ESD protective products for the electronics industry

EPA

TRESTON®

ESD PROTECTION

In ordinary movement a person creates static electricity. In these circumstances hand contact with a conductive material will discharge static from the body very rapidly. This is ESD = Electro Static Discharge. Static electricity has become a major problem in the electronics industry. Usually this passes unnoticed because our bodies do not feel discharges below 3000 volts. We may see ESD above 5000 volts as a spark. The most sensitive components may be damaged by a charge of just 30 volts, and many standard components are sensitive to charges of between 100...200 volts. The presence of inherent ESD is not easy to detect. Product damage may go undetected at the production stage, but lead to failure at a later date. Once the potential dangers of ESD damage are understood, effective methods of prevention can be put in place. All-inclusive protection from electrostatic discharges is a necessity whenever modern electronic devices are handled. An EPA (ESD Protected Area) should always use ESD protected materials to prevent component damage. Protection should systematically extend from goods inwards areas to final test and packaging. A systematic approach to controlling static in the workplace should include the following;

- ESD protected workstation, transport, storage systems
- ESD protected production tools and instruments
- ESD protected work clothes, shoes, wrist straps
- education of personnel, instructions, quality control
- cleanliness is important as dust acts as an isolator
- audits to ensure continuous ESD protection

QUALITY

Treston is an ISO 9001 registered company. Certification includes the design, development, manufacture and marketing of the company's range of storage equipment and industrial furniture. Most of our industrial furniture also has the GS-quality approval (TÜV). TRESTON ESD products and their materials are to EN 61340-5-1 international standards. Many of our ESD products meet with cleanroom requirements and are to the international standard EN ISO 14644-1. class 7. Equivalent Finnish standard is FS 209 E, where the number of particles is under 10 000 per cubic metre of air.

ESD MATERIAL

Static dissipative high pressure laminate
- resistance surface to ground 10^6 - 10^8 ohm
- surface to surface 10^6 - 10^9 ohm
- resistant to heat, solder flux, most chemicals and solvents

Semiconductive epoxy powder coated steel
- surface resistivity 10^5 - 10^9 ohm

Semiconductive polypropylene = PP
- surface resistivity $10^3...10^6$ ohm
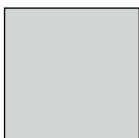- volume resistivity $10^3...10^6$ ohm
- temperature tolerance -20...+70°C

Semiconductive polystyrene = PS
- surface resistivity $10^3...10^6$ ohm
- volume resistivity $10^3...10^6$ ohm
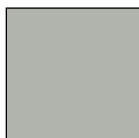- temperature tolerance -40...+ 55°C

STANDARD COLOURS
The standard colours of steel parts of our workbenches, trolleys, shelving and cabinets are shown below. Colours reproduced here are as accurate as print techniques allow.

RAL 7035   RAL 7038   RAL 7045

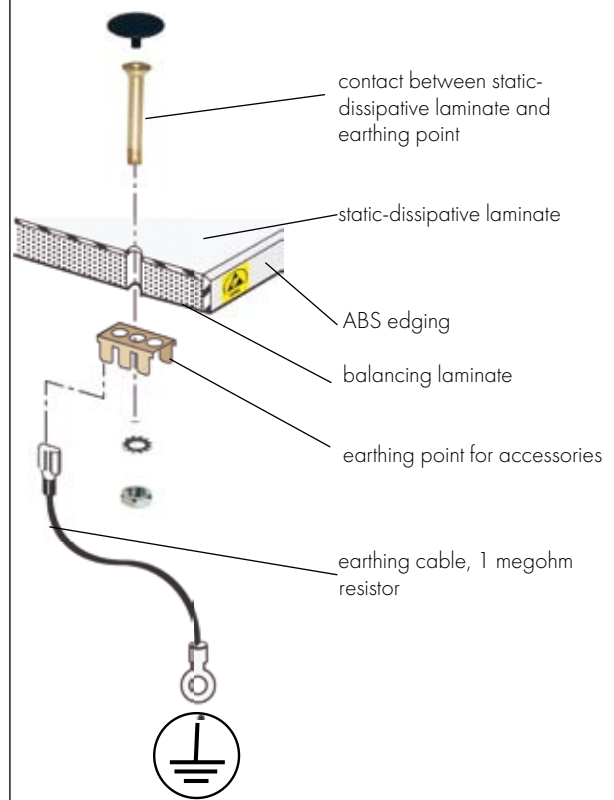## EARTHING POINT FOR ACCESSORIES

contact between static-dissipative laminate and earthing point

static-dissipative laminate

ABS edging

balancing laminate

earthing point for accessories

earthing cable, 1 megohm resistor

contents

TRESTON®

adjustable workbenches WB

There is a large range of workbench accessories available, see page 6-7.

Workbench WB

The WB workbench has been designed for use in demanding assembly environments. The concept is one of simplicity and good ergonomics, allowing each bench to be adapted to a variety of tasks. Electric motor, manual hand crank or allen key height adjustment cater for standing or seated users, while the generous worktop depth and broad accessory range ensure that everything is within easy reach. Another feature of this design is the flush bench footprint; benches can be placed side-by-side, back-to-back, or right up against walls with no unnecessary gaps. You can design your workstation to fit your needs perfectly.

Worktop height can be adjusted between 700...1100 mm. The adjustment system in both cases utilises interlocking aluminium profiles, providing a strong, rigid frame. Steel frame parts are epoxy powder coated light grey paint, RAL 7035. Worktops are of 26 mm ESD-laminate, adjustable feet are provided for fine levelling.

Moveable bench CTR 705 ESD

Height adjustment with allen key between 690..990 mm. A lower shelf is integrated. Steel frame parts are epoxy powder coated light grey paint, RAL 7035. Conductive swivel castors Ø 100 mm of which two are braked. Load capacity 75 kg/shelf static u.d.l. Dimensions 700 x 500 mm, lower shelf 700 x 415 mm.

Allen-key adjustable bench WB

Code	Worktop mm	Load capacity**
WB 811 ESD	800 x 1073	250 kg
WB 815 ESD	800 x 1500	250 kg
WB 818 ESD	800 x 1800	250 kg

Handle adjustable bench WB - C
Cable tidy as standard.

Code	Worktop mm	Load capacity**
WB 811 C ESD*	800 x 1073	200 kg
WB 815 C ESD	800 x 1500	200 kg
WB 818 C ESD	800 x 1800	200 kg

Electric adjustable bench WB - EL
Adjustment speed using the motor is 19 seconds min. to max. Cable tidy as standard.

Code	Worktop mm	Load capacity**
WB 811 EL ESD*	800 x 1073	200 kg
WB 815 EL ESD	800 x 1500	200 kg
WB 818 EL ESD	800 x 1800	200 kg

700 – 1100

*) To order   **) Load capacity equipment static u.d.l.

tilt adjustable workbenches WB TILT

0...60°

700 – 1100

There is a large range of workbench accessories available, see page 6-7.

1. Tilt workbench WB-TILT

Worktop tilt is adjusted by manual allen key, retractable handle or electric motor between 0...60°. Load capacity for this worktop is 100 kg static u.d.l. Construction as WB. Standard sizes are shown. Made to order.

2. Side worktop WB 804 ST ESD

This new side worktop can be installed on either the right or left hand side of a WB bench to increase the surface area. Installation can be either at the same height, or lower than the main worktop with the brackets provided. Load capacity for this side worktop is 50 kg, and it is suitable for all WB models in the range. Dimensions 800 x 400 mm.
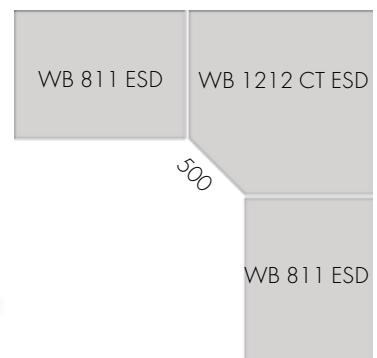
3. Corner worktop WB 1212 CT ESD

A corner worktop can be used with two WB benches to create a 90 deg. angle setup. This unit consists of a worktop and all necessary components. It requires no additional leg frames, simply mounting to the standard benches with the brackets provided. Load capacity for this worktop is 50 kg. Dimensions 1153 x 1153 mm. Suitable for WB EL to order.

Tilt adjustment by allen key WB - TILT

Height adjustment by allen key	Height adjustment by handle	Height adjustment by electric motor	Worktop mm
WB 811 TILT ESD*	WB 811 C TILT ESD*	WB 811 EL TILT ESD*	700 x 1073
WB 815 TILT ESD*	WB 815 C TILT ESD*	WB 815 EL TILT ESD*	700 x 1500
WB 818 TILT ESD*	WB 818 C TILT ESD*	WB 818 EL TILT ESD*	700 x 1800

Tilt adjustment by handle WB - TILT C

Height adjustment by allen key	Height adjustment by handle	Height adjustment by electric motor	Worktop mm
WB 811 TILT C ESD*	WB 811 C TILT C ESD*	WB 811 EL TILT C ESD*	700 x 1073
WB 815 TILT C ESD*	WB 815 C TILT C ESD*	WB 815 EL TILT C ESD*	700 x 1500
WB 818 TILT C ESD*	WB 818 C TILT C ESD*	WB 818 EL TILT C ESD*	700 x 1800

Tilt adjustment by electric motor WB - TILT EL

Height adjustment by allen key	Height adjustment by handle	Height adjustment by electric motor	Worktop mm
WB 811 TILT EL ESD*	WB 811 C TILT EL ESD*	WB 811 EL TILT EL ESD*	700 x 1073
WB 815 TILT EL ESD*	WB 815 C TILT EL ESD*	WB 815 EL TILT EL ESD*	700 x 1500
WB 818 TILT EL ESD*	WB 818 C TILT EL ESD*	WB 818 EL TILT EL ESD*	700 x 1800

WB 811 ESD

WB 1212 CT ESD

500

WB 811 ESD

*) To order

TRESTON®

accessories for WB workbench

EPA

The upright profiles are attached to the workbench frame through the worktop.

Accessories
Steel parts are epoxy powder coated light grey paint, RAL 7035. Shelves are of 26 mm ESD-laminate.

Suitability:
- WB 811 ESD benches can be fitted with size 100 accessories in one module
- WB 815 ESD benches can be fitted with size 70 accessories in two modules
- WB 818 ESD benches with one size 70 and one size 100 module.

1. Upright profiles AL2X-W
Needed for mounting accessories to benches. Includes 2 vertical and 1 horizontal profile. With 3 cable clips (CC8).

Code	Dims mm	Suitable for
AL2X 110 W	1063 x 900	WB 811
AL2X 150 W	1489 x 900	WB 815
AL2X 180 W	1789 x 900	WB 818

2. Accessory frame AKK
The accessory frame divides the space between the upright profiles into 2 modules. AKK frame includes 1 vertical and 1 horizontal profile. Useable height 500 mm.

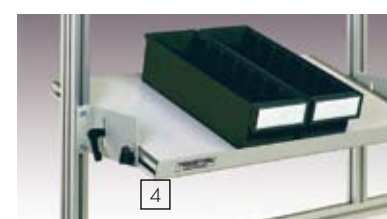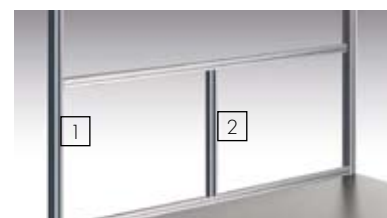| Code	Dims mm	Suitable for
AKK 150	690 + 690	WB 815
AKK 180	690 + 990	WB 818

3. Shelf ALH
Height adjustable shelf, 26 mm ESD-laminate. Load capacity 50 kg. Mount on upright profiles.

Code	Dims mm	Suitable for
ALH 110 ESD	310 x 1073	WB 811
ALH 150 ESD	310 x 1500	WB 815
ALH 180 ESD	310 x 1800	WB 818

4. Adjustable shelf ASH
Continuous adjustment for depth, height and angle. Shelf of 26 mm ESD-laminate. Lipped front edge. Load capacity 35 kg static load. Mount on accessory frame.

Code	Dims mm	Suitable for
ASH 70 ESD	400 x 660	WB 815/818
ASH 100 ESD	400 x 960	WB 811/818

accessories for WB workbench

5. Bin profile BP
Aluminium profile for TRESTON stacking and picking bins. Mount on accessory frame.

Code	Dims mm	Suitable for
BP 70 ESD	length 685	WB 815/818 ESD
BP 100 ESD	length 985	WB 811/818 ESD

6. Perforated panel ARL
Perforated steel panel with 9 mm perforations at 38 mm centres. Mount on accessory frame with screws.

Code	Dims mm	Suitable for
ARL 70	500 x 685	WB 815/818 ESD
ARL 100	500 x 985	WB 811/818 ESD

7. Support bracket HSB
Support bracket of steel for suspending power tools and lighting units. Mount on upright profiles.

Code	Length mm	Suitable for
HSB 110	1073	WB 811 ESD
HSB 150	1500	WB 815 ESD
HSB 180	1800	WB 818 ESD

8. Swivel arm with tray AKV
Lockable, angle adjustable steel tray with swivel radius of 360°. Length of swivel arm 590 mm. Semiconductive epoxy powder coated steel. Max. load 15 kg.

Code	Tray mm	Suitable for
AKV 400 ESD	210 x 460	WB ESD

9. Keyboard shelf WKA
Keyboard shelf with swivel arm. Semiconductive epoxy powder coated steel. Load capacity 15 kg. Arm length 220 mm.

Code	Shelf mm	Suitable for
WKA ESD	220 x 500	WB ESD

10. Document stand WDA
Document stand A3 with swivel arm. Semiconductive epoxy powder coated steel. Arm length 220 mm. Tilt 75°.

Code	Stand mm	Suitable for
WDA ESD	440 x 300	WB ESD

11. Cable tidy WBCT
Mount on leg frame. A cable tidy is standard equipment on motor and retractable handle bench

Code	Dims mm	Suitable for
WBCT 110*	64 x 204 x 948	WB 811 ESD
WBCT 150	64 x 204 x 1375	WB 815 ESD
WBCT 180	64 x 204 x 1675	WB 818 ESD

12. Lower shelf AT-WB
Height adjustable lower shelf, 26 mm ESD-laminate. Load capacity 50 kg. Mount between aluminium profiles.

Code	Dims mm	Suitable for
AT 110 WB ESD *	400 x 828	WB 811 ESD
AT 150 WB ESD *	400 x 1255	WB 815 ESD
AT 180 WB ESD *	400 x 1555	WB 818 ESD

13. Cable clip set CC
The cable clip set will hold cables etc. securely and neatly in place along the bench frame. The clips locate in the 8 mm profile slot.

Code	Set	Suitable for
CC8	5 pieces	AL2X

*) To order
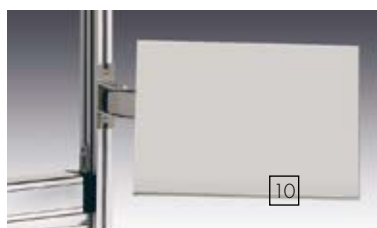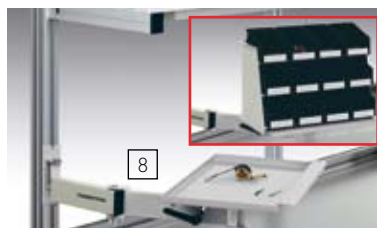
14. Bottle holder CH
Practical holder for bottle or cup. Made of black polypropylene. Inside diameter 80 mm. Outside dimensions: D x W x H: 110 x 105 x 120 mm.

15. Power channels
May be fitted with a choice of components, ordered separately. All meet with CE requirements. 3 m cable is included. Supplied wired and ready for use. A finished CJK 70 SET includes 3 double sockets (E1) and a switch (E2). (Other SETs are also available.)

Code	Dims mm	Suitable for
CJK 70	profile 631	WB 815/818
CJK 100	profile 931	WB 811/818
CJK 70 SET	3 double sockets (E1) and a switch (E2)	
COMPONENTS		
E1	Double socket	
E2	Switch	
E3	Automatic fuse 10 A	
E4	Automatic fuse/earth leakage switch 10 A/30 mA	
E5	Emergency-stop-switch	
E6	Data connector/shielded for Cat.6 cable	
E7	Data connector/without screen for Cat.5 cable	
E8	Pneumatic, quick coupling 3/8"	

Kuvassa CJK 70 SET

TRESTON®

workbenches TP/TPH/SAP

Designed for use in today's production and assembly environments, this definitive modular system, developed over more than 35 years, provides a high quality working environment. Customise your workstation to your own requirements.

There is a large range of workbench accessories available, see page 11.

1. Workbench TP
Height adjustment with allen-key between 650...900 mm. Frames are of epoxy powder coated steel in grey RAL 7045. The worktops are of 26 mm ESD-laminate.

2. Workbench TPH
Height adjustment with allen-key between 650...900 mm. Workbench with upright profiles and a laminate shelf, height adjustment between 1080...1550 mm, load capacity 50 kg. Construction as TP. There are a large range of workbench accessories available, see page 11.

3. Moveable bench SAP
Construction as TP. Height adjustment with allen key between 650..900 mm. Swivel castors Ø 100 mm of which two are semiconductive and two braked. Load capacity 150 kg. Lower shelf and push handle available separately.

4. Lower shelf AT
For moveable bench. 26 mm ESD-laminate.

5. Handle PUSH
For moveable bench.

No.	Code	Worktop mm	Shelf mm	Load capacity static u.d.l.
1	TP 510 ESD	500 x 1000		150 kg
	TP 710 ESD	700 x 1000		300 kg
	TP 712 ESD	700 x 1200		300 kg
	TP 715 ESD	700 x 1500		300 kg
	TP 718 ESD	700 x 1800		300 kg
	TP 915 ESD	900 x 1500		300 kg
	TP 918 ESD	900 x 1800		300 kg
2	TPH 712 ESD	700 x 1200	310 x 1200	300 kg
	TPH 715 ESD	700 x 1500	310 x 1500	300 kg
	TPH 718 ESD	700 x 1800	310 x 1800	300 kg
	TPH 915 ESD	900 x 1500	310 x 1500	300 kg
	TPH 918 ESD	900 x 1800	310 x 1800	300 kg
3	SAP 507 ESD	500 x 700		150 kg
	SAP 710 ESD	700 x 1000		150 kg
	SAP 715 ESD	700 x 1500		150 kg
4	AT 507 ESD	500 x 700		40 kg
	AT 710 ESD	700 x 1000		40 kg
5	PUSH 50	depth 500		
	PUSH 70	depth 700		

angle extension TP-K/TP-KK

TP 715 ESD

TP 510K ESD

1. Angle extension TP -K

Each standard TP-workbench may also be supplied as an angle extension. Fitted to front angle of main bench. Stock sizes are shown.
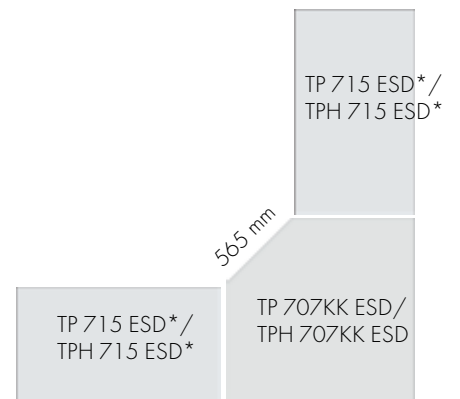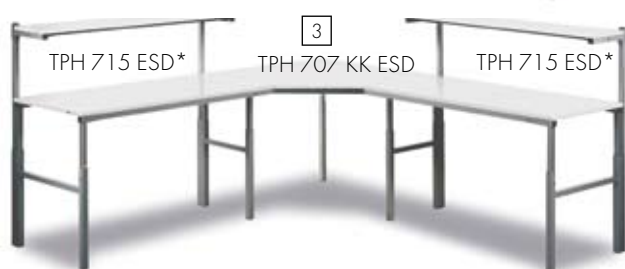
2. Corner workbench TP KK

A corner workbench can be used with two TP/TP-K benches (with one H-frame pair) to create a 90 deg. angle setup. This unit consists of a worktop, two side frames and a leg in the middle. Load capacity 150 kg u.d.l. Front side 565 mm.

3. Corner workbench TPH KK

A corner workbench can be used with two TPH benches (with one H-frame pair) to create a 90 deg. angle setup. This unit consists of a worktop and all necessary components. Load capacity 150 kg u.d.l. Front side 565 mm.

No.	Code	Worktop mm	Load capacity*
1	TP 510K ESD	500 x 1000	150 kg
	TP 712K ESD	700 x 1200	150 kg
2	TP 707 KK ESD	1100 x 1100	150 kg
	TP 909 KK ESD	1300 x 1300	150 kg
3	TPH 707 KK ESD	1100 x 1100	150 kg
	TPH 909 KK ESD	1300 x 1300	150 kg

TP 715 ESD*   TP 707 KK ESD   TP 715 ESD*

TPH 715 ESD*   TPH 707 KK ESD   TPH 715 ESD*

TP 715 ESD*/
TPH 715 ESD*

565 mm

TP 715 ESD*/
TPH 715 ESD*

TP 707KK ESD/
TPH 707KK ESD

*) Workbench with one H-frame pair   **)Load capacity 150 kg u.d.l.

TRESTON®

workbench combinations

Assembly workstation

1 pcs   workbench TPH 715 ESD
1 pcs   tool and lighting support KT 150
1 pcs   extra C-profile SPR 150
1 pcs   overlight OL 254
2 pcs   bin rail BP 150 ESD
1 pcs   power channel TJK 150 SET
          3 x double socket E1
          1 x switch E2
1 pcs   steel cabinet ML 02 ESD

Service workstation

1 pcs   workbench TPH 715 ESD
1 pcs   tool and lighting support KT 150
1 pcs   extra C-profile SPR 150
1 pcs   overlight OL 254
1 pcs   perforated panel RL 150
1 pcs   panel hooks RK 1
1 pcs   steel cabinet ML 03 ESD

Computer workstation

1 pcs   workbench TPH 715 ESD
1 pcs   power channel TJK 150
          2 x double socket E1
          1 x switch E2
          1 x automatic fuse E3
1 pcs   keyboard shelf NT 500 ESD
1 pcs   PC holder CPU
1 pcs   LCD arm MA
1 pcs   connectores HKC-MH/MA

1080 ... 1550

650 ... 900

Universal workstation

1 pcs   workbench TPH 715 ESD
1 pcs   steel cabinet ML 01 ESD

Workbench with shelf TPH

Frames are of epoxy powder coated steel in grey RAL 7045. The worktops are of 26 mm ESD-laminate.

Code	Worktop D x W mm	Shelf D x W mm	Load capacity u.d.l.
TPH 712 ESD	700 x 1200	310 x 1200	300 kg
TPH 715 ESD	700 x 1500	310 x 1500	300 kg
TPH 718 ESD	700 x 1800	310 x 1800	300 kg
TPH 915 ESD	900 x 1500	310 x 1500	300 kg
TPH 918 ESD	900 x 1800	310 x 1800	300 kg

Accessories are mounted between vertical C-profiles. Steel parts are epoxy powder coated in light grey RAL 7035. The shelves are 26 mm ESD-laminate

1. Metal shelf TH
Adjustment for depth, height and angle. For stacking and picking bins. Load capacity 30 kg. Semiconductive epoxy powder coated steel in light grey RAL 7035.

2. Bin profile BP
Aluminium profile for stacking/picking bins.

3. Auxiliary shelf SH
26 mm ESD-laminate shelf.

4. Perforated panel RL
Robust, perforated steel panel. 9 mm perforations at 38 mm centres. Mount on TPH-benches with connectors RK 1. Can also be attached to a wall with screws (included).

5. Tool and lighting support KT
For suspending power tools and lighting units. Includes one C-profile bar with sliding hook.

6. Cable tidy TPHCT
Mounted between C-profiles below worktop. Perforated epoxy powder coated steel.

7. Swivel arm with tray CKV
Swivel arm with lockable, angle adjustable steel tray. Load 15 kg. Semiconductive epoxy powder coated steel. Mount on C-profile.

8. Cable clip set CC
The clips locate in the 12 mm profile slot.

9. Power channel
May be fitted with a choice of components, ordered separately. 3 m cable is included. All meet with CE requirements. The finished TJK 150 SET and TJK 180 SET include 3 double sockets (E1) and a switch (E2). (Other SETs are also available.)

10. Power panel PRK 5
Outlet panel has 5 Schuco wall sockets, switch and 3 m cable. Mount on upright profile or under the laminate shelf with screws.

11. Upright profiles HKCP
If you mount both perforated panel RL and power channel TJK to TPH benches, you must order an extra-high upright profiles. Height 1470 mm.

No..	Code	Dimensions D x W x H mm	Load capacity	Suitability
1	TH 120 ESD	145 x 1119	30 kg	TPH 712 ESD
	TH 150 ESD	145 x 1419	30 kg	TPH 715/915 ESD
	TH 180 ESD	145 x 1719	30 kg	TPH 718/918 ESD
2	BP 120 ESD	profil 1115	15 kg	TPH 712 ESD
	BP 150 ESD	profil 1415	15 kg	TPH 715/915 ESD
	BP 180 ESD	profil 1715	15 kg	TPH 718/918 ESD
3	SH 150 ESD	310 x 1500	50 kg	TPH 715/915 ESD
	SH 180 ESD	310 x 1800	50 kg	TPH 718/918 ESD
4	RL 120	750 x 1115		TPH 712 ESD
	RL 150	750 x 1415		TPH 715/915 ESD
	RL 180	750 x 1715		TPH 718/918 ESD
	RK 1	Connectors		TPH ESD
5	KT 120	600 x 1200		TPH 712 ESD
	KT 150	600 x 1500		TPH 715/915 ESD
	KT 180	600 x 1800		TPH 718/918 ESD
	Extra C-profile			
	SPR 150	1500		KT 150
	SPR 180	1800		KT 180
6	TPHCT 120	45 x 205 x 1115		TPH 712 ESD
	TPHCT 150	45 x 205 x 1415		TPH 715/915 ESD
	TPHCT 180	45 x 205 x 1715		TPH 718/918 ESD
7	CKV 400 ESD	tray 210 x 460	15 kg	TPH ESD
8	CC 12	5 pcs/set		TPH ESD
9	TJK 120	profil 1058		TPH 712 ESD
	TJK 150	profil 1358		TPH 715/915 ESD
	TJK 180	profil 1658		TPH 718/918 ESD
	TJK 150 SET	includes 3 x E1, E2		TPH 715/915 ESD
	TJK 180 SET	includes 3 x E1, E2		TPH 718/918 ESD
	Components			
	E1	Double socket		
	E2	Switch		
	E3	Automatic fuse 10 A		
	E4	Automatic fuse /earth leakage switch 10 A/30 mA		
	E5	Emergency-stop-switch		
	E6	Data connector/shielded for Cat.6		
	E7	Data connector/without screen for Cat.5		
	E8	Pneumatic, quick coupling 3/8"		
10	PRK 5	length 350		
11	HKCP 147	height 1470		

TRESTON®

metal cabinets ML

Steel cabinet ML 04 ESD includes ESD mat on top, handle and 4 castors Ø 100 mm, two semiconductive and two with brakes.

Drawer	
Outer height mm	inner height mm
60	50
120	110
140	130
180	170
360	350

Metal cabinets ML

Steel cabinets are semiconductive epoxy powder coated in grey paint, RAL 7045. Central locking. Full width drawer handle in anodised aluminium. Smooth and quiet telescopic ball-race runners and clear opening of 405 mm. Load capacity 35 kg/drawer. Drawer size 500 x 406 mm.

Suitability
• For TP/TPH/SAP benches of 700 mm depth and over, all cabinets are suitable. Mounting brackets for these benches are included.
• For WB benches we recommend cabinets ML 01 and ML 02. Cover MLS needed for mounting, ordered separately.

Dividers MLX

Code	Sisältää
MLX 1 ESD	Includes 7 fixed compartments. Height 50 mm. Conductive polystyrene.
MLX 2/50	Includes a frame, 3 longitudinal dividers and 15 internal dividers. Height 38 mm. Galvanised steel.
MLX 2/100	Includes a frame, 3 longitudinal dividers and 15 internal dividers. Height 68 mm. Galvanised steel.

Cover MLS

Needed for mounting cabinets to WB benches.

MLX1 ESD

MLX2/50

	Code	Includes drawers Outer height mm	Outer dims D x L x H mm
	ML 01 ESD	1 x 140	580 x 453 x 142
	ML 02 ESD	1 x 60 2 x 120	580 x 490 x 351
	ML 03 ESD	1 x 60 2 x 120 1 x 180	580 x 490 x 532
	ML 04 ESD	1 x 60 2 x 120 1 x 180 + top, handle and 4 castors	580 x 490 x 670
	ML 05 ESD*	1 x 120 1 x 360	580 x 490 x 532
	ML 06 ESD*	1 x 60 3 x 120 1 x 180 + plinth, H = 110 mm	580 x 490 x 762

*) To order

light steel cabinets LMC

Metal cabinets LMC
Drawers mounted on telescopic ball race slides. The cabinet frames are semiconductive epoxy powder coated steel; drawer fronts are semiconductive coated composite board with aluminium handles. Colour light grey, RAL 7035. Load capacity is 15 kg per drawer. Mount on benches with brackets (included). Outer height of the drawer 100 mm, inner dims D x L x H: 435 x 305 x 85 mm

Suitable for
• WS/WB/TP/TPH workbenches
• SAP/CTR/WTR trolleys

Cover LMCK2
Needed for mounting cabinets to WB benches, WTR/CTR and SAP507 trolleys.

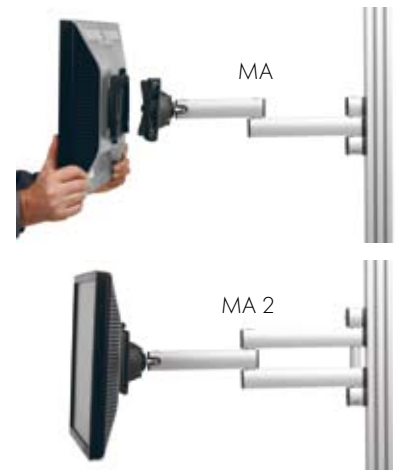|	Code	Includes drawers Outer height mm	Outer dims D x L x H mm
	LMC 01 ESD	1 x 100	460 x 370 x 140
	LMC 02 ESD	2 x 100	460 x 370 x 245
	LMC04 ESD	4 x 100	460 x 370 x 455
	LMC04D ESD	1 x 100 + cupboard, height 300 mm, open to right	460 x 370 x 455

computer accessories

PC stand CPU
An adjustable holder for either vertical or horizontal CPU, to mount underneath the bench worktop. Width 130...240 mm and height 395...500 mm or width 340...460 mm and height 180...285 mm. Suitable for WB/TP/TPH benches and SAP/CTR/WTR trolleys.

Keyboard shelf NT 500 ESD
A pull-out keyboard shelf with integral wrist support and mouse pad to mount underneath the bench worktop. Outer dims D x L x H 250 x 500 x 110 mm. Suitable for WB/TP/TPH- workbenches and SAP/WTR- trolleys.

LCD bracket MH
Max load 15 kgs. The quick-release mechanism is equipped with the standard, widely used flat-screen mount 75 x 75 and 100 x 100 for the mounting of all normal flat-screens. Suitable for WB/TPH benches and WTR trolley. Connector HKC-MH/MA needed for mounting LCD bracket MH to TPH benches, ordered separately.

LCD swivel arm MA
Max load 10 kgs. The quick-release mechanism is equipped with the standard, widely used flat-screen mount 75 x 75 and 100 x 100 for the mounting of all normal flat-screens. The arm is double articulated, turns through a radius of 180° and will extend between 95-425 mm from the upright. Suitable for WB/TPH benches and WTR trolley.
Connector HKC-MH/MA needed for mounting LCD swivel arm MA to TPH benches, ordered separately.

LCD swivel arm MA 2
Max load 15 kgs. The quick-release mechanism is equipped with the standard, widely used flat-screen mount 75 x 75 and 100 x 100 for the mounting of all normal flat-screens. The arm is double articulated, turns through a radius of 180° and will extend between 95-425 mm from the upright. Suitable for WB/TPH benches and WTR trolley.
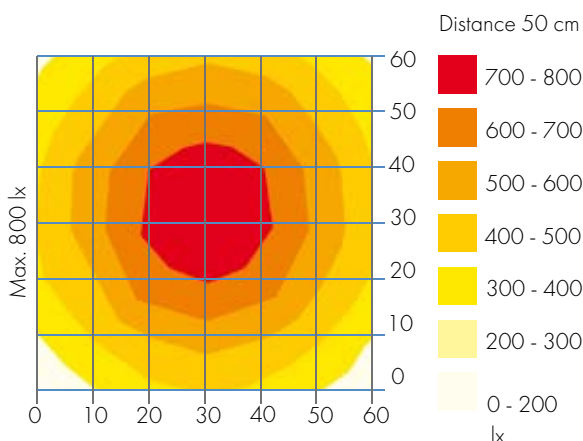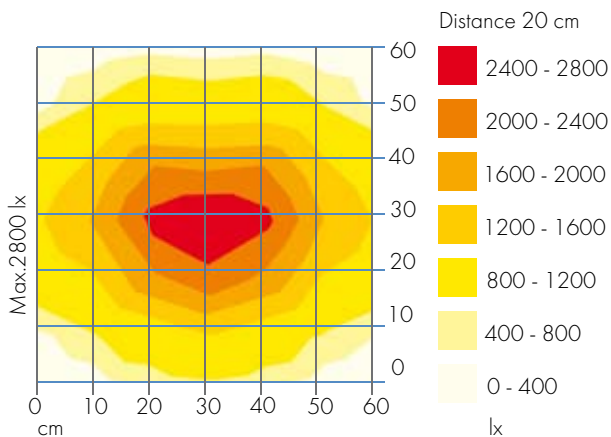Connector HKC-MA2 needed for mounting swivel arm MA2 to TPH benches, ordered separately.

TRESTON®

led magnifying task light

NEW

The magnifying task light is suitable for precise work for professionals in industry, research and development, laboratories, the medical profession, precision crafts, beauty clinics, the visually impaired etc.

Graph of light intensity

Work surface dimensions: 60 x 60 cm. Distance of light from surface: 20 cm and 50 cm. Unit of measure: lux (lx). The higher the number, the stronger the light.

Distance 20 cm

Max. 2800 lx

🟥	2400 - 2800
🟧	2000 - 2400
🟧	1600 - 2000
🟨	1200 - 1600
🟨	800 - 1200
⬜	400 - 800
⬜	0 - 400 lx

Distance 50 cm

Max. 800 lx

|	
🟥	700 - 800
🟧	600 - 700
🟧	500 - 600
🟨	400 - 500
🟨	300 - 400
⬜	200 - 300
⬜	0 - 200 lx

Magnifying light ZL3

The new technology LED light creates the same amount of bright, flicker free light as a comparative fluorescent light but saves up to 75% electricity. The light has a 3 dioptre magnifying glass and an easy to use multi joint arm to be connected to a bench top.

Light is produced by 6 powerful LEDs that can be adjusted according to needs; the left and right sides can be independently adjusted in steps. The light has a last-setting memory and the original settings can be reset. Environmentally friendly and long life LEDs do not flicker or react to bumps and vibrations

Technical specifications

LED-lights:	6 LED-lights, 3 on either side of lens.
Light intensity:	max. 2800 lx (lux)
Colour temperature:	6000 K (Kelvin)
Power:	80 lm/W (lumens/watt)
Voltage:	230 V
Dimmer:	5-100%, left and right sides dimmable separately in steps (10 steps)
Colour rendering index:	70 cri
Lens diameter:	Ø 127 mm
Magnification:	175% =3-dioptre lens
Special function:	Last setting remains in memory, until settings are changed.
Construction:	anodised aluminium, glass and UV-stabilised polycarbonate
Attachment:	sturdy table clamp, 18- 70 mm
Support arm:	length about 850 mm
Standard equipment:	2 metre cord with Schuco plug / BS plug
Ingress Protection Rating:	IP 44
Temperature range:	10 - 40°C

lighting units

OL 254

SL 224

SL 224
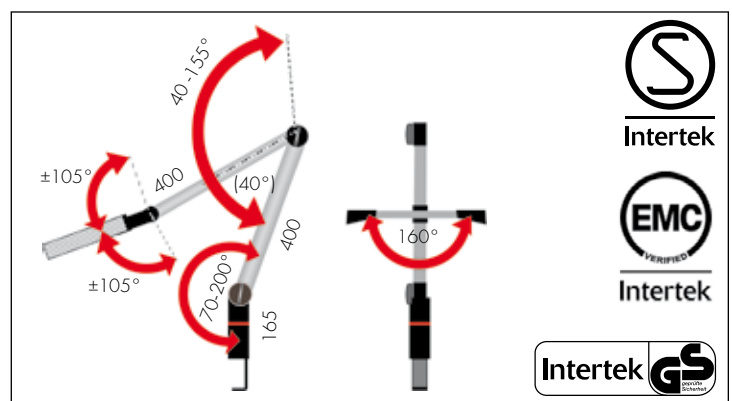
Lighting is an essential part of workstation ergonomics, as well designed lighting aids industrial safety, comfort and productivity. Particular applications need both sidelights and overlight. This system provides the best possible illumination. Quick, flicker-free electronic light ignition and vibrationless operation. Light output unaffected by fluctuations in voltage. Suitable for use with moving machinery giving asymmetric lighting with minimal shadow. (Flicker free tubes ensure that rotating objects will not appear to be stationery, a common optical effect when standard fluorescent tubes are used.) Silver grey anodized aluminium frame with a matte anti-dazzle screen. Angle continuously adjustable. With own switch and 3 m cable. The lighting units are isolated from the workbench.

OL 254D

Graph of light intensity

Light intensity (lux) is tested on a horizontal worktop using the OL 254. The diagram below shows the results. Worktop size is 700 x 1500 mm, height of light unit above worktop is 1000 mm. The lux (lx) is the SI unit of illuminance and luminous emittance measuring luminous power per area.

Overlight OL 254

2 x 5T fluorescent tubes:	54W
Length:	1200 mm
Enclosure class:	IP 20
Suitability:	WB/TPH/HDB/HDBL
	Mount on support bracket

Overlight with dimmer OL 254 D
As OL 254, but with a dimmer.

Sidelight SL 224

2 x 5T fluorescent tubes:	24W
Length:	590 mm
Length:	590 mm
Suitability:	WB/TPH
	Mounting kit SL-HKC required for use with TPH benches; ordered separately.

Distance 100 cm

1200 lx

1000 lx

800 lx

TRESTON

universal trolley WTR

A good quality, versatile trolley, PC-station, measuring station or mobile storage. Modern industrial design.

1. Universal trolley WTR 140 ESD
Standard trolley has 3 shelves (TS 605), size 650 x 530 mm. Height adjustment of shelves by allen-key. The vertical profiles are of aluminium.Frames are of semiconductive epoxy powder coated steel: light grey RAL 7035. The shelves are 26 mm ESD-laminate. Four conductive swivel castors Ø 100 mm of which two are braked. Load capacity 150 kg.
Outer dimensions D x W x H: 650 x 650 x 1415 mm.

2. Extra shelf TS 605 ESD
Shelf of 26 mm ESD-laminate, size 650 x 530 mm. Load capacity 50 kg.

3. Adjustable shelf TAS 605 ESD
Continuous adjustment for depth, height and angle. 26 mm ESD-laminate, size 650 x 530 mm. Lipped front edge. Load capacity 50 kg.

4. Bin profile BP 50 ESD
Aluminium profile for TRESTON stacking and picking bins. Length 525 mm.

5. Power channel WJK 40
May be fitted with a choice of components, ordered separately. All meet with CE requirements. 3 m cable is included. Profile length 470 mm.

COMPONENTS
E1 Double socket (max. 5 pcs/1 cable)
E2 Switch
E3 Automatic fuse 10 A
E4 Automatic fuse/earth leakage switch 10 A/30 mA
E5 Emergency-stop-switch
E6 Data connector/shielded for Cat.6 cable
E7 Data connector/without screen for Cat.5
E8 Pneumatic, quick coupling 3/8"

Light steel cabinets, page 13
Keyboard shelf, page 13

industrial trolley IT

A versatile trolley that has been designed for use in light assembly, test and repair areas.

1. Industrial trolley IT 170 ESD

Frames with perforated profiles are of semiconductive epoxy powder coated steel in grey (RAL 7045). One perforated panel is included with the trolley, size 200 x 685mm. Four conductive castors Ø 125 mm, two with brakes. Load capacity 150 kg.
Overall dimensions D x W x H: 625 x 777 x 1725 mm.

2. Steel shelf ISS ESD

Adjustment for height and angle 0...30°. With front retaining lip. Of semiconductive epoxy powder coated steel in grey (RAL 7045). Load capacity 40 kg. Two sizes.

Code	Dimensions
ISS 407 ESD	400 x 680 mm
ISS 607 ESD	600 x 680 mm

3. Perforated panel HPP 73

Perforated panel of epoxy powder coated steel in light grey. 9 mm perforations at 38 mm centres.
Size 686 x 750 mm.

4. Bin rail BP 70 ESD

Height adjustable aluminium bin rail, to hold Treston stacking and picking bins. Length 685 mm.

5. Cupboard unit HCU 73

Constructed of epoxy powder coated, perforated steel in light grey: 9 mm perforations at 38 mm centres. Lock, steel shelf and connectors as standard.
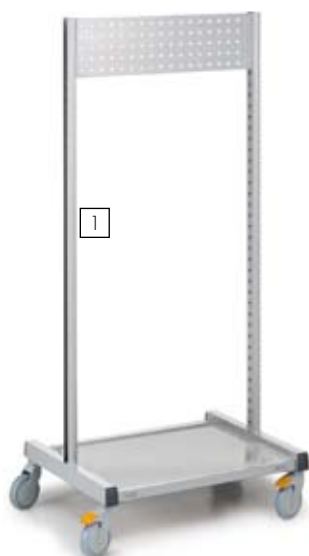Dimensions D x W x H: 310 x 687 x 700 mm.

In the picture:
Trolley IT 170 ESD

Combination in the picture:
1 x trolley IT 170 ESD
2 x shelf ISS 407 ESD
1 x shelf ISS 607 ESD

Combination in the picture:
1 x trolley IT 170 ESD
1 x perforated panel HPP 73
1 x bin profile BP 70 ESD

Combination in the picture:
1 x trolley IT 170 ESD
1 x shelf ISS 607 ESD
1 x cupboard unit HCU 73

TRESTON®

adjustable trolleys TRTA

These ESD protected trolleys provide a flexible solution to product movement within the production area, extra shelves can be added as required. Height of all shelves can be adjusted by allen-key. Frames are of semiconductive epoxy powder coated steel in grey (RAL 7045). Shelves are of 12 mm ESD-laminate with semiconductive steel edging. Four conductive swivel castors Ø 125 mm of which 2 are braked.

2-shelf trolleys
Shelf adjustments between 200...770 mm. Load capacities: max.150 kg/trolley and max. 50 kg/shelf.

Code	Shelf size D x W mm	Outer measurements D x W x H mm
TRTA 4082 ESD	430 x 800	535 x 900 x 1015
TRTA 4102 ESD	430 x 1000	535 x 1100 x 1015
TRTA 5082 ESD	530 x 800	635 x 900 x 1015
TRTA 5102 ESD	530 x 1000	635 x 1100 x 1015

4-shelf trolleys
Shelf adjustments between 215...1340 mm. Load capacities: max. 300 kg/trolley and max. 50 kg/shelf.

Code	Shelf size D x W mm	Outer measurements D x W mm
TRTA 4104 ESD	430 x 1000	535 x 1100 x 1535
TRTA 5104 ESD	530 x 1000	635 x 1100 x 1535

Extra shelf TRHA
Shelves are of 12 mm ESD-laminate with semiconductive steel edging. Load capacity 50 kg.

Code	Shelf size D x W mm
TRHA 408 ESD	430 x 800
TRHA 410 ESD	430 x 1000
TRHA 508 ESD	530 x 800
TRHA 510 ESD	530 x 1000

End mesh panels NET 2 ESD
The mesh panels can be installed at the ends of the trolley or on the sides. An angle bracket is set on the edge of the upper and lower shelf and the mesh is screwed into place. The 4-shelf trolley can hold 2 mesh panels on top of each other. Steel mesh is semiconductive epoxy coated in grey. Size 364 x 604 mm. One set includes 2 mesh panels.

Document holder DSA4 ESD
Document stand A4. Semiconductive epoxy powder coated steel. Includes two magnets.

reel holder trolley RRT

This modern, adjustable trolley is designed for the safe transport and storage of SMD reels. One trolley combination offers storage for up to 360 SMD spools.

1. Reel holder trolley RRT ESD
The basic unit consists of 3 supports for reel racks and a lower shelf. The perforated lower rail prevents dust build-up. The reel supports and lower shelf can be adjusted by allen-key. Frames, reel supports and lower shelf are of semiconductive epoxy powder coated steel in grey (RAL 7045). 4 conductive swivel castors Ø 125 mm with brakes. Load capacities: 50 kg/support and 200 kg/trolley. Overall dimensions D x L x H: 540 x 1100 x 1785 mm. Reel holders are ordered separately.

2. Reel rack RR ESD
Designed for use with SMD spools of 7", 13" and 15" size. The rack includes 15 fixed double compartments of 60 mm width. Frame is of semiconductive epoxy powder coated steel wire in grey (RAL 7035). Full length, antistatic label holder. Load capacity 50 kg . Racks are specifically designed for standard metric shelving. Dimensions D x L x H:
426 x 960 x 254 mm.

3. Document holder DSA4 ESD
Document stand A4. Semiconductive epoxy powder coated steel. Includes two magnets.
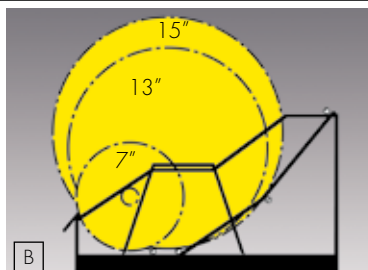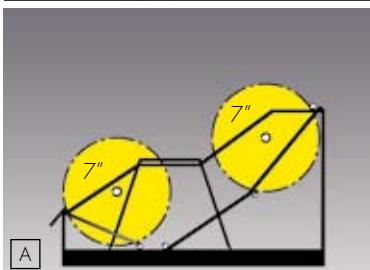
In picture A: Side view of spools and reel racks
The capacity of one rack is 30 fixed compartments for 7" spools of 60 mm width.

In picture B: Side view of spools and reel racks
The capacity of one rack is 15 fixed compartments for 13" and 15" spools of 60 mm width.

TRESTON®

upholstered chairs X

Design: Yrjö Kukkapuro & Reijo Raatesalmi

Arm rests available separately

X 30 G ESD

X 32 G ESD

X 35 G ESD

X 40 G ESD

X 40L G ESD

X 30 ESD

A gas lift controls height adjustment. Tilt of seat, angle and height of back rest mechanically adjusted. The padding is fireproof foam with a high quality fabric. Conductive swivelling twin castors, which are braked when unloaded, are standard. The upholstery is electrically conductive. Arm rests optional.

X 32 ESD

Construction as X 30, but slightly higher. The height adjustability range and tilting seat makes it possible to work in a half-standing position. Arm rests optional.

X35 ESD

Contruction as X 30, but the high chairs have a foot ring and conductive floor glides to improve work safety.

X 40 ESD

A high quality Syncro tilt-mechanism allowing the angle of the seat and back to be adjusted separately with just one lever and your body weight. Tilt tension can be adjusted. A gas lift controls height adjustment. The back rest, tilt of seat and angle and height of back rest mechanically adjusted. With adjustable head rest. Conductive swivelling twin castors, which are braked when unloaded, are standard. The upholstery is electrically conductive. Arm rests optional.

X40L ESD

As X40, but without head rest. Arm rests optional.

ARM ESD

The conductive arm rests have a 80mm height range 60 mm width range and 50mm depth range. They can be set either forwards or backwards. By reversing the armrests you can sit closer to the workbench.

Our chair range can fulfil seating requirements for electronic production areas. Optimum ergonomics can improve your workplace.

Code	ESD upholstery	Seat height mm	Seat size D x W mm	Back size D x W mm
X 30 G ESD	grey	410...550	445 x 455	370 x 275
X 32 G ESD*	grey	450...650	445 x 455	370 x 275
X 35 G ESD*	grey	500...740	445 x 455	370 x 275
X 40 G ESD X 40 BL ESD	grey black	420...560	475 x 455	510 x 430
X 40L G ESD* X 40L BL ESD*	grey black	420...560	475 x 455	510 x 430

ESD-textile: grey 95% polyacrylic, 5% polyester with steel fibres.
Abrasion resistance: 40 000 Martindale.
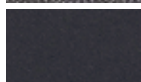
ESD-textile: black 94% wool, 4% polyamide, 2% steel fibre.
Abrasion resistance: 50 000 Martindale.

industrial chairs X

Design: Yrjö Kukkapuro & Reijo Raatesalmi

X 20 PU ESD

X 25 PU ESD

X 10 PU ESD

Chair X 20 PU ESD

A gas lift controls height adjustment. The black conductive polyurethane seat and back has a wear resistant and washable surface. The back rest is mechanically adjusted. Tilt of seat and angle and height of back rest mechanically adjusted. Chair base anodized aluminium in grey and black. Conductive swivelling twin castors, which are braked when unloaded, are standard. Arm rests optional.

High chairX 25 PU ESD

Construction as X 20 PU ESD, but the high chairs have a foot ring and conductive floor glides to improve work safety.

Stool X 10 PU

A black polyurethane seat Ø 350 mm. Conductive swivelling twin castors, which are braked when unloaded, are standard.

Arm rest AR ESD

The conductive arm rests have a 80mm height range 60 mm width range and 50mm depth range. They can be set either forwards or backwards. By reversing the armrests you can sit closer to the workbench.

These durable industrial chairs constructed with a cushioned conductive polyurethane seat and back that can be washed or steam cleaned The chairs are very comfortable to sit in and offer excellent lumbar support. The grooves act as lines giving the chairs a new strong visual effect and lightness.

Code	Polyurethane	Seat height mm	Seat size D x W mm	Back size D x W mm
X 20 PU ESD	black	400...540	370 x 425	350 x 265
X 25 PU ESD	black	490...730	370 x 425	350 x 265
X 10 PU ESD	black	370...510	Ø 350	

Properties of conductive TRESTON chairs

- The ESD chairs are to the international standard EN 61340-5-1.
- The upholstery is electrically conductive. Contact between upholstery and frame is conductive.
- Frame is conductive. Earth via conductive castors.
- The use of dissipative matting or flooring is recommended.

NOTE: To ensure good contact clean the castors regularly.

Saddle stool

- conductive upholstery
- the saddle seat with adjustable tilt provides comfort and an ergonomically correct sitting position
- seat height: 540... 720 mm

Code	ESD upholstery
SADDLE G ESD	grey fabric
SADDLE AL ESD	black leatherette

Footrest JT 2 ESD

The footrest will help provide workers with an ergonomically correct sitting position and improve working performance. The special feature of this rest is the fluted foot exercise roller which refreshes through light massage while working. The surface is corrugated to prevent slip, made of black conductive polystyrene PS. Dims: 500 x 370 x 100 mm

TRESTON®

screen system

Acoustic panel

An anodized aluminium frame holds a blue or grey conductive fabric acoustic panel composed of polyether foam/ woodfiber. Thickness: 32 mm . One screen panel will need a panel and two legs, which are ordered separately. Straight line assemblies require two legs for the first panel and one leg for each additional panel.

Blue fabric	Grey fabrics	L x H mm
P 0712 FB ESD	P 0712 FG ESD	750 x 1245
P 0720 FB ESD	P 0720 FG ESD	750 x 2000
P 1012 FB ESD	P 1012 FG ESD	1050 x 1245
P 1020 FB ESD	P 1020 FG ESD	1050 x 2000

An individual workstation aids concentration and improves accuracy. With Treston screens noise levels can be reduced on average, by 7-9 dB to the standard ISO 10053. (VTT Research Centre Finland).

Perforated screen panels

An anodized aluminium frame holds panels made of perforated panel. The perforated steel panel is epoxy powder coated in light grey RAL 7035, 9 mm perforations at 38 mm centres.
One screen panel will need a panel and two legs, which are ordered separately. Straight line assemblies require two legs for the first panel and one leg for each additional panel.

Perforated panel	L x K mm
P 0712 S	750 x 1245
P 0720 S	750 x 2000
P 1012 S	1050 x 1245
P 1020 S	1050 x 2000

Panels

T-leg TLEG 400
- height adjustment 40 - 50 mm, depth 400 mm
- we recommend this leg for the low panels
- one leg per pack

T-leg TLEG 600
- height adjustment 70 - 80 mm, depth 600 mm
- for all high panels
- adjustable feet are provided for fine levelling
- one leg per pack

L-leg LLEG 250
- height adjustment 40 - 50 mm, depth 250 mm
- one leg per pack

Corner leg set CLEG
- for all panels
- can be used with two panels to create a 90 deg corner.
- leg set per pack

Bin rail PBP

Aluminium rail for TRESTON stacking bins 1015, 1520, 1525 and 1930. Load capacity 10 kg. Aluminium profile/ semiconductive epoxy powder coated steel. Max 3 profiles/ one side.

Steel shelf PSS

Steel semiconductive epoxy powder coated shelf. The shelf can sit on the brackets as normal or hang from the brackets to provide end stops. Load capacity 10 kg. Max. 3 shelves/one side.

Power channel PJK

May be fitted with a choice of components, ordered separately. All meet with CE requirements. 3 m cable is included. Supplied wired and ready for use.
COMPONENTS: E1 double socket, E2 switch, E3 automatic fuse 10 A, E4 automatic fuse/earth leakage switch 10 A/30 mA, E5 emergency-stop-switch, E6 data connector/shielded for Cat.6 cable, E7 data connector for Cat.5, E8 pneumatic, quick coupling 3/8" Cat 5)

Legs (ordered separately, 1 pcs per pack)

| TLEG 400 | TLEG 600 | LLEG 250 | CLEG |

| Bin profile | Steel shelf | Power channel |

Product	Code	D x L
Bin profile	PBP 70 ESD	700 mm
	PBP 100 ESD	1000 mm
Steel shelf	PSS 70 ESD	170 x 710 mm
	PSS 100 ESD	170 x 1010 mm
Power channel	PJK 70	640 mm
	PJK 100	940 mm

screen combinations

No. 1 Combination includes

2 pcs	acoustic panel P 1012 FG ESD, size 1050 x 1245 mm
3 pcs	leg TLEG 400
3 pcs	bin rail PBP 100 ESD

No. 2 Combination includes

4 pcs	perforated steel panel P 0720 S, size 750 x 2000 mm
5 pcs	leg TLEG 600
1pc	bin rail PBP 70 ESD.

No. 3 Combination includes

4 pcs	acoustic panel P 1012 FB ESD, size 1050 x 1245 mm
4pcs	leg TLEG 400
1 pcs	corner leg CLEG
3 pcs	steel shelf PSS 100 ESD.

wrist strap, earthing box, ESD-mats

Adjustable wrist strap R 2216

High quality wrist band for the safe discharge of static from the operator. Wrist strap set includes wrist band and coiled cord. Adjustable, elastic conductive fabric wrist strap. Earth lead with 1 megohm resistor, length 1,8 m. Includes 7 mm press stud for connection to wrist strap and 10 mm press stud for connection to earthing point.

Metal wrist strap R 2206

Adjustable metal wrist strap. Construction as wrist straps R 2216.

Earthing box J 6603

Mounts securely to the underside of a workbench or shelf 3 x 10 mm studs for safely connecting a worker's wrist strap Fitted with 3 x 1 megaohm ½ watt safety resistor Includes a 3 metre earthing cord to keep the earth bonding point and workers safely grounded at all times

Earthing cable MK 3040

Earthing cable, 5 m, for the bench and flooring mats with 10 mm press stud (male), 1 megohm.

Press stud PN 3034

For the bench and flooring mats. 10mm/female

ESD-flooring LM 9500

Dissipative, hard wearing vinyl flooring requiring permanent on site installation. Supplied by the metre or on rolls. Accessories: Press stud and earthing cable. Roll size: 1,5 x 25 m. Colour: grey. Surface resistivity: 100K ohm

Bench top ESD-mats PM 157

Resistant to heat, solder flux, most chemicals and solvents. The ESD mats are to EN 61340-5-1 standards. Abraded non slip underside. Does not contain PVC. Supplied by the metre or on rolls. Accessories: Press stud and earthing cable. Roll size: 1,22 x 10,00 m (12,20 m²). Colour: platinum grey. Resistance surface to ground: $7,5 \times 10^{5}...10^{7}$ ohm.

LM 9500

PM 157

TRESTON®

shelf cabinets HKS

Shelf cabinet HKS 100/200 ESD
High-quality shelf cabinet is made of semiconductive epoxy powder coated, profiled steel, light grey RAL 7038. Standard fittings: cabinet lock with two keys, sturdy double leaf-doors, 2 or 4 shelves, 4 pcs adjustable feet and cabinet base of steel. The robust base is welded together . The cabinet unit can be moved with a pallet truck or a forklift when the plinth front plate has been removed. This product is flat packed in an individual carton with all necessary fittings and instructions.

Code	Shelves number	Dimensions	Max. load/ shelf kg	Max. load/ cabinet kg
HKS 100 ESD	2	435 x 835 x 997	100	300
HKS 200 ESD	4	435 x 835 x 2000	100	300

Extra shelf HS 48 ESD
Size 396 x 786 x 32 mm. Max. load 100 kg.
Semiconductive epoxy powder coated steel, light grey RAL 7038.

Perforated panel RLHKS 48 ESD
Size 783 x 500 mm.
Semiconductive epoxy powder coated steel, light grey RAL 7038.

Drawer HSV 48 ESD
Outer dims D x W x H: 394 x 744 x 107 mm.
Inner dims D x W x H: 346 x 721 x 89 mm
Max. load 30 kg. The drawer is extendable 100 %. Semiconductive epoxy powder coated steel, light grey RAL 7038.

NEW

light shelf cabinets HK

Shelf cabinets HK 100/180 ESD
Designed for use in light storage. This cabinet is flat packed in an individual carton with all necessary fittings and instructions. Steel cabinets are semiconductive epoxy powder coated in light grey. The shelves can be adjusted on 50 mm centres. Standard fittings: Locking bar system, steel double doors, 2 or 3 shelves and cabinet base.

Code	Shelves	Dimensions D x W x H mm	Max. load/ shelf kg	Max. load/ cabinet kg
HK 100 ESD	2	460 x 915 x 1015	50	150
HK 180 ESD	3	460 x 915 x 1830	50	200

Extra shelf H 49 K ESD
Size 385 x 910 mm.

Perforated panel RLHK 49
Size 880 x 550 mm. Epoxy powder coated steel, light grey RAL 7035.

small parts shelving

Shelving unit

Extension unit

Small parts storage shelving PH

An ESD protected, effective storage system. Shelving unit includes 6 adjustable shelves. Small parts shelving with accessories are of semiconductive epoxy powder coated steel in light grey RAL 7035. Earth via protective 1 megohm resistor. Height 2020 mm, length 1040 mm.

Extension unit PH-L

Shelving unit includes 6 adjustable shelves

ACCESSORIES

Extra shelf H
Dividing panel VS
Side panel PS
Back panel TS
Storage bins on pages 30-31.

Product	Code	Shelf dims D x W mm	Load capacity/ one shelf
Shelving unit	PH 410 ESD	410 x 1040 x 2020	150 kg
	PH 510 ESD	510 x 1040 x 2020	200 kg
	PH 610 ESD	610 x 1040 x 2020	200 kg
Extension unit	PH 410L ESD	410 x 1020 x 2020	150 kg
	PH 510L ESD	510 x 1020 x 2020	200 kg
	PH 610L ESD	610 x 1020 x 2020	200 kg
Extra shelf	H 410 ESD	400 x 1000	150 kg
	H 510 ESD	500 x 1000	200 kg
	H 610 ESD	600 x 1000	200 kg
Dividing panel	VS 4 ESD*	335 x 2015	
	VS 5 ESD*	435 x 2015	
	VS 6 ESD*	535 x 2015	
Side panel	PS 4 ESD *	400 x 2015	
	PS 5 ESD *	500 x 2015	
	PS 6 ESD *	600 x 2015	
Back panel	TS 10 ESD *	1000 x 1920	

*) Made to order

table stand

Component rack EPL 12 ESD

Rack with three fixed shelves. Of semiconductive epoxy powder coated steel in light grey (RAL 7035). Size fits swivel arms AKV and CKV, see pages 7 and 11. Outer d x w x h: 200 x 455 x 290 mm .

Component rack holds:
12 stacking bins 1015-4ESD or
12 picking bins 30-1L-4ESD or
6 picking bins 30-2L-4ESD or
6 picking bins 30-23L-4ESD.
Bins ordered separately, page 30-31.

TRESTON®

small parts storage cabinets

Cabinets, which combine a stylish industrial design with practical accessories to provide flexible and efficient ESD protected small parts storage. They can be wall hung or mounted on space-saving turntables or stood on the worktop. Available in two sizes with heights 290 and 550 mm.

The design combines the use of a strong, semiconductive polypropylene frame and galvanised steel shelves in such a way that small drawers of semiconductive polystyrene sit securely within the framework. Supplied with labels and connector for earth lead. Details of the small parts drawers can be found on page 30 Accessories: cross dividers of semiconductive polystyrene.

Code	291-4ESD	294-4ESD	551-4ESD	554-4ESD
Drawer (Quantity x Typei) Drawer dimensions D x W x H: Framedimensions D x W x H:	24 x L-61-4ESD 170 x 69 x 40 mm 180 x 310 x 290 mm	12 x L-64-4ESD 170 x 92 x 62 mm 180 x 310 x 290 mm	48 x L-61-4ESD 170 x 69 x 40 mm 180 x 310 x 550 mm	24 x L-64-4ESD 170 x 92 x 62 mm 180 x 310 x 550 mm
Cross dividers (ordered separately) (Quantity/drawer)	V-1-4ESD (5 pcs)	V-4-4ESD (5 pcs)	V-1-4ESD (5 pcs)	V-4-4ESD (5 pcs)

table stands

Bench top spacemiser PTP-5 ESD
This unit consists of a combination ball bearing base/baseplate and will hold 2 small parts storage cabinets 291/294 ESD or 551/554 ESD which are ordered separately. Earthing cable is included. Load capacity 50 kg.

Complete assembly's dimensions D x W x H:
310 x 360 x 300 mm (291 ESD/294 ESD)
310 x 360 x 560 mm (551 ESD/554 ESD)

spacemiser

Perfect for the location, storage and identification of thousands of small components.

Spacemiser 12-550 ESD
- this unit will hold 12 small parts storage cabinets
  551/554 ESD in three layers
- each layer contains four cabinets which are ordered separately
- includes ball bearing base, dividing trays and a baseplate
- load capacity 400 kg
- earth via protective 1 megohm resistor
- complete assembly's dimensions
  D x W x H: 500 x 500 x 1730 mm

cabinet stands

Single stand BS-550L ESD
- this assembly holds 4 small parts storage cabinets 551/ 554 ESD which are ordered separately
- free standing frame of semiconductive epoxy powder coated steel in light grey RAL 7035
- 3 aluminium rails are included
- load capacity 50 kg.
- overall dims D x W x H: 420 x 760 x 1585 mm

Double stand BS-550T ESD
- this assembly holds 8 small parts storage cabinets 551/ 554 ESD which are ordered separately
- free standing frame of semiconductive epoxy powder coated steel in light grey RAL 7035
- 3 aluminium rails are included
- load capacity 100 kg.
- overall dims D x W x H: 600 x 760 x 1585 mm

Trolley BT-550 ESD
- this assembly holds 8 small parts storage cabinets 551/ 554 ESD which are ordered separately
- construction as double stand
- with bottom shelf of 12 mm ESD-laminate
- four castors Ø 100 mm which two are conductive and two braked
- load capacity 150 kg
- overall dims D x W x H: 600 x 760 x 1700 mm

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storage cabinets

Storage cabinets are stackable vertically and may be wall hung or mounted on turntable assemblies. Available in two sizes with depths 300 and 400 mm.

The cabinet has a strong, steel frame, galvanised steel shelves, semiconductive bins and labels with protective shields (not conductive). Supplied with connector for earth lead. Details of the drawers can be found on page 30. Accessories: cross dividers of semiconductive polypropylene.

Code	0830 ESD	1630 ESD	0840 ESD	1640 ESD
Drawer (Quantity x Typei)	8 x 3020-4ESD	16 x 3010-4ESD	8 x 4020-4ESD	16 x 4010-4ESD
Drawer dimensions D x W x H:	300 x 186 x 82 mm	300 x 92 x 82 mm	400 x 186 x 82 mm	400 x 92 x 82 mm
Framedimensions D x W x H:	300 x 400 x 395 mm	300 x 400 x 395 mm	400 x 400 x 395 mm	400 x 400 x 395 mm
Cross dividers (ordered separately) (Quantity/drawer)	D-20-4ESD (4 pcs)	D-10-4ESD (4 pcs)	D-20-4ESD (6 pcs)	D-10-4ESD (6 pcs)

turntable assemblies

Compact storage systems for use in maintenance, production and storage areas. Space saving practical turntable assemblies are ideal for the storage and easy identifi cation of thousands of components. Such assemblies offer storage for up to 1.792 different items on a floor area of only 0,64 sqm. When wall space is limited the turntable assembly, strategically placed, is a huge space saver. Load capacity 800 kg. Easy assembly without tools

16-300 ESD
- this unit holds 16 Bin Cabinets 0830/1630 ESD which are ordered separately
- includes a ball bearing base and dividing trays
- load capacity 800 kg
- earth via protective 1 megohm resistor
- complete assembly's dims D x W x H: 700 x 700 x 1680 mm

16-400 ESD
- this unit holds 16 Bin Cabinets 0840/1640 ESD which are ordered separately
- includes a ball bearing base and dividing trays
- load capacity 800 kg
- earth via protective 1 megohm resistor
- complete assembly's dims D x W x H: 800 x 800 x 1680 mm

high density cabinets

4840 ESD

2440 ESD

ESD protected high density cabinets for the electronics industry — providing static or mobile storage. Robust construction. Load capacity 240 kg. Designed as freestanding units. There is a choice of 2 different bin combinations. Each cabinet includes a grey semiconductive epoxy enamelled steel frame (RAL 7035), galvanised steel shelves, semiconductive bins and labels with protective shields (not conductive). Adjustable feet are provided for fine levelling. Load capacity for the cabinet is 240 kg/ 30 kg per shelf. Dividers are available separately. Details of the storage bins can be found on page 30. Accessories: cross dividers and castors.

2440 ESD
• frame size D x W x H: 410 x 605 x 870 mm
• with 24 drawers, type: 4020-4ESD
• accessories: cross divider D-20-4ESD

4840 ESD
• frame size D x W x H: 410 x 605 x 870 mm
• with 48 drawers, type: 4010-4ESD
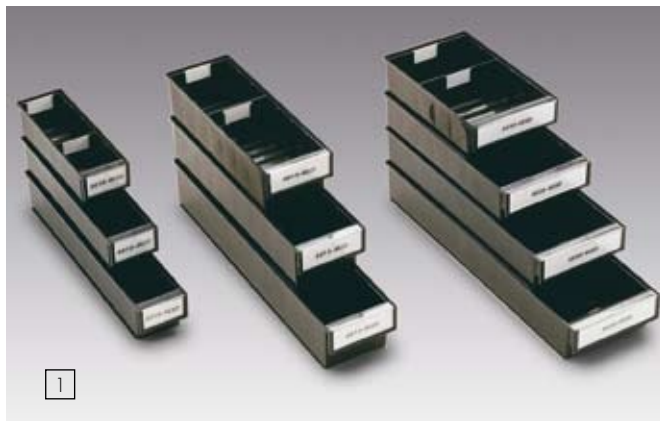• accessories: cross divider D-10-4ESD

Castor set PS-LH ESD
Swivel castors Ø 100 mm of which two are conductive and two braked. Load capacity of cabinet with castors is 150 kg.
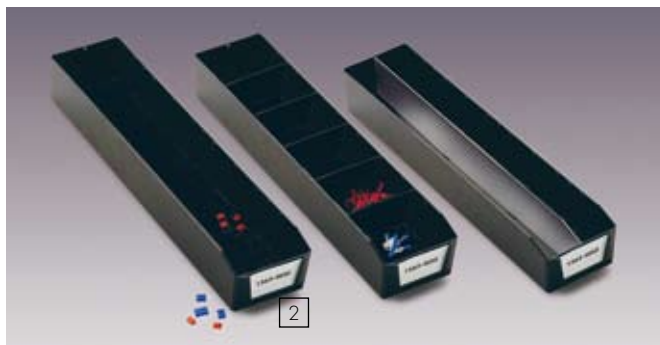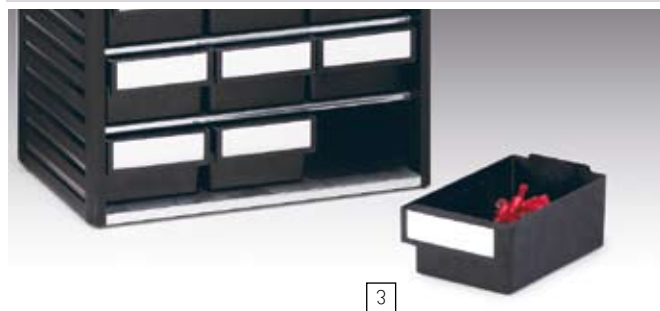

2440 ESD +
PS-LH ESD

TRESTON®

conductive bins ESD

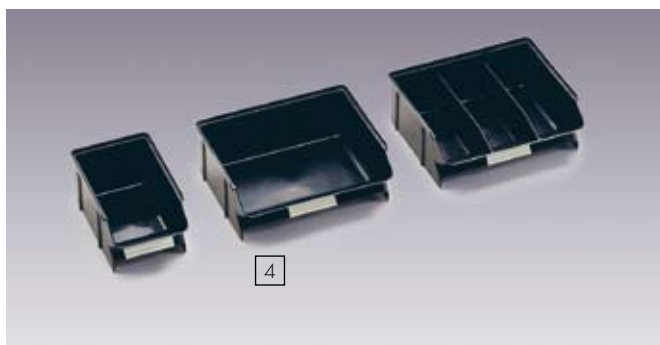## 1. Shelf bins

Shelf bins with corrugated base are suitable for all standard shelves with a depth 300, 400, 500 and 600 mm. The corrugated base design eases the picking of the smallest of items. These bins stack securely, as do bins of different depths when the width is the same. Material: semiconductive polypropylene. Full width label with protective shield is included with the bin. Label holders simply lift off when necessary. Shield is not conductive. Accessories: cross dividers.

Code	Outer dims D x W x H mm	Dividers (ordered separately)
3010-4ESD	300 x 92 x 82	D-10-4ESD
3020-4ESD	300 x 186 x 82	D-20-4ESD
4010-4ESD	400 x 92 x 82	D-10-4ESD
4015-4ESD	400 x 132 x 100	D-15-4ESD
4020-4ESD	400 x 186 x 82	D-20-4ESD
5010-4ESD	500 x 92 x 82	D-10-4ESD
5015-4ESD	500 x 132 x 100	D-15-4ESD
5020-4ESD	500 x 186 x 82	D-20-4ESD
6015-4ESD	600 x 132 x 100	D-15-4ESD
6020-4ESD	600 x 186 x 82	D-20-4ESD

2. Storage bin with smooth base

Storage bins, with smooth sides and bases, are effective space savers. Bin 1562 is specifically designed for storing IC dispensing tubes. Material: semiconductive polystyrene. Label with protective shield is included with the bin. Shields are not conductive. Accessories: cross or lengthway dividers.

Code	Outer dims D x W x H mm	Dividers (ordered separately)
1562-4ESD	625 x 140 x 90	V-15-4ESD (cross) V-60 (lengthway, aluminium)

3. Small parts drawers

Available in two sizes. Accessories: cross divider.

Code	Outer dims D x W x H mm	Dividers (ordered separately)
L-61-4ESD	170 x 69 x 40	V-1-4ESD
L-64-4ESD	170 x 92 x 62	V-4-4ESD

4. Picking bins

Picking bins are intended for repeated and rapid picking. Material: Semiconductive polystyrene (PS).

Code	Outer dims D x W x H mm	
30-1L-4ESD	160 x 99 x 70	
30-2L-4ESD	160 x 198 x 70	
30-23L-4ESD	160 x 198 x 70	2 fixed length dividers

5. Large stacking bins

Material: semiconductive polypropylene. Made only to order. Please ask for details.

Code	Outer dims D x W x H mm
1949-4ESD*	490 x 185 x 250
3149-4ESD*	490 x 310 x 250

Semiconductive polypropylene = PP
- surface resistivity $10^3...10^6$ ohm
- volume resistivity $10^3...10^6$ ohm
- temperature tolerance -20...+70°C

Semiconductive polystyrene = PS
- surface resistivity $10^3...10^6$ ohm
- volume resistivity $10^3...10^6$ ohm
- temperature tolerance -40...+ 65°C

*) Made only to order. Please ask for details.

conductive bins ESD

6. Stacking bins

For use on louvred panel and rail systems. Their open front design gives good access. Corrugated base eases the picking of the smallest of items. Material: Semiconductive polypropylene (PP). Accessories: Cross dividers are of semiconductive epoxy powder coated steel. Label with shield, shields are not conductive.

Code	Outer dims D x W x H mm	Dividers (ordered separately)	Labels (ordered separately)
1015-4ESD	165 x 105 x 75	–	E-10
1520-4ESD	192 x 149 x 105	–	E-15
1525-4ESD	250 x 149 x 130	V-14	E-15
1930-4ESD	300 x 186 x 156	V-19	E-20
1940-4ESD	400 x 186 x 156	V-19	E-20
1950-4ESD*	510 x 186 x 182	V-195	E-20
3040-4ESD*	400 x 310 x 182	V-30	E-20
3050-4ESD*	500 x 310 x 182	V-30	E-20

7. Storage boxes

Straight sided storage boxes of 18 and 36 litre capacity are used for internal and external transport systems. These have integral handles and stack securely together. Material: Semiconductive polystyrene (PS).

Code	Outer dims D x W x Hmm
10-18L-4ESD	535 x 323 x 150
10-36L-4ESD	508 x 323 x 280

*) Made only to order. Please ask for details.

stacking bin stands, trolley

Single stand BS-160LA ESD
- free standing frame of semiconductive epoxy powder coated steel in light grey RAL 7035
- 8 adjustable, double sided bin rails, length 740 mm
- stacking bins are ordered separately
- load capacity 120 kg
- size D x W x H: 420 x 820 x 1585 mm

One rail will hold either
7 pcs 1015-4ESD
5 pcs 1520-4ESD
5 pcs 1525-4ESD
4 pcs 1930-4ESD.

Double stand BS-160TA ESD
- free standing frame of semiconductive epoxy powder coated steel in light grey RAL 7035
- 8 adjustable bin rails, length 740 mm.
- Stacking bins are ordered separately.
- Load capacity 240 kg
- size D x W x H: 600 x 820 x 1585 mm

One rail will hold
14 pcs 1015-4ESD
10 pcs 1520-4ESD
10 pcs 1525-4ESD
8 pcs 1930-4ESD.

Trolley BT-170A ESD
- as double stand
- bottom shelf of 12 mm ESD-laminate
- 4 castors Ø 100 mm which two are conductive and two braked
- load capacities: trolley 150 kg
- size D x W x H: 600 x 820 x 1700 mm

One rail will hold
14 pcs 1015-4ESD
10 pcs 1520-4ESD
10 pcs 1525-4ESD
8 pcs 1930-4ESD.

TRESTON®

TRESTON offers safety equipment for the electronics industry

Treston specialises in industrial furniture and storage systems for the electronics industry. We manufacture ESD safe workbenches, drawer cabinets, trolleys, chairs, bins and more. By using high quality Treston ESD products you will help safeguard your components and end products from harmful ESD related problems. Creating an EPA requires that every step along the way from component receipt to finished product is considered, and that certified clothing, floors, shoes, storage and furniture are used to maintain protection throughout. By combining the use of high quality products and staff training ESD protection can be effectively maintained.

TRESTON®

RELIABLE INDUSTRIAL FURNITURE