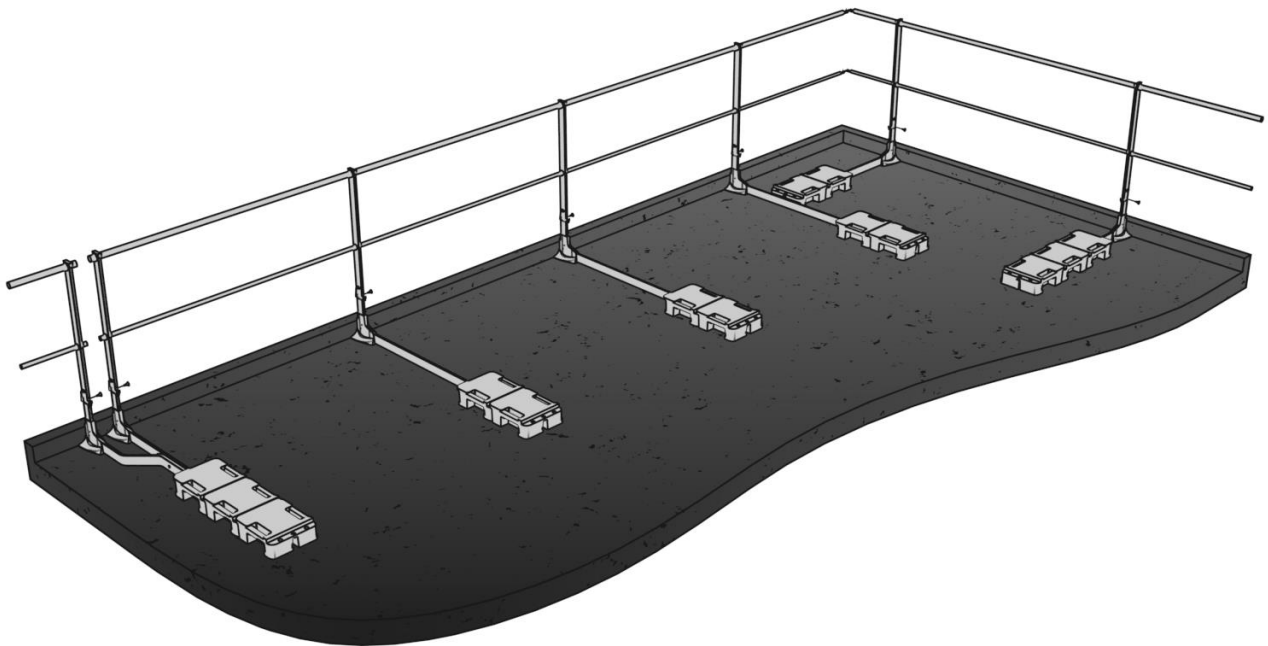


## System description

GARDCO ALK is a foldable, penetration-free and load-bearing railing system for the side protection of flat roofs not accessible to the public in accordance with DIN EN 13374 Class A.



## Installation

Please read the assembly instructions before installing the guardrail.

Before installation, check the load-bearing capacity of the roof structure and thus the suitability for a load-bearing collective protection. The maximum load on the roof surface for the GARDCO ALK system is 50 kg in the area of the outriggers.

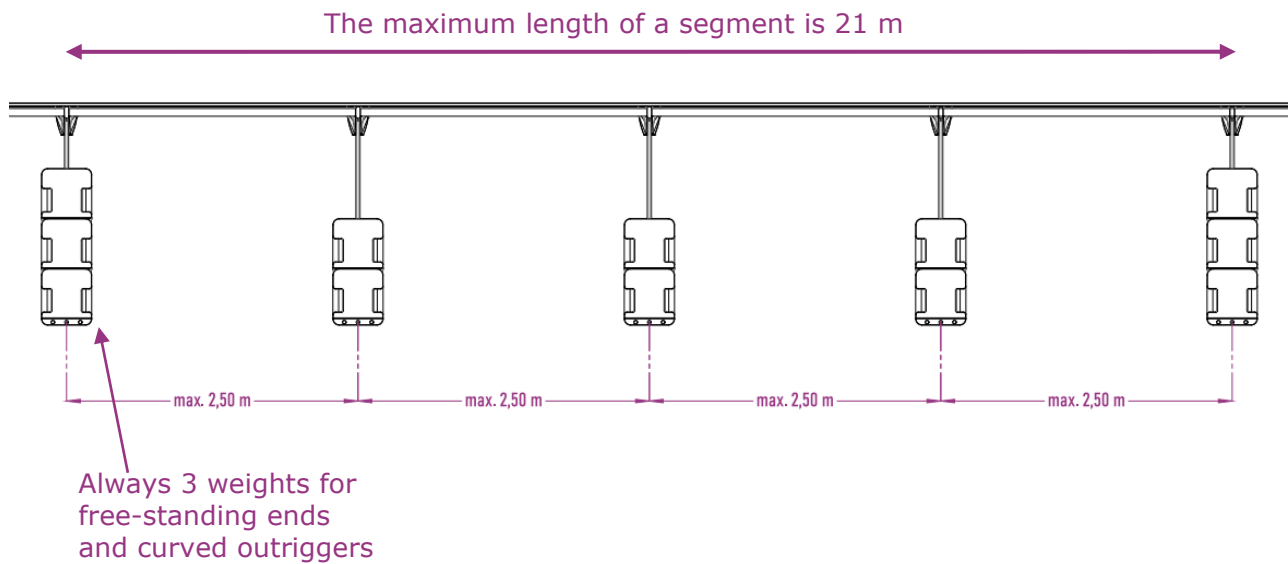
The railings are designed for a roof pitch of up to 10°. For roofs without a parapet, a shear protection must be provided.

If there is no parapet on roofs or the distance between the parapet and the knee run is less than 470 mm, a baseboard is mandatory. This must not be installed more than 20 mm above the accessible level.

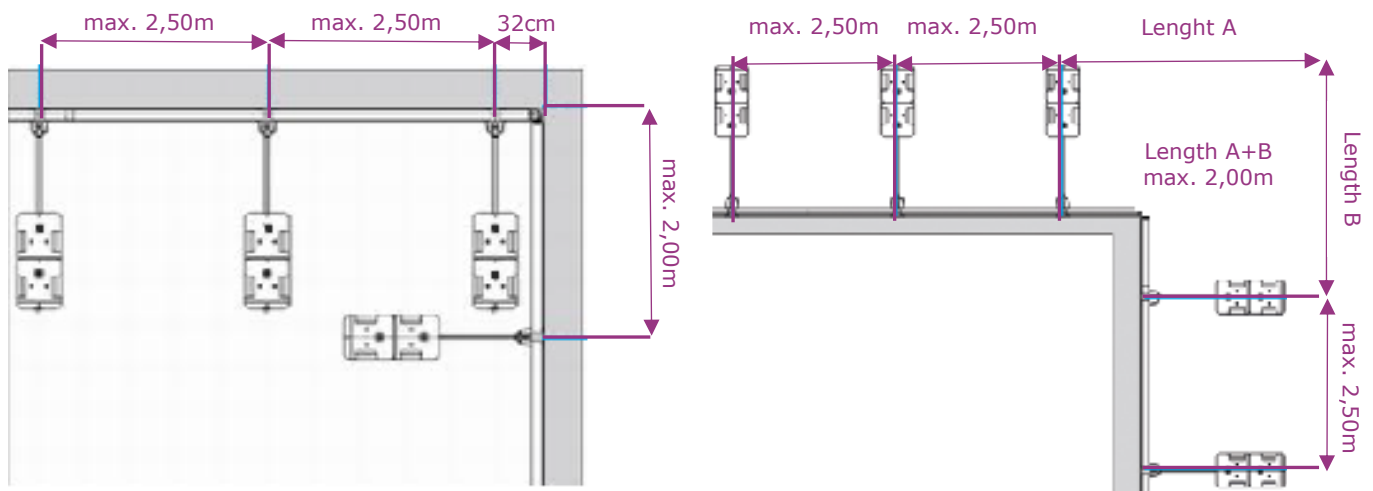
The railing must not be supplemented by attachments or claddings that increase the area exposed to wind or represent an additional load input. In areas with aggressive environmental conditions, e.g. in the vicinity of chemical plants or near the coast, additional coating or anodising of the railing parts may be necessary.

**Assembly diagram for standard railings up to 1.18 m**

**Straight railing**



**Corners**



**Ballasting for special cases**

**Railing height 1,18 m  
with shortended outriggers 1,00 m**

Maximum post distance      2,50 m

**Ballasting**

Inside post                      3 Weights

Outside post                    5 Weights

## Functional principle of the folding mechanism



Pick up folded post



Press the bracket against the spring.



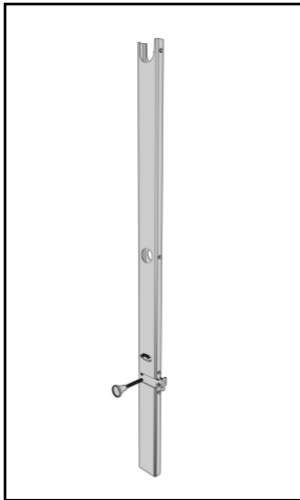
turn the bracket upwards and insert it into the oval oblong hole.



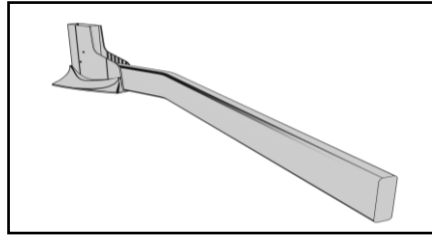
Push the bracket outwards into the last notch. Now the post is locked.

To fold down, unlock the post with the bracket and fold it down. To do this, proceed in reverse order to the principle described above.

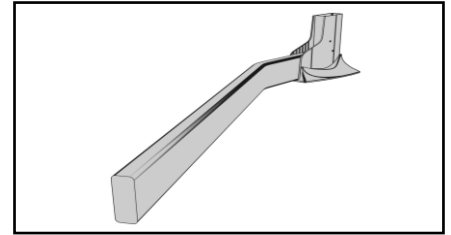
**Components**



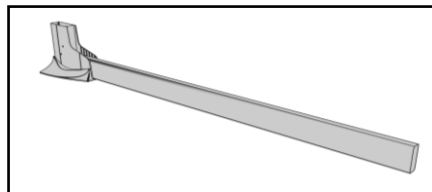
Folding post H110 cm



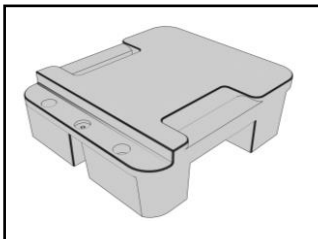
Outrigger 25° bent left



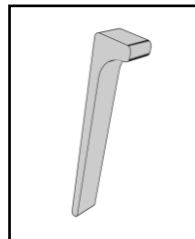
Outrigger 25° bent right



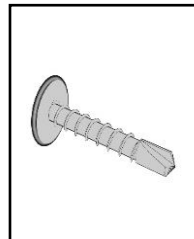
Outrigger straight



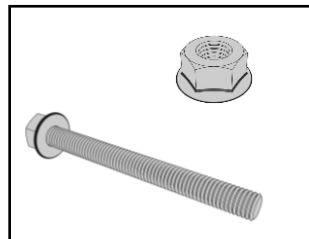
Weight 12,5 kg



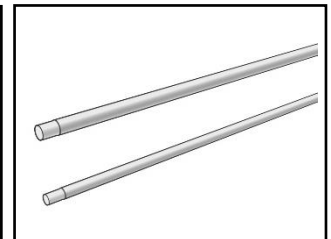
Blocking wedge



Drilling screw  
 4,8x16  
 4,8x25  
 4,8x50



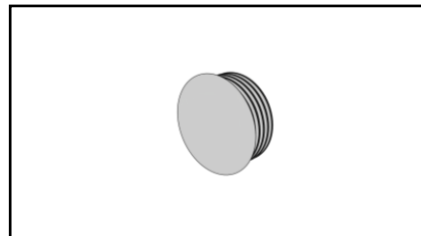
Screw M8x70  
 with locking nut



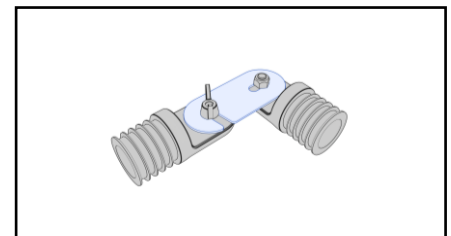
Handrail Ø 45 mm  
 Kneerail Ø 35 mm



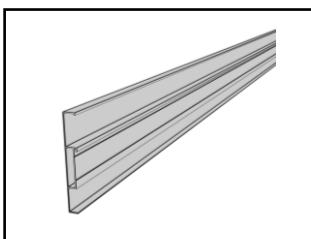
Cap for post



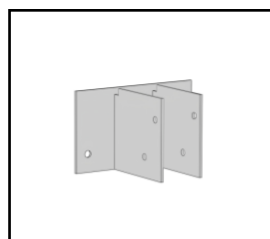
Cap for tube



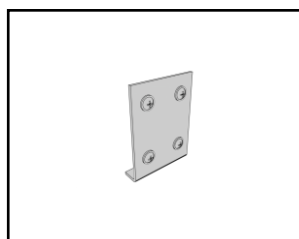
Wall connector for tube



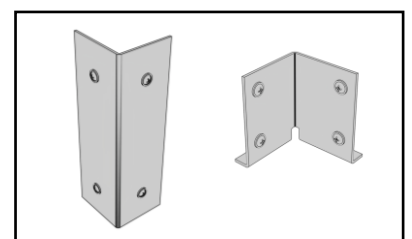
Baseboard  
 19x150x3000 mm



Holder for baseboard

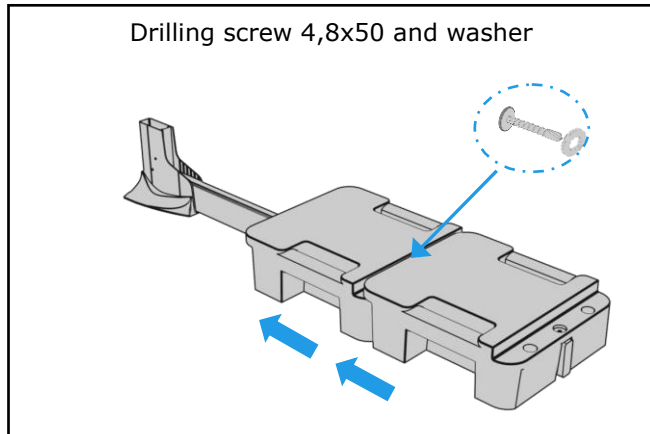


Connector for baseboard

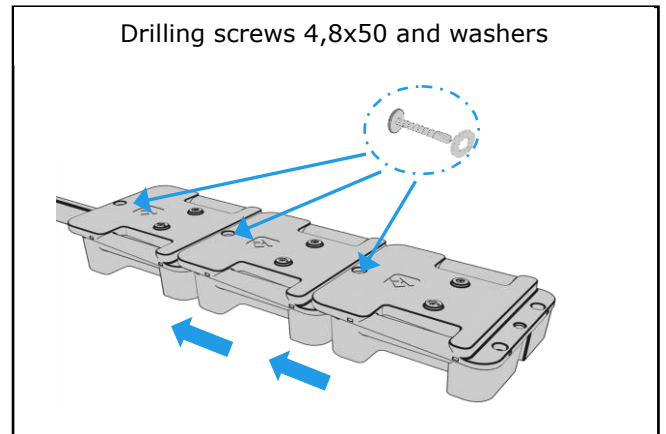


Corner connector baseboard

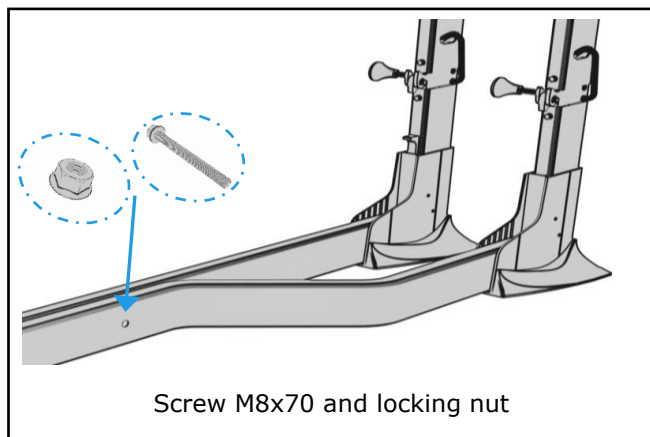
**Montage**



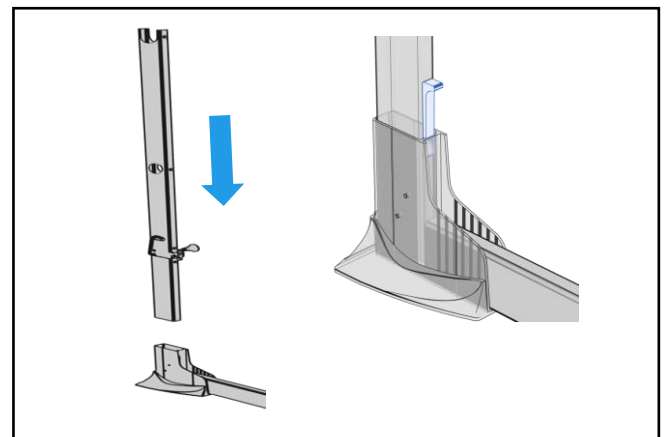
Place the outriggers on the floor according to the assembly plan. Slide 2 weights over the base so that they are flush with the end of the outrigger. Secure with drilling screws and washers.



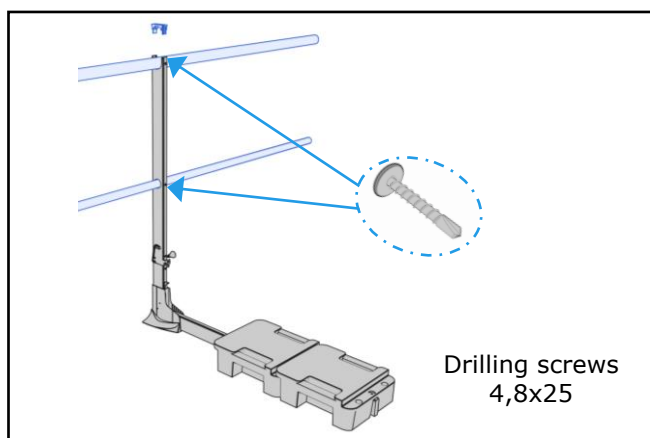
**For freestanding end and doors:**  
 Slide 3 weights over the base so that they are flush with the end of the outrigger. Secure with drilling screws and washers.



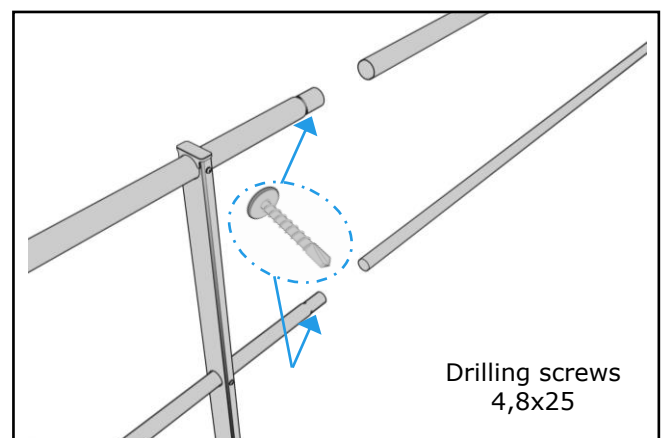
**Attach the curved outrigger** to a straight outrigger using a screw and locking nut.



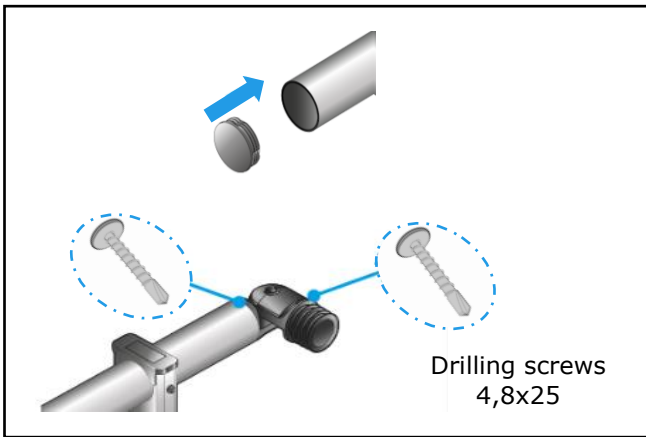
Insert the post into the post base. Carefully hit in the blocking wedge with a rubber hammer to fix the post.



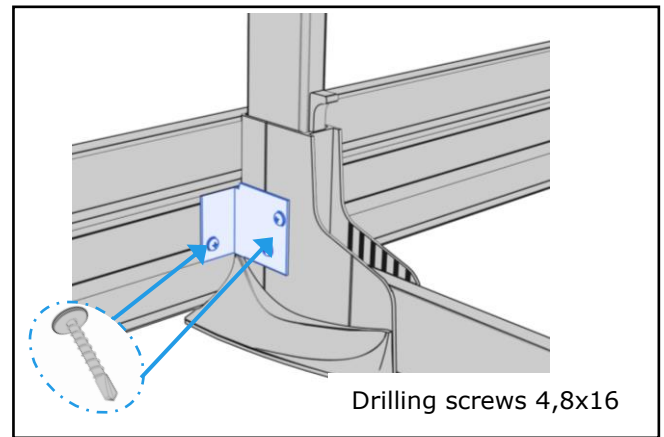
Thread the knee rail and insert the handrail. Put on the cover cap. Fix the knee rail and the handrail with 2 drilling screws.



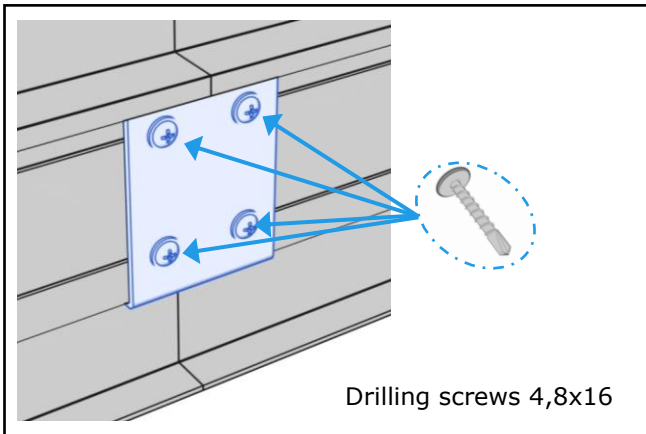
Insert the handrail and the knee rail into each other and fix each with a drilling screw placed diagonally from below.



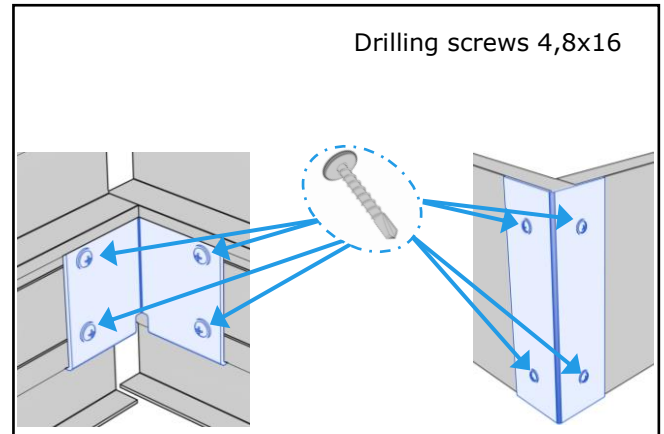
Put on the cover caps at the ends. Insert the hand and knee rails into the flexible corner connectors and secure with drilling screws.



Set the height of the baseboard to 100mm from the roof membrane. Fix corner connector to the right and left of the foot with 4 drilling screws to the post and the baseboard.



Join the baseboard at the joint. Insert the connector and fix in place with 4 drilling screws.



Place the corner connectors on the inside and outside of the corners and fix each with 4 drilling screws.

## Storage

The grates are made of aluminium or galvanised steel, the support structure as well as the railing are made of aluminium. When exposed to moisture, the surfaces can oxidise and lose their shine or develop stains. This oxidation does not attack the metal itself, but forms a natural protective layer. The optical changes have no effect on the quality of the components and the maintenance path. We recommend storing the components protected from moisture, dry and ventilated until assembly.

## Maintenance

GARDCO ALK should be inspected at intervals of max. 2 years. Particular attention should be paid to loose or deformed parts and correct positioning. If there is any concern about the functionality of the railing, it should be inspected and, if necessary, serviced before the next time the roof is entered. If individual parts need to be replaced, only undamaged original components should be used.

## General safety instructions

For the duration of the assembly, protection against falling must be provided, e.g. by means of an appropriate scaffold or anchoring devices. It must be ensured that the assembly is only carried out by instructed specialists in compliance with the specifications for carrying out work at appropriate heights.

Only undamaged original parts are to be used for assembly, and no changes may be made to them that impair their function or safety. Should it be necessary to dismantle the railing, this must be carried out in reverse order to the assembly instructions.

After a person has fallen or an object has fallen into the GARDCO railing, as well as after incorrect installation, the railing may only continue to be used if it has been inspected by a competent person and approved in writing for the intended use.

Openings between side guardrail systems and other constructions must be as small as possible, must not exceed 120 mm for guardrail rails and 20 mm for the toe board. The guardrail system must not be used as an anchor device.

## Marking



- 1 Product and typ identification
- 2 Standard and classification
- 3 Year of manufacture and serial number
- 4 Weight of the counterweight
- 5 Note that the instructions for use must be observed
- 6 Manufacturer

## Disclaimer

The load-bearing capacity of the substrate must be checked by the customer. Solid-C cannot make any statements about this. In addition to these installation instructions, the installing company has to observe the valid regulations and rules of technology. Solid-C GmbH is not liable for the dimensioning instructions contained in commercial offers, since it is generally not possible to agree on all technical framework conditions within the scope of tender submissions. The installation company is responsible for the mechanical durability of the mounted products to the building envelope, especially for their tightness. The components of Solid-C GmbH are designed for this purpose according to the expected loads and the valid state of the art. Solid-C GmbH does not assume any liability for damages caused by improper installation.