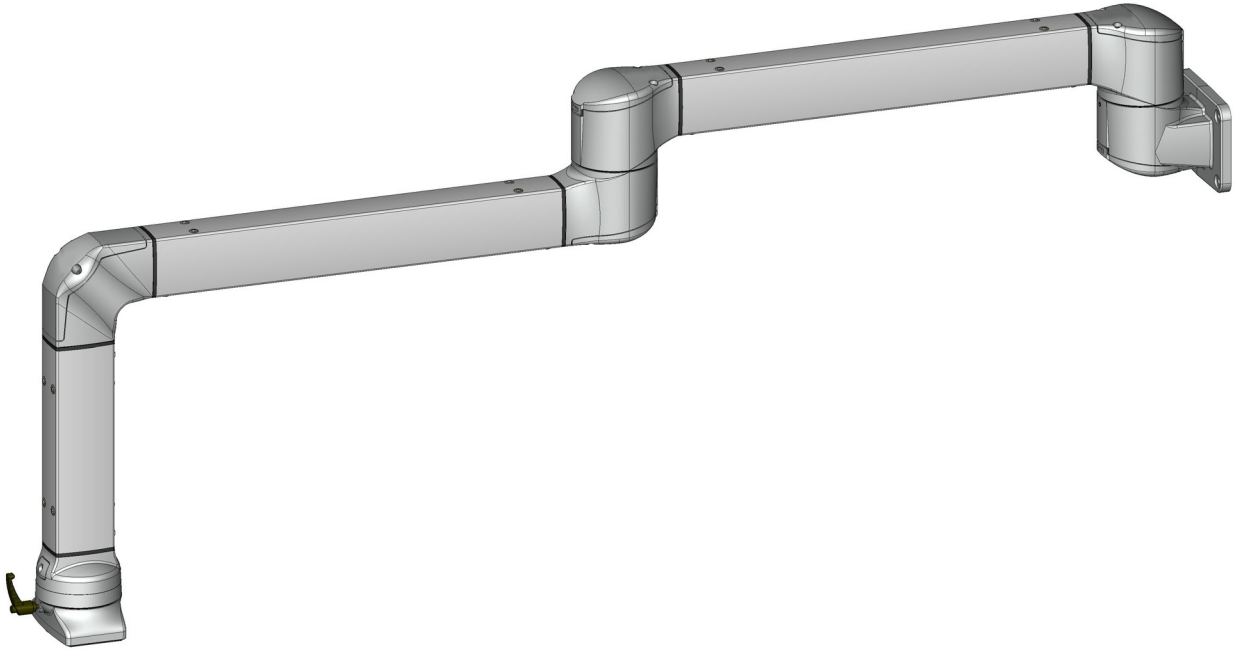


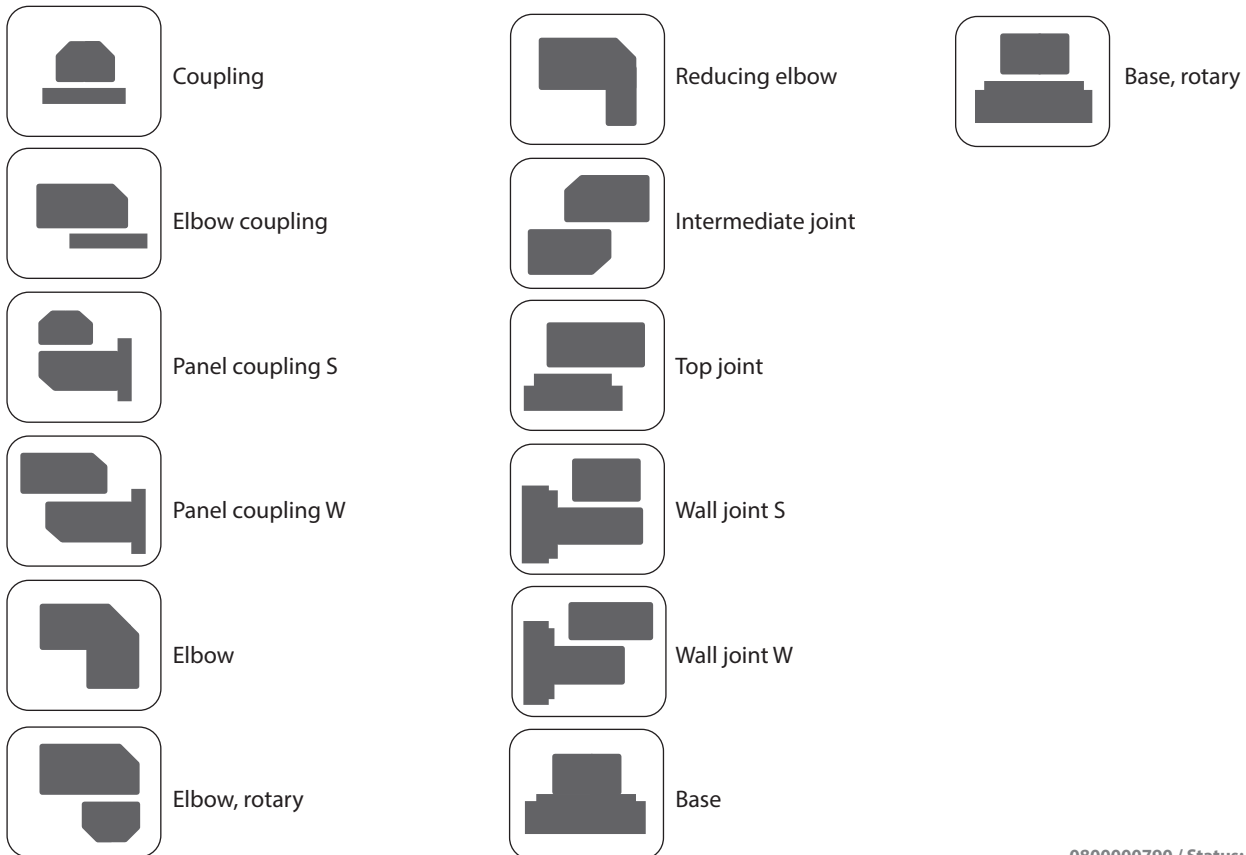
Installation and Operating Instructions

Suspension System


SYSPEND 180-MAX

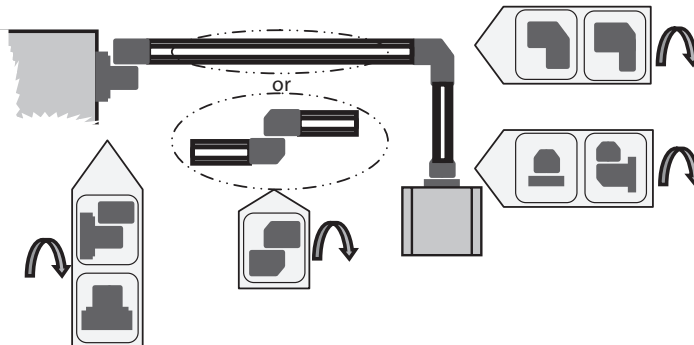
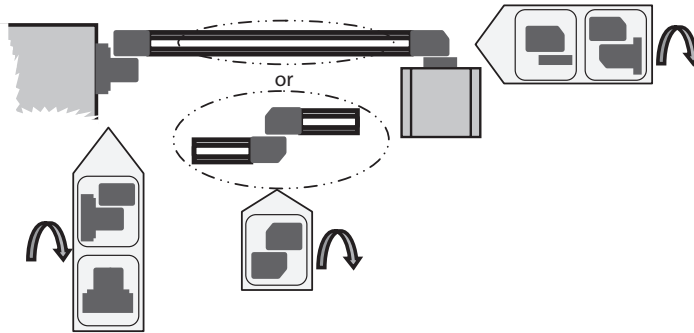
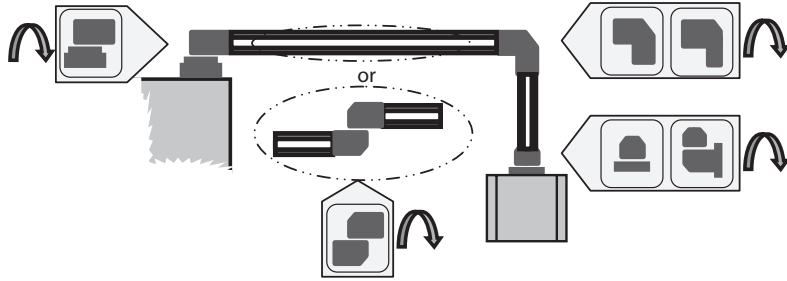
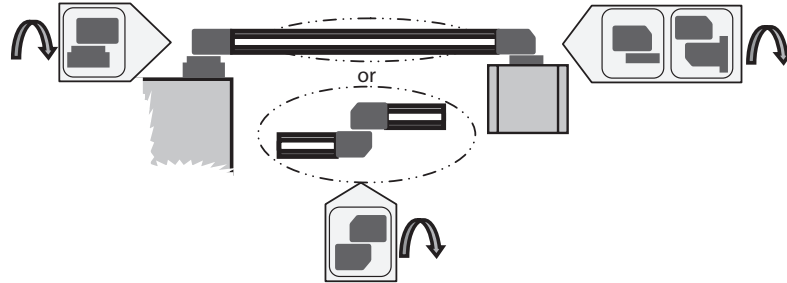
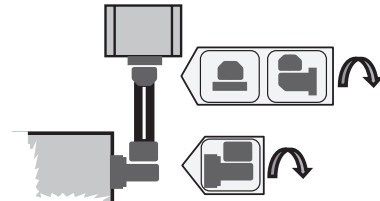
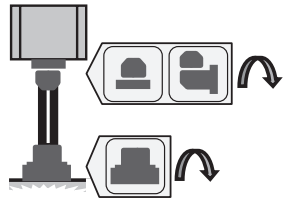


Component pictograms



Application examples

 = This component can either be mounted on the wall or be operated as a standing unit.



Directory

Directory	3
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Load diagram for static load capacity CS-3000 neXt	4
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Mounting to control enclosure by using coupling or elbow coupling	7
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Indication and Use of the instructions

The sequence of the chapters is not necessarily the operation or assembly sequence.
Not all chapters apply for each component.

Indication:

- Pick out the pictogram for the corresponding component shown on the title page
- You will see in the chapters pictograms for which the mounting step applies
- Mounting starts with the plant, machine or wall mounting and the corresponding chapter

Safety instructions

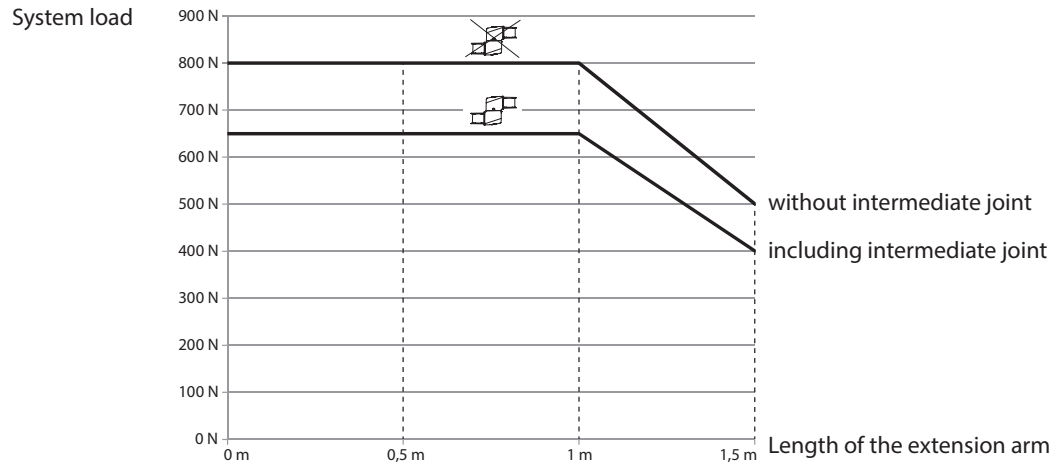
-  ► Do not reach into the tubes
Attention
-  ► The excessive crushing, stretching and bending of power lines has to be avoided.
Attention
-  ► The power line system has to be checked for abrasion points regularly.
Attention
-  ► Mounting or the electrical connection of the power line system must be carried out by a qualified electrician.
Attention
-  ► Do not damage seals during installation as otherwise the technical characteristics cannot be complied with.
Attention
-  ► When using panel coupling components, always ensure that the stability of the mounting surface is suitable for mounting.
Attention
-  ► The coupling components are designed for mounting centrally on the control enclosure.
Off-center installation is not permitted.
Attention
-  ► The tightening torques of the screw connections should be inspected on a regular basis.
Attention

Mechanical Data

Material:

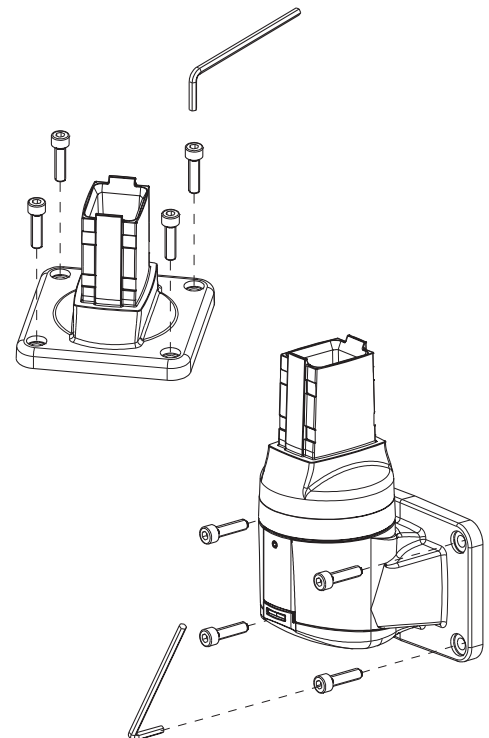
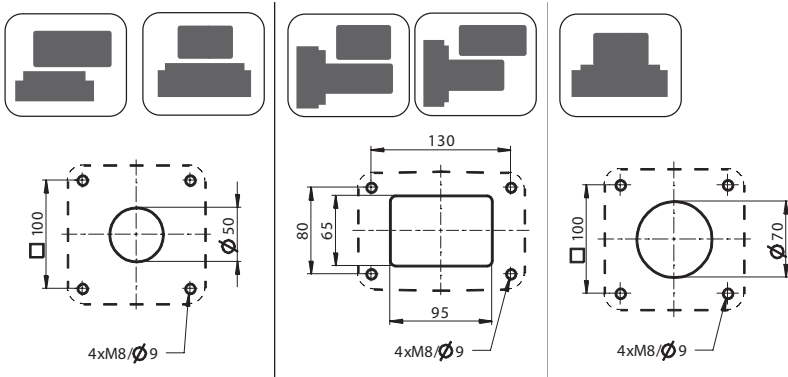
Components	GD-AI
Seals	CR (Neoprene) / NBR
Plastic	POM
Protection class	IP 65

Load diagram for static load capacity SYSPEND 180-MAX



Installation and adjustment

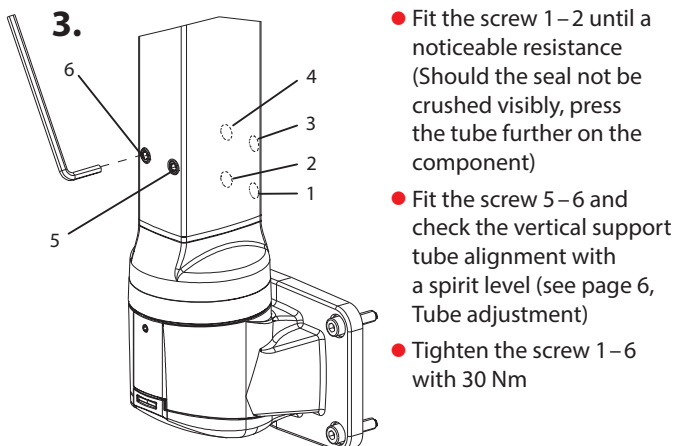
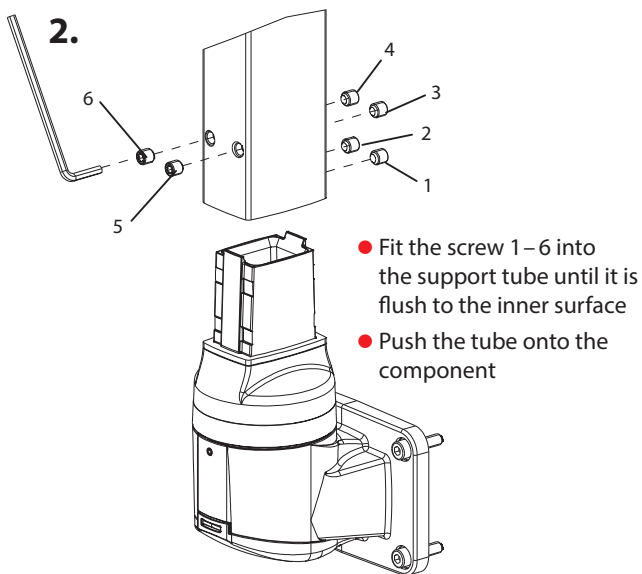
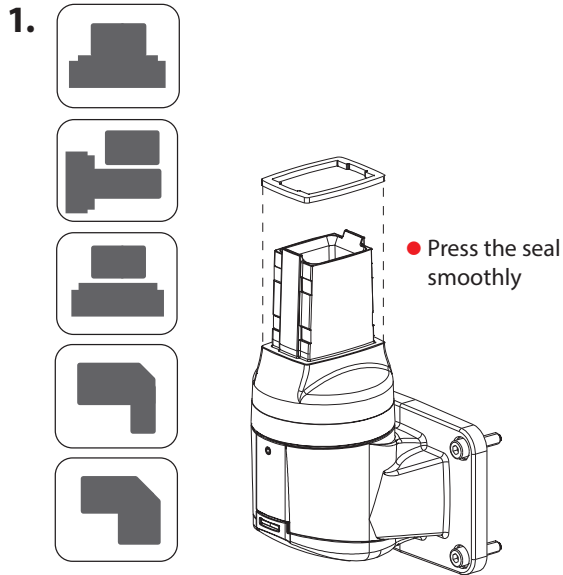
① Mounting to plant or machine



Caution: The mounting surface must be smooth and flat.
If not avoided, it is possible that problems of load, adjustment and protection class arise.

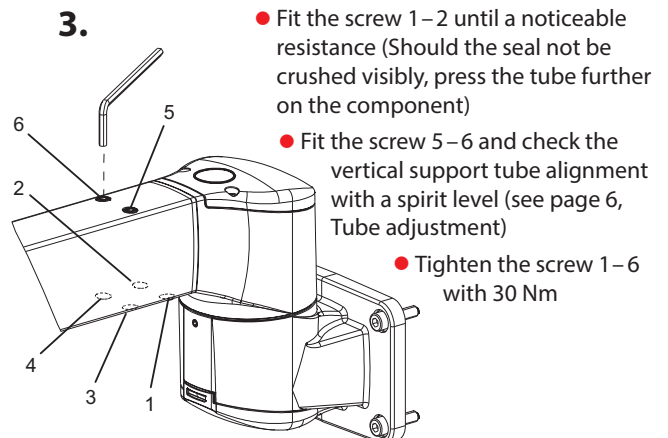
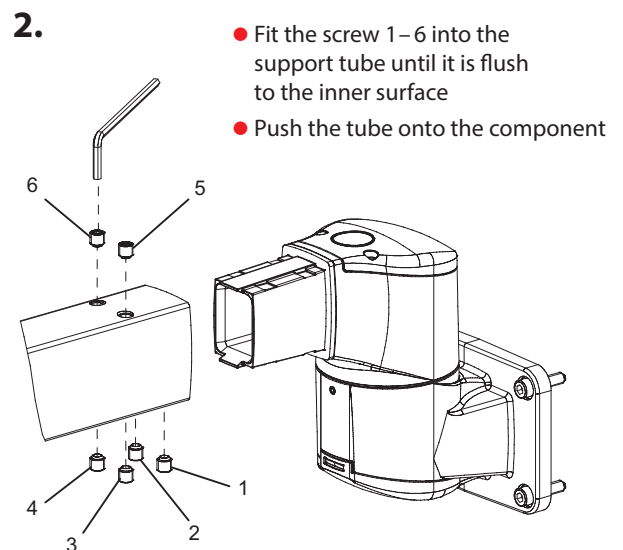
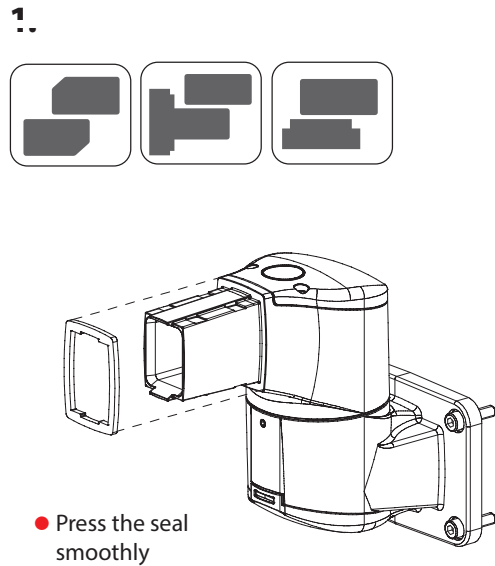
② Tube mounting vertically

Indication: Mounting of the component "wall joint S" is illustrated below.



③ Tube mounting horizontally

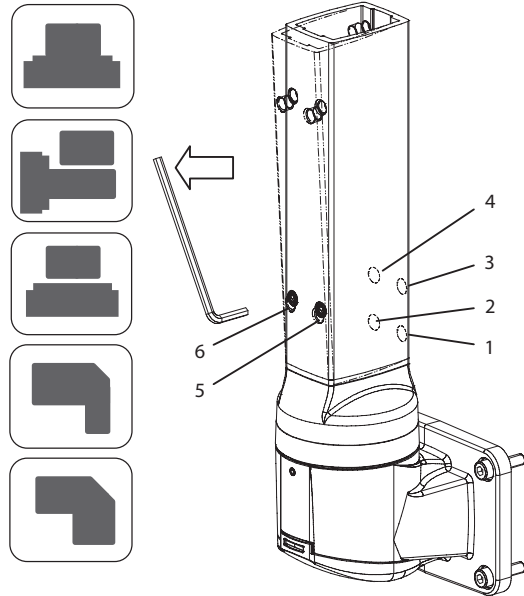
Indication: Mounting of the component "wall joint W" is illustrated below.



④ Vertical tube adjustment (also possible later)

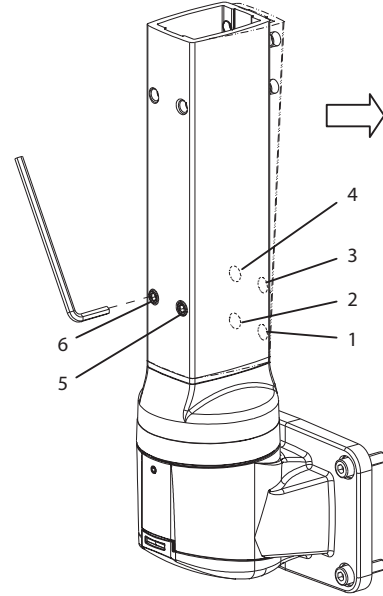
Indication: Adjustment of the component "wall joint S" is illustrated below.

Left adjustment



- Loosen the screw 3–6
- Tighten the screw 5–6 until the desired position is reached
- Tighten the screw 3–6 with 30 Nm

Right adjustment

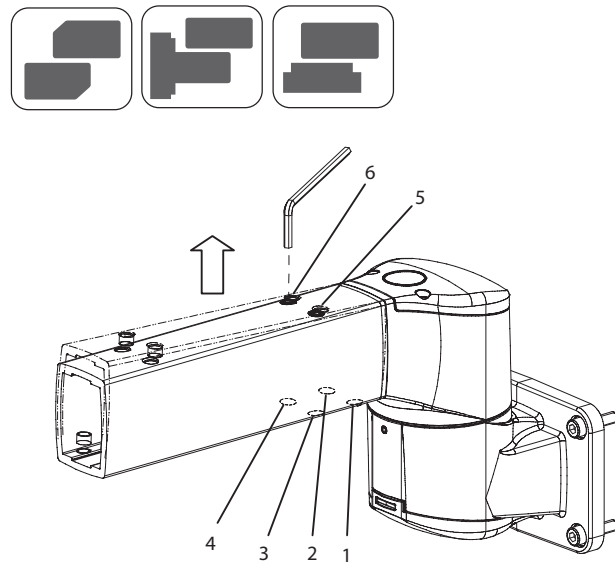


- Loosen the screw 3–6
- Tighten the screw 3–4 until the desired position is reached
- Tighten the screw 3–6 with 30 Nm

⑤ Horizontal tube adjustment (also possible later)

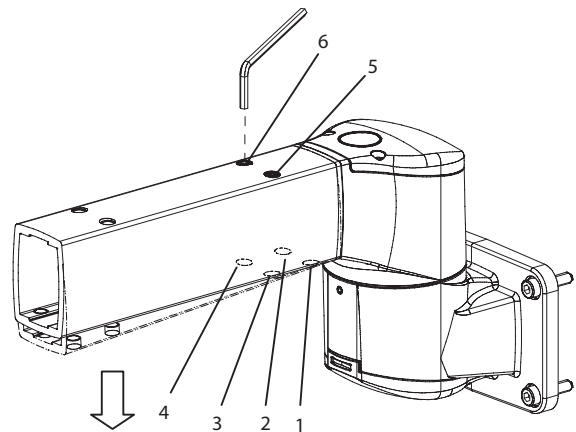
Indication: Mounting of the component "wall joint W" is illustrated below.

Upward adjustment



- Loosen the screw 3–6
- Tighten the screw 5–6 until the desired position is reached
- Tighten the screw 3–6 with 30 Nm

Downward adjustment



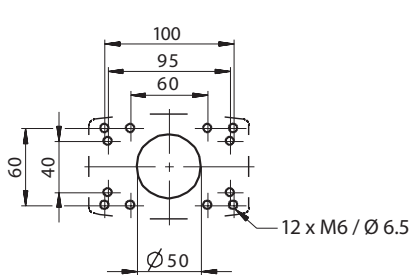
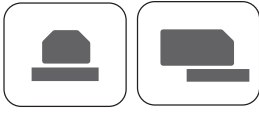
- Loosen the screw 3–6
- Tighten the screw 3–4 until the desired position is reached
- Tighten the screw 3–6 with 30 Nm

Mounting to enclosure

① Mounting to control enclosure by using coupling or elbow coupling

Indication: Mounting of the component "coupling" is illustrated below

1.



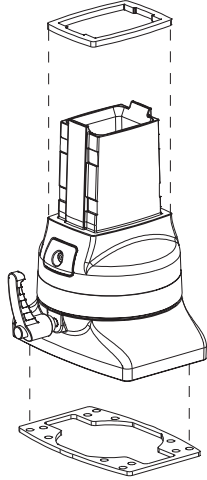
At least 4 bolting points must be used:

- 100 x 60

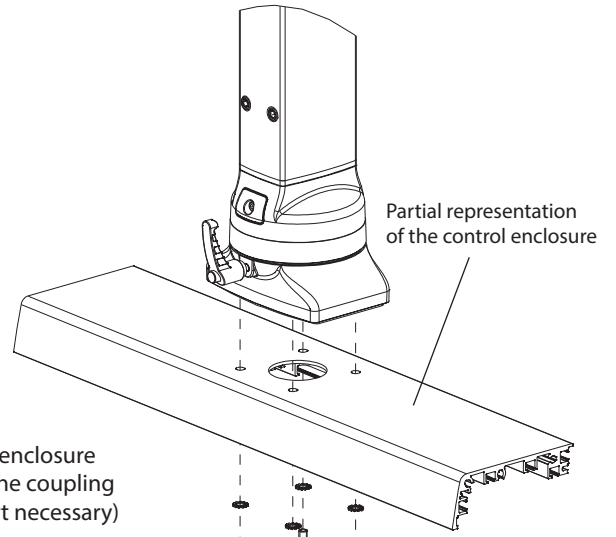
- 95 x 40

- 60 x 60

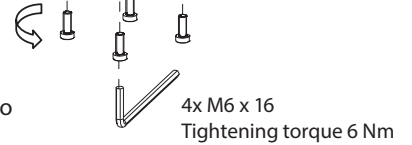
- Press the seal smoothly
- Tube mounting see page 5
- Tube adjustment see page 6



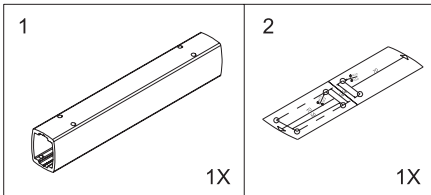
2.



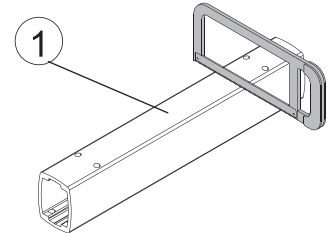
- Lift the enclosure under the coupling (support necessary)
- Attach the lock washers to the screws
- Fit the screws through the horizontal section into the coupling and tighten them with 6 Nm



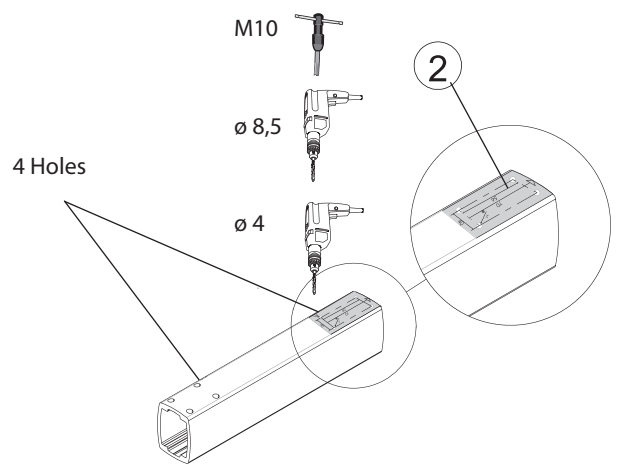
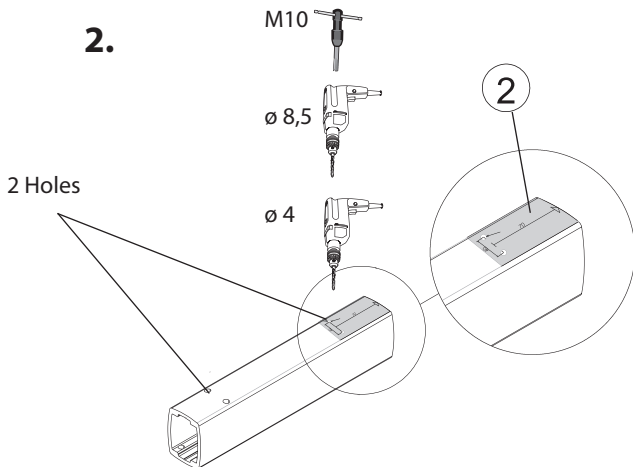
Tube Cutoff



1.

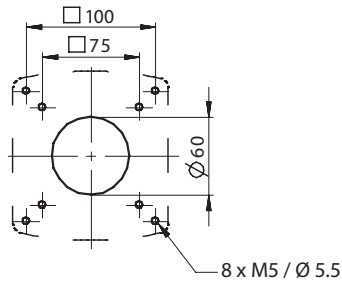
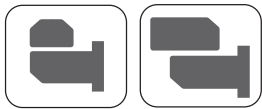


2.



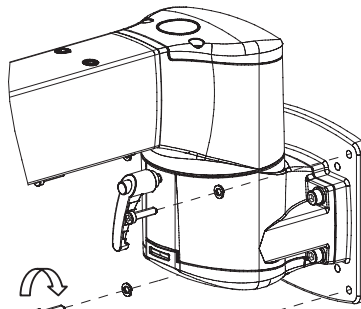
③ Mounting to control enclosure by using panel coupling

Indication: Mounting of the component "Panel coupling W" is illustrated below



At least 4 bolting points must be used:

- 100 x 100
- 75 x 75



4x M5x16
Tightening torque 6 Nm

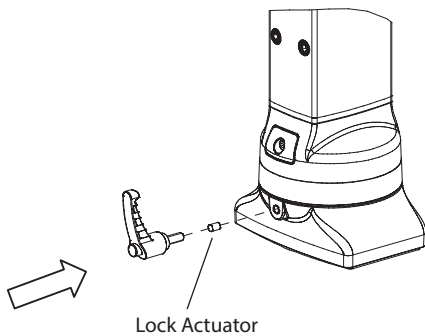
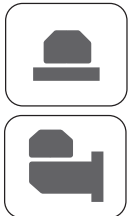
- Mount the panel coupling with lock washers and screws



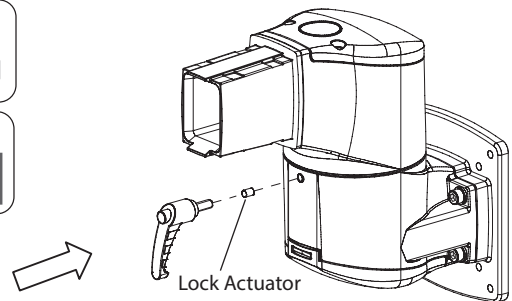
Attention

▶ When using panel coupling components, always ensure that the stability of the mounting surface is suitable for mounting.

Screwing the clamping lever



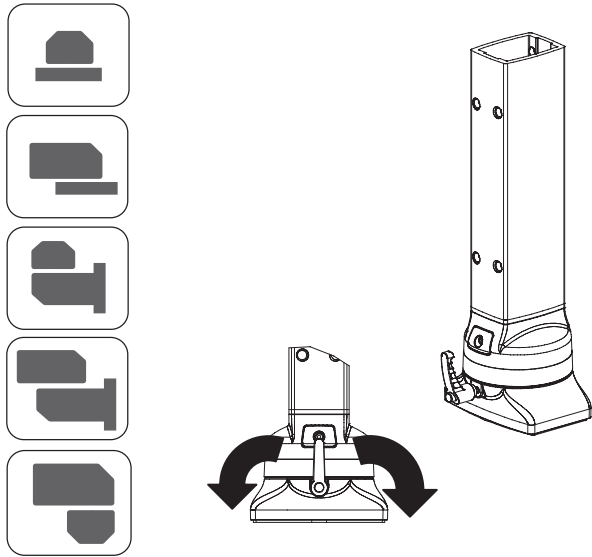
Lock Actuator



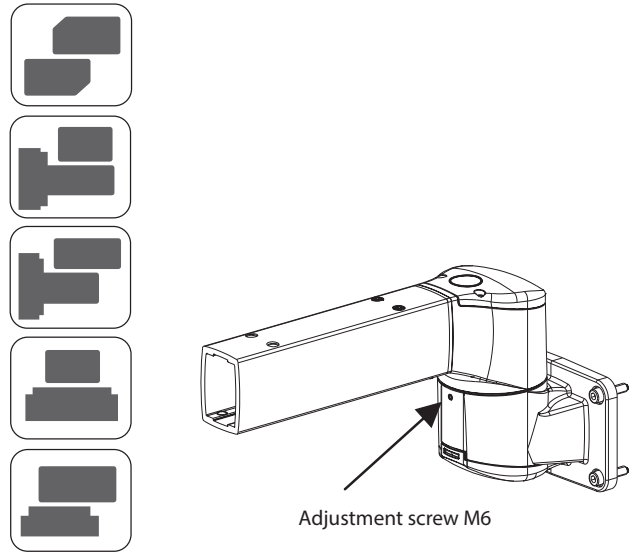
Lock Actuator

- Insert the Lock Actuator in the threaded bore
- Screw the clamping lever

Modification of firmness



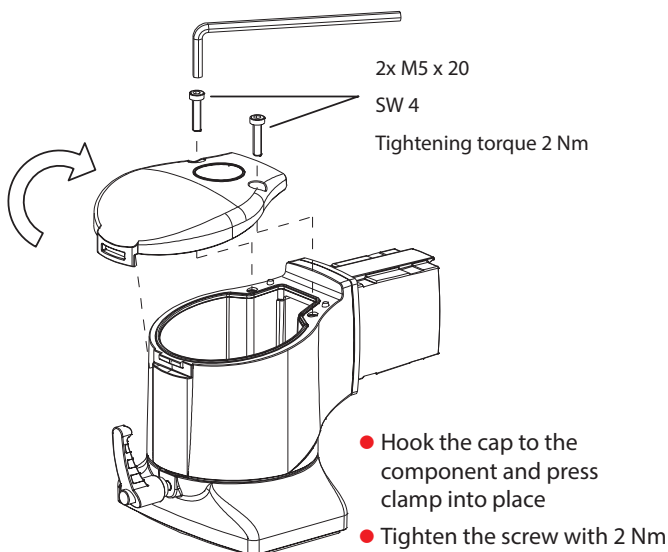
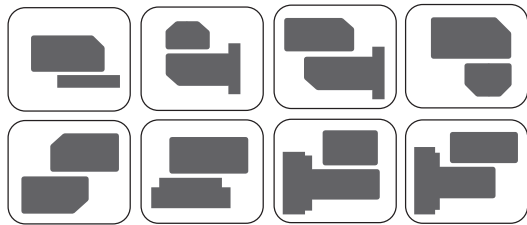
- Adjust the clamping lever to increase or decrease resistance
- Factory preset to optimum torque setting



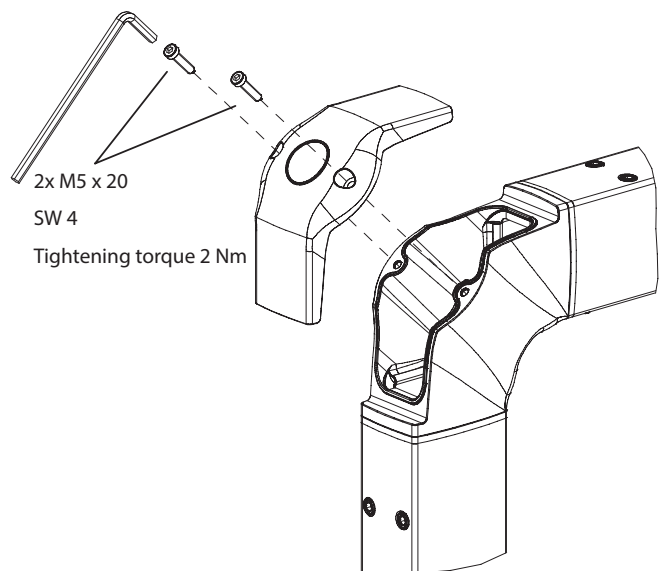
- Adjust screw to increase or decrease resistance
- Factory preset to optimum torque setting

Joint cap mounting and dismounting

Indication: Mounting and dismounting of the component "elbow coupling" is illustrated below



Indication: Mounting and dismounting of the component "elbow" is illustrated below

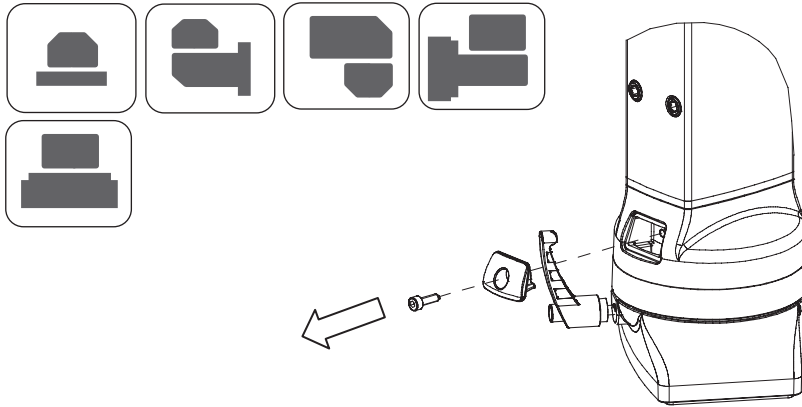


Accessories

Article number	Type
S1MRL	Swivel angle limiter

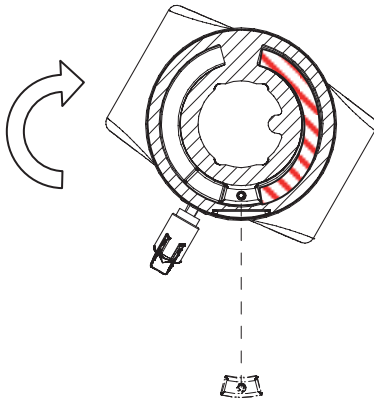
Indication: Mounting of the swivel angle limiter is illustrated below by the component "coupling".

1.



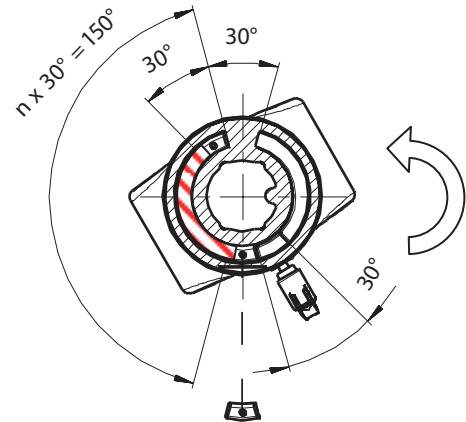
● Dismounting of the dust cap

2a.



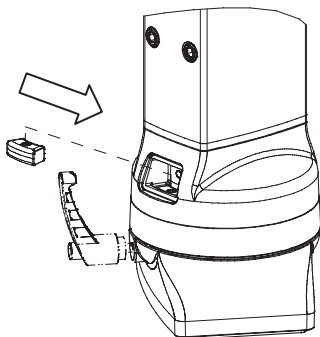
● In order to limit the swivel angle to the left, turn the bottom of the coupling to the right

2b.



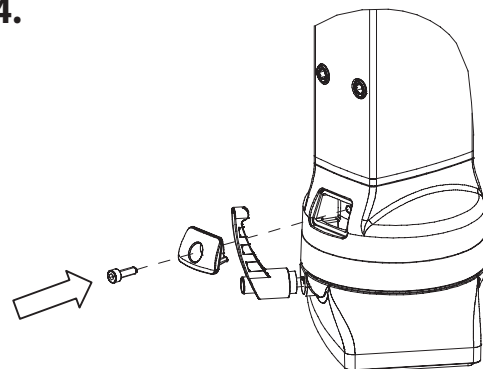
● In order to limit the swivel angle to the right, turn the bottom of the coupling to the left

3.



● Insert swivel angle limiter

4.



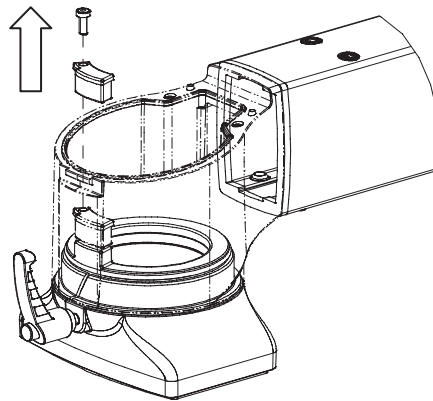
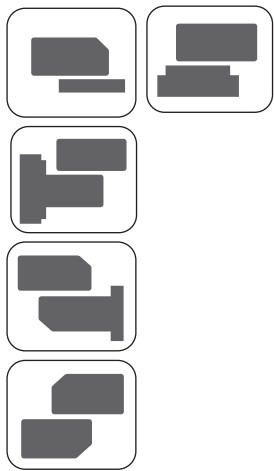
● If the desired limitation is set, the dust cap must again be fitted

Once fitted the swivel angle limiters can be removed at any time

Article number	Type
S1MRL	Swivel angle limiter

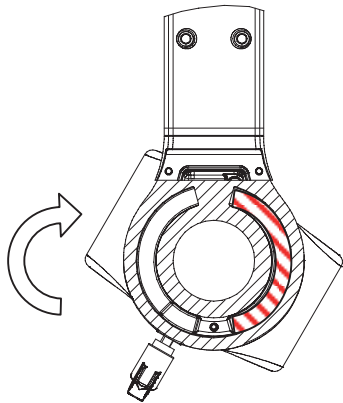
Indication: Mounting of the swivel angle limiter is illustrated below by the component "elbow coupling".

1.



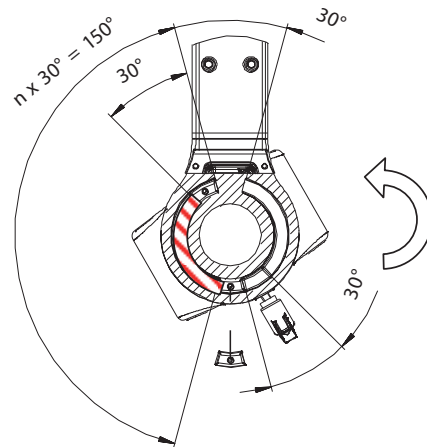
- For removal of cover, see page 9
- Unscrew the locking tappet and remove it

2a.



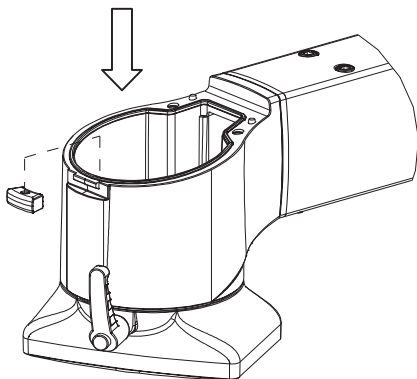
- In order to limit the swivel angle to the left, turn the bottom of the coupling to the right

2b.



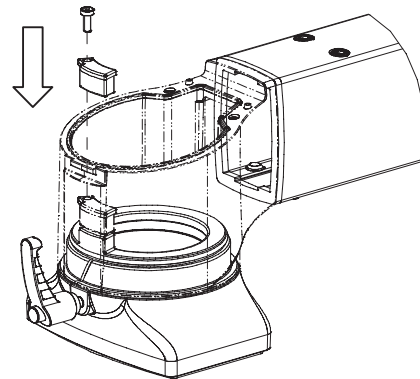
- In order to limit the swivel angle to the right, turn the bottom of the coupling to the left

3.



- Insert swivel angle limiter

4.

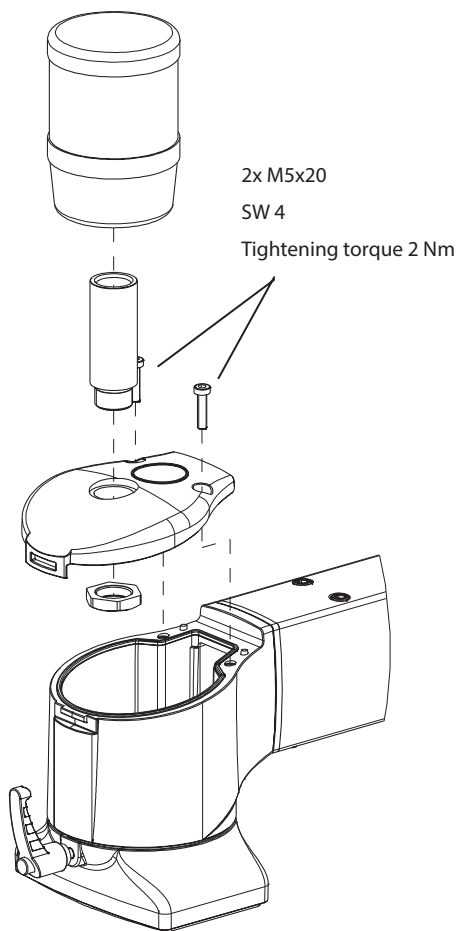
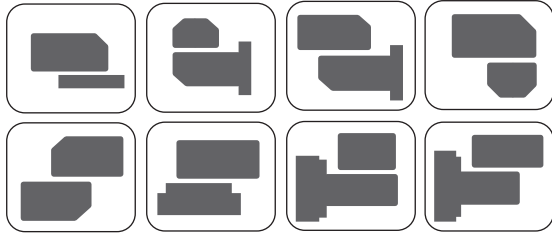


- If the desired limitation is set, the dust cap must again be fitted
- Fit the cover again as described, see page 9

Once fitted the swivel angle limiters can removed at any time

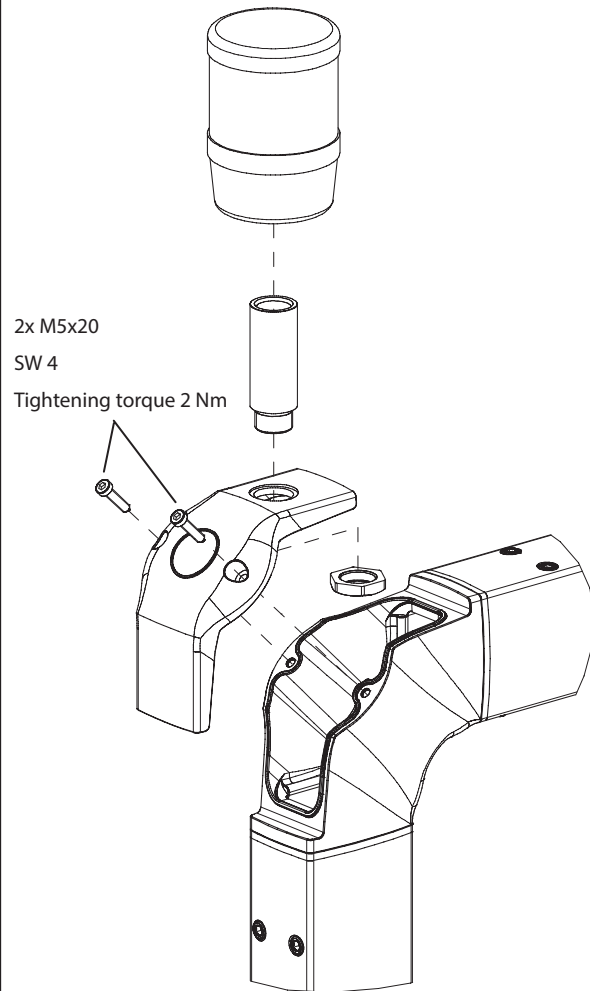
Accessories

Article number	Type
S1MSLAR	Set of signal lamps Joint cap RAL 9006



- For removal of cover (if required) see page 9
- Insert the signal lamp connecting tube into the suitable shaft and fix it with nut SW27
- Screw the signal lamp part on the connecting tube
- Refit the cover again on the component

Article number	Type
S1MSLAA	Set of signal lamps Elbow cap RAL 9006
S1MSLARE	Set of signal lamps Reducing elbow cap RAL 9006



- For removal of cover (if required) see page 9
- Insert the signal lamp connecting tube into the suitable shaft and fix it with nut SW27
- Screw the signal lamp part on the connecting tube
- Refit the cover again on the component

The German version is the original Installation and Operating Instructions.

If this manual appears in other languages, it is simply the translation of the original Installation and Operating Instructions.