

ESD protective products for the electronics industry



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 $-20...+70^{\circ}\text{C}$

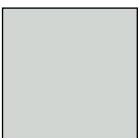
Semiconductive polystyrene = PS

- surface resistivity $10^3...10^6$ ohm
- volume resistivity $10^3...10^6$ ohm
- temperature tolerance $-40...+55^{\circ}\text{C}$

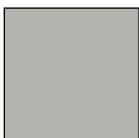
STANDARD COLOURS

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



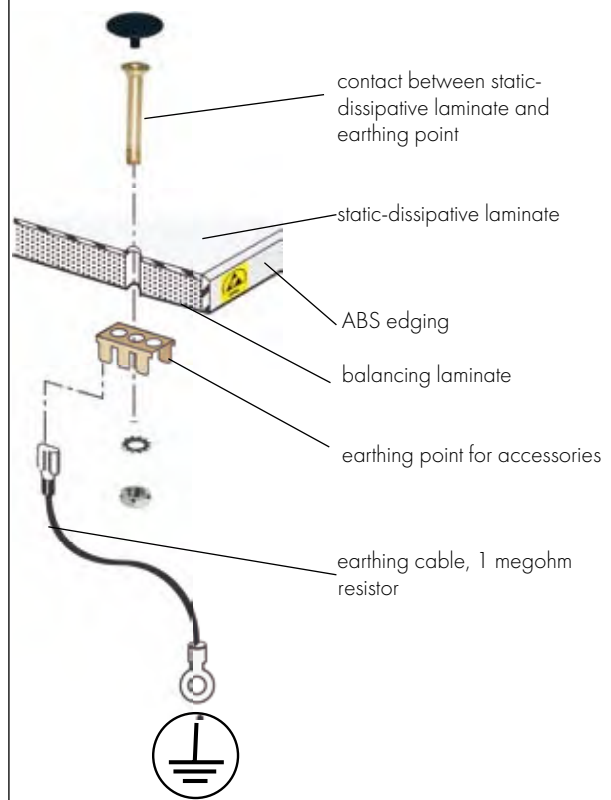
RAL 7038



RAL 7045



EARTHING POINT FOR ACCESSORIES



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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

*) To order

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

tilt adjustable workbenches WB TILT



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.

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

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.

Tilt adjustment by handle WB - TILT C

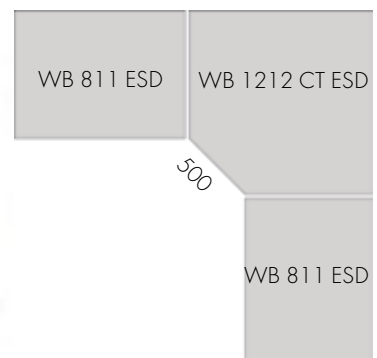
Height adjustment by allen key	Height adjustment by handle	Height adjustment by electric motor	Worktop mm
WB 811 TILT C ESD*	WB 811 C TILT C ESD*	WB 811 EL TILT C ESD*	700 x 1073
WB 815 TILT C ESD*	WB 815 C TILT C ESD*	WB 815 EL TILT C ESD*	700 x 1500
WB 818 TILT C ESD*	WB 818 C TILT C ESD*	WB 818 EL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

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 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



*) To order

accessories for WB workbench



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

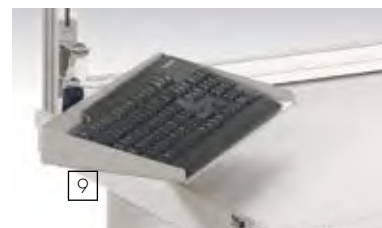
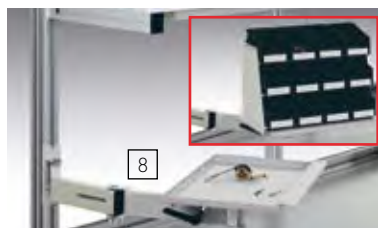
Height adjustable lower shelf, 26 mm ESD-laminate. Load capacity 50 kg. Mount between aluminium profiles.

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



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"

*) To order

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
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	
	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



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.

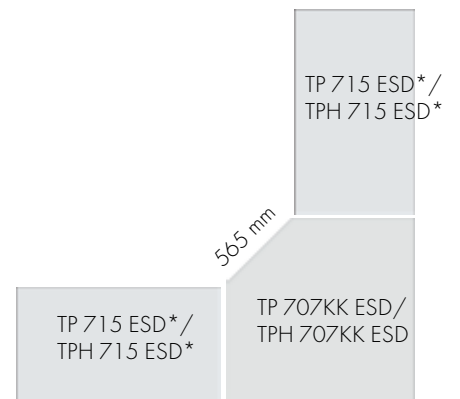
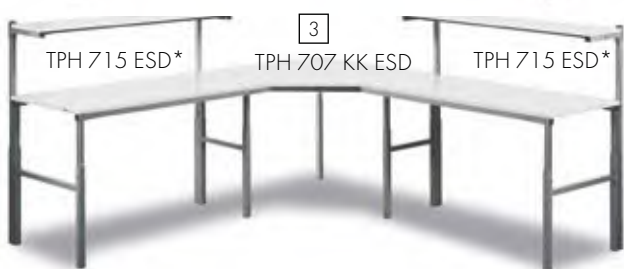
2. Corner workbench TP KK

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



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

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



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 for TPH workbench



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		



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.



	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



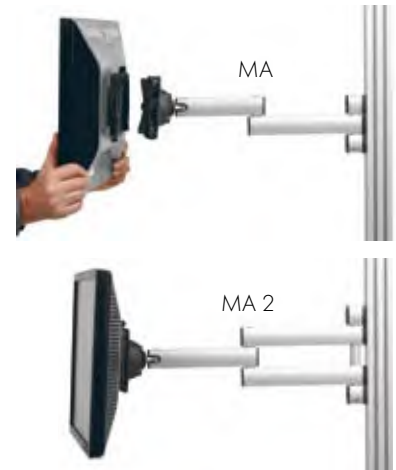
CPU



NT 500 ESD



MH



MA

MA 2

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.

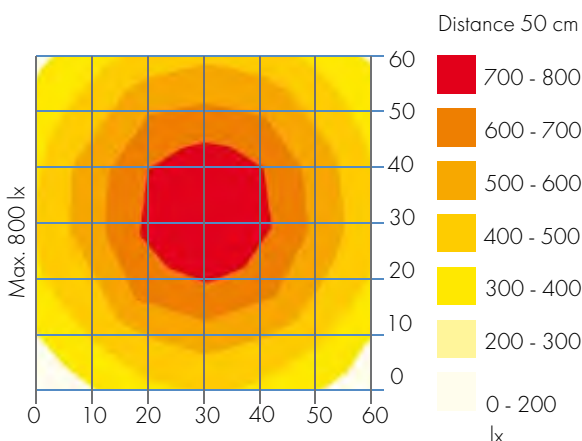
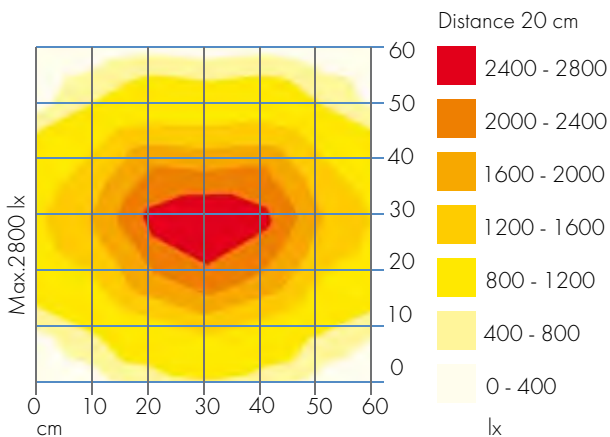
led magnifying task light



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.



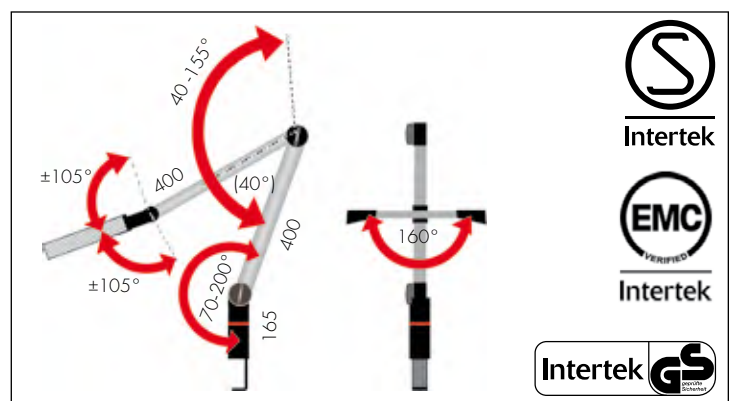
Magnifying light ZL3

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



Intertek



Intertek



lighting units



Lighting is an essential part of workstation ergonomics, as well designed lighting aids industrial safety, comfort and productivity. Particular applications need both sidelights and overhead. 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 stationary, 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.



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

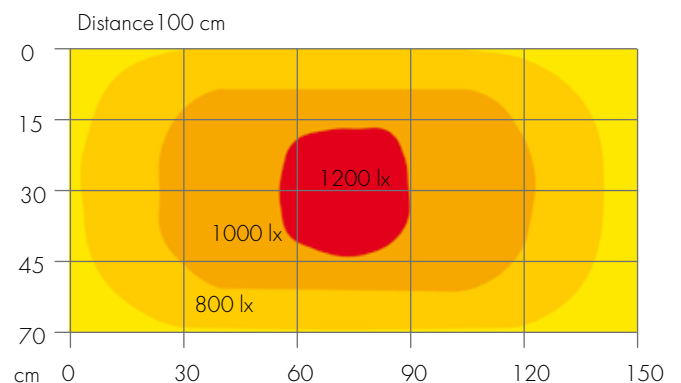
As OL 254, but with a dimmer.

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.

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.



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.

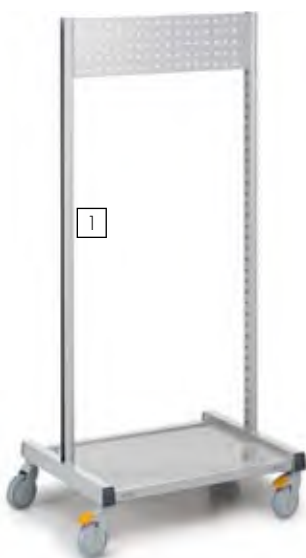


In the picture:
Trolley IT 170 ESD

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



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 x H 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

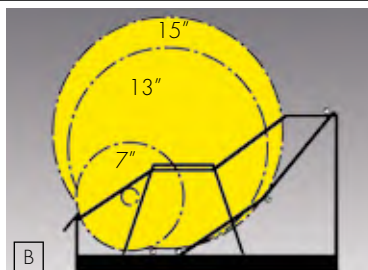
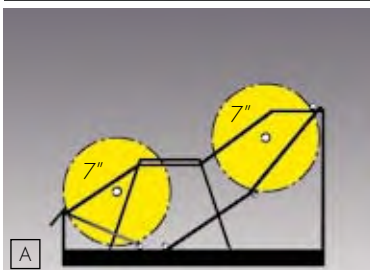
The basic unit consists of 3 supports for reel racks and a lower shelf. The perforated lower rail prevents dust build-up. The reel supports and lower shelf can be adjusted by allen-key. Frames, reel supports and lower shelf are of semiconductive epoxy powder coated steel in grey (RAL 7045). 4 conductive 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.