

Electric height adjustment  
for workplaces





## SUSPA - Your strong industrial partner

For more than 60 years, SUSPA products have been present in your daily life - at home in furniture, refrigerators and washing machines, in means of transport like buses, trains and planes, in modern office furniture, in leisure and fitness equipment, but also in hospitals and rehab centers.

Although you may not be able to see our products, we are always there – increasing the comfort and safety level for all of you.

Major players in the automobile, office furniture, industrial, transportation, appliance, health care, leisure, and gaming industries depend on SUSPA as a developmental and systems solution partner. Our engineers and technical sales team will work seamlessly with your staff on a wide variety of projects, committed to providing the most effective solution for your organization. SUSPA has production facilities in Germany, the United States, China, India and the Czech Republic.

## Reliability as highest standard

Requirements on quality are increasing in the automotive industry as well as in other industry sectors. SUSPA certifications according to IATF 16949 have therefore been an integral part.

Effective quality management from purchasing to production and sales and on to final application secures the worldwide great reputation and reliability of SUSPA products.

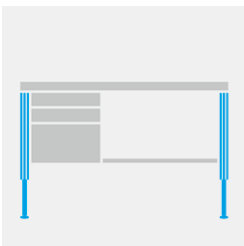
# Height Adjustment Industry

## Ergonomics at the Workplace

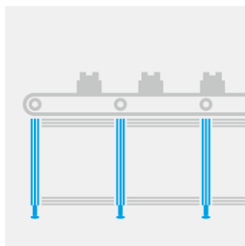
Adjust industrial facilities, workbenches, conveyor belts and all types of industrial worktables flexibly to the requirements of your employees and production – and not vice versa. SUSPA height adjustments support you efficiently and individually.

Type	Characteristics	Drive
<b>Movotec SMS Bolt-On</b>	<ul style="list-style-type: none"> <li>• as an upgrade system for existing workplaces</li> <li>• load performance 150 kg/lift element</li> <li>• adjustable range up to 400 mm</li> </ul>	electrical
<b>Assembly profile Movotec SMS</b>	<ul style="list-style-type: none"> <li>• actuators built in profiles</li> <li>• load performance 150 kg/lift element</li> <li>• dimensions 40x80 mm or 45x90 mm</li> <li>• adjustable range up to 400 mm</li> </ul>	electrical
<b>Lifting Columns ELS3 HeavyDuty</b>	<ul style="list-style-type: none"> <li>• elegant solution for heavy loads</li> <li>• load performance 100 kg/lift element</li> <li>• square guiding tube</li> <li>• adjustable range up to 500 mm</li> </ul>	electrical
<b>Movotec Lift Systems</b>	<ul style="list-style-type: none"> <li>• drive via hand crank or electric motor</li> <li>• load performance 150 kg/lift element</li> <li>• adjustable range up to 400 mm</li> </ul>	hydraulic

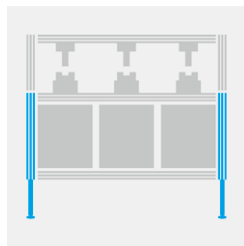
## Applications



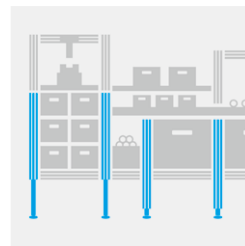
Workbench



Conveyor belt



System construction



Workplace systems

 Please find the assembly instruction for all adjustment systems online at [www.suspa.com/global/downloads/](http://www.suspa.com/global/downloads/)

# Our solutions for your ergonomic workstation

## Extension force

max. 1,200 kg  
with an 8-leg system

## Travel speed

16 mm/s or 8 mm/s  
(see table on pages 6-7)

## Movotec SMS

The electromechanical Movotec SMS (spindle motor system) lift systems offer continuous, fully electric, space-saving height adjustment for heavy loads. Choose between two systems:

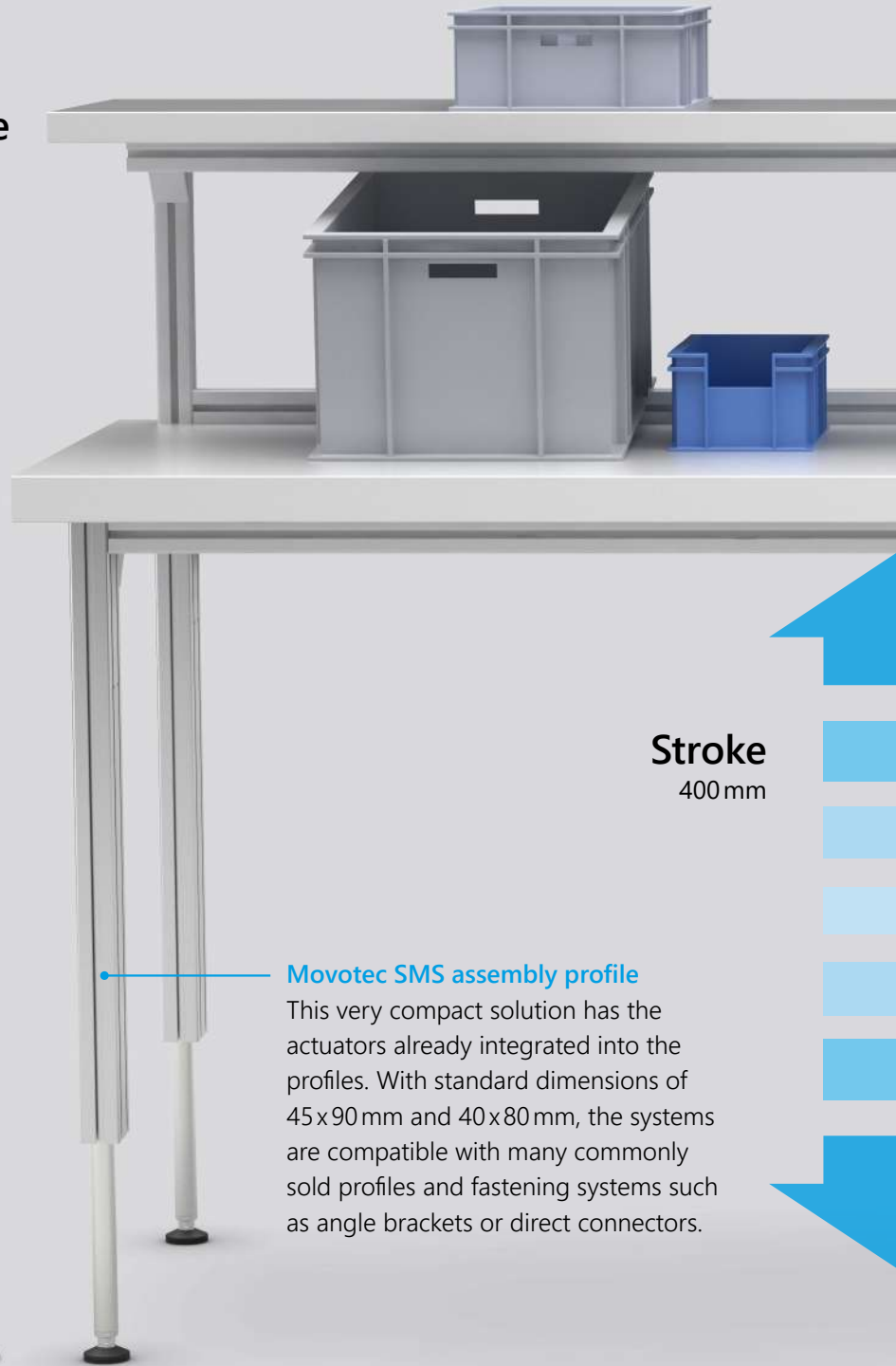
### Movotec SMS Bolt-On

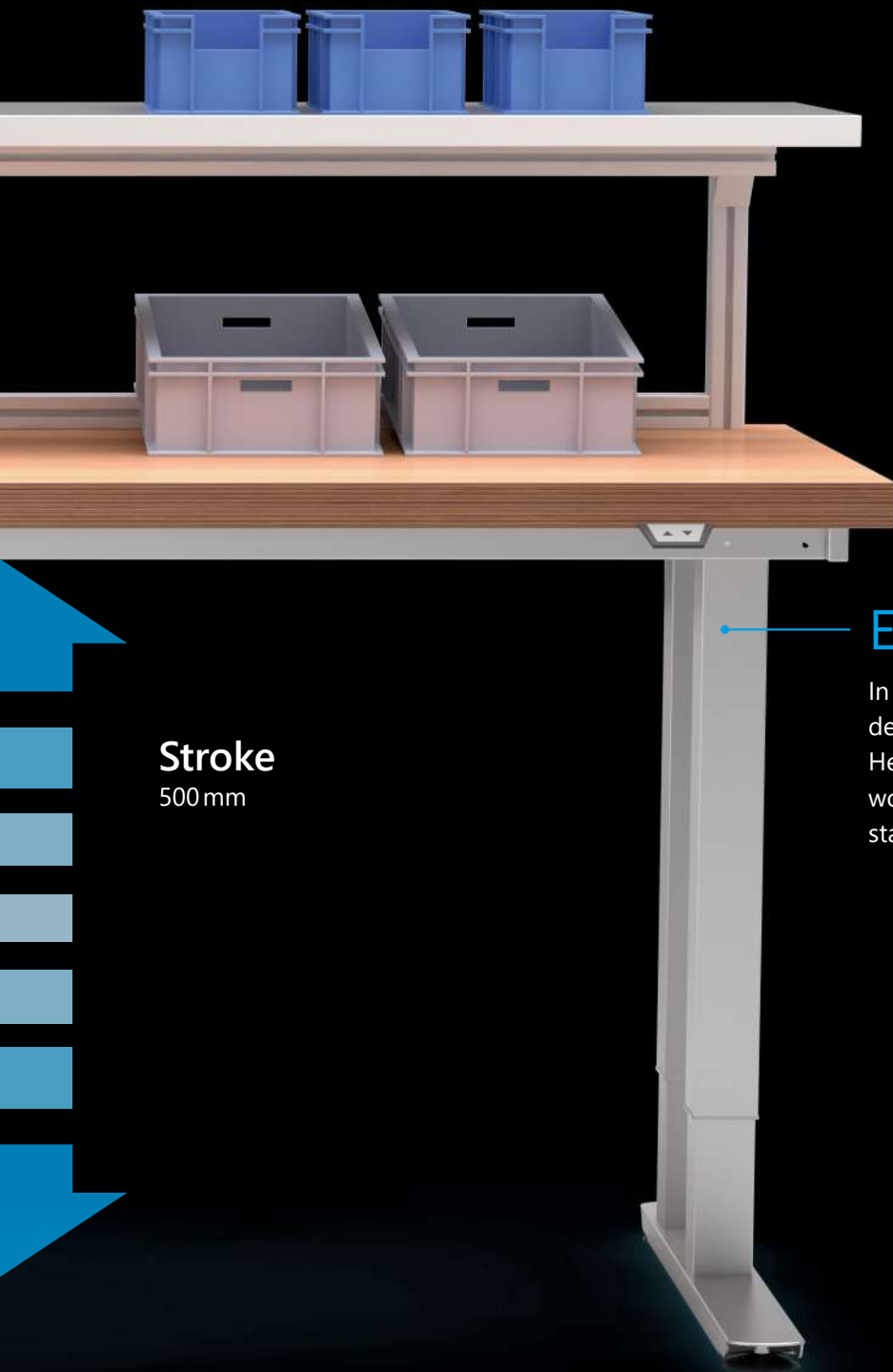
The actuators can be installed as upgrades to existing workplace systems, assembly systems or workbenches.

### Movotec SMS assembly profile

This very compact solution has the actuators already integrated into the profiles. With standard dimensions of 45x90 mm and 40x80 mm, the systems are compatible with many commonly sold profiles and fastening systems such as angle brackets or direct connectors.

**Stroke**  
400 mm





## Extension force

max. 400 kg  
on a table with 4 lifting columns

## Travel Speed

20 mm/s

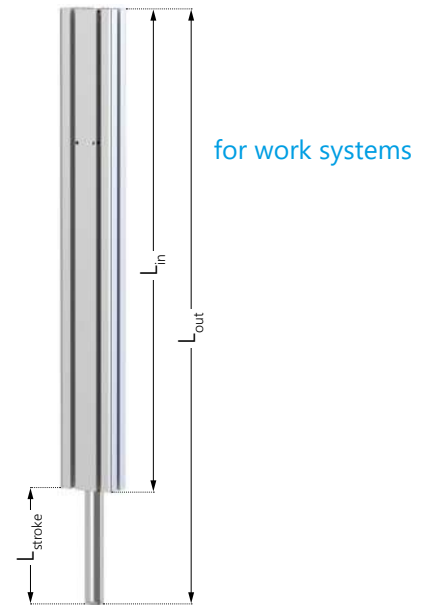
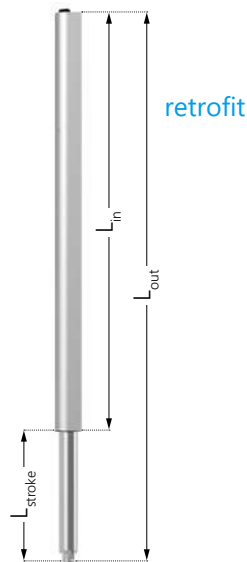
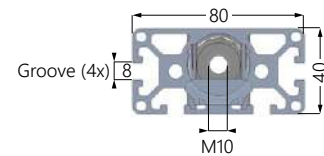
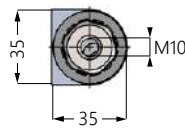
## Stroke

500 mm

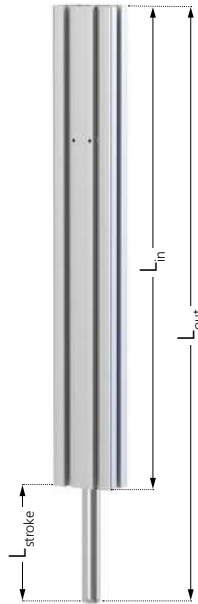
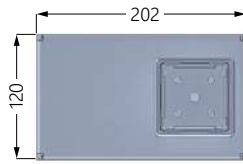
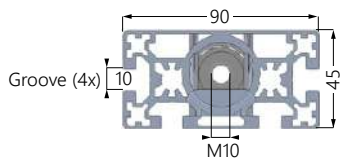
## ELS3 HeavyDuty

In many offices, height-adjustable desks have become standard. An ELS3 HeavyDuty system transforms your workbench into a modern sit/stand station for ergonomic work.

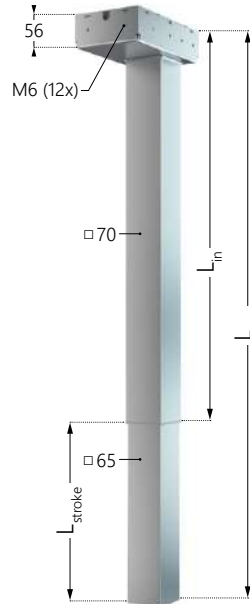
# Product overview



	Movotec SMS				Movotec SMS-I-40x80			
<b>Installation dimensions</b>								
Dimensions of external profile/pipe	CB profile 35 mm				Installation profile 40x80 mm			
External tube material	Aluminium, silver anodized				Aluminium, silver anodized			
Internal tube dimensions	Ø 25 mm				Ø 25 mm			
Internal tube material	Aluminium, anodized				Aluminium, anodized			
Motor housing dimensions	Motor integrated into profile				Motor integrated into profile			
<b>Order number</b>	<b>00410211</b>	<b>00410212</b>	<b>00410213</b>	<b>00410214</b>	<b>00410268</b>	<b>00410269</b>	<b>00410270</b>	<b>00410271</b>
Stroke ( $L_{stroke}$ )	150 mm	200 mm	300 mm	400 mm	150 mm	200 mm	300 mm	400 mm
Retracted length ( $L_{in}$ )	485 mm	535 mm	635 mm	735 mm	510 mm	560 mm	660 mm	760 mm
Extended length ( $L_{out}$ )	635 mm	735 mm	935 mm	1,135 mm	660 mm	760 mm	960 mm	1,160 mm
Fastening structure	4 x M5 (screw-in depth max. 7 mm)				4 x grooves 8 mm wide			
Fastening on foot stabilizer	1 x M10 (internal thread)				1 x M10 (internal thread)			
<b>Performance data</b>								
Max. extension force per lifting element	150 kg / 75 kg				150 kg / 75 kg			
Max. extension force with 4-leg system	600 kg / 300 kg				600 kg / 300 kg			
Max. extension force with 8-leg system	1,200 kg / 600 kg				1,200 kg / 600 kg			
Travel speed	~ 8 mm/s / ~ 16 mm/s				~ 8 mm/s / ~ 16 mm/s			
Functional operating range	+5°C to +40°C				+5°C to +40°C			
Protection class	IP 40				IP 40			



for work systems



for work benches

Movotec SMS-B-45x90

ELS3-500S-BTU-Q-HeavyDuty

Installation profile 45x90 mm				70x70 mm
Aluminium, silver anodized				Steel profile, painted silver-gray
Ø 25 mm				65x65 mm
Aluminium, anodized				Steel profile, painted silver-gray
Motor integrated into profile				202x120x56 mm
<b>00410272</b>	<b>00410273</b>	<b>00410274</b>	<b>00410275</b>	<b>00410267</b>
150 mm	200 mm	300 mm	400 mm	500 mm
510 mm	560 mm	660 mm	760 mm	680 mm
660 mm	760 mm	960 mm	1.160 mm	1,180 mm
4 x grooves 10 mm wide				12 x M6 (screw-in depth max. 5 mm)
1 x M10 (internal thread)				4 x M8 (internal thread)
150 kg / 75 kg				100 kg
600 kg / 300 kg				400 kg
1,200 kg / 600 kg				800 kg (on request)
~ 8 mm/s		~ 16 mm/s		~ 20 mm/s
+5°C to +40°C				+5°C to +40°C
IP 40				IP 20

# Accessories for Movotec SMS



## Controller SCT4

- Input voltage: 230V/50Hz
- Output rating: 340VA  
(28VDC at 10% switch-on duration)
- Four actuator outlets per control, extendable to eight actuators with link cable
- Load-independent actuator synchronization
- Switch-on duration 10%  
(2 min operation/18 min pause)
- Standby use: < 4W (on request < 0.4W)
- Soft start and soft stop
- Travel monitoring to protect the system
- Weight (typical): approx. 3.2kg  
(toroidal transformer)
- Dimensions: 257x120x60 mm
- Protection class II (protective insulation)

Order numbers for control boxes with max. extension force 150kg/Actuator,  
Travel speed  $v = 8 \text{ mm/s}$

SMS-System	Stroke in mm			
	150	200	300	400
<b>1-Actuator-System</b>	19810225	19810230	19810234	19810238
<b>2-Actuator-System</b>	19810224	19810229	19810233	19810237
<b>4-Actuator-System</b>	19810221	19810259	19810099	19810101
<b>6-Actuator-System</b>	2x 19810223 *)	2x 19810228 *)	2x 19810232 *)	2x 19810236 *)
<b>8-Actuator-System</b>	2x 19810222 *)	2x 19810227 *)	2x 19810231 *)	2x 19810235 *)

\*) For the use of 6- to 8- actuator systems two controllers are required, which are connected with a link cable (order number 19810134)

Order numbers for control boxes with max. extension force 75kg/Actuator,  
Travel speed  $v = 16 \text{ mm/s}$

SMS-System	Stroke in mm			
	150	200	300	400
<b>1-Actuator-System</b>	19810185	19810190	19810195	198 10200
<b>2-Actuator-System</b>	19810184	19810189	19810194	19810199
<b>4-Actuator-System</b>	19810181	19810186	19810191	19810196
<b>6-Actuator-System</b>	2x 19810183 *)	2x 19810188 *)	2x 19810193 *)	2x 19810198 *)
<b>8-Actuator-System</b>	2x 19810182 *)	2x 19810187 *)	2x 19810192 *)	2x 19810197 *)

\*) For the use of 6- to 8- actuator systems two controllers are required, which are connected with a link cable (order number 19810134)

 Link cable and hand switches see page 11.

## Glides and brackets for Movotec SMS



**Standard sliding feet**

Order No. 07901031

- Standard with anti-skid function
- Polyamide base with non-skid TPE pad with M10x1.5 threaded steel bolts with locknut for adjustment



**Installation feet**

Order No. 07900003

- For fastening the actuators to the floor or to work surfaces
- Aluminum base with M10x1.5 threaded steel bolts with locknut for adjustment



**Sliding polyamide feet**

Order No. 07901037

- Standard sliding feet without anti-skid function
- Polyamide base with M10x1.5 threaded steel bolts with locknut for adjustment



**Small Mounting Bracket Set**

Order No. 07900002A



**Large Mounting Bracket Set**

Order No. 07900001



**L Mounting Bracket Set**

Order No. 07900018



**Creform® Bracket Adaptor Set**

Order No. 07911027\*

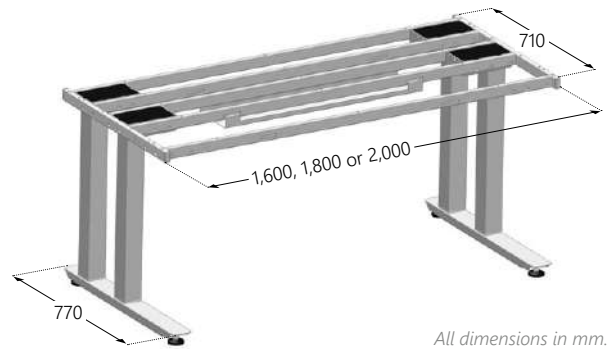
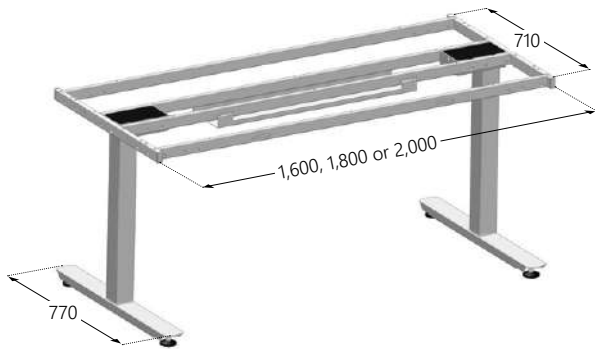
- Mounting fasteners can be used if the threaded holes of the SMS CB actuators are not at an optimal place for the application
- One bracket set order for each SMS actuator used

\*for easy fastening of Creform® connectors (connectors not included)

# Accessories for ELS3 HeavyDuty

## Subframe

We offer a complete table subframe made of steel profile (silver-gray color RAL9006) for two or four ELS3 HeavyDuty lifting columns, with screws and adjustable bases (for the lifting column specification, see the table on page 7). The table subframe is suitable for table tops with the dimension 1,600 x 800 mm, 1,800 x 800 or 2,000 x 800 mm.



All dimensions in mm.

2-Leg HeavyDuty subframe		
Table frame length	Order number	Description
1,600 mm	15311964	EAT3-HD-1600-002-01-S
1,800 mm	15311965	EAT3-HD-1800-002-01-S
2,000 mm	15311966	EAT3-HD-2000-002-01-S

4-Leg HeavyDuty subframe		
Table frame length	Order number	Description
1,600 mm	15311967	EAT3-HD-1600-004-01-S
1,800 mm	15311968	EAT3-HD-1800-004-01-S
2,000 mm	15311969	EAT3-HD-2000-004-01-S

 Please find the assembly instruction online [www.suspa.com/suspa-downloads/](http://www.suspa.com/suspa-downloads/)

## Connection set

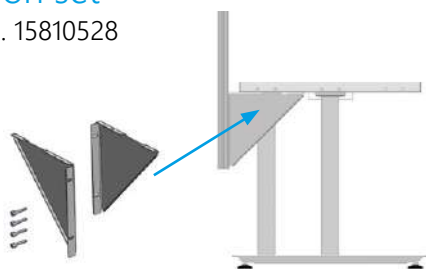
Order No. 19710174

- Mechanical connection of two HeavyDuty tableFrames (mechanic coupling).
- Please take into consideration that two tableframes must be connected electrically with a link cable and that the max. permitted load of each HeavyDuty table frame is observed.



## Extension set

Order No. 15810528



- Enables the installation of commercially available extension elements (e.g. aluminum profiles, support rails, shelves, die plates) at the rear side of the ELS3 HeavyDuty tableframe.
- Please take into consideration that the installation of additional loads at the rear does not cause a risk of tipping for the Heavy Duty tableframe and that the max. permitted load of each HeavyDuty tableframe is observed.

## Controller SCT4 for ELS3 HeavyDuty

- Input voltage: 230V/50 Hz
- Output rating: 340 VA (28VDC at 10% switch-on duration)
- Four actuator outlets per control, extendable to eight actuators with link cable
- Load-independent actuator synchronization
- Switch-on duration 10% (2 min operation / 18 min pause)
- Standby use: < 4 W (on request < 0.4 W)
- Soft start and soft stop
- Travel monitoring to protect the system
- Weight (typical): approx. 3.2 kg (toroidal transformer)
- Dimensions: 257x120x60 mm
- Protection class II (protective insulation)



Order numbers for control boxes with max. extension force  
100kg/actuator, stroke 500mm, travel speed v=20mm/s

ELS3-HeavyDuty-System	Order No. Controller
1-lifting column-system	19810246
2-lifting column-system	19810247
3-lifting column-system	19810248
4-lifting column-system	19810249
6-lifting column-system	2x 19810250 *)
8-lifting column-system	2x 19810251 *)

\*) For the use of 6- to 8- actuator systems two controllers are required,  
which are connected with a link cable (order number 19810134)

## Link cable for ELS3 HeavyDuty and Movotec SMS

Order No. 19810134

- Connection of two controllers (for 6- or 8-actuator-systems)
- 4m cable length

## Hand switches for ELS3 HeavyDuty und Movotec SMS

- for installation below the table (cable length: 2 m)



Hand switch Up-Down  
UBM F02-p

Order No. 09810087



Hand switch memory  
UBS/6-s-LCD

Order No. 09810088

Additional digital display  
with three programmable  
memory positions

## Ergonomics at the workplace

Height adjustable workplaces don't just offer health advantages, but they also minimize harmful improper load stresses on employees, thereby minimizing illness-related absences due to physical wear. They are an important prerequisite for optimal use of workbenches, conveyor belts, assembly tables or equipment.

Thanks to flexibly adjustable workstations, equipment and workplaces can not only be used by different employees, but also used for a variety of tasks. This gives a company a great deal of flexibility in controlling work procedures.

## Technical Note

The SUSPA height adjustment systems are defined as an incomplete machine and are only destined to be installed into other machines or into other incomplete machines or equipment or to be combined with those, in order to form a complete machine together with them in the sense of the machine regulation. Only after having passed a conformity process for the complete machine, it is permitted to be put into operation.



Please find the assembly instruction for all adjustment systems online at [www.suspa.com/suspa-downloads/](http://www.suspa.com/suspa-downloads/)

## SUSPA GmbH

Industriestr. 12 -14  
90518 Altdorf  
Germany

Phone +49 9187 930355  
Fax +49 9187 930311

infoindustry@de.suspa.com  
www.suspa.com