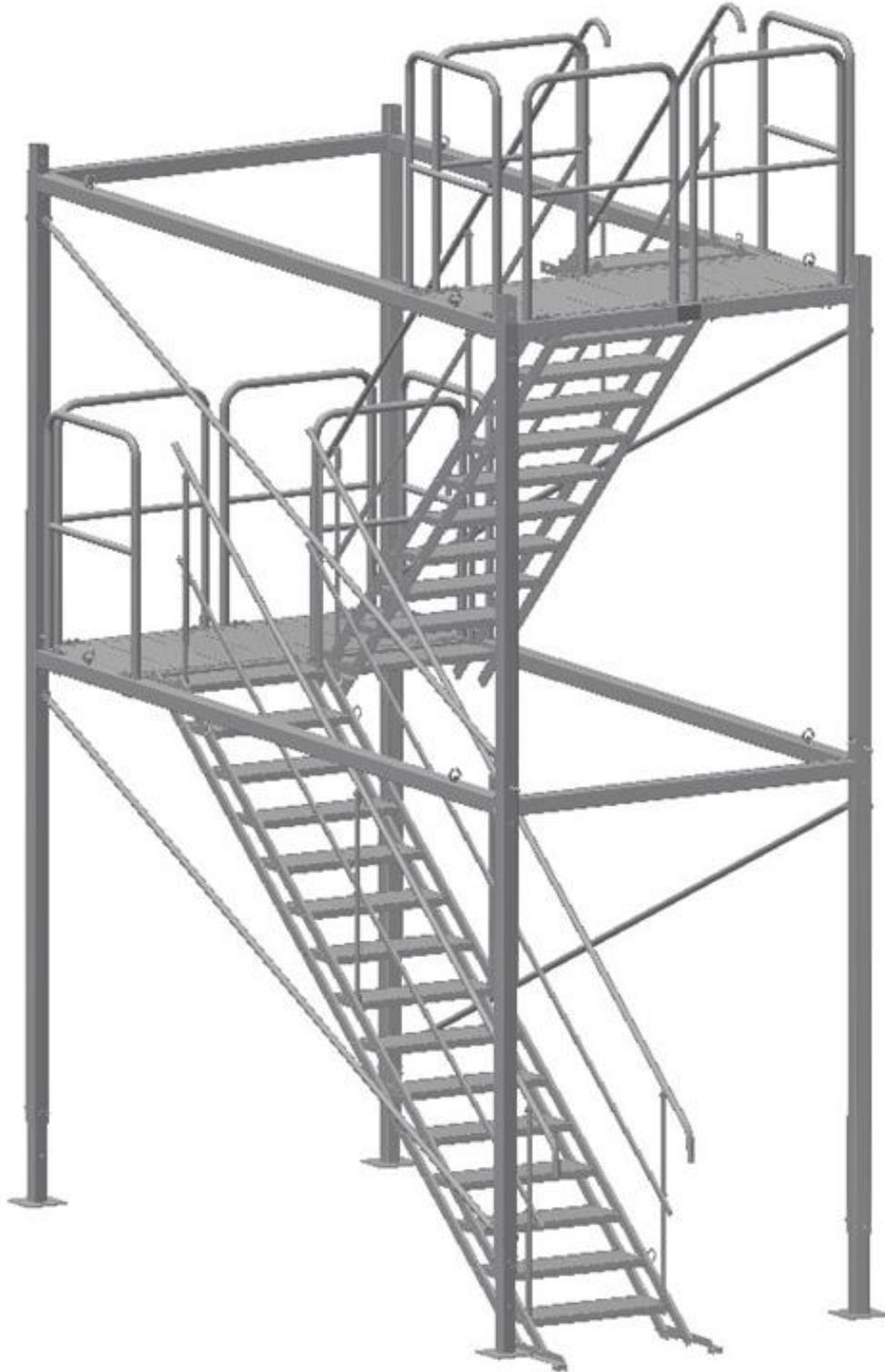


User manual SAT staircase



SAT staircase

The unique feature of the Steel Staircase SAT is the high load and good accessibility due to the correct angle of inclination of the stairs. Due to the adjustable stairs, the system is available for all heights. The Steel Stair staircase SAT is always safe to enter, even in bad weather or with full hands. All our Staircases are provided with the European EN12811 quality mark. You are therefore assured of a high-quality and safe Staircase.

The staircase is supplied in the form of separate elements, such as landings, railings, steps, connecting pieces, stairs and poles. All components must be assembled in a specific order.

The staircase consists of modules that, depending on the requirement, can be stacked up to 4 layers. Taking into account a flat surface and attachment with anchors to permanent structures.

Parts

List of components

No	ID	Description	Quantity in the lower module	Quantity in the middle module
1	EPS-KS-S1	Post	4	4
2	EPS-KS-A1	Foot	4	0
3	EPS-KS-RA	Frame	1	1
4	EPS-KS-X1	Bracing	2	2
5	EPS-KS-O	Clamp 80x80	4	4

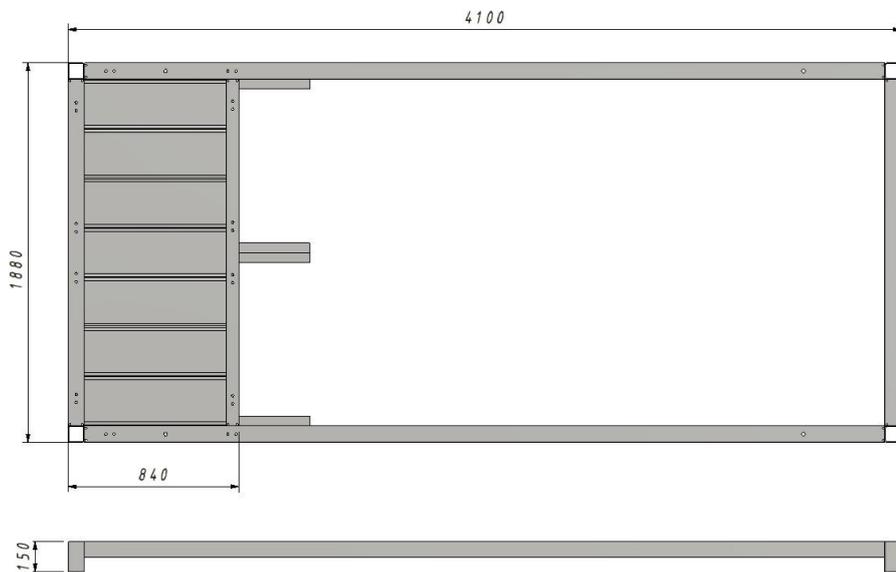
List of fasteners

No	Description	Quantity
A	Ring ISO 7089-12-200 HV	48
B	Moer SO 4032 - M12	24
C	Bout ISO 4017 - M12 x 110	16
D	Ring ISO 7089 -8 - 200 HV	8
E	Moer DIN 582 - M16 - 2	4
F	Ring ISO 7089 -16 - 200 HV	4
G	Bout ISO 4017 - M16 x 110	4
H	Bout ISO 4017 - M12 x 90	4
I	Bout ISO 4014 - M8 x 40	4
J	Moer ISO 4032 - M8	4
K	Bout ISO 4014 - M12 x 100	4
L	Borgpin 19 mm	4

List of stairs

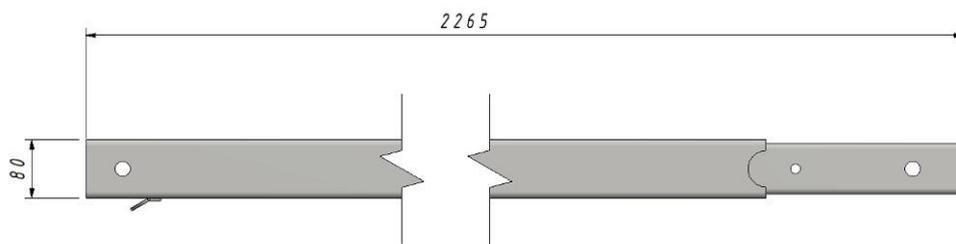
NO	ID	Description	Height
S1	EPS-SHD-12	12 step stairs	2.145 – 2.330 mm
S2	EPS-SHD-15	15 step stairs	2.330 – 2.515 mm
S3	EPS-SHD-18	18 step stairs	2.515 – 2.883 mm

EPS-KS-RA



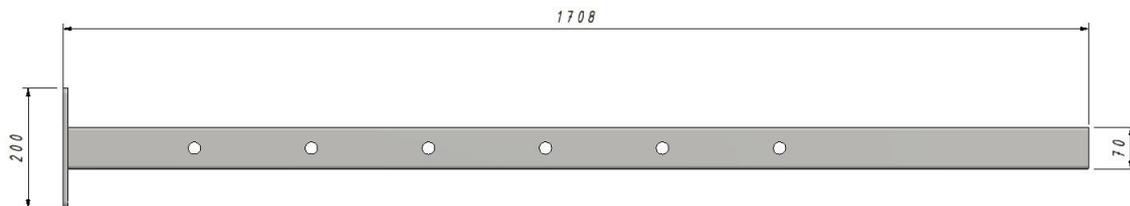
122.61 kg

EPS-KS-S1



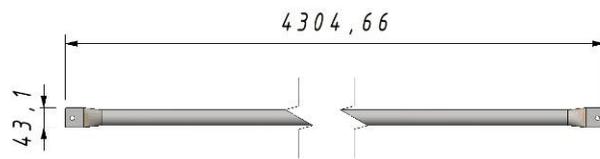
20.78 kg

EPS-KS-A1



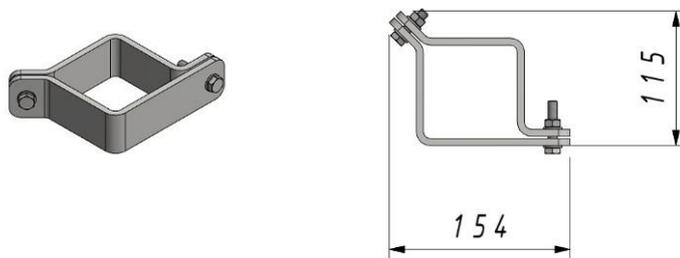
12.08 kg

EPS-KS-X1



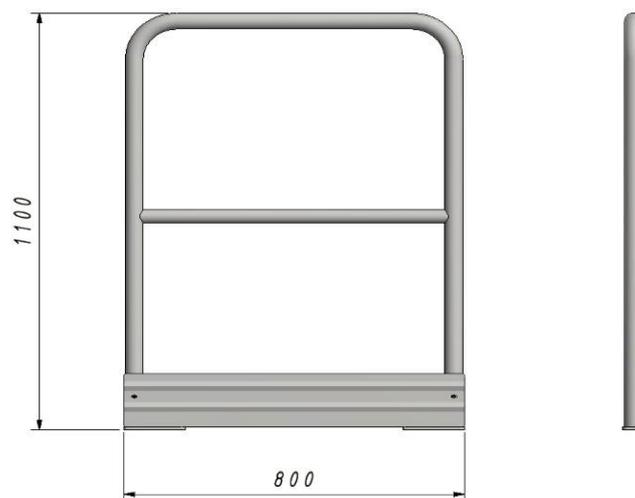
7.63 kg

EPS-KS-
O



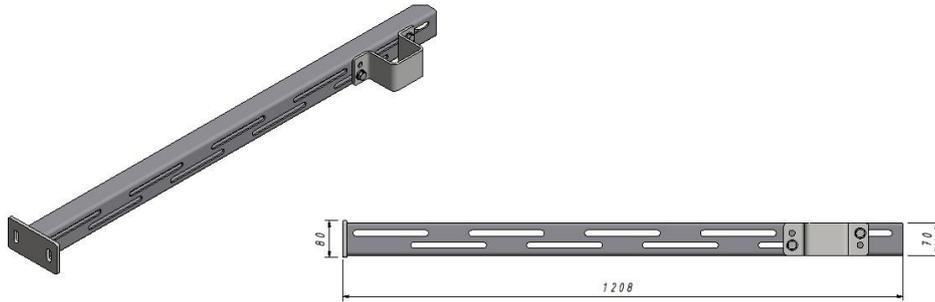
0.9 kg

EPS-KS-R1



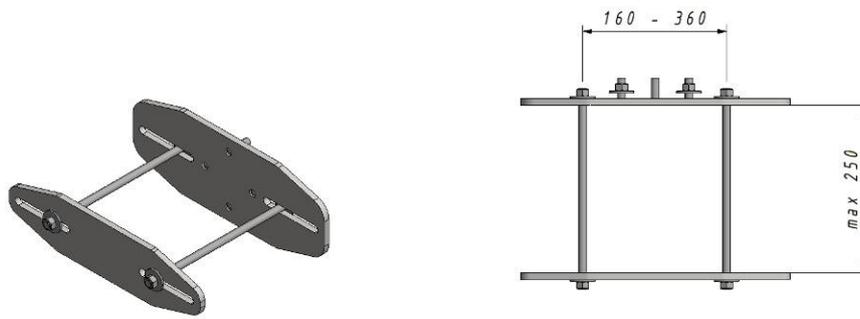
13.610 kg

EPS-KS-A2



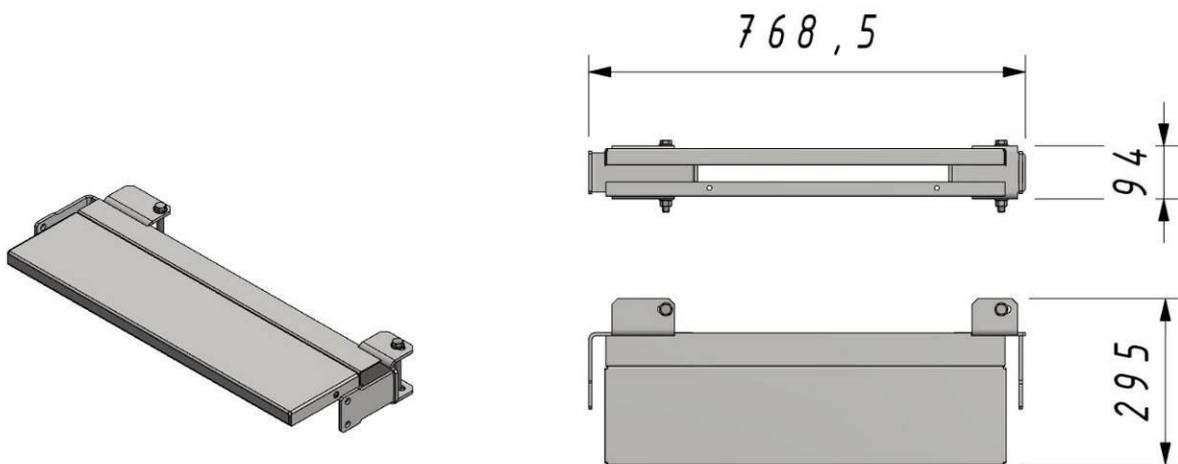
7.1 kg

EPS-KS-A3



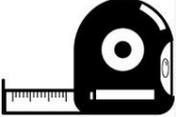
6.777 kg

EPS-KS-A5



8.3 kg

List of tools required for container stairs assembly

	Wrenches: 24, 18, 13
	Level
	Tape measure
	Lifter with at least 1 t capacity
	Height depends on the number of modules (max. 10 M)

Soecifcations

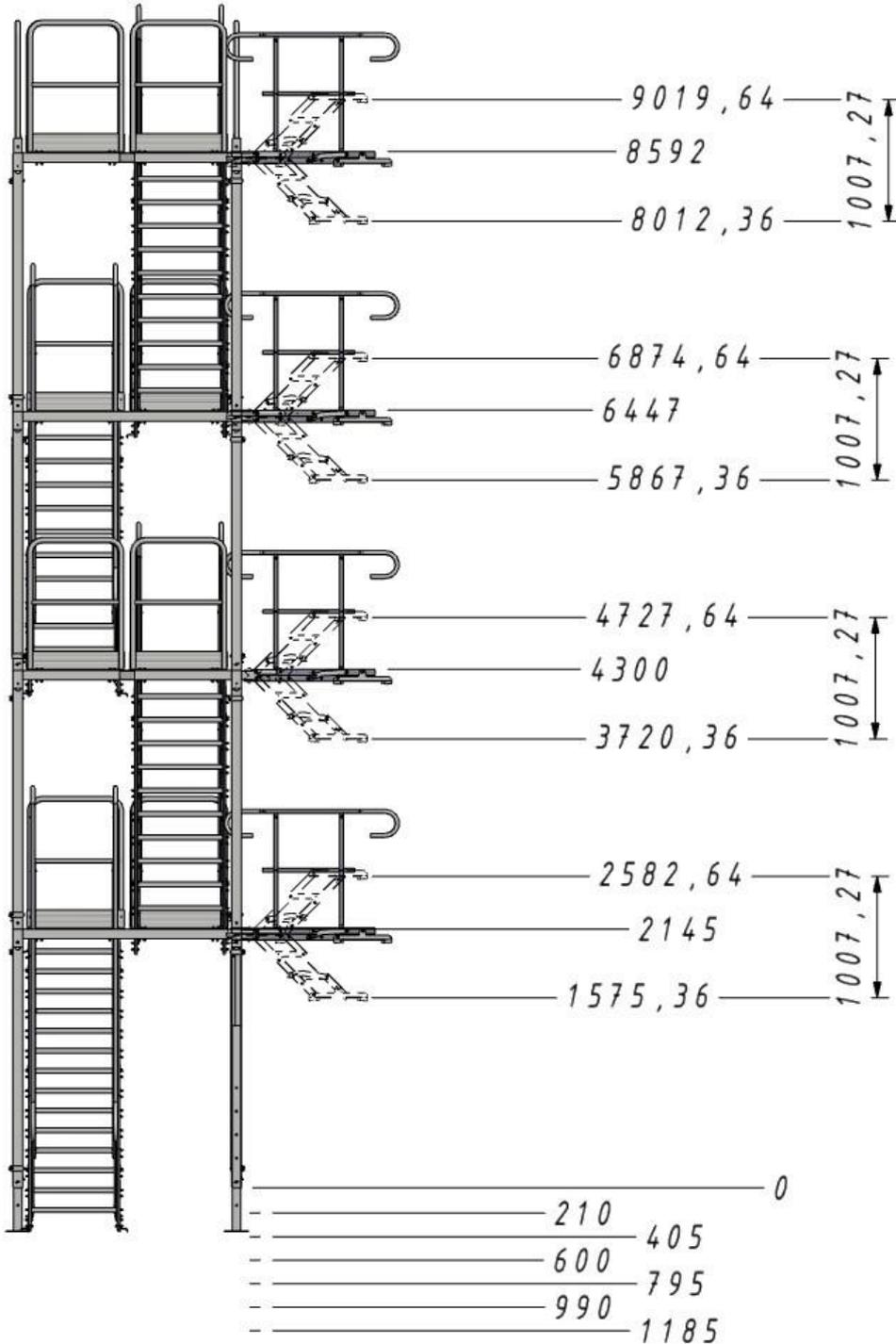
Before starting the assembly, check the quantity and condition of all elements. Plan the entrance and exit from the staircase, prepare the ground.

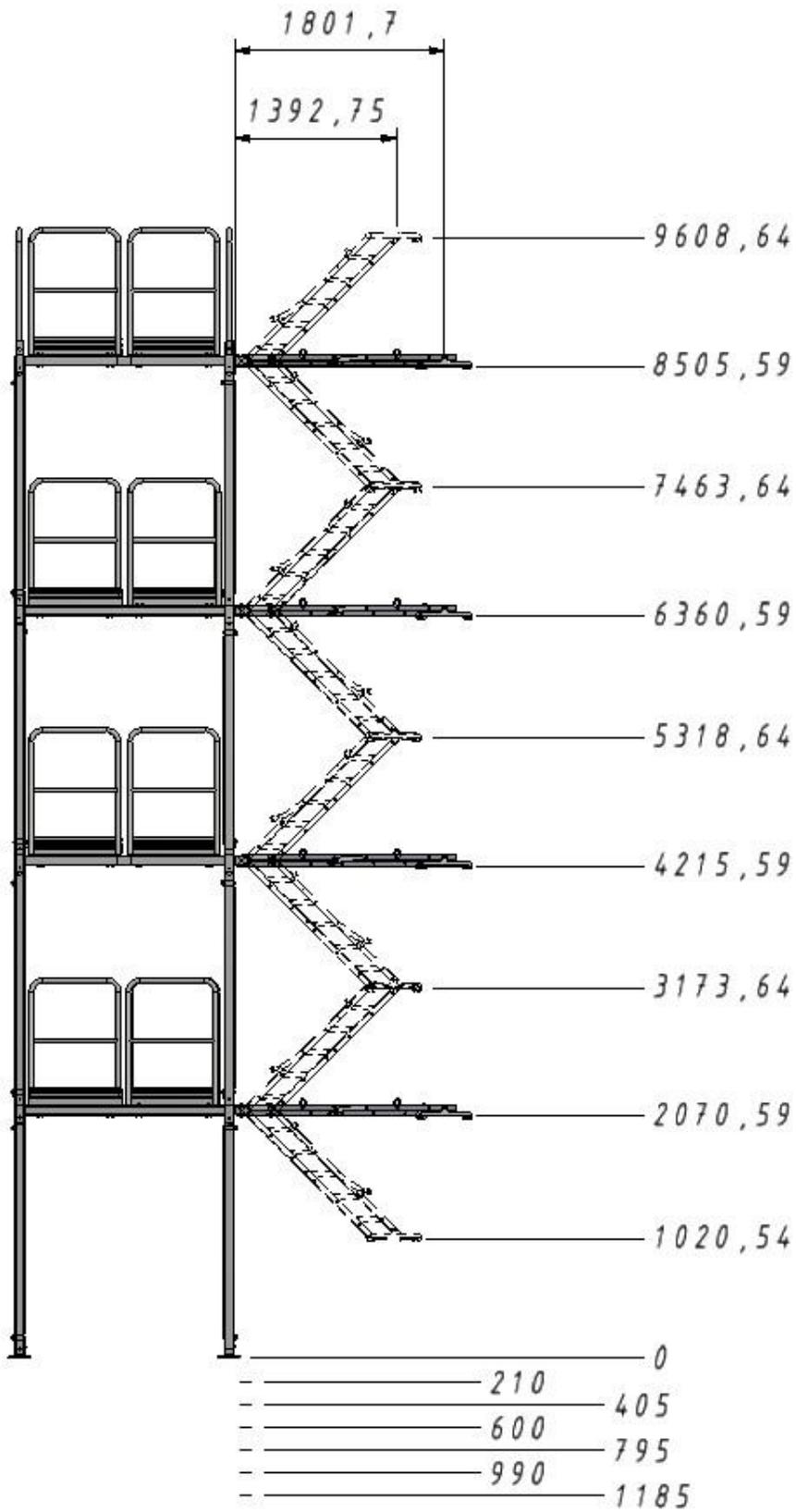
Standard module	Additional module							
1	0	2.145 mm	2.355 mm	2.550 mm	2.745 mm	2.940 mm	3.135 mm	3.330 mm
1	1	4.300 mm	4.510 mm	4.705 mm	4.900 mm	5.095 mm	5.290 mm	5.485 mm
1	2	6.447 mm	6.657 mm	6.852 mm	7.047 mm	7.242 mm	7.437 mm	7.632 mm
1	3	8.592 mm	8.802 mm	8.997 mm	9.192 mm	9.387 mm	9.582 mm	9.777 mm

Standard module	Additional module	Minimal	Maxim
1	0	1.575 mm	3.767 mm
1	1	3.720 mm	5.912 mm
1	2	5.867 mm	8.059 mm
1	3	8.012 mm	10.204 mm

Additionally, by using the adapter and TAS-3A or TAS-6A stairs, it is possible to additionally adjust the height of the descent from the staircase platform to the construction level. Adjustment is possible both upwards and downwards.

The possible descent heights with the use of additional TAS-3A or TAS-6A stairs are shown in the figures below.



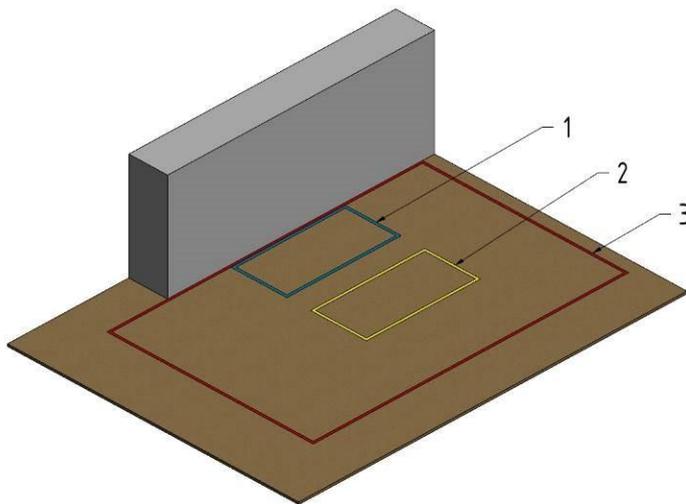


Assembly

Zone designation

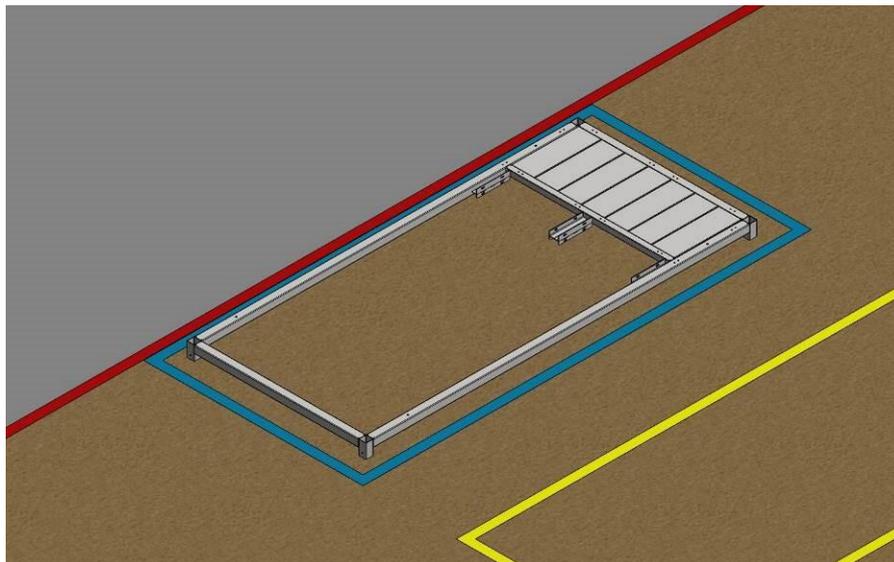
Designation of a safe assembly zone at least 6 m from the work carried out

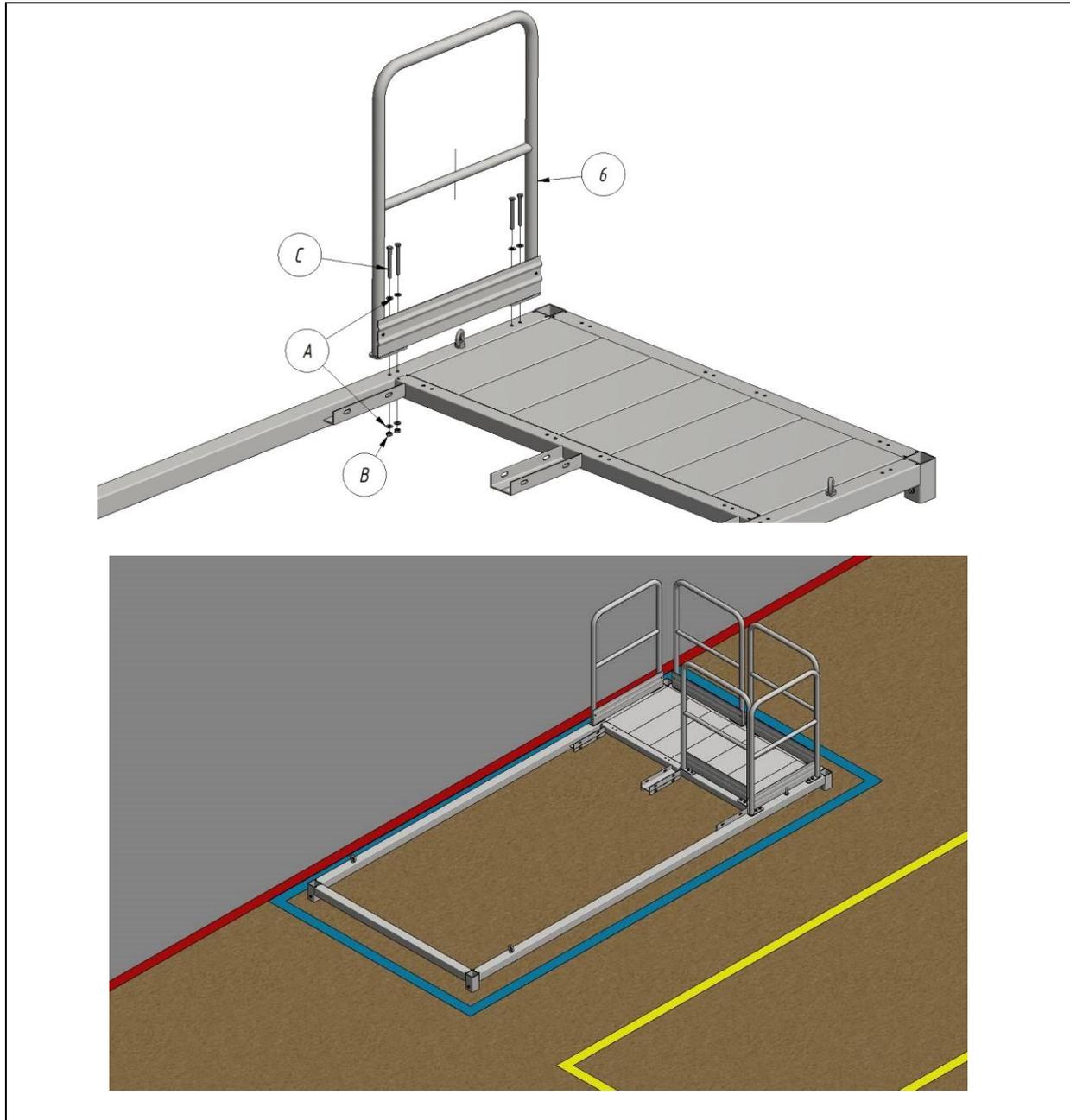
1. Staircase assembly site
2. Pre-assembly component site
3. Work zone



Assembly of the railings to the platform

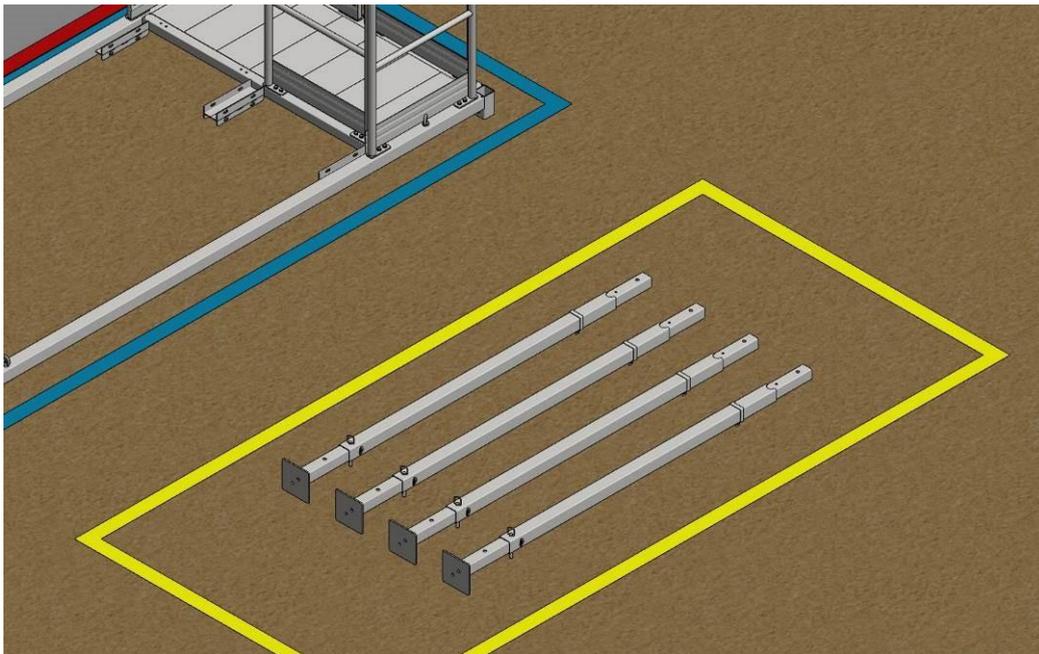
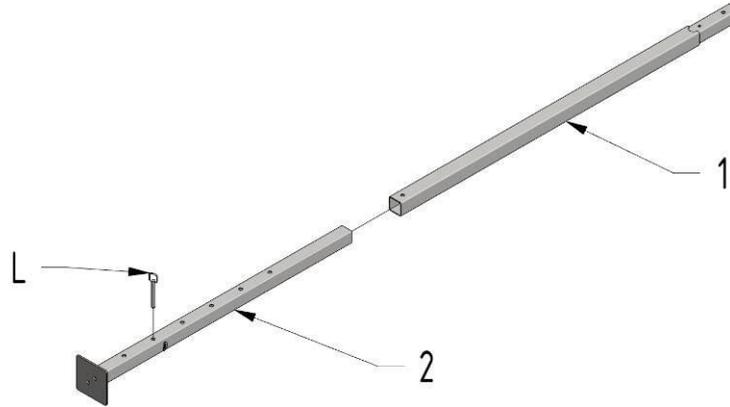
The railings should be assembled to the frame using a set of a bolt + 2 washers + a nut, repeat the activity for each railing. Omit the railing in the place of fixing the stairs leading to the platform.





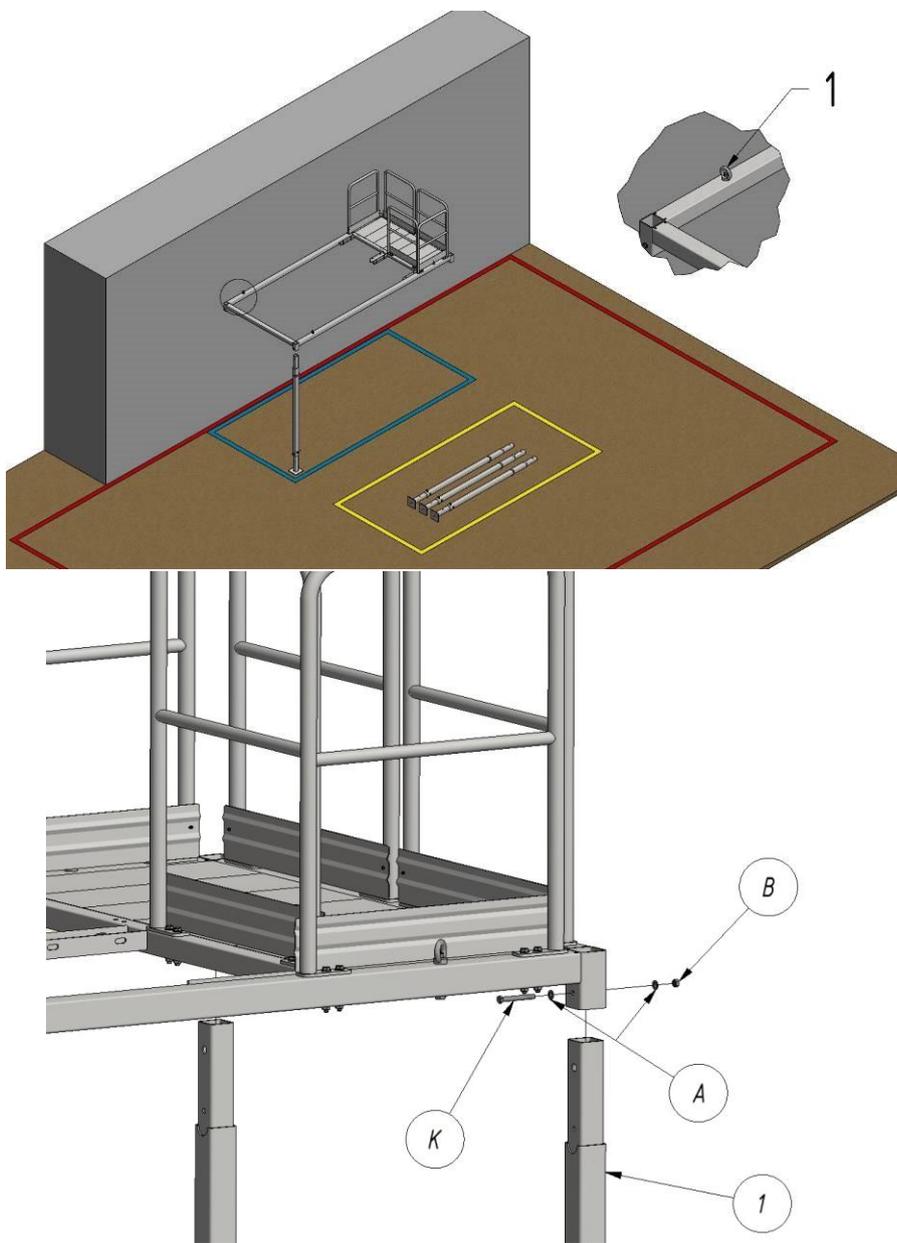
Foot assembly

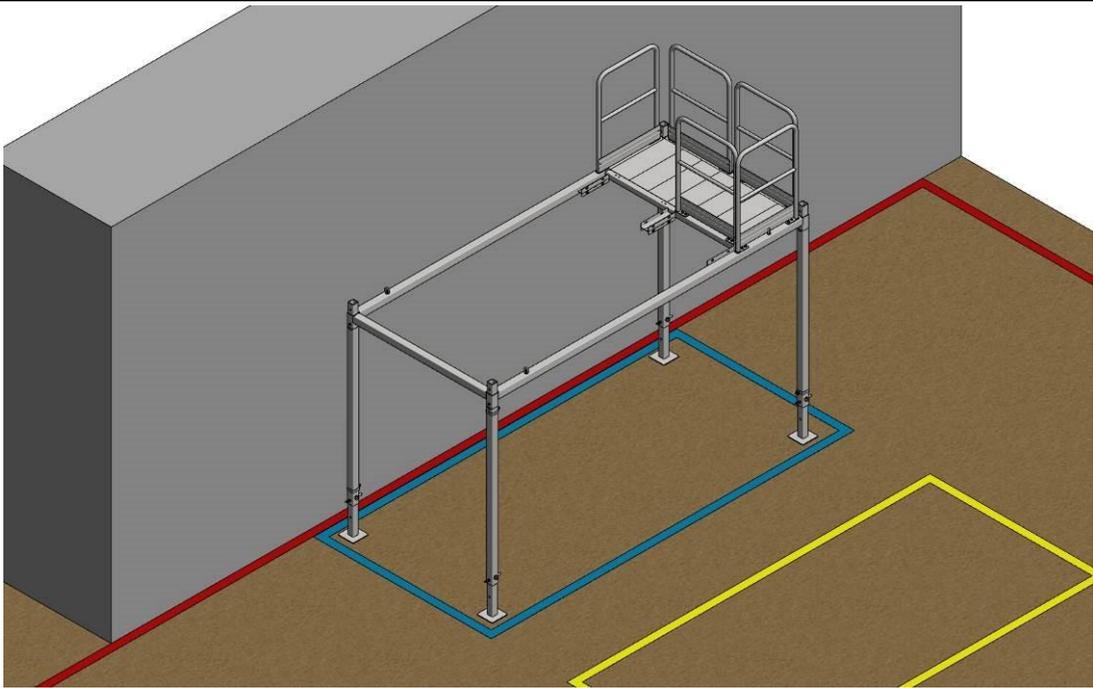
Set the height for each post as needed



Assembly of the post to the frame

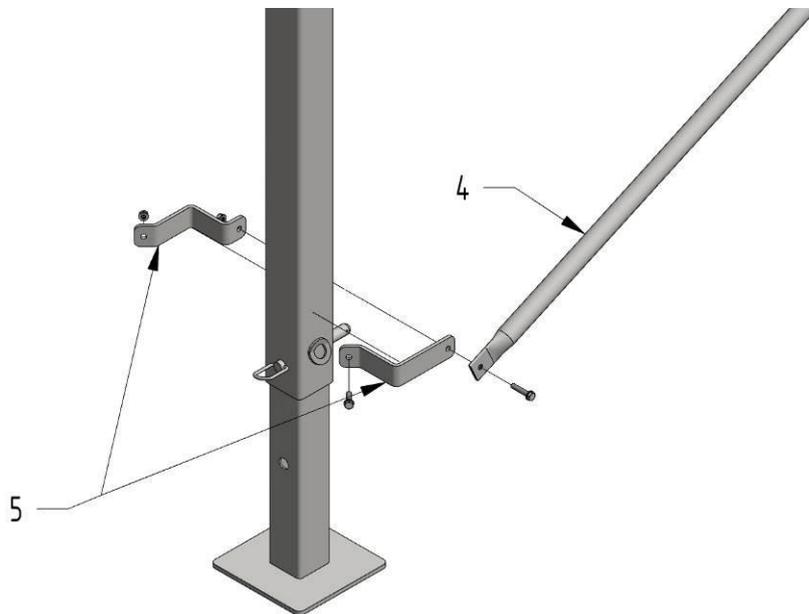
Lift the frame up gripping the ring nuts with the use of a lifter, then place the posts in the holes located in the frame and secure it with a set of a bolt + 2 washers + a nut.

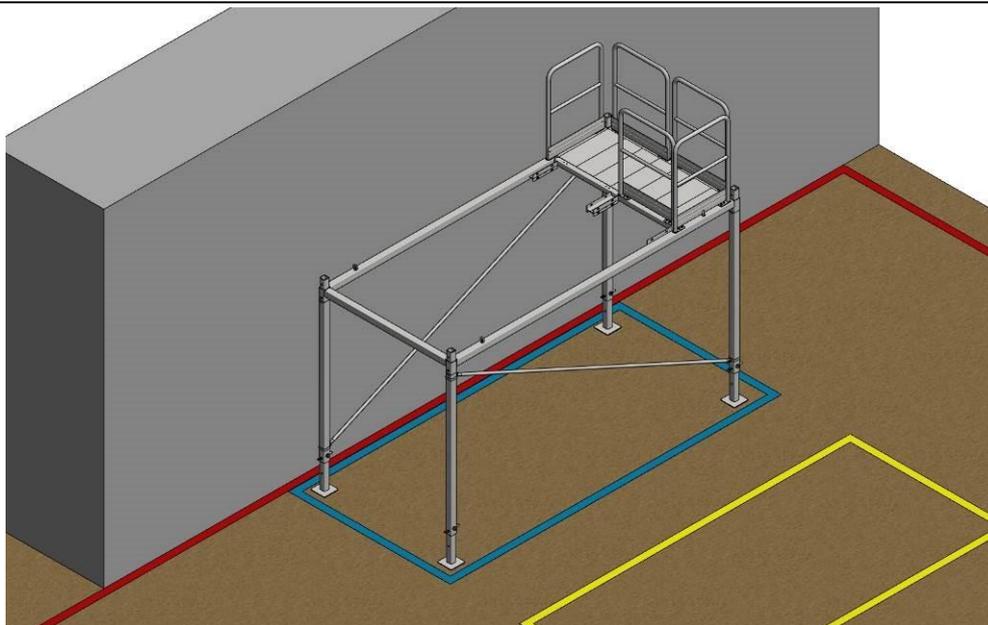




Bracing assembly

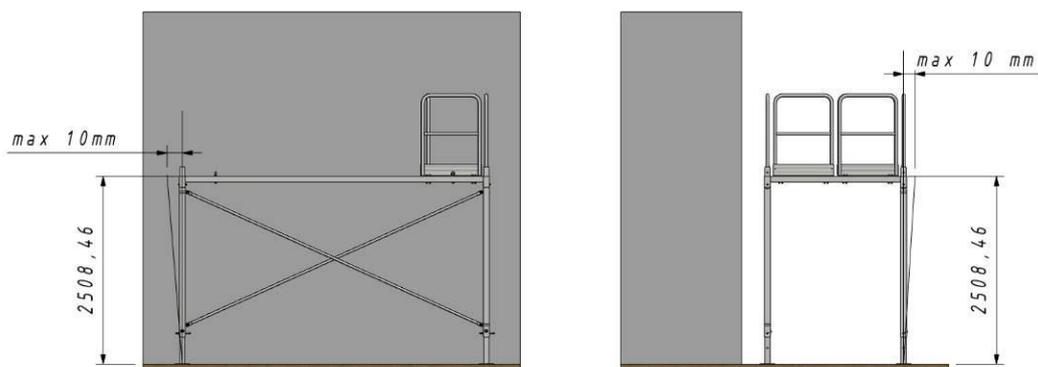
Assemble the bracings diagonally between the posts with a clamp.





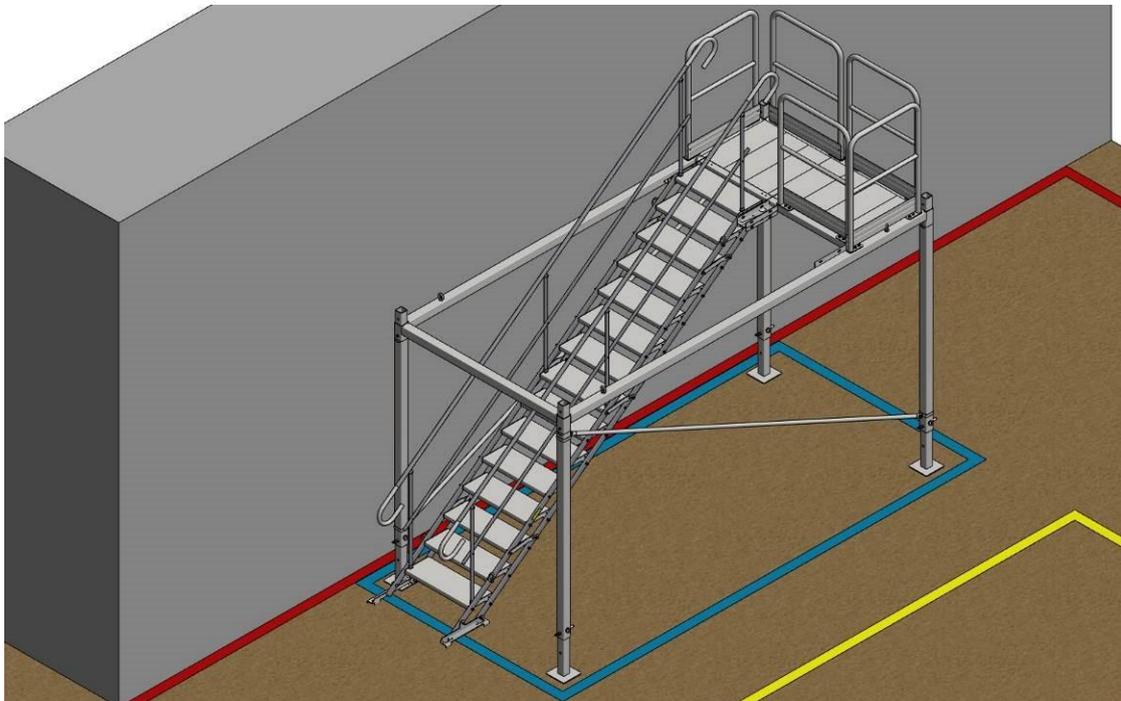
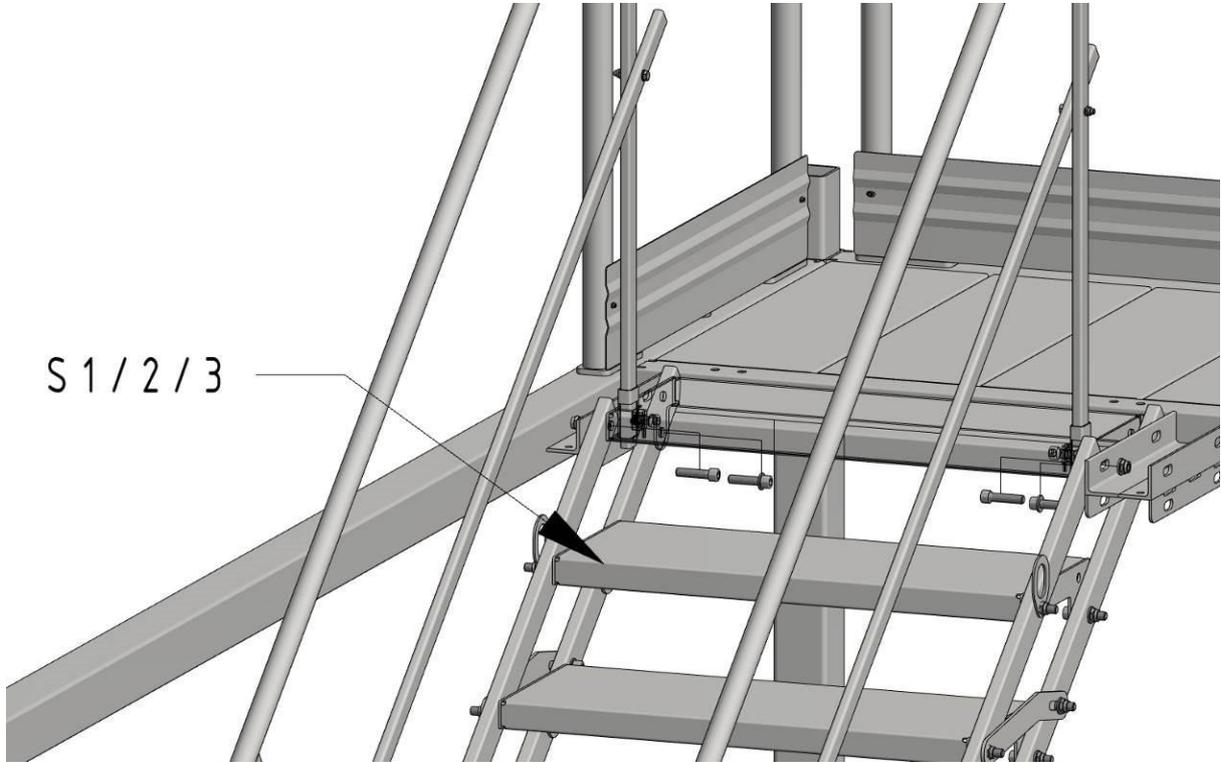
Inspection

Check and, if necessary, level the lower staircase module - check screw connections



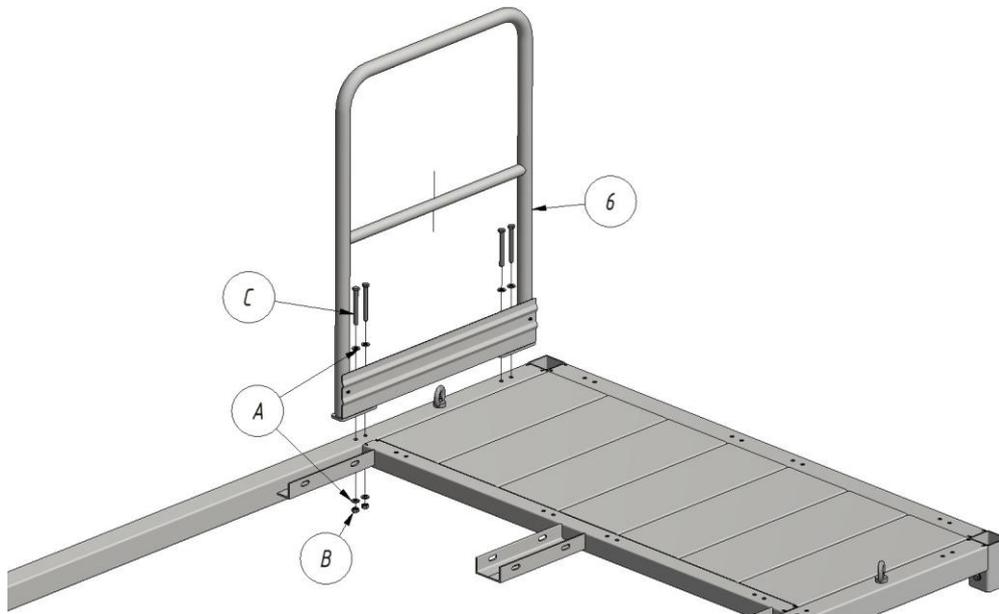
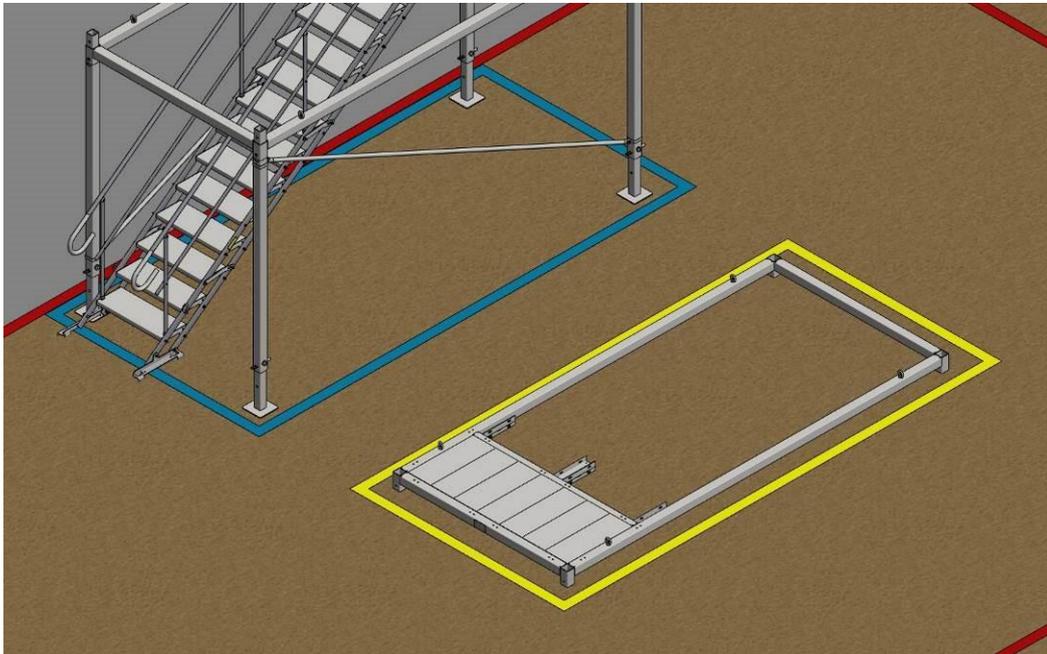
Stairs assembly

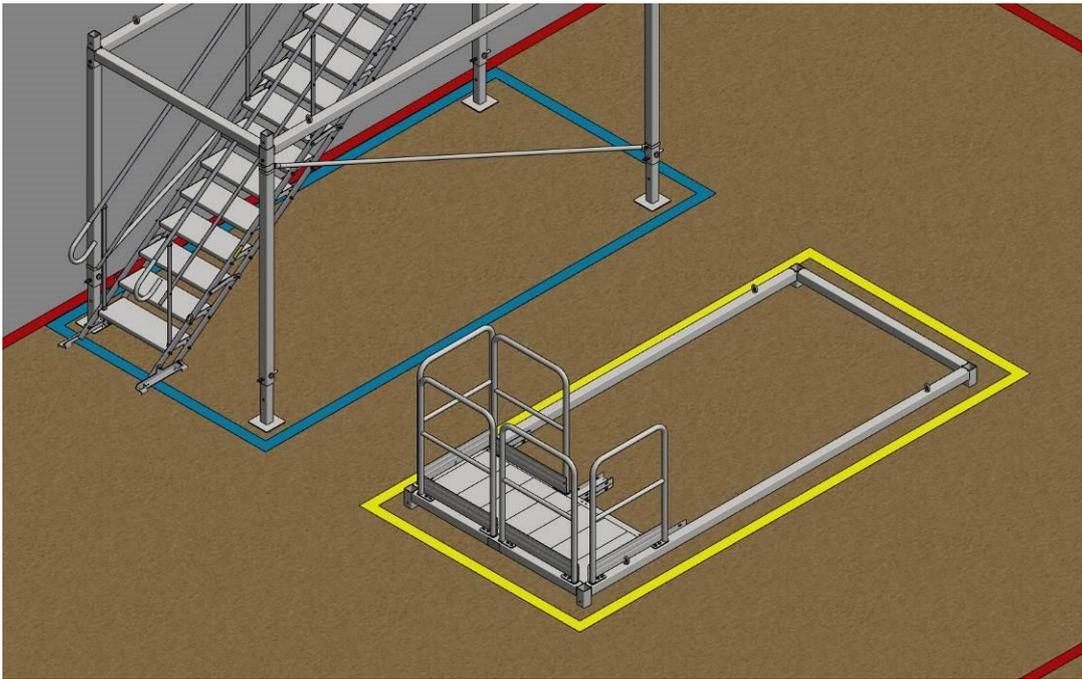
The choice of stairs in the lower module depends on the height set on the posts. The stairs are screwed to the module with a set of a bolt + 2 washers + a nut, used for assembly of the last step of the stairs.



Assembly of the railings to the middle module

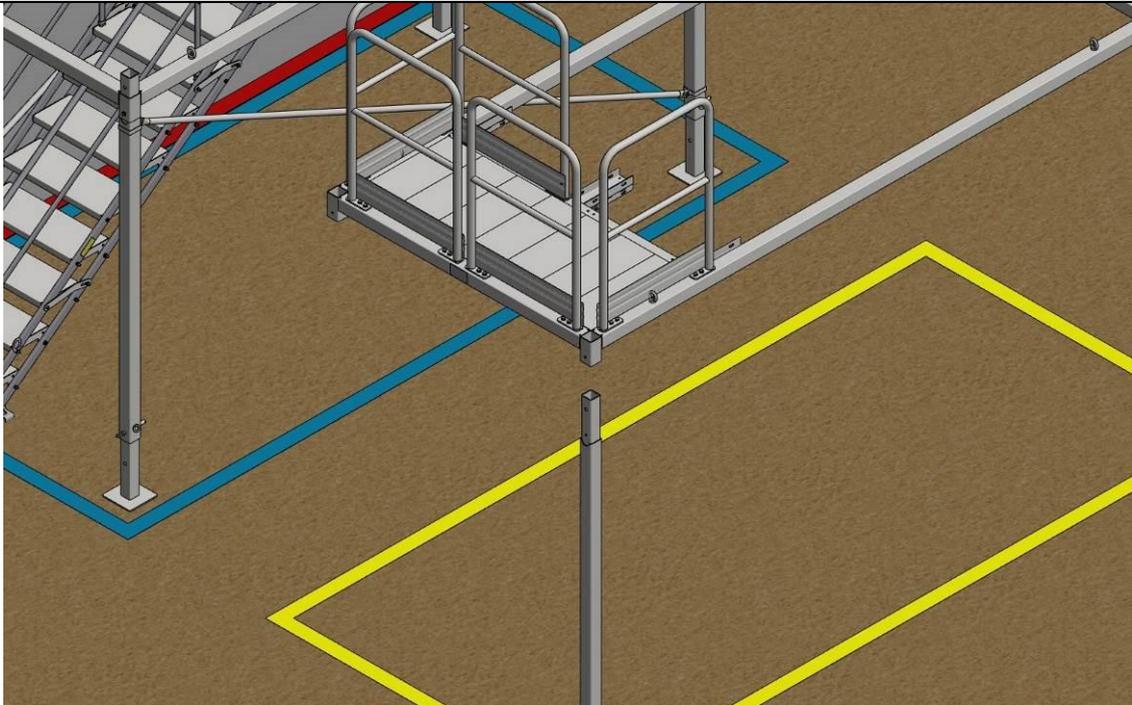
The railing should be assembled to the frame using a set of a bolt + 2 washers + a nut, repeat the activity for each railing. Omit the railing in the place of fixing the stairs leading to the platform.

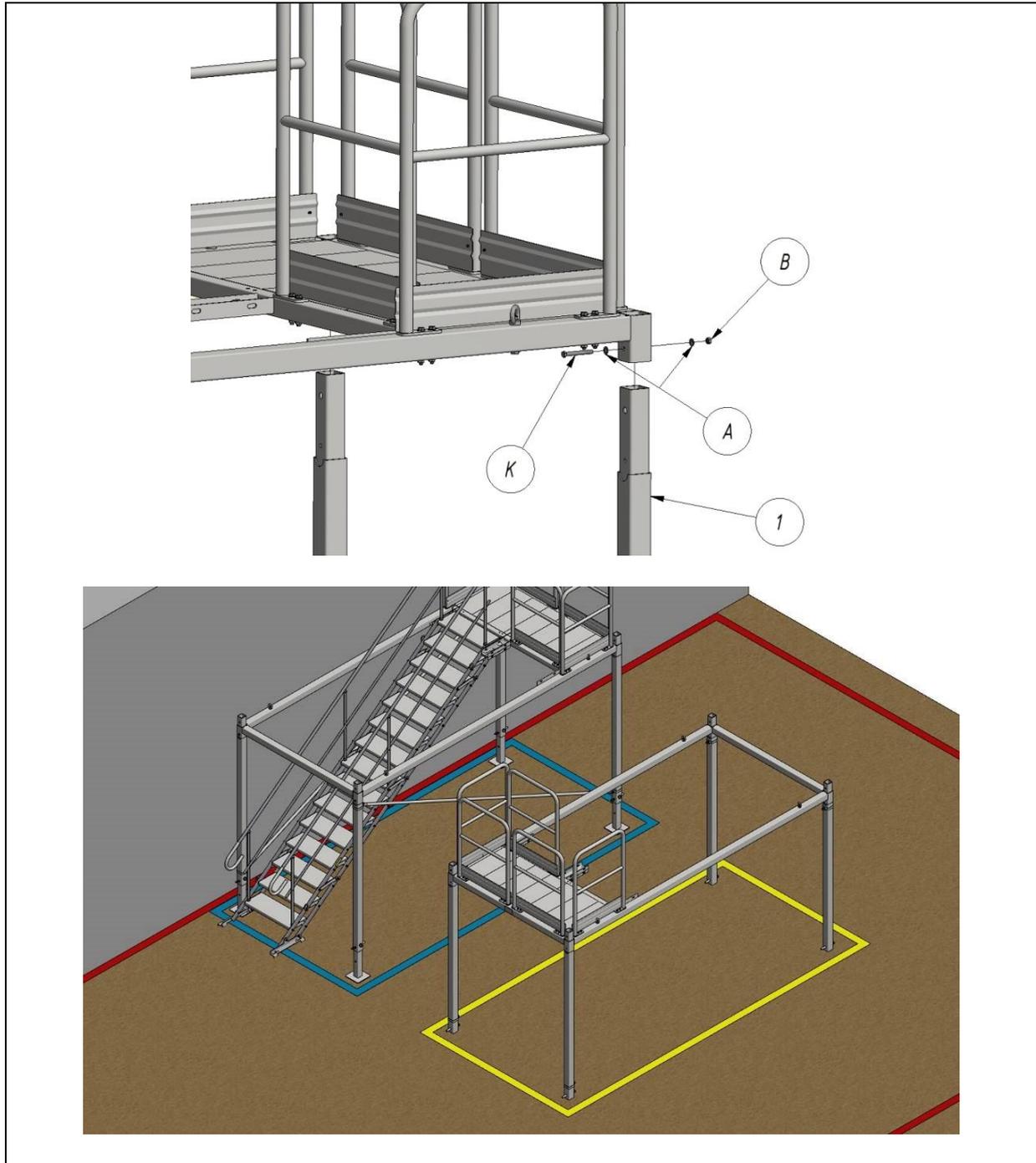




Assembly of the posts to the frame

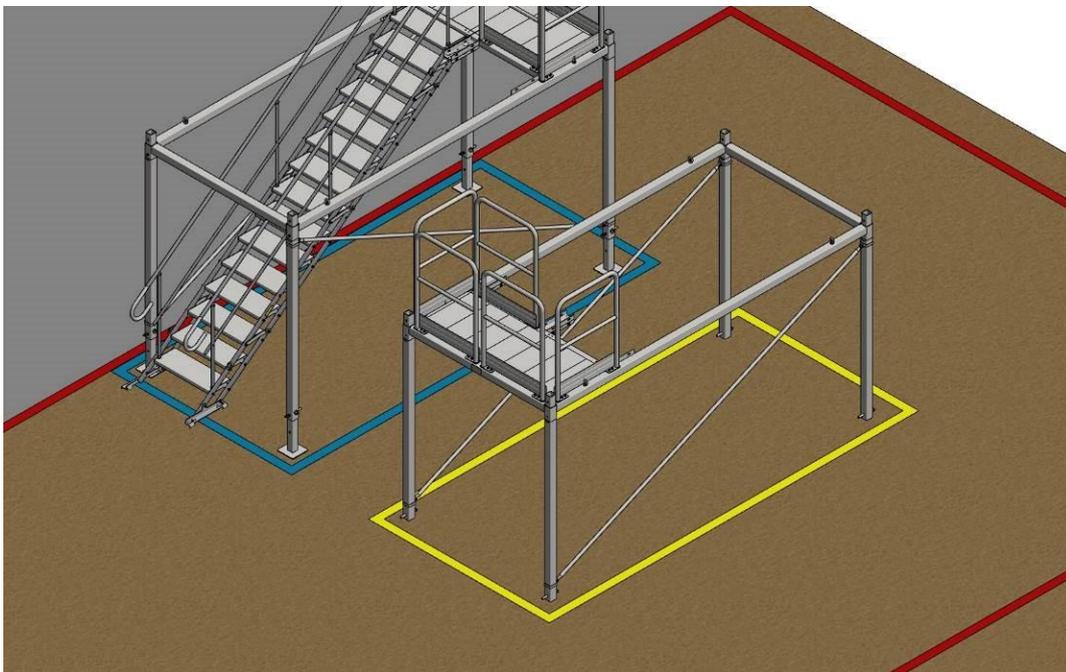
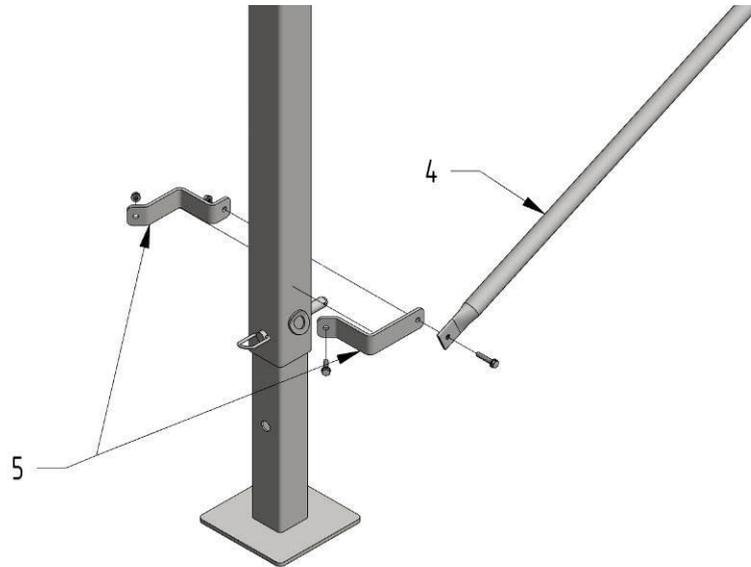
Lift the frame up gripping the ring nuts with the use a lifter, then place the posts in the holes located in the frame and secure it with a set of a bolt + 2 washers + a nut





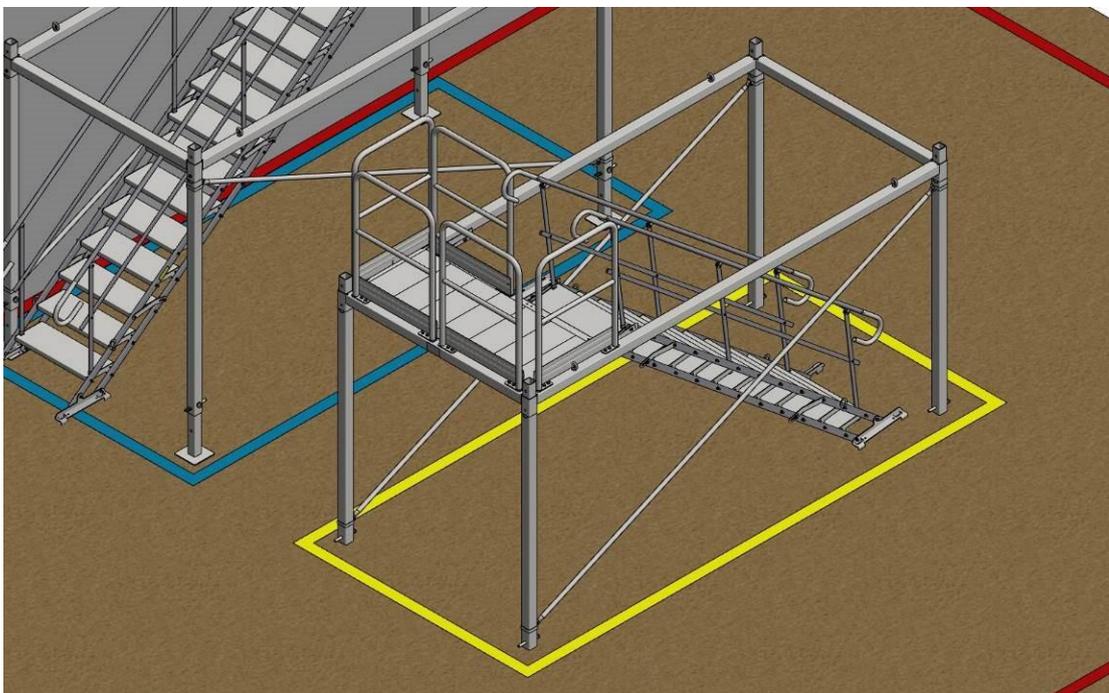
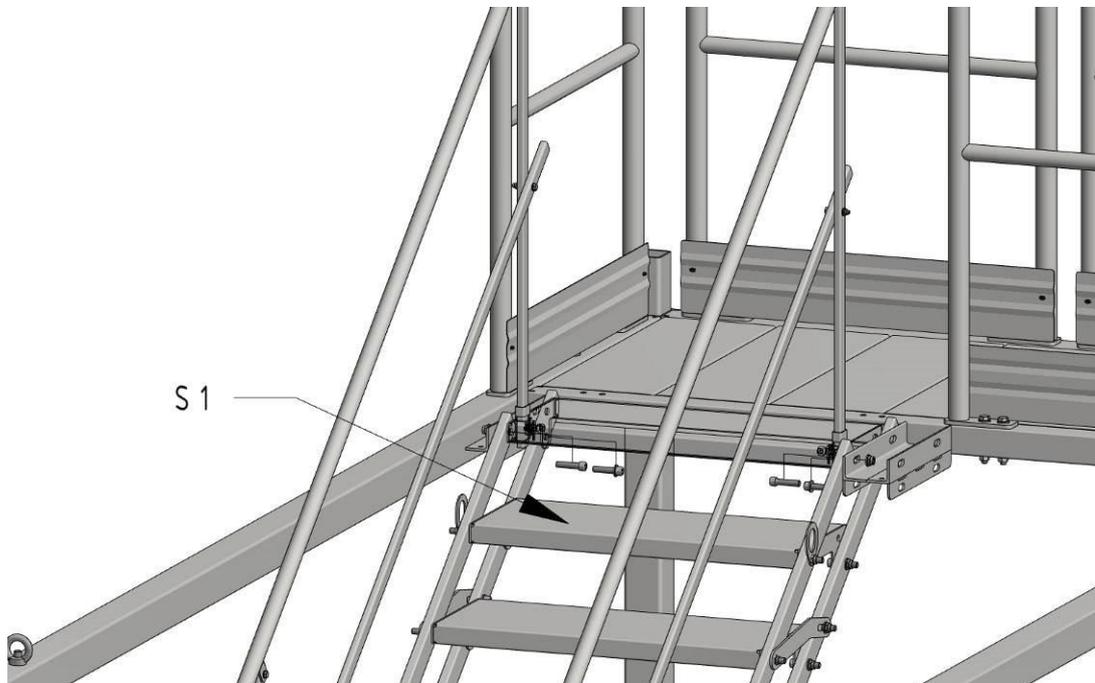
Bracing assembly

Assemble the bracings diagonally between the posts with a clamp.



Assembly of the stairs to the middle module

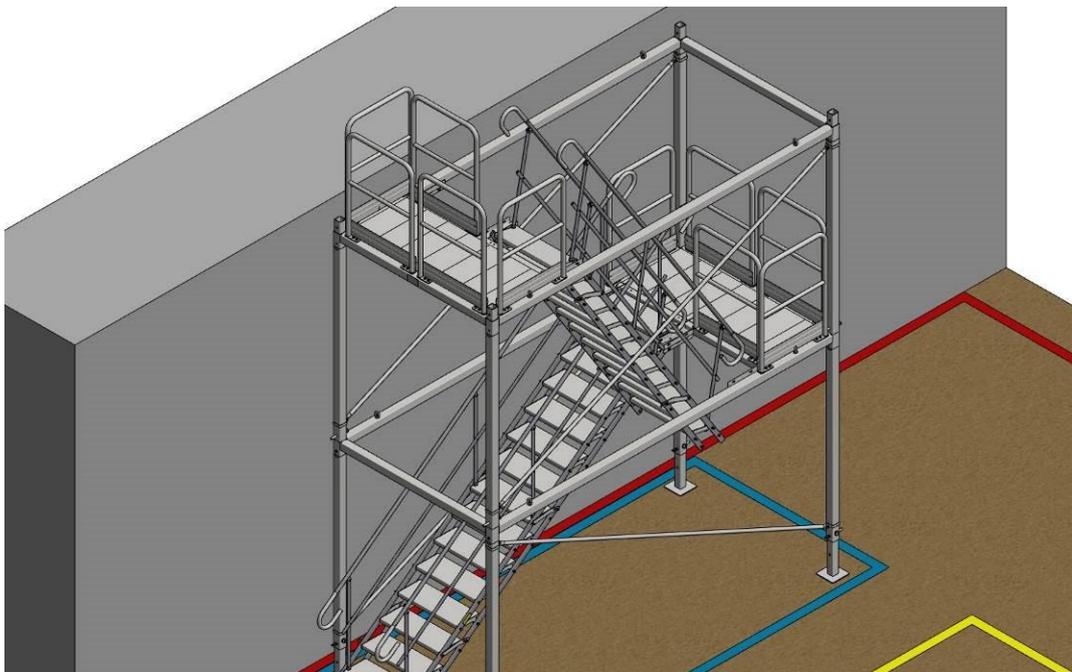
Assemble the stairs to the middle module using the set of a bolt + 2 washers + a nut, used to mount the last step of the stairs



Assembly of the middle module on the lower module

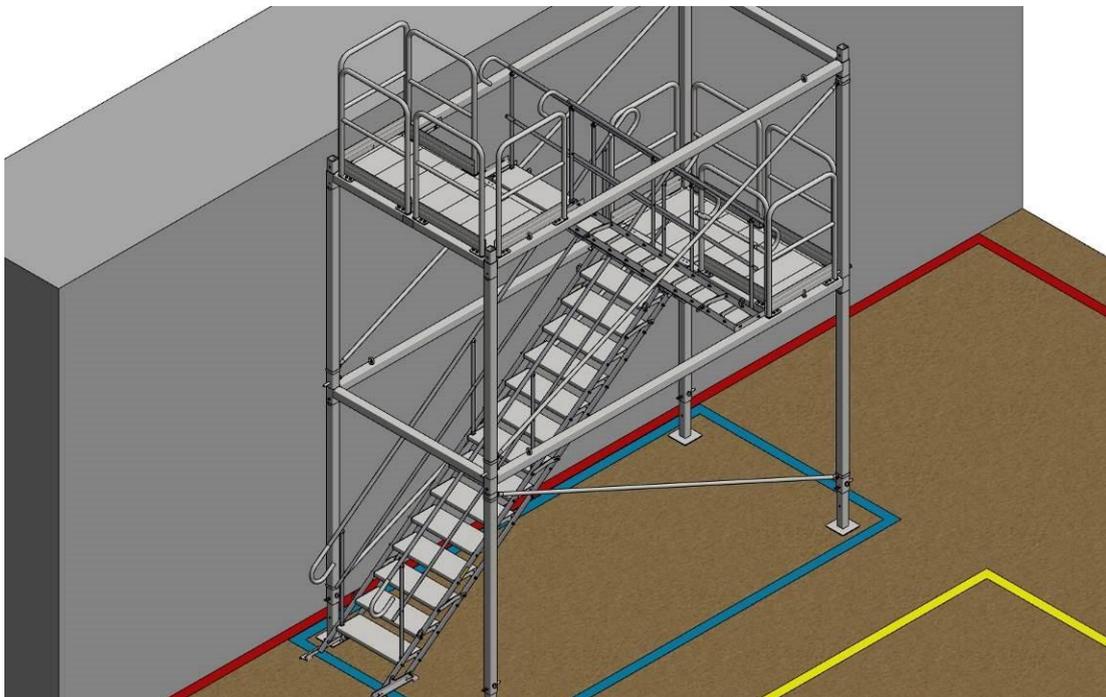
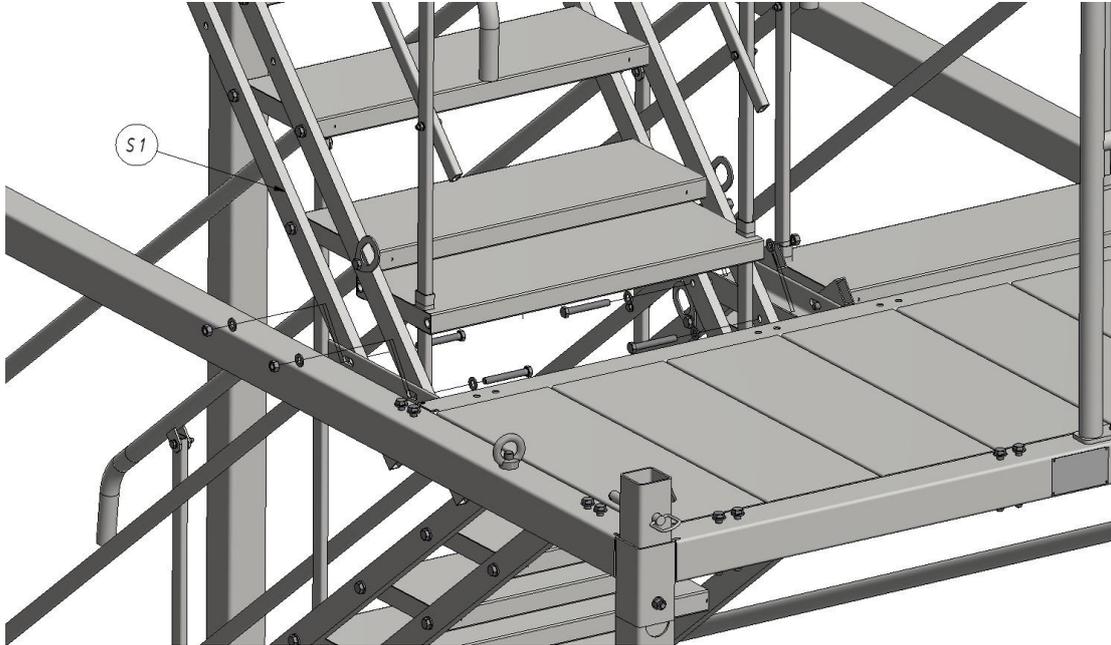
Using a lifter, we put one segment on the other one, securing it with pins.

WARNING! Use a basket lifter to secure it with pins



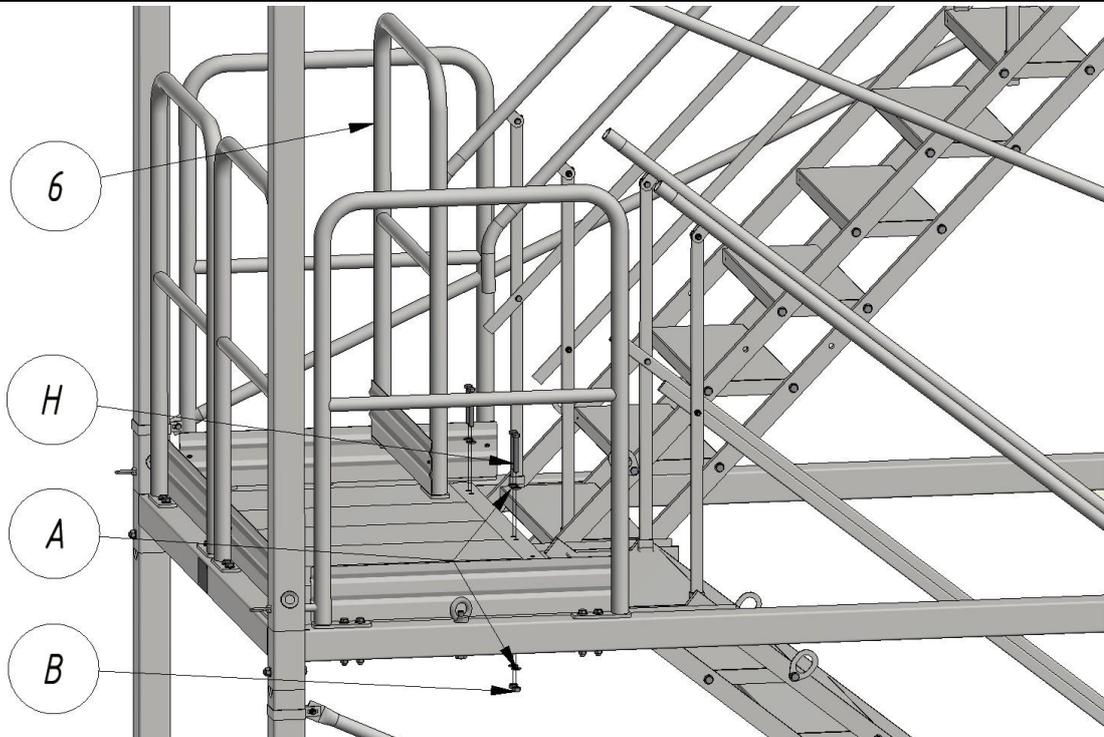
Assembly of the middle module stairs to the lower module

The stairs should be pulled to the frame and screwed together with the lower module using the set of a bolt + 2 washers + a nut, used for the assembly of the first step of the staircase.



Disassembly of the railings

After assembly of the stairs to the lower module, remove the railing that previously secured the open space from the side of the assembled stairs. Repeat the activity for other modules.



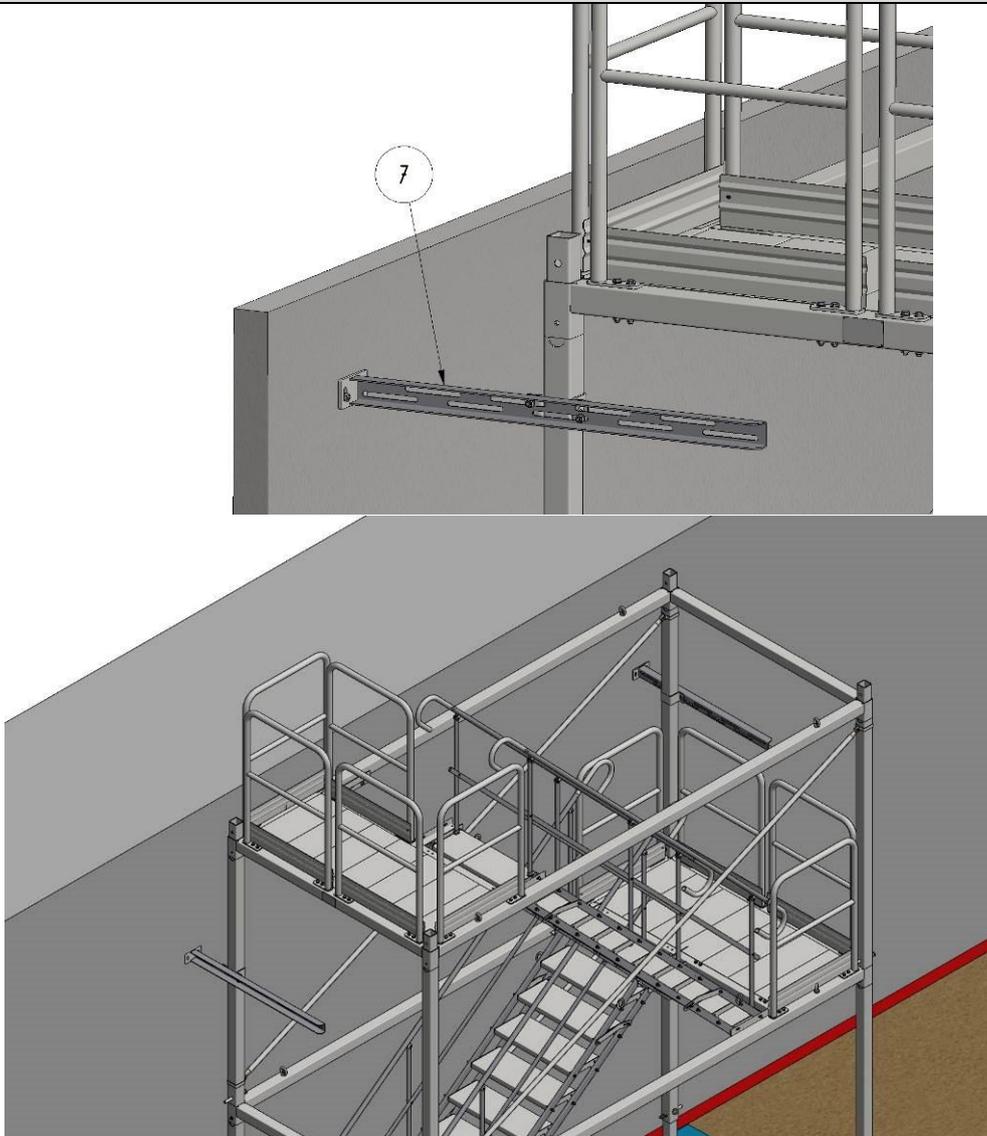
Assembly of the staircase anchorage

WARNING! Each middle module of the staircase should be anchored to the structure

An example of assembly to the post.



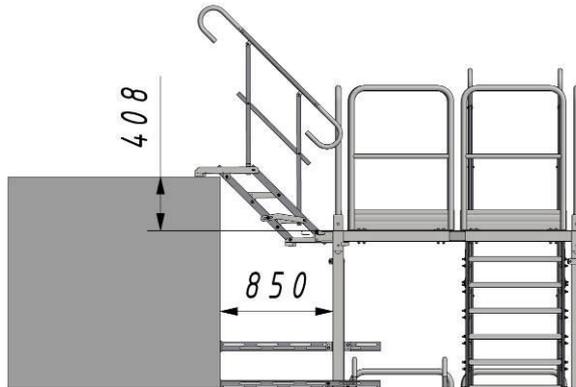
An example of assembly to the wall. The set does not include mounting pins / anchors for fixing in the wall.



Assembly when the exit level is above the staircase platform

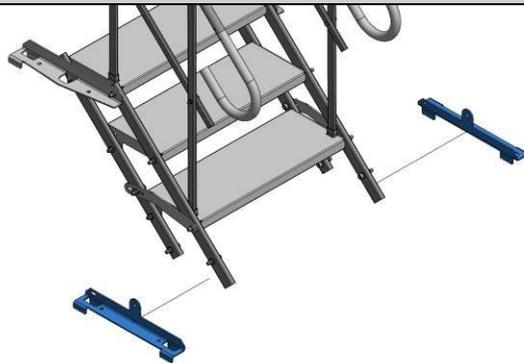
Level difference when leaving the staircase not exceeding 408 mm - use the TAS-3A stairs.

WARNING! Check the distance between the staircase and the wall



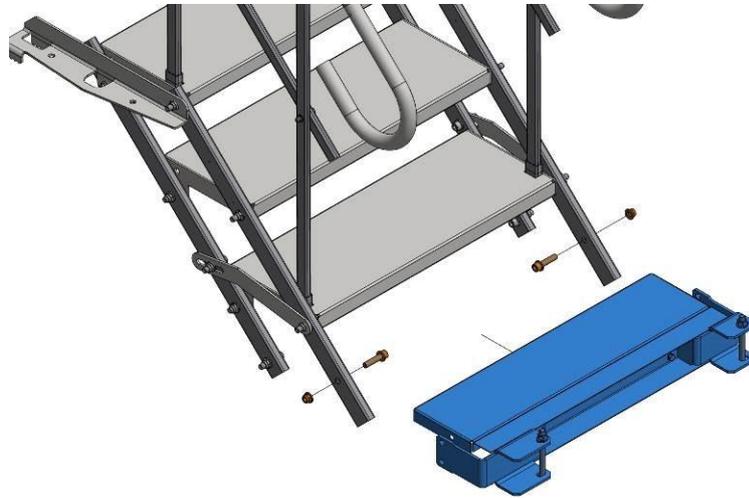
Removal of the bottom foot from the TAS-3A / 6A stairs

The TAS-3A / 6A stairs are equipped with the bottom foot that must be removed before further work

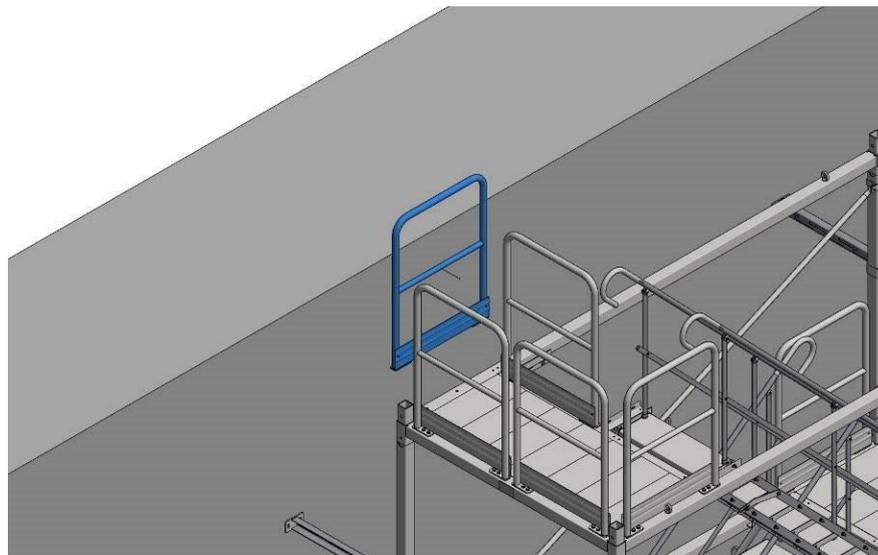


Assembly of the EPS-KS-A5 adapter to the TAS-3A / 6A stairs

The adapter is screwed with the same bolts as the foot

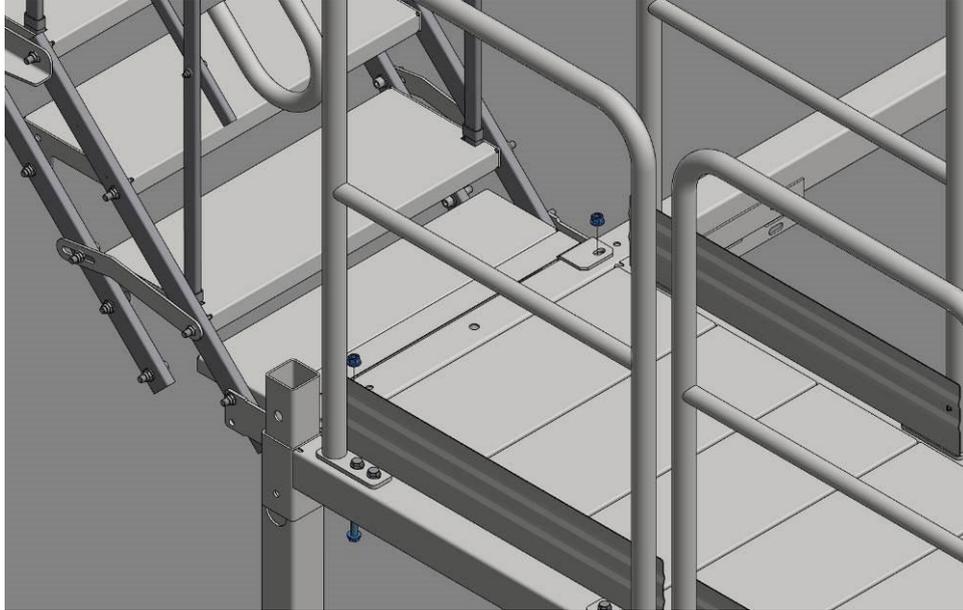


Disassembly of the railing



Assembly of the upward descent

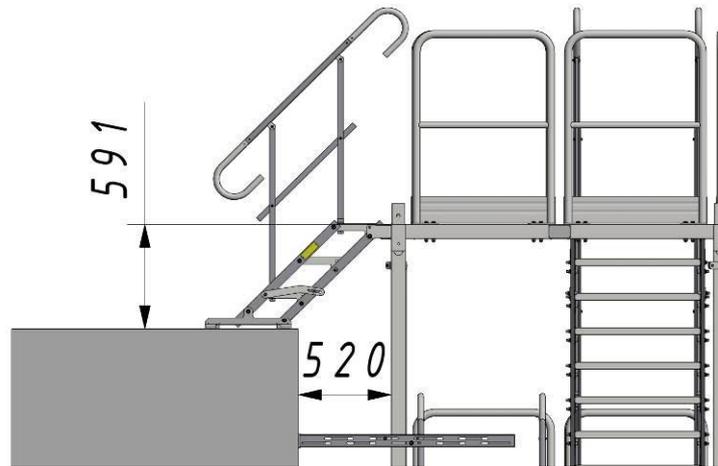
The descent is screwed with bolts in the place as the dissembled railing



Assembly when the exit level is below the level of the staircase platform

Level difference when leaving the staircase not exceeding 591 mm - use the TAS-3A stairs

WARNING! Check the distance between the staircase and the wall



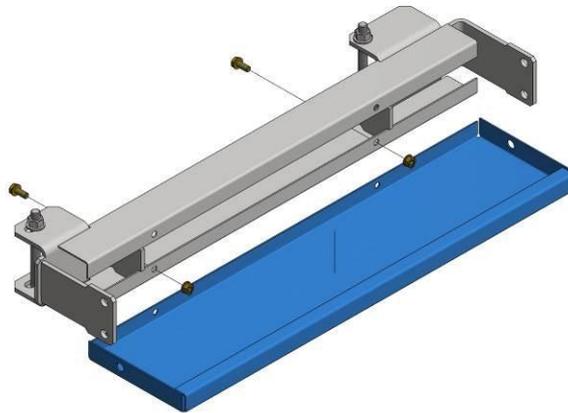
Disassembly of the upper foot from the TAS-3A / 6A stairs

The TAS-3A / 6A stairs are equipped with the upper foot that must be removed before further work



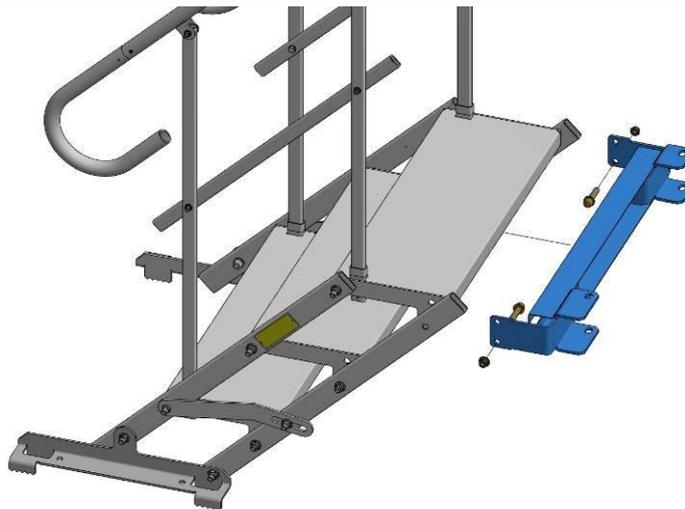
Disassembly of the step from the EPS-KS-A5 adapter

The step must be removed



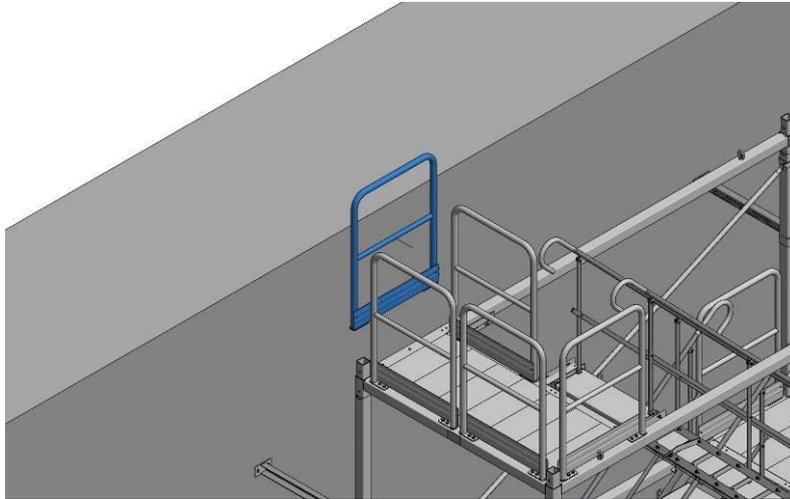
Assembly of the EPS-KS-A5 adapter to the TAS-3A / 6A stairs

The adapter is screwed with the same bolts as the upper foot of stairs



Disassembly of the railing

The railing is disassembled in the reverse sequence to assembly, see item 4.2.2. Assembly of the railings to the frame



Assembly of the downward descent

The descent is screwed with bolts in the place as the disassembled railing

