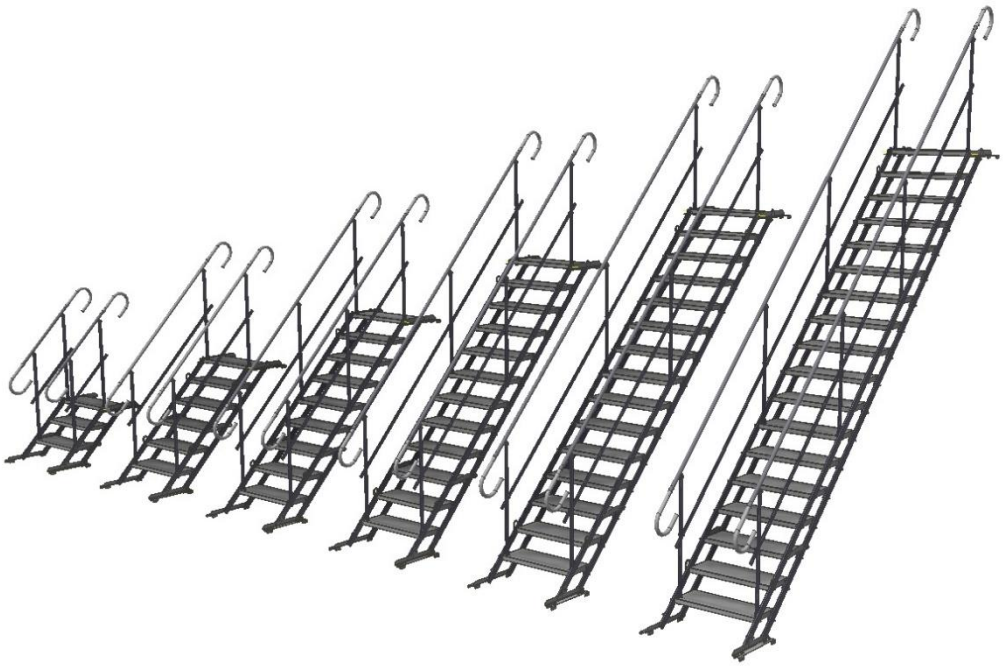
*Appendix no. 1*

*Installation manual*

*of TAS temporary stairs*



| Robert Cieśla | Piotr Abram | Miłosz Muzyka |
|---|---|---|
| (Prepared by) | (Verified by) | (Approved by) |

Issue 10.0, September 2024





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# Table of changes

| No. | FULL NAME | DEPARTMENT | REVISION DATE | SCOPE OF CHANGES | COMMENTS |
|---|---|---|---|---|---|
| 1 | Robert Cieśla | BR | 5.10.2018 | Amendment to paragraphs 4 and 5 | |
| 2 | Piotr Abram | BR | 30.10.2018 | Update of element weight, number of connectors. Amendment of point 4.4 | |
| 3 | Robert Cieśla | BR | 29.11.2018 | Amendment to paragraph 5 | |
| 4 | Robert Cieśla | BR | 6.03.2019 | Update on TAS-B Footbridge | |
| 5 | Piotr Abram | BR | 23.01.2020 | Update on TAS-WB Truss | |
| 6 | Cieśla Robert | BR | 23.03.2020 | Update on scaffolding bracket | |
| 7 | Piotr Abram | BR | 22.07.2020 | Update - point 5 | |
| 8 | Piotr Abram | BR | 15.11.2023 | Update - new type of steps | |
| 9 | Robert Cieśla | BR | 19.08.2024 | Anchoring to the ground | |
| 10 | Piotr Abram | BR | 17.09.2024 | Description for point 2, point 5 description and diagram, point 4.12.3 amendments to point 4.10 | |
| 11 | | | | | |
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## 1. General Safety Principles

The installation instructions are included as an appendix to the TAS trench stair technical documentation. The excavation steps consist of components according to the specifications attached to the delivery.

Read this manual before starting installation and use. Incorrect installation or use can lead to a risk to health or life.

Due to the considerable size and weight of the individual components, special care must be taken during transport, installation and use of the staircase.

Keep this manual as a source of information for users of the staircase and its service personnel.

1. Installation or use of the staircase which is not in accordance with the contents of these instructions may adversely affect the performance of the product and/or be a source of danger.

2. The manufacturer is not responsible for any damage caused by incorrect installation of the product or its misuse.

3. No modifications to the construction of the staircase components are permitted.

4. The staircase is designed for use in an industrial environment, i.e. for use by adults who comply with health and safety regulations, are trained and are not under the influence of alcohol.

5. It is not permitted to be under the stairs while they are being used by others.

6. Do not allow the simultaneous use of the staircase by a number of persons having more weight than the permitted load of the staircase.

7. Stairs are used to move people to reach the lower levels of deep excavations as well as in the opposite direction. Staying on the steps as well as placing objects that are not stair equipment in these areas is against the operating rules.

8. Do not use the stairs to transport objects other than tools, instruments, etc.

9. Since in most cases the support for the staircase is unpaved ground, the possibility of the ground slipping and becoming wet must be taken into account, which can disturb the stability of the staircase.

10. If there is a risk of falling from height, a safety harness should always be used during assembly and disassembly.





TLC Sp. z o.o. registered in: XII Economic Department of the National Court Register, District Court in Cracow - Śródmieście; fully paid-up share capital in the amount of PLN 613 332,00 PLN.

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## 2. Components

The basic elements of the TAS staircase for excavation are the steps together with the railings. These staircases, are available in 3, 6, 9, 12, 15 and 18 steps and in widths of 700 mm and 1000 mm. The variants can be connected to each other using connectors and supports.

The system makes it possible to create an overhead walkway over an obstacle using a platform that connects to a staircase of 3 or 6 steps. It is also possible to create a footbridge (e.g. over an excavation) with 6, 9 or 12 step stairs, and with the use of an additional truss with 15 or 18 step stairs.

By replacing the bottom foot and the top foot in the staircase, it is possible to mount on scaffolding systems based on the 48.3 mm diameter round profile.

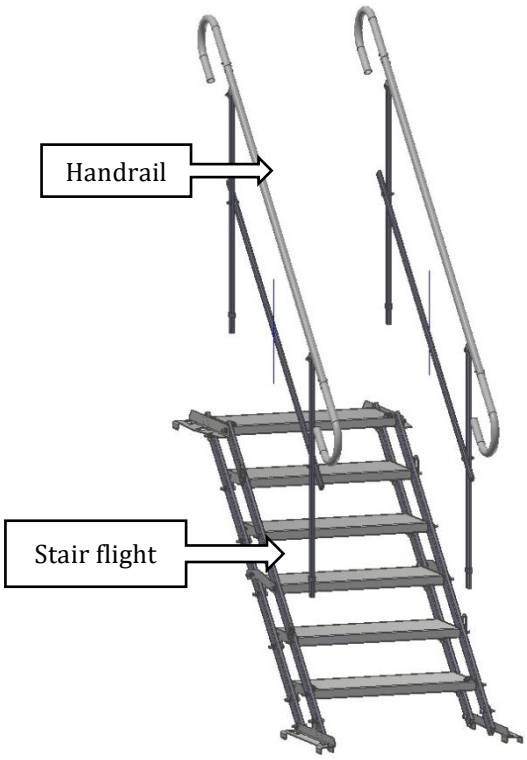



Fig. 1. Components

Tab 1. Stair markings (Sets include stairs with handrails)

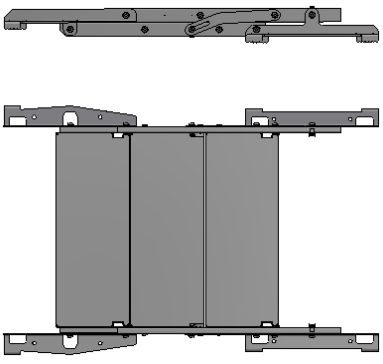
| No. | Diagram designation | Description |
|---|---|---|
| 1 | TAS-3A | Stairs 3 steps width 708 mm |
| 2 | TAS-6A | Stairs 6 steps width 708 mm |
| 3 | TAS-9A | Stairs 9 steps width 708 mm |
| 4 | TAS-12A | Stairs 12 steps width 708 mm |
| 5 | TAS-15A | Stairs 15 steps width 708 mm |
| 6 | TAS-18A | Stairs 18 steps width 708 mm |
| 7 | TAS-3B | Stairs 3 steps width 1000 mm |
| 8 | TAS-6B | Stairs 6 steps width 1000 mm |
| 9 | TAS-9B | Stairs 9 steps width 1000 mm |
| 10 | TAS-12B | Stairs 12 steps width 1000 mm |
| 11 | TAS-15B | Stairs 15 steps width 1000 mm |
| 12 | TAS-18B | Stairs 18 steps width 1000 mm |

Tab 2. Additional accessories

| No. | Diagram designation | Description |
|---|---|---|
| 13 | TAS-K3 | Footbridge 3 steps 708 mm |
| 14 | TAS-K4 | Footbridge 3 steps 1000 mm |
| 15 | TAS-WB1 | Truss 01 |
| 16 | TAS-WB2 | Truss 02 |
| 17 | TAS-WB3 | Beam |

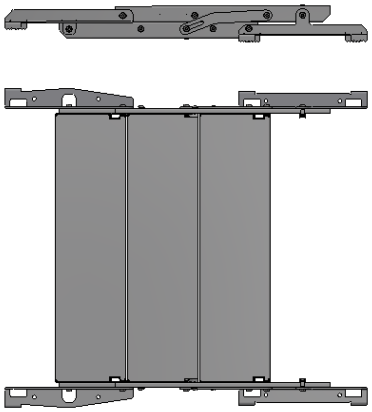
System components

TAS-S3A



Mass: 31,31 kg
Dimensions: 1358x898x126

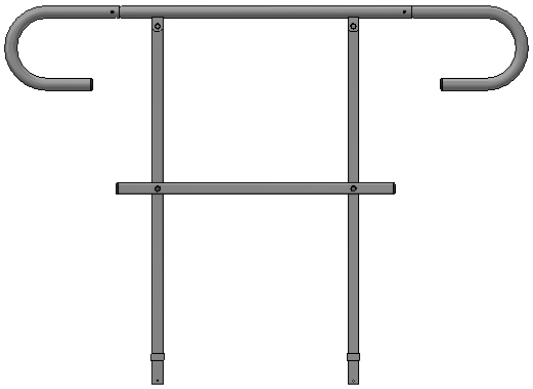
TAS-S3B



Mass: 40,6 kg

Dimensions: 1358x1198x135

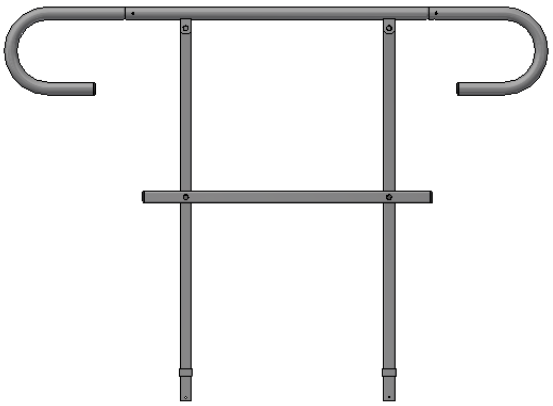
TAS-BP3



Mass: 8,18 kg

Dimensions: 1444x1045x34

TAS-BL3



Mass: 8,18 kg

Dimensions: 1444x1045x34





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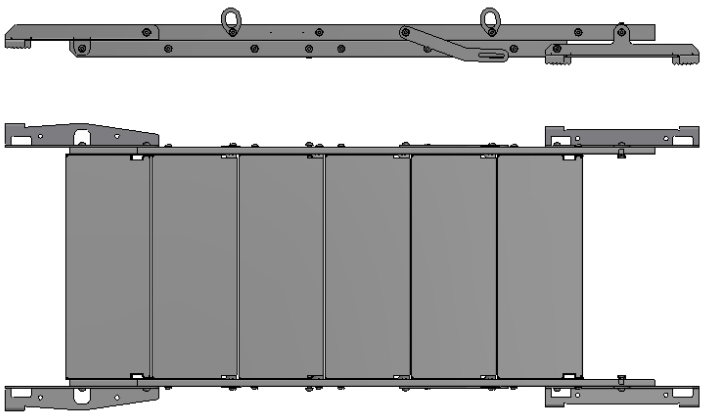
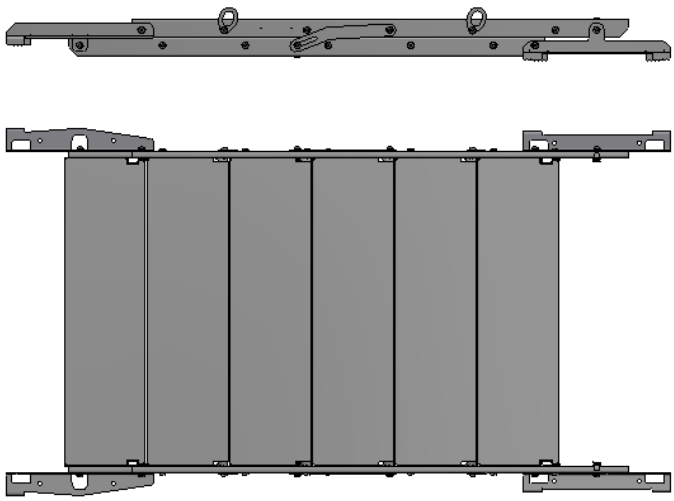
TAS-S6A



Mass: 53,26 kg

Dimensions: 2167,5x898x126

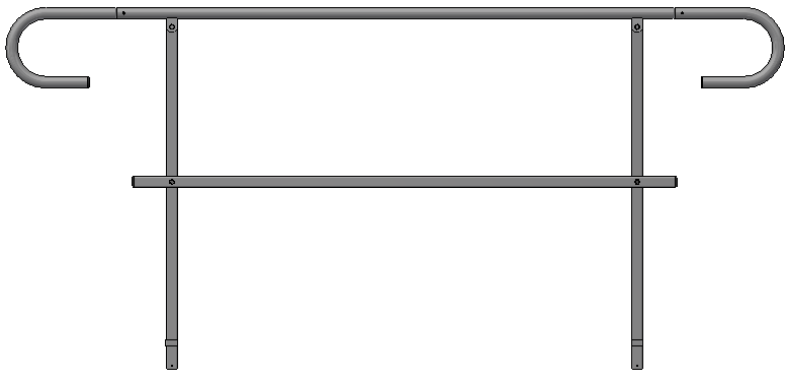
TAS-S6B



Mass: 71,86 kg

Dimensions: 2167,5x1198x135

TAS-BL6



Mass:10,96 kg

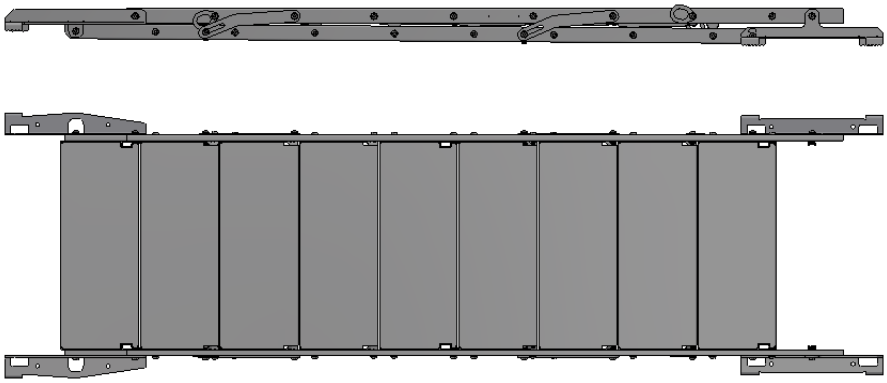
Dimensions: 2254x1045x34

TAS-BP6

Mass:10,96 kg

Dimensions: 2254x1045x34

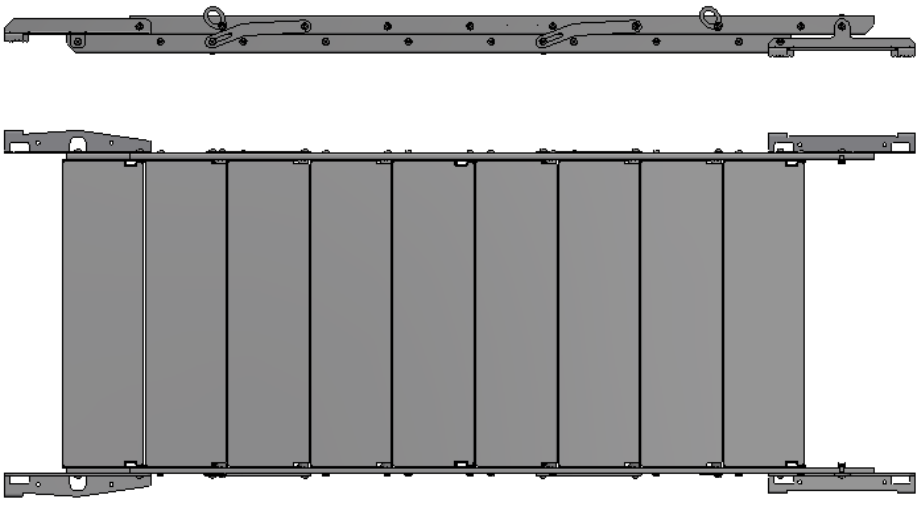
TAS-S9A



Mass: 76,45 kg

Dimensions: 2977,5x898x126

TAS-S9B



Mass: 104,4 kg

Dimensions: 2977,5x1198x135





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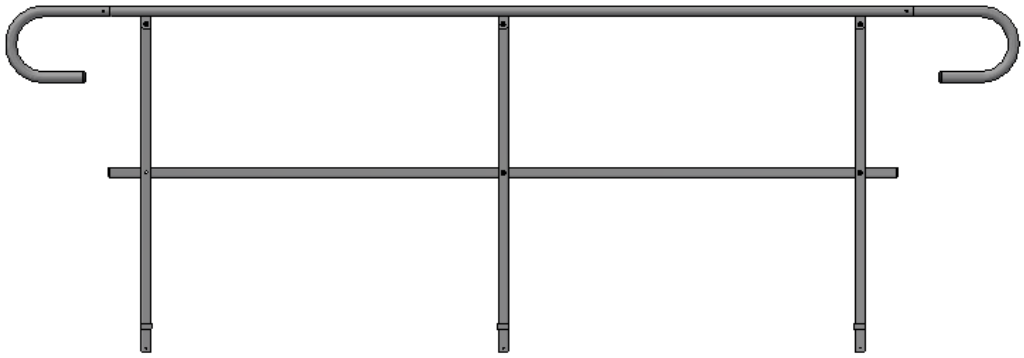
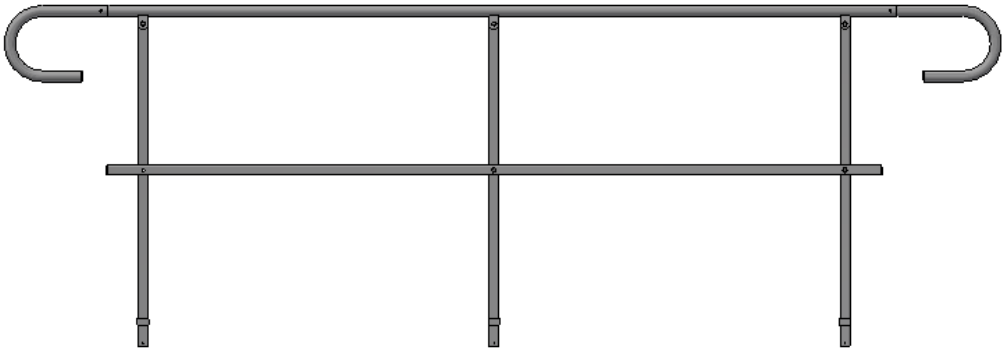
TAS-BL9



Mass:15,1 kg

Dimensions: 3064x1045x34

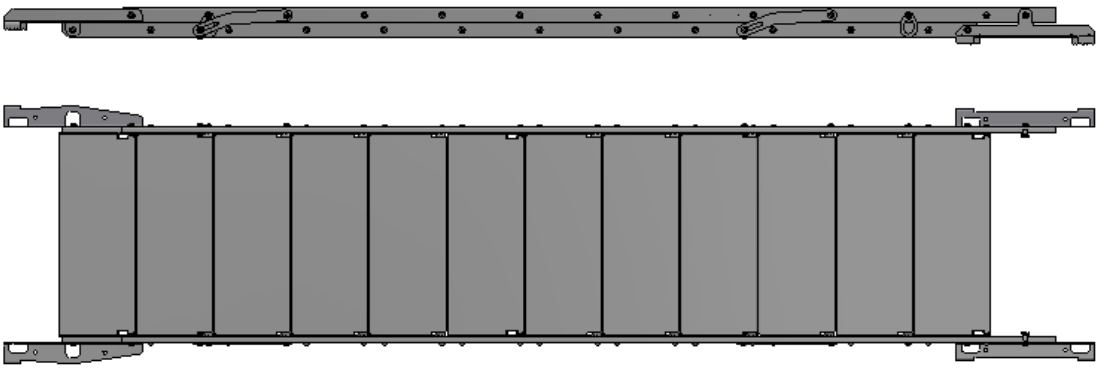
TAS-BP9



Mass:15,1 kg

Dimensions: 3064x1045x34

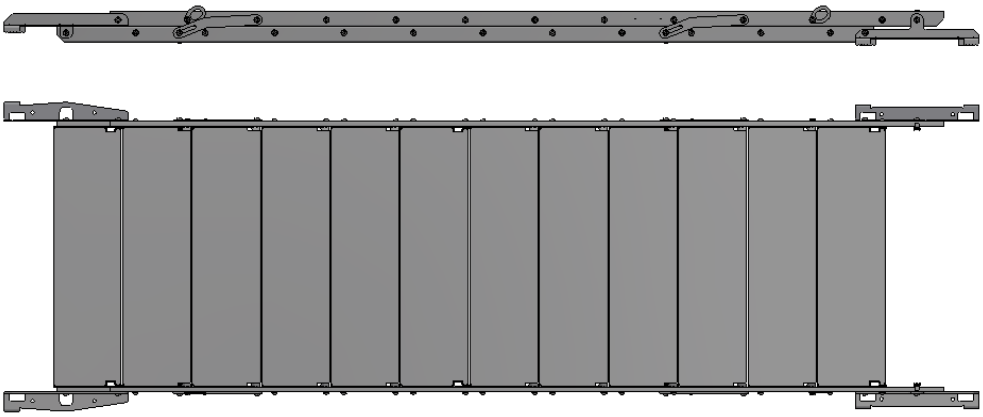
TAS-S12A



Mass: 98,18 kg

Dimensions: 3787,5x898x126

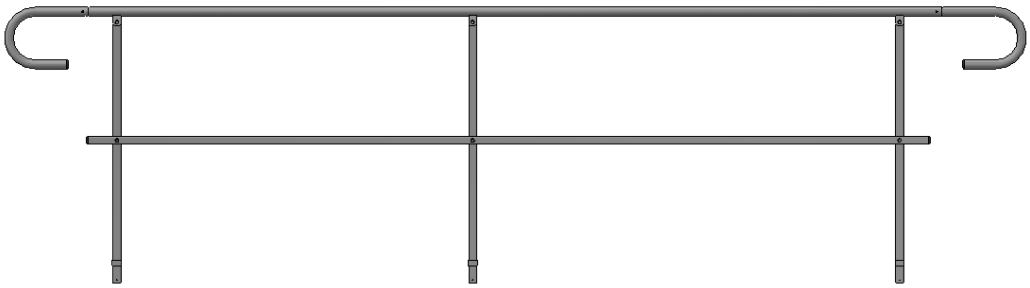
TAS-S12B



Mass: 135,5 kg

Dimensions: 3787,5x1198x135

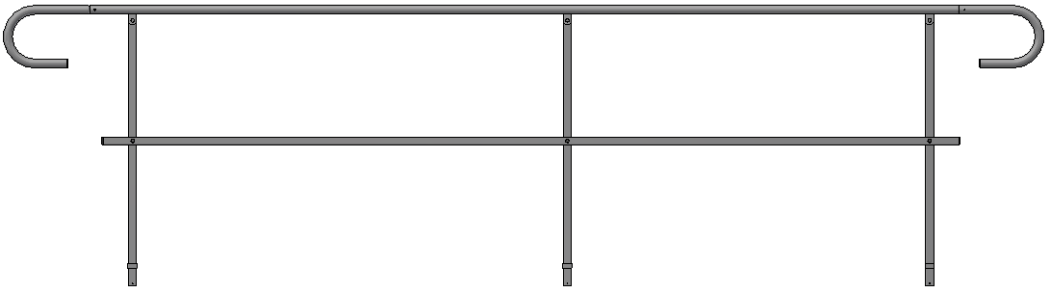
TAS-BL12



Mass:17,9 kg

Dimensions: 3874x1045x34

TAS-BP12



Mass: 17,9 kg

Dimensions: 3874x1045x34





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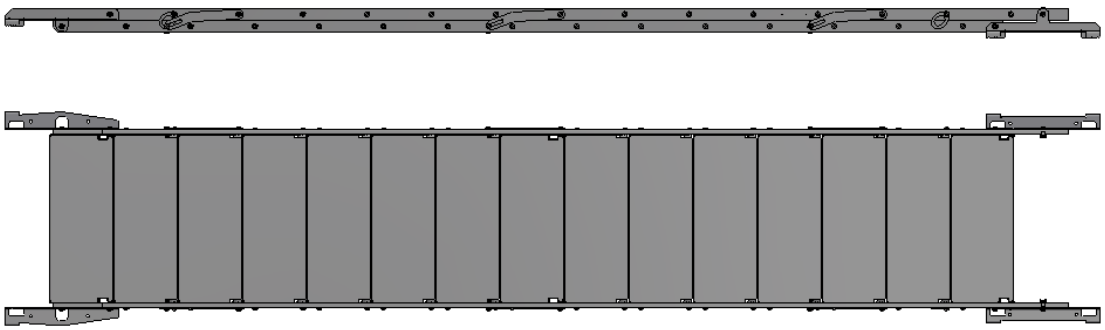
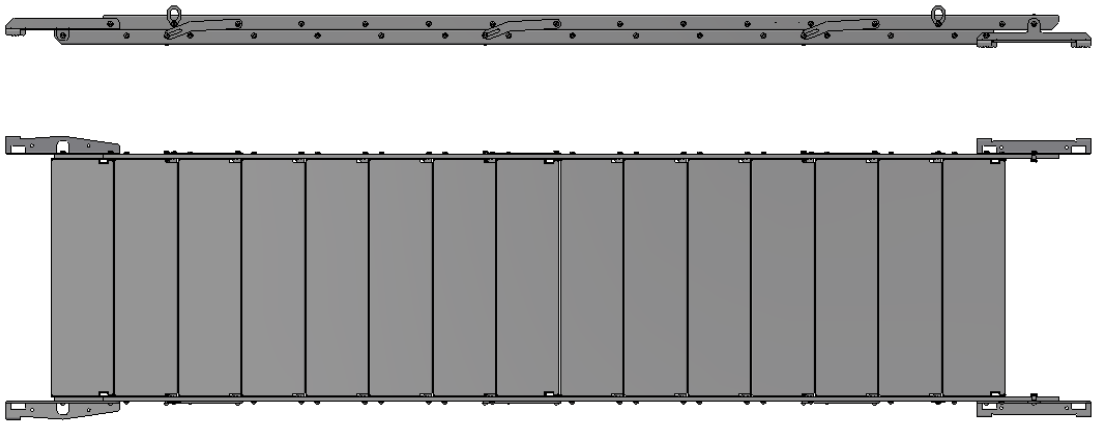
TAS-S15A



Mass: 120,93 kg

Dimensions: 4597,5x898x126

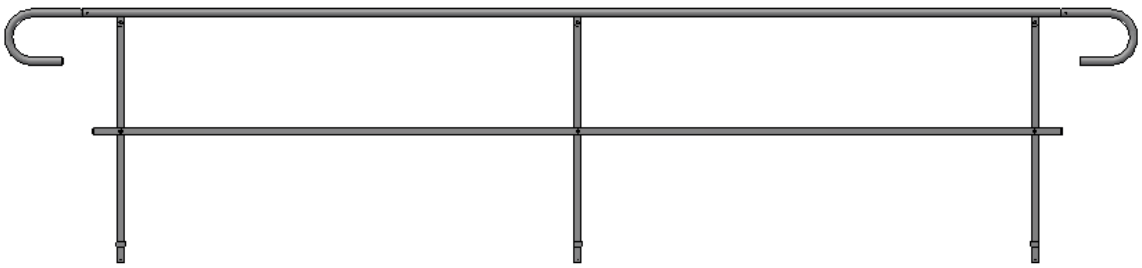
TAS-S15B



Mass: 167,64 kg

Dimensions: 4597,5x898x135

TAS-BL15



Mass: 20,67 kg

Dimensions: 4684x1045x34





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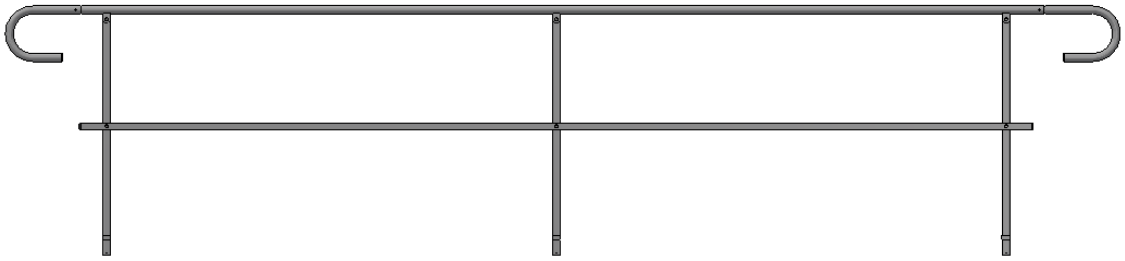
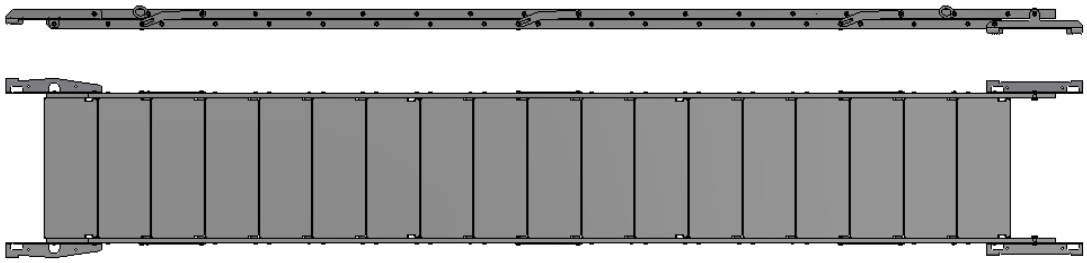
TAS-BP15



Mass: 20,67 kg

Dimensions: 4684x1045x34

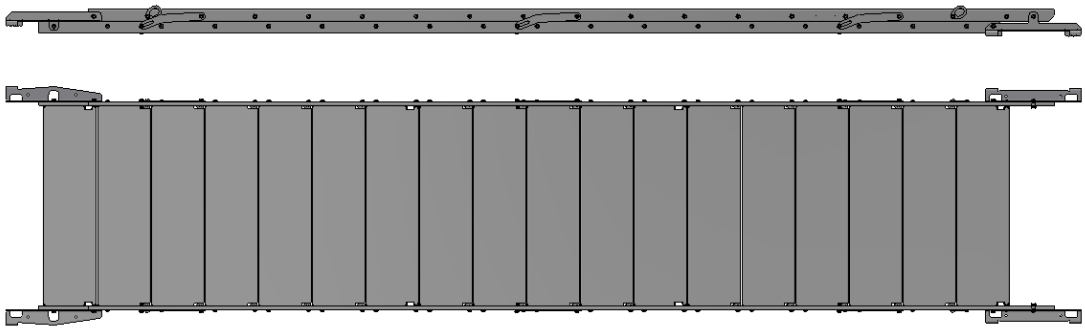
TAS-S18A



Mass: 142,97 kg

Dimensions: 5407,5x898x126

TAS-S18B



Mass: 199 kg

Dimensions: 5407,5x1045x1135





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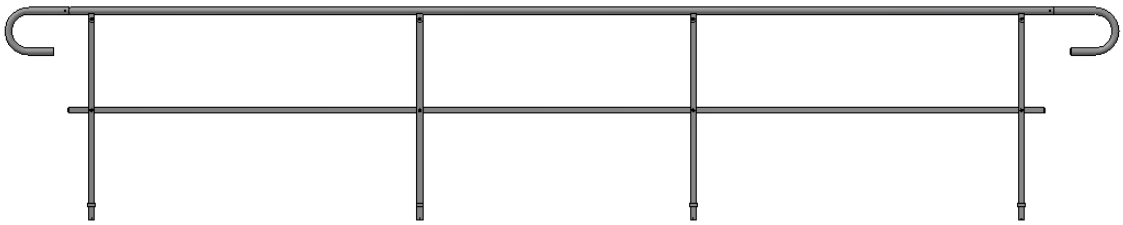
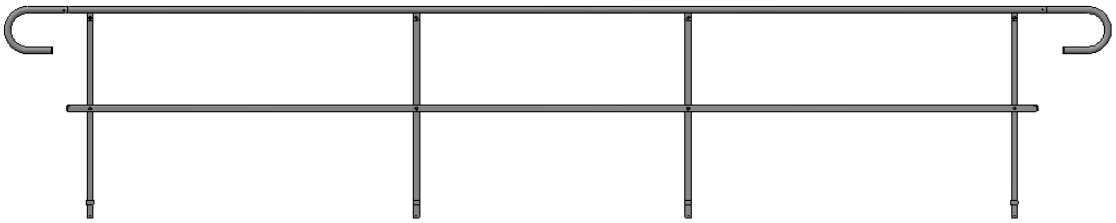
TAS-BL18



Mass: 24,81 kg
Dimensions: 5494x1045x34

TAS-BP18



Mass: 24,81 kg
Dimensions: 5494x1045x34

TAS-L5

Mass: 2,7 kg
Dimensions: 740x57x20

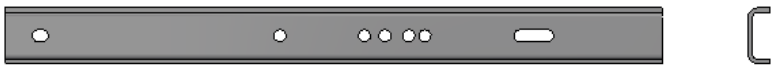
TAS-L6

Mass: 3 kg
Dimensions: 740x72x25

TAS-L13

Mass: 2,8 kg
Dimensions: 715x90x8

TAS-L12



Mass: 2,7 kg
Dimensions: 740x62x25

TAS-PR1

Mass: 10,28 kg

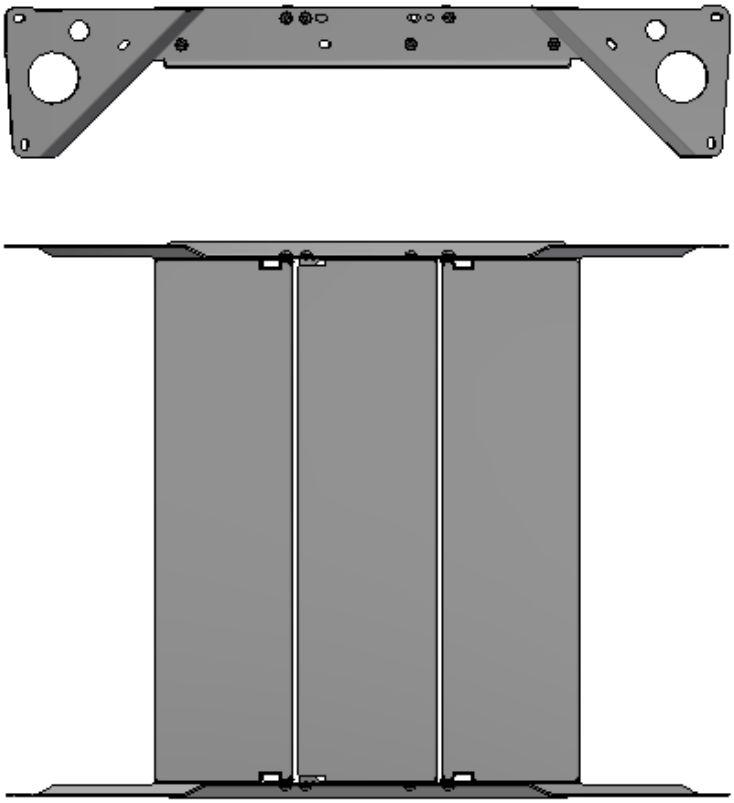
Dimensions: 3268,5x250x52,5

TAS-PR5

Mass:  25,401 kg

Dimensions: 3389x264x100

TAS-K4



Mass: 50 kg

Dimensions: 1386x1068x287





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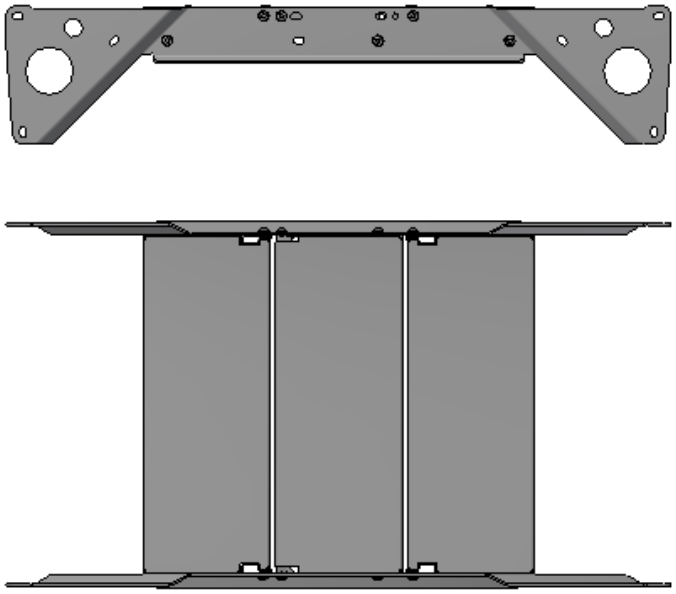
TAS-K3



Mass: 45 kg

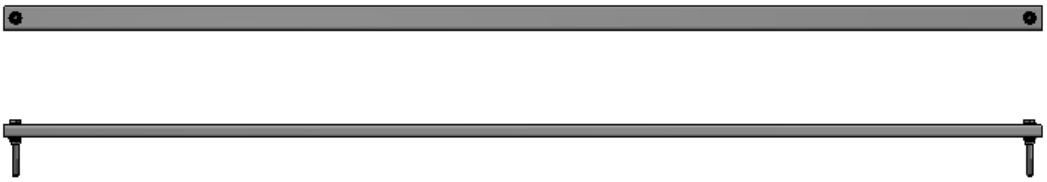
Dimensions: 1386x768x287

TAS-PH3

Mass: 2,4 kg

Dimensions:1185x92x34

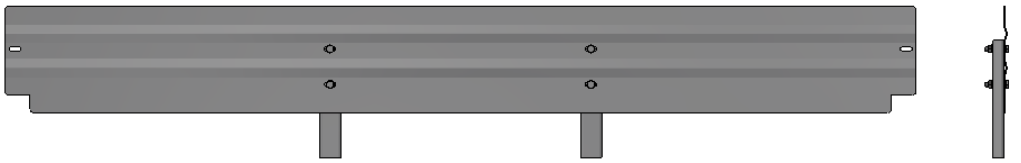
TAS-PR3



Mass: 1,6 kg

Dimensions: 1291x30x20

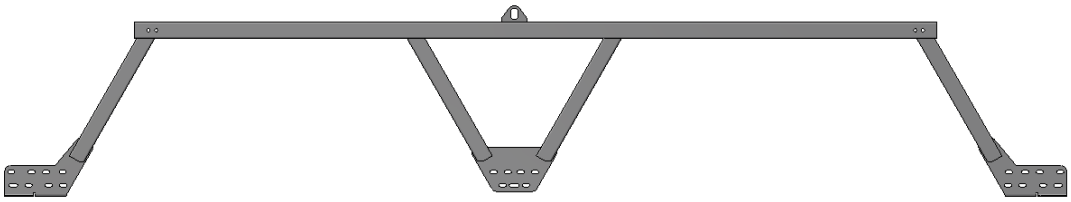
D-TAS-064



Mass: 2,27 kg

Dimensions: 1290x213x20

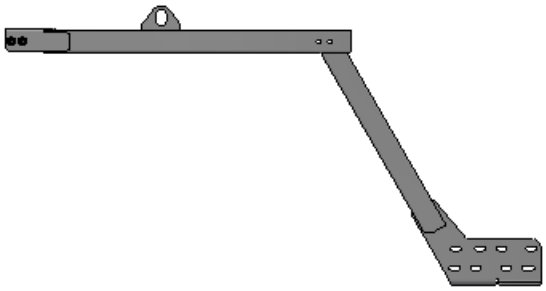
TAS-WB1



Mass: 28,5 kg

Dimensions: 4106x735x94

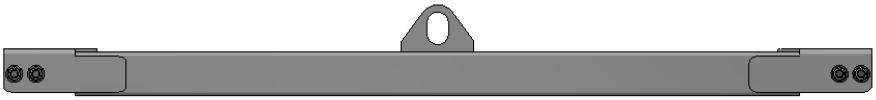
TAS-WB2



Mass: 8,9 kg

Dimensions: 1410x735x94

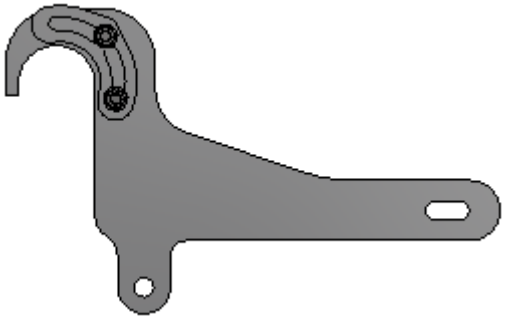
TAS-WB3



Mass: 6,2 kg

Dimensions: 1201x125x48

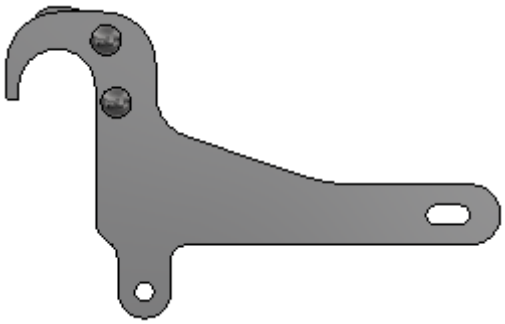
TAS-L15



Mass: 1,3 kg

Dimensions: 327,5x288,5x12

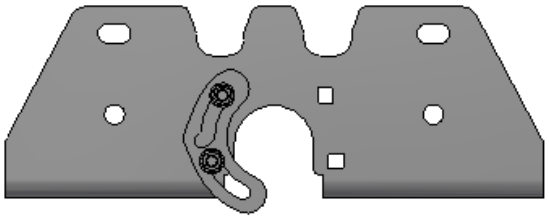
TAS-L14



Mass: 1,3 kg

Dimensions: 327,5x288,5x12

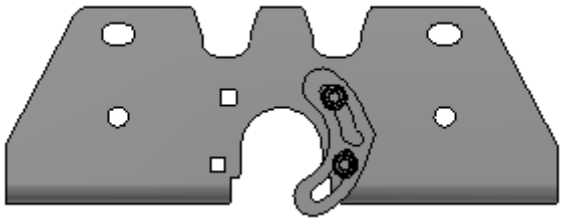
TAS-L16



Mass: 2,1 kg

Dimensions:340x121x51

TAS-L17



Mass: 2,1 kg

Dimensions:340x121x51





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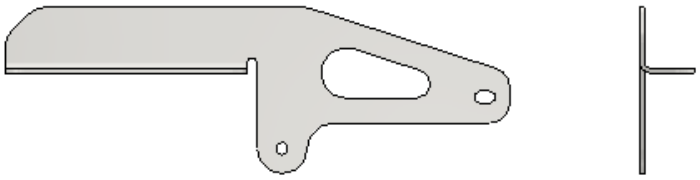
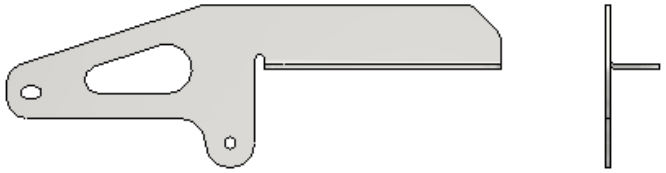
TAS-SGLH



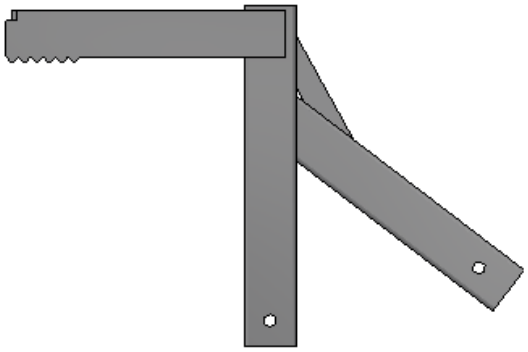
Mass: 1,827 kg
Dimensions: 501x165x55

TAS-SGPH



Mass: 1,827 kg
Dimensions: 501x165x55

TAS-L26



Mass: 2 kg
Dimensions:500x330x28

TAS-SDLH





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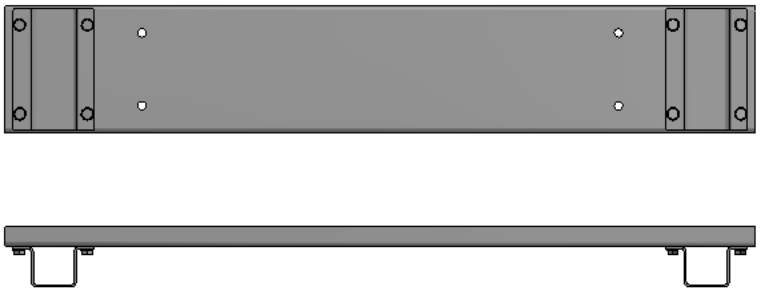
Mass: 2,15 kg
Dimensions: 480x125x55

TAS-SDLH

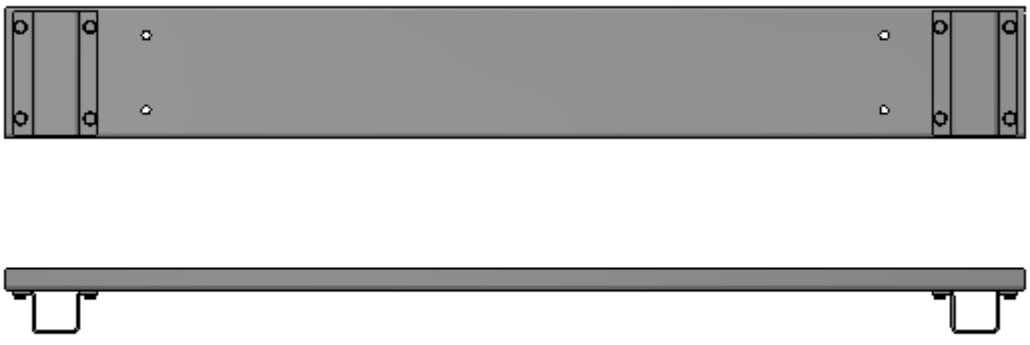
Mass: 2,15 kg
Dimensions: 480x125x55

TAS-O1



Mass: 5,769 kg
Dimensions: 929x156x75

TAS-O2



Mass: 6,998 kg
Dimensions: 1228x156x77

TAS-O3





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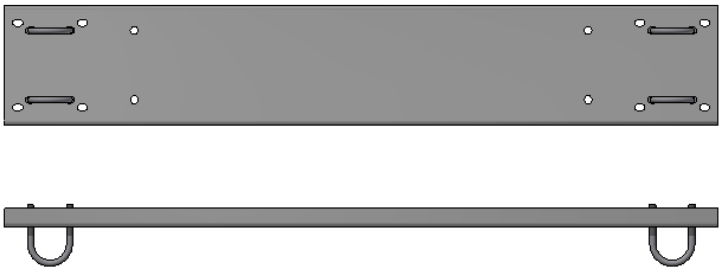
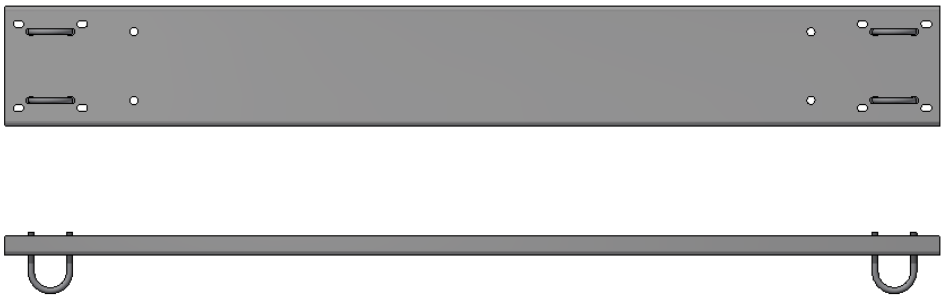


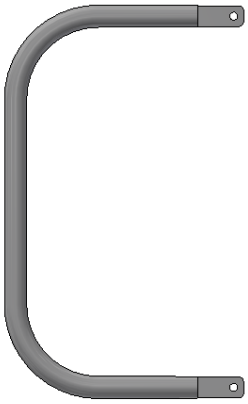
Mass: 4,3 kg
Dimensions: 929x156x81

TAS-O4



Mass: 5,7 kg
Dimensions: 1228x156x81

TAS-BU



Mass: 1,2 kg
Dimensions: 475x388x27

TAS-BL12H





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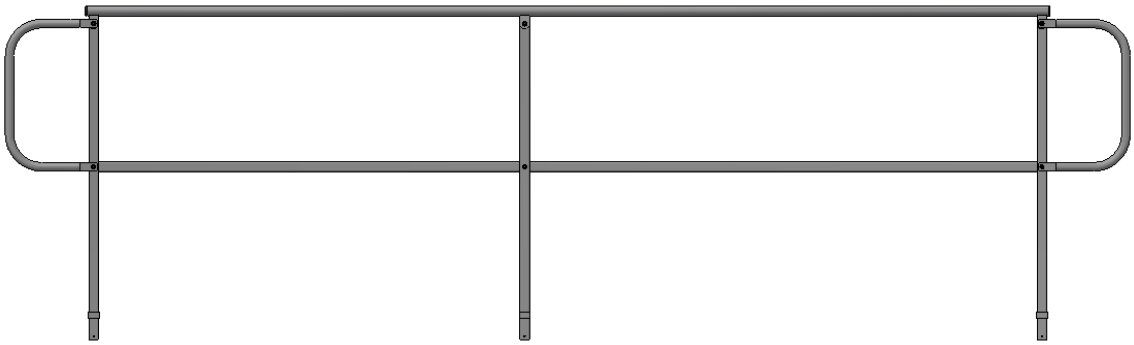
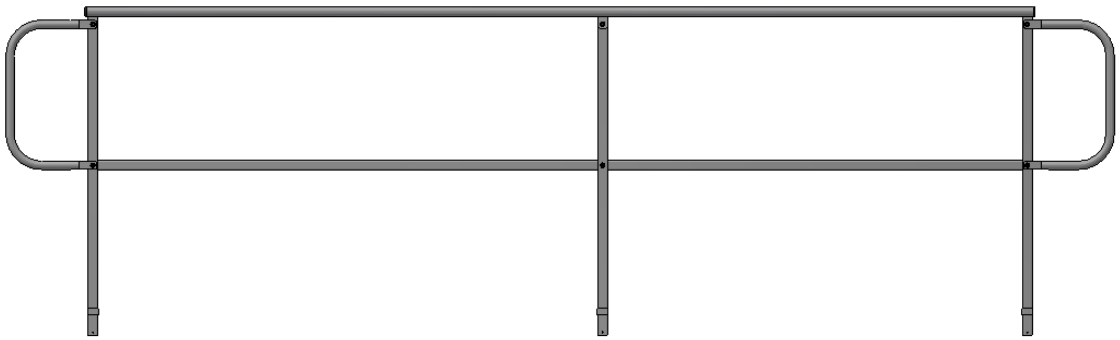
EUR BNP PARIBAS 86 1600 1462 1817 5044 2000 0002
SEK MILLENIUM BANK 83 1160 2202 0000 0002 9069 1529



Mass: 16,5 kg

Dimensions: 3523x1045x45

TAS-BP12H



Mass: 16,5 kg

Dimensions: 3523x1045x45





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Tab 3. List of fasteners

| No. | Fastener | TAS-3 A/B | TAS-6 A/B | TAS-9 A/B | TAS-12 A/B | TAS-15 A/B | TAS-18 A/B |
|---|---|---|---|---|---|---|---|
| | | Amount | | | | | |
| 1 | Bolt ISO 7380 8-ZN – M12 × 40 | 18 | 30 | 44 | 56 | 70 | 83 |
| 2 | Nut ISO 10511 8-ZN – M12 | 18 | 30 | 44 | 56 | 70 | 83 |
| 3 | Washer ISO 7089 ZN-12 – 200 HV | 18 | 30 | 44 | 56 | 70 | 83 |
| 4 | Bolt ISO 4014 8-ZN M8 × 40 | 4 | 4 | 6 | 6 | 6 | 8 |
| 5 | Bolt ISO 4014 8-ZN M8 × 45 | 4 | 4 | 5 | 6 | 6 | 8 |
| 6 | Nut ISO 10511 ZN – M8 | 8 | 8 | 11 | 12 | 12 | 16 |
| 7 | Washer ISO 7089 ZN-8 – 200 HV | 16 | 16 | 22 | 24 | 24 | 32 |
| 10 | Screw DIN 7504K 4,8x16 zinc electroplated | 8 | 8 | 8 | 8 | 8 | 8 |

Tab 4. List of accessory fasteners

| No. | Fastener | TAS-K3 | TAS-K4 |
|---|---|---|---|
| 11 | Nut ISO 4032 8-ZN – M12 | 4 | 4 |
| 12 | Nut ISO 10511 ZN – M12 | 12 | 12 |
| 13 | Nut ISO 4032 8-ZO – M6 | 8 | 8 |
| 14 | Nut ISO 10511 ZN – M8 | 4 | 4 |
| 15 | Washer ISO 7089 ZN-12 – 200 HV | 24 | 24 |
| 16 | Washer ISO 7089 ZO-6 – 200 HV | 16 | 16 |
| 17 | Washer ISO 7089 ZN-8 – 200 HV | 8 | 8 |
| 18 | Bolt ISO 4762 8-ZN – M12 × 25 | 4 | 4 |
| 19 | Bolt ISO 4762 8-ZN – M12 × 30 | 12 | 12 |
| 20 | Bolt ISO 4017 8-ZO – M6 × 30 | 8 | 8 |
| 21 | Bolt ISO 4014 8-ZN – M8 × 65 | 4 | 4 |

Tab 5. Components to form a footbridge from the TAS-15 and TAS-18 steps

| Index/Kit | 15 | 15+15 | 15+18 | 18+18 | 18 |
|---|---|---|---|---|---|
| TAS-15 A/B | 1 | 2 | 1 | 0 | 0 |
| TAS-18 A/B | 0 | 0 | 1 | 2 | 1 |
| TAS-WB1 | 2 | 4 | 4 | 4 | 2 |
| TAS-WB2 | 0 | 0 | 2 | 4 | 2 |
| TAS-WB3 | 0 | 2 | 2 | 2 | 0 |

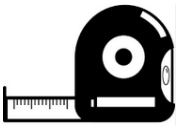
Tab 6. Tightening torques MA for class 8.8 bolts

| Diameter of bolt | Tightening torque [Nm] |
|---|---|
| M8 | 23 |
| M10 | 46 |
| M12 | 79 |

Approximate tightening torques for coarse threaded stud bolts for a friction factor of μc = 0.15

## 3. List of tools needed for installation of TAS stairs

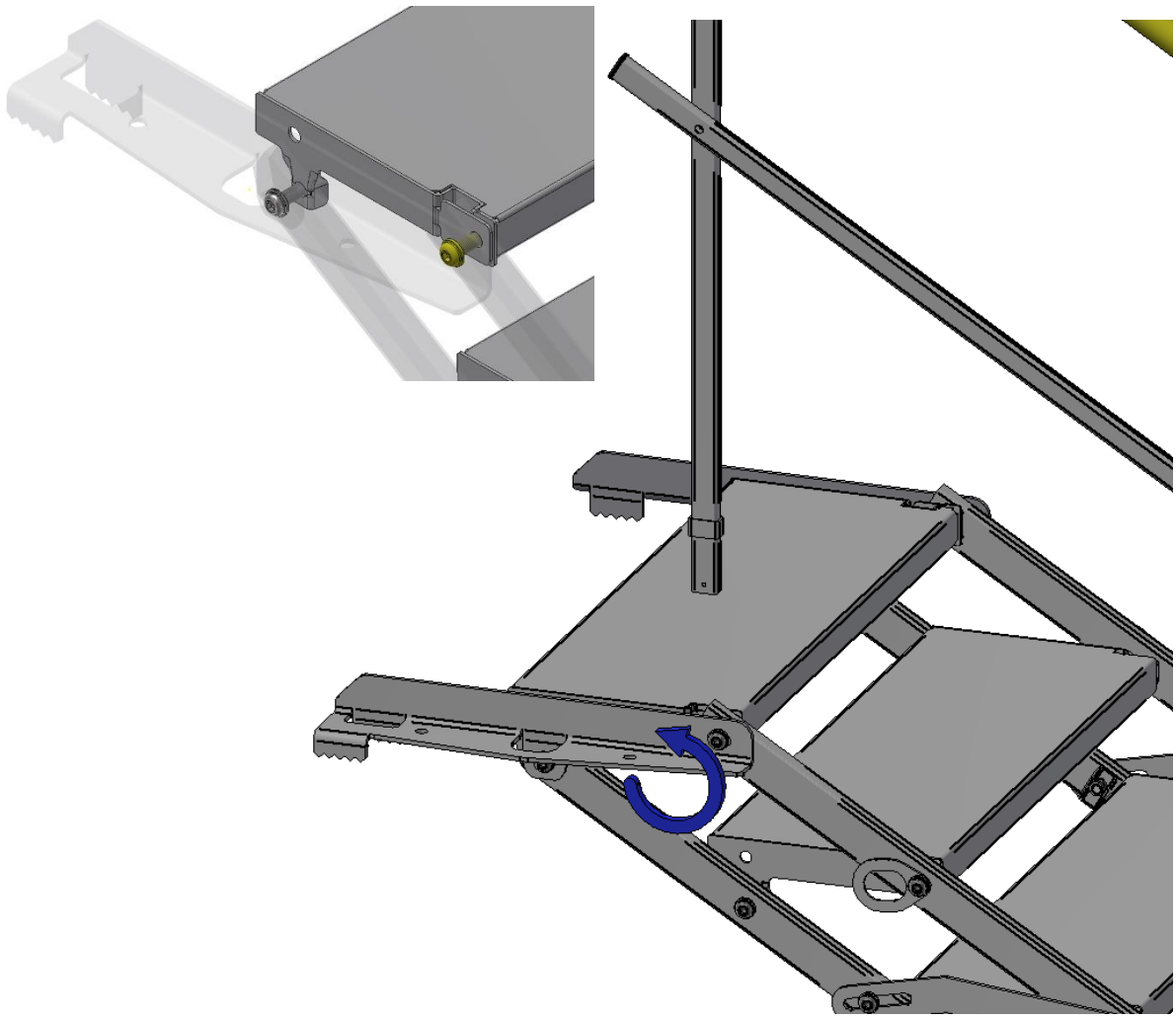
Tab 7. List of tools

| | |
|---|---|
|  | Wrenches: 19, 18, 13, 10 |
|  | Wrenches: 8. 10 |
|  | Screwdriver |
|  | Spirit level |
|  | Measuring tape |
|  | Lifting device with a lifting capacity of min. 1 t when assembling long sets |

## 4. TAS stairs assembly operations

The following shows the method and sequence of installation of the TAS stairs:

4.1. Installing the railings to the steps - To install the railings, loosen all bolts on the steps with sockets for the railing posts. Then slide the posts into the slots.







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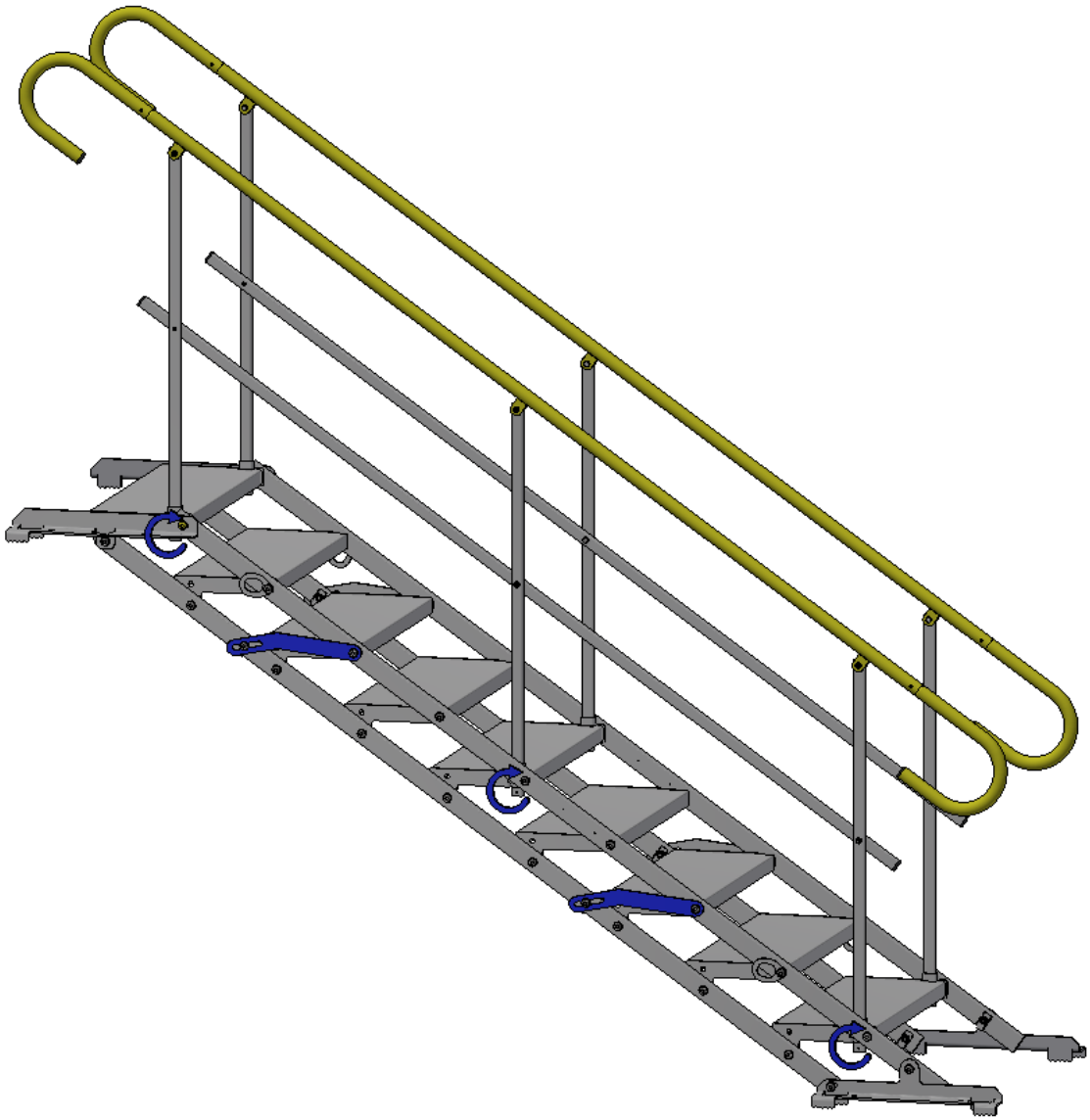
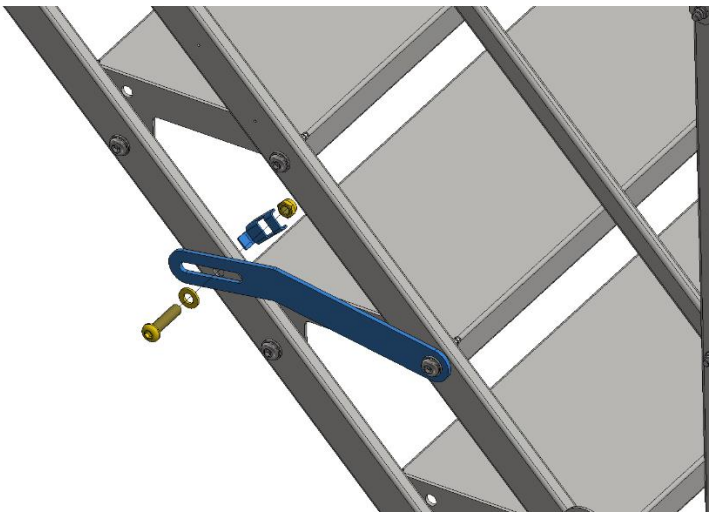
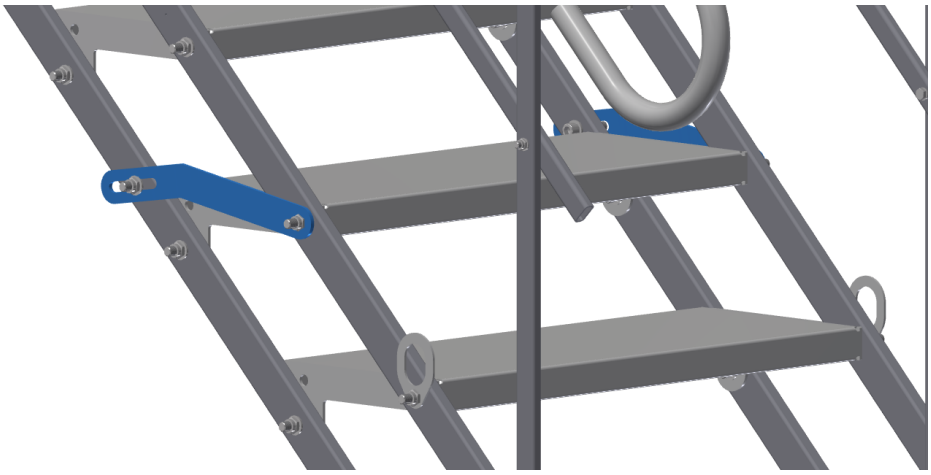
4.2. Tighten the railing locks - After fitting the railing, set the target angle of the stairs and then tighten the post lock bolts and the lock bolts. Each time the angle of the stairs is adjusted, the locking bolts of the stairs must be loosened and tightened.



4.3. Stairs 15, 18 steps are supplied with pre-assembled interlocks, the interlock must be fitted. Remove the bolt, together with the washer, put through the other side of the lock (oval hole), tighten.

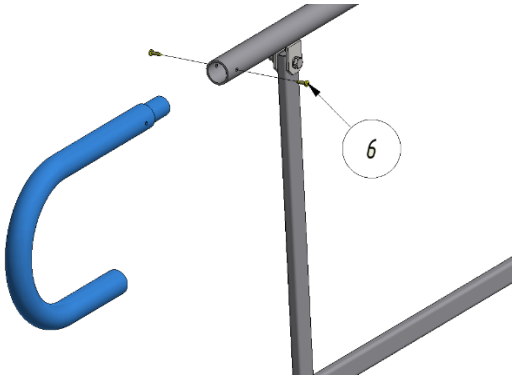


4.4. In order to ensure the rigidity of the staircase, the bolts securing all locks must be tightened. Tighten connections with approximately 60% of the tightening torque prescribed for the diameter and class of connector, see Table 6. In order to improve the stiffness of the steps, it is recommended that all step connections are tightened.

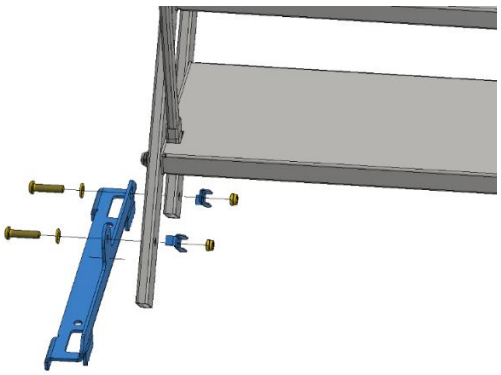


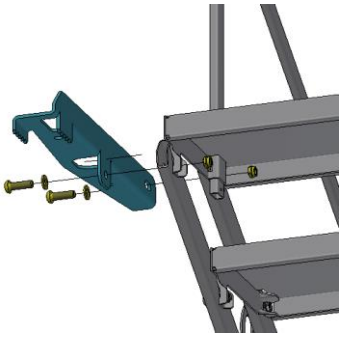
4.5. Combining of the stairs

4.5.1. Removal of handrail ends - unscrew the screws securing the handrail ends on both sides at one end of the stairs. Remove the lower ends on one staircase and the upper ends on the other.




4.5.2. Removal of the foot stair treads - Unbolt the bolt connections with which the stair steps are bolted to the stringers. Remove the bottom feet in one staircase and the top feet in the other.

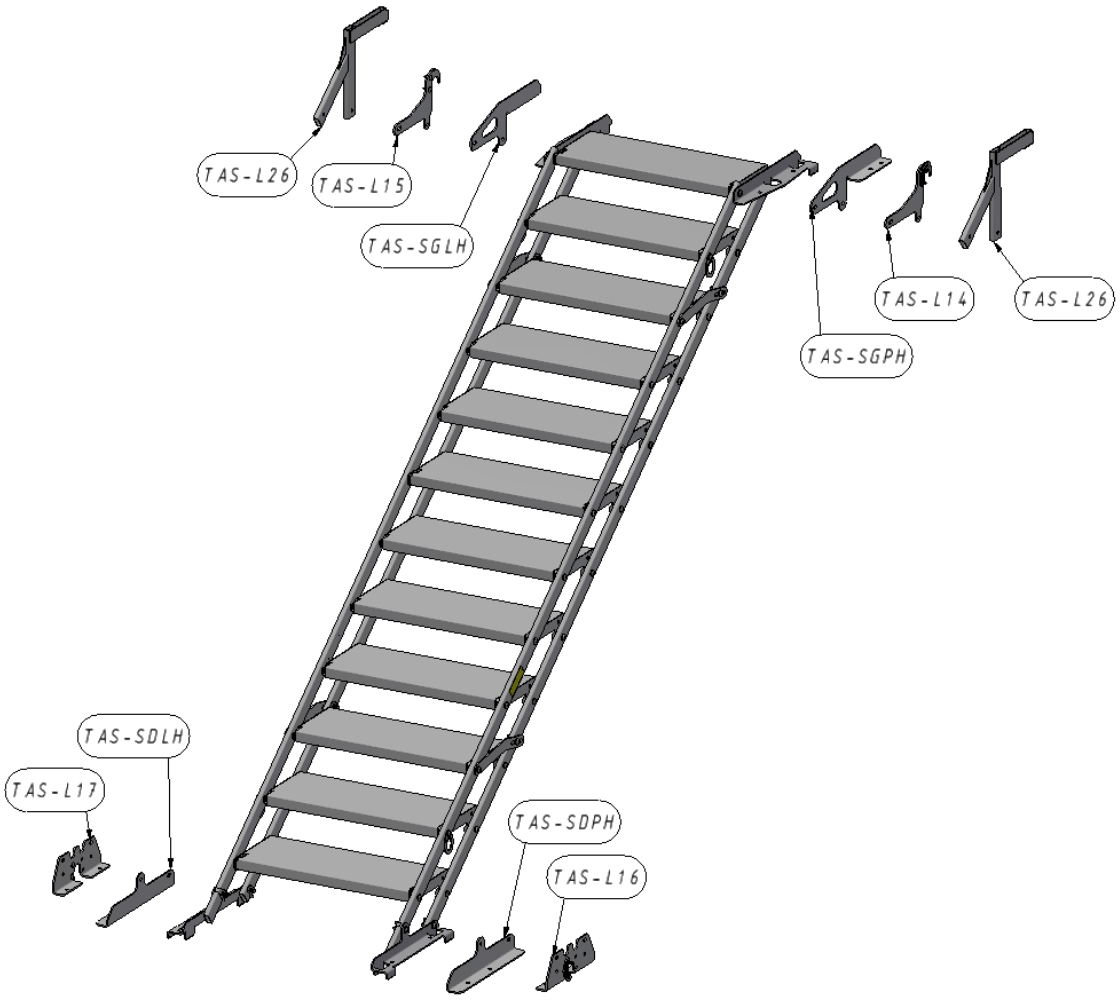




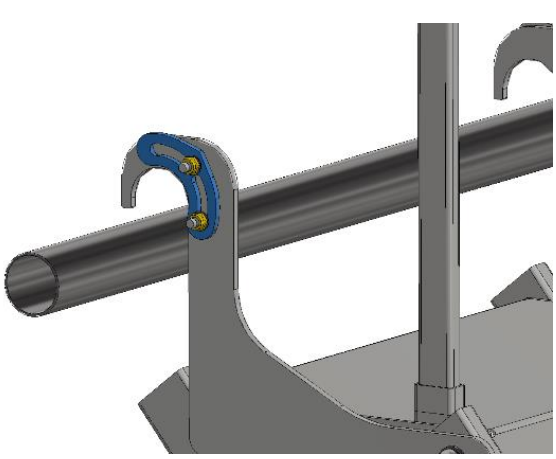
4.1.1. Depending on the need, standard TAS stair treads can be replaced with application-specific treads:

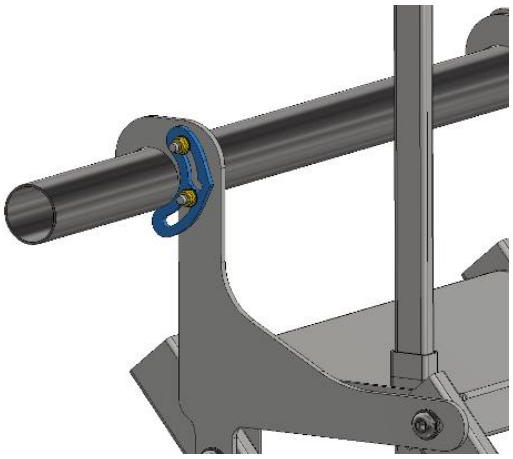
- TAS-L26 allow the staircase to be lowered relative to the top mounting edge, providing an additional step.
- TAS-L14, TAS-L15, TAS-L16, TAS-L17 is a set of feet allowing the staircase to be mounted on a scaffolding tube with a diameter of 48 mm.
- TAS-SGLH, TAS-SGPH, TAS-SDLH, TAS-SDPH is a set for mounting on flat hard surfaces such as concrete, steel plates, wood.

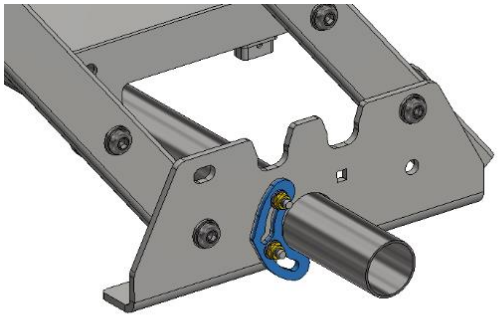
The footings are assembled by dismantling the standard footings according to section 4.5.2 and then screwing them on using the same fasteners.

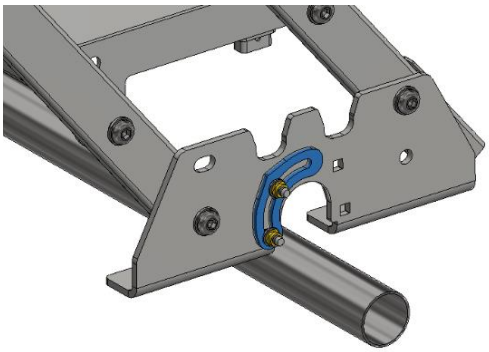


Handles TAS-L14, TAS-L15, TAS-L16, TAS-L17 are equipped with ratchets to secure the feet against unintentional removal.













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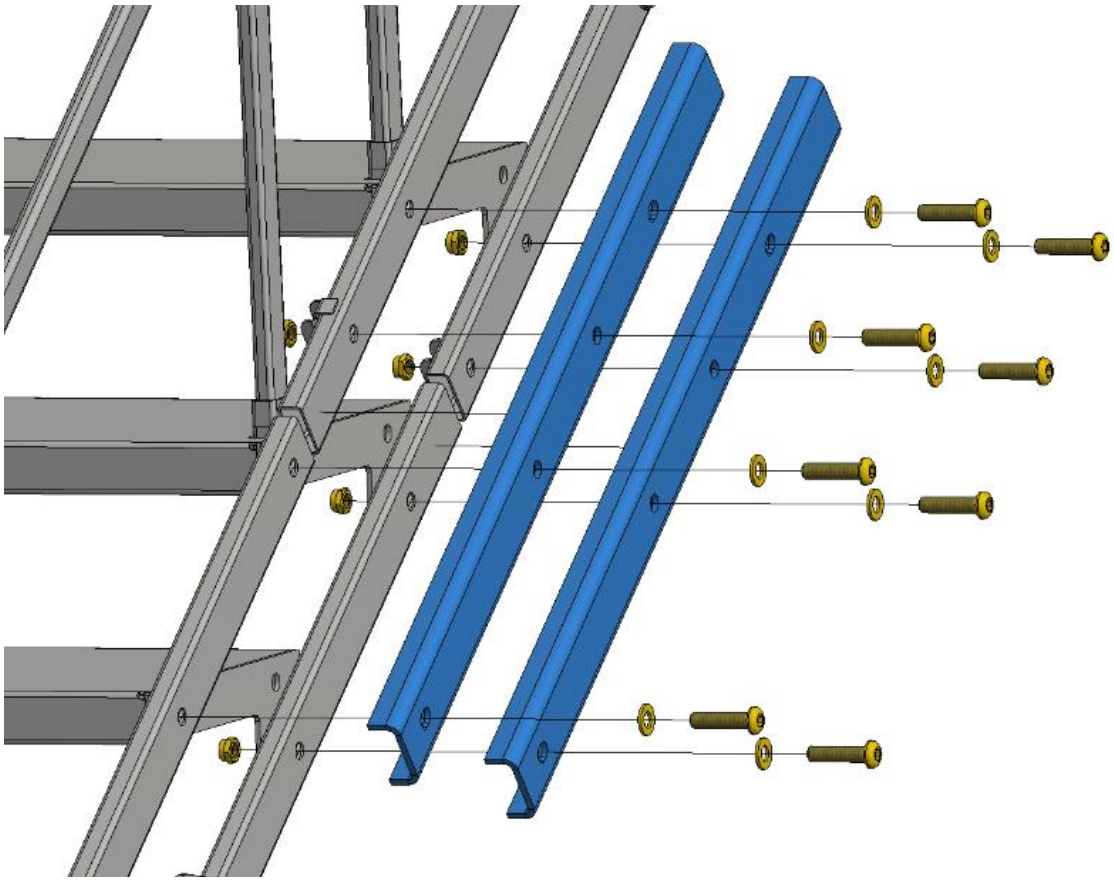
4.1.2. Mounting connector L5/L6 - fold the stairs with the ends without feet towards each other. Unscrew the bolts securing the steps located in the fastener range.
Place 4 pcs. of L5/L6 fasteners on the stringers, then tighten all bolt connections - 16 pcs.



L5 - TAS A (Width 700mm)
L6 - TAS B (Width 1000mm)





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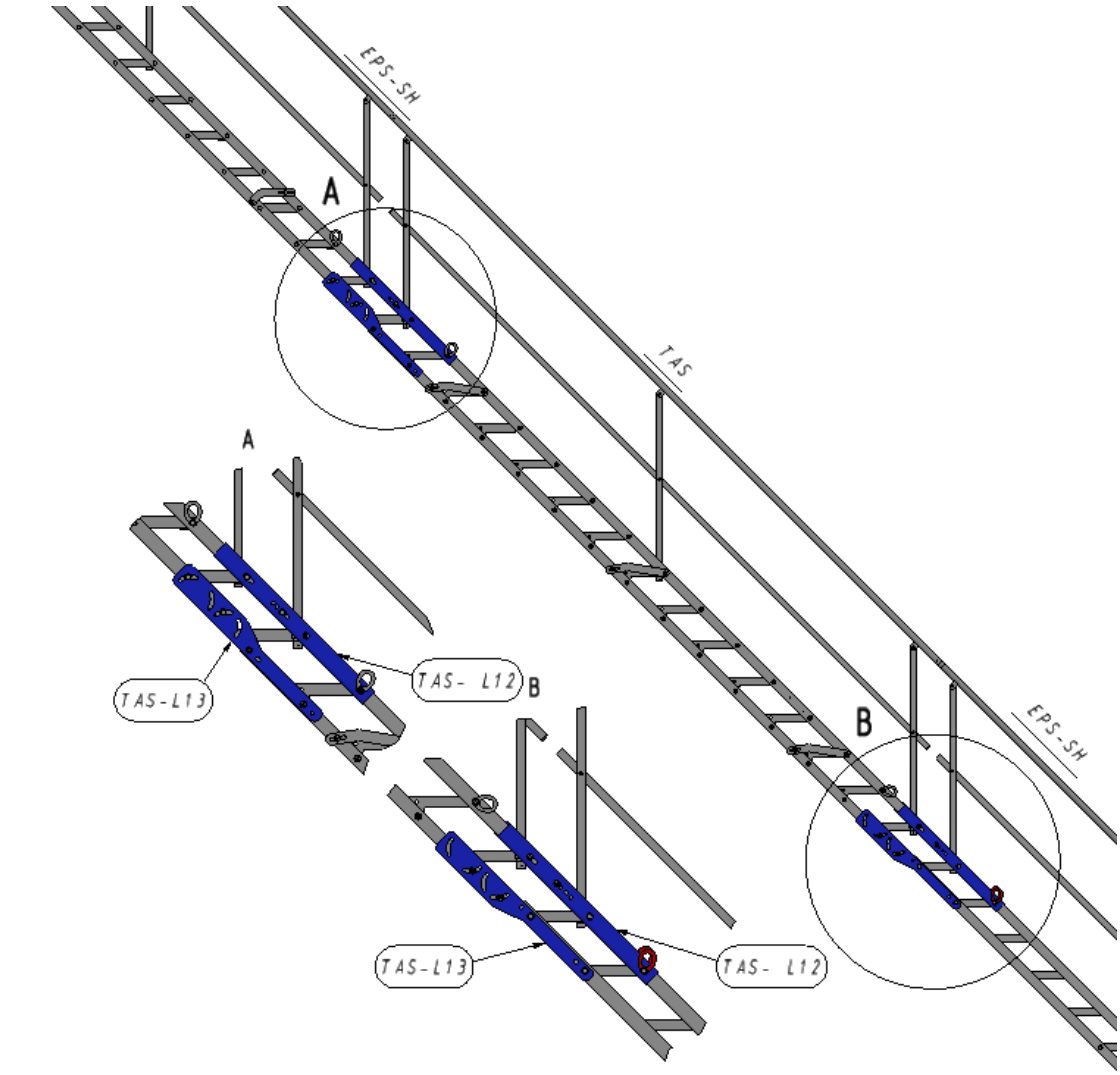
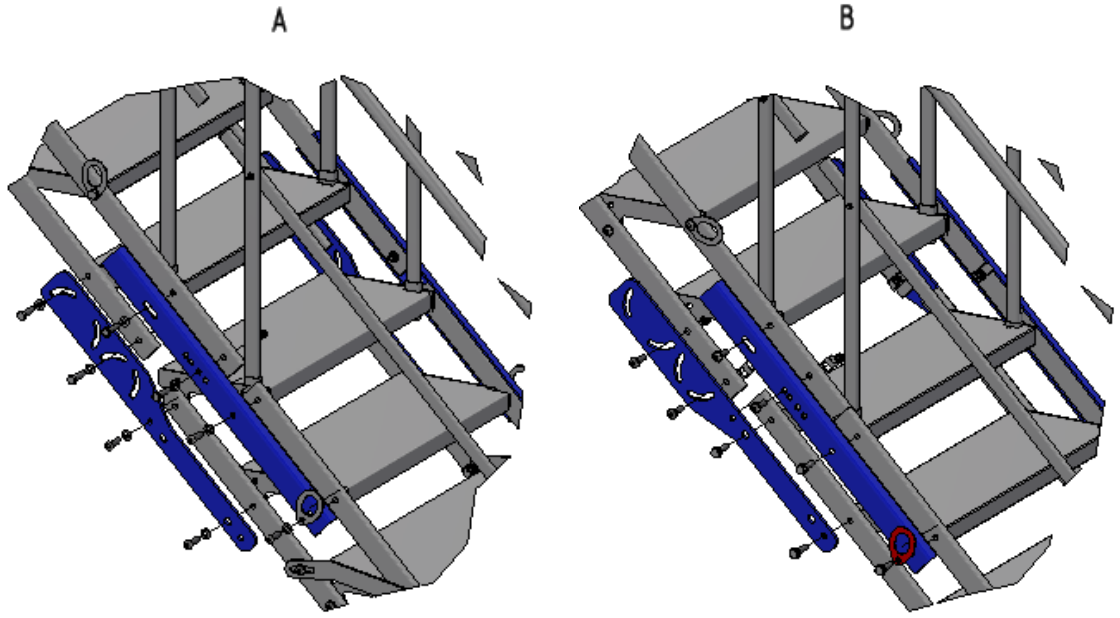
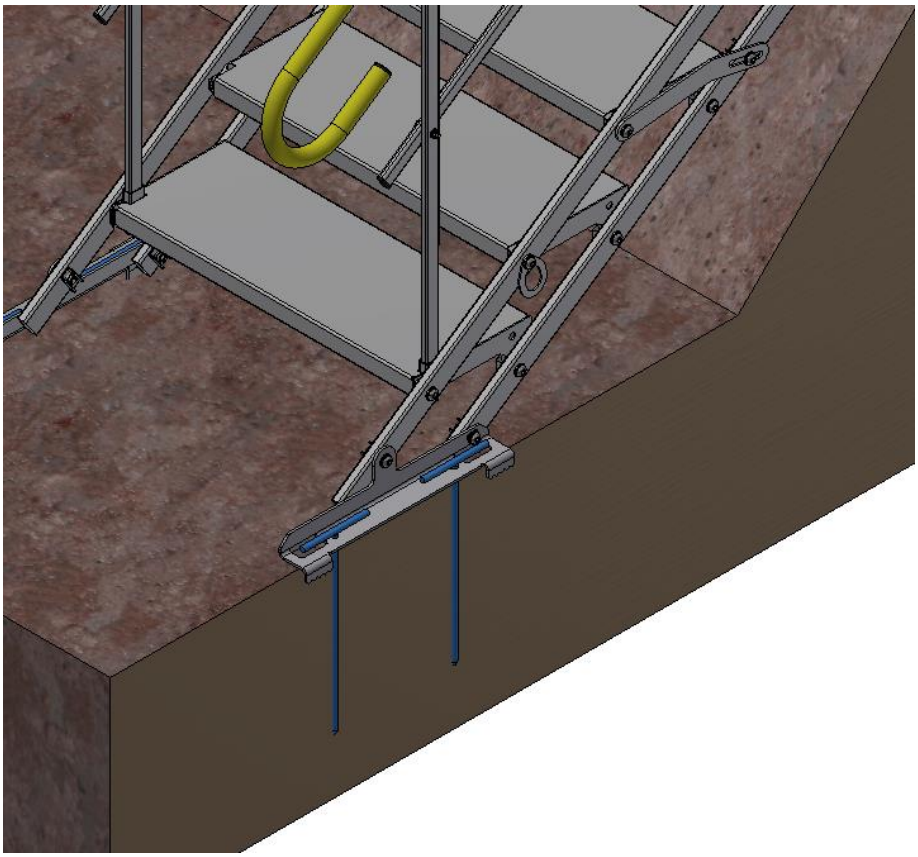
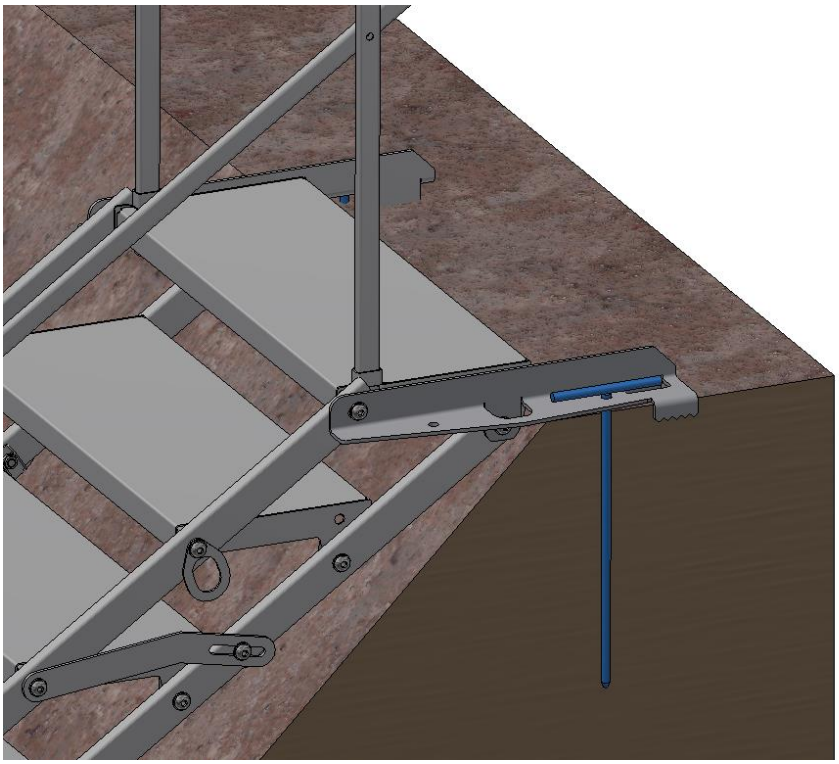
### 4.1.3. Combining the old EPS-SH stairs with the newer TAS stairs by using TAS-L12 and TAS-L13 connectors



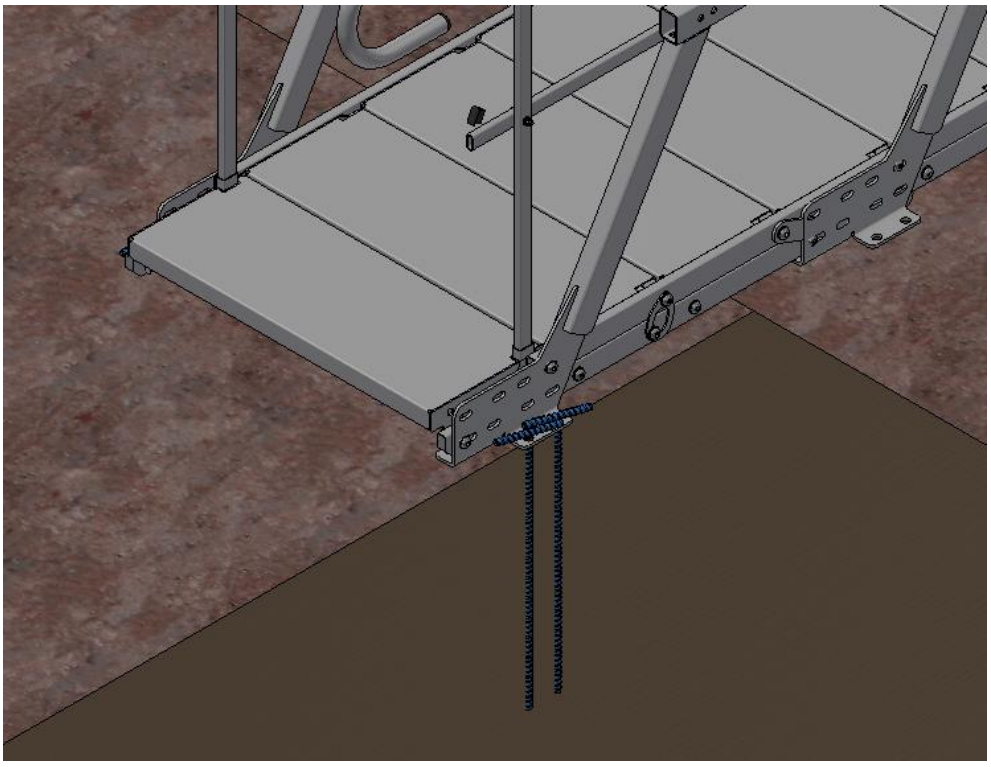



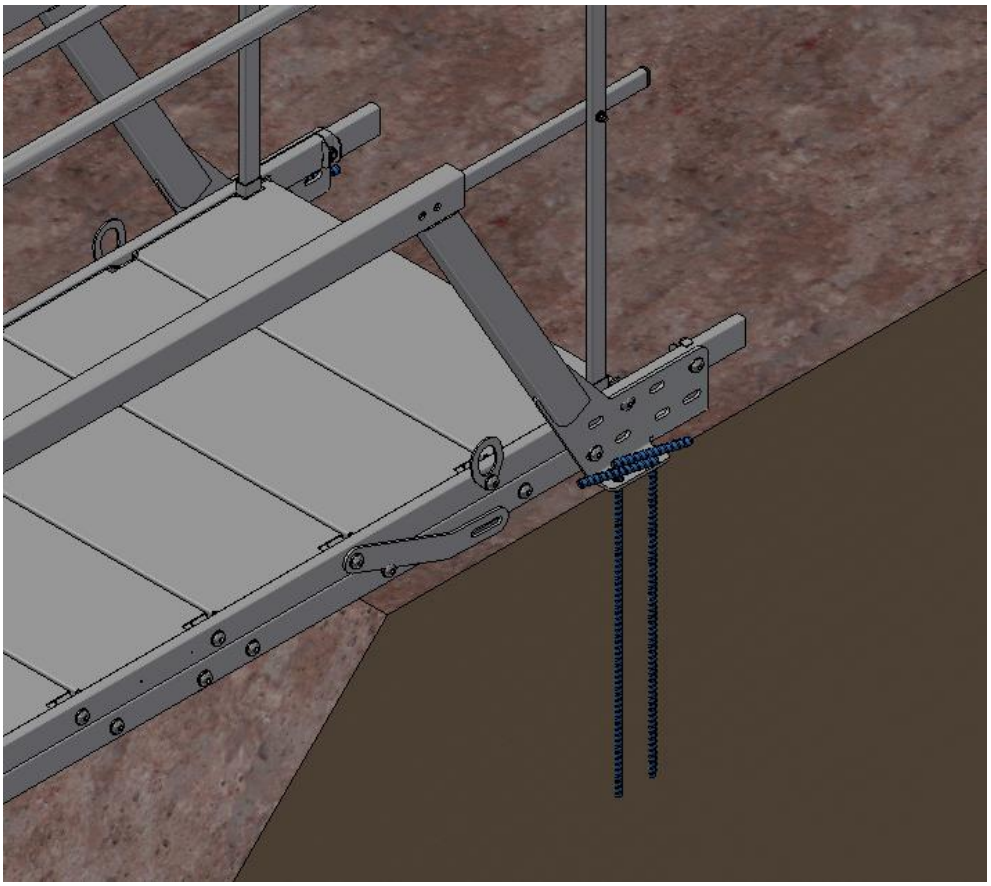
4.2. Anchoring the stairs to the ground.
The stairs must be anchored using the holes in the footplates.
If the stairs are installed on the soil, the minimum anchor length is 40 cm.





4.3. Anchoring the footbridge with a truss to the ground.
The footbridge must be anchored using the holes in the truss footplates.
If the footbridge is installed on the soil, the minimum anchor length is 40 cm.









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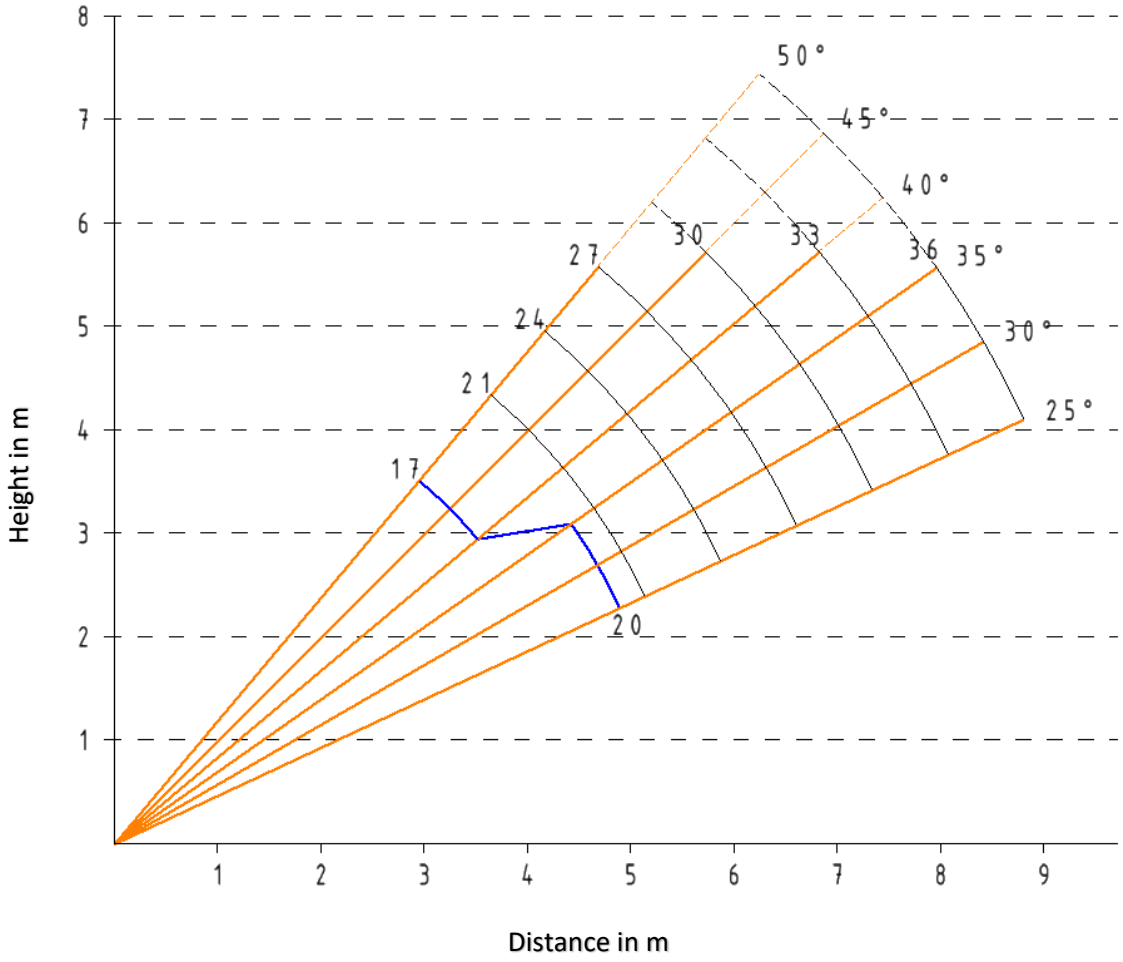
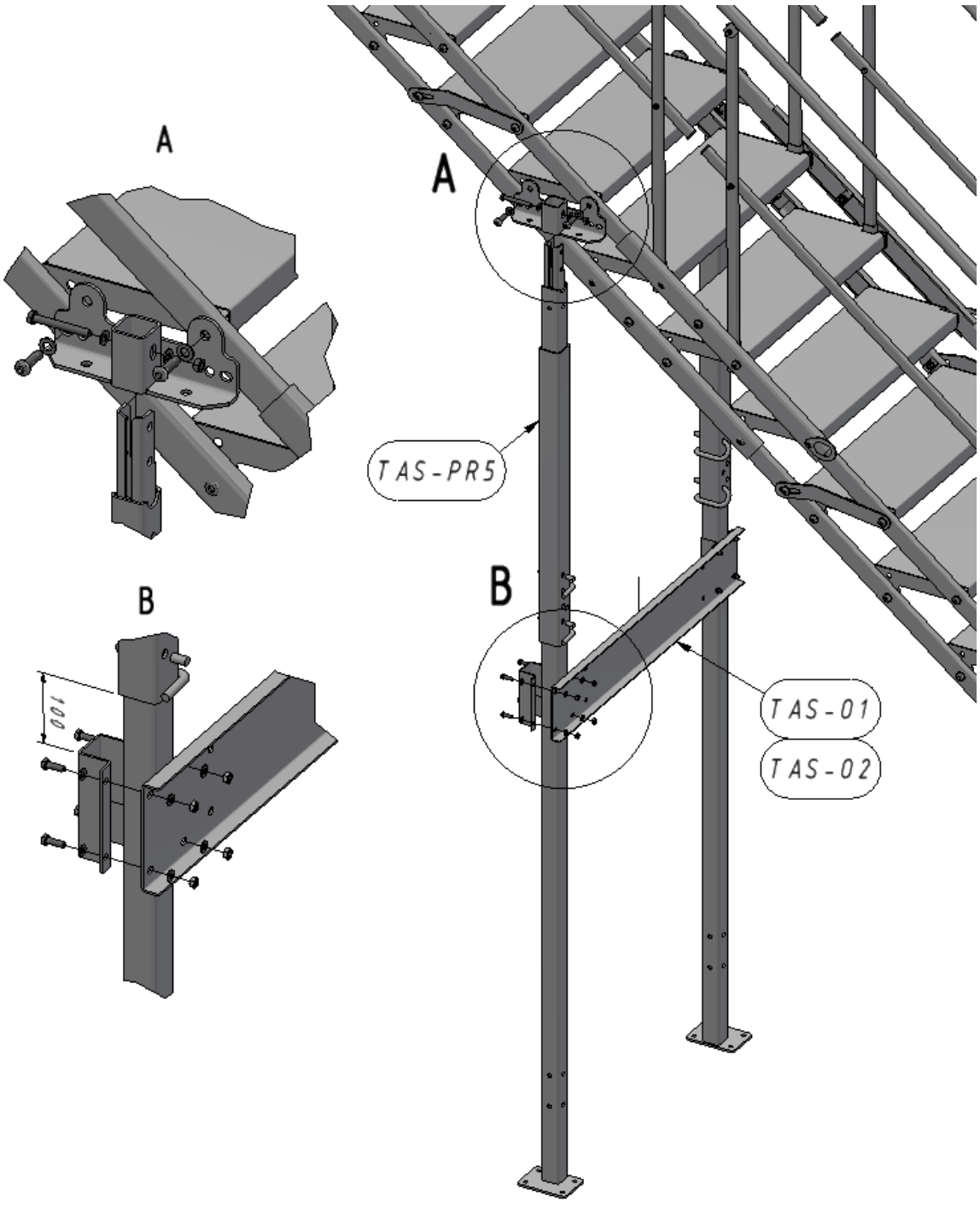
4.4. When combining 15 and 18 step stairs, it is necessary to support the entire combined flight. The support columns should be bolted to a stable concrete base. Using one support in the middle, it is permissible to combine a maximum of two 18 + 18 steps in this case the support should be installed under the twentieth step. When combining two staircases with less than 18 steps. The support should be mounted under the seventeenth step.



4.5. Mounting of the TAS-PR5 support - mount the support by bolting the support console using the step bolts. Once the supports are in place, bolt the column bracing TAS-O1 for TAS A 700mm stairs or TAS-O2 for TAS B 1000mm stairs. The PR5 support is used when the total number of steps exceeds 21.





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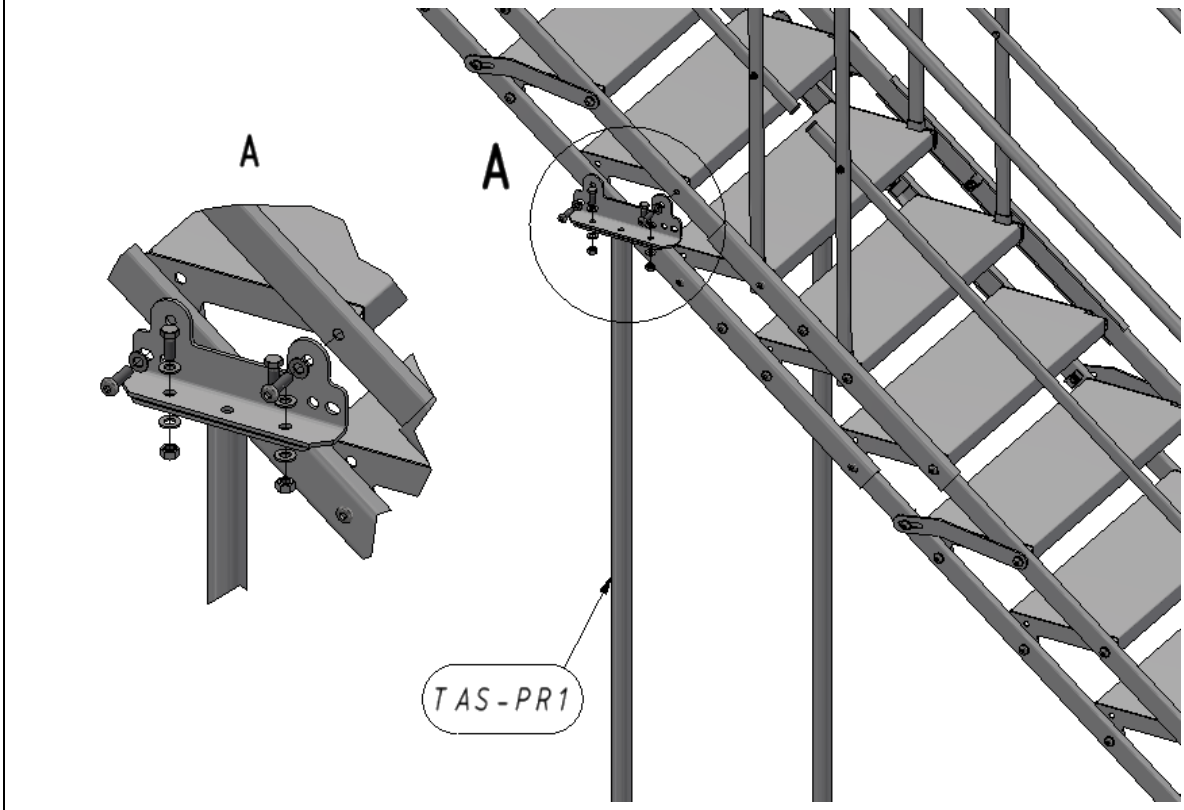
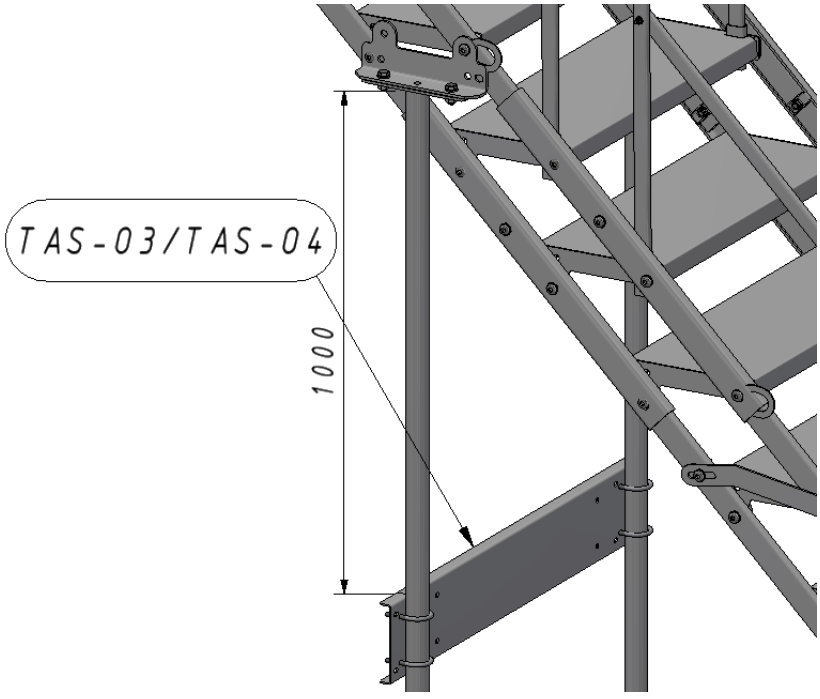
4.6. Mounting of the TAS-PR1 support- Mount the support by bolting the support console using the step bolts. The PR1 support can be used when the total number of steps in the flight exceeds 21.



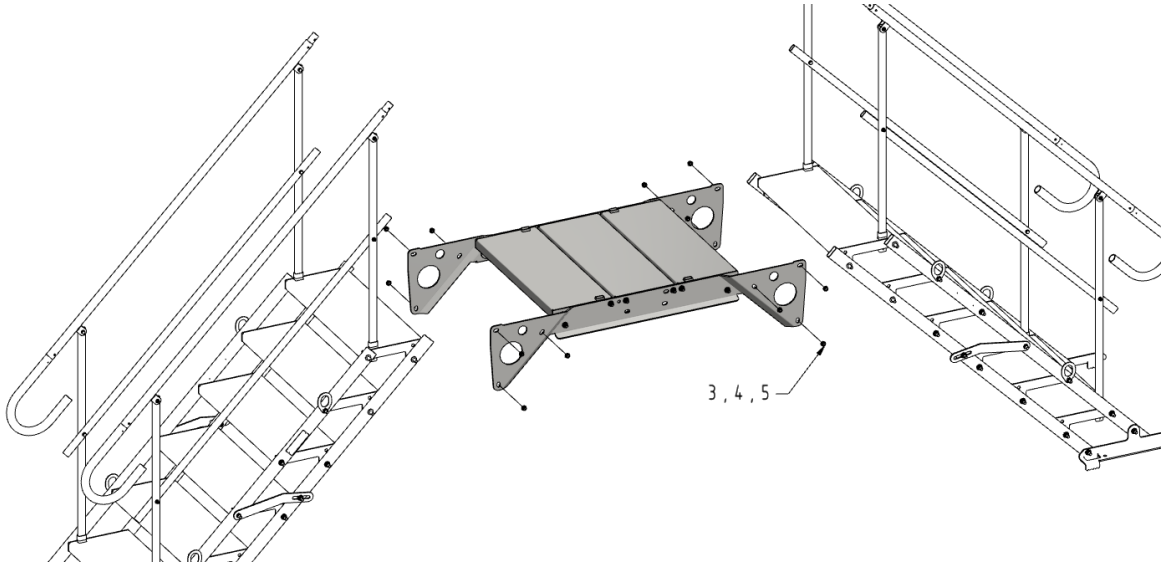

For better stiffness of the stairs, a TAS-O3 bracing can be fitted for 700mm wide stairs or TAS-O4 for 1000mm wide stairs.



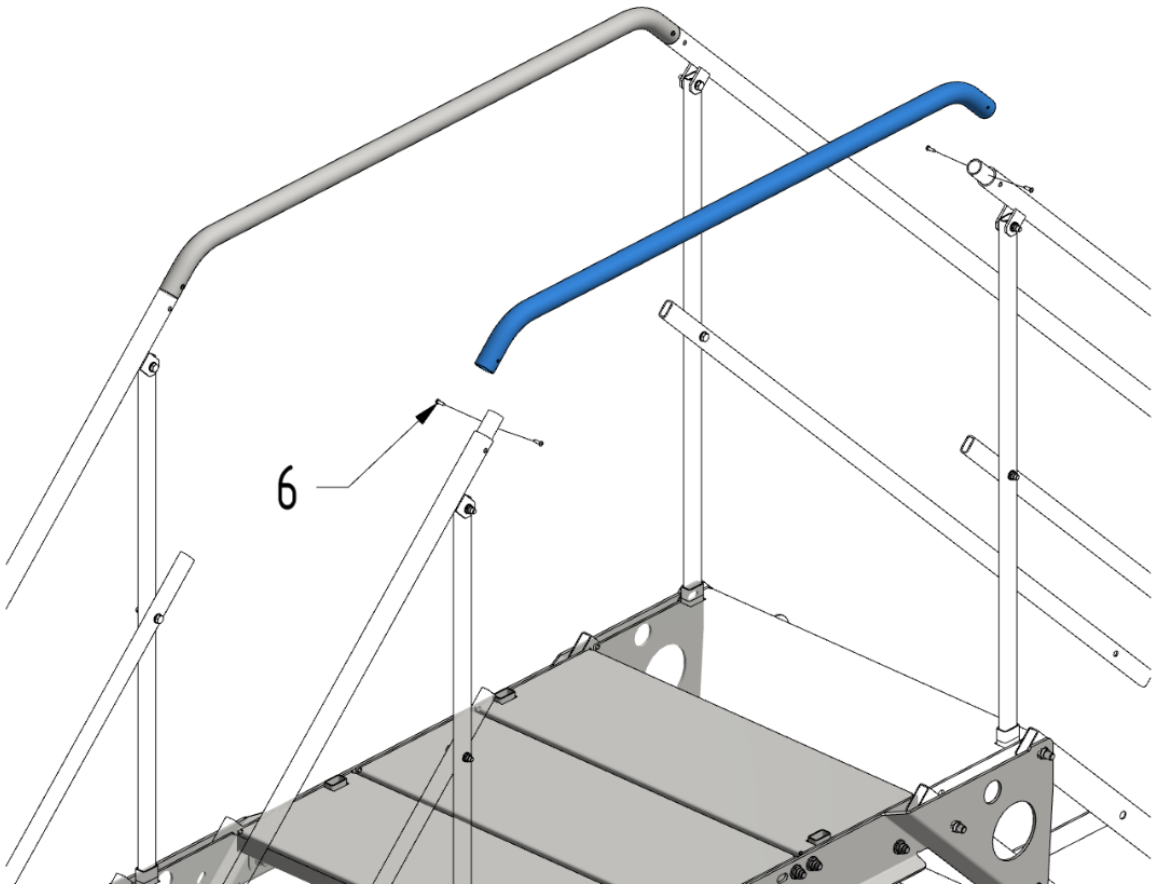
## 4.7. Assembly of the footbridge

### 4.7.1. The dismantling of elements from the stairs:

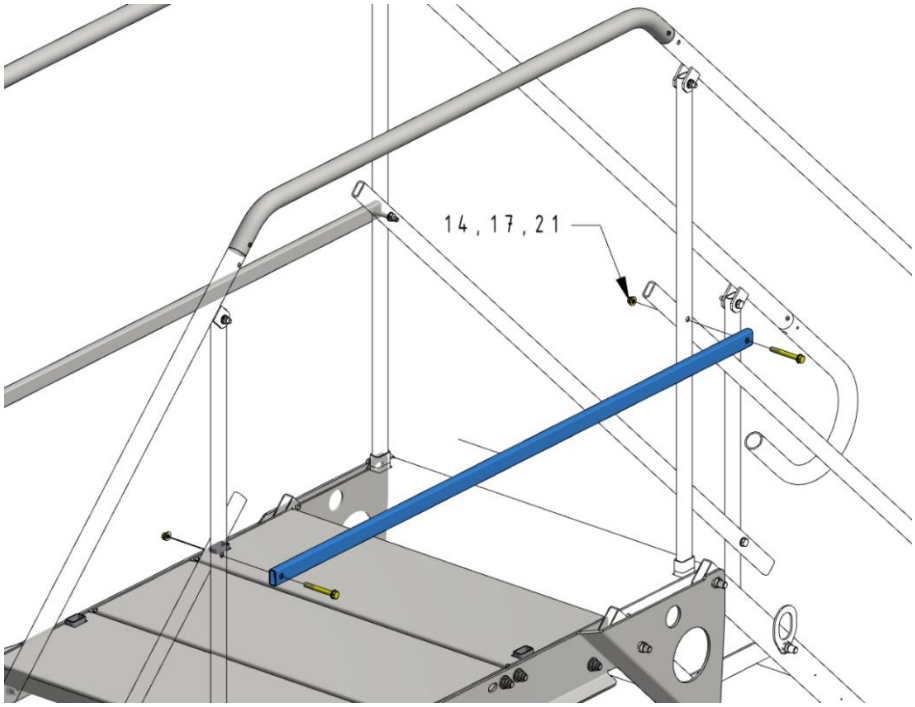
1. Remove top feet - see section p. 4.5.2
2. Remove the upper handrail ends - see section p. 4.5.1



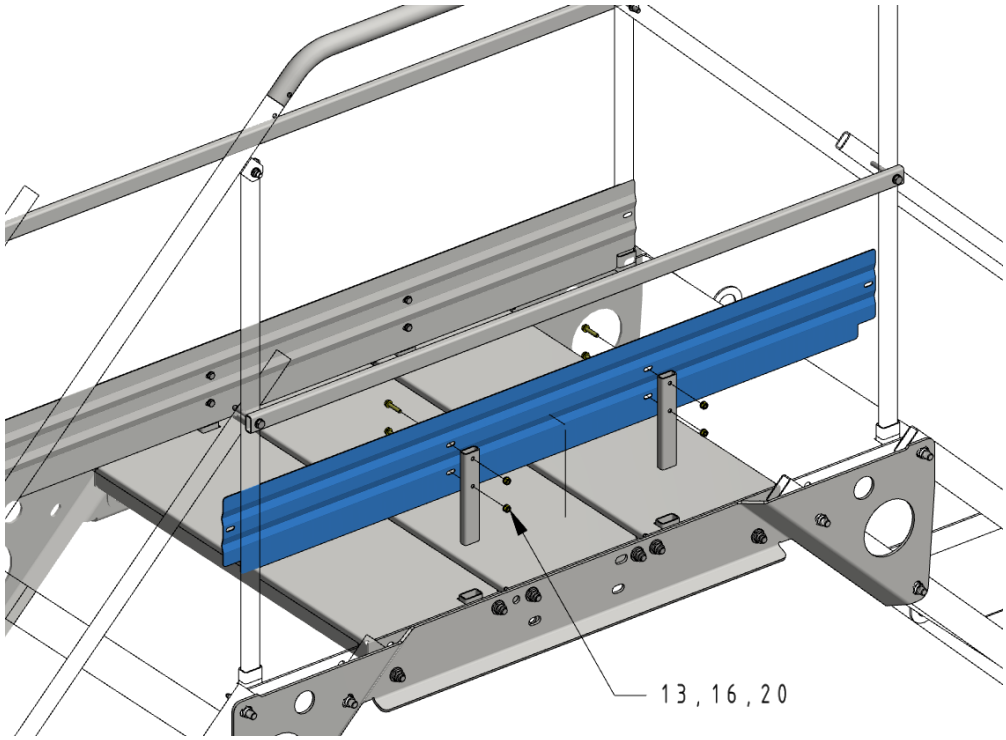

### 4.7.2. Installation of the handrail - slide the handrail onto the handrail ends and screw in place with screws..



4.7.3. Assembly of the crossbar - The crossbar should be bolted to the stair posts




4.7.4. Assembling the toeboard - the toeboards should be bolted to the D-TAS-063 brackets and inserted into the holes in the footbridge





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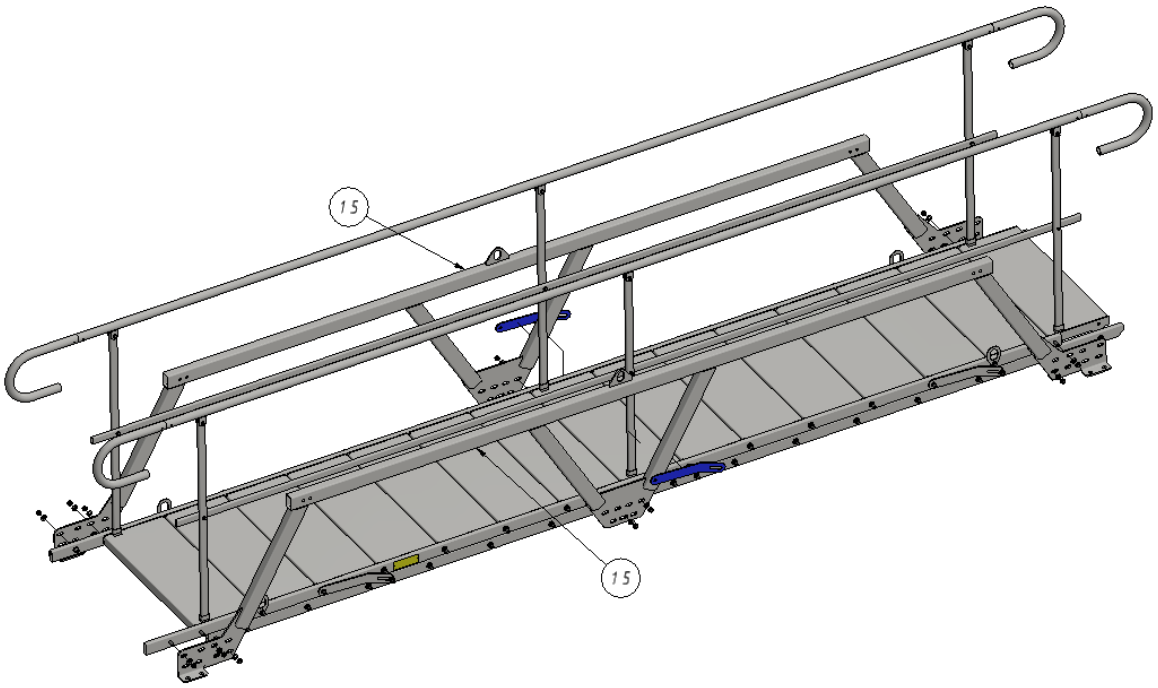
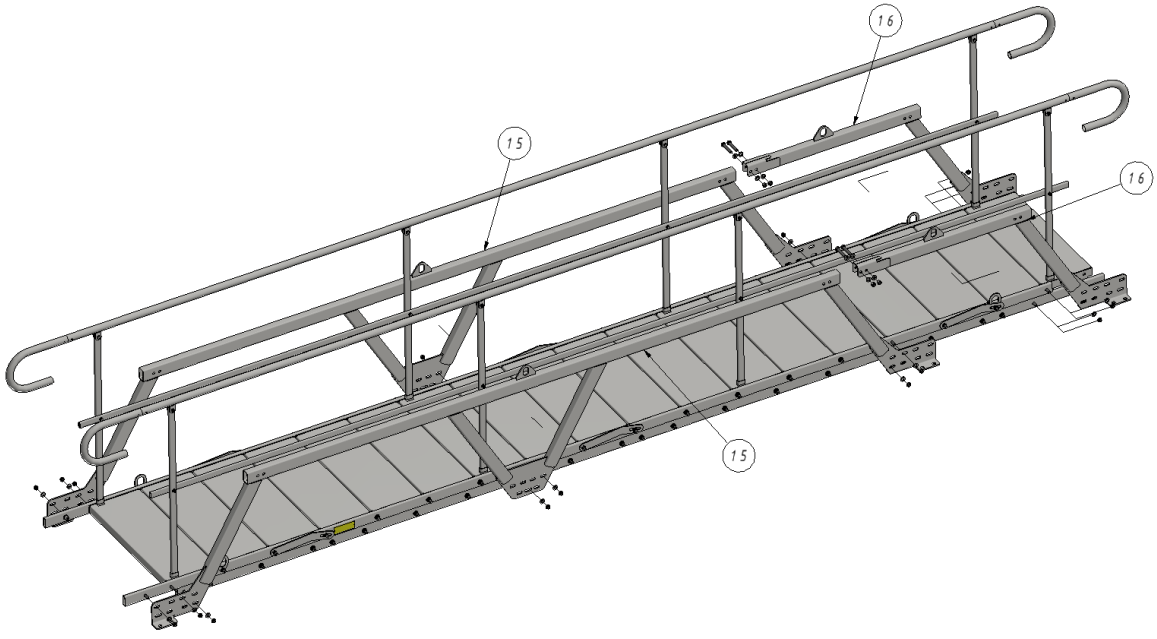
## 4.8. Assembly of the truss

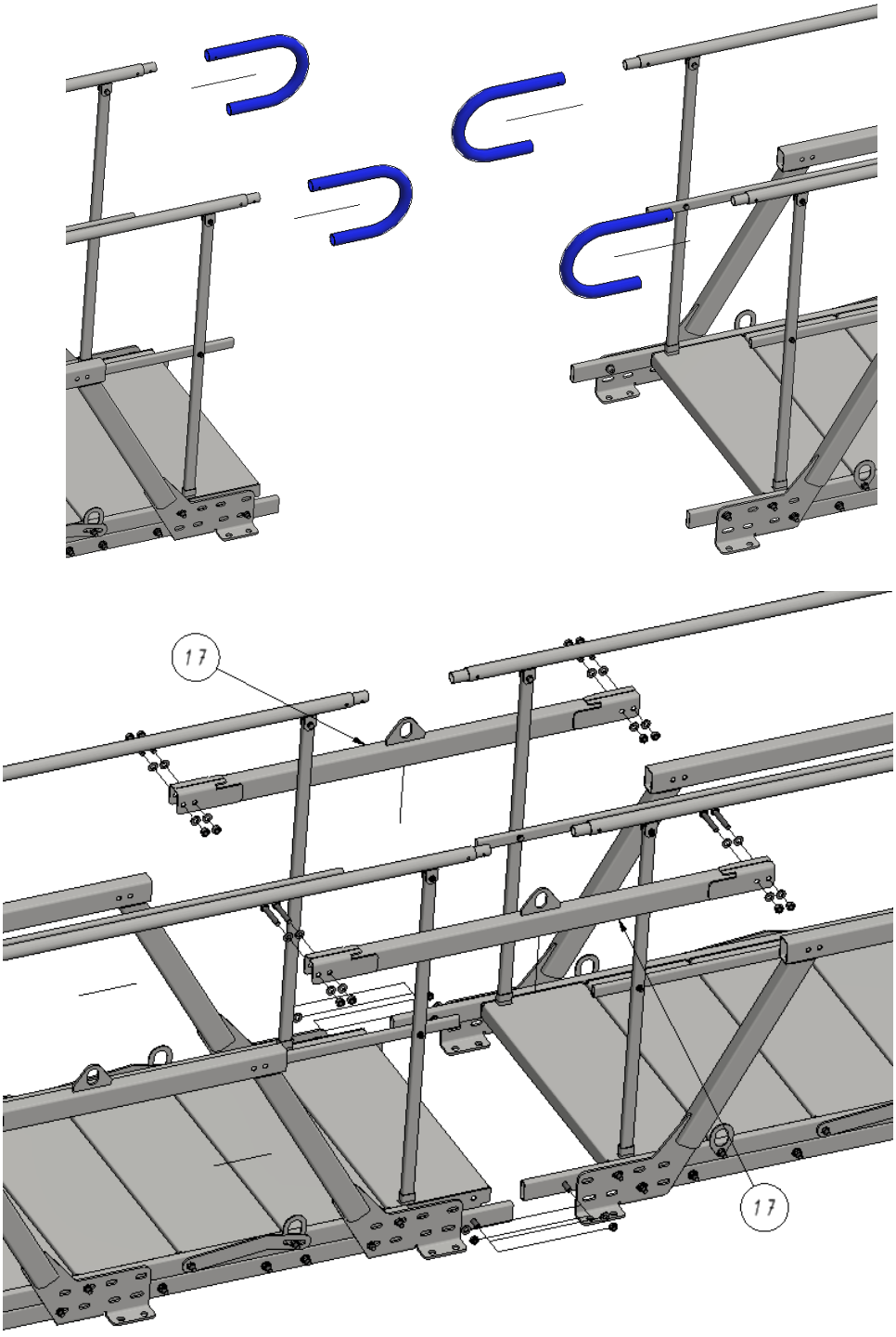
4.8.1. When installing the TAS-WB1 truss to a staircase with 15 steps, the central connectors TAS-L4 must be removed. The truss is bolted together with bolts for mounting the steps.

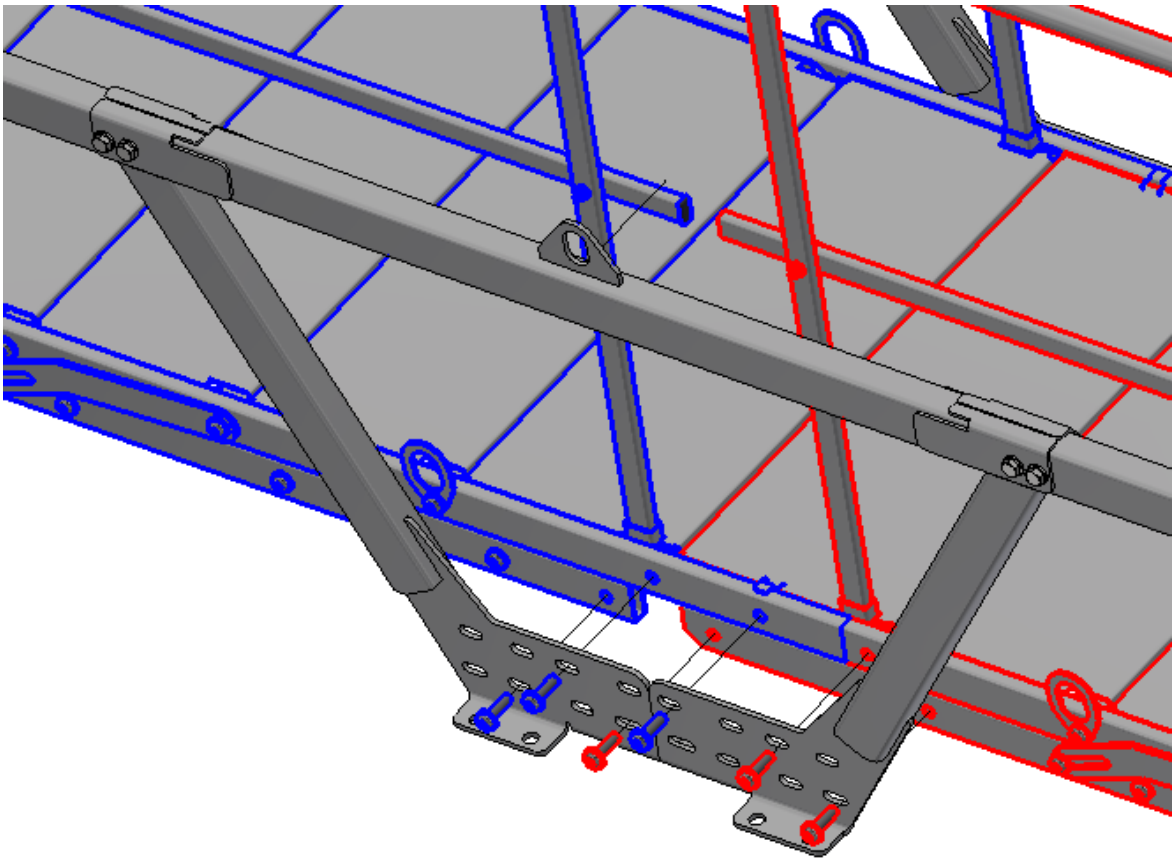



4.8.2. When fitting the truss to a staircase with 18 steps, the TAS-L4 connectors do not need to be removed. The TAS-WB1 truss is screwed with the bolts used for mounting the steps, the TAS-WB2 element is screwed to the TAS-WB1 element using the connectors included in the TAS-WB1 element set.



4.8.3. When connecting two staircases with a truss, they should be bolted together at the base using the connectors used to assemble the steps and fastened together at the top with the TAS-WB3 beam using the connectors included in the TAS-WB3 beam set. The ends of the railings must be removed before joining the stairs. The fastener sets used to connect the truss elements to the stairs should be tightened using 60% of the torque shown in Tab. 5.





4.9. Installation of supplementary railing. Unscrew the nuts, slide on the railing tighten the nuts

## 5. Installation of stairs and footbridge

Assembly should take place on a pre-prepared substrate that is level and provides a stable support for the staircase throughout its service life. Due to the temporary use of the stairs, assembly on reinforced concrete slabs, concrete blocks or wooden blocks is permitted. If timber blocks and blocks are used, it is a required that they are set into a hardened gravel bed with an effective drainage system in a secure and stable manner. When installing on the ground, an effective drainage system is required. In addition, the staircase must be anchored using the holes in the base feet; if the staircase is installed on the ground, the minimum anchor length is 40 cm.

It is possible to combine stairs to create a communication route leading to the building floors. In this case, a combination of maximum two stairs is permitted (E.G. 12+12=24, 18+6=24). It is necessary to support the flight; two PR-1 or PR-5 supports should be used for this purpose.

The distance from the edge of the excavation and the angle of the stairs are shown in Figure 3.

Stairs of 6, 9, 12 steps can be used as a footbridge over the excavation, the minimum distance at which the footbridge must support the edge of the excavation on one side and the other side is D = min 500 mm. The 15-step and 18-step staircase can be used as a footbridge after the installation of a truss in the form of TAS-WB1 and TAS-WB2 elements. It is possible to combine 15 and 18 step staircases equipped with trusses into 15+15, 15+18, 18+18 step staircase configurations, the number of elements is shown in Tab. 5. In this case, the minimum distance at which the footbridge must butt up against the edge of the excavation on one side and the other side is D = min. 700mm. In addition, the footbridge must be anchored to the ground.

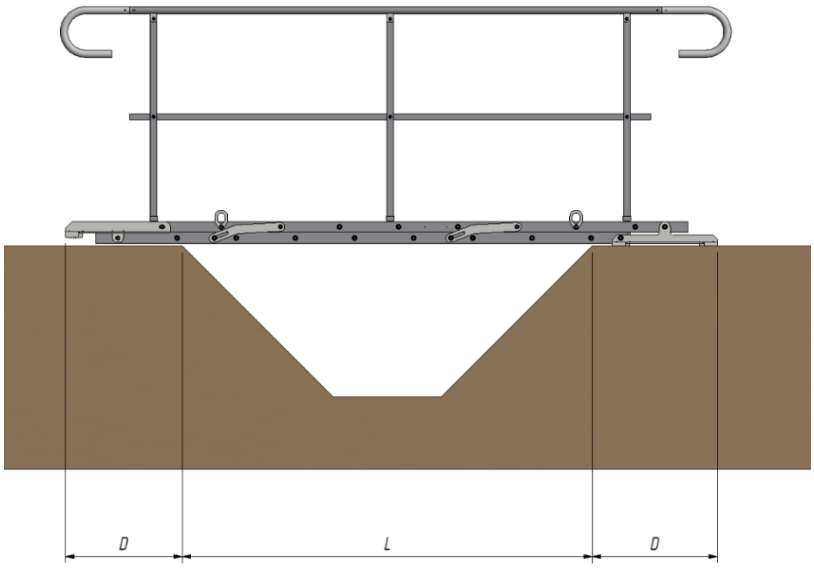



Fig. 2. Footbridge over the trench.

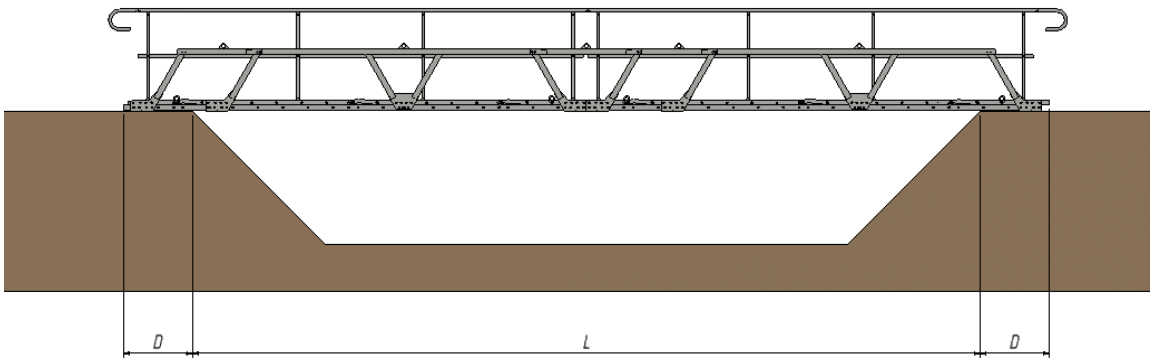



Fig. 3. Footbridge of two stair flights reinforced with a truss.

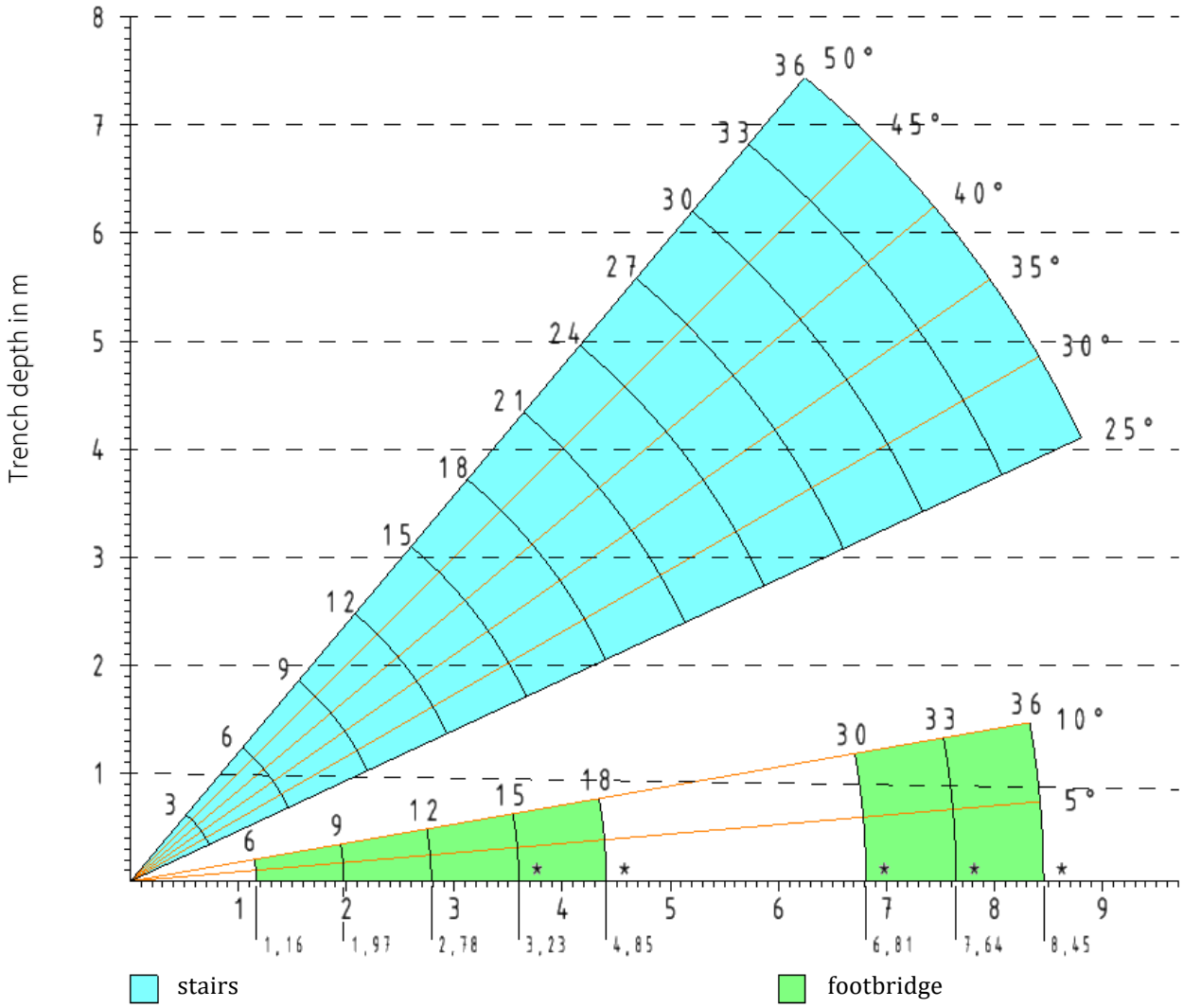



Fig. 1. Angle of inclination and distance from the edge.
* footbridge reinforced with a truss.

The stairs must be installed in the excavation with at least two skilled workers and a crane.

1. Prior to installation, the installation zone must be demarcated so that it does not interfere with ongoing construction work and does not create a hazard.
2. Determine the location of the foundation of the stairs so that they do not interfere with the construction work being carried out and do not create a hazard.
3. Prepare the location of the stairs
4. Lift the stairs using a lifting device and place in the excavation on the prepared ground
5. Rest the whole against the top edge of the trench.
6. Immobilise by anchoring and tightening the locks.

For 15- and 18-degree staircases, it is recommended to set the angle of the staircase in advance and to tighten all bolt connections to approximately 60% of the tightening torque prescribed for the respective diameter and class of connector, see Table 5.

## 6. Operating conditions

The basis for the proper use of the staircase is its correct positioning. This mainly concerns the proper levelling of the substrate on which the stairs will be placed. Too much deviation from the horizontal will cause all the steps to be misaligned, which can cause operational difficulties and the danger of an accident. Therefore, the staircase should be checked periodically to ensure that the substrate on which it stands has not moved, which could cause the staircase to deviate from the horizontal, and the threaded connections should also be checked to ensure that they are tight.

To ensure proper operation when using the staircase, the following steps must be taken when assembling the individual components.

- restrain the lower part of the staircase to prevent sliding and rising
- restrain the top of the staircase by ensuring that it is supported by a stable edge in the form of a concrete block or wooden block.
- Tighten the lock

Adjustment and setting activities also include checking and possibly tightening bolt connections.

## 7. Dismantling

Before dismantling, a safety zone must be defined. Removal of the footbridge involves pulling it down from above the excavation using a lifting device after first ensuring that it is not restrained to either edge of the excavation. The dismantling of the staircase must be carried out in the reverse order to the installation. The operation should be carried out by at least two qualified personnel.

## 8. Disposal

Store, manage or dispose of packaging and used equipment in accordance with the current recommendations and requirements set out in the Waste Act of 27.04.2001 (J.L. 2001 No. 62 item 628) as amended.