

Long Shine



COMPANY PROFILE

Long Shine (Thailand) Co., Ltd. has established since 1999. It is a PCBA Assembly manufacturing equipment supplier.

Long Shine's main business is to supply and provide technical services on production machineries, equipment and tools, e.g. reflow oven, inspection and rework machines. Our major products are basically imported from Germany, United Kingdom, United State, France, Switzerland, Japan, Korea, Taiwan and China.

It is subsidiary of Long Shine Equipment & Supplies Pte Ltd (Singapore). The headquater was incorporated as a Private Limited Company in March 1990. The company has 7 overseas branch offices established during October 1993 to September 2004 mainly located in Johore Bahru, Penang, Kuala Lumpur, Philippines, Jakarta, Vietnam and of course Thailand. Each office has its own dedicated team of professional management, sales and service personnel.

Over the past few years, we have gained an excellent reputation for our high quality products, competitive prices, fast delivery times and the dedicated services that we have been providing to our customers.

If you are interested in any of our products, please feel free to contact us for details.

บริษัท ลองไชน์ (ประเทศไทย) จำกัด ได้เริ่มกิจการตั้งแต่ปี พ.ศ. 2542 จัดจำหน่ายอุปกรณ์เครื่องมือในอุตสาหกรรมประกอบแผงวงจรอิเลคโทรนิคส์ และอุตสาหกรรมทั่วไป

ธุรกิจหลักของบริษัทฯ คือจัดจำหน่ายและบริการดูแลเครื่องจักรและอุปกรณ์ต่างๆ ในอุตสาหกรรมอิเล็คโทรนิกส์. ซึ่งได้นำเข้ามาจากประเทศต่างๆ เช่น เยอรมัน อังกฤษ อเมริกา ฝรั่งเศส สวิสเซอร์แลนด์ ญี่ปุ่น เกาหลี ไต้หวัน จีน

บริษัทฯ เป็นหนึ่งในเครือ บริษัท ลองไชน์ อีควิปเมนท์ แอนด์ ซัพพลาย จำกัด ที่สิงค์โปร์ ซึ่งเปิดบริการตั้งแต่ปี 1990. ณ ปัจจุบันมีสาขาอยู่ในเอเชียตะวันออกเฉียงใต้ทั้งหมด 7 สาขา โจโฮ บารู, ปีนัง, กัวลาลัมเปอร์ (มาเลย์เซีย) ฟิลิปินส์ อินโดนิเซีย เวียดนาม รวมถึง ประเทศไทย.

ตั้งแต่อดีตจนถึงปัจจุบัน บริษัทฯได้รับชื่อเสียงในเรื่องคุณภาพของสินค้า ราคา รวมถึงการบริการที่เรามีให้แก่ลูกค้าด้วยดีเสมอมา.

ถ้าท่านมีความสนใจในสินค้าของเรา โปรดแจ้งและติดต่อเราได้ตลอดเวลา

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ERSA

HOTFLOW

New Reflow Platform Designed for Maximum Throughput



Triple Track Transport

Since their introduction into the market nearly 30 years ago, ERSA reflow ovens have been setting the industry standard for high-end reflow machines.
The new HOTFLOW is the third generation machine based on the proven & proprietary Multijet ERSA heating technology. The R&D of this HOTFLOW series had its focus on improved heat transfer via a complete re-design of the process tunnel, reduced energy and N_2 consumption, improved cooling, as well as optimized process control.

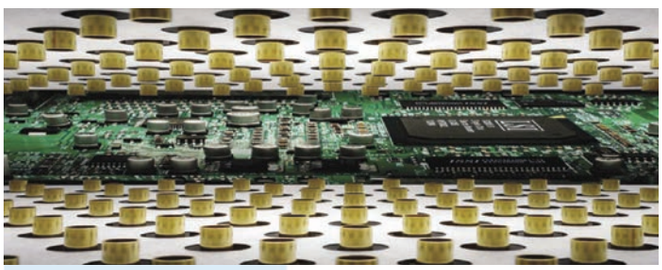


Ultra Low Mass Center Support

From a productivity versus floor space requirement standpoint, the HOTFLOW sets the industry standard. With both dual and now triple track options, it is possible to increase throughput by as much as 300 % without increasing floor space! Each track runs its own set speed and its own PCB width for maximum flexibility. It is now possible to run as many as three different products simultaneously. Only highest quality materials have been used in order to guarantee the highest machine availability. Finally, all major parts are exchangeable within only minutes in order to keep machine downtime to an absolute minimum.



HOTFLOW 3/20
High-end model with excellent performance and superior machine availability



Unique Technology Advantages:

- Dual and Triple Track Transport Increases Throughput
- Optimized Heat Transfer, Zone Separation & minimized Delta T
- "On the Fly" Maintenance Reduces Downtime
- Switchable Internal / Exernal Cooling Unit
- 100 % Gas Sealed Process Tunnel with Lowest Energy & N_2 Consumption
- New Process Control Software
- Best Machine Uptime
- Retractable Heating Modules
- Ultra Low Mass Center Support



Software Highlights:

- New Process Control Software
- ERSAsoft – Process Data Recorder
- ERSAsoft – User Friendly Maschine Control
- Auto Profiler for Rapid Offline Profiling

HOTFLOW Series

The HOTFLOW series machines remain to be a best seller from an investment payback standpoint. The line consists of various machine configurations, differing mainly by the total process length dimensioned individually subject to the customer's process specifications. Whatever your demands, high throughput, easy parameter settings, processing area cleanliness, conveyor system flexibility or easy maintenance - the HOTFLOW line has the perfect system to meet your demands!



HOTFLOW 3/14e
The newest model of the HOTFLOW 3-series with an excellent price/performance ratio

Serviceability

The design of the convection modules and of the entire system was based on a maximum machine availability. All main service group parts can be exchanged in less than 15 minutes!



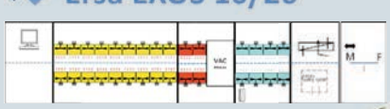
EXOS 10/26

With the EXOS 10/26, Ersa presents a convection reflow soldering system with 22 heating and four cooling zones as well as a vacuum chamber after the peak zone, with which the void rate can be reduced by 99%. This is achieved by relying on technologies proven thousands of times in HOTFLOW models, such as heating and cooling zones or the intuitive, award-winning interface.

Thanks to intelligent features, the Ersa reflow soldering system produces particularly economically and void-free. In addition to process reliability, the EXOS is particularly easy to maintain. For energy-efficient cooling, three expansion stages are available for the EXOS (a maximum of four cooling zones at the top and bottom), so that optimum cooling gradients can be set for all requirements.



Ersa EXOS 10/26







- **Machine dimensions**
  - length: 7,590 mm
  - width: 1,671 mm
  - height: 1,580 mm
- **Configuration:**
  - 9 preheating zones top & bottom side
  - 2 peak zone top & bottom side
  - **1 Vacuum module → Void Reduction up to 98%**
  - 4 cooling zone top & bottom side
- **Single conveyor or Dual Track (F –M –M –F) for highest throughput**
  - PCB dimensions Single track: 400 x 637 mm (LxW)
  - PCB dimensions dual Track: 400 x 289 mm (LxW)
- **Rollout: Productronica 2019**

Highlights EXOS - USPs

- **4 –part conveyor (Infeed, Preheating-Peak, Vacuum and Cooling zone)**
  - Controlled conveyor in each section –no PCB jump
  - No separate conveyor system of a third party needed for smooth infeed
- **Vacuum chamber movement on top of the chamber not underneath**
  - Free access for maintenance/ not too built → Service-friendly
  - Servo driven
  - All competitors have installed underneath the chamber with bad access for maintenance
- **Roller conveyor in vacuum module**
  - Easy maintenance
  - No lubrication necessary
  - No chain
- **Topside Medium wave heater in vacuum module**
  - No profile drop/temperature drop during the vacuum process
  - Plate heaters / panel heaters flanged on all sides
- **Vacuum pump on separate module** but 1/3 embedded in the machine with quick-release mechanism, maintenance outside production possible

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POWERFLOW

Advanced Wave Soldering with Air & N_2 Tunnel Machines



Top & Bottom Side Convection Heating Modules

ERSA's new full N_2 tunnel wave solder machine, the POWERFLOW N_2 was specifically designed to meet the challenges of lead free! The machine highlights a 16" board width, plug and play preheat design (Medium IR, Convection, Short IR and now with new topside Convection) and 1.8 meters of preheat standard. Additional pre-heating of up to 2.4 meters can be added if needed. A new nozzle configuration brings the chip wave closer (40 mm) to the laminar wave for reduced solder defects. This machine has a pin & chain transport throughout the fluxer and pre-heater and feeds into a finger conveyor in the wave section of the machine.



Finger Transport only over Wave Reduces Vibration

A bar code scanner on the new fluxer allows to selectively flux and program in "keep out areas" for board cut outs, where the fluxer will not spray a specific are of the board. The POWERFLOW N_2 machine has a process gas cleaning system (similar to Reflow machines) which also regulates the Auto Tunnel Temperature Compensation. The machine has a low profile design of 1.57 m and is ideal for demanding customers who require a 16" tunnel wave.



Technical highlights:
Extremely high throughput rates
Process gas purification
Sequential soldering
Motor-driven spray head axis
Comprehensive software features
Spray area programming
Automatic spray area acquisition



Unique Technology Advantages:

- Over 90 % Cost Savings due to Low Dross
- "Clean" N_2 Tunnel with Auto Temperature Compensation
- Auto PCB Highly Flexible Fluxer
- Modular & Flexible Pre Heat Concept
- New LF Solder Nozzles & Pot Technology for Solder Defect Reduction
- Service Friendly Finger and Pallet Machines
- User Friendly Control & Software Concept



Technical highlights:
Low investment volumes
Convenient floor space
Modern control concept
Extractable fluxer module
Full nitrogen tunnel
Different preheating systems available
Finger or frame conveyor

Advantages of soldering in a N_2 atmosphere

Larger process window due to reduced oxidation of components and PCB; advantages for AOI due to shiny solder joints; no discoloration of component leads due to oxidation; improved self-alignment effect of SMDs; multiple soldering processes by OSP and flashgold surfaces; use of flux with low solid content; reduced maintenance & reduced residues on PCB are some of the competitive advantages for CEMs when using a nitrogen tunnel.



Software Highlights:

- Easy User Interface
- Touch Screen Operation
- Network Compatible
- Remote Maintenance





Small selective soldering system with outstanding technology



ECOSELECT 1 – fitting optimally into cell production environments

Ersa, the global technology leader in selective soldering systems, has expanded its product range by the ECOSELECT 1: a selective soldering machine requiring less than 3 m² of space - thus fitting optimally into cell production environments. In all process steps the semi-automatic ECOSELECT 1 system uses the same successful and proven Ersa Selective Soldering Technology as the large Ersa VERSAFLOW systems and does not compromise at all in quality and accuracy.

Due to its universal pallet fastening, the ECOSELECT 1 can handle PCB sizes of up to 406 x 508 mm [16" x 20"].

The fluxer provides highest positioning accuracy consuming lowest amounts of flux. Numerous control features such as spray monitoring or continuous pressure monitoring of the flux storage tank provide for the outstanding Ersa Process Safety.

Just like the VERSAFLOW product line the ECOSELECT 1 is equipped with a full-area preheating system. Its bottom-side heating consists of eight emitters that can be switched in groups to match their power with the assemblies harmonized with the bottom-side heating and provides effective, reproducible and thorough heating also of complex and demanding assemblies (Multi-Layer, Heavy-Mass). It evenly distributes the heating energy over the entire machine width consuming little resources and minimizing weight and size of the top-side heating system.

Just like in the VERSAFLOW selective soldering systems an electromagnetic solder pump works in the solder module of the ECOSELECT 1 so that the solder pots require extremely little maintenance. The pump ensures very constant flow rates thus offering an exact and precisely adjustable solder wave height.

Dynamic process parameters such as solder level, solder wave height and solder temperature are continuously monitored and documented. Not least because of the innovative "Peel-Off" Feature bridging is not an issue with the ECOSELECT 1, even when soldering on a horizontal conveyor.

The innovative dual solder pot provides flexibility, since different alloys can be processed without machine downtime due to solder pot exchange. Alternatively this system can also be operated with solder nozzles having different diameters.

The ECOSELECT 1 is operated via a PC control with ERSASOFT. Standard features of ERSASOFT are aggregates relevant for the solder process or the solder protocol storing process data for traceability according to ZVEI standards. An extensive alarm management file is also part of the supply scope. All occurring messages are stored with a time stamp and user identification. The entire data is available as XML files and can therefore easily be worked on.

By means of the CAD Assistant DXF files of boards can be used to generate the solder program. Alternatively the user can set up the solder program based on the picture of a scanned PCB. All movements of the fluxer or solder nozzle are entered graphically in the image of the PCB and the process data is added. The solder program created in this way can then immediately be used in the ECOSELECT 1.

Features Ersa ECOSELECT 1	
Universal pallet fastening	■
Fluxer module with precision spray fluxer	■
Bottom-side preheating via short-wave, dynamic IR emitters	○
Top-side convection heating	□
Lead-free Single Point solder module	■
Second solder pot to process two different solder alloys	○
Second solder pot to process multi-up panels	□
Camera/screen for solder process monitoring	○
Bar code scanner (bar codes/2D)	□
CAD data download of board layouts (CAD Assistant)	□
Operation via touch panel	○
Traceability according to ZVEI standards	■
Fiducial recognition	□

standard ■ / option ○





DATA **ECOCELL**

In- and Off-Line Selective Soldering System
No longer any need to compromise to achieve high throughput and high flexibility



ERSA, the global technology leader in selective soldering equipment, introduces its newest addition to their product line, a unit, which answers to the needs of modern manufacturing methods. The ECOCELL system operates according to the Toyota principle, with the flow of the printed circuit boards being in the counter-clockwise direction. This U-flow arrangement is ideal for installation as production islands, but, if considered beneficial, it can also be integrated and operate in a more traditional layout.
In the ECOCELL, high throughput and high flexibility are no longer contradictory terms. With two integrated preheaters, up to 4 boards can be processed simultaneously, and dual solder bath systems offer the possibility to efficiently process multi-up panels. Another feature is - for both the miniwave as well as the multiwave baths – the possibility to use different alloys in the two baths. This function, together with the possibility to perform maintenance or setup on a multiwave bath, while the other bath is operating, reduces downtime to an absolute minimum.
As in all ERSA selective soldering systems, the ECOCELL incorporates the proven precision spray fluxing system. With the integrated spray jet control, the flux deposition on the board, in either single point or track, is effected with high repeatability and high quality.
The short wave IR preheaters, mounted below the boards, can optionally be upgraded with top-side convection preheaters. Thus combined, they assure a thorough and homogeneous temperature distribution through even the most heavy and complex boards. A further optional convection preheater over the miniwave bath will maintain the board temperature during the solder cycle at the required level.
In the solder modules, the "peel-off" effect developed by ERSA for their process of soldering at 0°, virtually eliminates bridging and assures a very low ppm level of defects. In both the miniwave as well as the multiwave bath, induction pumps are used to deliver the solder. For this reason, both processes are very low in maintenance.
The intuitively operated system software guarantees effective programming, and it records all production parameters relevant to traceability as per the ZVEI standard. The CAD-Assistant allows for extremely quick and simple offline programming.

Features ERSA ECOCELL	Standard ● / Option ○		
Pin-and-Chain conveyor for pallet less conveyance	●	Additional solder bath for use of two different alloys	○
Integrated shuttle	●	Additional solder bath for multi-up panels	○
Conveyor width adjustment (manual)	●	Inline Interface (e.g. SMEMA, etc.)	○
Conveyor width adjustment (program controlled)	○	Camera / Monitor to view the solder process	○
Precision Sprayfluxer	●	Barcode Scanner (Bar code/ Matrix code)	○
Spray Jet Control	●	Take over data of PCB from CAD-System	○
Lower preheater, short wave, dynamic IR emitter	●	Touch operation	○
Convection Preheater Top	○	Traceability Data (as per ZVEI standard)	●
Lead free single point solder module	●	Integration in Manufacturing Execution Systems (MES)	○
Alternatively up to two multi-wave baths	○		

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ERSA

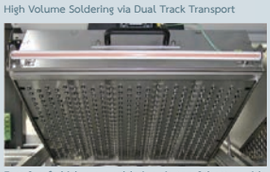
VERSAFLOW

Modular Platform for Low to High Volume Selective Soldering



High Volume Soldering via Dual Track Transport

Excepted as the world leader in in-line selective soldering, ERSA is now proud to introduce the third generation of VERSAFLOW machines. Market research indicated that improved machine accuracy, modular design allowing for machine extensions, increased throughput and decreased floor space requirements are being demanded by our customers. Increasing production efficiency remained a primary goal which was achieved during R&D.



Fast & safe high mass soldering via top & bottom side convection heating modules

The new VERSAFLOW encompasses a modular platform which allows for adding or subtracting additional solder pots, fluxers and/or pre-heat modules when needed. A revolutionary dual track capability allows for the simultaneous processing of up to 14 PCBs! Finally, a new Hybrid heating technology extends the flexibility for the pre-heating of high mass assemblies.
The VERSAFLOW offers the highest flexibility and the highest throughput at a minimum of required floor space.



Ersa ECOSELECT 4

Inline and batch selective soldering system for highest selective soldering quality



Highlights ECOSELECT 4

- Flexibly integrable soldering system, inline or batch operation
- VERSAFLOW 4 technology
- PCB size 508 x 508 mm
- Roller conveyor
- Up to two spray heads and flux tanks
- Power convection
- Y/Z variable dual solder pots
- Automatic nozzle activation
- Upgrade with independent flux module to a full inline machine
- Award-winning ERSASOFT 5 software
- VERSACAM – solder wave height measurement "on the fly"

The **ECOSELECT 4** is Ersa's newest selective soldering system. It is a compact system that is perfectly suited for small up to medium-sized batches where flexibility is essential.

The **ECOSELECT 4** features machine technology of the latest **VERSAFLOW** generation. Its conveyor system is a high-quality roller conveyor for a max. PCB size of 508 x 508 mm. The **ECOSELECT 4** can be used inline or in batch operation. Another machine highlight is the new power convection heating, for example, which provides an optimal and homogenous warm-up also of complex boards. Like all Ersa selective soldering systems the **ECOSELECT 4** is equipped with a programmable precision spray fluxer with integrated spray control for precise and economical flux application in single spots or in tracks. A second spray head is available as an option.

The new dual solder pot system of the **VERSAFLOW 4** is also available for the **ECOSELECT 4**. Both Miniwave pots can be moved flexibly in Y/Z direction. Thus, the machine operator can install solder nozzles with different diameters in order to quickly solder connectors using a nozzle with large diameter and using a very slim nozzle shape for joints which are difficult to reach.

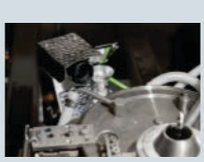
ovative and user-friendly **SOFT 5** software renders ma- operation even more intuitive. h individual user interfaces, roup of operators receives, at nce, the data and information res. A further software high- the PiP technology (picture ire) combined with a process ring camera.

Ersa VERSAFLOW 4 XL

Think big! - Fit for future in selective soldering



VERSAFLEX soldering module



VERSACAM



CAD Assistent 4



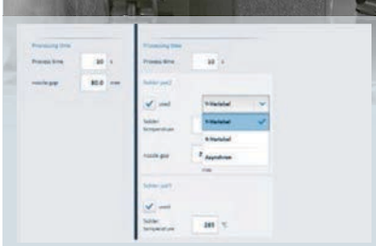
Basic Configuration
Roller conveyor
Side fixing in flux module
ERSASOFT 5
High-precision spray flux system with spray test function and flux level monitoring
Bottom-side IR preheater
Maximum PCB size 610 x 1,200 mm
PC control with touch screen monitor
Process visualization including solder protocol, process data writer, monitoring function, maintenance and error message indication, password protection
Exhaust air monitoring
Solder bath with electromagnetic solder pump
Solder level-and solder wave height monitoring

VERSAFLUX & VERSAFLEX

The new freedom for fluxing and soldering

VERSAFLEX
SELECTIVE SOLDER MODULE





Highlights

- Simultaneous fluxing and soldering on PCB panels in x- or y-direction
- Highest flexibility coupled with shortest cycle time
- Automatic optimisation of cycle time through CAD Assistant 4
- VERSAFLUX: Double supply with the same or alternative flux

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ERSASCOPE

Optical BGA Inspection – Now for All Budgets!



High Resolution BGA Optical Inspection.

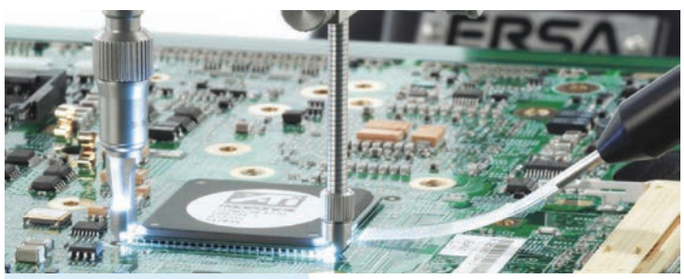
The ERSASCOPE 2 now uses megapixel, digital USB 2.0 camera technology offering up to 400 % more resolution! Enhanced images allow for increased clarity when zooming to high magnification especially when using the revolutionary Flip Chip Optical Head! Superior picture quality, increased light sensitivity and plug & play ease of use with USB 2.0 technology are the main user advantages. A new Metal Halide Light Source offers a brighter white light and a mechanical iris adapter for the additional gooseneck lighting with 2 standard fiber optic light brushes.



90° BGA Optic | 90° Flip Chip Optic | 0° Look Down Optic



ERSASCOPE 2



Unique Technology Advantages:

- USB 2.0, Megapixel High Resolution Camera
- Flip-Chip Optical Head (≤ 50 µm)
- High Resolution BGA Optical Head (≤ 280 µm)
- Wide Angle 0°, "Look down" Optical Head
- Metal Halide Light Source; Long Life Bulb
- Superior Light Management: Fiber Optic Light Brush & Fan; Mechanical Iris Adapter
- Flexible & ESD Safe Stand and Table Allows for a Total of 7 Axes of Movement of Optics and PCB



Software Highlights:

- ImageDoc Software for Both Beginner & Advanced Operators
- Largest Database of Problems & Solutions
- Advanced Recording, Measurement & Reporting Functions
- "Plug & Play" Set Up

The ERSASCOPE 1- The Original is a completely new unit designed to offer the award winning, original ERSASCOPE inspection capability at the lowest price possible.



ERSASCOPE 1

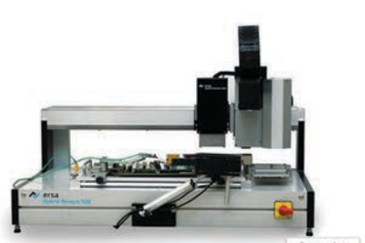
Advantages of ERSASCOPE Inspection Technology

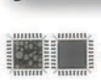
For almost a decade, over 3,000 users worldwide are benefiting from the ability to inspect hidden joints. Whether for inspection under Flip Chips or for inspection where other microscopes cannot see, ERSASCOPE technology offers a significant added value to any Quality Assurance program!



Under PGA | Under PLCC | 0201 High Mag.

HR 600/2 & HR 600/2 voidless





void reduction down to < 2%

New definition of board repair – automatic, flexible and process reliable!

- Highly efficient 800 W hybrid heating head
- Homogeneous, large-area IR bottom heating with 3 heating zones (800 W each)
- Automatic and precise component alignment with the help of machine vision
- Highly accurate, motor-driven axis system for component placement (+/- 0.025 mm)
- User independent, reproducible repair results guaranteed
- Process control and documentation via the operator software HRSoft
- Fully automatic or semiautomatic operation
- Suitable for the use of the Dip&Print Station

Dimensions (W x D x H) in mm	850 x 660 x 620
Weight in kg	57
Antistatic Design (y/n)	y
Power Rating in W	3,200
Nominal voltage in V AC	230
Compressed air connection	6-10 bar (free of oil), 1/4 inch quick bar connect
Upper heating	Hybrid emitter (2 x 400 W), 60 x 60 mm
Lower heating	IR emitter (3 x 800 W), 380 x 250 mm
PCB size in mm	from 20 x 20 to 390 x 285 (+x)
Component size in mm	from 1 x 1 to 50 x 50
Operation	Windows PC
Test symbol	CE
Option	reflow process camera: 10 MP CMOS USB color camera, 25 mm focal width; lighting: 2x LED point light source, dimmable

Automated rework – gentle hybrid technology!

BENEFITS:

1. automated component placement, soldering and desoldering
2. hybrid top heater 800 W, IR-bottom heater 2,400 W
3. equipped for automated dip & print processes
4. high resolution (10 Mpix) RPC camera
5. voidless version available

To the Ersa BGA clips – watch them all now!

Questions about the product? Please find your personal contact here.

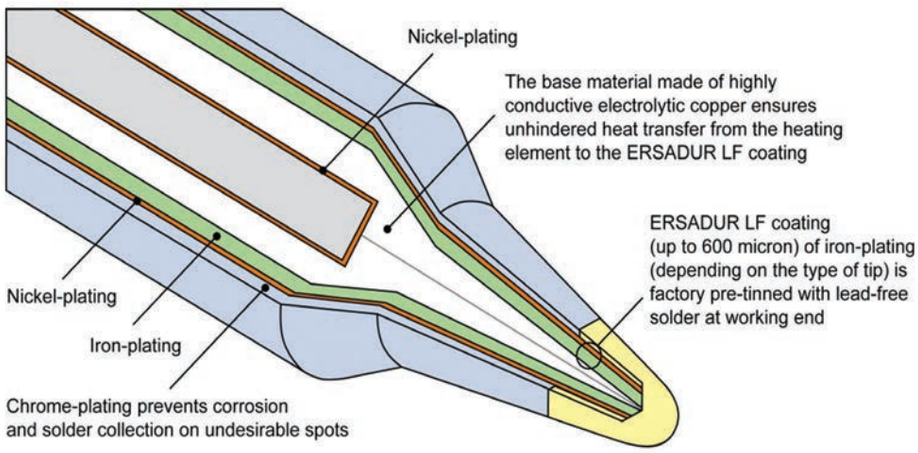
- Technical Data
- Application
- Options
- Available Versions
- Downloads



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KURTZ ERSA



Cross-section of an ERSADUR LF soldering tip, non-scale representation



i-TOOL

i-TOOL soldering iron with micro heating element

Soldering tip series 102



CHIP TOOL VARIO

CHIP TOOL VARIO desoldering tweezers

Desoldering tip pairs of the series 462



i-TOOL AIR S

i-TOOL AIR S hot-iron

Hot air nozzle series 472



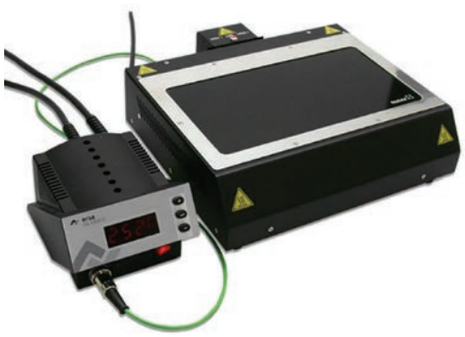
X-TOOL

X-TOOL – powerful desoldering iron for safe desoldering of heat-sensitive through-hole components

Desoldering tip series 722







Mild preheating in hand soldering and rework!

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KURTZ ERSA

ERSA i-CON PICO



Technical Data	
Dimensions (W x D x H) in mm	80 x 145 x 103
Weight in kg	1.05
Antistatic Design (y/n)	y
Power Rating in W	68
Nominal voltage in V AC	230 or 115
Secondary voltage in V	16, 5
Heat up time in sec	9
Temperature range in °C	150-450
Digital display (y/n)	y
Test symbol	CE, VDE

ERSA i-CON NANO



Technical Data	
Dimensions (W x D x H) in mm	80 x 145 x 103
Weight in kg	1.05
Antistatic Design (y/n)	y
Power Rating in W	68
Nominal voltage in V AC	230 or 115
Secondary voltage in V	16, 5
Heat up time in sec	9
Temperature range in °C	150-450
Digital display (y/n)	y
Test symbol	CE, VDE

ERSA i-CON 1V



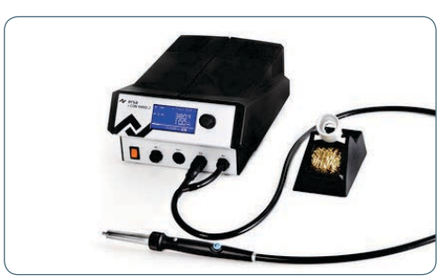
Technical Data	
Dimensions (W x D x H) in mm	150 x 175 x 105
Weight in kg	3.0
Antistatic Design (y/n)	y
Power Rating in W	80
Nominal voltage in V AC	15
Secondary voltage in V	230
Heat up time in sec	24
Temperature range in °C	50-450
Digital display (y/n)	y
Test symbol	CE, VDE

ERSA i-CON 2V



Technical Data	
Dimensions (W x D x H) in mm	150 x 175 x 105
Weight in kg	3.7
Antistatic Design (y/n)	y
Power Rating in W	120
Nominal voltage in V AC	20
Secondary voltage in V	230
Heat up time in sec	24
Temperature range in °C	150-450
Digital display (y/n)	y
Test symbol	CE, VDE

ERSA i-CON VARIO 2



Technical Data	
Dimensions (W x D x H) in mm	180 x 280 x 115
Weight in kg	6.0
Antistatic Design (y/n)	y
Power Rating in W	200
Nominal voltage in V AC	25
Secondary voltage in V	230
Heat up time in sec	24
Temperature range in °C	150-450 and 50-550 (i-TOOL AIR S)
Digital display (y/n)	y
Test symbol	CE, VDE

ERSA i-CON VARIO 4



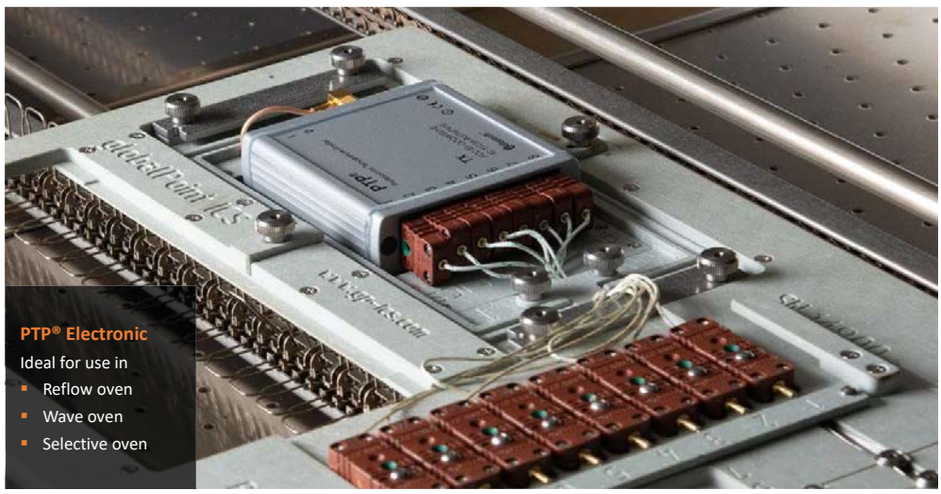
Technical Data	
Dimensions (W x D x H) in mm	300 x 280 x 115
Weight in kg	10.0
Antistatic Design (y/n)	y
Power Rating in W	360
Nominal voltage in V AC	52
Secondary voltage in V	230
Heat up time in sec	24
Temperature range in °C	150-450 and 50-550 (i-TOOL AIR S)
Volume flow in l/min	2-20
Digital display (y/n)	y
Test symbol	CE, VDE

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GLOBALPOINT TEMP PROFILER

PTP® Electronic

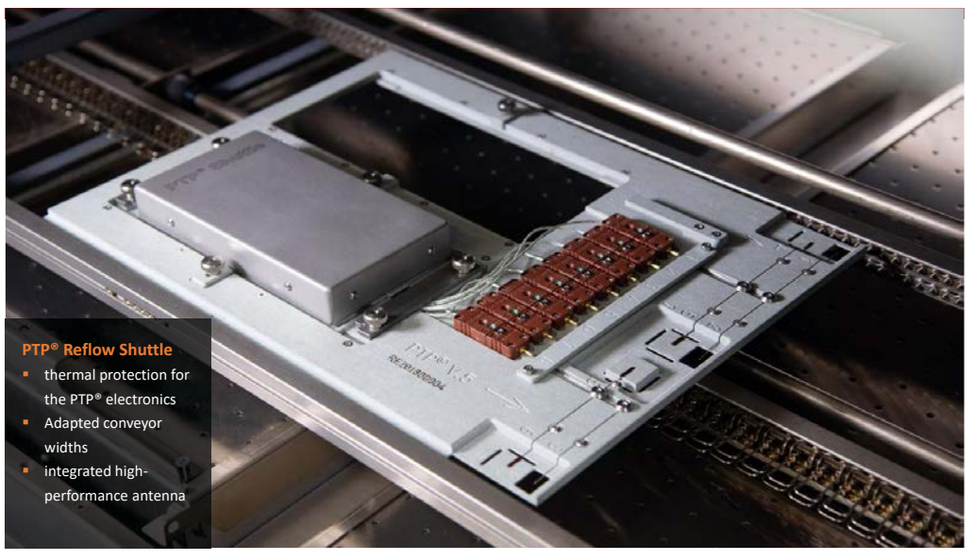


PTP® Electronic
Ideal for use in
- Reflow oven
- Wave oven
- Selective oven

globalPoint



Measuring Board Reflow V5
- ideal and versatile instrument for process recording, analysis and optimization
- 8 integrated thermocouples of the highest accuracy class
- check of the system parameters
- optimization of the soldering processes



PTP® Reflow Shuttle
- thermal protection for the PTP® electronics
- Adapted conveyor widths
- integrated high-performance antenna

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TECHNICAL DATA SHEET



The Newest Technology

InJet® DOUBLE TRIPLE 388 CRRD

- ★★★ PCBs cleaning
- ★★★ STENCILS cleaning
- ★★★ PUMPRINTS cleaning

InJet®

3 CHAMBER



InJet® 888 CRD

- ★★★ FILTERS OF REFLOW OVENS, SOLDERING FRAMES cleaning
- ★★ PCBs cleaning

InJet®

CHAMBER

Long Shine (Thailand) Co., Ltd.

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SCHEUGENPFLUG

Scheugenpflug
Advanced Dispensing Technology

Filling



Sealing



Potting



Conformal Coating



Heat Dissipation



Piston Dispenser



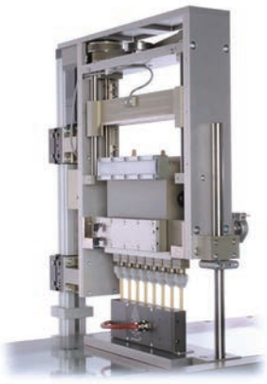
DosP DP803

tune^{up} your integration!
The all-round solution for varied dispensing tasks thanks to the highest precision and process reliability.



DOS P

Precise, robust, durable
Our versatile Dos P piston dispensing systems are available in several different variants for a wide range of volumes.

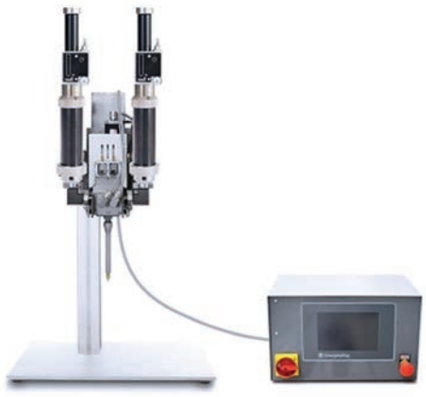


DOS P-X

Peak performance using little space
Functionally juxtaposed single dispensers using a shared piston allow for high cycle times despite large quantities

Manual Work Stations







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SCHEUGENPFLUG

Cartridge Feeding



A90 C

Small, compact and economical
The A90 C material feeding unit has been designed for the material feed with commercially available standard cartridges.



A90 B

When more power is required
If the feeding pressure of a A90 C unit is not enough needs to be processed, the A90 B is the obvious choice

Hobbocks Feeding

A220



For high viscosity media
The A220 allows for the easy and cost-efficient feed of high viscosity, unfilled media from hobbocks.

A280



For abrasive media
The A280 is the ideal solution for the feed of high viscosity, high abrasive media from hobbocks.



Vacuum Follower Plate

Effectively releasing air
The vacuum follower plate has been designed for feeding highly viscous potting materials and enables for a clean, bubble-free docking process.











Long Shine (Thailand) Co., Ltd.

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NORDSON

Nordson Plastic Bonding Adhesive (PBA)

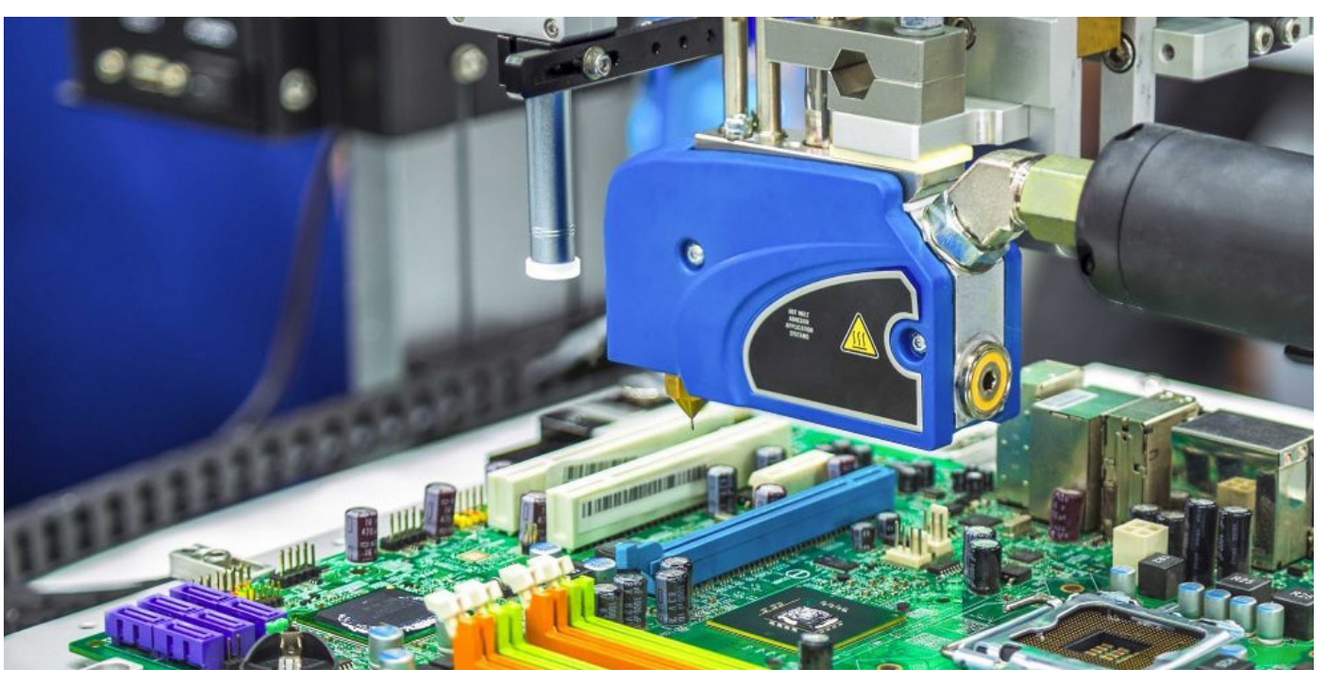
Reconditioned Hot Melt Adhesive Systems

Reconditioning your used Nordson hot melt adhesive dispensing system helps keep it performing reliably. This provides an economical and efficient means to protect your Nordson investment for years to come.

Purchasing rebuilt or refurbished used adhesive melters and systems can save you 40% to 50% compared to the cost of new systems or parts.

- Receive an industry best, comprehensive Nordson warranty on all reconditioned hot melt dispensing systems and components.
- Rest assured that factory-trained Nordson technicians calibrate, test and certify all reconditioned hot melt systems.
- Protect your investment and warranty with reconditioned equipment that includes genuine Nordson replacement parts for hot melt systems.
- Receive original factory quality from the world leader in hot melt dispensing equipment.

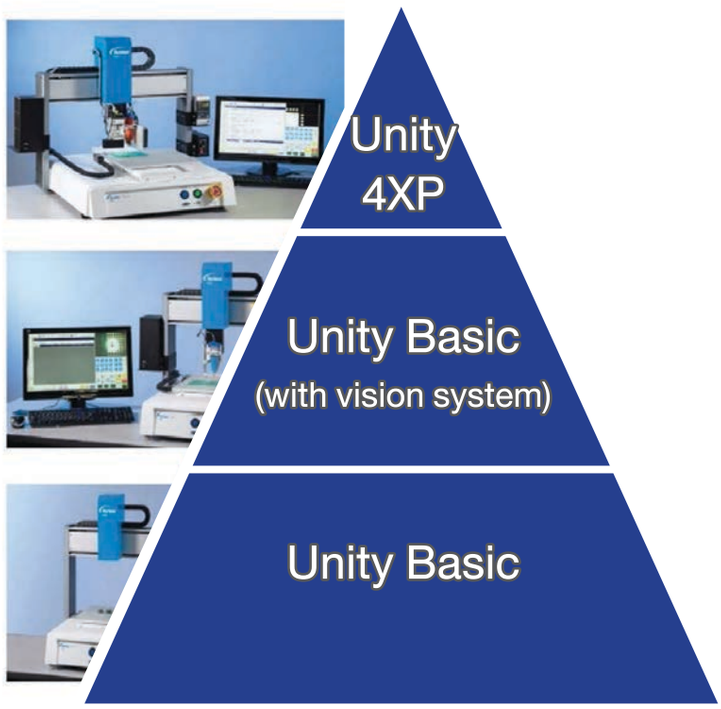




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Unity Robot: Product Positioning (3 Axis Table Top)



Features:

- High End Robot (5 phase stepping motor)
- High End CCD Camera (HV)
- Tip Height Detect kit
- Close Loop Encoding
- Optional: Laser kit

- Basic Robot (3 phase stepping motor)
- Unity 3 to 6 & 4X (not U2)
- Tip Height Detect Kit
- Simple Vision (SV)
- Optional: CCD (HV) for U4X & U6

- Basic Robot (3 phase stepping motor)
- Unity 2 to 6 & 4X
- ONLY Teach Pendant-No Camera
- Optional: Tip Alignment kit

Applicator Product Positioning



PS30

Direct Air Dispensing

0.5mm bead

IC30

Dispensing Technology for 0.5mm bead

Viscosity> 900 cps

PJ30 – Linear Pump

Jetting Technology for 0.5mm bead

PJ30 – Jetting

Jetting Technology for 0.5mm dots

Vulcan Jet

Piezo Jetting Technology for 0.3 to 0.4mm dots

Long Shine (Thailand) Co., Ltd.

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NORDSON

GAME CHANGING DISPENSING SOLUTIONS

Nordson EFD

Since 1963, Nordson EFD dispensing systems have helped thousands of companies make precise deposits of adhesives, lubricants and other assembly fluids.

Our business is to match your specific application needs with our wide range of dispensing tools to maximize your total cost savings.

From benchtop dispensers to high performance automated dispensing systems, EFD devices are used by manufacturers in hundreds of industries throughout the world.

We invite you to learn more, and look forward to working with you.

Automated Dispensing System Selection Guide

AUTOMATED DISPENSING SYSTEMS						
System	 PROPlus / PRO	 EV	 E	 RV	 R	 GV
# of axes	3	3	3	4	4	3
Programming method	DispenseMotion software	DispenseMotion software	Teach Pendant TeachMotion software	DispenseMotion software	Teach Pendant TeachMotion software	DispenseMotion software
Vision	CCD smart camera	Pencil camera	—	CCD smart camera (fixed or rotating mount)	—	G8V CCD smart camera G4V Pencil camera
Height detection	Laser (included on PROL / PROPlusL)	Mechanical (optional)	Mechanical (optional)	—	—	Mechanical (optional)
Tip detection	Tip detector (included)	Tip detector (optional)	Tip aligner (optional)	Tip detector or Tip aligner (optional)	Tip aligner (optional)	Tip detector (optional)
Closed loop encoding	Included	—	—	—	—	G4V (N/A) G8V (Included)
Maximum working area (X / Y / Z)	**PRO3 / PRO3Plus** 250 / 250 / 100 mm (10 / 10 / 4") **PRO3L / PRO3PlusL** 250 / 220 / 100 mm (10 / 9 / 4") **PRO4 / PRO4Plus** 350 / 350 / 100 mm (14 / 14 / 4") **PRO4L** 300 / 400 / 100 mm (12 / 16 / 4") **PRO4PlusL** 350 / 320 / 100 mm (14 / 13 / 4")	**E2V** 150 / 200 / 50 mm (6 / 8 / 2") **E3V** 250 / 300 / 100 mm (10 / 12 / 4") **E4V** 350 / 400 / 100 mm (14 / 16 / 4") **E5V** 450 / 500 / 150 mm (18 / 20 / 6") **E6V** 570 / 500 / 150 mm (22 / 20 / 6")	**E2** 200 / 200 / 50 mm (8 / 8 / 2") **E3** 300 / 300 / 100 mm (12 / 12 / 4") **E4** 400 / 400 / 100 mm (16 / 16 / 4") **E5** 500 / 500 / 150 mm (20 / 20 / 6") **E6** 620 / 500 / 150 mm (24 / 20 / 6")	**R3V** 300 / 300 / 150 mm (12 / 12 / 6") **R4V** 400 / 400 / 150 mm (16 / 16 / 6") **R6V** 620 / 500 / 150 mm (24 / 20 / 6") All: ± 999°	**R3** 300 / 300 / 150 mm (11.8 / 11.8 / 5.9") **R4** 400 / 400 / 150 mm (15.7 / 15.7 / 5.9") **R6** 620 / 500 / 150 mm (24 / 19.7 / 5.9") All: ± 999°	**G4V** 400 / 400 / 100 mm (16 / 16 / 4") **G8V** 800 / 800 / 100 mm (31 / 31 / 4")

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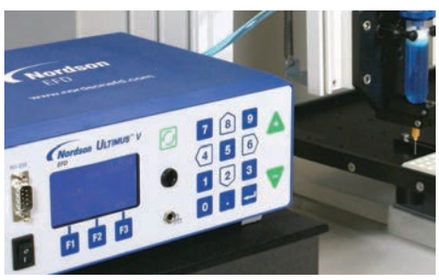
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Ultimus Plus I/II

(All fluids / Low-viscosity fluids)

Specification Ultimus I–II Series			
Cabinet size:	21.2W x 10.8H x 19.2D cm (8.33W x 4.27H x 7.55D")	Cycle initiate:	Foot pedal, finger switch, 24 VDC signal, or mechanical contact closure
Weight:	1.8 kg (4.0lb)	Air output:	UltimusPlus I:0.7-7.0 bar (10-100 psi) UltimusPlus II:0-1.0 bar (0.3-15 psi)
Power adapter:	AC input: 100-240 VAC (+/-10%), ~50/60Hz, 0.6Amp DC output: 24VDC @3.75Amp	Approvals:	CE, TUV, RoHs, WEEE, China RoHS
Cycle rate:	Exceeds 600 cycles per minute	Display :	Touchscreen
Time range:	0.0001-999.9999s	Number of Programs :	16 (time, pressure, vacuum, barcode)
End-of-cycle feedback circuits:	24 VDC,100 mA maximum		



Ultimus V

(All fluids)

Specification Ultimus V			
Cabinet size:	22.5W x 9.50H x 19.9D cm (8.86W x 3.74H x 7.85D")	Cycle initiate:	Foot pedal, finger switch, 5-24 VDC signal
Weight:	3.4 kg (7.7b)	Air output:	0.7-7.0 bar (10-100 psi)
Power adapter:	AC input: 100-240 VAC (+/-10%), ~50/60Hz, 0.5Amp DC output: 24VDC @ 1.66Amp	Approvals:	CE, TUV, RoHS, WEEE, China RoHS
Cycle rate:	Exceeds 600 cycles per minute	Display :	LCD
Time range:	0.0001-999.9999s	Number of Programs :	400 (time, pressure, vacuum)
End-of-cycle feedback circuits:	5-24 VDC,100 mA maximum		



Ultimus I–II Series

(All fluids / Low-viscosity fluids)

Specification Ultimus I–II Series			
Cabinet size:	14.3W x 18.1H x 17.3D cm (5.63W x 7.12H x 6.82D")	Cycle initiate:	Foot pedal, finger switch, 5-24 VDC signal
Weight:	2.3 kg (5.0b)	Air output:	UltimusPlus I:0-7.0 bar (0-100 psi) UltimusPlus II:0-1.0 bar (0-15 psi)
Power adapter:	AC input: 100-240 VAC (+/-10%), ~50/60Hz, 0.6Amp DC output: 24VDC @ 1.04Amp	Approvals:	CE, TUV, RoHS, WEEE, China RoHS
Cycle rate:	Exceeds 600 cycles per minute	Display :	LCD
Time range:	0.0001-999.9999s	Number of Programs :	16 (time)
End-of-cycle feedback circuits:	5-24 VDC,100 mA maximum		



Performus X Series

(All fluids / Low-viscosity fluids)

Specification Performus X Series			
Cabinet size:	26.4W x 17.1D x 6.7H cm (10.38w x 6.75D x 2.62H")	Cycle initiate:	Foot pedal, finger switch, 5-24 VDC signal
Weight:	1.0 kg (2.2b)	Air output:	Performus X100:0-7.0 bar (0-100 psi) Performus X15:0-1.0 bar (0-15 psi)
Power adapter:	AC input: 100-240 VAC (+/-10%), ~50/60Hz, 0.6Amp DC output: 24VDC @ 0.75Amp	Approvals:	CE, TUV, RoHS, WEEE, China RoHS
Cycle rate:	Exceeds 600 cycles per minute		
Time range:	0-99.9s		
End-of-cycle feedback circuits:	5-24 VDC,100 mA maximum		



Ultimus IV

(All fluids)

Specification Ultimus IV			
Cabinet size:	18.4W x 8.1H x 32.3D cm (7.25W x 3.18H x 12.73D")	End-of-cycle feedback circuits:	5-24 VDC,100 mA maximum
Weight:	3.7 kg (8.2lb)	Cycle initiate:	Foot pedal, finger switch, 5-24 VDC signal
Power adapter:	AC input: 100-240 VAC (+/-10%), 50/60Hz DC output: 24VDC @2.5 Amp	Display	LCD
Cycle rate:	Exceeds 20 cycles per minute	Number of Programs :	100

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NORDSON

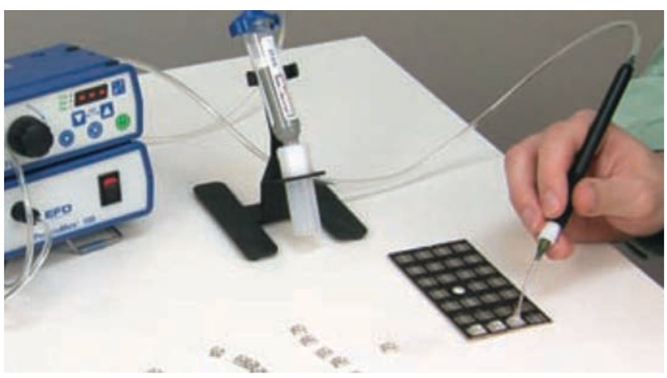


Equalizer 2K Dispensing Tool

The pneumatically operated Equalizer 2K dispensing tool makes it possible to dispense accurate, repeatable amounts of 2-component materials. It is designed for use with EFD dispensers and 50Ml Side x Side cartridges and static mixers (order separately).

Features and Benefits

- Eliminates hand fatigue associated with manual dispensers
- Ideal for pre-mixing and down packing from 2K cartridges into syringe barrels



Vacuum Pickup System ProcessMate 100

The Process Mate 100 provides a simple, efficient way to lift and position small or delicate components in benchtop assembly processes.



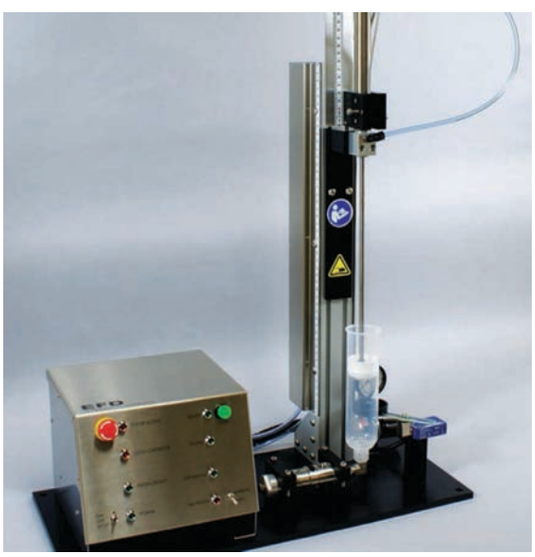
Atlas Syringe Filling Systems

EFD filling systems provide a fast, neat, and easy way to transfer greases, silicones, and other non-pourable fluids from cartridges and bulk containers into 3cc, 5cc, 10cc, 30cc, and 55cc syringe barrels.

Atlas Cartridge Filling Systems

The Atlas™ Cartridge Filling System provides a simple, cost-effective way to fill 2.5 to 32 ounce cartridges with greater accuracy at lower cost, making it ideal for:

- Material suppliers
- Custom packagers
- Manufacturers who down-pack from larger containers



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Syringe Barrel Systems

EFD produces the highest quality syringe barrels and pistons in the industry.

Syringe barrels and pistons are produced in our own silicone-free facilities, where they are subjected to stringent quality control inspections throughout the entire manufacturing process.

Dispensing Tips

EFD produces the highest quality dispensing tips in the industry. All tips are produced in our own silicone-free facilities and subjected to stringent quality control inspections throughout the entire manufacturing process.





Nordson EFD's Optimum ESD-safe black

Dispensing components prevent static build up when dispensing adhesives, pastes, coatings, and other assembly fluids used in manufacturing electronic products.

Two-Component Dispensing Systems Cartridges / 2K Dispensers / Mixers / Meter Mix Valves

Nordson EFD's 2K product line provides static mixers, cartridge systems, and meter mix valves for reactive two-component (2K) adhesives & sealants such as epoxies, urethanes, silicones, and acrylics.



NORDSON



Valve systems and controls

Engineered for the most demanding manufacturing environments, Nordson EFD valve systems are proven to provide precise, reliable fluid dispensing control for tens of millions of trouble-free cycles before maintenance is required.

Nordson EFD valve systems and controls are Ideal for benchtop applications and machine builders. Plus, our valve systems also provide a cost-effective drop-in retrofitting alternative for automated production lines.

Match our valves with EFD controllers and automated dispensing systems for even more precise, repeatable deposit sizes and placement.



Tanks, Reservoirs, and Pumps

Nordson EFD reservoirs maintain steady fluid pressure to produce the most accurate, repeatable deposits possible.

Bulk unloaders provide superior flow properties when dispensing high-viscosity adhesive and sealant materials.

Choose from a variety of options to meet your application needs. To learn more about the EFD systems used with these reservoirs and tanks, take a look at our valves and automated dispensing systems.

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MAGAZINE LOADER (Standard Type)

This unit is used to load the PCB from Magazine to next equipment in the production line.



Cover Type

MAGAZINE UNLOADER (Standard Type)

This unit is used to unload the PCB into the Magazine



Cover Type

CONNECTING CONVEYOR

This unit is used to connect previous/next machine effective in the production line.



Cooling Conveyor

INSPECTION CONVEYOR

This unit is used to inspect the PCBs manually in the production line.



3 Segment Type

PCB CLEANING CONVEYOR

This unit used to remove dusts and particles on the PCB in the production line.



GATEWAY(TELESCOPIC) CONVEYOR

This unit is used to make passage for operator in the production line.

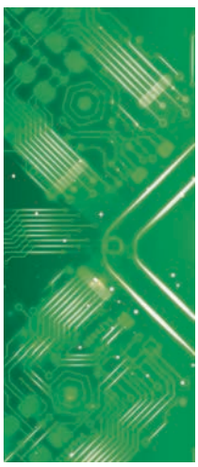


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HENKEL

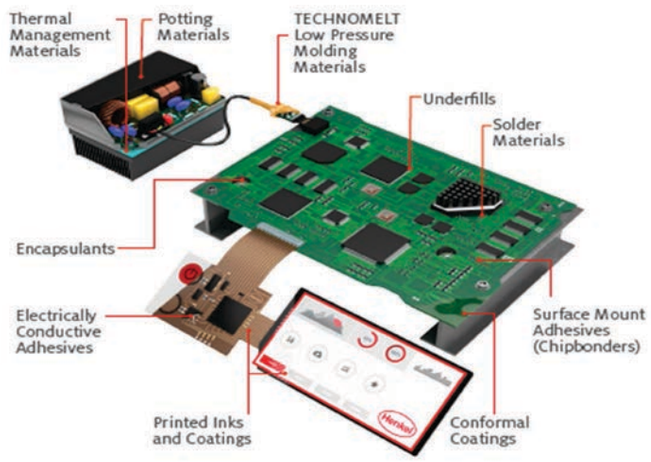
Henkel Excellence is our Passion | BERGQUIST | LOCTITE | TECHNOMELT



Henkel is the world's leading and most progressive provider of qualified, compatible material sets for semiconductor packaging, printed circuit board (PCB) assembly and advanced soldering solution. As the only materials developer and formulator with vast technical expertise for all materials required for package production and assembly, Henkel is uniquely positioned to deliver world-class materials products, process expertise and total solutions across the board to enable tomorrow's electronic industry.

Solutions Across the Board

Global innovation leader of electronic assembly materials



Loctite Chipbonder Surface Mount

Leader in developing cutting edge technology for high-speed syringe dispense and stencil print Chipbonders.



Loctite Chipbonders surface mount adhesives have been manufactured over the past 20 years, supporting the introduction of wave soldering surface mount components on mixed technology printed circuit boards and double sided SMT boards. Loctite's wide range of Chipbonders are able to meet the challenges of high speed assembly processes. Also meeting high reliability end-user requirements.

TECHNICAL SUMMARY

Loctite Product	Dispensing speed		Wet strength	Color	Cure temperature range (˚C)	Shelf life (˚C)	Special features
	Pressure time valve	Positive dis-placement valve					
3609	high	high	very high	dark red	Heat 100-150	6 months @ 2-8	For high speed dispensers, dot profile.
3619	high	high	very high	red	Heat 80-150	10 months @ 2-8	Fast curing at low temperature

Bergquist Thermal Interface Materials

Today's electronic device manufacturers and, as products become smaller, the need to dissipate damaging heat effectively will be greater than ever.

Of course, each application is unique and its requirements specific, which is why Henkel has formulated a comprehensive range of thermal management materials to suit a variety of current and future heat control needs. Under the banner of the well-respected LOCTITE® and BERGQUIST® brands,

Thermal Solutions Across the Board

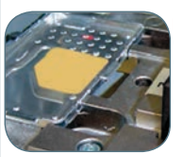
Highly Engineered Thermal Solutions Tailored for Electronic Components and Assemblies



BOND-PLY and LIQUI-BOND Adhesives
- Eliminates mechanical fasteners
- High bond strength
- Effectively absorbs mechanical stresses



Gap Filler Liquid Dispensed Thermal Material and GAP PAD
- Excellent thermal conductivity
- High conformability
- Effectively eliminates air gaps



Phase Change Materials
- High thermal performance
- No-mess thixotropic characteristics
- Easy handling
- Customizable configurations

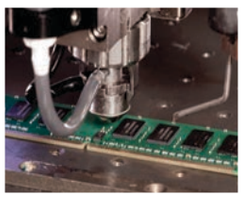


TCLAD Insulated Metal Substrates
- Increased power density
- Maximize output from a smaller footprint
- Low thermal impedance
- Lowest operating temperature, optimal long-term reliability

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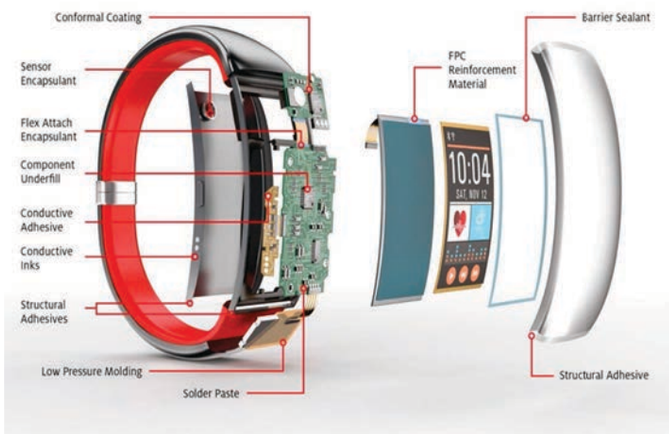
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Underfills and Encapsulants

Protection from drop, thermal shock, water and other potentially damaging environmental influences is critical for long-term reliability of electronic products. This is even truer today, as smaller, higherdensity designs, finer-pitched devices and increasingly delicate componentry are integrated into advanced assemblies. As the electronics market's premiere materials formulator and supplier, Henkel's expertise in underfill and encapsulant development is providing assembly specialists with materials that offer essential device protection, while accommodating ease-of-use and streamlined processing for safeguarding and reinforcement of BGAs, CSPs, PoPs, LGAs and WLCSPs. Characteristics such as fast cure, room temperature flowability, high reliability, reworkability and excellent SIR performance are built in to Henkel's broad portfolio of underfill, glob top and encapsulant materials, making them ideal for consumer, industrial, automotive, medical and aerospace applications.



Peelable Mask Technomelt AS 8998

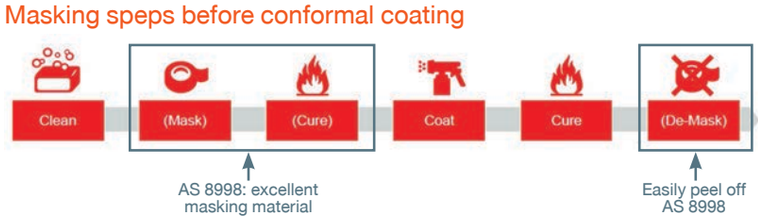
TECHNOMELT AS 8998 is a new and efficient approach to conventional PCB masking techniques for conformal coating processes.

An alternative to manual taping methods, TECHNOMELT AS 8998 is a hot melt adhesive that can be precisely applied to keep-out areas via automated dispensing systems, reducing process time and labor costs.

The material is compatible with conformal coating chemistries, delivers better control during conformal coating, requires no curing and releases cleanly from various substrate surfaces.




Masking speps before conformal coating



AS8998 Dispensable Hotmelt offers a significant reduction in overall cost of ownership. Cost Comparison

- AS 8998 Solution versus Traditional Tape
- Based on 200,000 boards/month, PCB ~50 cm2, double sided, 10 masked regions/side/board
- Hotmelt dispense machine throughput = 50,000 boards/month
- Estimated Operator cost $500/month

$/year	Hotmelt System	Thermal Tape	Kapton Tape	UV Peelable Mask
Process	$ 24,000.00	$ 288,000.00	$ 288,000.00	$ 96,000.00
Material	$ 100,800.00	$ 120,000.00	$ 24,000.00	$ 120,000.00
Equipment	$ 60,000.00	$ 6,000.00	$ 6,000.00	$ 130,000.00
Total Cost	$ 184,800.00	$ 414,000.00	$ 318,000.00	$ 346,000.00

Costs based on 2 year allocation of equipment, material, and process costs.

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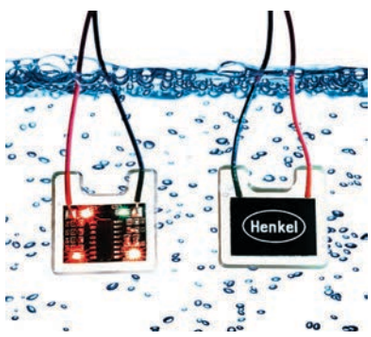
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HENKEL



Technomelt Low Pressure Molding

Low pressure molding is a faster and more efficient process than potting. The TECHONOMELT material can be "skylined" around the electronics, reducing cycle times and raw material. It also eliminates the housing otherwise needed to contain the potting material. TECHNOMELT simply becomes the housing. Low injection pressure easily molds around fragile components, and low temperatures minimize heat exposure to sensitive electronics.



KEY BENEFITS

DESING

- Additive design allows for alternative solutions
- “Sky Lining” allows use of less material, precise encapsulation and less weight
- Functional design removes process steps
- Improved look and image

PROCESS

- Reduces total cost of ownership(TCOO)
- Increased throughput
- Low capital equipment costs and reduced footprint
- Low viscosity materials allow for low injection pressures

SUSTAINABILITY

- Zero waste
- Excess material and scrap are recyclable

PRODUCTS

- Adhesion to multiple surfaces
- Complete watertight encapsulation
- Sefer,1-component,UL 94-VO approved
- High temperature resistance
- Compliant materials suitable for sensitive electronic components
- Less handling and shorter process
- No cure process required

APPLICATIONS

- Automotive Sensors
- Switches
- Engine Control Units
- Lighting Display Boards
- Micro-Inverters
- Power Regulators
- Industrial Sensors
- Medical Sensors

Rocktin
Adhesion solution





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LOCTITE® Solder Game Changer Portfolio

Henkel's game changing solder materials

Simple, Scalable and Temperature Stable

The LOCTITE® GC solder paste platform changes everything you thought you knew about solder. Uniquely stable flux chemistry delivers unprecedented performance and is the basis of all LOCTITE® GC materials, including the award-winning LOCTITE® GC 10 and water-washable LOCTITE® GC 3W.



The Anatomy of a Game Changer

LOCTITE® GC 10 is stable at 26.5˚C for one year and at temperatures of up to 40˚C for one month, providing benefits throughout the logistics and operations chain, while still offering unbeatable printability and reflow performance.

Improved Stability

The material and temperature stability of the LOCTITE® GC line ensures superior batch-to-batch consistency (12x over conventional paste solutions), resulting in finer on-line stencil stability.

Improved Printing

The single flux formulation not only reduces printing defects, but it is designed to meet all assembly needs. From challenging miniaturized components for handheld products to high-reliability devices for automotive applications, GC offers the best paste transfer efficiency and paste-on-pad material volumes.

Improved Reflow

Eliminating the need for expensive nitrogen reflow, LOCTITE® GC pastes have superb coalescence in air on 0201, 01005 and 0.03 mm CSP components, and show zero dewetting on a long hot soak profile, with a minimal hot slump at 182 ˚C.

Improved Logistics – Transport

Offering a truly adaptable and flexible solder paste supply chain, the LOCTITE® GC portfolio reduces concern about receiving-to-refrigeration speed, ensuring a cost-effective transport, production and operating lifecycle.

Cost Savings

The LOCTITE® GC line offers a solder paste that works for all board sizes, densities, thicknesses and surface finishes-eliminate costly NPI evaluations by qualifying one material for all assembly requirements.

Sustainability

Compliant with REACH halogen-free initiatives, GC solder pastes are a halogen-free formula, they also integrate RoHS and EICC conflict-free tin sourcing practices. The LOCTITE® GC program pushes sustainability even further by eliminating nitrogen, reducing energy usage, and maximizing productivity and yield.

Optimized Paste Management

Not only does LOCTITE® GC eliminate end-of-day paste scrapping to 5%, compared to an industry standard of 25%, but the room temperature stable formula ensures more use on the line and less paste in the bin.

No Refrigeration

Sustainable energy consumption is part of shipping and storing the no-refrigeration-required LOCTITE® GC products. With no thaw period required prior to production use, time on the line starts as soon as the paste is placed in production.

Improved Flux Stability

LOCTITE GC 10 offers unique stability and maintains its effective, creamy consistency over the life of the paste. Comparatively, competitive materials begin to deteriorate over time, challenging performance on the line. Lack of stability accounts for 20 percent scrap rates and higher costs.



Advanced Material Stability

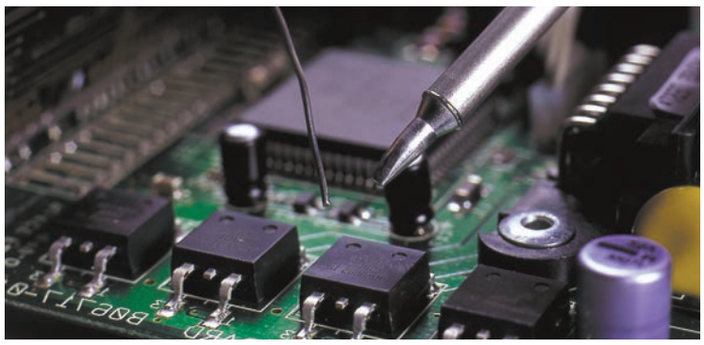
- 12 times the stability at room temperature, compared to conventional pastes
- Exceptional batch-to-batch consistency
- Tested, proven best-in-class printing performance on 01005 components and larger
- Market-leading reflow results in air
- Optimized paste management with a wide range of pitches
- Simplified logistics and storage
- Lower handling and operating costs

Long Shine (Thailand) Co., Ltd.

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HENKEL

LOCTITE® SOLDER WIRE SOLUTIONS



Available in both solid and cored versions, Henkel's LOCTITE® brand solder wire products have been enabling rework and hand soldering operations for decades. Award-winning multiple flux core technology in our cored wire options distributes flux evenly throughout the solder wire, offering fast wetting and high solder joint reliability. LOCTITE cored wire is available in lead-free, tin-lead and halogen-free formulas. For assemblers who prefer a non-cored option for selective soldering applications, LOCTITE solid wire products are offered in both lead-free and tin-lead options.

CORED WIRE OPTIONS

NUMBER OF CORES	FLUX CONTENT*
1	0.5% - 1.0%**
2	1.0% - 1.2%
3	1.0% - 2.5%
4	2.0% - 2.7%
5	1.7% - 3.0%

*Flux content availability dependent on alloy and diameter
**Other flux content available upon request



CORED WIRES

PRODUCT	DESCRIPTION	APPROXIMATE FLUX CONTENT (% BY WEIGHT)	ALLOY Pb-FREE	ALLOY SnPb	IPC J-STD-004B CLASSIFICATION
Halogen-Free, No-Clean					
LOCTITE C 400	Clear residue, cored solder wire with increased flux content for improved wetting on challenging surfaces. Features the award-winning multiple flux core technology that ensures consistent distribution of flux throughout the solder wire. Suitable for manual and robotic soldering.	2.2	90iSC 99C SAC305 SAC387	Sn60 Sn62 Sn63	ROL0
Halide-Containing, No-Clean					
LOCTITE C 502	Clear residue, cored solder wire with medium activity flux with good wetting on difficult substrates.	2.7	99C SAC305 SAC387	Sn60 Sn62 Sn63	ROM1
LOCTITE C 511	Amber residue, heat stable, cored solder wire. Good wetting on difficult substrates.	2.7	99C SAC305 SAC387	Sn60 Sn62 Sn63	ROM1
Halide-Containing, Water Wash					
LOCTITE HYDX	High activity, flux-cored solder wire with excellent wetting on difficult substrates.	2.0	99C SAC305 SAC387	Sn60 Sn62 Sn63	ORH1

SOLID WIRES

PRODUCT	SILVER CONTENT (%)	DIAMETER* (mm)	ROHS COMPLIANT
Pb-Free			
LOCTITE SWR 90ISC	3.8	3	Yes
LOCTITE SWR 96SC	3.8	3	Yes
LOCTITE SWR 97S	0	3	Yes
LOCTITE SWR 99C	0	3	Yes
LOCTITE SWR SAC0307	0.3	3	Yes
LOCTITE SWR SAC305	3.0	3	Yes
Pb-Free			
LOCTITE SWR SN63	0	3	No

*Other diameters for certain products available upon request



Across the Board, Around the Globe.
henkel-adhesives.com/electronics

www.longshine.co.th

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HENKEL ADHESIVE SOLUTION

1. Loctite Threadlockers
(น้ำยาล็อคเกลียว ใช้ล็อคสลักเกลียว)

- ป้องกันการคลายตัวเนื่องจากแรงกระแทกและแรงสั่นสะเทือน
- ใช้ได้กับสลักเกลียวขนาดต่างๆ ลดต้นทุนการเก็บสต็อคซีลเกลียว
- ป้องกันสนิมและการกัดกร่อน
- ไม่เลอะและใช้งานง่าย







2. Loctite Threadsealants
(น้ำยาซีลเกลียว)

- ใช้แทนเทปพันเกลียวและน้ำยาทาท่อ
- น้ำยาจะแทรกซึมทำให้ซีลเกลียวได้ 100%
- น้ำยาไม่ไหลย้อย หดตัว กะเทาะ หรือทำให้ระบบ (และไส้กรอง) อุดตัน
- สามารถถอดชิ้นส่วนได้ง่ายด้วยเครื่องมือธรรมดา







3. Loctite Retaining
(น้ำยาตรึงเพลา ใช้ประกอบงานทรงกระบอก)

- เชื่อมส่วนประกอบโลหะที่ไม่มีเกลียว
- มีทั้งแรงยึดปานกลางและสูง-สามารถรับน้ำหนักได้สูงและป้องกันการสึกกร่อน
- แทรกซึมลงในร่องได้สมบูรณ์-ป้องกันสนิมกัดกร่อน
- ลดความจำเป็นของ Tolerances ต่ำ
- ให้หน้าสัมผัส 100% ทำให้น้ำหนักและแรงกดกระจายเท่ากันทั่วทั้งรอยต่อ







4. Loctite Gasketing
(ปะเก็นเหลว ซีลหน้าแปลน)

- ไม่มีการหดตัว ทำให้ไม่ต้องคอยขันหน้าแปลนอยู่เป็นระยะ
- แทรกซึมลงร่องได้สมบูรณ์ ลดความจำเป็นในการใช้หน้าแปลนที่มีพื้นผิวเรียบมาก
- สามารถถอดชิ้นส่วนได้ง่าย แม้ใช้งานเกินระยะเวลาที่กำหนด
- เมื่อเซ็ตตัวเต็มที่แล้ว สามารถทนต่อความดันสูงได้มาก







5. Loctite Instant Adhesives
(กาวแห้งเร็วใช้ปะติดวัสดุที่ยากต่อการยึดติด เช่น ยางหรือพลาสติกหรือไม้)

- ระยะเวลาในการยึดติดน้อย
- หมดปัญหาเรื่องรอยต่อ-ให้ชิ้นงานดูสวยงาม
- ใช้ได้กับวัสดุหลากหลาย-สามารถใช้ติดกับวัสดุที่ต่างกัน
- ให้แรงยึดสูง-บ่อยครั้งที่ตัวน้ำยาให้ความแข็งแรงกว่าวัสดุที่ถูกปะติด
- ใช้ปะติดชิ้นงานที่มีขนาดเล็ก







6. การปะติดอื่นๆ

- ใช้ปะติดวัสดุได้หลากหลายชนิด เช่น ไม้ โลหะ พลาสติกเนื้อแข็ง และแก้ว
- ยืดหยุ่นได้ ไม่เปราะ
- ทนทานต่อแรงลอกดึง (Peel) และแรงเฉือน (Shear)







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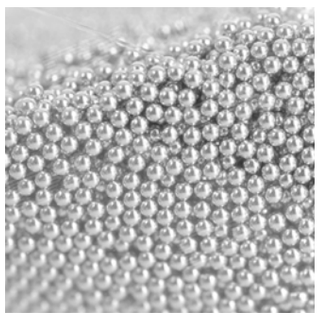
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ACCURUS

Accurus

Lead-Free Solder Ball
Zero pollution
Hypoxia property
Precision
Meet RoHS, REACH, SONY EU hazardous materials requirement





Product Feature

Manufactured from alloy and BGA Solder Ball, and R & D per customer needs.

self-developed patent production equipment, can produce 0.889mm ~ 0.035mm high quality BGA solder ball, suitable for semiconductor and related industries for packaging.

Packaging material using anti-static material, static electricity can be attached to avoid the bottle, resulting in the use of distress.

original patents were obtained, can be safe to use, no infringement concerns.

Product Specification/ Packing Method

Alloy	Diameter (mm)	Tolerances (± mm)	CPK	Package Size		
				Spheres/Bottle	Bottle Size (cc)	Spheres/Box
Sn-Bi Series	0.889	0.020	**Samples Size: 256** > 1.33	**0.25KK ~ 5KK** per bottle Depend on spheres size and customer request	200	**2.5 ~ 50KK** per box Depend on spheres size and customer request.
Sn58Bi (139˚C)	0.760					
Sn-Zn Series	0.640					
91Sn9Zn (199˚C)	0.630					
Sn-Ag Series	0.600					
Sn3.5Ag (221˚C)	0.550				100	
Sn2.3Ag	0.508	0.015				
Sn-Sb Series	0.500					
Sn5Sb (245˚C)	0.450				40	
Sn8Sb	0.406					
Sn-Cu Series	0.400					
Sn-0.7Cu (227˚C)	0.350	0.010				
Sn-Ag-Cu Series	0.304					
Sn-1Ag-0.5Cu	0.300					
Sn-3Ag-0.5Cu	0.250				25	
Sn-3.8Ag-0.7Cu △	0.200					
Sn-4Ag-0.5Cu△	0.180 | 0.100	0.005			10	
Sn-Ag-Cu-Ni-Ge Series	0.090 | 0.035	0.003				
Sn-1Ag-0.5Cu-0.05Ni-Ge ◎						
Sn-1.2Ag-0.5Cu-0.02Ni-Ge ◎						
Sn-3Ag-0.5Cu-0.05Ni-Ge ◎						
CASTIN Series						
CASTIN125 ®◇						
CASTIN258 ®◇						
CASTIN305 ®◇						

Low Alpha Solder: we can provide various of low alpha level product. Alpha particles <0.01 cph/cm2 , <0.002 cph/cm2, <0.001 cph/cm2

Patent No:

△ ISURF-U.S 5,527,628 not include Japan

◇ AIM-U.S5,352407 U.S5,405,577 JP2,752,258

◎ FUJI-U.S6,179,935 JP3,296,289

Note: <1> If need product information or other materials, sizes & spec., please call me we will provide the relevant document or information.

<2> Some Alloys / Diameters are subjected to MOQ or special production cost.

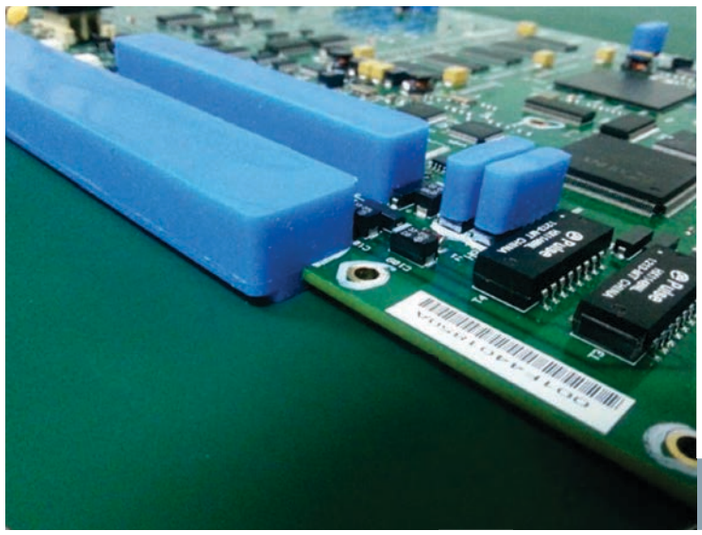
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CONFORMAL COATING MASKING BOOTS

Conformal coating masking boots

Using conformal coating masking boots in protecting printed circuit boards (PCBs) from application errors is a low cost, highly reliable solution and applies both for Parylene and liquid conformal coating processes.



Key Facts

Conformal coating masking boots are completely reusable.

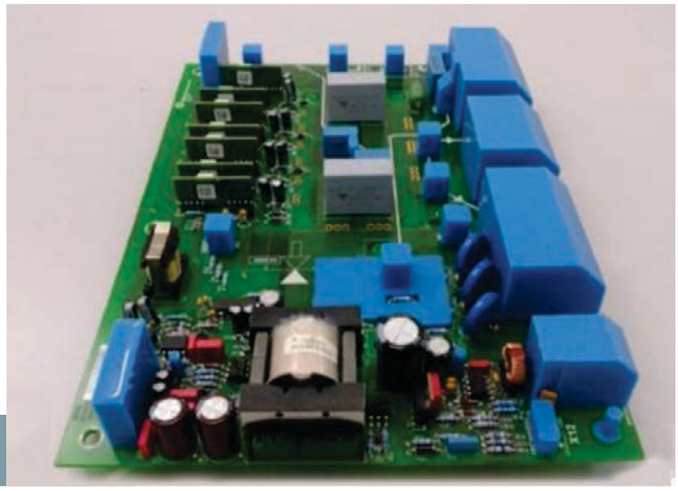
They can save up to 80% costs compared to masking with tapes, dots or liquid latex.

Switching from your current supplier can save up to 60% of your current costs.

Quotation

Want to know how we can save you money on masking with our custom masking boots?

- Provide us with a picture of your board
- Identify the parts to be masked
- Give us the component codes



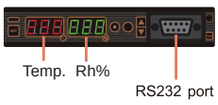
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DR.STORAGE

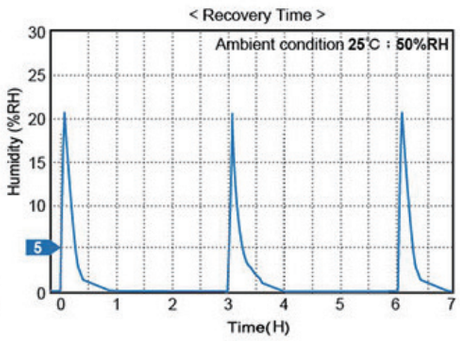
F1 Ultra-Low Humidity Dry Cabinet <1%RH





Display Panel

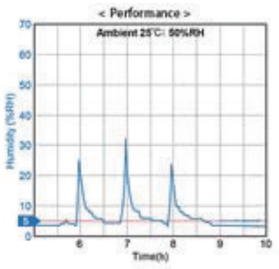
- High precision Sensor
- Built-in alarm
- Calibration reminder



F1-1200-6

Capacity: 1250L
Shelves: 5
pcs
Ext. dimensions: W1200xD672xH1815mm
Int. dimensions: W1198xD642xH1625mm
Power consumption: Ave.135Wh : Max.425W
★Red bin, Yellow bin and gray bin one each included.

X2B Ultra-Low Humidity Dry Cabinet <5%RH





X2B-1200-6

Capacity: 1250L
Shelves: 5 pcs
Ext. dimensions: W1200xD672XH1815mm
Int. dimensions: W1198xD642XH1625mm
Power consumption: Ave.105Wh;Max.585W



X2B-600

Capacity: 624L
Shelves: 5 pcs
Ext. dimensions: W600xD672XH1815mm
Int. dimensions: W598xD642XH1625mm
Power consumption: Ave.55Wh : Max.295W

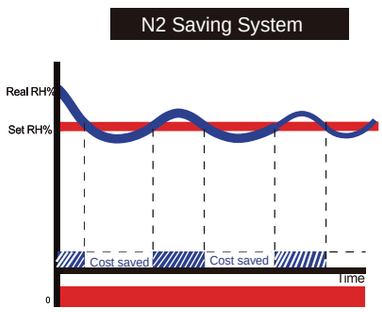
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Smart N2 Cabinet

Saving N2 cost up to 60%
High-precision Digital controller
Built-in fash and buzzer humidity alarm





N2 Consumption of N2 saving cabinet.
N2 saving system will stop the inflow of nitrogen air when preferred humidity inside the cabinet is reached. Huge amount of nitrogen cost can be saved rightaway.

N2 Consumption of conventional cabinet.
Traditional N2 cabinet will have nitrogen air pumping into the cabinet all the time no matter what the humidity inside the cabinet is.

QDBS-1200-6

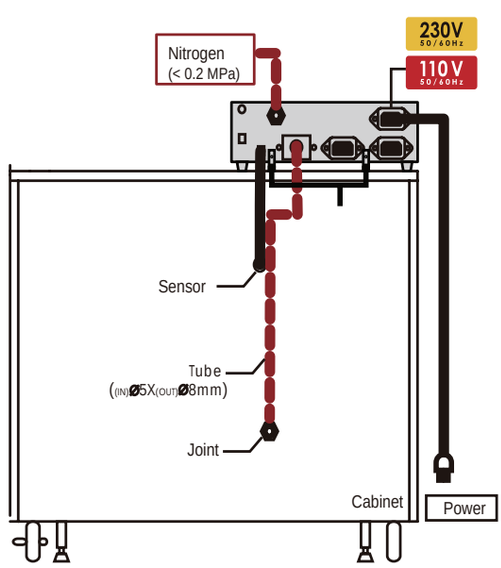
Capacity: 1250L
Shelves: 5 pcs
Ext. dimensions: W1200xD672xH1815mm
Int. dimensions: W1198xD642xH1625mm
Power consumption: Ave.20Wh : Max.50W

Product	Smart N2 cabinet	N2 cabinet
N2 injecting control by Humidity or O2 (option)	Yes	X
Display panel	Yes	X
Save N2 cost	30~60%	x
Alarm function	Yes	x
Data recording	Yes	x

Smart N2 Controller

NC-5 is used for controlling the filling of dry air into the cabinet, so the desired relative humidity in the cabinet can be reached. The dry air can be nitrogen, CO2 or inert gas. Traditional nitrogen cabinet allows the N2 to fill all the time. After NC-5 is adapted, 30~60% consumption of N2 can be saved.





NC-5

Dimensions: W250xD210xH90mm
Power consumption: Ave.11Wh : Max.15W

Long Shine (Thailand) Co., Ltd.

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DR.STORAGE

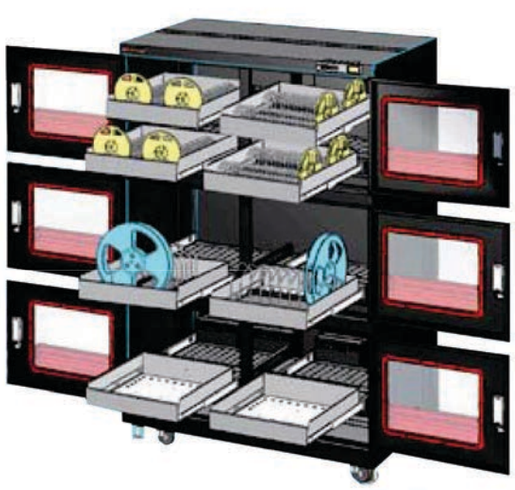
A1B Dry Cabinet 1~50%RH



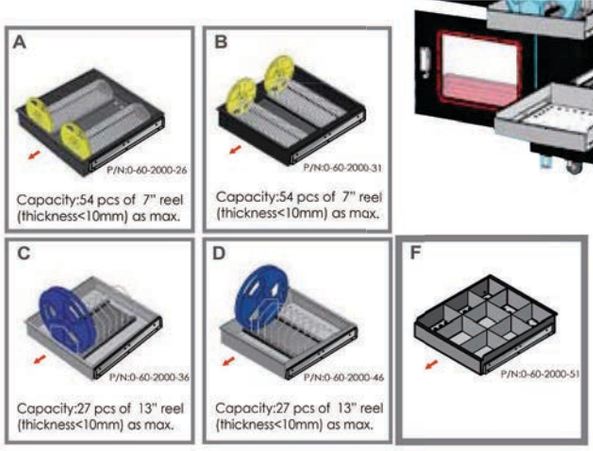
A1B-200 A1B-400 A1B-575 A1B-600 A1B-1200

Model	A1B-200	A1B-400	A1B-575	A1B-600	A1B-1200
Capacity	202L	413L	598L	624L	1250L
Shelves	2 pcs	3 pcs	3 pcs	5 pcs	5 pcs
Ext. dimensions: (mm)	W600xD672XH632	W600xD672XH1275	W900xD800XH1045	W600xD672XH1815	W1200xD672XH1815
Int. dimensions: (mm)	W598xD642XH525	W598xD642XH1070	W898xD772XH870	W598xD642XH1625	W1198xD642XH1625
Power consumption:	Max.145W;Ave.48.6Wh	Max.145W;Ave.48.6Wh	Max.145W;Ave.48.6Wh	Max.145W;Ave.48.6Wh	Max.145W;Ave.48.6Wh

Smart Acccessories (optional)



- Drawers :





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C1 | C20

1 ~ 50%RH | 20-50%RH



C1-290 **C20-290**

Capacity: 202L
External Dimension: W600 x D695 x H542mm.
Internal Dimension: W598 x D645 x H524mm.
Shelves: 2units



C1-157 **C20-157**

Capacity: 202L
External Dimension: W450 x D475 x H960mm.
Internal Dimension: W448 x D425 x H869mm.
Shelves: 3units



C1-315 **C20-315**

Capacity: 334L
External Dimension: W905 x D475 x H1050mm.
Internal Dimension: W903 x D425 x H869mm.
Shelves: 3units



C1-575 **C20-575**

Capacity: 334L
External Dimension: W905 x D475 x H1050mm.
Internal Dimension: W903 x D425 x H869mm.
Shelves: 3units



C1-490 **C20-490**

Capacity: 413L
External Dimension: W600 x D695 x H1274mm.
Internal Dimension: W598 x D645 x H1071mm.
Shelves: 3units



C1-790 **C20-790**

Capacity: 624L
External Dimension: W600 x D695 x H1820mm.
Internal Dimension: W598 x D645 x H1618mm.
Shelves: 5units



C1-1490-6 **C20-1490-6**

Capacity: 1250L
External Dimension: W1200 x D695 x H1820mm.
Internal Dimension: W1198 x D645 x H1618mm.
Shelves: 5units



C1-1490-4 **C20-1490-4**

Capacity: 1250L
External Dimension: W1200 x D695 x H1820mm.
Internal Dimension: W1198 x D645 x H1618mm.
Shelves: 5units

Example of placing order:

If you need a 1,250L dry cabinet with humidity range less than 5%RH.		
Step 1	Humidity range less than 5%RH	C2E
Step 2	Choose the size and type	1490-6
Step 3	Choose the accessories	ESD paint, ESD wheels…..etc.

Long Shine (Thailand) Co., Ltd.

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SOLEX

SOLDER POTS

MK–810B

Power Supply: AC200 / 220V
Power Consumption: 2300W
Heater Capacity: 1000W X 2
Motor Capacity: 40WSC
Solder Capacity: 28kg.
Weight: 48kg.
Dimension: 570 X 565 X 640 mm.
Temperature Tolerance: + /-1˚C
Ready light indication



MK–710B

Power Supply: AC100 / 110V / 220V
Power Consumption: 1500W
Heater Capacity: 1100W X 1
Motor Capacity: 25WSC
Solder Capacity: 12-14kg.
Weight: 18kg.
Dimension: 405 X 560 X 620 mm.
Temperature Tolerance: + / -1˚C
Ready light indication
PCB Location Inducation



MK–610A

Power Supply: AC100 / 110V / 220V
Power Consumption: 1200W
Heater Capacity: 900W X1
Motor Capacity: 15WSC
Solder Capacity: 10kg.
Weight: 18kg.
Dimension: 305 X 460 X 540 mm.
Temperature Tolerance: + / -1˚C
Ready light indication
PCB Location Inducation



MK–410A

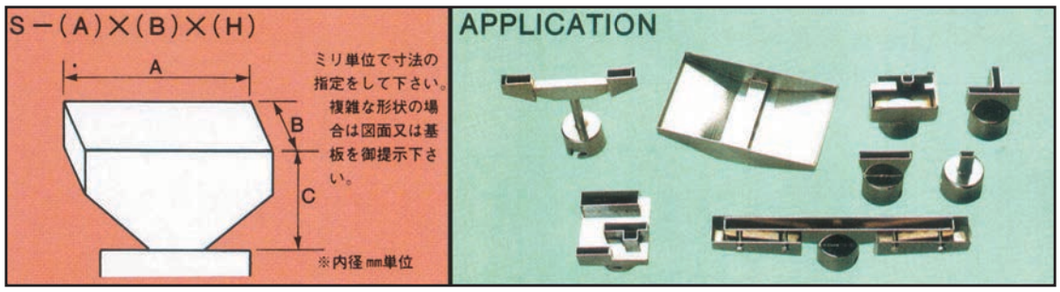
Power Supply: AC100 / 110V / 220V
Power Consumption: 1000W
Heater Capacity: 900W X 1
Motor Capacity: 15WSC
Solder Capacity: 9kg.
Weight: 15kg.
Dimension: 210 X 310 X 150 mm.
Temperature Tolerance: + / -1˚C



MK–210A

Power Supply: AC100 / 110V
Power Consumption: 800W
Heater Capacity: 700W X 1
Motor Capacity: 10WSC
Solder Capacity: 7kg.
Weight: 11kg.
Dimension: 150 X 210 X 135 mm.
Temperature Tolerance: + / -3˚C





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SOLDER POT



Round Titanium Lead-Free Solder Pots

Model	Rated Power	Temperature Range	Melting Capacity	External Dimensions (mm)	Solder Bath Sizes (mm)
WD-506	180 W	0-600 ˚C	0.3 KG	266L x 145W x 120H	¢ 38 x 40
WD-508	250W	0-600 ˚C	0.6 KG	266L x 145W x 120H	¢ 50 x 40
WD-808	400W	0-600 ˚C	1.5 KG	327L x 175W x 120H	¢ 80 x 40
WD-108	500W	0-600 ˚C	2.0 KG	327L x 175W x 120H	¢ 100 x 40

Square Titanium Lead-Free Solder Pots

Model	Rated Power	Temperature Range	Melting Capacity	External Dimensions (mm)	Solder Bath Sizes (mm)
WD-558	300 W	0-600 ˚C	1.32 KG	266L x 145W x 115H	¢ 55 x 55 x 45
WD-107	500 W	0-600 ˚C	2.3 KG	327L x 175W x 115H	¢ 100 x 75 x 45
WD-118	600 W	0-600 ˚C	2.7 KG	327L x 175W x 115H	¢ 110 x 80 x 45
WD-101	800 W	0-600 ˚C	3.2 KG	327L x 175W x 115H	¢ 100 x 100 x 45
WD-141	900 W	0-600 ˚C	4.5 KG	397L x 205W x 115H	¢ 140 x 100 x 45
WD-161	1000 W	0-600 ˚C	5.7 KG	397L x 205W x 115H	¢ 160 x 110 x 45
WD-181	1200 W	0-600 ˚C	8.2 KG	446L x 245W x 115H	¢ 180 x 140 x 45
WD-201	1500 W	0-600 ˚C	9.8 KG	446L x 245W x 115H	¢ 200 x 150 x 45
WD-252	1800 W	0-600 ˚C	13.1 KG	536L x 285W x 115H	¢ 250 x 160 x 45
WD-282	2000 W	0-600 ˚C	18.3 KG	536L x 285W x 115H	¢ 280 x 200 x 45







Small Titanium Lead-Free Solder Pots

Model	Rated Power	Temperature Range	Melting Capacity	External Dimensions (mm)	Solder Bath Sizes (mm)
WD-360	100 W	200-480 ˚C	0.3 KG	50-60Hz	¢ 38
WD-350	150W	200-480 ˚C	0.5 KG	50-60Hz	¢ 50
WD-360	250W	200-480 ˚C	1.6 KG	50-60Hz	¢ 80
WD-310	300W	200-480 ˚C	2.2 KG	50-60Hz	¢ 100

Round Stainless Steel Solder Pots

Model	Rated Power	Temperature Range	Melting Capacity	External Dimensions (mm)	Solder Bath Sizes (mm)
WD-50S	250W	0-400 ˚C	0.6 KG	266L x 145W x 120H	¢ 50 x 40
WD-80S	400W	0-400 ˚C	1.5 KG	327L x 175W x 120H	¢ 80 x 40
WD-100S	500W	0-400 ˚C	2.0 KG	327L x 175W x 120H	¢ 100 x 40





Square Stainless Steel Solder Pots

Model	Rated Power	Temperature Range	Melting Capacity	External Dimensions (mm)	Solder Bath Sizes (mm)
WD-100	500W	0-400 ˚C	2.6 KG	327L x 175W x 120H	100 x 70 x 45
WD-150S	900W	0-400 ˚C	5.7 KG	397L x 205W x 120H	150 x 100 x 45
WD-180S	1200W	0-400 ˚C	9.5 KG	446L x 245W x 120H	180 x 140 x 45
WD-200S	1500W	0-400 ˚C	11.3 KG	446L x 245W x 120H	200 x 150 x 45
WD-250S	1800W	0-400 ˚C	15.1 KG	536L x 285W x 120H	250 x 160 x 45
WD-280S	2000W	0-400 ˚C	21.2 KG	536L x 285W x 120H	280 x 200 x 45

Small Titanium Coating Solder Pots

Model	Rated Power	Temperature Range	Melting Capacity	External Dimensions (mm)	Solder Bath Sizes (mm)
WD-50S	250W	0-400 ˚C	0.6 KG	266L x 145W x 120H	¢ 50 x 40
WD-80S	400W	0-400 ˚C	1.5 KG	327L x 175W x 120H	¢ 80 x 40
WD-100S	500W	0-400 ˚C	2.0 KG	327L x 175W x 120H	¢ 100 x 40





Lead-Free Heating Board

Model	Rated Power	Temperature Range	Melting Capacity	External Dimensions (mm)	Solder Bath Sizes (mm)
WD-195	300W	0-400 ˚C	Aluminum Alloys	266L x 145W x 115H	90 x 90
WD-198	1000W	0-400 ˚C	Aluminum Alloys	397L x 205W x 115H	190 x 150
WD-298	1500W	0-400 ˚C	Aluminum Alloys	446L x 245W x 115H	250 x 200
WD-398	2000W	0-400 ˚C	Aluminum Alloys	536L x 285W x 115H	300 x 250
WD-196	1200W	0-400 ˚C	Aluminum Alloys	250L x 250W x 210H	200 x 200

Long Shine (Thailand) Co., Ltd.

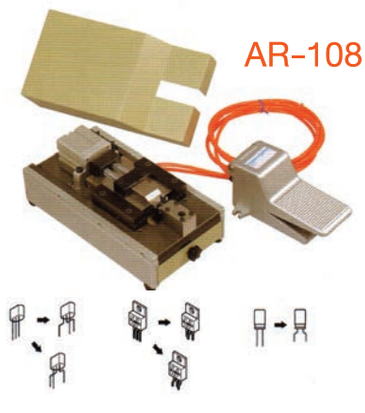
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REN THANG

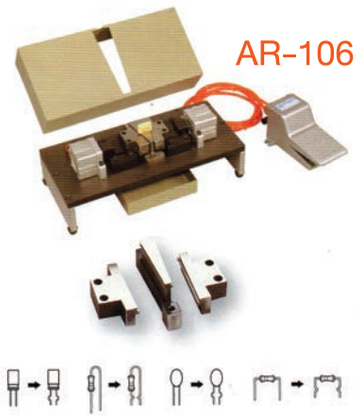
[AR Series] Pneumatic Forming Tool

- Most kinds of components are available, die is customized.
- Single strike to form and cut
- Die is customized upon forming spec., more spec. for more dies.
- Provide you suitable solution upon the forming drawing with spec.

AR-108



AR-106



Lose Radial Lead Cutter

Model: CF-360

Power: 110V/220V AC 50/60Hz
Dimension: 500mm. (L)X430mm.(W)X470mm.(H)
Weight: 24 kgs.
Shipping weight: 27 kgs.

- Easy maintenance and simple operation.
- Upgradable to CF-366, add bowl feeder or worktable.
- Linear Feeding on trail is suitable for most parts.
- Durable cutters from unique cutting method.
- Optical LED Component Counter is optional accessory.

CF-360X



Automatic Loose Redial Lead Cutter

Model: CF-366

Power: 110V/60HZ or 220V/50Hz
Dimension: 1150mm. (L)X700mm.(W)X1050mm.(H)
Weight: 145 kgs.
Capability: 18,000 pcs./Per hour

- Shorten leads in massive production.
- Cutter can operate independently from bowl feeder and table.

Model:

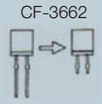
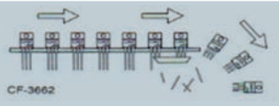
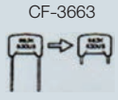
1. Specialized Single Function
2. Multifunction CF-366=CF-3661+CF-3662+CF-3663



CF-3661



CF-366

Models	Available shapes	Example	
CF-3661 	Cylindrical parts (Dia.) 4-8	Condenser, LED Electrolytic cap.	
CF-3662 	Cuboids parts (L*W*H) 3*3*3-15*23*8	Power transistor TO220, LED, Mila	
CF-3663 	Oblate parts (Dia.*Thickness) 4*3-18*6	Film cap, Ceramic cap. Poly cap.	

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MODELS : RT-80, RT-80S, RT-80F

Specification

Dimensions : 380(L)x180(W)x210(H) mm
Weight : 8 Kgs
Production Rate : Taped 60,000/hr loose 800/hr



RT-80

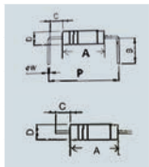


RT-82

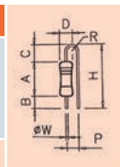
MODELS : RT-82, RT-82S, RT-82W, RT-82F

Specification

Dimensions : 470(L)x180(W)x235(M) mm
Weight : 15 Kgs
Production Rate : Taped 50,000 pcs/hr



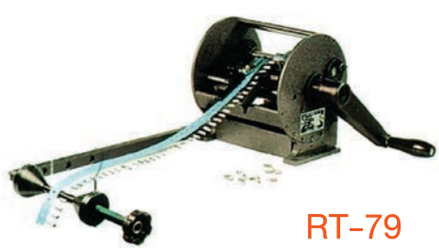
MODEL		A	B	C	W	D	P	H	R
RT-80	RT-82	3.5-37.6	3.5-10	1.2 (Min)	0.35-0.8	1.5-8	6-40	mm	
RT-80S	RT-82S	3.5-37.6	3.5-10	0.6 (Min)	0.35-0.8	1.5-8	5-40		
	RT-82W	3.5-37.6	3.5-10	1.2 (Min)	0.35-1.5	1.5-8	6-40		
RT-80F	RT-82F	3.6-18	2-12	3.5 (min)	0.35-0.8	1.5-6	2.5-13.5	25 Max	1-3



MODELS : RT-79 and RT-79S

Specification

Dimensions : 380(L)x180(W)x210(M) mm
Weight : 6 Kgs
Production Rate : Taped 50,000 pcs/hr



RT-79

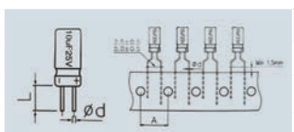


RT-70

MODELS : RT-70 and RT-70S

Specification

Dimensions : 470(L)x180(W)x235(H) mm
Weight : 13 Kgs
Production Rate : Taped 50,000 pcs/hr



MODEL	RT-79/RT-70			RT-79S/RT-70S		
Dimension	L	D	A	L	D	A
Min.mm	2	0.3	12.7	2	0.3	15
Max.mm	10	1.2	12.7	10	1.2	15

Component Counter – for DIP and SMD

Min. lead diameter : ϕ 0.35 mm
Dimension : 350x300x280 mm
Weight : 6 Kgs
Power : 100V 220VAC



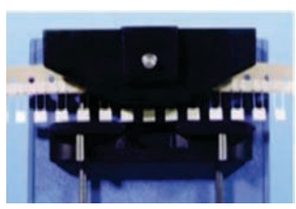
M-831

- Different adaptors are equipped for DIP or SMD part.
- Counting in both directions (Leftward or rightward).
- Divider from 1 to 10 (up to 19 upon request).
- Accumulating mode is available.
- Count to Pre-set amount and stop is one of modes.(with an audible signal when the desired components number is reached).
- Automatic Calibration and self diagnostic procedure.
- Remember last condition and amount.
- Input of external detector is extendable.
- Output for external motor control.



SMD Adapter



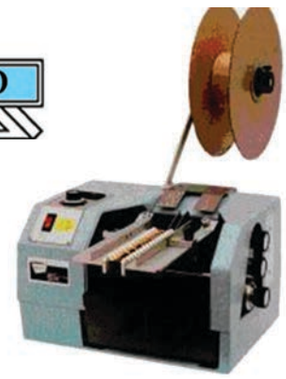


DIP component counting

Long Shine (Thailand) Co., Ltd.

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CUT & FORM



HEPCO 8000–1 AXIAL LEAD CUT & FORM SYSTEMS DESCRIPTION:

An Axial Lead Former That's EASY to Set Up

1. Dial Lead Spacing Use jig and slide parts to set lead spacing. in .001" Turn dual arms - One each side increments.
2. Calibrate Cut Length Can't do. Scale. Place component in jaws and turn knob until jaws touch component body.
3. Dial Cut Length Set with jigs or blocks or dial, but calculate Shows below-body 1/2 body diameter plus distance from body dimensions on scale
4. Dial Body Clearance

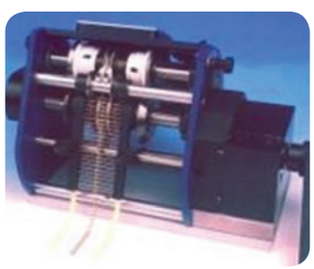
HEPCO 1500–1 RADIAL LEAD TRIMMING MACHINE DESCRIP

Radial Lead Trimming Machine For Components with In–Line Leads

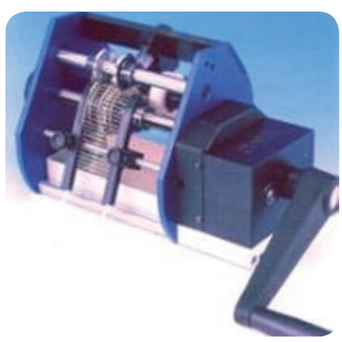
- Loosen 4 adjustment knobs - Slide head to desired cut length per scale reading
- Place component on slotted track
- Check track slot width and adjust upper guide height
- Set knob to desired feed rate
- Run your components
- Near horizontal guides carry components smoothly through machine
- Patented oscillating blades provide clean, quiet cut without stressing components
- Lead trimmings fall into front drawer, components transport to rear bin



ILAMEF









TP6/PR–F

Cut, bend and form machine
for axial components.

TP6/PR–F/A

TP6/PR-F machine with Motor-98/A and CS40 loose parts feeder.
Three versions are available
depending on the lead
diameter of the components:
1. TP6/PR-F/1 - .019-.035 " (0.5-0.9mm)
2. TP6/PR-F/2 - .031-.039 " (0.8-1mm)
3. TP6/PR-F/3 - .039-.051 " (1-1.3mm)

Various dies are available for each version.

TP6/V–PR

Cut, bend and form machine for axial components for vertical mount.
The standard form will lock the component into the PCB. Handles components with lead diameters from .019-.031" (0.5-0.8mm).
Pitches .100" (2.54mm) and .200" (5.08mm) are available.

TP6/V–PR/A

TP6/V-PR machine with Motor-98/A and CS20 loose parts feeder.

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OKTEK COMPONENT COUNTER

Model : G-5001A

Specifications : Auto counting, easy to count, provide material and inventory. Auto save the set up value, convenience for operation. Include 3 3/4(4000 counts) auto shift gears electric meter, easy to operate & measure the value of materials any time. Short detect is deviced, count precisely and deduct the lack automatically. Rate of inaccuracy is ZERO.



OKTEK SOLDER PASTE MIXER



Item Number : G-5000A

Description : SOLDER PASTE MIXER
G-5000A is suitable for lead-free and high density PCBA.

Specification : POWER AC110V 60HZ / AC220V 50HZ
MIXING CAPABILITY 500g X 2 One side mixing need to add counter weight
REVOLUTION SPEED 600rpm
ROTATION SPEED 200rpm
SIZE (L) 440 x (W) 420 x (H) 450 mm
FIXTURE L : 65~66.5mm (KESTER)
(O.D OF CONTAINER) M : 59~62mm
(TAMURA, NIHON HANDA, NUION SOLTEK)
S : 53~55mm (INDALLOY)

Oktek Hight Speed Centrifuge G5005

Model : G-5005

Specifications : Max. speed : 5000rpm
Max. RCF : 4471 g
Max. Capacity : 400ml
Power : 350W
Time range : 0~99 min
Noise : <70dB
Power source : 220V 50/60Hz
Dimensions : 650*470*410mm (L*W*H)





General Purpose Mixer and Defoaming Mixer

Model : G5500D

Specification : Size : 620(L) x 620(W) x 690(H)mm
Power : AC220V 5A
Motor : 3 Phase 220V / 0.75KW,Inverter Motor





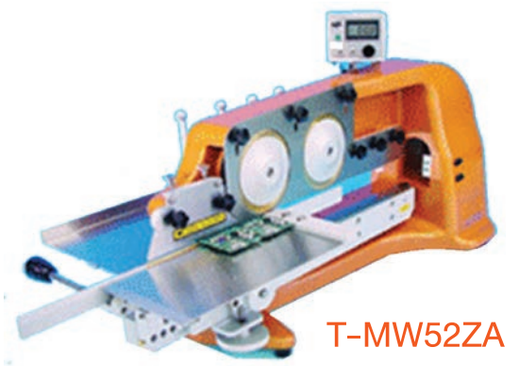


Long Shine (Thailand) Co., Ltd.

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TST PCB Separator

The safest, most accurate, most advanced SMT board separator

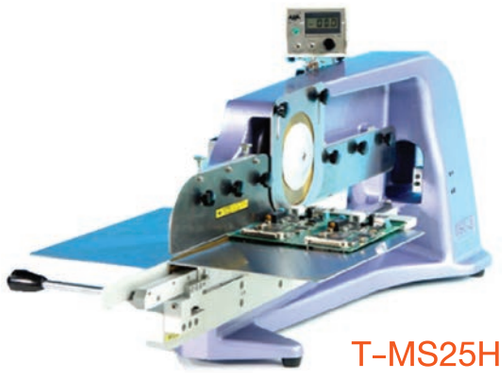


T-MW52ZA

Features:

When divideing boards with a process that adds distortion and vibration to panels that have completed mounting and inspection steps, components can be internallydamaged. TST dividers provide a reliable solution by preventing productsthat can cause malfunction, battery problems, or sudden failure.

1. Offers quiet cutting technology and precise measurement.
2. Advanced method does not apply stress to components.
3. Eliminates dust that can adversely impact operator health.
4. Smooth cuts improve board dimensional accuracy.



T-MS25H

PCB Separator

Features:

1. With triple protection devices, safe and reliable.
2. The adoption of 48V DC motor makes the cutting process more quiet and energy saving.
3. The patented device of lower blade adjustment ensures more convenient blade replacement and higher precision.
4. Imported trail ensures the cutting precision to be within 0.04 mm.
5. different cutting speeds can meet the proessing requirements of different products.
6. The function of cutting back and forth can meet the cutting requrement of those low strees products.
7. With statistical function of the cutting blade lifetime.
8. With the special upper cirular blade, it can cut the aluminum substrates.



ST-601BB

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PCB SEPARATOR MAESTRO 2

is the affordable entry-level device to handle smaller demands. PCBs are fed between the circular blades manually to be separated.

PCB SEPARATOR MAESTRO 2M

to separate large numbers of PCBs without tiring. The lower circular blade is motor-driven. The PCB is fed, seized by the circular blade, transported and separated. The device especially fits with highly dense assembly or slim margin strips. Three speeds can be selected.





PCB SEPARATOR MAESTRO 3E

Safe operation A PCB is positioned with its milled groove onto the linear blade and the circular blade is moved manually through the PCB. The distance between the holder and the linear the PCB can be separated only in the milled groove.

PCB SEPARATOR MAESTRO 4S/450

Model: Key features

- Blade distance to be entered on the operation panel is set motor-driven.
- Up to nine programs to be stored
- Separation length to be continuously adjusted via limit switches
- In terms of a preventive blade maintenance, the cutting performance is displayed.





PCB SEPARATOR MAESTRO 6

Separation of milled PCBs up to a length of 1,500 mm with a minimum of stress on the components The MAESTRO 6 is the consequent further development of the proven cab PCB separators. Even very lengthy PCBs can be separated fast, economical and without stress. The carriage power unit is assembled behind the linear blade. This crucially simplifies the separation and removal of the PCBs.

Long Shine (Thailand) Co., Ltd.

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Automated Equipment

Screw Fastening Robot

Screw Fastening Robot greatly improves the work efficiency and the screw fastening consistancy & reliability. With the advanced Teaching Pendant, operators can set up by themselves all the process parameters such as the screw coordinate and screw types. It can adapt to all sorts of difficult screw fastening process and achieve the complete automation.

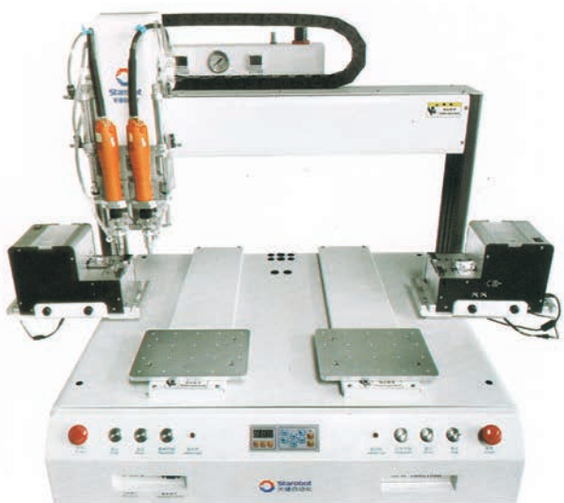
Applications: It is suitable for all kinds of screw fastening process on mobile phones, keyboards, monitors, car accessories, toys, small home electrical appliances, integrated circuits, printed circuit boards, LCD screen, electronic components (such as relays, speakers), etc.



LS-300YY



Teaching Pendant



LS-400YGD2

Model	LS-300YY	LS-400YGD2
Voltage	110V / 220V AC	110V / 220V AC
Drive Mode	4-Axis precision step motor	5-Axis precision step motor
Operating Range	500mm x 300mm x 80mm (X*Y* Z)	500mm x 400mm x 80mm (X*Y*Z)
Movement Speed	X* Y Axis: 0.1 ~ 800mm/sec, Z Axis: 0.1 ~ 400mm/sec	X*Y Axis: 0.1 ~ 800mm/sec, Z Axis: 0.1-400mm/sec
Repeatability Accuracy	±0.02mm (X*Y*Z)	±0.02mm (X*Y*Z)
Minimum Analysis	0.01mm (X*Y*Z)	0.01mm (X* Y *Z)
Maximum Load Weight	8kgs (for work platform)	8kgs (for work platform)
Program Capacity	Max. 255 programs	Max. 255 programs
Operating Temperature	10 ˚C ~ 40 ˚C	10 ˚C ~ 40 ˚C
Operating Humidity	20 - 90%	20 ~ 90%
External Dimensions	760 x 620 x 710mm	1180 x 740 x 760mm
Weight	about 91kgs	about 107kgs

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Screw driver & torque meter





800 Series Electric Screwdrivers Waterun-832A Power Supply

Model	Suitable Screws	Speed (R/Min)	Torque (N.m)	Bit (ϕmm)
800	M1-M2.5	400-1000	0.2-0.8	4
801	M2-M3.5	400-950	0.4-1.5	5
802	M2.5-M5	300-700	0.6-2.0	6



Digital Torque Meters (Normal Type)

Model		HP-10	HP-50	HP-100
Measurement Range	Kgf.cm	0.15-10.00	1.5-50	1.5-100
	N.m	0.015-1.0	0.-15-5	0.15-10
	Lbf.in	0.15-9.00	1.5-45	1.5-90
Accuracy		within +0.5%		
Power Source		1.2V Nicd cell x 5		
Recharging Time		8 hours with exclusive charger		
Continuous use at full charge		30 hours		
Dimensions (mm)		230 (W) x 123 (D) x 65 (H)		
Battery Life		chargeable for 300 times or more		
Weight		1.8 kg		
Exclusive Charger		Input: AC220-240V Output: DC7.2V,120mA		



Willdone-802 Automatic Screw Feeder

Specifications:

- DC power supply: AC220V,DC12V 500MA AC Adapter
- Applicable screw length(under head):up to 20mm
- Rail adjustment range: M1.0 - M5.0
- Speed of picking up: 1.5 sec/piece

Features:

- Rail can be removed and adjustable;
- One machine can be used for various screw sizes.



Spring Balancer

Weighing Range: 0.5-1.5kg, 0.6 -2.0Kg
1.5-3.0kg, 3.0 - 5.0Kg



Quicher Automatic Screw Feeder

Number Model	Screw Diame-ter(mm)	Screw Length (mm)	Rail Number
NSB-10	1.0	1.6-10	SR10
NSB-12	1.2	1.8-10	SR12
NSB-14	1.4	2.0-10	SR14
NSB-17	1.7	2.3-10	SR17
NSB-20	2.0	2.6-20	SR20
NSB-23	2.3	2.9-20	SR23
NSB-26	2.6	3.2-20	SR26
NSB-30	3.0	3.6-20	SR30

Dimensions: 123W x 181D x 145H (mm)
Type: Manual operation
Power: 110VAC,50/60Hz



Screw driver Bits

We supply all range of screwdriver bits.



Automatic Screw Feeder Sony FK Series

Model	Screw Diame-ter(mm)	Screw Length (mm)	Rail Number	Max length
FK-514	1.4	-	-	18cm
FK-517	1.7	-	-	
FK-520	2.0	3.0	5.0	
FK-523	2.3	4.0	5.0	
FK-526	2.6	4.0	6.0	
FK-530	3.0	4.0	6.0	
FK-535	3.5	6.8	8.0	
FK-540	4.0	6.8	8.0	
FK-550	5.0	8.0	10.0	

Long Shine (Thailand) Co., Ltd.

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CARTON

NSW-((0.6/2),(12), (13)) PFM-LED

Stand Type PFM
Large stage pole stand
with LED ring light



NSW-24PFM-LED-M

Stand Type PFM
Large stage pole stand
with mid-positioned LED ring light



DSZ-44JPFM-LED

Stand Type PFM
Large stage pole stand
with LED ring light



DSZT-44JPFM-LED

Stand Type PFM
Large stage pole stand
with LED ring light



SPZ-50JPFM-LED-M

Stand Type PFM
Large stage pole stand
with mid-positioned LED ring light



SPZT-50JPFM-LED-M
SPZV-50JPFM-LED-M

Stand Type PFM
Large stage pole stand
with mid-positioned LED ring light



DSZ-70JPFM-LED-M

Stand Type PFM
Large stage pole stand
with mid-positioned LED ring light



DSZT-70JPFM-LED-M

Stand Type PFM
Large stage pole stand
with mid-positioned LED ring light



DSZT-70JUN-PSB-T-M

Stand Type UN
Universal boom stand
with mid-positioned LED ring light
and separate power controller



Models:	NSW -LED Series	DSZ-44J-LED Series	SPZ-50J-LED Series	DSZ-70J-LED Series
Magnification	6x,10x,20x,30x,40x	10x to 44x	6.7x to 50x	20x to 70x
Objective Lense	0.6x,1x,2x,3x,4x	1.0x to 4.4x	0.67x to 5.0x	2.0x to 7.0x
Eyepieces	Wide Field 10x	Wide Field 10x	Wide Field 10x	Wide Field 10x
Working Distance	64.3, 82.5, 113.0 mm	90mm	108mm	80mm
Interpupillary Distance	52mm to 75mm	52mm to 75mm	52mm to 75mm	52mm to 75mm

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OPTIONAL ACCESSORIES

Eyepieces



DHW10X
10x F.N. 23
(for SPZ-50J / SPZT-50J / SPZV-50J)

DSW10X
10x, F.N. 23
(for DSZ-44J / DSZT-44J / DSZV-44CT / NSW)



DHW15X
15x, F.N. 15
(for SPZ-50J)

DSW15X
15x, F.N. 16
(for DSZ-44J / NSW)



DHW20X
20x, F.N. 11.4
(for SPZ-50J)

DSW20X
20x, F.N. 11.4
(for DSZ-44J / NSW)

Focusing Eyepieces 10x with Reticle



DFHW10X
F.N.23
(for SPZ-50J)



DFSW10X
F.N.23
(for DSZ-44J / NSW)

DFHW10X10/100 · DFSW10X10/100
with 10:100mm scale

DFHW10X5/100 · DFSW10X5/100
with 5:100mm scale

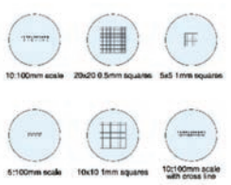
DFHW10XH10/20 · DFSW10XH10/20
with 20x20 0.5mm squares

DFHW10XH10/10 · DFSW10XH10/10
with 10x10 1mm squares

DFHW10XH5/5 · DFSW10XH5/5
with 5x5 1mm squares

DFHW10XCROSS · DFSW10XCROSS
with 10:100mm scale and cross line

DFHW10XLINE · DFSW10XLINE
with cross line



Auxiliary Objective Lenses & Objective Lens Covers

0.45x/0.5x/0.75x/0.7x lenses reduce magnifications and extend working distances while 1.6x/2x lenses increase magnifications and shorten working distances.



NSAL0.45X
0.45x
(not available with SPZ-50J/SPZT-50J/SPZV-50J with pole type stand)

NSAL0.5X
0.5x



NSAL1.6X
1.6x

NSAL2X
2x
(available with SPZ-50J/SPZT-50J/SPZV-50J only)

NSAL0.75X
0.75x

NSAL0.7X
0.7x

PT-20U008
Objective lens cover



RM-1/16M
Objective lens cover with screw threads on both sides

Scale Loupes



M1207
25mm, 7x, with 33mmφ scale #1, 2, 3 or 4
4 glass lenses (4 elements), fully coated,
12mm eye relief, in vinyl case
57mm height, N.W.84g



M1210
19mm, 10x, with 33mmφ scale #1, 2, 3 or 4
2 glass lenses (3 elements), fully coated,
12mm eye relief, in vinyl case
35mm height, N.W.43g

Scale Patterns



No.1
Increments in millimeters and inches
Max: 16mm and 0.6"



No.2
Increments in millimeters
Max: 16mm



No.3
Increments in inches
Angles, radius, diameters, widths, etc.



No.4
Increments in millimeters
Angles, radius, diameters, widths, etc.

LED Set NEW ESD COLOR AND LED CHIP TYPE

Model PSB-T





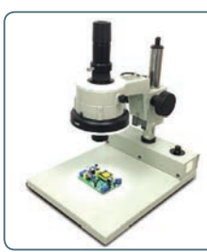
PK-S (NEW)



Input Voltage	100-240V AC, 50/60Hz
Consume Power	5w/60LEDS
Color Temperature	7600K
Lamp Life	Greater than 20,000 hours
Operating Temperature	32 to 104 f (0 to 40 C)
Humidity Range	0 to 80% non-condensing
Mounting Diameter	70 mm
Adapter Dimensions	124x96x46mm
Adapter Shell Material	ABS Plastic

Transmitted illuminator	SMD LED (70 pcs) , Ring type, Dimmeble
AC Adapter	Input : AC 100-240V 50/60Hz 0.4A
	Output : DC 24V 0.6A

Monocular Zoom Microscope NXZ-10 SERIES



The NXZ-10 functions as not only a zoom microscope but a zoom lens with C mount to pair with a C mount camera.

Model	NXZ-10 PFM-PSB-T
Magnification	7x - 45x (as microscope)
Objective Lens	0,7x - 4,5x (zoom ratio 6,4 : 1)
Eyepieces	Wide Field 10x, Field Number 18
Camera mount	C mount (replaceable with eyepiece)
Working Distance	93,7mm
Diopter Adjustment	6,25mm
Stands	Pole type
Incident Illumination	Nil
Optional Accessories	NNL-0,3X Auxiliary objective lens 0,3x (WD: 286mm)
	NNL-0,5X Auxiliary objective lens 0,5x (WD: 185mm)
	NNL-2X Auxiliary objective lens 2x (WD: 38mm)
	MIC-68A LED ring illuminator with adapter

NEW LCD SCREEN CAMERA



XR 9024

Model	XR9024
Camera	CMOS, 2M pixels (1920 x 1080), 2.97mm x 5.28mm size, 30 fps
Monitor	11.6 inch IPS Color LCD, Full HD (1920 x 1080), Tiltable up to 90°
Mount type	C mount (with 6mm ring) and OS mount
SDHC card slot	1 (SDHC card is not included)
USB Port	2 (1 for mouse, 1 for connection with PC)
Functions	Parameter Adjustment / View Control / Image Saving / Grid Control
	Image process and measurement (option)
Accessories	Wireless Mouse / USB Cable
Options	DPS-A Eyepiece Adapter
	DPS-SP Image Process & Measurement Software (for Win 7,8 and10)





USD / Digital Cameras



Model	DFK23
Image Sensor	1/2.5" CMOS
Resolution (RGB8 RGB24 RGB32 Y800 Y16)	2592x1944(5MP) 15 fps
	1920x1080(2MP) 30 fps
	1280x720(MP) 60 fps
Exposure	Auto/Manual
White Balance	Auto/Manual
Mount Type	C mount
Interface	USB3.0
Application	ImageM Image Processing & Measurement Software
Measurement Tools	Distance, Rectangle, Ellipse, Polyline, Polygon, Angle, Radius, Point
OS	Windows XP / 7 /8 (32 & 64 bit)



MacroViewScope Video Microscope System MVS SERIES



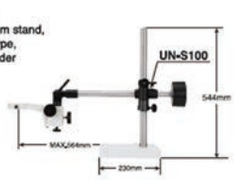
The MVS series offers easy observation on LCD monitor. All-in-one scope consisting of lens, camera, monitor and stand. High or low magnification simply selectable by rotating the lens. 2X and 4X optional lenses available to get more enlarged images.

Magnification	10x & 15x (on screen)
Field of view	20mmx15mm & 13.3mmx10mm
Working distance	146mm
Screen	10 inch color LCD, 800x600 SVGA
Camera (*)	1/4 type color CCD, 310000 pixels, PAL, BNC connector
Stand	Pole type (300mm)
Illumination	Built-in LED ring light with intensity control / NIL
Optional Accessories	MVS-2X Auxiliary objective lens 2x (WD 69mm)
	MVS-4X Auxiliary objective lens 4x (WD 29mm)

(*) Replaceable with other cameras in your possession subject to the size within W50mm x L50mm

Boom Stands

UN-S100
Universal boom stand,
Single Arm Type,
with body holder



UN-S200
Universal boom stand,
Desk Clamp Type,
with body holder



Long Shine (Thailand) Co., Ltd.

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KESD

IONIZING AIR BLOWER SERIES

High frequency ion fan KF-21AW

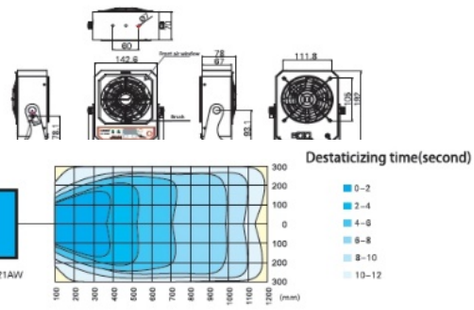


Specification

Technical parameters		
Product model		KF-21AW
Input power supply		DC24V
LED indicator	Fan normal operation	If the fan operaters normally, the green indicator light is on.
	Fan abnormal operation	If the fan operaters abnormally, the red indicator light is on.
	High voltage normal	If high voltage operaters normally, the green indicatorlight is on.
	High voltage abnormal	If high voltage operaters abnormally, the red indicatorlight is on.
Ion balance		Automatic ion balance system 0±10V
Clean time set		Can be set within the range of 0-999 hours
Voltage impose		High frequency AC method/±2200V
Air volume		2.56-4.07m³/mins
Ozone concentration		Below 0.03 ppm(distance 150mm)
Environment temperature		0˚C-40˚C (no condensation)
Environment humidity		30-70%RH (no water drop condensation)
Overall size/mm		142.6x78x178 (excluding bracket)
Weight(kg)		1.5kg(excluding bracket)

Anti-static test condition Operating voltage : DC24V Test voltage : ±1000V-±100V Ambient temperature : 23˚C±2˚C				
Distance		300mm	600mm	900mm
Decay time	Positive	1.1s	2.6s	4.0s
	Negative	1.3s	3.3s	5.1s
Ion balance	Positive	< 0 ± 10V		
	Negative			

Appearance Drawing



Note: 1. The measuring method : Applying 20PF, 150 mm. destaticizing monitor and measure according to the company measuring condition.
2. Decay time means from ±1000V-±100V without installing the filter and maximum air volume.
3. Test in the central area of the front air window.

IONIZING AIR BAR SERIES

High frequency ion fan KF-60AR (Triple head)//KF-80AR (Four head)



Specification

Technical parameters		
Product model		KF-60AR
Input power supply		AC220/50Hz or AC110V/60Hz
LED indicator	Fan normal operation	If the fan operaters normally, the green indicator light is on.
	Fan abnormal operation	If the fan operaters abnormally, the red indicator light is on.
	High voltage normal	If high voltage operaters normally, the green indicatorlight is on.
	High voltage abnormal	If high voltage operaters abnormally, the red indicatorlight is on.
Ion balance		Automatic ion balance system 0±10V
Clean time set		Can be set within the range of 0-999 hours
Voltage impose		High frequency AC method/±2200V
Air volume		2.56-4.07m³/mins
Ozone concentration		>0.03 ppm(distance 150mm)
Environment temperature		0˚C-40˚C (no condensation)
Environment humidity		30-70%RH (no water drop condensation)
Overall size/mm		600x82x150 (excluding bracket)
Weight(kg)		3.64kg(excluding bracket)

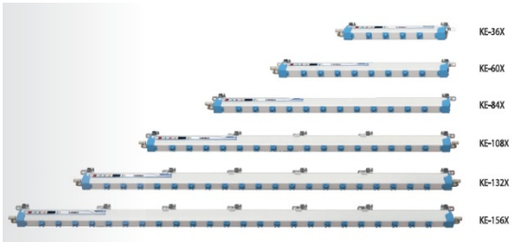
Anti-static test condition Operating voltage : DC24V Test voltage : ±1000V-±100V Ambient temperature : 23˚C±2˚C				
Distance		300mm	600mm	900mm
Decay time	Positive	1.0s	2.3s	4.0s
	Negative	1.2s	2.8s	4.4s
Ion balance	Positive	< 0 ± 10V		
	Negative			

Specification

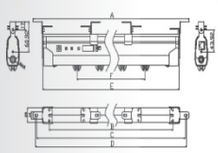
Technical parameters	
Product model	KF-80AR
Input power supply	AC110/60Hz or AC220V/0Hz
High voltage output	AC2200V
Indicator light	High voltage normal and abnormal indicator light
Decay time	1.5s(300mm)
Ion balance	Automatic ion balance system 0 ± 10V
Air volume	2.97-4.07m³/mins(single head)
Ozone concentration	> 0.03 ppm(distance 150mm)
Environment temperature	0˚C-40˚C (no condensation)
Environment humidity	30-70%RH (no water drop condensation)
Overall size/mm	800x82x150 (excluding bracket)
Weight(kg)	4.74kg(excluding bracket)

Anti-static test condition Operating voltage : AC110V/60Hz or AC220V/50Hz Test voltage : ±1000V-±100V Ambient temperature : 23˚C±2˚C				
Distance		300mm	600mm	900mm
Decay time	Positive	1.0s	2.3s	4.0s
	Negative	1.2s	2.8s	4.4s
Ion balance	Positive	< 0 ± 10V		
	Negative			

KE series ion bar



Appearance drawing



Model and Specification

Model	Overall length A	Installation interval B	Installation interval C	Installation interval D	Static eliminator E	Electrode spacing F
KE-36X	413	326	391.2	398.8	360	180
KE-60X	653	566	631.2	638.8	600	420
KE-84X	893	806	871.2	878.8	840	660
KE-108X	1133	1046	1111.2	1118.8	1080	900
KE-132X	1373	1286	1351.2	1358.8	1320	1140
KE-156X	1613	1526	1591.2	1598.8	1560	1380

Specification

The section size of the bar is Ø 32, equip with HV cable, the length of the ion bar and the cable can be customized, (Standard cable: 2500mm)

Technical parameters	
Power source	SK-40-SK-60
Current consumption	0.23mA/M
Ion balance	±20V (Test distance: 30-100mm)
	20*36*100-300mm (Length can be OEM)
	0.48kg (600mm)
	2500mm (Withstand high pressure 50KV)
Effective distance	30mm-100mm
Operating temperature	-10 ˚C-50 ˚C (No dew, no frost, on ice)
Operating humidity	0%RH-90%RH (No fog)

Ordinary ion bar SHB-T



Profile:

SHB-T corona ionizing static bar is a special equipment for eliminating static electricity. Its effect is superior to the ion copper rod. The tungsten steel needle in the product is precisely arranged and no blind area which can quickly eliminate static electricity. It can be applied to the printing and dyeing industry, packaging industry, laundry industry and so on. It needs to be used in conjunction with a dedicated high-voltage power source.

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SL–001 Bench Top Ionizing Air Blower



Specifications:

Input Voltage	220 VAC or 110 VAC
Power Consumption/Heater on	40 VA/ 240 VA
Operating Temperature	-10 ˚C ~ +45 ˚C
Air Volume Range	50 ~ 105 CFM
Weight	2.8 Kg
Size	600(L) x 170(W) x 116 (H) mm

Static Elimination Typical Value:

Testing Conditions	Testing Voltage:	1000V ~ 100V-1000V ~ -100V
	Temperature:	22 ˚C ± 5 ˚C RH : ≤60%
	Distance:	300 mm.
Hot Air Function	Yes	No
Decay Time	≤1.6S	≤1.3S
Offset Voltage	-15V ~ +15V	-10V ~ +10V

SL–003A Overhead/Desktop Ionizing



Specifications:

Input Voltage	220 VAC or 110 VAC
Power Consumption/Heater on	80 VA
Operating Temperature	-10 ˚C ~ +45 ˚C
Air Volume Range	(50 ~ 110) CFMx3
Weight	5.2 Kg
Size	600(L)x170(W)x120(H) mm

Static Elimination Typical Value:

Testing Conditions	Testing Voltage:	1000V ~ 100V-1000V ~ -100V
	Temperature:	22 ˚C ± 5 ˚C RH : ≤60%
	Distance:	300 mm.
Decay Time	≤1.3S	
Offset Voltage	-10V ~ +10V	

AC IONIZING AIR BAR

SL–042 Ionizing Air Bar



Specifications:

Voltage	7 KV/50 Hz
Air Pressure	0.3-0.8 Mpa
Discharge Time	≤1.5S (0.5Mpa)
Offset Voltage	≤50 V

SL–042 Ionizing Air Bar



Specifications:

Operating Voltage	7 KV
Power Consumption	22 VA
Discharge Time	≤1.0S (80 mm)
Offset Voltage	≤35 V
Outer Diameter	Ø22 mm.
Weight	1.5 Kg/m.

SL–006 Ionizing Copper Bar



Static Elimination Typical Value :

Voltage	Testing Voltage:	5000V ~ 500V ~ -5000V ~ -500V
Air Pressure	Temperature:	22 ˚C ± 5 ˚C RH : ≤60%
Discharge Time	Distance:	150 mm.

SL–006C Ionizing Air Copper Bar



Specifications:

Operating Voltage:	4.0 KV~4.6 KV
Power Consumption:	22 VA
Operating Air Pressure:	0.3 Mpa ~0.8 Mpa
Air Consumption:	4m^3/H (Bar Length 600 mm., 0.4Mpa)
Discharge Time	≤1.0 s(0.4 Mpa, 150 mm.)
Offset Voltage:	≤80 V
Outer Diameter	Ø24 mm.
Weight	2.5 Kg./m

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SOLDERING ROBOTS & SMD COMPONENT TAPING MACHINE

Smart Soldering Robots

THERMALTRONICS

- Dual Arm, Six Axis Soldering Robot
- Intelligently compensates for PCBA variance
- Image Recognition & Mapping System
- Laser Height Measurement
- Uses Curie Heat Technology for precise
- temperature control



Semi-auto SMD Component Taping Machine

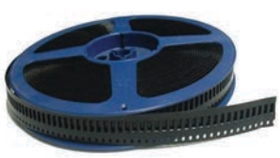
Features :

1. Track width can work freely in 8 mm to 72mm, the screen is easy
2. Fine adjustment head installed in hot-press device, adjustment of sealing position can accurate to 0.1±mm
3. The position of cover tape can make fine adjustment by adjust the tension of the moving cover tape

SAMTRONIK



Model	SM-1000A	SM-1000B	SM-1000C
Machine Dimension	1650*460*580mm	1650*460*580mm	2180*460*580mm
Function	Normal model	With CCD Options	Long length model with CCD options
Feeding:	Suitable with ELA-481 standard wheel and cover tape		
Tape width	8mm-72mm (8mm tape need customized)		
Power supply:	AC220V 50HZ/60HZ or AC110V 60HZ		
Pressure:	3.0kg/cm2		
Temperature control	Two heads and independent PID temperature control, temperature range is 20-200 ˚C		
Taping speed:	3000-7000PCS/hr. According to specific Component		
Calculator:	Count by fiber-optical sensitive		
Weight	14kg		





Material : PS, PC, PET
Width : 8,12,16,24,32,44,56,72,88 mm
Thickness : 0.3,0.35,0.4,0.5 mm
Color : Black (Conductive) Clear (anti-Static)
Winding Tape : Single winding & Coss Winding
All product are fully compliant with EIA-481 standart

Application :

Integrated circuit(IC) : TSSOP,MSOP,SOT,SOP,QFN,BGA&QFP series
Passive device : Chip capacitor,Resistor&inductor
Others : Switch,LED,Diode,Connector,Oscillator,Optical Lens



Carrier Tape	8	12	16	24	32	44	56	72	88
Cover Tape	5.3	9.3	13.3	21.3	25.5	37.5	49.5	65.5	81.5

Features :

1. Type : Haet sealed adhesive & Pressure sensitive adhesive (PSA)
2. Material : PET
3. Length : 200,300 & 480 meters/Roll
4. Thickness : 0.06mm
5. Width : Shown as follows (mm)
6. Color : White,White Milk,Transparent,brown



We have plastic reel manufacture workshop, the product is all-sided

- Paper core paper reel general standards :330mm,380 mm international standard
- PS Plastic cover tape general standards :330mm,380 mm international standard
- Button style assemble plastic reel the diameter is 330 mm
- The customize jointing plastic reel
- We can provide the plastic reel and individuation design
- Plastic injection and moulding
- It is ultrasonic jointing between the Plastic reel and core, it is tightly

Specification :

1. Meterial : PS
2. Reel diameter : 7',13',15'
3. Width : 8,12,16,24,32,44,56,72,88 mm
4. Electric property : conductive & Anti-Static
5. Color : Blue, Black & White

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AUTO TAPE & LABEL DISPENSER



Model M-1000

- Automatic Cutter and Tape Feed
- Digital Length Adjustment
- Accepts Tape Widths 7mm. to 50mm.
- Cuts Tape Lengths 20mm. to 999mm.
- M-1000EX 5mm. to 999mm.
- Power Supply 110-240 VAC, 50/60 Hz, 200 mA.



Model ZCUT-9GR

- Automatic Cutter and Tape Feed
- Digital Length Adjustment
- Accepts Tape Widths 6mm. to 60mm.
- Cuts Tape Lengths 5mm. to 999mm.
- Max Outside Dia of Roll 300mm.
- Power Supply AC100V 50/60Hz 25W Fuse2A (AC inlet Build-in)
- (W)116mm.x(H)140mm.x(D)213 mm.
- Weight 1.6 Kg.



Model ZCUT-9GRRP

- Automatic Cutter and Tape Feed
- Digital Length Adjustment
- Accepts Tape Widths 6mm. to 60mm.
- Cuts Tape Lengths 5mm. to 999mm.
- Max Outside Dia of Roll 150 mm. (inside diameter of 75mm)
- Power Supply AC100V 50/60Hz 25W Power Cord, 2A Fuse (Built-In Inlet)
- (W)116mm.x(H)140mm.x(D)213mm.
- Weight 2.5 Kg.



Model ZCUT-870

- Accepts Tape Widths 3mm. to 25mm.
- Cuts Tape Lengths 15mm. to 70mm.
- Max Outside Dia of Roll 300mm.
- Power Supply AC100V 50/60Hz 25W
- 2A Fuse
- (W)126mm.x(H)150mm.x(D)258mm.
- Weight 1.9 Kg.



1150D Automatic Label Dispenser

- Dimensions: 210(W)x210(H)x220(L)mm
- Speed: 1-8m/minute
- Available Lable Width 4-140mm
- Lable length 3-150mm
- Max Diameter 250mm
- Weight 3.8Kg



Model LD7000

- Auto Label Dispenser
- Will dispense labels and die-cut parts
- Will dispense labels from 6.4 to 178mm. in width
- Will dispense labels from 12.7 to 152mm. in length
- Will accommodate core sizes from 25.4mm. up

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FUME EXTRACTOR

FUME EXTRACTORS

	F3000D	F5000D	F6000D
Voltage	110V/220V	110V/220V	110V/220V
Power	350W	450W	700W
Systemic Flow	435m³/h	500m³/h	620m³/h
Filtering Efficien	0.3μm 99.97%	0.3μm 99.97%	0.3μm 99.97%
Noise	<65dB	<70dB	<75dB
Dimensions(mm)	550x415x920	550x415x920	550x415x1300
Weight	52.5kg	60kg	75kg







F6001 F6002



F6001D F6002D

F6001/F6002 Fume Extractor

Features :

- Metal body structure,strong and durable
- Noise reduction design, quiet operation
- Triple-filter design ensures thorough purification
- High-quality alloy fan achieves great suction power



Pre-Filter Middle Filter Main Filter

F6001D/F6002D

Features :

- With the intelligent control panel and digital display, opration becomes easy and simple
- With the remote control, you can control the machine from a distance
- Truly sensitive and effective filter clogging alarm system reminds you to replace the filter in time
- Wheels make the movement easy and flexible



Remote Control



Digital Display

Model	F6001	F6002	F6001D	F6002D
Voltage	110V/220V	110V/220V	110V/220V	110V/220V
Power	80W	200W	80W	200W
Ducts	1	2	1	2
Systemic Flow	235m³/h	2 x 150m³/h	235m³/h	2 x 150m³/h
Air Velocity	17m/s	2 x 11m/s	17m/s	2 x 11m/s
Filtering Efficien	0.3μm 99.97%	0.3μm 99.97%	0.3μm 99.97%	0.3μm 99.97%
Length of Duct	Φ75mmx1.4m	Φ75mmx1.4m	Φ75mmx1.4m	Φ75mmx1.4m
Noise	<52dB	<52dB	<52dB	<52dB
Dimensions(mm)	425x250x410	425x250x410	425x250x410	425x250x410
Weight	14kg	14.5kg	14kg	14.5kg

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MAGNIFYING LAMP

MODEL : RT111

Lens size	7.5”x6.2” (189x157mm.)
Arm	36” with internal springs.
Light source	2x9 Watt compact lamp
Diopter options	3X or 5X

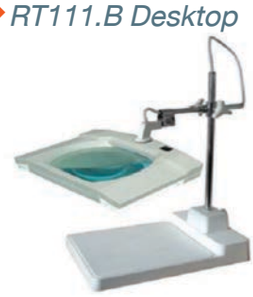
◆ *RT111.01 Table Clamp*



◆ *RT111.01B Desktop*



◆ *RT111.B Desktop*



MODEL : RT201

Lens size	5” (127mm.)
Arm	36” with external springs.
Light source	T9 22 Watt circular lamp.
Diopter options	3X, 5X, 10X

◆ *RT201.01 Table Clamp*



◆ *RT201.01B Desktop*



◆ *RT201.B Desktop*



MODEL : RT207

Lens size	5” (127mm.)
Arm	36” with internal springs.
Light source	T9 22 Watt circular lamp.
Diopter options	3X, 5X, 10X

◆ *RT207.01 Table Clamp*



◆ *RT207.01.B Desktop*



◆ *RT207.B Desktop*



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EQUIP-TEST

TEST PROBES

EQUIPTEST
TEST ▪ SUPPORT ▪ INNOVATE

Test Probes provide the vital link to transfer measurement signals as true and as undistorted as possible. Therefore these elements can be regarded as the heart of Test Fixtures – and for this very reason it is important for Equip-Test to offer high performance Test Probes with best quality and value, and thus ensure maximized ROI (Return of Investment) for our customers. Test Probes supplied by Equip-Test always provide the bestpossible available solution for your contacting demands.

LEAD-FREE, ICT & FCT TEST PROBES



High-Current Probes





▲ High-Current leaf spring probes

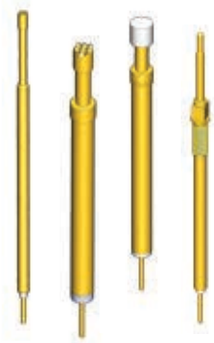
High-Temperature Probes



THREADED STEP PROBES (SPT)



Switch Probes





▲ Ball-Head Switch Probes

PNEUMATIC PROBES



Push-Back Probes & PUSH-BACK Switch PROBES



non-rotating Probes & Switch probes



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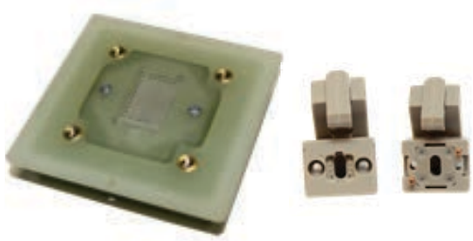
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EQUIP-TEST

Semicon Test Probes

High-performance Semicon Test Probes with best quality and value. As the heart of Test Sockets they are vital link to transfer measurement signals as true and undistorted as possible, meeting Your contacting demands.





Radio-frequency probes

Series of Radio-frequency Probes are designed for UFL Plugbased applications up to 6 GHz at 50 Ω impedance. They ensure effective transfer of High-frequency Signals.

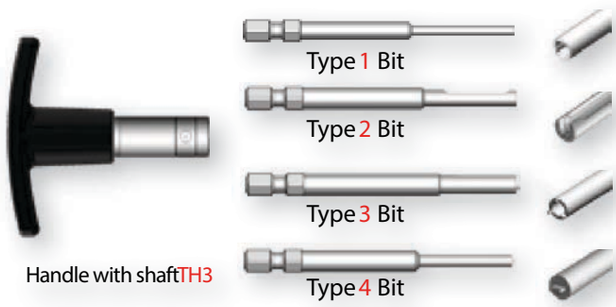


BATTERY PROBES

Battery Probes are designed and used for charging batteries or connecting different equipment with each other. Typical usages are docking stations and portable devices of Telecom, Medical, Navigation and Communication Equipment.

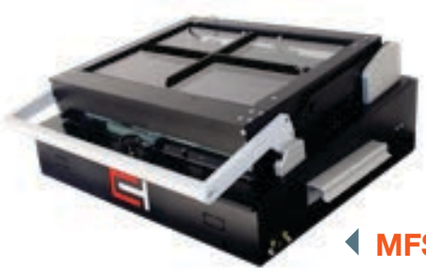


Insertion/Extraction Tools for Test Probes





FCT



MFS-D4



ICT

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SMT SPLICE TOOLS



ESD SMT Splice tape

SMT double splice tape (01 Series)

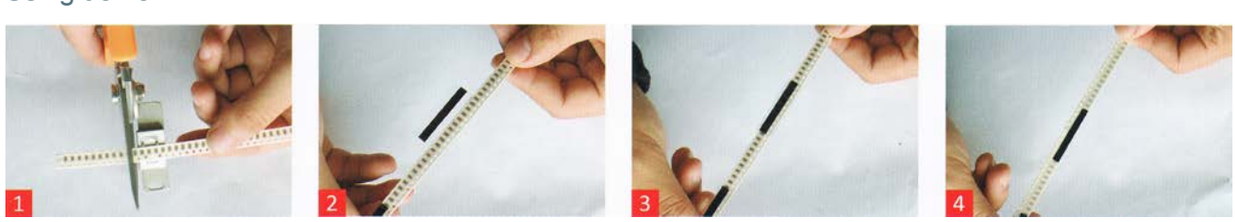
Product image	Description	P/N	Application	Qty	Color	ESD	NO ESD
	Double Splice tape	SMS0108/12/16/24	For 8mm/12mm/16mm/24mm carrier tape (Emboss)	500/250Pcs/Box	C	✓	✓
					N	✓	✓
					G	✓	✓
					M	✓	✓
					L	✓	✓

Application:

- Available for all SMT machines (Except sensitive machine).

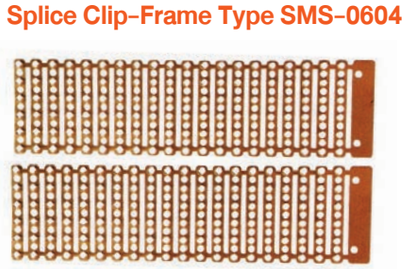
  Remark:Double embossed dots designed for easy alignment, one piece for one jointing;
  Easy operation, no need to use auxiliary tools.

Using demo:



SMT Splice Tool

Splice Clip-Frame Type SMS-0604



Features:

- Using for Stapler Type Splice Tool;
- 20 pitch /frame design, high-efficiency connecting.

Single Splice Clip SMS-0608



Features:

- Available for connecting all sizes of carrier tape;
- Much better to work with splice tape together;
- Longer than SMS0600.

Single Splice Clip SMS-0600



Features:

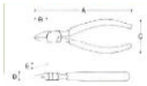
- Available for connecting all sizes of carrier tape;
- Much better to work with splice tape together.

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KEIBA NIPPER

KEIBA คีมตัดพลาสติก ด้ามบาง









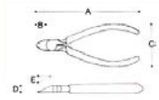






รหัสสินค้า	Art. No.	Size (mm)	A (mm)	B (mm)	C (mm)	D (mm)	E (∠°)
KE-6501001	PL-724 - 4"	100	117	16.5	51	8.5	15°
KE-6501002	PL-725 - 5"	125	129	18	51	9.5	15°
KE-6501003	PL-726 - 6"	150	156	20.5	53	10.5	15°
KE-6501004	PL-726A - 6"	150	156	20.5	53	10.5	15°
KE-6501005	PL-727 - 7"	175	188	25	53	12	20°

KEIBA คีมปากเฉียง มินิด้ามบาง



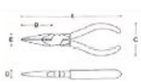






รหัสสินค้า	Art. No.	Size (mm)	A (mm)	B (mm)	C (mm)	D (mm)	E (∠°)	ลวดแข็ง	ลวดอ่อน
KE-6202001	MN-A04 - 4"	100	113	14	50	6.5	23°	1.4	0.2 -1.6
KE-6202002	MN-A05 - 5"	125	128	14	50	6.5	23°	1.6	0.2-2.0
KE-6202004	MN-B05 - 5"	125	127	13	50	6.5	25°	1.4	0.2-1.6

KEIBA คีมปากแหลม ด้ามดำ







รหัสสินค้า	Art. No.	Size (mm)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	ลวดแข็ง	ลวดอ่อน
KE-6108001	T-306 - 6"	150	163	50	51	10	17	1.6	2.0
KE-6108002	T-316 - 6"	150	163	50	51	10	17	1.6	2.0

Wire cutting & stripping machine





Model : X-501D

Display Way: Digital Display (LCD Display)
Wire Size: AWG32-AWG11
Fitting Wire Section Acreage: 0.1mm^2-4.5 sq mm^2 Guide Pipe Diameter(Wire DIA.): ϕ 1mm-ϕ 7mm
Stripping Length: Head: 0-35 mm End: 0-15mm Cutting Length: 1mm-9999mm
Cutting Tolerance± (0.2+0.0002xL) mm (L=Cutting Length) Exhausted Line Way: Complete Half
Brief Middle Cutting Length: 5mm-22mm-10m
Stripper speed (Article / h): L=100mm, 3000-8000pcs/h Voltage& power: AC 110V/220V/ 50/60Hz, 220W
Dimensions: 390*350*255(mm)





Model : X-502HT

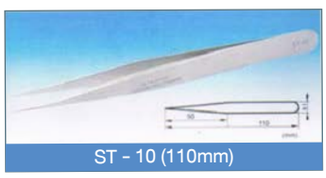
Power: AC 110V/220V/ 50/60Hz
Power: Rated 300W
Display: Full English LCD Display
Cutting Length: 1mm-15000mm
Cutting Tolerance: ±(0.2+0.0002xL)mm (L=Cutting Length) Stripping Length: Head: 0-200mm: End: 0-150mm Cutting the middle of strippling: 13
Guide Pipe Diameter (Wire DIA.) ϕ1-ϕ12mm
Stripper speed (Article / h): L=100mm, 3000-8000pcs/h Drive Mode: Two-wheel drive
Dimensions: 450*365*265(mm)
Appropriate wire stripping: PVC, Teflon, glass and wire, sheathed wire for round wire

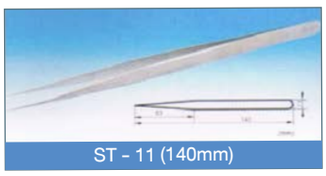
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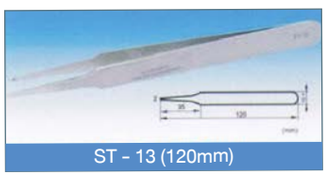
ESD TWEEZER

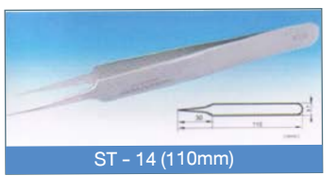
ST Series High Precision Stainless Steel Tweezers

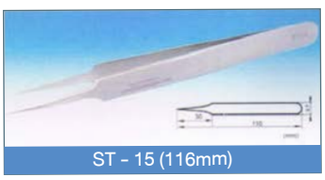

ST - 10 (110mm)


ST - 11 (140mm)

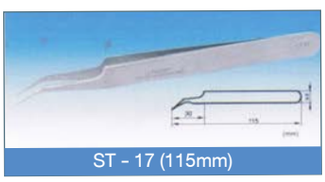

ST - 12 (135mm)


ST - 13 (120mm)

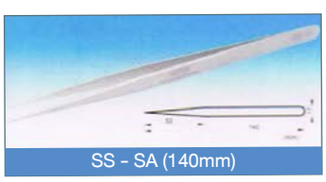

ST - 14 (110mm)

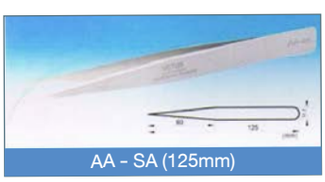

ST - 15 (116mm)

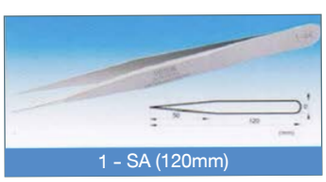

ST - 16 (125mm)

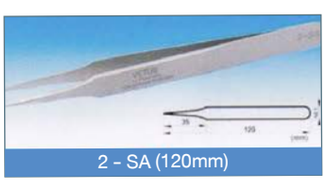

ST - 17 (115mm)

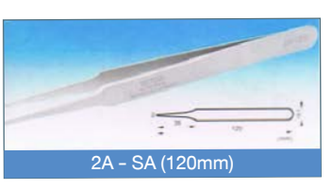
SA Series Super Fine High Precision Stainless Steel Tweezers

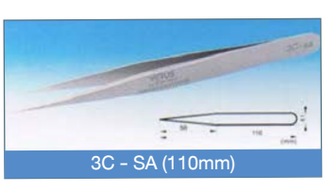

SS - SA (140mm)

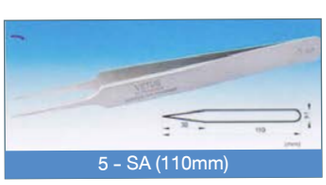

AA - SA (125mm)

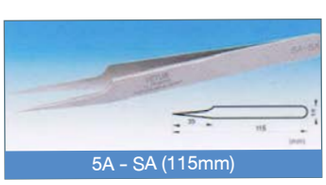

1 - SA (120mm)


2 - SA (120mm)

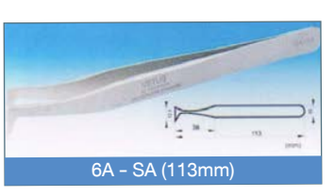

2A - SA (120mm)

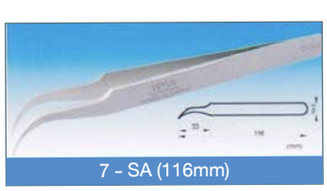

3C - SA (110mm)

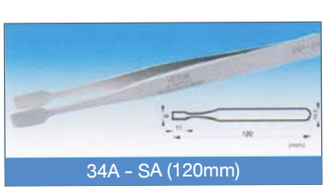

5 - SA (110mm)


5A - SA (115mm)

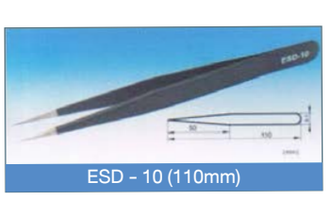

5B - SA (115mm)


6A - SA (113mm)


7 - SA (116mm)

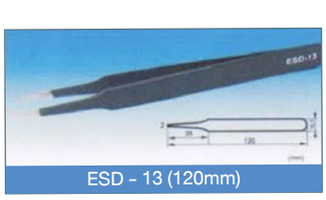

34A - SA (120mm)

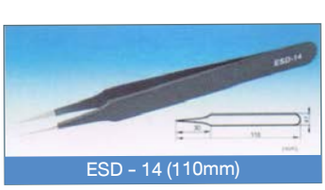
Anti-static Stainless Steel Tweezers

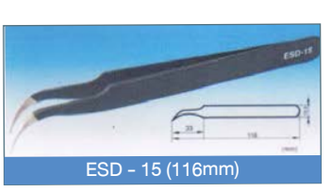

ESD - 10 (110mm)

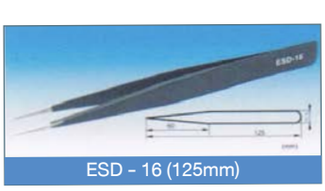

ESD - 11 (140mm)

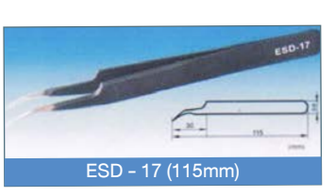

ESD - 12 (135mm)


ESD - 13 (120mm)


ESD - 14 (110mm)


ESD - 15 (116mm)


ESD - 16 (125mm)


ESD - 17 (115mm)

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ESD TWEEZER

ESD Replaceable Tip Stainless Steel Tweezers


ESD - 259 (130mm)


ESD - 259A (130mm)


ESD - 250 (116mm)


ESD - 249 (127mm)


ESD - 242 (125mm)


ESD - 7A (130mm)


ESD - 2A (130mm)


ESD - 00 (130mm)

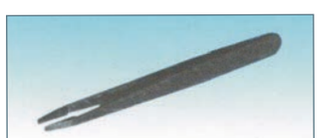
Conductive Plastic Tweezers


93301 (115mm)


93302 (115mm)


93303 (115mm)


93304 (115mm)


93305 (115mm)


93306 (115mm)


93307 (110mm)

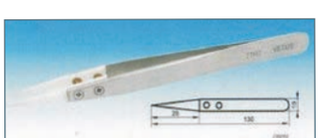

93308 (115mm)

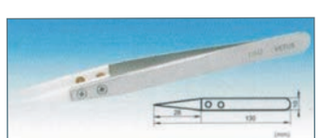
White Plastic Tweezers


93303 (115mm)


93306 (115mm)

Ceramic Tip Tweezers


71MZ (130mm) Heat Resistance: 1300°C


72MZ (130mm) Heat Resistance: 1000°C

Economic Stainless Steel Tweezers


No.10 (125mm)


No.11 (140mm)

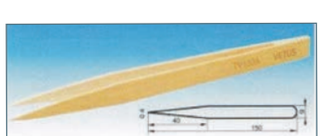

No.12 (110mm)


No.13 (125mm)

Bamboo Tweezers


No.14 (115mm)


No.15 (125mm)


TV-150A (150mm)


TV-150 (150mm)

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TEST INSTRUMENTATION



SRM200 Pocket Digital Surface Resistance Meter

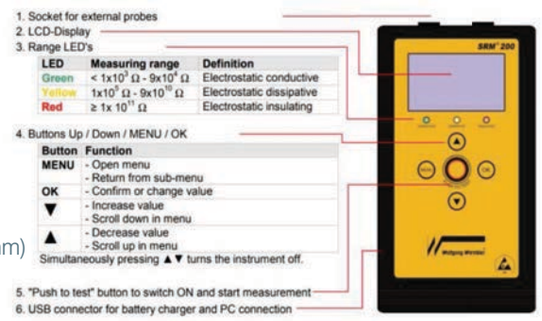
Pocket size surface resistance meter with LCD display, includes carrying bag, grounding cord,Calibration certificate and software for reading the saved test data.

- Test range: 10^3-10^12
- Test voltage : 10V/100V
- Operation : Battery Operated
- Built-in resistivity probes
- 2 external probes connection possible



Probe Model 850

- For resistance to ground and point resistance
- Fitted with conductive silicone rubber(R<20ohm)
- Total probe resistance R<150 ohm
- weight 2.27 Kg





Electrostatic Fieldmeter

FMX-004 is a compact electrostatic fieldmeter used for location and measuring static changes. Its pocket size and tree-botton operation makes it convenient and easy to use.

Measurement : AUTO: 0 – ±1.49 kV

HI Range: 0 – ±30.0 kV

LOW Range: 0 – ±3.00 kV

Ion Balance: 0 – ±300V



EFM 51 Electrostatic field meter

Handheld, portable, digital electrostatic field meter, detects and measures electrostatic fields.
The electrostatic field strength value (V/m) will be automatically translated to the electrostatic npotential (V) according to the preset distance.
An additional field strength mode is also available.

Test method : Rotating chopper

Test range : 0 V - ± 160 kV distance mode , 0 - 800 kV/m Field strength mode

Display : LCD display

Operatio : Battery operated



EFM51.CPS Charge Plate Kit



ESD Personal test station TW1018

Test Range for Wrist Strap: 750-kohms to 10-Mohms.

Test Range for Footwear: 750kohms to 100Mohms.

Working condition: Temperature 0~50 ˚C RH20%~85% in-house use.

Power Supply: DC9-12V. Working current: <500mA.

Test time: <1 Sec.

Measuring accuracy: ±10%

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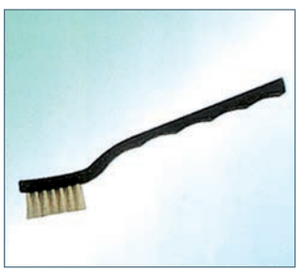
ANTI-STATIC BRUSH

Anti-static Brush make use of Corona discharge and Electrostatic leakage, Clean surface and dirt of objects. Brush will not produce dust, nor lose color and is high temperature resistant.
Material: Brush uses anti-static PA and electric PP material.
Resisteance: 10^3 ~ 10^9 Ω
Brush of kernel color: Black and White, Other color can also be made to order




2101T

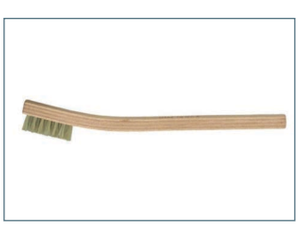

2103T


2101R


2109T

GORDON BRUSH

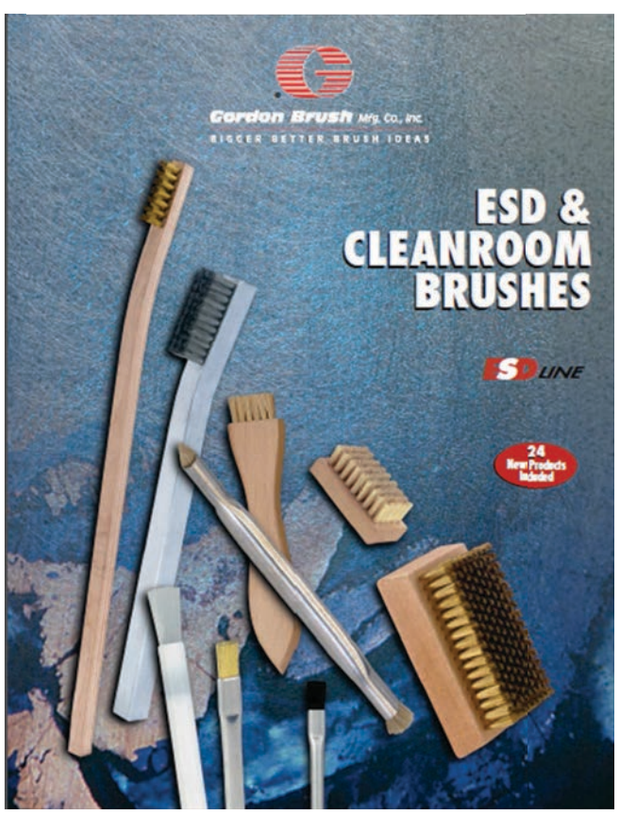
Cylinder, hand-held, block, ESD, flow-thru, strip or twisted-in-wire-No one offers a wider range of high-quality, American-made brushes. And with over 10,000 brushes to choose from, you'll always find the exact size, material and bristle pattern you need.


30HH


36CK


1005HH


36CKA



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ESD STORAGE & HANDLE

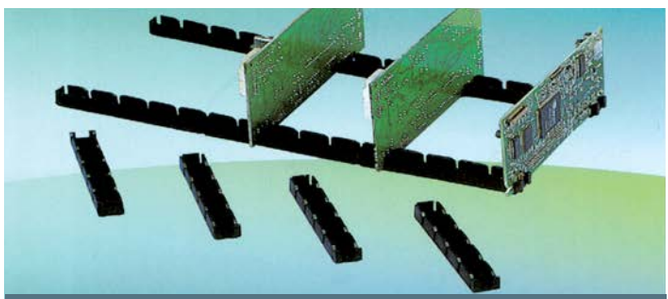
ANTI-STATIC RACK

Material: Made of anti-static plastic (PP)

Applicable area: Storage and turnover of goods in production line.

Surface Resistance: 10^3 ~ 10^9 Ω

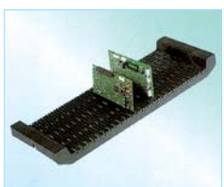
Volume Resistance: 10^3 ~ 10^9 Ω



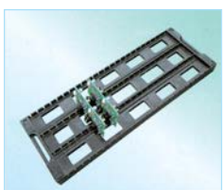
Anti-Static plastic Card 2380
Size: 15x15x102 mm. (5x1.5)



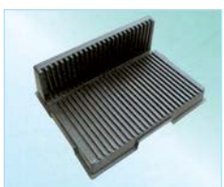
ESD Rack 2301
Size: 4380x140x35 mm. (25pcs.)



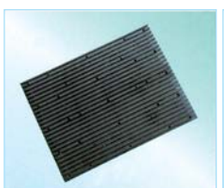
ESD Rack 23011
Size: 485x175x50 mm. (25pcs.)



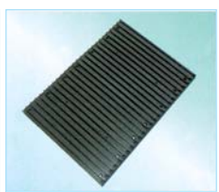
ESD Rack 23012
Size: 430x185x28 mm. (25pcs.)



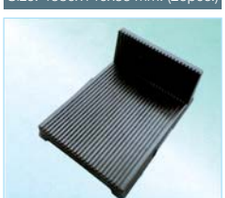
ESD L Rack large 2305/L
Size: 265x350x126 mm.



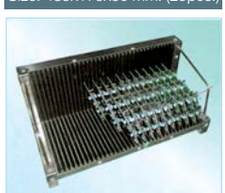
Slot Plastic Board 2304
Size: 350x255x12 mm.



Slot Plastic Board 23041
Size: 180x250x10 mm.



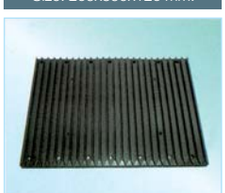
ESD L Rack 2305
Size: 265x205x95 mm.



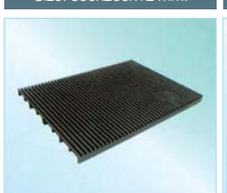
Hanging Basket 2306
Size: 410x290x175 mm.



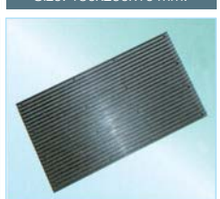
Slot Plastic Board 2303
Size: 410x140x22 mm.



Slot Plastic Board 23042
Size: 230x250x12 mm.



Slot Plastic Board 2302
Size: 410x290x22 mm.



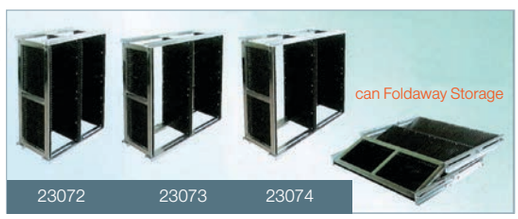
Slot Plastic Board 23043
Size: 460x250x12 mm.

Anti-Static Magazine Rack

Storage and turnover of PCB semi-finished product and finished product with between the factories and production department, some product can use together with ESD box. Prevent finished product PBC from being damaged in course of turnover and storage.

System resistance: 10^4 ~ 10^9 Ω

Part Number	Exterior Size(mm) W*L*H	PCB Size (mm)	PCB Number	Adjust	Work Temperature
2307	310*355*575	200*300	50	Screw Bolt	<90 °C
23071	192*360*530	172*(55-155)	100		
23072	192*355*530	220*(50-155)	100		
23073	192*460*530	220*(50-200)	100		
23074	192*530*530	220*(50-235)	100		
23075	192*177*310	172*(25-145)	25		
23076	182*360*310	172*(55-155)	50		
2308	320*355*563	350*(50-250)	50	Rack & Pinion	<90 °C ; 90-125 °C 125-220 °C
23081	400*460*563	460*(50-330)			
23082	460*535*570	5358(50-390)			
23083	320*355*563	350*(50-250)	50	Screw Bolt	
23084	400*460*563	460*(50-330)			
23085	460*535*570	535*(50-390)			
23086	320*355*563	350*(50-240)			>300 °C



23072 23073 23074



2307 23071



23071 and 2240 together use



23075 Table Rack



2308 Magazine rack

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ANTI-STATIC PARTS BIN

Made of PP materials, extensively used the storage of a few of precision part and storage of little tool in the production department.

Brand-new color antistatic Parts Bin, not lose color, Suitable for clean-room to use

Surface Resistance: $10^3 \sim 10^9\ \Omega$

Volume Resistance: $10^3 \sim 10^9\ \Omega$

Part Number	Outside (W x L x H) mm.	Inside (W x L x H) mm.
2201	95*105*55	80*90*40
2202	122*145*68	120*128*65
2203	105*175*80	90*155*70
2204	130*200*90	110*175*80
2205	155*235*120	140*215*110
2206	93*138*46	82*120*42
2207	120*155*60	110*150*50
2208	32*56*21	26*40*16



ANTI-STATIC TRAY



Using site: Storage and turnover of goods in production line.

Surface Resistance: $10^3 \sim 10^6\ \Omega$

Volume Resistance: $10^3 \sim 10^6\ \Omega$

Part Number	Outside (W x L x H) mm.	Inside (W x L x H) mm.
2221	250*375*65	225*345*60
2222	295*440*80	265*410*75
2223	375*560*75	340*525*70
2224	235*320*45	225*310*35
2225	328*480*42	292*445*35
2226	290*440*50	265*400*45
2227	420*615*95	380*575*90
2228	300*450*60	280*430*50
2229	200*300*22	185*285*20

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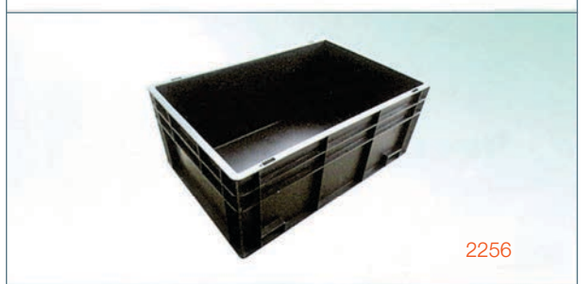
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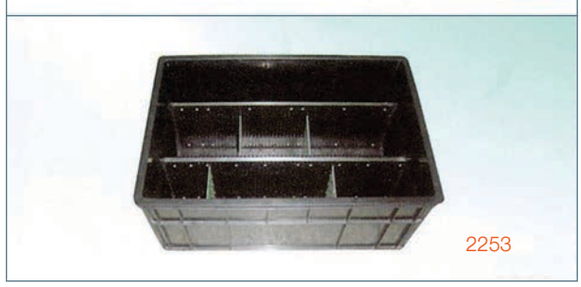
ESD STORAGE & HANDLE

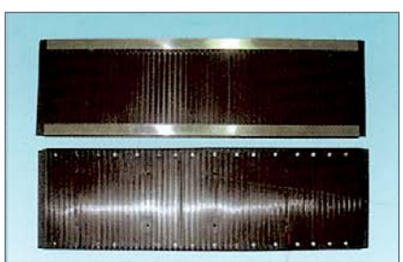
ANTI-STATIC BOX

Part Number	Outside (W x L x H) mm.	Inside (W x L x H) mm.
2231	270*360*135	240*320*125
2232	310*420*155	280*380*145
2233	360*500*175	330*470*165
2234	420*565*240	390*510*235
2235	420*565*300	390*510*290
2236	420*565*380	390*510*375
2238	500*600*150	455*560*140
2239	500*600*300	455*560*290
2240	500*600*360	460*560*355
2241	415*610*245	380*580*240
2243	425*620*320	395*580*310
2245	368*580*165	3458*535*155
2246	368*580*200	345*535*195
2247	410*670*160	370*620*150
2248	450*720*180	420*680*170
2249	500*610*400	455*560*395
2250	560*720*380	515*675*370
2251	500*610*15	ESD Cover
2252	425*575*15	ESD Cover
2253	445*660*270	410*618*260
2256	400*600*250	365*565*235


2232


2256


2253

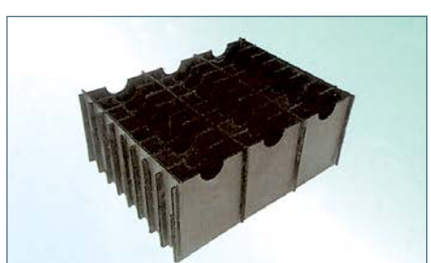


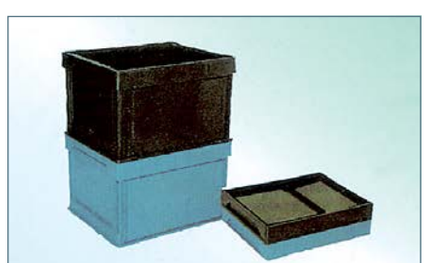
Divider with slots Box
22531-22534

Use with CH2235. Prevent PCB from being damaged in the course of turnover and storage.

Part Number	Product Name	Size (mm.)
22531		608*180*18
22532	Long divider	608*180*22
22533		408/400*180*18
22534	Short divider	408/400*180*22


Corrugated Plastic Box


Corrugated Plastic Partition


Plastic Foldaway Box

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ESD Circulation Box













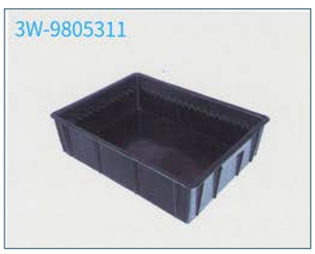






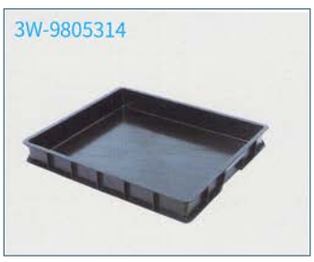


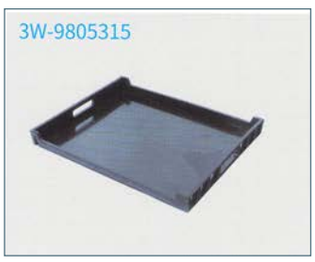












Model	External Size(mm.)			Inner Size(mm.)			Side (mm.)	Bottom (mm.)	Weight (kg)	Optional Component	Remarks
	L	M	H	L	M	H					
3W-9805303A	605	365	135	560	325	125	3	3	2	Divider/Lid/Highten Layer	Inner Wall have slots
3W-9805303B	605	365	95	560	325	83	3	4	2.14	Divider/Lid/Highten Layer	Inner Wall have slots
3W-9805304	390	285	275	355	250	255	3	4	1.96	Divider/Lid/Highten Layer	
3W-9805304-2	330	245	120	295	210	108	3.5	4	0.87	Divider/Lid	
3W-9805305	405	304	110	360	270	100	3	4	0.84	Divider	
3W-9805305-2	395	185	155	345	145	150	3	3.5	0.78	Divider/Lid	
3W-9805306	655	445	275	615	405	260	3	4	3.98	Divider/Lid/Label Holder	
3W-9805307	590	390	205	530	330	200	3	4	2.48	Divider/Lid	
3W-9805308	605	400	140	560	355	135	3	4	2.16	Divider	
3W-9805309	550	415	305	495	365	295	3	4	2.84	Divider	
3W-9805309-2	550	415	265	495	365	255	3	4	2.6	Divider	
3W-9805311	530	395	145	490	360	135	3.5	4	2.14	Divider	
3W-9805312	645	440	165	595	395	155	3	4	2.4	Divider/Lid/Label Holder	
3W-9805313	605	505	205	555	450	200	3	5	3.48	Divider	Inner Wall have slots
3W-9805314	700	610	90	650	560	85	4	4	2.87	Divider	
3W-9805315	690	550	75	650	515	70	2	3	2.11	Divider	

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ESD STORAGE & HANDLE

ESD Circulation Box































Model	External Size(mm.)			Inner Size(mm.)			Side (mm.)	Bottom (mm.)	Weight (kg)	Optional Component	Remarks
	L	M	H	L	M	H					
3W-9805315-2	845	525	95	810	495	90	2.5	3	2.29	Divider	
3W-9805316	600	400	90	560	360	85	3	5	1.76	Divider/Lid	
3W-9805317	600	400	130	560	360	127	3	5	1.91	Divider/Lid/Label Holder	
3W-9805318	600	400	150	560	360	145	3	5	2.29	Divider/Lid/Label Holder	
3W-9805319	600	400	220	560	360	215	3	5	3.1	Divider/Lid/Label Holder	
3W-9805320	600	400	255	560	360	250	3	5	3.26	Divider/Lid/Label Holder	
3W-9805321	600	400	280	560	360	275	3	5	3.01	Divider/Lid/Label Holder	
3W-9805322	600	400	320	560	360	305	3	5	3.76	Divider/Lid	
3W-9805325	590	420	165	556	390	160	3	5	2.32	Divider/Lid/Label Holder	
3W-9805327	720	263	158	685	220	150	3	5	1.56	Divider/Lid	
3W-9805328	560	460	410	480	420	400	3	4	4.36	Divider/Lid	
3W-9805329	650	520	305	605	475	295	3.5	4	5.05	Divider/Lid/Highten Layer	
3W-9805329 With caster	650	520	300	600	470	270	3.5	4	7.02	Divider/Lid/Highten Layer	
3W-9805330	710	540	160	670	500	150	3	3.5	3.22	Divider	
3W-9805335	400	400	220	370	370	200	3	5	2.22	Divider/Lid	

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ANTI-STATIC PCB TRANSPORT CAR

Anti-static PCB Transport car turnover of PCB semi-finished product and finished product with between the production department, Anti- Static PCB Transport car have change size easy, storage large quantity, safe and reliable advantage.

Volume resistance: 10^4 ~ $10^9\Omega$



2309
Anti-static PCB Transport car (plastic)



2311
Anti-static Stainless-steel PCB Transport car



2313
Anti-static PCB Transport car



2312
Hanging Basket Transport car

Part Number	Product Name	Exterior Size (mm.) L*W*H	Groovy Board Size	PCB number
2309/35-3	350 Transport car	550*1000*1300	255*350*12	300 Pcs.
2309/35	350 Double divider	40*400*1130		100 Pcs.
2309/46-3	460 Transport car	550*1000*1300	250*460*12	300 Pcs.
2309/46	460 Double divider	40*515*1130		100 Pcs.
2311/28-3	Stainless steel Transport car	550*1000*1300	280*1000*10	225 Pcs.
2311/28	280 Double divider	--		75 Pcs.
2311/34-3	Stainless steel Transport car	55*1000*1300	340*1010*10	300 Pcs.
2311/34	340 Double divider	40*400*1130		100 Pcs.
2312/20	Basket-hanging Transport car	550*900*1400	290*410*22 140*410*22	760 Pcs.
2312A/20	Basket-hanging Transport car	550*900*1400		760 Pcs.
2312B/20	Basket-hanging Transport car	550*900*1400		760 Pcs.
2313	Small plate Transport car	480*530*1100		400 Pcs.



2312A
Hanging Basket Transport car



2312B
Hanging Basket Transport car

STAINLESS STEEL HANDCART

All Stainless-Steel Handcart to use disassembly structure, transit facility. Widely applied in electronic factory, hospital, catering industry, hospital, school and food laboratory etc.



2501
Square-tube handcart handcart



2502
Wire trolley handcart



2503
Square-tube barrier



2504
Square-tube gether handcart



2505
Round-tube handcart



2507
Gather trolley



2820
Security cart



Product Number	Size
2501/M2	450*850*900
2501/L3	500*950*950
2502	455*910*900
2503/M	450*850*900
2503/L	500*950*950
2504/M	450*850*900

2506/L20
Tray Trolley

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ANTI-STATIC CONSUMABAL







ANTI-STATIC MAT

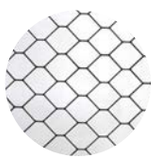
High-quality dissipative mats are designed to harmlessly drain charges from personnel, circulation boxes, bags, components, etc.

- SIZE : W(M) X L(M) 0.6 X 10, 0.8 X 10, 0.9 X10, 1.0X 10, 1.2 X 10
- Color : Green/Black, Gray/Black, Blue/Black, Green/Green, Black/Black, Blue/Blue
- Thickness : 2mm, 3mm

Surface resistance	top layer	static dissipative	<10° ohm/square
	bottom layer	conductive	10'ohm/square

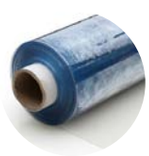


ANTI-STATIC PVC CURTAIN









SIZE : W1370*3000*0.3mm.
W1370*3000*0.5mm.

ANTI-FATIGUE RUBBER MAT



Size	Technology spec	Material
910*610*15 / 20mm 710*610*15 / 20mm 610*610*15 / 20mm 510*610*15 / 20mm	Static dissipative surface resistance:10E8-10E9 conductive(antistatic) surface resistance(ESD permanence) 10E3-10E50	Material: Upper/ Antistatic PVC Middle layer/Antistatie



P/N : 4708.001
Size : 900*600*20mm,
Volume resistance : 10^6-$10^9\Omega$



P/N : 4708.002
Size : 1780*600*20mm,
Volume resistance : 10^6-$10^9\Omega$



P/N : 4708.003
Size : 890*600*20mm,
Volume resistance : 10^6-$10^9\Omega$



STICKY MAT

Size : 24”x36”/ 26”x45”/ 26”x60”
Color : Blue/ White



STICKY ROLLER

Handle Size : 10/ 20/ 30/ 120 CM
Sticky Roller Size : 4”/ 6”/ 8”/ 10”/ 12”
Color : White/ Blue



SILICONE GUMMY DUST DRUM

Silicone Roller Size : 4”/ 6”/ 8”/ 10”/ 12”
Color : Blue



DUST REMOVAL PADS

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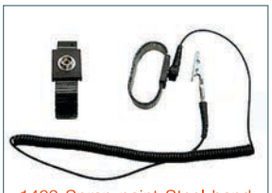
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WRIST STRAP & GROUNDING TOOLS


1102 Wrist Strap


1204 Velcro Wrist Strap


1401 Steel Band Wrist Strap


1402 Sprap-paint Steel band Wrist Strap


1604 Anti-static Wrist Strap With Double line


1901 Anti-static Heel Grounder



Grounding Cord


1301 Cordles Wrist Strap

1835 Grounding Cord with two connector



1431 Grounding Cord with two connector



Antistatic Cupule Grounding cord



1880 Earth facility brackets



Grounding cord and part


1801


1802


1800A Crocodile Clip




1800B


1800C





BFN Grounding System Online Monitor

- Compact, easy-to-install, easy-to-use
- Working after Switching on
- Automatic alarm function
- Simultaneous monitor of one or two wrist Strap
- Manual switch or automatic switch available
- Operating Environments : temperature 0 ˚C – 50 ˚C,
- Relative humidity 20% - 85%RH
- Operating Voltage :
  DC6V(SALM1801S/D-I, AC12V (SALM18S/D-II
- Time : <20mS
- Color : Off white (SALM180S/D-I)
  Orange (SALM180S/D-II)
- Material : Aluminium plate
- Dimension :
  W40xH21xD92mm(SALM180S/D-I)
  W62xH21xD120mm(SALM180S/D-II)





SUPRA 518-1
Wrist Strap On-line Monitor (for one wrist strap)

SUPRA 518-2
Wrist Strap On-line Monitor (for two wrist strap)

Futures :

- No checking is required
- Instant warning of wrist strap failure increases production efficiency
- Highly reliable, easy and convenient to use

Specifications :

- Input : 6V DC
- Dimensions (for 518-1) : 67 x 60 x 29mm
- Weight (for 518-1) : 60g (excluding adapter)
- Dimensions (for 518-2) : 110 x 60 x 29mm
- Weight (for 518-2) : 100g (excluding adapter)

Long Shine (Thailand) Co., Ltd.

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ANTI-STATIC CHAIR



PU BUBBLE BACKREST CHAIR



STAINLESS STEEL STOOL



CONDUCTIVE BACKREST CHAIR



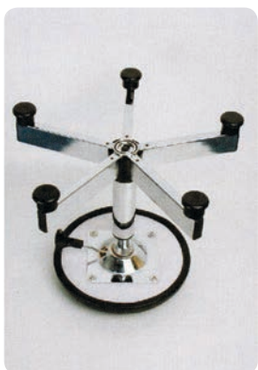
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ANTI-STATIC CHAIR

CONDUCTIVE MOULDED STOOL




ANTISTATIC PU BUBBLE STOOL





ACCESSORIES FOR ANTISTATIC CHAIR









Long Shine (Thailand) Co., Ltd.

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ESD STATIONERY



ESD Clipboard



ESD Ring Binder



ESD Cardcase



ESD Document Holder



ESD Mouse



ESD Keyboard



ESD Mouse Pad



ESD Desktop Tape



ESD Ballpoint Pen



ESD File Holder



ESD Dustbin



ESD Tool Case



ESD Letter Trays



Kapton Tape



ESD Grid Tape/Clear



ESD Protected Area

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ANTI-STATIC SOLVENT DISPENSER

Solvent Dispenser are designed with the perfect way to dispense alcohol, acetone, isopropanol, ethanol, methanol rasin etc.



Material: SUS304, Copper, HDPE
Surface resistance: 10^6 ~ 10^{10} Ω
Color: Pink, Light blue, White

Part Number	Capacity	Packing	Carton Dimension
CH-40 ESD	125 ml	20 pcs/carton	225*275*90
CH-60 ESD	180 ml	10pcs/box;100pcs/carton	285*570*255
CH-80 ESD	250 ml	20 pcs/carton	225*280*140

Glass IPA Dispenser

Capacity: 180ml



Flux Bottle

Capacity: 60ml, 100ml



Flux Bottle with brush

Capacity: 60ml





ANGLE DISPENSER BOTTLE

material: Body: LDPE cap: import PP Nozzle: LLDO. Integrated design with reliable sealing, sensitivity sprayed, fast rebound, no flow residue, can meet routine experiments requirements.



SMT Flux Pen
FD-1104-P
Sale by 5pcs to 1pack

The Tip is not made of felt; this is made of synthetic fiber and specially glued to solid for long life. You can thin Flux coat this Dispenser of SMT PCB. The Liquid Container comes off together with the End Cap for easy refilling.

Long Shine (Thailand) Co., Ltd.

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ESD/CLEANROOM GARMENT

Our ESD Fabrics are made of lint-free polyester filament, which provides good static dissipations and superior air permeability and particle filtration. This helps prevent contamination and keeps the wearer comfortable, these fabrics have a conductive yarn that provides low surface resistivity of 10^6 -10^9 Ω /square and quick static dissipation for effective control of ESD.



ESD Smock



ESD Jack & Pant

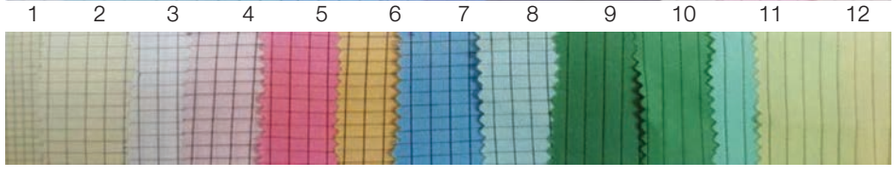


ESD Jumpsuit





1 2 3 4 5 6 7 8 9 10 11 12



13 14 15 16 17 18 19 20 21 22 23 24



Size	S	M	L	XL	XXL
Height	155-160	160-165	165-170	170-175	175-180
Chest	105	112	117	122	128
Lenght	105	110	115	120	125
Steeve	54	57	59	61	62

Size	S	M	L	XL	XXL
Height	155-160	160-165	165-170	170-175	175-180
Chest	111	115	119	123	127
Waist	68-83	72-87	76-91	80-95	84-99
Steeve	80	82	84	86	88



Size	S	M	L	XL	XXL
Height	155-160	160-165	165-170	170-175	175-180
Lenght	64	67	69	72	75
Chest	107	112	117	122	127
Sleeve	56	55	57	59	61
Length	97	102	106	109	122
Waist	66-98	70-102	74-106	78-110	80-115

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ESD SHOES



รองเท้า DF-997 ESD พื้นสีเทา

หนังหน้ารองเท้า PVC : มีค่าความต้านทานไฟฟ้าทางผิว $34.8x10^{9}\ \Omega$

พื้นรองเท้า : มีค่าความต้านทานไฟฟ้าระหว่าง $2.14x10^{7}$. $5.10x10^{7}\ \Omega$



รองเท้า DF-999 ESD พื้นสีเทา

หนังหน้ารองเท้า PVC : มีค่าความต้านทานไฟฟ้าทางผิว $34.8x10^{9}\ \Omega$

พื้นรองเท้า : มีค่าความต้านทานไฟฟ้าระหว่าง $2.14x10^{7}$. $5.10x10^{7}\ \Omega$



71201 ESD PVC Shoes



4105 ESD Leather Slippers



ESD Safety Shoes White/Navy Blue

SLIPPERS



CH7214 Black



CH7214 Blue



CH7214 White



CH7213 Black



CH7213 Blue

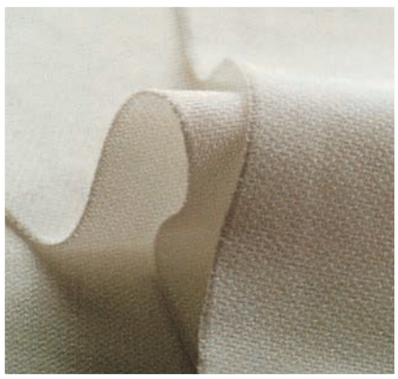


CH7213 White

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BERKSHIRE

Berkshire



Minimise Contamination

Berkshire wipers are engineered for use in the most critical cleanroom applications. It is ideal in many industries, including, Aerospace, Automobile, Electronic Parts Assembly, Hard Disk Drive, Flat Panel Display, Semiconductor, PCBA, Pharmaceutical, and Biomedical Device manufacturing.

Berkshire quality wipers provide good economic value as well as helping customers to improve production yields.

Knitted Polyester Series

The SuperPolx® products are 100% continuous filament knitted polyester and cleanroom laundered wipers. It comes with the sealed edges and the non-sealed edges versions. These knitted polyester wipers exhibits low particulates and provide excellent absorbency strong chemical resistance.

SuperPolx 1200A, SuperPolx SW, SuperPolx LW – Dry Wiper– Non Sealed Edges

Available in different knitted polyester materials for general wiping of critical areas. Economical to use for many industrie.

- Processed and Packaged in an ISO Class 4 (Class 10) Cleanroom
- Strong, tear and abrasion resistance
- High absorbency and lower in particles
- Works well with IPA, acetone and other solvents
- Double & Vacuum packed with lot tracing on each pack for quality assurance

Polyester Knit, Sealed Edge, Laundered Wiper 100% Supra–Wipe 1

SW1 is a sealed edge wipe composed of 100% continuous filament polyester knit. It is abrasion resistance and chemical compatibility. This wipe is suitable for general purpose wiping applications in various industries. It is meant to bridge the gap between more expensive laundered wipers and lower cost non critical industrial wipes.

Order Information

Product	Number	Size	Shts/pk	Pks/cs	Style
Supra-Wipe 1	SW10914	9x9"(23x23cm)	150	14	Stacked Pack
Supra-Wipe 1	SW10614	6x6"(15x15cm)	300	14	Stacked Pack
Supra-Wipe 1	SW10414	4x4"(10x10cm)	600	14	Stacked Pack

Sealed Edge Cleanroom Laundered 100% Polyester Knit Wiper Super Polx® LWSE

Order Information

Product	Number	Size	Shts/pk	Pks/cs	Style
Super Polx® LWSE	SPLWSE.0404B.14	9x9"(23x23cm)	150	14	Bulk Pack
Super Polx® LWSE	SPLWSE.0606B.14	6x6"(15x15cm)	300	14	Bulk Pack
Super Polx® LWSE	SPLWSE.0909B.14	4x4"(10x10cm)	600	14	Bulk Pack

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Microfiber Series

The MicroPolx® and MicroSeal® MD products are 100% continuous filament knitted polyester, sealed edge, laundered microdenier wiper. These high density knit micro fine polyester fibers exhibit low particulates, no static build-up, provide excellent absorbency with strong chemical and abrasion resistance.

Microseal Wiper MicroPolx 2750 and Microseal 1500MD – Dry wiper – All Edges sealed

Available in different knitted polyester microfiber materials for wiping of sensitive areas. Excellent choice for polishing and cleaning equipments, optical prisms, mirrors, glass surfaces, and flat panel display.

- Processed and Packaged in an ISO Class 4 (Class 10) Cleanroom
- Strong, tear and abrasion resistance
- Engineered fine and soft material that picks up contaminants more easily and does not scratch any surface
- High absorbency and low in particles
- Works well with IPA, acetone and other solvents
- Double & Vacuum packed with lot tracing on each pack for quality assurance surface.

Order Information

Product	Item Number	Size / Metric	Shts / pk	Pks / Cs	Style
MicroPolx 2850	MPX2850.0909.10	9"x9"(23x23cm)	100	10	Stacked Pack
MicroPolx 2750	MPX2750.0909.10	9"x9"(23x23cm)	100	10	Stacked Pack
MicroPolx 1500MD	MPX1500MD.0909.10	9"x9"(23x23cm)	150	10	Stacked Pack
Other sizes are also available					

Non-woven Series

The Durx® and Sunsorb® non-woven products have superior strength and absorbency and it is an ideal choice for a general purpose wiper. Manufactured clean with low ion levels and organic extractables.



Micro First 38 – Dry Wiper

Sunsorb 380 is general wiper for many applications and economical to use. It is a preferred choice for cleaning compact disc molding equipment, diffusion furnaces and ovens, as well as in laboratories, aerospace, defense electronics, hospitals computer assembly, biotech research facilities and semiconddctor,

Durx 670A or Durx 620A – Dry Wiper

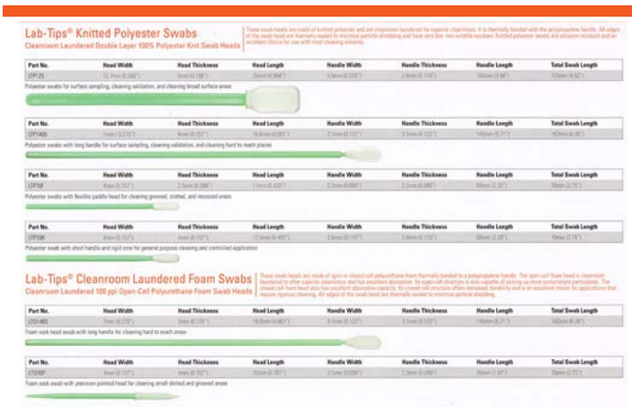
Superior strength and absorbency make Durx® 670A an ideal choice for a general purpose wiper. Manufactured without the use of binders or surfactants, ion levels and organic extractables remain low.

Product	Itam Number	Size / Metric	Shts / Pk	Pks / Cs	Style
MF38	MF38.0505.30	5"x5" (13x13cm)	100	30	Stacked Pack
Durx670A	DR670A.0909.10	9"x9" (23x23cm)	300	20	Stacked Pack
Durx620A	DR620A.0606.18	6"x6" (15x15cm)	600	18	Stacked Pack

Long Shine (Thailand) Co., Ltd.

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BERKSHIRE







Cleanroom Notebook

CHOICE® Spiral and Stapled Notebooks are an ideal choice for cleanroom documentation. These notebooks are made with Berkshire's CHOICE® 72 paper to minimize particle contamination. There are spiral and stapled designs available in college rule format.

Cleanroom Paper Product Range:

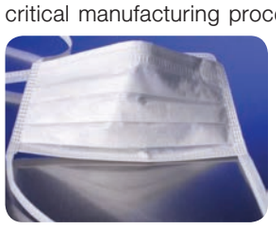
- CHOICE® Spiral Ring Notebook
- CHOICE® Stapled Notebook

Benefits

- Can be customized with your company logo on front page
- Spiral ring with PET cover can withstand long periods in use
- Stapled with hard cover for economical use
- Available in various sizes for different applications

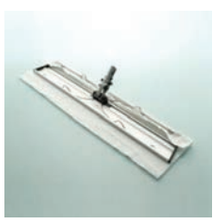
Critical Environment Face Masks

People are a significant source of contamination in any critical manufacturing process. Berkshire masks are designed to protect your cleanroom or controlled environment from human contamination.



Mop Systems & Accessories







Berkshire offers cleanroom flat mop system, isolator cleaning tool systems as well as a selection of different materials mopheads. These products are crucial for maintaining your cleanroom cleanliness standards.

CLEAN ROOM PAPER

Widely used in clean room for copying,printing (normal printing format printing), written and identify with different colors.



- Low dust,less than normal paper in 1/10000 or less
- Easily write down with all kinds of pens.
- Customized sizes

Color : White / Pink / Yellow / Orange / Green / Blue / Gray

Weight : 64gsm or 72gsm or 80gsm

Normal size : A4 or A3

Packaging : A5 250pcs/bag,20bags/ctn
A3 250pcs/bag,10bags/ctn
A4 250pcs/bag,10bags/ctn

Package dimension : 45x 35 x 15cm/CTN Gross weight : 12kgs/CTN

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CLEANROOM WIPER



Polyester Wipers

- 100% polyester, single-knit or double-Knit.
- Abrasion and chemical resistant.
- Good absorbency with solvents.

Model	Size	Packing Per Bag	Bag Per Carton
1004LE	4”x4”	600 Pcs/bag	10 Bag/Carton
1006LE	6”x6”	150 Pcs/bag	20 Bag/Carton
1009LE	9”x9”	150 Pcs/bag	10 Bag/Carton



Microfiber Wipers

- 70% polyester and 30% nylon composite microfiber.
- Abrasion and chemical resistant.
- Good absorbency with solvents.

Model	Size	Packing Per Bag	Bag Per Carton
2004LE	4”x4”	400 Pcs/bag	10 Bag/Carton
2006LE	6”x6”	100 Pcs/bag	10 Bag/Carton
2009LE	9”x9”	100 Pcs/bag	20 Bag/Carton



Non-woven Wipers

- 70% 55% cellulose, 45% polyester
- Variety of sizes and packing options.
- Excellent absorbency with solvents.

Model	Size	Packing Per Bag	Bag Per Carton
4303	4”x4”	1,200 Pcs/bag	10 Bag/Carton
4303	6”x6”	300 Pcs/bag	10 Bag/Carton
4303	9”x9”	150 Pcs/bag	10 Bag/Carton



M3 Cleaning Wiper

- Size: 25 x 25cm
- Packing: 100pcs /bag, 30 bags /carton
- Material: 100% filament rayon
- Outstanding absorbency and liquid retention.
- Quarter-folded for ease of use



Black Cleanroom Wiper

deally suited for cleaning and wiping applications in ISO Class 5 cleanroom environments. Constructed of 100% continuous-filament, polyester knit fabric wipers, these wipers offer low particle release and low levels of extractables. Their superior strength allows for rigorous wiping with minimal fiber release. 4"x4" , 6"x6" , 9"X9"

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ESD/CLEANROOM GLOVES

GLOVE



PVC Glove



Nitrile Glove



Latex Glove



ESD Dotting



PU Palm Fit Glove



PU Top Fit Glove



Conductive Palm Fit Glove



Conductive Top Fit Glove



ถุงมือผ้าคอตตอน



ถุงมือผ้าถักทอ



ถุงมือผ้าทอ Dotting



ถุงมือไนไตรกันสารเคมี

FINGER COTS



Finger Cot



ESD Finger Cot



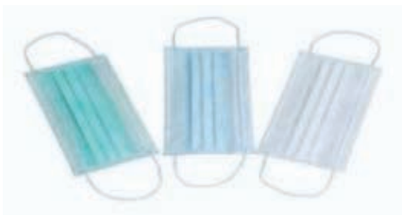
Anti-Slip Finger Cot



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CONSUMABLES PRODUCT



Face Mask 3 Ply



Face Mask Carbon 4 Ply



Face Mask Cabon 6 Ply



Face Mask Cotton



Shoes Cover



Hair Net



OPP Tape



Floor Masking Tape



Stretch Film



Anti-static Pink Air Bubble



Anti-Static Bags



ESD Shielding Bag

Long Shine (Thailand) Co., Ltd.

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