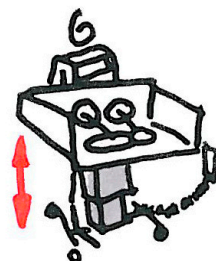




Medical technology



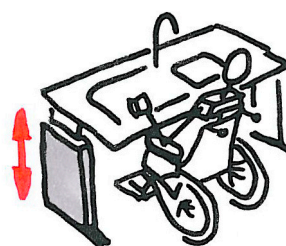
Media technology



Workplace ergonomics



Barrier-free



**Well-being for the well-adjusted**  
*Lifting columns for individual height adjustment*

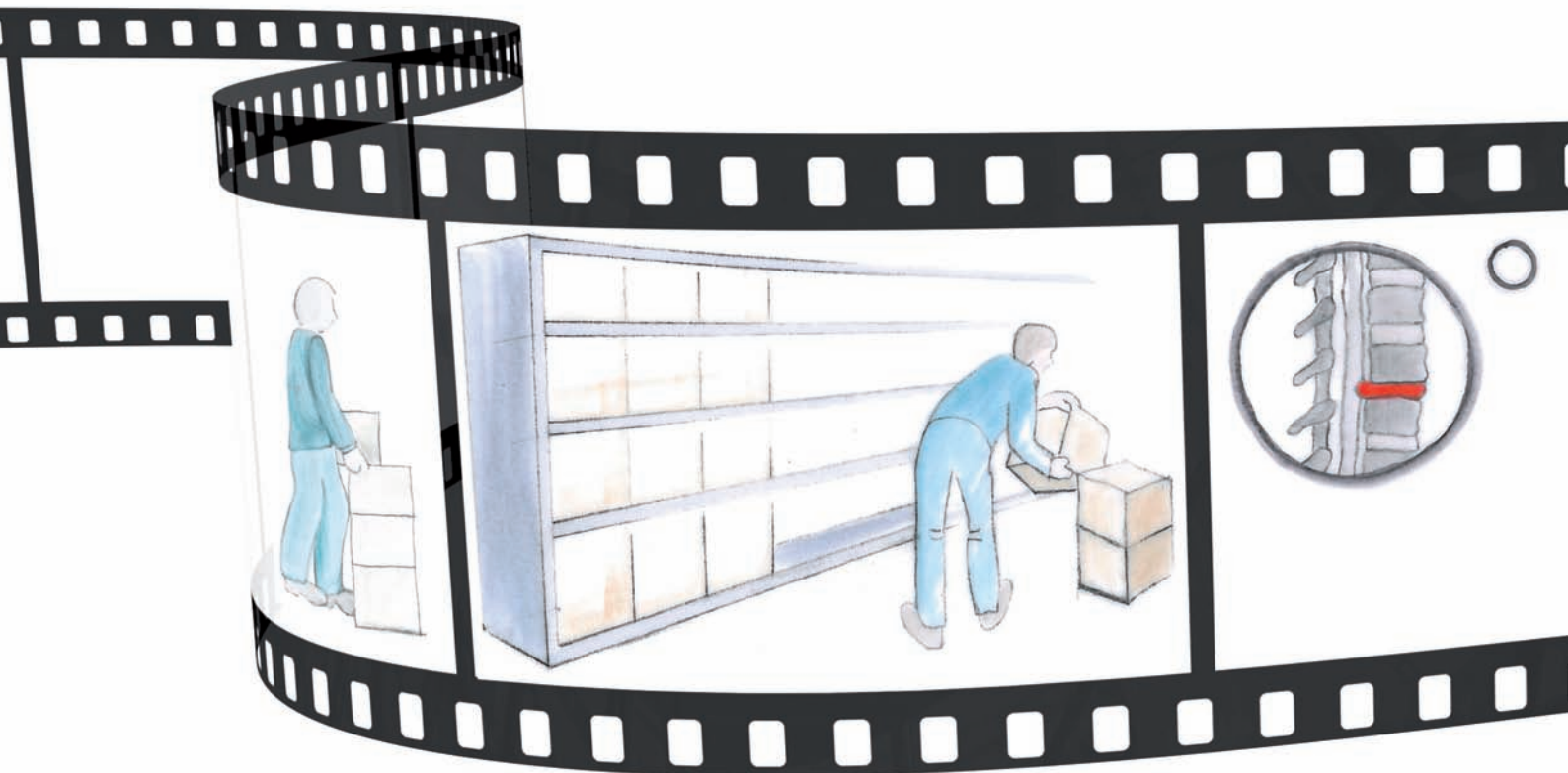
## Technology that adapts to your needs

Electromotive modules for height adjustment are both contemporary and efficient.

- ✓ As assembly aids that assist with heavy loads
- ✓ As height adjustable standing or sitting workstations
- ✓ As an effective support that enables greater independence for the physically challenged
- ✓ Application options in the field of medical technology
- ✓ For the adjustment of audio/video devices in the business and luxury segment for the sophisticated demands of your customers

Reliable technology and easy installation in your application are essential.

On the following pages, we hope to inspire you with our individually presented lifting column modules. Place your individual and unique applications in the hands of our experienced specialists.



## Applications

■ Medical equipment	4
■ Media equipment	6
■ Workplace ergonomics	8
■ Barrier-free	10
■ Individual	12

## Lifting columns and electric cylinders

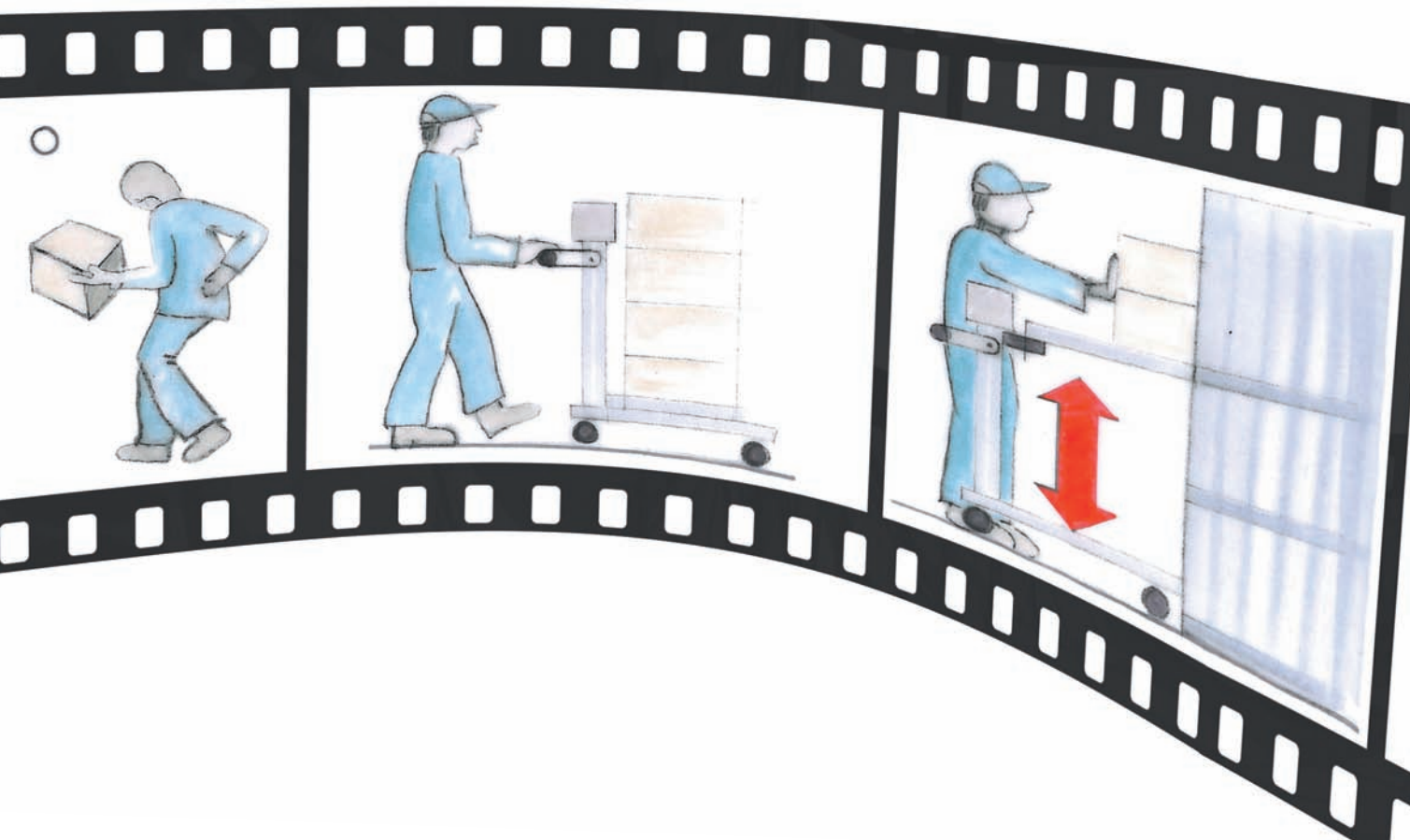
■ Product selection	16
■ Multilift	18
■ RKSlimlift	20
■ RKPowerlift	22
■ Alpha Colonne	24
■ Electric cylinders	26

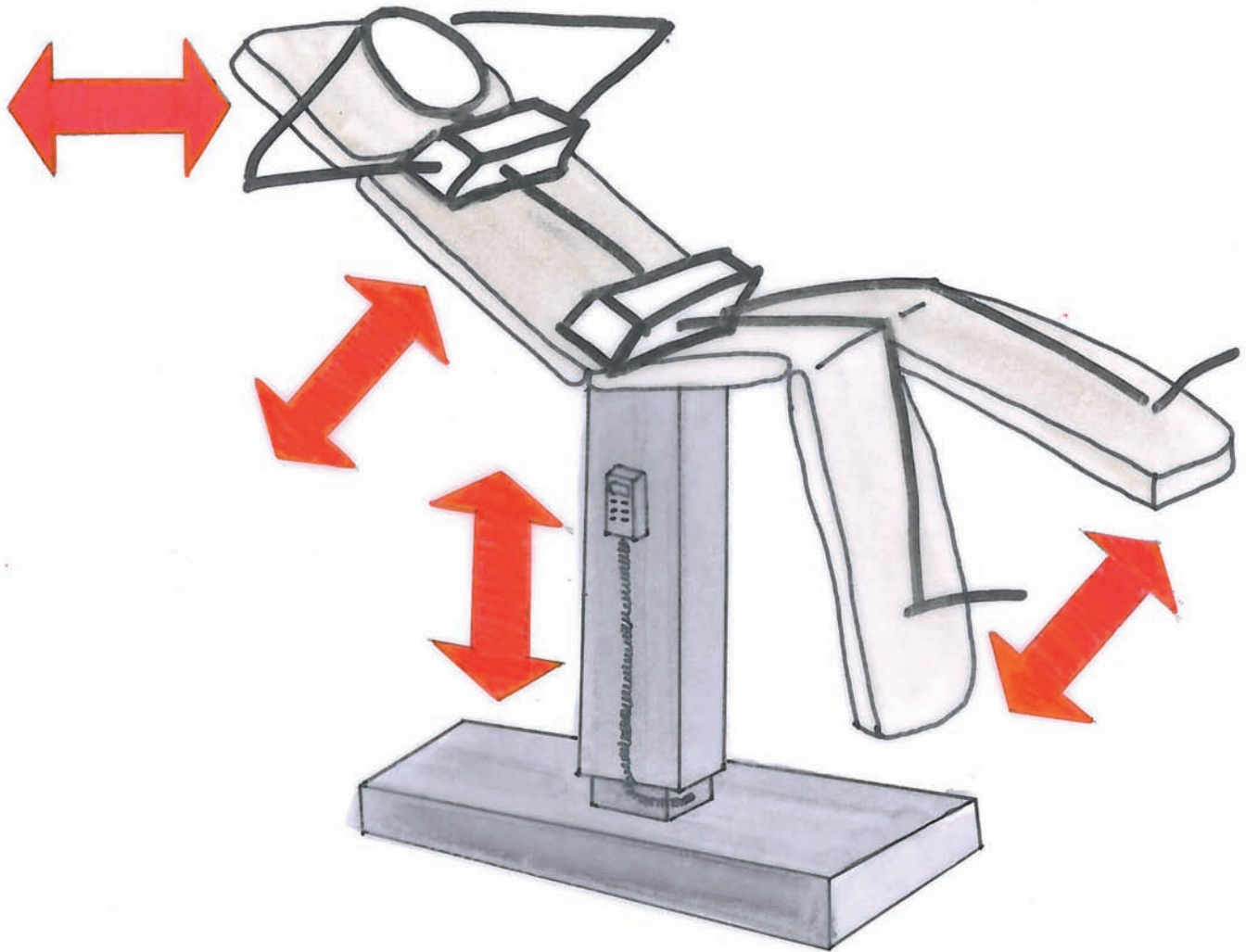
## Accessories

■ Controls	28
■ Hand switches	31
■ Fixings	32
■ Feet	33

## Appendix

■ Contacts	34
■ Our services	35





## Advantages

---

- ✓ Approved acc. to standards for medical technical equipment
- ✓ Quiet operation and smooth mechanics
- ✓ Smooth surfaces – easy to clean
- ✓ Resistant to disinfectants



Customer application:  
Height adjustment of a massage  
table using the RK Powerlift



## Silent helper

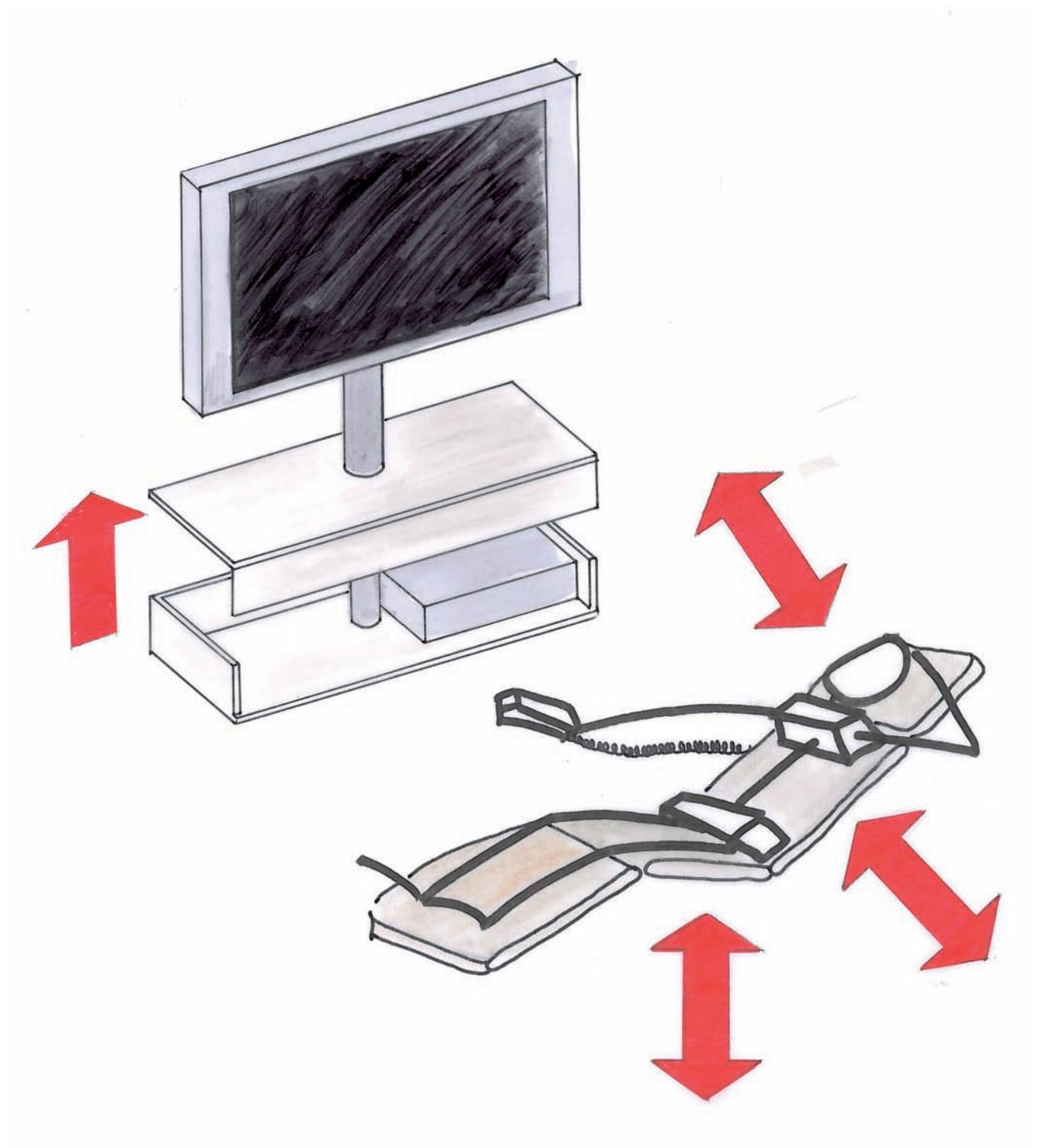
In the field of diagnostics, therapy and for general set-ups, lifting columns are often an integral part of medical systems. In the fields of human and veterinary medicine, it is essential to be able to adjust and adapt devices to specific situations. Height adjustable examination couches, adjustable optics and the precise adjustment of x-ray devices are just some examples of the huge range of application options.

Many of our lifting columns are approved for medical applications in compliance with EN 60601. The sleek design, reliability, stability and long service life all combine to provide maximum cost-effectiveness and safety. The areas of application for RK lifting columns are almost as exciting and diverse as the world of medicine itself.

Tell us what you want to achieve.



akrus GmbH & Co KG  
[www.akrus.de](http://www.akrus.de)



## Advantages

---

- ✓ Precise and safe
- ✓ Easy-to-assemble
- ✓ Simple and intuitive operation
- ✓ Visually attractive integration

Presentation technology only visible during use. The lifting column further underscores the high-tech character.

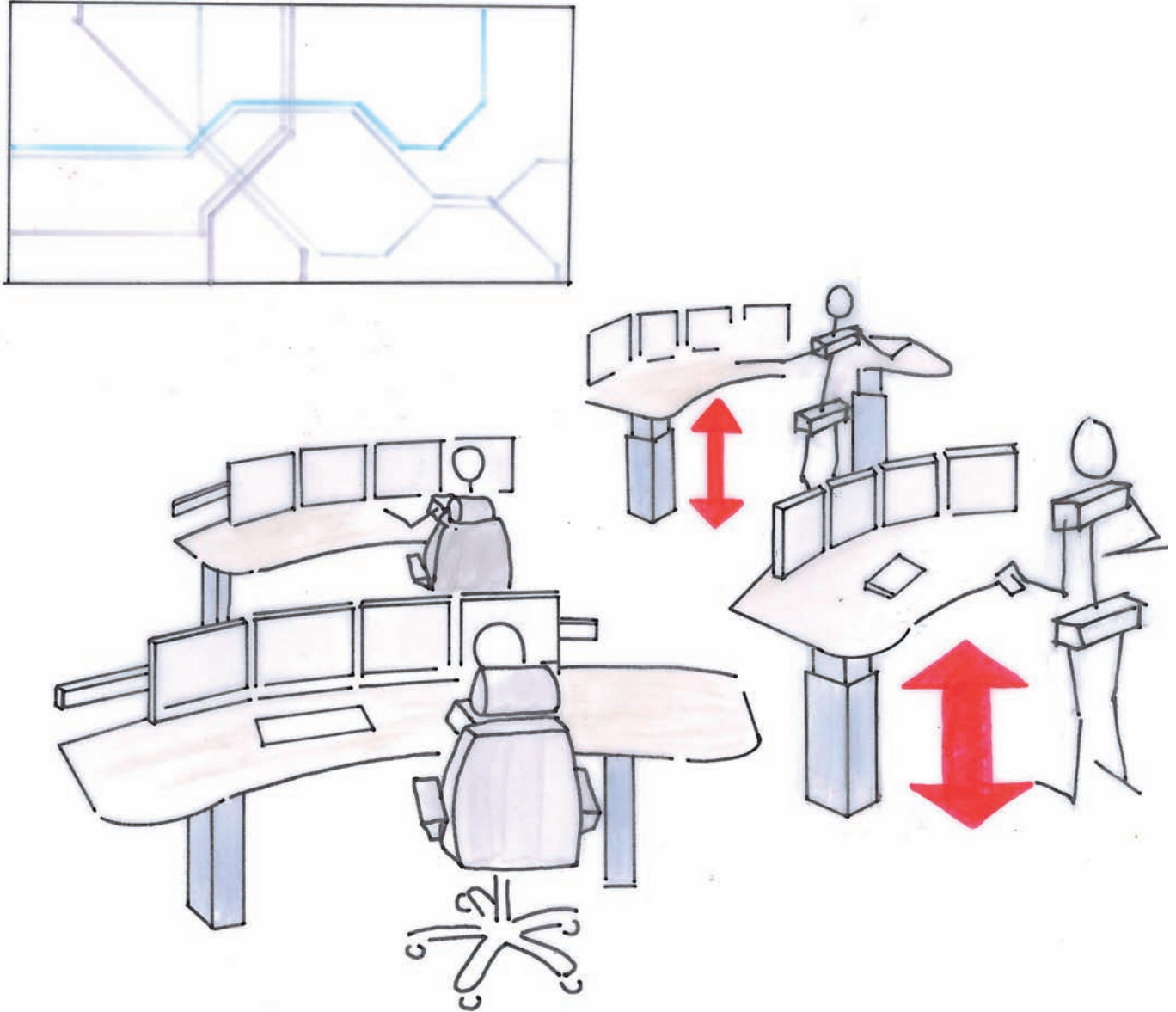


### Luxury that's worthwhile

The expensive medical technology is cleverly concealed and only activated as and when required. This protects beamers, plasma screens and hi-fi systems against dust and keeps the high-quality equipment securely hidden from view. The sleek appearance of the stylish furnishings is not impaired by obtrusive entertainment technology. Seminar rooms are transformed into interactive training centres. Private rooms are transformed to luxurious oases teeming with individuality. One could almost say, the sky's the limit – all you require is the support of an experienced and reliable partner from the drive technology sector. Our experience is our key asset – tell us all about your requirements and we will find a solution.



Modern entertainment requires peripherals that enhance the overall experience.



## Advantages

- ✓ Fewer absences due to illness
- ✓ Mobilises the locomotor system
- ✓ Increases concentration
- ✓ Dynamic working helps prevent work fatigue





## Alternating between standing and sitting

When asked which is the best working posture, orthopaedists generally answer: "The one you're about to switch to!"

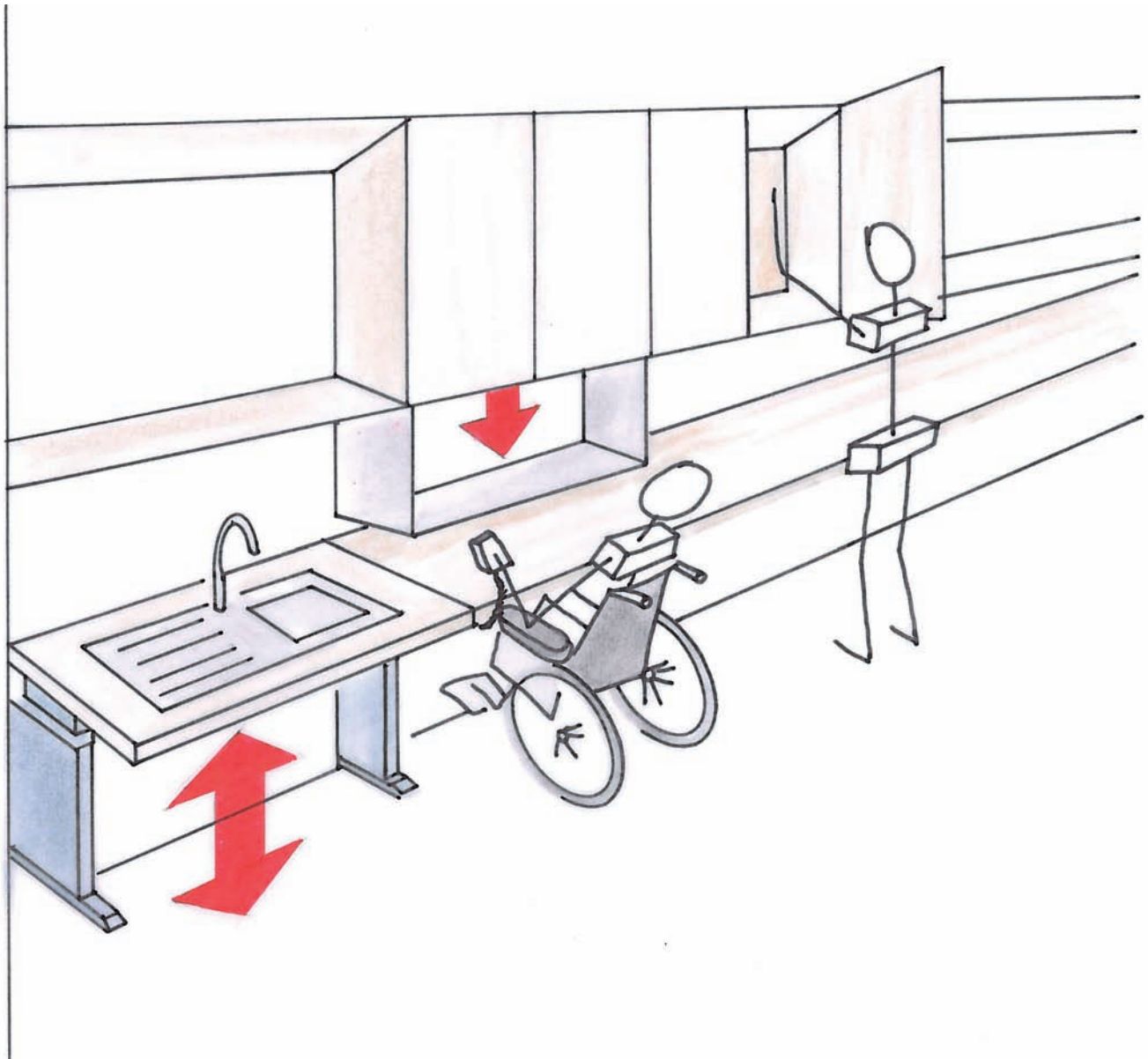
Cardiologists constantly criticise the sedentary nature of most people's working days, stating we need to move more.

Varying the burden on the locomotor and cardiovascular system and increasing activity has proven to be extremely effective.

Our modular lifting columns are extremely convenient and easy to use. Depending on the application, they can be implemented as single-column or two-leg table concepts.

Extremely quiet operation and fast movement characterise the high quality of our lifting columns. The simple operation via manual push-button encourages frequent use of the functions.





## Advantages

- ✓ Increases individual mobility
- ✓ Reduces the risk of falls
- ✓ Promotes individual independence
- ✓ Practically invisible technology

## Living without limitations

This is the ambitious objective of many institutes and associations for the elderly and disabled.

It is only natural that those affected are keen to live their lives as independently as possible. Innovative concepts offer valuable support.

Height adjustable wall cupboards in the kitchen, height adjustable tables and washing basins are just some of the applications available.

However, all of these applications require sophisticated technology. Motor-driven adjustable systems!

We offer a consultancy service tailored to your individual requirements and lifting columns that can be integrated directly in your environment.

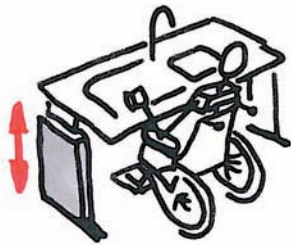


Height-adjustable wall cupboards increase autonomy without dispensing with homeliness.



The focus is on individual comfort. Hidden functionalities make life easier.

# Applications



←  
Patient-oriented  
examination

↓  
Promoting  
good posture

↑  
Individually adjustable  
workstation



↑  
Ensuring good standing  
posture

←  
Adapting the workplace to  
your requirements



How can we help you with  
your application?



## We think outside the box...

Queries from small companies are often turned down due to lack of viability, or because companies feel they are stepping outside their area of expertise.

This is often a result of insufficient information on possible suppliers for drive modules, the complexity of the new challenge or how to handle the technical and economic aspects of the task.

Our individual consultancy services can help. The following shows a few sample applications that may be similar to those required in your sector.



## ... and are experts in implementation

The mechanical and electrotechnical aspects of all our lifting column modules can be fully implemented without the need for specialised knowledge.

The so-called screw channels for fixing are included in the delivery. All system cabling can be simply plugged in and is protected against polarity reversal.

**For us, project-oriented customised solutions are the rule rather than the exception.**

The work required and the costs incurred are often much lower than you think and are far outweighed by the value of the benefits you will enjoy.

With our individual solutions you can considerably expand your range of offerings.



Making eye contact.  
Creating an environment  
that adapts to our needs.

Ergonomic testing station.  
Two *RK Multilift* lifting columns  
enable easy adjustment.



Height adjustable operating table  
thanks to implementation of four  
*AlphaColonne* lifting columns.



An *RKPowerlift* enables  
easy height adjustment of  
the workplace at a  
measuring station.

© Zelenka



The optimum height adjustment ensures a pleasant treatment environment for patients.

Veterinary examination table.  
Height adjustment via foot  
switch on an *RKPowerlift*.



# Lifting columns - Product selection

## Finding the right lifting column



Depending on technical and optical requirements, it takes just 2 steps to find the lifting column that matches your needs.  
Step 1 - Determine the type of lifting column.  
Step 2 - Choose the appropriate version.

### Step 1:



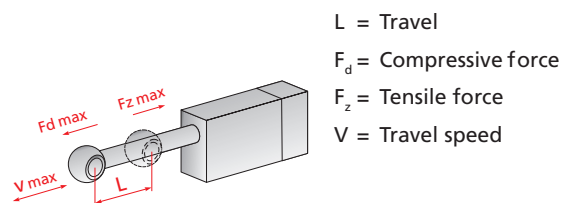
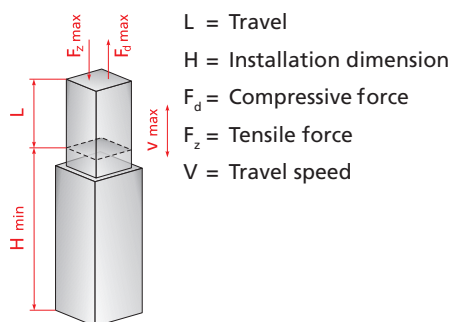
Select the lifting column on the right that meets your requirements.

### Step 2:

For step 2, please refer to the relevant catalogue page.







The data refer to the standard size

## Two-stage lifting columns (up to 500 mm travel)

## Multi-stage lifting columns (more than 500 mm travel)

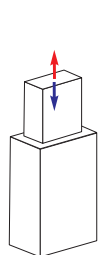
## Cylinders

Features	Multilift	RK Slimlift	RK Powerlift / RK Powerlift M	RK Powerlift telescope	Alpha Colonne	Electric cylinders
Max. travel	498 mm	500 mm	500 mm	650 mm	700 mm	600 mm
Max. compressive force	3000 N	4000 N	3000 N	1600 N	3000 N	4000 N
Max. tensile force	1000 N	2000 N	3000 N	800 N	3000 N	4000 N
Max. travel speed	8/16 mm/s	8-32 mm/s	10-50 mm/s	15-30 mm/s	8-18 mm/s	110 mm/s
Protection rating	IP 20	IP 30	IP 30	IP 30	IP 30	IP 54
Integrated limit switch	•	•	•	•	•	•
Can be synchronised by means of control system	•	•	•	•	•	•
Integr. control			•	•	•	•
Manual version optional	•	•	•			
Features	✓ Quadruple bearings with POM slide bearing shells	✓ Rod-shaped design, extremely quiet operation	✓ Enables high bending moments	✓ Optimum stroke/installation height ratio	✓ Suitable for both tensile and compressive loads	✓ Wide range of connection methods

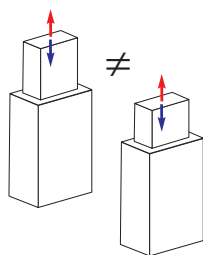
## Preferred field of application:

### Single columns

(can be moved individually or simultaneously)



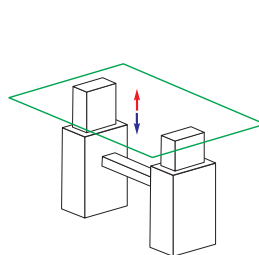
Single operation



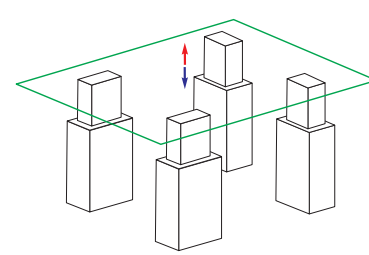
Parallel operation

### Synchronised columns (2–32 units)

(can be moved synchronously)



Synchronised operation



Multiple column system

# Lifting columns - *Multilift*



## Multilift

Closed version



## Multilift

with milled slot



## Multilift

with inner carriage

## Highlights in brief

- ✓ Rectangular design for the absorption of high lateral forces and installation in narrow structures
- ✓ Robust design
- ✓ Wide range of accessories in standard range
- ✓ Several **Multilifts** can be synchronised using **MultiControl**
- ✓ Able to handle tensile\* and compressive forces

## Universal classic

The side ratio of approx. 5:1 offers two advantages: On the one hand, the flat profile geometry permits installation in the smallest of structures, on the other, the long side of the Multilift can handle impressive lateral forces.

The Multilift is both robust and slim. It is ideal for harsh environments and offers extremely quiet operation.

The many versions available underscore the universal usefulness of the Multilift.

## Version

### Material

- ✓ Aluminium, clear anodised

### Stroke limitation

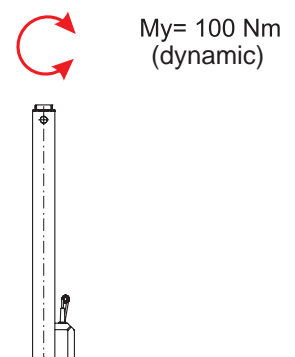
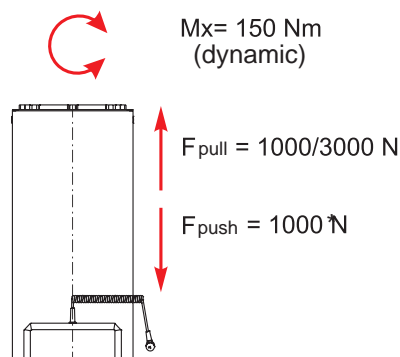
- ✓ Integrated limit switch, fixed

### Fixing

- ✓ 4 screw channels at top/bottom respectively

### Special features

- ✓ Also available as lifting system with inner carriage
- ✓ Memory function also available
- ✓ TÜV-approved and approved acc. to standards for medical technical equipment.
- ✓ Manual versions available



## General information / operating conditions

	Multilift
Design	Slim lifting column, optionally available with interior carriage
Guide	Quadruple bearings with POM slide bearing shells
Installation position	Any position / suspended with separate drop protection*
Compressive force	Choice of 3,000 / 1,000 N
Tensile force	Max. 1,000 N
Voltage	24 V DC
Power input	120 W
Protection rating	IP 20
Self-locking	Yes, up to 3000 N
Ambient temperature	+5°C to +40°C
Displacement during synchronous operation	0-2 mm / 0-4 mm
Duty cycle	At nominal load, 10% (max. 2 mins operating time, 18 mins rest time)

\*Note Can only handle downward tensile forces if used in conjunction with an additional assembly/compression plate.

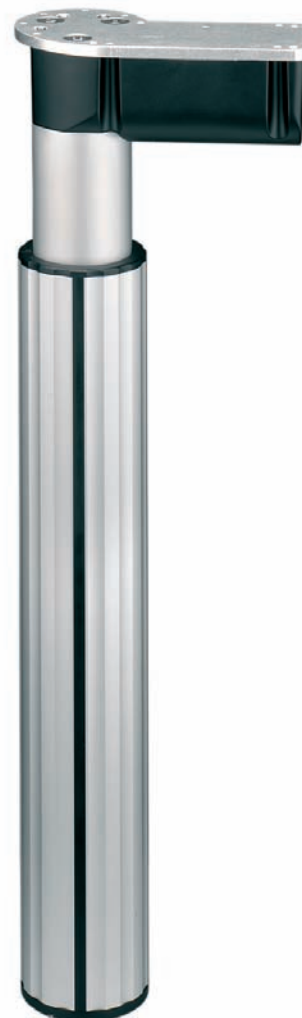
# Lifting columns - RKSlimlift



RKSlimlift Eclipse



RKSlimlift Basic



RKSlimlift EM

## Highlights in brief

---

- ✓ Slim design with filigree look
- ✓ Compact dimensions
- ✓ Excellent installation height/stroke ratio
- ✓ Ready for synchronisation with **MultiControl** control system



## Slim elegance

The RK Slimlift is discretely stylish with a filigree look and high load capabilities

The drive unit of the Eclipse and Basic versions is fully integrated in the profile.

The external motor of the EM version is fitted with a universal mounting flange, which enables direct mounting on a table. Lateral fixing slots offer sufficient space for the mounting of additional components, such as cladding, cable channels and bracing

## Version

### Material

- ✓ Aluminium, clear anodised

### Stroke limitation

- ✓ Integrated limit switch, fixed

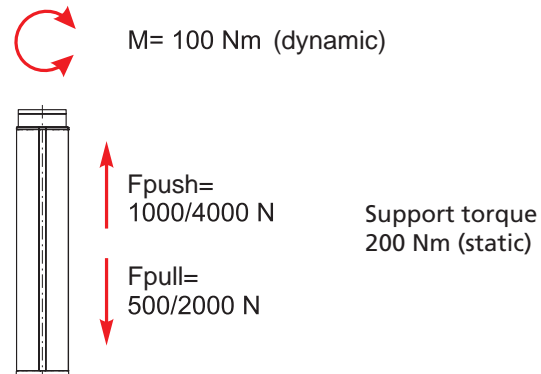
### Fixing

- ✓ 4 screw channels at top/bottom respectively
- ✓ EM version with adaptor flange at top

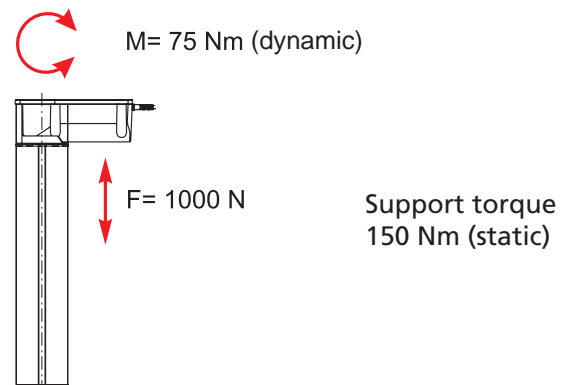
### Special features

- ✓ Eclipse and Basic profile designs
- ✓ Memory function also available
- ✓ 4 fixing slots all-round

### RK Slimlift



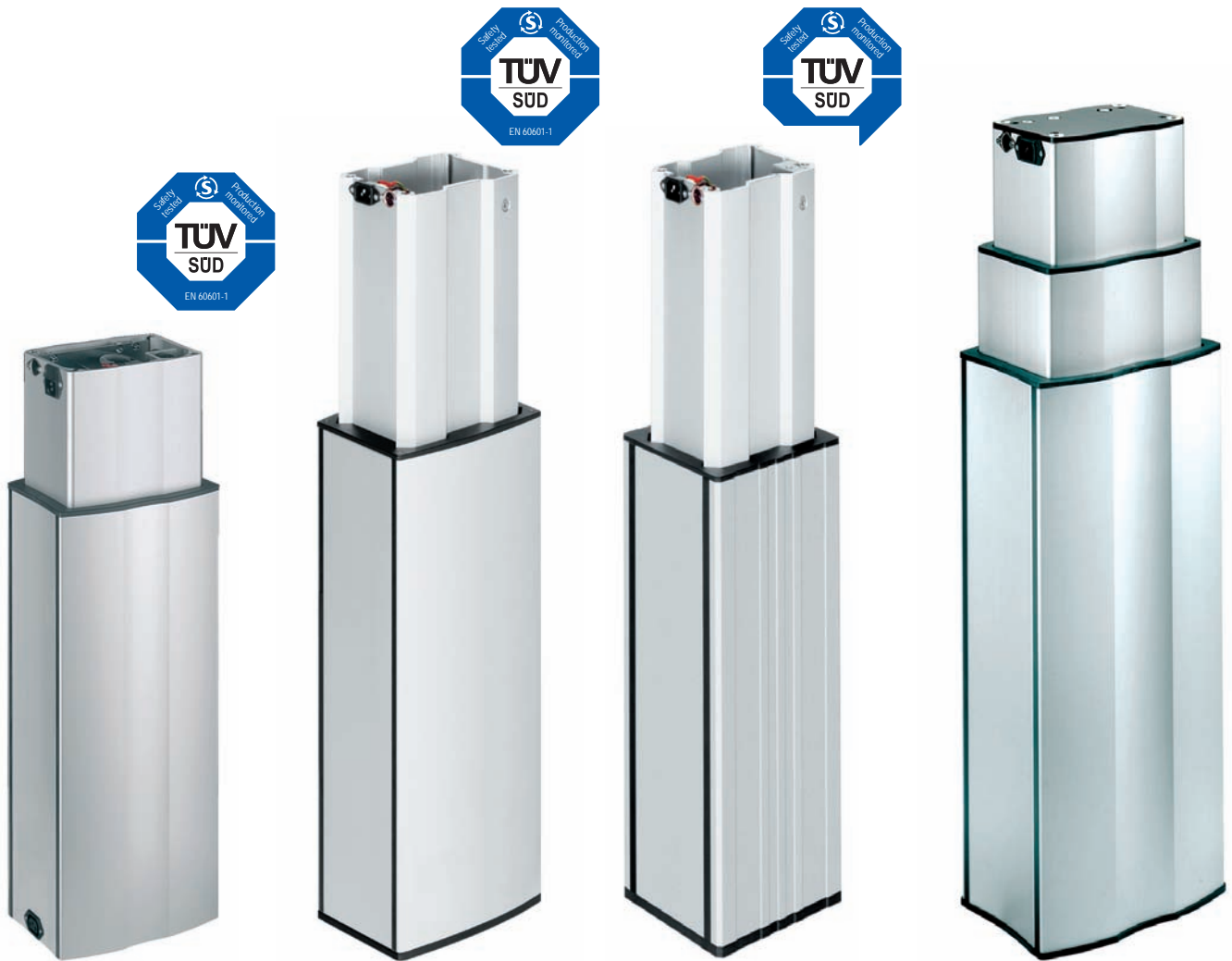
### RK Slimlift EM



## General information / operating conditions

	RK Slimlift
Design	Rod-shaped lifting column, optionally available with external drive motor ( <i>RK Slimlift EM</i> )
Guide	Preset sliding elements made of plastic
Installation position	Any position
Compressive force	Choice of 1,000 N / 4,000 N
Tensile force	Choice of 500 N / 1,000 N / 2,000 N
Voltage	36 V DC
Power input	144 W / 108 W
Protection rating	IP 30
Self-locking	Yes
Ambient temperature	+5°C to +40°C
Max. displacement with synchronous operation	0-3 mm / 0-1.5 mm
Duty cycle	At nominal load, 15% (max. 1.5 mins operating time, 8.5 mins rest time)

# Lifting columns - RKPowerlift



RKPowerlift M

RKPowerlift classic

RKPowerlift technic

RKPowerlift telescope

## Highlights in brief

- ✓ Stable design for the absorption of high lateral forces and torsional moments
- ✓ High travel speeds, even under load
- ✓ Excellent installation height/stroke ratio
- ✓ Synchronisation of several RKPowerlifts with internal or external control
- ✓ Fully integrated technology

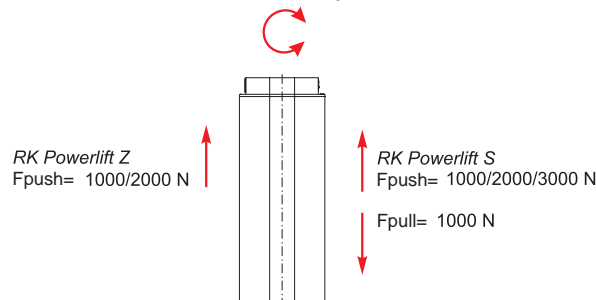
## Speed and stability

RKPowerlift was developed for single column applications. Its high stability allows it to handle enormous lateral forces without losing travel speed. The excellent ratio of long effective stroke and minimum installation height truly sets the benchmark. RKPowerlift is available as a 2 or 3-stage telescopic lifting system. The modern and timeless profile designs mean that there is no need for any additional cladding.

### RK Powerlift

RK Powerlift Z  
RK Powerlift S

M= 125 Nm (dynamic) / 250 Nm (static)  
M= 80 Nm (dynamic) / 125 Nm (static)



## Speed and stability

### Material

- ✓ Aluminium, clear anodised

### Stroke limitation

- ✓ Integrated limit switch (in some cases adjustable)

### Fixing

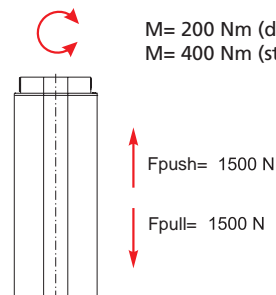
- ✓ 4 screw channels at top/bottom respectively

### Special features

- ✓ Classic, wave and technic profile designs
- ✓ Memory function also available
- ✓ TÜV-approved and approved acc. to standards for medical technical equipment.
- ✓ Manual versions available
- ✓ RKPowerlift M also available with cable bushing

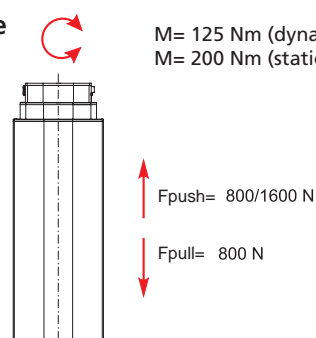
### RK Powerlift M

M= 200 Nm (dynamic)  
M= 400 Nm (static)



### RK Powerlift telescope

M= 125 Nm (dynamic)  
M= 200 Nm (static)



## General information / operating conditions

	RK Powerlift Z/S	RK Powerlift M	RK Powerlift telescope
Design	Rectangular lifting column in compact design	Rectangular lifting column in compact design	Rectangular lifting column in compact design
Guide	Multiple roller/slide bearings	16 POM slide bearings	Multiple roller/slide bearings
Installation position	Powerlift Z defined position Powerlift S any position	Any position	Any position
Compressive force	Choice of 1000 N, 2000 N, 3000 N	1500 N	Choice of 800 /1600 N
Tensile force (screw drive only)	Max. 1000 N	1500 N	Max. 800 N
Voltage	36 V DC	24 V DC	36 V DC
Power input	120 W / 210 W	120 W	180 W / 210 W
Protection rating	IP 30	IP 30	IP 30
Self-locking	Yes	Yes	Yes
Ambient temperature	+5°C to +40°C	+5°C to +40°C	+5°C to +40°C
Max. displacement with synchronous operation	0-3 mm rack drive / 0-1.5 mm screw drive	0-2 mm	0-2 mm / 0-1.5 mm
Duty cycle	At nominal load, 15% (max. 1.5 mins operating time, 10 mins rest time)	At nominal load, 15% (max. 1.5 mins operating time, 10 mins rest time)	At nominal load, 15% (max. 8.5 mins operating time, 10 mins rest time)

# Lifting columns - *Alpha* Colonne



AlphaColonne medium



AlphaColonne large

## Highlights in brief

---

- ✓ 3-stage design for the absorption of high lateral forces
- ✓ Homogeneous profile surfaces
- ✓ Excellent installation height/stroke ratio
- ✓ Synchronisation of several Alpha Colonne using MultiControl
- ✓ Fully integrated technology
- ✓ Able to handle tensile and compressive forces



## Strength in a square package

The Alpha Colonne guide profiles are an exact square. This makes the permitted lateral forces identical all round. Compared to other systems, the additional third guide stage results in a large overlap when extended, which greatly enhances stability.

The homogeneous and easy-to-clean profile surfaces are an attractive addition to any environment, so that no extra costs are incurred for cladding.

## Version

### Material

- ✓ Aluminium, clear anodised

### Stroke limitation

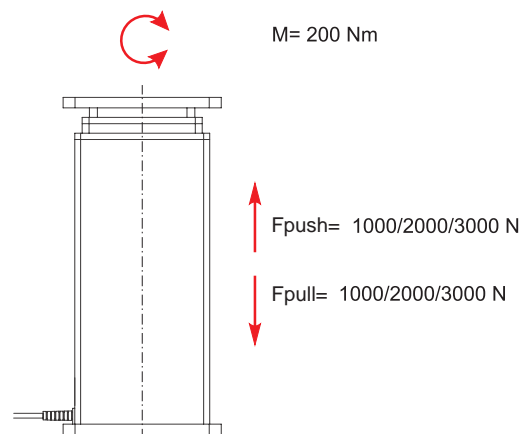
- ✓ Integrated limit switch, fixed

### Fixing

- ✓ Flange plates with borehole

### Special features

- ✓ 2 sizes – **medium** and large
- ✓ Memory function also available
- ✓ Correction of installation dimension + 3mm



## General information / operating conditions

	Alpha Colonne	
	Drive	Internal/external control
Design	Lifting column with integrated DC motor	
Guide	Slide guides made of POM	
Installation position	Any position	
Compressive force / tensile force	Up to 3000 N	
Self-locking	Up to 3000 N	
Ambient temperature	+5°C to +60°C	
Duty cycle (at max. load)	10% at nominal load (max. 2 min. operating time, 18 min. rest time)	
Displacement during synchronous operation	2 - 4 mm	
Voltage	24 V DC	230 V AC
Current consumption	Max. 5.5 A	According to drive
Power input	Max. 130 W	According to drive
Protection rating	IP 30	IP 30

# Electric cylinders

## Information:

- Further electrical cylinders on request



**LZ60 parallel**



**LZ60 internal control**

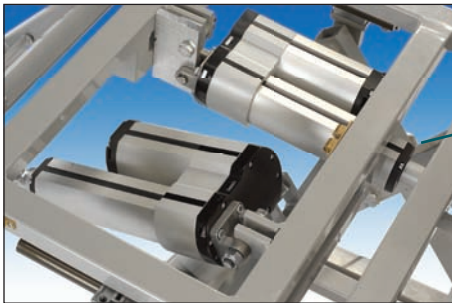


**LZ60 rod-shaped**

## Highlights in brief

- ✓ Integrated DC drive
- ✓ Variable space requirements thanks to motor arrangement in parallel (LZ 60P) or rod-shaped (LZ 60S)
- ✓ Coverable slot geometry on both sides supports a range of fixing options
- ✓ Maintenance-free at 10,000 double strokes
- ✓ Protection class IP 54
- ✓ Self-locking

## The alternative to lifting columns

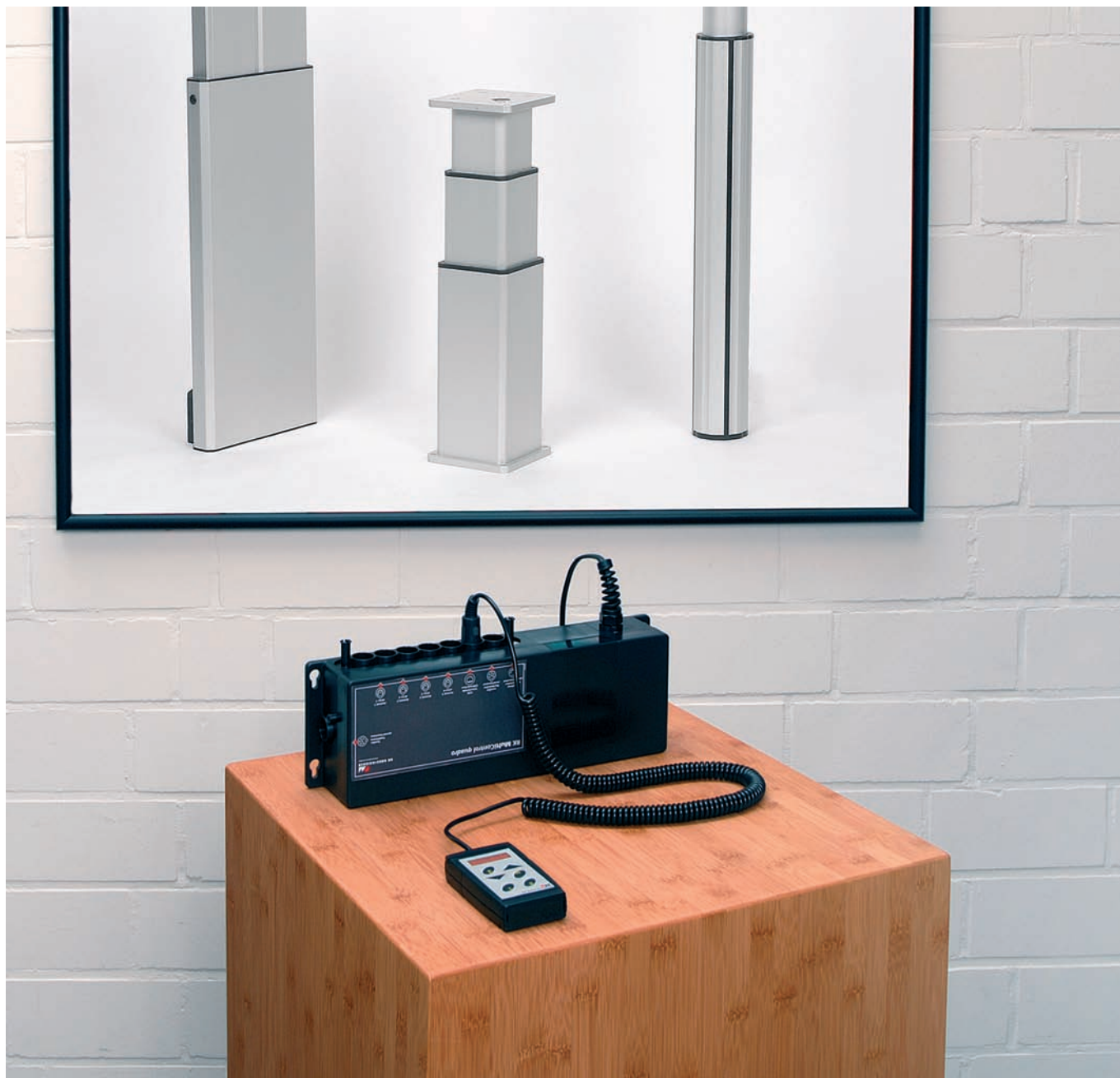


Dialysis chair: Position adjustment via four LZ 60 P electric cylinders.

## General information / operating conditions

	LZ 60 external control	LZ 60 internal control
Design	Linear cylinder with integrated DC motor	
Guide	Double bearing with POM bushes	
Installation position	Any position, without shear forces	
Compressive force / tensile force	Up to 4000 N	
Self-locking	Up to 5000 N	
Ambient temperature	+5°C to +40°C	
Repeatability	0.5 mm	
Duty cycle (at max. load)	15% (max. 1.5 mins operating time, 8.5 mins rest time)	
Voltage	24 / 36 V DC	230 V AC
Current consumption	Max. 5.5 A	Max. 1.25 A
Power input	Max. 180 W	115 W
Protection rating	IP 54	IP 30
Speed	Max. 85 mm/s	Max. 110 mm/s

# Controls & operating units

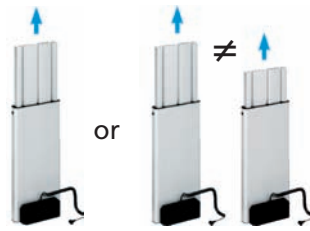


## Highlights in brief

- ✓ Easy commissioning
- ✓ All connections are plug-in and protected against polarity reversal
- ✓ Individual control through to complex multiple synchronisations via BUS
- ✓ High power reserves due to toroidal transformer
- ✓ Hand switch and data interface for PC and PLC control as ideal add-on modules

## Mono

Mono operation  
1 drive singly



Mono operation  
2 drives in parallel



### "The Simple Solution"

Transformer control 120 VA single or parallel operation



### "The Strong Solution"

MultiControl mono single or parallel operation

## Battery / Mono



### MultiControl accu 1.2 Ah

1 – 2 drives single/parallel operation



### MultiControl accu 7.2 Ah

1 – 2 drives single/parallel operation

## Synchro

Duo mode  
2 drives synchronised



Synchronous mode  
3–4 drives synchronised



### MultiControl duo

2 drives synchronised



### MultiControl duo silent

2 drives synchronised



### MultiControl quadro

3 – 4 drives synchronised

## Battery / Synchro



### MultiControl accu 1.2 Ah

1 – 2 drives, memory or synchronous operation



### MultiControl accu 7.2 Ah

1 – 2 drives, memory or synchronous operation



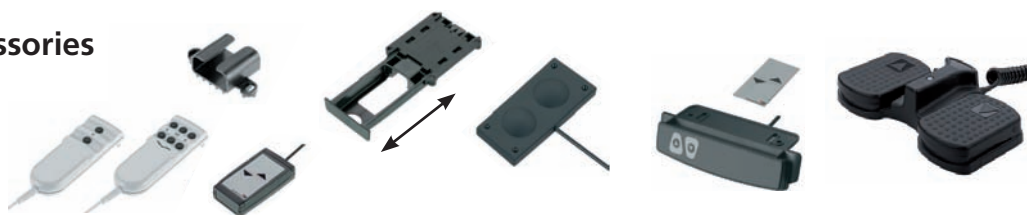


Customer application

## Highlights in brief

- ✓ Comprehensive accessories
- ✓ Range of different feet
- ✓ Table top frames & fixing plates
- ✓ Assembly plates, adaptor bars and levelling elements for a wide range of applications

## MultiControl mono / Hand switches / accessories



**Hand switch**  
1 metre of spiral cable  
2 function keys

**Hand switch**  
1 metre of spiral cable  
6 function keys

**Hand switch**  
1 metre of spiral cable  
2 function keys

**Undercover hand switch**  
2 function keys

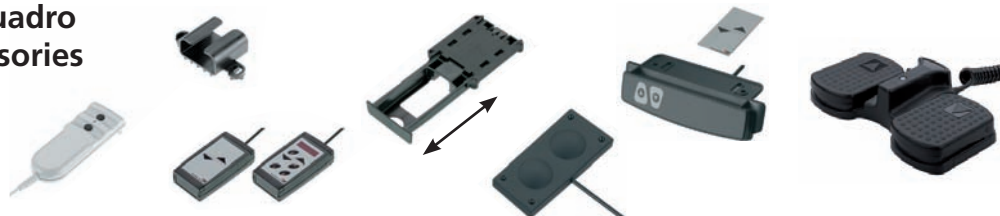
**Table hand switch**  
1 metre spiral cable  
2 function keys

**Membrane keyboard**  
1 metre spiral cable  
2 function keys

**Foot switch**  
2 function keys

**Bracket for hand switch**  
Drawer for hand switch

## MultiControl duo / quadro Hand switches / accessories



**Hand switch**  
1 metre of spiral cable  
2 function keys

**Hand switch**  
1 metre of spiral cable  
2 function keys

**Hand switch**  
1 metre of spiral cable  
6 function keys  
9 memory functions  
Height indication

**Undercover hand switch**  
2 function keys

**Table hand switch**  
1 metre spiral cable  
2 function keys

**Membrane keyboard**  
1 metre spiral cable  
2 function keys

**Foot switch**  
2 function keys

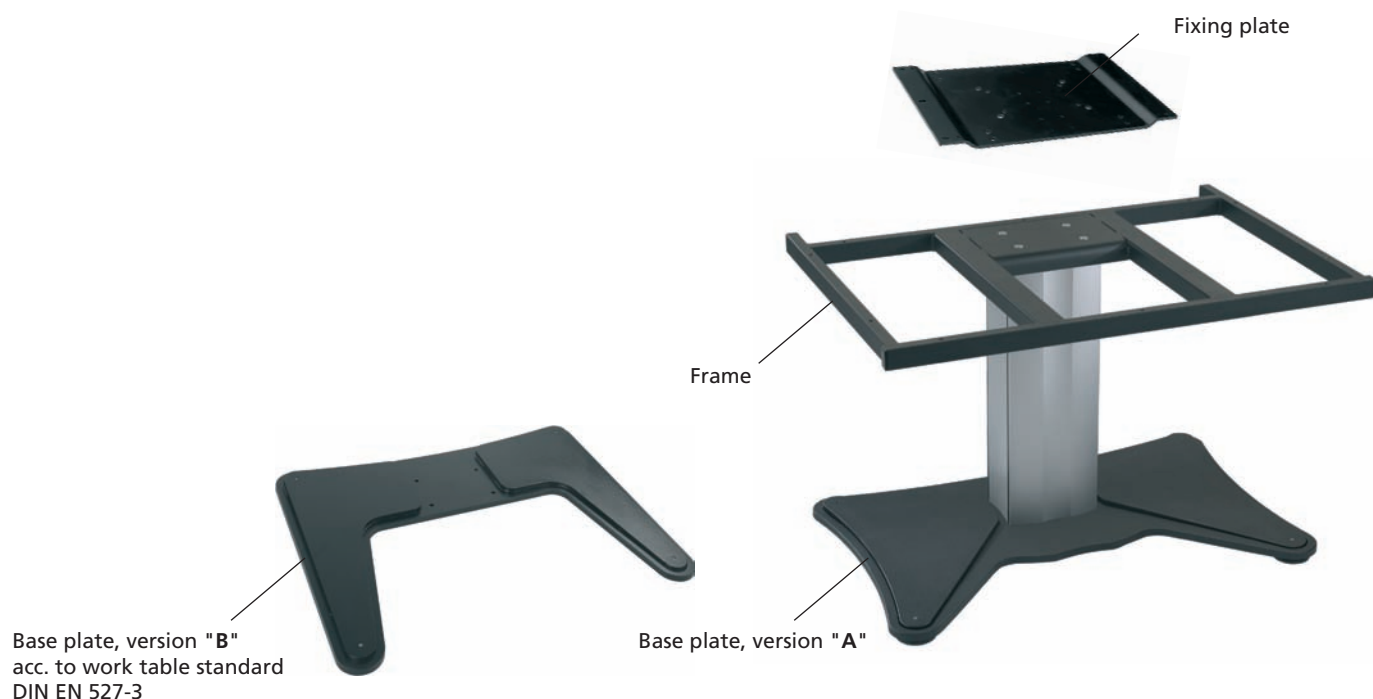
**Bracket for hand switch**  
Drawer for hand switch

## Frames / fixing plates for table tops / base plates

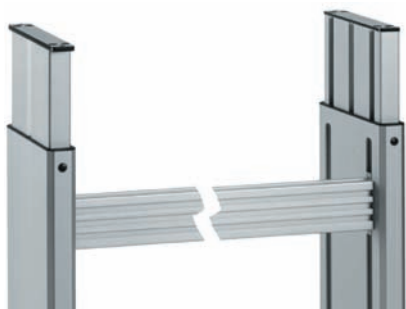
■ Our universal fixing plate and table frame provide two standard solutions for the attachment of table tops, brackets etc. to the lifting column without the need for any further modifications.

**Material:** Steel, matt black powder-coating (RAL 9005)  
Fixing material galvanised.

**Scope of delivery:** Complete with fixing material



## Adaptor bar for Multilift



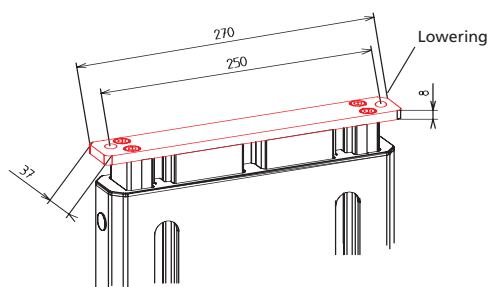
■ Cross struts from the BLOCAN® Profile Assembly System are used to increase the stability of two version B Multilifts. The adaptor bar is suitable for F profile 40x80 L and F GG 40x80.

**Material:** AlMgSi 0.5  
Galvanised fixing set  
**Scope of delivery:**  
2x adaptor bars, fixing set

## Assembly plate for Multilift

■ The assembly plates facilitate the installation of the lifting columns in customer applications

**Material:**  
Black powder-coated galvanised fixing set  
**Scope of delivery:**  
Plate with fixing set



## Feet for lifting columns

- Wide range of feet for lifting columns
- No modification of lifting column required

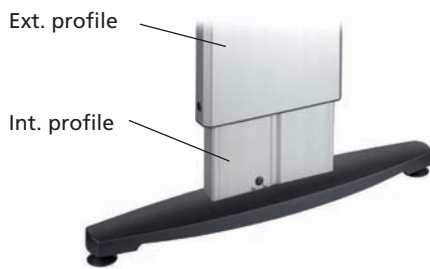
### Material:

Type 1/2/5 GK-AlSi12 / 3.2583.02, black powder-coating

Type 3/4 steel tube, ends sealed with caps, black powder-coating

### Scope of delivery:

one foot with fixing set



## RK SyncFlex H

### Horizontal alignment

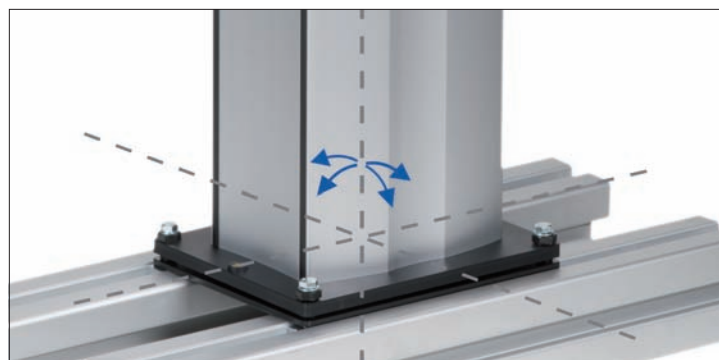
- For the prevention of distortions around the horizontal axis in over-determined systems (more than one fixed bearing). RK SyncFlex H incorporates defined floating bearings in the application.



## RK SyncFlex V

### Vertical alignment

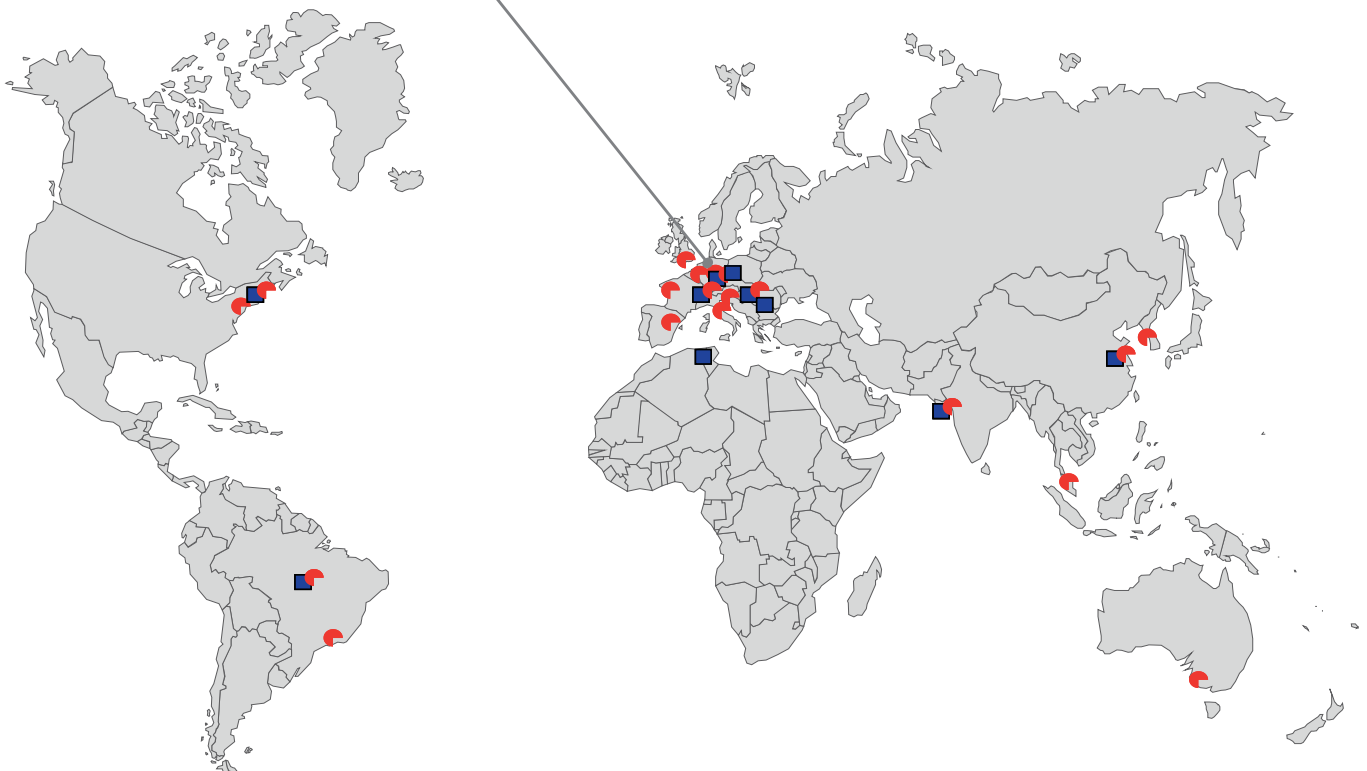
- If the lifting columns are not parallel, the distance between the two upper fixing points will change during the movement. However, a rigid connection keeps this distance constant, and this means that the lifting columns are subject to very strong forces. RK SyncFlex V enables the compensation of unevenness in the mounting environment.





**Head Office:** Germany, Minden / Westph.

- ✓ Company sales representatives
- ✓ Distributors and system partners



**Available around the globe.**

- ✓ Profit Centre within Phoenix Mecano
- ✓ Sales and system partners

■ = Production facilities

↪ = Distribution companies

**RK ROSE+KRIEGER**

A Phoenix Mecano Company

**Fax: +49 (0)571 9335-119**

**Phone: +49 (0)571 9335-0**

**E-mail: [anfrage.vertrieb@rk-online.de](mailto:anfrage.vertrieb@rk-online.de)**

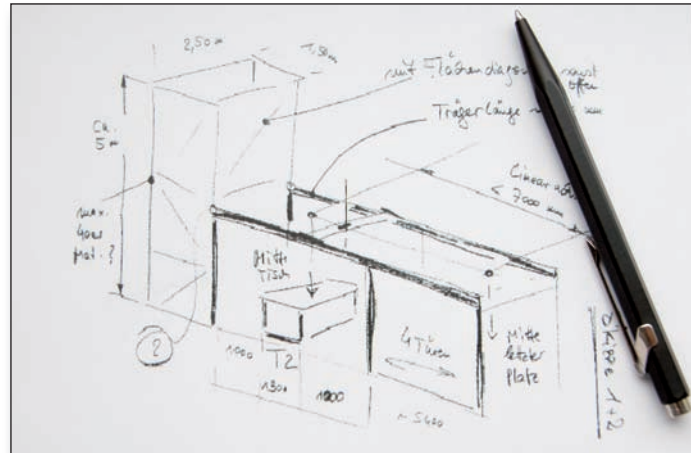
**[www.rk-rose-krieger.com](http://www.rk-rose-krieger.com)**

RK Rose+Krieger GmbH • Connecting and positioning systems • Postfach 1564 • 32375 Minden

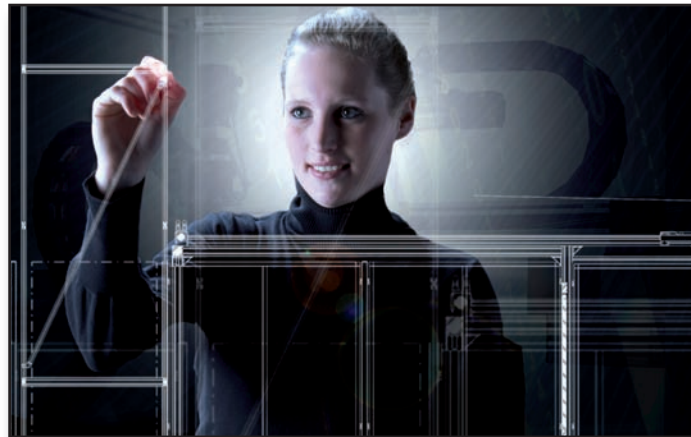


Do you need to focus your resources on other tasks and are you looking for an expert partner you can rely on? Working in close collaboration with you, our specialists will develop solutions tailor-made to meet your needs.

- Just make a sketch of your requirements



- Our product specialists will devise a solution for you



- We will deliver the optimum product for your requirements.





**RK ROSE+KRIEGER**

A Phoenix Mecano Company

---

**Connecting and positioning systems**

RK Rose+Krieger GmbH  
Postfach 15 64  
32375 Minden / Germany  
Phone +49 (0)5 71 93 35-0  
Fax +49 (0)5 71 93 35-119  
E-mail: [info@rk-online.de](mailto:info@rk-online.de)  
[www.rk-rose-krieger.com](http://www.rk-rose-krieger.com)