



SHARANG CORPORATION

AN ISO 9001:2015 CERTIFIED COMPANY



ESD EXPERT

SHARANG ESD HAND BOOK





PROTECT ELECTRO STATIC SENSITIVE DEVICES ABOUT ELECTROSTATIC DISCHARGE (ESD)

To a greater or lesser extent all contact between object, every separation of one item from another, each sliding of one thing on another, causes a disturbance of electrical charge. When charge disturbance take place faster than charge redistribution, static charge accumulate. ESD occurs where charge of different electrostatic potentials meet. The flow of electrons is usually sudden and release energy that can damage electrostatic sensitive device (ESDs)

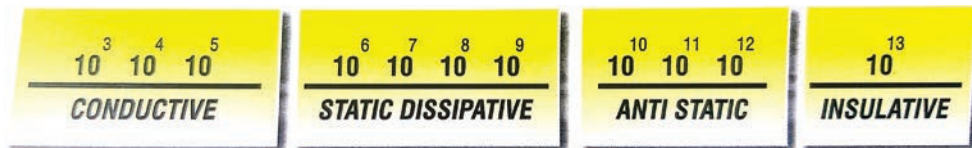
This is referred to as tribo electric generations.

Static charges of upto 30000 volts are not uncommon and can be generated by the simple act of walking across a floor, yet a discharge of only 10 volts can destroy a class 1 ESD sensitive device.

A material that inhibits the generation of tribo electric generation is classified as anti static. An anti static material can be

1. Conductive ($10^3 - 10^5$ ohms/sq)
2. Static dissipative ($10^6 - 10^9$ ohms/sq)
3. Antistatic ($10^{10} - 10^{12}$ ohms/sq) or even
4. Insulative (greater than 10^{12} ohms/sq)

Only conductive or static dissipative anti static material should be used in ESD protected areas.





About us...

Sharang Corporation Incorporated In **August 1996** Having Head Office In Pune. The Partners Are Qualified And Having More Than 30 Years Of Rich Experience In Electronics Industry and Supported by **Twenty Two Dedicated Team Members**.

We Undertake The Projects For Setting Up An **Electronic Assembly Line**. We Supply PCB Assembly Machines, Insertion and Assembly Conveyors, ESD Floorings, ESD Control Products, Soldering Consumables (Tin / Lead & RoHS Compliant), Soldering De-Soldering Equipment, SMD Rework Stations, Cable and Wire Markers, Ultrasonic Cleaning Machines, Wire Processing Machines , Vision Systems.

We Have Diversified Into **Material Handling Solutions** Like Bins/ Storage Shelving Systems / Crates, Foldable & Nested Crates, Mobile Compactors / Racking System and Pallets Are Newly Added.

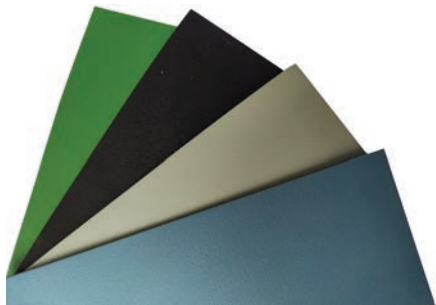
Our Strength Lies In **Product Quality & Service Support To Over 1500 Satisfied** Very Small To MNC Customers. We Strongly Believe In **Long Term Relationship**. Our Asset Is Our **Manpower**.



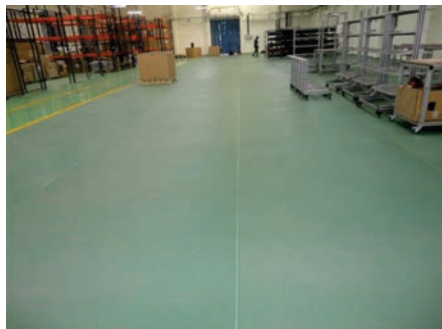
Solutions for Electronics Industry and Material Storage



ESD Flooring



ESD Mats



ESD Mats Installation



ESD Tiles



ESD Tiles Installation



ESD Table Mats



ESD Anti-Fatigue Mat



ESD Epoxy



ESD Apparels



Aprons



ESD Round Cap



Cricket Cap



**ESD PVC
Dotted Gloves**



**ESD Top Fit PU
Coated Gloves**



**ESD Plam PU
Coated Gloves**



Shoe Cover



Face Mask



ESD Footware



ESD Slipper



ESD safe Shoes with lace



ESD PU Safty Shoes



ESD Butterfly PVC Shoes



Machine Overall Dimensions	: 1838 x 768 x 135
Cleaning Area Dimensions	: 1110 x 530
Drying Area Dimensions	: 370 x 515
Material of Drying Pad	: PVA / PU Sponge
Overload Capacity	: 400Kg
Weight	: 90Kg
Water Tank Capacity	: 30L
Motor Power	: 180W
Number of People Used	: <200

Sole Cleaning Machine



ESD Brushes



SC-01

SC-02

SC-03

SC-04

SC-06

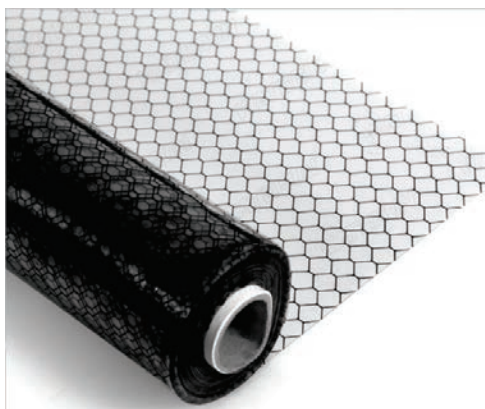
SC-07

SC-08

SC-09

SC-10

SC-11



ESD Grid Curtain

Material	: PVC
Grid Surface Resistance	: $10^6 \sim 10^9 \Omega$
Underlayer Resistance	: $10^9 \sim 10^{11} \Omega$
Sizes	: 1.37 m x 30 m x 0.3 mm 1.37 m x 30 m x 0.5 mm



IPA Dispenser



ESD Meters



**Wrist Strap Tester
Model - ZE102**



**Wrist Strap and footwear Tester
Model - Z103**



**Wrist Strap & Dual Footwear Tester
with Wall Station - Z124**



**Combo Tester with
Access System - Z134**



ESD Meters



Surface Resistivity Meter - Z203



Optional External Probes

Digital Surface Resistivity Meter (9V LCD)
with External Probes - Z2032



Optional External Probes

Surface Resistivity Meter (100VLED) with external probes - Z203-100



Continuous Workstation
Monitor - Z107



Static Charge Meter - Z205



ESD Meters



Optional :
Wall Station Z2055W

Human Body Voltage Checker - Z2055A



Static Discharge Pamplate &
Cord - Z103P



Common Grounding Point
(2way & 4way)



ESD Chairs



ESD Safe Chair With Arm Rest



ESD Safe Chair Without Arm



ESD Stool



ESD Safe Stool without Back



ESD Safe Chair With Foot Ring



ESD Stool

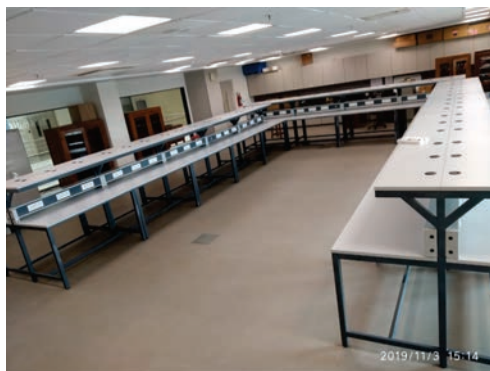


ESD Workstation





ESD Workstation





ESD Consumables



ST Series High
Precision - 110mm



Anti-Static
Tweezers - 110mm



Conductive Tweezers
115mm



Conductive Tweezers
110mm



Conductive Tweezers
115mm

Tweezers



MN-25C



MN-25P



MN-170



MN-170II



CHP - 170



BX - 21



BX - 23



MN-B100

Cutters



Polyester Wipers



Splice Tapes



Rover Mask



ESD Dustbin



ESD Consumables



**Shoe Cover
Dispenser Machine**



ESD Heel Strap



Sticky Mat



Kapton Tape



ESD Grid Tape



ESD floor Marking



ESD Wrist Strap



Cordless Wrist Strap



ESD Finger Cots



ESD Ground Cords



ESD Cleanroom Paper



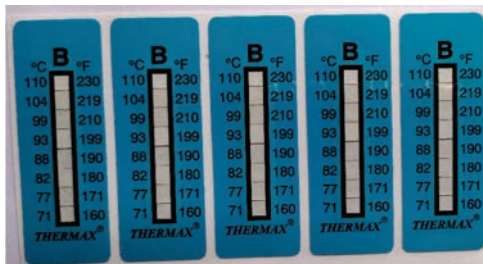
ESD Folders



ESD Consumables



ESD Shoe Cover



Temp. Stickers



ESD Caution Sticker



ESD Poster



PCB Storage



L - Type Fixed PCB Carrier



ESD Adj. PCB Rack



ESD Fixed PCB Rack



Overall Size :
355 x 320 x 563mm

Suitable PCB Size :
350 x (50-250)mm



Overall Size :
460 x 400 x 563mm

Suitable PCB Size :
460 x (50-330)mm

Magazine Racks



PCB Storage Trolley



Reel Rack Trolley



PCB Storage Trolley with Hanging Racks



ESD Grid Bag



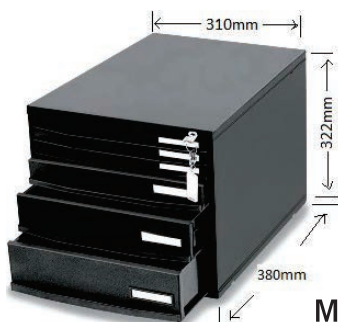
TSS Bags



ESD Reel Rack



Component Storages



INTERNAL SIZES OF DRAWERS

- AD 1-C : 360mm (D) x 270mm (W) x 16mm (H)
 AD 2-C : 360mm (D) x 270mm (W) x 39mm (H)
 AD 3-C : 360mm (D) x 270mm (W) x 62mm (H)
 AD 4-C : 360mm (D) x 270mm (W) x 87mm (H)

Modular System



SB1-C

L 125	W 100	H 60
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SB2-C

L 170	W 100	H 85
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SB3-C

L 220	W 130	H 125
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SB4-C

L 290	W 178	H 143
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SB5-C

L 290	W 363	H 145
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SB6-C

L 440	W 180	H 145
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SB7-C

L 435	W 425	H 215
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SB8-C

L 600	W 425	H 300
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ESD Bins



ESD Component Organisator

It Consists of a Cabinet with 25 small drawers.

Size of Cabinet :

400mm (W) x 250mm (H) x 160mm (D)

Size of Drawers :

150mm (L) x 75mm (W) x 35mm (H)

Made from conductive polystyrene

ESD Component Organisator



Conductive Crates

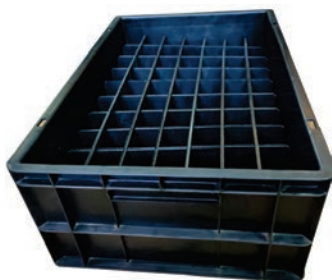


ESD Crate

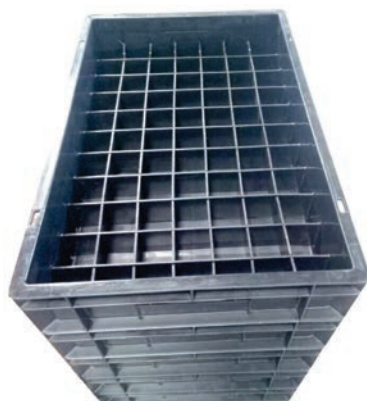


Slotted Crate Partitions

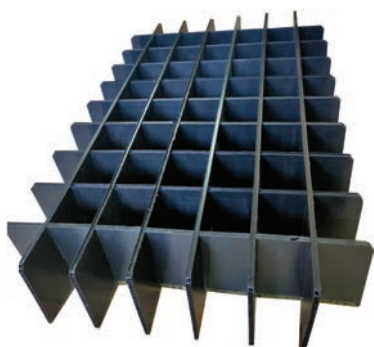
Welded Crate Partitions



ESD Crate with Adj-Partitions



ESD Crate with Partitions



ESD PP Corrugated Crate Partitions

STANDED SIZE ARE AVILABLE

600 X 400 X 80 MM
600 X 400 X 120 MM
600 X 400 X 150 MM
600 X 400 X 180 MM
400 X 300 X 120 MM
400 X 300 X 175 MM

Other Size Available on Request



Fume Extractors



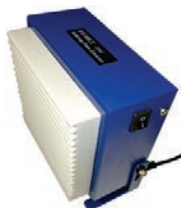
Fume Extractor - F6001D



Fume Extractor - F6002



Fume Absorber



FUMEX - SOLDERING FUME ABSORBER Z101

Ionisor



Tabletop Ionisor



2 Fan Ionisor



3 Fan Ionisor



Passive Static
Discharge Brushes



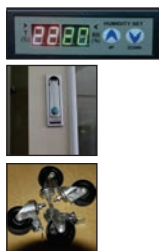
Bar Type Ionisor



Ion Air Gun



Dry Cabinet



Dry Cabinet / Humidity Chamber
Available in Various Sizes



with ESD
Meter

ESD Turnstile System

Screw Driver



Electric Screw Driver
Model BSD - 101



Screwdriver Bits



Spring Balancer

Solder Robots



Heating Power	150W
Input Voltage	AC 110V / 220V
Output Voltage	DC24V
Solder Wire Diameter	0.5, 0.6, 0.8, 1.0, 1.2 (mm)
Preheating Temp. Range	0°C~ 500°C
Weight	about 66kg
Operating range (X * Y * Z)	400 x 400 x 100mm
Dimensions: (L * D * H)	720 x 700 x 810mm
Axis	4

SMD Counter



Power Source	Universal voltage AC110-220V, 50Hz, 400W
Counting Scope	99999-99999 PCS
Dimensions	350L x 774W x 184Hmm
Weight	10Kg



PCB Separator



Power Supply	110V / 220V AC 60Hz / 50Hz
Max. Cutting Length	460mm
Cutting Speed Setting	300mm/s to 600mm/s
PCB Thickness	0.6mm-2.5mm
Dimensions	L755 x W520 x H455(mm)
Weight	56kg



Hand Held Auto Feeding Screwing Device

Screwing Speed	0.5 - 1.0 Second / 1 pcs
Screw Feeding Speed	80 - 120 pcs / sec.
Suitable Screws	M1.4 - M 4.0
Weight of S. F. Device	150 gms

Visual Inspection Systems

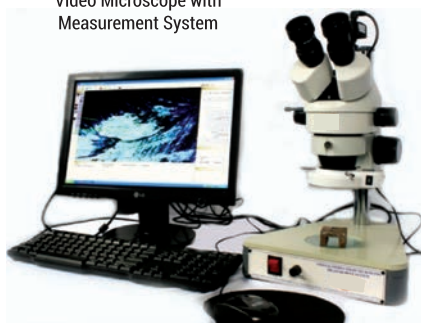
Binocular Microscope



Visual Inspection and Measurement Systems



Video Microscope with Measurement System



22 Mini Magnifiers (4X)



ESD Illuminated Magnifiers (4X & 10X)



LED Magnifiers



Our Projects





OUR VALUED CUSTOMERS



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