

Bench / Floor Matting	4-9	
Personal Grounding	10-13	
Footwear / Garments / Gloves	14-17	
Earthing	18-19	
Bags / Foam	20-23	
Storage / Handling / Corstat	24-35	
Cleaning / Brushes / Waste Handling	36-39	
Office / Labels / Signs	40-43	
Ionizers	44-45	
Chairs / Work Benches	46-49	
Test Instruments	50-53	
Handtools	54-57	
Field Service	58	
Training	59	

These digital images can be scanned with a smartphone which will take you to our website for further information.

QR codes.



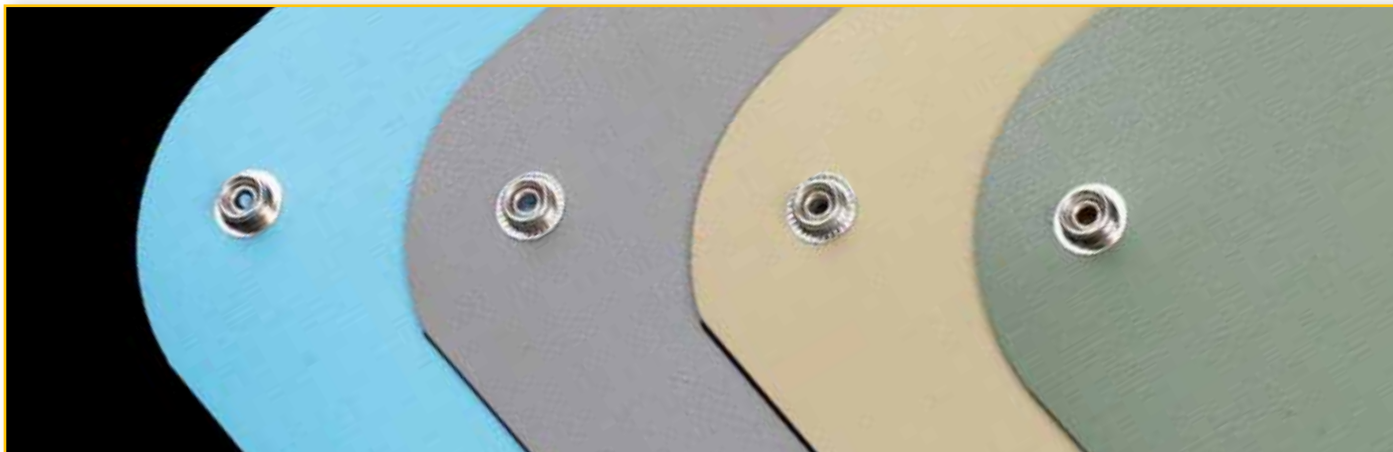
Disclaimer

Bondline aims to ensure that all products in this catalogue comply with the requirements of BS EN-61340-5. We believe that all information within this catalogue including technical data, weights and sizes to be reliable. Items are subject to change and may not be exactly as shown in our images. We make no warranties expressed or implied and assume no liability regarding any use of this information. All products listed are subject to our general conditions of sale and payment terms. These can be viewed in full at www.bondline.co.uk



BENCH MATTING

Durable 2-layer synthetic rubber bench material is resistant to solder splash and abrasion. The top layer is static dissipative with a conductive backing giving a typical resistance to ground = $10^6 - 10^8$ ohms. The smooth surface allows easy cleaning. Material is 2mm thick and maximum roll size is 1.2 metres wide and 10 metres long. Custom sizes available to suit any requirements. Available in Blue, Grey, Beige and Green. (Please specify).



- KSMLF4** Full roll. Size 1200mm x 10 metres long.
- KSMLF2** Full roll. Size 600mm x 10 metres long.
- KSMLF32** Standard mat. Size 900mm x 600mm (3ft x 2ft) with 10mm stud in each corner.
- KSMLF42** Standard mat. Size 1200mm x 600mm (4ft x 2ft) with 10mm stud in each corner.



All matting can be cut and studded to suit all customer requirements.

MAT STUD POSITION CHART



BLACK 2-LAYER SHELVING MATERIAL

This material is 1.5mm thick and has been specially developed for use in storage areas. It has a static dissipative surface with a conductive backing giving a typical resistance to ground of $10^6 - 10^7$ ohms.

Ref	Size
KSMBK1FT	0.40 metres wide x 10 metres long.
KSMBK2FT	0.61 metres wide x 10 metres long.
KSMBK4FT	1.22 metres wide x 10 metres long.

BLACK CONDUCTIVE MATERIAL

This conductive rubber material is 1.5mm thick. For general use in ESD protected areas.

Ref	Size
KSMBC4	1.2 metres wide x 10 metres long.
KSMBC2	0.6 metres wide x 10 metres long.

Cut mats available on request.



STATIC CONTROL WORKSTATIONS

Various static control workstations to suit individual requirements.

STATIC CONTROL WORKSTATION

Designed to give full static protection when handling static sensitive devices in a production or test environment. This work top kit includes a 1200mm x 600mm bench mat together with grounding cord, coil cord and wrist strap.

(Supplied with blue mat unless otherwise specified).

KSWKS2 Workstation.



WORKSTATION KITS

Complete work top kit includes a static dissipative 2-layer rubber bench mat with grounding cord, wrist strap, coil cord, grounding plug and ESD wall sign.

(Supplied with a blue mat unless otherwise specified).

Ref	Bench Mat Size
KSWKS3	900 x 600mm.
KSWKS4	1200 x 600mm.
KSWKS5	1500 x 600mm.
KSWKS6	1800 x 600mm.



FULL WORKSTATION KITS

This full workstation kit includes a static dissipative rubber bench mat, a static dissipative vinyl floor mat together with all grounding cords and a wrist strap. A rigid ESD awareness sign and an earth bonding plug are also included. (Standard floor mat is 1200 x 600mm).

(Supplied with blue bench mat unless otherwise specified).

Ref	Bench Mat Size
KSWKS7	1200 x 600mm.
KSWKS8	1500 x 600mm.



For sprays, see page 36

STUDDING KIT

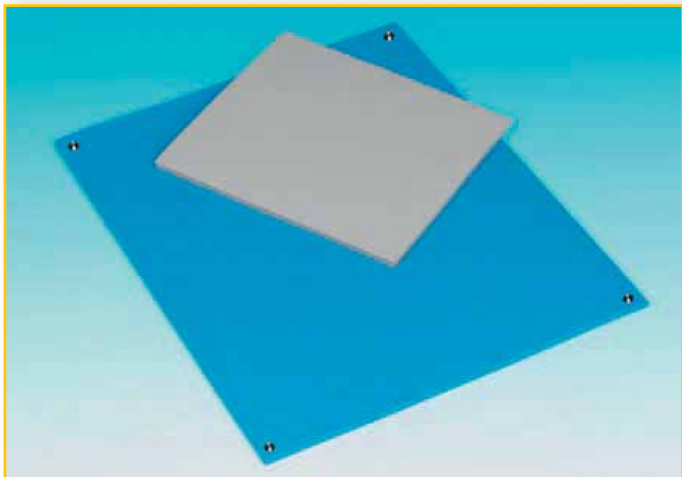
SKIT Kit for attaching studs to matting including hole punch, riveting tool and 100 x 10mm studs.

PS10 10mm studs. (Pack of 100).



ESD WORK MATS

Static control matting and work surface protection materials.

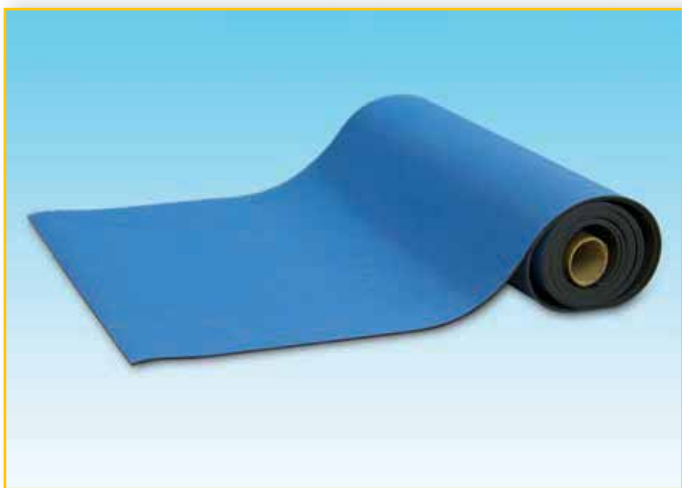


VINYL BENCH MATTING

Three layer static dissipative work surface matting. ($10^6 - 10^9$ ohms / square). (3mm thick). Can be supplied in any cut sizes. Available in blue or grey.

- VBLM10** Full roll. 1200mm wide x 15 metres long.
- VBLM42** Standard mat with 10mm stud in each corner. 4ft x 2ft (1200 x 600mm).

Cut mats available on request.

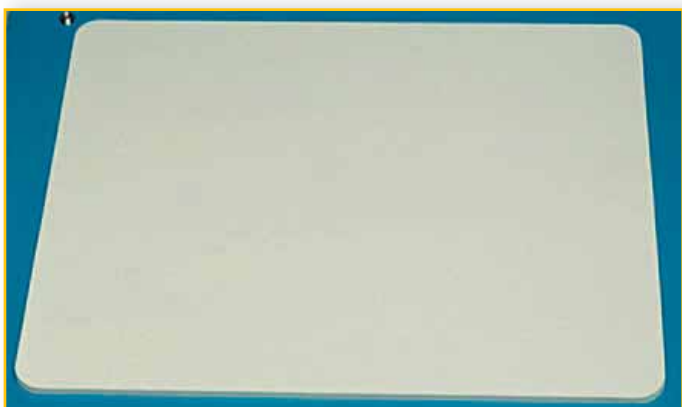


RUBBER 3 LAYER DARK BLUE ESD MATERIAL

Three layer matting with a conductive centre layer and static dissipative surface and backing.

- KS3LM410** Full roll. Size 1200mm wide x 10 metres long.
- KS3LM210** Full roll. Size 600mm wide x 10 metres long.
- KS3LM32** Standard mat. 900mm x 600mm.
- KS3LM42** Standard mat. 1200mm x 600mm.

Cut mats available on request.



CUSHION MATTING

Volume static dissipative cushion matting. Should be used in conjunction with grounded work surface. Offers a comfortable working surface which also helps reduce mechanical damage to electronic parts. Can be supplied on rolls or pre-cut sizes.

- CWM10** Full roll. 6mm thick. Grey. 1200mm wide x 10 metres long.
- CWMPK** Mats (Pack of 6). 6mm thick. Grey. 380mm x 450mm.



WORK AREA SAVERS

Rubber mats to protect bench coverings in the immediate working area from solder marking, scalpel damage or any other contaminants.

Size: 400 x 300mm.

Available in either blue, grey, green or beige (please specify).

- KSBSV** Bench savers. (Pack of 5)





FLOOR MATTING

RUBBER FLOOR MATTING

Durable static dissipative grey fleck rubber matting with a conductive backing which complies to DIN EN 61340-5-1. The smooth surface allows easy cleaning. Material is abrasion resistant and is suitable for chair castors.

Material is 2.5mm thick and maximum roll size is 1500mm wide and 10 metres long. Installation can be secured with double sided tape.

Custom sizes available to suit any requirement.

- BFM10** Full roll.
1500mm wide x 10 metres long.
- BFM42** Standard mat.
1200mm x 600mm with 2 x 10mm studs.
- BFM45** Standard mat.
1200mm x 1500mm with 2 x 10mm studs.
- BFM58** Standard mat.
1500mm x 2000mm with 2 x 10mm studs.

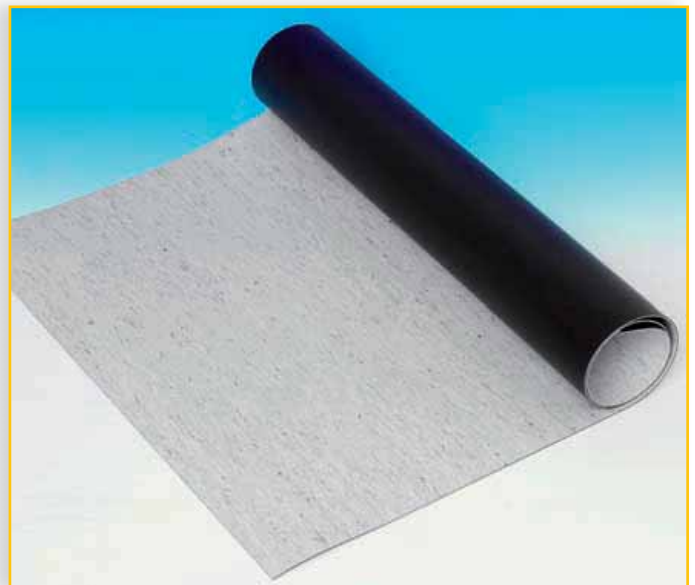


VINYL FLOOR MATTING

Durable 2-layer static dissipative grey fleck vinyl with a conductive backing which complies to DIN EN 61340-5-1. The smooth surface allows easy cleaning. Material is abrasion resistant and is suitable for chair castors.

Material is 2mm thick and maximum roll size is 1500mm wide and 10 metres long. Installation can be secured with double sided tape. Custom sizes available to suit any requirement.

- KSFM10** Full roll.
1500mm wide x 10 metres long.
- KSFM42** Standard mat.
1200mm x 600mm with 2 x 10mm studs.
- KSFM45** Standard mat.
1200mm x 1500mm with 2 x 10mm studs.
- KSFM58** Standard mat.
1500mm x 2000mm with 2 x 10mm studs.

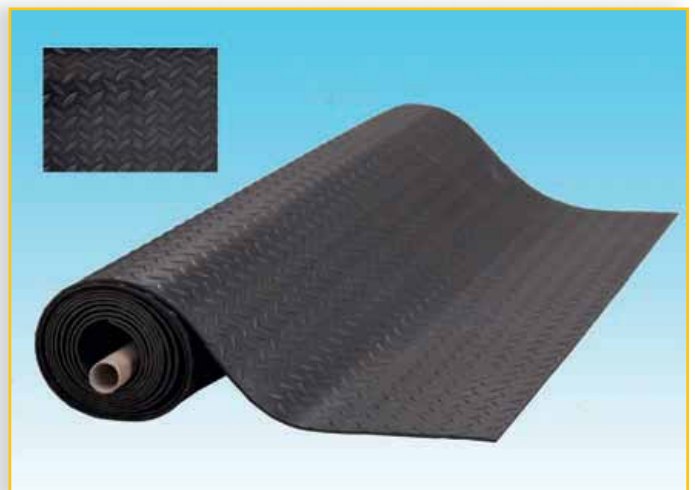


HEAVY DUTY ESD RUBBER MATTING

Heavy duty black ESD rubber matting for use in busy areas around machinery such as wave solder machines. This single layer material is highly durable and long lasting and has a non-slip surface finish. The surface layer is resistant to most oils and acids and is solder splash resistant. These mats are ideally suited to be used in conjunction with already grounded flooring.

Custom sizes available to suit any requirement.

- KSDIA10** 1200mm wide x 10 metres long. 4mm thick.
- KSDIAM** Per linear metre (1200mm wide).



ESD FLOORING SOLUTIONS



RUBBER ESD ANTI FATIGUE MATS

ESD anti fatigue matting can help prevent tiredness of the feet and back. These mats can also help reduce cramp, circulatory problems and general fatigue. They are manufactured from rubber which offers a tough, durable long lasting floor surface.

The surface working layer is resistant to most oils and acids, it is solder splash resistant and has a non-slip finish for user safety. The edges are tapered to avoid tripping. These mats are ideally suited to be used in conjunction with already grounded flooring.

Other sizes available on special request.

KSAFS	0.6 x 0.9 metres x 20mm thick
KSAFM	0.9 x 1.5 metres x 20mm thick



ANTI FATIGUE MATTING

Tough, long lasting static dissipating anti fatigue matting providing comfort underfoot. Surface resistivity is $10^6 - 10^9$ ohms / square and should be used in conjunction with already grounded flooring.

AFS	0.9 x 0.6 metres. 9mm thick. Grey.
AFM	0.9 x 1.5 metres. 9mm thick. Grey.
AFL	0.9 x 18.3 metres. 9mm thick. Grey.



CONTAMINATION CONTROL MATS

A very economical solution to contamination control. The surface adhesive captures dirt and dust particles from shoes or trolley wheels. The adhesive backed pads stick directly to floor surface. Each pad has 30 disposable layers. Size 460mm wide x 1170mm long.

Standard colour is white.

FSTEP30	Pack of 4 pads with 30 layers.
FSTEP830	Pack of 8 pads with 30 layers.



STATIC DISSIPATIVE VINYL FLOORING

Permanent static dissipative tiles are laid onto a highly conductive adhesive. (Material can be supply only or can be fully fitted and certified by our highly trained experienced personnel). There is a carbon element fused into the tile giving permanent electrical properties which are independent of humidity. The tiles are pressed not calendered to give an extremely hard wearing and stable material. The tiles are micro-squared to eliminate the need for seam welding which reduces the cost of the installation.

Also available in sheet format.



FLOOR TREATMENTS AND CLEANERS

For cleaning and maintenance of ESD flooring.

FLOOR TREATMENTS

These water based non-hazardous materials can be used on vinyl, linoleum and ceramic tiles to generate a reliable ESD surface finish that meets ANSI 20.20 ESDA requirements.

For more information on each product, see page 37.



KILLSTAT FLOOR CLEANER

A dedicated ESD floor cleaner for vinyl and rubber flooring materials. Specially formulated for effective cleaning and long term static control.

Covers approx. 100 sq. metres.

KSFCGAL 4.54 litres. (1 gallon).



FLOOR MARKING TAPES

Self adhesive floor marking tapes for identification and awareness of electrostatic protected areas.

- 1 **FMT33** PVC awareness tape. 50mm wide x 66 metres long.
- 2 **FT2** Heavy duty tape with paper backing. 75mm wide x 33 metres long.
- 3 **HT1** Striped hazard tape. 50mm wide x 33 metres long.



ROUND SIGNS FOR WALL, DOOR OR FLOOR MOUNTING

All signs are 300mm in diameter, self adhesive and supplied with a non-slip clear covering.



SESDRD ESD Sign.



SENTRD Entering EPA.



SLVGRD Leaving EPA.





WRIST STRAPS

The conductive woven fibres are silver for maximum conductivity and minimum skin irritation. The metal back plate is made of hypo-allergenic jewellery grade stainless steel as standard to prevent any metal allergy problems. All wrist straps can be supplied with 10mm / 7mm / 4mm studs.



PREMIUM HIGH COMFORT WRIST STRAPS

Wrist strap is woven and has curved buckle for added comfort. Double thickness material ensures outer layer insulation for complete operator safety.

HCA10 Fully adjustable fabric wrist strap. 10mm stud. Blue.

HCA10AA Anti allergy wrist strap with plastic backing plate to avoid any metal contact with the skin. 10mm stud. Blue.



CROCHETED WRIST STRAPS

Crocheted lightweight design for maximum skin contact and comfort.

CA10 Fully adjustable fabric wrist strap. 10mm stud. Dark blue.

CA10AA Anti allergy version. 10mm stud. Dark blue. Adjustable wrist strap with slip ring adjustment. This unique design allows option of 360° fabric contact ensuring no metal contact with the skin.



ADJUSTABLE STAINLESS STEEL WRIST STRAPS

Made from hypo-allergenic jewellery grade stainless steel. Size adjustment is made by adding or removing anti static plastic links.

ERG10A Stainless steel wrist strap. 10mm stud. Blue.

ERG10ABL Stainless steel wrist strap. 10mm stud. Black.



DISPOSABLE WRIST STRAP

Single use wrist strap with self adhesive grounding pad.

DWS7 Wrist strap - 1 metre working length.





CORDS

Standard coil cords are 1.8 metres long (6 ft) with dual moulding on terminations for maximum strain relief. All snaps have a 1 meg-ohm safety resistor. (Unless otherwise specified).

PREMIUM COIL CORDS



10mm snap both ends.

- CCS10** 1.8 metres long. (6ft).
- CCS1012** 3.6 metres long. (12ft).

PREMIUM COIL CORDS



10mm snap to jack / crocodile clip.

- CCJ10** 1.8 metres long. (6ft).
- CCJ1012** 3.6 metres long. (12ft).

STRAIGHT GROUNDING LEADS



All straight leads are 3 metres (10ft) long as standard.

- SCJ10** 10mm snap to jack / croc clip.
- SCS10** 10mm snap both ends.
- SCE10** 10mm snap to moulded eyelet for permanent fixing.

All premium products can also be supplied with 7mm or 4mm snap / stud sizes.

GROUND CORD

This 4.5 metre (15ft) ground cord has 4mm jack at one end and a 10mm snap and 2 banana sockets at the other end.

- CPGVJ** Ground cord. Black.



ACCESSORIES

- 1 BG** Bananagator.
- 2 AS10** Adaptor snap.
- 3 SS10** Stack snap.
- 4 TLUG** Terminal lug.



LINK CORD

Short cord is 230mm long (9") with 10mm snap both ends.

- SCS109** Link cord. Blue.



FLAT MOULDED GROUND CORD

Ideal for grounding floor mats. 3 metres long (10ft). 1 meg-ohm resistor. Eyelet termination.

- SCFE** Ground cord. Black.



UNIVERSAL GROUNDING CORD

This all purpose ground cord is supplied with a jack plug, crocodile clip, stack snap and terminal lug for grounding in any situation.

- SCJCL** Universal grounding cord. 3 metres long. Blue.



LIGHTWEIGHT COIL CORDS

Standard cord is 1.8 metres long. (6 ft).

- CCJ10SM** 10mm snap to jack crocodile clip. Dark blue.
- CCS10SM** 10mm snap both ends. Dark blue.





FOOT GROUNDING PRODUCTS

All grounding products are manufactured to the very highest quality to ensure high comfort and long life.

PREMIUM HEEL STRAPS

All heel straps are produced using a soft 2 layer rubber material. (Black conductive on the outside and white on the inside to avoid any shoe marking). All have 1 meg-ohm safety resistor as standard.



Velcro fastening (D-ring).



Quick release.

HS2 Adjustable non-marking heel strap. (Velcro fastening).

HS2XL Extra large. (Velcro fastening).

HS2QR Quick release. This has a simple plastic clip and has been designed to provide maximum comfort and ease of fitting. (No velcro fastening).



DOUBLE RUBBER HEEL STRAP

Versatile heel strap with 1 meg-ohm safety resistor. This heel strap has double rubber grounding strip for long life.

HS2DR Heel strap. (Velcro fastening).



SINGLE RUBBER HEEL STRAP

Adjustable heel strap with 1 meg-ohm safety resistor. This heel strap is elasticated for added comfort.

HS5 Heel strap. Red. (Velcro fastening).



TOE GROUNTERS

TG2

Elasticated non-marking toe grounder incorporating a 1 meg-ohm safety resistor. Fully adjustable. (Velcro fastening).



RE-USABLE HEEL STRAP

Heel strap has detachable grounding ribbons which can be discarded or washed after one-off use. The heel strap can then be used again and again. This unique strap has a 1 meg-ohm safety resistor.

HS3

Re-usable heel strap. Blue. (Does not include grounding ribbons).

DCR50

Disposable conductive ribbons. (Pack of 50). Blue.



DISPOSABLE HEEL STRAPS

Black and yellow disposable heel straps ideal for visitors and short term use.

HS4VS

Heel straps. (Pack of 100).

BPHS

Conductive plastic wall dispenser.



ESD OVERSHOES

Clean room overshoe with conductive grounding ribbon. (One size fits all).

OVSH

Overshoe. (Pack of 100). Blue.





ESD FOOTWEAR

We offer a comprehensive range of high quality footwear for personnel grounding, a few of which are shown here. For primary grounding these shoes should be used in conjunction with suitable static dissipative flooring. All footwear are anti-slip, available in multiple sizes and in various colours.

Please contact us for a complete list of our range.

CLOGS



TRAINERS



GENERAL SHOES



SANDALS



BOOTS



OFFICE SHOES



Electro Static Discharge

Shoes are classed as ESD shoes when the on-state resistance value of the system, person, shoe or floor is under 3.5×10^7 or 35 meg-ohm according to EN 61340-5-1 (verification).

The qualification of the shoes is made depending on three following climate classifications:

- 15% relative humidity
- 25% relative humidity
- 50% relative humidity

according to EN 61340-4-3 $< 10^8$ Ohm.

Attention should be paid to the different procedures of both test methods:

- EN 61340-5-1 human being in the shoes on a metal plate or the floor used.
- EN 61340-4-3 metal balls in the shoe on a metal plate

Shoes used for primary grounding in ESD protection must be selected in combination with the floor covering to be used so that the combined resistance to ground (Rg) is in the required range.

An extensive range of safety shoes and more styles are available.

See the workbenches and storage section on page 49 for our personal storage cupboard.





ESD GLOVES

High quality range of gloves to suit manufacturing requirements.

ESD GLOVES WITH DOTTED FINGERS AND PALMS

These ESD gloves have a dotted coating on the fingers and palm which provides a non-slip surface for added grip.

These gloves are manufactured with a lint free polyester fabric. For use in ESD protected areas.

- KSGPS** ESD gloves small (pair).
- KSGPM** ESD gloves medium (pair).
- KSGPL** ESD gloves large (pair).
- KSGPXL** ESD gloves extra large (pair).



PLAIN ESD GLOVES

These ESD gloves are manufactured with a lint free polyester fabric. For use in ESD protected areas.

- KSGLS** ESD gloves small (pair).
- KSGLM** ESD gloves medium (pair).
- KSGLL** ESD gloves large (pair).
- KSGLXL** ESD gloves extra large (pair).



ESD GLOVES



With polyurethane coated finger tips.

- GTS** Small size (pair).
- GTM** Medium size (pair).
- GTL** Large size (pair).

ANTI STATIC GLOVES



Anti static polyethylene gloves for handling static sensitive devices. Supplied in packs of 100. (Suitable for left or right hands).

- KS100S** Small size.
- KS100L** Large size.

RE-USABLE ESD CAP



This re-usable cap is made of a static dissipative polyester fabric.

- CAP8761** One size - fits all.





ESD LAB COATS

These garments are manufactured using a static dissipative material for use in ESD protected areas. The fabric is constructed using 65% polyester, 32% cotton and 3% conductive yarn. They are lightweight, comfortable and have 3 pockets. An ESD symbol is on the breast pocket only. They are machine washable up to 60°C and are available in white or blue.

White Ref	Blue Ref	Size
KSGWS	KSGBS	Small
KSGWM	KSGBM	Medium
KSGWL	KSGBL	Large
KSGWXL	KSGBXL	X Large
KSGWXXL	KSGBXXL	XX Large
KSGWXXXL	KSGBXXXL	XXX Large

Custom logos and embroidery available on request.

Size Chart	Inches	Centimetres
Small	43	109
Medium	45	114
Large	47	119
X Large	49	124
XX Large	53	134
XXX Large	56	142

All dimensions represent garment chest sizes for both lab coats and lab jackets (below). Allow a tolerance of +/- 0.5 inch (13mm)



ESD LAB JACKETS

Manufactured using a static dissipative material for use in ESD protected areas. The fabric is constructed using 65% polyester, 32% cotton and 3% conductive yarn. They are lightweight, comfortable and have 3 pockets. An ESD symbol is on the breast pocket only. They are machine washable up to 60°C and are available in white or blue.

White Ref	Blue Ref	Size
KSJWS	KSJBS	Small
KSJWM	KSJBM	Medium
KSJWL	KSJBL	Large
KSJWXL	KSJBXL	X Large
KSJWXXL	KSJBXXL	XX Large
KSJWXXXL	KSJBXXXL	XXX Large

Custom logos and embroidery available on request.





ESD POLO SHIRTS

Manufactured from static dissipative material for use in ESD protected areas.

BLUE: 47% polyester, 50% cotton and 3% carbon coated yarn.

GREY: 8% polyester, 89% cotton and 3% carbon coated yarn.

These polo shirts are lightweight, comfortable and have a breast pocket with the ESD symbol.

Machine washable up to 40°C.

They can be supplied with long or short sleeves.

Available in S/M/L/XL/XXL/XXXL/XXXXL
(Please specify).

WW2625GS Grey. Short sleeves.

WW2627BS Blue. Short sleeves.

WW2647BL Blue. Long sleeves.

Custom logos and embroidery available on request.



ESD T-SHIRTS

Manufactured from static dissipative fabric for use in ESD protected areas.

BLUE: 97% cotton and 3% carbon coated yarn.

GREY: 88% cotton, 9% polyester and 3% carbon coated yarn.

These T-shirts are lightweight, comfortable and have the ESD symbol on the arm.

Machine washable up to 40°C.

Available in S/M/L/XL/XXL/XXXL/XXXXL
(Please specify).

WW2655G Grey T-shirt.

WW2657B Blue T-shirt.

Custom logos and embroidery available on request.





EARTH BONDING PLUGS

Earth bonding plugs can be supplied with any combination of 10mm studs, 7mm studs, 4mm studs, banana sockets, shrouded banana sockets and reverse banana sockets to suit any requirements. These plugs offer a simple and easy method of grounding.

ALL PLUGS CAN BE MADE WITH OTHER RESISTANCE VALUES ON REQUEST



With 1 x 10mm stud.
NO RESISTOR.

BP UK plug.



With 1 x M5 post.
1 meg-ohm resistor.

BP1M5 UK plug.
BP1M5EU Euro plug.



With 1 x 10mm stud.
1 meg-ohm resistor.

BPR UK plug.
BPE Euro plug.



With 3 x 10mm studs.
1 meg-ohm resistor.

BP3 UK plug.
BP3EU Euro plug.



With 2 x 10mm studs and 1 x M5 post.
1 meg-ohm resistor.

BP210M5 UK plug.
BP210M5EU Euro plug.



With 3 x 7mm studs.
1 meg-ohm resistor.

BP37EU Euro plug.



With 1 x 10mm stud, 1 x 7mm stud and
1 x banana socket. 1 meg-ohm resistor.

BP3S UK plug.
BP3SEU Euro plug.



With 3 x shrouded safety banana
sockets. 1 meg-ohm resistor.

BP3SBEU Euro plug.



With 1 x 10mm stud and 2 x banana
sockets. 1 meg-ohm resistor.

BP2J UK plug.
BP2JEU Euro plug.



With 2 x shrouded safety banana
sockets. 1 meg-ohm resistor.

BP2SBEU Euro plug.

Side profile showing insulated live and neutral pins.



Standard UK plug.



Standard Euro plug.

Custom printing and configurations available on request.





EARTH BONDING POINTS

Designed and manufactured to fit under the work bench to provide a simple yet effective ESD grounding point. All connections have an individual 1 meg-ohm safety resistor as standard. (3 resistors per bonding point). Standard leads are 2 metres long with eyelet termination. Earth bonding points are supplied with fixing screws and shake proof washers.

**SPECIAL PRINTING
AVAILABLE ON REQUEST**



L-shaped bracket with 3 x 10mm studs.

LSBS



L-shaped bracket with 3 x banana sockets.

LSBJ



L-shaped bracket with 1 x 10mm stud and 2 x banana sockets.

LSB2J



L-shaped bracket with 2 x 10mm studs and 1 x banana socket.

LSB210



L-shaped bracket with 3 x shrouded safety banana sockets.

LSBSB



L-shaped bracket with 1 x 7mm stud, 1 x 10mm stud and 1 x banana socket.

LSB7J10



L-shaped bracket with 3 x reverse banana sockets.

LSBRB



Earth facility brackets.
NO RESISTOR.

EFB1 M5 post.
EFB10 10mm stud.

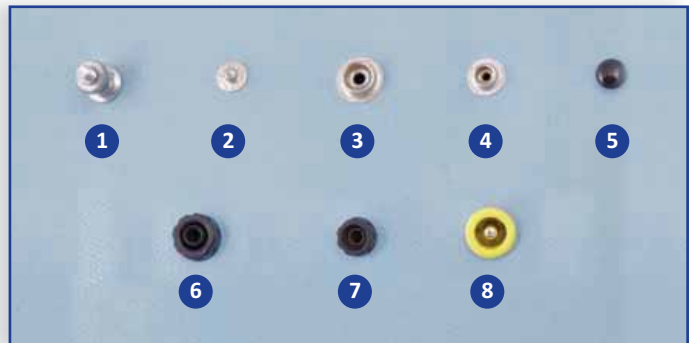


Earthing point with 10mm stud.
NO RESISTOR.

ESDBP

Earth bonding points and plugs can be manufactured using any combination of the following.

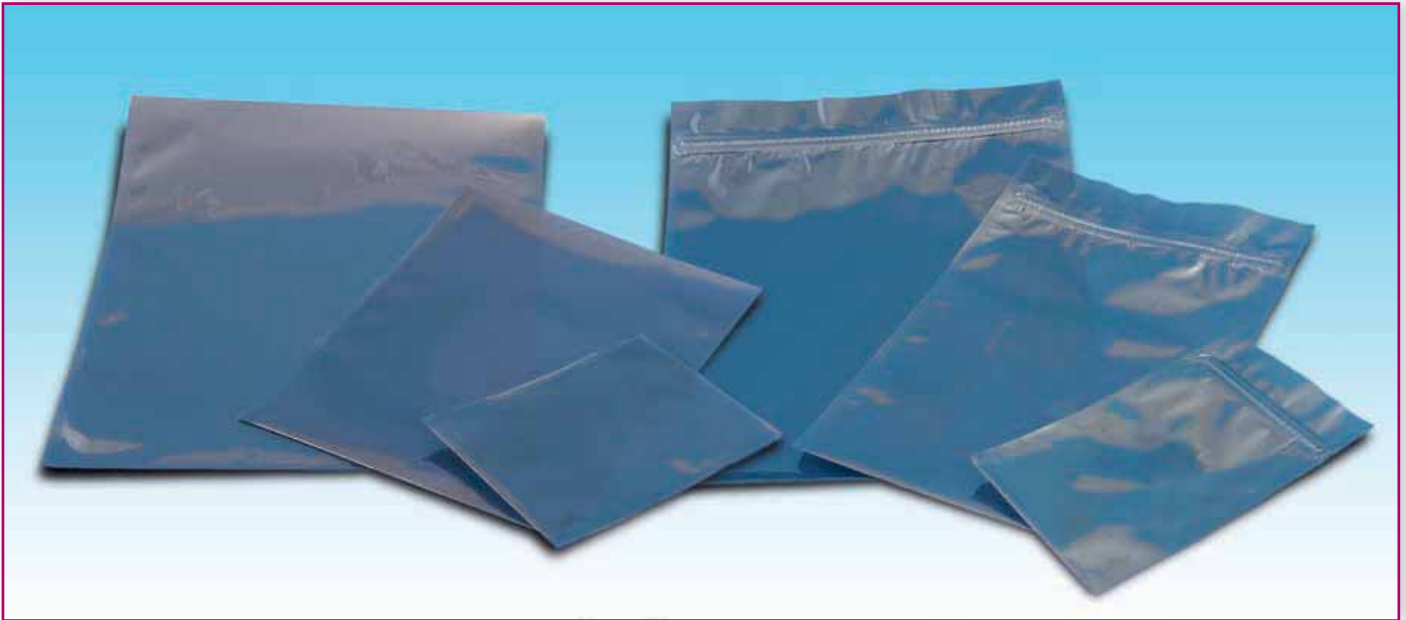
1 M5 post.	6 Safety banana socket.
2 4mm stud.	7 Black banana socket.
3 10mm stud.	8 Reverse banana socket.
4 7mm stud.	
5 Hole blank.	





STATIC SHIELDING BAGS

Transparent metalised shielding bags provide a complete static safe environment for the safe storage and transportation of static sensitive devices and printed circuit boards ensuring easy identification. (Faraday cage).



OPEN TOP BAG - STANDARD SIZES (Packs of 100).

Ref	Size (inches)	Size (mm)
MB23	2" x 3"	50 x 76mm
MB26	2" x 6"	50 x 152mm
MB33	3" x 3"	76 x 76mm
MB35	3" x 5"	76 x 127mm
MB46	4" x 6"	102 x 152mm
MB424	4" x 24"	102 x 610mm
MB426	4" x 26"	102 x 660mm
MB430	4" x 30"	102 x 762mm
MB58	5" x 8"	127 x 203mm
MB68	6" x 8"	152 x 203mm
MB610	6" x 10"	152 x 254mm
MB612	6" x 12"	152 x 305mm
MB616	6" x 16"	152 x 406mm
MB626	6" x 26"	152 x 660mm
MB630	6" x 30"	152 x 762mm
MB716	7" x 16"	178 x 406mm
MB810	8" x 10"	203 x 254mm
MB812	8" x 12"	203 x 305mm
MB816	8" x 16"	203 x 406mm
MB1012	10" x 12"	254 x 305mm
MB1014	10" x 14"	254 x 355mm
MB1024	10" x 24"	254 x 610mm
MB1030	10" x 30"	254 x 762mm
MB1216	12" x 16"	305 x 406mm
MB1218	12" x 18"	305 x 457mm
MB1418	14" x 18"	355 x 457mm
MB1618	16" x 18"	406 x 457mm
MB1818	18" x 18"	457 x 457mm
MB1824	18" x 24"	457 x 610mm
MB2424	24" x 24"	610 x 610mm
MB2430	24" x 30"	610 x 762mm

LOC-TOP RESEALABLE - STANDARD SIZES (Packs of 100).

Ref	Size (inches)	Size (mm)
LTM23	2" x 3"	50 x 76mm
LTM33	3" x 3"	76 x 76mm
LTM35	3" x 5"	76 x 127mm
LTM46	4" x 6"	102 x 152mm
LTM58	5" x 8"	127 x 203mm
LTM510	5" x 10"	127 x 254mm
LTM68	6" x 8"	152 x 203mm
LTM610	6" x 10"	152 x 254mm
LTM810	8" x 10"	203 x 254mm
LTM812	8" x 12"	203 x 305mm
LTM1012	10" x 12"	254 x 305mm
LTM1014	10" x 14"	254 x 355mm
LTM1216	12" x 16"	305 x 406mm
LTM1218	12" x 18"	305 x 457mm
LTM1418	14" x 18"	355 x 457mm
LTM1818	18" x 18"	457 x 457mm

Other sizes available on request.



SPECIALISED FLEXIBLE PACKAGING

HIGH SHIELD CUSHION POUCHES

Manufactured from three layer metalised cushion material which is heat sealable. Gives full ESD protection for delicate assemblies. All pouches have a 50mm fold over flap.



Ref	Size (mm)	Pouches per box
MBCP46	102 x 152mm	500
MBCP58	127 x 203mm	250
MBCP69	152 x 229mm	250
MBCP810	203 x 254mm	250
MBCP1012	254 x 305mm	250

MOISTURE BARRIER BAGS

Strong, lightweight, ESD barrier bags meet the requirements of EIA583, EIA541, EIA625 and MIL-B-81705C. (Packs of 100).



Other sizes available on request

Ref	Size (inches)	Size (mm)
MOI630	6" x 30"	152 x 762mm
MOI1012	10" x 12"	254 x 305mm
MOI1020	10" x 20"	254 x 508mm
MOI1024	10" x 24"	254 x 610mm
MOI1218	12" x 18"	305 x 457mm
MOI1618	16" x 18"	406 x 457mm
MOI1820	18" x 20"	457 x 508mm

COBALT DICHLORIDE FREE HUMIDITY INDICATOR CARDS.

Humidity indicator cards are used to determine if products have been exposed to moisture above recommended storage levels.

The humidity indicator cards conform to IPC/JEDEC 033 Std and being cobalt dichloride free they meet ROHS, REACH and WEE directive regarding hazardous substances.



CDFHIC3

Three spot. 5% 10% 60% RH.
125 cards/can.

CDFHIC4

Four spot. 10% 20% 30% 40% RH.
125 cards/can.

CDFHIC6

Six spot. 10% 20% 30% 40% 50% 60% RH.
250 cards/can.

ACTIVATED CLAY (BENTONITE) DESICCANT BAGS.

A desiccant is a hydrating agent which attracts moisture from the atmosphere. It absorbs and holds particles of water to itself. For maximum effectiveness desiccants should be used within a closed/sealed moisture barrier bag. Activated clay is environmentally friendly as it is chemically inert and non-toxic which makes it safe to handle and therefore can be easily disposed of. The clay desiccants are packaged in clean room compatible, sulphur-free Tyvek bags for use in the electronic industry. Conforms to DIN 55 473 and MIL-D3464E.

1 unit = approx 35 grams of clay.



TYDES05

Half unit. (Pack of 1000).

TYDES1

One unit. (Pack of 500).

TYDES2

Two unit. (Pack of 250).





PINK ANTI STATIC BAGS

Pink anti static bags are ideal for use in transporting non-static sensitive devices, (e.g. nuts, bolts etc.) into an EPA (Electrostatic Protected Area). Available in open top and loc-top resealable.



PINK OPEN TOP
STANDARD SIZES (Packs of 100).

Ref	Size (inches)	Size (mm)
PB35	3" x 5"	76 x 127mm
PB46	4" x 6"	102 x 152mm
PB58	5" x 8"	127 x 203mm
PB68	6" x 8"	152 x 203mm
PB610	6" x 10"	152 x 254mm
PB810	8" x 10"	203 x 254mm
PB812	8" x 12"	203 x 305mm
PB1012	10" x 12"	254 x 305mm
PB1014	10" x 14"	254 x 355mm
PB1214	12" x 14"	305 x 355mm
PB1216	12" x 16"	305 x 406mm
PB1218	12" x 18"	305 x 457mm
PB1416	14" x 16"	355 x 406mm
PB1618	16" x 18"	406 x 457mm
PB1620	16" x 20"	406 x 508mm
PB1824	18" x 24"	457 x 610mm

PINK LOC-TOP RESEALABLE
STANDARD SIZES (with write on panels) (Packs of 100).

Ref	Size (inches)	Size (mm)
LTP35	3" x 5"	76 x 127mm
LTP46	4" x 6"	102 x 152mm
LTP58	5" x 8"	127 x 203mm
LTP610	6" x 10"	152 x 254mm
LTP810	8" x 10"	203 x 254mm
LTP812	8" x 12"	203 x 305mm
LTP1012	10" x 12"	254 x 305mm
LTP1014	10" x 14"	254 x 355mm
LTP1216	12" x 16"	305 x 406mm
LTP1218	12" x 18"	305 x 457mm
LTP1820	18" x 20"	457 x 508mm

Other sizes available on request.



For anti static tape
see page 41.



For labels
see page 42.

Lay flat tubing and centre folding sheets of various widths are available on request. Shielding films are available in various widths on rolls up to 210 metres long. Other high quality ultra clean flexible packaging products and films are available for specialised clean room (up to class 100) Semiconductor, disc drive, credit card and medical industries.

ESD Cling films are also available for specialised packaging.



**LOW DENSITY
CONDUCTIVE FOAM**

Foam can be supplied in any size to suit numerous packaging requirements. Foam can easily be shaped or stamped to accommodate the most demanding criteria. Meets TS10218. (Non-corrosive).

Ref	Standard Size
BLD6	1 metre x 1 metre x 6mm.
BLD10	1 metre x 1 metre x 10mm.
BLD3200	255 x 155 x 10mm.
BLD4300	355 x 255 x 10mm.
BLD6400	555 x 355 x 10mm.
BLD8600	755 x 555 x 10mm.

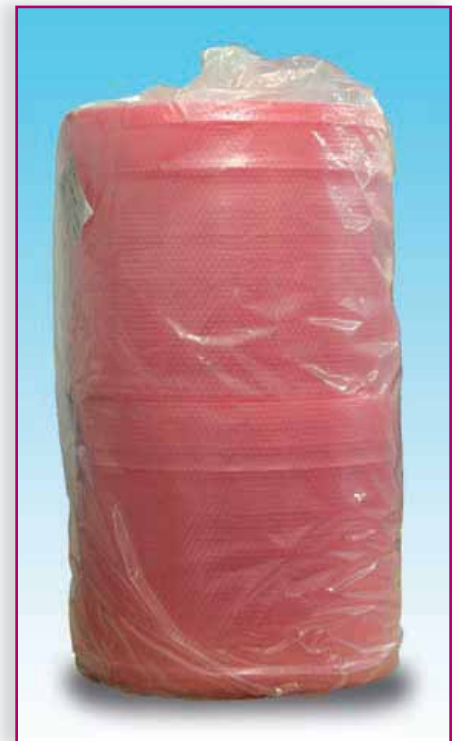


**HIGH DENSITY
CONDUCTIVE FOAM**

High density component insertion foam. Meets TS10218. (Non-corrosive).

Ref	Standard Size
BHD6	1 metre x 1 metre x 6mm.
BHD10	1 metre x 1 metre x 10mm.

(To avoid damage/crushing, 1 square metre is supplied in 4 pieces, each is 0.5 metre square).



ANTI STATIC BUBBLE WRAP

Anti static (low charging) bubble wrap can be supplied in roll form or made up into bags of many different sizes.

Ref	Size
ASBW	One roll. 1500mm wide x 10 metres long.
ASBW2	Slit two rolls. 750mm wide x 10 metres long.
ASBW3	Slit three rolls. 500mm wide x 10 metres long.

PINK BUBBLE BAGS



Pink anti static bubble bags. Many sizes available on request.

PINK ANTI STATIC FOAM



Pink anti static foam is available in rigid high density or soft low density for the safe packing / transportation of static sensitive devices.



BLACK FAMI EURO STACKING CONDUCTIVE CONTAINERS

Stackable conductive containers with option of hinged lid. A high quality comprehensive range of injection moulded conductive plastic containers providing the most ideal method of storing / transporting the most delicate and ESD sensitive products. All items are extremely strong and durable providing exceptional mechanical protection.



Internal dimensions are approximate.

Ref	Type	External Sizes (L x W x D)	Internal Sizes (L x W x D)
EL3212	Container.	300 x 200 x 120mm.	260 x 160 x 100mm.
EL3200	Lid.	300 x 200mm with standard lid catch.	
BLD3200	Conductive low density foam piece. 255 x 155 x 10mm thick. (For base or lid).		

Ref	Type	External Sizes (L x W x D)	Internal Sizes (L x W x D)
EL4305	Container.	400 x 300 x 55mm.	355 x 255 x 35mm.
EL4308	Container.	400 x 300 x 78mm.	355 x 255 x 58mm.
EL4312	Container.	400 x 300 x 120mm.	355 x 255 x 100mm.
EL4317	Container.	400 x 300 x 170mm.	355 x 255 x 150mm.
EL4322	Container.	400 x 300 x 220mm.	355 x 255 x 200mm.
EL4332	Container.	400 x 300 x 325mm.	355 x 255 x 305mm.
EL4300	Lid.	400 x 300mm with standard lid catch.	
BLD4300	Conductive low density foam piece. 355 x 255 x 10mm thick. (For base or lid).		

Ref	Type	External Sizes (L x W x D)	Internal Sizes (L x W x D)
EL6408	Container.	600 x 400 x 78mm.	555 x 355 x 60mm.
EL6412	Container.	600 x 400 x 120mm.	555 x 355 x 100mm.
EL6417	Container.	600 x 400 x 170mm.	555 x 355 x 150mm.
EL6422	Container.	600 x 400 x 220mm.	555 x 355 x 200mm.
EL6428	Container.	600 x 400 x 285mm.	555 x 355 x 260mm.
EL6432	Container.	600 x 400 x 325mm.	555 x 355 x 305mm.
EL6443	Container.	600 x 400 x 430mm.	555 x 355 x 415mm.
EL6400	Lid.	600 x 400mm with standard lid catch.	
BLD6400	Conductive low density foam piece. 555 x 355 x 10mm thick. (For base or lid).		

Ref	Type	External Sizes (L x W x D)	Internal Sizes (L x W x D)
EL8632	Container.	800 x 600 x 325mm.	755 x 555 x 295mm.
EL8643	Container.	800 x 600 x 430mm.	755 x 555 x 395mm.
EL8600	Lid.	800 x 600mm with standard lid catch.	
BLD8600	Conductive low density foam piece. 755 x 555 x 10mm thick. (For base or lid).		

Slide on lids available on request (800 x 600mm containers only).



RED STATIC DISSIPATIVE EURO STACKING CONTAINERS

These containers are made from permanent static dissipative polypropylene and are not dependant on humidity. They offer an alternative to the standard black colour and can be used to separate assemblies, piece parts or store rejects etc.



Internal dimensions are approximate.

Ref	Type	External Sizes (L x W x D)	Internal Sizes (L x W x D)
ELSD4317	Container.	400 x 300 x 170mm.	355 x 255 x 165mm.
ELSD4322	Container.	400 x 300 x 220mm.	355 x 255 x 217mm.
ELSD4300	Red lid.	400 x 300mm with standard lid catch.	

Ref	Type	External Sizes (L x W x D)	Internal Sizes (L x W x D)
ELSD6412	Container.	600 x 400 x 120mm.	555 x 355 x 115mm.
ELSD6417	Container.	600 x 400 x 170mm.	555 x 355 x 165mm.
ELSD6422	Container.	600 x 400 x 220mm.	555 x 355 x 215mm.
ELSD6400	Red lid.	600 x 400mm with standard lid catch.	

The above sizes are also available in yellow.



CONDUCTIVE STRAPPING

Material for packing in ESD areas. Conforms to MIL-PRF-81705D EIA541. Supplied on rolls 12mm wide x 1500 metres.

KSP0002 Conductive strapping. 0.6mm thick.



FAMI OPTIONAL ANCILLARY ITEMS



Conductive plastic label clips slide into side of container for easy identification.

- EL4306** For 4300 series. (Fits EL4317, EL4322 & EL4332).
- EL6406** For 6400 series. (Fits EL6417 & EL6432).



Simple stainless steel label clip.

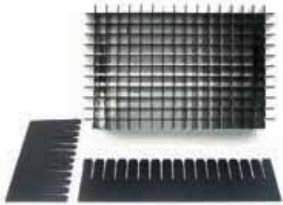
- EL6404** Clips.



Standard lid catch.

- EL6403** Catch.

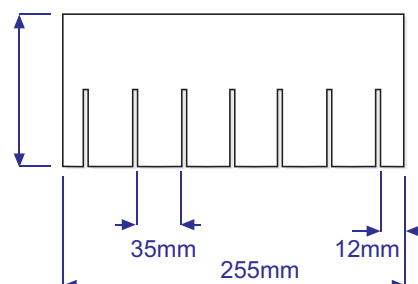
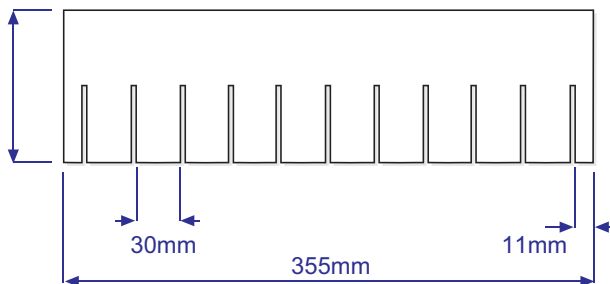
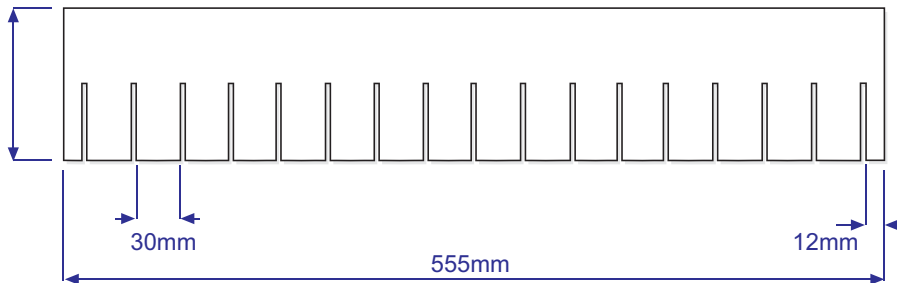
Conductive divider sets can be custom made to suit any special requirements. Other conductive foam sizes and thickness is available on request.



STANDARD EURO CONTAINER DIVIDER SETS

Manufactured from conductive corriplast to give strong ESD safe dividers to produce a network of cells to suit most applications.

Ref	Dimensions	Description	Ref	Dimensions	Description
SP55550	50 x 555 x 3mm.	17 slots 30mm spacing.	SP555140	140 x 555 x 3mm.	17 slots 30mm spacing.
SP35550	50 x 355 x 3mm.	11 slots 27mm spacing.	SP355140	140 x 355 x 3mm.	11 slots 27mm spacing.
SP25550	50 x 255 x 3mm.	7 slots 30mm spacing.	SP255140	140 x 255 x 3mm.	7 slots 30mm spacing.
SP55590	90 x 555 x 3mm.	17 slots 30mm spacing.	SP555190	190 x 555 x 3mm.	17 slots 30mm spacing.
SP35590	90 x 355 x 3mm.	11 slots 27mm spacing.	SP355190	190 x 355 x 3mm.	11 slots 27mm spacing.
SP25590	90 x 255 x 3mm.	7 slots 30mm spacing.	SP255190	190 x 255 x 3mm.	7 slots 30mm spacing.



CONDUCTIVE CORRIPLAST LAYER PADS

Allows easy stacking of divider sets.

Ref	Dimensions	Description
SP5535	550 x 350 x 3mm.	Layer pad.
SP3525	350 x 250 x 3mm.	Layer pad.



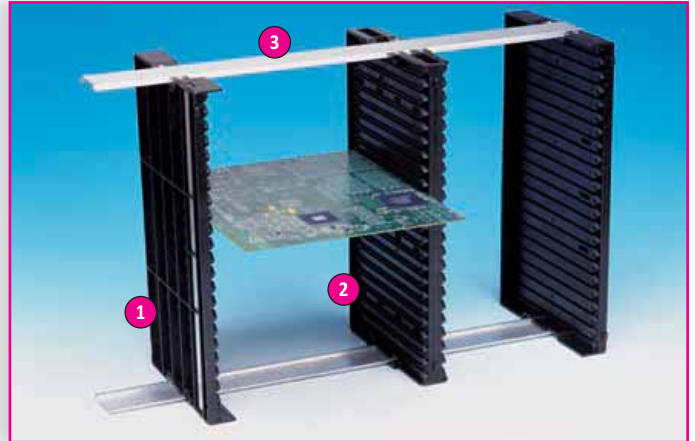
FAMI CONDUCTIVE CARD CARRYING FRAMES

Simple yet very efficient method of storage/transportation of printed circuit boards. Frames are fully adjustable and extremely versatile as they can be used in a vertical, horizontal or flat position. They are made up of 2 end walls located on aluminium rails with the option of a central divider for added capability. The assembled racks will fit perfectly in to a standard euro container.

FAMI TYPICAL LARGE RACK

A typical large rack is made up of two end walls and a pair of rails.

- 1 EL41** Conductive end wall. 350 x 190 x 30mm.
- 2 EL42** Conductive centre (optional). 350 x 190 x 35mm.
- 3 ELF6** Pair of aluminium rails. 53 x 552mm long.



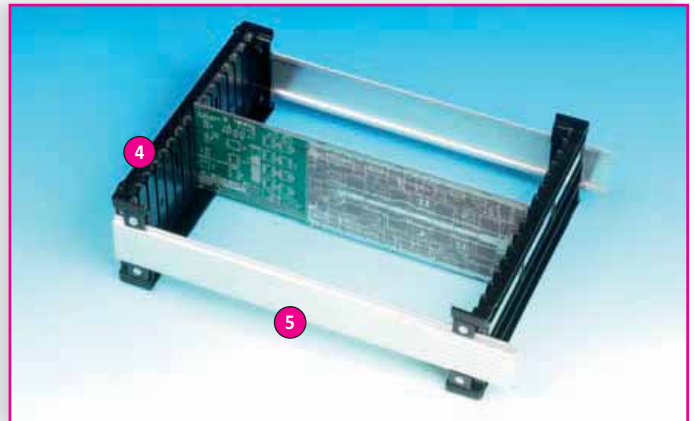
Other standard aluminium rail lengths.
(All rails are inter-changeable).

- ELF1** Pair of aluminium rails. 53 x 152mm long.
- ELF2** Pair of aluminium rails. 53 x 252mm long.

FAMI TYPICAL SMALL RACK

A typical small rack is made up of two end walls and a pair of rails.

- 4 EL31** Conductive end wall. 250 x 95 x 30mm.
- 5 ELF4** Pair of aluminium rails. 53 x 352mm long.

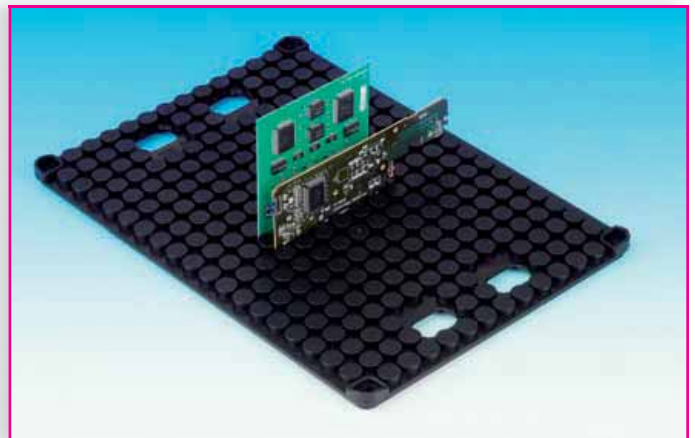


FAMI DIMPLE BOARD RACK

Grid style slot design allows simple yet effective storage of PC boards up to 2mm thick.

Fits in to standard euro container.

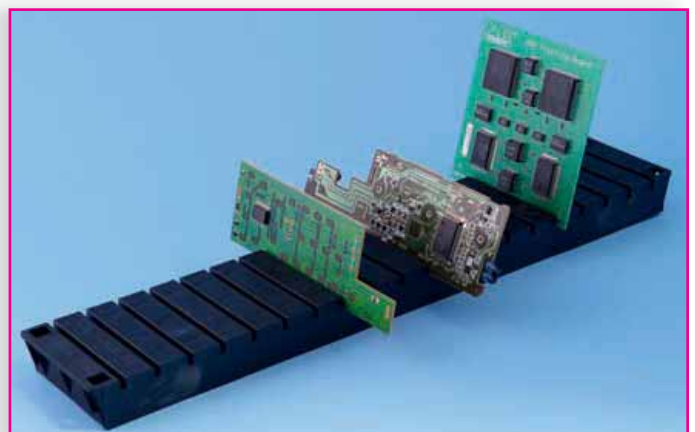
- ELF43** Rack size 355 x 255 x 14mm.



CONDUCTIVE UNIVERSAL PCB RACK

Very convenient and simple method of storing up to 20 small PC boards.

- UPCKS** Rack size 400 x 77mm.
20 slots x 3mm wide.



CONTAINER TROLLEYS

These versatile and robust galvanised steel trolleys have conductive castors/wheels to ensure ESD protection. Designed specifically for the easy transportation and handling of standard EUROBOXES and picking bins. The shelves are fully adjustable and can be tilted for use at the workstation.



STANDARD TROLLEY

Trolley has 3 adjustable shelves. *Boxes not included.*

Size
776 x 536 x 1286mm high.

ELW1207 Trolley.

Total Load Capacity 150Kg



WIDE TROLLEY

Trolley has 3 adjustable shelves. *Boxes not included.*

Size
1088 x 536 x 1286mm high.

ELW1210 Wide trolley.

Total Load Capacity 150Kg



Total Load Capacity 150Kg



Total Load Capacity 150Kg



DOLLY TROLLEY

Simple handy trolley with conductive swivel castors and handle.

EL1198 Trolley. Size 610 x 410 x 170mm high. Handle height 870mm.

TROLLEY

Simple handy trolley with conductive swivel castors.

EL1196 Trolley. Size 610 x 410 x 170mm high.



CONTAINER STORAGE SHELVING SYSTEM

Height 2010mm and 1010mm.

This shelving system was especially developed to take stacking containers.

The advantage of this system is that containers of different heights can be placed within the same run. The shelving system is based on the drawer storage concept with rear stops preventing containers being pushed too far through the upright frames. The modular construction of this shelving system ensures the most efficient use of available storage space.





CONDUCTIVE PICKING BINS

A complete range of conductive plastic picking bins which have all the standard designs and features universally accepted with this versatile method of storage handling. These bins can be fitted to louvred panels or can be stacked.

ROUND FRONTED

Very strong, versatile and attractive round fronted bins to allow easy picking.



Ref	Length / Width / Depth (External)	Ref	Length / Width / Depth (External)
TB2	169 x 95 x 75mm.	TB5	350 x 200 x 200mm.
TB3	230 x 140 x 130mm.	TB7	500 x 300 x 200mm.
TB4	350 x 200 x 145mm.		

FLAT FRONTED

Half open sloping fronted bins allow easy component picking. An added feature to the FAMI range is that the two smallest bins actually lock in to each other giving a solid stacking feature.



Ref	Length / Width / Depth (External)	Ref	Length / Width / Depth (External)
EL01PL-C	72 x 45 x 34mm.	EL3A2PL-C	350 x 200 x 145mm.
EL02PL-C	85 x 95 x 45mm.	EL3PL-C	350 x 200 x 200mm.
EL1PL-C	160 x 95 x 75mm.	EL4PL-C	500 x 300 x 200mm.
EL2PL-C	230 x 140 x 130mm.		



COMPONENT STORAGE AND HANDLING

Conductive trays, boxes and cases for PCB and component storage/shipping.



CONDUCTIVE PCB RACKS

Robust moulded PCB racks offer a very convenient method of storage in assembly area.

Ref	Size
PCBS	210 x 275 x 95mm. 25 slots. 3mm wide.
PCBL	350 x 270 x 130mm. 25 slots. 2.2mm wide.
PCBHD	406 x 275 x 150mm. 48 slots. 3mm wide.



CONDUCTIVE COMPONENT BOXES

A full range of conductive polypropylene boxes with hinged lids.

Ref	Size
SB1	40 x 40 x 13mm deep.
SB2	74 x 52 x 18mm deep.
SB3	110 x 83 x 17mm deep.
SB5	228 x 128 x 30mm deep.
SB6	90 x 65 x 17mm deep.



Supplied with 6mm high density foam in the base.

Ref	Size
SB1FB	40 x 40 x 13mm deep.
SB2FB	74 x 52 x 18mm deep.
SB3FB	110 x 83 x 17mm deep.
SB5FB	228 x 128 x 30mm deep.
SB6FB	90 x 65 x 17mm deep.



Supplied with 6mm high density foam in the base and 6mm low density foam in the lid.

Ref	Size
SB1FBL	40 x 40 x 13mm deep.
SB2FBL	74 x 52 x 18mm deep.
SB3FBL	110 x 83 x 17mm deep.
SB5FBL	228 x 128 x 30mm deep.
SB6FBL	90 x 65 x 17mm deep.



COMPONENT STORAGE AND HANDLING

General component storage and assembly aids for use in static sensitive areas.

CONDUCTIVE CAROUSEL

Standard carousel has 40 individual trays and enables easy storage and easy handling of components in the assembly area.

CAR01 Conductive carousel.
470mm diameter x 300mm high.



CONDUCTIVE STORAGE CABINETS

These useful cabinets can be wall hung or stood on a worktop to give simple and easy component storage. Identification labels are included with each cabinet.

C291 Cabinet. 180 x 310 x 290mm high.
(24 Drawers. Size 170 x 69 x 40mm)

C294 Cabinet. 180 x 310 x 290mm high.
(12 Drawers. Size 170 x 92 x 62mm)

C551 Cabinet. 180 x 310 x 550mm high.
(48 Drawers. Size 170 x 69 x 40mm)

C554 Cabinet. 180 x 310 x 550mm high.
(24 Drawers. Size 170 x 92 x 62mm)

Other cabinet storage available on request.



CONDUCTIVE COMPONENT TRAYS

Trays can be vacuum formed in almost any configuration to give versatile method of storage.

TY1 Size. 325 x 175 x 25mm deep.
Single cell with 1 x 10mm stud.

TY12 Size. 375 x 350 x 25mm deep.
12 cells. 103 x 79 x 24mm.

TY25 Size. 305 x 250 x 22mm deep.
25 cells. 50 x 38 x 16mm.

TY50 Size. 305 x 250 x 25mm deep.
50 cells. 42 x 26 x 13mm.



CORSTAT STORAGE AND HANDLING PRODUCTS

Corstat is the ESD industry standard for conductive corrugated board. Corstat provides a highly efficient, low cost method of providing static protection for handling, transportation and storage of static sensitive devices.

CORSTAT TRANSIT PACKS

Conductive transit packs give full faraday cage ESD protection and can be foam lined to give physical protection to Printed Circuit Boards during shipping and handling.



Many other sizes and custom designs, including special printing, available on request.

Transit packs can be supplied flat packed with no foam (Ref. A) or supplied fully assembled with pink anti static profiled foam (Ref. B).

Ref	Internal dimensions (LxWxD)
3080-1	178 x 127 x 38mm.
3090-2	178 x 127 x 64mm.
3095-22	178 x 127 x 96mm.
3180-3	229 x 191 x 38mm.
3190-4	229 x 191 x 64mm.
3195-24	230 x 180 x 96mm.
3220-5	267 x 216 x 38mm.
3230-6	267 x 216 x 64mm.
3245-26	267 x 216 x 96mm.
3310-7	318 x 267 x 38mm.
3320-8	318 x 267 x 64mm.
3335-28	318 x 267 x 96mm.
3400-9	340 x 140 x 64mm.
3431-13	375 x 133 x 38mm.
3501-05	394 x 318 x 38mm.
3500-10	394 x 318 x 64mm.
3515-30	394 x 318 x 96mm.
3600-11	521 x 394 x 38mm.
3610-12	521 x 394 x 64mm.
3625-32	521 x 394 x 96mm.
3854-14	550 x 470 x 64mm.
3975-16	700 x 500 x 85mm.



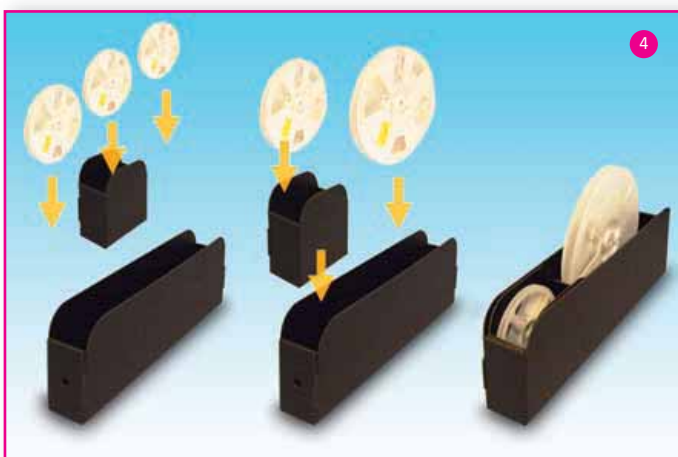
CORSTAT BIN BOXES & REEL STORAGE

Manufactured from Corstat conductive fibreboard, giving static shielding and physical protection.

Provide inplant ESD protection for 13" & 7" reels, plus a wide range of associated components.

Can be used in numerous combinations to create bespoke storage systems.

Designed to industry recognised standards for shelves, racking and storage space.



All products are supplied flat/un-assembled.

- 1 **BN6160** Bin box. Small. 600 x 160 x 140mm.
- 2 **BN6240** Bin box. Medium. 600 x 240 x 140mm.
- 3 **BN6320** Bin box. Large. 600 x 320 x 140mm.
- 4 **BN6090** Reel bin with fitting. 600 x 90 x 140mm.

CORSTAT INPLANT HANDLERS

A versatile low cost method giving high physical protection during handling of Printed Circuit Boards. Boxes are designed to have different cell configurations and come complete with drop-on lids.

Ref	Internal dimensions (LxWxD)	
4000 range. Size 575x305x328mm.		
	No. cells	Cell size
4000-40	40	124x25x326mm.
4000-30	30	167x25x326mm.
4000-20	20	254x25x326mm.
4000-10	10	514x25x326mm.
4001 range. Size 575x305x400mm.		
	No. cells	Cell size
4001-40	40	124x25x398mm.
4001-30	30	167x25x398mm.
4001-20	20	254x25x398mm.
4001-10	10	514x25x398mm.
4003 range. Size 455x245x480mm.		
	No. cells	Cell size
4003-20	20	198x19x478mm.
4003-10	10	402x19x478mm.
4005 range. Size 425x245x289mm.		
	No. cells	Cell size
4005-40	40	86x19x278mm.
4005-20	20	180x19x278mm.
4005-10	10	370x19x278mm.
4007 range. Size 425x245x190mm.		
	No. cells	Cell size
4007-40	40	90x19x188mm.
4007-30	30	121x19x188mm.
4007-20	20	184x19x188mm.
4007-10	10	374x19x188mm.
4008 range. Size 550x390x186mm.		
	No. cells	Cell size
4008-80	80	49x43x184mm.
4008-40	40	92x43x184mm.
4010 range. Size 332x274x128mm.		
	No. cells	Cell size
4010-50	50	64x24x126mm.
4010-10	10	198x24x126mm.
4012 range. Size 448x348x124mm.		
	No. cells	Cell size
4012-100	100	42x32x122mm.
4012-50	50	86x32x122mm.
4014 range. Size 378x368x66mm.		
	No. cells	Cell size
4014-100	100	70x15x64mm.
4014-40	40	168x15x64mm.
4016 range. Size 578x299x80mm.		
	No. cells	Cell size
4016-80	80	110x16x78mm.
4016-32	32	240x16x78mm..



Other sizes and custom designs, including special printing, available on request.





CORSTAT COMPONENT BOXES

Static shielding and physical protection for transportation and storage of small static sensitive components.

Ref	Internal dimensions (LxWxD)	
CB-S	Component box.	40 x 40 x 15mm.
CB-1	Component box.	60 x 60 x 25mm.
CB-2	Component box.	100 x 100 x 38mm.
CB-3	Component box.	135 x 50 x 20mm.
CB-4	Component box.	74 x 64 x 40mm.
SM12	Component box.	146 x 70 x 24mm.
SM14	Component box.	146 x 146 x 24mm.
IC5050	Component box.	178 x 89 x 25mm.

Supplied flat packed. Ref A.

Supplied assembled with pink anti static foam. Ref B.

Other sizes and custom designs, including special customer printing, available on request.



CORSTAT CHIP BOXES

Static shielding and physical protection for shipping microchips.

Ref	Internal dimensions (LxWxD)	
CH-5	Chip box.	90 x 30 x 15mm.
CH-10	Chip box.	100 x 60 x 15mm.
CH-20	Chip box.	120 x 100 x 15mm.
CH-40	Chip box.	140 x 40 x 15mm.
CH-60	Chip box.	160 x 80 x 15mm.
CH-80	Chip box.	180 x 80 x 15mm.

Supplied flat packed. Ref A.

Supplied assembled with pink anti static foam. Ref B.



CORSTAT BIN BOXES

Economical conductive storage cartons giving static shielding and physical protection to static sensitive components. Perfect for storing I.C. tubes.

Ref	Internal dimensions (LxWxD)	
634	Fully open bin.	152 x 76 x 114mm.
944	Fully open bin.	229 x 102 x 114mm.
964	Fully open bin.	229 x 152 x 114mm.
1110	Fully open bin.	300 x 100 x 100mm.
1115	Fully open bin.	300 x 150 x 100mm.
1120	Fully open bin.	300 x 200 x 100mm.
1130	Fully open bin.	300 x 300 x 100mm.
1200	Fully open bin.	635 x 60 x 108mm.
1205	Fully open bin.	635 x 108 x 108mm.
1226	Fully open bin.	635 x 153 x 108mm.
1244	Fully open bin.	635 x 203 x 108mm.
1266	Fully open bin.	635 x 260 x 108mm.
2205	Open front bin.	635 x 108 x 108mm.
2244	Open front bin.	635 x 203 x 108mm.
2000	Closed bin.	635 x 108 x 108mm.

All items supplied flat packed.

CONDUCTIVE VELCRO STRAP

Simple yet effective packing strap which is non-static generating and is 550mm long.



VELSTRAP

Velcro strap.

CORSTAT STACKING BOXES

Low cost method of storage or transportation of static sensitive devices. (Standard euro container sizes).

Ref	Internal dimensions (LxWxD)	
5000-643	Container.	572 x 372 x 291mm.
5000-642	Container.	572 x 372 x 211mm.
5000-641	Container.	572 x 372 x 111mm.
5000-640	Container.	584 x 384 x 55mm.
5000-64	Lid.	600 x 400 x 50mm.
5000-433	Container.	372 x 272 x 291mm.
5000-432	Container.	372 x 272 x 211mm.
5000-431	Container.	372 x 272 x 111mm.
5000-431.6	Container.	372 x 272 x 160mm.
5000-43	Lid.	400 x 300 x 50mm.

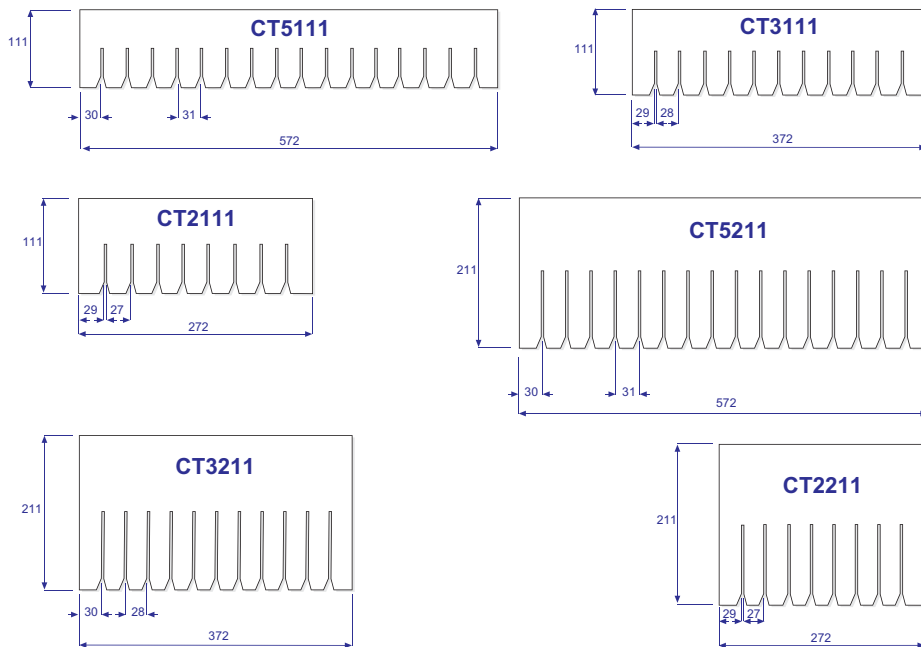
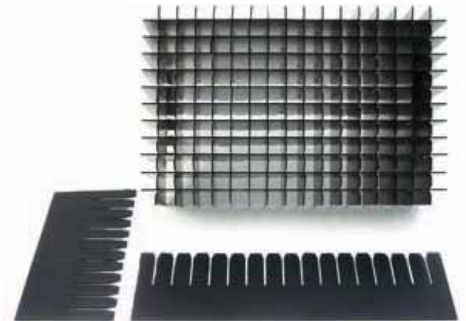


Supplied flat packed.

STANDARD DIVIDER SETS FOR CORSTAT STACKING BOXES

Manufactured from conductive corrugated board to give strong ESD safe dividers to produce a network of cells to suit most applications.

Ref	Dimensions	Description
CT5111	111 x 572 x 3mm.	16 slots 31mm spacing.
CT3111	111 x 372 x 3mm.	11 slots 28mm spacing.
CT2111	111 x 272 x 3mm.	8 slots 27mm spacing.
CT5211	211 x 572 x 3mm.	16 slots 31mm spacing.
CT3211	211 x 372 x 3mm.	11 slots 28mm spacing.
CT2211	211 x 272 x 3mm.	8 slots 27mm spacing.



CONDUCTIVE CORSTAT LAYER PADS

Allows easy stacking of divider sets.

Ref	Dimensions	Description
CT5737	570 x 370 x 3mm.	Layer pad.
CT3727	370 x 270 x 3mm.	Layer pad.





KILLSTAT SPRAYS AND CLEANERS

Killstat sprays and cleaners are a cost effective solution for long term static control. The sprays are water based and once dry will leave an ultra thin static dissipative layer which prevents the build up of any static charges.

KILLSTAT HEAVY DUTY ANTI STATIC SPRAYS



This heavy duty anti static spray is recommended for use on all porous surfaces such as carpets to help prevent static charges which can cause annoying and painful shocks in offices, gymnasiums, hotels, etc.

KSHS16	500ml. (17.6 fl oz).
KSHS32	1 litre. (35.2 fl oz).
KSHSGAL	4.54 litres. (1 gallon).

KILLSTAT ANTI STATIC SPRAYS



This general purpose anti static spray is recommended for use on any non-porous surfaces to help prevent charge generation and other static related problems.

KSS16	500ml. (17.6 fl oz).
KSS32	1 litre. (35.2 fl oz).
KSSGAL	4.54 litres. (1 gallon).

KILLSTAT ESD MAT & TABLE TOP CLEANERS



An ideal cleaner that can be applied on most non-porous surfaces. This water based cleaner is perfect for use on anti static mats and vinyl chairs.

KSC16	500ml. (17.6 fl oz).
KSC32	1 litre. (35.2 fl oz).
KSCGAL	4.54 litres. (1 gallon).



KILLSTAT FLOOR CLEANER

A dedicated ESD floor cleaner for vinyl and rubber flooring materials. Specially formulated for effective cleaning and long term static control.

Covers approx. 100 square metres.

KSFCGAL	4.54 litres. (1 Gallon).
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KILLSTAT HAND LOTION

A static dissipating, non-greasy hand lotion which promotes softer hands and nails to help keep the skin moist for better wrist strap contact.

KSL8	250ml. (8 oz).
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KILLSTAT FLOOR TREATMENTS

These water based non-hazardous materials can be used on vinyl, linoleum and ceramic tiles to generate a reliable ESD surface finish. (Meets ANSI 20.20 ESDA requirements).

KILLSTAT ANTI STATIC FLOOR STRIPPER

Removes multiple coats of wax and synthetic floor finish quickly and efficiently and lifts embedded dirt from the floor.

This product complies with directive 76/769/EEC.

Floors are left with a surface which is completely clean and ready for the application of the Killstat ECO friendly floor finish.

- KS401** 1 litre. (35.2 fl oz).
- KS40GAL** 4.54 litres. (1 gallon).



KILLSTAT ECO FRIENDLY FLOOR FINISH

Specially formulated using non-hazardous ingredients to provide a reliable static dissipative floor finish with a long lasting durable glossy surface. This water based polish is easy to apply and will maintain a surface resistance of $10^8 - 10^9$ ohms per square.

For best results apply 2 separate thin coatings.

- KS431** 1 litre. (35.2 fl oz).
- KS43GAL** 4.54 litres. (1 gallon).



KILLSTAT STATIC DISSIPATIVE RESTORER/CLEANER

Killstat cleaner/restorer is a non-toxic bio-degradable solution which has been developed for cleaning ESD floors without affecting the ESD properties. It is also suitable for cleaning any sealed or hard floor surface. This product will renew the gloss finish, lower the resistivity and return the floor to safe and correct specifications.

- KSRES1** 1 litre. (35.2 fl oz).
- KSRESGAL** 4.54 litres. (1 gallon).



ESD BRUSHES

A comprehensive range of brushes which allows the safe cleaning of ESD sensitive assemblies without generating any harmful static charges.



KILLSTAT BLACK BRUSHES

Conductive nailbrush and toothbrush style.

Ref	Type	Brush Length	Brush Width	Bristles H/W/L
1 KB1	Nailbrush.	85mm.	35mm.	20x24x65mm.
2 KB5	Toothbrush.	180mm.	10mm.	15x10x35mm.
3 KB6	Toothbrush.	225mm.	18mm.	20x15x70mm.
4 KB7	Toothbrush.	245mm.	18mm.	20x18x110mm.

KB8 (brush no. 7 below) has natural bristles and can be used with most chemicals or solvents such as IPA.



KILLSTAT BLACK BRUSHES

Conductive general purpose multi-use brushes.

Ref	Brush Length	Brush Width	Bristle H/W/L
5 KB2	150mm.	38mm.	25x7x36mm.
6 KB4	185mm.	80mm.	30x7x70mm.
7 KB8	150mm.	38mm.	25x7x70mm (Soft).
8 KB9	165mm.	25mm.	20x10x20mm.
9 KB10	165mm.	40mm.	20x7x35mm.
10 KB11	135mm.	25mm.	15x7x25mm.



ESD BRUSHES

The wooden brush bristles are made of horse hair.

Ref	Bruce Length	Bruce Width	Bristle H/W/L
11 BR69076	370mm.	12mm.	50x20x180mm.
12 BR2	210mm.	28mm.	20x25x55mm.
13 BR3	163mm.	10mm.	10x32x7mm.
14 BR4	120mm.	25mm.	13x8x25mm.
15 BR5	127mm.	10mm.	*Both: 6x10x14mm.
16 BR69077	140mm.	10mm dia.	*End 1: 10x5mm dia. *End 2: 5x3mm dia.
17 BR69072	65mm.	7mm.	18x7mm dia.
18 BR69060	80mm.	12mm.	16x10x3mm.
19 BR69061	115mm.	12mm.	20x10x5mm.
20 BR69062	120mm.	18mm.	10x5x15mm.
21 BR69066	160mm.	18mm.	30x10x20mm.

*(double ended)



CLEANING / WASTE HANDLING

These items allow safe cleaning and waste disposal inside an EPA (Electrostatic Protected Area).

CONDUCTIVE WASTE BINS

General conductive plastic waste bins for use in assembly area or office.

WBINH Small waste bin with handles. 12 litres. 280mm diameter x 310mm high.

BLNR Anti static bin liners. 12 litres. (Pack of 100).

WBIN40 Large waste bin. 40 litres. 330 x 330 x 530mm high.

BLNR40 Large bin liners. 40 litres. (Pack of 100).



ESD VACUUM CLEANER

Made from tough, crack resistant, static dissipative plastic for added safety. Adjustable fan speed ensures complete versatility. Suitable for use inside an EPA (Electrostatic Protected Area).

V555E ESD Vacuum cleaner.

PH722 Filter bags. (Pack of 5).



HEAVY DUTY ESD VACUUM CLEANER

This unit has been developed for cleaning ESD protected areas inside an EPA (Electrostatic Protected Area).

V777E Heavy duty vacuum cleaner.

V777FL Filter replacement. (Pack of 10).

Supplied with the following accessories.



ESD DOCUMENT STORAGE

ESD folders and inserts for document storage and handling within an EPA (Electrostatic Protected Area).

**A4 PLASTIC RING BINDER**

Strong and highly durable conductive ring binders which can safely be taken into static sensitive areas.

RB4

Black conductive plastic A4 ring binder.
50mm spine width. (4 rings).

(Coloured identification spine inserts available on request).

**A4 CARDBOARD RING BINDERS****RB45**

Black conductive. 45mm spine width. (4 rings).

RB65

Black conductive. 65mm spine width. (4 rings).

RB74

Black conductive. Lever arch file with 74mm spine. (2 rings).

RB4B25

Blue anti static. 25mm spine width. (4 rings).

RB4B50

Blue anti static. 50mm spine width. (4 rings).

**CLEAR A4 ESD BINDER**

Clear, permanent static dissipative PVC binder made of IDP (Inherently Dissipative Polymer) which is not humidity dependant.

IDPA4

Clear binder.

**ESD DOCUMENT HOLDERS**

Clear, permanent static dissipative ring binder inserts with reinforced spine.

DOC3

Size A4 (Pack of 100).

DOC2

Size A3 (Pack of 100).

ESD STATIONERY

Stationery accessories for use in offices and ESD protected areas.

CONDUCTIVE LETTER TRAYS



Conductive letter trays can be used in the office or the EPA to prevent the build up of harmful static charges. (Stackable).

TYA4

A4 Letter tray.

CONDUCTIVE GRID TAPES



Conductive grid shielding tape for use with static sensitive devices. Rolls are 36 metres long.

GRID12

12mm wide.

GRID18

18mm wide.

GRID24

24mm wide.

GRID48

48mm wide.

PAPER TAPE



General purpose static awareness tape. 50mm wide and 66 metres long.

PT50

Awareness tape. English & German.

CLEAR ANTI STATIC TAPES



Clear non-static generating adhesive packaging tape. Rolls are 30 metres long.

AS12

12mm wide.

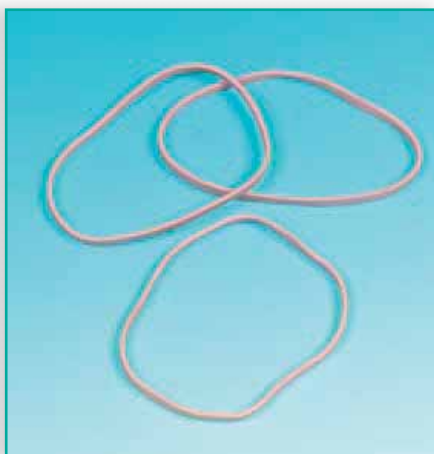
AS18

18mm wide.

AS25

25mm wide.

RUBBER BANDS



Pink anti static rubber bands for use with static sensitive devices. Supplied in 1kg bags.

ASB60

60mm diameter.

ASB120

120mm diameter.

ESD POUCH



Personal effects pouch for use in static sensitive areas.

PCHESD

ESD pouch.

ESD PEN

ESD Pen - Also available with blue and red ink.

ASPN

ESD Pen - Black ink.



ESD AWARENESS LABELS

Self adhesive warning labels for components, sub-assemblies, bags, boxes, bins, etc. to give easy identification of static sensitive devices and products. (Can act as tamper proof labels when applied to bags etc.)



ESD SUSCEPTIBLE SYMBOL

This long established symbol denotes components and sub-assemblies which are ESD susceptible.



SMALL ESD WARNING LABELS

Self adhesive labels to identify static sensitive devices.
Rolls of 1000.



- 1 **L005** ESD Labels. Size 5 x 5mm.
- 2 **L009** ESD Labels. Size 12 x 12mm.

ESD WARNING LABELS

Self adhesive labels to identify static sensitive devices.
Rolls of 1000.



- 3 **L010** ESD Labels. Size 12 x 22mm.
- 4 **L023** ESD Labels. Size 25 x 45mm.
- 5 **L036** ESD Labels. Size 38 x 75mm.
- 6 **L039** ESD Labels. Size 16 x 38mm.

OTHER STANDARD LABELS

Self adhesive labels.
Rolls of 500.



- 7 **LPBF** Lead free labels. Size 25 x 25mm.
- 8 **LR0HS** RoHS compliant labels. Size 25 x 38mm.

PACKING TAPE



Three language ESD awareness tape.
50mm wide x 66 metres long.

TLT Packing Tape.
English, Italian & German.

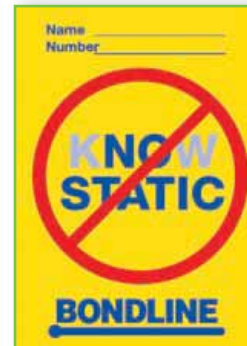
PAPER TAPE



General purpose static awareness tape.
50mm wide and 66 metres long.

PT50 Awareness tape.
English & German.

EDUCATIONAL BOOKLET



Introduction to ESD booklet.

KNST ESD booklet.



Multi-language and other colour signs available on request.

ESD AWARENESS SIGNS

Simple yet effective way of reminding everyone of the problems and related procedures required to help eliminate ESD.

WARNING SIGNS

Awareness signs are available in rigid material or flexible with self adhesive backing.

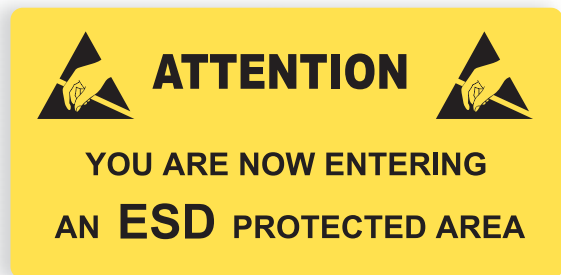


- S315** Yellow. Rigid. Size 150 x 300mm.
- S315F** Yellow. Flexible. Size 150 x 300mm.
- S315DB** Yellow. Double sided. Rigid. Size 150 x 300mm.
- S630** Yellow. Rigid. Size 300 x 600mm.

- S315R** Red. Rigid. Size 150 x 300mm.
- S315RF** Red. Flexible. Size 150 x 300mm.
- S630R** Red. Rigid. Size 300 x 600mm.

RIGID AWARENESS SIGNS

Simple but effective awareness signs.



- S315WS** 'Wear your wrist strap' rigid. Size 150 x 300mm.

- S315ENT** 'Entering ESD area' rigid. Size 150 x 300mm.



- SHVF** 'High voltage' rigid. Size 150 x 300mm.

- SUNPF** 'Unprotected' rigid. Size 150 x 300mm.

ROUND SIGNS FOR WALL, DOOR OR FLOOR MOUNTING

All signs are 300mm in diameter, self adhesive and supplied with a non-slip clear covering.



- SESDRD** ESD Sign.

- SENTRD** Entering EPA.

- SLVGRD** Leaving EPA.





IONIZERS

The distinguished high frequency series of ionizers are greatly superior to traditional AC and DC static eliminators in auto-balance, highly efficient static elimination capability and stable character. In addition, its smaller size and lighter weight have made it more convenient to use and it has become the latest static elimination technology available today. Special alloy discharge needle is durable and very easy to maintain and keep clean due to simple clip on covers. All ionizers are CE approved.

BENCH TOP IONIZERS



Compact size with auto-ion balance within 5 volts. Equipped with out of balance alarm indicator. Very simple to use and routine maintenance is performed with ease.

Includes mains power supply lead/transformer. 24V operation.

KS10H Small Ionizer.
Size 102 x 120 x 58mm deep.

KS21H Ionizer.
Size 142 x 170 x 80mm deep.

Euro plug option available on request

HORIZONTAL AIR IONIZER



This quiet ionizer has adjustable blowing angle and air volume. It has an auto ion balance system within 5volts. It is equipped with an ionization indicator light and HV abnormality alarm indicator light. Very simple to use and maintain. Includes mains power supply lead/transformer. 24V operation.

KS50H Horizontal Ionizer.
Size 465 x 178 x 75mm deep.

Euro plug option available on request

ION GUN AND CONTROLLER



This premium ion gun and controller has a built in piezoelectric high voltage power supply and is also equipped with an auto balance system which ensures a static neutralising air flow.

KSHP02 Ion gun.

IONIZING AIR SNAKE



The air snake has a convenient foot pedal and allows hands free operation in confined spaces. The auto-ion balance ensures efficient operation.

KSHP01 Air snake.

ZERO STAT GUN



This gun produces both positive (trigger pull) and negative ions (trigger release) which can act to neutralise static charges.

ZS-01 Zero stat gun. Blue.



OVERHEAD IONIZERS

Light, quiet, high performance overhead ionizers to ensure a static free work area. These units have built in auto balance feature with an out of balance alarm. All ionizers are CE approved.

OVERHEAD IONIZER 3-FAN



The three fans are independent of each other with individual controls and circuitry. Very easy to clean and maintain due to clip-on fan covers. Auto ion balance +/-5V.

Euro plug option available on request

KS120H

3-fan Ionizer. Size 1000 x 145 x 65mm.
Includes mains power supply lead.
Supplied with 2 hooks.

OVERHEAD IONIZER 4-FAN



For ionization of large workstations.

Highly efficient four fan ionizer ensures a static free work area. The four fans are independent of each other with individual controls and circuitry. Very easy to clean and maintain due to clip-on fan covers. Auto ion balance +/-5V.

Euro plug option available on request

KS130H

4-fan Ionizer. Size 1200 x 145 x 65mm.
Includes mains power supply lead.
Supplied with 2 hooks.

CALIBRATION/BALANCING/SERVICING/SPARES. For the electronics industry it is essential that ionizers are in perfect balance. Balancing and calibration are available together with a complete servicing capability. Balancing is done using a charge plate monitor.



For information on charge plate monitor set, please see page 53.

SUPREME RANGE (FULLY ERGONOMIC)

Fully ergonomic chairs with waterfall seat design with three dimensional moulded foam for added comfort. The full synchro mechanism provides ergonomic seat and back adjustments to ensure all day support, especially for your back. All supreme range chairs have gas lift as standard and are supplied with either conductive glides or conductive castors. (All conductive castors have internal brakes for added safety).

STATIC DISSIPATIVE HIGH CHAIR



Standard high chair is supplied with conductive stainless steel glides and foot ring.

Seat height adjustment: 500-690mm.
 Seat tilt angle adjustment: 85-95°.
 Backrest angle adjustment: 75-115°.
 Base diameter: 26" (660mm).

- SUR2BLV** Black vinyl.
- SUR2BLF** Charcoal fabric.
- SUR2DBF** Dark blue fabric.

STATIC DISSIPATIVE LOW CHAIR



Standard low chair is supplied with conductive castors.

Seat height adjustment: 430-570mm.
 Seat tilt angle adjustment: 85-95°.
 Backrest angle adjustment: 75-115°.
 Base diameter: 26" (660mm).

- SUR1BLV** Black vinyl.
- SUR1BLF** Charcoal fabric.
- SUR1DBF** Dark blue fabric.

REPLACEMENT CASTORS AND GLIDES



Conductive hooded castors with internal brakes.

FOOTCAS



Stainless steel glides.

FOOTSS

FIVE STAR RANGE

Static dissipative chairs which conform to BS4875 Part 1 to highest test level 5. (Strength and stability). All chairs are individually tested, are fire resistant and have a fully adjustable backrest. All standard chairs are available in vinyl, blue fabric or charcoal fabric. All have gas lift height adjustment.



Seat height adjustment: 460-660mm.

- 5ST1V** Vinyl.
- 5ST1CH** Charcoal fabric.
- 5ST1BL** Dark blue fabric.



Seat height adjustment: 480-680mm.

- 5ST2V** Vinyl.
- 5ST2CH** Charcoal fabric.
- 5ST2BL** Dark blue fabric.



Seat height adjustment: 550-800mm.

- 5ST3V** Vinyl.
- 5ST3CH** Charcoal fabric.
- 5ST3BL** Dark blue fabric.

ESD POLYURETHANE CHAIRS

The seat and back are made of static dissipative PU. These chairs are comfortable and also very easy to clean.



High chair.
Height adjustment:
500-690mm.

5STPU2



Low chair.
Height adjustment:
430-570mm.

5STPU1

ESD WORKBENCHES (SQUARE TUBE STYLE) FOUR LEG DESIGN

A leg in each corner gives firm support. Height adjustable feet for easy levelling. Powder coated light grey framework as standard. 20mm thick Norastat or Lamstat worktop options. Full range of accessories available including wrist straps, circuit breakers and earth/ground leads. Standard bench height is 840mm (760 and 920mm heights also available). All stated dimensions are in mm.



*Monitor not included.

Basic sizes listed (others available)

Nortstat	Lamstat	Size (HxWxD)
BQ849060NLXX	BQ849060LLXX	840x900x600.
BQ841260NLXX	BQ841260LLXX	840x1200x600.
BQ841275NLXX	BQ841275LLXX	840x1200x750.
BQ841290NLXX	BQ841290LLXX	840x1200x900.
BQ841560NLXX	BQ841560LLXX	840x1500x600.
BQ841575NLXX	BQ841575LLXX	840x1500x750.
BQ841590NLXX	BQ841590LLXX	840x1500x900.
BQ841860NLXX	BQ841860LLXX	840x1800x600.
BQ841875NLXX	BQ841875LLXX	840x1800x750.
BQ841890NLXX	BQ841890LLXX	840x1800x900.

Extension benches will not accept bench accessories.

Nortstat	Lamstat	Size (HxWxD)
BQ849060NLET	BQ849060LLET	840x900x600.
BQ841260NLET	BQ841260LLET	840x1200x600.
BQ841275NLET	BQ841275LLET	840x1200x750.

WORKTOP OPTIONS

For all workbenches

Lamstat Worktop
20mm Thick Laminate
10⁶-10⁸ ohms.



Norastat Worktop
20mm Thick Rubber
10⁵-10⁷ ohms.



ESD WORKBENCHES (SQUARE TUBE STYLE) CANTILEVER DESIGN

Cantilever construction allows maximum leg room. Height adjustable feet for easy levelling. Powder coated light grey framework as standard. 20mm thick Norastat or Lamstat worktop options. Full range of accessories available including wrist straps, circuit breakers and earth/ground leads. Standard bench height is 840mm (760 and 920mm heights also available).



Basic sizes listed (others available)

Nortstat	Lamstat	Size (HxWxD)
BC841275NLXX	BC841275LLXX	840x1200x750.
BC841290NLXX	BC841290LLXX	840x1200x900.
BC841575NLXX	BC841575LLXX	840x1500x750.
BC841590NLXX	BC841590LLXX	840x1500x900.
BC841875NLXX	BC841875LLXX	840x1800x750.
BC841890NLXX	BC841890LLXX	840x1800x900.

Extension benches - will not accept bench accessories

Nortstat	Lamstat	Size (HxWxD)
BC846060NLXX	BC846060LLX	840x600x600.
BC849060NLXX	BC849060LLX	840x900x600.
BC841260NLXX	BC841260LLX	840x1200x600.

ESD WORKBENCH ACCESSORIES FOR FOUR LEG AND CANTILEVER DESIGN

Accessories below are designed to fit both four leg and cantilever designs.

Ref	Description
BESP760SXXXX	760mm rear support posts.
BESP1180XXXX	1180mm rear support posts.
BEUS1200NXXX	Upper shelf 300mm Norastat for 1.2m bench.
BEUS1200LXXX	Upper shelf 300mm Lamstat for 1.2m bench.
BEUS1500NXXX	Upper shelf 300mm Norastat for 1.5m bench.
BEUS1500LXXX	Upper shelf 300mm Lamstat for 1.5m bench.
BEUS1800NXXX	Upper shelf 300mm Norastat for 1.8m bench.
BEUS1800LXXX	Upper shelf 300mm Lamstat for 1.8m bench.
BERS1200XLXX	Light/tool rail support for 1.2m bench.
BERS1500XLXX	Light/tool rail support for 1.5m bench.
BERS1800XLXX	Light/tool rail support for 1.8m bench.
BELF1200XLXX	Fluorescent light.
BELO4812ZXXX	Louvred back panel (zinc) for 1.2m bench.
BELO4815ZXXX	Louvred back panel (zinc) for 1.5m bench.
BELO4818ZXXX	Louvred back panel (zinc) for 1.8m bench.
BESDWT122XXX	Worktop service duct for 1.2m bench.
BESDWT15XXX	Worktop service duct for 1.5m bench.
BESDWT18XXX	Worktop service duct for 1.8m bench.
BESDSP12XXXX	Post fitted service duct for 1.2m bench.
BESDSP15XXXX	Post fitted service duct for 1.5m bench.
BESDSP18XXXX	Post fitted service duct for 1.8m bench.
BERCBCIBXXXX	RCB circuit breaker.
BESERINSXXXX	Service duct insulating strip.
BEHADJLIXXXX	Height adj. Leg inserts. (4 leg design only).
BEMONARMFLSC	Flat screen arm monitor. (Image on page 48).

DRAWERS / CUPBOARDS

4 different colours available.



SINGLE DRAWER (lockable)

Size: 220(H) x 420(W) x 420(D).

- BEDR04021BXX** Dark blue.
- BEDR04021GXX** Green.
- BEDR04021KXX** Dark grey.
- BEDR04021RXX** Red.



TRIPLE DRAWER (lockable)

Size: 435(H) x 420(W) x 420(D).

- BEDR04043BXX** Dark blue.
- BEDR04043GXX** Green.
- BEDR04043KXX** Dark grey.
- BEDR04043RXX** Red.



STORAGE CUPBOARDS (lockable)

Size: 435(H) x 420(W) x 420(D).

- BEDCU4041** Dark grey.

Size: 580(H) x 420(W) x 420(D).

- BEDCU4051** Dark grey.

ESD TABLE LAMP



ESD safe task lamp. For use on work benches in Electrostatic Protected Areas where ESD sensitive devices are being handled. Improves contrast and reduces glare.

BTL1 ESD Table lamp.

ESD MAGNIFYING LAMP



ESD optional lens available

ESD magnifying lamp. For use on work benches in Electrostatic Protected Areas where ESD sensitive devices are being handled. Improves contrast and reduces glare.

BTL2 ESD Magnifying lamp.

PERSONAL EFFECTS CUPBOARD

Full range available on request.





ALL TEST INSTRUMENTS ARE MANUFACTURED TO THE VERY HIGHEST QUALITY ALLOWING QUALIFICATION TO COUNCIL DIRECTIVES 89/336/EEC. ALL ITEMS ARE CE APPROVED.

Standard wrist strap tester has a single test range 0.75 meg-ohm to 35 meg-ohm. (Other resistance ranges available on request). The instrument has a green light for pass (i.e. resistance between 0.75 meg-ohm and 35 meg-ohm) and 2 red lights which indicate either high resistance fail or low resistance fail. A buzzer sounds in any fail situation. Very easy to use.

Custom printing available for all items on request.

WRIST STRAP TESTER

WST1

Portable instrument for checking the continuity of fitted wrist straps and cords. This unit has a banana socket and 10mm stud. (Requires a 9V battery).

INDIVIDUAL ITEMS

FP

Foot plate and cord.

WSTBP

Wall mounted back plate and cord.



All testers will illuminate green if the outlets wiring is correct and the path to earth ground via the equipment grounding conductor is intact. The tester will alarm and illuminate red if either condition is not met.

WRIST STRAP TEST STATION



Wall mounted unit for checking the continuity of fitted wrist straps and cords.

Supplied with:

- Test meter (WST1).
- Wall mounting board.
- 6 inch (150mm) cord (0 meg-ohm).
- 9V battery.

WST2

Wrist strap test station.

WITH FOOTWEAR TEST PLATE



Wall mounted unit for checking the continuity of fitted wrist straps and cords, fitted shoes, heel straps or toe grounders.

Supplied with:

- Test meter (WST1).
- Wall mounting board.
- 6 inch (150mm) cord (0 meg-ohm).
- 6 ft (1.8m) cord (0 meg-ohm).
- Foot plate.
- 9V battery.

WST3

Footwear/wrist strap test station.

GROUND ANALYSER



EU plug available on request.

Ground analyser for testing the integrity of mains earth to ensure the correct grounding for ESD requirements. Can also be used for testing wrist straps.

Very easy to use.

WSCP-1

Ground analyser. Supplied with UK plug.

CALIBRATION

Certificates of calibration are issued for all Bondline Test Equipment. Calibration of all test equipment is recommended on a regular basis. (Annually). Traceable to national standards.



CONSTANT MONITOR - CAPACITIVE

Works with a standard wrist strap and cord and has a body mass adjustment for individual user set up:

- Constant monitoring of the earth to ground connection.
- Constant monitoring of the work mat to earth connection.
- Constant monitoring of the wrist strap connection.

- CM8300C** Capacitive monitor (for use on workbench).
- CM8300CU** Capacitive monitor (for use under workbench).



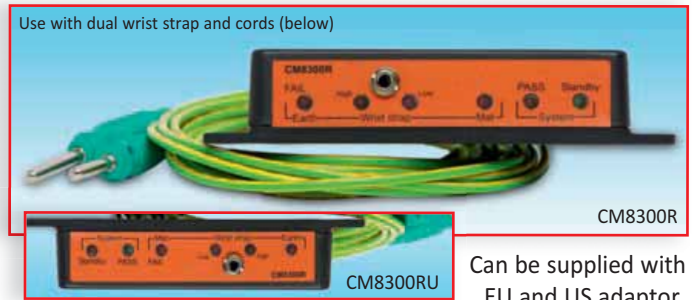
CM8300C
Can be supplied with EU and US adaptor.

CONSTANT MONITOR - RESISTIVE

Works with a dual wrist strap and cord and automatically enters standby mode when the wrist strap cord is removed. Indicates 'high' or 'low' fail for the users wrist strap. Range 750k-35M.

- Constant monitoring of the earth to ground connection.
- Constant monitoring of the work mat to earth connection.
- Constant monitoring of the wrist strap connection.

- CM8300R** Resistive monitor (for use on workbench).
- CM8300RU** Resistive monitor (for use under workbench).



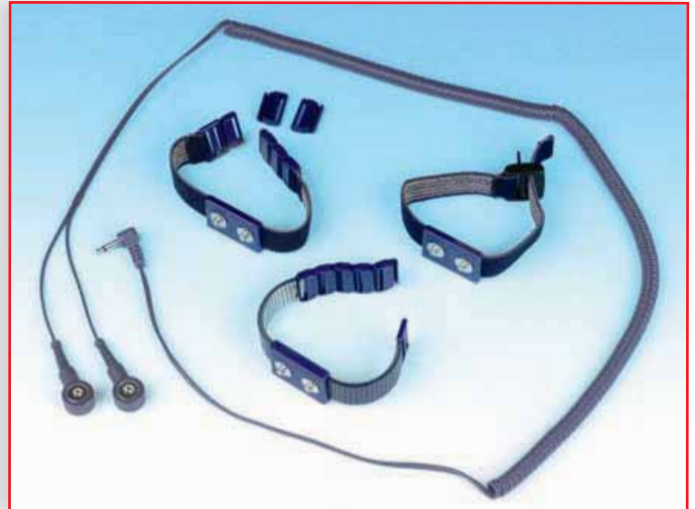
CM8300R
Can be supplied with EU and US adaptor.

The in line wrist strap, mat and earth Constant Monitors are designed to continuously monitor whether the wrist strap, bench mat or the Earth is disconnected whilst simultaneously checking the earth to ground system is working correctly. Should any part of the ESD system fail a red LED indicator will illuminate and a buzzer will sound. This part of the system should be checked using the appropriate test equipment before continuing with manufacture.

DUAL WRIST STRAPS AND CORD

High quality dual wrist strap and cords to be used with CM8300R.

- DCRA** Dual metal wrist strap with 4mm snaps. Dark blue
- DCHA2** Dual fabric wrist strap with 4mm snaps. Dark blue.
- DCC6** Dual coil cord, with 2 x 4mm snaps and 1 x jack. 1.8m (6ft) long. Grey.



WORK CHECK

The ESD Work Check tests the following with one simple test:

- 1 The ESD work surface is clean allowing good contact.
- 2 The ESD work surface is grounded.
- 3 The earth bonding point is connected to ground.
- 4 The wrist strap (or ESD footwear/heel strap) is worn and functioning correctly.

- WCK01** Work check.



Custom printing available for all items on request.



SURFACE RESISTIVITY METERS AND KITS

Instrumentation for measuring surface resistivity and point to point resistance.



SURFACE RESISTIVITY METER

This unique surface resistivity meter is extremely accurate and indicates resistance to 'half a decade' through the important static dissipative range using 10/100 volt test voltages to ensure more accurate readings. Supplied with required test leads and 9V battery.

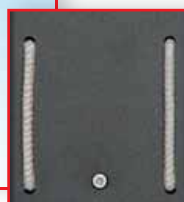
SRM100 Surface resistivity meter.
(Includes carrying pouch).



SURFACE RESISTANCE METER

Portable instrument for measuring both surface resistivity and resistance to ground. (Using 10 / 100 volts). Very easy to use. Supplied with required test leads and a 9V battery.

SRM1 Surface resistance meter.
(Includes carrying pouch).



Manufactured with soft probes for maximum and consistent surface contact to give more accurate readings.

The battery is very easy to change.



SURFACE RESISTIVITY KIT

For accurately measuring surface resistivity and point to point resistances, this kit includes 10V / 100 volt meter which is accurate to within half a decade.

- Supplied with:
- Meter (SRM100).
 - 2.5 kg. (5 lb.) weights. (2 off).
 - All required test leads.
 - Conductive foam discs.
 - 9V battery.

SRM100K Resistivity kit.
(Includes carrying case).



RESISTANCE TEST KIT

This professional analogue auditors kit can be used for measuring surface resistivity, point to point resistance, point to ground resistance and bonding points to ground.

- Supplied with:
- Analogue meter.
 - Square probe.
 - 9V Battery.
 - 2.5 kg. (5 lb.) weights. (2 off).
 - All required test leads.
 - Conductive foam discs.

SRM3 Resistance test kit.
(Includes carrying case).



FIELD METERS

Instrumentation for detecting static charges.

DIGITAL STATIC LOCATOR

Highly accurate digital field meter with optical distance indicator which ensures accuracy and repeatability. The HOLD button allows readings to be held, if necessary, in hard to read locations. It has an easy to use zero button for greater accuracy.

SL3 Digital static locator.
(Includes a 9V battery and carrying pouch).



FIELD METER

This handheld, portable, digital electrostatic field meter, detects and measures electrostatic fields. Includes carrying pouch and ground cord.

Test range 0 - 160kV.

SL7100 Field meter.
(Includes a 9V battery).



FLOOR TEST KIT

The ESD floor test kit is a quick simple test procedure for testing the ESD floor is grounding the operator through the heel straps or ESD footwear. It also checks the floor to earth connection by using the supplied weight.

The instrument has a green pass light and red awareness light.

Supplied with:

- Meter.
- Bonding plug.
- 9V battery
- Conductive foam discs.
- 2.5 kg. (5 lb.) weights. (1 off).
- All required test leads (shielded).

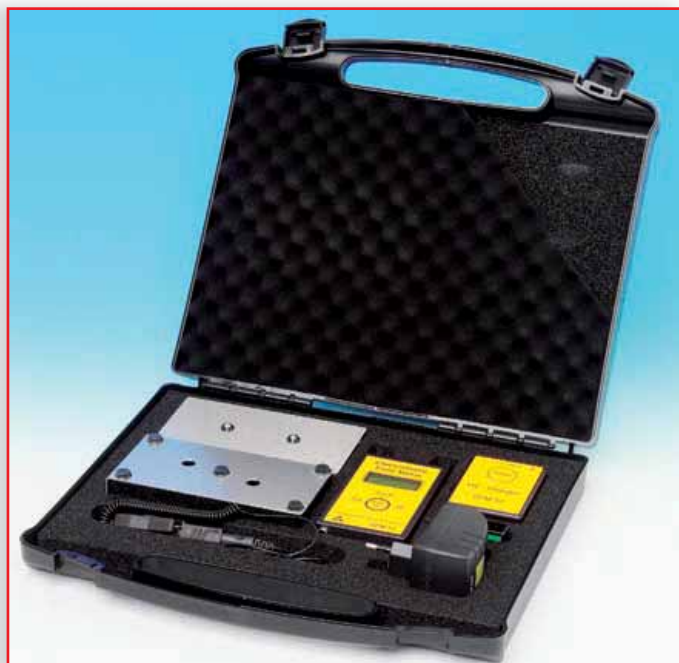
KSFC1 Test kit. (Includes carrying case).



CHARGE PLATE MONITOR KIT

Electrostatic field meter and charge plate set for measuring ionizer efficiency. This kit is supplied with high voltage generator and the field meter has built in timer for measuring voltage decay times.

CPM7100 Charge plate monitor kit.
(Includes carrying case).



BONDLINE HIGH PRECISION HANDTOOLS



FULLY ERGONOMIC HANDLES

Ensures operator comfort for 'all day' work.

STATIC DISSIPATIVE HANDLES

Appropriate for work in ESD sensitive areas.

HARDENED EDGES/HEADS

Cutting edges are carefully hardened to give maximum tool life.

MACHINED TOOL EDGES

Tools are machined not forged to give extra high precision.

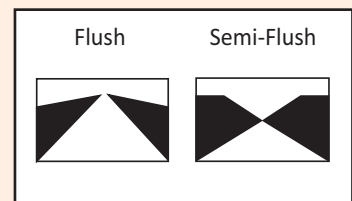
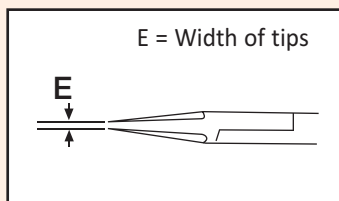
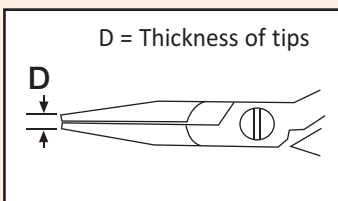
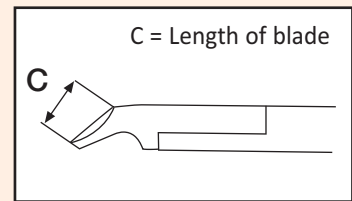
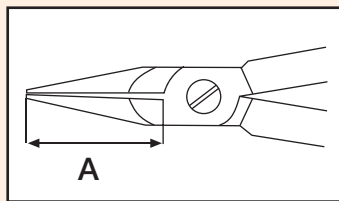
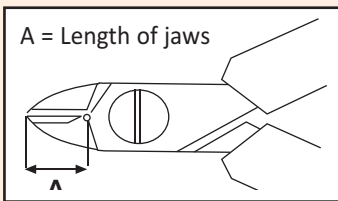
MACHINED JOINT

Machined joint gives high precision and ensures durability.

DUAL LEAF SPRINGS

Designed for maximum sensitivity and long life and can be replaced.

SIZE CHART



BONDLINE HIGH PRECISION PLIERS



P1542

General plier for precision work.
125mm long.
Flat jaws.
A=28mm. D=1.2mm.
E=3mm.



P1543

General plier for precision work.
125mm long.
Rounded jaws.
A=24mm. D=1mm.
E=0.5mm.



P1544

Half round plier for precision work. Smooth internal jaws.
125mm long.
A=28mm. D=1.5mm.
E=1mm.



P1544D

As P1544 but with internal serrated edges.



BONDLINE HIGH PRECISION CUTTERS



C1511

Semi-flush cut. 110mm long
Strong head and high cutting capacity.
Universal side cutter.

Cutting capacity
1.6mm Cu.
A=11mm. C=9mm.



C1582

45° Flush cut. 115mm long.
Common general work tool.

Cutting capacity
0.8mm Cu.
A=19mm. C=6mm



C1570

Flush cut. 120mm long.
Very fine tapered head.
For small wires in confined areas.

Cutting capacity
0.6mm Cu.
A=22mm. C=5mm.



C1595

Flush cut. 110mm long.
Standard straight cutting head.
For general work.

Cutting capacity
1.2mm Cu.
A=12mm. C=10mm.



C1611

Flush cut. 120mm long.
Very precise cutter.
For general work.

Cutting capacity
1.6mm Cu.
A=11mm. C=9mm.



C1711

Semi-flush cut. 105mm long.
Miniature precision cutter.
For general fine work.

Cutting capacity
1.2mm Cu.
A=9mm. C=8mm.



C1776

Flush cut. 105mm long.
Micro precision cutter.
For fine work in limited areas.

Cutting capacity
1.0mm Cu.
A=10mm. C=9mm



C1504

Flush cut. 110mm long.
Large cutting head.

Cutting capacity
1.2mm Cu.
A=13mm. C=9.5mm.



EREM range available on request.

GENERAL PURPOSE TOOLS



PLATO 170

Economical lightweight shear cutter with insulating handles for general assembly. (Non ESD).
170mm long Cutting capacity 1.0mm Cu.

PLATO 175

As PLATO 170 but with wire retainer for added operator safety.

SOLDERING AIDS



770054SL Dental probe.
Simple soldering aid with slimline handle and strong fine point.

DE-SOLDER PUMP



DSPU Conductive de-solder pump. Length 190mm.
(Supplied with one conductive tip).

DSTIPESD Spare conductive tip.

SPECIAL PURPOSE TOOLS



B884E-PC Strong slim tips for cutting out daughterboards from motherboard.

120mm long. (min slot size 2mm)



C1160P Heavy duty cutter.
Semi-flush cut. Insulating handles.

130mm long.
A=15mm.



C220 Distance cutter leaving 2mm long leads. For soft wires, insulating handles.

115mm long.

KILLSTAT PRECISION TOOLS

These ergonomic tools have static dissipative handles as standard. The cutting edges are machined (not forged) for added quality and precision. The cutting head is hardened with an anti glare finish. Precision joint with dual leaf springs ensure long working life. Green handled tools for a lead-free area.



KS6140 Semi-flush cut.
KS6141 Full flush cut.

Very precise cutter with curved cutting head. 110mm long.

Cutting capacity
6140 0.2-1.3mm copper wire or 0.2mm hard wire.
6141 0.2-1.25mm copper wire.

KS6150 Semi-flush cut.
KS6151 Full flush cut.

Strong general purpose cutter. 120mm long.

Cutting capacity
6150 0.3-1.6mm copper wire or 0.4mm hard wire.
6151 0.2-1.6mm copper wire.

KS6190 Semi-flush cut.
KS6191 Full flush cut.

Very precise cutter with straight cutting head. 110mm long.

Cutting capacity
BOTH 0.2-1.25mm copper wire.

KS1544 Half round precision plier for precision work. Smooth internal jaws.

KS1544D
As KS1544 but with internal serrated edges.
125mm long.
A=28mm. D=1.5mm. E=1mm.



BONDLINE PRECISION TWEEZERS

High quality precision instruments produced using a non-magnetic stainless steel alloy.



B1SA

Length 120mm.
For general use.



B2SA

Length 120mm.
Medium pointed tips.



B2ASA

Length 120mm.
Rounded thin tips.



B3SA

Length 120mm.
General assembly.



B3CSA

Length 110mm.
General assembly.



B4SA

Length 110mm.
Very fine points.



B5SA

Length 110mm.
Super fine points.



B5ASA

Length 115mm. Super fine
points. Angled head.



B7SA

Length 120mm.
Curved super fine points.



BAASA

Length 125mm.
Strong fine points.



BOOSA

Length 120mm. Very strong
general purpose tweezers.



BOCSA

Length 90mm.
Small strong tweezers.



B20ASA

Length 110mm. Fine tips with
inside serrations.



B60SA

Length 140mm. Extra long
with narrow handles.



102ASA

Length 115mm.
SMD tweezers.



15AGW

Length 120mm.
Strong cutting tweezers.



FIELD SERVICE KITS

Portable workstations to help prevent damage to static sensitive devices in the field.



FIELD SERVICE KITS

Each kit includes:

- 1 work surface mat 600 x 600mm.
- 1 adjustable fabric wrist strap with 10mm snap.
- 1 coil cord. 3.6 metres (12ft) with 10mm snap to jack.
- 1 straight CPG cord with crocodile clip. 3 metres (10ft).
- 1 packing wallet.

KSFSKB Field service kit. Blue.

KSFSKR Field service kit. Red.

ELECTRICAL PROPERTIES (All kits)
 Surface layer $10^7 - 10^9$ ohms/square.
 Buried layer $10^3 - 10^4$ ohms/square.

GROUNDING ACCESSORIES

Simple yet effective grounding accessories.



Heavy duty crocodile clip with 10mm male/10mm female snap and banana receptacle for grounding.

BG Bananagator.



Insulated adaptor with banana receptacle and 10mm male/10mm female snaps.

AS10 Adaptor snap.



Stacking snap with banana receptacle and 10mm male/10mm female snaps.

SS10 Stack snap.

EARTHING PLUGS

Plugs offer an easy method of grounding field service mats.



BP UK Bonding plug with 1 x 10mm stud. NO RESISTOR.



BP3 UK Bonding plug with 3 x 10mm studs. 1 meg-ohm resistor.



BP2J UK Bonding plug with 10mm stud and 2 jack sockets. 1 meg-ohm resistor.



BONDLINE ESD TRAINING

Bondline can offer a comprehensive training facility.

TRAINING

At the customers' premises. Tailored to the customers' requirements. Effective through personal involvement.

- Suitable for production personnel, engineers, support staff and managers. Training focuses on the causes of static generation, the effects of static discharge and the materials and methods necessary for prevention and product protection.
- Course content will reflect the customers facilities and current practice.
- Understanding of the phenomenon is enhanced through practical demonstrations and audience participation.
- Courses can also be presented on a one to one 'train the trainer' basis.
- Designed to meet the requirements of IEC 61340-5.

An extremely useful CD introducing the basics of static generation.

Every operator and technician should see this!

CDTRA Training CD.

**BONDLINE ESD AUDITS**

Bondline can offer on site surveys to meet customers individual requirements. Surveys can be formal offering detailed written reports or informal which could simply be a walk round with one of our technical sales team. (Free ESD health check).

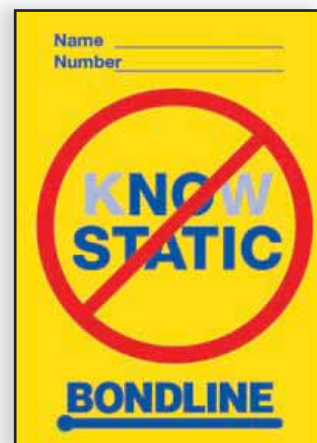
INSTRUMENTATION CALIBRATION

Bondline can calibrate almost any branded ESD instrumentation. All calibration is traceable to national standards and appropriate certificates are supplied to verify this. Contact office for further information.

KNOW STATIC EDUCATIONAL BOOKLET.

A straightforward simple Introduction to ESD booklet to explain the basics of ESD. This booklet is very useful and informative for beginners but also an excellent reminder to the most experienced operatives. Ideal as a pre-training aid. (Every operator should have one!).

KNST ESD booklet.



For your free copy of the Know Static booklet, please contact us.

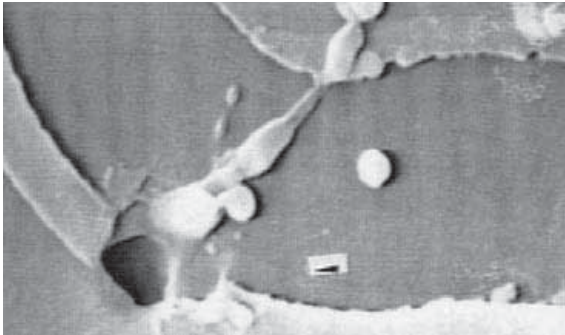
A	Page	F	Page	P	Page
Anti fatigue matting	8	Fami	24-29	Packing tapes	41-42
Anti static bags	22	Field meter	53	PCB racks	27,30
Anti static cleaner	36	Field service kits	58	Pens	41
Anti static sprays	36	Floor cleaner	36	Personnel pouch	41
B		Floor marking tape	9	Picking bins	29
Bags	20-22	Floor matting	7-8	Pink anti static bags	22
Benches	48-49	Floor signs	43	Plato cutters	56
Bench ionizers	44	Floor test kit	53	Pliers	54,56
Bench material	4-6	Floor treatments	37	Plugs	18
Bench savers	6	Foam	23	Polo shirts	17
Bins	39	Folders	40	R	
Bin boxes	32,34	Footwear	14	Racks	30
Bin liners	39	Footwear tester	50	Reel storage	32
Bonding accessories	19	G		Re-sealable bags	20,22
Bonding plugs	18	Garments	16-17	Resistivity meters	52
Boxes	30,34	Gloves	15	Ring binders	40
Brushes	38	Grid tape	41	Rubber bands	41
Bubble bags	23	Ground analyser	50	Rubber floor matting	7
Bubble wrap	23	Grounding accessories	11	S	
C		Grounding cords	11	Shelving material	4
Cabinets	31	H		Shelving system	28
Calibration	59	Hand lotion	36	Shoes	14
Cap	15	Hand tools	54-57	Signs	43
Card carrying frames	27	Heavy duty matting	7	Special purpose tools	56
Carousel	31	Heel straps	12-13	Stacking boxes	35
Chairs	46-47	Humidity indicator cards	21	Static locator	53
Charge plate monitor	53	I		Static shielding bags	20
Chip boxes	34	Inplant handlers	33	Stationery	40-41
Cleaning products	36	Ion gun	44	Straight cords	11
Coats	16-17	Ionizers	44-45	Studding kit	5
Coil cords	11	J		Studs	5
Component boxes	30,34	Jackets	16	Surface resistance meters	52
Component trays	31	K		T	
Conductive foam	23	Killstat cleaners	36	Table lamp	49
Conductive matting	4	Killstat hand lotion	36	Tapes	9,41,42
Conductive strapping	25	Killstat sprays	36	T-shirts	17
Constant monitors	51	Killstat tools	56	Three layer matting	6
Contamination control mat	8	L		Toe grounders	13
Containers	24-25	L-shaped brackets	19	Tools	54-57
Cords	10-11	Lab coats	16	Trainers	14
Cushion matting	6	Labels	42	Training / education	59
Cushion pouches	21	Letter tray	41	Transit packs	32
Cutters	55-56	Link cord	11	Trays	31
D		Loc-top bags	20,22	Trolleys	28
Dental probe	56	Louvred panels	48-49	Tweezers	57
De-solder pump	56	M		U	
Desiccants	21	Magnifying lamp	49	Universal grounding cord	11
Dimple board rack	27	Mats	4-9	Universal PCB rack	27
Disposable heel straps	13	Metalised bags	20	V	
Disposable wrist straps	10	Metal wrist straps	10	Vacuum cleaners	39
Dividers	26	Moisture barrier bags	21	Velcro strap	34
Document holders	40	O		Vinyl matting	6
Dual wrist straps	51	Office accessories	40-41	W	
E		Overhead ionizers	45	Warning signs	43
Earth bonding points	19	Overshoes	13	Waste bins	39
Earth bonding plugs	18			Work check	51
Elastic bands	41			Workstations	5
EREM tools	55			Wrist straps	10
Euro containers	24-25			Wrist strap testers	50-51
				Z	
				Zero stat gun	44



Part ref.	Page	Part ref.	Page	Part ref.	Page	Part ref.	Page	Part ref.	Page	Part ref.	Page
102ASA	57	AFS	8	C1711	55	EL6408	24	KS6141	56	PT50	41
1110	34	AS10	11	C1776	55	EL6412	24	KS6150	56	RB4	40
1115	34	AS12	41	C220	56	EL6417	24	KS6151	56	RB4B25	40
1120	34	AS18	41	C291	31	EL6422	24	KS6190	56	RB4B50	40
1130	34	AS25	41	C294	31	EL6428	24	KS6191	56	RB45	40
1200	34	ASB120	41	C551	31	EL6432	24	KSAFM	8	RB65	40
1205	34	ASB60	41	C554	31	EL6443	24	KSAFS	8	RB74	40
1226	34	ASBW	23	CA10	10	EL8600	24	KSBSV	6	S315	43
1244	34	ASBW2	23	CA10AA	10	EL8632	24	KSC16	36	S315DB	43
1266	34	ASBW3	23	CAP8761	15	EL8643	24	KSC32	36	S315ENT	43
15AGW	57	ASPN	41	CAR01	31	ELF1	27	KSCGAL	36	S315F	43
2000	34	B1SA	57	CB-1A/B	34	ELF2	27	KSDIA10	7	S315R	43
2205	34	B20ASA	57	CB-2A/B	34	ELF4	27	KSDIAM	7	S315RF	43
2244	34	B2ASA	57	CB-3A/B	34	ELF43	27	KSFC1	53	S315WS	43
3080-1A/B	32	B2SA	57	CB-4A/B	34	ELF6	27	KSFCGAL	36	S630	43
3090-2A/B	32	B3CSA	57	CB-5A/B	34	ELSD4300	25	KSFM42	7	S630R	43
3095-22A/B	32	B3SA	57	CCJ10	11	ELSD4317	25	KSFM45	7	SBFB (All)	30
3180-3A/B	32	B4SA	57	CCJ1012	11	ELSD4322	25	KSFM58	7	SBFBL (All)	30
3190-4A/B	32	B5ASA	57	CCJ10SM	11	ELSD6400	25	KSFM10	7	SB1	30
3195-24A/B	32	B5SA	57	CCS10SM	11	ELSD6412	25	KSFSKB	58	SB2	30
3220-5A/B	32	B60SA	57	CCS10	11	ELSD6417	25	KSFSKR	58	SB3	30
3230-6A/B	32	B7SA	57	CCS1012	11	ELSD6422	25	KSGB (All)	16	SB5	30
3245-26A/B	32	B884E-PC	56	CDFHIC (All)	21	ELW1207	28	KSGAL (All)	15	SB6	30
3310-7A/B	32	BAASA	57	CDTRA	59	ELW1210	28	KSGP (All)	15	SCE10	11
3320-8A/B	32	BENCHES	48	CH-5A/B	34	EREM	55	KSGW (All)	16	SCFE	11
3335-28A/B	32	BFM42	7	CH-10A/B	34	ERG10A	10	KSHP01	44	SCJCL	11
3400-9A/B	32	BFM45	7	CH-20A/B	34	ERG10ABL	10	KSHP02	44	SCJ10	11
3431-13A/B	32	BFM58	7	CH-40A/B	34	ESDBP	19	KSHS16	36	SCS10	11
3500-10A/B	32	BFM10	7	CH-60A/B	34	FMT33	9	KSHS32	36	SCS109	11
3501-05A/B	32	BG	11	CH-80A/B	34	FOOTCAS	46	KSHSGAL	36	SENTRD	43
3515-30A/B	32	BHD10	23	CM8300C	51	FOOTSS	46	KSJB (All)	16	SESDRD	43
3600-11A/B	32	BHD6	23	CM8300CU	51	FP	50	KSJW (All)	16	SHVF	43
3610-12A/B	32	BLD10	23	CM8300R	51	FSTEP30	8	KSL8	36	SLVGRD	43
3625-32A/B	32	BLD3200	23	CM8300RU	51	FSTEP830	8	KSMBK1FT	4	SKIT	5
3854-14A/B	32	BLD4300	23	CPGVJ	11	FT2	9	KSMBK2FT	4	SL3	53
3975-16A/B	32	BLD6400	23	CPM7100	53	GRID12	41	KSMBK4FT	4	SL7100	53
4000-10	33	BLD8600	23	CT2111	35	GRID18	41	KSMFL2	4	SM12A/B	34
4000-20	33	BLD6	23	CT2211	35	GRID24	41	KSMFL32	4	SM14A/B	34
4000-30	33	BLNR	39	CT3111	35	GRID48	41	KSMFL4	4	SP (Dividers All)	26
4000-40	33	BLNR40	39	CT3211	35	GTL	15	KSMFL42	4	SRM1	52
4001-10	33	BN6090	32	CT3727	35	GTM	15	KSMBC2	4	SRM100	52
4001-20	33	BN6160	32	CT5111	35	GTS	15	KSMBC4	4	SRM100K	52
4001-30	33	BN6240	32	CT5211	35	HCA10	10	KSP0002	25	SRM3	52
4001-40	33	BN6320	32	CT5737	35	HCA10AA	10	KSRESGAL	37	SS10	11
4003-10	33	BOOSA	57	CWM10	6	HS2	12	KSRES1	37	SUNPF	43
4003-20	33	BOCSA	57	CWMPK	6	HS2DR	12	KSS16	36	SUR1 (All)	46
4005-10	33	BP	18	DCR50	13	HS2QR	12	KSS32	36	SUR2 (All)	46
4005-20	33	BP1M5	18	DCC6	51	HS2XL	12	KSSGAL	36	TB2	29
4005-40	33	BP1M5EU	18	DCHA2	51	HS3	13	KSWKS2-8	5	TB3	29
4007-10	33	BP210M5	18	DCRA	51	HS4VS	13	LO05	42	TB4	29
4007-20	33	BP210M5EU	18	DOC2	40	H5S	12	LO09	42	TB5	29
4007-30	33	BP2J	18	DOC3	40	HT1	9	LO10	42	TB7	29
4007-40	33	BP2JEU	18	DSPU	56	IC5050A/B	34	LO23	42	TG2	13
4008-40	33	BP2SBEU	18	DSTIPESD	56	IDPA4	40	LO36	42	TLT	42
4008-80	33	BP3	18	DWS7	10	KB1	38	LO39	42	TLUG	11
4010-10	33	BP3EU	18	EFB1	19	KB2	38	LPBF	42	TY1	31
4010-50	33	BP3S	18	EFB10	19	KB4	38	LROHS	42	TY12	31
4012-100	33	BP3SEU	18	EL01PL-C	29	KB5	38	LSB210	19	TY25	31
4012-50	33	BP3SBEU	18	EL0PL-C	29	KB6	38	LSB2J	19	TY50	31
4014-100	33	BP37EU	18	EL1PL-C	29	KB7	38	LSB7J10	19	TYA4	41
4014-40	33	BPE	18	EL1196	28	KB8	38	LSBJ	19	TYDES (All)	21
4016-32	33	BPHS	13	EL1198	28	KB9	38	LSBS	19	UPCKS	27
4016-80	33	BPR	18	EL2PL-C	29	KB10	38	LSBSB	19	V555E	39
5000-43	35	BR2	38	EL3A2PL-C	29	KB11	38	LSBRB	19	V777E	39
5000-431	35	BR3	38	EL3PL-C	29	KNST	59	LTM (All sizes)	20	V777FL	39
5000-431.6	35	BR4	38	EL31	27	KS10H	44	LTP (All sizes)	22	VBLM10	6
5000-432	35	BR5	38	EL3200	24	KS100L	15	MB (All sizes)	20	VBLM42	6
5000-433	35	BR69060	38	EL3212	24	KS100S	15	MBCP (All sizes)	21	VELSTRAP	34
5000-64	35	BR69061	38	EL4PL-C	29	KS120H	45	MOI (All sizes)	21	WBINH	39
5000-640	35	BR69062	38	EL41	27	KS130H	45	OVSH	13	WBIN40	39
5000-641	35	BR69066	38	EL42	27	KS1544	56	P1542	54	WSCP-1	50
5000-642	35	BR69072	38	EL4300	24	KS1544D	56	P1543	54	WCK01	51
5000-643	35	BR69076	38	EL4305	24	KS21H	44	P1544	54	WST1	50
55T1 (All)	47	BR69077	38	EL4306	26	KS3LM210	6	P1544D	54	WST2	50
55T2 (All)	47	BTL1	49	EL4308	24	KS3LM32	6	PB (All Sizes)	22	WST3	50
55T3 (All)	47	BTL2	49	EL4312	24	KS3LM410	6	PCBHD	30	WSTBP	50
55TPU (All)	47	C1160P	56	EL4317	24	KS3LM42	6	PCBL	30	WW2625GS	17
634	34	C1504	55	EL4322	24	KS40GAL	37	PCBS	30	WW2627BS	17
770054SL	56	C1511	55	EL4332	24	KS401	37	PCHESD	41	WW2647BL	17
944	34	C1570	55	EL6400	24	KS43GAL	37	PH722	39	WW2655G	17
964	34	C1582	55	EL6403	26	KS431	37	PLATO170	56	WW2657B	17
AFL	8	C1595	55	EL6404	26	KS50H	44	PLATO175	56	ZS-01	44
AFM	8	C1611	55	EL6406	26	KS6140	56	PS10	5		



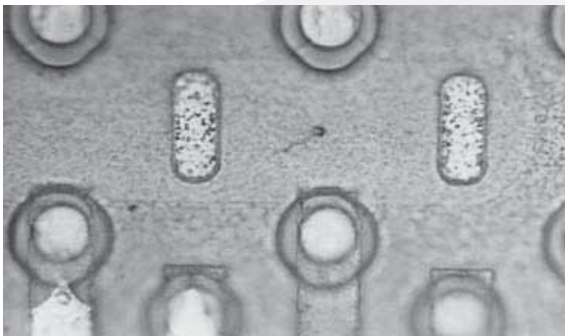
What is ESD?



Catastrophic Failure. Total failure of circuit.



Circuit Damage.



Short Circuit. Malfunction in circuit.

Static electricity has been an industrial problem for centuries. Today, Electro Static Discharge (ESD) impacts productivity and reliability in nearly every aspect of today's electronics environment.

ESD problems have magnified during the past 3 decades because of 2 reasons. 1) The increased use of insulating man-made fibres and plastics for clothing, furnishing, flooring etc. and 2) The ever increasing sensitivity of integrated circuits due to smaller and smaller conductors and components within the circuitry.

ESD can change the characteristics of a semiconductor device, degrading or destroying it. Controlling ESD begins with understanding how electrostatic discharge occurs in the first place. Electrostatic charge is most commonly created by the contact or separation of two materials. This is known as 'triboelectric charging', it involves the transfer of electrons between materials.

Electrostatic damage to electronic devices can occur at any point from manufacture to field service. Damage results from handling the devices in uncontrolled surroundings or when poor ESD control practices are used. Generally, damage is classified as either a catastrophic failure or a latent defect.

Catastrophic Failure. When an electronic device is exposed to an ESD event it may have caused a metal melt, junction failure or oxide breakdown, permanently damaging its circuitry and resulting in failure. Such failure can usually be detected when the device is tested before shipping. If the ESD event occurs after the test the damage will go undetected until the device fails in operation.

Latent Damage. A latent defect is much more difficult to identify. A device may be partially degraded yet continue to perform its intended function. However, the operating life of the device may be reduced dramatically. This could cause premature system failure which could prove extremely hazardous and very costly.

Know Static

ESD	Electro Static Discharge. An uncontrolled surge of static between objects with different voltage potentials.
STATIC	An electrical charge / field that isn't moving.
EPA	Electrostatic Protected Area. A static safe handling area which could be a bench, a room or any other designed area, which should not have any static field greater than 100V maximum.
ANTI STATIC	Minimal generation or retention of a static charge.
CONDUCTIVE	Low resistance i.e. less than 1 meg-ohm (10^6) - the closer to 1 meg-ohm, the slower the discharge.
STATIC DISSIPATIVE	Increased resistance which protects better against an ESD because of a slower charge decay. i.e. between 1 meg-ohm (10^6) and 1000 meg-ohm (10^9).
INSULATIVE	Does not allow the free flow of electrons, therefore, it will more than likely cause problems. i.e. prevent a path to earth, hold a static field.
FARADAY CAGE	A conductive barrier against ESD. i.e. metalised shielding bag, conductive box.
TRIBOCHARGE	To generate static by the rubbing or separating of surfaces.

