



A Phoenix Mecano Company

Ergonomic Workstation Systems

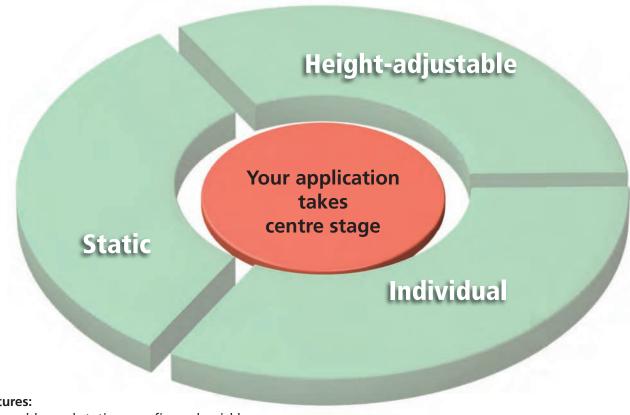


RK Easywork

Developed under the aspect of ergonomical and order specific configurated workstations

With the RK Easywork selection tool, a complete assembly work table can be online configured to meet ergonomic and task-specific requirements. Step by step, the selection tool guides you through all of the options on the way to creat your ideal workstation. Additional lighting, holders for grab containers, foot rests, standing chairs and ESD accessories are all available, along with other useful devices.





Features:

- √ Assembly workstations configured quickly
- √ Two basic variants: static and height-adjustable
- ✓ Wide range of accessories
- ✓ Online selection and enquiry



The RK Easywork workstation system is based on RK Rose+Krieger's complete modular system.

BLOCAN® construction profiles made from aluminium and the electrically driven lifting columns offer a perfect combination for the creation of high-quality table concepts. Customers can choose between the simplest static tables or electrically height-adjustable work tables and configure their own combinations.

PROFILE TECHNOLOGY



Mix and match

LINEAR TECHNOLOGY



Moving and positioning

CONNECTING TECHNOLOGY



Clamp and release

Ergonomic assembly workstations increase productivity and reduce physical strain

Being able to adjust the table height to suit the individual operator minimises physical strain and leads to an appreciable increase in productivity of 5%-15% on average.

As a rule, the requirements to be met by an assembly workstation are highly diverse. Workpieces of varying sizes, shapes and weights in small and medium batch production, conversions/extensions of the production processes or modern LEAN workplaces demand a flexible system which can be individually configured or modified as necessary.





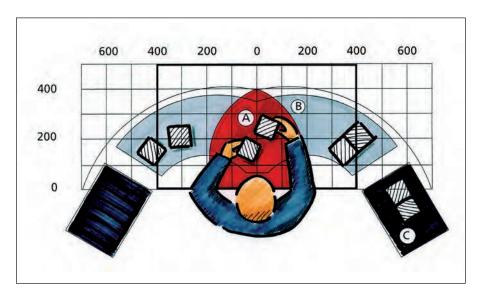
Our solution is as individual as your requirements

That is why, in addition to a range of standard tables, we also offer you expert advice and assistance in the implementation of your optimal assembly workstation.

If you want to focus your resources on other tasks and look for a partner you can rely on, our specialists will work closely with you to develop tailor-made solutions..

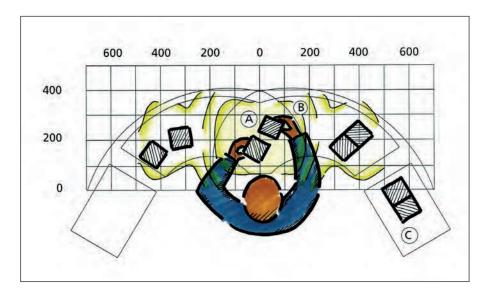
Ergonomics, workstation design

Material-grab facilities



- Complex manual workstations need a detailed consideration of the grab area.
- Different positions of the wrists can badly restrict the free movement.
 Therefore, harmonic motion sequences shall be targeted.
- The anatomically ideal arm position is reached with vertically falling upper arms, whereby the forearms are directed forward and slightly down. The employees'hands shall work in the approximate height of their stomach.

Illumination of the workplace



- Specific illumination of the workplace is very important.
- Dazzle-free, neutral in colour and reduced shadow areas are important criteria for a well blanced lighting
- Neutral white reflector screen lamps have proved themselves for the most work tasks. Furthermore, they avoid disturbing reflections and spread the light very evenly.

ESD protection (Electrostatic Discharge)



- ESD is called electrostatic discharge and describes the processes and effects when electric charges are disscharged between two differently charged objects.

 Voltages of more than 10,000 volts can be generated which can damage electrostatically sensitive components (e.g. semi-conductors).
- To protect electrostatically sensitive components (ESDS), all components must be connected to each other and to earth.



Optimal work heights and fields of view





Standing

Body upstanding | upper arms vertical down | approximate right angle between upper arm and forearm | head/visual angle about 30-35°.





Sitting

Torso vertical | upper arms vertical | forearms horizontal | view angle about 40° to the bottom | thighs horizontal | shanks vertical | feet should have flat contact to the bottom. If that is not possible, please use foot rests.

- Apart from jobs where people only sit or stand, optional work heights should be aimed at. Especially motor controlled adjustable systems facilitate comfortable changing of standing and sitting works and have a positive effect on the employees' movement apparatus as well as their cardiovascular system.
- Up to 90% of sense perception is the sense of sight by eyes. For this, our visual field, where we can see objectssharply, is very small. Therefore, we are always forced to adapt our visual axes by movements of our head or our eyes. The ideal workplace reduces the necessary movements of the head and the eyes and avoids forced poise of body.



Online selection

Step 1

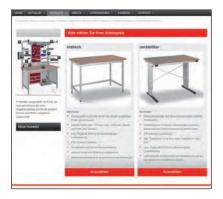
Selection of the base frame: two options possible static or height adjustable

Step 2

Selection of the profiles: 4 sides with grooves or closed outer profile

Step 3

Specification of the demension height, width, depth







Step 4

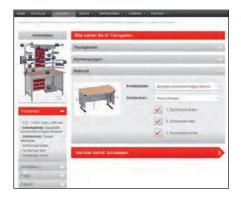
You can select from four different materials and decide if you need visual cover

Step 5

Select the numbers of drawers

Step 6

If you decided to use a gantry, you will be asked about lamps, power supply, grab containers and ingenious accessories.









Step 7

You can select more article in the area of accessories, e.g. ESD accessories



Step 8

Overview of completed selection



Step 9

Send your enquiry, finished!

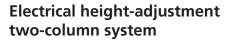
Soon you will receive your individual offer.



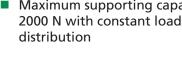
Static

- Base frame made from profiled bars 40x40 and 40x80 (closed grooves optional)
- Variable height (min. 750 max. 1250 mm), width and depth of the table
- Maximum supporting capacity 2500 N with constant load distribution
- **ESD-accessories available**
- Material of table tops and visual screen optional
- Optional gantry with configurable accessories
- Drawer cabinets in various designs

Standard width: 1200, 1600, 2000 mm Standard depth: 800 mm



- Height adjustment by two-column-system (Multilift-columns)
- Adjustment by 6-button-hand switch and the electronic synchronous control MultiControl
- 9 positions can be stored
- Min table height = 728 mm max table height = 1326 m
- Maximum supporting capacity 2000 N with constant load
- Comprehensive configuration and equipment possible in the same way as for the static design

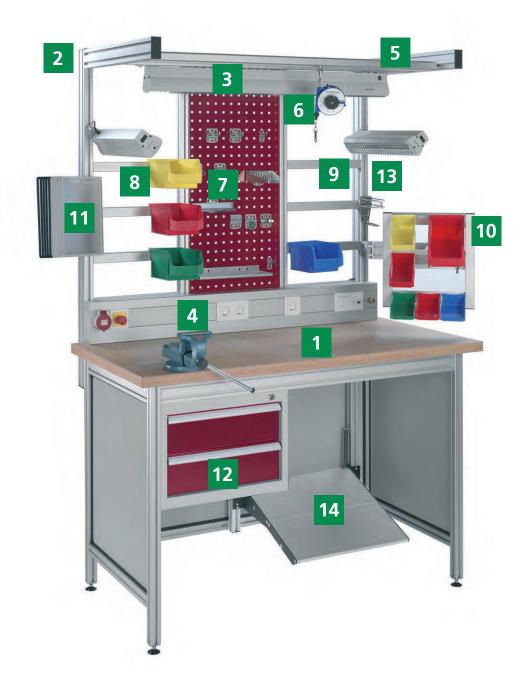




Standard width 1200, 1600, 2000 mm Standard depth: 800 mm

Configuration levels





1 Table top

6 Balancer

11 Document holder

2 Gantry

- 7 Perf. boards/tool holders
- 12 Drawer cabinet

3 System lamps

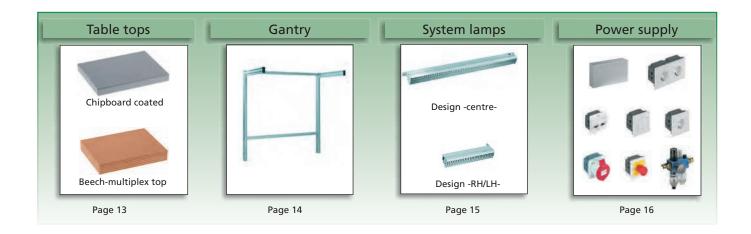
- 8 Grab containers
- 13 Cup holder

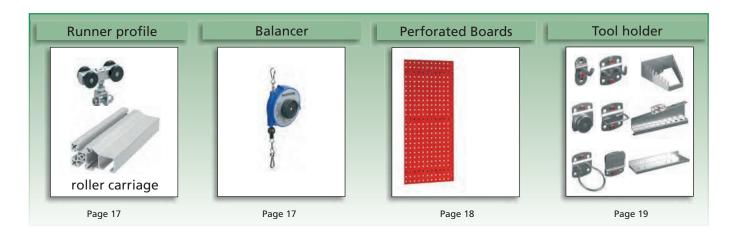
4 Power supply

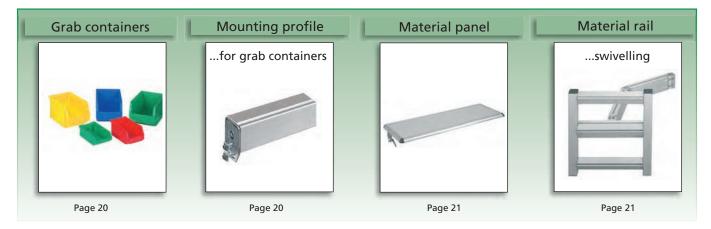
- 9 Mounting rail/mat. panel
- 14 Foot rest

- 5 Runner profile
- 10 Swivelling material panel

Attachment components/Accessories













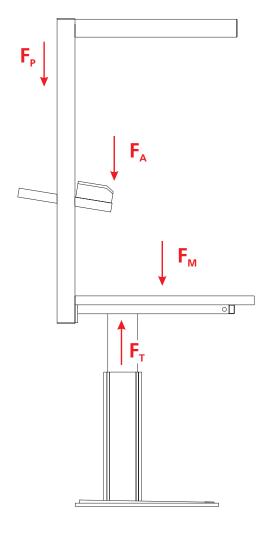
Accessories

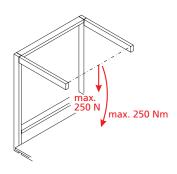




Load data

Determination of maximum load





$$\mathbf{F}_{\mathsf{M}} = \mathbf{F}_{\mathsf{T}} - \mathbf{F}_{\mathsf{P}} - \mathbf{F}_{\mathsf{A}}$$

 F_{M} = maximum mechanical load

 F_{T} = max supporting of the basic table

 F_p = dead load of the gantry

F_A = dead load of the attachment parts and assembly material

Version	Maximum supporting load of the basic table F _T	Dead load of the gantry F _p
Static tables	2500 N	750 N
Electrically height-adjustment- two-column system	2000 N	750 N



Table top

Different materials can be selected for the table top depending on the field of application.



Chipboard coated

Decorative, plastic coated, easy to clean, with edge banding



Beech-multiplex top

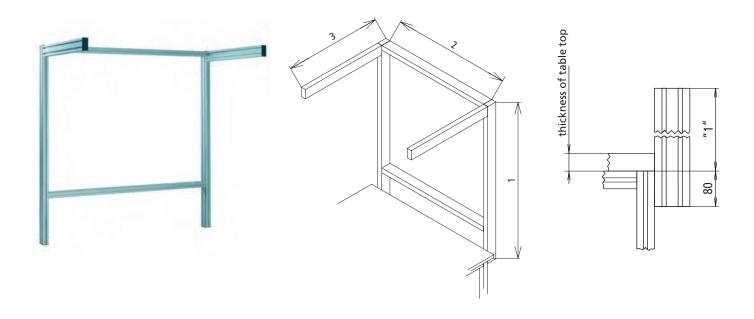
High payload and bending strength, can be machined well

Code No.	Туре	Thickness	Standard size	max. size	Weight [kg/m²]
WAC042000006	coated chipboard (melamine), light grey	22 mm			13,5
WAC042000005	coated chipboard (HPL), light grey	23 mm	1200x800, 1600x800,	1200x2000 mm	15,0
WAC042000143	oiled multiplex board, beech	30 mm	2000x800 mm	1200x2000 mm	23,0
WAC042000007	oiled multiplex board, beech	40 mm			30,0
WAC042000087	ESD-protective table top map	2 mm	900 x 610 mm	-	-
WAC042000088	ESD-protective table top map	2 mm	1220 x 610 mm	-	_

Further versions are available on request. Cut to size according to customer specifications.

Gantry

The gantry is mounted on the rear side of the workstation and serves for supporting lamps, grab containers, accessories, tools, etc.





Code No.	Туре	
WAC042000157	mounting kit for static table	
WAC042000158	mounting kit for electrical height adjustment - two-column system	



System lamp

Comfortable and efficient work requires an absolutely glare-free layout and positioning of the lamps. Additionally, an even illumination of the work area is absolutely necessary. Depending on the work task it, might be reasonable to install additional swivelling lamps next to the central mounted one. It has been proven that this reduces the error rate and increases the employees' performance.

Connected el. loads: see order sheet table; 50/60 Hz

Component parts: -central-: 2x compact fluorescent lamps

TC-L 36 W neutral white 4000 K

-LH/RH: 1x TC-L 36 W neutral white 4000 K

Power supply unit: EVG

Power cable: ca. 3 m, two-pin grounded plug

Lamp housing: Aluminium profile, surface light grey varnished

Weight (net): -centre-: ca. 3.8 kg -LH/RH: ca. 2.3 kg

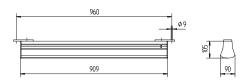
Technology: switchable Operation: Switch

Shading: Reflecting parabolic screen

Protective system: IP20 Protection class: I



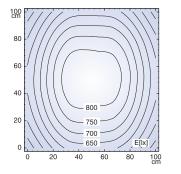


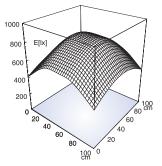


Emin: 417 lx Em: 655 lx

Emax: 843 lx

Measurement conditions: d= 100 cm

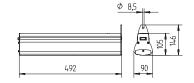




Code No.	Туре	Voltage
WAC042000015	-centre-	230 V



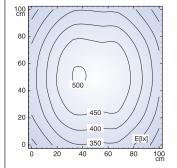
Design -LH/RH-

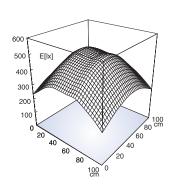


Emin: 214 lx Em: 376 lx

Emax: 501 lx

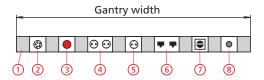
Measurement conditions: d= 100 cm





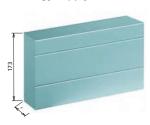
Code No.	Туре	Voltage
WAC042000014	-LH/RH-	230 V

Power supply



The power supply channel can be equipped with any single components as required. The scope of delivery alread includes a mounting kit for the supply channel.

1. Energy supply channel



Code No.	Туре
WAC05	L _{max} = 2004 mm
er	Total length incl. nd caps (2 mm each)

5. Socket



Code No.	Туре
WAC042000071	230 V (D)
WAC042000148	230 V (F)
WAC042000075	230 V (CH)
WAC042000079	230 V (GB)

2. CEE socket



Code No.	Туре
WAC042000073	400 V (D)
WAC042000077	400 V (CH)
WAC042000081	400 V (GB)

6. Network terminal



Code No.	Туре
WAC042000069	RJ 45

3. Emergency stop button



Code No.	
WAC042000070	

7. Double-throw switch



Code No.	Туре
WAC042000074	110-230 V (D,F,CH,GB)

4. Double socket



Code No.	Туре
WAC042000072	230 V (D)
WAC042000147	230 V (F)
WAC042000076	230 V (CH)
WAC042000080	230 V (GB)

8. Pneumatic connection



Code No.	Туре
WAC042000065	NW-7,2



Runner profile



The runner profile is mounted on the gantry and serves for guiding the tools and auxiliary aids (e.g. balancer, see below).

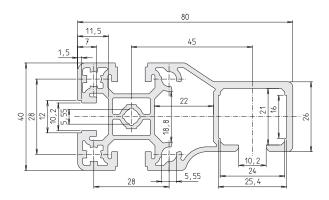
Material: Aluminium profile,

light, anodised

Weight: 2199 g/m



Roller carriage



Code No.	Туре
4185001	bar of 6 m
4185000	cut on request max. 6 m
WAC042000160	carriage for balancer
2x 4816702	mounting kit

Balancer



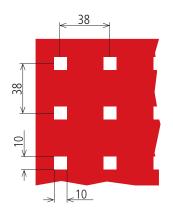


The balancer is used to position tools "weightlessly" at the workplace that they can be handled easily. To ensure optimal function, the total weight of the tool (including cable connections) must be within the specified range of the supported load. The precise setting of the supporting load can be adjusted at the unit

Material: Housing made of shock-resistant plastic material, rope of stainless steel

Code No.	Range of supporting load	ge of supporting load Rope pull	
WAC042000161	0,5 - 1,5 kg	1,7 m	0,3 kg
WAC042000162	1,5 - 3,0 kg	1,7 m	0,4 kg
WAC042000163	3,0 - 4,0 kg	1,7 m	0,5 kg

Perforated Boards



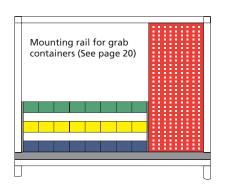


The perforated metal boards can be mounted as covering or tool holder on the gantry.
The metal sheets have a shockand scratch-resistant coating (RAL 3003).

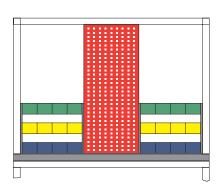
Dimensions 450 x 1,000 mm, Metal sheet thickness 1.5 mm

The perforated boards can be mounted on the gantry frame as required (LH or RH, central, RH and LH). Additionally to the perforated boards, for instance, the mounting rails for grab containers (see page 20) are recommend to be installed. In this way, tools and assembly material is in optimal operation radius.

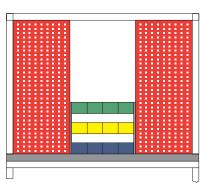
Possible arrangements:



RH or LH (min table width >845 mm)



Centre (min table width >1335 mm)



RH & LH (min table width >1400 mm)





Mounting kit

Code No.	Туре
WAC042000134	perforated boards 450 x 1000 mm
WAC042000149	mounting kit (kit of four)



Tool holder

The tool holders bring order and overview into the workstation. These holders can be used in the perforated boards shown on page 18.

Shock- and scratch resistant plastics coating, base plate thickness 1.5 mm, aluminium coloured.

With inclinated hook-end, L=50



Code No. WAC042000097

Grab container - holder



WAC042000104

Double, with inclinated hook-end, L=50



WAC042000098

Wrench holder, 8 times







Code No. WAC042000099

Hexagon socket wrench holder, D=1-11

Code No. WAC042000102

Pliers-holder, B=55/T=20



Code No. WAC042000100



Machine holder, D=60



Code No. WAC042000103

Shelf board, B=350, T= 125

Code No. WAC042000105



Grab containers

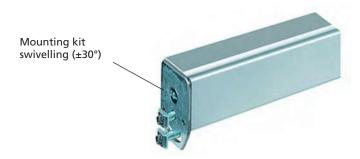
Plastic containers for storing assembly material, different colours and sizes available.

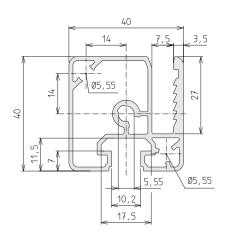




Code No.	Туре	Colour
WAC042000114	170x100x50 mm	blue
WAC042000112		green
WAC042000111	(0,5 litres)	yellow
WAC042000113		red
WAC042000119	160x100x75 mm (0,9 litres)	blue
WAC042000117		green
WAC042000116		yellow
WAC042000118		red
WAC042000124	230x150x122 mm (2,7 litres)	blue
WAC042000122		green
WAC042000121		yellow
WAC042000123		red

Mounting profile for grab containers





The grab containers can be easily hinged into the profile groove and then they are positioned. If necessary, the mounting profile can also be ordered with mounting kit swivelling containers.

Material: Aluminium profile, natural anodised

Weight: 1095 g/m

Blank cut of rods for swivelling containers mounting kit: Clear span -8 mm

Code No.	Туре
WAC5001	rod 2 m each
WAC5000	cut on request, max. 2 m
2x 4566701	mounting kit
2x WAC042000138	mounting kit, swivelling
2x WAC042000137	clamping lever for mounting kit, swivelling



Material panel

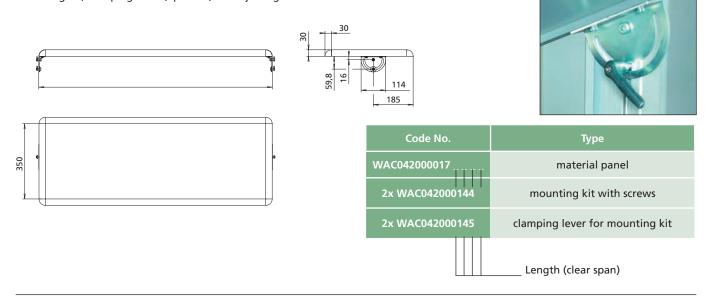


The material panel serves for holding the grab containers, tools or other technical aids. The panel can be mounted to the gantry at any height and can be swivelled, if necessary, in longitudinal direction.

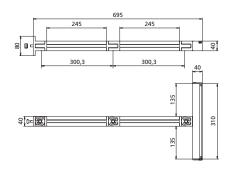
Supported load: max. 40 kg

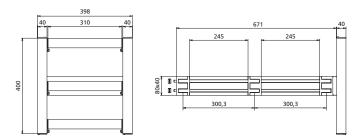
Swing range: ± 90°

Mounting kit, clamping lever (optional) for adjusting its inclination



Swivelling material rail



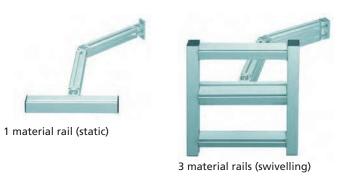


The swivelling material rails can be equipped with grab containers (See page 20) and if required, they can be pulled to the ergonomically best working position.

Supported load:

1 material rail max. 10 kg 3 material rails max. 20 kg

Swing range: per hinge 180°



Code No.	Туре
WAC042000056	1 material rail
WAC042000057	3 material rails

Document holder

The document holder (10 times, DINA4) can be mounted on the gantry using the mounting kit that comes with the delivery. Drawings, mounting instructions and other important documents are always within an ergonomically easy reach.





Code No.	Туре
WAC042000024	document holder

Monitor holder

The monitor holder is a space saving and ergonomic solution for your LCD monitor. The holder is infinitely variably in height and inclination. In the scope of delivery, there is a mounting kit for the connection to the workstation profile as well as a mounting plate with VESA-holes (75 x 75 and $100 \times 100 \text{ mm}$) included.

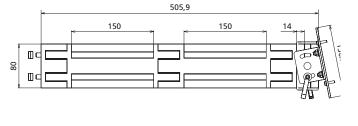
Swing range: per hinge 180°

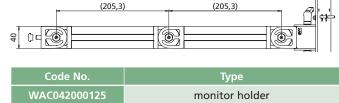
Inclination:: ±10°

Supporting force: max. 15 kg











Drawer cabinet

Workbench–drawer cabinet made from powder coated quality steel sheet. The drawers can be locked by a central lock.

Load max. 50 kg.

There is a mounting kit included in the scope of delivery.

Colour: Front RAL 3003 Housing RAL 7035





Please pay attention to the necessary minimum width of the assembly workstations.

Static Table:

2 cabinets are possible for a table width of >1500 mm

Two-column system:

1 cabinet is possible for a table width of >1000 mm 2 cabinets are possible for a table width of >1600 mm

Code No.	Туре	WxHxD	Height of drawers
WAC042000026	with two drawers	527 x 382 x 500 mm	2x 150 mm
WAC042000027	with three drawers	527 x 382 x 500 mm	3x 100 mm

Cup holder

The holder can be mounted directly to the profile groove. Beverages can be put at a defined position and do not interfere the assembly work. So it can be avoided that workpieces become dirty by spilling beverages.

The corresponding mounting kit is supplied with the unit.

Material: Zinc-plated steel





Code No.	Туре
WAC042000021	cup holder

Bench vice



Bench vice with milled and surface-hardened clamping jaws, the hardened keyway is adjustable. It has a dimension scale for fast pre-setting of the clamping jaws. The vice is equipped with a large hardened anvil face for alignment and upset works.

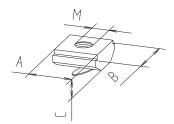
Jaw width: 120 mm Gewicht: ca. 10 kg

Code No.	Туре
WAC042000031	vice
WAC042000164	mounting kit

Slot stones



Spring clip

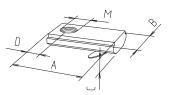


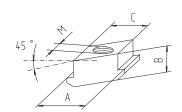
The slot stones can also subsequently be placed or inserted into the profile groove. The slot stone with spring clip (type -F/K-) can be fixed at any desired position and guarantees a perfect support even in vertikal position.

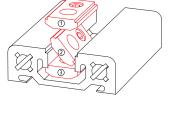
Material: Zinc-plated steel

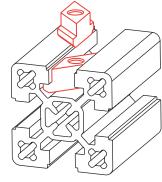














Code No.	Туре	А	В	С	D	M	F [N]
4006715	-F- / M4	10	14	4	-	M4	3500
4006713	-F- / M5	10	14	4	-	M5	4000
4016212	-K- / M6	21	14	4	7	M6	5000
4016213	-K- / M8	21	14	4	7	M8	8000
4026221	-R- / M6	15	9	10	-	M6	8000
4026222	-R- / M8	15	9	10	-	M8	8000



Foot rest

for permanent installation (only for the static table)



Foot rests provide for correct and relaxed sitting (relaxation of leg muscles) which has a positive effect on work performance.

There are various designs available.



Code No.	Туре	Tread plate	Adjustable height	Inclination
WAC042000030	permanent installation	500x500 mm	200-350 mm	10°
WAC042000028	adjustable	500x300 mm	120-410 mm	20°

Sitting/standing aid

Height adjustment: Seat height 650-850 mm

Seat type: Disc foot Colour: anthracite

Dimensions: Disc foot diameter 470 mm

Material: Integral foam



Further versions are available on request.

Code No.	Туре
WAC042000032	Sitting/standing aid

Accessories

ESD-table top mat



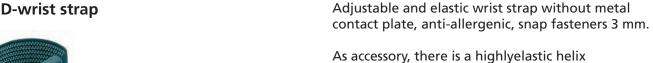
Two-layer compound coating, made from wear-resistant, synthetic rubber, resistant against soldering tin, high temperatures, abrasion, non-halogenated, permanently elastic, volume conductive. Incl. two snap-fasteners 10 mm. Typical leak resistance RG= 10⁶-10⁷ Ohm

Code No.	Туре
WAC042000087	900 x 610 mm
WAC042000088	1220 x 610 mm

cable (2.4 m) with 2x 1 MOhm electrical safety

ESD-wrist strap





resistance. Wrist strap connection 3 mm snap fastener Connection to earth contact



Code No.	Туре
WAC042000089	wrist strap
WAC042000090	helix cable 2,4 m

ESD-earthing box

Box as central earthing point connection (EBP-Earth Bonding Point) for personal grounding Earth wire 2 m long. Mode of connection 4 mm eyelet bolt, per connection 1 MOhm safety resistance. 2x 10 mm snap fastener, 1x 4 mm safety bush.



Code No.	Туре
WAC042000091	earthing box



ESD-central earthing connecting strip

Central connecting strip for the connection of maximal six earth wires with threaded terminals for cable lugs with 4 mm eyes.



Code No.	Туре
WAC042000092	central earthing connecting strip

ESD-earth component

Dummy plugs for two-pin grounded plugs for direct earthing of table mats and floor covering or central earthing connecting strip. With 2.4 m helix cable, 1 MOhm safety resistance, 10 mm snap fastener.



Code No.	Туре
WAC042000094	2,0 m smooth cable
WAC042000093	2,4 m helix cable

ESD-earthing cable

Earthing cable for table /floor covering.

Smooth cable with 1 MOhm safety resistance,
10 mm snap fastener,
4 mm eyelet bolt



Code No.	Туре
WAC042000095	1,5 m cable
WAC042000096	3,0 m cable

Accessories

Please find further accessories and aluminium profiles in our main catalogue "Profile Technology BLOCAN®"

Slot stones



Angle brackets



Bracing plates



Cover profile



End cover



Overhead slide



Surface elements



Framing profile



Vario-Quick



Feet



End/connecting plate



Foot angle





Profile joint



Clamps



Pipe clamp



Hinge

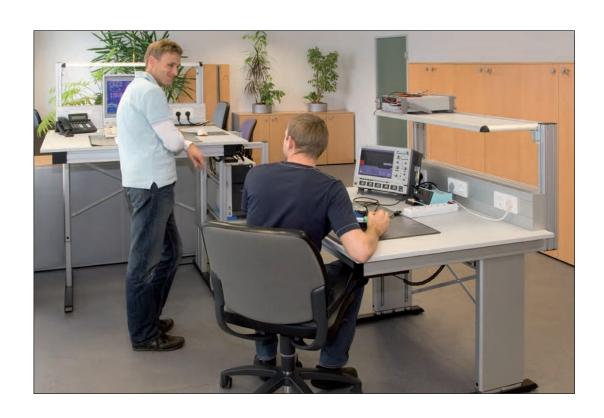


Cable channel system







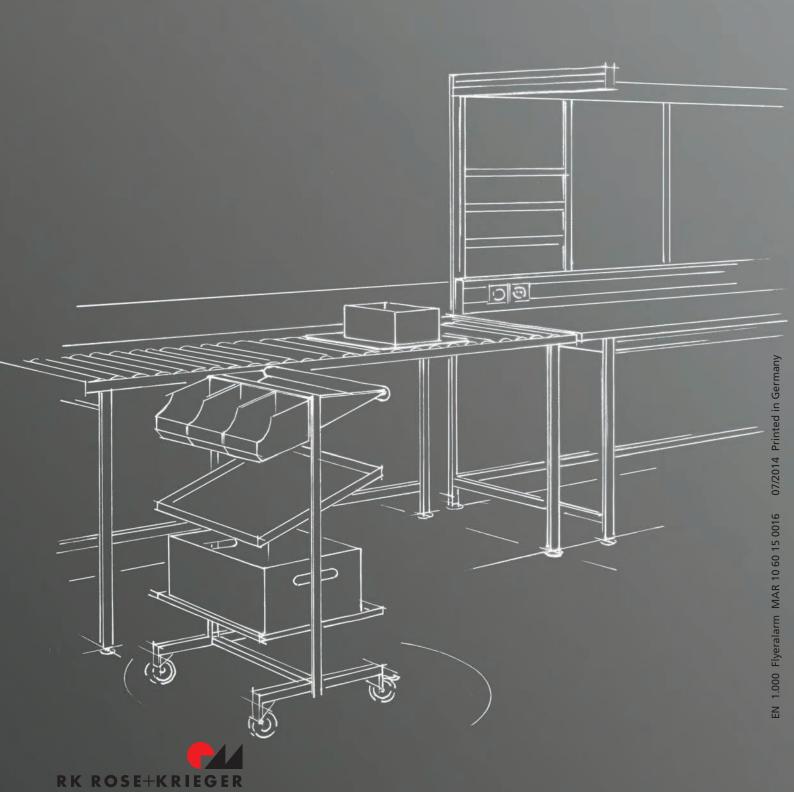


RK Easywork Workstation Configuration

☐ Inquiry ☐ Order	Gantry accessories
Table version Height: 750-1250mm Width: 750-2000mm Depth: 600-1200mm Table version Height: 750-2000mm Depth: 728-1038mm Rese1235mm Rese1235mm Rese1235mm Rese1235mm Rese1235mm Rese1235mm Reset 1235mm Reset 1235m	pcs cup holder pcs swivelling grab container holder 1 rail pcs swivelling grab container holder 3 rails pcs swivelling grab container holder 3 rails pcs swivelling grab container holder 3 rails Document holder 10 times, DINA4 Monitor holder LH
Table frame	
☐ Visual sides closed ☐ On 4 sides grooves in profile Table dimension	 □ 1. Energy-supply channel mm □ 2. Number of sockets CEE 400 Vpcs □ 3. Emergency stop □ 4. Number of double sockets (0-2)pcs
1. Height	5. Number of single sockets (0-4)pcs
2. Width (Standard 1200/1600/2000mm) 3. Depth (Standard 800mm) 4. Floorclearance for static design (50-300 mm) 5. Cross brace (only for static design)	 ☐ 6. Network terminal RJ 45 ☐ 7. On/Off-switch-sockets ☐ 8. Number of pneumatic connections (0-2)_pcs Type NW-7.2 Note: Maximum total load for all sockets 3.4 KW
<u> </u>	Tool provision
Work desk Chip board coated, grey 23 mm Chip board coated, grey, 22 mm, melamine	Runner profile Balancer (only in connection with a runner) Range of supporting load
Beech, multiplex, oiled, 30 mm Beech, multiplex, oiled, 40 mm	
ESD-protective table top mat 900x610 mm 1220x610 mm	Grab container on gantry Rail system Material panels Rails in combination with perforated boards:
Visual cover	LH (min table width >845 mm) RH (min table width >845 mm)
☐ Chip board, coated (melamine) grey ☐ Trespa silver grey ☐ Without panel element ☐ left ☐ right ☐ at the back	
Gantry 1. Gantry height (1255-1500 mm)	Centre (min table width >1335mm) LH & RH (min table width >1040 mm)
Gantry widtrh (internal side, see sketch) depends on the desk width.	
3. Gantry depth (300-800 mm)	



Number of mounting rails (1-3) pcs	ESD-Accessories		
pcs Grab container 170x100x50	ESD-protective table top mat 900x610 mm 1220x610mm Wrist strap Helix cable for wrist strap		
pcs Grab container 160x100x75			
pcs Grab container 230x150x122	Central earthing connecting strip		
	Earthing comp. w. 1.5 m smooth cable Earthing comp. w. 2 m smooth cable		
	Earthing comp. w. 2.4 m helix cable Earthing comp. w. 3 m smooth cable		
Drawer cabinet			
2 drawers LH RH	Foot rest		
3 drawers LH RH	Static* Adjustable Heatable		
Static tables: 2 cabinets possible for table width > 1,500 mm 2-column system: 1 cabinet for table width > 1,000 mm; 2 cabinets for table width > 1,600 mm	*only possible for static table		
Working aids	Sitting/standing aid Yes No		
☐ Vice ☐ mounted mm from the left table edge			
☐ Tool holder with inclinated hooks ☐ Double, with inclinated hooks			
Wrench holder Hexagon socket wrench holder			
Grab box holder (for one box)			
Holder for pliers Magnetic holder			
Shelf board 350x125 mm			
Sketch/Description:			
Company			
Company:	Enquiries/Orders to		
Address:	RK Rose+Krieger:		
Contact Person:	- -		
Telephone:Fax:	FAX +49 (0)5 71 9335-139 or-		
E-Mail:	anfrage.vertrieb@rk-online.de		



Connecting and positioning systems

RK Rose+Krieger GmbH Postfach 15 64 D-32375 Minden Telefon: +49 5 71 93 35-0 Telefax: +49 5 71 93 35-119 e-Mail: info@rk-online.de