Assembly instruction

Counter-weight covering

Art.-No. 78550-78552

1. Contents

The structure element which appears in the assembly instruction has the following meaning:

The text and the pictures after the signal word ATTENTION contain important information, which have to be absolutely considered to prevent person or object damage.

2. Intended use:

The counter-weight covering is used to protect persons in the liftshaft pit against the running-in counter-weight. The covering has to begin max. 30cm above the liftshaft ground and has to be at least 2.5m high.

3. Safety advice:

The counter-weight is only suitable for liftshaft pits, which are only allowed to enter by authorized persons.

The assembly may only be effected by authorized persons*. During assembly all accordant safety instructions and the necessary safety measures for the elevator assembly are to be considered.

The assembly and maintenance may only be effected with switched-off system.

All data in the assembly instruction incl. the maintenance advice on page 10 are implicitly to be followed.

Keep this instruction for later use!

*Authorized persons have expertises, which they have acquired by professional training, professional experience and contemporary occupational activity. (TRBS 1203)

4. Parts list

Quantity Description

Counter-weight covering standard package Art.-no.: 78550

2	part 1-1 Mounting angle above 100x200
2	part 1-2 Mounting angle above 120x300
4	part 2-1 Mounting angle middle/below 100x200
4	part 2-2 Mounting angle middle/below 120x300
1	part 3-1 Panel mounting profile above
1	part 3-2 Panel mounting profile above
2	part 4-1 Panel mounting profile middle/below
2	part 4-2 Panel mounting profile middle/below
4	part 5 Panel 2.2m x 0.31m (with single-repeat-order Art.-No.: 78551)
4	part 6 Panel 2.2m x 0.15m (with single-repeat-order Art.-No.: 78552)
1	Small-parts bag, basis package

Small-parts bag basis package

6	Hexagonal wood screw
6	Dowel 12x60
6	Flat washer 10,5
55	Latching screw M6x16
55	Latching nut M6
25	Coach bolt M8x20
25	Latching nut M8
12	Tapping screw with flat washer 5,5x16

part 1-1
Mounting angle
above 100x200

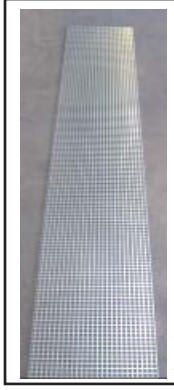
part 1-2
Mounting angle
above 120x300

part 2-1
Mounting angle
middle/below 100x200

part 2-2
Mounting angle
middle/below 120x300

part 3-1 and 3-2
Panel-mounting profile above

part 4-1 and 4-2
Panel mounting profile middle/below



part 5
Panel
2.2m x 0.31m

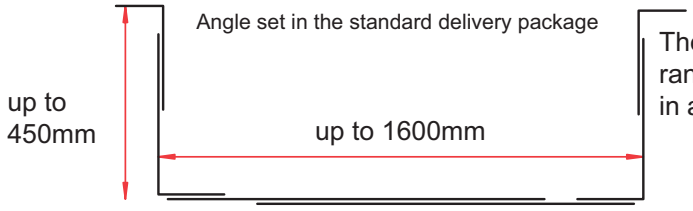
part 6
Panel
2.2m x 0.15m

5. Assembly preparation

Before starting the assembly the scope of delivery must be checked, whether it is complete on the basis of the parts list. As tool you need two wrench of 10, one of 13 and one of 8.
Also a water-level and a percussion drill with 12mm stone drill is absolutely necessary.
For the assembly a step-ladder is needed.
It is recommended to do the assembly with two persons. In rare cases an angle grinder is necessary to handle the panels.

6. Assembly advice and technical data

The counter-weight covering offers a lot of mounting variants. The pictures in this instruction show merely one variant. The counter-weight covering has to be assembled in such a solid way, that the panels by leaning against them are not pushing in. According to the EN81-1 the width of the covering must have at least the width of the counter-weight plus 0.1m on each side. The covering must not extend to the range of the moving elevator parts.



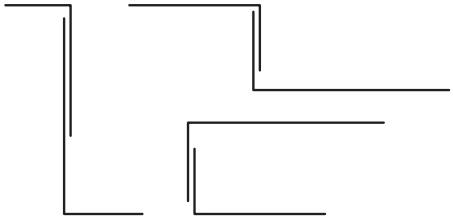
The counter weight covering has to surround the range 30cm up to 250cm over the liftshaft ground in a solid-walled way.

Advice:
In the assembling pictures you still see partly mounting angles and mounting profiles of the first type series. The pictures in the parts list reproduce the current type series. The modifications are irrelevant for the assembly.

7. Assembly

7.1

Adjustment of the upper mounting angles:
The mounting depth determines the way, how the mounting angles above are built on each other (parts 1-1/2). There are some variants, in the following three examples:



The mounting depth of 120mm-450mm is continously adjustable. If the mounting depth is shorter than 120mm, the mounting angles have to be shortened.

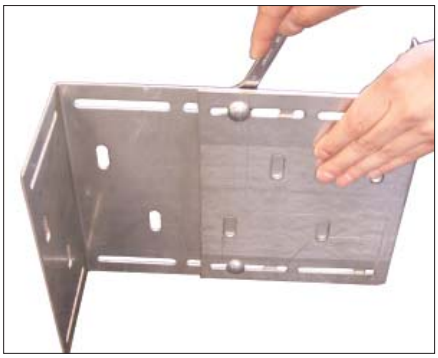
Attention!

By calculating of the mounting depth the way of the cabin has to be considered. The covering must not extend to the region of the moving elevator parts.

7.2

Hold the liftshaft wall sided angle on the wall.
Thereby the upper edge has to lie 2.55m over the shaft ground. Mark a borehole in one of the vertical slotted holes. Drill the hole with a 12mm concrete drill.

7.3



Screw the upper mounting angles (parts 1-1/2) together on the basis of the calculated mounting depth. For this use two coach bolts M8x20.

Now screw together also the angles for the other side.

7.4

Fasten the first angle on the wall with dowels, flat washers and hexagonal wood screws.

7.5

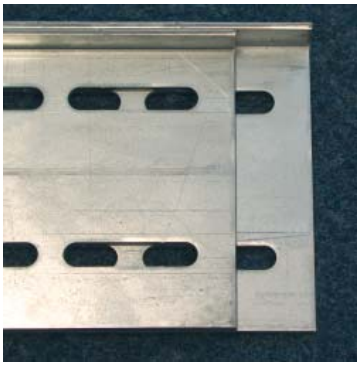
Transfer the mounting height of the angle **with the water level** on the other side.

Important!
Few millimeters difference in the mounting height, generate grave assembly difficulties!

7.6

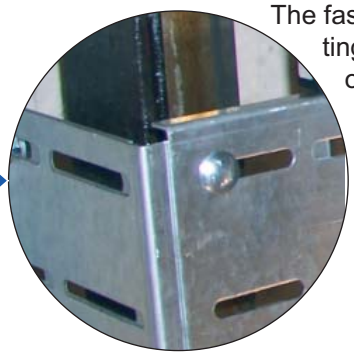
Fasten the angle on the other side like under chapter 7.2 til 7.4.

7.7



The panel mounting profiles above (parts 3-1/2) can be telescoped. So the exact width of the covering can be adjusted.

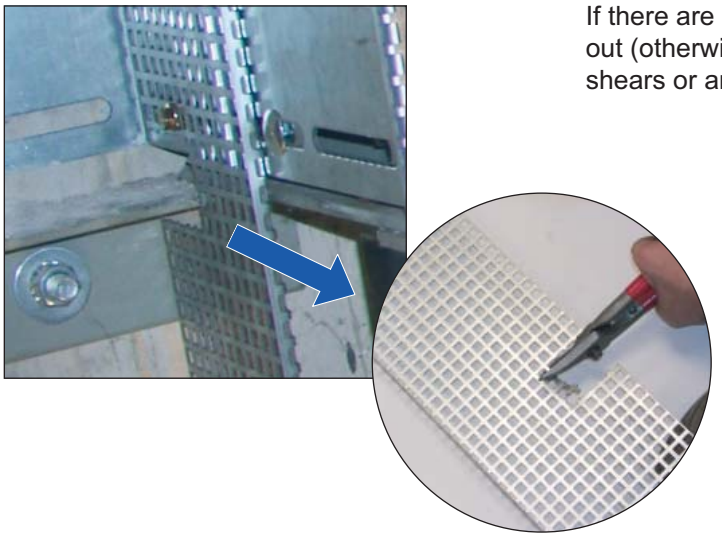
Lie the mounting profiles with the short side on the mounting angles.
Important!
The whole upper clamp has to lie exactly in balance. So check the clamp again with the water level and regulate it if necessary with the vertical slotted holes in the mounting angles (parts 1-1/2).



The fastening of the mounting profiles with each other is effected each with two coach bolts M8x20. The fastening with the mounting angles is effected each with one screw.

7.8

If the upper bracket is assembled completely, the panels (parts 5/6) are mounted. First the outer panels are assembled on the front side.
If there should be more than one panel on the short sides, it should also be assembled one panel each here already. The panels are fastened with two latching screws M6x16 each on the mounting profile or on the mounting angle.



If there are e.g. rail clamps on the wall, they have to be cut out (otherwise the EN294 is not fulfilled). For this use plate shears or an angle grinder.

7.9

The panel mounting profiles middle/below (parts 4-1/2) can be telescoped. By applying on the upper mounting profiles (parts 3-1/2) the exact length is adjusted.
The profile is screwed with two coach bolts M8x20.

7.10

Fasten the lengthwise adjusted panel mounting profiles once centric and once below on the already assembled panels. Thereby the short sides of the profiles point to the counter-weight.
Important!
Before screwing adjust the mounting profiles again with a water level.
The fastening is effected each with two latching screws M6x16 per panel.

7.11

When the mounting profiles are screwed on, the mounting angles middle/below (parts 2-1/2) are assembled. Those are adapted on the mounting depth as the mounting angles above (parts 1-1/2). The blades of the angles are so wide, that they fit in the panel mounting profile middle/ below. Primarily the first mounting angle (part 2-1 or 2-2) is screwed with the mounting profile and the panel. (2x latching screws M6x16). Then hold on the second angle, mark the borehole and drill with a 12mm concrete drill.

The second mounting angle is fastened in the liftshaft wall with dowel, flat washer and hexagonal wood screw.

Only now the both mounting angles are screwed together. If the junction lies behind an already assembled panel, so the fastening is effected with latching screws M6x16, otherwise with coach bolts M8x20.

The fastening of the mounting angles middle/below is effected on both sides the same (middle and below).

7.12

When all mounting angles are fastened, the remaining panels are assembled. Normally the panels overlap thereby.
When assembling it is implicitly to be considered, that the last panel lies on a place, where small round holes exist in the panel mounting profile (only one of each angle has those holes).
The last panel cannot be screwed on the middle bracket with the latching screws M6x16 anymore (no locking possibility of the nut). With this panel the tapping screws are used.

In rare cases it is possible, that the width of a panel has to be shortened with an angle grinder (e.g. if mounting depth is smaller than 150mm).

8. Mounting example

Attention!

At the end of the assembly check again, if the covering is not protruding in the running way of the cabin or the counter-weight.

9. Maintenance advice

The fixity of the fastening of the counter-weight covering has to be checked once a year.
If in the shaft vibrations arise, e.g. from the underground (metro), heavy construction work in the house or other imponderabilities, there could be necessary shorter maintenance intervals. The stipulation and responsibility for a temporally resonable maintenance interval is incumbent on the user.