

## System description

ROOFESCAPE TRAPEZ is a walkway for escape and rescue routes in accordance with DIN 14094-2 on metal roofs with trapezoidal or sandwich roofing and the GARDCO side railing. It can also be used as a maintenance walkway in accordance with DIN EN 516, type C, class 1.

## These instructions include the following possible versions

**Page 2- 6:** ROOFESCAPE TRAPEZ 500 Z/A and 600 Z, width of the grating 500 or 600 mm

**Page 7- 11:** ROOFESCAPE TRAPEZ 1000 Z/A and 1200 Z/A, width of the grating 1000 or 1200 mm

**Page 12- 14:** ROOFESCAPE TRAPEZ platform, 100 x 150 cm



## Installation

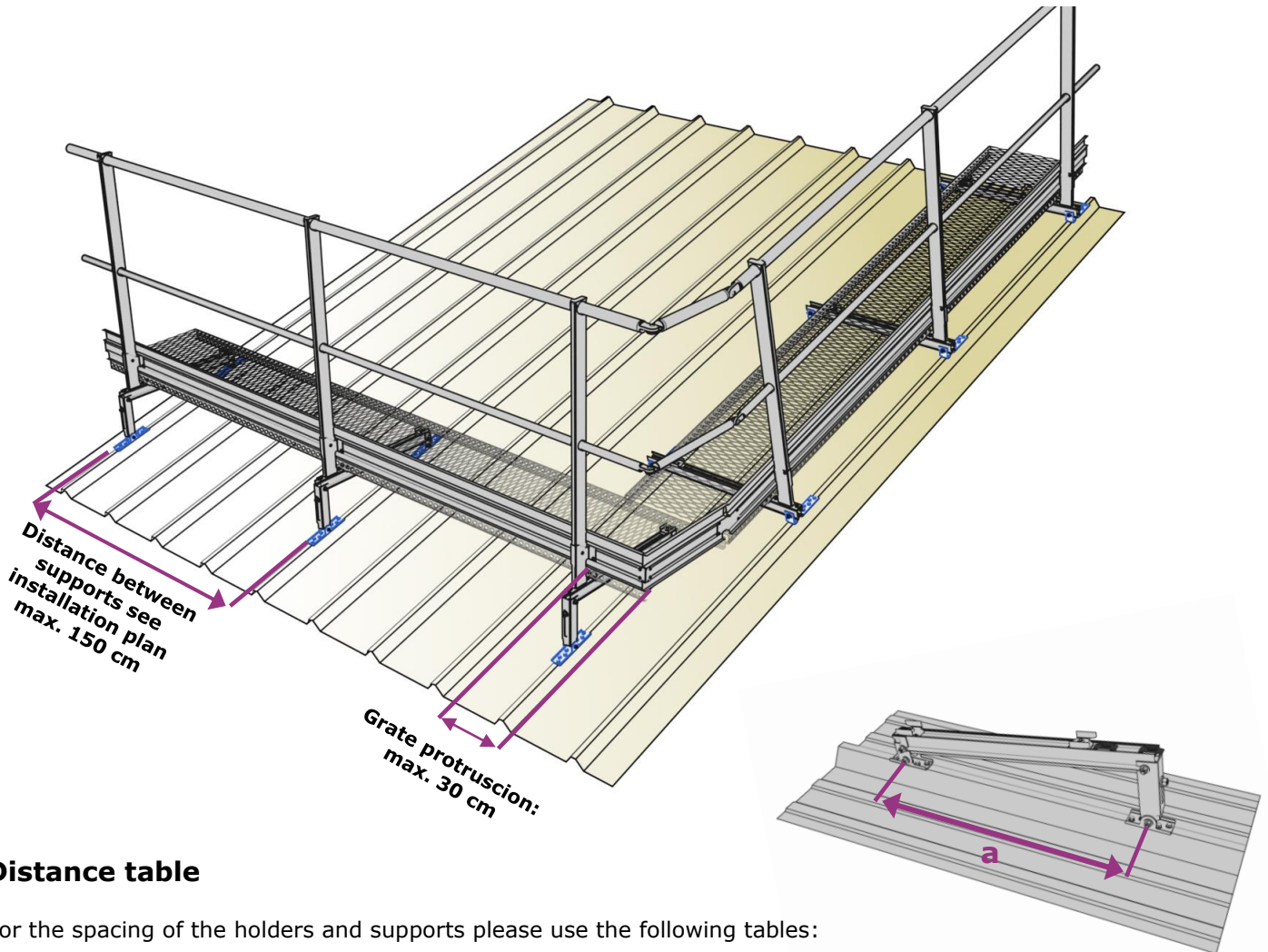
Please read through the installation instructions before installing the walkway.

Before installation, the load-bearing capacity of the roof structure and thus the suitability for installation must be checked by a responsible expert for stability. The dead load of the walkway system is 0.5 kN/m.

In areas with aggressive environmental conditions, e.g. in chemical plants or near the coast, an additional coating or anodising of the aluminium parts and a stainless steel grating may be necessary.

**Layout for ROOFESCAPE TRAPEZ 500 Z/A and 600 Z**

Please note your installation plan!

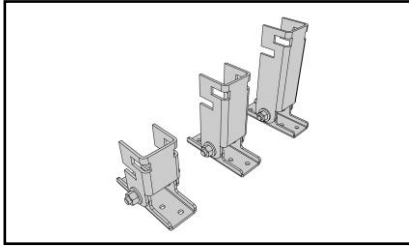


**Distance table**

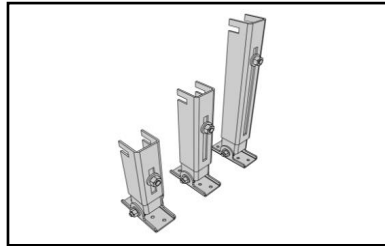
For the spacing of the holders and supports please use the following tables:

ROOFESCAPE TRAPEZ 500 Z/A				ROOFESCAPE TRAPEZ 600 Z			
Roof pitch	a = Holder distance	Supports 1	Supports 2	Roof pitch	a = Holder distance	Supports 1	Supports 2
3°	600 mm	SAK	SAM	3°	701 mm	SAK	SAM
5°	602 mm	SAK	SAL	5°	703 mm	SAK	SAL
8°	606 mm	SAK	SAL	8°	707 mm	SAK	S1
10°	610 mm	SAK	S1	10°	711 mm	SAK	S1
15°	622 mm	SAK	S2	15°	726 mm	SAK	S2
20°	641 mm	SAK	S2	20°	747 mm	SAK	S3
25°	666 mm	SAK	S3	25°	776 mm	SAK	S3
30°	699 mm	SAK	S3	30°	815 mm	SAK	S3
35°	741 mm	SAK	S3				

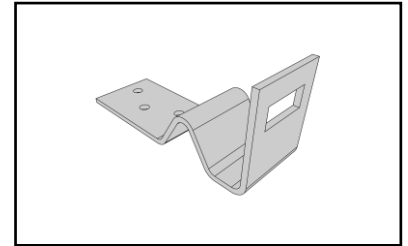
**Components for ROOFESCAPE TRAPEZ 500 Z/A and 600 Z**



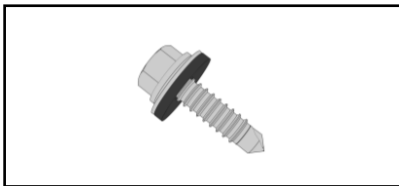
Supports: SAK, SAM and SAL



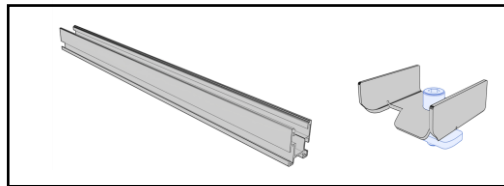
Telescopic support 1-3



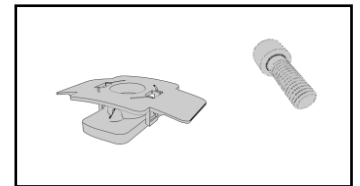
Eave to ridge bracket



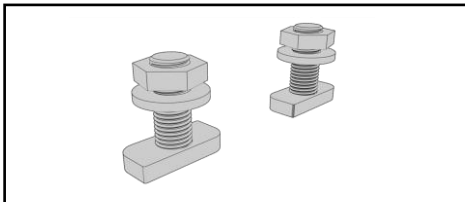
Thin sheet metal screw 6,0x25  
 with sealing washer



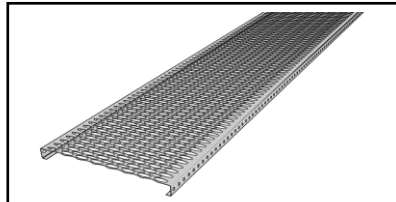
Set: support rail and 2 grate clamps



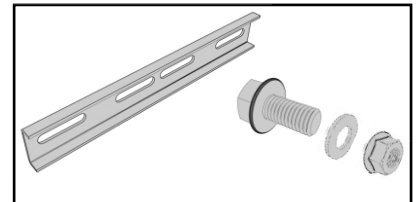
Slot nut with screw  
 M8x25



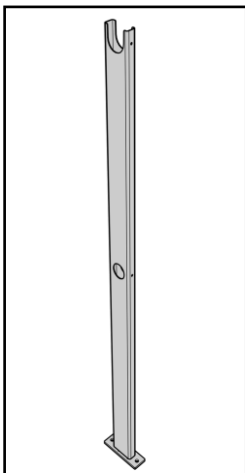
Set for fixing the support rail:  
 2 hammer head screws M10x25  
 (Typ 28/15) with washer and nut



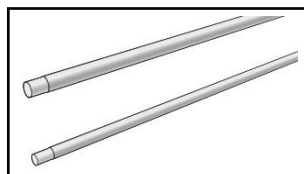
Grating 500 mm galvanized  
 Grating 600 mm galvanized  
 Grating 500 mm aluminium



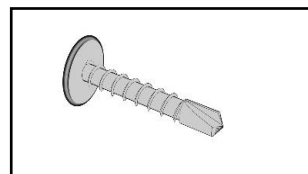
Set: longitudinal connector with  
 4 screws M8x20, washers  
 and self-looking nuts



Post H 118 cm



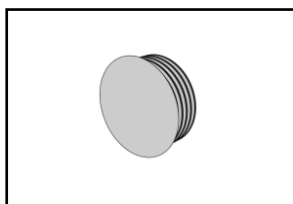
Handrail Ø 45 mm  
 Kneerail Ø 35 mm



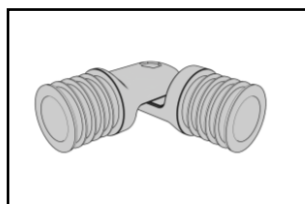
Drilling screw  
 4,8x25 & 4,8x16



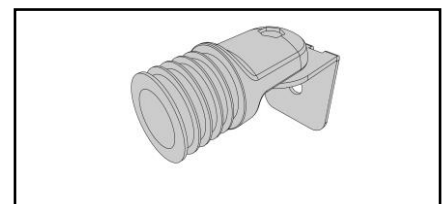
Cap for post



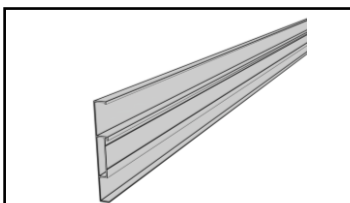
Cap for tube



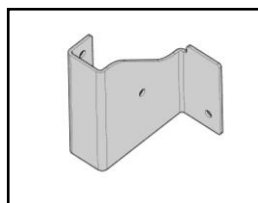
Flexible corner  
 connector



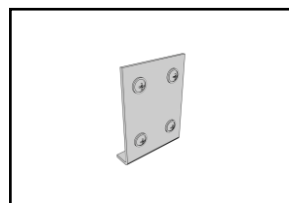
Wall connector for  
 handrail and kneerail



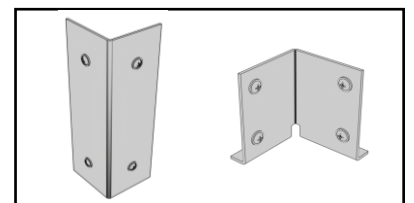
Baseboard 19x150x3000mm



Holder for baseboard

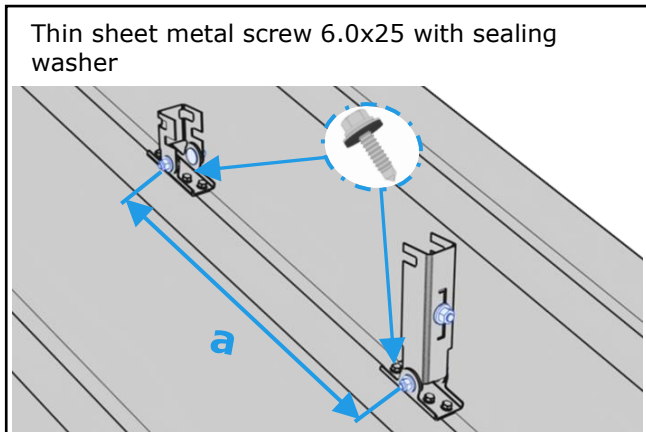


Connector for baseboard

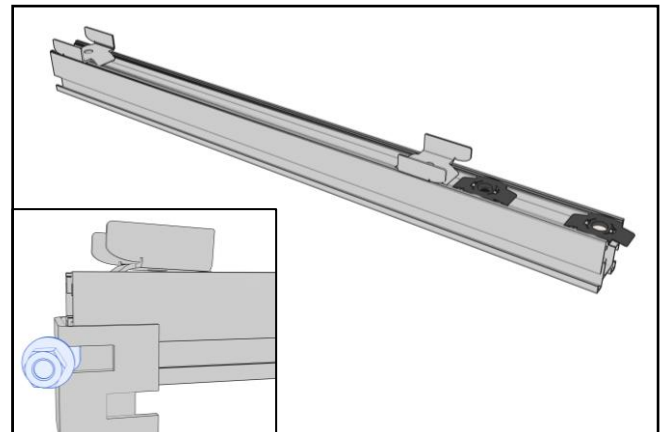


Corner connector baseboard

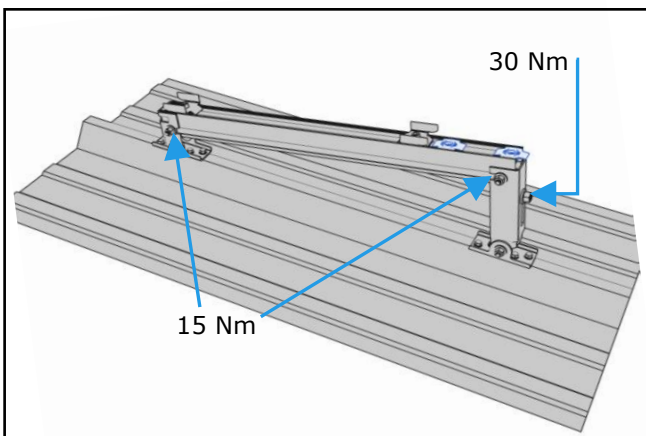
**Montage for ROOFESCAPE TRAPEZ 500 Z/A and 600 Z**



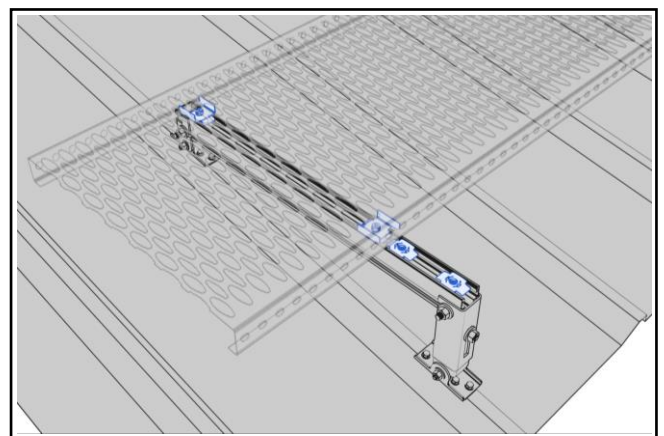
For spacing of the holders, see table on page 2!  
 Place the holder and fix it to the bead with 4 thin sheet metal screws each.



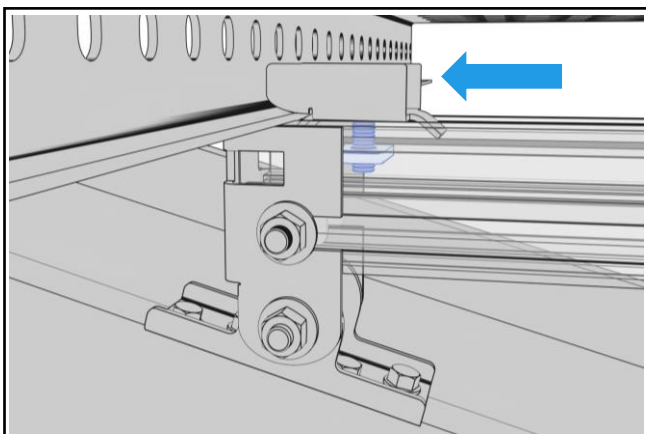
Push 2 grating clamps on the ridge side and 2 insert nuts on the eaves side into the support rail.  
 Fasten the support rail to the supports on both sides with 2 hammerhead screws each (30 Nm).



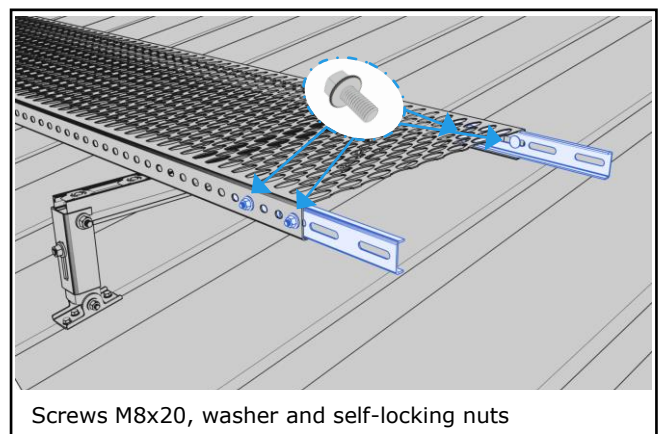
Align the support rail horizontally and tighten the remaining screws.



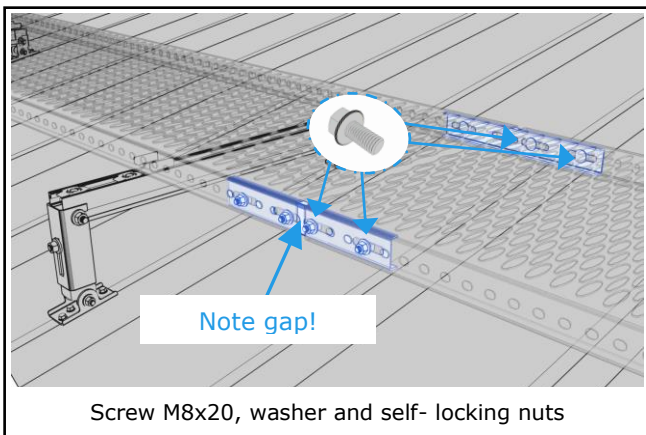
Place a grate on the substructure.



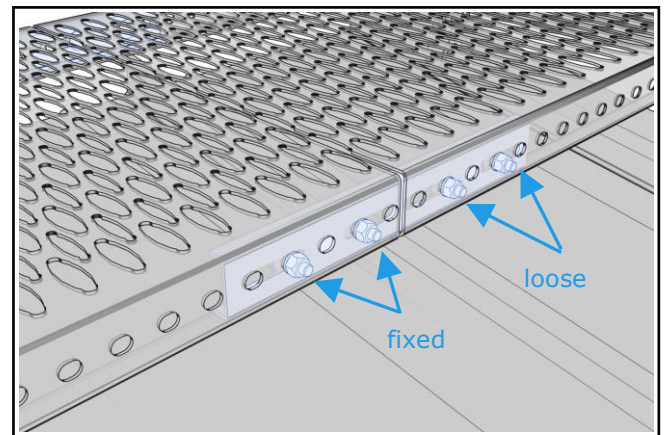
Push the grate clamps outwards over the back edge of the grate and tighten the screws (7 Nm).



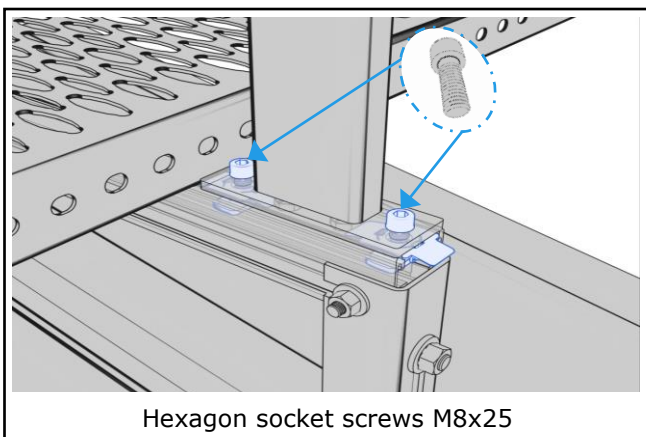
Fix 2 longitudinal grate connectors to the grate with 2 screws each (15 Nm).



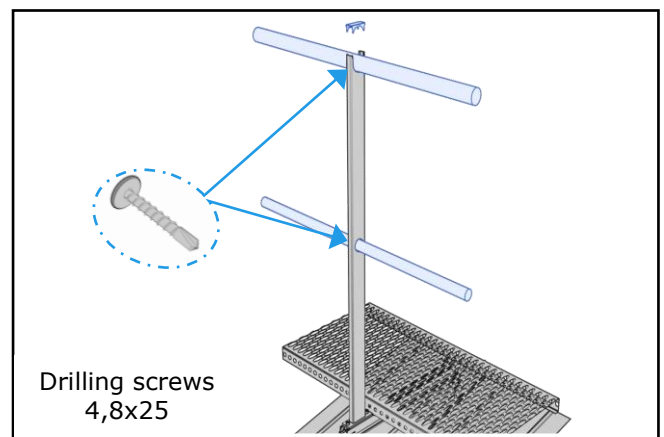
Place the prepared grate on the base and push it against the already mounted grate, leaving a gap 5-10 mm. Fasten the grate clamps and loosely fix the longitudinal connectors with 2 screws each.



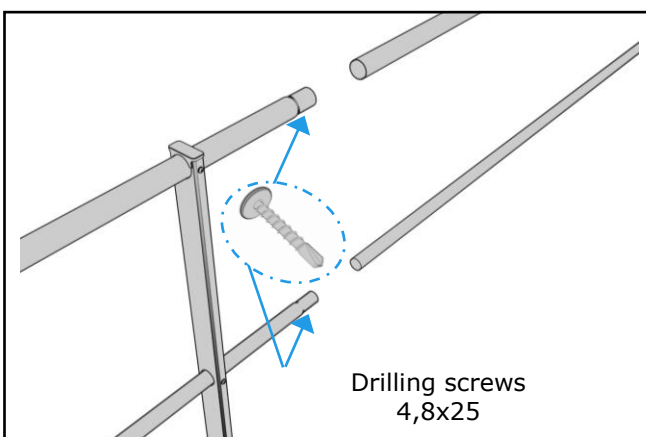
Due to thermally induced length changes, the screws are screwed tightly on one side and loosely on the other.



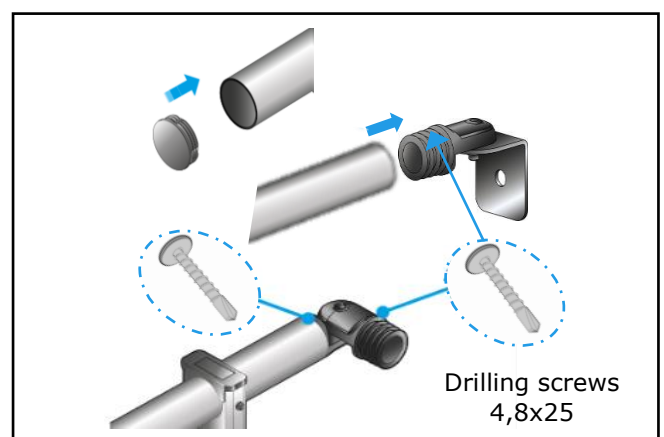
Fasten the post to the insert nuts with 2 screws (15 Nm).



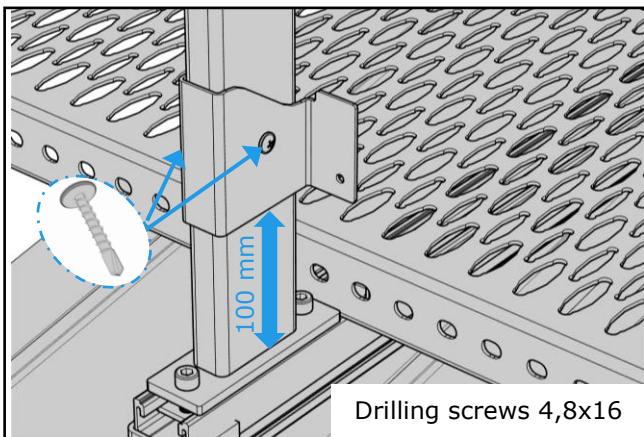
Thread the kneerail and insert the handrail. Put on the cover cap. Fix the kneerail and the handrail with 2 drilling screws.



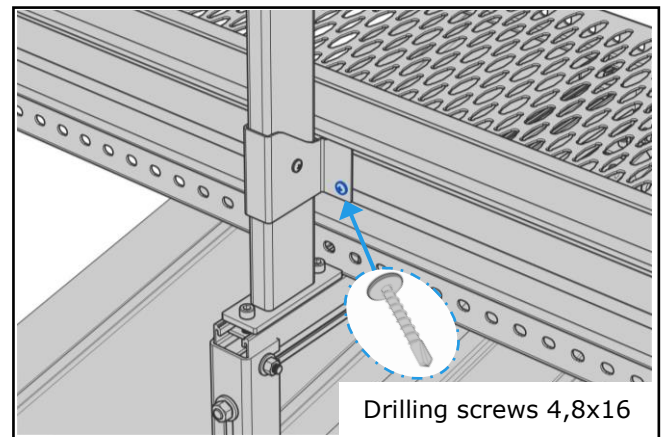
Insert the handrail and the kneerail into each other and fix each with a drilling screw placed diagonally from below.



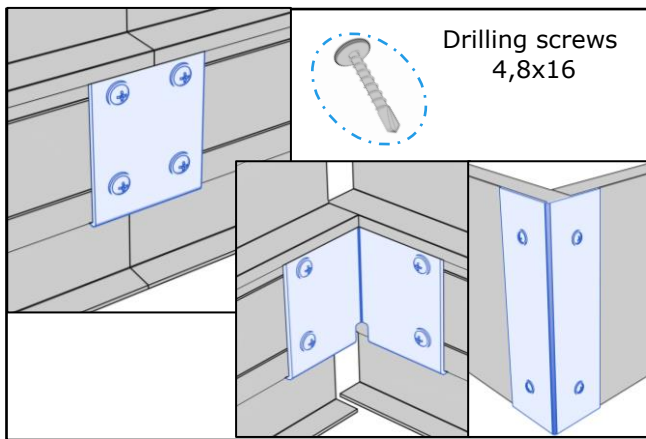
Put on the cover caps at the ends. Insert the handrails and kneerails into wall connections or into flexible corner connectors and fix them with drilling screws.



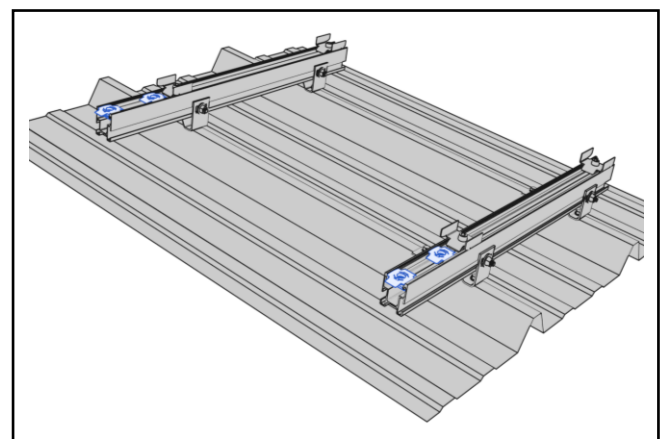
Fix the baseboard holder to the post at a height of 100 mm with 2 drilling screws.



Hang the baseboard and fix it with a drilling screw. The lower edge of the baseboard is flush with the grating surface.

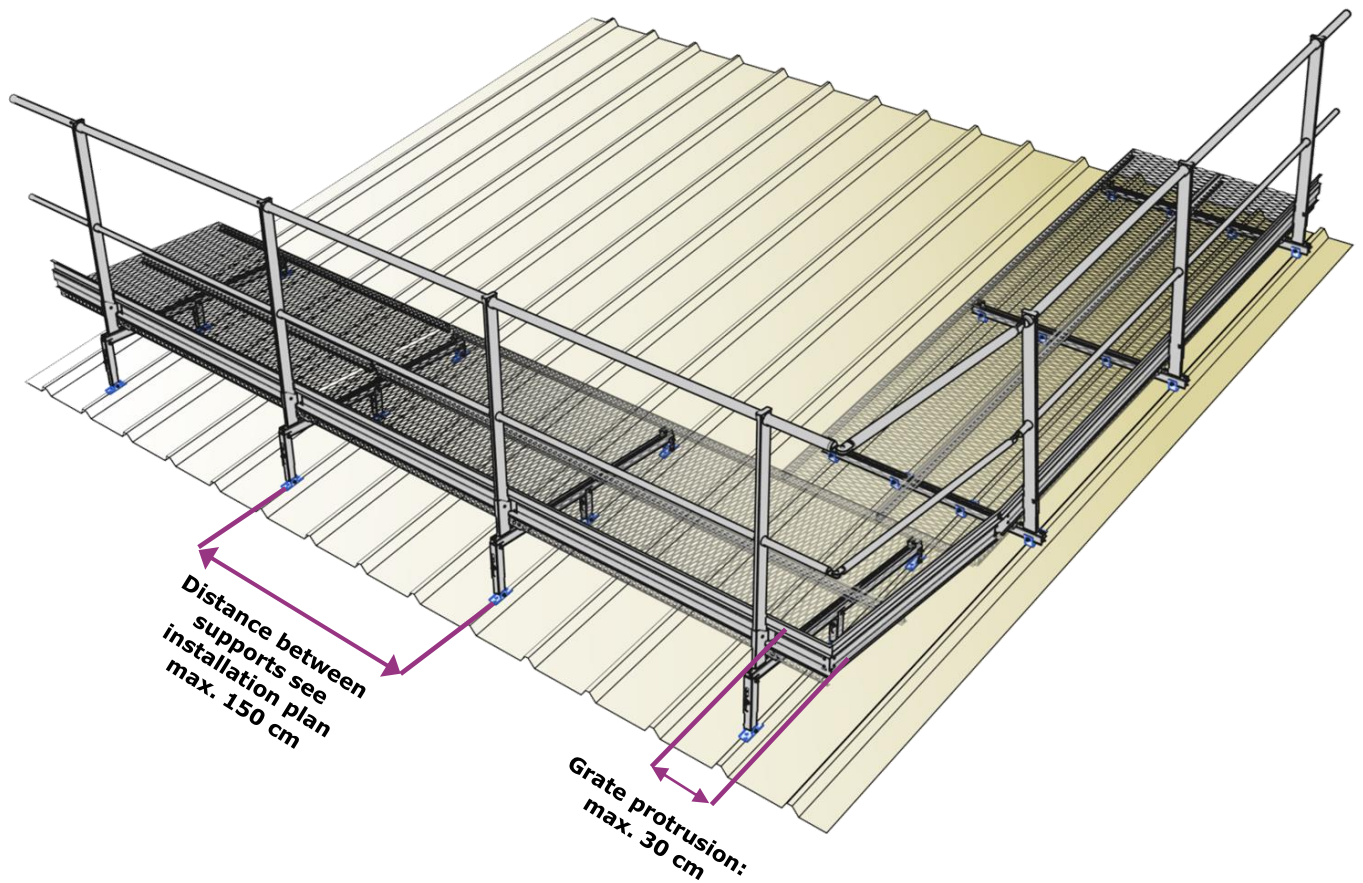


Join the baseboard at the joint. Insert the connector and fix it with 4 drilling screws. Place the corner connectors on the inside and outside of the corners and fix each with 4 drilling screws.

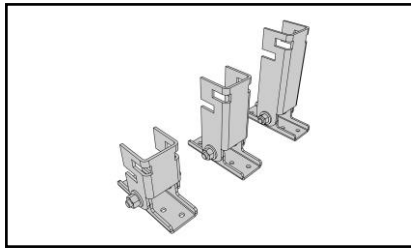


Orientation from **eaves to ridge**:  
Here the support rails are mounted on the holders at right angles to the rebate.

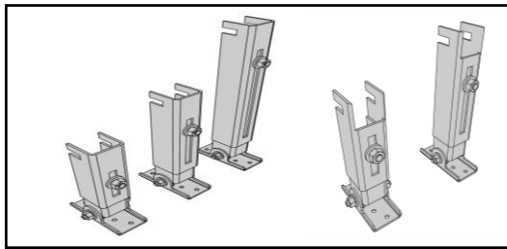
**Layout for ROOFESCAPE TRAPEZ 1000 Z/A and 1200 Z/A**  
Please note your installation plan!



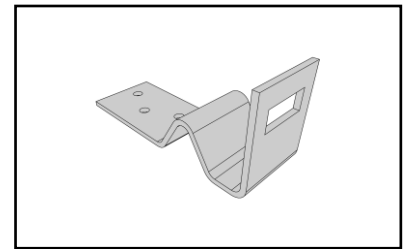
**Components for ROOFESCAPE TRAPEZ 1000 Z/A and 1200 Z/A**



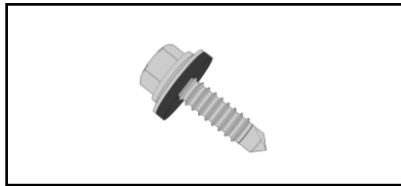
Stützen: SAK, SAM and SAL



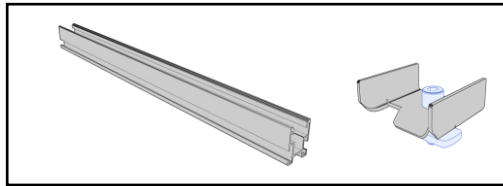
Telescopic support 1-3, SM1 + SM2



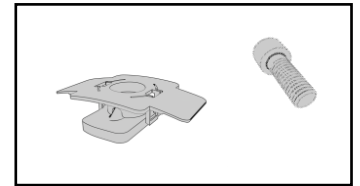
Eave to ridge bracket



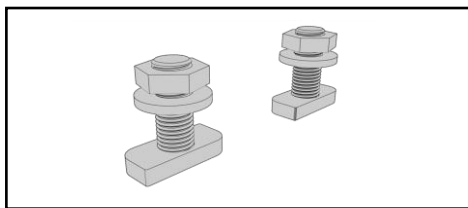
Thin sheet metal screw 6,0x25  
 with sealing washer



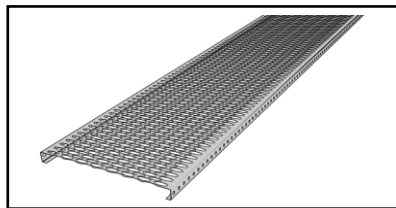
Set: support rail and 2 grate clamps



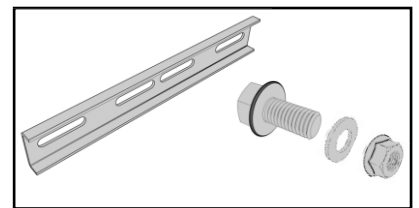
Slot nut with screw  
 M8x25



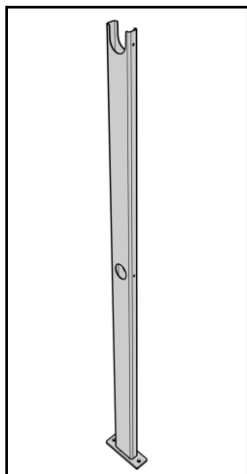
Set for fixing the support rail:  
 2 hammer head screws M10x25  
 (Typ 28/15) with washer and nut



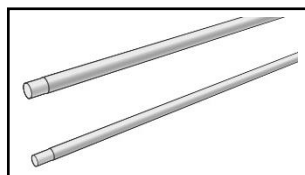
Grating 500 mm galvanized  
 Grating 600 mm galvanized  
 Grating 500 mm aluminium



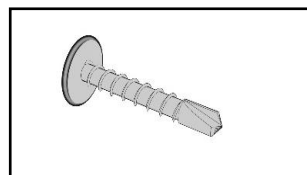
Set: longitudinal connector with  
 4 Screws M8x20, washers  
 and self-locking nuts



Pfost H 118 cm



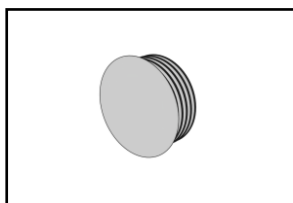
Handrail Ø 45 mm  
 Kneerail Ø 35 mm



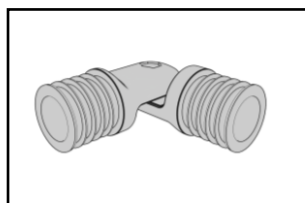
Drilling screw  
 4,8x25 & 4,8x16



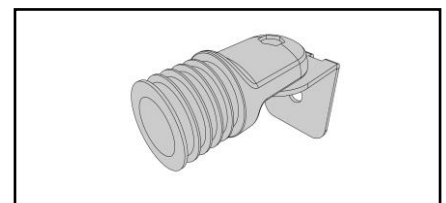
Cap for post



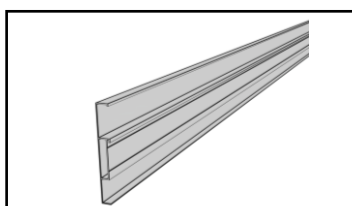
Cap for tube



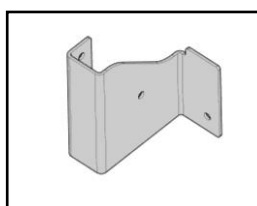
Flexible corner  
 connector



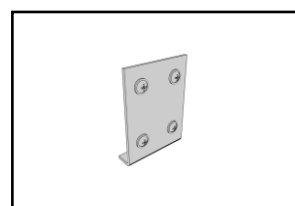
Wall connector for  
 handrail and kneerail



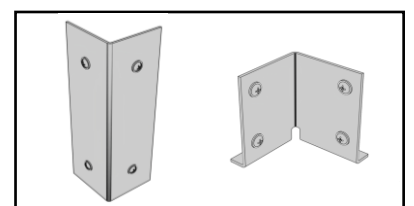
Baseboard 19x150x3000mm



Holder for baseboard



Connector for baseboard

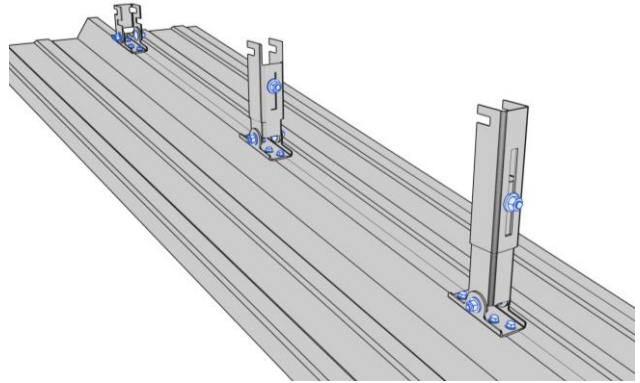


Corner connector baseboard

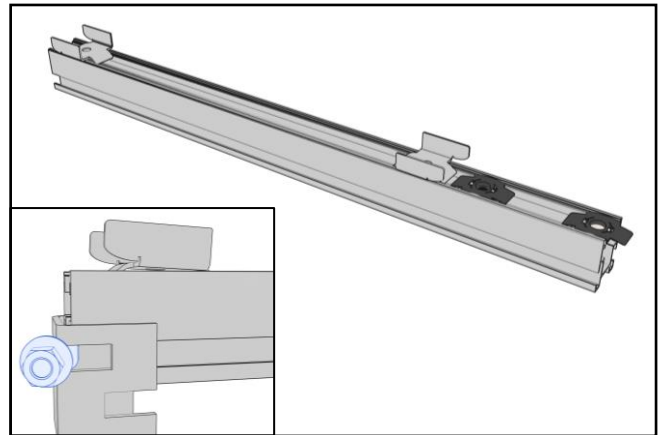


**Montage for ESCAPE TRAPEZ 1000 Z/A and 1200 Z/A**

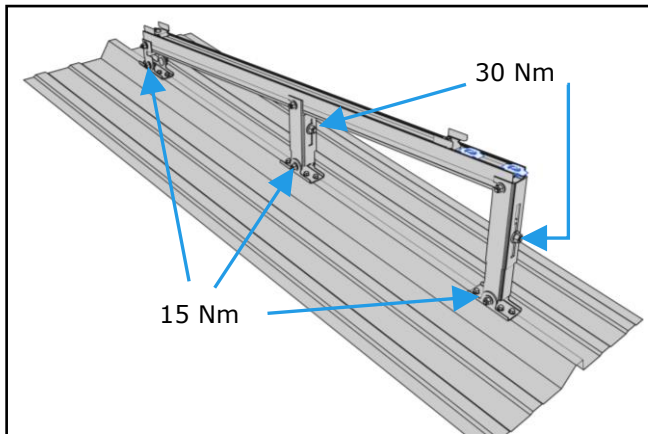
Thin sheet metal screw 6.0x25 with sealing washer



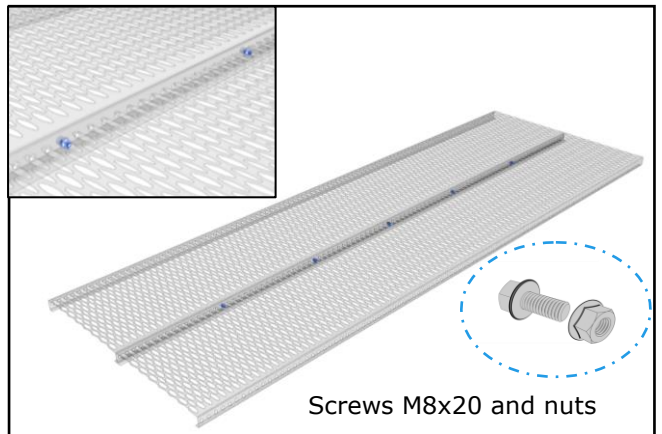
Mount the holder according to the installation plan, aligning the centre one in the middle. Fix each holder to the bead with 4 thin sheet metal screws.



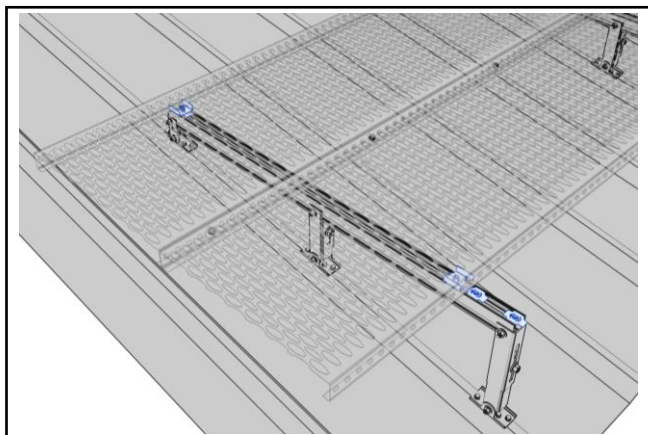
Push 2 grating clamps on the ridge side and 2 insert nuts on the eaves side into the support rail. Fasten the support rail to the supports on both sides with 2 hammerhead screws each (30 Nm).



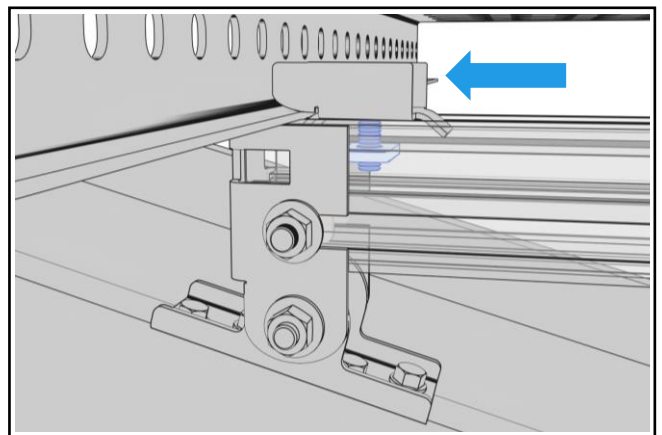
Align the support rail horizontally and tighten the remaining screws.



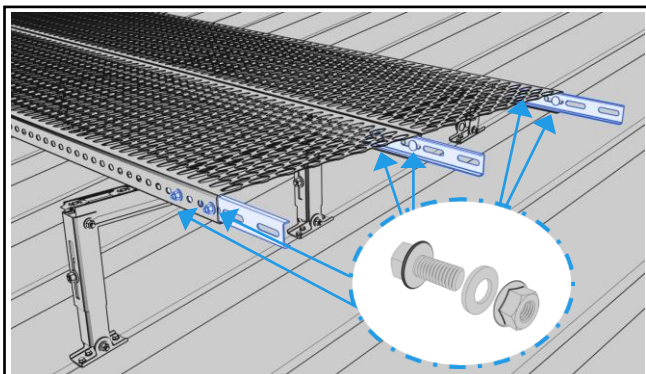
Screw 2 grate together with 5 screws. Max. distance of 50 cm between the grate.



Place grate on the underconstruction.

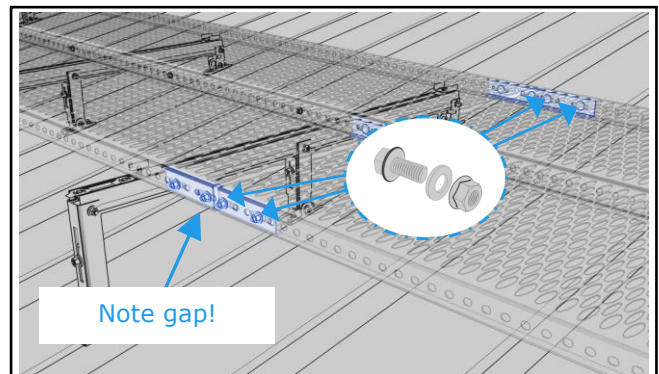


Push the grate clamps outwards over the back edge of the grate and tighten the screws (7 Nm).



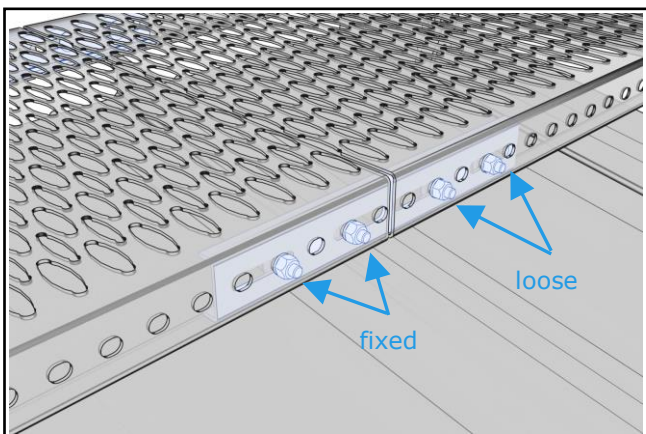
Screws M8x20, washer and self-locking nuts

Fix 3 longitudinal grate connectors to the grate with 2 screws each (15 Nm).

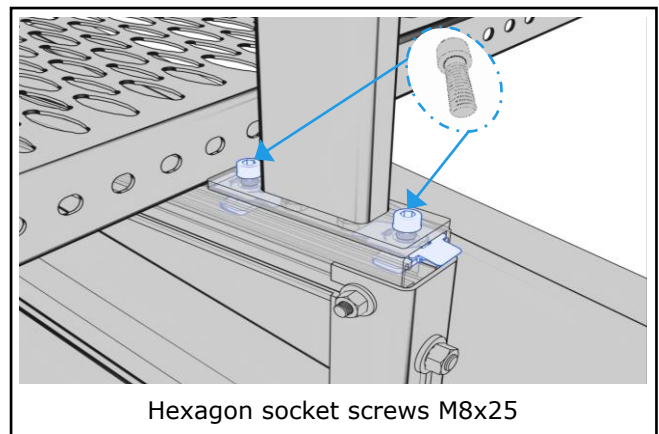


Screws M8x20, washer and self-locking nuts

Place further grates on the substructure and push them against the already installed grates, leaving a gap of 5- 10 mm. Fasten the grate clamps and fix the outer longitudinal connectors loosely with 2 screws each.

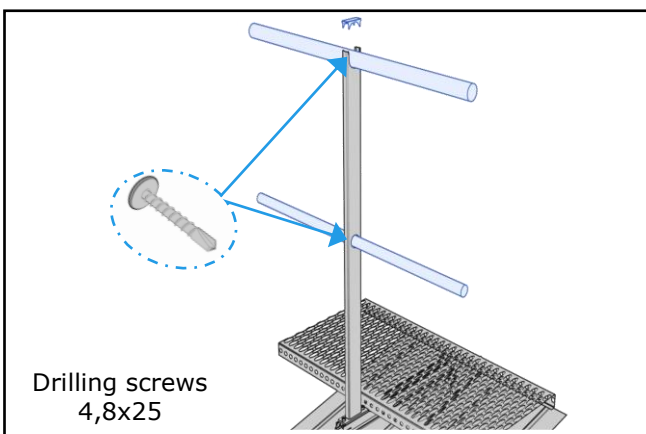


Due to thermally induced length changes, the screws are screwed tightly on one side and loosely on the other.



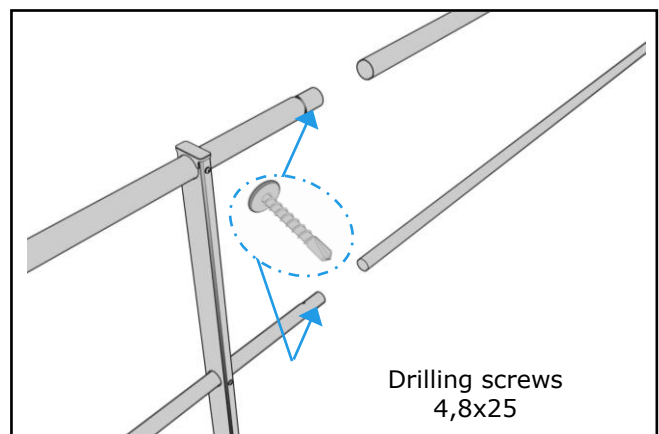
Hexagon socket screws M8x25

Fasten the post to the insert nuts with 2 screws (15 Nm).



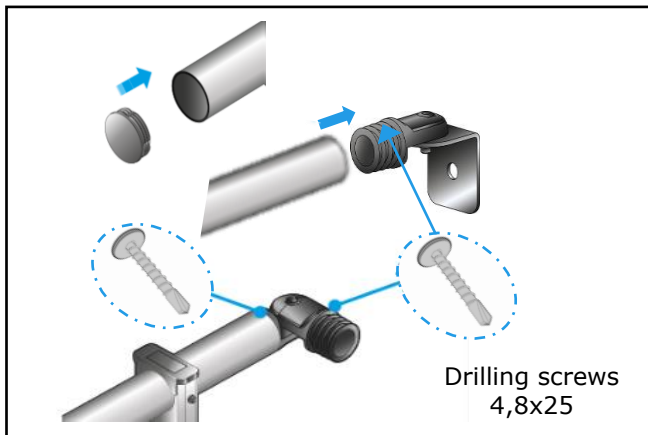
Drilling screws 4,8x25

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

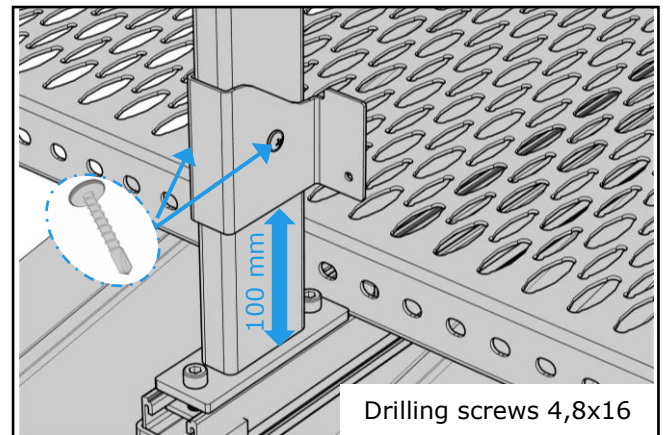


Drilling screws 4,8x25

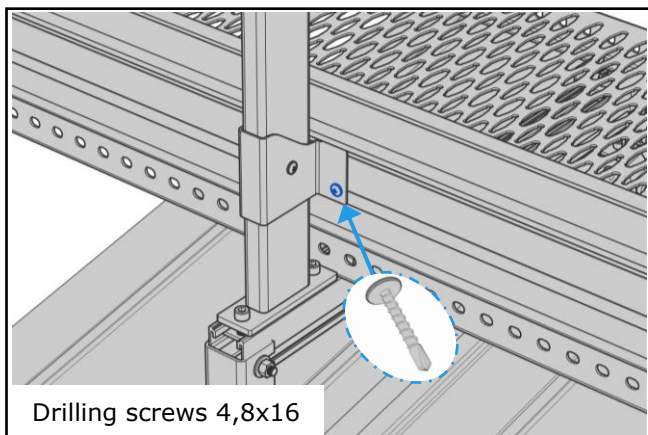
Insert the handrail and the kneerail into each other and fix each with a drilling screw placed diagonally from below.



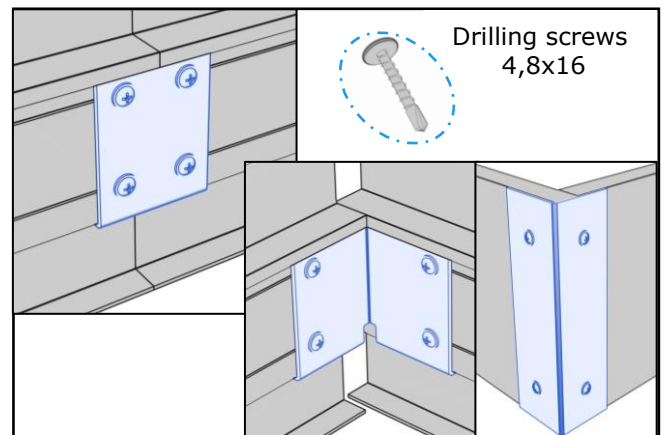
Put on the cover caps at the ends. Insert the handrails and kneerails into wall connections or into flexible corner connectors and fix them with drilling screws.



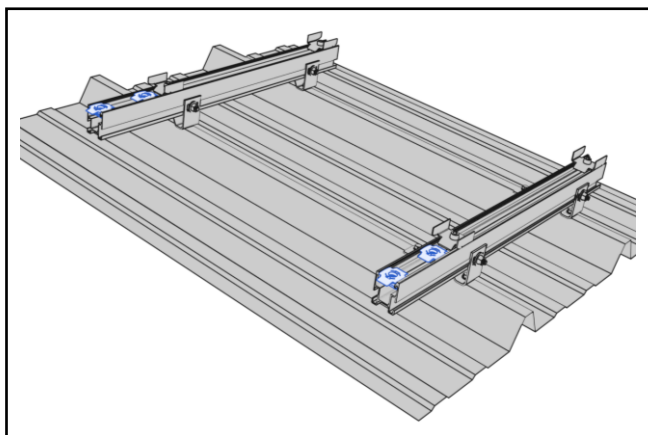
Fix the baseboard holder to the post at a height of 100 mm with 2 drilling screws.



Hang the baseboard and fix it with a drilling screw. The lower edge of the baseboard is flush with the grating surface.



Join the baseboard at the joint. Insert the connector and fix it with 4 drilling screws. Place the corner connectors on the inside and outside of the corners and fix each with 4 drilling screws.



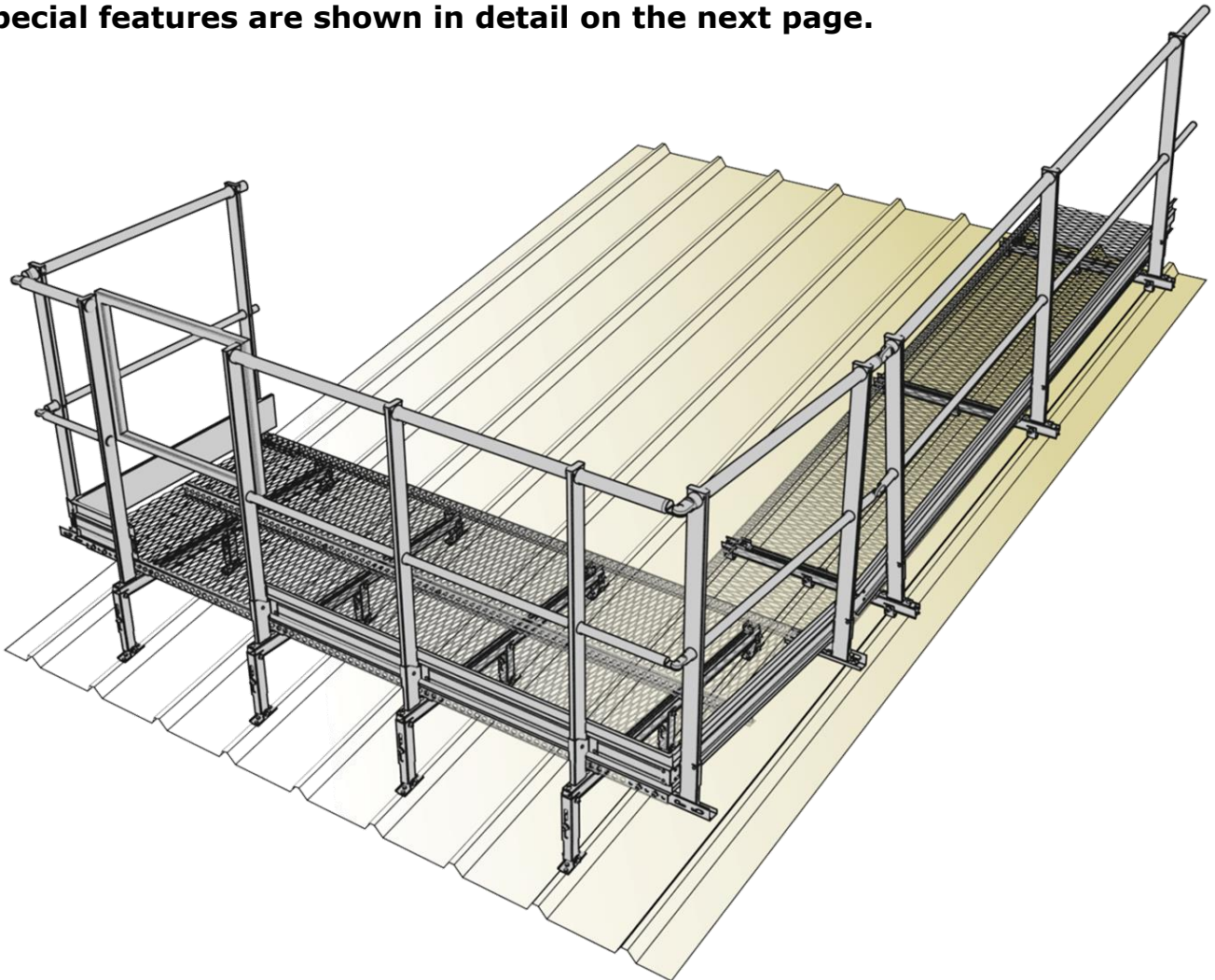
Orientation from **eaves to ridge**:  
 Here the support rails are mounted on the holders at right angles to the rebate.

**Layout for ROOFESCAPE TRAPEZ platform 100x150**

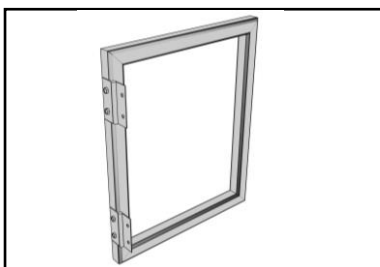
Please not your installation plan!

**Please use the installation instructions for ROOFESCAPE TRAPEZ 1000 Z/A and 1200 Z/A on pages 7 to 11 for installation!**

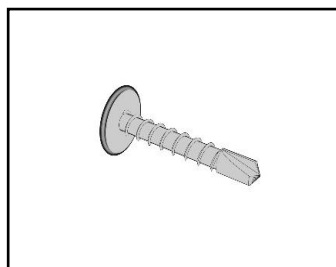
**Special features are shown in detail on the next page.**



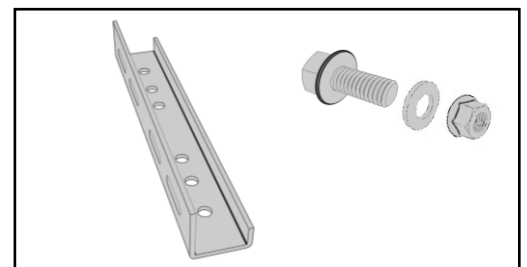
**Further components ROOFESCAPE TRAPEZ platform**



Door element

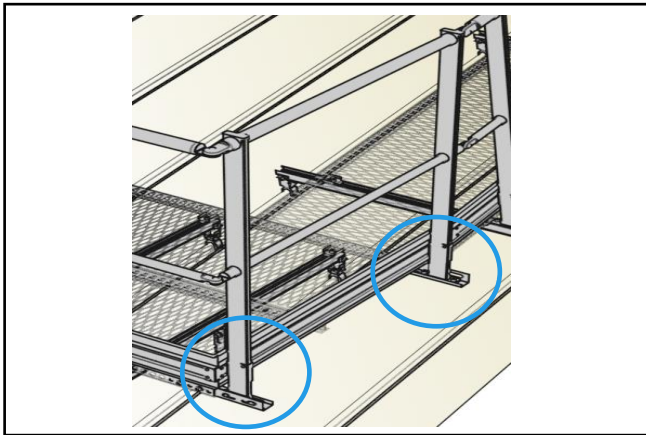


Drilling screw  
4,8x25

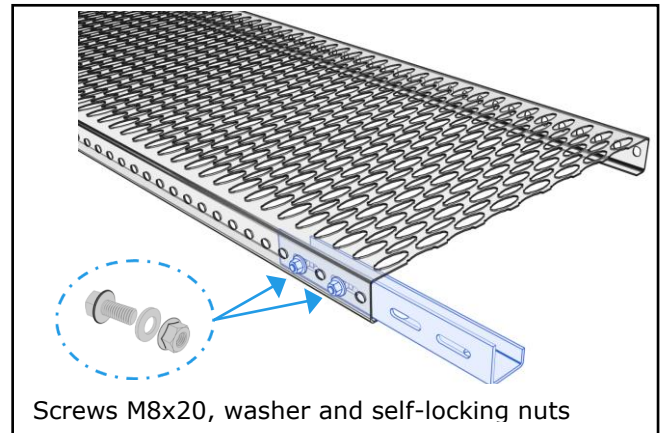


Set of head railings:  
Base rail, 2 screws M8x20 with washer  
and self-locking nuts

**Addition for montage for ROOFESCAPE TRAPEZ platform**

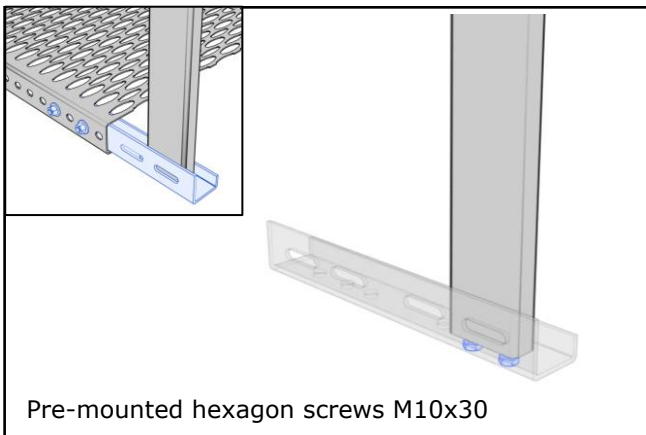


A Design of the head railing.



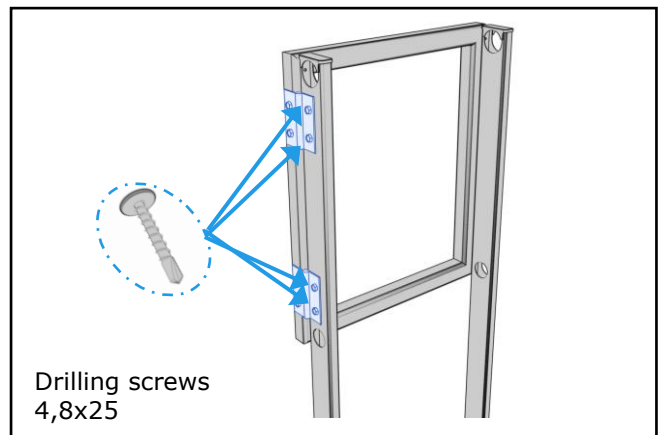
Screws M8x20, washer and self-locking nuts

Tighten the base rail of the head railing with 2 screws (15 Nm).



Pre-mounted hexagon screws M10x30

Loosen the pre-mounted hexagon screws from the post. Place the post on the basis rail and fasten with the 2 screws.



Drilling screws  
4,8x25

Fasten the door element flush to the inside of the railing with 4 drilling screws.

**Storage**

The gratings are made of aluminium or galvanised steel, the supporting structure and 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 visual changes have no effect on the quality of the components and the maintenance route. We recommend storing the components in a dry, ventilated place protected from moisture until they are installed.

## Maintenance

ROOFESCAPE TRAPEZ must be inspected at intervals of max. 3 years. Particular attention must be paid to loose or deformed parts and corrosion. The results of inspections and repairs must be documented and retained.

If there are any concerns regarding the functionality of the walkway or the anchorage device, these must be inspected and, if necessary, serviced before the roof is next accessed.

## General safety instruction

For the duration of the assembly, protection against falling must be provided, e.g. by means of an appropriate scaffold or anchoring devices. Care must be taken to ensure that assembly is only carried out by instructed specialists in compliance with the specifications for carrying out work at the appropriate height. Openings between side guardrail systems and other structures must be as small as possible, not exceeding 120 mm for guardrail rails and 20 mm for toe board. The guardrail system must not be used as an anchor device.

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 catwalk, this must be done in reverse order to the assembly instructions.

Workplaces and traffic routes on the roof may only be accessed by persons who have been instructed for this work. Workplaces and traffic routes on the roof may only be accessed when they are free of snow and ice. For roof pitches > 10°, other PPE must be used on the ridge side when entering the roof above the maintenance walkway.

After a fall of a person as well as after an incorrect installation, the catwalk and the anchor device may only be used again if they have been checked by a competent person and approved in writing for the intended use.

## Marking



- |   |   |
|---|---|
| 1 Product and type identification       | 4 Note that instructions for use must be observed |
| 2 Standard and classification           |   |
| 3 Year of manufacture and serial number | 5 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.