

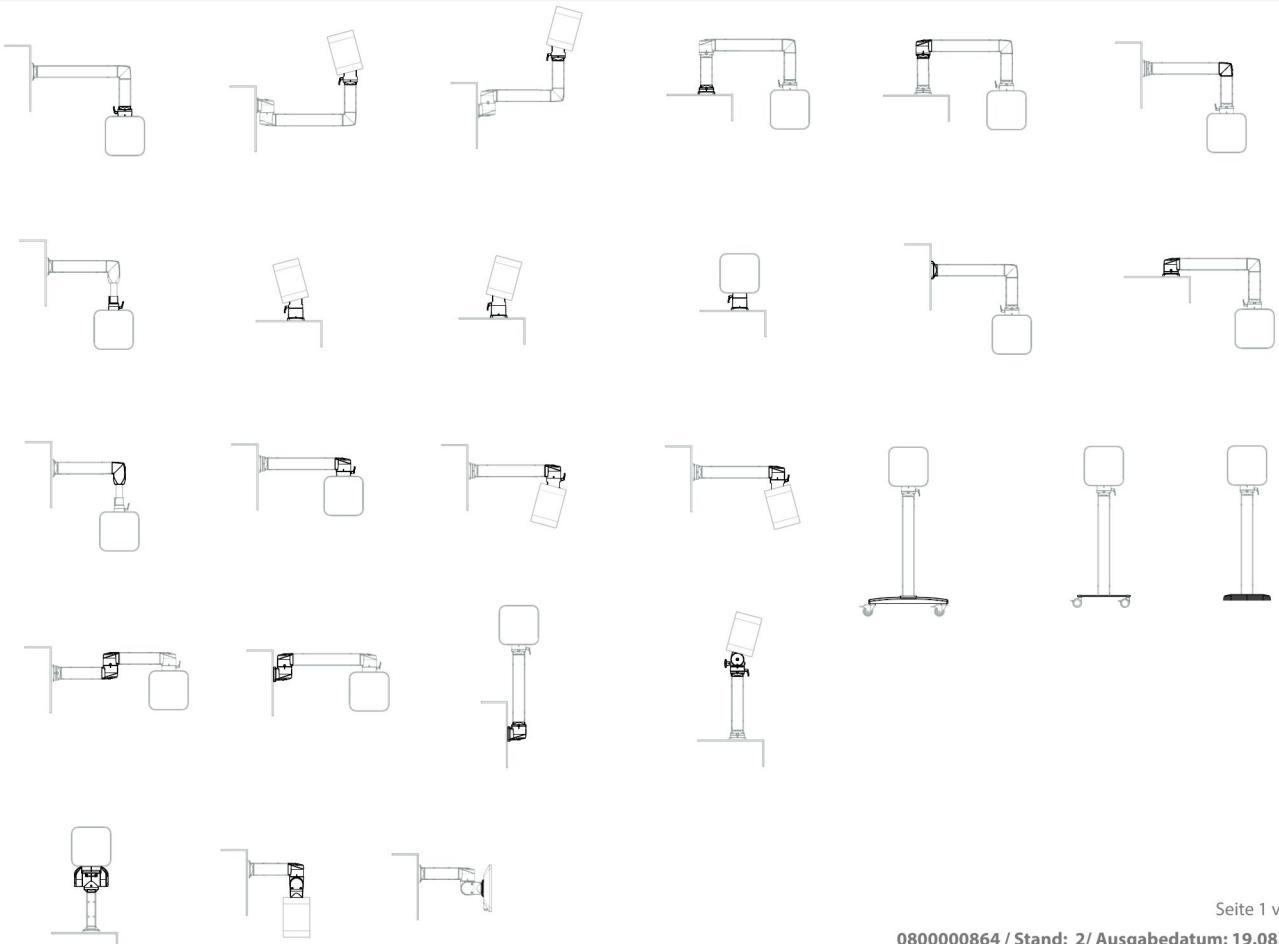
# Installation and Operating Instructions

## Supension System

SYSPEND 281-MAX



## Application examples



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## 1 Layout and use of the instructions

All components that are not included in the delivery specification are shown in grey. The instructions do not necessarily follow the operating or installation sequence. Not all sections apply to every component.

Procedure:

- Identify the pictogram applicable for your application
- Start at the beginning and select the section applicable for your application, select the section by assigning the pictograms

## 2 Safety Instructions

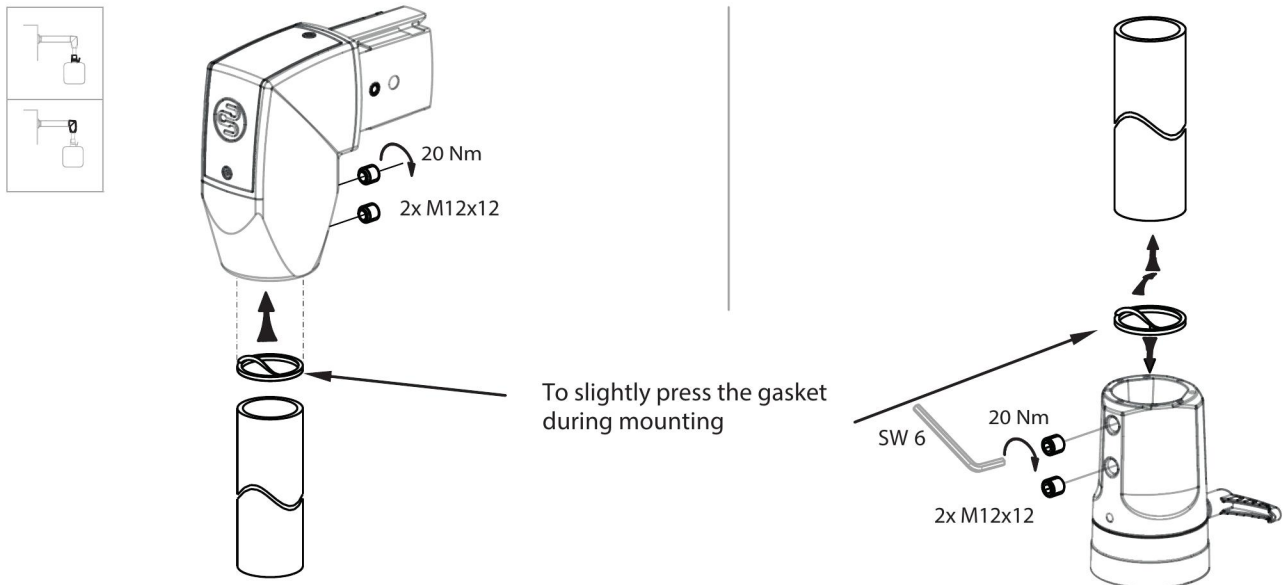


Risk of injury

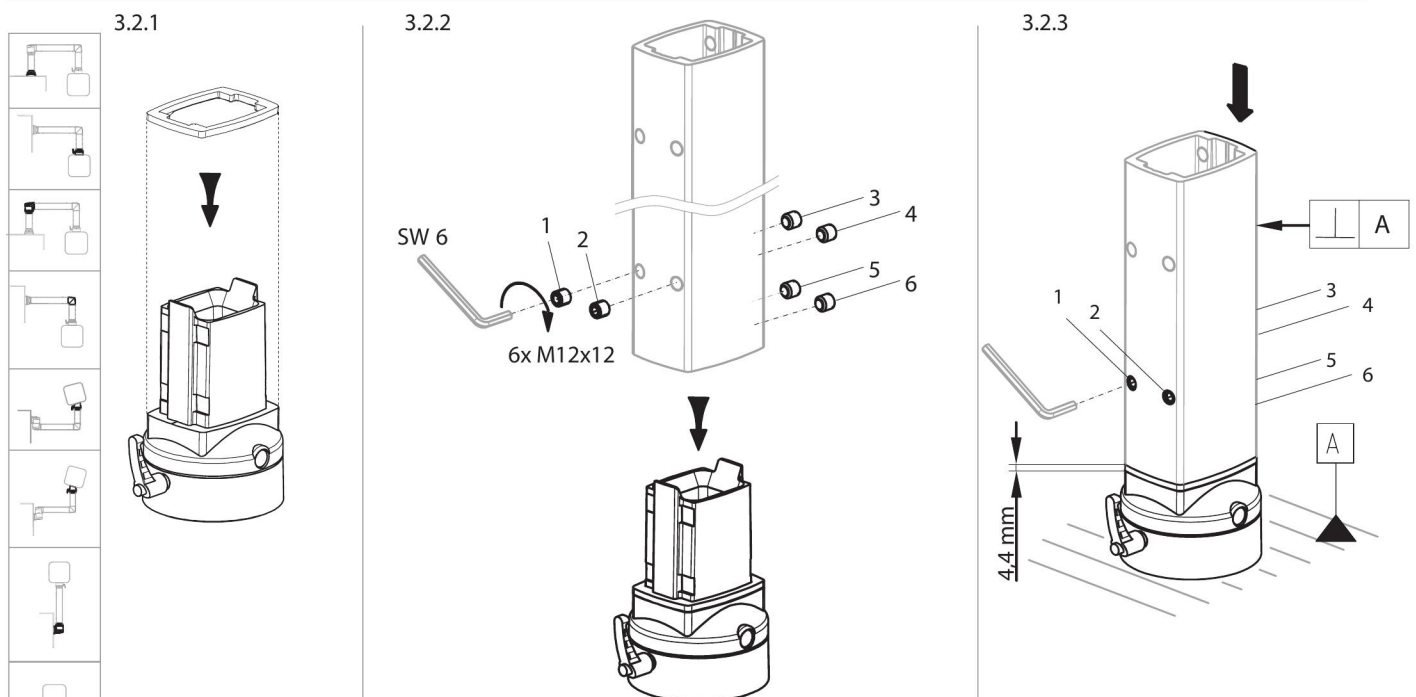
Caution ▶ Do not reach into tubes

### 3 Mounting of tube

#### 3.1 Round tube



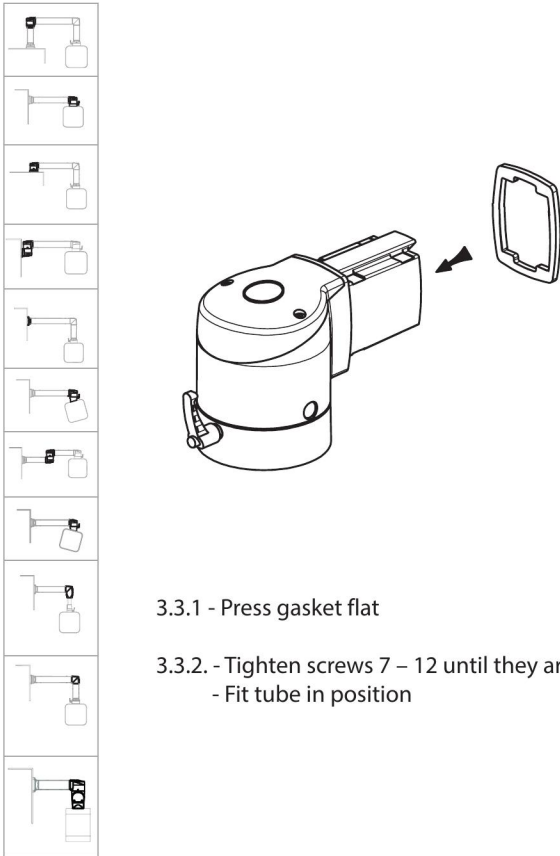
#### 3.2 Vertical



- 3.2.1 - Press gasket flat
- 3.2.2 - Tighten screws 1 – 6 until they are flush on the inside  
- Fit tube in position
- 3.2.3 - Press gasket with tube in axial direction while tightening screw 3 and 4 until there is no play  
- Maintain pressure while tightening screws 5 and 6 to 20 Nm  
- Align tube: see "Tube Alignment"  
- Firmly tighten screws in stages  
- Check that gap is max. 4.4 mm

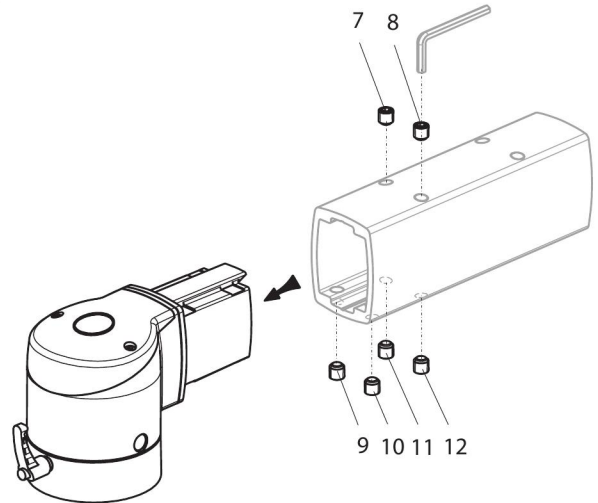
### 3.3 Horizontal

3.3.1



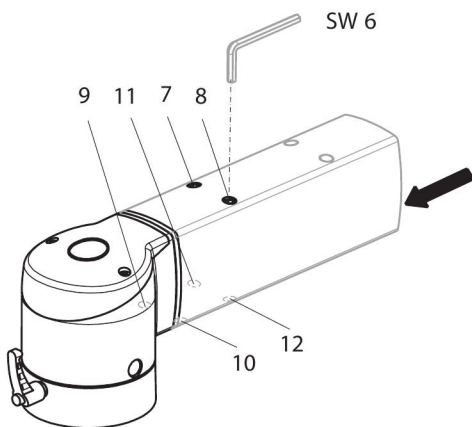
3.3.1 - Press gasket flat

3.3.2



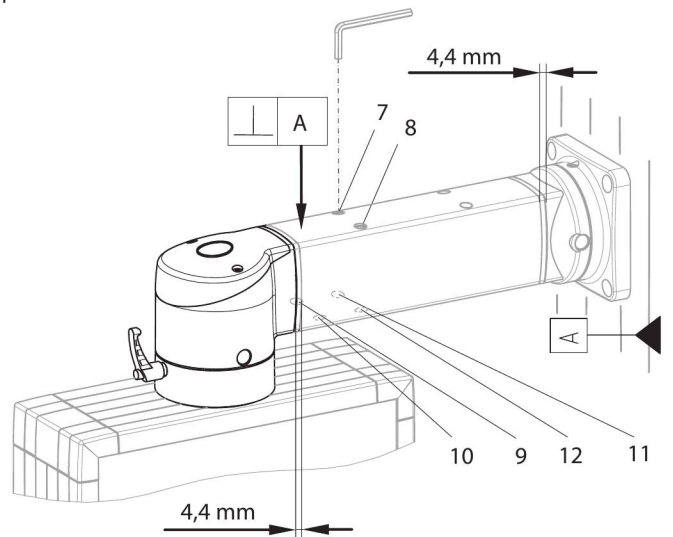
3.3.2. - Tighten screws 7 – 12 until they are  
- Fit tube in position

3.3.3



3.3.3 - Press gasket with tube in axial direction while tightening screw 11 and 12 until there is no play  
- Maintain pressure while tightening screws 9 and 10 to 20 Nm  
- Align tube (see Tube Alignment)

3.3.4

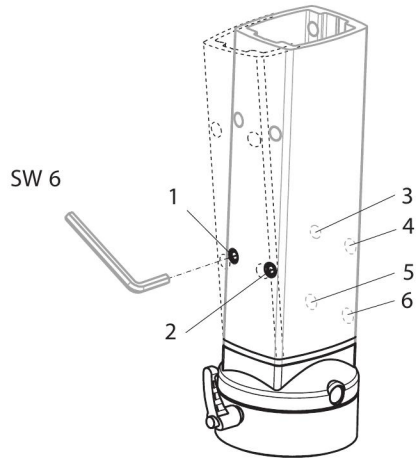
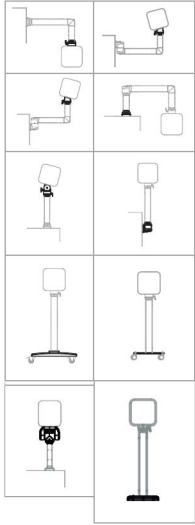


3.3.4 - Secure enclosure to tube  
- Align tube (see Tube Alignment)  
- Firmly tighten screws in stages  
- Check that gap is max. 4.4 mm

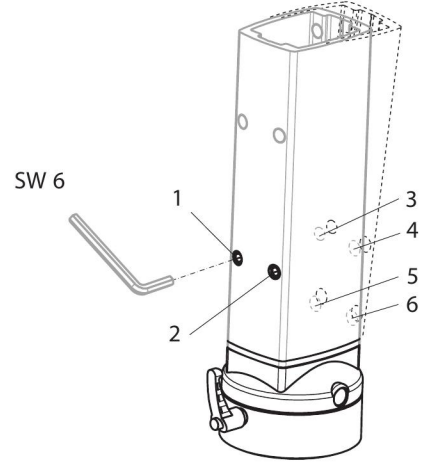
## 4 Tube alignment

### 4.1 Vertical

4.1.1



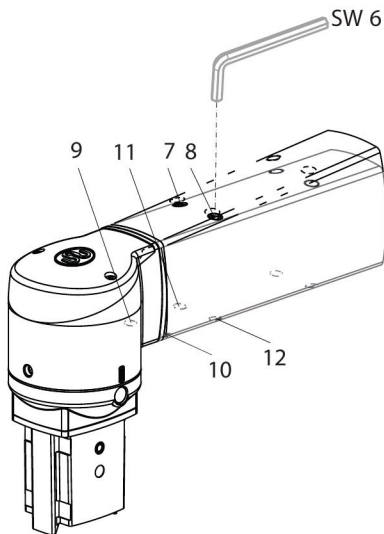
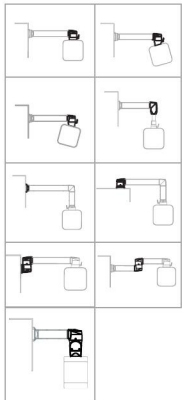
4.1.2



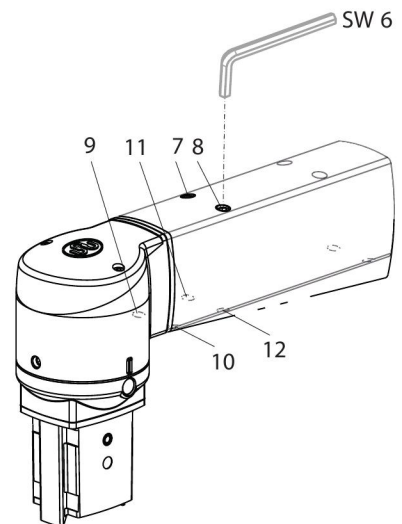
- 4.1.1 - Slacken off screws 3, 4
- Tighten screws 1, 2
- 4.1.2 - Tighten screws 3, 4
- Slacken off screws 1, 2

### 4.2 Horizontal Option 1

4.2.1

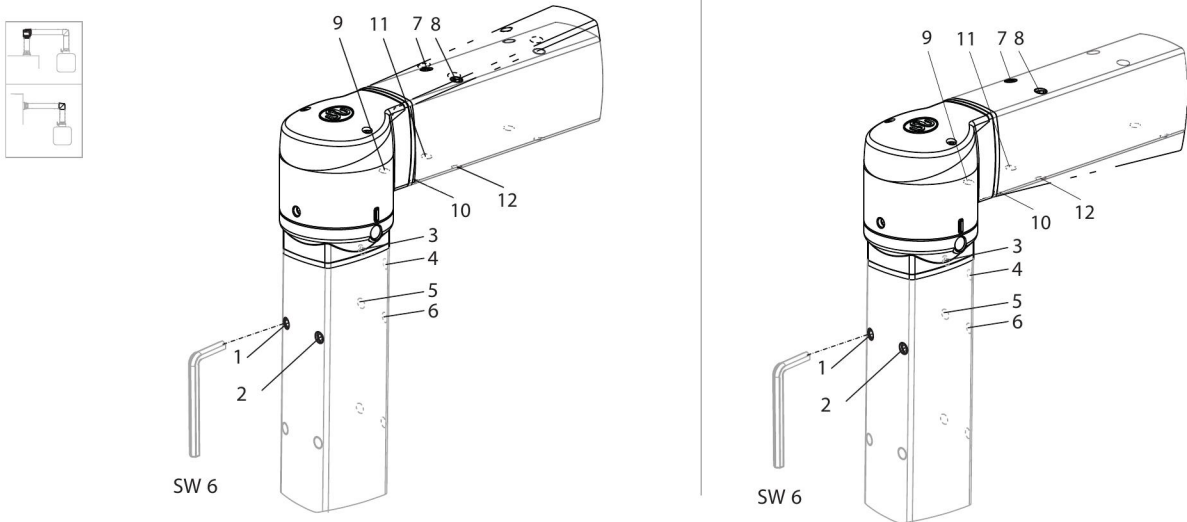


4.2.2



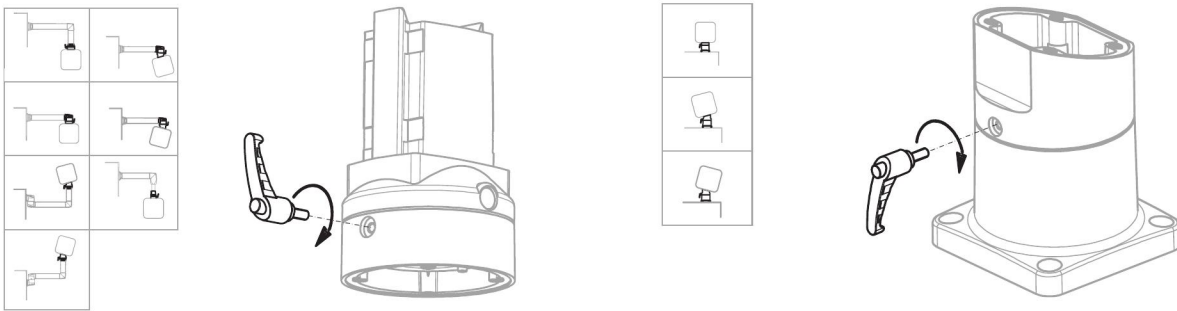
- 4.2.1 - Slacken off screws 11, 12
- Tighten screws 7, 8
- 4.2.2 - Tighten screws 11, 12
- Slacken off screws 7, 8

### 4.3 Horizontal

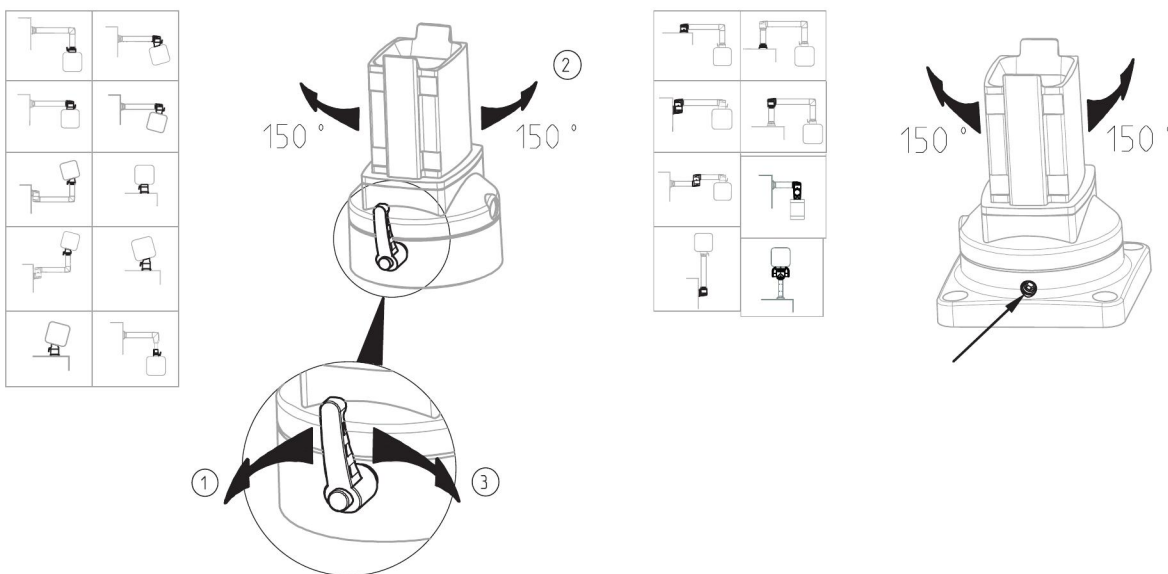


- 4.3.1 - Slacken off screws 5, 6 and tighten screws 1, 2  
and/or
- Slacken off screws 11, 12 and tighten screws 7, 8
- 4.3.2 - Tighten screws 5, 6 and slacken off screws 1, 2  
and/or
- Tighten screws 11, 12 and slacken off screws 7, 8

### 5 To ascertain the lever screw in



### 6 Fine adjustment of the tightness





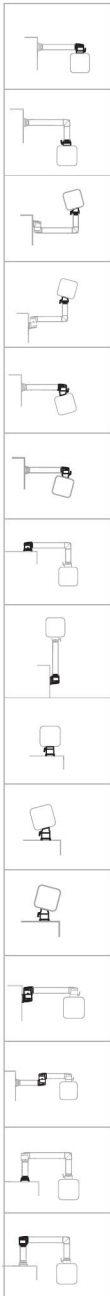
## 7 Attitude of the tightness of torque (M)



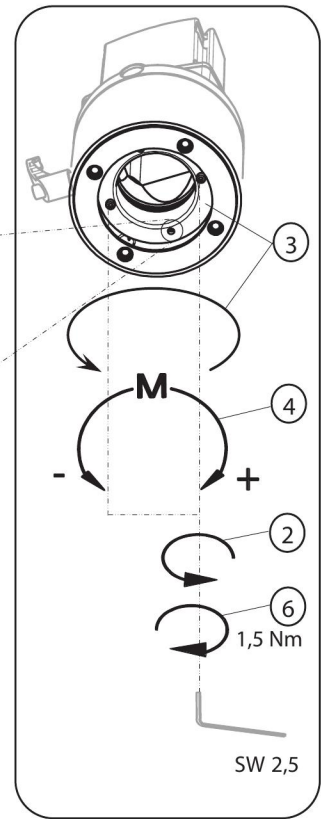
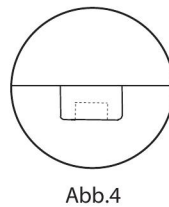
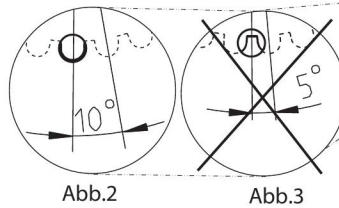
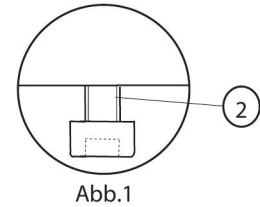
### Attention!

The adjustment must be carried out in the not installed condition of the components. It is important to ensure that the component may have no bearing clearance and the plain bearings rest plan after fixing the threaded sleeve.

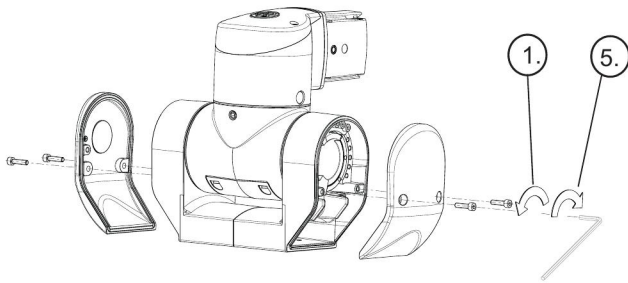
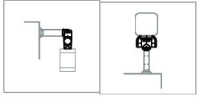
If the resistance is accomplished in completely installed condition, accepts BERNSTEIN AG no liability for breakage, personal injury or fall of the system.



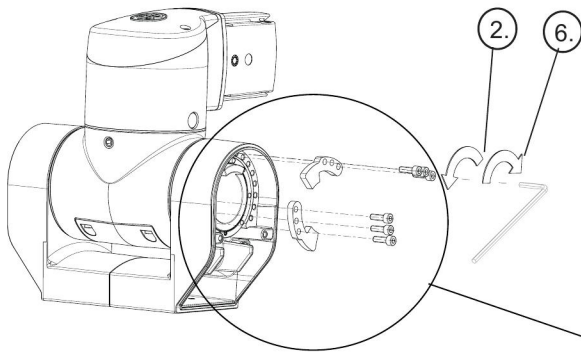
1. Unscrew the cover, if necessary.
2. Loosen cylinder screws M3, so that the screw head lifts 2-3 mm (Abb. 1) (Attention: Do not unscrew completely).
3. Loosen the threaded sleeve anticlockwise with tool item no. 9805421000. (Abb. 5) max. 1 revolution.
4. Set the desired swing torque by tightening the threaded sleeve (Abb. 5).
5. Correct the position of the through holes (as Abb. 2 shows) by tightening clockwise. Attention: Not as shown in Abb. 3!
6. Screw the M3 screws as far as the stop and tighten at 1,5 Nm (Abb.4).
7. Mount the cover, if necessary.



## 7.1 Attitude of the tightness of torque (M) Turn/ tilt coupling

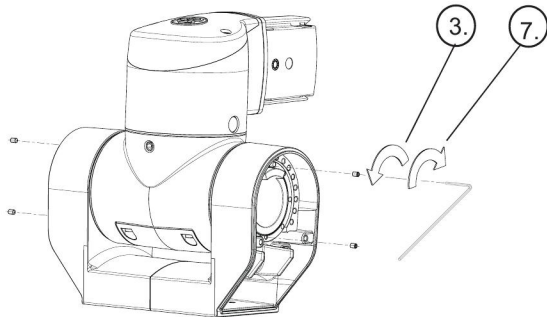
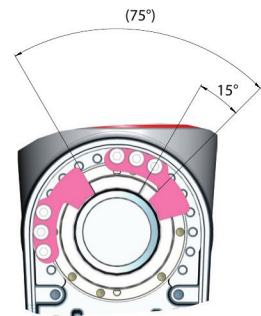
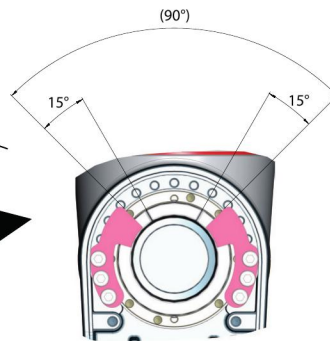


Unscrew the cover Pos.1  
Mount the cover Pos. 5

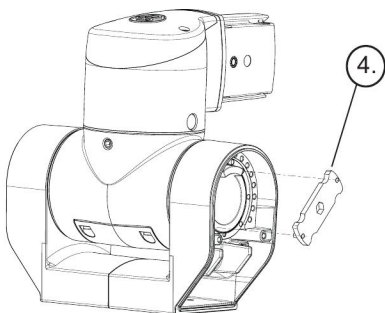


Unscrew the tilt angle limiter Pos.2  
Mount the tilt angle limiter Pos. 11

Application examples for tilt angle limiter



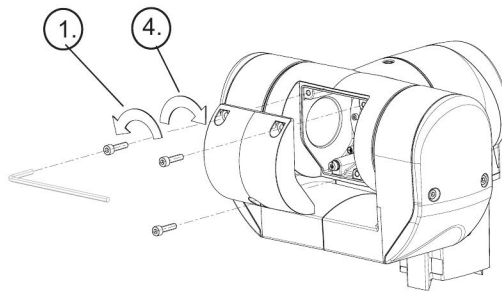
Unscrew the threaded pin M4 Pos. 3 /  
Screw the threaded pin M4 Pos. 7



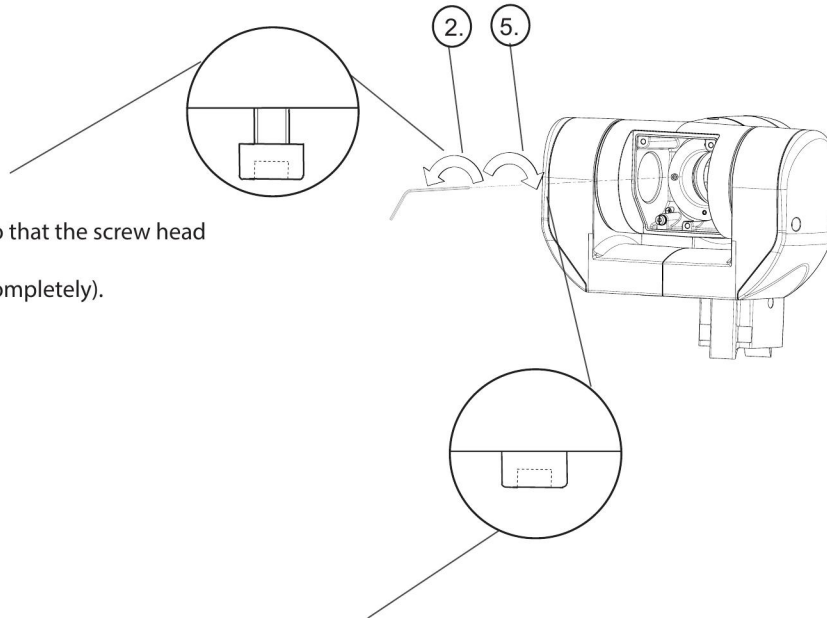
Loosen threaded nut with tool item  
no. 980 5422 000. Pos. 4 max. 1  
revolution anticlockwise. Set the desired  
inclination moment by tightening the  
threaded sleeve



Unscrew the cover Pos. 1  
Mount the cover Pos. 4

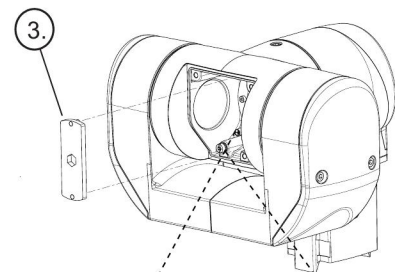


Loosen cylinder screws M3, so that the screw head lifts 2-3 mm. Pos. 2  
(Attention: Do not unscrew completely).



Screw the M3 screws as far as the stop and tighten at 1,5 Nm Pos. 5

Loosen the threaded sleeve anticlockwise with tool item no. 9805421000.  
Pos. 3 max. 1 revolution. Set the desired swing torque by tightening the threaded sleeve



Correct the position of the through holes (as Abb. 2 shows) by tightening clockwise. Attention: Not as shown in Abb. 3!

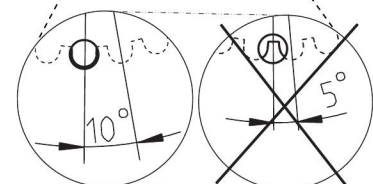
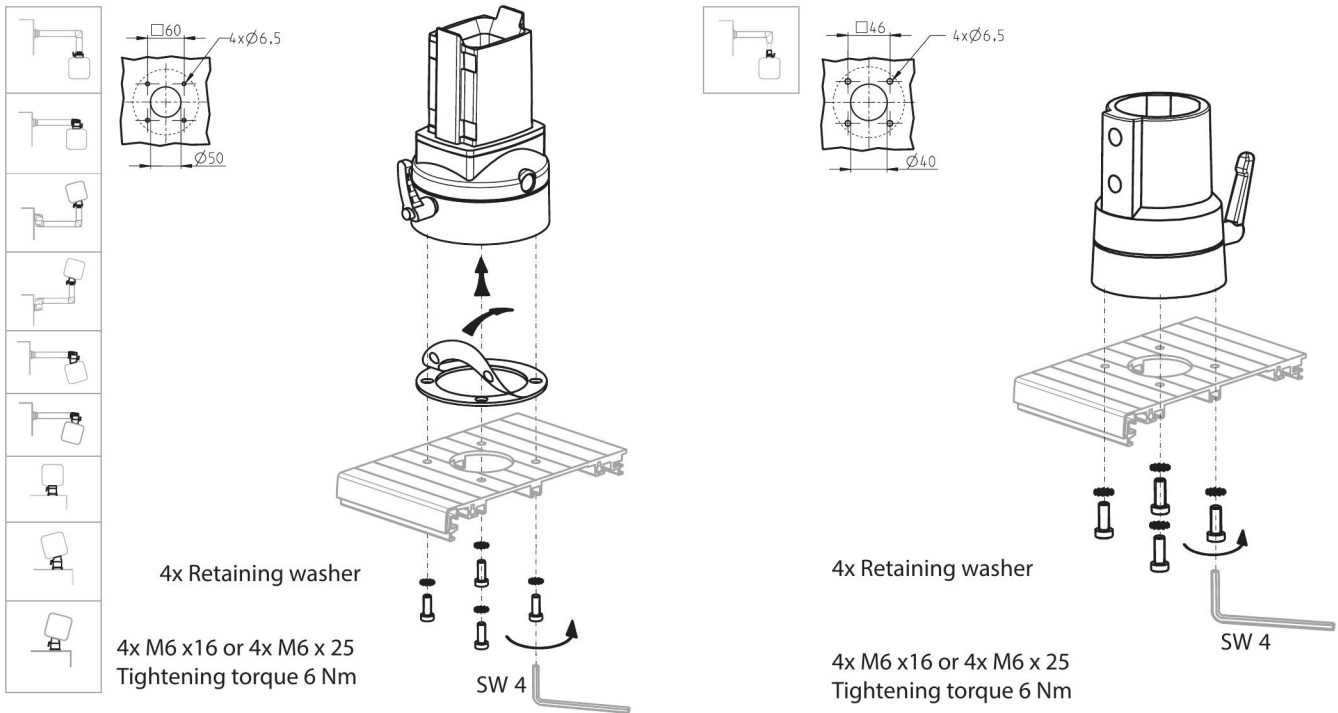


Abb.2

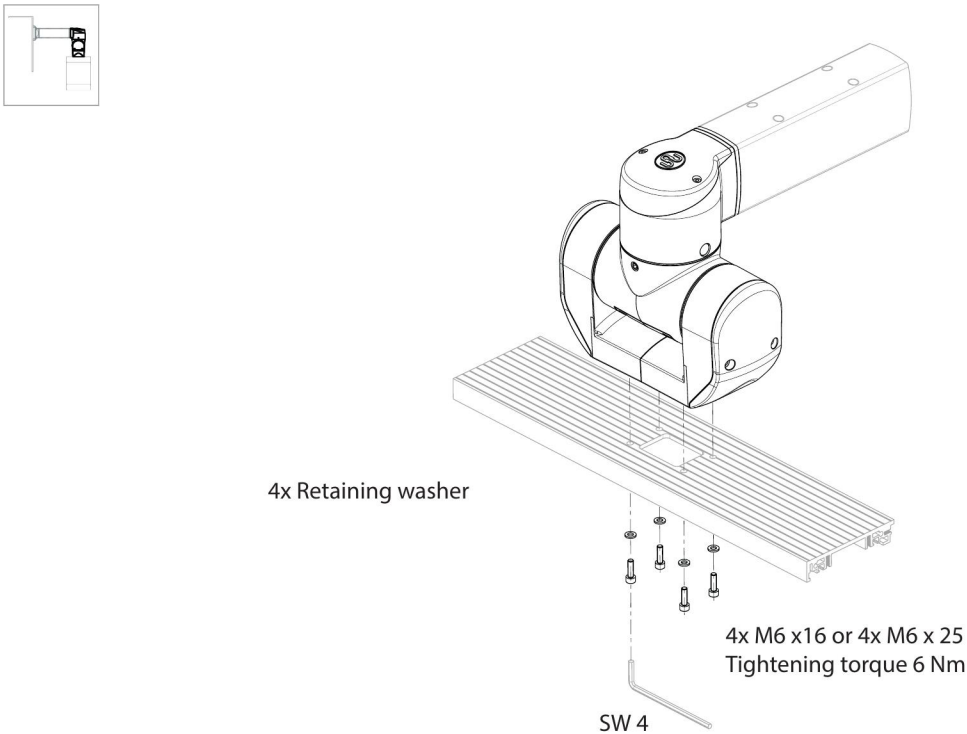
Abb.3

## 8 Fixing at enclosure

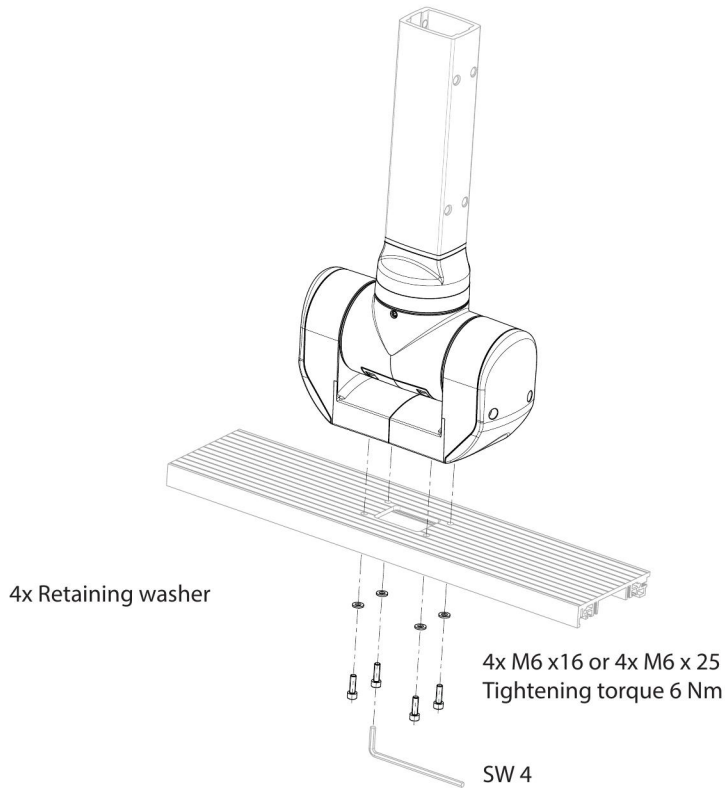
### 8.1 Standard



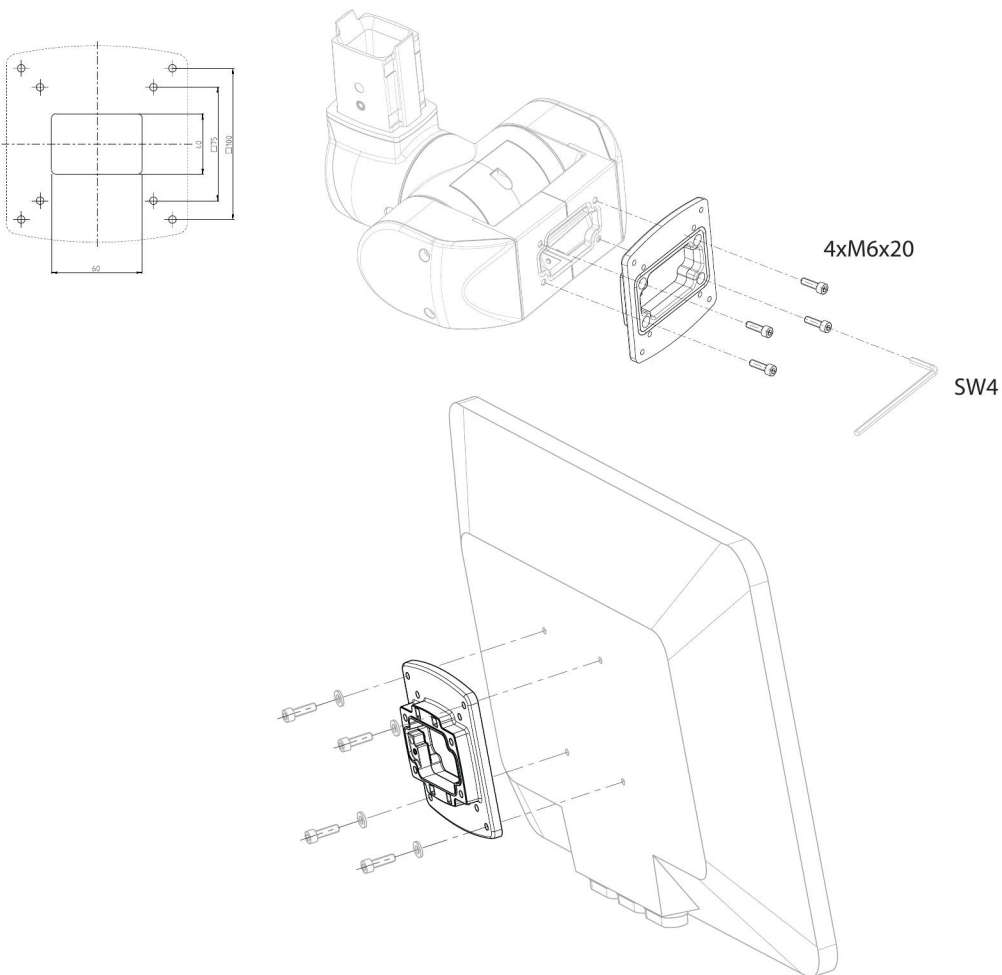
### 8.2 Turn/tilt coupling W



### 8.3 Turn/tilt coupling S

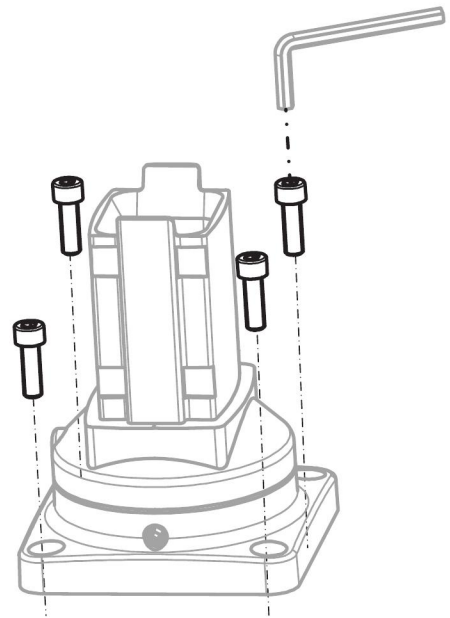
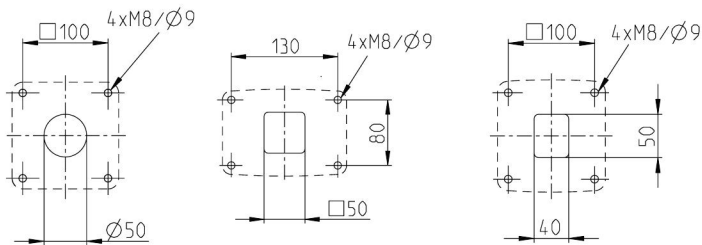
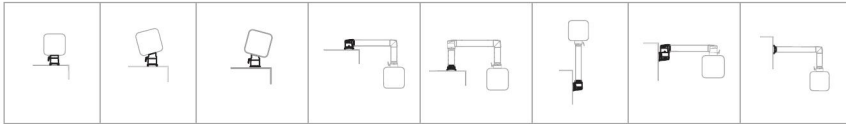


### 8.4 with adapter plate VESA 75/100

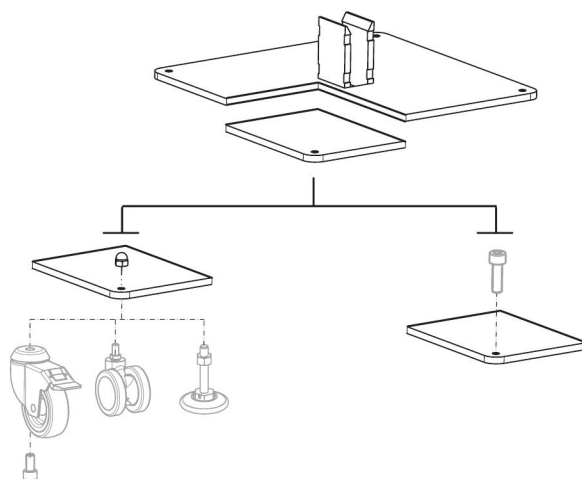
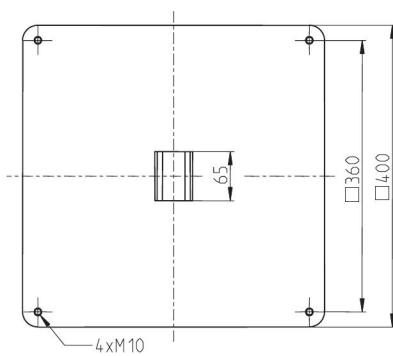


## 9 Mounting on building or machine

### 9.1 Standard

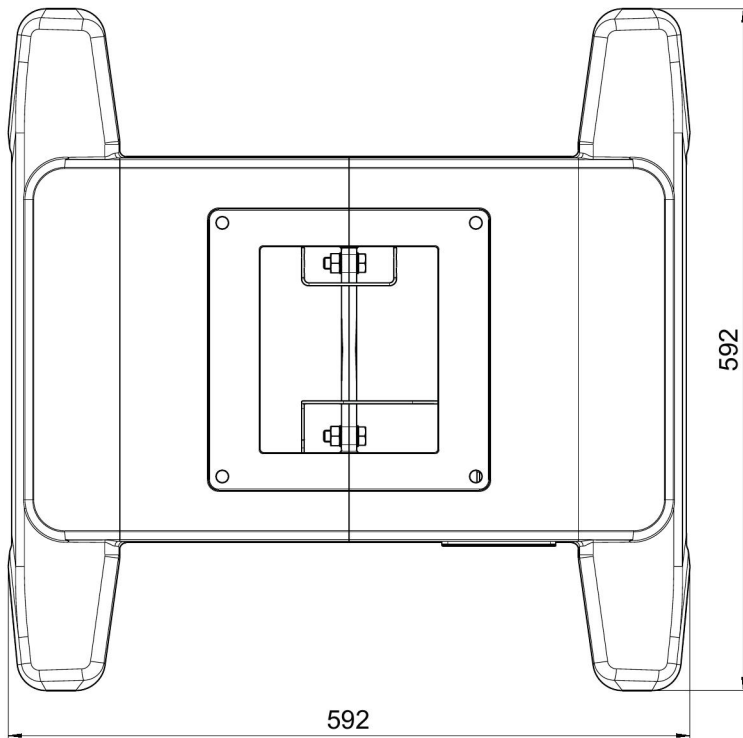
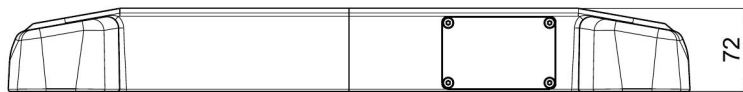
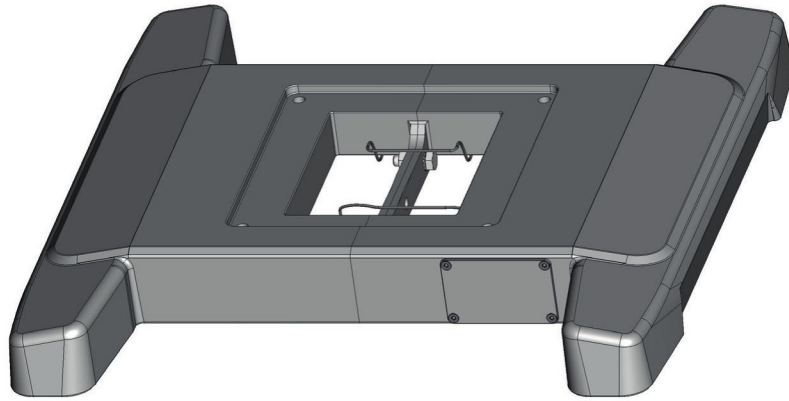


### 9.2 with small base



See "Accessories for Bases" Page 16

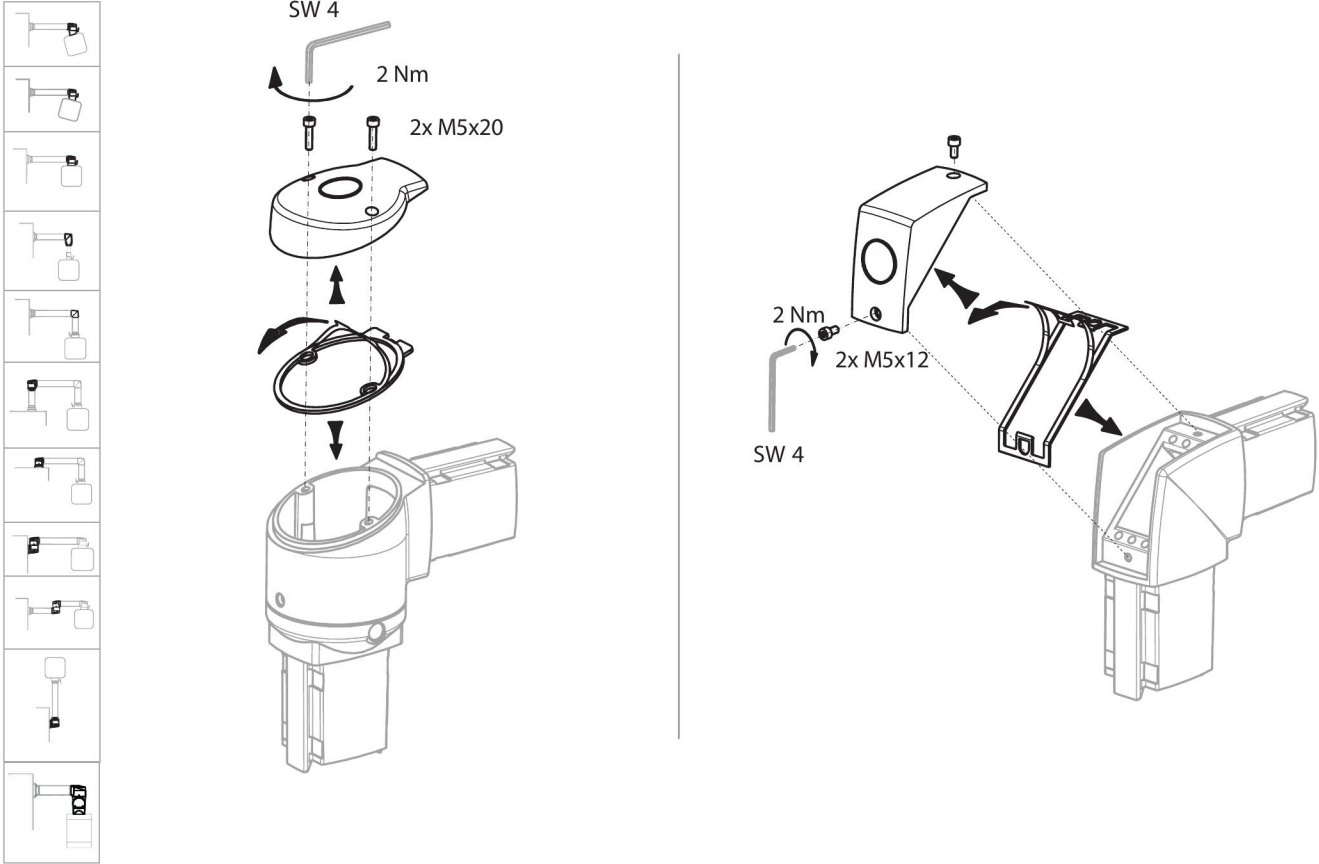
9.3 with FLEX.base



Installation for Large Base see separate installation instruction

See "Accessories for Bases" Page 16

## 10 To crew link cap



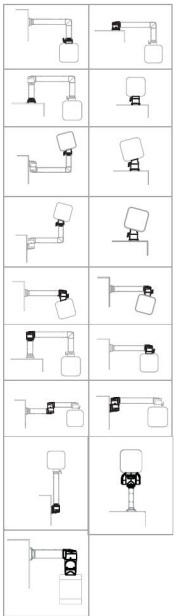
## 11 Accessories

Art No.

S2MRL

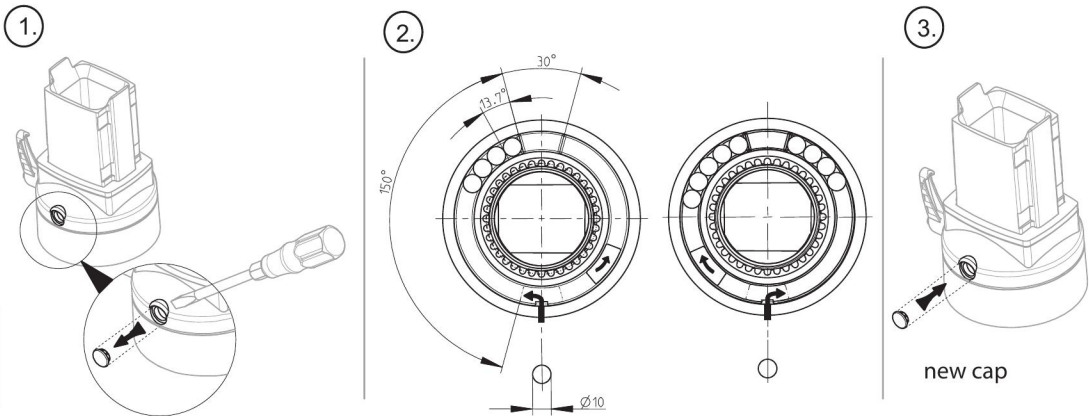
Type

Rotation limiters



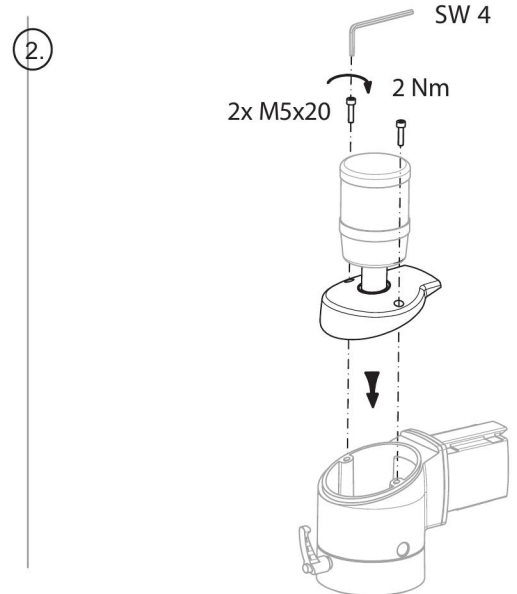
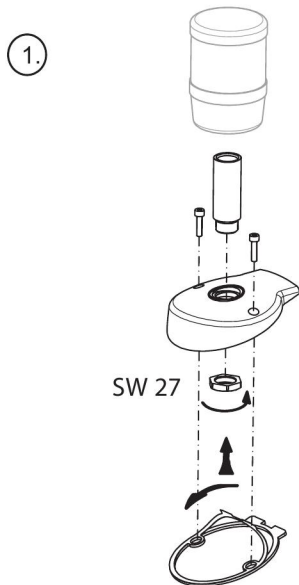
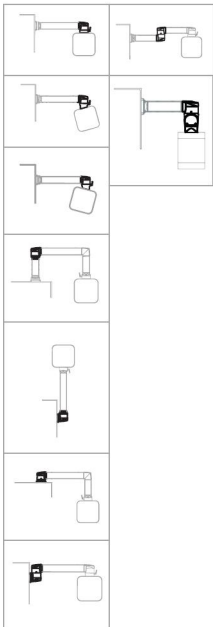
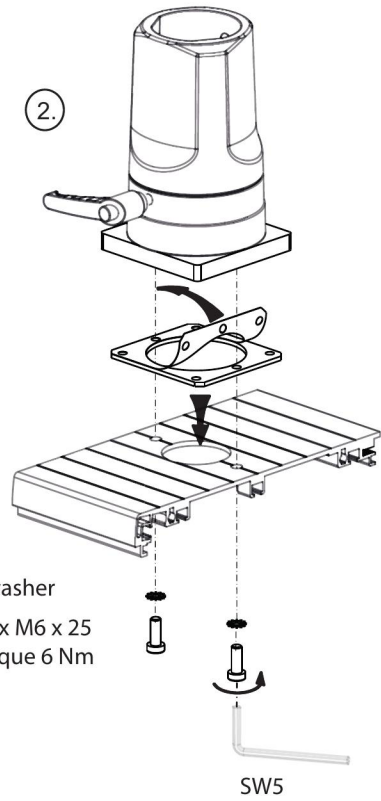
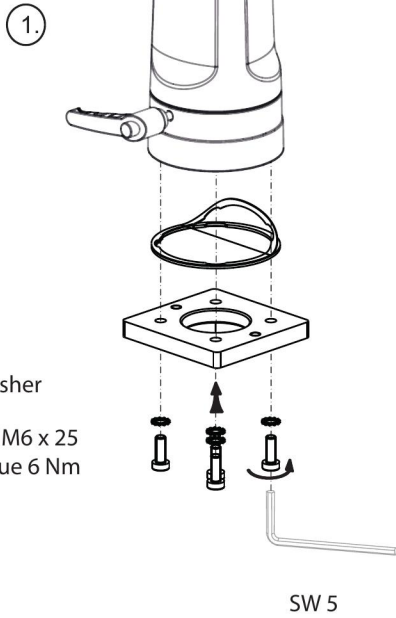
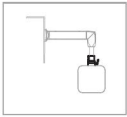
Scope of supply

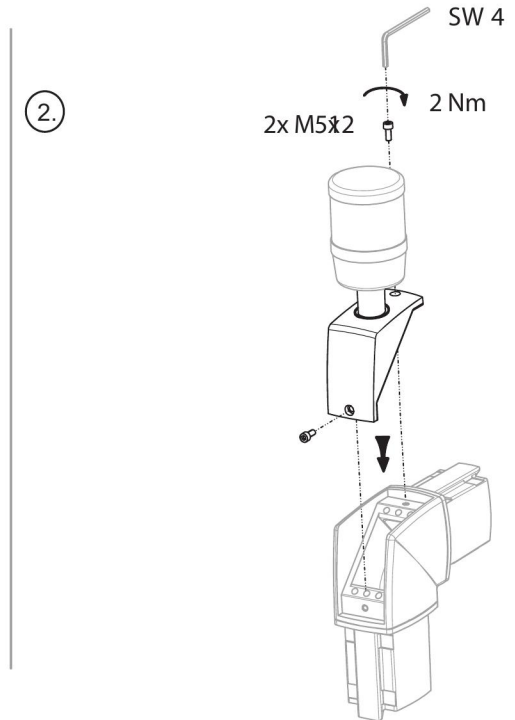
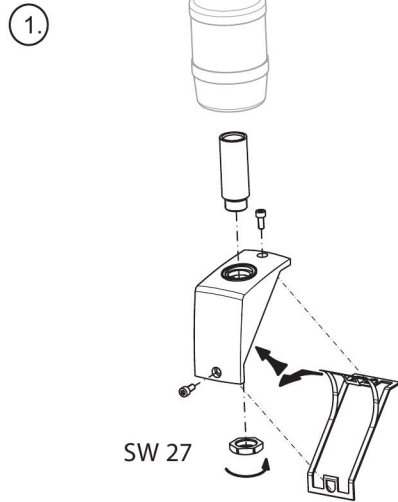
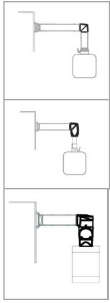
1x Cap  
10x Bills



$x^\circ = \text{Rotation}$   
 $n = \text{Number of bills per side}$   
 $x^\circ = 150^\circ - (n \times 13,7^\circ)$



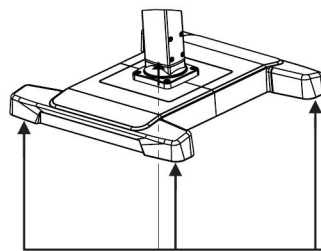




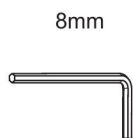
## 12 Accessories for bases

available separately

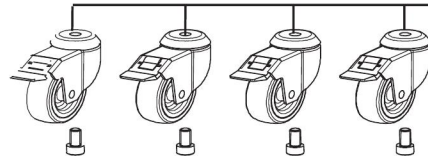
separate installation instructions



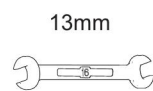
Industrial castors



4x



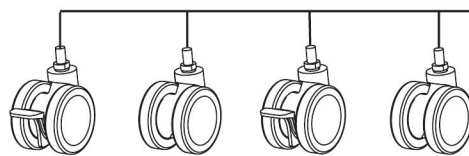
Apparatus castors



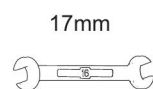
2x



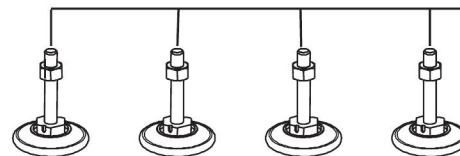
2x



Support feet



4x

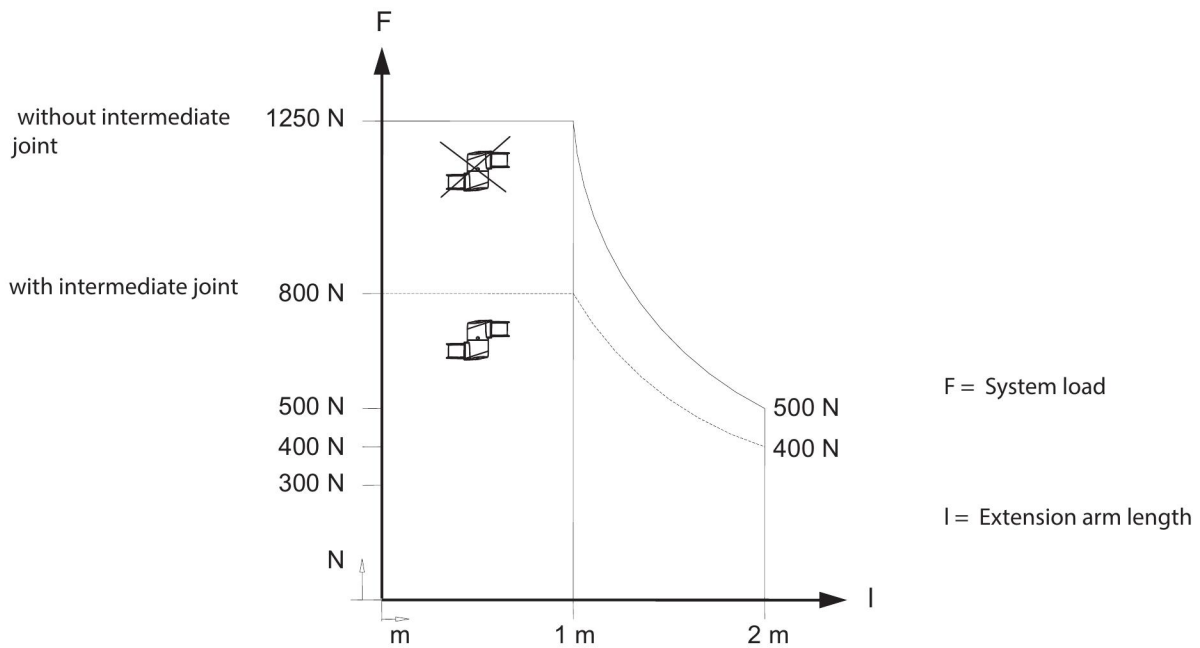


### 13 Mechanical Data

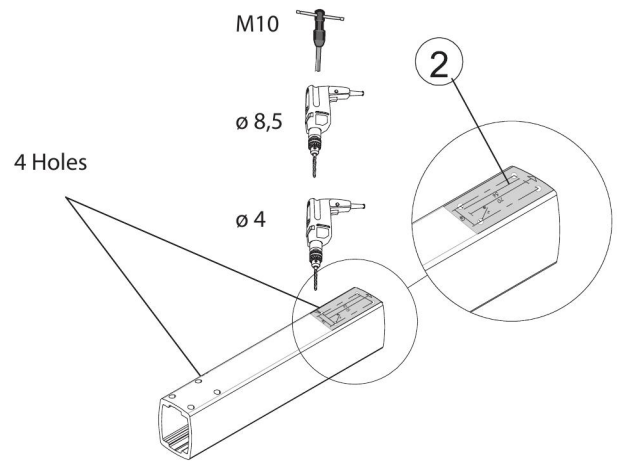
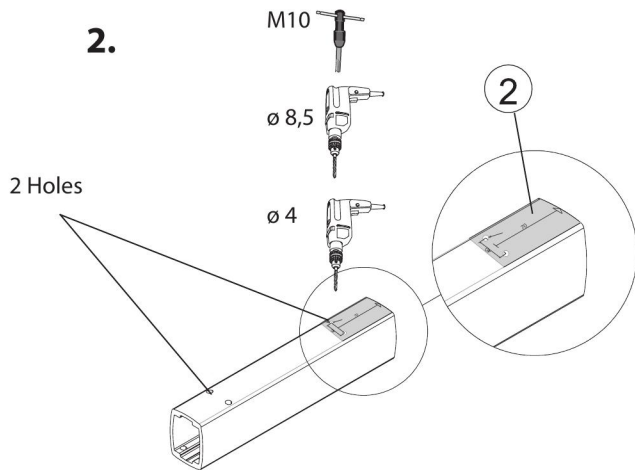
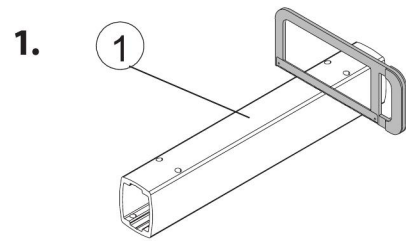
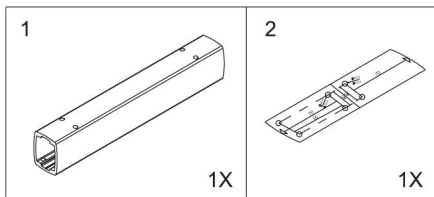
Material

|                  |                       |
|------------------|-----------------------|
| Komponenten      | GD-Al                 |
| Large base       | GD-Al                 |
| Small base       | Steel                 |
| Gasket           | Neoprene              |
| Plastics         | PA / POM              |
| Protection class | IP65 ( except bases ) |

### 14 Load diagram SYSPEND 281-MAX



## 15 Tube Cutoff



The original operating and installation instructions are the German language version.  
Other languages are a translation of the original operating and installation instructions.

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0800000864 / Stand: 2/ Ausgabedatum: 19.08.2020

Rev.A

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P/N 89164448

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