

Section 8 Industrial Workstations



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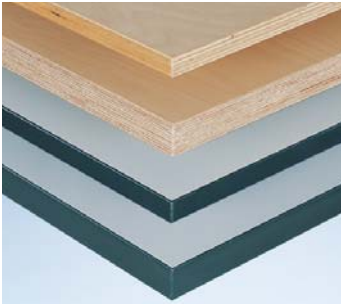


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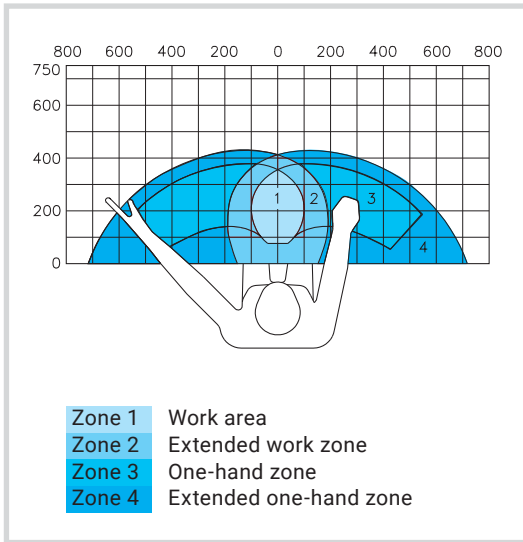


Benefits of mk Industrial Workstations

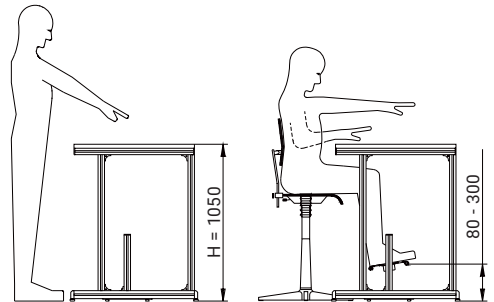
- Ergonomic and highly functional industrial workstations for optimal productivity
- Aluminium profile construction for ultimate flexibility to expand and make changes
- Table frame with an adjustable height and variable material provision systems allow the workstation to be adapted to the employee
- Extensively customisable, with risers, shelving systems, electrical and pneumatic supply options, tool hangers and drawer cabinets
- mk's extensive experience in expanding these stations into complete assembly lines, including workstation interlinking
- Custom solutions to fit existing processes, including requirements relating to lean production, kanban, ESD or cleanroom processes

Workstation Ergonomics

Ergonomic Reach Zones



Ergonomic Sit-to-Stand Workstation



The option to sit or stand can be provided with a height adjustment mechanism or using a chair and footrest, as shown here. This reduces strain on the employee's spine and intervertebral discs.

The word "ergonomics" comes from Greek and translates roughly to the study of human work. Having ergonomically designed industrial workstations not only increases productivity and reduces the rate of mistakes, but also improves employee health and therefore improves morale and the working environment. mk industrial workstations can be quickly and easily adjusted each employee's particular physical

needs. This includes a height adjustment mechanism and a design that allows the workpiece, the tools and the bins for providing materials to be optimally positioned within the employee's reach for the particular task. This helps employees avoid unhealthy postures and optimises productivity. Providing optimal lighting for the particular task is another critical factor that mk has incorporated with its variable lighting system.

Standards and Regulations

In designing its industrial workstations, mk has followed all applicable standards and regulations, for example DIN EN ISO 6385 (Ergonomics principles in the design of work systems).

Earthing and Protective Conductors

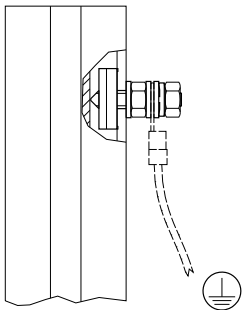
If industrial workstations are electrified (e.g. lighting, electrical sockets, etc.), DIN VDE 0100- 410 specifies that all of a workstation's conductive components must be connected together and with the protective conductor of the supply line so that protection against electric shock is ensured in the event of a fault.

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Connecting the profiles with angles and ESD nuts, sometimes known as PE nuts, ensures conductivity throughout the entire workstation. If the workstation is electrified after construction, this means that the protective conductor has to be connected to the workstation in only one location to provide earthing.

Earth Terminal

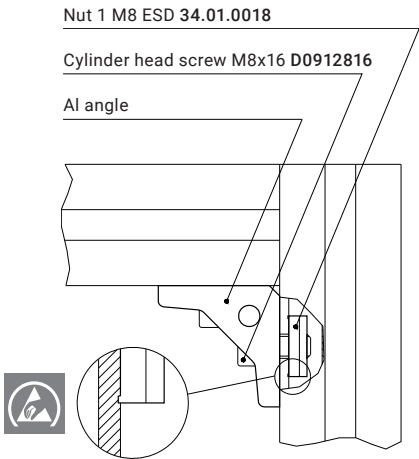
The earth terminal is used to connect the protective conductor to the industrial workstation to ensure protection against electric shock. This also protects sensitive components against electrostatic discharge.



Earth terminal
B02.99.151

Angle Fastener with ESD Nuts

The pressed protrusion on the nut penetrates the profile's insulating anodised coating and ensures that the connection is conductive through the screw connection.



Notes

Table Frames

Fixed Working Height

Our table frames with a fixed working height are made from mk's Series 40 profiles and feature a sturdy pedestal design. The standard dimensions shown here allow it to be used as a sit-to-stand workstation. Custom dimensions can also be implemented, although our standard range complies with ergonomics recommendations from the applicable standards.



For table tops,
see page 284

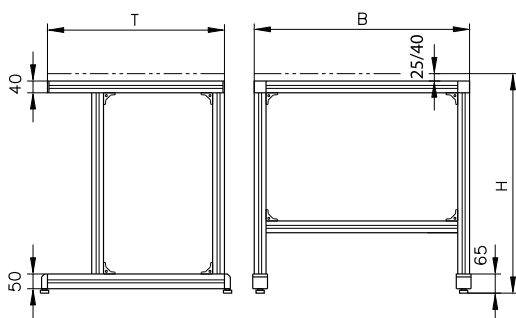


Table frame C1

B02.13.030

Loads

Load scenario	Top thickness	Surface load	Total load
Static load	< 35 mm	2000 N/m ²	2000 N
Static load	> 35 mm	2500 N/m ²	4000 N

Standard dimensions (mm)

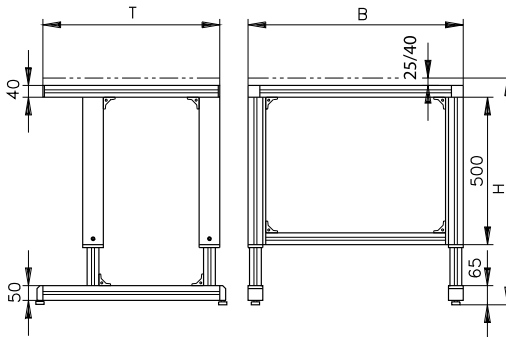
Height H*	Depth T	Width B
850	600	1200
1050	750	1400
		1600

*Including 25 mm table top

Other dimensions possible. Heavy-duty design for high loads available on request. Steel privacy panelling in various RAL colours available.



For telescoping profiles, see page 306
For table tops, see page 284



Manual Height Adjustment

Our table frames with an adjustable working height are made from mk's Series 40 profiles and feature a sturdy pedestal design. In this table design, the height is adjusted using telescoping profiles with a fastening screw. This allows the working height to be easily adjusted while maintaining stability and load capacity.

Table frame D1

B02.13.040

Loads

Load scenario	Top thickness	Surface load	Total load
Static load	< 35 mm	2000 N/m ²	2000 N
Static load	> 35 mm	2500 N/m ²	4000 N

Standard dimensions (mm)

Height H*	Depth T	Width B
680 to 1070	600	1200
	750	1400
		1600

*Including 25 mm table top

Other dimensions possible. Heavy-duty design for high loads available on request. Steel privacy panelling in various RAL colours available.

Table Frames

Manual-Hydraulic Height Adjustment

Our table frames with an adjustable working height are made from mk's Series 40 profiles and feature a sturdy pedestal design. In this table design, the height is adjusted using telescoping profiles with a matching gliding assembly and a hand crank. This allows you to quickly adapt the working height to the user or the workpiece. The employee can also switch between sitting and standing. The required driving torque of about 6 Nm is within the boundaries of the ergonomics requirements for the design of control actuators, DIN EN 894-3, for manual actuation. 5 mm stroke per crank rotation.



For telescoping profiles, see page 306
For table tops, see page 284

Table frame D4

B02.13.043

Loads

Load scenario	Top thickness	Surface load	Total load
Static load	< 35 mm	2000 N/m ²	2000 N
	> 35 mm	2500 N/m ²	2800 N
Dynamic load*	< 35 mm	1600 N/m ²	1600 N
	> 35 mm	1600 N/m ²	1600 N

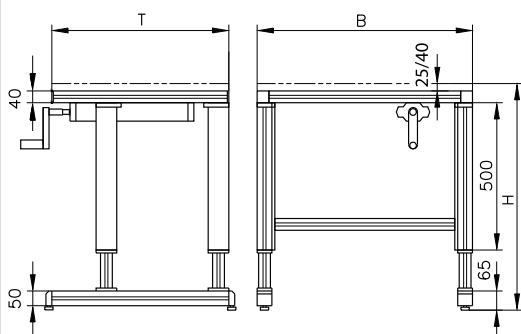
*Maximum load under which the table can still be moved

Standard dimensions (mm)

Height H*	Depth T	Width B
680 to 1070	750	1200
	800	1400
		1600

*Including 25 mm table top

Other dimensions possible. Heavy-duty design for high loads available on request. Steel privacy panelling in various RAL colours available.



Notes

Table Frames

Electrical Height Adjustment

Our table frames with electrical height adjustment made from mk's Series 40 profiles are suitable for both sitting and standing. A button with an optional memory function is used to adjust the height of the workbench within a 400 mm range. A selection of different table tops, accessory components and additions such as risers are presented on the following pages.

Technical data

Travel speed	v = 12 mm/s
Voltage/frequency	230 V/50 Hz
Operating voltage (secondary)	24 V DC
Controller protection class	IP20
Motor/remote control protection class	IP30
Turnkey system with 3 m mains cable	

For table tops, see page 284

Table frame J1

B02.13.090

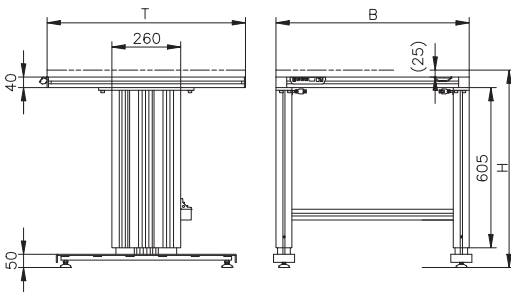
Loads

Load scenario	Top thickness	Surface load	Total load
Static load	25-40 mm	2000 N/m ²	3000 N

Standard dimensions (mm)

Height H	Depth T	Width B
720 to 1120	700	1200
+ table top thickness	750	1600
	800	2000

Other dimensions possible.





Heavy-Duty with Electrical Height Adjustment

The heavy-duty version of the workbench with electrical height adjustment features a table frame made from mk 2040.02 profiles that goes around the entire table and a maximum load capacity of 4500 N. A button with an optional memory function is used to adjust the height of the workbench within a 400 mm range. A selection of different table tops, accessory components and additions such as risers are presented on the following pages.

Technical data

Travel speed	v = 9 mm/s
Voltage/frequency	230 V/50 Hz
Operating voltage (secondary)	24 V DC
Controller protection class	IP20
Motor/remote control protection class	IP30
Turnkey system with 3 m mains cable	



For table tops, see page 284

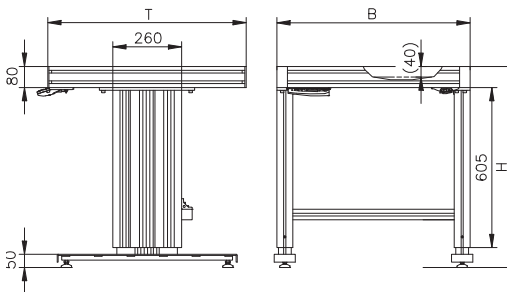


Table frame K1 (heavy duty) B02.13.100

Loads

Load scenario	Top thickness	Surface load	Total load
Static load	40 mm	3000 N/m ²	4500 N

Standard dimensions (mm)

Height H	Depth T	Width B
760 to 1160	700	1200
	750	1600
	800	2000

Other dimensions possible.

Table Tops

Table Top Materials

Potential factors for choosing a table top material include the stability and material of the workpiece and the wear resistance of the table top. Environmental conditions such as moisture or high temperatures can also influence the choice of material. On request, other surface materials such as stainless steel sheet or laminated wood can be used. ESD-compatible tops are also available on request.

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Beechwood Multiplex Tops

- Multi-bonded beechwood
- Resistant to warping
- Jointless
- Ground natural surface, waterproofed on request

Thickness	Mass	Item no.
25 mm	18.9 kg/m ²	50.13.5005
40 mm	30.0 kg/m ²	50.13.5008

Painted surfaces on request.

Laminated Tops

- Laminated particleboard
- Light grey standard colour
- Black edge band with rounded edges (grey on request)
- High resistance to shocks and impacts

Thickness	Mass	Item no.
20.6 mm	15.5 kg/m ²	50.13.6004
26.6 mm	20.0 kg/m ²	50.13.6005
39.6 mm	27.2 kg/m ²	50.13.6008

Conductive design (ESD) on request.



Table Top Fasteners

The table tops can be mounted using angles or with the fastener set shown here. Holders such as angles can be used for both multiplex and laminated tops in any thickness offered.



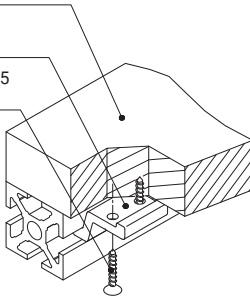
Angles
starting on page 76

Fastening example

Table top

Holder 26.00.0052, Al

Chipboard screw \varnothing 4x25
K112510020



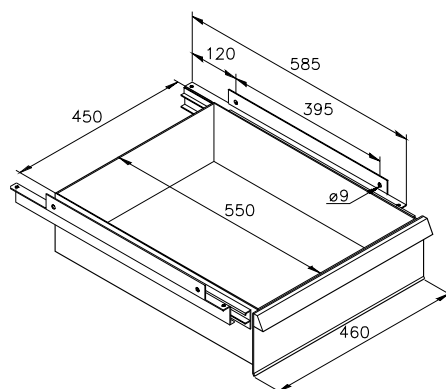
Fastener set
for 20 to 40 mm table tops
B02.99.050

Consists of:
6 x holders **26.00.0052**
12 x chipboard screws \varnothing 4x25 **K112510020**

Drawer Cabinets

Drawer cabinets provide storage space without reducing the actual working area. The casing has a solid sheet steel construction. It can withstand loads up to 200 kg. All drawer cabinets are equipped with a cylinder lock and painted in RAL 7035.

Drawer cabinet, single drawer



Single drawer

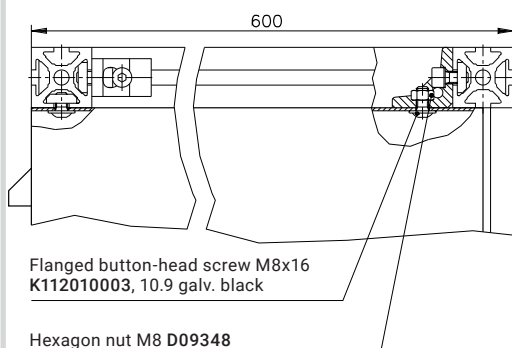
B02.23.903

m = 8 kg

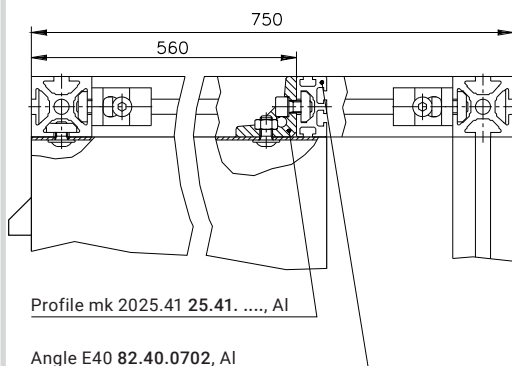
Fastener set

B02.99.004

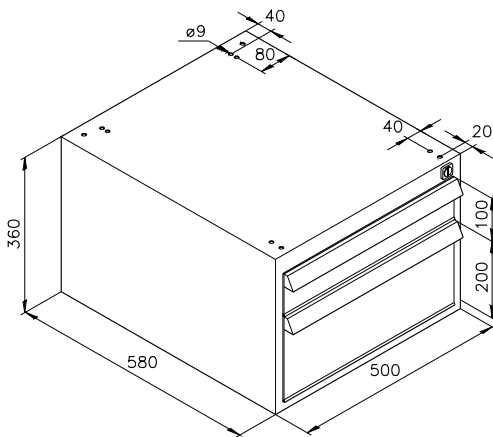
Fastening example for table depth T = 600



Fastening example for table depth T = 750



Drawer cabinet, two drawers



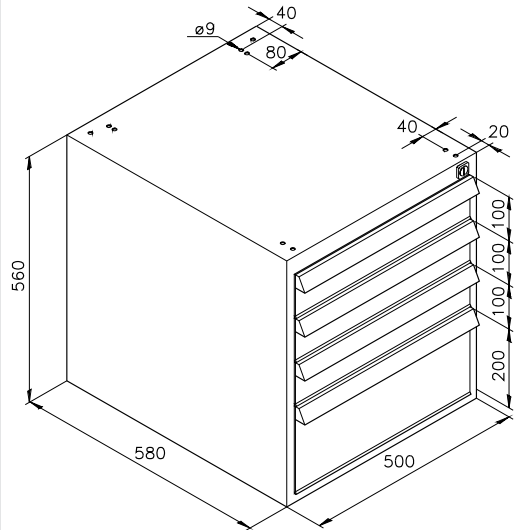
Two drawers
B02.23.902

m = 23 kg

Fastener set
Table depth T = 600 mm
B02.99.001

Fastener set
Table depth T = 750 mm
B02.99.002

Drawer cabinet, four drawers



Four drawers
B02.23.901

m = 35 kg

Fastener set
Table depth T = 600 mm
B02.99.001

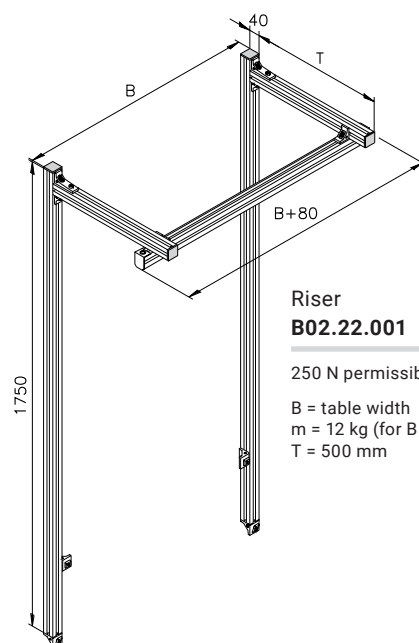
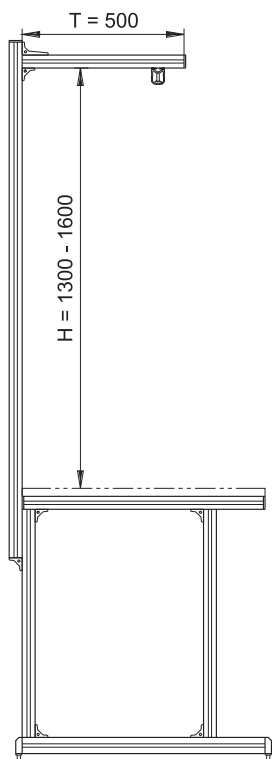
Fastener set
Table depth T = 750 mm
B02.99.002

Risers

Risers are used for mounting additional parts above the table top, for example shelves, electrical/pneumatic supply components or tools. They come equipped with a C-rail as standard for attaching tool sliders. The heights of the riser's beams and cantilevers can be adjusted. We offer a heavy-duty riser design for higher load requirements.



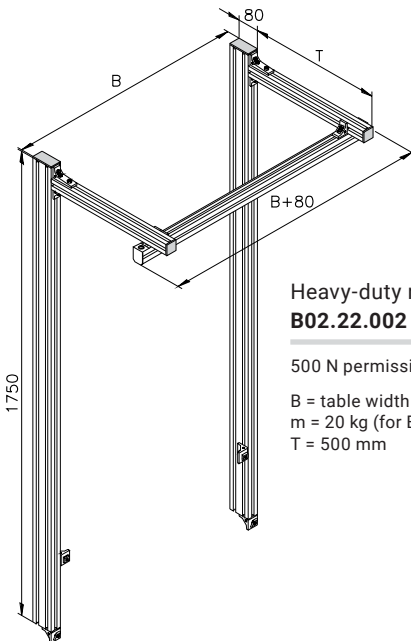
For table tops,
see page 284



Riser
B02.22.001

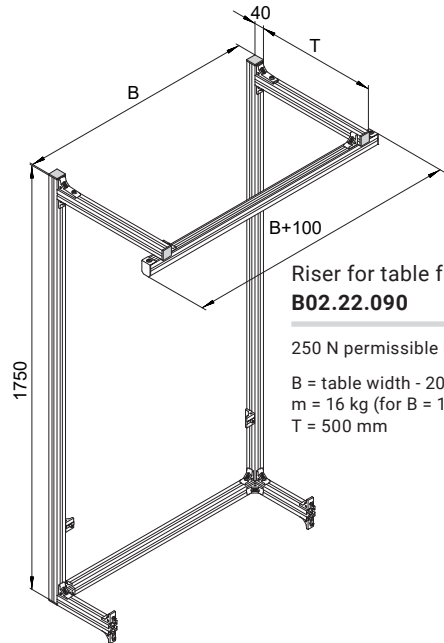
250 N permissible load

B = table width
m = 12 kg (for B = 1200 mm)
T = 500 mm



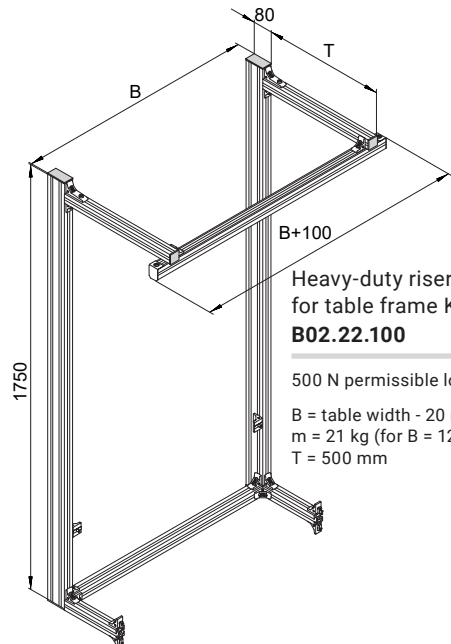
Heavy-duty riser
B02.22.002

500 N permissible load
B = table width
m = 20 kg (for B = 1200 mm)
T = 500 mm



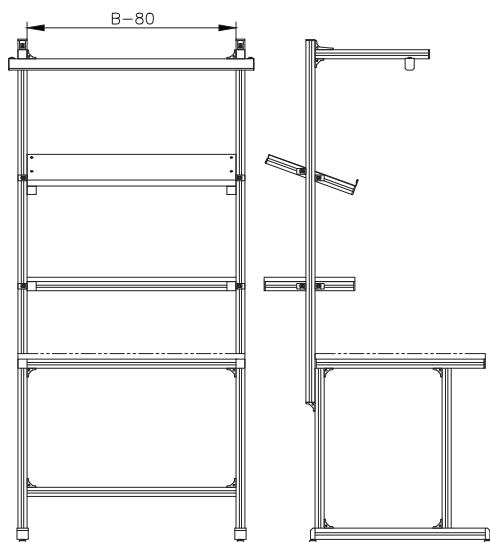
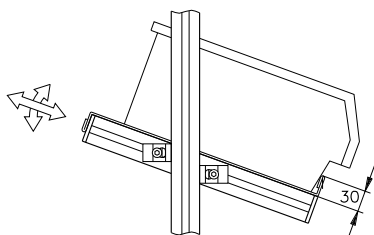
Riser for table frame J1
B02.22.090

250 N permissible load
B = table width - 20 mm
m = 16 kg (for B = 1200 mm)
T = 500 mm



Heavy-duty riser
for table frame K1
B02.22.100

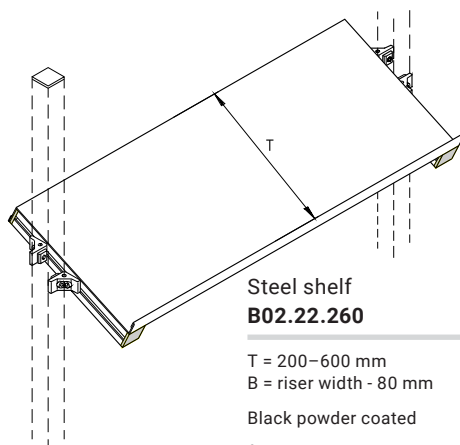
500 N permissible load
B = table width - 20 mm
m = 21 kg (for B = 1200 mm)
T = 500 mm



Provision of Material

Rack Systems

Rack systems are used to hold bins, tools, measuring instruments or components to be mounted. You can use various angles to adapt the depth, height and incline of the rack system for optimal positioning. Please specify the width and depth when ordering.

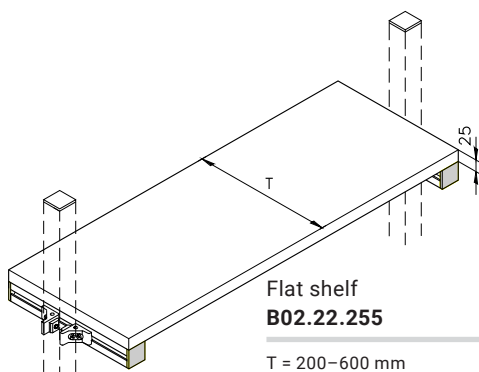


Steel shelf
B02.22.260

T = 200–600 mm
B = riser width - 80 mm

Black powder coated

for B = 1400 mm
m = 8 kg
F_S = 800 N
F_P = 500 N



Flat shelf
B02.22.255

T = 200–600 mm
B = riser width - 80 mm

for B = 1400 mm
m = 14 kg
F_S = 1200 N
F_P = 800 N

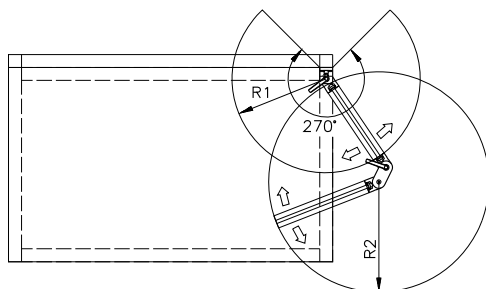
F_S = surface load

F_P = point load (max. load on a surface of at least 200 x 200 mm)

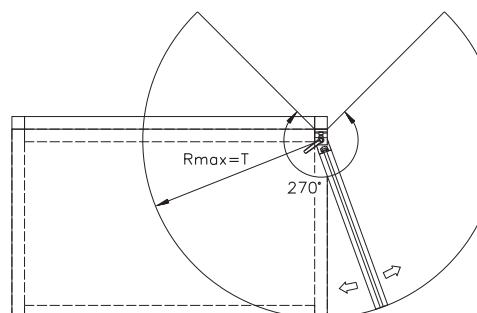


Swivel Arms

Uses for swivel arms range from holding shelves, to holding containers for small parts, to connecting monitors. In addition to creating additional work space, they can be adjusted to provide an ergonomically optimal layout for the worker. The clamping lever or cylinder head screw can be used for attachment.



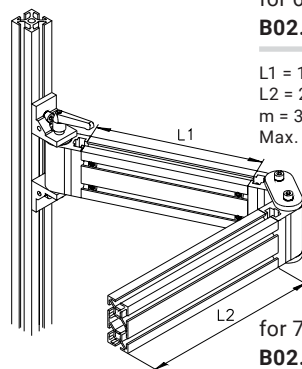
R1 max = 290 mm
R2 max = 340 mm



T = table depth

Double swivel arm for 600 mm table depth **B02.24.360**

L1 = 150 mm
L2 = 200 mm
m = 3.6 kg
Max. load = 300 N

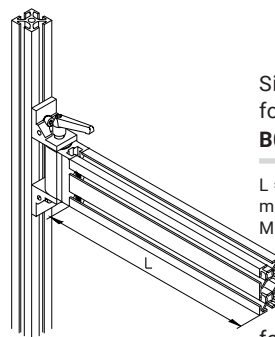


for 750 mm table depth **B02.24.361**

L1 = 200 mm
L2 = 300 mm
m = 4 kg
Max. load = 300 N

Single swivel arm for 600 mm table depth **B02.24.362**

L = 250 mm
m = 1.7 kg
Max. load = 300 N



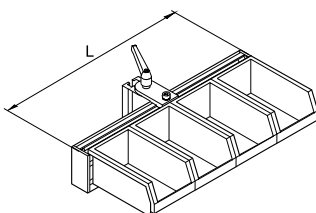
for 750 mm table depth **B02.24.363**

L = 400 mm
m = 2.2 kg
Max. load = 300 N

Provision of Material

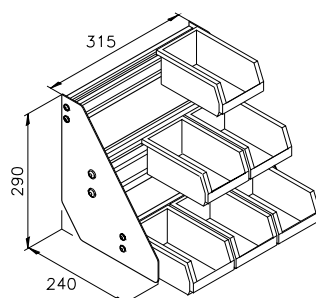
Bin Mounts

With bin holders, bins can be attached to swivel arms to allow for optimal ergonomic positioning. Alternatively, bins can be mounted on mk 2040.22 profiles.



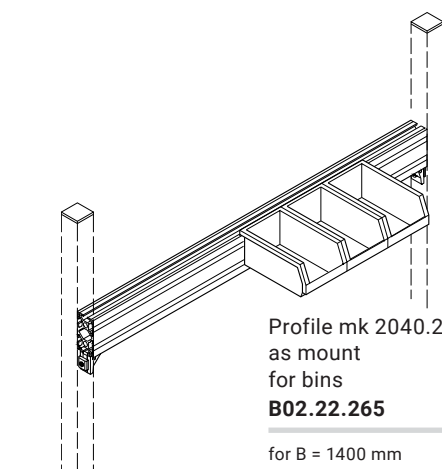
Bin holder
B02.24.366

$L = (\text{bin width} + 1 \text{ mm}) \times N$



Rack
B02.24.367

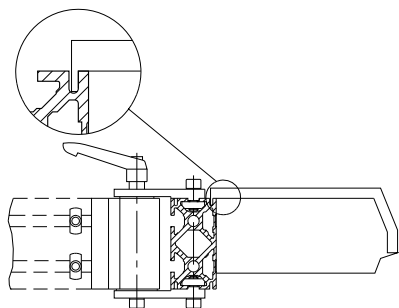
with swivel
arm connection
 $m = 3.4 \text{ kg}$



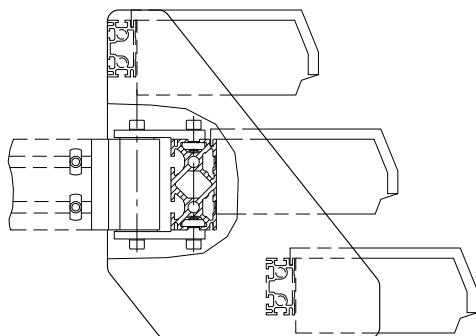
Profile mk 2040.22
as mount
for bins
B02.22.265

for $B = 1400 \text{ mm}$
 $m = 4.8 \text{ kg}$

Series 40, 2.75 mm slot width, for bin LF211/LF221



Series 25, 2.75 mm slot width, for bin LF211 only

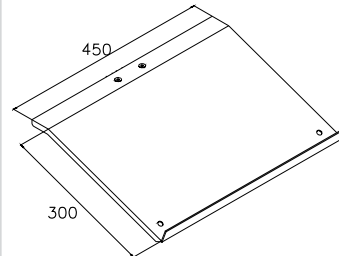
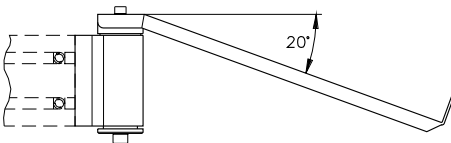




Shelves

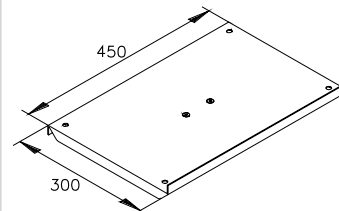
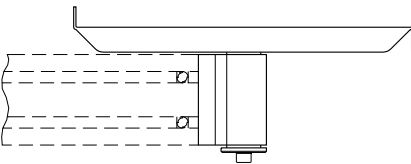
Angled or straight shelves are connected to a swivel arm and can thus be brought into the ideal ergonomic position.

8



Angled shelf
B02.24.364

m = 3.6 kg



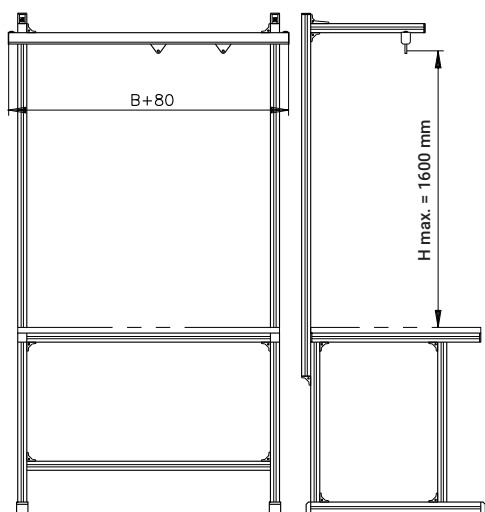
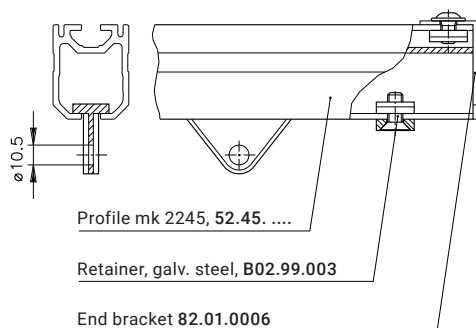
Straight shelf
B02.24.365

m = 3.4 kg

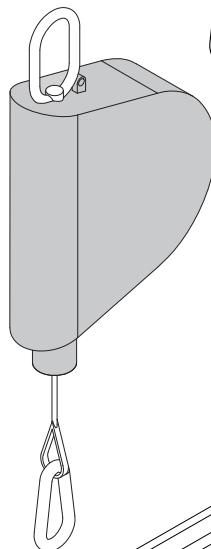
Provision of Material

Tool Hangers

The tool hanger components shown here are just our standard selection. Custom components are also available on request. Tools hangers improve organisation and safety at the workstation. They also make tools available without encroaching on the work space. The adjustable spring tension system reduces strain and improves ergonomics for the user.



Snap hook
K120010003

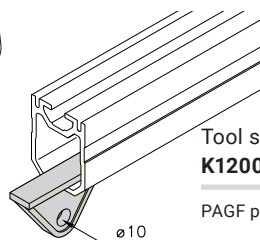


Spring balancer F2
K120010006

Load capacity: 0.5–2.0 kg
Max. rope extension: 2.5 m
Min. installation length: 0.36 m

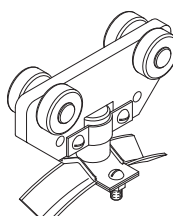
Spring balancer F3
K120010005

Load capacity: 1.5–3.0 kg
Max. rope extension: 2.5 m
Min. installation length: 0.36 m



Tool slider
K120010004

PAGF plastic

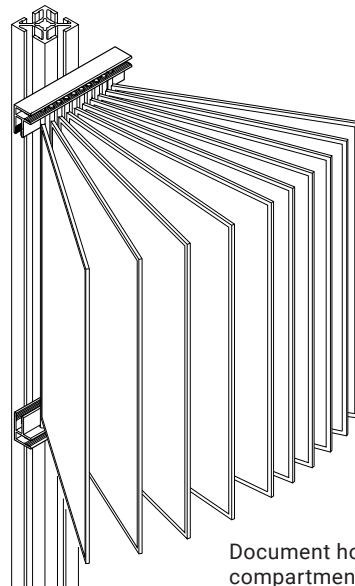


Roller unit for carrying
cables and hoses
K120010001



Document Holders

Document holders allow you to protect and store documents, such as instructions for mounting, etc., at the workplace in an orderly manner.



Document holder, 10
compartments, A4 height
B02.99.041

Provision of Material

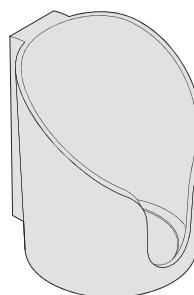
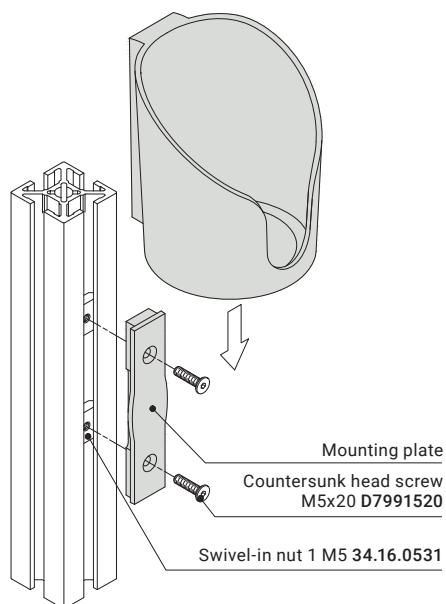
Bottle Holders

Bottle holders have a diameter of 100 mm and are designed for the secure storage of all common beverage bottles, cans, cups and drink boxes. The cut-out at the front makes the holders suitable for cups with a handle. The version with an open bottom can also be used to store a screwdriver or other such equipment.

Material: PA plastic

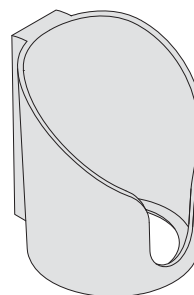
25 40 50 60

Fastening example



Bottle holder
with closed bottom
K120000120

Including mounting plate
Total load = max. 5 kg



Bottle holder
with open bottom
K120000121

Including mounting plate
Total load = max. 5 kg

Notes

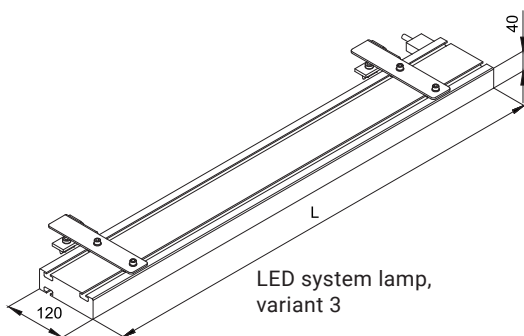
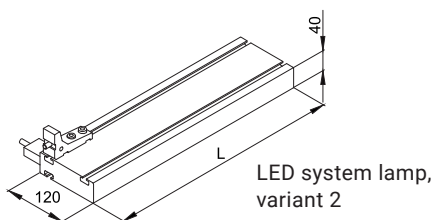
Lighting

LED System Lamps

mk's LED system lamps provide bright, even lighting of the work space without glare. The colour temperature is 5000K at a power of 15 to 64 watts, depending on the variant. The lamps are CE certified, designed for operation with a 230V mains voltage and delivered with a three-metre connection cable. They can be rigidly mounted or can be made to swivel using a flexible holder set. The swivel range is from 25° backwards to 90° forwards. Variants 1 and 2 function as swivelling side lighting and are attached on the right or left side using angles.

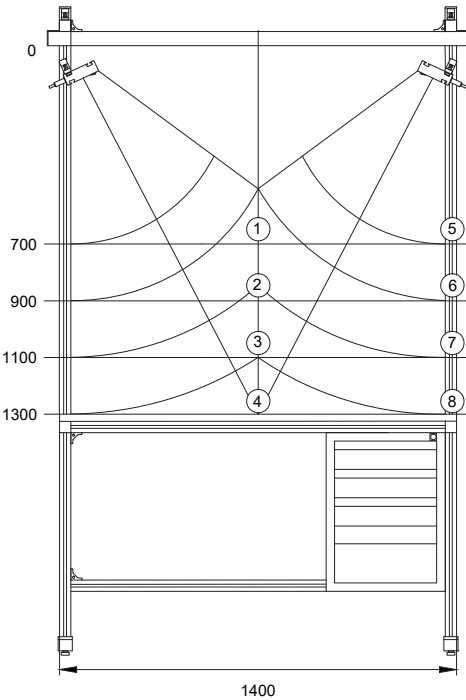
LED

8 Dimensional sketches

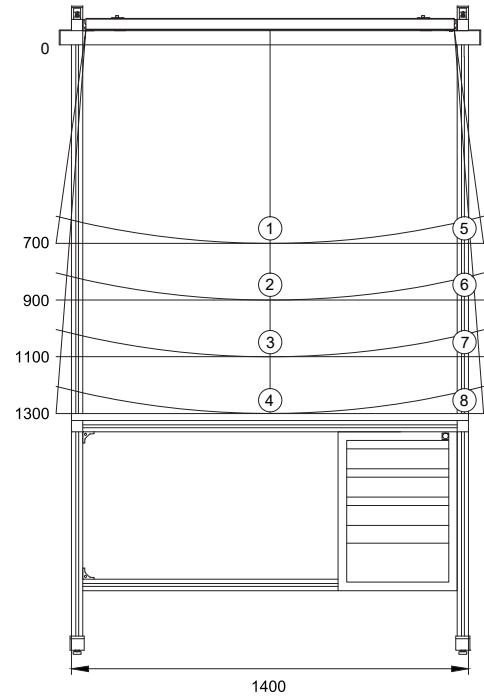


Variant	Item no.	L [mm]	Power [W]	Mounting
1	B02.23.806 001	449	15	Left/ swivelling
2	B02.23.806 002	449	15	Right/ swivelling
3	B02.23.806 003	899	35	Swivelling
4	B02.23.806 004	899	35	Rigid
5	B02.23.806 005	1199	40	Swivelling
6	B02.23.806 006	1199	40	Rigid
7	B02.23.806 007	1499	64	Swivelling
8	B02.23.806 008	1499	64	Rigid

Measurement points for variants 1 + 2



Measurement points for variants 3 to 8



Illuminance

Measurement point	Variant 1 + 2 (lux)	Variant 3/4 (lux)	Variant 5/6 (lux)	Variant 7/8 (lux)
1	500	1550	1650	2000
2	450	1350	1450	1800
3	380	1150	1250	1600
4	300	1000	1100	1400
5	400	700	700	1000
6	350	650	650	820
7	300	580	600	750
8	250	500	550	7000

Power Supply

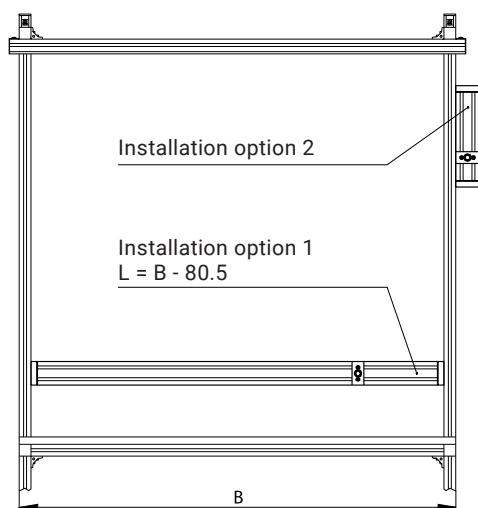
Pneumatic Supply

Pneumatic power is supplied via the mk 2040.02 construction profile. A major advantage of using profiles to supply the air is that it allows for great flexibility in the position and quantity of connection/distributor plates. The pneumatic supply system is designed for a maximum operating pressure of 6 bar.

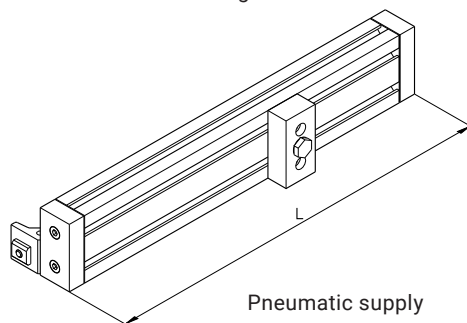


Pneumatic components
see page 196

8



Base unit with connection plates, assembly
available in various configurations



Pneumatic supply
B02.23.179

for B = 1400 mm
m = approx. 5.5 kg



Electrical Supply

The simplest way to supply electricity is using power strips in two different designs. The strips have an illuminated 16 A rocker switch, which has a 2-pole switch-off. The supply lines are 1.75 m long. They contain a longitudinal slot and eyelet for fastening them in various positions on the profile.

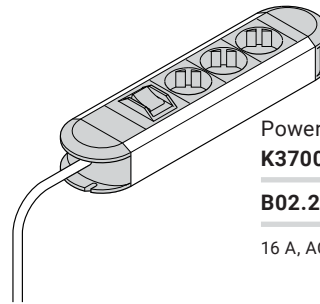
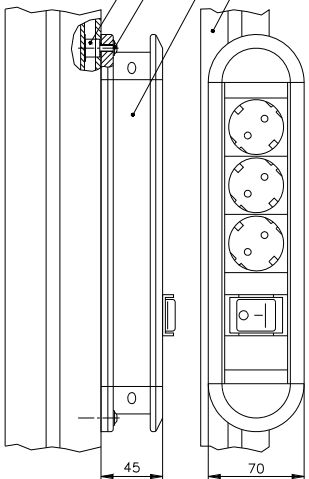
Fastening example

Profile mk 2040.75 (example) 54.75., Al

Power strip K370020020

Flanged button-head screw M5x20
K112010024, 10.9 galv.

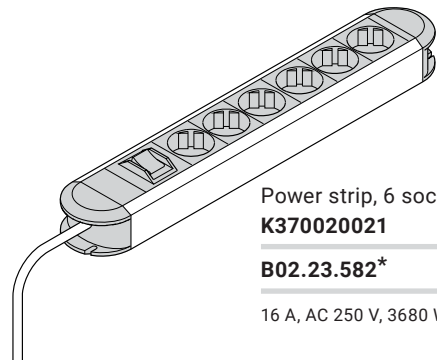
Clip M5 34.14.0007, PPN



Power strip, 3 sockets
K370020020

B02.23.581*

16 A, AC 250 V, 3680 W



Power strip, 6 sockets
K370020021

B02.23.582*

16 A, AC 250 V, 3680 W

Power Supply

Electrical Supply

The standard electrical supply system is a combination of mk 2040.41 and mk 2069 profiles. The unit features exceptional stability and a closed design. Various sockets and switch combinations can be freely positioned along the entire working width. A major advantage of this system is that you can change or add equipment very easily, even custom components. The power supply system is tested in accordance with DIN VDE 0100-410 and includes a circuit diagram. The unit is delivered with a 3 m cable and plug.

Material: Anodised aluminium

Fastening example

Cylinder head screw M8x16 D0912816

Countersunk head screw M8x20 D7991820

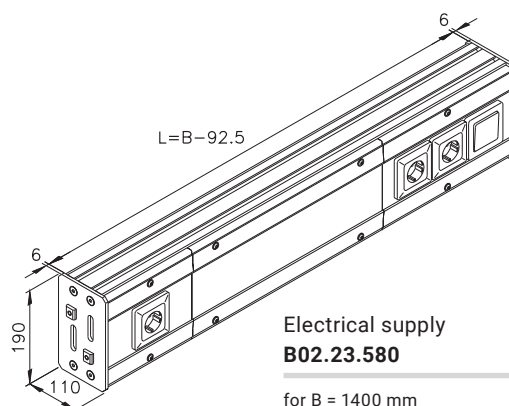
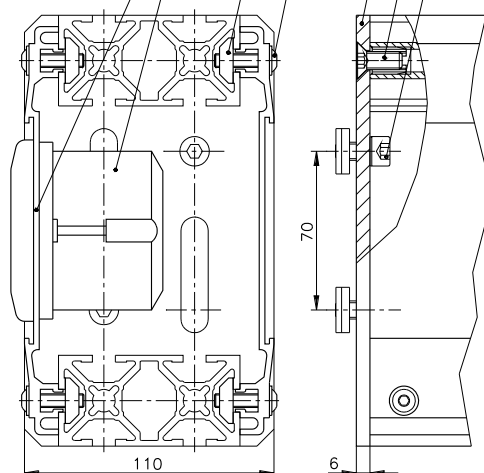
Head plate 50.12.0005, Al

Flanged button-head screw M6x25
K112010015, 10.9 galv.

Nut 1 M6 34.02.0008, galv. steel

Socket K370020050

Profile mk 2069
51.69..... Al



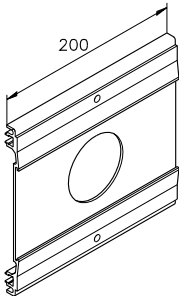
Electrical supply
B02.23.580

for B = 1400 mm

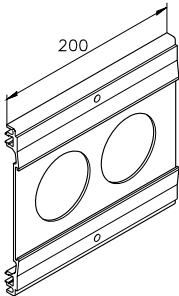
m = 11 kg

Permitted up to max. 16 A

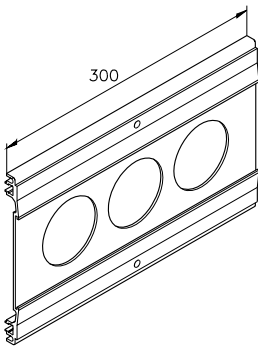
Choice of equipment
on the strip



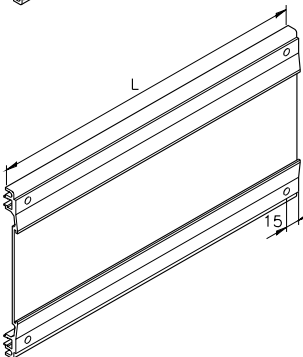
Single module
5169BB0200



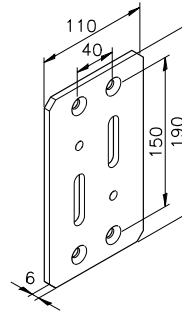
Double module
5169BC0200



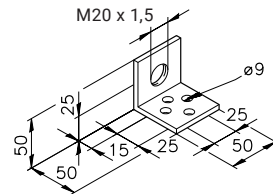
Triple module
5169BD0300



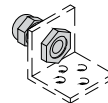
Cover module
5169BA



Head plate
50.12.0005

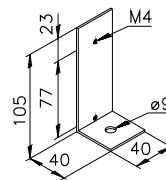


Tension relief angle
16.05.0030

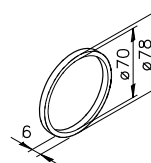


Cable gland
K399010001

Plastic



Angle for
junction box
82.01.0007

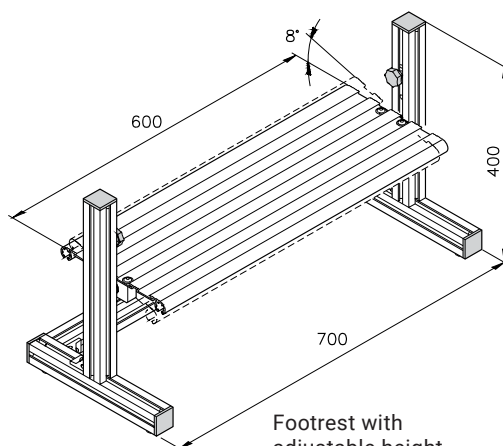
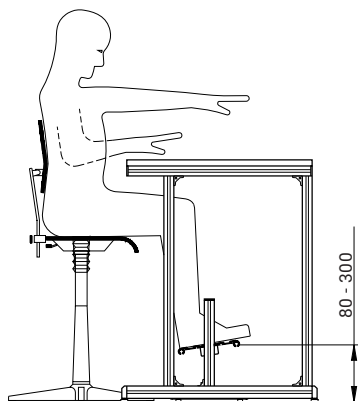


Spacer ring
for hollow wall box
16.01.0038

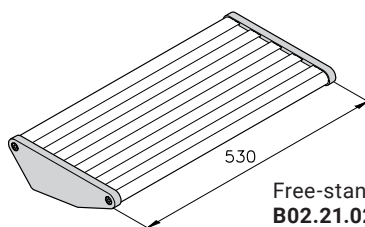
Accessories

Support Brackets

The correct seat height adjustment is an important prerequisite for low-stress work at the workbench. This is correct when the forearms/upper arms are parallel to the table surface, the upper and lower leg are at an angle of at least 90° and the feet are resting completely on the floor. If the workbench is too high, a footrest can compensate for the distance between the feet and the floor. The infinitely adjustable footrest ensures the most comfortable foot position and relieves the legs ensuring pleasant working conditions.



Footrest with
adjustable height
H min - 83 mm
H max - 300 mm
B02.21.030



Free-standing footrest
B02.21.020

Floor Mats

Floor mats made from black TPE-V ensure that workers do not slip at industrial workstations while also reducing strain on their musculature and skeletal systems.

Benefits:

- Hollow spaces reduce strain on the musculature and joints
- Anti-slip
- Oil resistant
- Various dimensions up to 1.2 m wide and 15 m long with 3 mm thickness
- Highly flame-resistant version available

8

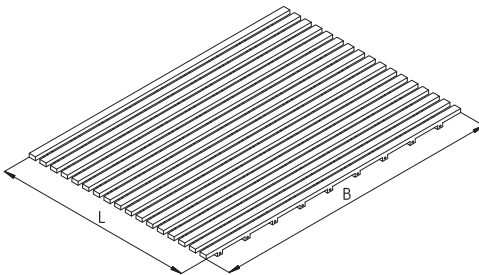
Floor mat

Item no.	Width B [mm]	Length L [m]
K12002.0600	600	max. 15
K12002.0800	800	max. 15
K12002.1000	1000	max. 15
K12002.1200	1200	max. 15

Floor mat B1

(highly flame resistant according to DIN 4102-1 B1)

Item no.	Width B [mm]	Length L [m]
K12003.0600	600	max. 15
K12003.0800	800	max. 15
K12003.1000	1000	max. 15
K12003.1200	1200	max. 15



Application Profiles for Workstations

Profiles for Telescoping

The following components can be used to construct telescoping/height-adjustable table frames and other support frames.

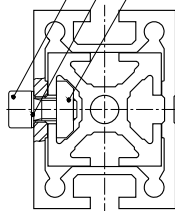
Material: Anodised aluminium

Telescoping profiles for manual height adjustment

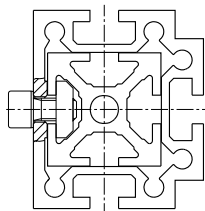
Cylinder head screw M8x16, D0912816

Ribbed washer $\varnothing 8.4$, K111010017, galv. steel

Nut 1 ESD M8 34.01.0018

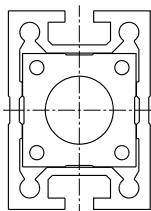


mk 2040.75 and
mk 2040.01 profiles

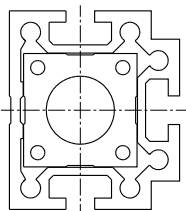


mk 2040.74 and
mk 2040.01 profiles

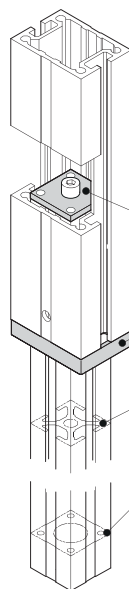
Telescoping profiles for hydraulic height adjustment



mk 2040.75 and
mk 2040.36 profiles



mk 2040.74 and
mk 2040.36 profiles

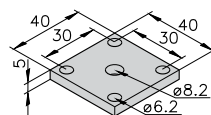


Inner guide 19.02.0022

Outer guide mk 2575

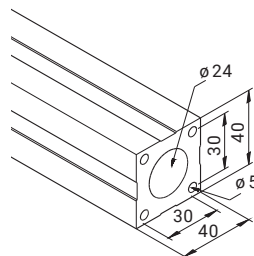
Profile mk 2040.01

Profile mk 2040.36



Guide
19.02.0022

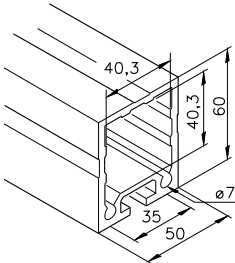
PA plastic



Profile mk 2040.36

2.83 kg/m

Stock length	54.36.5100
Cut	54.36.



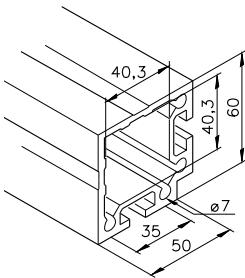
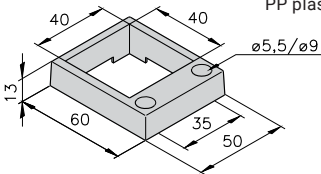
Profile mk 2040.38

2.52 kg/m

Stock length	54.38.5100
Cut	54.38.

Guide
mk 2538

PP plastic



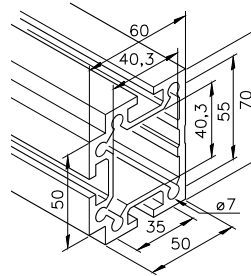
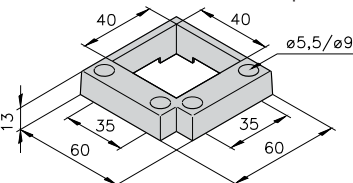
Profile mk 2040.39

3.00 kg/m

Stock length	54.39.5100
Cut	54.39.

Guide
mk 2539

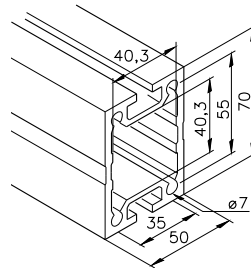
PP plastic



Profile mk 2040.74

3.50 kg/m

Stock length	54.74.5100
Cut	54.74.



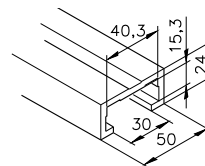
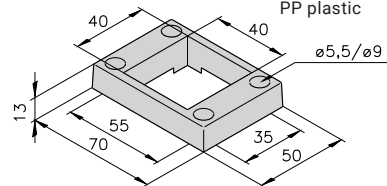
Profile mk 2040.75

3.01 kg/m

Stock length	54.75.5100
Cut	54.75.

Guide
mk 2575

PP plastic



Profile mk 2040.37

1.17 kg/m

Stock length	54.37.5100
Cut	54.37.

Unsere Profilerien



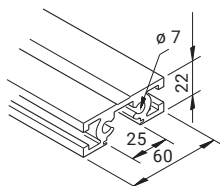
Application Profiles for Workstations

Profiles for Table and Machine Frames

The following profiles can be used to build frames for tables, signs, presentation stands, desks, etc.

Material: Anodised aluminium

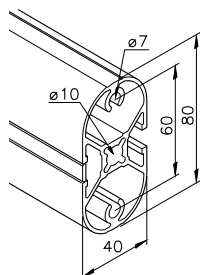
8



Profile mk 2040.35

1.61 kg/m

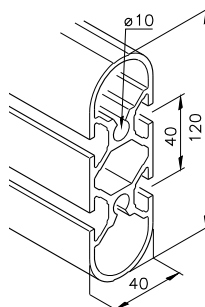
Stock length	54.35.5100
Cut	54.35.



Profile mk 2040.23

2.12 kg/m

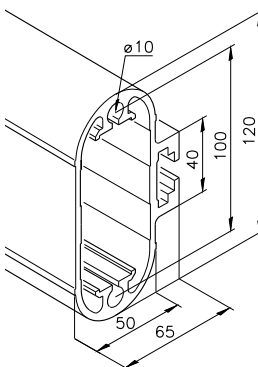
Stock length	54.23.5100
Cut	54.23.



Profile mk 2040.34

3.56 kg/m

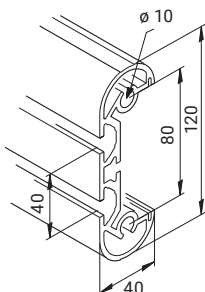
Stock length	54.34.7100
Cut	54.34.



Profile mk 2040.30

4.29 kg/m

Stock length	54.30.5100
Cut	54.30.



Profile mk 2040.33

3.16 kg/m

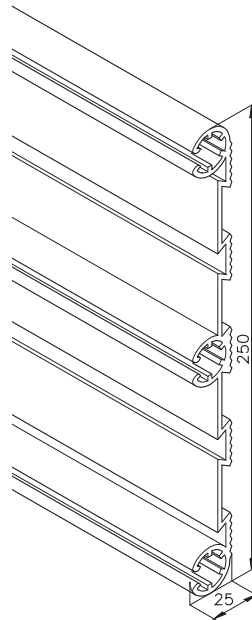
Stock length	54.33.5100
Cut	54.33.



Profile for Footrests

The following profile is used to build footrests and can also be used as a stepping surface.

Material: Anodised aluminium



Profile mk 2040.70

3.53 kg/m

Stock length	54.70.5100
Cut	54.70.

Section 9 Stairs and Platforms



Notes on Stairs and Platforms

312



Stairs

Notes/technical data	314
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Platforms

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Guardrails

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T-connection	323
Cap	323