

# Height-Adjustable Workstations

Version **1.1**

The Drive & Control Company



Height-Adjustable Workstations

# Symbols



You can easily configure customized products using the MPScalc software



Conductive material version according to DIN EN 61 340-5-1, suitable for ESD-sensitive areas

**Nr.**

Part number

**3 842 514 653**



Width of profile groove; accessories suitable for attaching in profile groove



Delivered as individual components, not pre-assembled



Delivered as components, partially pre-assembled



Delivered fully assembled



Technical information

Height-Adjustable Workstations

## Electrically height-adjustable workstations

### One system – double the effect

Ergonomic workstations are much more than just comfortable. They also support efficiency and success. Ergonomic movements increase productivity, as well as employee motivation.

Thanks to the modular design of the workstation system, there is no need to make compromises when it comes to ergonomics.

The height of the material supply and work areas can be height-adjusted independently (lift stroke = 410 mm).

The height of the workstation is determined by the height of the employee and the height of the product.

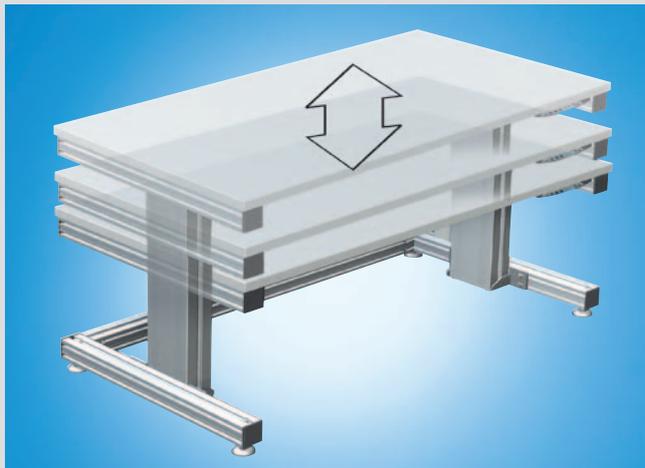
Depending on the height of the employee, material supply can be raised or lowered to the optimum grab area, independent of the working height.

The height is adjusted using a hand switch. Up to three positions can be stored.

The workstation and material supply both have a maximum carrying force of 180 kg. This is increased to up to 360 kg in the heavy load version.

### Configuration results in flexibility

Open system dimensions and numerous components enable individual designs for sit-down and stand-up workstations, fulfilling all the demands for an ergonomic and modern workstation system.



Infinite height adjustment



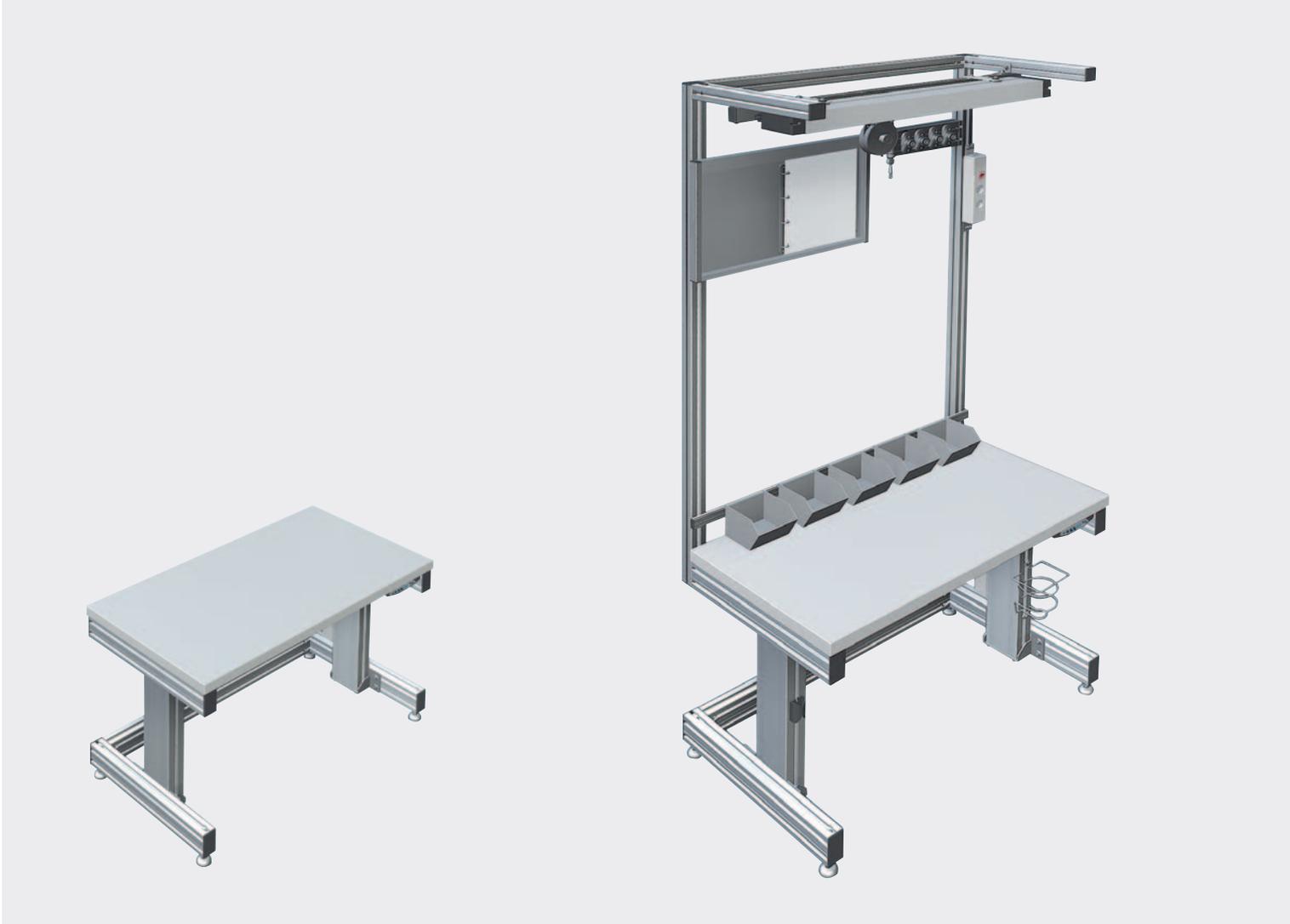
The right height can be easily set with the hand switch. Three memory buttons and an LCD display of the current workstation height are additional features.

Separate height adjustment of working area and material supply



Height-Adjustable Workstations

## Ordering parameters for height-adjustable workstation



**Socket strips (S<sub>Typ</sub>)**  
Grounded plug socket strips with a sturdy aluminum housing are available in four different versions.



**Table tops (TP)**  
Four hard-wearing table top types are available, with two ESD versions.

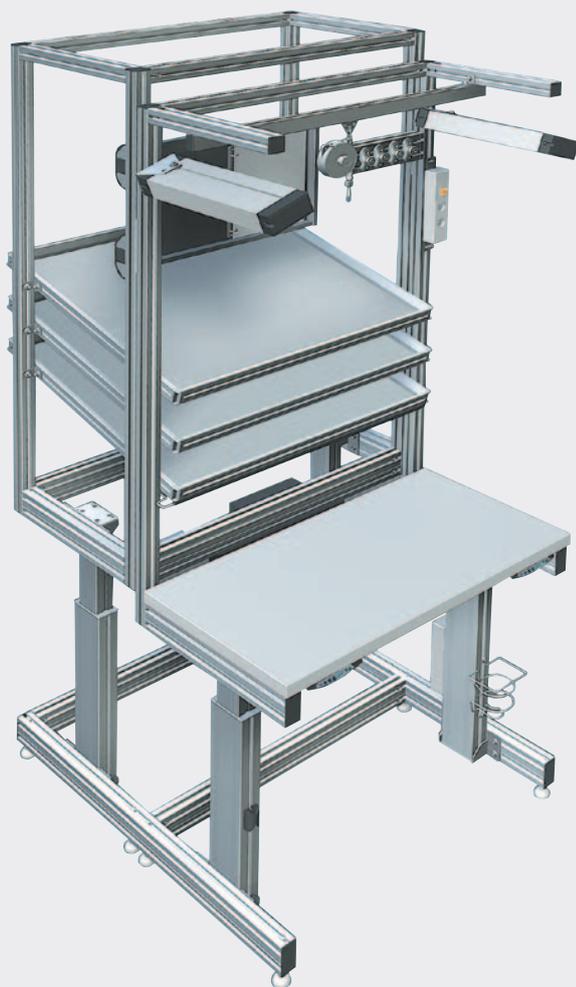


**Cloth holder (HLF)**  
For easy-to-reach storage of cleaning cloths.



**Bottle holder (HLF)**  
To hold bottles and rectangular drink cartons

## Height-Adjustable Workstations

**Material shelves (NM)**

To ergonomically supply containers, materials, and other aids at the workstation. The material shelves are available in three different materials.

**Suspensions (A<sub>Typ</sub>)**

To fasten lamps and ergonomically supply tools. Six different suspension types are available, with and without trolleys and spring pulls.

**Suspension profile (E)**

Enables quick suspension and removal of grab containers, grab ledges, and grab trays.

**System lamps (SL<sub>Typ</sub>)**

Generate anti-dazzle light of the highest quality for good vision at the workstation. Six different system lamp types are available.

**Information board (I<sub>Typ</sub>)**

Seven types of information boards are available to provide important information directly at the workstation.

**Compressed air strip (DL)**

Distributor and connection for compressed air up to max. 8 bar.

## Height-Adjustable Workstations

## Height-Adjustable Workstations

The following parameters will help you to quickly and individually configure your height-adjustable workstation for your specific needs.

The load version indicates the number of lifting modules for the table and accessory upright and thus the load options for the workstation.

The height is adjusted using the hand switch. You can view the current parameters on the display.

The dimensions and position of the table top on the table frame is determined by the dimensions selected for workstation width and depth.

Height-adjustable leveling feet make it possible to compensate for floor irregularities.

**A** A = ... (0, 1)

Version: The workstation can be ordered fully assembled (A = 1) or as non-assembled individual components (A = 0).

**ESD** ESD = ... (0, 1)

Conductivity: If you select (ESD = 1), the entire workstation will be made ESD-conductive, i.e. you can only select the associated ESD variants for the following parameters:

- Table top (TP) in ESD version
  - Material shelf material (M) in ESD version
  - Information board ( $I_{typ}$ ) in ESD version
- You will automatically receive:
- An ESD grounding kit

**LV** LV = ... (1, 2, 3, 4, 5, 6)

Load version: The load version indicates the number of lifting modules for the table and accessory upright.

- (LV = 1) table: 2 lifting modules; no accessory upright
- (LV = 2) table: 4 lifting modules; no accessory upright
- (LV = 3) table: 2 lifting modules; accessory upright: 2 lifting modules
- (LV = 4) table: 4 lifting modules; accessory upright: 2 lifting modules
- (LV = 5) table: 2 lifting modules; accessory upright: 4 lifting modules
- (LV = 6) table: 4 lifting modules; accessory upright: 4 lifting modules

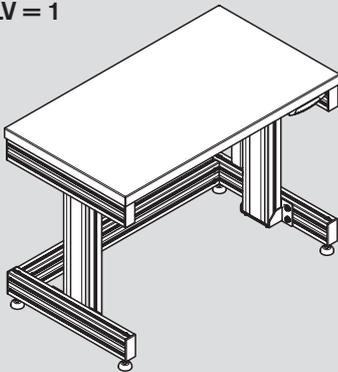
**TP** TP = ... (0, 1, 2, 3, 4)

Table top type: The workstation can be equipped with one of the following table tops (☞ MPS 3.0, 2-22).

- (TP = 1) Economic
- (TP = 2) Basic
- (TP = 3) Economic ESD
- (TP = 4) Basic ESD
- (TP = 0) without table top

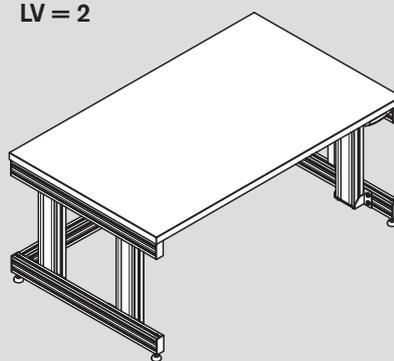
The table top protrudes 5 mm on the front and sides, as well as in the rear with H3 = 0.

LV = 1



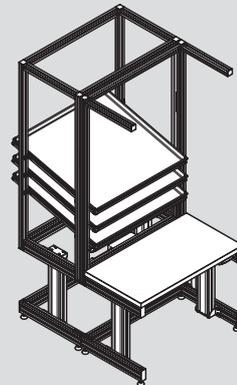
00190035

LV = 2



00131980

LV = 3



00130036

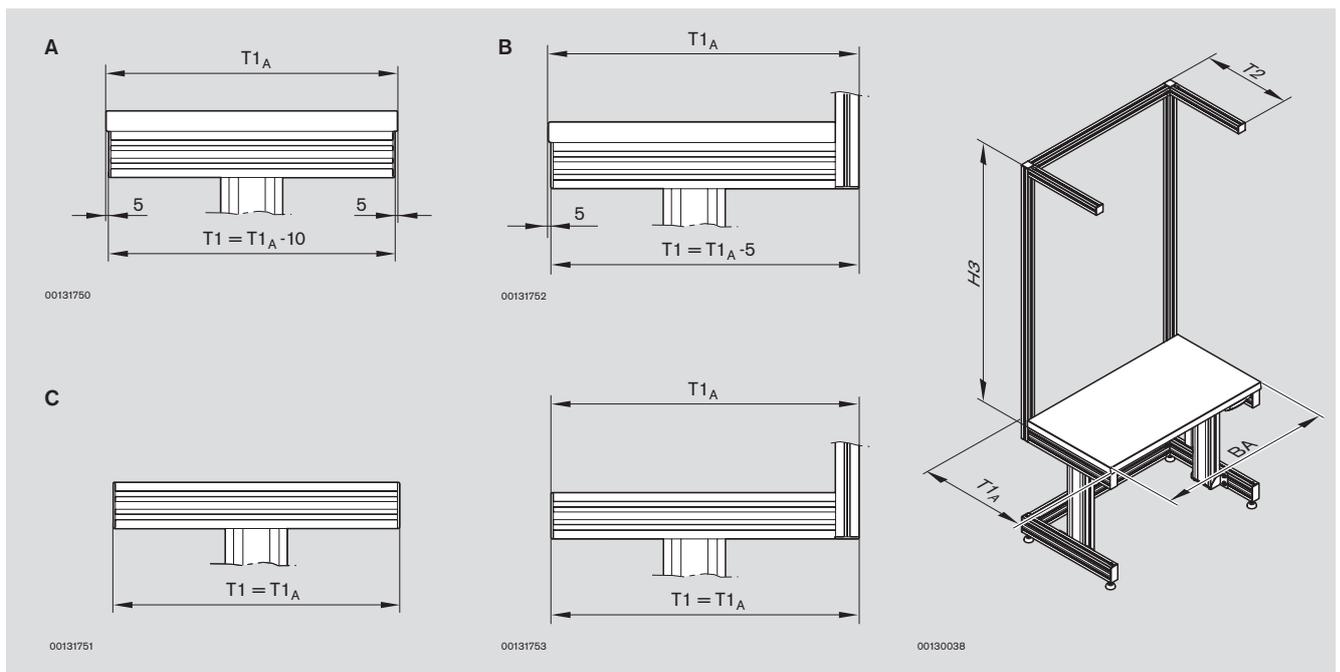
## Height-Adjustable Workstations

The dimensions for width, height, and depth always indicate the outer dimensions of the workstation. This results in differences for the table frame dimensions, depending on whether you order a workstation with or without a table top.

The height of the workstation to the top edge of the table top is ( $H1_A = 730$  mm) with 55 mm ground clearance. The height of the table frame without table top is 690 mm ( $H1 = H1_A - 40$  mm). The lift of the lifting module is 410 mm. The leveling foot has an adjustment range of 80 mm.

If ( $H3 \neq 0$ ), you can install a fixture to attach e.g. lamps or tools.

- $B_A$   $B_A = \dots$  (640 – 2000) mm  
Workstation width (outer dimensions): The width of the table frame is  $B = B_A$  for workstations without a table top ( $TP = 0$ ). The width of the table frame is  $B = B_A - 10$  mm for workstations with a table top ( $TP \neq 0$ ). The table top protrudes 5 mm beyond the table frame on both sides. If you require a different table top projection, please order this separately.
- $T1_A$   $T1_A = \dots$  (480 – 1000) mm with  $LV = 1, 3, 5$   
 $T1_A = \dots$  (700 – 1000) mm with  $LV = 2, 4, 6$   
Workstation depth: The depth of the table frame is  $T1 = T1_A - 10$  mm (A) for workstations with a table top ( $TP \neq 0$ ) and ( $H3 = 0$ ).  
The depth of the table frame is  $T1 = T1_A - 5$  mm (B) for workstations with a table top ( $TP \neq 0$ ) and ( $H3 \neq 0$ ).  
 $T1 = T1_A$  (C) for workstations without a table top ( $TP = 0$ ) and ( $H3 = 0$ ).
- $H3$   $H3 = \dots$  (0, 41 – 1500) mm  
System height - rear strut: If ( $H3 = 0$ ), the table top protrudes 5 mm beyond the table frame on all sides. If ( $H3 = 41$ ), the workstation has a rear cross strut as a table top stop.
- $T2$   $T2 = \dots$  (0, 100 – 800) mm  
Bracket depth:  
( $T2 = 100 - 800$ ) workstation with bracket in the indicated length  
( $T2 = 0$ ) workstation without bracket.



## Height-Adjustable Workstations

You can equip the workstation with socket strips, system lamps, compressed air strips, and cloth and bottle holders. A country version must always be selected for the lifting column connection. (L = 5) will be available from the 1st quarter of 2010.

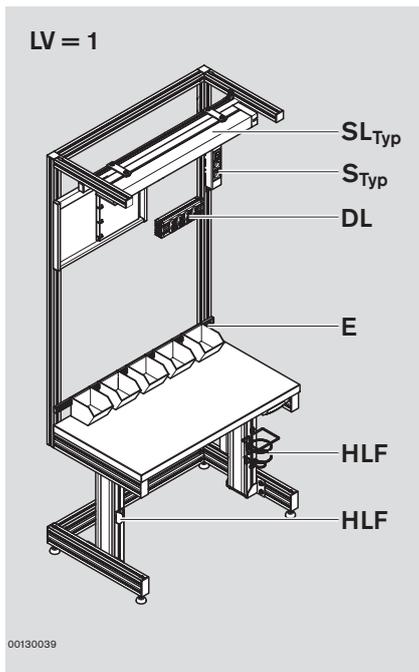
**SL<sub>Typ</sub>** SL<sub>Typ</sub> = ... (0, 1, 2, 3, 4, 6, 7)  
 System lamp: The workstation can be equipped with one of the following system lamps (☞ MPS 3.0, 2-42). You will also need a socket (S<sub>Typ</sub> = 2). If (L = 2), this is (S<sub>Typ</sub> = 3). If using an SL<sub>Typ</sub> = 3/4/6/7 lamp, you will need a suspension (A<sub>Typ</sub> ≠ 0).  
 (SL<sub>Typ</sub> = 1) SL36 Duo (2 x SL36 mounted on the side of the workstation)  
 (SL<sub>Typ</sub> = 2) SL36el Duo (2 x SL36el mounted on the side of the workstation)  
 (SL<sub>Typ</sub> = 3) SL48el (SL48el with A<sub>Typ</sub> ≠ 0 suspension mounted on the workstation)  
 (SL<sub>Typ</sub> = 4) SL72 (SL72 with A<sub>Typ</sub> ≠ 0 suspension mounted on the workstation)  
 (SL<sub>Typ</sub> = 6) SL78el (SL78el with A<sub>Typ</sub> ≠ 0 suspension mounted on the workstation)  
 (SL<sub>Typ</sub> = 7) SL72 Economic with A<sub>Typ</sub> ≠ 0 suspension mounted on the workstation  
 (SL<sub>Typ</sub> = 0) without system lamp  
 Connection cables are included in the scope of delivery.

**S<sub>Typ</sub>** S<sub>Typ</sub> = ... (0, 1, 2, 3, 4)  
 Socket strip: The workstation can be equipped with one of the following socket strips (☞ MPS 3.0, 2-48).  
 (S<sub>Typ</sub> = 1) 3 sockets (not if L = 2)  
 (S<sub>Typ</sub> = 2) 2 sockets, switchable outlet (not if L = 2)  
 (S<sub>Typ</sub> = 3) 3 sockets, switchable outlet, current-limiting CTT-breaker (only if L = 2)  
 (S<sub>Typ</sub> = 4) 2 sockets, switchable outlet and socket (only if L = 1/3)  
 (S<sub>Typ</sub> = 0) without socket strip

**L** L = ... (1, 2, 3, 4, 5)  
 Country version: An electrical connection is available for the following country versions.  
 (L = 1) Germany, for (SL<sub>Typ</sub> = 1...6), (S<sub>Typ</sub> = 1, 2, 4)  
 (L = 2) France, for (SL<sub>Typ</sub> = 1...6), (S<sub>Typ</sub> = 3)  
 (L = 3) Great Britain, for (SL<sub>Typ</sub> = 1...6), (S<sub>Typ</sub> = 1, 2, 4)  
 (L = 4) Switzerland, for (SL<sub>Typ</sub> = 1...6), (S<sub>Typ</sub> = 2)  
 (L = 5) USA/CDN, for (SL<sub>Typ</sub> = 2, 3, 6), (S<sub>Typ</sub> = 1, 2)

**DL** DL = ... (0, 1)  
 Compressed air: The workstation can be equipped with a compressed air strip with 4 connections (☞ MPS 3.0, 2-52).  
 (DL = 1) workstation with compressed air strip  
 (DL = 0) workstation without compressed air strip

**HLF** HLF = ... (0, 1)  
 Cloth and bottle holder: (☞ MPS 3.0, 2-82)  
 (HLF = 1) workstation with one cloth and one bottle holder  
 (HLF = 0) workstation without a cloth and bottle holder  
 The cloth and bottle holder can only be selected if (ESD = 0).

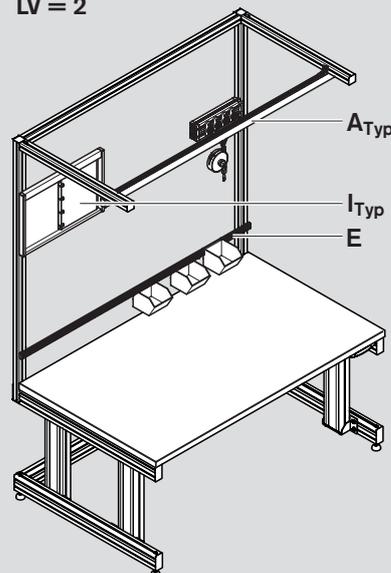


## Height-Adjustable Workstations

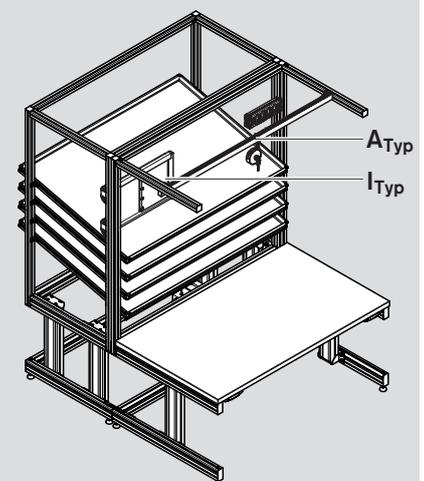
Suitable accessories make it possible to provide grab containers, tools, and information at the workstation.

- E** E = ... (0, 1)  
 Suspension profile: The workstation without accessory upright ( $T3 = 0$ ) can be equipped with a suspension profile to suspend grab containers. The suspension profile can only be selected if ( $T3 = 0$ ).  
 (E = 1) workstation with suspension profile  
 (E = 0) workstation without suspension profile
- A<sub>Typ</sub>** A<sub>Typ</sub> = ... (0, 1, 2, 3, 4, 5, 6)  
 Suspension type: A workstation with a bracket ( $T2 \neq 0$ ) can be equipped with one of the following suspension types (☞ MPS 3.0, 2-68).  
 (A<sub>Typ</sub> = 1) C-rail  
 (A<sub>Typ</sub> = 2) C-rail with trolley  
 (A<sub>Typ</sub> = 3) C-rail with trolley and spring pull **3 842 520 053**  
 (A<sub>Typ</sub> = 4) C-rail with trolley and spring pull **3 842 520 054**  
 (A<sub>Typ</sub> = 5) C-rail with trolley and spring pull **3 842 520 055**  
 (A<sub>Typ</sub> = 6) C-rail with trolley and spring pull **3 842 520 056**  
 (A<sub>Typ</sub> = 0) without suspension.
- I<sub>Typ</sub>** I<sub>Typ</sub> = ... (0, 1, 2, 3, 5, 6, 7, 8)  
 Information board: The workstation can be equipped with one of the following information boards (☞ MPS 3.0, 2-56).  
 (I<sub>Typ</sub> = 1) A4  
 (I<sub>Typ</sub> = 2) 2 x A4, EU  
 (I<sub>Typ</sub> = 3) 2 x A4 ESD, EU  
 (I<sub>Typ</sub> = 5) 2 x A4 plus  
 (I<sub>Typ</sub> = 6) ISO EU, only if ( $T3 = 0$ )  
 (I<sub>Typ</sub> = 7) ISO USA, only if ( $T3 = 0$ )  
 (I<sub>Typ</sub> = 8) 2 x A4 ESD, USA  
 (I<sub>Typ</sub> = 0) without information board

LV = 2



LV = 5



00130042

00130041

## Height-Adjustable Workstations

An accessory upright makes it possible to install material shelves for parts supply at the workstation.

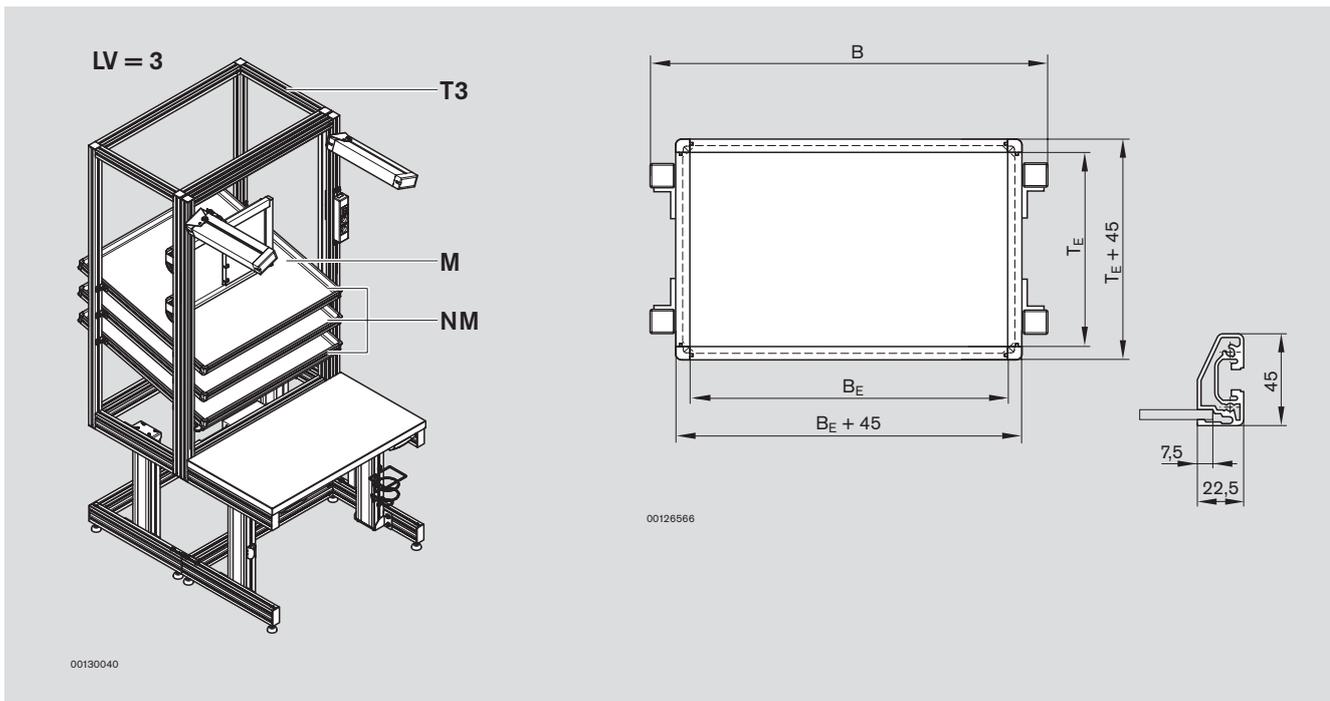
- T3 T3 = ... (0, 360 – 800) mm if LV = 3, 4  
 T3 = ... (0, 600 – 800) mm if LV = 5, 6  
 Accessory upright depth:  
 (T3 ≠ 0) workstation with accessory upright in the indicated depth  
 (T3 = 0) workstation without accessory upright.

Note the information on depth  $T_E$  and width  $B_E$  for the material shelves.

- NM NM = ... (0 – 4)  
 Number of material shelves: Workstations with accessory uprights (T3 ≠ 0) can be equipped with a maximum of four material shelves.  
 (NM = 0) accessory upright without material shelves

- M M = ... (1, 2, 3)  
 Material shelf material: The following materials can be selected for the inner surface of the material shelves.  
 (M = 1) aluminum  
 (M = 2) polypropylene (PP)  
 (M = 3) ESD (SB)

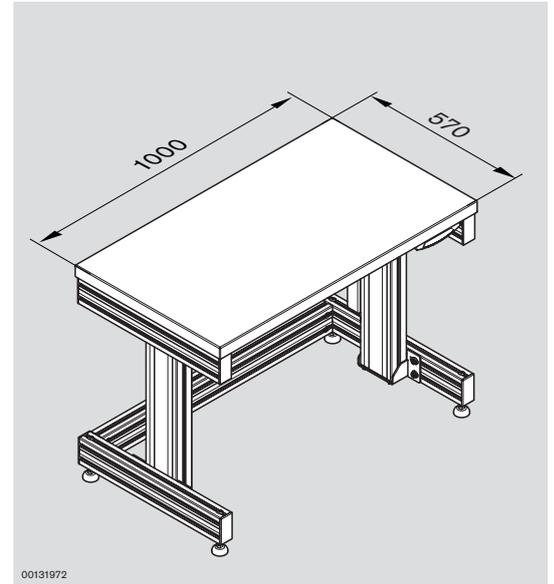
- $T_E$   $T_E$  = ... (0, 520 – 1100) mm if LV = 3, 4  
 $T_E$  = ... (0, 770 – 1100) mm if LV = 5, 6  
 Material shelf depth (interior measurements):  
 Front projection of material shelf: Fixed value (100 mm)  
 Rear projection of material shelf: Can be selected within limits.



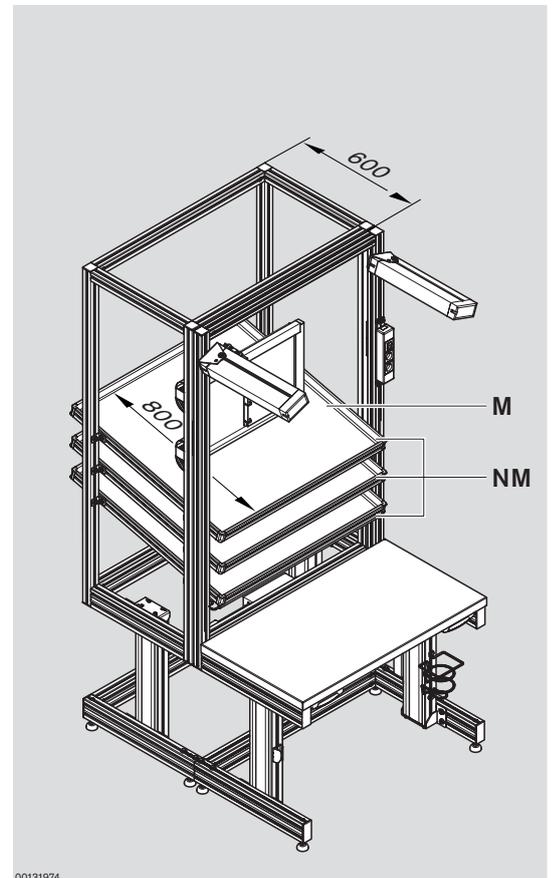
Height-Adjustable Workstations

# Order examples

- A = 1
- ESD = 0
- LV = 1
- BA = 1000
- T1<sub>A</sub> = 570
- H3 = 0
- T2 = 0
- TP ≠ 0
- T3 = 0
- NM = 0
- M = 0
- TE = 0
- E = 0
- A<sub>Typ</sub> = 0
- L = 0
- S<sub>Typ</sub> = 0
- SL<sub>Typ</sub> = 0
- DL = 0
- I<sub>Typ</sub> = 0
- HLF = 0



- A = 1
- ESD = 0
- LV = 3
- BA = 1000
- T1<sub>A</sub> = 570
- H3 = 1500
- T2 = 0
- TP ≠ 0
- T3 = 600
- NM = 3
- M = 1
- TE = 800
- E = 0
- A<sub>Typ</sub> = 0
- L ≠ 0
- S<sub>Typ</sub> ≠ 0
- SL<sub>Typ</sub> ≠ 0
- DL = 0
- I<sub>Typ</sub> ≠ 0
- HLF = 1



Height-Adjustable Workstations

# Height-Adjustable Workstations



You can easily configure your height-adjustable workstation using the MPScalc software

Height-Adjustable Workstations

No.

3 842 998 350

### Ordering parameters for 3 842 998 350

A	Version	(☞ 6)	= ...	(0, 1)
ESD	Conductivity	(☞ 6)	= ...	(0, 1)
LV	Load version	(☞ 6)	= ...	(1, 2, 3, 4, 5, 6)
B <sub>A</sub>	Workstation width (outer dimensions)	(☞ 7)	= ...	(640 – 2000) mm
H3	System height - rear strut	(☞ 7)	= ...	(0, 41 – 1500) mm
T1 <sub>A</sub>	Workstation depth	(☞ 7)	= ...	(480 – 1000) mm if LV = 1, 3, 5 (700 – 1000) mm if LV = 2, 4, 6
T2	Bracket depth	(☞ 7)	= ...	(0, 100 – 800) mm
TP	Table top type	(☞ 6)	= ...	(0, 1, 2, 3, 4)
T3	Accessory upright depth	(☞ 10)	= ...	(0, 360 – 800) mm if LV = 3, 4 (0, 600 – 800) mm if LV = 3, 4
NM	Number of material shelves	(☞ 10)	= ...	(0 – 4)
M	Material shelf material	(☞ 10)	= ...	(0, 1, 2, 3)
T <sub>E</sub>	Material shelf depth (interior measurements)	(☞ 10)	= ...	(0, 520 – 1100) mm if LV = 3, 4 (0, 770 – 1100) mm if LV = 5, 6
E	Suspension profile	(☞ 9)	= ...	(0, 1)
A <sub>Typ</sub>	Suspension type	(☞ 9)	= ...	(0, 1, 2, 3, 4, 5, 6)
L	Country version	(☞ 8)	= ...	(1, 2, 3, 4, 5)
SL <sub>Typ</sub>	System lamp	(☞ 8)	= ...	(0, 1, 2, 3, 4, 6, 7)
S <sub>Typ</sub>	Socket strip	(☞ 8)	= ...	(0, 1, 2, 3, 4)
DL	Compressed air	(☞ 8)	= ...	(0, 1)
I <sub>Typ</sub>	Information board	(☞ 9)	= ...	(0, 1, 2, 3, 5, 6, 7, 8)
HLF	Cloth and bottle holder	(☞ 8)	= ...	(0, 1)

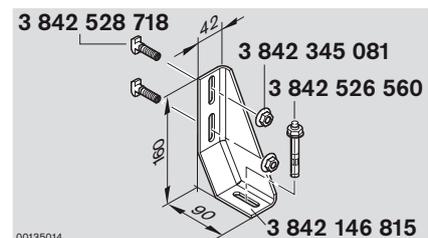


Your order will be checked for feasibility and adapted, if necessary. Check your order confirmation.

Optional accessories:

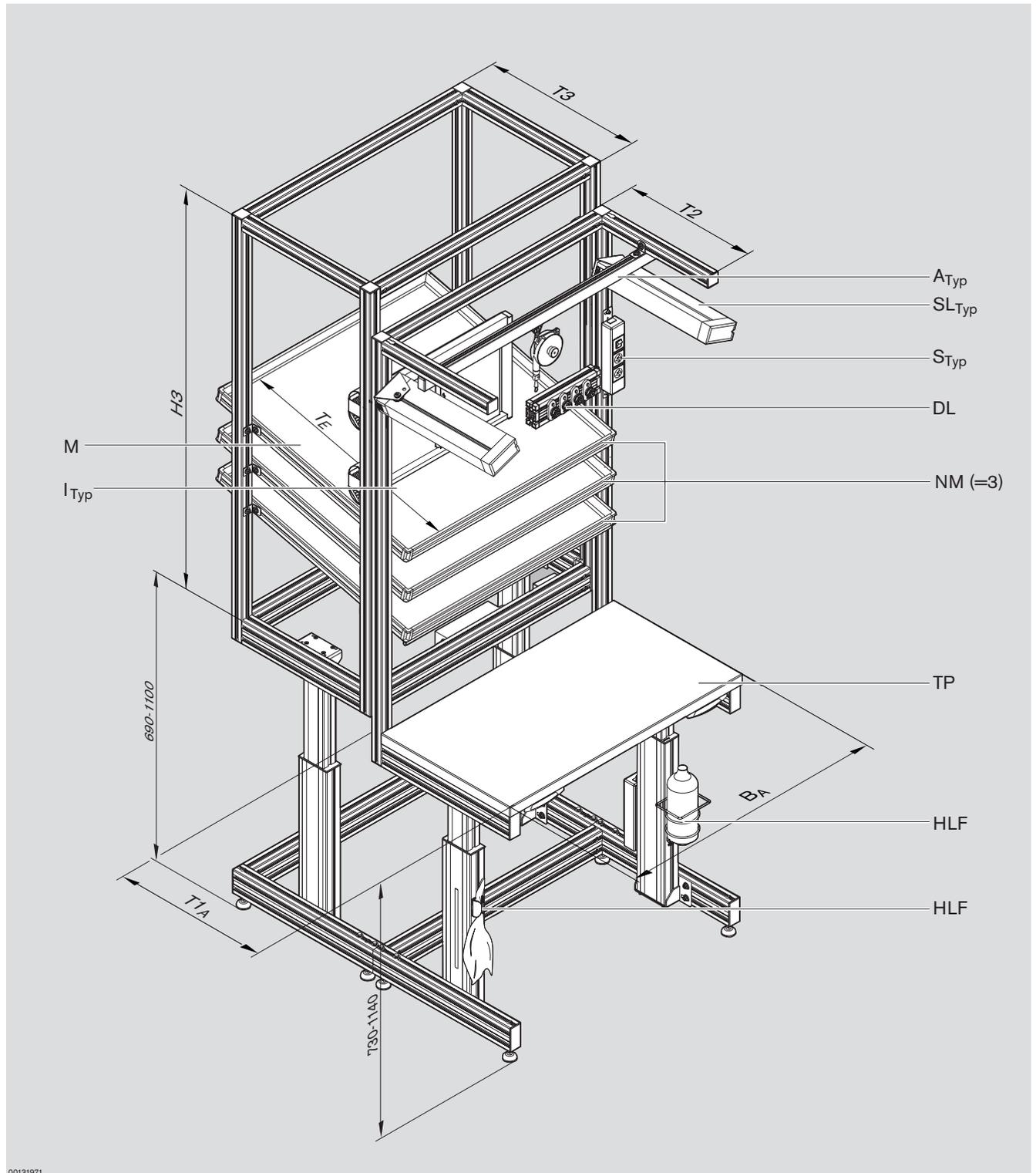
Foundation brackets, T-bolts, T-nuts and dowels to fix the height-adjustable workstation to the floor.

- 2 x foundation brackets **3 842 146 815** (☞ MGE 12.0, 3-28)
- 2 x dowels **3 842 526 560** (☞ MGE 12.0, 3-28)
- 4 x T-bolts **3 842 528 718** (☞ MGE 12.0, 3-5)
- 4 x flange nuts **3 842 345 081** (☞ MGE 12.0, 3-5)



00135014

Height-Adjustable Workstations



00131971



## Height-Adjustable Workstations

Lifting module,  
Control

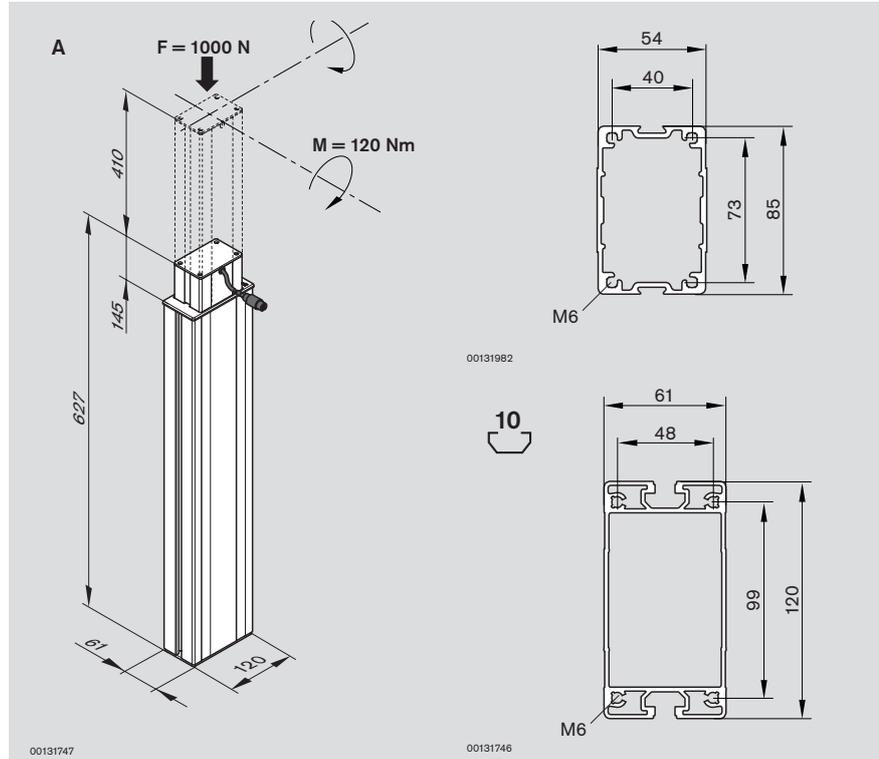
The lifting module (A) is used to infinitely adjust workstation systems.

Lifting force: Max. 1000 N per lifting module  
Lift: 410 mm  
Cable length: 2000 mm  
Lifting velocity: 25 mm/s

The lifting module is connected to the front via the integrated 10 mm groove or the screw hole. The lifting module may not be subjected to any tractive forces.

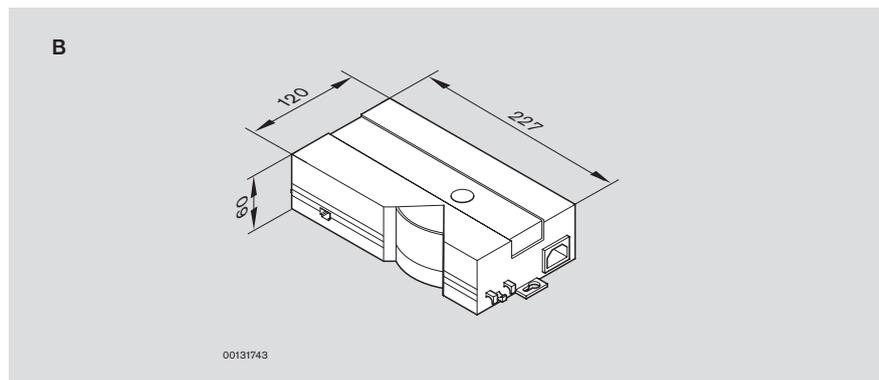
## Lifting Module

	No.
A	3 842 540 116



The external controller (B) synchronizes the lifting modules during parallel operation. An appropriate controller must be selected depending on the number of controlled lifting modules. Up to four lifting modules can be operated synchronously.

Operating time: 10%



## Control unit

	No.	
B 1 lifting module	EU; 230 V AC	3 842 540 048
	USA/CDN; 120-277 V AC	3 842 540 108 *)
2 lifting modules	EU; 230 V AC	3 842 540 049
	USA/CDN; 120-277 V AC	3 842 540 104 *)
3 lifting modules	EU; 230 V AC	3 842 540 050
	USA/CDN; 120-277 V AC	3 842 540 105 *)
4 lifting modules	EU; 230 V AC	3 842 540 051
	USA/CDN; 120-277 V AC	3 842 540 106 *)

\*) Available from the 1st quarter of 2010

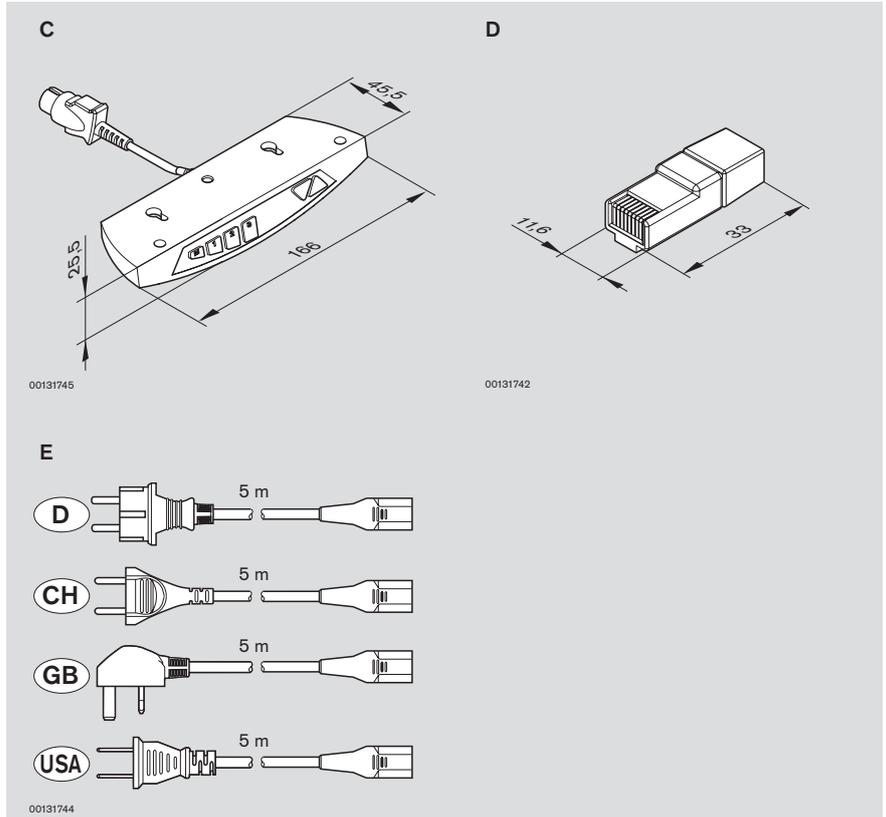
Height-Adjustable Workstations

# Hand switch, Contact bridge, Mains cable

The controller is operated via the hand switch (C) with push buttons for height adjustment and 3 memory buttons to store the different positions.

A contact bridge (D) must be used if the controller is operated without collision protection (☞ 16).

Country-specific mains cables (E) are available to connect the controller to the power supply.



Hand switch

	No.
<b>C</b> With display	<b>3 842 540 120</b>
Without display	<b>3 842 540 206</b>

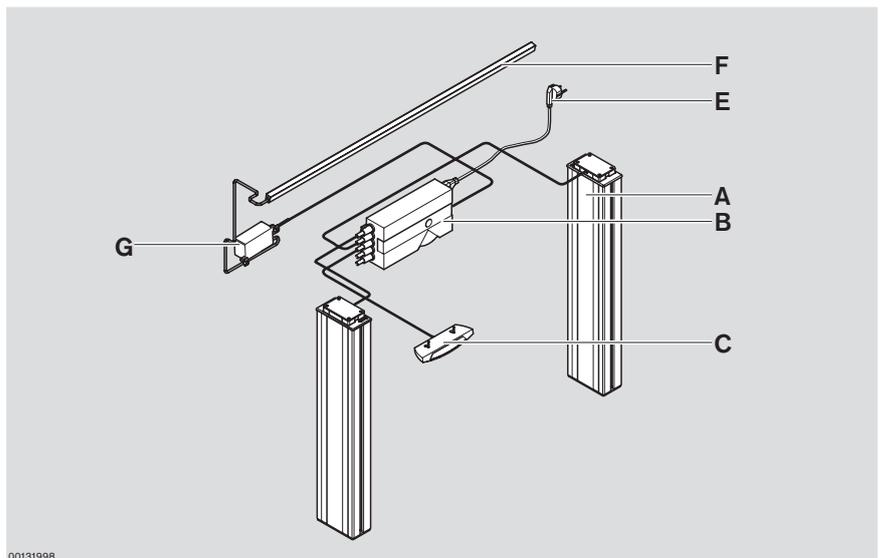
Contact bridge

	No.
<b>D</b>	<b>3 842 540 047</b>

Mains cable

	No.
<b>E</b> D 5.0 m	<b>3 842 540 195</b>
CH 5.0 m	<b>3 842 540 197</b>
GB 5.0 m	<b>3 842 540 199</b>
USA 5.0 m	<b>3 842 540 201*)</b>

\*) Available from the 1st quarter of 2010



- A Lifting column
- B Control unit
- C Hand switch
- E Mains cable
- F Control strip
- G Pressure wave sensor

Height-Adjustable Workstations

# Control strip Pressure wave sensor

A pressure wave control strip (F) can be connected to the lifting module controller to protect against mechanical collisions. Even if only slight pressure is applied to the control strip, the pressure wave sensor (G) sends a signal to the controller and the lifting modules move a few millimeters in the opposite direction. The control strip (F) has a self-adhesive back side and can be individually shortened.



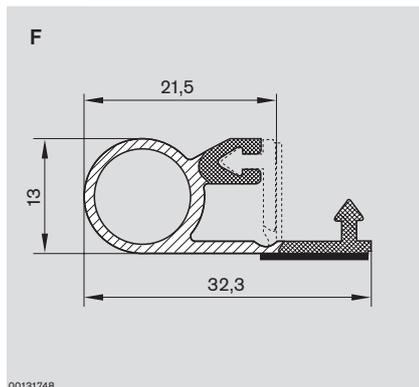
00131993



00131995

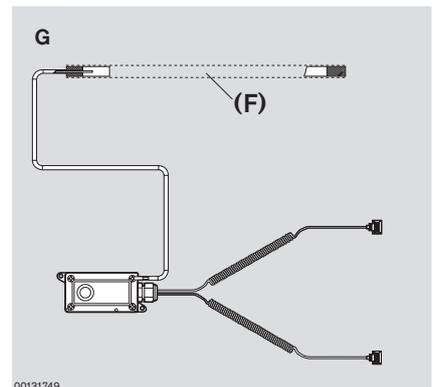


00131992



Control strip

	L	No.
F	2 m	3 842 540 129



Pressure wave sensor

	No.
G	3 842 540 130

Height-Adjustable Workstations

# Bracket for flat screens



The monitor bracket makes it possible to provide information via a flat screen at MPS workstations and applications from the MGE modular profile system.

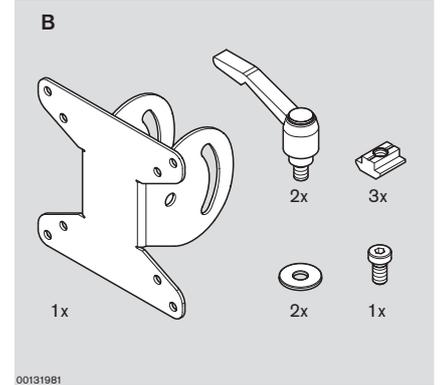
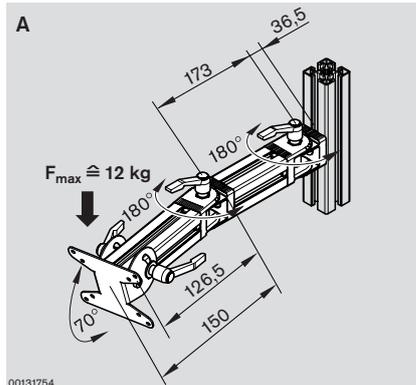
The TFT monitor bracket incl. support arm (A) made of MGE *DesignLINE* joints can be adjusted horizontally and vertically. It enables ergonomically optimum positioning of the screen. Additional space is freed up at the workstation by fastening the support arm to the strut profile.

The TFT monitor bracket incl. mounting material (B) comes with a mounting plate with VESA holes (75x75 mm and 100x100 mm) to connect the monitor, as well as fastening elements for the 10 mm groove. The swiveling range is 70° and thus ensures the best-possible angle of vision for the monitor.



00131996

00131997



00131754

00131981

TFT monitor bracket incl. support arm

TFT monitor bracket incl. mounting material

	No.
<b>A</b>	<b>3 842 539 806</b>

	No.
<b>B</b>	<b>3 842 539 840</b>

Scope of delivery: VESA bracket incl. support arm made of 45x45L profile and DesignLINE joints.  
Including mounting material.

Scope of delivery: VESA bracket incl. mounting material to mount to a support profile with a 10 mm groove.

Height-Adjustable Workstations

# Height-adjustable workstation systems load carrying capacity

The load carrying capacity of the workstation and material supply (fixtures) modules is dependent on the selected LV load version and the respective design.

The max. load is calculated from the bearing load of the base frame minus the system weight of the fixtures (table top, bracket, material shelves, etc.).

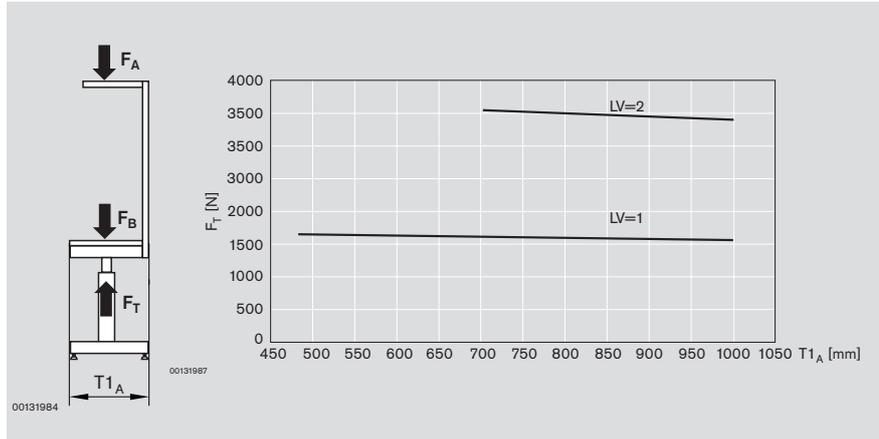
$F_B$  = Max. load (uniformly distributed surface load)

$F_T$  = Max. bearing load of base frame

$F_A$  = System weight of fixtures

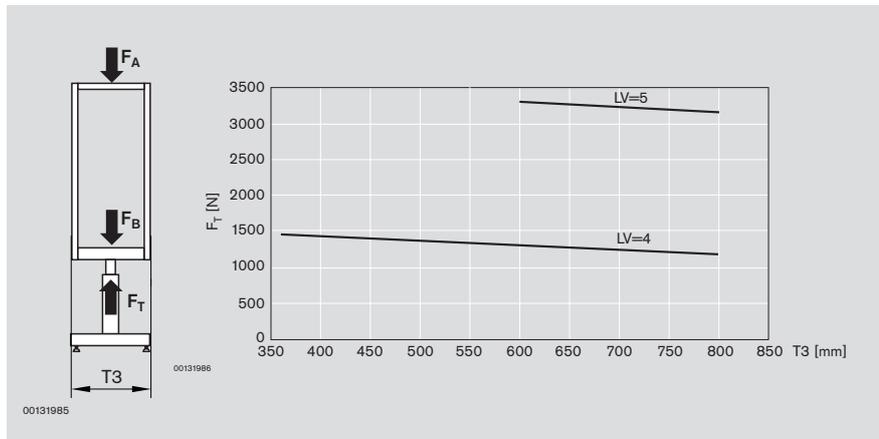
$$F_B = F_T - F_A$$

In order to precisely determine the max load of your individual workstation system, please use our MPScalc calculation software!



Workstation module

Bearing load for height-adjustable workstation if  $B_A = 1000$  mm. The bearing load decreases as width  $B$  increases. Standard load version LV = 1; heavy load version LV = 2;  $H_3 = 0$



Material supply module

Bearing load for height adjustable material supply if  $B_A = 1000$  mm and  $H_3 = 1200$  mm. Standard load version LV = 4; heavy load version LV = 5

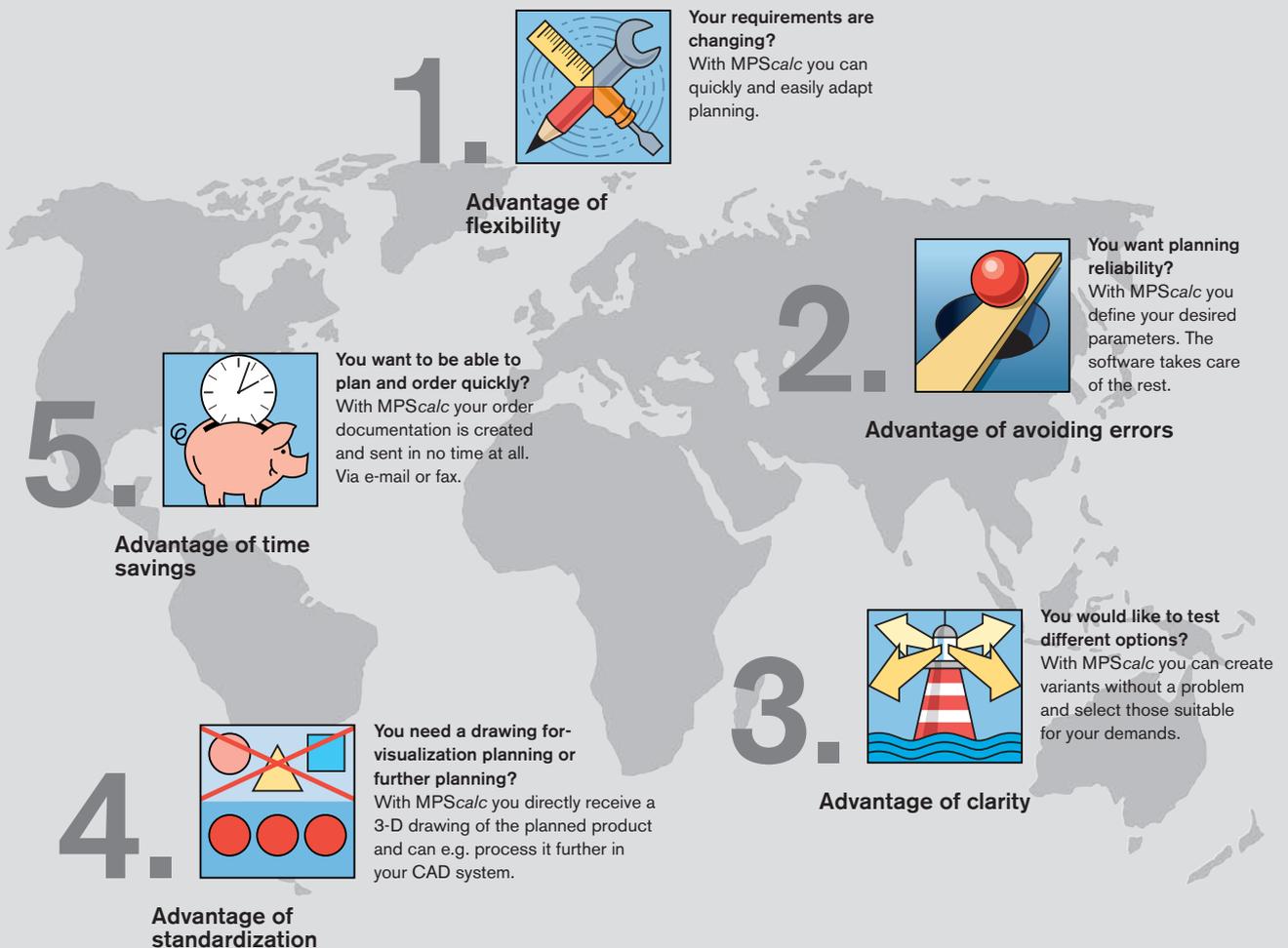
# MPScalc



**Complicated and time-consuming planning is a thing of the past... today there is MPScalc**

Lean and waste-free production begins with efficient and low-waste planning of individually designed workstations and material supply systems.

You now have a comprehensive, well thought-out software to professionally design, construct, and calculate all custom products from Rexroth for the very first time with MPScalc. Benefit from the advantages of MPScalc to find your desired configuration precisely, flexibly, and quickly.



Asian and Eastern European language versions are also integrated, so with MPScalc you have access to a planning tool that enables standardized planning of your production equipment throughout the world.

Bosch Rexroth AG  
Linear Motion and  
Assembly Technologies  
Postfach 30 02 07  
70442 Stuttgart, Germany  
Tel. +49 711 811-30698  
Fax +49 711 811-30364  
[www.boschrexroth.com/dcl](http://www.boschrexroth.com/dcl)

**Find your local contact person here:**  
[www.boschrexroth.com/addresses-dcl](http://www.boschrexroth.com/addresses-dcl)

Subject to technical modifications

© Bosch Rexroth AG 2010  
Printed in Germany  
3 842 540 714 (2010.04)  
EN • DCL/MKT