

Key word

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Installation instructions for the STL300 vertical platform lift

The installation is to be carried out by qualified technical personnel only!

1.) Prerequisites

The following work may be carried out **by qualified personnel only**:

Installation
Adjustments and settings
Maintenance work
Fault finding/troubleshooting

Qualified personnel are persons who

- know how the machine works
- have received instruction on how it works
- have read and understood the operating, installation and service manuals
- are aware of the dangers posed by the machine (and also its components)
- know and understand the interrelationships between the mechanical components
- know and understand the interrelationships between the electrical components
- have the appropriate tools/measuring instruments and know how to use them
- have sufficient language skills to be able to understand the installation instructions

When carrying out any work on the machine, please note:

- Do not allow other persons to access the machine when there is an increased danger potential (covers removed, safety devices disabled etc.).
- Avoid the risk of tripping up due to the open machine, tools lying around, electrical cables etc.
- The potential dangers of the machine must not have been increased after conclusion of the work on the machine.
- Parts of the machine that are not yet firmly connected to the building/running rail are to be secured against falling over.



The safety instructions in the operating manual are to be observed!!

2.) Transport and temporary storage

Check whether the on-site measures have been carried out (e.g. removal of the banister, manufacture of the foundations, removal of obstructions, laying of electricity cables, etc.).

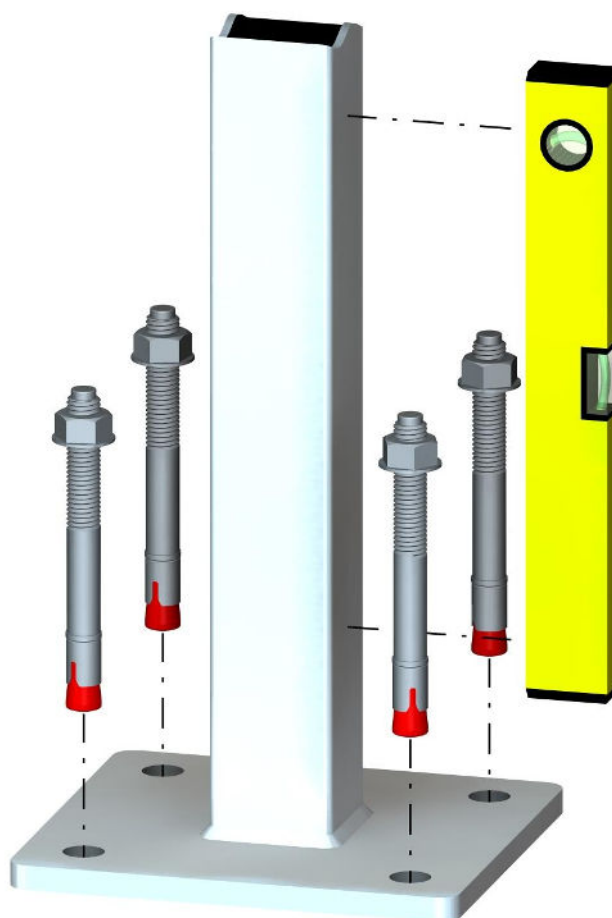
In order to avoid damage, only unpack those parts of the system that are actually required at any one time. The unpacked parts of the system are to be stored temporarily on the foam material provided. The platform can be held by the barriers (as far to the inside as possible) and in this way transported.

2a) Prepare the platform

First of all, dismount the platform hood, the front cladding and the two side panels. Switch on the power supply to the platform via the red main switch underneath the platform knob.

3.) Position the supports

Position the supports (in the case of support mounting) in accordance with the installation drawing and fasten them by means of anchor bolts. When doing this, ensure that the supports are installed **vertically and parallel** (use a spirit level).



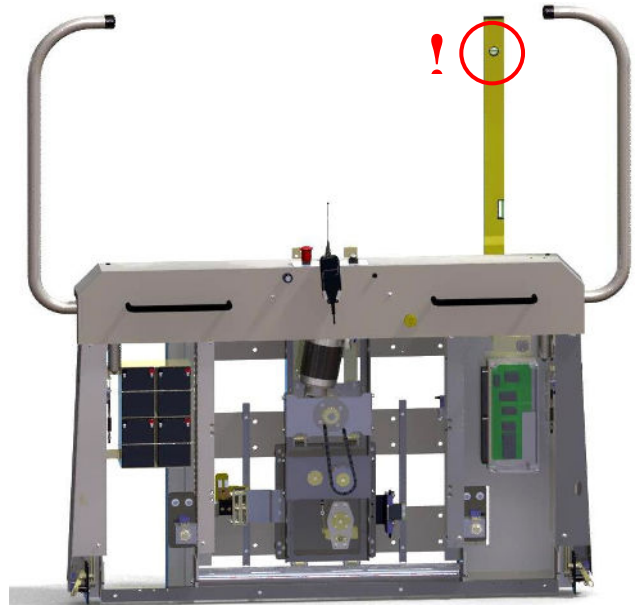
**Important !!
Be sure to observe
Appendix I
on page 21 !**

Anchor bolt type to be used:
Page 22ff

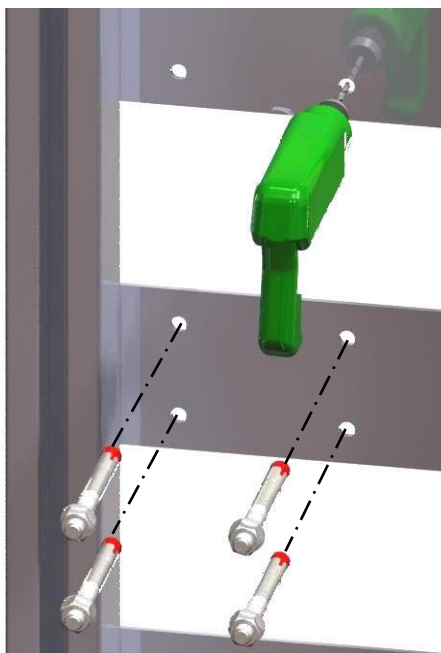
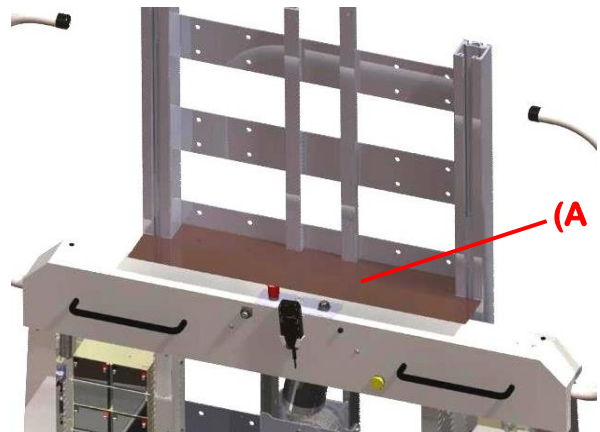
4.) Align and fasten the running track

Position the platform with the first running track section inserted in accordance with the assembly drawing and align the guide rails of the running track **vertically**. It may be necessary to shim the rails.

Jumpers have been attached in the controller to enable the platform to be driven during the installation. These must be removed later on. **The platform has been prepared in the factory so that it can be driven using the external controller with the hood removed.**

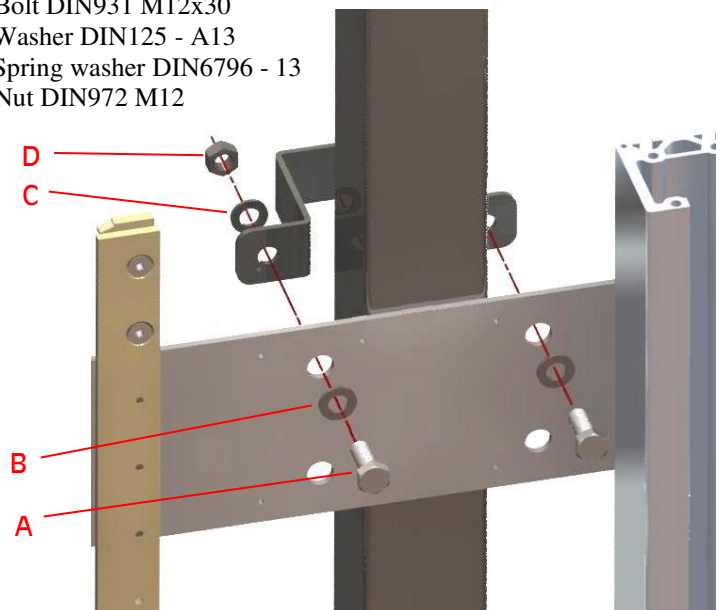


If the dimensions correspond to those on the installation drawing, the running track must be fastened either to the wall (*see page 19 – fastening point*) or to supports. If fastening to the wall, mark the drill holes and set the platform aside to drill them, or drill directly through the positioned platform. Use the dust protection sheet (A) provided to protect the mechanical parts of the platform against dust and swarf. Secure the platform against falling over!



Fastening to a wall

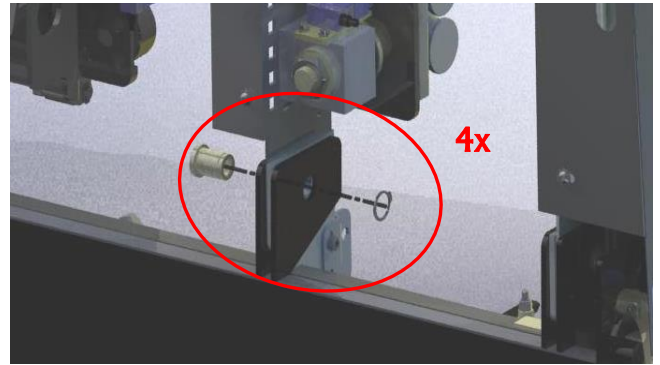
- A) Bolt DIN931 M12x30
- B) Washer DIN125 - A13
- C) Spring washer DIN6796 - 13
- D) Nut DIN972 M12



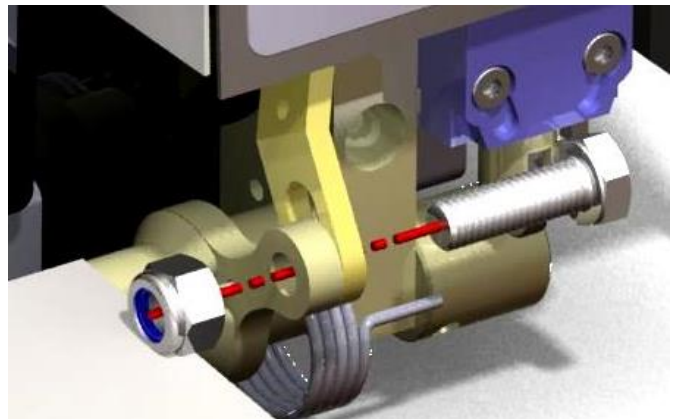
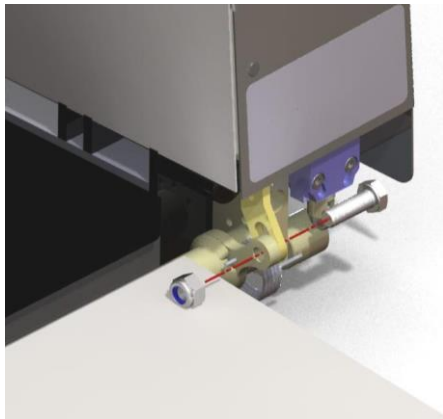
Fastening to supports

5.) Attach the platform base

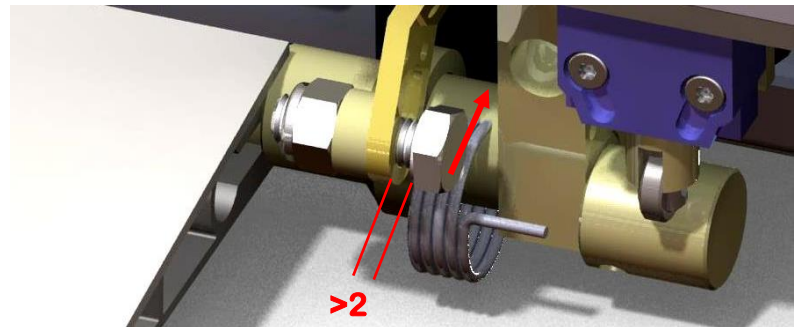
Once the first running track section has been fastened, the platform base is attached. To do this, drive the platform slightly upwards and place the platform base in front of the frame. Use a blanket or foam polystyrene as an underlay in order to avoid damage. Place both barriers in the horizontal position. Align the base to the frame, insert four hollow bolts and secure them with the circlips.



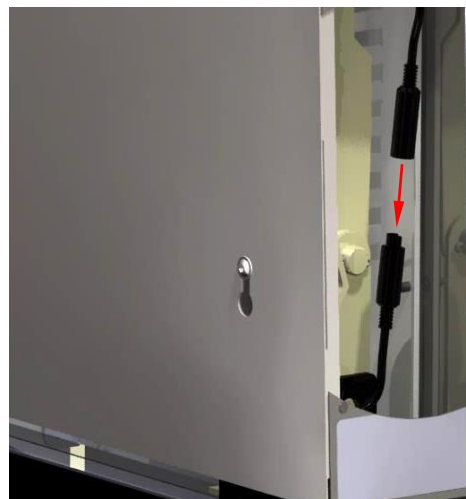
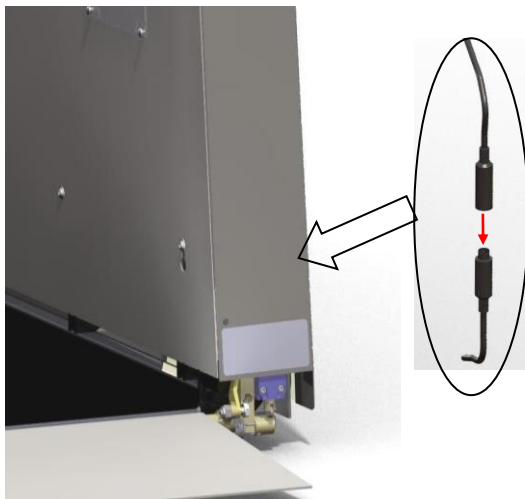
Screw the levers of the drive-on ramps to the tension lugs on both sides.



The bolt is screwed in only so far that a clearance of at least 2 mm remains, but far enough so that the bolt head passes by the block. The bolt is then locked with a nut to prevent it unscrewing.



Feed both cables from the base into the platform and connect the plug connectors. There are mating pieces on the plug connectors on the platform side; these must first be removed. Subsequently, the cables must be fastened (e.g. with cable ties) so that they do not come into contact with moving parts.

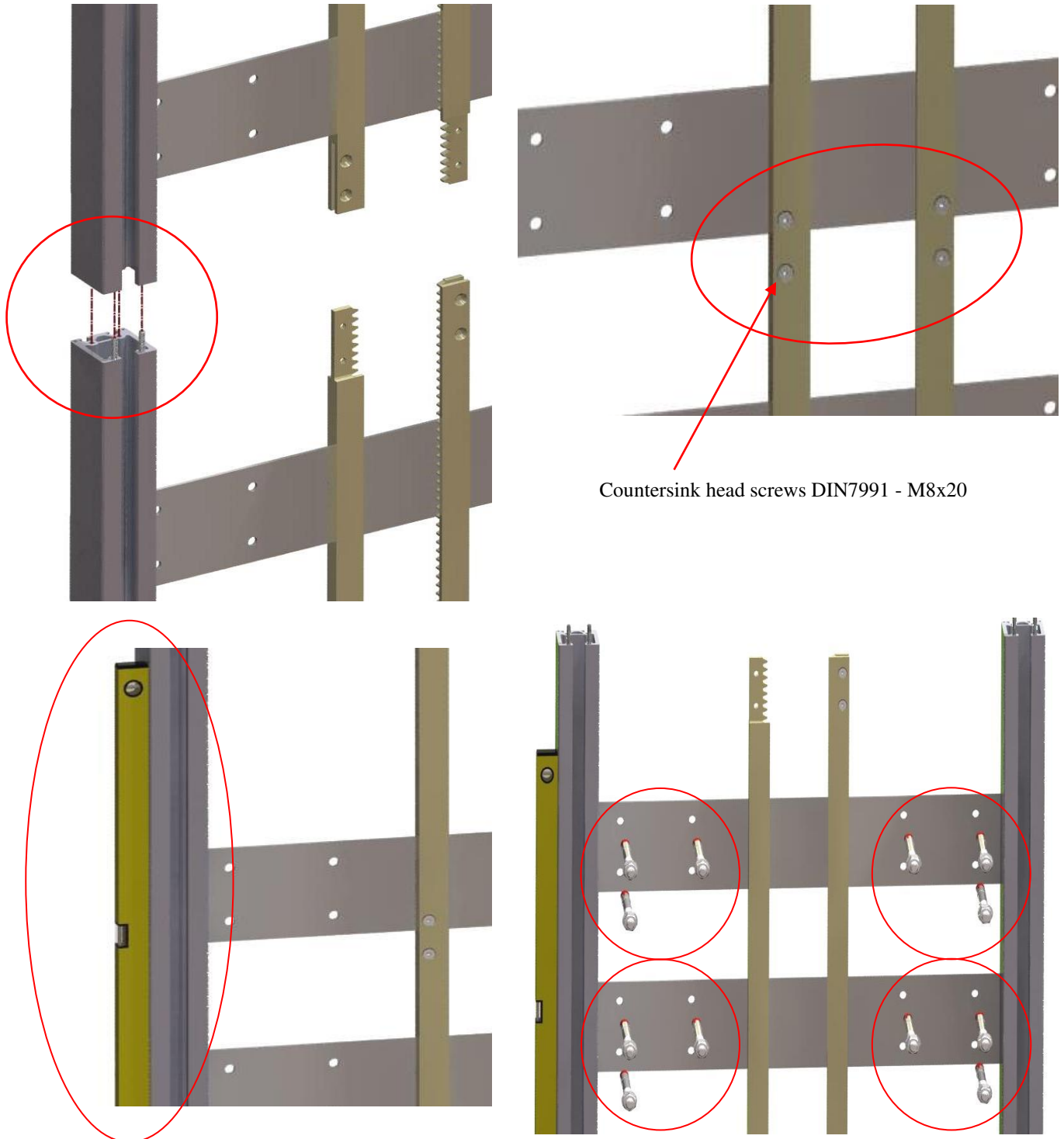


6.) Mount further running track sections

The next running track section is only mounted when the lower running rail section has been firmly mounted. The platform lift can be used at the same time as a work platform to do this. Insert the next running track section from above, using the pins to align it. First bolt the gear racks, then align the guide rails vertically. This running track section can then be fastened. This way you can gradually mount the individual running track sections and the lift can be driven a little further upwards each time until you have mounted the last running track section. The mechanical parts in the platform must be protected against dust/swarf.

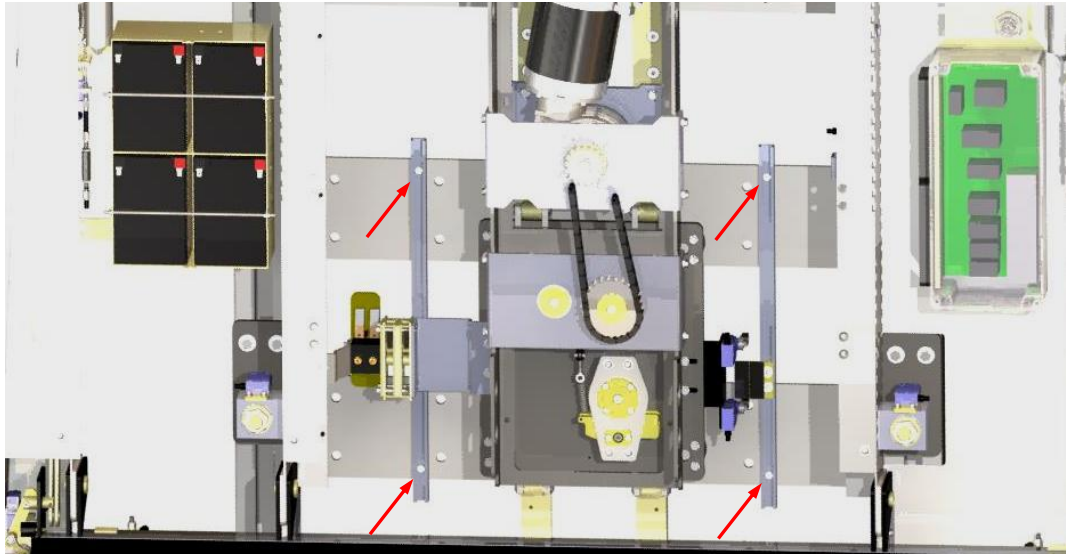
ATTENTION: Make sure that the platform does not move upwards out of the guide at the top when driving upwards and does not hit the floor when driving downwards!

The minimum number of fastening points is shown on page 19.

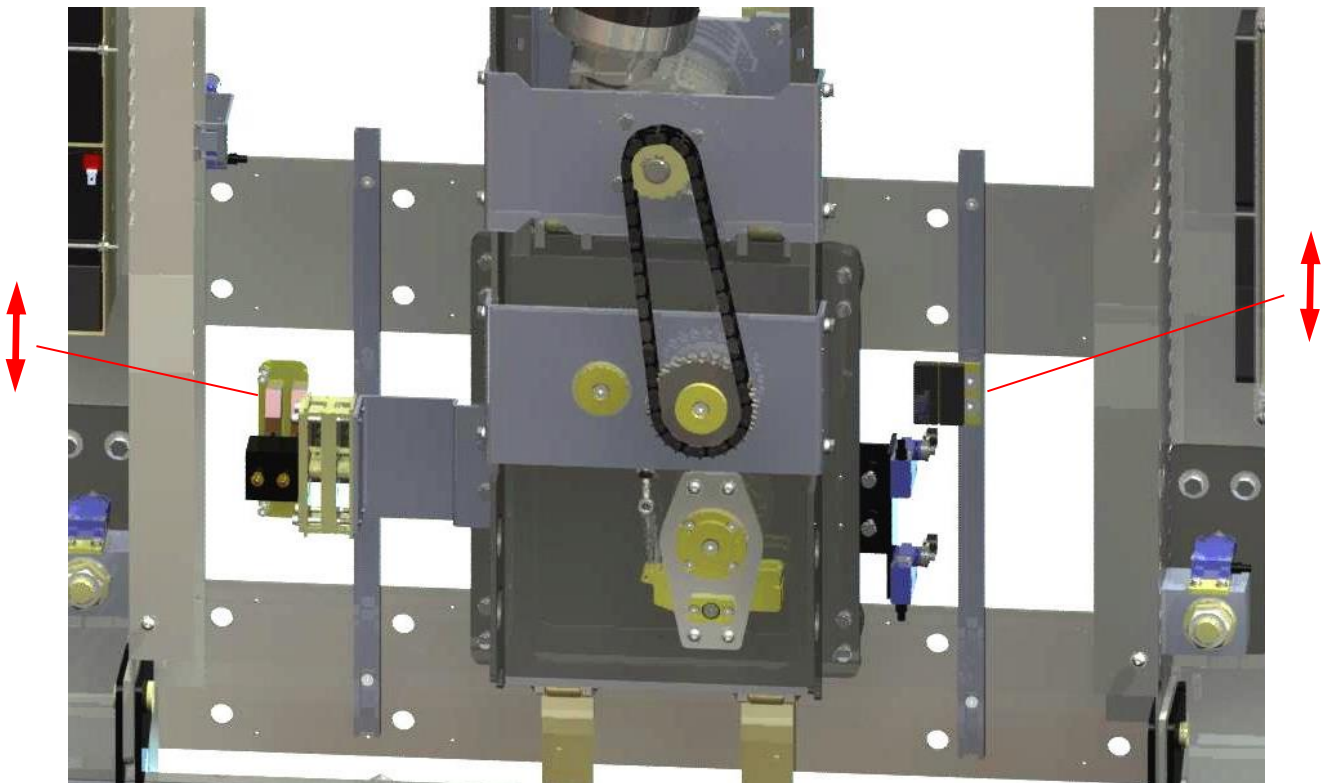


7.) Set up the upper station

Drive the platform upwards until the platform base is level with the upper landing. Then attach the Halfen rails for the unlocking device and charging contacts. An M4 threaded hole in the fastening plate can normally be used for this. A second thread must be manufactured in the correct position on site. Alternatively, an additional hole can be drilled in the Halfen rail.

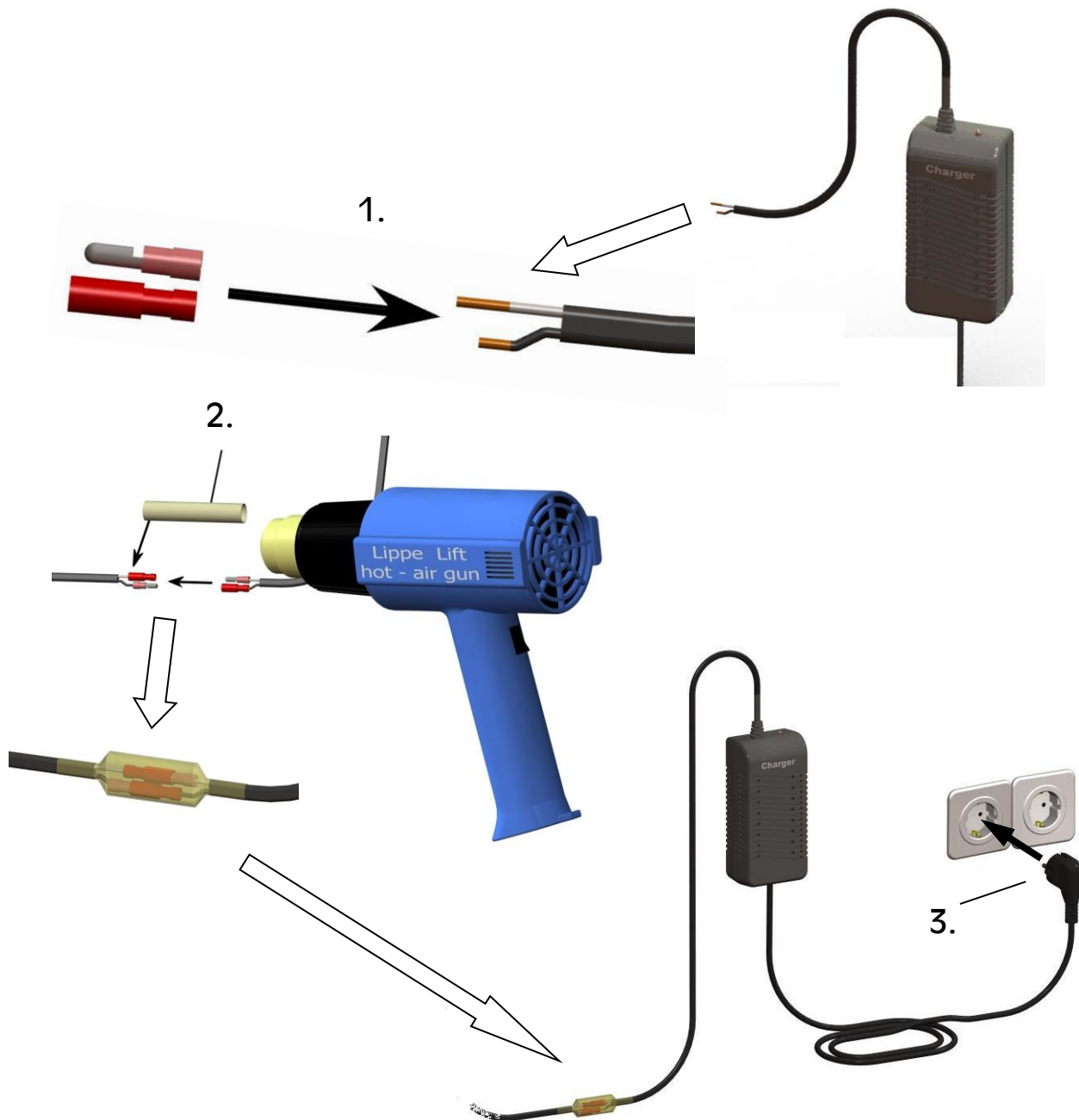


Adjust the height of the upper station by means of the switching cams. Mount the unlocking cams and the charging contacts and adjust them.



8.) Battery charger and potential equalisation

Connect the positive and negative conductors of the battery charger to the charging stations (use crimp connectors and subsequently insulate the joints with heat-shrink sleeving using a hot air gun). Connect the battery charger to the house's mains electricity supply. The function must then be checked (a function test is possible only if the lifting unit is in the charging station with its charging contacts). The battery charger must be attached in such a way that the user can easily see it.



In case of outdoor systems, the running rail must be connected to the building potential equalisation cable ([Cu, min. 10 mm²] in Germany or according to national regulations). Since there must be a conducting connection, it may be necessary to carefully remove the powder coating at the respective point.

9.) Lower station

Now drive the platform downwards and adjust the position of the lower station. As with the upper station, attach the Halfen rails for the unlocking and charging contact and adjust the height of the station by means of the switching cam (the platform base should only lightly touch the floor even when fully loaded). Attach the unlocking cam and adjust it.

Mount the charging contact and adjust it.

Connect the connecting cable of the battery charger to the charging contacts. Here too, check the function of the battery charger (the function test is at the same time the test of whether the platform with the charging contacts is situated correctly in the charging station).

10.) Intermediate stations

If the lift should have more than two stations, proceed with the intermediate stations in the same way as with the upper station: drive the platform to the height of the respective intermediate station and mount the Halfen rails for the unlocking device and charging contacts. Then adjust the height of the station by means of the switching cam. Attach the unlocking cams and adjust them.

If the intermediate station is also to be used to charge the batteries, attach the charging contacts, adjust them and connect the charging contacts to the battery charger.

11.) External control units

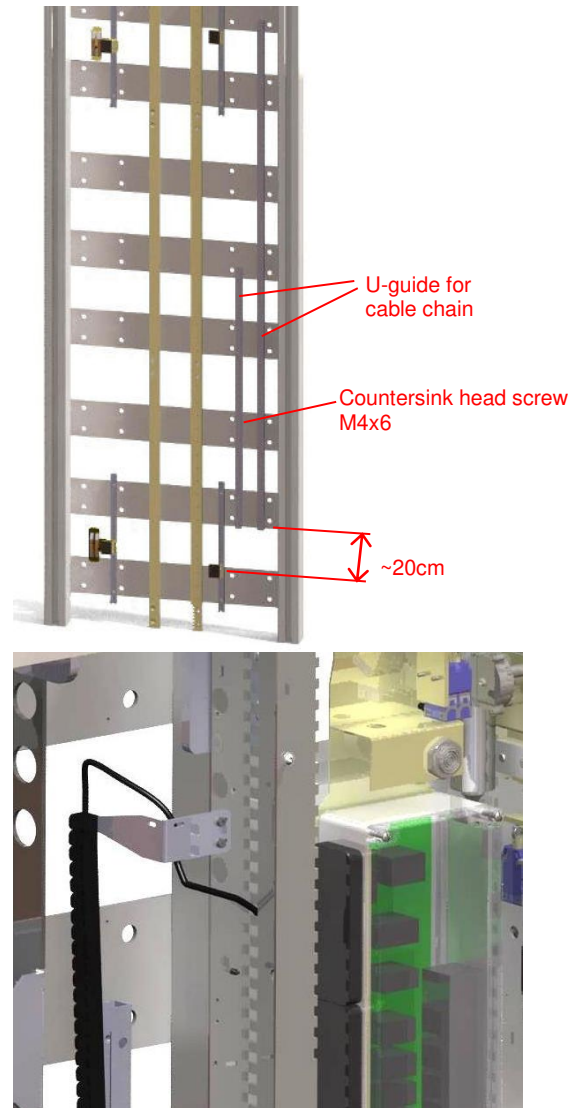
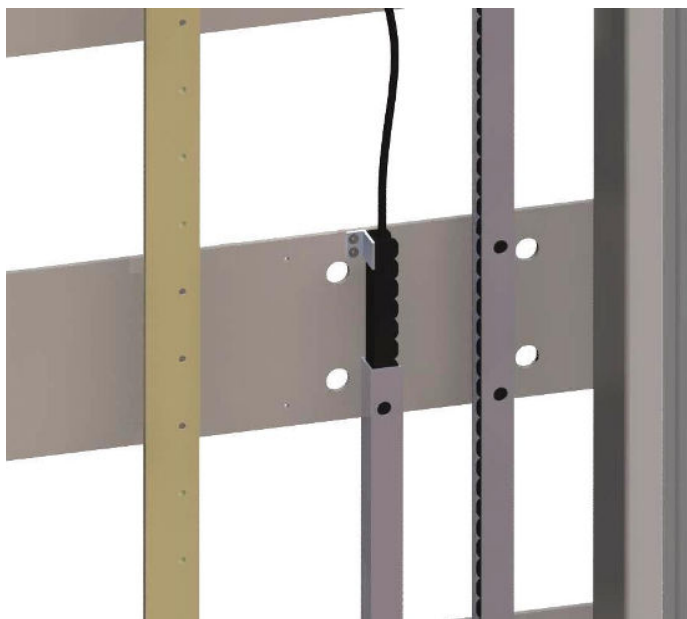
The arrangement of the external control units must correspond to the requirements of the intended user, according to whether he/she sits, stands or is in a wheelchair. The height of the external control unit should be **800 to 1100 mm** above the floor. The external control units are to be installed in such a way that the entire track can be seen from the respective control position if possible.

In the case of external control units that are connected to one another, the cables are to be laid in a cable duct or a conduit.

12.) Door contact / door opener

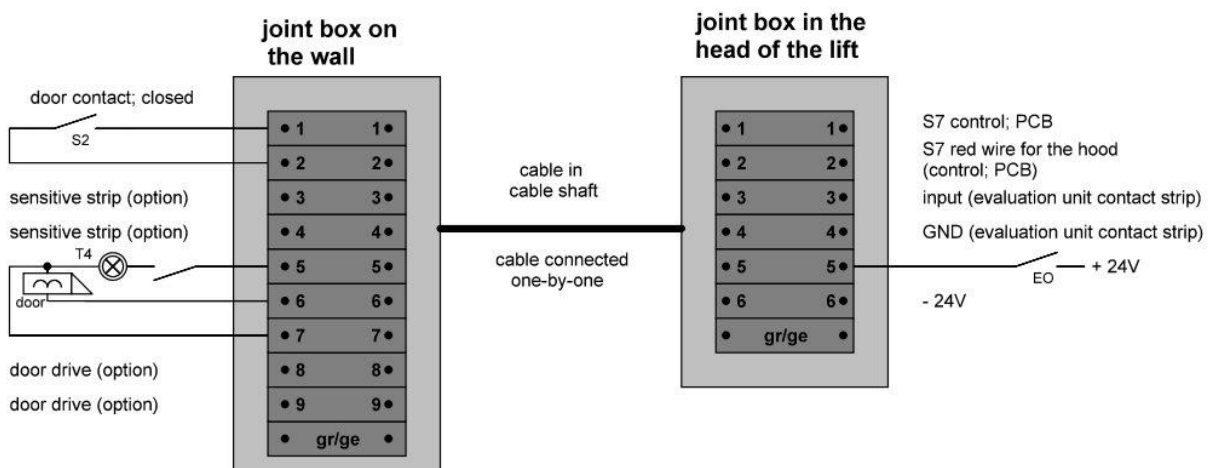
Mount the guides for the cable chain.
The guides begin approx. 20 cm above the lower station and are cut to the correct length.
Make sure that the screw heads do not protrude!

Feed the connecting cable with the IGUS cable chain from the upper station to the running track.
Check that the cable chain runs freely through the guide, then fasten it to the running track and the platform.



Feed the connecting cable to the terminal box in the platform head as well as to the separate terminal box on the wall and connect the cable 1-to-1. The function of the door contact must be checked (the platform may only move when the door is closed, and the door may only open when the platform is in the station).

cabling for cable shaft



13.) Contact strip (balcony strip) / door drive (optional)

Feed the connecting cables from the optional contact strip (balcony strip) to the terminal box and connect them.

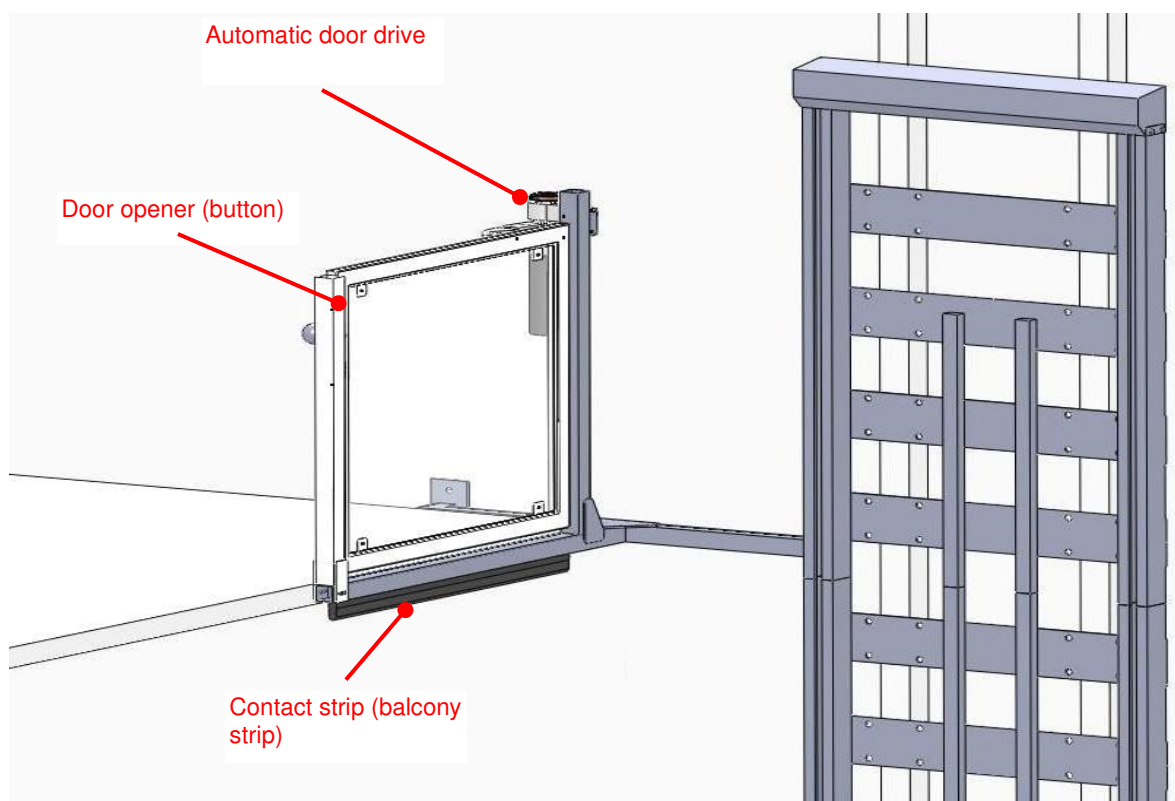
Test the function.

Connection diagram will be supplied separately

Feed the connecting cables from the door opener (button in the door post) to the optional door drive and connect them. Connect the door drive to the separate power supply.

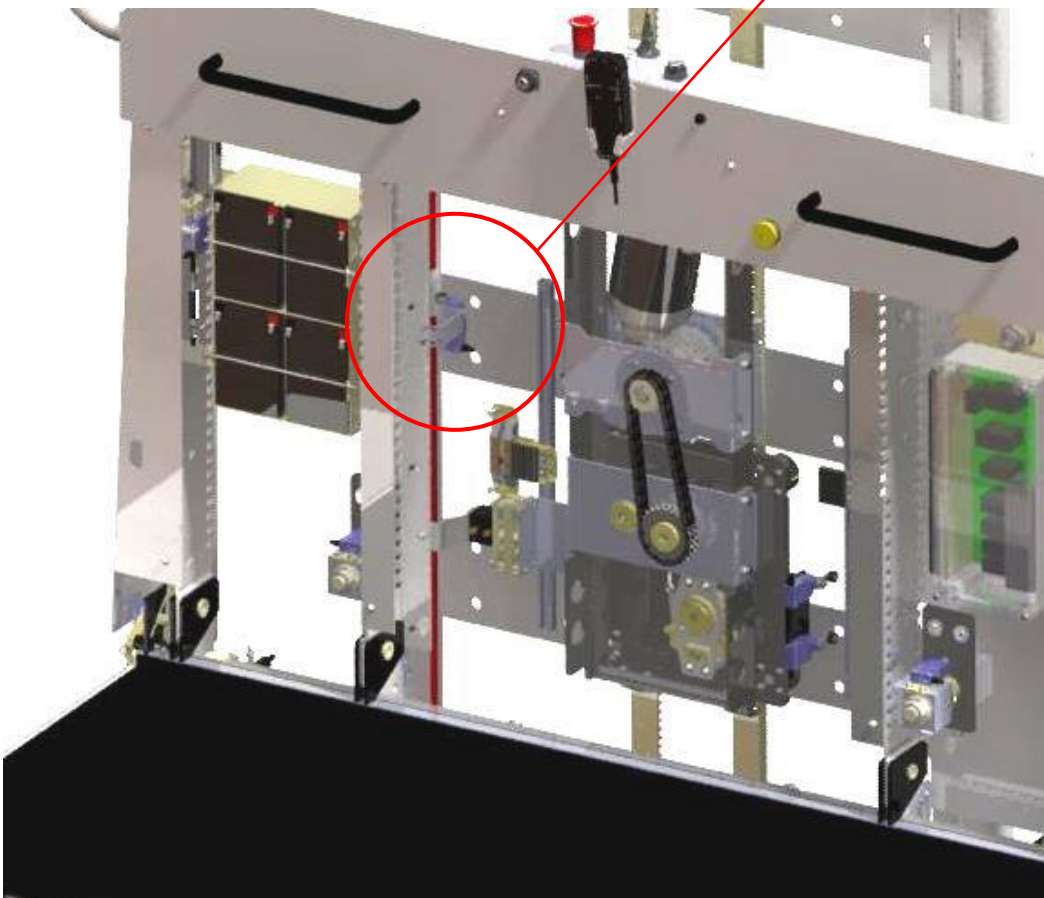
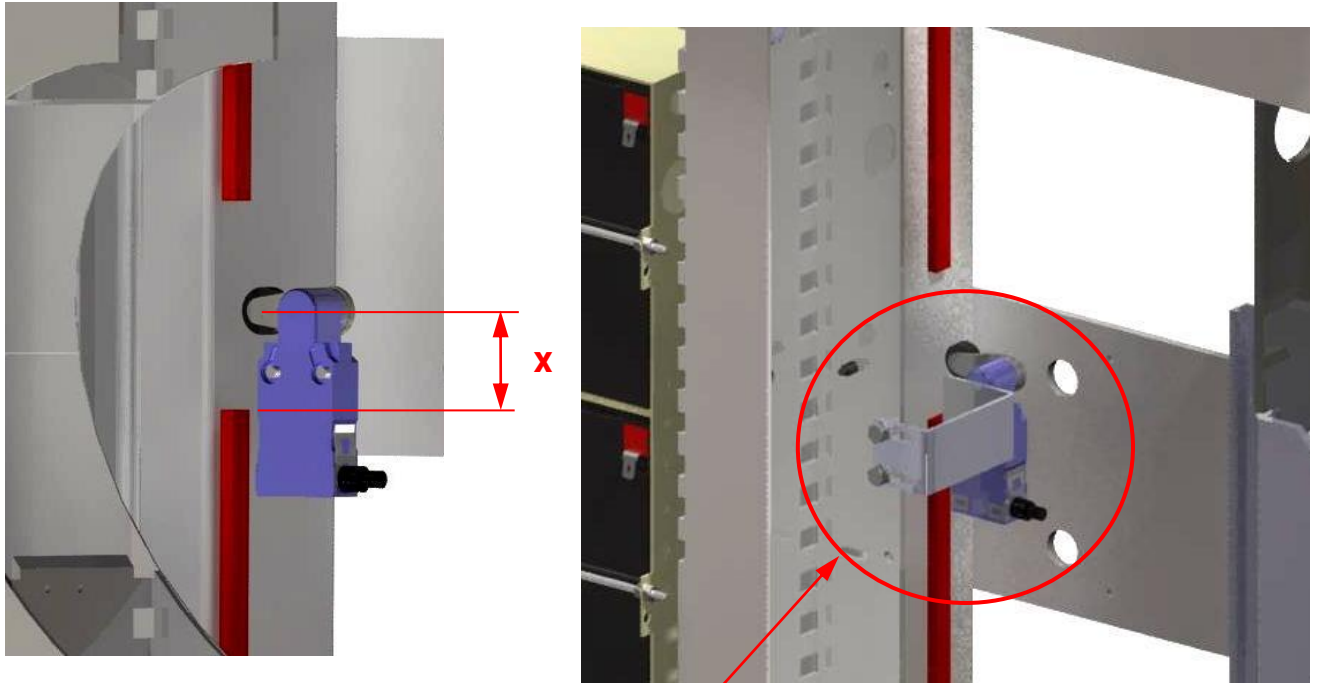
Test the function and adjust the drive.

Connection diagram will be supplied separately



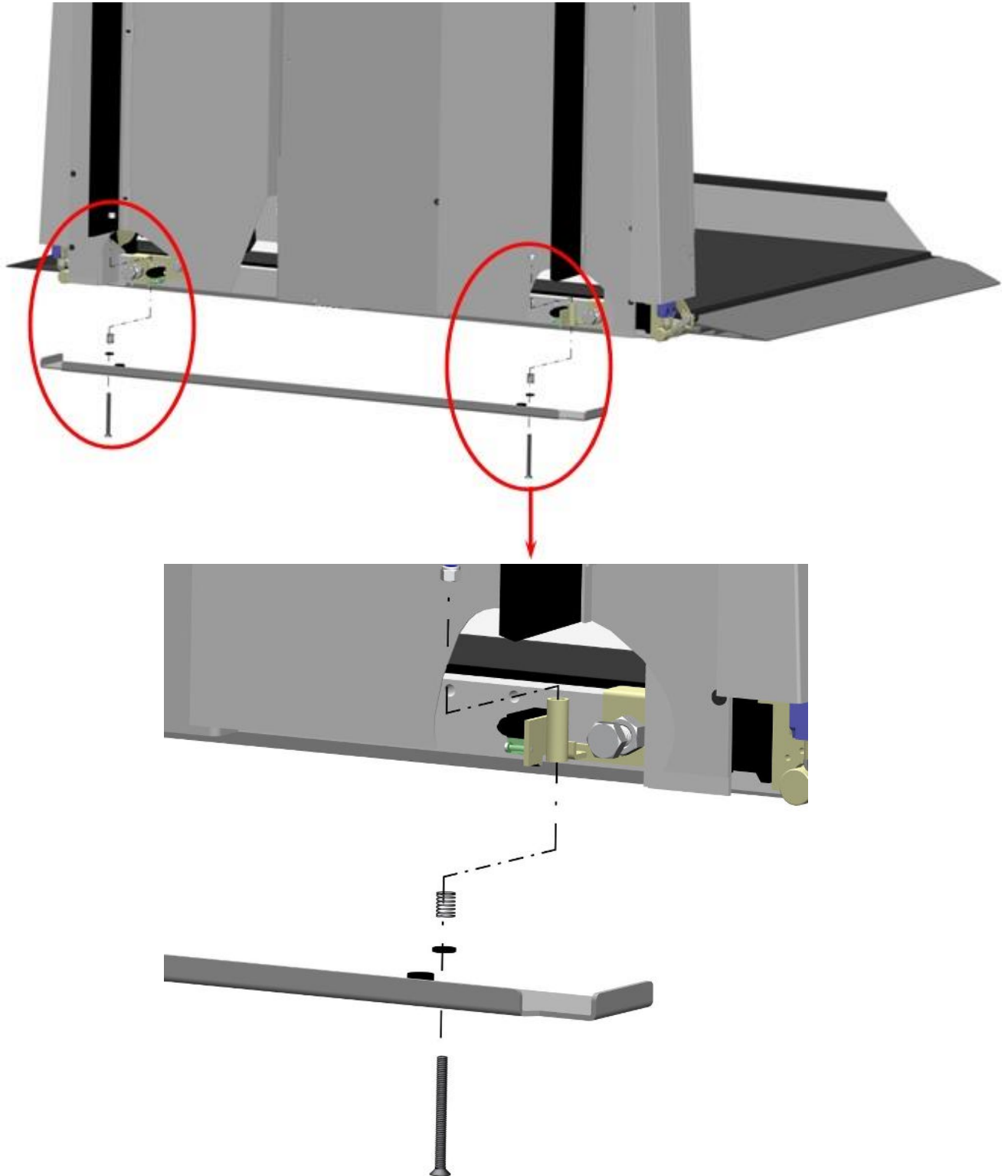
14.) Bypass switch strip

The bypass switch strip is attached in the factory over the entire length of the running track. Once the stations points have been set up, a cut-out has to be made at the appropriate points. The dimension X (the distance between the position of the bypass switch at the respective station and the start of the plastic strip) must not exceed 10 cm; we recommend 6 to 8 cm. The end of the plastic strip must additionally be fastened with a countersink head screw.



15.) Contact strip under the platform frame

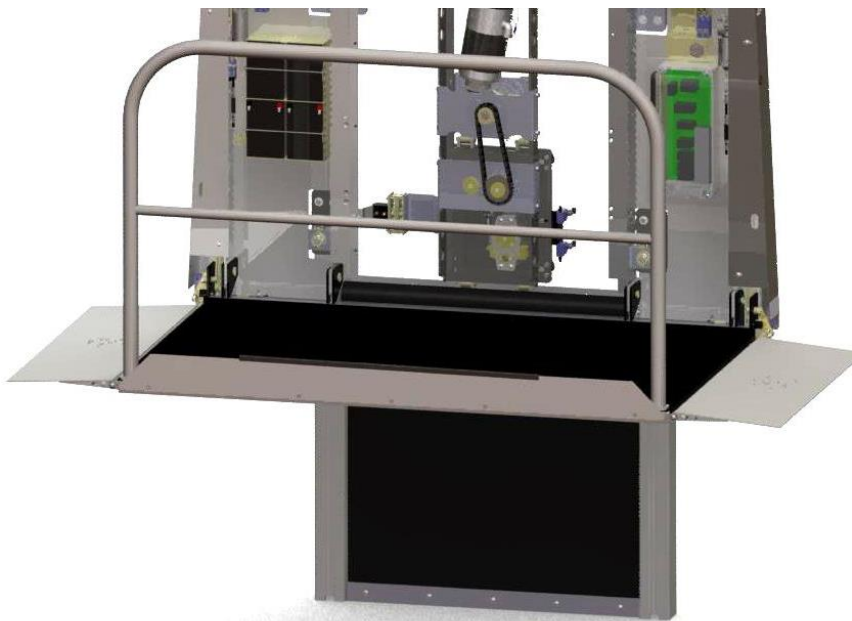
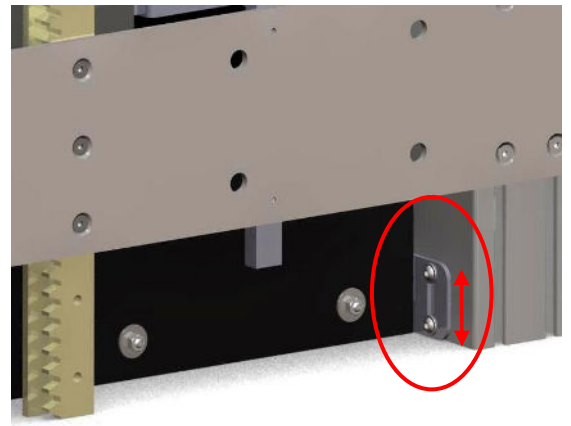
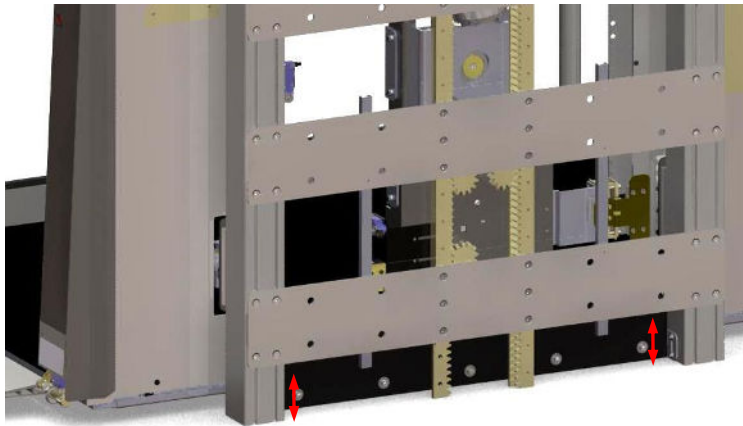
If the platform can be driven a short way upwards on the rail, the contact strip can be attached to the underside of the frame. This is not fitted in the factory as it would otherwise be damaged during transport. As soon as the platform is accessible from underneath, the contact strip is as to be attached as shown below. The necessary fixing items are contained in a clear plastic bag adhered to the contact strip.



16.) Running track cover / roller blind cover

Running track cover (roller blind) underneath the platform

Drive the platform to the lower station. Then unwind the roller blind enough that it reaches to the floor. Fasten the holding rail to the guide profile with 2 screws at each side. Mount the roller blind so that the screws are on the inside and concealed by the roller blind. Then align the roller blind so that it winds up and unwinds straight, doesn't knock against the sides and is smoothly tensioned. It may be necessary to drive the platform up and down several times to do this.



NOTE:

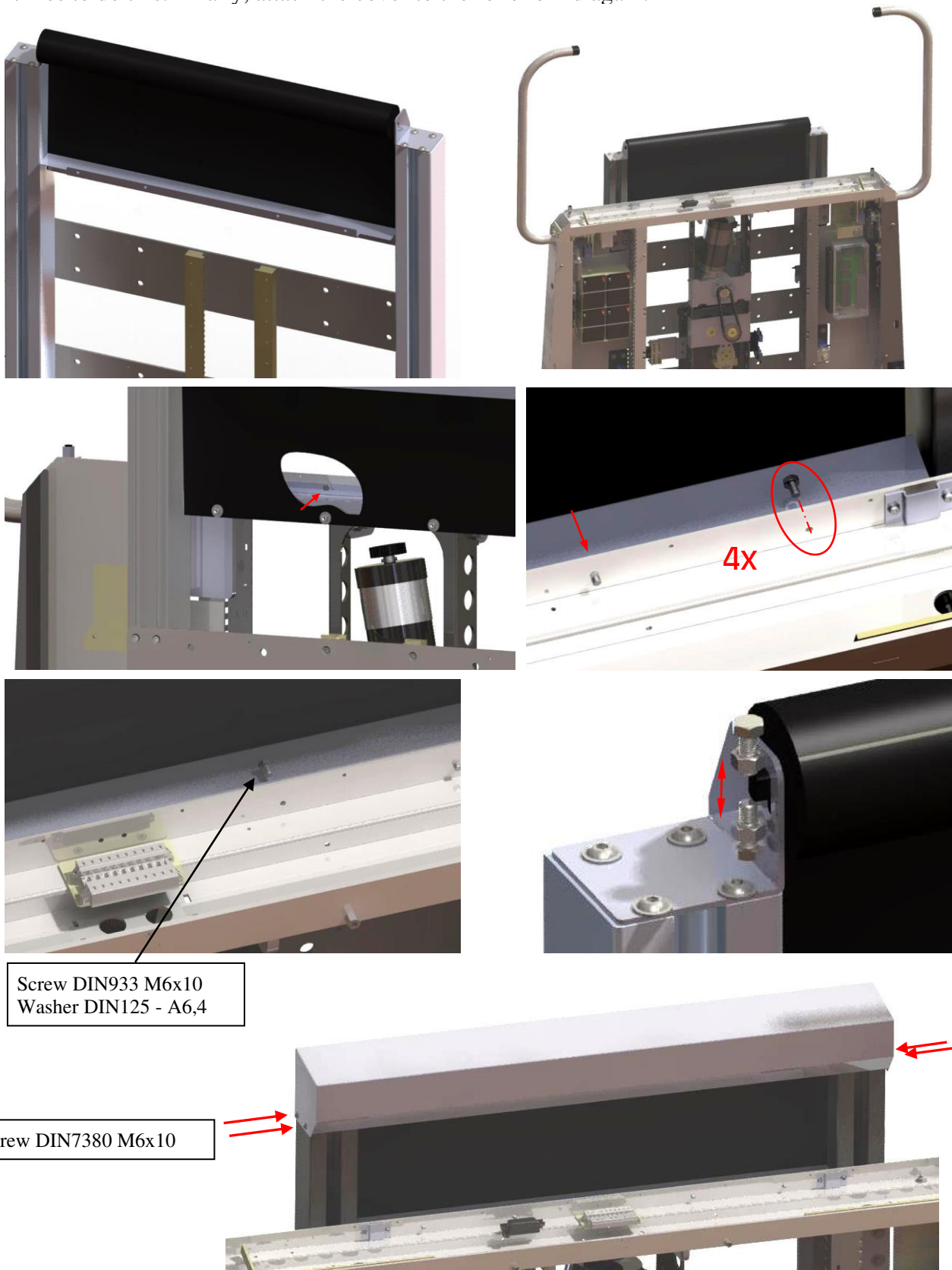
The roller blind is wound up with pretension! The roller blind can unwind if you loosen the lock (adhesive strips)! The roller blind should have a pretension of 5 to 8 revolutions!



Running track cover (roller blind) above the platform

Drive the platform to the upper station. Remove the cover from the upper roller blind, remove the unrolling guard and then unwind the roller blind until it reaches to the platform. Fasten the holding plate to the platform.

Then align the roller blind so that it winds up and unwinds straight, doesn't knock against the sides and is smoothly tensioned. It may be necessary to drive the platform up and down several times to do this. Finally, attach the cover to the roller blind again.

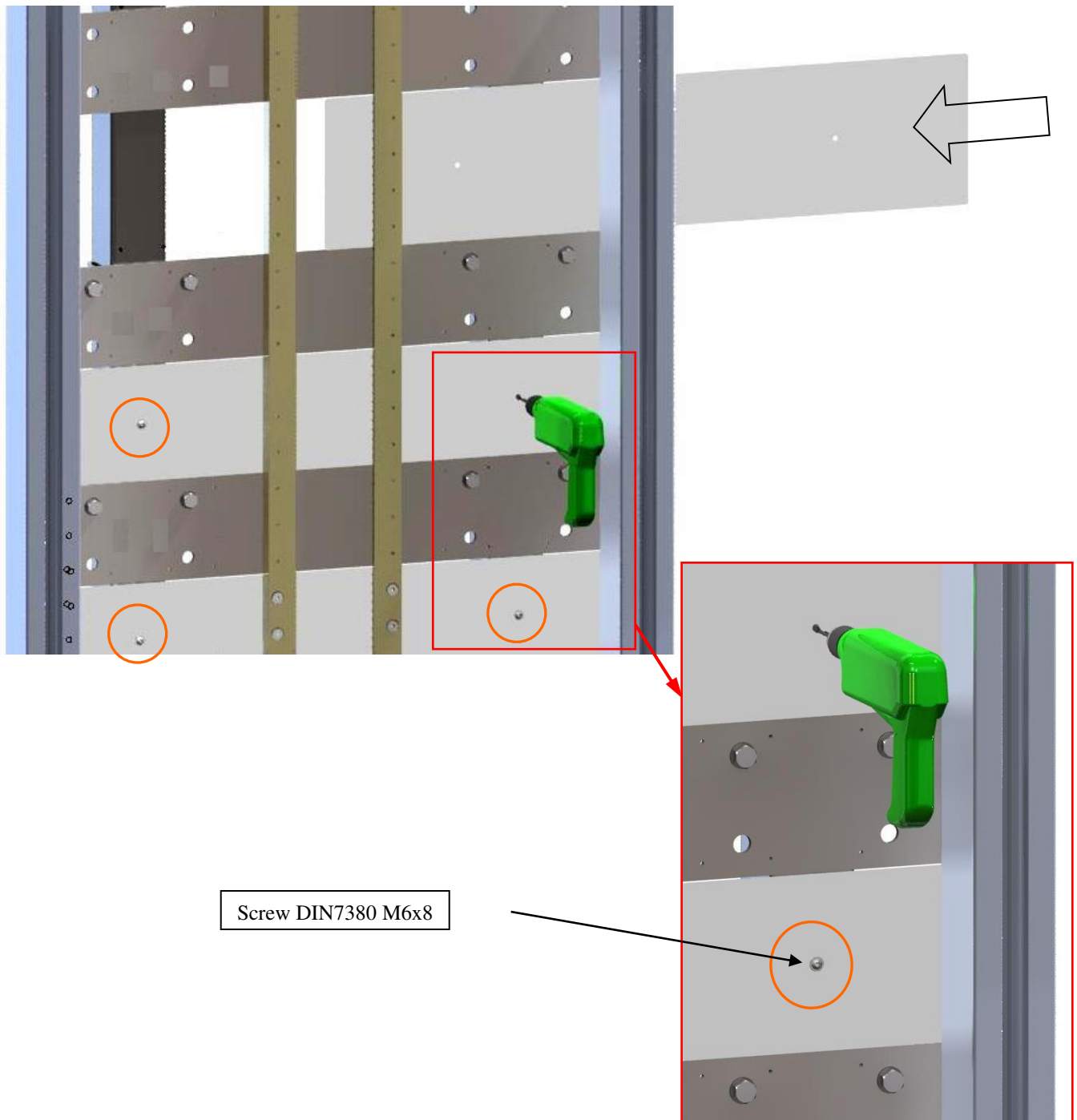


17.) Running track cladding / reach-through guard

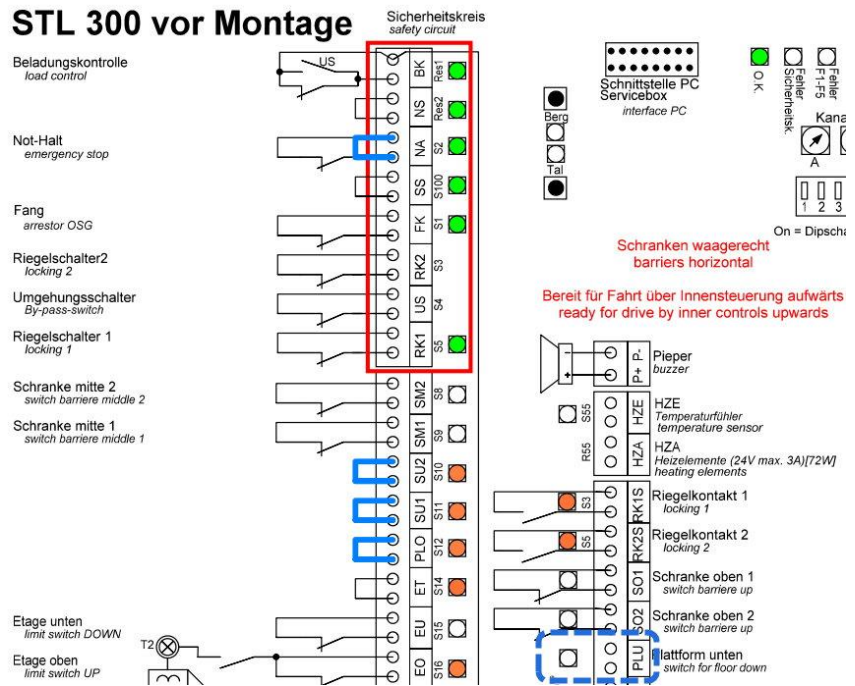
If running track cladding is foreseen and/or is to be attached, then it must be attached as shown below.

The sheet metal strips are pushed in from the side between the running track and the supports. The supports are drilled through the holes in the sheet metal and an M5 thread is tapped on site. The sheet metal strips are then fastened with the M5 x 10 flat head screws supplied.

If running track cladding should also be necessary with wall mounting, it is attached on the rear side to the fastening plates with screws in the existing M5 threads. Pay attention to the length of the screws; they must not protrude too far inwards – risk of collision with the platform! The corresponding holes for the screws must be made in the sheet metal strips on site. If necessary, additional threads must also be tapped in the fastening plates.



Finally, the platform hood must be attached again and connected, and the jumpers that were installed directly in the controller must be removed again (NA, SU2, SU1 and PLO). One of these jumpers must be attached again to the PLU contact.



18.) Final work

Once all connecting and adjusting work has been completed, the front cladding and the hood must be attached.

Attach all caps and covers (if necessary).

All necessary danger and instruction notices are to be attached. Original labels must be replaced by labels in the respective national language if necessary!

Carry out several test runs under full load and check **all** safety and control functions (including a function test/engagement of the safety arrester).

- Check the effectiveness of the arrester switch by engaging the pawl by hand (possibly using an aid (e.g. folding rule)).
- Check the effectiveness of the safety arrester by downward rotation with the brake vented until the blocking position of the safety arrester is reached.

Give detailed instructions to the user (let him/her drive himself/herself).

Touch up any paint damage (pots of paint are included in the scope of delivery) and instruct the customer not to drive with the lift until the paint has dried and operation is allowed in accordance with the national regulations.

Complete the installation report in detail and send it to the manufacturer's customer service department.

19.) Dismantling an STL300 vertical platform lift

- 1.) Disconnect and dismount the electrical components (external control unit, battery chargers).
- 2.) Remove the front cladding and the hood.
- 3.) Drive the platform to the upper station and detach the roller blind from the platform.
- 4.) Remove the cables and connecting wires. Jumpers must be attached in the controller so that the platform can be moved (see page 18).
- 5.) Starting from the uppermost station, successively dismount the running track sections in a downward direction (down to the last running track section before the lifting unit).
Attention: It is essential to eliminate or secure any sources of danger created, such as a danger of falling (missing banister) or a danger of being cut (sharp edges), in an appropriate way!
- 6.) Loosen the last running track section and remove it together with the platform.
ATTENTION: Secure the platform against tipping over when loosening the screws!
- 7.) Dismantle the supports (cut through any welded supports if necessary).
Pay attention to the safety instructions regarding hot work in order to avoid fires.

20.) Disposal instructions

- 1.) Scrap metal: metal parts of the running track and the lifting unit
Steel: parts of the running track, supports, parts of the cladding of the lifting unit, parts of the lifting unit (e.g. frame, drive)
Aluminium: parts of the running track, parts of the cladding of the lifting unit, parts of the lifting unit (e.g. floor plate, contact base)

- 2.) Special waste: plastic parts, motor, cables, printed circuit boards, batteries, roller blind

Note: our powder coating is free of lead and cadmium

Wall fastening

Selection options for connecting elements for fastening to the wall with the following building fabrics:

Solid bricks/lime-sand solid bricks

Recommendation for anchor bolt selection: **Category 1**

Holes 1-8

Horizontal coring bricks/vertical coring bricks/perforated lime-sand bricks

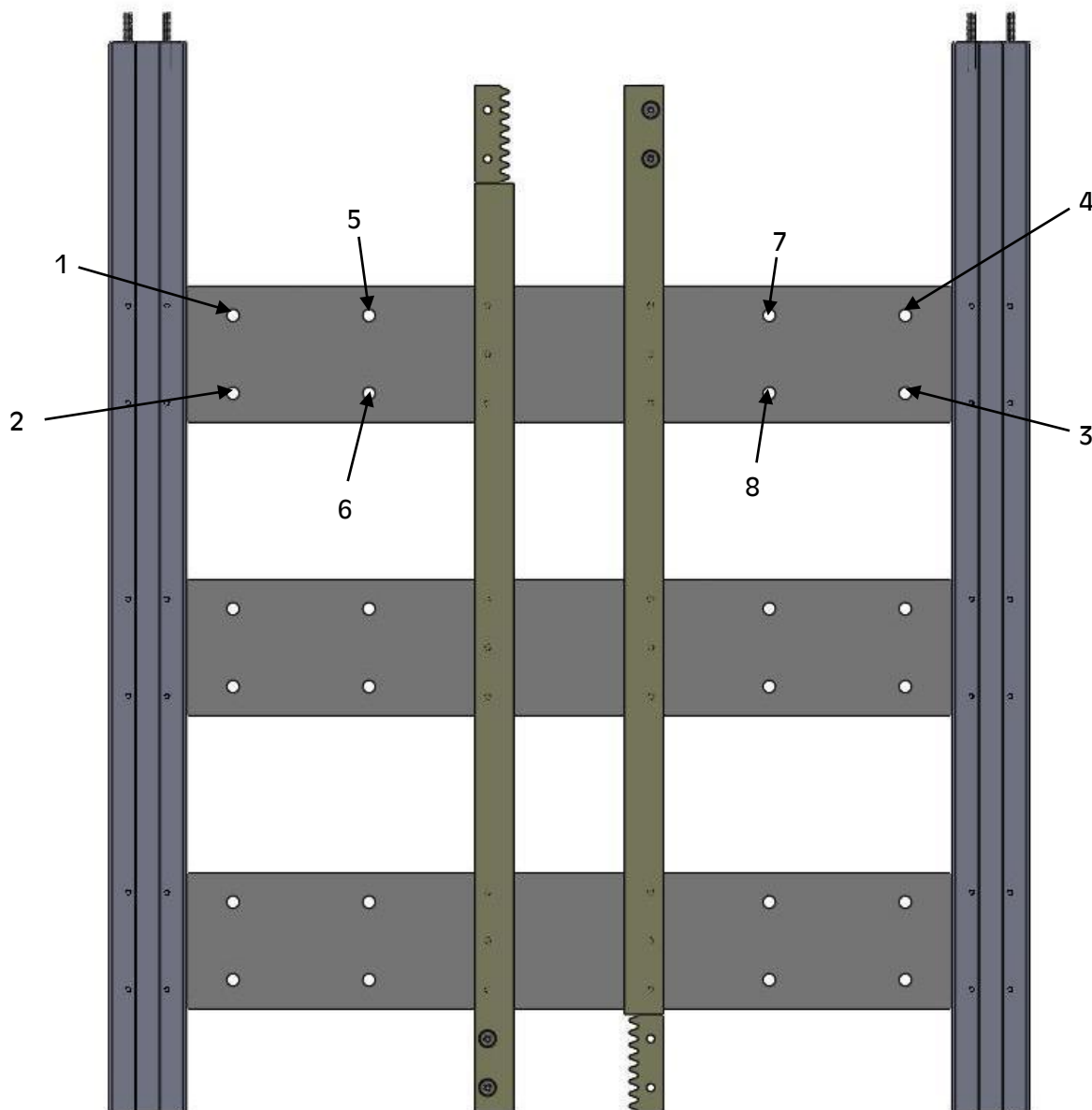
Recommendation for anchor bolt selection: **Category 2**

Holes 1-8

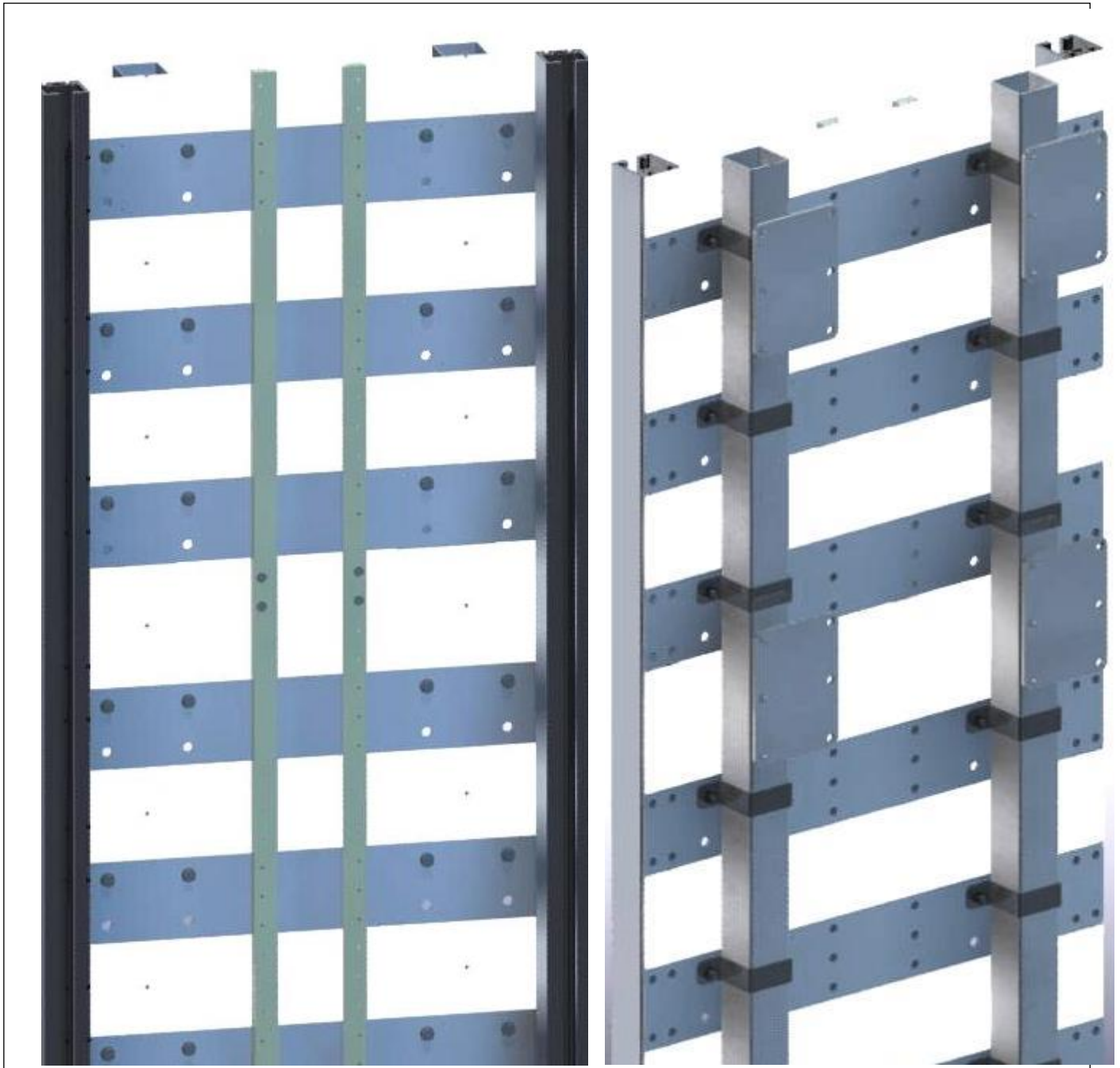
Building fabric concrete

Recommendation for anchor bolt selection: **Category 3**

Holes 1, 2, 3 & 4



Example of support fastening

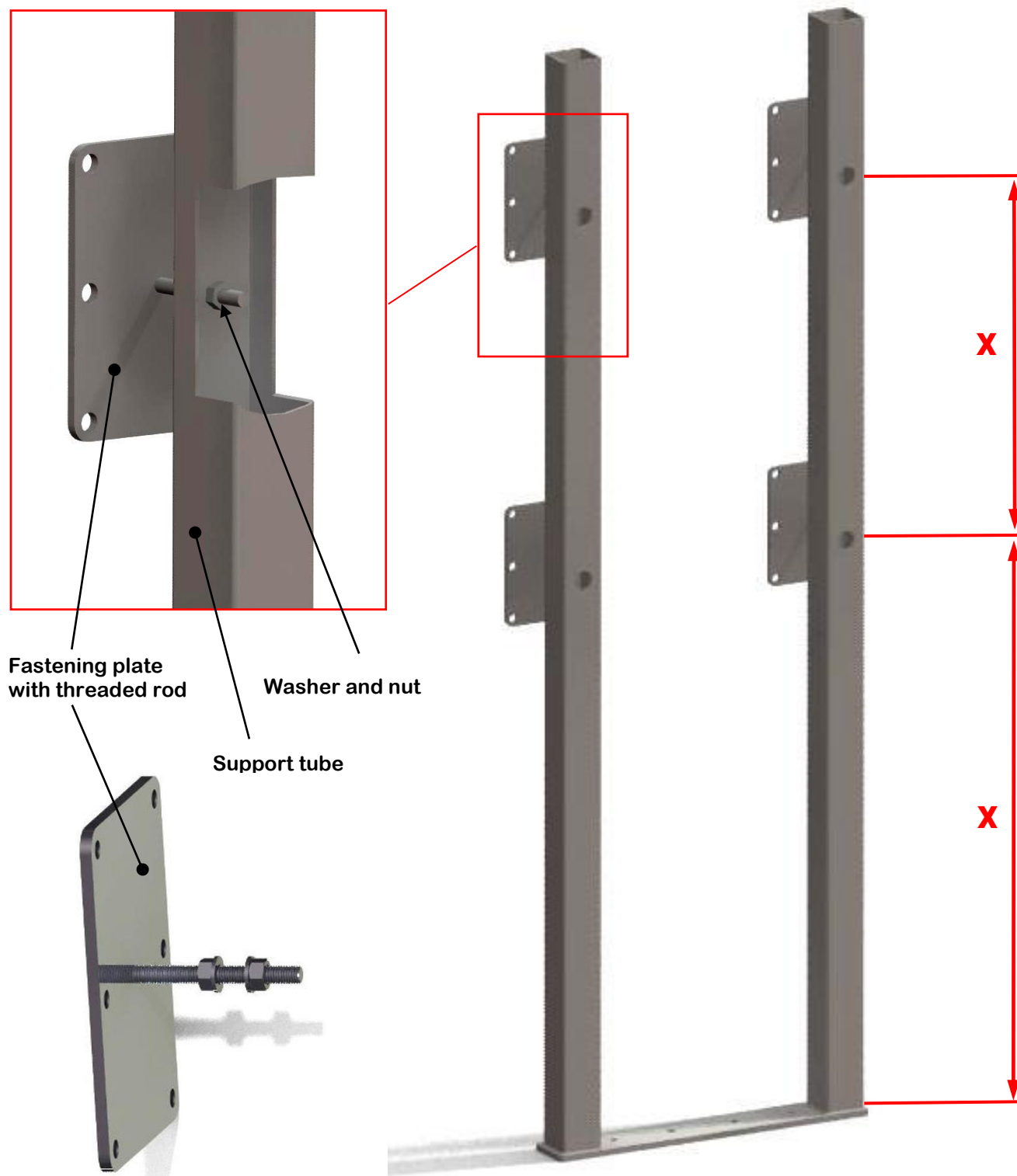


Holes 1, 4, 5 and 7 (p. 18) are to be used
when mounting on supports.
(2 fastening brackets per holding plate!)
see page 4

The support is braced in several places at the top.
Anchor bolt category for bracing corresponds to
the wall fastening (see p. 22ff)

Appendix I

Maximum dimensions



Maximum fastening distances: $X = \max 2250 \text{ mm}$

Anchor bolt categories for the following building fabrics:

Solid bricks/lime-sand solid bricks

**Horizontal coring bricks/vertical coring bricks/
perforated lime-sand bricks**

Concrete

Anchor bolt category 1

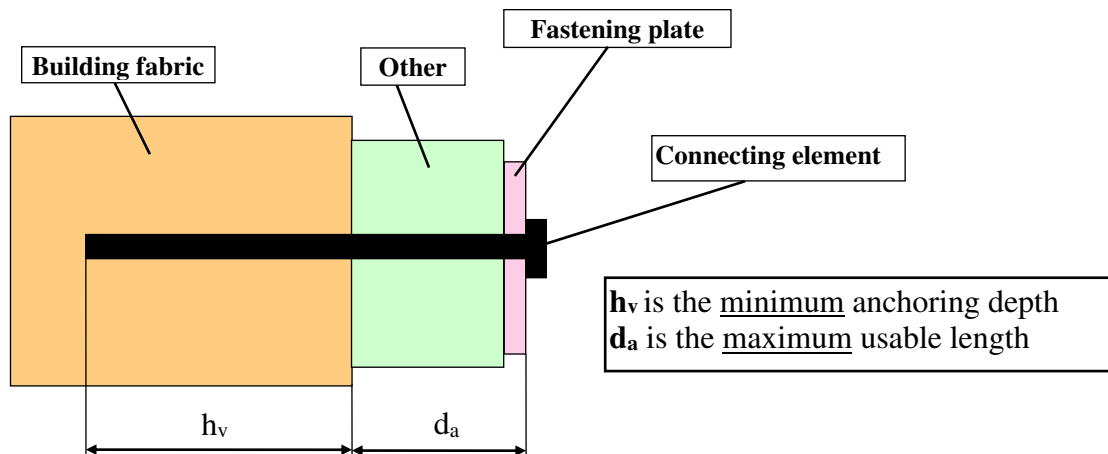
Anchor bolt category 2

Anchor bolt category 3

Recommendations for anchor bolt selection - STL300

Due to the structural conditions (e.g. plaster, tiles, screed on the actual building fabric) it is sometimes necessary to use different effective lengths of the respective anchor bolts. However, you may not simply use other types and/or classes of anchor bolts here.

The most important data:



On the following page there are several selection options for connecting elements (depending on the building fabric and the max. usable length)

Anchor bolt categories 1 and 2 [solid bricks and hollow bricks]

HIT-HY270 +
 HIT-SC16x50 (#375981) +
 HIT-SC16x85 (#375982) +
 HIT-V M10x190 (#387059) indoor area or
 HIT-V-R M10x190 (#387079) outdoor area

$h_v = 85 \text{ mm}$ $d_a = 50 \text{ mm}$ $M_d = 4 \text{ Nm}$

18 ml HIT-HY270 are required per HIT-SC16x50

30 ml HIT-HY270 are required per HIT-SC16x85

As both screen sleeves are used together (behind one another) per drill hole, 48 ml HIT-HY270 are required per drill hole.

In general: It is essential to adhere to the anchor bolt manufacturer's mounting instructions!

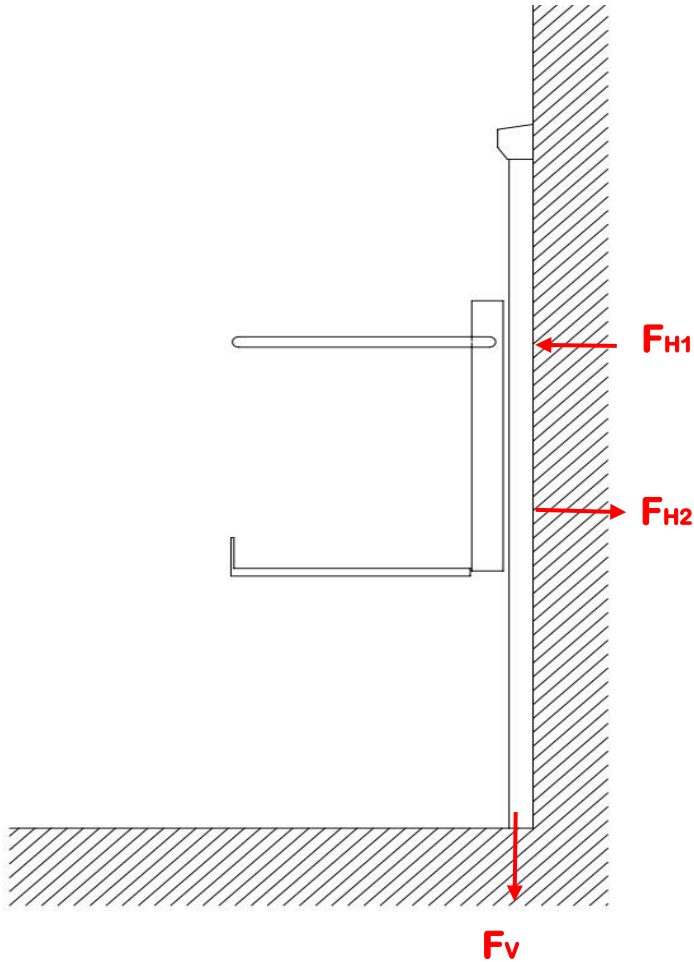
Anchor bolt category 3 [concrete]

| Indoor area | | | | | Outdoor area | | | | |
|----------------|-----------------------|---------------|---------------|---------------|------------------|-----------------------|-------------------|---------------|---------------|
| Designation | Art. no. (Fischer) | h_v [mm] | d_a [mm] | M_d [Nm] | Designation | Art. no. (Fischer) | h_v [m m] | d_a [mm] | M_d [Nm] |
| FAZ II 12/ 10 | 095419 | 70 | 10 | 60 | FAZ II 12/ 10A4 | 501413 | 70 | 10 | 60 |
| FAZ II 12/ 30 | 095421 | 70 | 30 | 60 | FAZ II 12/ 30A4 | 501416 | 70 | 30 | 60 |
| FAZ II 12/ 50 | 095446 | 70 | 50 | 60 | FAZ II 12/ 50A4 | 501419 | 70 | 50 | 60 |
| FAZ II 12/ 80 | 095454 | 70 | 80 | 60 | --- | | | | |
| FAZ II 12/ 100 | 095470 | 70 | 100 | 60 | FAZ II 12/ 100A4 | 501421 | 70 | 100 | 60 |

For other effective lengths, please refer to the latest catalogue from the Fischer company.

In general: it is essential to adhere to the anchor bolt manufacturer's mounting instructions!

Maximum load forces for STL300
Wall fastening or support fastening



| | Case of arrest [KN] |
|-------------------|------------------------------------|
| $F_{H1} = F_{H2}$ | 7.4 |
| F_v | 12.2 |