

counting record

Maximun countig value: 999999 comp.

Display: 4 digits 13 mm height

Minimun lead diameter (THT component): 0,4 mm

Maximun component diameter (THT): 14 mm

Maximun tape height (SMD component): 56 mm

Axial component bandolier width (THT): 55 ÷ 110 mm

Radial component bandolier width (THT): max 18 mm

The County adaptor for counting taped SMD components is an optional accessory (8301.018), allows the counting of the SMD components through the holes of the support tape.

Support for smd reels

**SMD COMPONENT COUNTING** 

The worktop **8301.027** includes two easy insertions pins with adjustable clutch. Furthermore, at least one handle **(8301.030)** is required for rewinding the reels. The aluminum empty reel **(8301.021)** is an available optional to speed up the counting operations and subsequent rewinding of the SMD components

Dimensions: 240 x 130 x 110 mm - Weight 1,8 kg

8301.087 County EVO 100÷240V/50-60Hz

8301.088 County EVO 100÷240V/50-60Hz with accumulator, barcode input, printer output, watch

8301.350 ISO9000 traceable Calibration Report



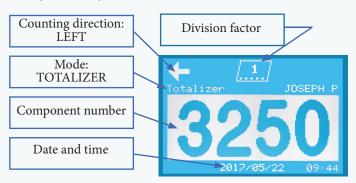
Before counting it is necessary to select the lead component number by setting the divider. For bandolier counting the **8301.023** support is available, with an easily inserted **8301.025** handle (see figure on right)



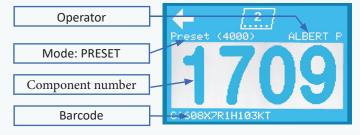
#### **COUNTY-S EVO**

County-s evo is a motorized counting machine for taped SMD component counting. It can operate in two different ways:

1) TOTALIZER: components are counted from a zero reference, tape feed is motorized and the counter automatically stops at the tape end, to prevent loss of the total



**2) PRESET MODE:** the desired component number is keyed on the keyboard and the counter automatically stops when it reaches the corresponding component



#### **EMPTY POCKET CHECK**

Checks the presence of the component Programmable Stop: Never - 1 - 2 It only works on black plastic tapes





EPC disabled



EPC enabled



#### **TECHNICAL FEATURES**

Counting: max 999999 pcs, 6 digits 22mm height
Maximum counting speed: 220pcs/sec (1 piece for hole)
Pitch (holes for component): from 1/4 - 1/3 - 1/2 - 1 - 2 -...- 19

Maximum tape height: 56mm

Maximum reel diameter: 400mm (standard configuration)

650mm (with 8301.150 support)

Display: blue LCD with led backlight 160x104 pixel

visible area: 74x46mm Adjustable speed control

Step by step mode (1 component at a time)

Empty pocket check (optional)

Barcode reader input

Serial connection for label printer or PC

Selection of the operator (10 operators can be memorized

with 8 alphanumerical chars everyone)

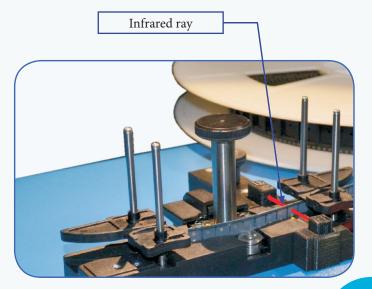
Internal clock (1 week backup)

Datalogger that stores the last 500 counting data

Memory storage for subtotals 2 side handles for easy transport.

Dimensions: 525 x 340 x 250(H) mm

Weight: 9,5 Kg



#### **COUNTY-S EVO**

County-S EVO control keyboard



**8301.131** County-S EVO 230V/50-60Hz **8301.133** County-S EVO 230V/50-60Hz with Empty Pocket Check **8301.141** County-S EVO 115V/50-60Hz **8301.143** County-S EVO 115V/50-60Hz with Empty Pocket Check **8301.350** ISO9000 Traceable® Calibration Report **8301.150** Support for reels > 400mm diameter 8301.021 Empty Reel, aluminium made, 360mm diameter 8301.155 Barcode with coiled cord **8301.095** Direct thermal label printer **8301.096** 57x51mm, 1360 labels/roll



Support for reels with diameter > 400mm (cod. 8301.150)

#### PRINTER

#### For County EVO and County-S EVO

Direct thermal label printer built for ease-of-use and durability, ac adaptor 110-230Vac and data cable included.

Maximum print width is 104mm however the print is optimized for 57x51mm labels

8301.095 Direct thermal label printer 8301.096 57x51mm, 1360 labels/roll

#### **BARCODE** for County EVO and County-S EVO

It's small, lightweight and ergonomic design, coiled cable included, a wider than usual scan angle provides the ability to read a longer bar code from a shorter distance, IP42 protection.

The barcode is connected and powered via a single cable, without the hassle of two separate cables1

8301.155 Barcode with coiled cord





SUPERFORM/R is a machine made for cutting radial taped components such as capacitors, transistors and stand-off resistors.

Production rate: up to 20000 pcs/hr

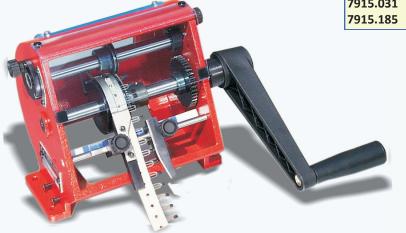
#### SUPERFORM-R

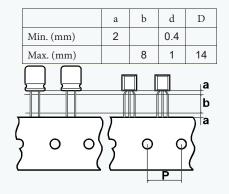
**7915.113A** SUPERFORM/R P=12.7mm (.5") (standard model)

7915.113B SUPERFORM/R P=15.0mm (.59")

**7915.030** Motor Unit for SUPERFORM, 230V - 50/60Hz **7915.031** Motor Unit for SUPERFORM, 115V - 50/60Hz

**7915.185** Tape Reel Holder arm BR6





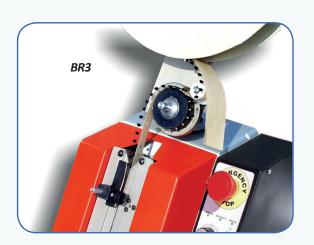
SUPERCUT is a machine made for cutting radial loose components and, with an optional adapter, also taped components.

It is extremely compact and sturdy and all mechanical parts have been designed to ensure the highest quality and the longest possible life.

The loading of components is easy and quick, and the production is high because there is no down time due to the automatic transfer and ejection of the components.

The transfer speed is adjustable.

The small sliding door in front allows for lead length adjustements . There is an optional adapter for radial taped components.





#### **TECHNICAL FEATURES**

Production rate: up to 3000 pcs/hr Dimensions: 400 x 270 x 270(H)mm

Weight: 14Kg



	L	d	D
Min. (mm)	3	0.4	1
Max. (mm)	12	8.0	15

7915.147N	Motorized cutting machine SUPERCUT, 115V - 50/60Hz
7915.148N	Motorized cutting machine SUPERCUT, 230V - 50/60Hz
7915.160	Tape Reel Holder BR3, P=12.7mm
7915.159	Tape Reel Holder BR3, P=15mm

 $T ext{ (original lenght)} > L + 6 mm$ 

#### **SUPERCUT-LN5**



Dimensions (**7915.041**): 100 x 250 x 93 mm Dimensions (**7915.041L**): 100 x 300 x 93 mm

Supply: 6 ATM Weight: 4,5/6 Kg



	L	d
Min. (mm)		0.3
Max. (mm)		1.3
Fix.	3.2	

**7915.041** SUPERCUT/LN5 with foot pedal control

**7915.041L** SUPERCUT/LN5L long model with foot pedal control

**340.114** Optional additional plate for SUPERCUT/LN5

(max 3mm)

**340.214** Optional additional plate for SUPERCUT/LN5L

(max 3mm)

This pneumatic machine is designed to cut/trim almost every type radial lead components.

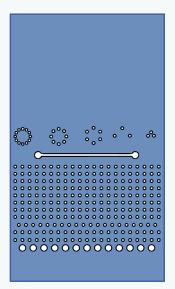
The guillotine cutting system, with zero clearance between the plates, guarantees a sharp and precise cut without burrs or damage to the leads.

It is possible to cut many components at the same time without any risk of wear of the blades.

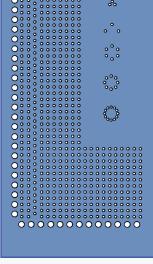
The machine can be supplied with special cutting jig.

An additional optional plate (thickness to be specified , max 3mm) can be supplied to increase the cutting height of the

Two models available, the first with a cutting area 53x43mm, the second with a cutting area 53x93mm.



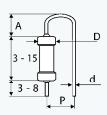
leads.



Standard plate hole layout SUPERCUT/LN5

Standard plate hole layout SUPERCUT/LN5L

# SUPERFORM-V





	P	(	d	I	A	D
	fix.	min.	max.	min.	max.	max.
7915.101 B standard	2.54	0.5	0.8	2	6	3
7915.101 C	3.8	0.5	0.8	2.5	5	5
7915.101 D	5.08	0.5	0.8	3	7	8
7915.101 E	7.62	0.5	0.8	4	7	10
7915.091 A	3.8	0.8	1.3	4	9	5
7915.091 B	5.08	0.8	1.3	5	9	8
7915.091 C	7.62	0.8	1.3	6	9	10

SUPERFORM/V is a machine made for cutting and bending axial taped components for vertical mounting.

Production rate up to 40000 pcs/hr

**7915.030** Motor Unit for SUPERFORM, 230V - 50/60Hz

**7915.031** Motor Unit for SUPERFORM, 115V - 50/60Hz

**7915.182** Feeder CS30 for loose axial components

**7915.185** Tape Reel Holder arm BR6

#### SUPERFORM-A



SUPERFORM/A is a machine made for cutting and bending axial taped components, it is extremely compact and sturdy and its main characteristic is to form components with rheophore up to 1.4 mm. Its tracking wheels are adjustable independently to allow rapid setup at different forms.

Production rate: up to 40000 pcs/hr

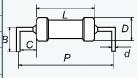
**7915.030** Motor unit for SUPERFORM, 230V - 50/60Hz

**7915.031** Motor unit for SUPERFORM, 115V - 50/60Hz

**7915.180** CS10 feeder for loose axial components

**7915.185** Tape reel holder arm BR6

	version	]	3		P	С	D		d	L	quick setting
	VCISIOII	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Max.	quick setting
7915.100 A	standard model	4	13	6.5	60 (40*)	1.2	16	0.4	1.3	50	7915.100AR
7915.100 D	reinforced bending knives	5	13	105	60 (40*)	2.4	16	0.6	1.4	50	7915.100DR
7915.100 F	reduced cutting length reduced bending length	4	13	5	60 (40*)	0.8	10	0.4	0.8	50	7915.100FR
7915.100 G	like"F" + fixed pitch	4	10	5	-	0.5	4	0.4	0.6	3.5	-



(\*) maximum P dimension with quick setting





SUPERFORM/AP is a machine made for cutting and bending axial taped components for vertical assembling, and shaping a little curl on each lead. The machine handles wire diameters ranging from 1 mm to 1.4mm.

By replacing the 2 "cutting/forming wheels" with 2 "only cutting wheels" (optional) it is possible to obtain an U-shape without curls.

Production rate:up to 20000 pcs/hr

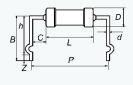
**7915.030** Motor unit for SUPERFORM, 230V - 50/60Hz

**7915.031** Motor unit for SUPERFORM, 115V - 50/60Hz

**7915.180** CS10 feeder for loose axial components

**7915.185** Tape reel holder arm BR6

M- J		ZP		В		(	3	L	(	d		ŀ	ı	
Mod.	version	Fix.	Min.	Max.	Min.	Max.	Min.	Max.	Max.	Min.	Max.	Max.	Min.	Max.
7915.102A	standard model	3.1	6.5	60			1.2				1.3			
7915.102B	reinforced bending knives	3.1	10.2	60			2.4				1.4			
7915.102C	standard model	3.9	6.5	60	10	1.4	1.2	10	50	,	1.3	16	7	
7915.102D	reinforced bending knives	3.9	10.2	60	10	14	2.4	10	50	1	1.4	16	/	11
7915.102E	standard model	5	6.5	60			1.2				1.3			
7915.102F	reinforced bending knives	5	10.2	60			2.4				1.4			



#### **OPTIONAL ACCESSORIES**

#### **SUPERFORM MOTOR UNIT**

Equipped with manual speed adjustment and automatic torque control for an easy and fast working of the SUPERFORM machine. The motor unit is supplied only with the machine assembled.

**7915.030** M230V Motor Unit for SUPERFORM/A-AP-S-V-R-RCP **7915.031** 115V Motor Unit for SUPERFORM/A-AP-S-V-R-RCP

**7915.032** 230V Motor Unit for SUPERFORM/AF-VP **7915.033** 115V Motor Unit for SUPERFORM/AF-VP

**600.023** Foot switch for 7915.030/031/032/033 motors

#### **SUPERFORM Tape Reel Holder BR6**

A tape reel holder arm to be fixed on the left side of Superform, to facilitate unwinding of the tape.

**7815.185** BR6 for all SUPERFORM models





# SUPERCUT/RS4

#### for loose radials

A pneumatic machine designed to cut loose radial component leads.

The feed is manual, on the top of the machine.

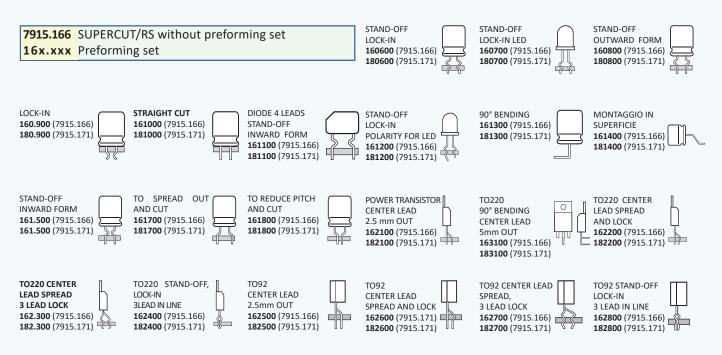
Pressing the footpedal effects cutting and prefoming of the leads in a very quick and precise way.

A large variety of Dies is available, substitution of the Die assembly is extremely quick and simple.

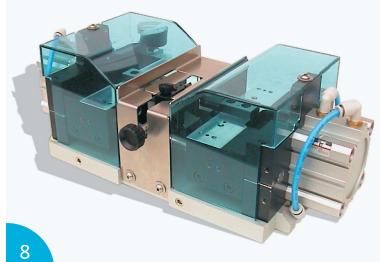
A machine three cylinders equipped, with custom tool, can be supplied for more complex not standard forms.

Production rate: 2000 pcs/hr





# **SUPERCUT/TS1** for loose radials



A pneumatic machine designed to cut loose radial component leads, the feed is manual, on the top of the machine.

Pressing the footpedal effects cutting and prefoming of the leads in a very quick and precise way.

A large variety of Dies is available, substitution of the Die assembly is extremely quick and simple.

- wire holder system available on request
- more powerful cylinders
- stronger and more accurate
- less wear
- very large components processing (max. length 140mm, max. pitch 45mm)
- production rate 2000 pcs/hr

7915.171 SUPERCUT/TS1 without preforming set 18x.xxx Preforming set



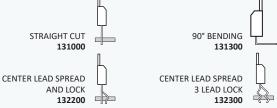
# **SUPERCUT/TOCF** for tubed transistors

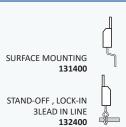
SUPERCUT/TOCF automatic machine is designed to cut and form tubed radial components type TO220, TO218, TO126.

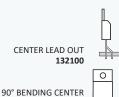
The complete operation is fully automatic and each form needs dedicated die. The full tube is introduced into the upper guide and a pneumatic system allows the component clamping and its positioning in the working point. The leads have before locked by the wire holder and after formed by the sliding die.

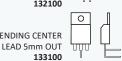
Production rate: up to 3000pcs/hr

SUPERCUT/TOCF without tools, 115V 7915.176 7915.177 SUPERCUT/TOCF without tools, 230V









# SUPERCUT/RP

#### for taped radials

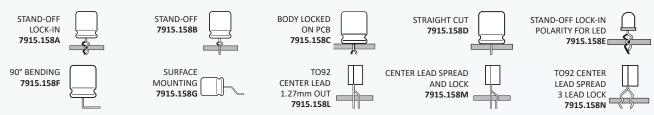
SUPERCUT/RP is a machine designed to cut and form taped radial component leads, the curl formed by this model allows the components to remain spaced and locked in the PCB, making assembly operations easier.

The machine can be supplied with preforming curl dies different from the standard ones. It is a pneumatic machine, the leads must be introduced into a slot on the front of the machine. The machine use an motorized automatic feeder system for taped components.

Production rate (with feeder): 7000 pcs/hour



7915.154	Motorized machine SUPERCUT/RP for taped components. P=12.7, 230V. Without preforming set
7915.154A	Motorized machine SUPERCUT/RP for taped components. P=12.7, 110V Without preforming set
7915.155	Motorized machine SUPERCUT/RP for taped components. P=15, 230V Without preforming set
7915.155A	Motorized machine SUPERCUT/RP for taped components. P=15, 110VWithout preforming set
7915.158[x]	[x=AN] Die block



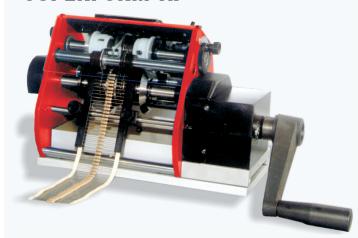
#### PINS ALIGNER

Pin aligner suitable for integrated circuits MOS and CMOS, from 4 to 64 pins. Operation is made by sliding the packaging tube between the 4 metal rollers. Easy adjustment of the pitch by means of the setting knob. Setting of the pin distance: 7 - 24mm (0.3" - 0.9")

7804.711 PINS Aligner, 7-24mm with press (P) PINS Aligner, 7-24mm without press (P)



#### SUPERFORM-AF



The SUPERFORM/AF is a machine designed to cut, bend and preform axial components.

An innovatory preforming system, fully mechanic, allows the rotation of the central feed to stop while two preforming assemblies grip the component leads and preform the leads according to the chosen dies.

The components are in this way first cut and "U" bent to the dimensions previously set and then the preforming is made.

The cutting and bending parameters as well of the position of the preform are fully adjustable. Different forms can be obtained with this machine, through the easy substitution of the two preforming dies. It is also possible to exclude part of the preforming operation to obtain the cutting and "U" bending only.

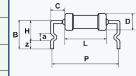
By use of the variable speed Motor Drive Unit working can be automatic and the production rate can be increased.

Production rate: up to 7000 pcs/hour

#### **STAND OFF**

#### Dimensions in mm (\* can increase, according to the component diameter)

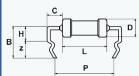
mod.	version	]	P	L	С	I	ł	]	В	(	1	D	a	:	z
(assembly die)	version	min	max	max	min	min	max	min	max	min	max	max		min	max
7915.095 (420.800)	standard	10.5	61	50	1.2	6*	9	8*	11	0.5	0.8	8	2.5	2	4
7915.095 (420.750)	standard	10.5	61	50	1.2	6.5*	9.5	8.5*	11.5	0.6	0.9	8	3	2	4
7915.096 (420.750)	reinforced	10.5	61	50	1.5	7*	12	9*	14	0.8	1	8	3	2	4
7915.097 (430.700)	extra reinforced	13	61	50	2.5	11*	16	13*	18	1	1.3	8	4	2	4



#### STAND OFF - LOCK IN

#### Dimensions in mm (\* can increase, according to the component diameter)

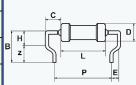
mod.	******	]	P	L	С	I	H	I	3	(	i	D	:	z
(assembly die)	version	min	max	max	min	min	max	min	max	min	max	max	min	max
7915.095 (420.850)	standard	10.5	61	50	1.2	4.5*	8	7.5*	11	0.5	0.8	8	3	4
7915.095 (420.950)	reinforced	10.5	61	50	1.2	4.5*	8	7.5*	11	0.6	0.9	8	3	4.5
7915.096 (420.950)	reinforced	10.5	61	50	1.5	5.5*	11	8.5*	14	0.8	1	8	3	4.5



#### STAND OFF - REDUCED PITCH

#### Dimensions in mm (\* can increase, according to the component diameter)

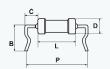
mod.		]	P	L	С	I	ł	]	В		d	D	2	z	E
(assembly die)	version	min	max	max	min	min	max	min	max	min	max	max	min	max	max
7915.095 (420.900)	standard	8	59	50	1.2	5*	9	7*	11	0.5	0.9	8	2	4	1.27
7915.096 (420.900)	reinforced	8	59	50	1.5	6*	12	8*	14	0.8	1	8	2	4	1.27
7915.097 (430.900)	extra reinforced	10.5	59	50	2.5	9*	16	11*	18	1	1.3	8	2	4	1.27



#### **BODY LOCKED ON PCB**

#### Dimensions in mm (\* can increase, according to the component diameter)

ľ	mod.	******	I	)	L	L C B		3	(	i	D
	(assembly die)	bly die) version	min	max	max	min	min	max	min	max	max
	7915.095 (421.000)	standard	10.5	61	50	1.2	5	8	0.5	0.8	8



**7915.095** SUPERFORM/AF standard, without preforming die

**7915.096** SUPERFORM/AF reinforced, without preforming die

**7915.097** SUPERFORM/AF extra reinforced without preforming die

**7915.185** Tape Reel Holder arm BR6 for SUPERFORM

**7915.032** Motor Unit for SUPERFORM/AF, 230V- 50/60Hz

**7915.033** Motor Unit for SUPERFORM/AF, 115V- 50/60Hz

**7915.184** Loose Component Feeder CS40 for SUPERFORM/AF

**420750** STAND-OFF preforming die assembly, curl 3mm

420800 STAND-OFF preforming die assembly, curl 2.5mm

**420850** STAND-OFF/LOCK-IN pref. die assembly (d:0.5 - 0.8)

**420900** STAND-OFF/REDUCED PITCH pref. die assembly

420950 STAND-OFF/LOCK-IN pref. die assembly (d:0.6 - 1)

**421000** BODY LOCKED ON PCB preforming die assembly

430700 STAND-OFF preforming die assembly (d:1-1,3mm)

430900 STAND-OFF/REDUCED PITCH (d:1-1,3mm)

#### **LOW-COST PREFORMING MACHINES**

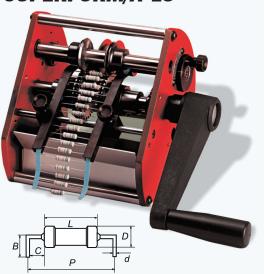
Economic, manual machines, designed for small productions. These machines can not be motorized, the "Tape reel holder" model BR6 (page 7 of the catalog) can be applied

SUPERFORM/A-LC is a machine made for cutting and bending axial taped components, it is extremely compact and sturdy and its main characteristic is to form components with rheophore up to 1.4 mm

Its tracking wheels are adjustable independently to allow rapid setup at different forms.

1		]	В	]	P	С	D	(	i	L
mod.	version	min	max	min	max	min	max	min	max	max
7915.200A	standard	4	13	6.5	60	1.2	16	0.4	1.3	50
7915.200D	reinforced bending knives	5	13	10.5	60	2.4	16	0.6	1.4	50
7915.200F	reduced cutting length reduced bending length	4	13	5	60	0.8	10	0.4	0.8	50
7915.200G	like"F" + fixed pitch	4	10	5	-	0.5	4	0.4	0.6	3.5

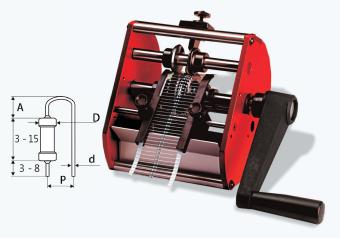
# SUPERFORM/A-LC



SUPERFORM/V-LC is a machine made for cutting and bending axial taped components for vertical mounting.

Mod.	P	(	il	F	1	D
Mod.	fix	min	max	min	max	max
7915.201B (standard)	2.54	0.5	0.8	2	6	3
7915.201C	3.8	0.5	0.8	2.5	6	5
7915.201D	5.08	0.5	0.8	3	7	8
7915.201E	7.62	0.5	0.8	4	7	10
7915.209A	3.8	0.8	1.3	4	9	5
7915.209B	5.08	0.8	1.3	5	9	8
7915.209C	7.62	0.8	1.3	6	9	10

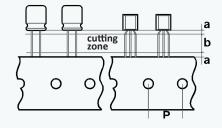
# SUPERFORM/V-LC



SUPERFORM/R-LC is a machine made for cutting radial taped components such as capacitors, transistors and stand-off resistors.

	a	b	d	D
Min mm	2	-	0.4	-
Max mm	-	8	1	14





**7915.213A** (standard) P=12.7mm

**7915.213B** P=15mm

# SUPERFORM/R-LC



#### **TRACTOR**

TRACTOR depaneling machine separates the prescored PCB, in a very quick and economic way. The compact and stable aluminium frame requires a minimum space.

The assembled PCB panel is shoved between the circular blades and is thereby separated.

The circular blades and guides are made of special steel to ensure a long time life.

The hand model is suggested only for small productions.

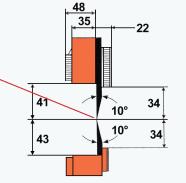
Separation lenght: up to 380mm Thickness of panels: 0.8 ÷ 3.2mm

Maximum components's height: 34 ÷ 43mm

**7915.580** TRACTOR - PCB Hand depaneling machine

**7915.582** TRACTOR - PCB Motorized depaneling machine 230V

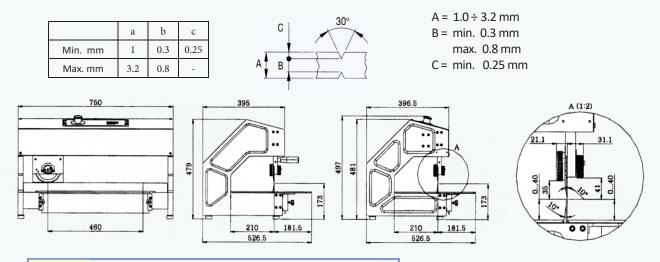
**7915.583** TRACTOR - PCB Motorized depaneling machine 230V/Titan blades







TRACTOR 2 separates both small and large pre-scored PCBs, the maximum separation length is 450mm. The PCB is placed with its pre-scored groove onto the linear blade and the circular blade is then drawn by hand, or by motor, across the PCB. The clearance between the upper circular blade and the lower linear blade is adjustable.



**7915.560** TRACTOR 2 - PCB Hand depaneling machine **7915.564** TRACTOR 2M - PCB Motorized depaneling machine 230V

**TRACTOR-MILL 2** The Tractor Mill 2 depaneling machine mills the routed tabs with the same quality of an automatic system at a lower costs. The key feature of this machine is the easy and quick change of the milling cutter and the interchangeable rail (patented).

This rail is useful to assist the operator to place and drag the circuit until the cut is complete. The particular shape of the rail avoids any damages to the assembled circuit: if the operator inserts it incorrectly it will not match the eyelet. This rail gives a total protection against possible accidents under safety rules.

This manual depaneling machine has an integrated electric vacuum cleaner system therefore it's easy to place it in every working area. It has been designed and realized to solve stress problems, break or tearing out of the PCB's fibers that often occur using standard blades or manual tools and that are not tolerated with the increasing complexity and miniaturization.

#### **Technical features:**

Aspiration: single phase turbine

Weignt: 55 Kg

Mains Supply: 230V/50Hz

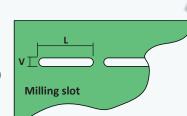
Power: 900W

Depression: -17 kPa (-170 mBar) / -15 kPa (-150 mBar)

PCB thickness: Max 4mm Slot length (L): Min 11mm

Slot width (V): Standard 1.0 - 3.175mm Slots / component distance: min. 1mm

PCB material: FR4, CEN, (Al - with optional cutter).







**7915.591** TRACTOR-MILL2 depaneling machine with pedal

**1-** Choose the right mill: 1.5 - 2.5mm Choose the right rail



**2-** Move the PCB array towards the mill



3- The mill removes the PCB's tabs

**GOSMOKE** 



**7820.001** Exhauster 230V (table model)

**7820.003** Set of 4 spare filters

**7820.004** Adjustable support for table model

The GOSMOKE exhauster is a convenient and economical solution to the fumes associated with soft soldering. Fumes close to the worker are drawn in, filtered and direct towards the ceiling where supplementary ventilation can be eventually provided. The GOSMOKE is equipped with an axial fan and a cellular activated filter, which filters out some of the colophony, tin and lead vapours contained in the fumes. The filter should be replaced every 100 working hours.

#### Table model:

This portable suction unit is light, space saving and quiet, by using the adjustable support the exhauster can be hung above the work table at different heights and tilted at different angles.

#### **Technical features:**

-Power: 20 W

-Air volume: 130 m³/h -Noise: 45 dB(A)

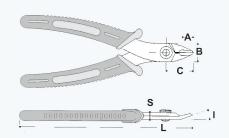
The GOSMOKE is supplied with 4 spare filters.

Cutting

**Cutting nippers** Specially developed for the electronic, these tools are made out a special carbon steel, with elastic, ergonomic PVC handles, in two versions:

- 1) ESD black ( $10^6 10^9 \Omega$ )
- 2) INSULATING orange

A patented safety clip to prevent the cut lead to spring out dangerously is available.



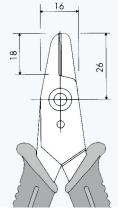
USE	TYPEOF	WT		.max er wire			DIMEN	ISIONS	6		CODE	HAN	DLES	SAFETY
OSE	CUT	gr.	mm	AWG	Α	В	С	s	L	ı		ESD black	ISOLANT orange	CLIP
Normal For lead diameter to 1mm	Clean cut	60	1,02	18	8	13,5	20	5	138	21°	TRE 03 NB TRE 03 AB TRE 03 NBD TRE 03 ABD	•	•	•
Normal For lead diameter to 1,3mm	Clean cut	65	1,30	16	8	13,5	20	5	128	21°	TR 30 TR 30 A TR 30 D TR 30 AD	•	•	•
Normal with 45° bending nosefor lead diameter to 1,3mm	Clean cut	65	1,30	16	8	13,5	20	5	128	45°	TR 2550 TR 2550 D	•	•	
Normal for lead diameter to 2mm	Clean cut	75	2,05	12	8	13,5	20	6	128	21°	TR 58 R TR 58 RA TR 58 RD TR 58 RAD	•	•	•
<b>Heavy</b> for lead diameter to 2,5mm	Blunt cut	100	2,59	10	12	16,5	25	6	148	21°	TRR 58 TRR 58 A TRR 58 D TRR 58 AD	•	•	•
Micro for lead diameter to 0,8mm	Clean cut	45	0,81	20	8	9,5	18	4	118	21°	TR 20 M TR 20 MA TR 20 MD TR 20 MAD	•	•	•
Micro for lead diameter to 1mm	Clean cut	60	1,02	18	8	10	18	5	128	21°	TR 25 P TR 25 PA TR 25 PD TR 25 PAD	•	•	•
Micro with 48°bending nosefor lead diameter to 0,6mm	Clean cut	45	0,64	22	8	9,5	18	4	118	48°	TR 2050 M TR 2050 MD	•	•	
Micro reversed cutwith 48°bending nosespecially developed for IC leads	Clean back cut	45	0,64	22	8	9,5	18	4	118	48°	TR 20 TM TR 20 TMD	•	•	

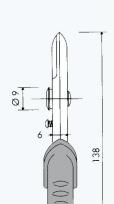


# Shears

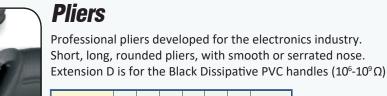
An easy-handly shear, designed for the electronic. Copper wire: max. diameter 1,63 mm (14AWG)

CS 30 CS 30 D PVC handles Black dissipative ESD handles  $(10^6 \div 10^9 \, \Omega)$ 



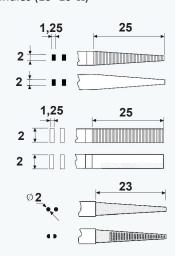


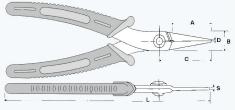




	А	В	С	D	S	L	Peso gr.
PN 5005 PN 5005 D	25	13	36	1,3	2	140	97
PN 5006 PN 5006 D	25	13	36	1,3	2	140	97
PN 5007 PN 5007 D	25	13	39	1,3	5	140	97
PN 5008 PN 5008 D	25	13	39	1,3	5	140	97
PN 5025	23	13	32	2	2	138	95

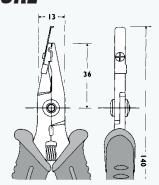
2 138





# **PREFORMING WITH CURL**





23 | 13 | 32

PN 5025 D PN 5025 Z

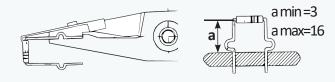
PN 5025 ZD

Professional tool specially designed to cut and preform components in a single operation. Variable lenght by means of an adjustable stop.

Max. diam.: copper lead 1mm/18AWG

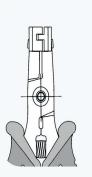
95

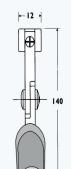
PNR5000D black dissipative ESD handles (10<sup>6</sup>-10<sup>9</sup>Ω)



#### **PREFORMING TO220**

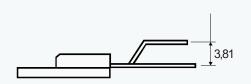






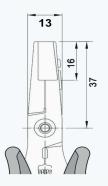
Professional tool specially designed to preform with central lead out of 3.81mm

PN5050/17D black dissipative ESD handles  $(10^6-10^9Ω)$ 



# **PREFORMING AT 90°**

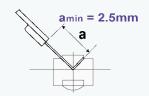




Professional tool specially designed to preform components at 90°.

Max. diam.: copper lead 1mm/18AWG

PN5040/7D black dissipative ESD handles  $(10^6-10^9\Omega)$ 



#### PRECISION SCREWDRIVERS

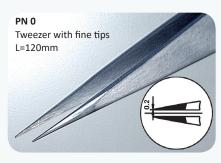
# Chrome-Molybdenum-Vanadium accey, with a black tip

#### PVC Dissipative **Dimensions** PG1-0 PG1-0-D 1,2x60 PG1-1 PG1-1-D 1,5x60 SLOT PG1-2 PG1-2-D 1,8x60 PG1-3-D PG1-3 2,5x75 PG1-4 PG1-4-D 3,0x100 PG1-5-D PG1-5 3,0x150 PG2-0 PG2-0-D PH000 2,5x60 PG2-1 PH00 2,5x60 PG2-1-D **PHILLIPS** PG2-1/75 PG2-1/75-D PH00 2,5x75 PG2-2 PG2-2-D PH0 3,0x60 PG2-2/75-D PG2-2/75 PH0 3,0x75 PG2-2/100 PG2-2/100-D PH0 3,0x100 PG2-2/150 PG2-2/150-D PH0 3,0x150 PG4-0X PG4-0X-D Tx5x50 PG4-0 PG4-0-D Tx6x50 PG4-1 PG4-1-D Tx7x50 TORX PG4-2 PG4-2-D Tx8x60 PG4-3 PG4-3-D Tx9x60 PG4-4 PG4-4-D Tx10x60 PG4-5 PG4-5-D Tx15x60 PG5-0X PG5-0X-D TRx5x50 PG5-0-D PG5-0 TRx6x50 TAMPER RESIST PG5-1 PG5-1-D TRx7x50 $\langle \bullet \rangle$ PG5-2 PG5-2-D TRx8x60 PG5-3 PG5-3-D TRx9x60 PG5-4-D PG5-4 TRx10x60 PG5-5 PG5-5-D TRx15x60

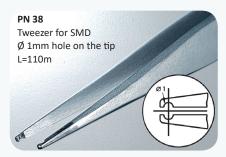
#### **TWEEZER**

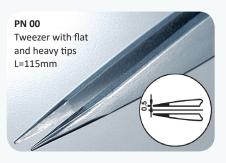
Precision tweezers made out of high quality steels, meet with the standards of the electronic industry. Further models upon request.

#### STANDARD

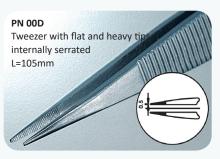


#### **SMD**

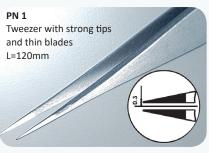




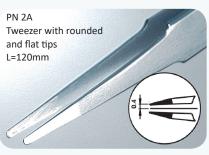














#### HIGH TEMPERATURE ADHESIVE TAPES

Polyimide adhesive tape ideal to protect contacts on the boards during the wave soldering, or other high temperature production processes. Silicone adhesive protection without leaving a residue

Length: 33m Diameter: 75mm

Thickness: 0.06mm (2.3mil) Temperature: 260°C maximum



**7807.185** HIGH TEMP. TAPE 6mm x 33m **7807.186** HIGH TEMP. TAPE 9mm x 33m **7807.187** HIGH TEMP. TAPE 12mm x 33m **7807.189** HIGH TEMP. TAPE 19mm x 33m **7807.190** HIGH TEMP. TAPE 25mm x 33m **7807.191** HIGH TEMP. TAPE 40mm x 33m **7807.192** HIGH TEMP. TAPE ESD 6mm x 33m **7807.193** HIGH TEMP. TAPE ESD 9mm x 33m **7807.194** HIGH TEMP. TAPE ESD 12mm x 33m 7807.196 HIGH TEMP. TAPE ESD 19mm x 33m

# **SOLDER MASKING PASTE**

It is a good quality latex compound, ESD safe, designed to protect parts of the PC boards during the soldering production processes. Once cured, the paste will not lift or separate during soldering, it is exceptionally cohesive, generally peeling off in one piece. It is also suitable for use as a conformal coating.

Mask can be applied using robotic, pneumatic, hand applicators, brush and template screening.

Curing at normal temperature: 40 to 60 min

Curing at 60°C: 15 to 25 min Colour: white

Smell: light ammonia Resistance Rs & Rv:  $<10^{10}\,\Omega$ 

Shelf life at 22°C: 6 months



**7805.916** Solder masking paste - 215g squeeze bottle **7805.918** Solder masking paste - 5kg in plastic

#### SOLVENT CLEANING



Safe and effective cleaning of electronic and electrical components, screens and stencils, specially designed to remove most flux residues including "no-cleans" after touch-up and rework applications. Safe to use on most plastics and rubber, this solvent dries extremely quickly and leave no residues.

Cleaning: by immersion or with brush

Composition: hydrocarbon solvent blend, aliphatic alcohol and methylal.

Flash point: -21°C (highly flammable)

**7805.929** Electronic cleaning solvent - 1litre can 7805.930 Electronic cleaning solvent - 5litre can



# **BRUSHES**

Conventional brushes can generate high charges in use, they are therefore unsuitable for cleaning ESD sensitive assemblies. Nonetheless it is necessary to remove solder flux and other dirt particularly in SMD assembly where there are high densities of components.

A range of conductive brushes allows thorough cleaning without the risk of generating static charges. The brush consists of a conductive plastic handle and conductive fibres. Resistance from the tip of the brush to the handle is less than  $1x10^8\Omega$ .

Brushes should be used by operators who are earthed. Hard brushes are for scrubbing whilst soft ones are for brushing of delicate items such as optics and diskettes.

**7807.296** Hard brush 20x70mm (open nail type) 7807.298 Hard block 40x150mm (closed nail type) **7807.301** Hard brush 9x32mm

**7807.302** Flat hard brush 12mm **7807.304** Flat hard brush 25mm 7807.308 Flat soft brush 100mm

7807.310 Flat soft brush with handle 130mm

# ESD STICKY MAT FOR CLEAN ROOMS

Numbered Multilayer Dissipative Sticky Mats, for progressive removal when dirty.

The special adhesiveness ensures collecting of dust and particles of shoe soles and cartwheels by passing over the mat.

It should be placed where cleanness is required.

**7807.350** Multilayer Dissipative Sticky Mat with 30 layers Dimensions: 660x1140mm



# SILICON STICKY ROLLER FOR CONTAMINATION REMOVING

The silicon sticky roller is an hand-held device for cleaning films, panels, work surfaces, walls, glass, and it is useful in cleanroom environments too. It will pick up particles from any flat surface without damaging the surface or leaving anything behind. Once the roller has been applied to the surface it is rolled over a special adhesive pad that removes the debris, leaving the roller ready for the next application.

**7913.151** Single cleaning roller dim.: 150mm, with small handle

**7913.154** Single cleaning roller dim.: 300mm, with small handle

**7913.158** Spare cleaning roller dim.: 150mm. no handle **7913.160** Spare cleaning roller dim.: 300mm. no handle **7913.171** DCR-PAD Block of 50 adhesive paper sheets

dim.: 240x333mm



#### SELF-ADHESIVE POLYESTER FILM

Transparent static dissipative, self adhesive Polyester film. It includes a special abrasion resistant coating on one side and a release film on the other side. It can be applied on flat, insulative surfaces.

Point to point resistance:  $10^9\Omega$ 

Dissipative Polyester film: 100  $\mu$ m thickness Dissipative acrylic adhesive: 12  $\mu$ m thickness Release Not ESD film: 23  $\mu$ m thickness

**7809.042** Self-adhesive polyester film 1000mm x 100m roll

Custom size on request



# **ESD ACRYLIC PANELS**

This clear acrylic sheets are surface coated with an extremely thin and highly abrasion resistant dissipative film which keeps the transparency and the working properties of acrylic sheets unvaried. Equipped with a protection film on both sides to avoid damages during transportation and storage.



7809.010 ACRYLIC PANEL - Transparent, Dissipative, 1m x 2m x 3mm
7809.012 ACRYLIC PANEL - Transparent, Dissipative, 1m x 2m x 5mm
7809.014 ACRYLIC PANEL - Transparent, Dissipative, 1m x 2m x 6mm
7809.016 ACRYLIC PANEL - Transparent, Dissipative, 1m x 2m x 8mm
7809.018 ACRYLIC PANEL - Transparent, Dissipative, 1m x 2m x 10mm
7809.022 ACRYLIC PANEL - Transparent, Dissipative, 1.2m x 2.4m x 20mm



Material: Acrylic Permanent dissipative coating Hardcoated surface, resistant to friction damage Transparent - Machineable Rs:  $10^8$  a  $10^{10}\Omega$ 

#### HAND ESD VACUUM CLEANER

All parts of the fully ESD safe vacuum cleaner are made out of conductive material. It is compact, light and equipped with a carrying belt for easy handling.

It's Fully EPA compliant to IEC61340-5-1 and equipped with thermal cut-out & RFI/EMC filter.

Model 7913.051 is a "BlowVac" = Blower and vacuum cleaner in one.

Dimensions: 31.5 x 12 x 18.5cm

Weight: 2.2kg Flexible pipe: 1,3m Power cord length: 6m Power supply: 220V - 1300W Dust capacity: 1.2 liter









7913.060



7913.066



7913.050 ESD vacuum cleaner

**7913.051** ESD vacuum cleaner with electronic speed control

**7913.060** Set of 10 special filterbags

**7913.062** Micromotorfilter HEPA combined with Electrostatic charged filtermedia.

**7913.066** Flexible rubber nozzle, 34cm with removable brush

#### WASTE PAPER BIN

Waste paper bin made of conductive polypropylene. Rs <  $10^6 \, \Omega$ 

7804.406 Waste paper bin, volume 17 litre, ext. dia. 300x330(H)mm 7804.405 Waste paper bin, volume 60 litre, ext. 360x360x500(H)mm

**7804.405C** Cover for waste paper bin 7804.405

Waste paper bin made of conductive fibreboard. Rs <  $10^6 \Omega$ 

7804.404 Waste paper bin, volume 120 litre, ext. 400x400x780(H)mm

# ANTISTATIC WASTE BAGS (PACKAGE OF 100PCS)

Made of antistatic polyethylene, 40 $\mu$ m thickness. Rs: 10<sup>11</sup>  $\Omega$ . Green colour, printed with black ESD logo

**7804.408** 30 litre bag (package of 100pcs), to fit **7804.406** bin **7804.409** 90 litre bag (package of 100pcs), to fit **7804.405** bin **7804.410A** 120 litre bag (package of 100pcs), to fit **7804.404** bin



7804.406

# RING BINDER AND WALLETS

Static safe Ring Binders and Document Holders made from permanently antistatic materials, an excellent means of storing documents, specifications and drawings in any static sensitive environment. Rs:  $10^{11} \Omega$  (7804.400)

7804.413	A4 ESD Opaque Document Pocket with holes (100 pack)
7804.414	A4 ESD Crystal Document Pocket with holes (100 pack)
7804.423	A3 ESD Document Pocket with holes, portrait (100 pack)
7804.400	A4 dissipative Ring Binder - 4 ring 35mm dia., blue



# **NEWBOX TOTE-BOX**

Conductive polypropylene Tote-Boxes, stackable, in EURO format. Rsup < 10  $^{6}\,\Omega.$ 

CODE	MODEL	EXT. (mm)	INT. (mm)	Vol. (lt)
7804.705	NEWBOX 5	300x200x120	260x160x117	5
7804.706	NEWBOX 6	300x200x147	260x160x144	6
7804.709	NEWBOX 9	300x200x220	260x160x217	9
7804.690	NEWBOX 10	400x300x120	353x260x115	10
7804.687	NEWBOX 14	400x300x170	353x260x165	15
7804.688	NEWBOX 20	400x300x220	353x260x215	20
7804.704	NEWBOX 25	400x300x270	353x260x265	25
7804.689	NEWBOX 31	400x300x320	353x260x317	30
7804.692	NEWBOX 15	600x400x075	553x353x070	14
7804.694	NEWBOX 24	600x400x120	553x353x115	23
7804.693	NEWBOX 33	600x400x150	553x353x145	29
7804.698	NEWBOX 34	600x400x170	553x353x165	33
7804.699	NEWBOX 42	600x400x220	553x353x215	42
7804.696	NEWBOX 50	600x400x236	553x353x231	45
7804.695	NEWBOX 55	600x400x280	553x353x275	54
7804.697	NEWBOX 70	600x400x336	553x353x332	65
7804.685	NEWBOX 80	600x400x420	553x353x415	80
7804.713	NEWBOX 130	800x600x320	756x556x297	130



# **ROLLBOX**



7804.691	400 x 300 Conductive Cover
7804.700	600 x 400 Conductive Cover
7804.686	Snapping Closure ( 2 /each cover)
7804.701	Rollbox - 600x400 Conductive Trolley
7804.702	Rollbox (2 wheels with brake)- 600x400 Conductive Trolley
7804.923	Spring label holder
7804.931	Logo application
7806.300	10mm Conductive Foam FLAT DIVIDER
	for 600x400 Newbox
7806.306	10mm Conductive Foam FLAT DIVIDER
	for 300x400 Newbox
7806.201	FLAT DIVIDER - Conductive fluted polypropylene LABEPLAST
	350x5502.5mm for 600x400 Newbox
7806.203	FLAT DIVIDER - Conductive fluted polypropylene LABEPLAST
	350v250v2 5mm for 300v/00 Newboy

**7804.703** 300 x 200 Conductive Cover





7804.923 Label holder

Any personalized Logo or specific writings can be applied over the boxes, all colours available. A plastic transparent film is thermically impressed over the box side. The result is excellent, long life, at a low cost.

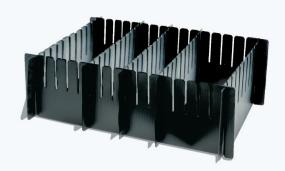
#### LABEPLAST - LABBOX

Useful tote-boxes realized in Labeplast conductive, form and measure personalized upon request. (see page 44) CUSTOMIZED PRODUCTIONS



# **DIVIPRINT** - LABEPLAST DIVIDERS

Made from LABEPLAST(extruded conductive polypropylene) sheet, the dividers can be used within CARTONBOX or NEWBOX containers. Other sizes can be made to customer specifications. Our cutting machine cnc knife allows to obtain precise profiles by importing the drawings in cad format (see page 44).



7806.180	LABEPLAST Divider 552 length 100 height 31 pitch, 17 slits	S
	LABEPLAST Divider 350 length 100 height 30 pitch, 11 slits	
	LABEPLAST Divider 552 length 155 height 40 pitch, 13 slits	
7806.183	LABEPLAST Divider 350 length 155 height 153 pitch , 3 slits	S
7806.184	LABEPLAST Divider 552 length 182 height 104 pitch , 6 slits	S
7806.185	LABEPLAST Divider 350 length 182 height 30 pitch, 11 slits	S
7806.186	LABEPLAST Divider 552 length 200 height 31 pitch, 17 slits	S
7806.187	LABEPLAST Divider 350 length 200 height 30 pitch, 11 slits	S
7806.188	LABEPLAST Divider 250 length 200 height 32 pitch, 7 slits	S
7806.192	LABEPLAST Divider 552 length 300 height 31 pitch, 17 slits	S
7806.193	LABEPLAST Divider 350 length 300 height 30 pitch, 11 slits	S

# **DIVIPRINT - PLASTIC DIVIDERS**

Economical and versatile way to compartmentalise tote-boxes of various dimensions. Ideal for board transport and storage. Made from conductive polystyrene, DIVIPRINT dividers have one division every 15mm, are easy to cut and modify using ordinary scissors.

Material: black conductive polypropylene

Rs:  $<10^5 \Omega$ 

Temperature range: from 0 to +55 °C

Slit pitch: 15mm

7806.412 Diviprint L=255mm length
7806.410 Diviprint L=351mm length
7806.400 Diviprint L=551mm length





#### LABERACK - PCBS HANDLING

LABERACK is an adjustable frames that provides a secure method for storage and handling of mounted PCBs or LABEFIX trays.

Material:Static dissipative polypropylene, Rs  $10^6 \div 10^8 \Omega$ 

Sidewall dimensions: 480 x 290 x 35 mm.

Intermediate wall dimensions:470 x 280 x 40 mm.

Connecting rail: section: 30 x 15 mm. Number of storage channels: 79

Distance between channel centres: 5 mm. Maximum PCB thickness: 2.3 mm max.

Channel depth: 4 mm. Stainless-steel stiffening rib.

Bolts and screws included with sidewalls and intermediate walls.
To give the exact length of connecting rail add to the board width 20 mm.

for each sidewall and 6 mm for intermediate wall

**7804.007** Sidewall in black dissipative polypropylene +70°C

**7804.017** Intermediate wall in black dissipative polypropylene +70°C

**7804.002** Aluminium connecting rail(length cut to max 3m)

**7804.021** Handle for transport (rail fixing) **7804.025** Bag of 40 spare screw and bolts **7804.040** Clips for sidewall (with labels)

(package of 100)

**7804.041** Clips for intermediate wall (with labels)

(package of 100)

#### **MINILABERACK**

Safe storage and transport system for PCBs from assembly through testing. Easy snap-together modular system to increase storage capacity. The racks are made from black static dissipative polypropylene

Material: Static dissipative polypropylene, Rs 10 $^5\div$ 10 $^8$   $\Omega$ 

Distance between channel centres: 6mm

Maximum PCB thickness: 3.8mm

Channel depth: 3mm

Number of storage channels: 44

Side wall: dimensions:300 x 170 x 21 mm Connecting rail: section 37 x 9 mm Connecting rails cut to length (max. 3m)

To give the exact length of connecting rail add to the board

width 18mm for each sidewall

**7804.052** Sidewall black dissipative **7804.060** Aluminium connecting rail **7804.075** Bag of 40 spare nuts and bolts

# Snap-on insertion of back-stop Snap-on insertion for sidewall

#### **DEPOPRINT**

Made from black conductive polystyrene, the DEPOPRINT system accomodates various board dimensions throughout storage, production and despatch. Fits plastic containers type Newbox or other 300x400 and 600x400mm standard Euro boxes. Two different sidewall sizes that slide along two parallel aluminium connecting rails 95mm high (lenght cut to max 3m).

Material: black conductive polystyrene

Rs:  $<10^5 \Omega$ 

Temperature range: from 0 to +55 °C

Number of slots: 32

Distance between slot centres: 10 mm

Maximum thickness of the board: 2.3 mm

Depth of the slots: 2.3 mm

**7804.751** DEPOPRINT Sidewall 209 mm (H)

**7804.760** Aluminium Connecting Rail 95x553 mm

**7804.762** Aluminium Connecting Rail 95x250 mm

**7804.765** Aluminium Connecting Rail 95 mm (H)

7804.759 Insertion Stop



#### LABESERT 10

Made in conductive polypropylene, LABESERT racks are suitable for automatic PCB insertion machines. Channel pitch: 10mm Walls and terminal plates made by conductive plastic (60°C) PCB adjustement: from 40 to 260mm

Side Guide Slot: depth 3.5mm - width 7mm



7804.110

**7804.110** LABESERT 10 Rack dim. 315x355x575(H)mm **7804.110R** LABESERT 10R Rack dim. 315x355x575(H)mm (with two lateral stiffening metal plate)

#### LABEFIX - PCB ASSEMBLY

LABEFIX trays are used for component insertion before wave soldering of the PCBs. A special foam gently holds the leads until the PCB is removed for wave soldering. The foam doesn't crumble, or pollute and has a very long life.

Material: zinc plated material base - conductive polyethylene closed cell (cross linked foam density ISO 845 60Kg/m<sup>3</sup> thickness 7mm)

Weight: 1Kg



7610.100 Standard tray 530x330x8mm with foam (other dimensions on request)

**7610.110D** Only foam 515x327x7mm

#### PCB ASSEMBLY FIXTURES



A professional line of assembly jigs for PCB's, designed to simplify placing and soldering of electronic components. PCSA1,2,4 are supplied with central and two sliding rails as standards. Additional rails may be added to accommodate

The frame and lid assembly may be detached from the mounting base. After mounting the components on the PCB's, the foam back lid is attached and closed, and the whole assembly is lifted and rotated for soldering.

An ingenious design of the base permit an adjustable working angle on both side of the PCB's.

The jig is varnished steel, and the component pressing foam is in conductive material.

**7915.599** PCSA1 PCB's holder, max. working dimensions 270 x 220mm

7915.601 PCSA2 PCB's holder, max. working dimensions 500 x 220mm

**7915.605** PCSA4 PCB's holder, max. working dimensions 500 x 350mm

**7915.610** Additional sliding rail for PCSA1

7915.612 Additional sliding rail for PCSA2 and PCSA4

#### LABETRAY - PCB HOLDERS

Made from black conductive polypropylene, LABETRAY have multiple uses in the static free environment, as holding the PCBs during assembly, testing and rework.

**7804.130** Conductive L-shaped LABETRAY dimensions: 208x272x93mm **7804.132** Conductive L-shaped LABETRAY dimensions: 355x268x128mm **7804.134** Conductive flat LABETRAY - 25 slots dimensions: 490x180x50mm





#### SMD SPOOL RACKS



**7805.703** ITECO rack for spools dia. 180-330mm external dimensions 395 x 250 x 65/160(H)mm Movable wire dividers (10 pcs included, 20 pcs capacity) moulded in conductive polypropylene black colour **7805.704** Movable wire divider for **7805.703** 



**7805.692** LICEFA rack for 25 spools max.dia. 220mm external dimensions 450 x 240mm 25 slots with adjustable width ESD vacuum formed, black colour

**7805.696** LICEFA rack for 25 spools max.dia. 330mm external dimensions 450 x 310mm 25 slots with adjustable width ESD vacuum formed, black colour

Zinc plated spool rack, with movable dividers, to lay over tables or inside lockers.

It can house reels from 180 to 330mm diameter



**7805.730** Zinc plated spool rack,

180-330mm reels, 29 slots, length 630mm

**7805.732** Zinc plated spool rack,

180-330mm reels, 49 slots, length1000mm **8100.075P** Movable plastic divider for 7805.730 - 7805.732 It can house reels from 180 to 380mm diameter



**7805.698** TRESTON rack for spools Ø 180 / 220 / 330 / 380mm Dim. 960x426x254(H)mm, made of galvanized steel 15 wire compartments of 60mm width

FILEO. Made in LABEPLAST the F.I.F.O.(First-In First-Out) boxes are useful to administrate the smd spools, loading in the higher slot and picking up from the lower.

**7805.711** FIFO box for 180mm dia. spools, useful height 160mm **7805.710** FIFO box for 180mm dia. spools, useful height 280mm **7805.712** FIFO box for 330mm dia. spools, useful height 280mm

HOBBOX The hopper-front conductive boxes, made from LABEPLAST (conductive fluted polypropylene), for a quick and easy removal of the spools, are useful to save space on shelving units. All the models are supplied in flat-pack form for assembly on-site, one label holder in the front side is provided.



7805.724 HOBBOX - Hopper front box made from LABEPLAST for 180mm dia. SMD spools, useful width 128mm 7805.725 HOBBOX - Hopper front box made from LABEPLAST for 220mm dia. SMD spools, useful width 128mm

7805.728 HOBBOX - Hopper front box made from LABEPLAST For 330mm dia. SMD spools, useful width 128mm

**CONDUCTIVE BOXES** Made of black conductive polypropylene, Rs <  $10^6\Omega$ .

7804.460	BJ removable lid, 1 hard foam, ins. 34x34x12mm
7804.462	BJ removable lid, 1 hard foam, ins. 25x54x14mm
7804.464	BJ removable lid, 1 hard foam, ins. 44x56x14mm
7804.466	BJ removable lid, 1 hard foam, ins. 32x118x14mm
7804.468	BJ removable lid, 1 hard foam, ins. 44x118x14mm
7804.470	BJ removable lid, 1 hard foam, ins. 67x117x14mm
7804.471	BJ hinged lid, 1hard foam, ins. 34x34x10mm
7804.472	BJ hinged lid, 1hard foam, ins. 73x51x16mm
7804.474	BJ hinged lid, 1hard foam, ins. 88x63x16mm
7804.476	BJ hinged lid, 1hard foam, ins. 108x81x16mm
7804.478	BJ hinged lid, 1hard foam, ins. 228x125x20mm
7804.480	BJ hinged lid, 1hard foam, ins. 228x125x30mm
7804.482	BJ hinged lid, 1hard foam, ins. 228x125x39mm
7805.502	Removable lid, without foam ins. 50x30x16mm
7805.504	Removable lid, without foam ins. 57x36x17mm
7805.508	Removable lid, without foam ins. 80x50x27mm
7804.492	MOS1 hinged lid, 1 hard foam, ins. 50x90x16mm
7804.496	MOS2 hinged lid, 1 hard foam, ins. 95x160x16mm
7805.500	Round with cover ins.diam. 27x13mm, black ESD
7805.499	Round with cover ins.diam. 27x13mm, transparent ESD





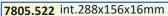






#### **CONDUCTIVE BOXES** (with hinges and metal fasteners)







**7805.525** with 54 compartments each 28x27x15mm

# **CASES** A complete range of briefcases made from conductive polypropylene. Rs < 10 $^6$ $\Omega$

8500.200 internal dimensions 170x130x37mm 8500.210 internal dimensions 240x170x42mm



8500.220	internal dimensions 270x185x76mm
8500.240	internal dimensions 375x265x80mm
8500.201	with conductive profiled foam int. 170x130x20(about)mm
8500.211	with conductive profiled foam int. 240x170x25(about)mm
8500.221	with conductive profiled foam int. 270x185x50(about)mm
8500.241	with conductive profiled foam int. 375x265x60(about)mm

# **CAROUSEL SYSTEM**

The basic CAROUSEL system consists of four rotating trays stacked on the top of each other and secured to a stable metal base by a central column. The whole unit can be tilted through 20°.

They can be supplied with diameter 450 or 600mm and are available in black dissipative material (Rsup  $10^6$ - $10^9\Omega$ ), or orange non antistatic version. Two different sizes are available: 450mm and 600mm



**7804.615** Carousel system, 4 trays 450mm dia. Black-ESD **7804.620** Carousel system, 4 trays 600mm dia. Black-ESD **7804.616** Carousel system, 4 trays 450mm dia. Orange-non ESD **7804.621** Carousel system, 4 trays 600mm dia. Orange-non ESD



Standards models have 4 trays, but it is easy to assembly carousels with different heights by means of single trays and of the assembly kit. It is possible to mix different diameter trays on the same kit, because the central hunging part is the

#### CAB - CABINETS

These cabinets provide systematic storage of small parts of components which are ESD sensitive.

Four different bins are combined into one slot-in unit, to make possible various configurations.

External dimension of the unit is 50x100x140mm.



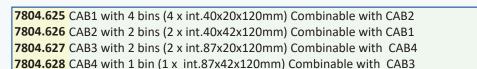












**7804.629** Complete cabinet with 27 bins (see picture) (12 CAB1 + 6 CAB2 + 6 CAB3 + 3 CAB4)

#### DIP TUBES BIN BOXES



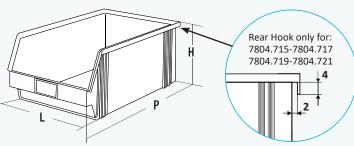
7806.700 Open stick-container made from LABEPLAST, supplied in flat-pack form ext. 620x112x90(H)mm int. 600x106x87(H)mm **7806.702** Closed stick-container made from LABEPLAST, supplied in flat-pack form ext. 630x125x100(H)mm int. 620x120x95(H)mm 7806.705 Closed stick-container with divider, made from LABEPLAST,

supplied in flat-pack form, ext. 630x230x170(H)mm

# **TECOFIX - STACKING BINS**

Conductive polypropylene hopper-front containers for storage and distribution of small parts. They are suitable for all known wall rail and for our VISTAFIX assembly stand.





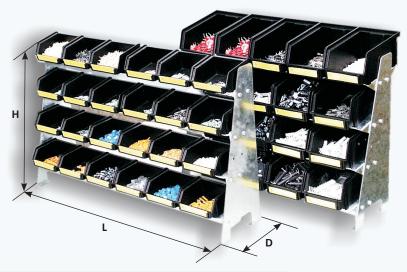
7804.715	Container TECOFIX 6	Dim.: 95(P)x100(L)x50(H)mm ext.
7804.717	Container TECOFIX 6D	Dim.: 95x100x50(H)mm ext. with internal partition
7804.719	Container TECOFIX 5	Dim.: 175x100x75(H)mm ext.
7804.721	Container TECOFIX 4	Dim.: 235x145x125(H)mm ext.
7804.723	Container TECOFIX 3Z	Dim.: 350x200x145(H)mm ext.
7804.725	Container TECOFIX 3	Dim.: 350x200x200(H)mm ext.
7804.727	Container TECOFIX 2	Dim.: 500x300x200(H)mm ext.
7804.728	Yellow label for TECOFIX 6, 6D	Dim.: 79.5 x 15mm
7804.731	Yellow label for TECOFIX 5	Dim.: 79 x 22mm
7804.729	Yellow label for TECOFIX 4,3Z	Dim.: 80 x 31mm
7804.730	Yellow label for TECOFIX 3, 2	Dim.: 81 x 40mm

# **VISTAFIX - ASSEMBLY STAND**

[WHILE STOCK LAST]

VISTAFIX zinc plated assembly stands are supplied complete of conductive TECOFIX bins.

They are especially suited for PCBs assembly and take a little space on the work table.



7804.735	Assembly VISTAFIX 4 12 bins size 4	Dim.: L = 630mm, D = 260mm, H = 490mm
7804.737	Assembly VISTAFIX 5 20 bins size 5	Dim.: L = 540mm, D = 230mm, H = 430mm
7804.738	Assembly VISTAFIX 5/L 24 bins size 5	Dim.: L = 650mm, D = 230mm, H = 430mm
7804.739	Assembly VISTAFIX 6 20 bins size 6	Dim.: L = 540mm, D = 160mm, H = 400mm
7804.740	Assembly VISTAFIX 6/L 24 bins size 6	Dim.: L = 650mm, D = 160mm, H = 400mm
7804.741	Assembly VISTAFIX 6D 20 bins size 6D	Dim.: L = 540mm, D = 160mm, H = 400mm

#### TRESTON BINS

TRESTON bins made from conductive polypropylene fit all standard shelves with a depth 300,400, 500 and 600mm, some models are also used in the visible storage cabinets.



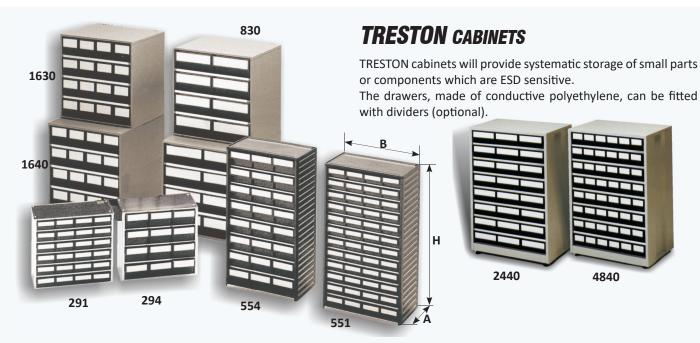
	Bin					Dividers (optional)		
Code	Туре	Bottom	Outer dim. mmA x B x H	Inner dim. mmA x B x H	Code	Туре	Quantity per bin	
7804.676	3010		300x92x82	257x75x70	7804.682	D-10	4	
7804.678	3020		300x186x82	257x167x70	7804.684	D-20	4	
7804.675	4010	Corrugated	400x92x82	357x75x70	7804.682	D-10	6	
7804.677	4020		400x186x82	357x167x70	7804.684	D-20	6	
7804.665	4015	H	400x132x100	357x110x90	7804.683	D-15	6	
7804.666	5010	AB	500x92x82	457x75x70	7804.682	D-10	8	
7804.668	5020		500x186x82	457x167x70	7804.684	D-20	8	
7804.667	5015		500x132x100	457x110x90	7804.683	D-15	8	
7804.671	6020		600x186x82	557x167x70	7804.684	D-20	10	
7804.669	6015		600x132x100	557x110x90	7804.683	D-15	10	
7804.660	L61	Smooth	170x68x36	150x65x34	7804.662	V-1	5	
7804.661	L64	A B	170x90x59	150x86x55	7804.664	V-4	3	

#### **TRESTON** STORAGE CARTS AND TURNTABLE ASSEMBLIES

Turntables and carts are supplied empty, the cabinets are ordered separately. Steel parts are of semiconductive epoxy powder



**7804.648 (12-550)** Turntable 3 layers holds 12 cabinets 551/554. Dim.500x500x1730(H)mm. Load capacity max. 400kg **7804.649 (16-300)** Turntable 4 layers holds 16 cabinets 0830/1630. Dim.700x700x1680(H)mm. Load capacity max. 800kg **7804.650 (16-400)** Turntable 4 layers holds 16 cabinets 0840/1640. Dim.800x800x1680(H)mm. Load capacity max. 800kg **7804.651 (BT-550B)** Double stand trolley holds 8 cabinets 551/554. Dim.715x780x1600(H)mm. Load capacity max. 150kg



Code	Code Type	Frame	Outer dim.	Conductive polypropylene	Dividers (optional)	
Couc		Tranic	A x B x Hmm	bins	Code	Туре
7804.636	291	Moulded conductive polypropylene	180x300x280	24 x L61	7804.662	V-1
7804.638	294	Moulded conductive polypropylene	180x300x280	12 x L64	7804.664	V-4
7804.640	551	Moulded conductive polypropylene	180x310x550	48 x L61	7804.662	V-1
7804.642	554	Moulded conductive polypropylene	180x310x550	24 x L64	7804.664	V-4
7804.643	0830	Epoxy powder coated steel	300x400x395	8 x 3020	7804.684	D-20
7804.644	1630	Epoxy powder coated steel	300x400x395	16 x 3010	7804.682	D-10
7804.645	0840	Epoxy powder coated steel	400x400x395	8 x 4020	7804.684	D-20
7804.646	1640	Epoxy powder coated steel	400x400x395	16 x 4010	7804.682	D-10
7804.652	2440	Epoxy powder coated steel	410x605x870	24 x 4020	7804.684	D-20
7804.654	4840	Epoxy powder coated steel	410x605x870	48 x 4010	7804.682	D-10

# TRESTON MOVEABLE BENCHES







8104.074 ESD Castor set for cabinets 2440 / 4840. 4 castors Ø 100mm, 2 with brakes Load capacity 150kg

**8104.736** ESD Movable bench CONCEPT H: 650-900mm Worktop 500x700mm 4 castors Ø 100mm, 2 with brakes Load capacity 150kg **8104.730** (SAP507+AT507) ESD Moveable bench H:650-900mm Worktop 500x700mm 4 castors Ø 100mm, 2 with brakes, max. 150kg

8104.731 (SAP710+AT710) ESD Moveable bench H:650-900mm Worktop 700x1000mm 4 castors Ø 100mm, 2 with brakes, max. 150kg

PUSH50 ESD mobile table handle (8104.730) depth 500 PUSH70 ESD mobile table handle (8104.731) depth 700

**LT507** Extra shelf 418x700 ESD for (8104.730) SAP507 ESD trolley **LT710** Extra shelf 618x1000 ESD for (8104.731) SAP710 ESD trolle

# Storage cabinets

LICEFA Cabinets, made of conductive polypropylene, will provide systematic storage of loose SMD components and other small parts. Drawers can be fitted with Vacuum-formed inserts or with cups to give more compartments.

The cabinets, four different sizes, are normally supplied with the following assemblies: mod. **7805.210** with 6 drawers MOD20, mod. **7805.150** with 9 drawers MOD22, mod. **7805.153** with 3 drawers MOD22, mod. **7805.305** with 4 drawers MOD62.

To assemble cabinets with another number of drawers, it is needed one rim-frame for each drawer and one base-foundation for each cabinet. Transparent adhesive labels with exchangeable yellow paper are available in three different size.



**7805.210** Storage cabinet with 6 drawers MOD20 ext.275 x 250 x 190(H)mm Accessories / Spare Parts

7805.221 Drawer MOD20, internal 261 x 238 x 20(H)mm

**7805.230** Rim-frame MOD20

**7805.236** Base-foundation (1 each cabinet), MOD.20

**7805.240** Label holder with exchangeable yellow label 15 x 55mm

**7805.150** Storage cabinet with 9 drawers MOD22 ext.267 x 355 x 305(H)mm Accessories / Spare Parts

**7805.160** Drawer MOD22, internal 340 x 250 x 22(H)mm

**7805.170** Rim-frame, MOD22

**7805.340** Base external 355 x 267mm (1 each cabinet)

**7805.350** Set of 6 inserts for closing the holes on the top-frame

**7805.240** Label holder with exchangeable yellow label 15 x 55mm

**7805.153** Storage cabinet with 3 drawers MOD22 ext.267 x 355 x 105(H)mm Accessories / Spare Parts

**7805.160** Drawer MOD22, internal 340 x 250 x 22(H)mm

7805.170 Rim-frame, MOD.22

**7805.340** Base external 355 x 267mm (1 each cabinet)

**7805.350** Set of 6 inserts for closing the holes on the top-frame

**7805.240** Label holder with exchangeable yellow label 15 x 55mm



**7805.305** Storage cabinet with 6 drawers MOD40 ext. 267 x 355 x 305(H)mm Accessories / Spare Parts

**7805.310** Drawer MOD40 , internal 340 x 250 x 40(H)mm

**7805.330** Rim-frame, MOD.40

**7805.340** Base external 355 x 267mm (1 each cabinet)

**7805.350** Set of 6 inserts for closing the holes on the top-frame

**7805.360** Label holder with exchangeable yellow label 15 x 94mm

7805.405 Storage cabinet with 4 drawers MOD62 ext. 267 x 355 x 310(H)mm
Accessories / Spare Parts

**7805.410** Drawer MOD62, internal 340 x 250 x 62(H)mm

7805.430 Rim-frame, MOD.62

**7805.340** Base external 355 x 267mm (1 each cabinet)

**7805.350** Set of 6 inserts for closing the holes on the top-frame

**7805.358** Label holder with exchangeable yellow label 31 x 94mm

# **STORAGE CABINETS**



#### Inserts for drawers 20mm height (storage cabinet mod. 20)

7805.252	16 compartments 61x56 mm
7805.254	18 compartments 82x36 mm
7805.256	24 compartments 40x55 mm
7805.258	36 compartments 60x23 mm
7805.260	42 compartments 34x36 mm
7805.262	42 round compartments Ø 27 mm

#### Inserts for drawers 22mm height (storage cabinet mod. 22)

7805.180	16 compartments 56x78 mm
7805.184	25 compartments 44x62 mm
7805.188	42 compartments 36x42 mm
7805.179	12 compartments 75x77 mm

#### Inserts for drawers 40mm height (storage cabinet mod. 40)

They also can be used in drawers 62mm height

7805.362	3 compartments 80x332 mm
7805.364	6 compartments 80x165 mm
7805.366	9 compartments 78x108 mm
7805.368	12 compartments 78x78 mm
7805.370	16 compartments 57x81 mm
7805.372	19 compartments 50x44 mm
	+ 1 compartment 92x50 mm
	+ 1 compartment 188x50 mm
	+ 1 compartment 237x50 mm
7805.374	25 compartments 46x63 mm
7805.376	30 compartments 44x50 mm

#### Inserts for drawers 62mm height (storage cabinet mod. 62)

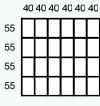
iliserts ioi	diawers ozinin neight (storage cabinet mod. 62)
7805.440	4 compartments 116x160 mm
7805.442	6 compartments 75x160 mm
7805.444	9 compartments 75x105 mm
7805.445	12 compartments 71x75 mm

#### 

7805.252

	82	82	82
36			
36			
36			
36			
36 36 36			
36			

7805.254



7805.256

	60	60	60	60	
=					
_=_					
23					
=					
7805 258					

F 27mm							
Φ	0	0	0	0	0	0	
0	0	0	0	0	0	0	
0	0	0	0	0	0	0	
0	0	0	0	0	0	0	
0	0	0	0	0	0	0	
$\overline{\bigcirc}$	0	0	0	0	0	0	
7805.262							

56	56	56	56
	56	56 56	56 56 56

7805.180

	44	44	44	44	44
62					
62					
62					
62					
62					

	36	36	36	36	36	36
42						
42						
42						
42						
42						
42						
42						

,		75	75	75
1	77			
1	77			
1	77			
	77			

7805.179

	80	80	80	
332				

	80	80	80
165			
165			

7805.364

7805.184

	78	78	78	
108				78
108				78
				78
108				78

7805.366

7805.188

		78	78	78
	78			
	78			
	78			
	78			

	7805.362					
	57	57	57	57		
81						
81						
81						
81						
7805.370						

	44					
50						
50						
50						
50	9	2				
50		18	8			
50		237				
7905 272						

	=	=	46	=	=	
63						
63						
63						
63						
63						

	=	=	44	=	-
50					
50					
50					
50					
50					
50					

7805.368

	7805	.370		780	5,3	72
	116	116		75	75	75
160			160			
160			160			
	7805	.440		78	05.4	42

	78	7805.374						
	75	75 75 75						
105								
105								
105								
	78	05/	144	•				

	78	05.3	76
	71	71	71
75			
75			
75			
75			
	78	05.4	45

# **CUPS**

Standard Cups for drawers 40mm height (storage cabinet mod. 40)

780	05.471	Cup 62 x 56 x 36 mm black conductive	24 cups for drawer
780	05.474	Cup 110 x 42 x 36 mm black conductive	18 cups for drawer
780	05.473	Cup 112 x 62 x 33 mm black conductive	12 cups for drawer
780	05.480	Cup 125 x 113 x 33 mm black conductive	6 cups for drawer

Standard cups for drawers 62mm height (storage cabinet mod. 62)

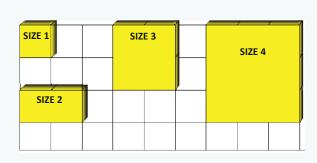
Standard caps for drawers ozimir height (storage capinet mod. oz)				
7805.477	Cup 59 x 23 x 60 mm black conductive	58 cups for drawer		
7805.472	Cup 56 x 50 x 55 mm black conductive	30 cups for drawer		
7805.478	Cup 113 x 50 x 55 mm black conductive	15 cups for drawer		
7805.482	Cup 125 x 113 x 55 mm black conductive	6 cups for drawer		



#### **SNAPBOX**

Boxes for SMD components with sprung lid, four different sizes available, can be joined to each other by means of a dovetail assembly system. The lid is provided with a finger point for easy and quick opening, can remain in open position and closes automatically thanks to spring loading. Black conductive version is normally available from stock, on request (minimum 100 pcs) the colours: red, white, blue, yellow and green. All boxes can be supplied with the transparent cover.





7808.620 7808.621 7808.622 7808.627	SNAPBOX1 ESD black SNAPBOX1 ESD black, transparent cover SNAPBOX1 not ESD various colours SNAPBOX1 not ESD various colours, transparent cover	SIZE 1 int.16x12x15mm est.20x28x20mm
7808.632 7808.633 7808.634 7808.635	SNAPBOX2 ESD black SNAPBOX2 ESD black, transparent cover SNAPBOX2 not ESD various colours SNAPBOX2 not ESD various colours, transparent cover	SIZE 2 int.37x12x15mm est.40x28x20mm
7808.644 7808.645 7808.646 7808.651	SNAPBOX3 ESD black SNAPBOX3 ESD black, transparent cover SNAPBOX3 not ESD various colours SNAPBOX3 not ESD various colours, transparent cover	SIZE 3 int.37x41x15mm est.40x56x20mm
7808.656 7808.657 7808.658 7808.663	SNAPBOX4 ESD black SNAPBOX4 ESD black, transparent cover SNAPBOX4 not ESD various colours SNAPBOX4 not ESD various colours, transparent cover	SIZE 4 int.57x68x15mm est.60x84x20mm



# **SNAPBOXSET**

7808.686	Storage cabinet with 3 drawers H22 Black ESD
	With 432 SNAPBOX1 (3 x 144) ESD transparent cover
7808.687	Storage cabinet with 3 drawers H22 Black ESD
	With 216 SNAPBOX2 (3 x 72) ESD transparent cover
7808.688	Storage cabinet with 3 drawers H22 Black ESD
	With 108 SNAPBOX3 (3 x 36) ESD transparent cover
7808.689	Storage cabinet with 3 drawers H22 Black ESD
	With 48 SNAPBOX4 (3 x 16) ESD transparent cover
7805.153	Storage cabinet with 3 drawers MOD22 ext.267x355x105(H)mm
	customizable with the choice of SNAPBOX1-2-3-4

# SMD - VISTABOX

VISTABOX zinc plated assembly stand can house in two shelves an assortment of SNAPBOX containers with different sizes. The VISTABOX is especially suited for assembly and maintenance tables

Material:zinc plated steel

Dimensions: 180 x 260 x 200mm

Capacity: 48 base units (size 1) for shelf

**7808.690** Assembly-stand, 2 trays for SNAPBOX (containers excluded)





#### LABEL HOLDER

Transparent adhesive label holder with and ESD symbol.

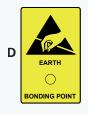
780	5.240	Label Holder, with label	15 x 55mm
780	5.360	Label Holder, with label	15 x 94mm
780	5.358	Label Holder, with label	31 x 94mm
780	4.918	Label Holder, with label	47x100mm
780	4.920	Label Holder, with label	60 x 140mm



# **LABELS**

7807.100	"AFTENTION" Adhesive label, ESD (A) 38x16mm(1000pcs.)
7807.102	"ATTENTION" Adhesive label, ESD (A) 50x25mm(1000pcs.)
7807.104	"ATTENTION" Adhesive label, ESD (A) 76x38mm(1000pcs.)
7807.110	ESD "SUSCEPTIBLE" symbol only, Adhesive label (C) 5x5mm(1000pcs.)
7807.112	ESD "SUSCEPTIBLE" symbol only, Adhesive label (C) 13x13mm(1000pcs.)
7807.114	ESD "SUSCEPTIBLE" symbol only, Adhesive label (C) 50x50mm(1000pcs.)
7807.115	ESD "PROTECTIVE" symbol only, Adhesive label (D) 12.5x12.5mm(1000pcs.)
7807.116	ESD "PROTECTIVE" symbol only, Adhesive label (D) 50x50mm(1000pcs.)
7807.158	"EARTH BONDING POINT" Adhesive label (E) 25x45mm(10pcs.)









#### **SIGNS**

7807.148	"ESD PROTECTED AREA"	Self-adhesive yellow PVC 300x150mm
7807.149	"ESD PROTECTED AREA"	Rigid yellow PVC 300x150mm
7807.150	"AREA PROTETTA ESD"	Self-adhesive yellow PVC 300x150mm
7807.152	"AREA PROTETTA ESD"	Rigid yellow PVC 300x150mm
7807.154	"ESD PROTECTED AREA"	English, rigid PVC 600x300mm
7807.154H	"H.V. ESD PROTECTED AREA"	English, rigid PVC 600x300mm
7807.155	"AREA PROTETTA ESD"	Italian, rigid PVC 600x300mm
7807.155H	"A.T. AREA PROTETTA ESD"	Italian, rigid PVC 600x300mm
7807.156	"ZONE PROTEGEE CONTRE LES ESD"	French, rigid PVC 600x300mm
7807.157	"ESD GESCHÜTZTER BEREICH"	German, rigid PVC 600x300m





Use where there are potentials > 250Vac

# EPA RETRACTABLE BELT BARRIER

System to delimit an EPA area in an easy and safe way. The belts are printed on both sides with the indication: "ESD PROTECTED AREA"

#### **Belt barrier post**

Powder coated steel post, colour: yellow Plastic coated steel base colour: black

Base diameter: 350mm Post height: 1020mm Weight: 10.3 Kg



**7807.953** Belt barrier post, single belt, belt length 3m

# **PROTECTIVE CLOTHING**

Style 3/4 length, unisex, with two side pockets and one breast pocket.

#### **Features**

- Fabric Composition:
   70% Cotton, 24% polyester,
   6% Conductive carbon fibre
- Lightweight (120g/m2)
- Washable without losing conductive properties.
- Charge decay < 2 Sec.



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7807.501	Dissipative Overall, WHITE colour	size XS
7807.502	Dissipative Overall, WHITE colour	size S
7807.503	Dissipative Overall, WHITE colour	size M
7807.504	Dissipative Overall, WHITE colour	size L
7807.505	Dissipative Overall, WHITE colour	size XL
7807.506	Dissipative Overall, WHITE colour	size XXL
7807.511	Dissipative Overall, LIGHT BLUE	size XS
7807.512	Dissipative Overall, LIGHT BLUE	size S
7807.513	Dissipative Overall, LIGHT BLUE	size M
7807.514	Dissipative Overall, LIGHT BLUE	size L
7807.515	Dissipative Overall, LIGHT BLUE	size XL
7807.516	Dissipative Overall, LIGHT BLUE	size XXL

# T-SHIRTS / POLO-SHIRTS (unisex)

#### **Features**

Colour: light greySymbol: yellow ESD

• Fabric: 96% cotton, 4% carbon fibre

Weight: 140g/m2Charge decay: < 2 Sec</li>

T-Shirt		
7807.696	size XS	
7807.698	size S	
7807.700	size M	
7807.702	size L	
7807.704	size XL	
7807.705	size XXL	
Polo T-Shirt		
7807.708	size S	
7807.710	size M	

size L

size XL

size XXL

7807.712

7807.714

7807.716



T-Shirt



Polo T-Shirt

# **DISPOSABLE COATS**

TNT lab coat with elastic wrists, style 3/4 length, unisex, with two side pockets.

7807.658	Disposable coat ESD, white colour	size M
7807.659	Disposable coat ESD, white colour	size L
7807.660	Disposable coat ESD, white colour	size XL
7807.661	Disposable coat ESD, white colour	size XXL



# **ESD FLEECE**

Antistatic fleece in soft dissipative static fabric, unisex model with high neck and zip closure. Complete with 2 side pockets and sewed fabric ESD logo.

Very warm is perfect for winter season.



#### Features:

- Color: gray or blue
- Fabric Composition:97% Polyester,3% Carbon Fiber
- Fabric weight: 245g/m<sup>2</sup>

7807.736G	Dissipative fleece, LIGHT GREY	size XS
7807.738G	Dissipative fleece, LIGHT GREY	size S
7807.740G	Dissipative fleece, LIGHT GREY	size M
7807.742G	Dissipative fleece, LIGHT GREY	size L
7807.744G	Dissipative fleece, LIGHT GREY	size XL
7807.746G	Dissipative fleece, LIGHT GREY	size XXL
7807.736B	Dissipative fleece, NAVY BLUE	size XS
7807.738B	Dissipative fleece, NAVY BLUE	size S
7807.740B	Dissipative fleece, NAVY BLUE	size M
7807.742B	Dissipative fleece, NAVY BLUE	size L
7807.744B	Dissipative fleece, NAVY BLUE	size XL
7807.746B	Dissipative fleece, NAVY BLUE	size XXL

# **DISSIPATIVE BADGE HOLDER**

Dissipative badge holders are amine free, colourless transparent and permanent dissipative.

Maximum size of the badge is 89 x 55mm.



**7807.903** Soft Badge holder with clip **7807.901** Rigid Badge holder with clip **7807.902** Rigid Badge holder with necklace

# **DISSIPATIVE FINGER COTS**

Dissipative latex finger cots, provide excellent tactile sensitivity for handling of ESD sensitive components.

Rs:  $< 4x10^{10} \Omega$ 



**7805.014** Dissipative finger cots size M, 1440 pcs/packing

**7805.015** Dissipative finger cots size L, 1440 pcs/packing

#### **NYLON GLOVES**

Seamless knitted dissipative nylon gloves, with Polyurethane wet coating on each top and double sided are PVC dotted. Rg:  $\leq 10^{8}\Omega$ 



**7804.997** Dissipative nylon gloves, small size **7804.998** Dissipative nylon gloves, medium size **7804.999** Dissipative nylon gloves, large size **7805.000** Dissipative nylon gloves, XL size

#### **VINYL GLOVES**

Made in dissipative VINYL are suitable for use in white chambers . Electrostatic decay time <2sec.

Rg:  $\leq 10^8 \Omega$ 



**7805.006** Dissipative VINYL gloves small size (100 pcs). **7805.008** Dissipative VINYL gloves medium size (100 pcs). **7805.010** Dissipative VINYL gloves large size (100 pcs).

# **POLYESTER GLOVES**

Fully launderable lightweight white gloves, made from additived polyester fabric and synthetic rubber.



**7805.001** Dissipative fabric GLOVES small size **7805.002** Dissipative fabric GLOVES medium size **7805.003** Dissipative fabric GLOVES large size

# DISSIPATIVE FOOTWEAR IN STOCK WHILE LASTING.



Check models and availability.

Visit our Home Page and look for the "Items in stock and occasions" link. Alternatively, send an email or call.



















#### **HEEL AND TOE GROUNDERS**

Made from conductive rubber tape, they are used for earthing personnel where mobility is required such as in storage areas and where static protective flooring or mats have been installed. Floors with a resistance to ground between 1 and 35M $\Omega$  are preferred. A disposable heel grounder is available, ideal for plant visitors or anyone requiring a temporary grounding device. (expected life of 1 day)

**7804.200** Disposable Heel grounder (pack of 100) **7804.201** Disposable Heel grounder Dispenser **7804.202** Heel grounder with 2 M $\Omega$  resistance **7804.203** Toe grounder with 2 M $\Omega$  resistance





# **DISPOSABLE SHOE COVERS**

Shoe Covers are used in hospital, clean rooms, and other industrial facilities. Are made by disposable blue TNT material, includes carbon conductive cord, cannot be washed. Rg:  $10^5$  -  $10^7\Omega$ 

**7807.850** Light blue ESD shoe cover, 100 pcs packing

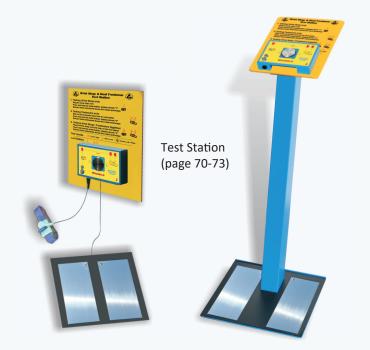
# FOOTWEAR AND FLOOR REQUIREMENTS IN EPA AREA

According to the IEC 61340-5-1 regulation all operators shall be connected to ground when operating in contact with ESDS. In case of personnel seated at an ESD protective workstation, they shall be connected to ground via a wrist strap system (Rg between  $750k\Omega$  - $35M\Omega$ ).

Standing operators may be grounded via a flooring / footwear system. When only the flooring / footwear system is used to ground it is necessary to wear ESD footwear on both feet and satisfy these 3 conditions:

#### Person/Footwear system

1) Total resistance of the person / Footwear system:  $Rgp < 1,0 \times 10^8 \Omega$ 



#### Person/Footwear/Flooring system

- 2) Total resistance of the system (person, footwear and flooring) to ground:  $Rg < 1.0 \times 10^9 \Omega$
- 3) Maximum HBV (Human Body Voltage) generation:

**HBV < 100V** 



Rg shall be measured during the product qualification according to IEC 61340-4-5 and HBV shall be checked periodically (note "d" Table 2 of the standard)

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#### **FLOORS**

#### DISSIPATIVE FLOOR COATING

It gives dissipative characteristics to a standard floor, and it is excellent in maintaining the conductive floor in operating rooms, clean rooms and data processing centres. It may also be used to maintain the table mat's dissipative surfaces.

#### First treatment:

-well wash the floor with the stripper -rinse with clean water.

-when dry apply two thin coats on the floor.

(Yield: 1lt. for approx. 25m<sup>2</sup> per 2 coats)

#### **Ordinary Maintenance:**

-sweep the floor with a wet broom, then wash it with the detergent diluted in water at 1-5% ratio.

#### Maintenance with spray:

-Dilute the coat in water at 30% ratio, spray it on the floor and then polish by a one-brush machine, provided with a suitable scotch-bride. (Yield: 1lt. for approx. 100m<sup>2</sup>) Rs:  $< 10^{11} \Omega$ 

7805.876 LIQUID COAT, 5 Kilos unit

# **STRIPPER** (Specific for 7805.876)

Dewaxing alkaline detergent have to be used the first time, before applying the coating on the floor. It removes quickly multiple coats of wax and embedded dirt. It is suitable on PVC, Rubber and Hard floors. Biodegradable up to over 90%.

Dilution in water 5-10% machine stripping 12-16% manual stripping Lay off the solution and let it act for 5 minutes, then wash with water.

#### 7805.870 FLOOR STRIPPER, 5 Kilos unit



**DETERGENT** Low foaming-agent detergent with highly concentrated active substances

and alkalinity. It is used for cleaning and maintenance of the waxed surface.

Biodegradable: up to over 90% - Dilution in water 1-5% It may be used to wash by hand and with a one-brush polisher or a washing-drying machine.

7805.873 DETERGENT, 5 Kilos unit

# **ELECSTAT-112** Dissipative floor detergent

ELECSTAT-112 is a non-toxic, low foaming, static dissipative agent for cleaning, used to enhance the features of the existing ESD floors or make a non-ESD floor static dissipative.

Rs:  $< 10^{11} \Omega$ 

Biodegradability: over 90% Dlution in water: 10 to 20%: Application: for manual or mechanical cleaning.



**7805.890** Dissipative agent ELECSTAT-112

5kg plastic can

#### DISSIPATIVE FLOOR PAINT

A ready to use single pack, dissipative water based paint can be easily applied by brush or roller. The paint has an attractive satin finish and is available in mid grey, nearest to RAL7035.

Two coats are recommended for best results and should be applied over a sound, sealed floor, free from dirt, oil or any loose particles.

It is strongly recommended that the paint is not applied directly over bare concrete. Where this occurs the Water Based Primer 7805.856 should be first applied.



#### **7805.854** ELECTROGUARD 40

SINGLE PACK water based static dissipative acrylic paint, 5

Coverage: 10m<sup>2</sup>/litre per coat (we recommend 2 coats). Typical resistance to ground Rg:  $10^6\Omega \div 10^8$ 

#### **7805.856** FLOORPOX PRIMER

Epoxy primer for bare concrete floor

12 litre unit (6 litres base + 6 litres activator)

Coverage: 16m<sup>2</sup>/litre per coat (we recommend 2 coats)



# FLOOR MARKING TAPE

- Self-adhesive
- 75mm wide, 33m long roll
- PVC laminated with clear PP for durability and washability

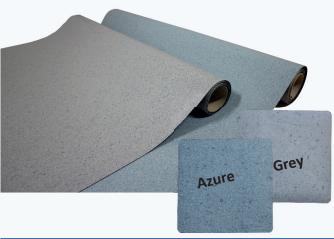
**7807.172** PVC adhesive tape, ESD Protected Area floor marking

#### VINYLAB - FLOORS

VINYLAB is a resilient, permanently static-dissipative control flooring developed for facilities where static discharge may cause damage to sensitive electronic devices. The VINYLAB mat meets the requirements for floors in standard IEC61340-5-1, the "Combination Resistance" with appropriate shoes is  $35M\Omega$ . It is made by two vinyl layers, the underside layer is black conductive, the top layer, glare free coloured surface, has a  $10^6\Omega$  typical Rs.

#### VINYLAB - MAT

- It is required a perfect, smooth permanently dry and sound subfloor.
- Never use conductive primers, since they reduce the subfloor's absorbency.
- Rubber mats should be dry laid first to reach the floor temperature (acclimatise)
- Use conductive adhesive to apply the rubber mat.
- Water dispersion adhesive type ECO V4, easy to apply, is mostly used on absorbent and moisture-stable subfloors.
- Detailed installation procedures available on demand.



**7805.820** Mat roll, azure colour 140cm x 2.2mm x 10m. **7805.818** Mat roll, grey colour 140cm x 2.2mm x 10m.

## COPPER EARTHING **TAPE**

Used to ground ESD matting Self-adhesive

- 0.04mm thickness
- 30m long roll

**7805.828** COPPER tape 10mm wide **7805.830** COPPER tape 15mm wide



# FLOOR GROUNDING KIT AND TEST POINT

Supplied with two meters long copper earthing type. Dowels and screws not supplied.

**7805.834** GROUNDING KIT

# VINYLAB - Interlocking floor tile

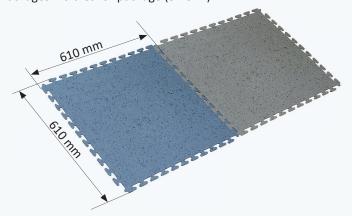
The tiles are clicked together quickly and can be dry laid over any hard and flat base even on damaged, damp or contaminated surfaces.

To have a reliable ground connection create a copper grid under the tiles and ground it.

Dimensions: 610 x 610 x 4 mm Coverage: 590 x 590 x 4 mm

Weight: 6kg/m2.

Packages: 10 tiles for package (3.48m²)



7805.800 Interlocking tile, azure colour **7805.801** Interlocking tile, grey colour

#### ECO V4 Glue for mats, one component

Conductive glue for sticking mats on benches or on the floor. Rs:  $< 3x10^5 \Omega$ 

One component, Color: Grey, 16kg pack, Useful time 10-15 minutes, consumption about 350g/m<sup>2</sup>.



**7805.840** One component conductive glue

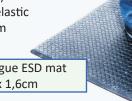
# ANTI-FATIGUE ESD MATS

ESD Anti-Fatigue Floor Mats designed to provide comfort and reduce worker fatigue. Provide ergonomic comfort for your feet and create a healthier more productive work environment.

The mats should be used on ESD floors correctly grounded.

-External side in nitrile conductive rubber ( $10^5 - 10^6 Ω$ )

-Internal in highly elastic Polyurethane foam





7804.841 Anti-fatigue ESD mat 60 x 90 x 1,6cm

# **WORKSTATION MATS**

Labestat table mats LABESTAT mats are made from a rugged rubber resistant to hot solder, fluxes and chemicals. The underside layer is black conductive, the top coloured layer, glare free surface, has a Rsurface from 10<sup>7</sup> to 10<sup>9</sup>  $\Omega$ .



#### LABESTAT 2 layers dissipative COLOURED / conductive BLACK

7804.152	GRAY 122cm x 2mm x 10meters roll
7804.853	GRAY 150cm x 2mm x 10meters roll
7804.153	SKY-BLUE 122cm x 2mm x 10meters roll
7804.154	BEIGE 122cm x 2mm x 10meters roll

# Kostaplan mats

KOSTAPLAN mats are made

from a rugged synthetic rubber resistant to hot solder, fluxes and chemicals. The underside layer is black conductive, the top coloured layer, glare free surface, has a Rsurface from 107 to 10 $^9\,\Omega$ 



#### **KOSTAPLAN 1 layer, conductive BLACK**

7804.140	60cm x 2mm x 10meters roll
7804.139	90cm x 2mm x 10meters roll
7804.145	120cm x 2mm x 10meters roll

#### KOSTAPLAN 2 layers, dissipative GRAY / conductive BLACK

	7804.148	60cm x 2mm x 10meters roll
		90cm x 2mm x 10meters roll
1		
	7804.150	120cm x 2mm x 10meters roll

## Esd workstation kit

600 x 1200 x 2mm, includes one adjustable wrist strap, one ground cord 3m, four snap fasteners installed.

7804.830	Two layer KOSTAPLAN mat, GREY / BLACK
7804.831	Two layer LABESTAT mat, GREY / BLACK
7804.833	Two layer LABESTAT mat, SKY-BLUE / BLACK



**Field Service Kit** The Portable Field Service Kit protects installed electronic components from static damage as a result of normal handling during field maintenance and repair.

It has two pockets and one 10mm press stud for Wrist-strap and Grounding cord connection.

- 3 Laver Mat RED/BLACK colour, 600x600mm dim.
- Surface resistance Rs ≤  $10^9 \Omega$
- Point to ground resistance Rg  $\leq 10^9 \ \Omega$
- 1 adjustable wrist strap + 1 grounding cord 3m length

7804.195 PORTABLE FIELD SERVICE KIT





#### ELECSTAT-109 ESD CLEANER

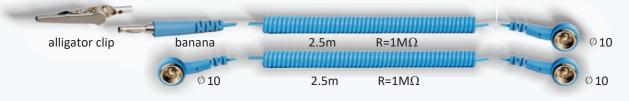
A topical antistatic cleaning solution for use on dissipative and non-ESD surfaces. After it has been applied and the surface dries, an antistatic and protective static dissipative coating is left behind. This enhances existing ESD surfaces and will give electrical properties to insulative surfaces. Rs  $< 10^{11}\Omega$ 

**7805.894** Bottle, 0.5 litre spray

**7805.896** 5 litre Can

#### WRISTSTRAP

The wrist strap is the most common and effective means of controlling ESD generated from people, it should be worn at all times by anyone at the work station. Our adjustable wrist strap includes an extendible coiled cord fitted with  $1M\Omega$  resistor.



**7804.190** Adjustable wrist strap, blue colour, with coiled cord banana/socket, alligator clip

**7804.193** Adjustable wrist strap, blue colour, with coiled cord socket/socket

6604.804 Spare Wrist-band

**6604.803** Spare coiled cord, banana/socket

**7804.885** Spare coiled cord, socket/socket



stud 10mm



**7804.192** ANTI-ALLERGENIC wrist strap with coiled cord

6604.805 Spare Wrist-band Spare coiled cord







stud 10mm



**7804.188** Metal wrist strap, with coiled cord

6604.808 Spare Wrist-band Spare coiled cord



stud 4mm

# EARTH BONDING POINT PLUG

EBP plug provides a safe, effective and simple method of using the ring mains earth as ground. Made of yellow ABS, Earth Bonding Plug fits the European CEE(7) VII Schuko sockets.

7804.874 Earth Bonding Plug with two 4mm plug sockets, one 10mm stud

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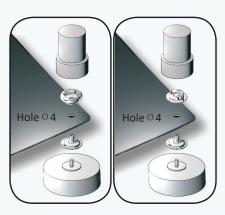
# **EARTH BONDING POINT**

An Earth Bonding Point (EBP) ties together (via cords) several elements of an EPA such as bench surface, floor mat or wrist strap. Each input is fitted with a  $1 \text{M}\Omega$  resistor. EBP is supplied with a 2 meters grounding cord for connecting to the Earth Facility.

**7804.896** EBP BOX three 4mm shrouded plug sockets **7804.898** EBP BAR three 4mm shrouded plug sockets

**7804.899** EBP BAR three studs Ø 10mm





# **GROUNDING ACCESSORIES**

Eyelets manual press (Without punch and anvil) Dimensions:80 x 180 x 280mm

Weight: 3.3 Kg

**7804.811** Eyelets manual press

**7804.803** Ø 10mm socket (2 parts) **7804.809** Punch and Anvil for socket F **7804.804** Ø 10mm stud (2 parts) 7804.805 Punch and Anvil for stud M

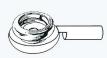




7804.870



7804.815



7804.814



7804.819



7804.818





7804. 797







7804.816



7804.873

7804.870	ADAPTOR socket Ø 10mm + stud Ø 10mm + banana plug Ø 4mm	
7804.815	ADAPTOR from socket Ø 10mm to banana plug Ø 4mm	
7804.814	ADAPTOR from stud Ø 10mm to banana plug Ø 4mm	
7804.818	ADAPTOR from socket Ø 10mm to stud Ø 10mm	
7804.819	ADAPTOR from stud Ø 10mm to socket Ø 10mm	
7804.796	Clinch SNAP male, Ø 10mm	
7804.797	Clinch SNAP female, Ø 10mm	
7804.816	Ø 10mm socket crimp terminable on AWG 22-16 wire	
7804.817	Ø 10mm plug crimp terminable on AWG 22-16 wire	
7804.872	BANANA Ø 4mm	
7804.873	Alligator-clip for banana plug Ø 4mm	

# **GROUNDING CORDS**

	1° Plug	Cable	2° Plug
7804.876	(T1) male 10mm	(C1) 1,8m R=1M $\Omega$	(T1) male 10mm
7804.878	(T1) male 10mm	(C1) 0,15m R=0 $\Omega$	(T1) male 10mm
7804.880	(T1) male 10mm	(C1) 4m R=1M $\Omega$	(T4) eyelet ∅4,2x7mm
7804.882	(T1) male 10mm	(C1) 4m R=1M $\Omega$	(T5) banana/alligator-clip
7804.883	(T2) female 10mm	(C1) 3m R=1M $\Omega$	(T5) banana/alligator-clip
7804.866	(T2) female 10mm	(C1) 3m R=0 $\Omega$	(T5) banana/alligator-clip
7804.884	(T2) female 10mm	(C1) 3m R=1M $\Omega$	(T4) eyelet ∅4,2x7mm
6604.803	(T3) female 10mm	(C2) 2.5m R=1M $\Omega$	(T6) banana/alligator-clip
7804.885	(T3) female 10mm	(C2) 3m R=1M $\Omega$	(T3) female 10mm
7804.886	(T7) female 10mm	(C1) 3m R=1M $\Omega$	(T4) eyelet ∅4,2x7mm

(C1)**Cables** 

(C2)











(T3)











#### HARD FOAM CUSTOM CUSHIONING FOR NEWBOX

#### FOAM ( CUSTOM CUT )





#### ANTISTATIC SOFT PINK FOAM

Use: cushioning purposes Material: polyurethane with additives, density:30Kg/m $^3$ Rs <10 $^{12}\Omega$ 

**7804.161** 1m x 1.5m sheet, thickness 6mm 1m x 1.5m sheet, thickness 10mm



#### CONDUCTIVE SOFT BLACK FOAM

Use: cushioning purposes

Material: polyurethane with additives, density: 30Kg/m<sup>3</sup>

 $\rm Rs < 10^6 \Omega$ 





#### CONDUCTIVE HARD BLACK FOAM

Use: insertion of component leads

Material: polyurethane with additives, density:  $65 \text{Kg/m}^3$ 

 $Rs < 10^5 \Omega$ 

**7804.172** 1m x 1m sheet, thickness 6mm **7804.174** 1m x 1m sheet, thickness 10mm



#### CROSS LINKED CONDUCTIVE BLACK FOAM

Use: insertion of component leads high grade, extended life Material: polyethylene with additives, density: 60Kg/m³  $\,$  Rs  $<\!10^{6}\Omega$ 

**7804.156** 1m x 1.78m sheet, thickness 2.5mm **7804.158** 1m x 1.78m sheet, thickness 7.5mm



#### ANTISTATIC HARD PINK FOAM

Use: cushioning purposes

Material: polyethylene with additives, density: 27Kg/m³

Rs  $< 10^{12}\Omega$ 

**7804.165** 1m x 1.5m sheet, thickness 10mm **7804.166** 1m x 1.5m sheet, thickness 20mm

#### **NEWBOX TOTE-BOX**

Conductive polypropylene Tote-Boxes, stackable, Rs <  $10^6~\Omega$ . Available in two EURO format: 400x300mm and 600x400mm

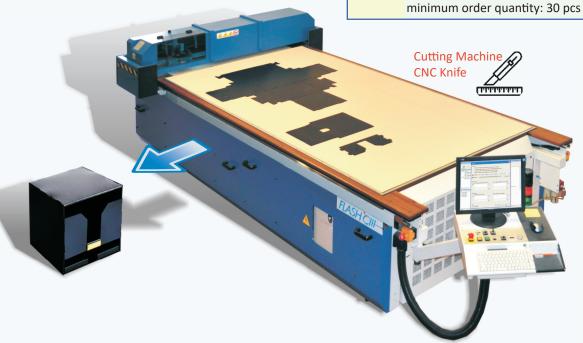


# **LABEPLAST** conductive fluted polypropylene

LABESTAT is an extruded conductive polypropylene that offers strength, durability and appearance superior to the fiber-board. LABEPLAST sheet has many capabilities such as die-cutting, line bending, riveting and sonic welding.

Rs:  $\leq 10^5 \Omega$ Rv:  $\leq 10^5 \Omega$ Color: black

**7806.166** LABEPLAST , 1250x1250x2,5mm, 550g/m2 sheets **7806.156** LABEPLAST , 2000x1250x2,5mm, 550g/m2 sheets



**CUSTOM BOXES AND DI-**VIDERS UNDER REQUEST



LABBOX-S Box with antistatic profiled foam



**7806.815** LABBOX-S Dim. est. 350x145x70mm **7806.245** LABBOX-S Dim. est. 400x230x60mm

**7806.720** LABBOX10 Base container ext.275x400x250(H)mm **7806.724** LABBOX14 Base container ext.430x510x200(H)mm

7806.725 LABBOXC2 Cover for LABBOX14

**7806.760** LABBOX30 Base container ext.370x590x140(H)mm **7806.763** LABBOX50 Base container ext.370x590x220(H)mm

7806.766 LABBOXC1 Cover for LABBOX30/50



>>> go to page 24



>>> go to page 21

#### F.I.F.O.

Made in LABEPLAST the F.I.F.O.(First-In First-Out) boxes are useful to administrate the smd spools, loading in the higher slot and picking up from the lower.

#### **HOBBOX**

The hopper-front conductive boxes, made from LABEPLAST (conductive fluted polypropylene), for a quick and easy removal of the spools, are useful to save space on shelving units.

All the models are supplied in flat-pack form for assembly on-site, one label holder in the front side is provided. (>>>See page.24)



# **CUSTOMIZED PRODUCTIONS**

Customized creations in conductive labeplast are possible, based on a project or customer specifications. The numerical control cutting machine allows the creation of 3D objects as in the follow examples:



Small parts holder in conductive labeplast



Pencil holder in conductive labeplast

#### ANTISTATIC STRETCH FILM

Antistatic Stretch Film is designed to be used in the ESD protected area. Unlike regular stretch film, the antistatic agent in this film offers great protection to the possible buildup static electricity. This is a mandatory stretch film to protect high value semiconductors from gettingelectrostatically damaged.

- 1) Wrapping pallets to protect the goodsfrom static electricity
- 2) Strong and durable ESD barrier for ESDsensitive products
- 3) High tensile strength and elongation makes the film to effectively hold the cargo

#### **TECHNICAL FEATURE**

Color Pink(PK)
Core 3" Paper

Standard size 25µm x 500mm x 500m

 $\begin{array}{lll} \text{Surface Resistance} & 10^8 \div 10^{11} \text{ ohm} \\ \text{Decay Time} & < 2 \text{ seconds} \\ \text{Elongation Ratio} & 300\% \\ \text{Custom size} & \text{Available} \end{array}$ 

Standards Complies with EN 61340-5-1



6604.320 Antistatic stretch film pink, 25 μm x 500mm x 500 mt.

#### **PACKING TAPE**

**7807.121** Antistatic PAPER adhesive tape - yellow with ESD symbol

Paper tape with water-based acrylic adhesive - 50mm wide, 50m long roll

**7807.170** PVC adhesive tape yellow with ESD symbol

Conventional PVC auto adhesive tape - 50mm wide, 66m long rol



# **GREEN POLY ANTISTATIC BUBBLE PACK**

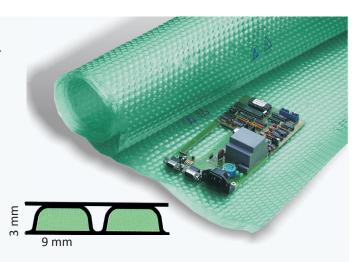
Multilayer polyethylene, green colour, amine-free, heat sealable, recyclable. Small strong barrier bubble provides a superior packaging protection with excellent puncture and tear resistance.

Electrostatic decay: < 2 sec

Rs: < 10<sup>11</sup>  $\Omega$ 

Colour: transparent green

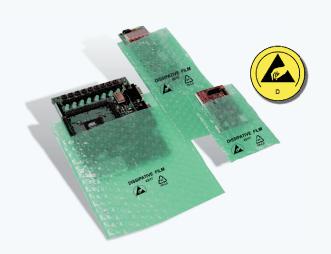
7804.184	<b>7804.184</b> Dissipative bubble pack roll	
0.5meters x 200meters		
<b>7804.185</b> Dissipative bubble pack roll		
1meter x 200meters		



# **DISSIPATIVE BUBBLE PACK BAGS**

Provide superior protection against physical damage during shipping and storage.

Opening x depth		Closing pad
6604.101	90 x 100mm	30mm
6604.102	100 x 180mm	30mm
6604.105	130 x 185mm	30mm
6604.107	180 x 230mm	30mm
6604.110	250 x 250mm	NO
6604.114	280 x 360mm	30mm



# **POLYETHYLENE TUBING**

6604.210	Black CONDUCTIVE 75 $\mu$ m - 100mm width - 500m roll
6604.214	Black CONDUCTIVE 75 $\mu$ m - 150mm width - 500m roll
6604.218	Black CONDUCTIVE 75 $\mu$ m - 200mm width - 500m roll
6604.224	Black CONDUCTIVE 75 $\mu$ m - 250mm width - 500m roll
6604.228	Black CONDUCTIVE 75 $\mu$ m - 300mm width - 500m roll
6604.230	Black CONDUCTIVE 75 $\mu$ m - 400mm width - 500m rolll
6604.239	Green DISSIPATIVE 100 $\mu$ m - 75mm width - 250m roll
6604.240	Green DISSIPATIVE 100 $\mu$ m - 100mm width - 250m roll
6604.244	Green DISSIPATIVE 100 $\mu$ m - 150mm width - 250m roll
6604.248	Green DISSIPATIVE 100 $\mu$ m - 200mm width - 250m roll
6604.254	Green DISSIPATIVE 100 $\mu$ m - 250mm width - 250m roll
6604.258	Green DISSIPATIVE 100 $\mu$ m - 300mm width - 250m roll
6604.260	Green DISSIPATIVE 100 $\mu$ m - 400mm width - 250m roll
6604.261	Green DISSIPATIVE 100 $\mu$ m - 500mm width - 250m roll
6604.264	SHIELDING 78 $\mu$ m - 100m width - 100m roll
6604.266	SHIELDING 78 $\mu$ m - 150mm width - 100m roll
6604.268	SHIELDING 78 $\mu$ m - 200mm width - 100m roll
6604.270	SHIELDING 78 $\mu$ m - 250mm width - 100m roll
6604.272	SHIELDING 78 $\mu$ m - 300mm width - 100m roll
6604.275	SHIELDING 78 $\mu$ m - 400mm width - 100m roll
6604.280	SHIELDING 78 $\mu$ m - 800mm width - 100m roll



# SHIELDING BAGS (metal-in)

#### LABESTAT S85 (packages of 100pcs)

Semi-transparent, heat sealable, the metallised shielding bags offer excellent protection for ESD sensitive devices.

A buried laver of metallic film sandwiched between an inner layer of polyethylene and an outer layer of polyester to provide protection against all static damage without exposing metal surfaces.

Thickness of the film: 78  $\mu$ m

Transparency: 40% Surface Resistivity:

-inner layer (polyethylene):  $< 10^{11} \Omega$ 

-intermediate layer (metal):  $< 10^2 \Omega$ 

-outer layer (polyester):  $< 10^{11} \Omega$ 

#### ZIPLOCK (zippered recloseable bags)

**7804.290** 100 x 150 mm ( 4" x 6") **7804.296** 150 x 250 mm (6" x 10") **7804.304** 250 x 300 mm (10" x 12") **7804.306** 300 x 400 mm (12" x 16")

#### opening x depth

	7804.268	76 x 127 mm ( 3" x 5")
	7804.270	100 x 150 mm ( 4" x 6")
	7804.272	125 x 200 mm ( 5" x 8")
	7804.274	150 x 200 mm ( 6" x 8")
	7804.276	150 x 250 mm (6" x 10")
	7804.278	200 x 250 mm (8" x 10")
	7804.280	200 x 300 mm (8" x 12")
	7804.284	250 x 300 mm (10" x 12")
	7804.285	250 x 350 mm (10" x 14")
	7804.286	300 x 400 mm (12" x 16")
	7804.287	400 x 500 mm (16" x 20")
i	7804.288	450 x 450 mm (18" x 18")
	7804.310	400 x 450 mm (16" x 18")
	7804.312	450 x 680 mm (18" x 27")

#### **CONDUCTIVE BAGS**

#### LABESTAT C75 (package of 100pcs)

Made from black multilayer polyethylene layflat tubing are available in many sizes. All bags are printed with the ESD logo and text in conformity to IEC61340-5-1. Don't use for packaging PCBs with on-board batteries.

Thickness of the film: 75  $\mu$ m Surface Resistivity:  $\leq 10^5 \Omega$ 



- F	and larger
7804.210	100 x 150 mm ( 4" x 6")
7804.212	100 x 200 mm ( 4" x 8")
7804.214	150 x 200 mm ( 6" x 8")
7804.216	150 x 250 mm (6" x 10")
7804.218	200 x 250 mm (8" x 10")
7804.220	200 x 300 mm (8" x 12")
7804.222	200 x 350 mm (8" x 14")
7804.224	250 x 300 mm (10" x 12")
7804.226	250 x 350 mm (10" x 14")
7804.228	300 x 400 mm (12" x 16")
7804.230	400 x 450 mm (16" x 18")

# DISSIPATIVE BAGS

#### LABESTAT A100 (package of 100pcs)

Material: Polyethilene, green colour amine-free, heat sealable, recyclable

Print: ESD and Recycle logos, production batch

Thickness: 100 µm Rs:  $< 10^{11}\Omega$ 



**7804.239** 76 x 127 mm ( 3" x 5") **7804.240** 100 x 150 mm ( 4" x 6") **7804.242** 100 x 200 mm ( 4" x 8") **7804.237** 100 x 460 mm (4" x 18") **7804.244** 150 x 200 mm ( 6" x 8") **7804.246** 150 x 250 mm (6" x 10")

#### opening x depth

7804.247	150 x 300 mm (6" x 12")
7804.248	200 x 250 mm (8" x 10")
7804.250	200 x 300 mm (8" x 12")
7804.252	200 x 350 mm (8" x 14")
7804.254	250 x 300 mm (10" x 12")
7804.256	250 x 350 mm (10" x 14")
7804.257	300 x 350 mm (12" x 14")
7804.258	300 x 400 mm (12" x 16")
7804.260	400 x 500 mm (16" x 20")
7804.262	400 x 600 mm (16" x 24")
7804.267	450 x 550 mm (18" x 22")



# **CLEAR DISSIPATIVE TAPE**

Clear Dissipative Tape used to seal shielding bags or boxes. Generates low electrostatic charge and can be used in EPA. Material: Cellulose based tape with rubber based adhesive. Rs:  $10^9 - 10^{11} \Omega$ 

T1000: 2 sec at 25% rH



**7807.179** Clear Dissipative Tape 12mm x 30m

**7807.181** Clear Dissipative Tape 24mm x 36m

**7807.183** ESD (Rs:  $10^5$ - $10^8\Omega$ ) Tape Dispenser for 25mm wide tapes with 75mm core.



#### HAND HELD CRIMPER SEALER

Model	7914.172	7914.175	7914.176	7914.177	
		cellophane, wax paper,	cellophane, wax paper,	cellophane, wax paper,	
Weldable material	polyethylene	aluminium or moisture	aluminium or moisture	aluminium or moisture	
		barrier bags	barrier bags	barrier bags	
Soldering lenght (mm)	150	150	300	400	
Max. soldering thicknes-	2.0.15	2x0,15	2x0,15	2x0,15	
s(mm)	2x0,15	Aluminium bag	Aluminium bag	Aluminium bag	
Seal width (mm)	2	2 15 12		12	
Power (W)	25	50	320	420	
Weight (kg)	0,5	1	2,5	3,5	
heating jaws	1	2	2	2	
Finishing	flat	embossed	embossed	embossed	
Temp. Adjustment	50-200°C	50-200°C	50-200°C	50-200°C	







#### HAND SEALERS

The welding time is adjustable, to match the type and thickness of material. The models with cutting blade can be used to produce bags from tubing or to seal filled bags and to trim the exceeding material.

Seal width: 2mm

Max.Sealable Thickness: 2x0.125mm.

Model	With cutter blade	Sealing lenght (mm)	Power (Watts)	Weight (Kg)
7914.201		200	260	4
7914.211	Х	200	260	4
7914.221		300	380	5
7914.222	Х	300	380	5
7914.231		400	500	6
7914.232	Х	400	500	6
7914.233	Х	500	550	7



# HAND SEALER (MEDICAL PACKAGING)



Recommended for the health care industry, creates water-tight seals on sterilisation rolls (paper-plastic) and sterilisation tubing (plastic-plastic) materials. The welding time is adjustable, to match the type and thickness of material, an audible beep advises when the seal is complete. Each seal has a deeply embossed texture.

- Soldering width: 10mm (according DIN58953)
- Max.Sealable Thickness: 2x0.2mm

	Model	Sealing lenght (mm)	Power (Watts)	Weight (Kg)
7914.215	white	200	1000	6,5
7914.216	stainless steel	300	1200	8



# HAND SEALER with holding magnet and cutter

The machine operates quickly and efficiently with magnet hold, offering consistent secure sealing for every package. After the seal cycle the machine re-opens automatically.

- Adjustable welding and cooling time.
- Uniform set contact pressure.
- Welds all types of thermoplastic films.
- Easy and simple to operate.

Seal width: 5mm

Max seal thickness: 2x0.15mm

**7914.245** Hand Sealer with holding magnet and Cutting Blade Max. seal length: 300mm **7914.246** Hand Sealer with holding magnet and Cutting Blade Max. seal length: 400mm

#### **ACCESSORIES FOR HAND SEALERS** 7914.226 **7914.217** Worktable for sealing unit 200mm **7914.227** Worktable for sealing unit 300mm **7914.237** Worktable for sealing unit 400mm 7914.217 **7914.226** Holder for tubing roll, maximum width 310mm **7914.236** Holder for tubing roll, maximum width 510mm **DOUBLE AUTOMATIC HEAT SEALER** Heavy duty, single or double, automatic or manual impulse heat sealer. Seals up to 0.5mm gusseted or regular thermoplastic film. Separate programmable timers (for sealing, cooling and recycle time when in automatic mode). 7914.248V Foot switch included for manual operation. Seal width: 10mm Max. seal thickness: 2x0.15mm 7914.247 **7914.247** Automatic heat sealer 300mm ( 2000W - weight 22kg ) **7914.247V** Automatic heat sealer 300mm with floor support **7914.248** Automatic heat sealer 450mm ( 2500W - weight 24kg )

#### AUTOMATIC HEAT SEALER WITH TEMPERATURE CONTROL

Heavy duty, constant temperature, magnet hold, automatic or manual impulse heat sealer. The machine is suitable for heavy bags like poly-cello films, aluminum foil or moisture barrier bags. Each seal has a deeply embossed texture.

Seal width: 15mm

Max. seal thickness: 2 x 0,25mm Temperature range: 30 - 199°C Sealing time: 0,2 - 2,5 sec

Recycle time (automatic mode): 1 - 8 sec

**7914.163** Constant automatic heat sealer 200mm (350W - weight 15kg) **7914.165** Constant automatic heat sealer 400mm (520W - weight 19kg)

7914.166 Constant automatic heat sealer 600mm (600W - weight 22kg)

7914.165

7914.248V Automatic heat sealer 450mm with floor support
7914.249 Automatic heat sealer 600mm ( 3000W - weight 26kg )
7914.249V Automatic heat sealer 600mm with floor support

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# 000

# **DRY PACK** Moisture absorbing desiccant bags

**7914.002T** Buste Tyvek gr.12 1/3U-DIN (100 pcs) **7914.005** Buste Tyvek gr.34 1U-DIN (300 pcs)

#### Humidity indicator card

**7914.008** 3 spot humidity indicator card 5-10-60% (500pcs)

J-STD-033 doesn't require vacuum for dry-pack. Light air evacuation may be used to reduce the packaging bulk and enhance carton packing. Full evacuation shall not be used as it will impede desiccant and HIC performance and possibly lead to MBB puncture.

VacuWeld heat sealers have digital adjustment of vacuum. controlled by an internal vacuum sensor.







MBB with Recommended Light Air Evacuation



MBB with Too Much (Full) Evacuation

Vacuweld >>> GO TO page 51

# Esd moisture barrier bags (metal-in)

Excellent in EMI/RFI and static field shielding, these bags are water vapor proof and grease proof. Heat sealable, Moisture Barrier Bags are made from a multilayer metallized film.

#### MIL-B-81705C class1 TC1 SBM356

Thickness: 85 µm

Film complying: MIL-B-81705C class1 TC1 SBM356

Rs:  $< 1x10^{11} \Omega$ 

Electrostatic decay: < 0,1 sec

EMI shielding (MIL 81705-C): 40dB / 1÷10 GHz

Packaging of 100pcs

Opening on the short side (mm)	Thickness 85 $\mu$ m
100 x 660	7804.344
150 x 660	7804.347
200 x 250	7804.348
250 x 660	7804.350
400 x 400	7804.354
400 x 660	7804.353
450 x 450	7804.355
450 x 660	7804.356

#### JEDEC-STD-033

Thickness: 150  $\mu$ m

Film complying: JEDEC-STD-033

Rs:  $< 1x10^{11} \Omega$ 

Electrostatic decay: < 0,1 sec

EMI shielding (MIL 81705-C): 40dB / 1÷10 GHz

Packaging of 100pcs

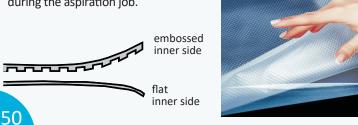
Opening on the short side (mm)	Thickness 150 $\mu$ m
100 x 660	7804.344P
150 x 660	7804.347P
200 x 250	7804.348P
250 x 660	7804.350P
400 x 400	7804.354P
400 x 660	7804.353P
450 x 450	7804.355P
450 x 660	7804.356P

# Not-esd moisture barrier bags

SACS BARRIERE GAUFRES (Packaging of 100pcs)

In external aspiration appliances textured bags are the best solution for an easy operation. One of the inner layer is made with small straight rails parallel to the lateral sides that facilitate the output of the air

during the aspiration job.



Opening on the short side (mm)	<b>Embossed</b> 85μm	Flat 95 μm
150 x 200	6604.004	6603.923
150 x 300	6604.006	6603.925
200 x 300	6604.010	6603.928
250 x 350	6604.015	6603.932
250 x 600	6604.020	6603.936
300 x 400	6604.025	6603.940
400 x 600	6604.030	6603.945
200 x 6m Tubing	6604.052	-
300 x 6m Tubing	6604.054	-

# **VACUUM PACKING MACHINES**

VACUWELD - vacuum tank sealers for epa area

7914.279

The VACUWELD machines have been designed to avoid electrostatic charges, for the use in ESD environments: stainless steel chamber, aluminium cover and conductive wheels. Digital adjustment of vacuum ( <u>Vacuum %</u> ), controlled by an internal vacuum sensor.

#### VACUWELD Venturi pump (compressed air)

The use of a compressed air-driven vacuum pump, minimizes noise, vibration and heat generation.

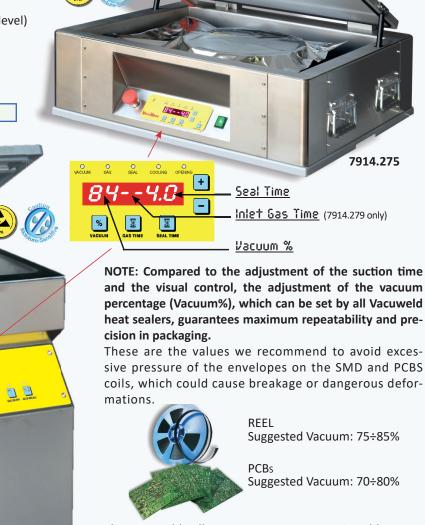
Maximum vacuum level 90% (measured at the sea level)

Seal bar: 460 x 10mm

Useful chamber size: 500 x 600 x 100(H)mm

Air requirements: 6nl/s at 6 ATM Power supply: 230V/50Hz 1kW

7914.275 Vacuum tank sealer



The Vacuwelds allow you to store up to 10 welding programs to quickly set the desired parameters.

# VACUWELD - Oil pump

The use of an oil pump let the sealer to reach a high vacuum level.

Maximum vacuum level 98% (measured at the sea level) Seal length: 450 x 5 mm

Vacuum pump: Oil bath, 20m³/h. Chamber capacity: 450x500x90(H) mm

Power supply: 230V/50Hz 2kW

7914.278 Vacuum tank sealer

7914.279 Vacuum tank sealer, with inert

gas injection

# VACUTEK - External aspiration for EPA area

Vacutek is an innovative external suction welding machine, an evolution of the previous model Vaculab which has been produced for over 10 years. With these economic and flexible machines is possible to package every length of bag. The unit is hand operated and the degree of vacuum is achieved by the operator's evaluation.



Vacuum Seal COOLING OPENING + AUTO AUTO SEAL COOLING OPENING + SORT VAC

The vacuum (Vacuum Time) time can be preset or manually decide when to start the sealing cycle by pressing the SEAL button.

**7914.340** Manual vacuum bag sealer, external aspiration.

Unfortunately, the ESD barrier bags used in Electronics to make the Dry Pack of MSD components according to the Jedec J-STD-033D standard, are not available in the embossed type, ie with internal knurling, useful for air

extraction. Therefore they normally require the use of vacuum chamber packaging machines (internal aspiration).

For their use with with external aspiration vacuum packaging machines, the misalignment spring was developed. It's a magnetic anchoring tool, which must be inserted in the upper part of the welding bar as shown in the figure.

Technical features: Seal length: 450 mm Soldering jaws: 2 x 6mm Vacuum pump: Dry , 5m³/h

Noise: <65dB

External dimensions: 490x390x220mm Power supply: 230V/50Hz - 600W

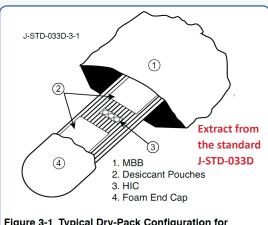
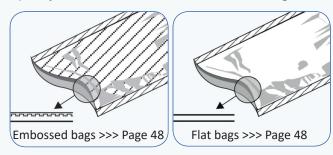


Figure 3-1 Typical Dry-Pack Configuration for Moisture-Sensitive SMD Packages in Shipping Tubes



#### 1) It is possible to use both flat and embossed bags



Hook the misalignment spring when using the flat barrier bags, remove it with the embossed barrier bags.

# Wire shelving



Solid CONDUCTIVE shelving, in chrome plated steel, resistant to rust, bumps and scratches.

This system allows an efficient air circulation, a good light penetration and the maximum accessibility.

Easy to assembly on field, it doesn't require any screws, bolts or tools.

Split sleeve assembly device locks shelves in place in 1" increments along height of post.

Levelling bolt compensate for uneven floors.

Every wire shelf system can be made mobil by using conductive castors.

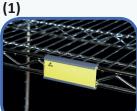
VINYLAB mat optional cover, 2 layers, grey ESD

Load capacity for single shelf: 150 kgs Load capacity for shelving unit: 800 kgs

#### Composition

The Starter Unit, the first one, is composed by two, three or four shelves by choice, and four posts.

An Add-on Unit, to be attached to the preceding, needs two posts only. This unit connect to the Starter Unit by mean of "S" hooks, two for shelf, easy to fix. In this case two split sleeves for shelf will be enough (For a total of two "S" hooks and two split sleeves for shelf).





Shelf Dim. (mm)	Shelf	VINYLAB mat
350x910	8103.990	8104.140
350x1220	8103.991	8104.141
455x910	8104.001	8104.142
455x1220	8104.002	8104.143
455x1525	8104.003	8104.144
455x1830	8104.000	8104.145
610x910	8104.004	8104.146
610x1220	8104.005	8104.147
610x1525	8104.006	8104.148
610x1830	8104.007	8104.149





8104.020	Post H= 864mm
8104.021	Post H=1370mm
8104.022	Post H=1600mm
8104.023	Post H=1890mm
8104.108	Esd Document holder A4 - 2 magnets included
8104.061	Chromed plastic split sleeve (optional)
8104.062	Adjustable ESD support feet
8104.050	"S" Hooks for Add-on Unit.



(3)



#### Fixed Label-holder (1)

8104.101 Fixed Label-holder 80mm

Divider (2)

**8104.110** Shelf Dividers 455x200(H)mm

**8104.111** Shelf Dividers 610x200(H)mm

#### Side and back ledges (3)

Side and back ledges 100mm height to avoid dangerous falls.

**8104.130** Ledge 100mm x 455mm

**8104.131** Ledge 100mm x 610mm

**8104.135** Ledge 100mm x 762mm

SMD reel shelf (4)

**8104.012** SMD reel shelf 455 x 910mm

Reel capacity: 80, DIA.180mm x width. max.17mm

**8104.013** SMD reel shelf 455 x 910mm

Reel capacity: 13, DIA.330mm x width. max.50mm

Plastic split sleeve included withshelves



8104.061 (optional) Chromed plastic ESD split sleeve



8104.062 (optional) Adjustable ESD support feet

# Wire trolley

Two version of it: with 2 U-handles or 4 posts. The shelves are the same used in the shelving unit, easy to assembly with split sleeve devices to avoid any tools, screws and bolts. Load capacity: 200 kgs.

#### Composition A:

2 U-handles, 1 set of castors, 3 shelves and 12 split sleeves

#### Composition B:

1 handle, 4 posts, 1 set of castors 2 shelves, 12 split sleeves and 2 VINYLAB mats



**8104.041** U-handle 455mm width, 1000mm height **8104.042** U-handle 610mm width, 1000mm height

**8104.046** 8104.046 Handle 455mm **8104.047** 8104.047 Handle 610mm

**8104.070** Set of 4 conductive castors  $\emptyset$  125mm ( 2 with brake) **8104.071** Set of 4 NON-ESD castors  $\emptyset$  125mm ( 2 with brake)



# Stainless steel trolley

Stainless steel carts - AISI304 with solid conductive wheels Ø125mm, 2 with brake.

#### TWO/THREE SHELF TROLLEY (A)

Load capacity for single shelf: 50kg

8104.700 2 U-handle KIT, with conductive wheels

**8104.706** Shelf - dim. 800 x 500mm

**8104.708** Shelf - dim. 1000 x 500mm

#### **CART FOR STUFF (B)**

Load capacity: 200kg

8104.720 Trolley - dim. 1000 x 550mm

# TRESTON trolley

#### TRESTON TROLLEY ESD (C)

Storage trolley is an easy solution for mobile storage, it has an adjustable middle shelf and all shelves are fitted with standard rubber mats.

Set of 4 ESD castors diam. 100mm (2 with brake) Max load 30 kg per shelf.

**S852773-49** TRESTON TROLLEY ESD 650x450x775mm **(C)** 

#### TRTA TROLLEY ESD

The Trolley can be equipped with several accessories to transport and store tools and electronic components. Set of 4 ESD castors Ø125mm (2 with brake).

The Trolley is available in 2 versions:

- The TRTA / 2 version (figure D) has 2 shelves dim. 800x400. Load max. 150kg.
- The TRTA / 4 version (figure E) has 4 shelves dim. 800x400. Load max. 300kg.



TRTA4082 ESD TROLLEY TRTA /2 ESD 890x530x1020mm

TRTA5104 ESD TROLLEY TRTA /4 ESD 1090x630x1515mm (E)



Load capacity for single shelf: 50kg

# **CHARIOTTE - Trolley per newbox**

CHARIOTTE conductive trolleys are ideal for efficient handling of tote boxes, circuit board carriers, cabinets and other parts handling containers.

The basic unit consist of two lateral support posts on a stable, wide based assembly.

Steel shelves are adjustable in height, depth and tilt angle.

P370 shelf, without fittings, can accomodate one EURO 600x400 or two EURO 300x400 boxes.

In the table below are listed the parts forming the trolley shown left.

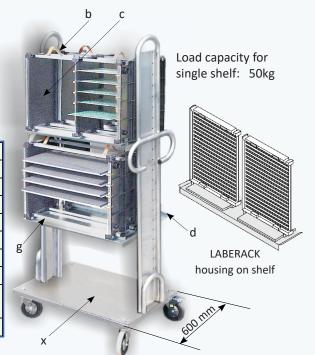
code	description	fig.	Qnt.
0100.030	Stainless steel baseplate with castors	Х	1
8100.054	Stainless steel lateral support post	Н	
8100.055	Stainless steel lateral post with handle	K .	2
9100.020		J	
8100.065	P370 shelf 370x630mm NEWBOX tote boxes (cat. page 22)	а	6 in figure
8100.066	P600 shelf 600x630mm		

# Chariotte - trolley for laberack

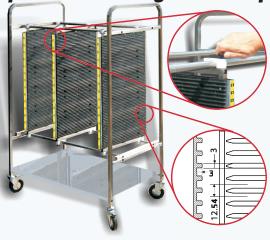
CHARIOTTE conductive trolley can be customized to carry Printed Circuit Boards or LABEFIX trays. The trolley shown in figure consists of four LABERACK carriers, securely housed on the two special double support shelves.

In the table below are listed the parts forming the trolley shown right:

codice	description	fig.	Qnt.
8100.050	Stainless steel baseplate with conductive castors	Х	1
8100.054	Stainless steel lateral support post	Н	
8100.055	Stainless steel lateral post with handle	K	2
8100.056	A4 document holder	J	
8100.068	Double shelf for 2 LABERACK racks	d	2
7804.007	LABERACK wall	С	
7804.017	LABERACK intermediate wall		
7804.002	LABERACK aluminium bar (600mm lenght)	g	
7804.021	LABERACK handle for transport (rail fixing)	b	rack



# pc board storage & transport LABECART



A mobile PCBs' store, ideal for transporting work process and storing large quantities of board. Adjustable panels with horizontal slides feature 12,54mm (1/2") spacing. Made by stainless steel structure and conductive plastic panels. 84 slides per side, accepts boards or trays up to 9mm thickness. Load capacity: 250kg

8104.312 Stainless steel lateral support post pair

**8104.318** Stainless steel stud  $\emptyset$  25x1000mm (n.6 each cart)

**8104.327** Side wall 1120x510mm / 84 rails

8104.325 Intermediate wall 1120x510mm / 84 rails each side

**8104.330** Lower stainless steel shelf 660x1000mm

**8104.695** ESD wheel kit,  $\emptyset$  125mm ( 2 with brake)

**8104.696** NON-ESD wheel kit, Ø 125mm ( 2 with brake)

# CHARIOTTE Smd reel holder



	description	ref.	Qnt.
8100.050	Stainless steel baseplate with castors, 600x760(L2) mm	Х	
8100.049	Stainless steel baseplate with castors, 600x1130(L2) mm	Z	1
8100.054	Stainless steel lateral support post	Н	
8100.055	Stainless steel lateral support post with handle	K	2
8100.056	A4 document holder	J	
8100.073	Double shelf for SMD reel support L1 = 630mm 29 slits for side, pitch 20mm		
8100.074	Double shelf for SMD reel support L1 = 1000mm49 slits for side, pitch 20mm	М	3
8100.075P	Divider for SMD reels	N	







8100.055

8100.054

8100.056

CHARIOTTE reel holder is designed to prepare and transport the SMD reels to the assembly area, and mainly to make the replacement of empty reels on the automatic machines. The capacity of the trolley is 4 shelves for reel size 330mm and 5 shelves for reel size 220mm. Steel shelves are adjustable in height, the mobile dividers help to compartmentalize the reels. Every shelf is provided with labels.

#### TRESTON smd reel holder

The adjustable reel holder trolley is compatible with SMD reels, and suitable for transport and stocking of them. The trolley is in powder coated steel, RAL7035 ESD. The reel holder is galvanized.



The trolley has four perforated steel shelves depth 460mm. All shelves are individually adjustable.

The load capacity of one shelf is 50kg, and the load capacity of the trolley is 200kg.

**8100.020** Trolley with four shelves and wheels (reel holders not included) Dim. 1100 x 530 x 1780(H)mm

**7805.698** Reel rack Ø 180 / 330 / 380mm - Dim. 960x426x254(H)mm



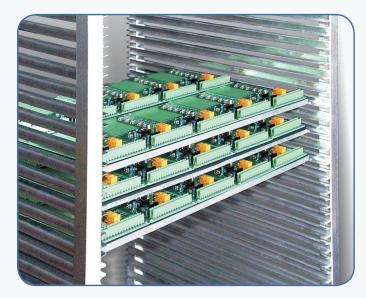




# Smd reel holder (wire shelving page 54)

The Wire Reel Holders can be combined with the standard wire shelves and posts. (see page 54)

8104.012 WIRE SHELF for 180mm SMD reels - 455x910x95(H)mm. Slot opening 16mm - Reel capacity /shelf: about 80 8104.013 WIRE SHELF for 330/380mm SMD reels - 455x910x108(H)mm. Slot opening 50mm - Reel capacity /shelf: about 13

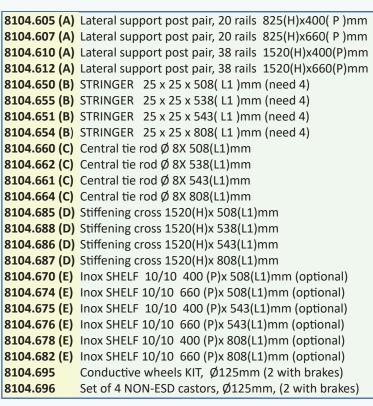


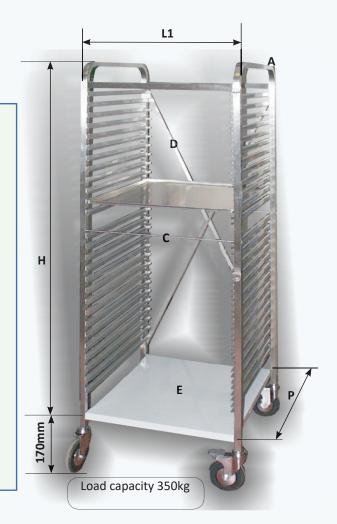
# **CHARIOTTE** tray trolleys

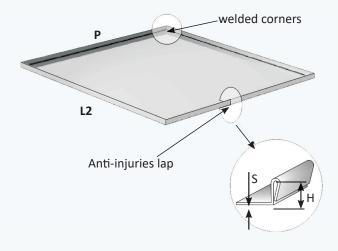
Supporting structure made of tubular AISI 304 stailless steel. C - shaped tray control guides, made of stainless steel with back stops. Wheelbase 32mm

Chariotte trolleys with height of 1520mm shall be equipped with 1 stiffening cross on the back side and 1 central tie rod on front side.

Pivoting conductive wheels ,  $\emptyset$  125mm (2 with brakes). The optional stainless steel shelf, can be placed on the bottom and on the top.







# Aluminium trays

Flat trays, made of aluminium alloy 3003 with anti-injuries laps. Welded on the corners.

Code	S	Н	L2xP	L1
8104.580	1.2	12	500x330	508
8104.582	1.2	12	500x390	508
8104.584	1.2	15	500x650	508
8104.587	1.2	12	535x290	543
8104.588	1.2	12	535x600	543
8104.592	1.2	15	800x330	808
8104.594	1.5	15	800x390	808
8104.596	1.5	16	800x650	808

# **WORKBENCHES TPH** (ESD)

Workbench with upright profiles and a laminate shelf, depth 310 mm, height adjustment 1080 to 1550 mm

Worktop height adjustment with allen-key, between 650 - 900mm Frames are of epoxy powder coated steel in dark grey RAL 7035. The worktops are of 26 mm laminated particle board Load capacity 300 kg equipment static u.d.l.





TPH 712 ESD Workbench top dimensions 700 x 1200mm

**TPH 715 ESD** Workbench top dimensions 700 x 1500mm

TPH 718 ESD Workbench top dimensions 700 x 1800mm

TPH 915 ESD Workbench top dimensions 900 x 1500mm

TPH 918 ESD Workbench top dimensions 900 x 1800mm

#### **CORNER WORKBENCH TPH**

TPH 707 KK ESDC orner Workbench

with top dimensions 1100 x 1100mm

TPH 909 KK ESDC orner Workbench

with top dimensions 1300 x 1300mm

#### **AUXILIARY SHELF SH**

Height adjustable shelf, 25mm ESD laminate Load capacity 50kg

**SH 120 ESD** dim.310 x 1200 Suitable for TPH712

**SH 150 ESD** dim.310 x 1500 Suitable for TPH715/915

**SH 180 ESD** dim.310 x 1800 Suitable for TPH718/918

#### **METAL SHELF TH**

For stacking and picking bins Tecofix 5 Adjustment for depth, height and angle Load capacity 30kg

**TH 120 ESD** dim.145 x 1119 Suitable for TPH712

**TH 150 ESD** dim.145 x 1419 Suitable for TPH715/915

**TH 180 ESD** dim.145 x 1719 Suitable for TPH718/918









#### TOOL AND LIGHTING SUPPORT KT

For suspending power tools and lighting units includes one C-profile bar with sliding hook

KT120	C-profile bar, for bench 1200mm
KT150	C-profile bar, for bench 1500mm
KT180	C-profile bar, for bench 1800mm
CC12	Cable clip set (5 pcs)



Cable clip set (5 pcs)



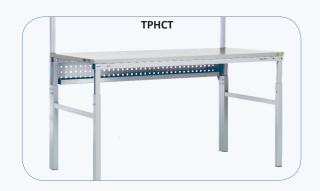
#### SWIVEL ARM WITH TRAY

**CKV400ESD** Swivel arm with tray of dimension 210 x 460mm. Load 15kg

# **CABLE TIDY TPHCT**

Mounted between C-profiles below worktop Perforated epoxy powder coated steel

TPHCT 120 45 x 205 x 1115 Suitable for TPH712
TPHCT 150 45 x 205 x 1415 Suitable for TPH715/915
TPHCT 180 45 x 205 x 1715 Suitable for TPH718/918



# **WORKBENCHES TP** (ESD)

Ergonomic workbench is suitable for light assembly. Frames are of epoxy powder coated steel in grey RAL7035 The worktops are of 25 mm ESD-laminate Height adjustment with allen-key between 650 to 900 mm.

TP 510 ESD	500 x 1000mm	charge max. 150kg
TP 710 ESD	700 x 1000mm	charge max. 300kg
TP 712 ESD	700 x 1200mm	charge max. 300kg
TP 715 ESD	700 x 1500mm	charge max. 300kg
TP 718 ESD	700 x 1800mm	charge max. 300kg
TP 915 ESD	900 x 1500mm	charge max. 300kg
TP 918 ESD	900 x 1800mm	charge max. 300kg



# **WORKBENCHES CONCEPT** (ESD)

- Suitable for use in demanding assembly environments.
- Adaptable to a large variety of tasks.
- Offering a wide range of accessories to meet any need.

Select the height adjustment method: allen-key, electric or hand-crank.

Stepless height adjustment between: allen key 700-1100mm, hand crank 675-1025mm, motor 670-1100mm. The frame is strong and rigid. Steel frame parts are epoxy coated light grey paint, RAL 7045. Worktops are of 25 mm ESD laminate particle board, adjustable feet are provided for fine levelling. Cable tidy is standard with hand-crank and electric adjustable benches.

Load capacity from 200 kg to 500 kg depending on the version.



60

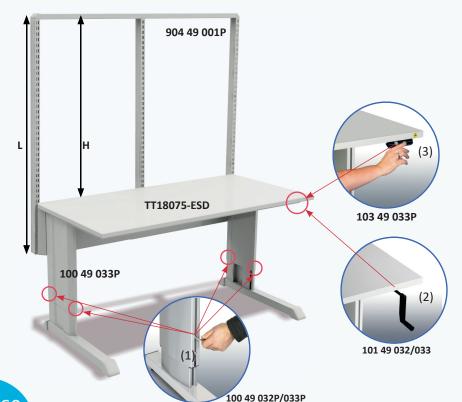


Design your workstation with the 3D Configurator

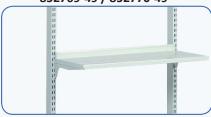


S100 49 032P Concept workbench frame, allen key adjustable (1).
S100 49 033P Concept workbench frame, allen key adjustable (1).
S101 49 032 Concept workbench frame ESD, hand crank adjustable (2).
S101 49 033 Concept workbench frame ESD, hand crank adjustable (2).
S103 49 032P Concept workbench frame ESD, motor adjustable (3).
103 49 033P Concept workbench frame ESD, motor adjustable (3).
TT15075-ESD Top for ESD bench frame.
TT18075-ESD Top for ESD bench frame.
S903 49 001P Upright tube module ESD (for bench frame Dim 1500 x 750)
S904 49 001P Upright tube module ESD (for bench frame Dim 1800 x 750)

Dim 1500 x 750 mm Max. Load 500 Kg Dim 1800 x 750 mm Max. Load 500 Kg Dim 1500 x 750 mm. Max. Load 200 Kg Dim 1800 x 750 mm Max. Load. 200 Kg Dim 1500 x 750 mm Max. Load 400 Kg Dim 1800 x 750 mm Max. Load 400 Kg Dim 1500 x 750. Color Light grey Dim 1800 x 750. Color Light grey (2xM750) L=1359mm, H=1075mm (2xM900) L=1359mm, H=1075mm



#### 836028-49 / 852283-49 852769-49 / 852770-49



Epoxy powder-coated steel the shelf that can be used either as tilted 20° or in a horizontal position. The shelf has an integrated edge, which can used either in the front or back of the shelf.

#### 859151-49 / 859152 -49



Space saving bin rails ensure an ergonomic working position (bin excluded)

#### TPR7-001 / TPR9-001



Cable channel with switch, 5/6 schuko socket and 2 USB socket

#### 93049002P



LCD screen holder, suitable for VESA 75 and 100 standards.

#### **CPU**



Adjustable support for CPU

#### 91849006P / 91849008P



Adjustable rails to mount on the upright tubes. To be used to suspend lighting units and electric tools

#### 92849008P



Document holder A4 ESD. Dim. 290x330mm. Max load kg 5.

#### 860911-49P



Extension for curved bin rail ESD 770x54 with arm (Space saving bin excluded)

#### 861511-49 / 861516-49



Perforated panels, besides being practical storage supports for instruments and equipment, are efficient space dividers.

#### 860941-49



Holder Keyboard ESD Width mm 480 Depth mm 260 Max load kg 5.

#### 92949002P



Curved bin rail ESD with arm (Space saving bin excluded) Width 770mm, depth 54mm, height 54mm. Max load kg 15

#### **Optional accessories**

**S836028-49** Steel shelf ESD Width mm 740 Depth mm 300 Max load kg 50 (for 903 49 001P)

**S852283-49** Steel shelf ESD Width mm 890 Depth mm 300 Max load kg 50 (for 904 49 001P)

S852769-49 Steel shelf ESD Width mm 890 Depth mm 400 Max load kg 50 (for 904 49 001P)

**S852770-49** Steel shelf ESD Width mm 740 Depth mm 400 Max load kg 50 (for 903 49 001P)

**S859151-49** Bin rail ESD M750 742x100 (Space saving bin excluded)

**S859152-49** Bin rail ESD M900 895x100 (Space saving bin excluded)

\$860941-49 Keyboard tray ESD 480x260 for LCD holder Width mm 480 Depth mm 260 Max load kg 5

**S861511-49** Perforated back panel Width mm 718 Depth mm 16 Height mm 389

**S861516-49** Perforated back panel Width mm 878 Depth mm 16 Height mm 389

**S91849006P** Adjustable rails to mount on the upright tubes (for frame 90349001P)

**S91849008P** Adjustable rails to mount on the upright tubes (for frame 90449001P)

S92849008P Document holder A4 ESD dim. 290x330mm, with a double arm of lenght 200+200 mm. Max load kg 5

**S92949002P** Curved bin rail ESD 770x54 with arm (Space saving bin excluded)

**S860911-49P** Extension for curved bin rail ESD 770x54 with arm (Space saving bin excluded)

**S93049002P** LCD screen holder ESD with double arm. Max load kg 15. Suitable for VESA 75 and 100 standards

CPU Adjustable support for PC

TPR7-001 Power supply channel with switch, 5 schuko socket and 2 USB socket. 4,5 m cable is included

Dim 684x44x(H)52 mm (for module M750)

TPR9-001 Power supply channel with switch, 6 schuko socket and 2 USB socket. 4,5 m cable is included

Dim 836x44x(H)52 mm (for module M900)

# **WORKBENCHES TED** (ESD)

TED workbenches can vary in height from 630mm to 1270mm. quickly and silently via electric control, and are tested to withstand loads of up to 200 kg while remaining stable at all heights. They are useful in assembly, control or packaging work, when the items handled can vary from large to small in size, resulting ergonomic in all situations. They are also suitable for research and development laboratories and industrial offices thanks to the high load they can bear, and a wide range of accessories is available for better space management.

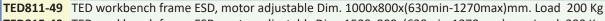
#### **CHARACTERISTICS**

- Height adjustment range 630 1270 mm
- Quick and silent adjustment, 22 mm per sec
- Depth 800 mm
- Four widths: 900, 1100, 1500, 1800 mm
- Designed to work with ESD devices
- Capacity 200 kg for the table and 80 kg for the additional components

#### **ACCESSORIES**

The accessories compatible with the workbenches of the TED line are the same as those of the CONCEPT line.

(>>> page 61: Optional accessories)



TED815-49 TED workbench frame ESD, motor adjustable Dim. 1500x800x(630min-1270max)mm. Load 200 Kg

TED818-49 TED workbench frame ESD, motor adjustable Dim. 800x800x(630min-1270max)mm. Load 200 Kg

TED809-49 TED workbench frame ESD, motor adjustable Dim. 900x800x(630min-1270max)mm. Load 200 Kg

#### ACCESSORIES COMPATIBLE WITH ALL WORKBENCHES

# **CABLE CHANNEL**

TPR4-001 Cable channel with switch,

6 schuko socket and 2 USB



Fixed on table top

#### **FOOTREST ESD**

Footrest with an angle adjustment of the padded platform, floor model.

idth: 550 mm Depth: 350 mm Height: 100 mm Max load: kg 30 RAL code: RAL7035



\$860947-49 Footrest ESD with adjustment

#### TRESTON INTOLITE LED 850



TIL850 LED Lamp, 1800 Lux, L=8500mm L=900mm

#### TRESTON NATURLITE LED

Lamp with adjustable lighting for work station, with bright and high quality light. The dimming option guarantees that each workstation user gets exactly the amount of light that they need. Adequate lighting even for high-precision technical assembly work. Side lights enable eliminating all shadows from the work area, or creating shadows where they are needed.



TNL1200 LED Lamp, 3100 Lux, dimmable, L=1180mm
TNL900 LED Lamp, 2300 Lux, dimmable, L=900mm
TNL500W LED Lamp, 800 Lux, dimmable, L=430mm

#### STEEL CABINET 45

Suitable for TP/TPH/WB/Concept benches of 700 mm depth and over, Centrally locked high quality steel cabinet for storage of tools and small components. Mounted under workbenches with brackets (included).

Steel cabinets are semiconductive epoxy powder coated in grey paint, RAL 7035. One model 7804.563 available as an independent tool trolley, with wheels 100 mm diameter, two with brakes. Full width drawer handle in anodised aluminium. The drawers are mounted on silent telescopic guides that allow extraction at 100% of the length.

Load capacity: 60 kg/drawer.

Drawers size: 380 x 500 mm (Width x Depth).



code	7804.533	7804.543	7804.553	7804.563	7804.573
drawer outerheight (mm)	1X100	2X100	3X100 1X200	3X100 1X200 with wheels	3X100 2X150 with base
outer dimensions (mm)	450x520x140	450x520x260	450x520x560	450x520x700	450x520x760



## **SHELF CABINETS**

Designed to store electronic components.

Delivered pre-assembled.

The metal frame is epoxy powder coated with a light grey ESD paint. Shelves can be installed in different position at 80mm pitch distance. There are leveling screws under the cabinet for adjusting the cabinet straight, and the door are key lockable.

The empty cabinet can be lift up with forks.

Maximum load capacity 150 kg./shelf

**SC10050100** ESD SHELF CABINET with 2 shelves, 1030x530x1010 mm **SC10050200** ESD SHELF CABINET with 4 shelves, 1030x530x2010 mm **S852185-49** Extra shelf with brackets



Comfortable static safe chairs designed to improve job efficiency and productivity Chrome -plated metal parts - Pneumatic seat height adjustment Standard self-braking conductive castors Rg to ground <  $1x10^{10}\Omega$ 



# **COMFORT**

ESD chairs with durable dissipative fabric, anthracite color. Synchronized seat and backrest mechanism lockable in different positions, anti-return system of the backrest, adjustment of intensity based on the weight of the person.

code	back rest dimensions (mm)	backrest adjustment	seat dimensions (mm)	seat height (mm)
7804.209A	580 x 400	synchronous movement	510 x 480	420 ÷ 550

# **CLASSIC** / standard

ESD chair with long wearing dissipative upholstery, antracite colour

code	back rest dimensions (mm)	back rest angle	seat dimen- sions (mm)	seat height (mm)
7804.2045	380 x 240	fix.	200 v 460	490 + 590
7804.208	390 x 360	adj.	390 x 460	480 ÷ 580





# CLASSIC / high with foot-plate

ESD chair with long wearing dissipative upholstery, antracite colour

code	back rest dimensions (mm)	back rest angle	seat dimensions (mm)	seat height (mm)
7804.204	380 x 240	fix.	200 v 460	F00 : 700
7804.204R	390 x 360	adj.	390 x 460	500 ÷ 700

# PU / standard

ESD chair in black dissipative PU foam

code	back rest dimensions	back rest angle	seat dimensions	seat height
	(mm)	g.	(mm)	(mm)
7807.338	400 x 250	fix.	450 × 460	450 : 580
7807.345	400 x 380	adj.	450 x 460	450 ÷ 580



7807.345



# PU / high with foot-plate

ESD chair in black dissipative PU foam

code	back rest dimensions (mm)	back rest angle	seat dimensions (mm)	seat height (mm)
7807.336	400 x 250	fix	450 - 460	F00 + C00
7807.341	400 x 380	adj	450 x 460	500 ÷680

# **YOUNG / standard**

ESD chair with long wearing dissipative upholstery, antracite colour

code	back rest dimensions (mm)	back rest angle	seat dimensions (mm)	seat height (mm)
7807.315	380 x 230	fix	450 - 460	400 + 500
7807.317	420 x 480	adj	450 x 460	490 ÷ 590





# YOUNG / high with foot-plate

ESD chair with long wearing dissipative upholstery, antracite colour

code	back rest dimensions (mm)	back rest angle	seat dimensions (mm)	seat height (mm)
7807.320	380 x 230	fix	450 × 460	F60 : 720
7807.322	420 x 480	adj	450 x 460	560 ÷720

# **OPTIONS**

On request, other versions of chairs can be done by mounting the options described below, simply add the suffix letter to the code of the chair.

Suffix	Option
Α	Armrest
G	Conductive rubber castor(replacing standard castor)
Р	Glide(replacing standard castor)



(does not leave marks on the floor)







# DISSIPATIVE CHAIR COVER SET

Backrest (max.40x40) - Seat (max.40x45)

Made of grey conductive woven fabric, the dissipative chair covers are designed to make a conventional padded factory chair more suitable for use in an EPA. The covers easily fitted on all chair types, are supplied with the cables to connect the back rest to the seat and the seat to the earth (by means of a  $1M\Omega$  series resistor)

**7804.197** Dissipative CHAIR COVER SET, 2 cables included

# SIMCO - ION IONIZING

- low decay time
- reduced airflow
- clean room compatible
- balanced
- IEC 61340-5-1

#### **ACTIVE PROTECTION SYSTEM**

Where grounding of some equipment or parts of equipment through traditional earthing techniques is impractical, where it is impossible to exclude all charging materials from the area, the use of suitable ionizers is highly recommended. Air ionization systems work by flooding the atmosphere with positive and negative ions. When the ionized air comes in contact with a charged surface, the surface attracts ions of the opposite polarity. As a result the static electricity that has built up on products and equipment is neutralized. Ions do remove small particles or smoke and pollens from the air, and subjective research suggest that people working in ionized area are happier.

The generated ozone is lower than 0.002 ppm after 24 hours accumulation, conform to OSHA requirements.

# 6422/E point of use ionizing blower

The smallest and most versatile blower available for equipment or local area ionization. It is ideal for use inside or on top of production equipment. Battery operated model is very useful on field service call.

Discharge time: from ±1000V to 100V ≤ 10s at 60cm

Emitter points: Tungsten alloy, internally shielded, 5 year life

Air flow: 15m3/h

Power requirement: 24Vac 5W Dimensions: 11.4 x 8.4 x 5.1 cm



6432/E local area ionizing blower

Controls static discharge in mid-sized areas, it is indicated for general workbenches applications, conveyors, equipment. Discharge time: from ±1000V to 100V ≤7s at 60cm

Emitter points: Tungsten alloy, internally shielded, 5 year life

Air flow: 80m<sup>3</sup>/h

Coverage area: 122x46cm Power requirement: 230Vac / 6W

**9265.560** Point-of-use ionizing blower, 24Vac **9265.577** Wall transformer 230Vac/24Vac 32W

9265.576 Local area ionizing blower

# local area ionizing blower AEROSTAT PC2

High performance compact ionizing blower, features an adjustable air flow speed and integrated heater. Suitable for workbenches, conveyors, robotics, packaging.

Decay Time: ±1000V to 100V ≤ 2s at 60cm Emitter: Patented emitter point cleaner Air Flow: 220 m³/h at high speed Coverage Area: 150x30cm Power requirement: 230Vac

Auto-balance: 0 ±10 V

**9265.582** Local Area Ionizing Blower AEROSTAT PC2, 230V

# Turbo ionizing blower XC2

The Turbo Blower is designed to achieve full control in any environment, it is ideal to cover large areas. The fan can work at 3 different speed and has heater incorporated to grant a good comfort (heater can be turned on or off). Easy cleaning of the emitters with the "Emitter Clear Button". The decay time is minimum due to the high performance of this ionizer.

Decay Time: ±1000V to 100V ≤ 3.5s at 60cm Emitter cleaning: "Emitter Clear Button" Air Flow: 250 m³/h at high speed Power requirement: 230Vac Auto-balance: 0 ±10 V SMCOS Towns ASS

**9265.602** Turbo Ionizing Blower XC2, 230V

# Overhead ionizing blower GUARDIAN

It is a 3 fan smart ionizer that provides reliable, adaptable performance in the most static-sensitive environment. Designed for mounting over the benches, conveyors, it allows a complete 3D neutralization of the static charges, without compromising space over the table, and in the most comfortable environment. Equipped with 3 fan, adjustable air flow, heater, 13W twin tube fluorescent light, and emitter cleaning system.

Decay Time: ±1000V to 100V ≤ 6s at 45cm Emitter: Patented emitter point cleaner Air Flow: 500 m³/h at high speed Coverage Area: 120x60cm

Power requirement: 230Vac Auto-balance: 0 ±5 V

9265.610 Overhead Ionizing Blower GUARDIAN, 230V

#### **IONIZING GUNS**

Ionizing guns neutralize static charges and clean surfaces using compressed air that is ionized. Like all the ionizers they find application in the electronic industry, but they can be useful in many other contest like mechanical industry, painting works, packing areas, displays cover removing, etc... This because the neutralization of static charges simplifies the cleaning works and prevents the risk that airborne particles and dust will be attracted again.

# 6115 Light anatomic gun

Usable also in clean room, ergonomically designed, light, it is used to blow off charged dust particles from electronic cards and other equipment or materials. Extremely light, anatomic, and with a flexible soft cable (no HIGH voltage passing through this cable)

Gun ergonomic, low-noise, weight 0.34kg

Discharge time: from 1000 to 100V ≤ 0.5seconds at 6", 30psi Emitter points: Machined Titanium, field-replaceable Gas input: 20-87psi(1.4-6 bar), Clean dry air or Nitrogen

Ozone: 0.005ppm (24 hour accumulation)

Noise: 70dbA at 1m, 30psi Power: requirement 24Vac - 10W

**9265.530** Complete kit including hand unit, console,

air filter and transformer 220/24Vac

**9265.532** Additional Filter pack, (Pack of 3) - 0.1mm 99,99%EFF



Designed for heavy duty jobs, due to its high performance, reliability and durability.

There is a flow control valve to adjust airflows for the specific application. It is completely ESD and can be used even in clean rooms.

The version with sidekick allows "hands free" operation.

Discharge time: from 1000 to 100V ≤ 0.5 seconds at 5cm at 60 psi

Air Input: adjustable to 100 psi (7 bar) max.

Power requirement: 230Vac Noise: 76 dBA at 60cm, 30 psi

**9265.520** Ionizing Gun TOP-GUN, 230Vac

9265.523 Ionizing Gun TOP-GUN, 230Vac

with flexible support and Sidekick (foot pedal switch)

# 9265.523

9265.530

# *6110A AIR CARTRIDGE*

The cartridge can be used either for in-line ionization or as ionizing blow-off gun, adapts to compressed air lines. Two models available, one turns off ionizer when air is not flowing.

Weight: 170g

Power:: 24Vac, 1W, from 9265.544 wall transformer

**9265.542** Ionizing cartridge, air flow triggered - 24Vac

**9265.544** Transformer 230/24Vac



**ATTENTION:** the cartridge don't withstand high air pressure. It should be installed downstream from any system valves or shutoffs

#### FIELDLAB and FIELDLAB EVO - ELECTROSTATIC FIELDMETER

The FieldLab Evo instrument detects and measures intensity and polarity of electrostatic fields. It's useful for checking packaging materials, circuit assemblies, ionized areas. Maximum range is 20KV at 1" (25.4mm) distance, the correct positioning of the instrument is obtained through the beams of 2 LEDs converging at the right distance. The Ion Balance mode allows you to check the ionizers by inserting the included insulated metal plate. The instrument is supplied in two versions: FIELDLAB and FIELDLAB EVO. Compared to the FIELDLAB EVO model, the FIELDLAB version offers greater accuracy (±05%) and the possibility of providing the analog signal on a specific output. ISO9000 traceable Calibration Report included with the instrument.



#### **FIELDLAB EVO**

- Range:
  - ±20KV (Resolution 100V) ±1,5KV (Resolution 10V) ±200V (Resolution 1V)
- Accuracy ±10%.



#### **FIELDLAB**

- Range: ±20KV (Resolution 100V) ±1,5KV (Resolution 10V) ±200V (Resolution 1V)
- Accuracy ±5%.
- Analog output for recording device.

9265.701

- **9265.701** Electrostatic fieldmeter FieldLab Evo, with battery.
- **9265.501** Electrostatic fieldmeter FieldLab, with battery.
- 9265.508 Instrument recalibration, ISO9000 Traceable Calibration Report

# CHARGER EVO

The Charger Evo is used to charge insulated plates at a desired voltage.

Settable output: 100V to 1100V (step 1V)

Resolution: 1 Volt Accuracy: 5%

Dimensions: 124x72x28mm

The additional benefits compared to other chargers are:

- Settable output voltage (step 1V)
- The output voltage is clearly indicated on the LCD and the internal accuracy (5%) allows a roughly check of other ESD instrumentation equipments.
- Low battery and overload are clearly indicated.









9265.401 Charger Evo with batterie, case, and grounding cord

9265.410 Instrument recalibration ISO9000 Traceable Calibration Report is supplied



#### **IONIZER VERIFICATION KIT**

The 9265.710 kit includes a FieldLab Evo fieldmeter and a Charger Evo. It can be used to verify ionizer operation and check ion balance and discharge time

**9265.710** Ionizer verification kit (FieldLab Evo and Charger Evo) **9265.403** Ionizer verification kit (FieldLab and Charger Evo)



#### **WALKING TEST EVO**

The Walking Test Evo is a portable measuring system that allows analysis of charge levels accumulated on the human body according to IEC 61340-5-1 standard.

It's fully portable and doesn't require a PC for data acquisition because all data are measured and logged in the internal memory. The operator can perform all necessary operations without any collaborator, and while he is walking the instrument is attached only with a single cable to a fixed position for the reference to the ground. The graphs of the tests can be displayed on the graphic LCD for a quick evaluation. Then they can be easily exported and analyzed on a PC for a professional documentation.

A program to manage the tests recorded in the instrument is included in the Walking Test EVO.

Range:  $\pm 1050V$ Resolution: 1 Volt Accuracy: 5% o  $\pm 5V$ Input resistance:  $\pm 10^{14}$   $\Omega$ 

Humidity: 1 to 95%RH (accuracy: ±2%RH)
Temperature:-20°C to +60°C (accuracy: ±1°C)
Display: graphicLCD 128 x 64 pixel, 68x51mm
Power supply: 6 alcaline batteries, LR6 1, 5V

Dimensioni: 243x130x60mm (instrument) Ø35x130mm (probe)

Weight: 650g (instrument) - 250g (probe)





+100 26 63 -100 3 0 2 4

MONITOR (Datalogger OFF)

DATALOGGER Graph n.3 +Peak=26V -Peak=-69V



#### Datalogger

In the internal memory of the instrument can be logged till to

10 graphs.

Sample rate: 200Hz

Max total graphs duration: 2minutes and 30 sec

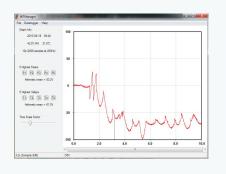
Interface: USB

#### **Software WT Manager (included)**

Program to manage the tests recorded in the instrument,

compatibile with Windows XP/../11.

For each walking measurement, the five highest peaks (P1-P5) and the five highest valleys (T1-T5) are indicated with their arithmetic means.





9265.080 Walking Test Evo Meter with batteries and case
9265.082 Instrument recalibration, ISO9000 Traceable Calibration
Report is supplied

# **Wristlab-II** Test Station

Test station for checking personnel grounding connection of wrist straps and footwear, according to the IEC 61340-5-1.

Separate testing of left and right shoe; the test is executed at 50V or 100V to provide more accuracy.

A relay output allows access to ESD Protected Area.

Internal battery supplied 9V or external 9Vdc.

ISO9000 traceable Calibration Report is included.

The personnel grounding test station can work in 4 modes:

- 1) Simultaneus measurement of wrist straps and footwears.
- 2) Wrist straps only measurement
- 3) Footwears only measurement
- 4) HandsFree mode (if the serial measure of the two footwears pass the test then the internal relay enables the gate to the EPA area)





/ H	ERROR	( >High Limit )
8	ОК	( In Limit )
6	ERROR	( >High Limit ) ( In Limit ) ( <low )<="" limit="" th=""></low>

	LOW limit	HIGH limit
Wrist strap	750ΚΩ	35ΜΩ
Footwear	0 - 100KΩ (selectable)	$10M\Omega - 35M\Omega - 70M\Omega - 100M\Omega - 200M\Omega$ (selectable) or: $1G\Omega \text{ for the Atex compliant version}$







9264.950*	Personnel Grounding Test Station wall mounting including: Wristlab-II instrument,		
	footplate and yellow panel.		
9264.952*	Personnel Grounding Test Station on Stand-up support including: Wristlab-II instrument		

Personnel Grounding Test Station on Stand-up support including: Wristlab-II instrument, footplate, yellow panel and stand-up support

**9264.960** Wristlab-II instrument

**9264.950.1G\*** ATEX version for code 9264.950\* (Footwear High Limit =  $1G\Omega$ )

**9264.952.1G\*** 9264.952.1G\* ATEX version for code 9264.952\* (Footwear High Limit =  $1G\Omega$ )

**9264.960.1G** ATEX version for code 9264.960 (Footwear High Limit =  $1G\Omega$ )

9264.955 Instrument recalibration (ISO9000 Traceable Calibration Report is supplied)

#### **CONTINUOUS MONITOR**

This instrument continuously monitors the integrity of the operator and one ESD worksurface. It uses the "wave distortion" technology to avoid false alarms caused by voltage offset, 50Hz fields and other electro-magnetic and electrostatic interference. Screw Terminal to monitor the worksurface's path-to-ground (requaired R<10 $^7\Omega$ ) with cord included.

Wriststrap input: 10mm banana plug / 10mm snap adaptor

Supply: 24Vdc.

Dimensions: 98x53x23mm

**9263.652** Continuous Monitor with power 230/24Vac adapter included



<sup>\*</sup> Aggiungere al codice: I (Italiano), F (Francese), E (Inglese), D (Tedesco), H (Ungherese), S (Spagnolo)

# **Test Station EVO Test Station**

The test station EVO records and documents the parameters of the ESD protection of the personnel (wriststrap and footwears).

It can be used both wall-mounted or in a console configuration to make measurements at the workstations.

#### **Technical features**

- Measurement of bracelets and footwears according to IEC61340-5-1
- Up to 1000 different users identified through fingerprint recognition or manual recognition (entering the ID number)
- Fingerprint recognition 1,5 sec
- Datalogger can store data for the last 10000 access (date and time, user name and ID, the resistance values of the bracelet and shoes, etc ...)
- Control footwear separate (left and right)

- Relay output for controlling the opening of the access door to the EPA
- LCD display with blue backlight 160 x 104 pixels, 74 x 46mm viewable area
- Beep to indicate clearly PASS or FAIL test of the protections
- Voltage Test selectable to 50V or 100V.
- Programmable tresholds
- Wriststrap measuring range:  $50k\Omega$   $2G\Omega$
- Footwear measuring range:  $50k\Omega$   $2G\Omega$
- Footwear measuring range (2 in series):  $50k\Omega 2G\Omega$
- Precisione misura: 10%
- ISO9000 Traceable Calibration Calibration Report included
- Freeware program to manage the data included in the Test Station EVO (compatible with Windows XP/../11)

A common USB flash drive can be inserted in the Test Station EVO to:

- import/export all the configuration data (users name and ID number, personnel thresholds values, etc...)
- save a log report of the EPA accesses (date and time, ID and user name, resistance values of wriststrap and shoes, etc...)



The fingerprint sensor capture a digital image of the fingerprint pattern.

The captured image it's not stored inside the Test Station EVO, therefore the biometrical data of the users are safe and can't be duplicated.

Only a biometric template (a collection of extracted features) is memorized.

The template size is very small: about 400 byte.

The templates are used for a smart and secure identification of the operator.



**9264.920** Test Station EVO USB wall mounting with footplate

**9264.921** Test Station EVO ETHERNET wall mounting with footplate

**9264.922** Test Station EVO USB, stand-up version with footplate

**9264.923** Test Station EVO ETHERNET, stand-up version with footplate

9264.925 Test Station EVO USB

9264.926 Test Station EVO ETHERNET

**9264.927** Instrument recalibration (ISO9000 Traceable Calibration Report is supplied)

# **Wristlab-Pro** Test Station

Innovative test station, available in 2 versions with identical functionality and technical characteristics. They differ only in the interface: the Wristlab Pro MT (Multi Touch biohazard-Free) model has 5 separate entrances for 5 users

#### 9264.990 Wristlab Pro Standard



Wriststrap input:

1 x (4mm) button

1 x (4mm) banana socket

1 x (10mm) button

9264.970 Wristlab Pro MT (Multi Touch biohazard-Free)



Test station for checking personnel grounding connection of wrist straps and footwear, according to the IEC 61340-5-1 / Atex.





	LOW limit e HIGH limit
Wrist strap	Settable in the X.X $ullet$ 10 <sup>x</sup> format from 50K $\Omega$ to 2G $\Omega$
Footwear	Settable in the X.X•10 $^{x}$ format from 50K $\Omega$ to 2G $\Omega$

Separate testing of left and right shoe; the test is executed at 50V or 100V to provide more accuracy. A relay output allows access to ESD Protected Area. Internal battery supplied 9V or external 12Vdc.

ISO9000 traceable Calibration Report is included.

The personnel grounding test station can work in 5 modes:

- 1) Simultaneus measurement of wrist straps and footwears.
- 2) Wrist straps only measurement
- 3) Footwears only measurement
- 4) HandsFree mode (if the serial measure of the two footwears pass the test then the internal relay enables the gate to the EPA area)
- 5) HandsFree+ mode (as above but with the ability to switch quickly to the simultaneous measurement mode of the wrist strap and footwears)

#### Measuring modes:



#### **WRISTSTRAP**



#### FOOTWEAR

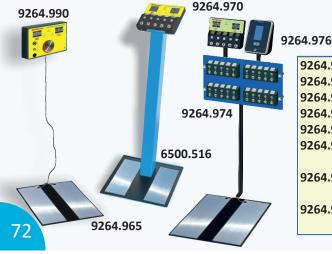


#### **WRISTSTRAP & FOOTWEAR**



HANDS-FREE (HF) & THE NEW

**HANDS-FREE PLUS (HF+)** 



9264.990 Wristlab-Pro Standard model

9264.970 Wristlab-Pro MT (Multi Touch biohazard-Free) model

9264.927 ISO9000 Traceable Recalibration Calibration Report

9264.965 Footplate

**9264.953** Stand-up support with footplate

**9264.974** Expansion Module option (only for Wristlab-Pro MT 9264.970 model)

Access Log options

**9264.976** Access Log option with Facial Recognition

and RFID Card Reader

**9264.984** Access Log option with Fingerprint Reader

and RFID Card Reader

## ACCESS LOG OPTIONS

It is possible to add operator recognition and the EPA

area access data logger to the Wristlab-Pro using one of these 2 options:

- 9264.976 Access Log option with Facial Recognition and RFID Card Reader
- 9264.984 Access Log option with Fingerprint Reader and RFID Card Reader







#### Features common to the two options:

- Settable individual profiles: 10
- Max number of users: 3000 (max 300 for each profile)
- Internal datalogger: able to store the last 10000 EPA accesses
- Profile Data: Type of Measurement, LOW limit and HIGH limit that can be set between 50K $\Omega$  and 2G $\Omega$ , relay command options, etc ...
- Access Record Data: date and time, RH/T, ID and username, measu red values, etc ...
- Identification time: < 0.5s
- Biometric data encrypted non-reversibly with BioNANO algorithm according to the General Data Protection Regulation (EU), which can be saved for backup purposes
- LAN interfaces: RJ45 and WiFi connections





- EPA Access Manager software for Win XP / .. / 11 included









9264.984



In ESD Test Stations the main "access routes" through which viruses, bacteria or other pathogens can infect operators are:

- the Touch Plate
- the input connectors of the wrist strap.

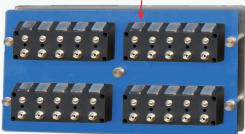
So all these items, if used, should be disinfected after each operator passes. To avoid this work, you can use the Wristlab-Pro MT Biologic Hazard Free version connected to the Expansion Modules. The 9264.974 Expansion Modules are used to increase the available wrist strap entrances by 20 unit/each.

For example, by adding 3, you get a total of 60 extra wrist strap entrances available, in addition to the 5 embedded into the 9264.970 instrument, which could be reserved for convenience for external visitors.

They are elegant blue panels spaced from the wall so that all the connecting cables can pass comfortably and hidden behind them.

**9264.974** Expansion Module option

20 x Touch Plate



**20X** Wriststrap input: 20 x (4mm) button 20 x (4mm) banana socket 20 x (10mm) button

## CALIBRATION UNIT

It's a resistance decade box made specifically for the calibration of the ESD Test Station (Wristlab-II, Test Station EVO, Wristlab PRO and IEC 61340-5-1 compatible testers)

Range:  $10W - 110M\Omega$  (resolution  $10\Omega$ )

Tolerance: 1%

Power: 1W for resistors up to  $4M\Omega$ , 0.5W for resistors from  $10M\Omega$  to  $40M\Omega$ 

Operative Voltage: 250Vac max

Dimensions: 14,7 x 11,7 x 5,5cm - Weight: 320g

Detailed instruction manual for calibration procedures of the IEC61340-5-1



**9264.980** Calibration Unit for ESD testers (Max 110M $\Omega$ ) cables and adapters included **9264.981** Calibration Unit for ESD testers (Max  $2G\Omega$ ) cables and adapters included 9264.982 Instrument recalibration (ISO9000 Traceable Calibration Report is supplied)

## GIGALAB EVO

The GIGALAB-EVO multi-voltage high resistance meter made by ITECO, is a portable, accurate, and versatile instrument designed to measure resistance between two points, surface to ground, and surface resistivity as defined in IEC61340-5-1.

Shielded measuring system eliminates the usual noise providing ease of operation at very high resistance values

Humidity: 1 a 95%RH (accuracy: ±2%RH)
Temperature: -20°C to +60°C (accuracy: ±1°C)
Display: Graphic LCD, 128x64pixel, 68x51mm.
Power supply: 6 alcaline batteries, LR6 1.5V

Dimensions: 243x130x60mm

Weight: 650g

Internal memory where the data of 100 measures can be stored.

The data stored for each measurement are:

- Resistance value

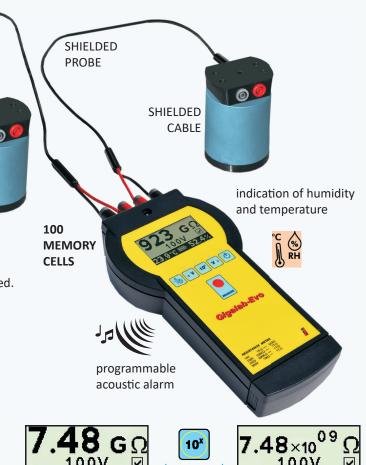
- Voltage used for the measurement

- Humidity detected during measurement

- Measured temperature during measurement

Vmeas	Range	Accuracy			
10V	1K $\Omega$ ÷ 50G $\Omega$	±5% ±0.6% per GΩ			
100V	100K $\Omega$ ÷ 1T $\Omega$	±5% ±0.06% per GΩ			
250V	500K $\Omega$ ÷ 1T $\Omega$	±5% ±0.045% per GΩ			
500V	$1M\Omega \div 1T\Omega$	±5% ±0.03% per GΩ			





By pressing a dedicated button it's possible to quickly switch between viewing formats natural to exponential and vice versa

9265.063 GIGALAB EVO Meter with batteries and case
9265.064 GIGALAB EVO Complete kit including meter, 2 probes,
batteries and case, Traceable Calibration Report is supplied
9265.065 Cylindrical SHIELDED PROBE 63mm diameter, 2.3Kg weight
9265.070 Concentric ring PROBE 63/30mm diameter, 2.3Kg weight
9265.042 Instrument recalibration, ISO9000 Traceable Calibration Report is supplied

## PROBES FOR GIGALAB AND LABEOHM



# 9265.065 CONNECTIONS Rubber measuring electrode: BNC int. / red 4mm socket Shield / Guard: BNC ext. / gray 4mm socket



9265.070
CONNECTIONS
Inner sensing ring:
BNC int. / red 4mm socket
Outer sensing ring:
BNC ext. / black 4mm socket
Shield / Guard: gray 4mm socket



#### 9265.047

Counter-electrode for cross resistance measurements
CONNECTIONS
Stainless steel measuring electrode: BNC int. / red
4mm socket
Shield / Guard: BNC ext.

code > > >

#### 9265.072

T-handle with thread end M5 H = 25cm to facilitate repetitive measurements on the floor (only for 9265.070 and 9265.065)

/4

**ESD SURFACE RESISTANCE TESTER 100V** 

The Labeohm EVO and the Labeohm EASY are instruments that measure the surface resistance and the ground resistance of mats, worktops, floorings and other objects in the EPA area.

The embedded probes are suitable for surface resistance measure, connecting one ground cord the resistance to ground can be read, and two external probes can be connected for point to point measurements.

Both instruments are pocket-size and use 2 embedded parallel electrodes, in accordance with DIN EN 100015/1.

The Easy version allows to measure the order of magnitude of surface resistance or resistance to ground.

The EVO version is more accurate (accuracy of  $\frac{1}{2}$  decade), it displays up to one significant digit and it is equipped with a graphical display and programmable sound alarm

Measuring range: from  $10^4$  to  $10^{12}$  Ω Test voltage: 10V R<100KΩ, 100V R>100KΩ Electrodes: Soft conductive rubber

Dimensions: 80x120x27mm

ISO9000 Traceable Calibration Report is supplied



DISSIPATIVE  $4 \times 10^{09} \Omega$ 







**LABEOHM EVO** 

Display: LCD graphic 102x64pixel, 36x26mm

9265.051 LABEOHM EVO 100V, cable,battery,box included 9265.055 LABEOHM EASY 100V, cable,battery,box included

**9265.065** Cylindrical SHIELDED PROBE 63mm diameter, 2.3Kg weight **9265.070** Concentric ring PROBE 63/30mm diameter, 2.3Kg weight

9265.056 Portable Kit including 9265.051 tester, two 9265.065, probes and carrying case 9265.057 Portable Kit including 9265.055 tester, two 9265.065, probes and carrying case 9265.003 Labeohm recalibration ISO9000 Traceable Calibration Report is included

9265.065 Shielded probe, 63mm, weight 2,3Kg, one BNC socket, two 4mm sockets

9265.070 Concentric ring probe, 63/30mm, weight 2,3Kg, one BNC socket, three 4mm sockets

**9265.047** Counter-electrode, 150 x 150mm

**9265.013B** Cable 1,5m - jack 3,5/ 4mm banana plugs terminated, BLACK (only for **9265.051** and **9265.055**)

**9265.012B** Cable 1.5m - 4mm banana plugs terminated, BLACK **9265.012R** Cable 1.5m - 4mm banana plugs terminated, RED

9265.008 Coaxial cable, L=1m, BNC plug / 2x4mm banana plugs

**9265.072** T-handle with thread end M5 H = 25cm (only for 9265.070 and 9265.065)



## **ESD SURVEY KIT**

The ESD Survey Kit contains everything needed to conduct an ESD control program survey according to IEC 61340-5-1 in an ESD protected area (EPA)

The Kit can be customized to meet different needs.

The example below shows a typical kit configuration:

#### **9265.151** ESD Survey KIT - Carrying case with instruments

#### Typical configuration example:

9265.063 GigaLab Evo meter >> page 74 9265.070 Concentric Ring Probe >> page 6

**9265.065** Shielded Probe >> pag.76

**9265.047** Counter-electrode, 150 x 150mm >> page 76

9265.080 Walking Test EVO meter >> page 69 7804.190 Adjustable Wrist Strap >> page 41 7804.874 Earth bonding plug >> page 41

## **DRYLOGGER**

Precision Temperature/Humidity meter. It is also a datalogger used to collect environmental data of humidity and temperature and to transfer them to a Windows PC.

It is possible to set an alarm that become active when, after a certain period of time,

humidity or temperature are above a predetermined maximum threshold.

When the alarm is activated the red LED under the display flashes.

Humidity: 1 to 95%RH, resolution: 0.1%RH accuracy: ±2%RH Temperature: -20°C to 60°C, resolution: 0.1°C Accuracy: ±0.5°C

Display size: 48 x 11mm Humidity Alarm: from 1 to 95% Temperature Alarm: from 0 to 60°C

Alarm activation delay: from 1 to 99 minutes

Memory: 21600 samples

Sampling rates: can be set at 1, 5, 10, 15, 30 seconds

and 1, 5, 10, 15, 30 minutes Interface: RS232 and USB Size: 184 x 67 x 44mm Logmanager

The "LogManager" software, working on Windows PC, used for downloading, displaying, analyzing and reporting your collected humidity and temperature data is included.

**9265.302** DryLogger – Humidity/Temperature hand LCD datalogger USB cable and

LogManager software to collect data to Windows PC are included.

CK-005 ISO9000 Traceable Calibration Report for DryLogger

## **TEKMATRIX 32** (humidity/temperature monitoring & alarming & datalogging)

It monitors simultaneously humidity, temperature on his large display, and alerts the engineers to check and repair the facilities immediately when the settable HIGH or LOW limits of RH/T are exceeded. When the alarm is active, its output relay can activate an emergency circuitry. The internal datalogger samples the environmental data of humidity and temperature that can subsequently be transferred to a Windows PC via USB or Ethernet interface (the "TekManager" software is included).

The instrument sensor can be hooked to the display or positioned externally. Can be set to fixed display of RH/T or alternate it with date and time.

Humidity: 1 to 95%RH, resolution: 0.1%RH

accuracy: ±2%RH

Temperature: -20°C to +60°C

resolution: 0.1°C accuracy: ±0.5°C

LED Display: 190 x 190mm Memory: 21600 samples

Interface: USB pendrive (8105.113U) or ETHERNET (8105.113E)

Dimensions: 190 x 190 x 40mm





Led

8105.113U Humidity/Temperature Monitoring & Alarming & Datalogging (USB Interface)
8105.113E Humidity/Temperature Monitoring & Alarming & Datalogging (ETHERNET Interface)

**CK-013** ISO9000 Traceable Calibration Report for Tekmatrix

### DRY CABINET

Moisture Sensitive Devices (MSDs), must be managed correctly because "a single mistake" on a tray or reel of MSD causes "negative impact on the entire production batch". Electronic components (like QFP, BGA or SOIC for example), LEDs and Printed Circuit Boards, when extracted from their original protective package, absorb humidity from the environment and during the soldering process the trapped moisture can vaporize and exert internal package stress. GHIBLI-PRO dry cabinets provides a "safe place" to temporary stock the MSDs removed from their original Dry Pack before soldering process. In fact the J-STD-033 tells that under 5% RH the Floor Life is congealed.

#### **ADVANTAGES ABOUT GHIBLI**

**Easy use:** It's plug and play, just connect it to the main supply without any settings and it will be stable at less than 5%RH (5%RH is guaranteed but the cabinets easily reach 2%). The dehumidifier units are always active and not controlled by any sensor. This avoid dangerous problems due to malfunction or drift of hygrometers.

**Easy calibration:** Inside the cabinet there is an instrument for measuring environmental parameters: a DryLogger 9265.302 for the GHIBLI PRO line, visible through the glass of the upper door, or a Ghibli ADV Sensor module 8104.853 for the GHIBLI ADVANCED line, magnetically anchored to the internal walls. Both instruments can be sent for calibration at any time without problems

**Modular design:** The dehumidifier modules are easy extractable with only a screwdriver. This allow easy reparation and grant the long life of the cabinet, over 20 years, as long as the metal structure last. This is our green policy. Smart magnetic handles with key lock at every door. The front of the cabinet is flat.

2 years warranty

## **GHIBLI PRO Line**

#### **Technical specifications**

Humidity range: <5% RH guaranteed , typical

2% RH

Colour: Anthracite Power supply: 230Vac

Structure: 1mm thick carbon steel with

antistatic paint

Door: magnetic handles , magnetic sealers Wheel: 4 antistatic 3" wheels, two of them

with brakes

Grounding wire: 2mt long ESD paint:  $10^3 - 10^9 \Omega$ 



The portable instrument DryLogger (9265.302) can measure RH & Temperature values in several points inside the cabinet, and can record H/T and transfer the data to PC for graphing and analyzing. Made for very low humidity measurement can be used also for applications outside the cabinets.



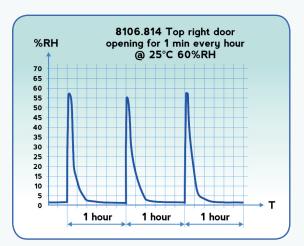
## GHIBLI-ADVANCED Line (Dry Cabinet)

#### **Technical specifications**

- Humidity range: <5% RH guaranteed , typical 2% RH
- Colour: Anthracite
- Power supply: 230Vac
- Structure: 1mm thick carbon steel with antistatic paint
- Door: magnetic handles, magnetic sealers
- Wheel: 4 antistatic 3" wheels, two of them with brakes
- Grounding wire: 2mt long
- ESD paint:  $10^3 10^9 \Omega$
- Internal LED lighting activated with proximity sensor
- Visualization of environmental parameters on the display integrated into the top of the cabinet
- Ethernet port for real-time reading of environmental parameters and for alarm management from PC

The Ghibli ADV Sensor **8104.853** module allows you to measure humidity and temperature at different points inside the cabinet, is magnetically anchored to the floors or walls. It is equipped with an internal data logger for viewing and analyzing the data both on the display and on remote PC. Through an Ethernet port it can make data available on the network in real-time.

			B	40°C	40°C			B	40°C	40°C
Code	8106.814	8106.807	8106.803	8106.834	8106.837	8106.808	8106.809	8106.810	8106.838	8106.839
Model	Ghibli PRO 1400	Ghibli PRO 700	Ghibli PRO 350	Ghibli PRO 1400 BK	Ghibli PRO 700 BK	Ghibli ADV 1400	Ghibli ADV 700	Ghibli ADV 350	Ghibli ADV 1400 BK	Ghibli ADV 700 BK
Capacity	1400L	700L	350L	1400L	700L	1400L	700L	350L	1400L	700L
Interior lights	-	-	-	-	-	Led	Led	Led	Led	Led
Connection to the LAN network	-	-	-	-	-	Ethernet	Ethernet	Ethernet	Ethernet	Ethernet
Ext. Dimensions (mm)	1160x767 x1720(H)	580x767 x1755	580x767 x895	1160x767 x1720	580x767 x1755	1160x767 x1720	1160x767 x1720	580x767 x895	580x767 x1755	580x767 x1755
Shelves	5	5	2	5	5	5	5	2	5	5
Shelf Size (mm)	1094x606 x18	510x606 x18	510x606 x18	1094x606 x18	510x606 x18	1094x606 x18	1094x606 x18	510x606 x18	510x606 x18	510x606 x18
Average power without baking	80W	80W	40W	80W	80W	80W	80W	40W	80W	80W
Maximum power without baking	-	-	-	580W	330W	-	-	-	580W	330W
Average power with baking	500W	500W	250W	500W	500W	500W	500W	250W	500W	500W
Maximum power with baking	-	-	-	1500W	1000W	-	-	-	1500W	1000W
Weight	178kg	118kg	56kg	198kg	128kg	178kg	118kg	56kg	198kg	128kg



#### Data analysis

With the portable instrument DryLogger and the software LogManager supplied with every cabinet you can calculate the time intervals and percentage that exceed the 10%RH or 5%RH which leads to the estimation of the MSD floor life ( "Floor Life" is the allowable time period after removal from a moisture barrier bag, dry storage or dry bake and before the solder process reflow).

Another typical data analysis is the graph of the door opening.

#### 40°C Baking

Some cabinets version can do 40°C low baking process of SMD components.

At this temperature the reels are not damaged and can be afterwards inserted into the feeders of the pick and place without problems.

## ADDITIONAL SHELF AND WHEEL KIT ESD (OPTIONAL)

8106.840 Additional shelf 510x606x18 mm, Ghibli-PRO 700 and 350, 100Kg Max.

8106.841 Additional shelf 1094x606x18, Ghibli-PRO 1400. 100Kg Max.

**8106.850** Wheel Kit ESD

## FAST RECOVERY MODULE (OPTIONAL)

The FAST RECOVERY 8106.820 module is an immediate action dehumidifier. By exploiting the physical characteristics of compressed air (free of humidity) or nitrogen, it allows the humidity inside the GHIBLI cabinets to be reduced in just a few seconds. Connected to the cabinet hygrometer, it allows you to maintain the humidity level within the established limits.

8106.820 FAST RECOVERY module

## TEKDRY MODULE (INCLUDED)

The TekDry is a zeolite dehumidifier module (element that absorbs humidity), designed to work continuously, capable of lowering the humidity level up to 2%RH depending on the environment.

Operating ambient temperature:  $5 ^{\circ}C < T < 35 ^{\circ}C$ Operating ambient humidity 5 % < RH < 90 %Power supply:  $200 \div 240 \text{ Vac}$  50/60 Hz

Average power: 40W Maximum power 250W

**8104.852** Zeolite dehumidifier module



**TEKDRY** 



## Tray rack (OPTIONAL)

Professional tray rack made of stainless steel that can be placed on the trays of the Ghibli-PRO dry cabinets.

**8106.866** GHIBLI-PRO - RACK 10 trays store **8106.583** Aluminium tray 495x570x12mm

## **ALARM BOX (OPTIONAL)**

With this option it's possible to set an alarm that become active when, after a certain period of time, humidity or temperature are above a predetermined maximum threshold.

The Alarm Box has a warning light and a buzzer that can be silenced from a switch on the panel.

**8104.856** Alarm Box for Ghibli-PRO cabinets





## Sahara - baking ovens

Forced ventilation oven available in two models: with temperature control only (Sahara) and also with humidity control (Sahara DRY). They are designed to perform the following works:

1) Baking of the PCBs, according IPC-1602 standard, should be done at 105-125°C for 4-6 hours into a forced ventilation oven.

All our ovens are equipped with timer, programmable start-up, and countdown mode that is helpful to make sure you do the baking of PCBs only for 4-6 hours, avoiding the risk of an unnecessary oxidation of the printed board circuits.

2) Baking of SMD components according to J-STD-033 that specify three temperatures: 40°C, 90°C and 125°C.

To ensure <5% RH when baking at 40°C or 90°C is recommended the use of the Sahara DRY that are ovens equipped with humidity control. How long to bake depends on the moisture sensitive level and package type and body thickness. In the worst case is 79 days for 40°C baking, 10 days for 90°C baking and 96 hours for 125°C baking. Once baked MSDs have their Floor Life restored to the initial value. It's important to bake in ovens equipped with a programmable timer command like all the ovens in the Sahara line.

3) Thermal cycle. All the Sahara ovens can execute thermal program (easy editable on a PC) useful for testing and for heating/cooling with settable



**Technical specifications:** 

Outer body: steel coated in epoxy anti-acid paint.

Inner structure: in stainless steel AISI304

Heating elements: not in contact with the internal chamber

Thermal insulation: with natural mineral fibre Internal grid shelves: can be placed at different height Ventilation opening: with manual flow control

Temperature range: +40 / +280°C

Display accuracy: ±1°C

Safety thermostat: with visual alarm and manual reset

## SAHARA DRY OVENS

Compliance with: J-STD-033 Baking SMD IPC-1602 Baking PCB

Ventilation opening

Safety thermostat

**Humidity Control** 

Dehumidification at <5% RH is reached by blowing dry air. The Sahara DRY ovens, unlike Sahara models, are equipped with a air-tightness improved internal chamber so as to keep the dry environment achieved without having to continually blow dry air.

## SAHARA OVENS Compliance with: IPC-1602 Baking PCB

Temperature Control Safety thermostat Ventilation opening



Sahara Oven with temperature control only



Sahara DRY

Oven with temperature control and humidity control (<5%RH)

## **Temperature Control**

(Included both on Sahara and Sahara DRY models)



Temperature electronic control with PID regulator and multifunction timer.

Temperature Range: 40-280°C

Accuracy: ± 1.5 °C Resolution: ± 1 °C

The digital controller has an internal clock with back-up that can keep the right clock for a week without power supply. This is useful to minimize the damage caused by any black-out when the oven is working in "Countdown", "Programmed start-up" or "Thermal programmer" mode. The Sahara ovens can work in 4 modes:

#### 1) SetPoint:

The oven reaches a setpoint temperature and stays steady.

#### 2) Countdown:

It's like the SetPoint mode but with a time limit. After the countdown time is expired the oven stops. Time limit can be set from 1 minute to 999 hours and 59 minutes.

#### 3) Programmed start-up:

It's useful when you want to start-up the oven on a precise date/time (for example at 6:30 on monday after the weekend the oven start-up to SetPoint 200°C)

#### 4) Thermal programmer:

It's possible to edit on a PC and then download to the digital controller up to 10 programs with 100 steps each. In every step you can set: the temperature setpoint, the maximum gradient to reach it and the duration

To set the thermal programmer it is necessary to have the **8107.215** option, comprehensive of the PidManager software and the special USB cable (see next page)

## **Humidity Control**

(Included on Sahara DRY models only)



Humidity electronic control

Humidity control: <5% RH when  $40^{\circ}$ C  $\leq$  T  $\leq$   $100^{\circ}$ C

Humidity range: 1-95%RH

Accuracy: ±2%RH Resolution: ± 0.1 %RH It can work in 2 modes:

Fast: dehumidification occurs at the maximum possible speed.

**Eco:** dehumidification is proportional adjustment to optimize the consumption of compressed air. This mode is for a more rational use of compressed air, in fact, the low level of humidity is reached for subsequent cycles and not in a direct way.

The Sahara DRY Ovens must be fed with dry air from 3 to 8 atm.

#### How much should be dry the air supply?

Normally, centralized systems of compressed air are already equipped with dehumidification system good enough to work properly with this humidity control.

For example, a compressed air system to 7 bar with a dew point of less than 3°C is usually sufficient.

#### How much is the compressed air consumption?

The dry air is blown into the inner chamber very slowly and only when necessary.

Max consumption: 100 nl per minute Average consumption: 30 nl per minute

#### Can be used the nitrogen and what advantages there are?

Yes. The baking in inert environment reduces oxidation of the PCBs and SMD components..

	Sahara MODEL	Shelf	Int. Dimensions	Ext. Dimensions	Power	Weight
8107.103	Sahara 40 litre	1/7	348x312x367	686x515x575	800/230V	35
8107.105	Sahara 60 litre	2/7	408x372x422	746x570x605	1200/230V	40
8107.107	Sahara 80 litre	2/8	458x372x472	796x570x680	1200/230V	45
8107.109	Sahara 120 litre	2/9	498x477x512	836x680x720	1600/230V	50
8107.111	Sahara 250 litre	2/14	593x522x797	956x730x1025	3200/230V	90
8107.113	Sahara 400 litre (with wheels)	2/18	693x607x980	901x815x1487	3200/230V	140
8107.108	Sahara DRY 80 litre	2/8	458x372x472	796x570x680	1200/230V	45
8107.110	Sahara DRY120 litre	2/9	498x477x512	836x680x720	1600/230V	50
8107.112	Sahara DRY250 litre	2/14	593x522x797	956x730x1025	3200/230V	90
8107.1xxW	(OPZIONE) Opzione porta con finestra per ispezione, 200x200mm					
8107.1xxH	(OPZIONE) Opzione foro laterale per passaggio cavi, Ø 50mm					

#### ADDITIONAL SHELF (OPTIONS)

8107.150	Additional shelf for Sahara 40 litre. Max 7Kg. (max. 7 shelves)		
8107.152	Additional shelf for Sahara 60 litre. Max 7Kg (max. 7 shelves)		
8107.154	Additional shelf for Sahara and Sahara DRY 80 litre. Max 7Kg (max. 8 shelves)		
8107.156	Additional shelf for Sahara and Sahara DRY 120 litre. Max 7Kg (max. 9 shelves)		
8107.158	Additional shelf for Sahara and Sahara DRY 250 litre. Max 7Kg (max. 14 shelves)		
8107.160	Additional shelf for Sahara 400 litre. Max 7Kg (max. 18 shelves)		

### DATALOGGER



All our ovens are equipped with a data logger for traceability and you can print/save graphs of temperature (for sahara ovens) and temperature/humidity (for Sahara DRY ovens)

To analyze the logged data and to set the thermal programmer is required the **8107.215** option which inlude the PidManager software and USB specific cable.

The software is compatible with Windows XP/../11.

Sample rate: 1, 5, 10, 15,30 sec 1, 5, 10, 15, 30 min

Duration (T) Sahara from 6 hour(1sec) to 450 day(30min)

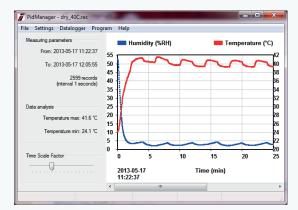
Duration (T+RH%) Sahara DRY: from 3 hour(1sec) to 225 day(30min)



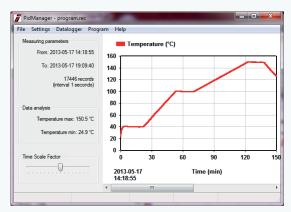
8107.215 PIDManager software and specific USB cable to set the thermal programs and to download and view datalogger records

#### **Thermal Program:**

- 1 SETPOINT 40°C / gradient MAX.
- 2 WAIT 20min @40°C
- 3 SETPOINT 100°C / GRADIENT<2°C/min
- 4 WAIT 20min @100°C
- 5 SETPOINT 150°C / GRADIENT<1°C/min
- 6 WAIT 20min @150°C



Sahara DRY 80L 40°C < 5% RH



Sahara 80L Thermal Program

## END OF SERIES STOCK AND DISCOUNTED ITEMS

The follow items are available in minimum quantity (while stocks last):

- Boxes
- Dividers
- Footwear
- -Even more...

Check models and availability.

Consult the Home page to the link "On stock and opportunities items" In alternative send e-mail or call.

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