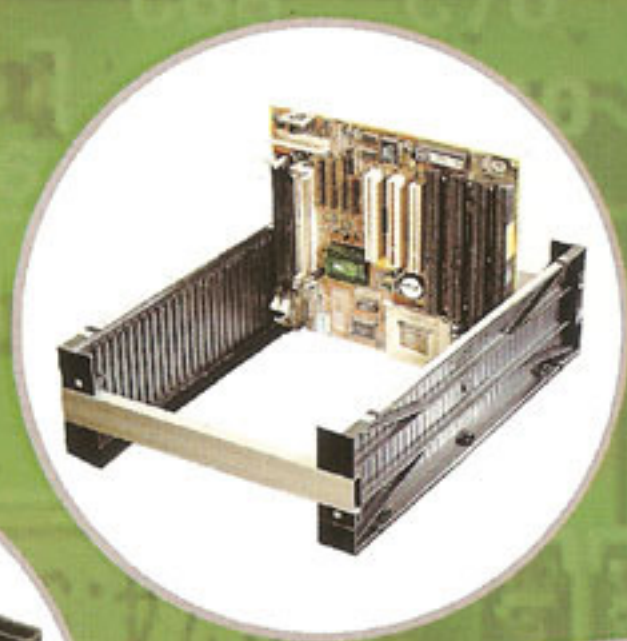


ALKON[®]

ESD SAFE PRODUCTS



Electrostatic Discharge Protection



Bombay Stationers
Pvt. Ltd.

CAT.910-B

www.alkonplastics.com



BOMBAY STATIONERS PVT LTD

1st FLOOR, X-21, COMMERCIAL COMPLEX, BESIDE HOTEL OISES, M.I.D.C. AREA, WALUJ, AURANGABAD (MS)

Phone: +91-240-2654153 / 54

E-mail: info@bombaystationers.com

PROTECT ELECTRO STATIC SENSITIVE DEVICES ABOUT ELECTROSTATIC DISCHARGE (ESD)

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

This is referred to as tribo electric generations.

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

A material that inhibits the generation of tribo electric generation is classified as anti static. An anti static material can be conductive (10^3 - 10^5 ohms/sq), static dissipative (10^6 - 10^9 ohms/sq), antistatic (10^{10} - 10^{12} ohms/sq) or even insulative (greater than 10^{12} ohms/sq)

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

10^3 10^4 10^5

CONDUCTIVE

10^6 10^7 10^8 10^9

STATIC DISSIPATIVE

10^{10} 10^{11} 10^{12}

ANTI STATIC

10^{13}

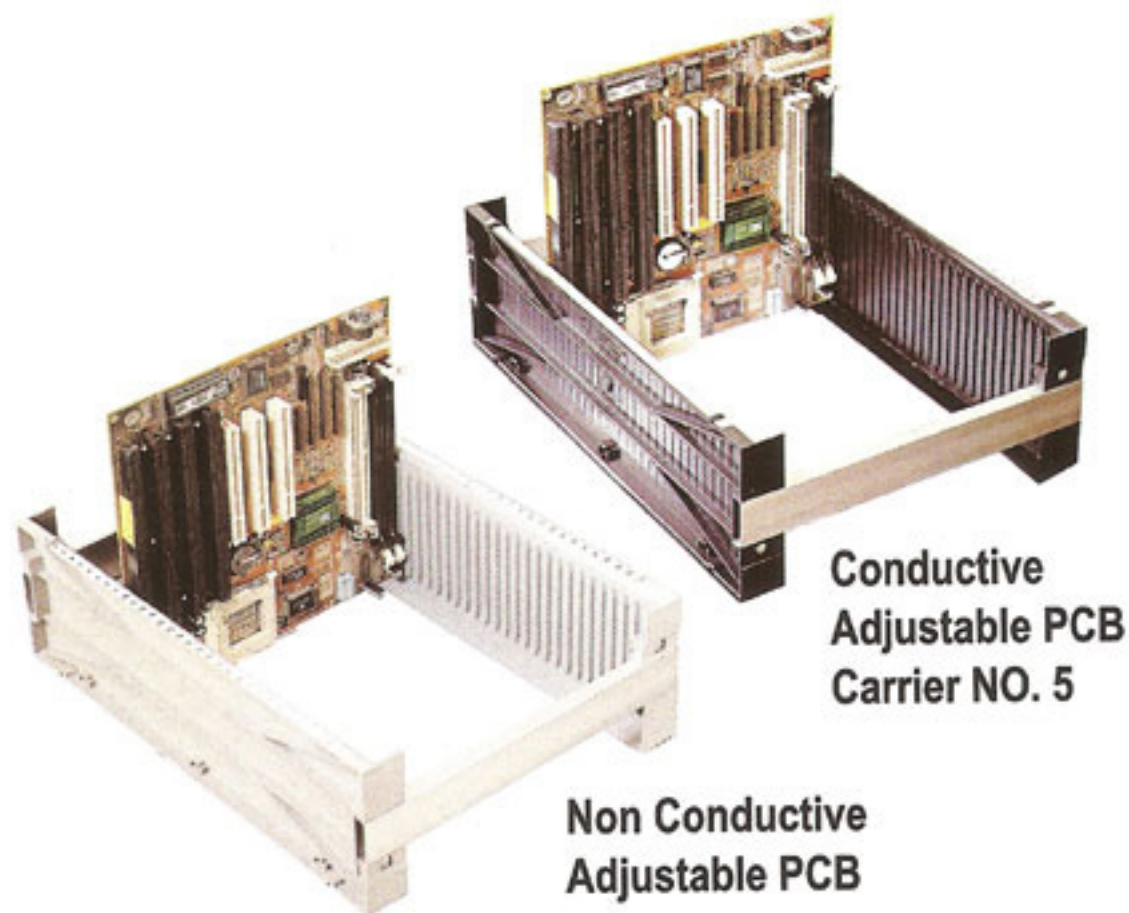
INSULATIVE

ALKON uses special blended imported raw material to produce permanent **ESD** safe products like different sizes of bins, trays, containers, component organizers, cabinets, PCB carriers etc.

CONDUCTIVE

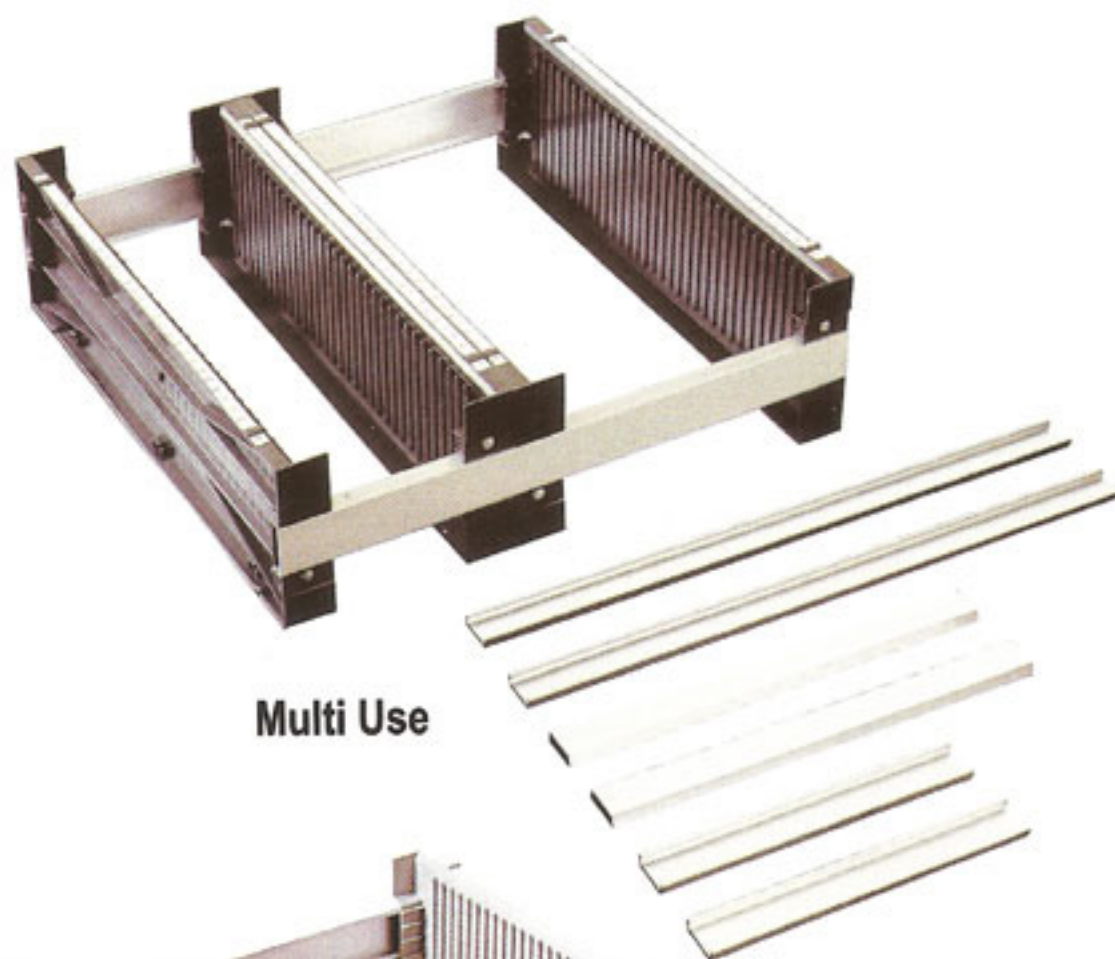
PCB CARRIERS

ALKON introduces a wide range of fixed and adjustable PCB Carriers to stack and store or transport your PCB's. They are the most modern designed carriers available. They are manufactured in both Conductive and Non-conductive plastic and can handle all sizes of PCB's.

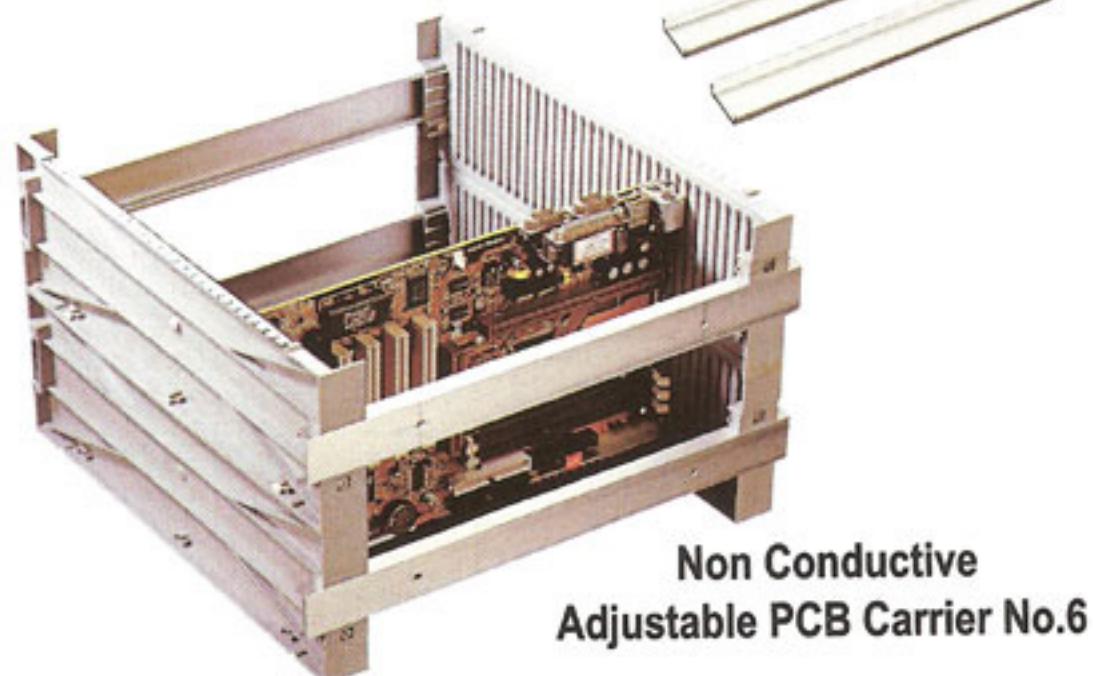


Conductive
Adjustable PCB
Carrier NO. 5

Non Conductive
Adjustable PCB
Carrier NO.5



Multi Use



Non Conductive
Adjustable PCB Carrier No.6

CONDUCTIVE AND NON CONDUCTIVE ADJUSTABLE PCB CARRIERS

ALKON adjustable PCB Carriers can be used for protection of boards during storage or transport in assembly line or integrate with automatic component insertion machines. They can be stacked one on each other. Each PCB Carrier has distinctly numbered on white background, 31 slots which can hold a maximum of 31 PCB's. Special Aluminium Guides have a unique design which remains Flush with PCB Carriers. They help in adjusting the width as per the Size of PCB,s. Three lengths of aluminium guides are available i.e. 253 mm, 353mm and 553mm

ADJUSTABLE PCB CARRIER NO.: 5

Useful for small to medium Boards

Size of sides 350mm x 105mm

Use different size of Aluminium guides to make the configuration as per the size of PCB.

Conductive Adjustable PCB Carrier NO.: 5

Set of 2 pcs. - Colour Black

Art No.: **APCR5 - C**

Non Conductive Adjustable PCB Carrier NO.: 5

Set of 2 pcs. - Colour Grey

Art No.: **APCR5 - N**

Order aluminium guides separately.

MULTI USE

Different sizes of PCB's can be fitted in two PCB Carriers as shown in the picture

ALUMINIUM GUIDES

Three Standard lengths Aluminium anodized guides are available. Longer lengths useful for handling different sizes of PCB's are available on request.

LENGTH

253 mm Set of 2 pcs. Art No.: **APCRG -2**

353 mm Set of 2 pcs. Art No.: **APCRG -3**

553 mm Set of 2 pcs. Art No.: **APCRG -5**

ADJUSTABLE PCB CARRIER NO.: 6

Useful for medium sized Boards

Size of sides 350 mm x 210 mm

2 Sets of Aluminium guides are required for Carrier No. 6

Conductive Adjustable PCB Carrier No.: 6

Set of 2 pcs. - Colour Black .

Art No.: **APCR6 - C**

Non Conductive Adjustable PCB Carrier No.: 6

Set of 2 pcs. - Colour Grey .

Art No.: **APCR6 - N**

Order Aluminium guides separately.



Non Skid Fitting

NON SKID FITTING

Non Skid fitting available to fit at the bottom on Aluminum guides to keep the PCB carriers at a taper for horizontal storage of PCB's.
Set of- 2 pcs.

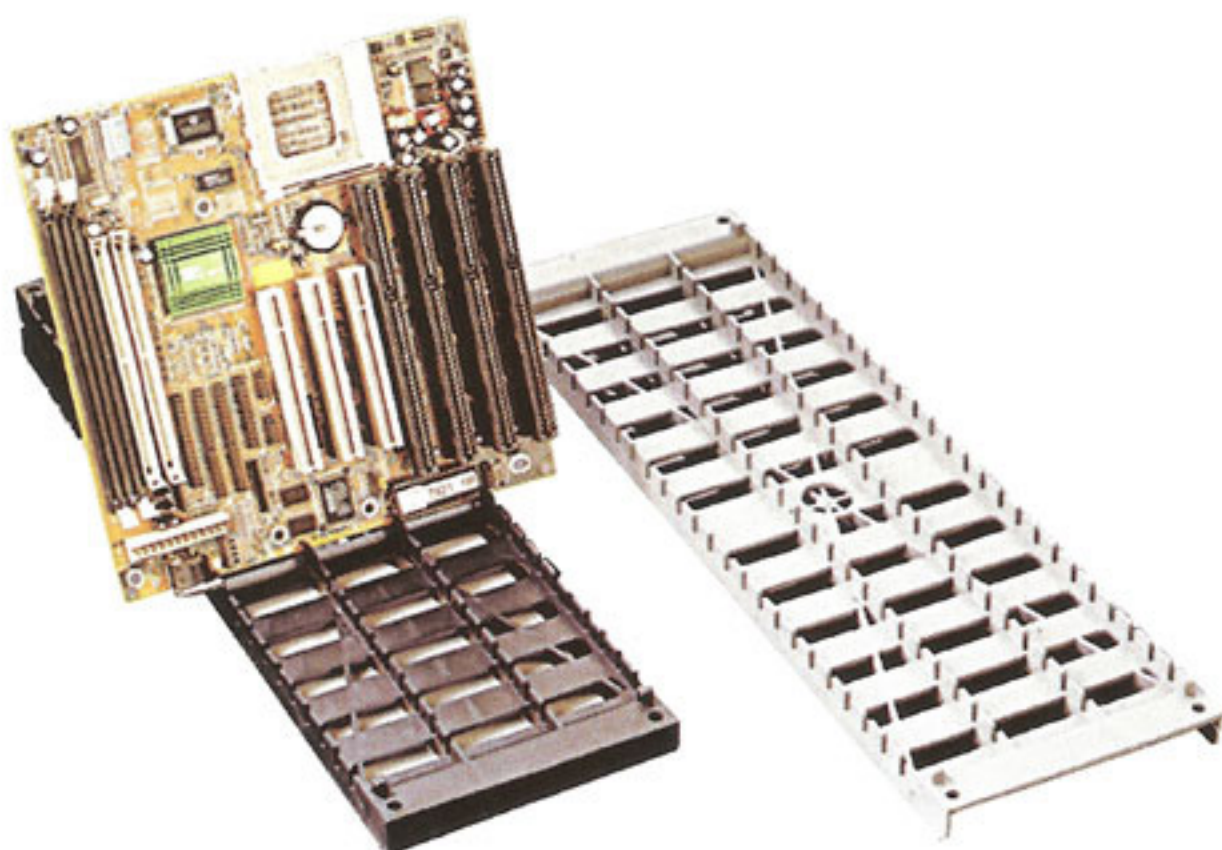
Art No.: **NSF**

CARRY HANDLE

Carry handle can be provided to carry the PCB's in horizontal position in the racks.

Handle 1 pc.

Art No.: **PCB-H**



**Conductive & Non Conductive
Fixed PCB Carriers**

CONDUCTIVE & NON CONDUCTIVE FIXED PCB CARRIERS

Economical carriers for handling clinched SMD's, Soldered or bare boards of any Size.

Tapered slots to keep PCB's in taper position.

Easy to carry.

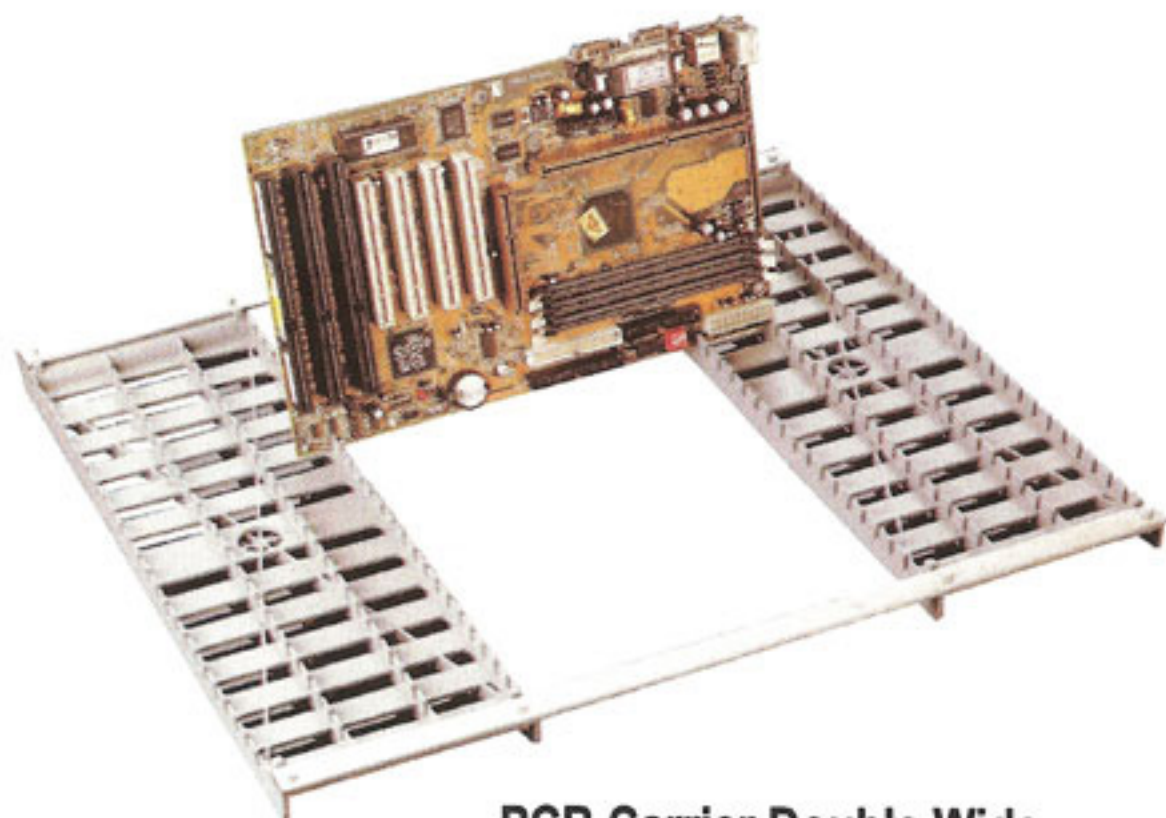
Size 458 mm x 140 mm

25 Slots

Black Colour for conductive. Art No.: **APCR1-C**

Grey Colour for non conductive. Art No.: **APCR1-N**

Packing : Fixed PCB Carrier are packed 5 pcs. in a box.



PCB Carrier Double Wide

PCB CARRIER DOUBLE WIDE

Two PCB Carriers can be connected with Aluminium connectors for very wide PCB's upto 600mm.

Conductive :

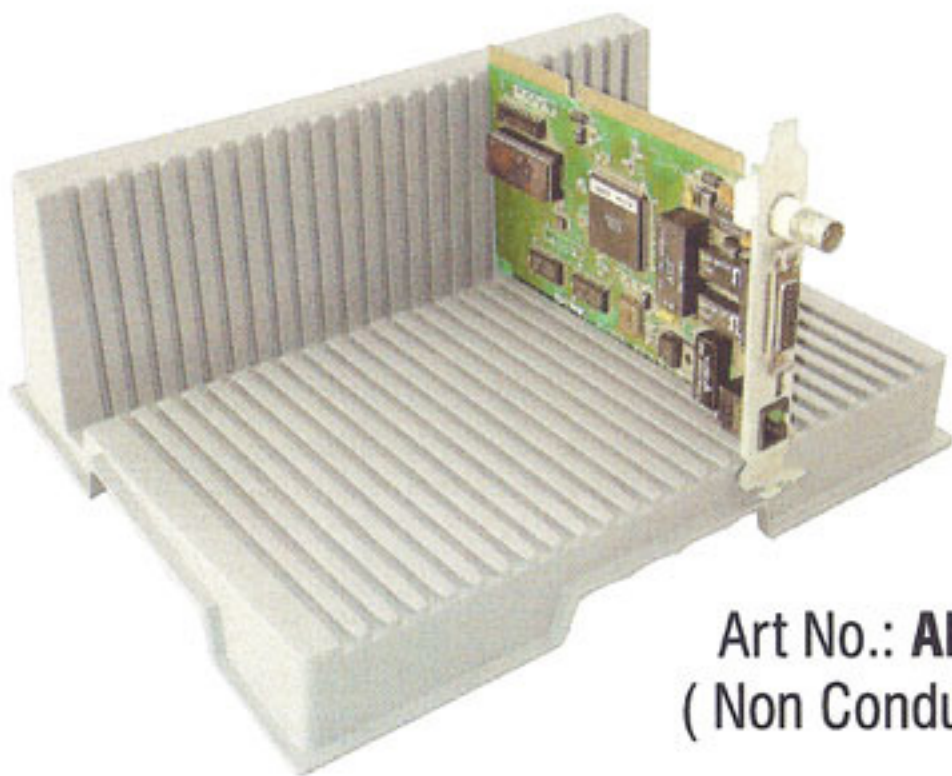
Art No.: **APCR 1-WC**

Non Conductive :

Art No.: **APCR 1-WN**



Art No.: **APCR 4 - C**
(Conductive Black)



Art No.: **APCR 4 - N**
(Non Conductive Grey)

It is a two side support PCB carrier of conductive or non conductive material for stronger card holding. Conductive PCB carrier are excellent PCB carrier for work benches. Easy to handle and does not occupy much space. Electrically conductive models are wholly earthed only by placing them on an earthed table.

- ▶ Holds boards on two contiguous edges.
- ▶ Nestable when not in use.
- ▶ Conductive PCB carrier in Black colour.
- ▶ Non conductive PCB carriers in Grey colour.
- ▶ Size : 207 x 273 x 95 mm.
- ▶ 25 grooves, 9mm Pitch, 3mm width.

CONDUCTIVE COMPONENT ORGANISER



Conductive Component Organiser

COMPONENT ORGANISER

Conductive Component Organiser provides systematic storage of electrostatic sensitive devices. It consists of a cabinet with 25 small drawers.

Size of Cabinet: 400mm x 250mm x 160mm

Size of the Drawers: 150mm x 75mm x 35mm.

Non Conductive Component Organisers are also available

Art No.: **ACO 25 - C Conductive**

Art No.: **ACO 25 Nonconductive**

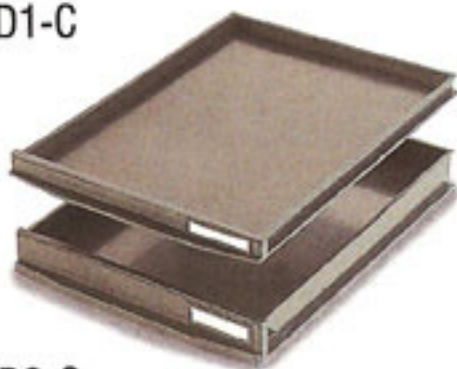
Modular system is an ideal storage system for Electrostatic sensitive devices based on standard modules which can be interlocked and stacked one on top of each other.

The basic system is around four drawer sizes which can be interchanged in the ratio of : 1 : 2: 3: 4.

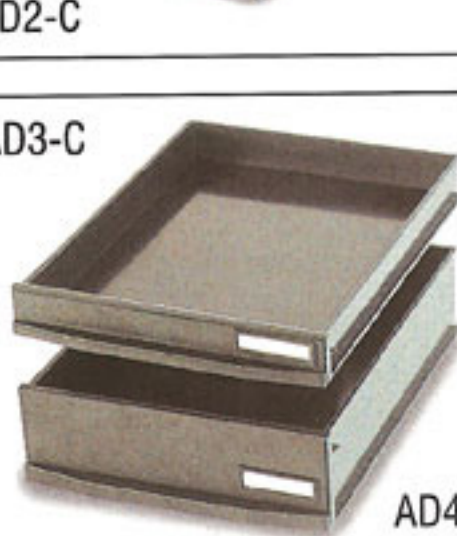
All cabinets can be supplied with / without central lock.



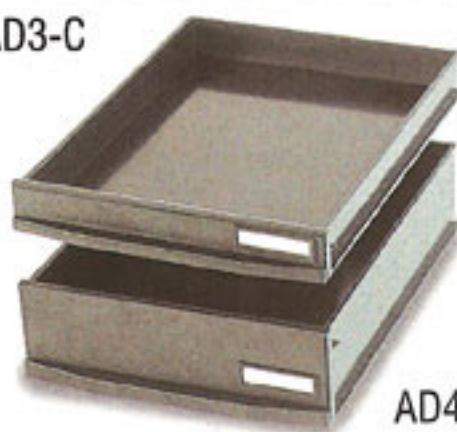
AD1-C



AD2-C



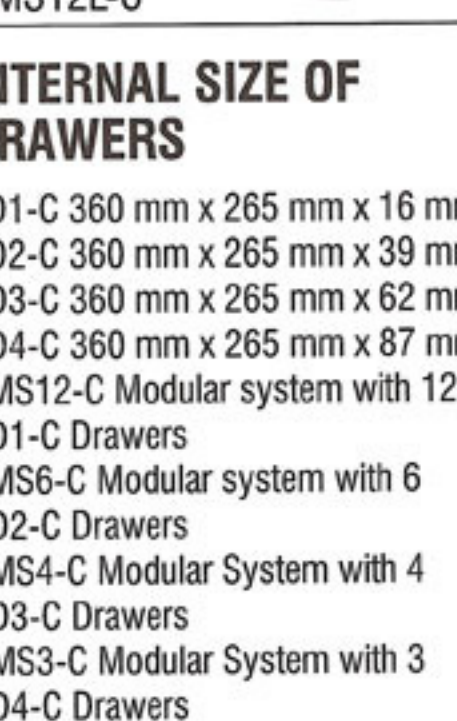
AD3-C



AD4-C



AMS12L-C



INTERNAL SIZE OF DRAWERS

AD1-C 360 mm x 265 mm x 16 mm
 AD2-C 360 mm x 265 mm x 39 mm
 AD3-C 360 mm x 265 mm x 62 mm
 AD4-C 360 mm x 265 mm x 87 mm
 AMS12-C Modular system with 12 AD1-C Drawers
 AMS6-C Modular system with 6 AD2-C Drawers
 AMS4-C Modular System with 4 AD3-C Drawers
 AMS3-C Modular System with 3 AD4-C Drawers

AMS6L-C



AMS4L-C



AMS3L-C



MIXED DRAWER SYSTEM

Modular System can be fitted with different size of drawers in the same cabinet. For example, One AD4-C drawers can be replaced by two AD2-C drawer or one AD1-C drawer and one AD3-C drawer

INDICATOR

Name plate can be changed by pushing out the paper from the indicator as shown.



BASE UNIT -ABU-C



BASE UNIT

Base unit can be used with casters to make a mobile unit. One or more base unite can be used (Joined by set of four dowels provided) under the Modular system to raise the cabinet from the floor. Height of base unit is 35mm.

CENTRAL LOCKING SYSTEM

Is provided OPTIONALLY. Product numbers for cabinet with locks will be AMS12L-C , AMS6L-C, AMS4L-C etc.

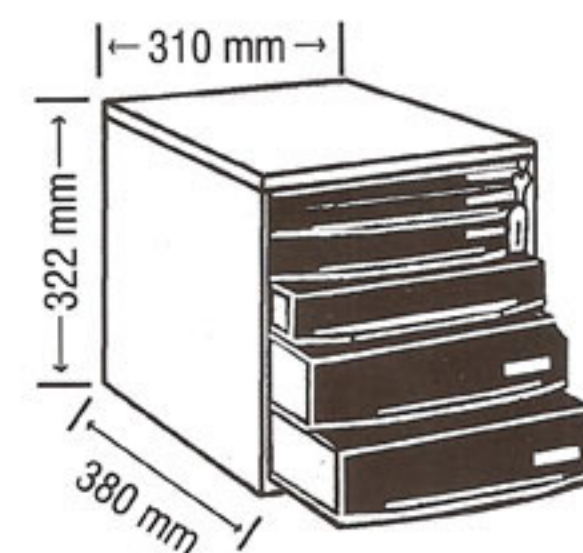


STOPPER



SPECIAL STOPPERS

Special stoper is provided to stop the drawers when opened fully. To remove drawer from the cabinet lift the drawer up & remove from cabinet.



CONDUCTIVE UTILITY CONTAINERS : FOR STORAGE OF SMALL PARTS

THREE SIZES OF CONTAINER IN BLACK COLOUR ARE AVAILABLE TO FIT IN AD3-C DRAWERS AND ONE SIZE TO FIT IN AD2-C DRAWER



Combination of Containers in AD3-C drawers

SIZES OF CONTAINERS :

Art No. UC1-C Size 82 x 82 x 55 mm

12 CONTAINERS FIT IN ONE AD3-C DRAWER

Art No. UC2-C Size 170 x 82 x 55 mm

6 CONTAINERS FIT IN ONE AD3-C DRAWER

Art No. UC3-C Size 255 x 82 x 55 mm

4 CONTAINERS FIT IN ONE AD3-C DRAWER

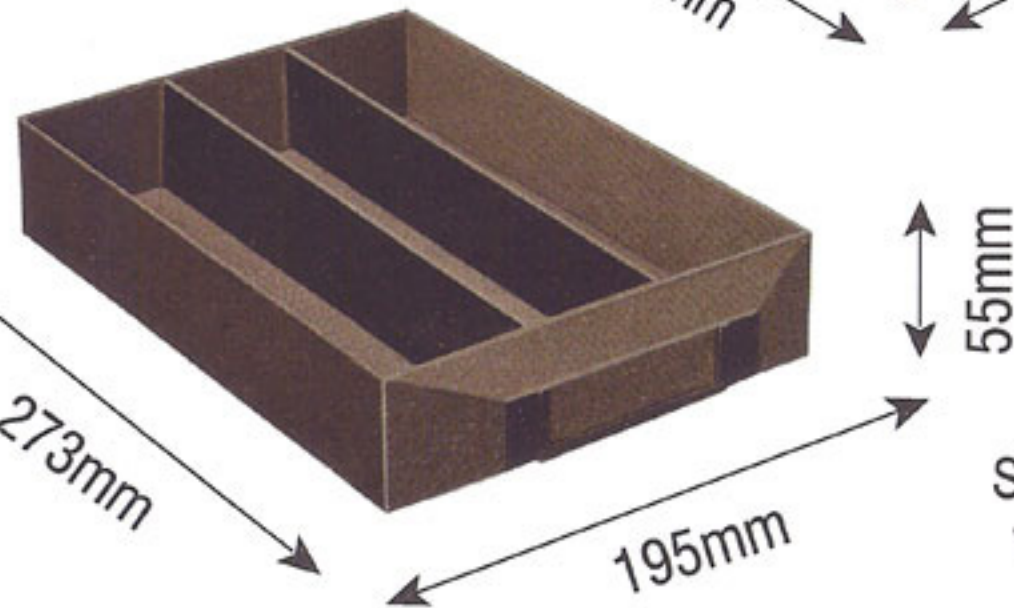
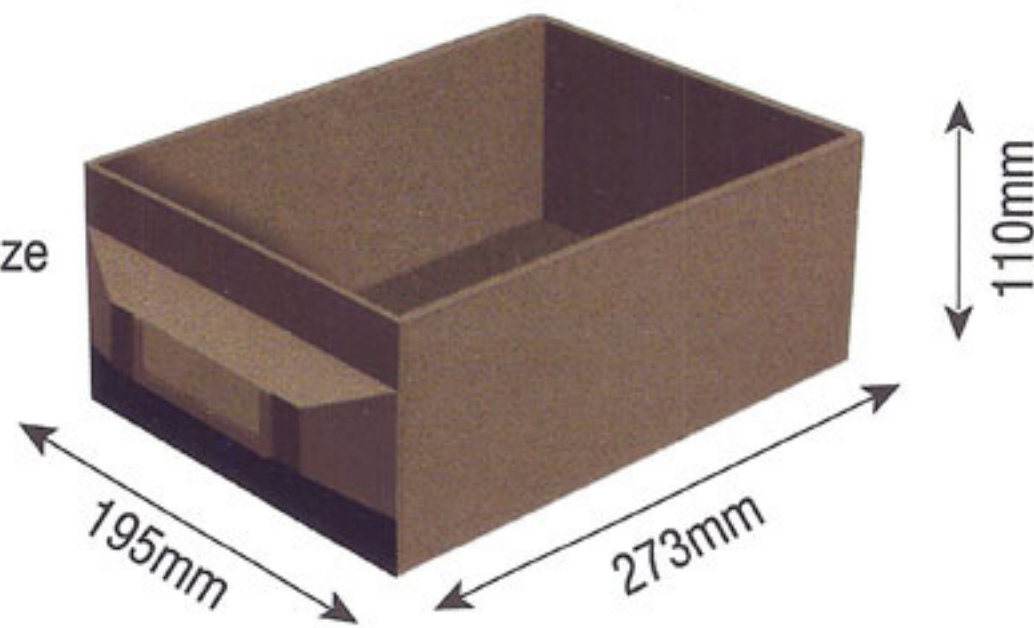
Art No. UCD 2-C Size 258 x 85 x 37 mm with 2 partition

6 CONTAINERS FIT IN ONE AD2-C DRAWER

Art No. UC6-C Size 95 x 90 x 45 mm

This container is designed to be used in USE ALL BOX

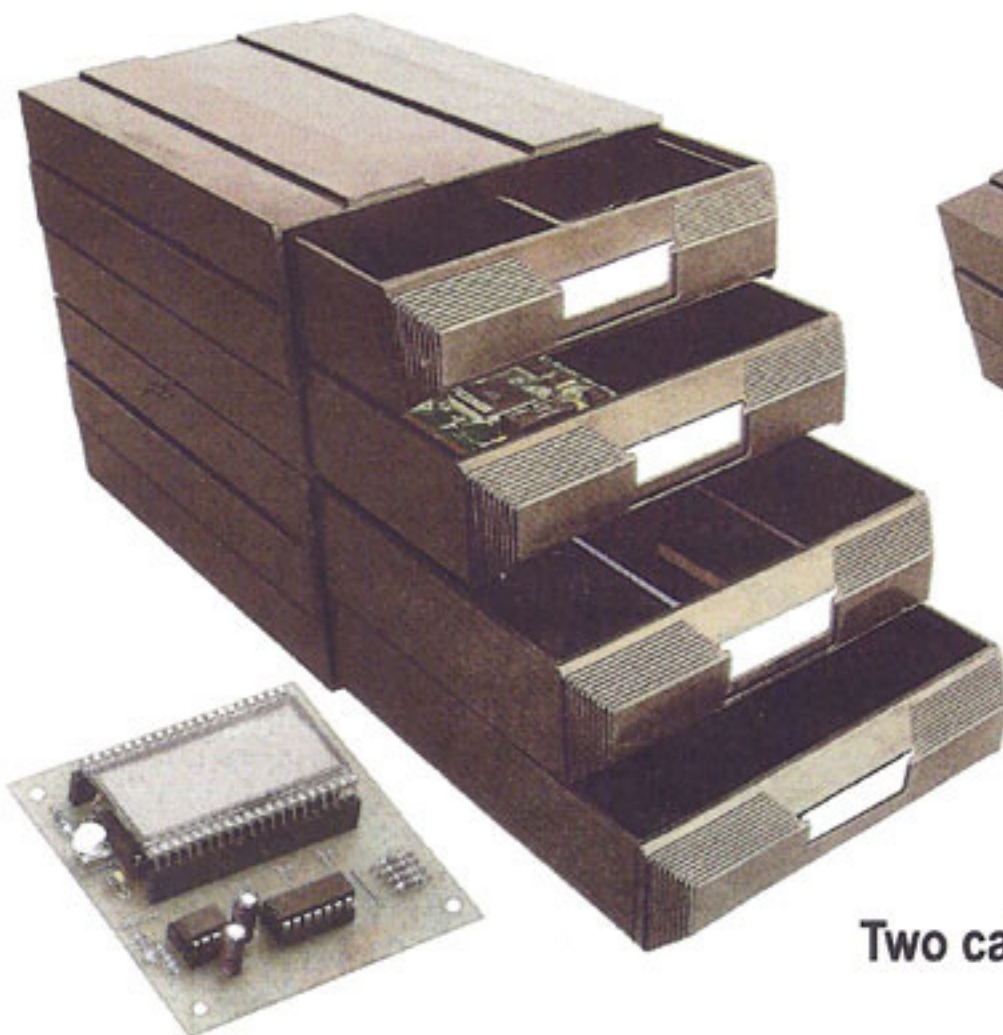
Big drawer size



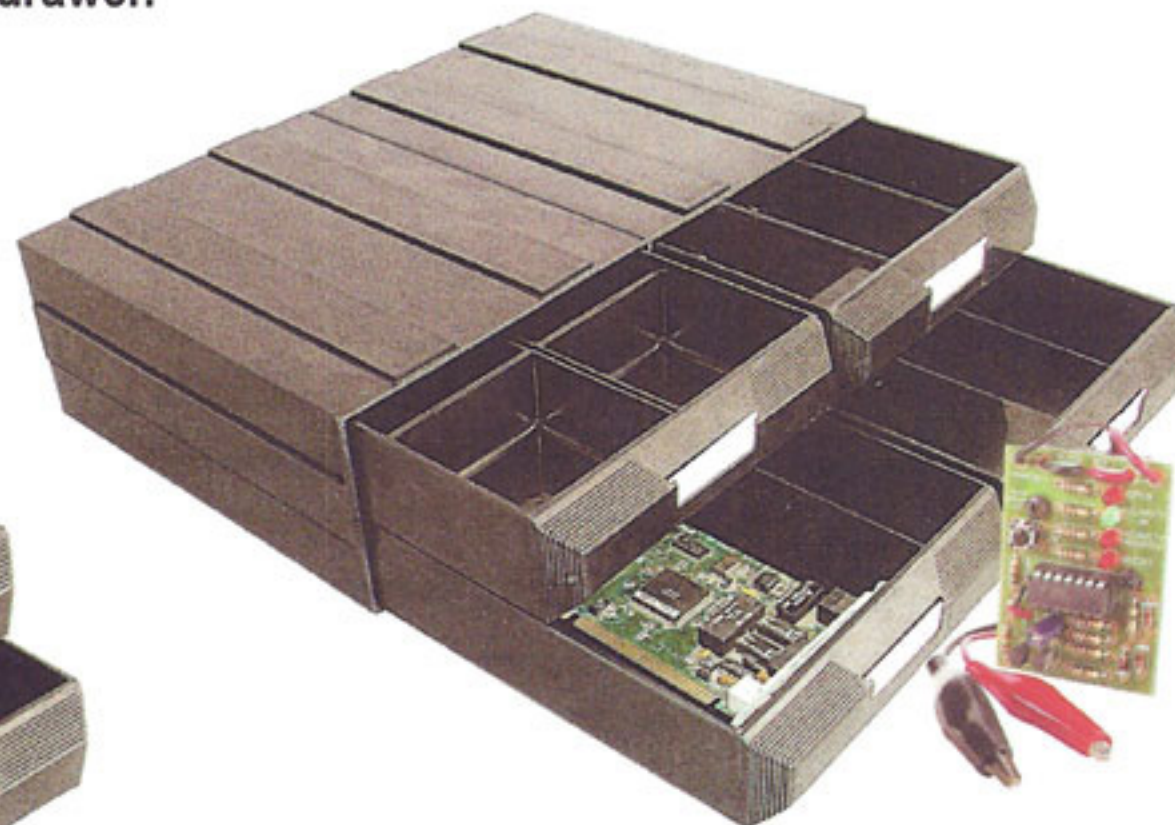
Small drawer size
with 2 partitions



6 nos. Of UC 6-C Containers
can fit in one small drawer.



Two cabinets fitted one on top of the other
or side by side.



MULTIPURPOSE USE ALL BOX WITH ONE OR TWO DRAWERS

Cabinet : Black conductive Plastic
Size : 215 x 282 x 242

Drawers : Black conductive Plastic

Big Drawer : 195 x 273 x 110 mm

Small Drawer : 195 x 273 x 55 mm.

Multipurpose use all box cabinet can be
interlocked both vertically and horizontally.
Assemble cabinets from left to right
and bottom to top.

ART No.: MUB-1 C with one big drawer

ART No.: MUB- 2 C with two small drawers.

ART No.: UC6-C Conductive Container.

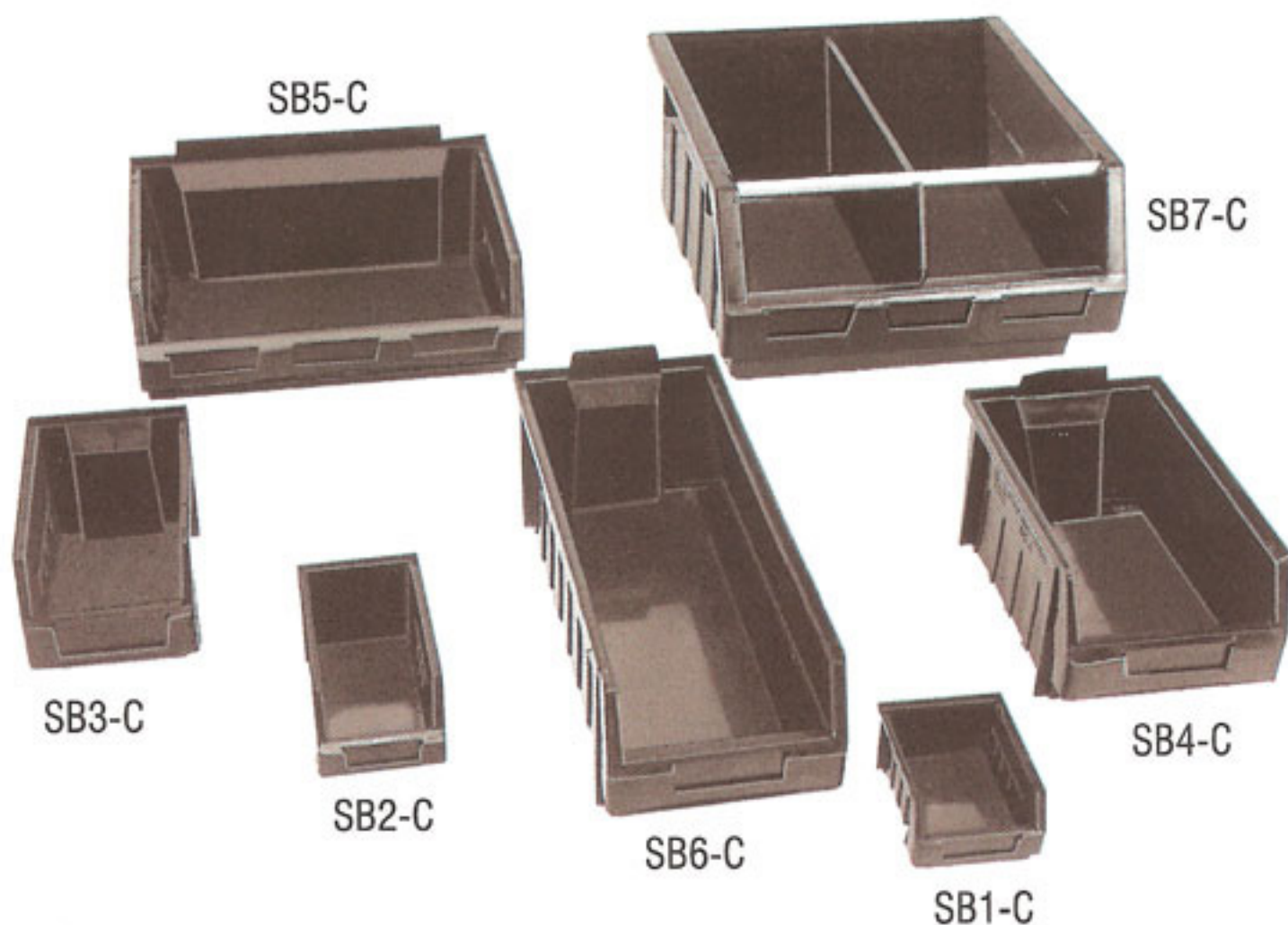
Size : 90 x 95 x 45 mm

6Nos. UC 6-C Containers can fit in one
small drawer.

Art No.: MUB-2 CP Vertical Partition.

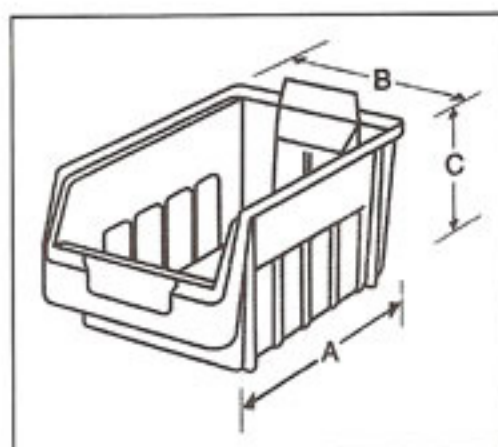
Two Vertical Partition can fit in one small
drawer in the slots provided.

Non Conductive Use all box available :
Cabinet Grey colour. Drawers Transparent



Supra Bins Dimensions in mm

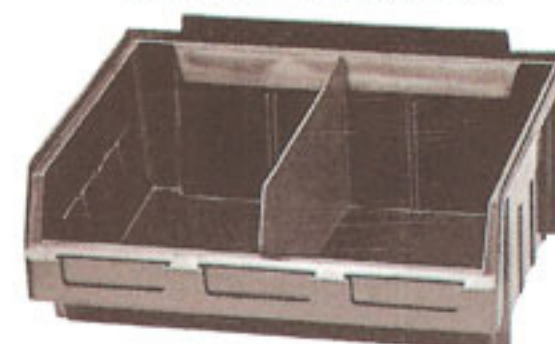
Art No.	A	B	C
SB1-C	125	100	60
SB2-C	170	100	85
SB3-C	220	130	125
SB4-C	290	178	143
SB5-C	290	363	145
SB6-C	440	180	145
SB7-C	435	400	215



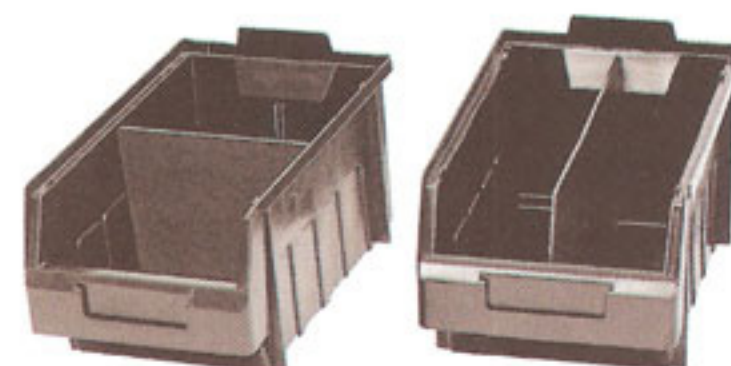
Louvre Panels

SUPRA BIN PARTITIONS

SB5-C with vertical partition



SB4-C with horizontal / vertical partition



Horizontal partition for SB4-C & SB6-C

Art No.: **HP SB4-C / HP SB6-C**

Vertical partition for SB4-C & SB5-C

Art No.: **VP SB4-C / VP SB5-C**

Vertical partition for SB6-C Art No.: **VP SB6-C**

Vertical partition for SB7-C Art No.: **VP SB7-C**

Made from Polypropylene Copolymer.

Strong rear lip for use with louvred panels.

Strong heavy duty, with reinforced base side & stacking rim. Resistant to most industrial solvents, withstands higher temperatures.

Clear access to contents. All bins with identification card holder slots. Incorporates a safety stop feature in SB 4-C, SB 5-C, SB 6-C, at the back for use in shelves.

Colour - BLACK.

STACKING

Supra Bins are designed to be stacked one on top of each other.

LOUVRE PANELS

They are made from Conductive Galvanized steel and come in four sizes. They can be fitted on walls or on stand on table with our special stands.

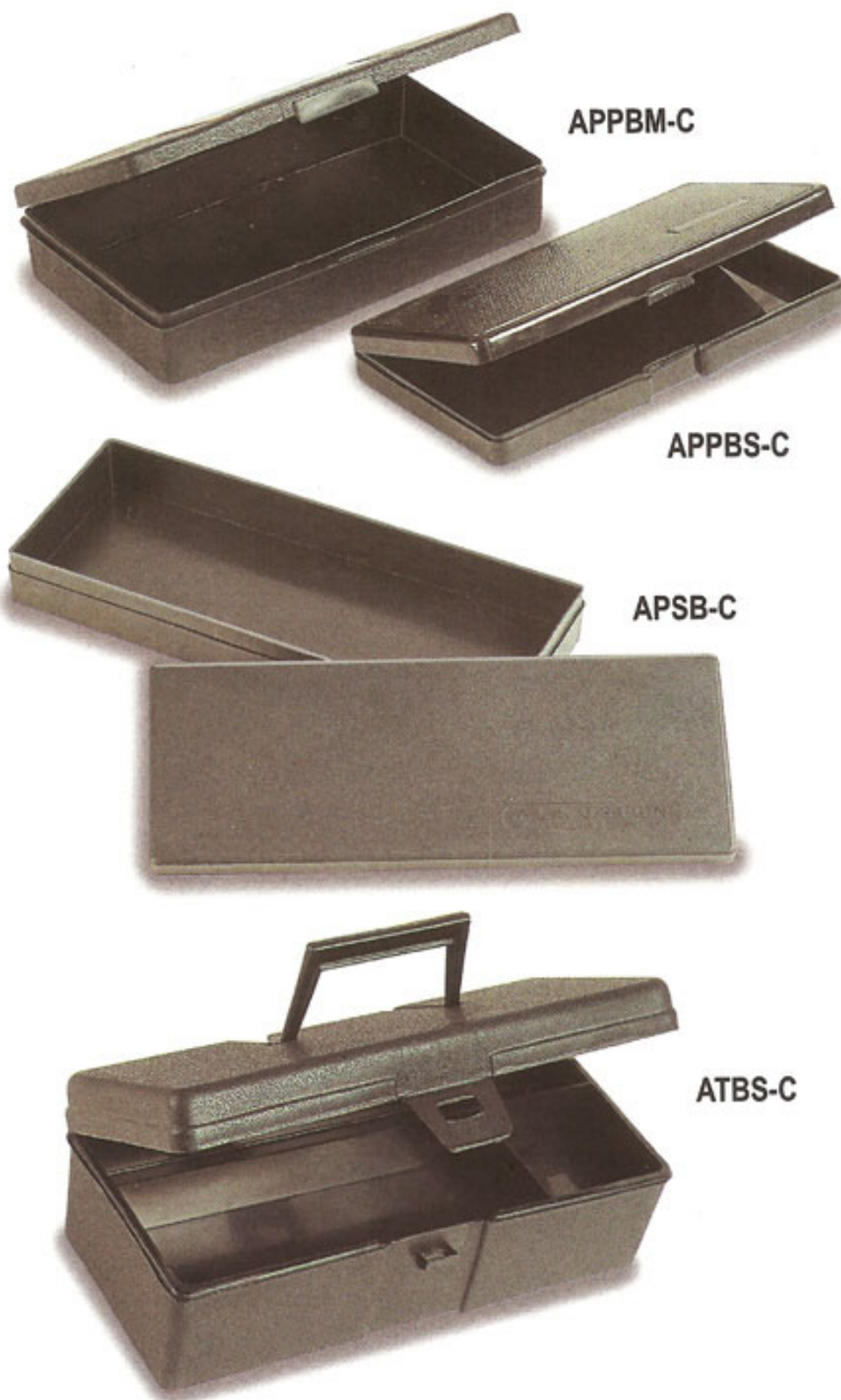
Art No.: **SB LP1** Size 457mm x 457mm

Art No.: **SB LP2** Size 457mm x 610mm

Art No.: **SB LP3** Size 457mm x 915mm

Art No.: **SB LP6** Size 457mm x 1830 mm

Different Types of Stands & Trolleys are available.



CONDUCTIVE / NONCONDUCTIVE HINGED BOXES SMALL SIZE

Two Sizes of hinged boxes are available in conductive and nonconductive Black Colour with conductive foam. Ideal for shipping and long term storage of sensitive devices with foam acting as a cushioning material for components.

- 1) Small Box: Size 180mm x 95mm x 22mm
Art No.: **APPBS-C** Conductive
Art No.: **APPBS** Nonconductive
- 2) Medium Box: Size 190mm x 120mm x 40mm
Art No.: **APPBM -C** Conductive
Art No.: **APPBM** Nonconductive

BIG BOX WITH FOAM

Big size box with cover available in conductive and nonconductive plastic with foam inside for protection of all sensitive devices.

Size: 333mm x 133mm x 40mm
Art No.: **APSB -C** Conductive
Art No.: **APSB** Nonconductive

AL BOX CONDUCTIVE HINGED BOX WITH HANDLE & LOCKING FACILITY

Big Size hinged box is very useful for storage and transport of delicate electronic device which can also be locked. Alternatively it can be used as a tool box. It has a small parts tray inside the box.

Size of Box: 280mm x 125mm x 95mm
Art No.: **ATBS - C** Conductive
Art No.: **ATBS** NonConductive

CONDUCTIVE WASTE PAPER BIN



- ▶ Excellent conductive waste paper bin for use in clean rooms.
- ▶ Made from conductive polypropylene.

Art No.: **AWPBS-C**

SIZE	TOP DIA	BOT. DIA	HEIGHT
Small	210 mm	170 mm	240 mm

CONDUCTIVE FOAM



Ideal for long term storage of critical devices as it is low charging and conductive. Will protect the long term solderability of device lead as it is corrosion resistant.

Availability : Conductive Hard Foam-6mm
Conductive Soft Foam-10mm



Today's electronic manufacturers need a workstation designed to help reduce harmful discharges from reaching vulnerable parts and assemblies. Part of the overall solution is to have a workstation designed with the proper grounding system to dissipate any charge away from the product you're producing. Our custom made workstations are designed to withstand the toughest of environments, allow total flexibility for future upgrades and meet your organization's ESD needs.

Available in Std. size

ART NO.	SIZE
AWS 12060	Table Top Size 1200mm X 600mm over all height 1800mm
AWS 12060 SP	Table Top Size 1200mm X 600mm over all height 1500mm

Special size Available on Request.

Standard Features

- ▶ Workstation structure made from 20 x 40mm rectangular powder coated steel pipes.
- ▶ ESD Mat for table top with grounding cord.
- ▶ Universal spike protector 230V / 50Hz, 15 Amps with four sockets.
- ▶ Four leveling screws for base with height adjustment facility.
- ▶ Foot rest for user convenience

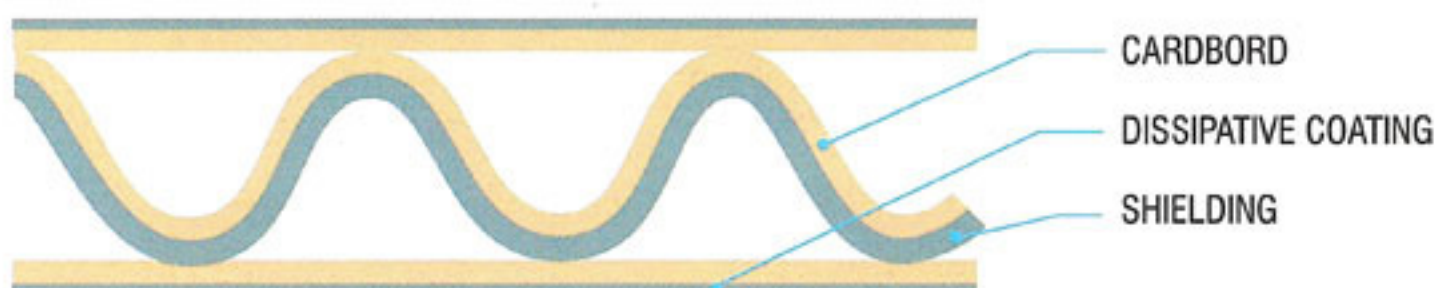
Optional Accessories

- ▶ 28 W flicker free swivel Light.
- ▶ Louver panel.
- ▶ Conductive Bins as required.
- ▶ Writing & Felt Board as per requirement.
- ▶ Tool Tray with option of fitting on Left or Right side.
- ▶ Alkon Modular System with lock. 2 Nos. as per image above.

APPLICATIONS

ALKON uses a proven, versatile cardboard ESD shielding material developed especially for today's electronics industry.

Products made of this material include Component boxes, PCB Transit boxes, IC tube boxes, In-plant handlers for PCBs and also for custom applications.



To protect electrostatic sensitive devices (ESDs) from the unwanted effects of ESD, two key measures must be taken and applied at all times.

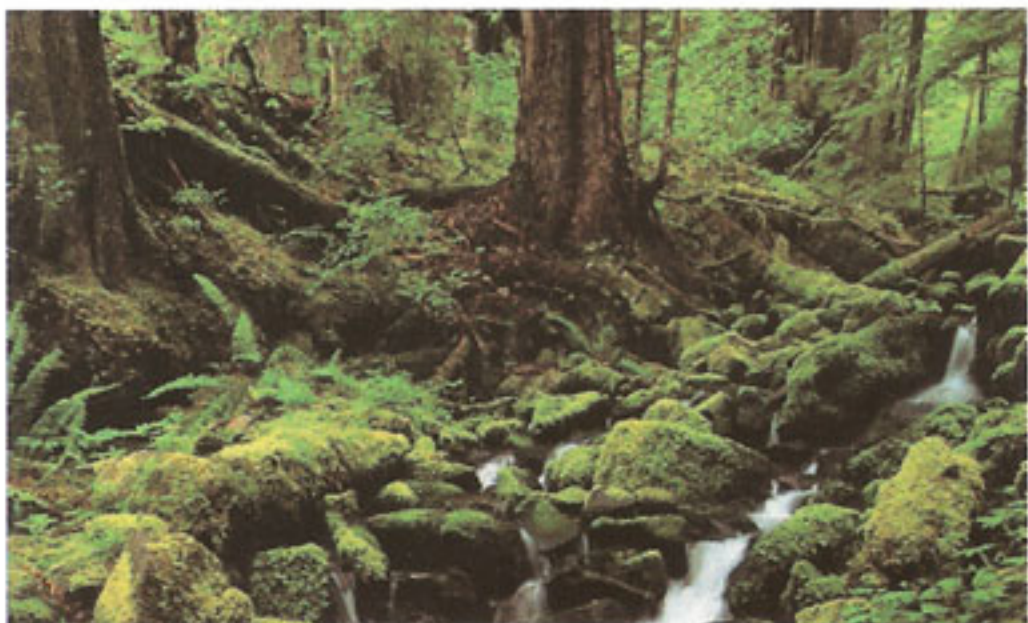
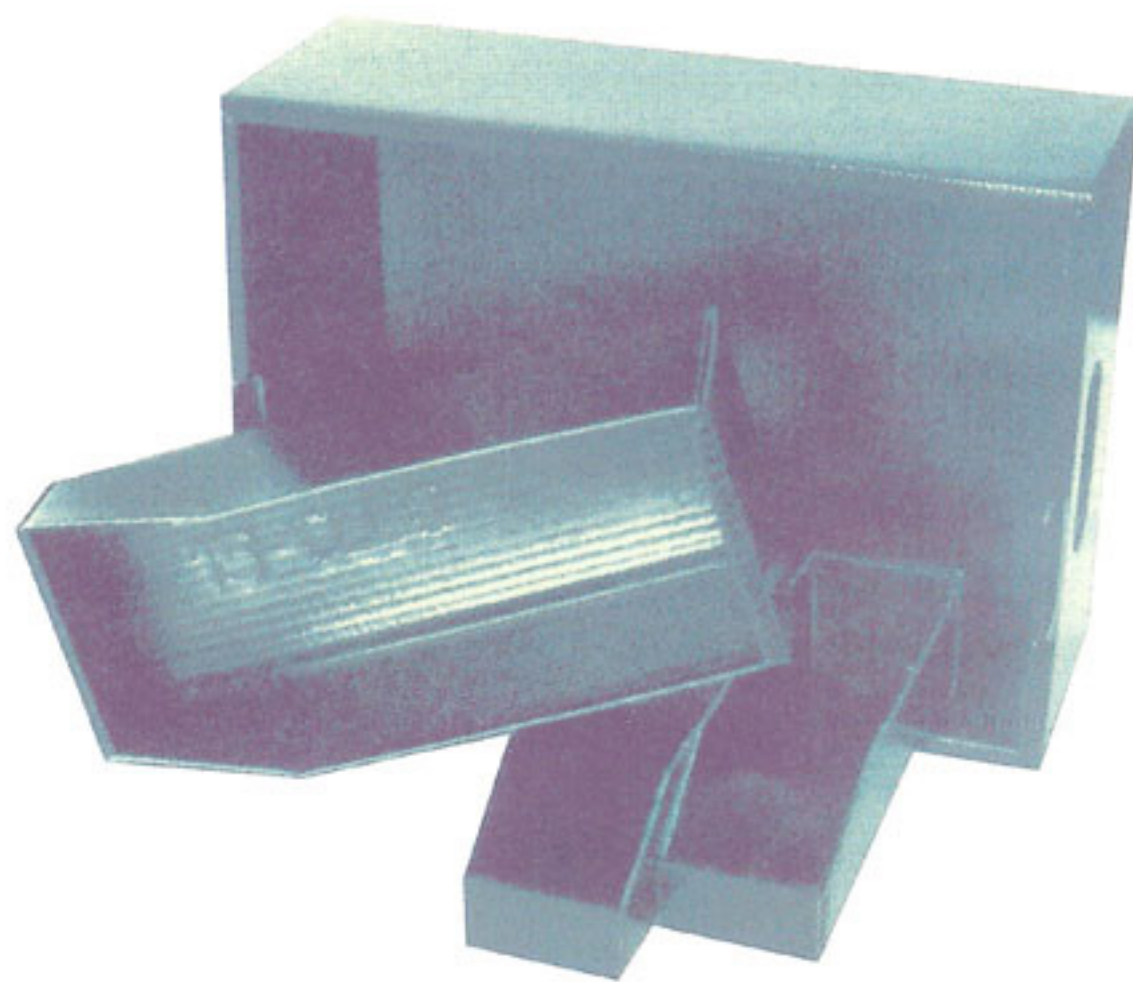
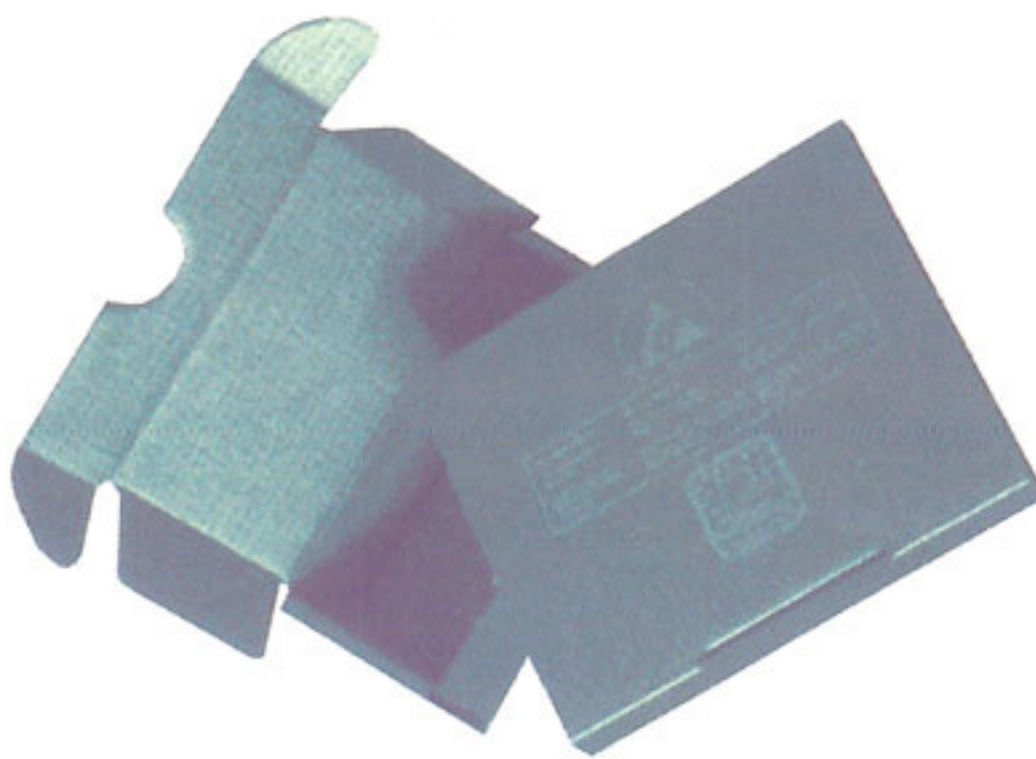
- ▶ ESDs must be handled exclusively in an ESD protected area (EPA) where electrostatic potential differences are minimised.
- ▶ ESDs must be transported from one EPA to another only in shielding packages.

ALKON ESD Safe packaging is ideally suited for ESDs and because of its static dissipative skin and buried conductive core, it is an ESD shielding material suitable for use in ESD protected areas (EPA).

IEC AND EN STANDARDS

Standards play an important part in reducing uncertainties in the valuation, selection and use of ESD protection programs and products. Today in Europe, the operating standard is IEC/EN 61340-5-1:2001 Electrostatic part 5-1 protection of electronic devices from electrostatic phenomena - general requirements and the accompanying IEC/EN 61340-5-2:1999 Electrostatic part 5-2 protection of electronic devices from electrostatic phenomena - user guide.

ALKON meets or exceeds all IEC/EN 61340-5 requirements pertaining to packaging of ESDs



THE ENVIRONMENT

ALKON packaging can withstand repeated use without loss of electrical properties. In the end, it can be recycled in the waste paper stream.

ESD SAFE GRID BAGS are extensively used for packaging or transportation of sensitive electronic devices.

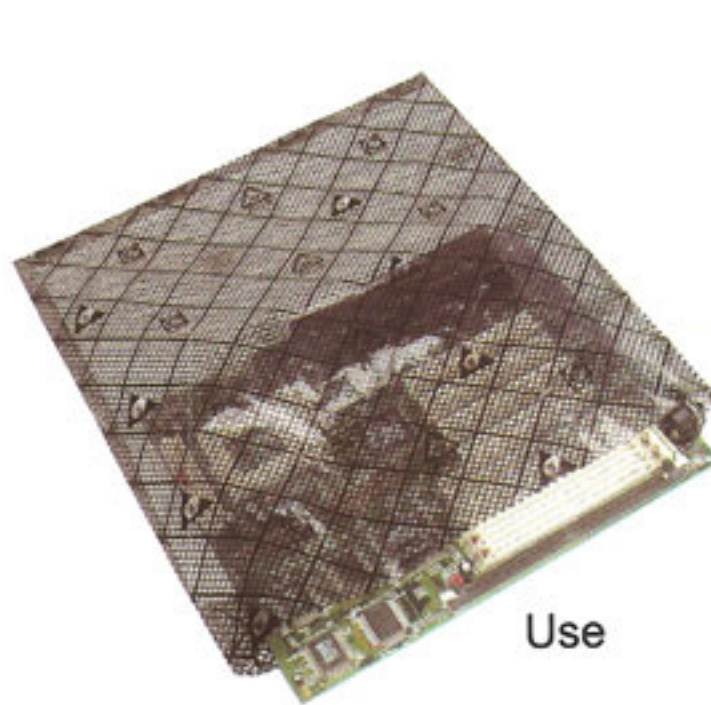
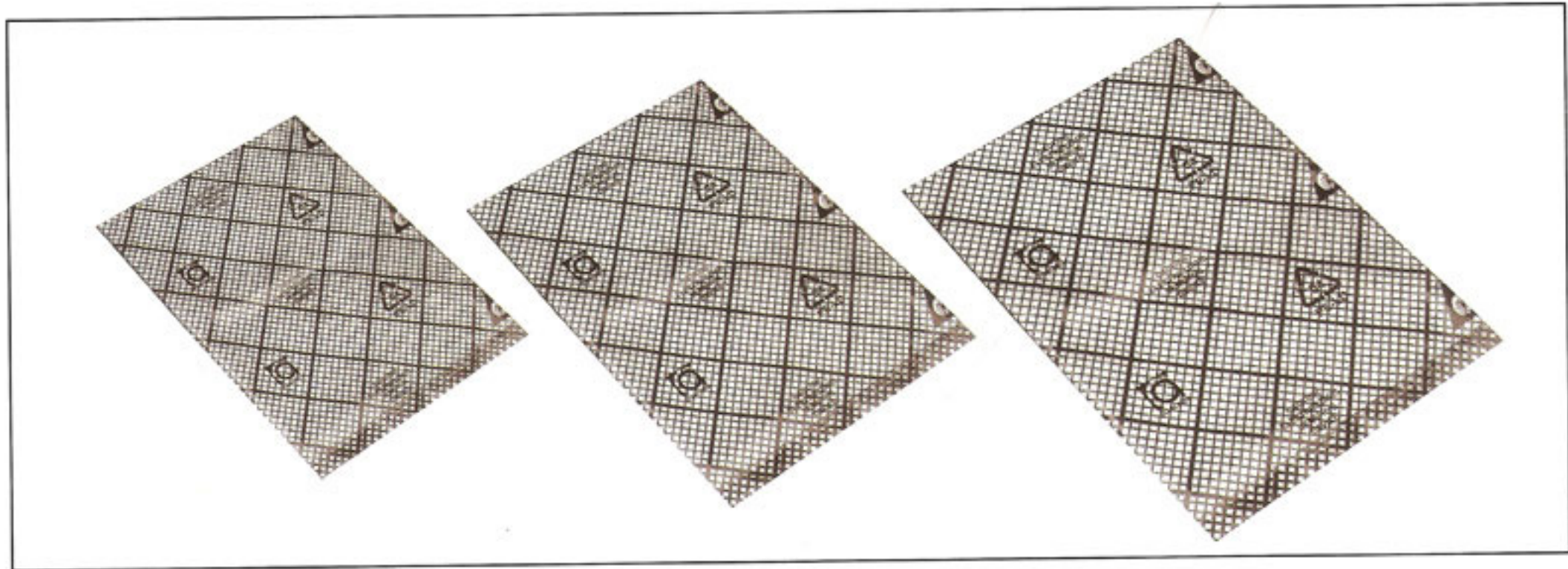
Available in about 350 gauge Polyethylene plastic in 6 widths and lengths as per order.

Following widths are available

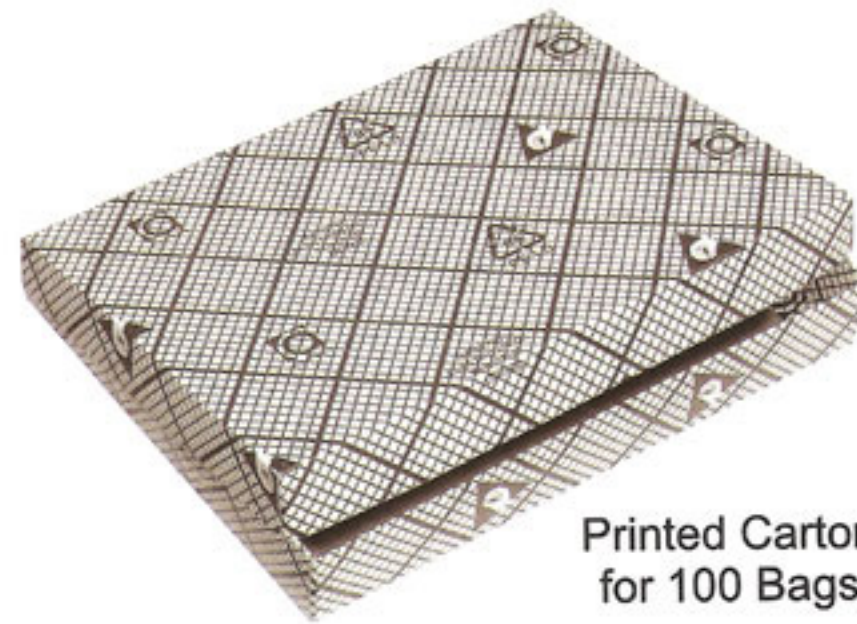
100, 150, 200, 250, 300, 350, 400 mm.

100 Bags are packed in a printed carton

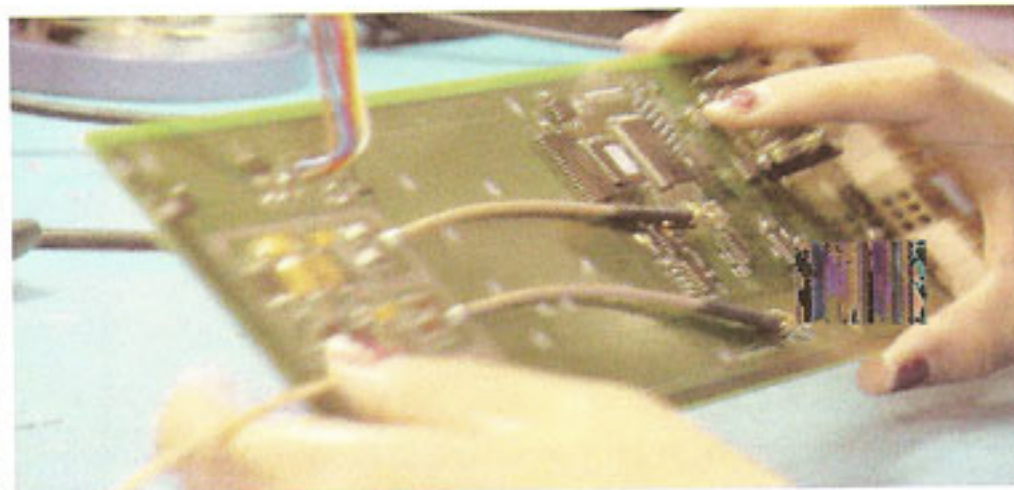
Surface Resistivity 10^6 to $10^7 \Omega$ per square



Use

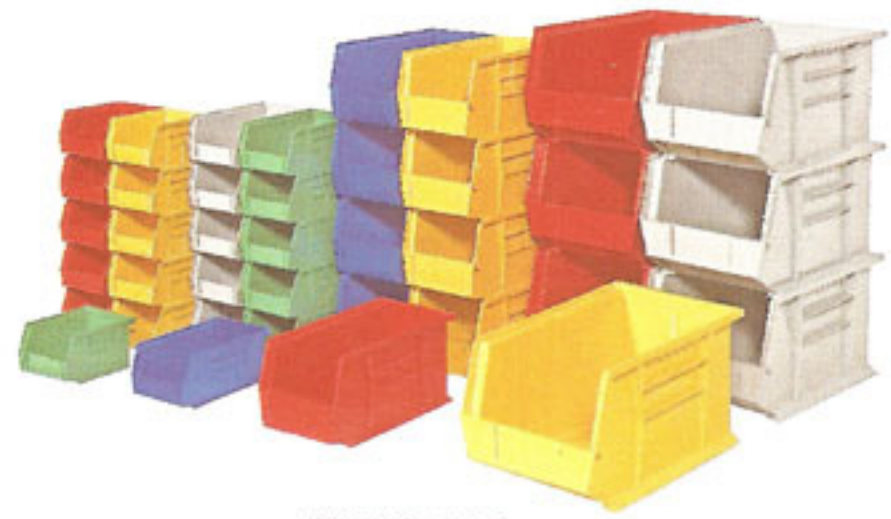


Printed Carton
for 100 Bags





SUPRA BINS
7 SIZES



RHINO BINS
6 SIZES



HIPPO BINS
7 SIZES



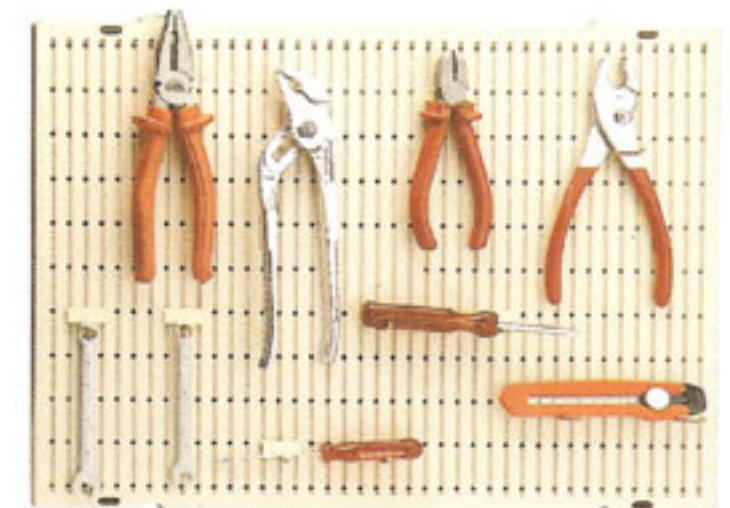
PANDA BINS & SHELVING SYSTEMS
8 SIZES



BULL BINS
5 SIZES



COMPONENT ORGANISER



MULTY DISPLAY BOARD



MULTY SYSTEM



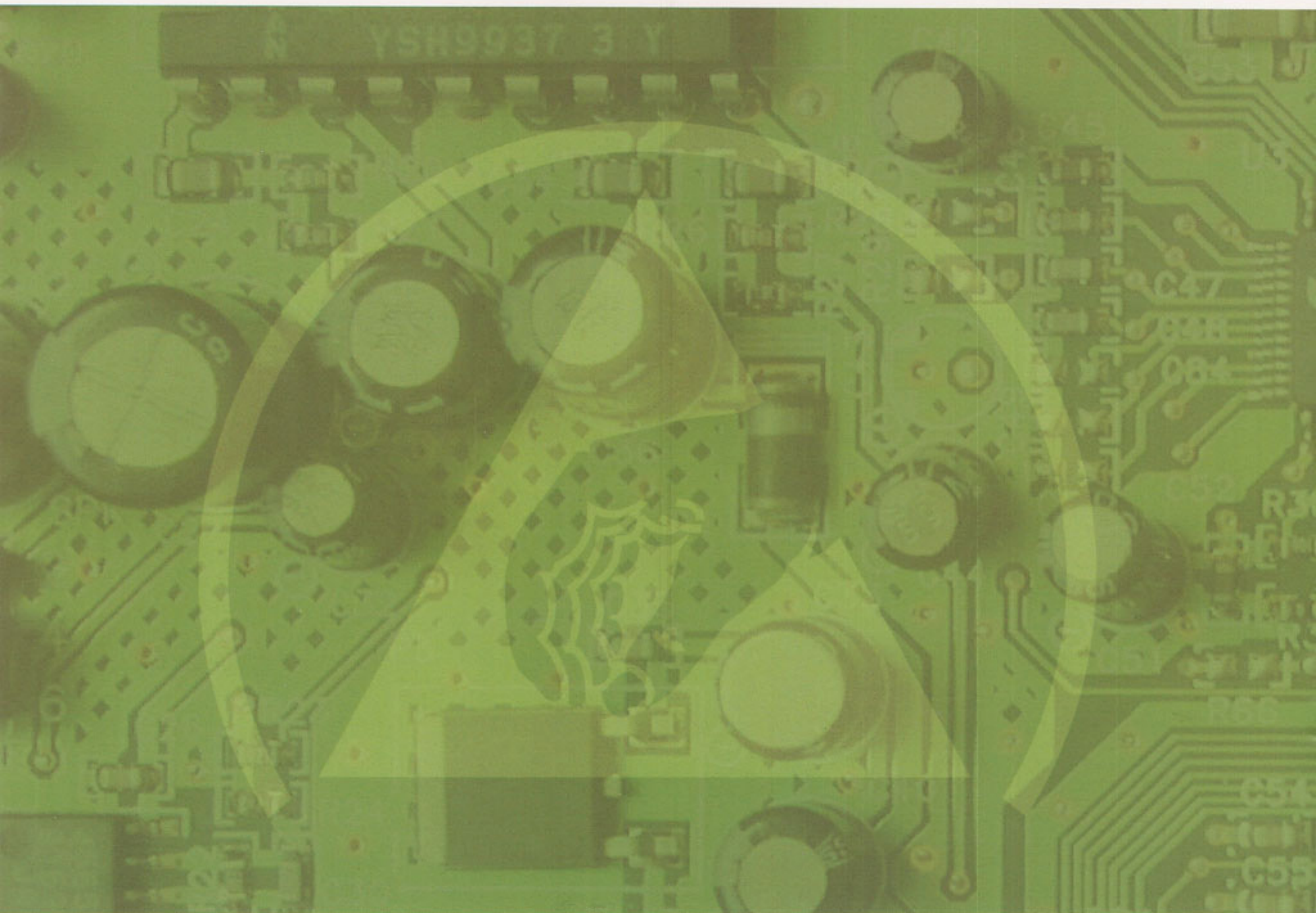
ROUND AFIL E



MODULAR SYSTEM

Bombay Stationers

Pvt. Ltd.



BOMBAY STATIONERS PVT LTD

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