
1. Using special high-speed reversing pulse electroplating power, provide uniform quality coating quality.
2, Full ABS engineering plastic airframe and internal channel, corrosion seismic resistance to high temperature, beautiful and easy process.
3. Environmental protection black hole process application, no pollution can be directly emissions.
4 Cathode swinging technology, prevent the concentration gradient, increase the inner hole solution liquidity.
II. Technical parameter
1. Four slot structure, has pickling, soaking conductive adhesive, activation, electroplating function.
2. Use transparent clamshell function, it is convenient for observation and save.
3. Maximum board area: 400 x 400 mm.
4. Smallest aperture: 0.3 mm
5. Maximum thickness-diameter ratio, 5:1
6. Output frequency: 0-2 kHz adjustable (can transform for DC power)
7, Output current: positive 0-5 A, reverse 0-20 A adjustable
8 Pulse width: the pulse reversing the power supply, positive 0-100%, reverse pulse width 0-100% alone can be adjusted
9. Constant pressure constant current: current or constant voltage automatic adjustment function, to the current real-time measurement shows two
10 Time setting: work time a predetermined function, the remaining time show and then to be automatic power alarm prompt
11. Screen shows: 6 inches big screen color LCD all working parameters

ZP6107 Dryer



I. Introduction

1. The fan forced convection and natural convection, suitable for different experimental requirements
2. Use: for screen printing halftone, printing ink drying
3. Performance: can set the baking temperature and display, with the temperature adjustment function
4. Temperature range: R.T ~ 300 °C
5. Temperature fluctuations degrees: + /-0.5 °C
6. The highest temperature arrival time: 20 min
7. Temperature deviation: ± 3 °C
8. Temperature display method: set temperature measurement and LED digital display
9. The temperature sensor: industrial platinum resistance (PT100)
10. Shell material: antirust processing cold-rolled steel sheet electrostatic paint
11. Inside the shell material: galvanized sheet
12. Inside the door: high temperature resistant toughened glass
13. Heat insulation materials: the superfine glass fiber
14. The gate seal: environmental protection article silicone rubber
15. Heater: nickel chrome electric heater
16. The inside case size: D350mm × W350mm × H350mm
17. Work rate: 1.3 kw
18. The electricity source: AV 220 V frequency 50 Hz

ZP6108 High Speed Directional Pulse Hole Metallizing



I. Introduction

Structure

- ★1. Use high speed pulse power source for plating, supply uniform good quality coating.
- ★2. Fully ABS engineer plastic machine body and inner groove, with antiseptic, thermo stability, technology flow is beautiful.
- ★3. Environment protection black hole technology flow application, No pollution, it can direct discharge.
- ★4. Cathode oscillation technology, prevent , concentration gradient, add hole inner liquid flowability.

Technical specification:

- ★1. With 4 groove structure, with acid-washing, soak conducting resin, activate, electroplating function.
- ★2. Use transparent flip function, it is easy to observe and storage.
- ★3. Maximum board: 400×400mm, it can electroplating 5 boards at the same time.
- ★4. Minimum hole diameter: 0.3mm
- ★5. Maximum thickness ratio 5:1
- ★6. Output frequency: 0-2kHz adjustable(it can change as DC power)
- ★7. Output current: forward direction 0-5A, reverse 0-20A adjustable.
- ★8. Pulse width: use pulse directional power, forward direction 0-100%, reverse pulse 0 to 100% single adjustable.
- 9. constant voltage constant current: current or voltage is constant, with self adjust function, 2 directional current real time display function.
- ★10. time setting: work time preset function, time remaining display and automatic power off alarm.
- ★11. LCD: 6 inch full color LCD, display all work specification.
- 12. Circuit protection: with short circuit, open circuit function, supply alarm signal.

ZP6109 Automatically Circuit Board Polishing Machine



I. Introduction

- 1.Usage: copper-clad plate, aluminum plate, stainless plate, PVC material metal, non metal surface polished treatment, it is usually used in making double sides hole, copper plating and galvanize, ink printing pretreatment etc.
- 2.Function: brush up and water spray, rubber covered roller water uptake, with delivery function.
3. Destination board width: 60cm, Destination board thickness: 0.5mm~6mm.
4. Driving motor:0.4KW, driving speed:0.2M~6M/min, continuously viable, drying fan: low noise fan:0.75KW×2set, heating power: 8 ea 0.5KW heating tube.

ZP6110 UV Exposure Machine



I. Introduction

- 1.3KW iodine gallium UV light tube
- 2.It is easy for fixing PCB plate
3. Work zone: 1000MMx1000mm
4. Digital timer
5. Counter range:0-999 second auto reset
6. It can exposure again, separate select up or down exposure.
- 7.With vacuum sucker function.

ZP6111 Chemical Tin Plating Machine



I. Introduction

1. Usage: electro tinning for double sides circuit board.
2. Tinsplating time: 8 to 12 minutes
3. Max electro tinning circuit board zone: 450*400mm²
4. Chemical groove max capacity: 400*300*500mm³
5. Rectify power work voltage range: 0-20V, work current range: 0~30A, work power: 360W
Capacity: 40 liters

ZP6112 Silk Mesh Printer



I. Introduction

This equipment is suitable for small production of PCB product line manual printer. It uses wire mesh/metal leakage board as print moldboard. It puts soldering material or other liquid or solid print to electric board soldering plate accurately.

Valid print zone: 700mm×600mm

Adjust precision: 0.05mm

Print mode: manual

Frame X direction max adjust distance: 20mm

workbench Y direction max adjust distance: 80mm

Frame Q direction adjust range: ±8

frame and workbench adjustable distance: 0 to 10mm

Dimension: 800mm×1000mm×900mm

ZP6113 Chemical Paint Developing Machine



I. Introduction

This develop machine is mini laboratory use machine. It is for copper plate or print laboratory quickly develop sample and manufacture. Inner with anti-etching pump, make etching liquid double sides spray to sample two sides, etching PCB sensitive layer. Inner immersion program heater, heating developing liquid to develop temperature. With clock preset develop time.

- ★1. Take imported spray sprinkler 8 units. Spray is uniform.
- ★2. Spray pressure: antiseptic high-pressure magnetic pump, with filter set.
- ★3. Wire diameter: 0.1mm,
- 4. Transparent flip function, it is easy to observe.
- 5. Max sample dimension: 400×350mm
- 6. Sample develop time: 0.1-5 minutes adjustable.
- ★7. Heat temperature is adjustable, heater power: 500W, 220V, 50Hz, single phase.
- 8. With timer function, timer can be preset time as hour, minute, second.
- 9. Inner dimension: 450×400×350mm
- 10. Dimension: 600×430×500mm
- 11. Net weight: 15KG
- 12. With equipment desk 1 unit. Dimension: 600×500×500mm, use anti corrosion PVC material, the below is cabinet structure, it can put tools, spare parts etc.

ZP6114 Spray Etching Machine



I. Introduction

Spray etching machine mini laboratory use machine. It is for copper plate or print laboratory quickly develop sample and manufacture. Inner with anti-etching pump, make etching liquid double sides spray to sample two sides, etching PCB sensitive layer. Inner immersion program heater, heating developing liquid to develop temperature. With clock preset develop time.

- ★1. Take imported spray sprinkler 8 units. Spray is uniform.
- ★2.Spray pressure: antiseptic high-pressure magnetic pump, with filter set.
- ★3.Wire diameter:0.1mm,
- 4. Transparent flip function, it is easy to observe.
- 5.Max sample dimension:400×350mm
- 6.Sample develop time:0.1-5 minutes adjustable.
- ★7.Heat temperature is adjustable, heater power: 500W, 220V, 50Hz, single phase.
- 8.With timer function, timer can be preset time as hour, minute, second.
- 9. Inner dimension:450×400×350mm
- 10.Dimension:600×430×500mm
- 11.Net weight:15KG
- 12. With equipment desk 1 unit. Dimension:600×500×500mm, use anti corrosion PVC material, the below is cabinet structure, it can put tools, spare parts etc.

ZP6115 Spray Cover Sheet Removers



I. Introduction

Cover sheet removers mini laboratory use machine. It is for copper plate or print laboratory quickly develop sample and manufacture. Inner with anti-etching pump, make etching liquid double sides spray to sample two sides, etching PCB sensitive layer. Inner immersion program heater, heating developing liquid to develop temperature. With clock preset develop time.

- ★1. Take imported spray sprinkler 8 units. Spray is uniform.
- ★2. Spray pressure: antiseptic high-pressure magnetic pump, with filter set.
- ★3. Wire diameter: 0.1mm,
- 4. Transparent flip function, it is easy to observe.
- 5. Max sample dimension: 400×350mm
- 6. Sample develop time: 0.1-5 minutes adjustable.
- ★7. Heat temperature is adjustable, heater power: 500W, 220V, 50Hz, single phase.
- 8. With timer function, timer can be preset time as hour, minute, second.
- 9. Inner dimension: 450×400×350mm
- 10. Dimension: 600×430×500mm
- 11. Net weight: 15KG
- 12. With equipment desk 1 unit. Dimension: 600×500×500mm, use anti corrosion PVC material, the below is cabinet structure, it can put tools, spare parts etc.

ZP6116 Silk Wire Mesh Dryers



Fan with forced convection and natural convection function, it meets different experiment function. Usage: it is for drying silk wire mesh plate ink. Capacity: it can preset dryer temperature and display it, with temperature adjust function. Temperature range: R.T~300℃, Temperature natural convection:±0.5℃. Max temperature: 20min, temperature departure:±3℃. temperature display mode: measurement and setting temperature digital display, temperature sensor: industrial resistor(PT100) Power: 4kw, Power supply: AC 220V, 50Hz

I. Introduction

Shell material: rust-proof treatment cold-roll steel sheets electrostatic spray

Inner material: galvanized sheet

Inner door: thermo stability toughened glass

thermal insulation material: AGM

door seal: environmental silicon rubber bar

heater: nickel-chromium electric heater

inner box dimension:D1000mm×W800mm×H1000mm

ZP6117 Tin Lead Plating Machine



Max panel:400×400mm, it can electroplate for 5 boards at the same time, Minimum hole:0.6mm, Max thickness diameter ratio, 3:1, Output voltage:0-15V,adjustable continuously, Output current:0-20A, adjustable continuously, Dimension:420×430×420mm, With 2 groove, one is for tin-lead plating, the other is for quit tin-lead.

I. Introduction

1.Double sides, multi layer circuit board etc. non-metal material double side drilling hole protection.

2.Full ABS engineer plastic machine and inner groove, antiseptic, anti high temperature, anti vibration, technology flow is good, outlook is beautiful.

3.★Cathode oscillation technology, prevent concentration gradient, add hole liquid flow. Swing time:3-5 times/minute.

ZP6119 CNC Machine Set Of Toolkits With Software



I. Technical Specifications

The set of apparatus is used to fabricate PCB board for student's final year project. The set includes PCB engraver machine and set of tools associated, machine control software, QuickCAD 2D design software and other accessories.

1. in order to understand various parameters and schedule, etc, control software connect to the engraving drilling machine, operation procedure interface can real-time display the design line is blue, play path is red, hole unprocessed, the display of hole working-process and complete process are showing separately.
2. It can be convenient for observe the schedule software synchronous display process schedule when the machine process, and parameter coordinate is real-time display.
3. This equipment with precision tool setting gauge, it can realize the function of coaxial depth limit, and the function of auto detect the flatness of flat PCB, the function doesn't have the special requirement of PCB material and PCB flatness.
4. Max working area :400×350mm:
5. Z-axis stroke: 170mm,
6. Working speed: rated 60mm/s,
7. Drilling accuracy :±0.01mm,
8. Drilling speed: 60-120 hole /min,
9. Magazine tool capacity:10,
10. Software with line segregation function :
11. Software with segregation width setting function :
12. Software with virtual machining demonstration :
13. Software with local area pierced function :
14. Software with breakpoint resume function :
15. Software with 1-4 tool combination tool quick engrave function :
16. Software with above 1.0 standard hole milling function .

ZP6120 Full-Automatic Spray Etching Machine



I. Technical Specifications

Horizontal working type: system can simulate horizontal type equipment of manufacturing enterprise, staff only need put board and fetch board.

It adapt electrification control panel, easy to use, concise, high safety performance.

It adapt double filtration system, spray pump with filtration device, with the addition of dedicated filtration device, it can strict avoid the impurity in the corrosive liquid jam the nozzle.

It adapt dedicated smart model acid and alkali resistant gearing, roller shaft and nozzle adapt full combined type installation, is easy to disassembly and maintain.

Effective etching area: width 400mm, length unlimited, min dimension: 40mmX40mm

Machine adapt high strength PVC structure material, it has excellent antiseptic property.

Internal metal piece all use titanium material, any module all can apply to each processing step.

High-power antiseptic water pump, reach up to five kilogram spray pressure, the configuration is complete according to actual production field.

The exit and entrance of each step is equipped with sensor for testing and guiding next action of process. Energy conservation and environment protection.

Transfer speed: 0-10M/MIN, it can arbitrary adjustable.

Etching thickness: 0.1mm-4mm

Etching temperature: 0-60degree can arbitrary adjustable.

Etching liquid: acidity or alkaline is OK

Power supply: single module AC380V/3Kw

Etching min line width/ line space: 4mil

Temperature control accuracy: +/-1°C

Voltage: 380V, power 3KW

Package, wood package, dimension 1200X600X800mm. Weight 100KG

Acidity etching liquid and alkaline liquid 100L.

The main components of acidity etching liquid is copper chloride solution.

The main components of alkaline etching liquid is ammonium hydroxide solution.