new Hi-Power IMFS600 BGA & QFPs SMD ICs/thick leads Thru-hole System

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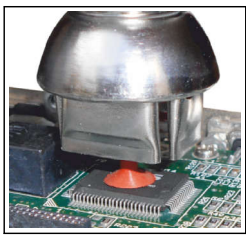
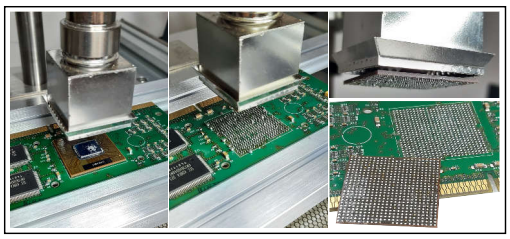
A must for every electronics lab • used by our top customers many with repeat .... repeat orders

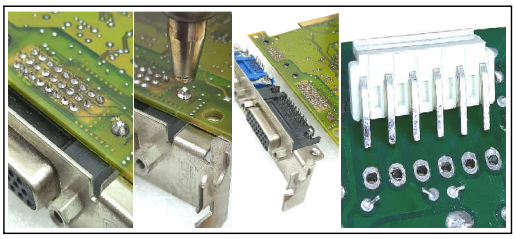
- ⇨ Largest size SMD ICs as BGAs, QFPs etc., can be reworked without damaging expensive multilayer PCBs with increased higher heating power of 1300 watt of Hot Air Pencil
- ⇨ Multi Pin Connectors and Heavy Heat Sink PCBs can be desoldered effectively without any clogging and any damage to PCB with increased heating power of 150 watt of Desoldering Gun and also with new higher vacuum suction pump
- ⇨ New higher power Soldering Pencil of 110 watt ensures soldering at lower temperature for effective flux application (incase of leadfree soldering) and avoids thermal shock to expensive SMD ICs
- ⇨ New Digital Pre-heating Plate is always required for pre-heating of BGA PCBs, multilayer PCBs and heavily grounded PCBs. This only provides effective reworking of such PCBs without any damage

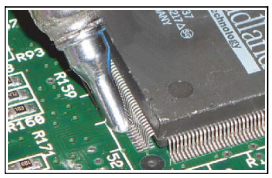
All 3 functions: Hot Air Reflow for desoldering and soldering of large SMD ICs, Desoldering of leaded components and Soldering of leadfree SMD and leaded components work independently at the same time

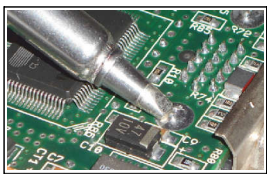
No external Compressor required, all it needs just Mains Supply only

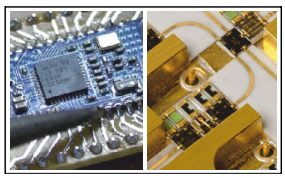

Large QFPs reworking

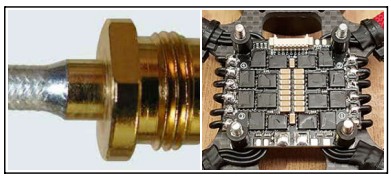

Large BGAs reworking on expensive multilayer PCBs


Desoldering of heavy duty connectors on multilayer PCBs


Fine pitch SMD Soldering


Thru-hole leadfree Soldering


Soldering on Ceramic substrates


High heat shink large soldering applications

Warranty is 12 months from the date of invoice. It excludes all consumable parts as Heating Elements, Temperature Sensors, Soldering/Desoldering Tips, Cleaning Sponges etc.

on-site services can be provided at extra charges if pre-paid by customer in advance

Website: www.indeonline.in • Phones: 9316134502 & 9815600745 • Email: info@indeonline.in & romesh1947@gmail.com

Specifications

- Power : 1600 Watt
- Temperature Range
  - Soldering/Desoldering : 200°C ~ 480°C
  - Hot Air Pencil : 100°C ~ 500°C
- Airflow Range : upto 120 litre/minute thru Maintenance-free Brushless turbine
- Vacuum Suction : 600mmHg
- Password Locking for supervisory control
- Sleep Timer to prolong the life of the system
- Built-in temperature calibration feature to meet ISO requirements

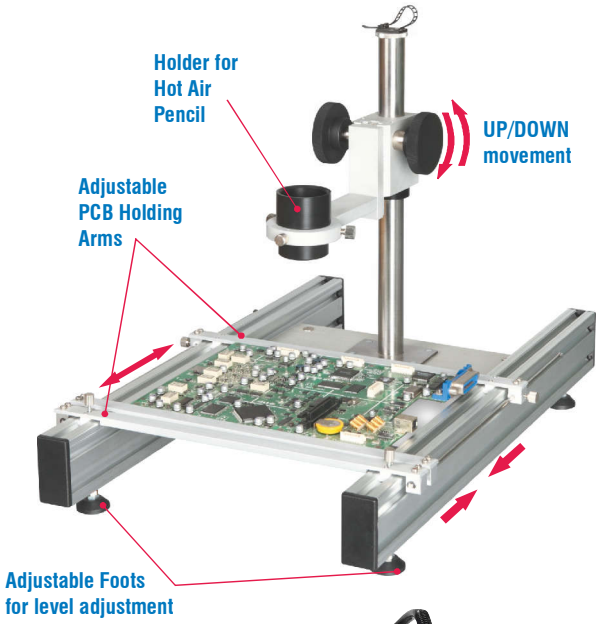
Scope of Supply:

- IMFS-600 Main Control & Power Unit
- AFHAPS Adjustable PCB Fixture with Hot Air Pencil Stand
- High Power (1300 Watt) Hot Air Pencil with in-built vacuum Pick-up and Hot Air Pencil Stand
- 2 Round Hot Air Nozzles of 6.4mm & 12.7mm dia.
- 110 Watt Soldering Pencil fitted with 2.4mm Chisel Soldering Tip and Support Rack with both Cleaning Sponge/Dry Cleaner
- 150 Watt Desoldering Gun fitted with Desoldering Tip and Support Rack with Cleaning Sponge
- 2 different sizes of Desoldering Nozzles
- Spare Ceramic Paper Filter, Spare Spring Filter
- Cleaning Pin Set, Software CD and Interface Cable

Adjustable PCB Fixture with fine UP/DOWN adjustment of Hot Air Pencil Stand Model AFHAPS specially designed to increase the effectiveness of 3-in-1 SMD/PTH System Model IMFS600 (highly recommended for safe reworking of large SMD ICs, optionally available at extra cost)

The PCB Fixture retains and secures the PCB under repair and allows positioning of the board in X and Y directions. It permits PCBs upto a maximum size of 350mm x 280mm both single and double sided to be accommodated in a perfectly flat condition.

It also incorporates a pivoting stand to mount the Hot Air Pencil. This stand provides fine Up & Down movement of Hot Air Pencil for raising and lowering it onto the component under repair. It also has provision to put Pre-Heating Plate IHP400 underneath.



Features

- Maximum PCB size: 350 x 280 mm
- PCB can be positioned in X & Y directions
- Pre-Heating Plate can be positioned under the PCB
- It has 4 adjustable foot to adjust the level of PCB holder.

Specifications

Coarse height range	: 0 ~ 230mm
Fine height adjustment	: 0 ~ 60mm
Maximum width of PCB	: 280mm

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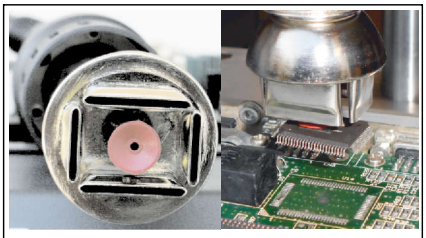
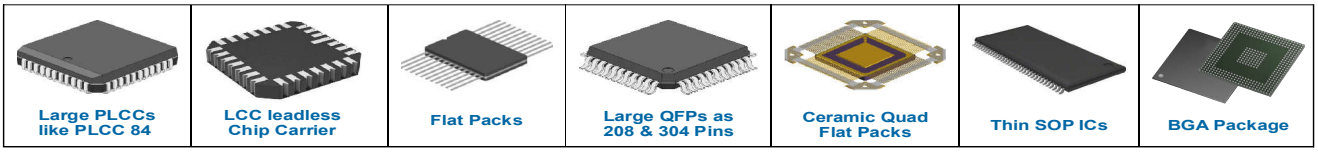
1300 Watt high heat power and very powerful upto 120 litre/minute Hot Air Pencil also has *in-built* Vacuum Pick-up provision for safe desoldering of large SMD ICs. Gentle lifting by Vacuum Pick-up does not damage SMD Pads of expensive PCBs.

The ergonomic and powerful Hot Air Pencil (1300 Watt) together with the extensive range of Hot Air Nozzles make this tool very versatile. Hot Air Nozzles are secured to the tool by press fitting. It has integrated in-built powerful vacuum pick-up for gentle lifting of large SMD ICs during desoldering without any damage to SMD pads of expensive PCBs. Temperature controlled Hot Air Pencil provides adjustable high volume of airflow. Different Hot Air Nozzles are available for different shapes and sizes of SMD ICs.



Hot Air Pencil has in-built Vacuum Pick-up function to lift large SMD ICs gently during desoldering without damage to SMD Pads

Hot Air Nozzles with in-built Vacuum Pick-up to suit specific SMD ICs are available
Please select the correct type you need to meet your specific applications



NK2280 Size: 24x24mm Suitable for BGA 24x24mm	**NK2282** Size: 31x31mm Suitable for BGA 31x31mm	**NK2283** Size: 38x38mm Suitable for BGA 38x38mm	**NK2284** Size: 41x41mm Suitable for BGA 41x41mm	**NK2286** Size: 15x15mm Suitable for BGA 15x15mm
NK3127B Size: 19x19mm for QFP size 17x17mm	**NK3128B** Size: 15x21mm for QFP size 14x21mm	**NK3129B** Size: 29x29mm for QFP size 28x28mm	**NK3136B** Size: 19x19mm for PLCC size 20x20mm	**NK3138B** Size: 29x29mm for PLCC size 30x30mm
NK3139B Size: 12.5x7.3mm Suitable for PLCC32	**NK3188B** Size: 10x10mm Suitable for PLCC20	**NK3189B** Size: 33.5x33.5mm for PLCC size 34x34mm	**NK3259B** Size: 13.5x29mm Suitable for TSOP44	**NK3261B** Size: 21x21mm Suitable for BQPF84

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110 Watt high power Soldering Pencil for SMD and PTH soldering

The Soldering Pencil uses unbreakable heating element of 110 watt in coiled form encased in metal tube with sensor placed very close to the soldering tip for precise control of temperature. Push-fit design allows quick and easy change of Soldering Tips.

Specifications

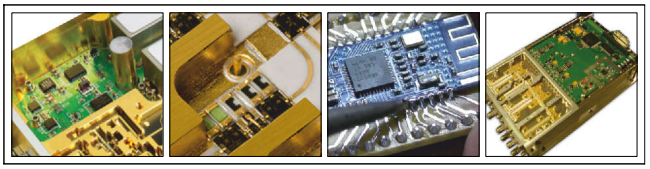
- Heating Power : 110 Watt
- Temperature Range : 200°C ~ 480°C
- Tip to ground Potential : <2mV
- Tip to ground Resistance : <2Ω

Unique SMD Soldering Tip for SMD soldering

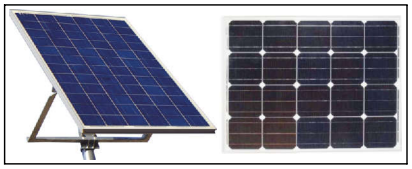
Specially designed 200G-CM SMD Soldering Tip has concave cavity to hold the molten solder. It helps to solder one side of IC completely in a single go by dragging the soldering tip on the PCB tracks slowly without any bridging.

SMD Soldering | Thru-hole Soldering

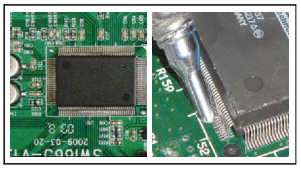
Multiple soldering applications with SINGLE 110 Watt Soldering Pencil suitable for highly reliable Aerospace soldering, SMD ICs, Solar Cells and High Mass soldering jobs



Aerospace high reliabilty soldering on Ceramic substrates

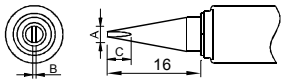
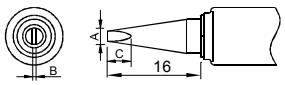
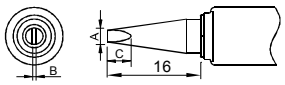
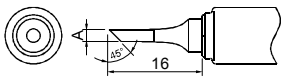
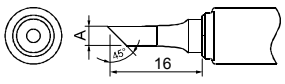
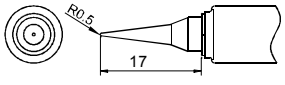
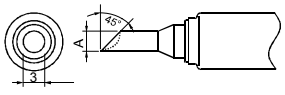


Monocrystalline PV Solar Panel soldering



Hi-end Leadfree Soldering

Various Soldering Tips are available to meet different types of soldering applications

Description	Actual Picture	Dimensional Diagram	Width A (mm)	Part Number
Chisel Tip for small SMD components			0.8	200G-0.8D
Chisel Tip for regular leadfree soldering			2.4	200G-2.4D
Chisel Tip for heavy leadfree soldering			3.2	200G-3.2D
Sloped Tip for solar panels			Ø3	200G-3C
Sloped Tip for solar panels			Ø5	200G-5C
Round Tip for fine soldering			Ø0.5	200G-B
SMD Tip for soldering SMD ICs			2	200G-2CM

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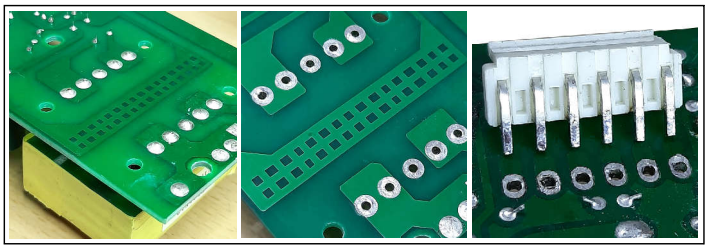
High Power (150 Watt) Easy-to-hold Desoldering Gun for Thru-Hole Components

Desoldering Pencil, with internal solder reservoir, desolders thru-hole components.
Finger Switch controls quick start of fast action vacuum pump.

Specifications

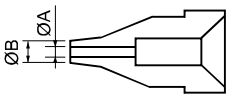
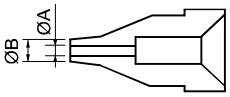
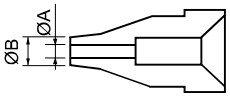
- Heating Power : 150 Watt
- Temperature Range : 200°C ~ 480°C
- Vacuum Pressure : 600mm Hg
- Tip to Ground Potential : <2mV
- Tip to Ground Resistance : <2 Ohm

150 Watt High Power for multilayer PCBs & heavy grounded joints

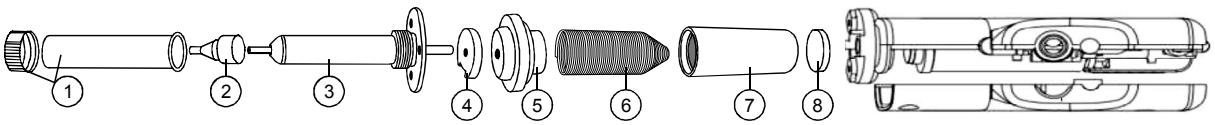


Thru-hole desoldering of heavy duty connectors on multilayer PCBs

Desoldering Nozzles for available to desolder different PTH components

Description	Actual Photo	Dimensional Diagram	Inner Dia (mm)	Outer Dia (mm)	Part Number
Desoldering Nozzle for desoldering thru-hole components with PCB hole diameter of 1.3mm			1.3	3.0	A1006
Desoldering Nozzle for desoldering thru-hole components with PCB hole diameter of 1.6mm			1.6	3.0	A1007
Desoldering Nozzle for desoldering thru-hole components with PCB hole diameter of 1.8mm			1.8	5.0	A1009

Assured availability, normally ex-stock, of Spare Parts for Desoldering Station



SN	Description	Remarks
1	Barrel & Nut Assembly	Replace if worn out
2	Desoldering Nozzle	Replace if damaged
3	Heating Element	Replace when display shows H-E/S-E
4	Packing	Replace if damaged

SN	Description	Remarks
5	Front Holder	Replace if damaged
6	Spring Filter	Replace if damaged
7	Filter Pipe	Replace if damaged
8	Ceramic Filter	Replace if damaged

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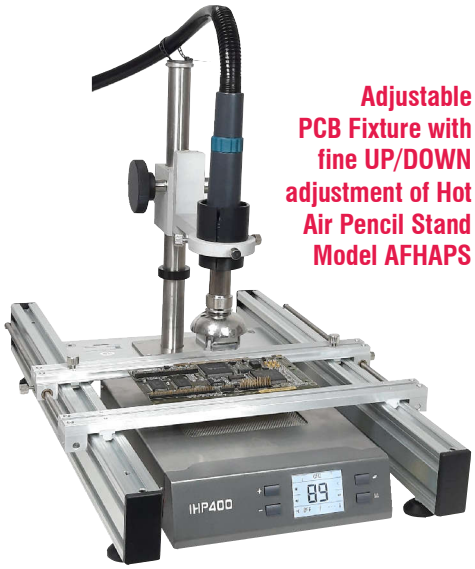
A must for every electronics lab • used by our top customers many with repeat .... repeat orders

Hi-Power 400 Watt infrared Pre-heating Plate Model IHP400, recommended for effective and safe reworking of multi-layer and high heat sink PCBs (optionally available at extra cost)

The IHP400 Pre-heating Plate enhances the effectiveness of the IMFS600 Rework Systems. It provides bottom heating to the PCB under repair, therefore minimizing the risk of thermal damage to expensive SMD ICs and warping of expensive multilayer PCBs. Additionally it also speeds up the rework/repair process.



Adjustable PCB Fixture with fine UP/DOWN adjustment of Hot Air Pencil Stand Model AFHAPS

Features:

- High quality, long life IR Ceramic Heating Elements ensure fast and even pre-heating with high efficiency
- in-built temperature measurement with thermocouple allows continuous monitoring of PCB temperature
- Set temperature is achieved accurately and remains stable due to closed loop PID control design.
- LCD display for accurate temperature and other parameter display
- Fast and convenient in-built digital temperature calibration
- Three channel temperature design for easy and fast temperature switching

Specifications:

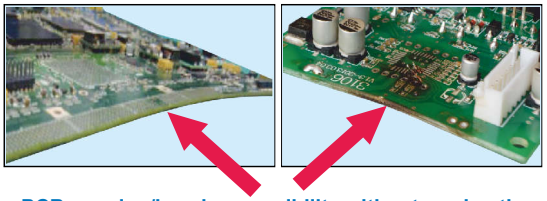
- Heating Power : 400 Watt
- Heating Area : 130 x 130mm
- Heating Source : IR Ceramic Heater
- Temperature Range : 50°C ~ 500°C
- Temperature Stability : ±1°C
- Temperature Sensor : K-type Thermocouple
- Measurement Range : 0 ~ 600°C
- Thermometer Accuracy : ±5°C

Why bottom Preheating is recommended ?

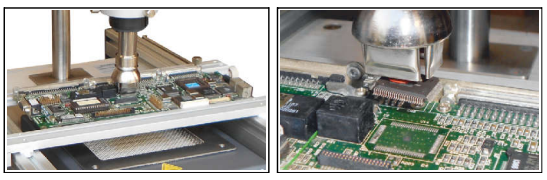
Today's electronics design has higher density of expensive devices on the multilayer PCBs which inherently require gentle pre-heating of PCBs to avoid thermal damaging of expensive SMD ICs, and also must avoid warping of PCBs.

If pre-heating is not used, it can lead to pad lifting, delamination, warping and burning of expensive PCBs & large SMD ICs during rework/repair. Beside these visible defects, the invisible defects like internal layer cracking etc. will also result if pre-heating is not used.

To avoid above failures, PCBs will normally need even pre-heating around 120°C on top side while reworking. The Pre-heater model IHP-400 serves this purpose. PCBs are heated evenly and gently from bottom side for safe reworking of SMD ICs.



PCB warping/burning possibility without pre-heating



Safe reworking of SMD ICs using bottom Preheater

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Portable yet *effective* Solder Fume Extractor Model SFE-1L

INDE
reliable & caring since 1976

Ideal replacement against fan type fume absorbers which just blow the fume to other side

3 Filters for effective cleaning
Noise-free Silent operation
Reliable & powerful turbine
Ready-to-use, without plumbing


Flexible Corrugated Hose


Silicone Rubber Hood


12V/2A AC Adaptor


3-Spare Pre-Filters

Features:

- Fitted with a multi-layer filtration system for rapid purification, making it ideal for soldering fumes purification
- Compact in size with optimized airflow to filter fumes, dust and odor from soldering works and other conditons
- Adjustable fan speeds ranging from 1 to 100 with LED display for indicating current fan speed setting
- Easy-to-manoeuver positioning of Flexible Corrugated Hose

Ready-to-use Solder Fume Extractor Model SFE-1L is fitted with **3-stage Filters**: Pre-Filter, HEPA Dust Filter and Activated Carbon Filter. Combination of these Filters cleans air by separating contaminated solder fumes. This Fume Extractor is designed for use in industrial and laboratory environment. All it needs is the Mains Input Power Supply only.

Scope of Supply

- 1xSFE-1L Main Extraction Unit
- 1xFlexible Extraction Arm (60mm dia, 680mm long)
- 1xBurn-proof Silicon Absorbing Hood
- 1xPower Supply Adaptor (12V/2A)
- 3xSpare Pre-Filters

Specifications

- Input Power Supply : 12V/2A
- No of Workplaces : 1
- Power Consumption : 15 Watt
- Adjustable Fan Speed ranging from10 to 100
- LED display for fan speed indication

Which one should you choose between: Fume Extractor and Fan type Fume Absorber

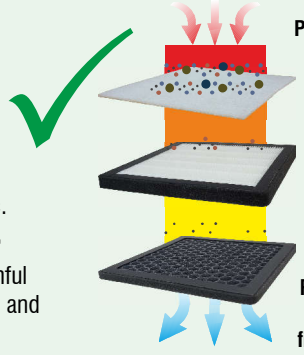
The answer is simple - Just Go with the Fume Extractor. A fan type absorber will just blow around the smoke produced and not filter it completely. A Fume Extractor not only sucks the fumes but it also filters the fumes. Despite its cost, a Solder Fume Extractor is way superior and efficient option.

Filtration Process of SFE-1L Fume Extractor

Pre-Filter
Filter out larger particles of solder fumes

Middle HEPA Filter
Filter out coarse particles of solder fumes and also filter out bacteria, fungi etc.

Activated Carbon Filter
Filter out all toxic and harmful gases to make the air pure and free from pollutant



Filtration Process of Fan type Fume Absorber

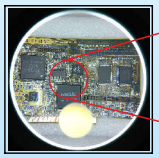
Carbon Activated Filter
Filter out solder fumes partially not completely
Just blow the smoke to other side

Recommended Work Bench Aids, Tools and Accessories

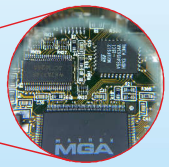
Real ESD Safe Portable Table Top Dual Lens LED Illuminated QC Magnifier — Model ITMESD-1706

Not mere black colour but it is Really ESD Safe for inspection of expensive static sensitive PCBs

- Magnification : 3 diopter + 12 diopter
- Lens Material : Glass
- Lens Size : 100mm (4 inch) dia.
- Body Colour : ESD Safe Black
- Light Source : SMD LEDs
- Input Supply : 230V, 50 Hz



3 Diopter Main View



12 Diopter Embedded Lens View

Green Matt Finish 2-Layer ESD Safe Rubber Table Mat (2x4 Feet) — P/N: ESDTM-0204

Ready-to-use pre-cut size ESD Safe Table Mats Kits including necessary Grounding Cords, Wrist Strap etc.

Scope of Supply
- ESD Safe Table Mat (Green Colour)
- 2 Snap Buttons on Mat
- Dual Point Grounding Cord
- ESD Safe Wrist Strap

ESD Safe Soft Tip Straight Tweezer

P/N: GCP-147/ESD-259

for handling fragile SMDs. Does not scratch surface of fragile parts & sensitive SMD ICs

High Quality Desoldering Wick

- High quality Desoldering Wick with no clean flux
- Pure oxygen-free copper wire
- Length: 1.5 meter
- Width: 1.5mm

Spring Loaded Flux Pen

P/N: 8100

- For precision flux application in a convenient micro tip Pen format.
- The dispensing mechanism eliminates dripping, pooling and wastage.

ESD Safe SMD Side Cutter (Slim - Relieved Head)

P/N: T3886

C.K Tools Germany

- Sharp, precision cutting edges with extra full flush cut
- Cutting Capacity: 1.3mm dia wire
- Length: 140mm (approx.)

ESD Safe Precision Wire Stripper

P/N: T3893

Stripping capacity: 0.25, 0.32, 0.4, 0.5, 0.6 & 0.8mm
(30, 28, 26, 24, 22 & 20 AWG)

Warranty is 12 months from the date of invoice. It excludes all consumable parts as Heating Elements, Temperature Sensors, Soldering/Desoldering Tips, Cleaning Sponges etc.

on-site services can be provided at extra charges if pre-paid by customer in advance

Recommended Work Bench Aids, Tools and Accessories

ESD Safe Dispensing Bottle

P/N: ESD-DB-180

Capacity: 180ml

Stannol Germany Solder Wire

P/N: 648111

Lead Free Solder Wire

S-Sn99, Cu1
Diameter: 0.5 mm
500 gram Spool

ESD Safe Cleaning Brush

P/N: ICBESD-1607

- Surface resistivity: $10^6 \sim 10^9 \Omega$
- Bristle length: 19 mm (approx.)
- Length: 170mm (approx.)

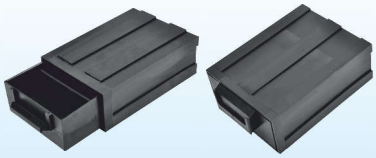
ESD Chip Component Box

P/N: ESD-BOX-M

- External size: 56x32x21 mm (approx.)
- Internal size: 40x26x16 mm (approx.)
- Spring loaded top cover
- Useful to store SMD Chip Components

ESD Safe Component Box

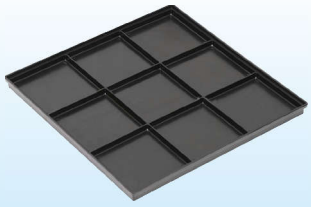
P/N: IESDCB-3105



- External size: 138x96x48mm (approx.)
- Internal size: 120x82x36mm (approx.)
- Easy-to-use slide-in drawer types
- Useful to store SMD Chip Components
- Horizontally & vertically stackable design

ESD Safe Conductive Tray

P/N: ESD-TR-9



- 9 sections each of 100x100x10 mm size
- Approx. Internal size: 300x300x10 mm
- Approx. External size: 315x315x15 mm

ESD Safe Gloves with PU Coated Finger Tips

P/N: IPUGESD-1612

- Surface resistivity: $10^6 \sim 10^9 \Omega$
- Made from soft nylon for operator's comfort
- PU coated Finger Tips
- Elastic, absorbent and non-slip type
- Integrated with Carbon Fiber
- Sizes: Large (L)

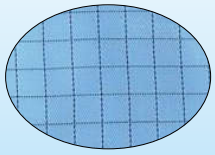
Static Dissipative

ESD Safe Apron in Blue Colours

P/N: IESDA-1604

ESD Safe Aprons are made of lint-free polyester filament, which provides good static dissipation and superior air permeability and particle filtration. This helps the operators to be comfortable. These Aprons have a conductive yarn that provides low surface resistivity of between $10^6\Omega \sim 10^7\Omega$ and quick static dissipation for effective control of ESD.

- Durable anti static property
- High color fastness and tear strength.
- Breathable to wear.
- Available colour: Blue and White
- Sizes: Medium (M)



5mm Strip Fabric

Warranty is 12 months from the date of invoice. It excludes all consumable parts as Heating Elements, Temperature Sensors, Soldering/Desoldering Tips, Cleaning Sponges etc.

on-site services can be provided at extra charges if pre-paid by customer in advance