RKPowerlift telescope
Two-stage lifting column
The *RKPowerlift* with optimised installation height/stroke ratio

**RKPowerlift telescope:**
- Push forces 800 N / 1,600 N
- Pull force 800 N
- Lifting speed
  - 15 mm/s, 30 mm/s

**Features:**
- Withstands high bending moments in both static and dynamic range
- Integrated motor
- Adjustable stroke length
- Choice of internal or external control
- Four fixing slots in external profile

**Options:**
- Special stroke lengths available on request
- Quadro control enables synchronisation of up to 32 columns

**Fixing**
- Adaptor plate with 4x M8 holes

**Lifting column**
- Double-telescoping
**RKPowerlift telescope - Table of content**

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### Position determination
- **Fixing**
- **Base plate**
- **RK SyncFlex**

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**RK ROSE+KRIEGER**

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**Areas of application**

**Electric cylinder**

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**Controls & Accessories**

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**Appendix**

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**Introduction**
General information/operating conditions

<table>
<thead>
<tr>
<th>Design</th>
<th>Rectangular lifting column in compact design</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guide</td>
<td>Multiple roller/slide bearings</td>
</tr>
<tr>
<td>Installation position</td>
<td>Any position/suspended with drop protection provided by the customer</td>
</tr>
<tr>
<td>Push force</td>
<td>Choice of 800/1,600 N</td>
</tr>
<tr>
<td>Pull force</td>
<td>Max. 800 N</td>
</tr>
<tr>
<td>Voltage</td>
<td>36 V DC</td>
</tr>
<tr>
<td>Power input</td>
<td>180 W/210 W</td>
</tr>
<tr>
<td>Protection class</td>
<td>IP 30</td>
</tr>
<tr>
<td>Self-locking</td>
<td>Yes</td>
</tr>
<tr>
<td>Ambient temperature</td>
<td>+5°C to +40°C</td>
</tr>
<tr>
<td>Max. displacement with synchronous operation</td>
<td>0-2 mm/0-1.5 mm</td>
</tr>
<tr>
<td>Duty cycle</td>
<td>At nominal load, 15% (max. 1.5 mins operating time, 8.5 mins rest time)</td>
</tr>
</tbody>
</table>

Note:
All information refers to the standard sizes. All data of push/pull forces are referring to the individual lifting column, for combined applications a safety factor of up to 0.6 has to be considered.

Load data

![Load diagram]

- \( M = 125 \text{ Nm (dynamic)} \)
- \( F_{\text{push}} = 800/1,600 \text{ N} \)
- \( F_{\text{pull}} = 800 \text{ N} \)

Support torque 200 Nm (static)
Parallel operation

The standard version also supports parallel operation of two RKPowerlifts (no synchronisation). This may produce different lifting positions during operation, which can be levelled out by moving to the end positions.

Synchronous operation

Synchronous operation of two or more columns. In conjunction with the integrated sensors, the control (see page 146) ensures synchronisation, and thus constant alignment of all the columns in both directions of travel, even if subject to different loads. The synchronous operation tolerance depends on the lifting speed and is max. 1.5 mm for the 15 mm/s version and max. 2 mm for the 30 mm/s version. A memory function is also available.
RKPowerlift telescope - Versions

Versions

- with internal control

- for external control

Hand switch connection / mains supply

Connecting cable (8-pin, 1.8 m) for MultiControl

Steel base plate, 5 mm
**RKPowerlift telescope - Versions**

**Introduction**

**Lifting columns**

**Electric cylinder**

**Controls & Accessories**

**Appendix**

**Areas of application**

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**Fixing slot sealed with cover profile**

**Max. screw-in depth 6 mm**

**Hand switch connection**

**Power supply**

**Base plate**

**Fixing slot sealed with cover profile**

**Max. screw-in depth 6 mm**

For order table, see next page
### RKPowerlift telescope - Versions

#### RKPowerlift telescope mono

1-2 single or parallel operation

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<thead>
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<tr>
<td>QPT30BC420650</td>
<td><strong>RKPowerlift telescope</strong> 30</td>
<td>800</td>
<td>800</td>
<td>30</td>
<td>650</td>
<td>560</td>
<td>~18</td>
</tr>
<tr>
<td>QPT15BE420650</td>
<td><strong>RKPowerlift telescope</strong> 15</td>
<td>1,600</td>
<td>800</td>
<td>15</td>
<td>650</td>
<td>560</td>
<td>~18</td>
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**With internal control/memory (9 positions can be stored)**

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<td>800</td>
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<td>650</td>
<td>560</td>
<td>~18</td>
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<tr>
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<td><strong>RKPowerlift telescope</strong> 15</td>
<td>1,600</td>
<td>800</td>
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<td>650</td>
<td>560</td>
<td>~18</td>
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</table>

#### For external control

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<tr>
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<td>QPT30EC480650</td>
<td><strong>RKPowerlift telescope</strong> 30</td>
<td>800</td>
<td>800</td>
<td>30</td>
<td>650</td>
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<td>~17</td>
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<tr>
<td>QPT15EE480650</td>
<td><strong>RKPowerlift telescope</strong> 15</td>
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<td>650</td>
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</tr>
</tbody>
</table>

Transformer control 120 VA

- approx. 24 V DC

MultiControl mono

- approx. 36 V DC

<table>
<thead>
<tr>
<th>Code No.</th>
<th>External control for telescopic screw drive</th>
</tr>
</thead>
<tbody>
<tr>
<td>QZA09C13BH031</td>
<td>Transformer control 120 VA connection C Controls 1 drive</td>
</tr>
<tr>
<td>QSTACCA1AA000</td>
<td>MultiControl mono connection C, up to max. I= 12 A current output, 36 V DC Controls up to 2 drives</td>
</tr>
</tbody>
</table>

**Accessories**

- QZD0702844000* Straight connecting cable (4 m) with 5-pin connector and open cable end
- QZD070526 Extension cable 2,5 m drive for connector C/8-pin DIN socket

*for the connection of a parallel hand switch or an external potentiometer (in the case of the MultiControl mono)
Lifting columns

**RKPowerlift telescope - Versions**

**RKPowerlift telescope synchro**

2-4 in synchronous operation

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
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<td><strong>RKPowerlift telescope 30</strong></td>
<td>800</td>
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</tr>
<tr>
<td>QPT158E470650</td>
<td><strong>RKPowerlift telescope 15</strong></td>
<td>1,600</td>
<td>800</td>
<td>15</td>
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<td>~18</td>
</tr>
</tbody>
</table>

**Accessories**

<table>
<thead>
<tr>
<th>Code No.</th>
<th>Connecting cable (bus cable)</th>
</tr>
</thead>
<tbody>
<tr>
<td>QZD100093</td>
<td>6 m bus cable for the networking of up to 8 synchronous controls</td>
</tr>
</tbody>
</table>

<table>
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<tr>
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<td>~17</td>
</tr>
</tbody>
</table>

MultiControl (duo und quadro)

approx. 36 V DC

<table>
<thead>
<tr>
<th>Code No.</th>
<th>External control for telescopic screw drive</th>
</tr>
</thead>
<tbody>
<tr>
<td>QST43C02AA000</td>
<td>MultiControl duo connection C, up to max. I = 12 A current output for synchronous control of 1-2 drives</td>
</tr>
<tr>
<td>QST43C04AA000</td>
<td>MultiControl quadro connection C, up to max. I = 12 A current output for synchronous control of 1-4 drives</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Code No.</th>
<th>Accessories</th>
</tr>
</thead>
<tbody>
<tr>
<td>QZD070526</td>
<td>Extension cable 2,5 m drive for connector C/8-pin DIN socket</td>
</tr>
</tbody>
</table>
Frame/fixing plate for table top

- 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, black powder-coated (RAL 9005) Galvanised fastenings

<table>
<thead>
<tr>
<th>Code No.</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>QZD100085</td>
<td>Frame for <em>RKPowerlift telescope</em>, incl. fastenings</td>
</tr>
<tr>
<td>QZD100313</td>
<td>Fixing plate</td>
</tr>
<tr>
<td>QZD100338</td>
<td>Fixing set for fixing plate <em>RKPowerlift telescope</em>, M8 x 16 DIN 7984</td>
</tr>
</tbody>
</table>
**Base plate**

**Material:** steel, black powder-coated (RAL 9005)  
Galvanised fastenings

**Scope of delivery:**  
complete with fastenings

**Order information:**  
Base plate only in combination with “Type 0” possible  
(see page 75)

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**Plastic foot**  
with adjustment thread, M10

**Base plate,**

**DIN74-Bm10**

---

**Scope of delivery:**  
complete with fastenings

**Order information:**  
Base plate only in combination with “Type 0” possible  
(see page 75)

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**Code No.** | **Type** | **A** | **B**
---|---|---|---
QZD100257 | Base plate for *RKPowerlift telescope* | 93 | 180
**RK SyncFlex H**

**Scope of delivery:**
Adjuster plate, incl. fixing material

**Horizontal alignment**
- To prevent locked-up stress in mechanically overdefined bearing systems (more than one fixed bearing) around the horizontal axis. With RK SyncFlex H defined loose bearings supplement the application.

**RK SyncFlex V**

**Scope of delivery:**
Adjuster plate, incl. fixing material

**Option:**
Optionally available with or without pressure plate (see table)

**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.

**Scope of delivery:**
Adjuster plate, incl. fixing material

**Option:**
Optionally available with or without pressure plate (see table)

**Code No.**  | **Type**          | **A** | **B** | **C** | **D** | **E** | **F** | **G**
---|---|---|---|---|---|---|---|---
QZD100453  | *RKPowerlift telescope* | 200 | 250 | 36 | 180 | 230 | M 10 | |

**RK SyncFlex V** enables the compensation of unevenness in the mounting environment.

**Code No.**  | **Type**                      | **A** | **B** | **C** | **D** | **E** | **F** | **G**
---|---|---|---|---|---|---|---|---
Without pressure plate
QZD100447  | *RKPowerlift telescope* | 200 | 250 | - | 180 | 230 | 10-15 | M 10 |
With pressure plate
QZD100464  | *RKPowerlift telescope* | 200 | 250 | 15-20 | 180 | 230 | 10-15 | M 10 |
**RKPowerlift telescope** - Position determination

### PLC / PC data interface
- This interface enables actuation of the synchronous control system via different input devices (PLC, PC and hand switch)

You will find further product information on page 184

<table>
<thead>
<tr>
<th>Code No.</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>QZD100108</td>
<td>PLC/PC data interface</td>
</tr>
<tr>
<td>QZD100110</td>
<td>Fixing plate for mounting in a control cabinet</td>
</tr>
</tbody>
</table>

### Hand switches / accessories
*(internal control RKPowerlift telescope mono)*

<table>
<thead>
<tr>
<th>Code No.</th>
<th>Version</th>
</tr>
</thead>
<tbody>
<tr>
<td>QZB00A00BC011</td>
<td>Membrane keyboard with 1 m spiral cable – 2 function keys</td>
</tr>
<tr>
<td>QZB02C01AE114GS</td>
<td>Foot switch – 2 function keys</td>
</tr>
<tr>
<td>QZB00D04AB041</td>
<td>Hand switch with 1 m spiral cable – 2 function keys</td>
</tr>
<tr>
<td>QZB00D07BK141</td>
<td>Hand switch for RKPowerlift telescope mono (Start and Stop)</td>
</tr>
</tbody>
</table>

### Accessories for hand switches

<table>
<thead>
<tr>
<th>Code No.</th>
<th>Version</th>
</tr>
</thead>
<tbody>
<tr>
<td>QZD000074</td>
<td>Drawer for hand switch</td>
</tr>
</tbody>
</table>

### Hand switches / accessories
*(external control RKPowerlift telescope synchro)*

<table>
<thead>
<tr>
<th>Code No.</th>
<th>Version</th>
</tr>
</thead>
<tbody>
<tr>
<td>QZB00D04AD041</td>
<td>Hand switch with 1 m spiral cable – 6 function keys</td>
</tr>
</tbody>
</table>
We say what we do - and do what we say!
We also say what we can’t do - and don’t do it!