

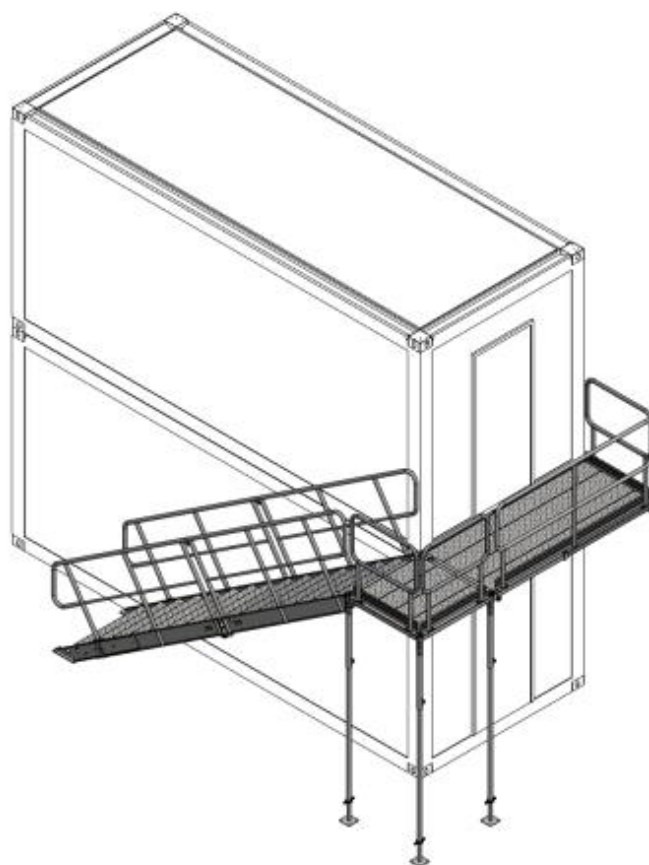
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*Attachment no.1*

*Assembly Manual for*

*Container Stairs*

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Piotr Abram



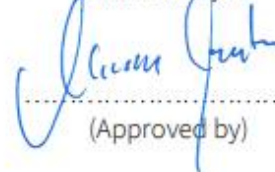
(Prepared by)

Robert Cieśla



(Checked by)

Mitosz Muzyka



(Approved by)

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No	FULL NAME	DEPT	DATE OF CHANGE	SCOPE OF CHANGE	NOTES
1	Robert Cieśla	RD	27.05.2019	Document update	
2	Piotr Abram	RD	03.06.2019	Point 4.5	
3	Robert Cieśla	RD	06.06.2019	Tab. 2	
4	Paweł Oleszkowicz	RD	06.09.2021	General document update. New variants have been added.	
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## 1. Assembly manual

The assembly manual is an attachment to the operation and maintenance documentation of the TLC container stair system.

Container stairs consist of individual elements according to specification attached with the delivery. The system includes fasteners. The system is delivered in the form of separate elements, such as platforms, railings, steps, fasteners, stairs, posts. The elements are assembled in a specific order.

Container stairs as a modular structure can be freely configured (within the scope specified by the manufacturer) depending on the needs. The setting of individual configurations should be in accordance with the operation and maintenance documentation. 11 basic configurations of container stairs are presented below.

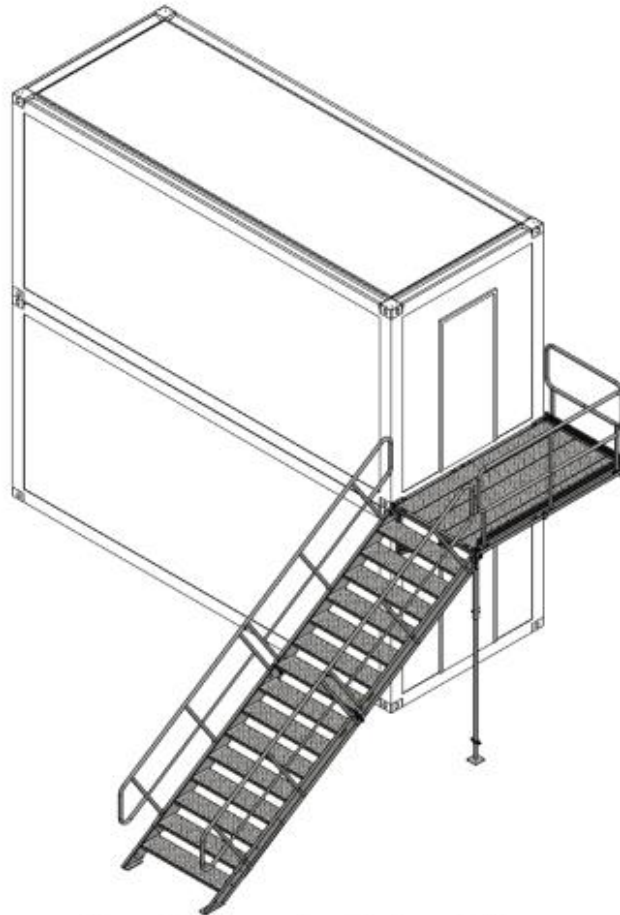


Figure 1 Configuration 1 (variant S2.1)

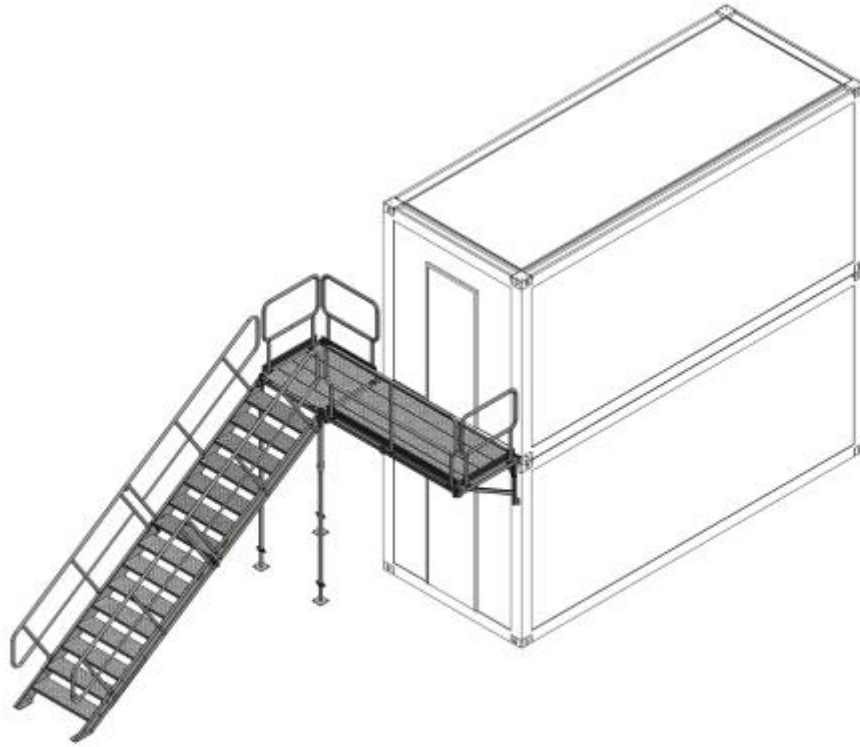


Figure 2 Configuration 2

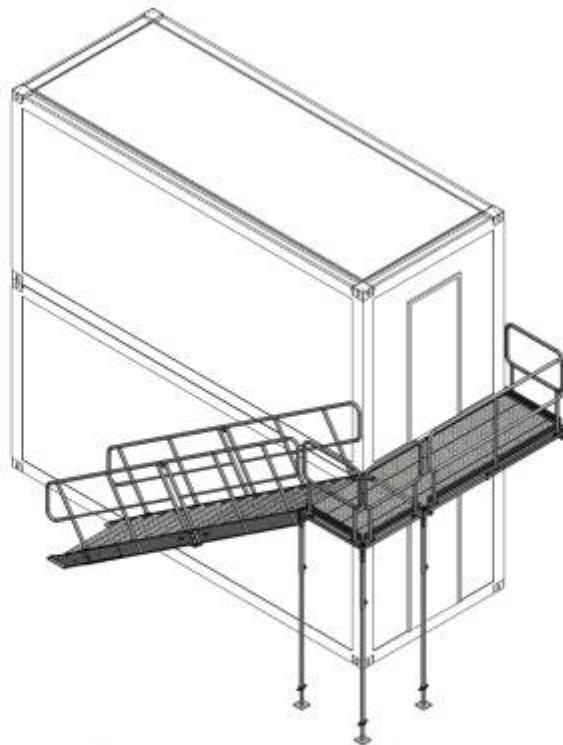


Figure 3 Configuration 3 (variant S2.3)

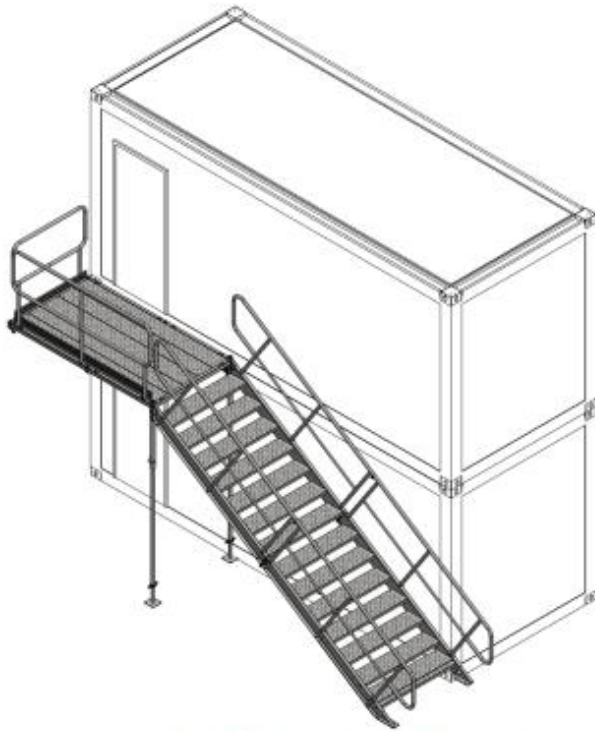


Figure 4 Configuration 4 (variant S2.4)

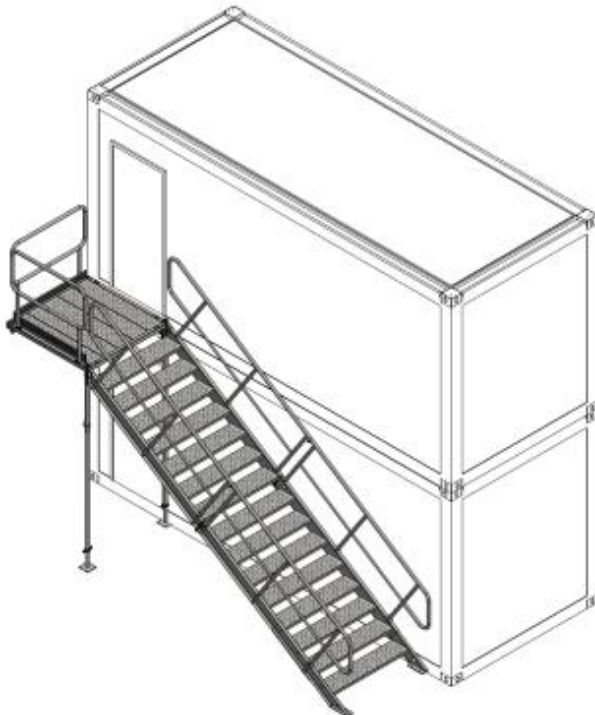


Figure 5 Configuration 4a (variant S2.4a)

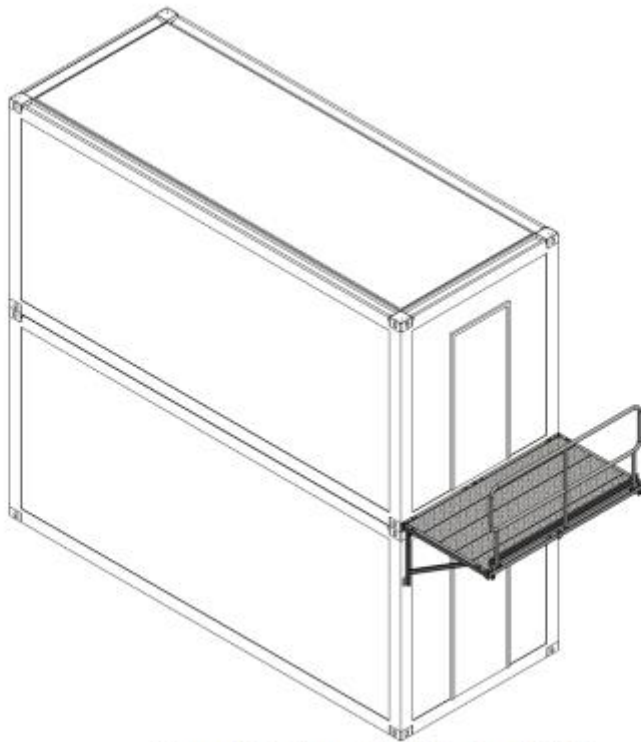


Figure 6 Configuration 5 (variant S2.5)

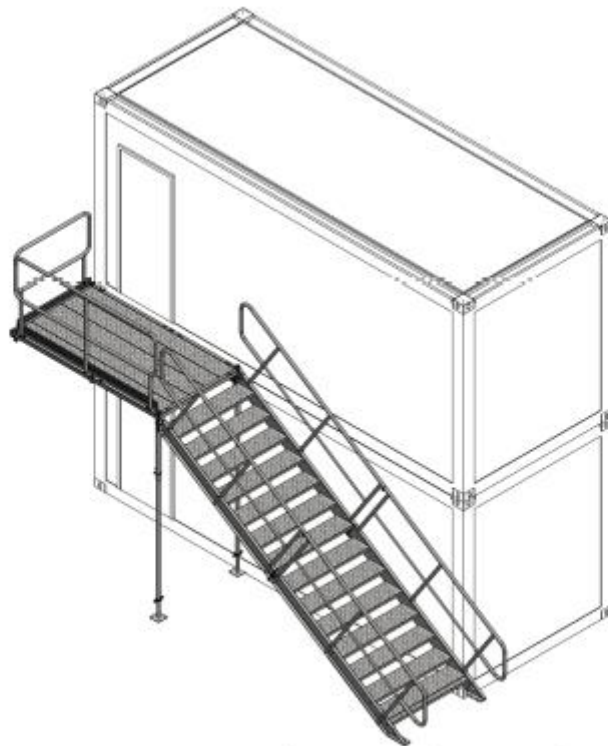


Figure 7 Configuration 6 (variant S2.6)



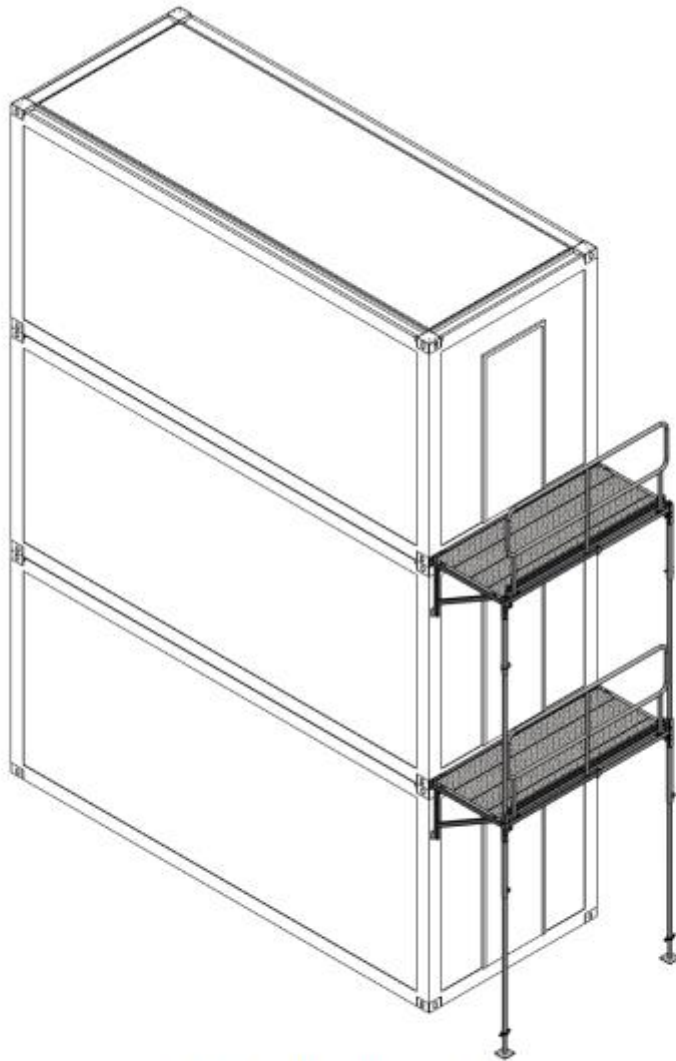


Figure 8 Configuration 7 (variant S2.7)



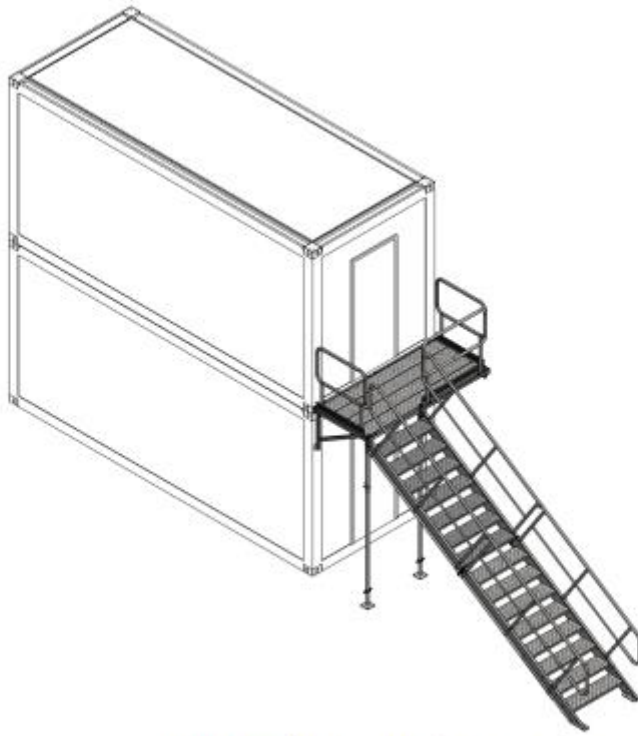


Figure 9 Configuration 8 (variant S2.8)

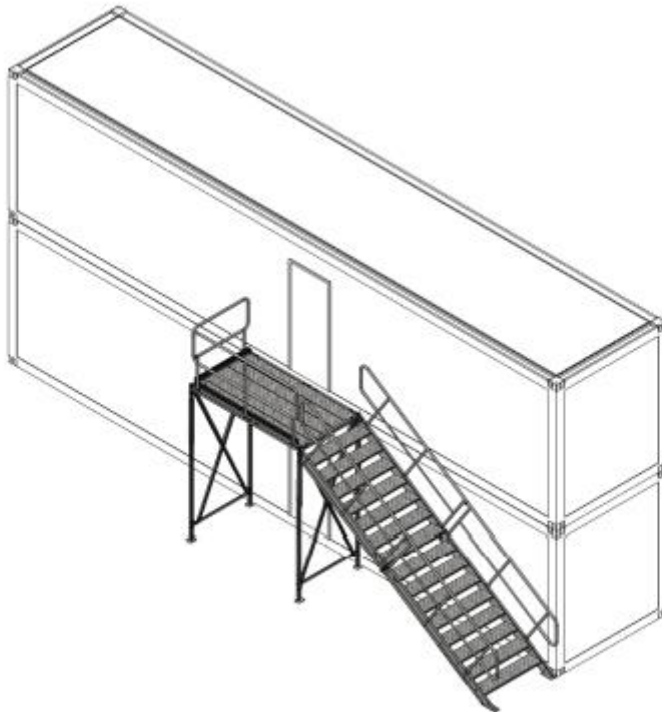


Figure 10 Configuration 10 (variant S2.10)

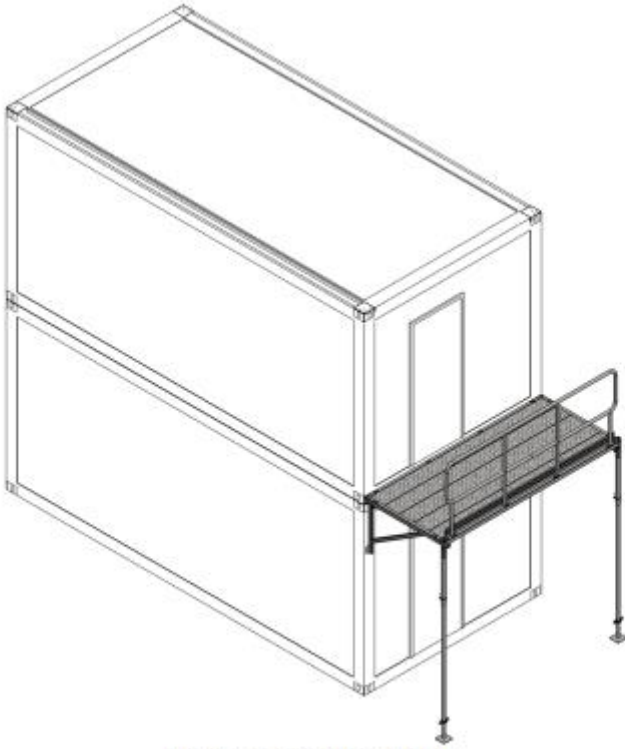


Figure 11 Configuration 11

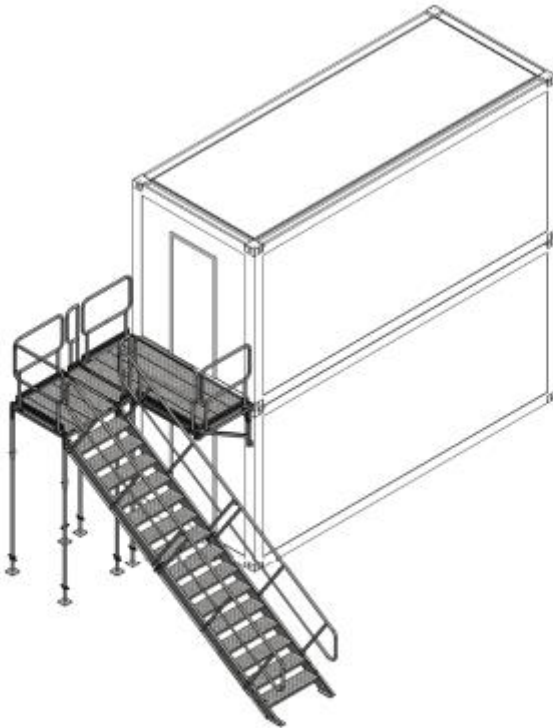


Figure 12 Configuration 12

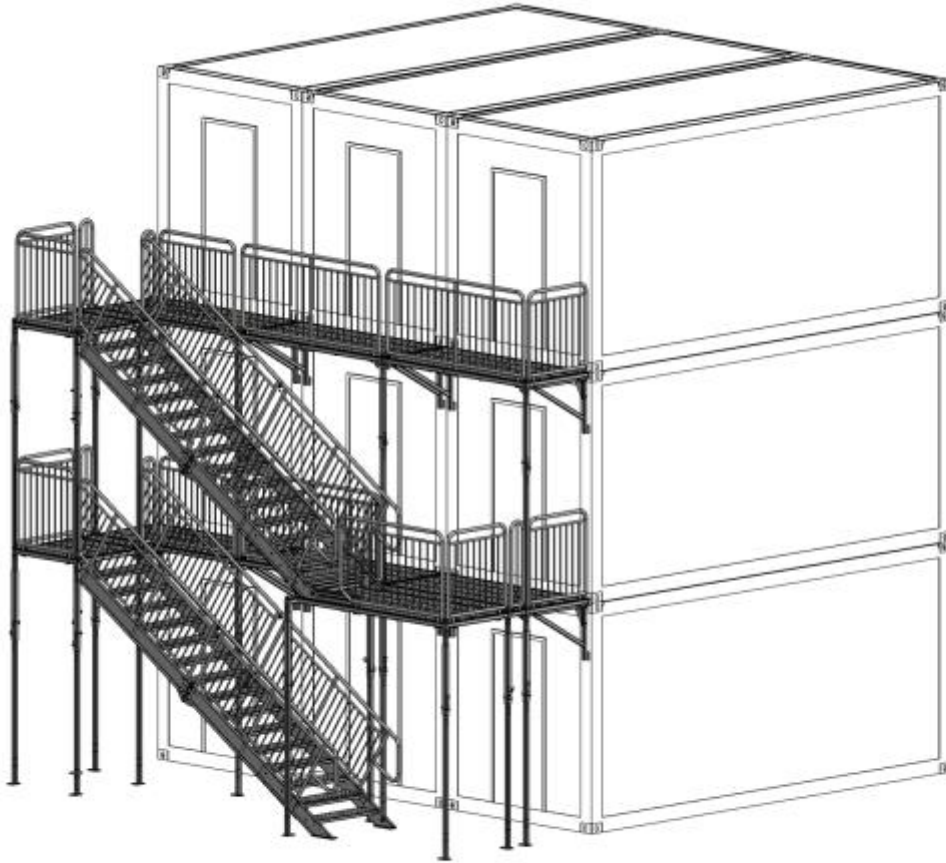
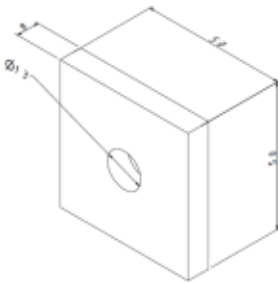
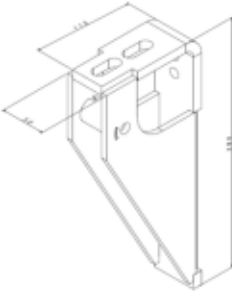
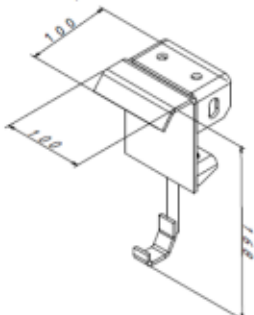
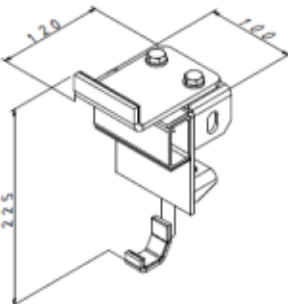
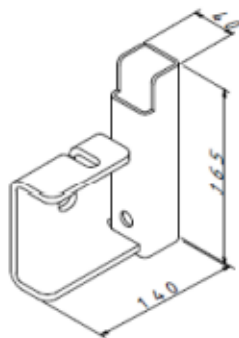
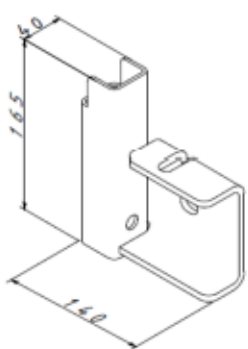


Figure 12 Configuration 2P

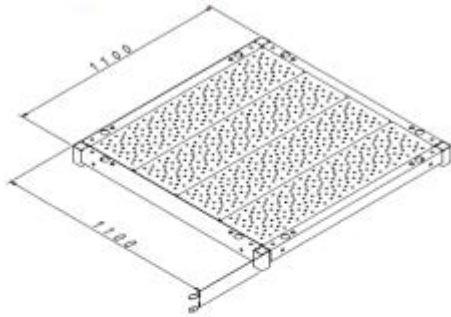
## 2. Components of the container stair system

The list of components in table 1 presents the components of the container stair system, their quantity depending on the configuration, and the type of the system ordered by the customer (to be selected from the ID, component description columns).

Table 1 Components of the container stair system.

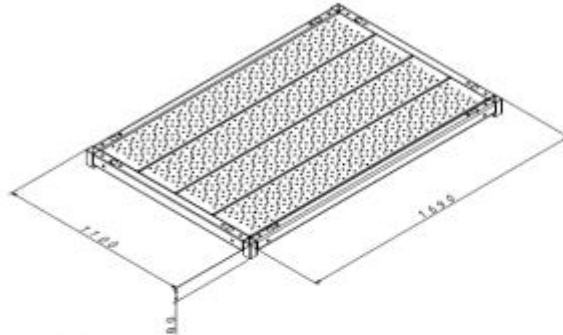
<p>M-Z-P-K-14-ZN-Z</p>  <p>Weight: 0.15 kg</p>	<p>SK5-L1 (P-SK5-LP)</p>  <p>Weight: 2.78 kg</p>
<p>SK5-L2 (P-SK5-LP2)</p>  <p>Weight: 1.08 kg</p>	<p>SK5-L3 (P-SK5-LP3)</p>  <p>Weight: 1.97 kg</p>
<p>SK5-L6</p>  <p>Weight: 1.29 kg</p>	<p>SK5-L5</p>  <p>Weight: 1.29 kg</p>

SK5-P1 (P-SK5-PD1.1)



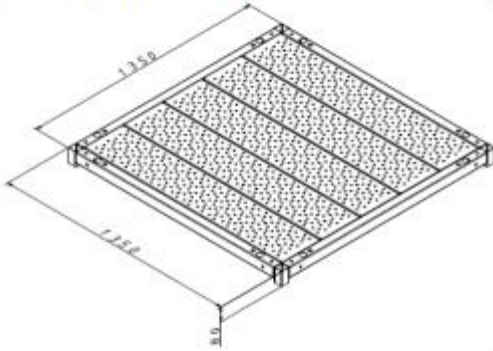
Weight: 34.91 kg

SK5-P2 (P-SK5-PD1.69)



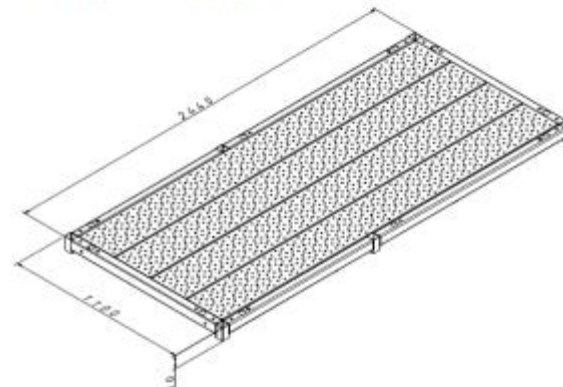
Weight: 57.57 kg

SK5-P4 (P-SK5-PD1.2)



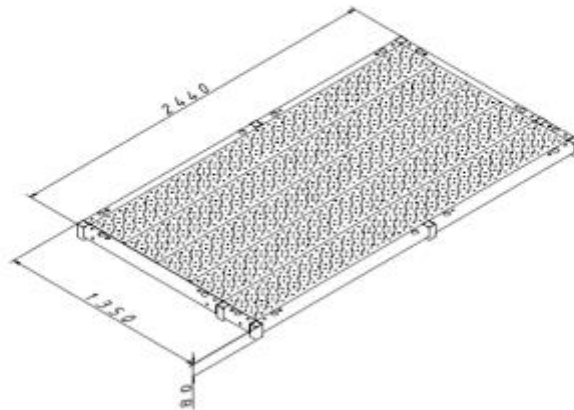
Weight: 49.85 kg

SK5-P3 (P-SK5-PD2.4)



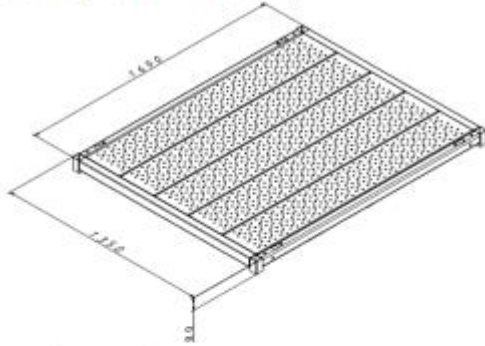
Weight: 83.00 kg

SK5-P9



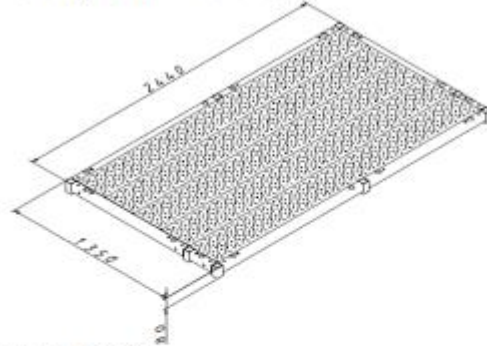
Weight: 99.20 kg

SK5-P5 (P-SK5-PD1.69x1.2)



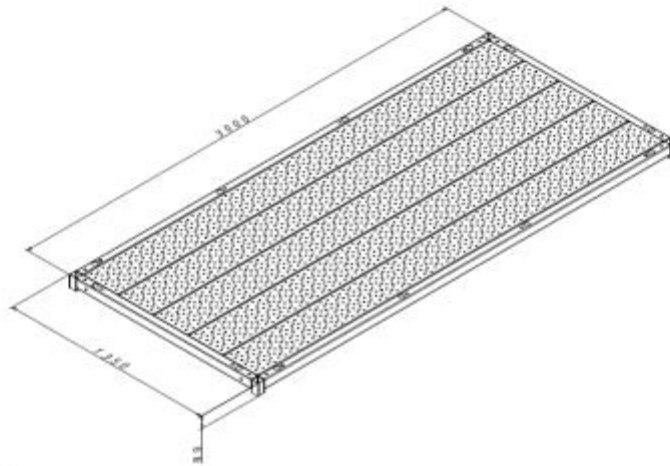
Weight: 68.08 kg

SK5-P6 (P-SK5-PD2.4-1.2)



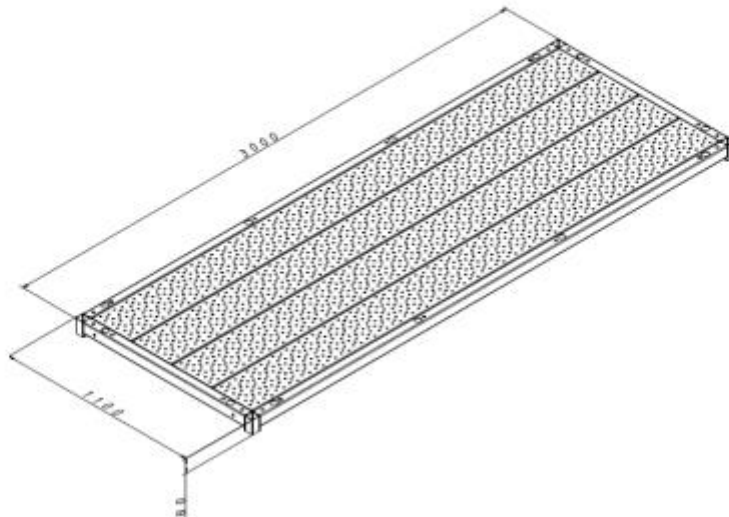
Weight: 98.30 kg

SK5-P7



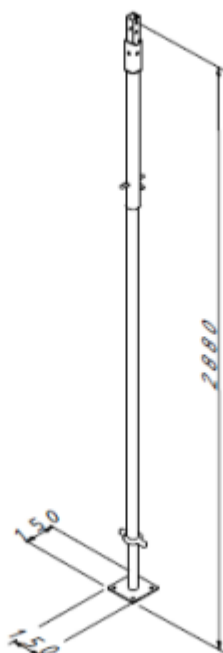
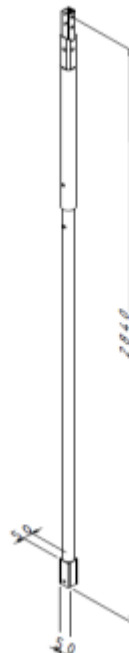

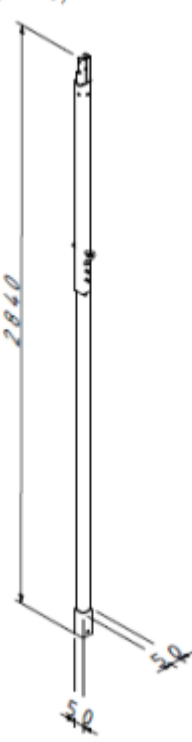
Weight: 121.43 kg

SK5-P8



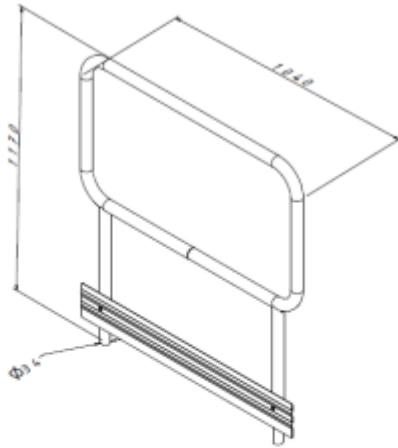
Weight: 102.87 kg



<p>SK5-PR1 (P-SK5-PR)</p>  <p>Weight: 20.09 kg</p>	<p>SK5-PR2 (P-SK5-PR2)</p>  <p>Weight: 14.61 kg</p>
<p>SK5-PR3 (P-SK5-PR2)</p>  <p>Weight: 14.50 kg</p>	<p>SK5-PR4 (P-SK5-PR3)</p>  <p>Weight: 14.42 kg</p>

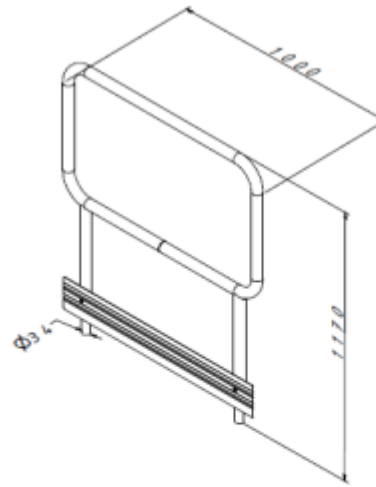


SK5-B1 (P-SK5-BP1.04)



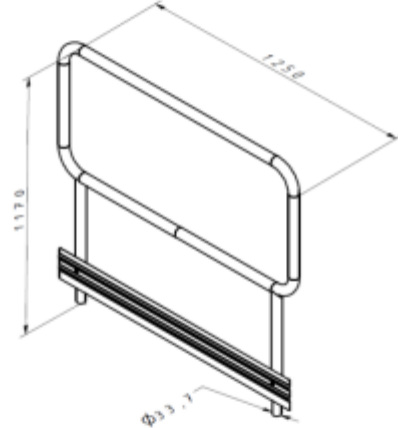
Weight: 11.06 kg

SK5-B2 (P-SK5-BP1.1)



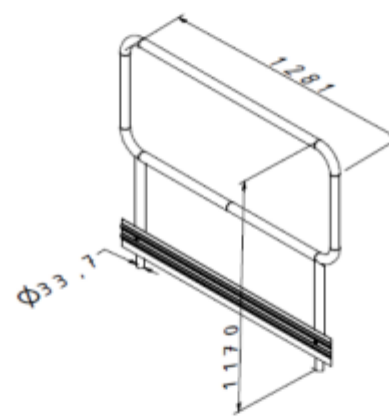
Weight: 10.70 kg

SK5-B3 (P-SK5-BP1.2)



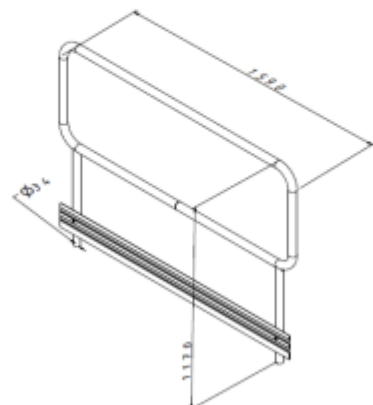
Weight: 12.36 kg

SK5-B4 (P-SK5-BP1.28)



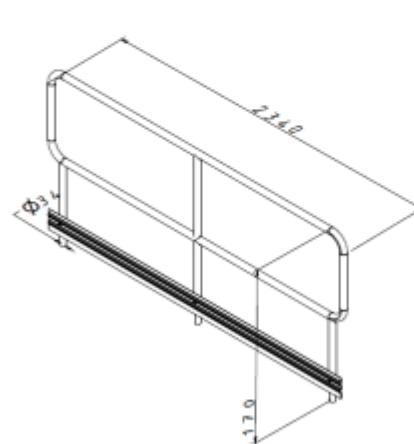
Weight: 12.55 kg

SK5-B5 (P-SK5-BP1.69)



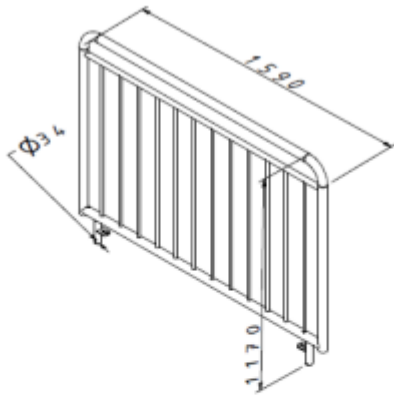
Weight: 14.47 kg

SK5-B6 (P-SK5-BP2.4)



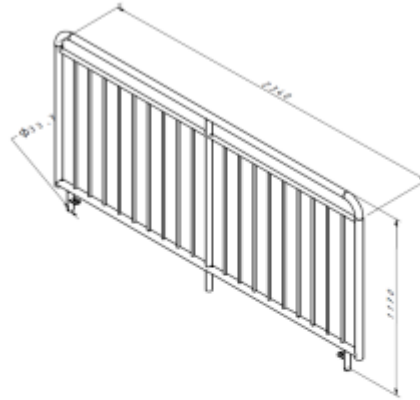
Weight: 21.61 kg

SK5-B11 (P-SK6-BP1.1-B)



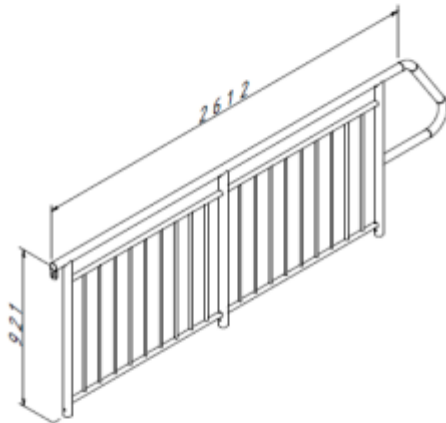
Weight: 24,1 kg

SK5-B12 (P-SK6-BP2.4-B)



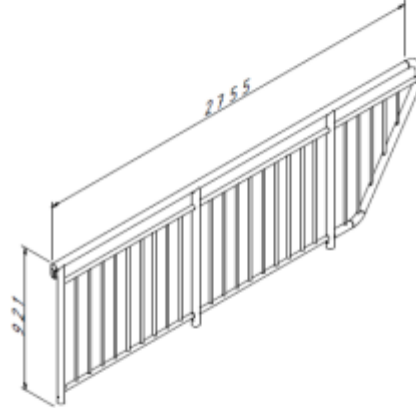
Weight: 35.23 kg

SK5-BS4



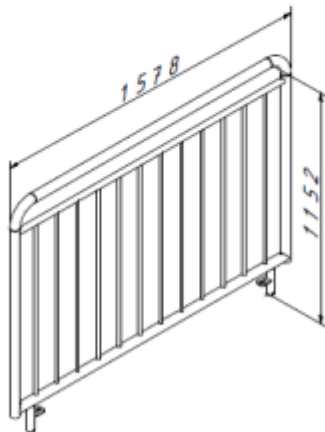
Weight: 22.94 kg

SK5-BS3



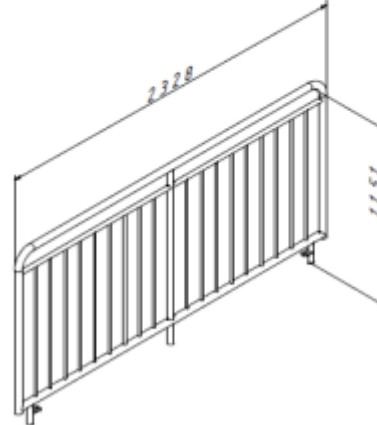
Weight: 25.76 kg

SK6-B5 (P-SK6-BP1.69-B)



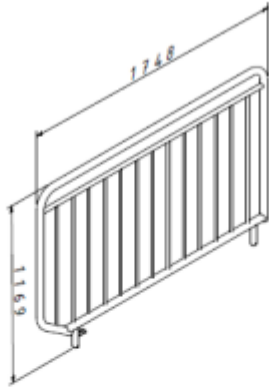
Weight: 19.24 kg

SK6-B6 (P-SK6-BP2.4-B)



Weight: 28.71 kg

SK6-B13



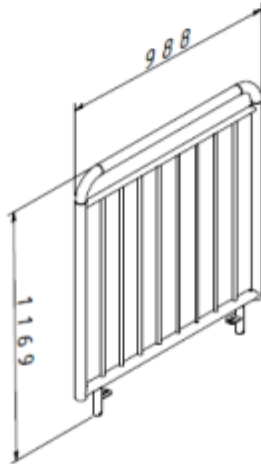
Weight: 19.63 kg

SK6-B10 (SK6-BB4)



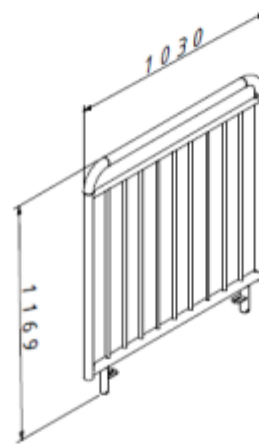
Weight: 7.14 kg

SK6-B1 (P-SK6-BP1.1-B)



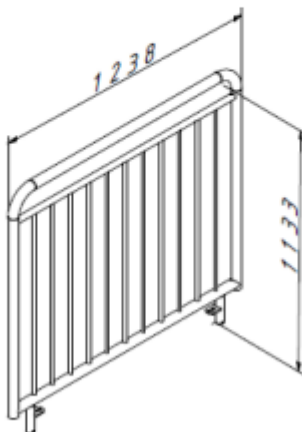
Weight: 12.33 kg

SK6-B2 (P-SK6-BP1.04-B)



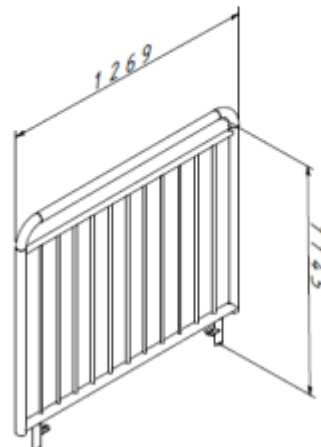
Weight: 14.85 kg

SK6-B3 (P-SK6-BP1.25-B)

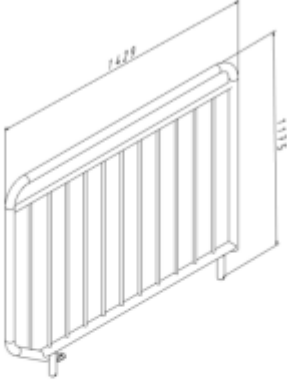

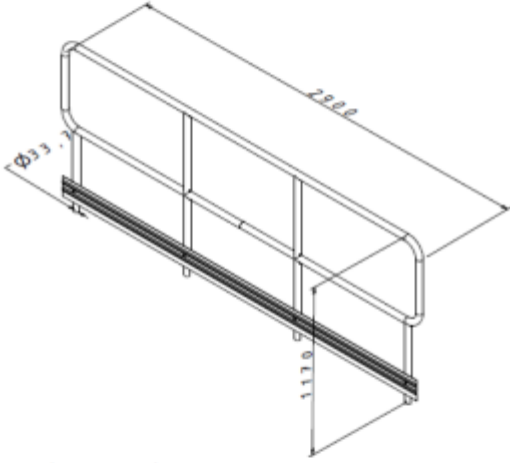
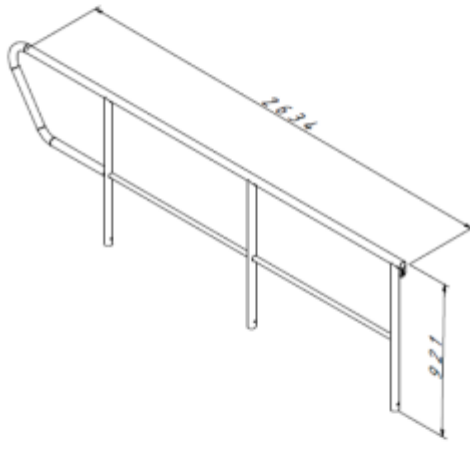
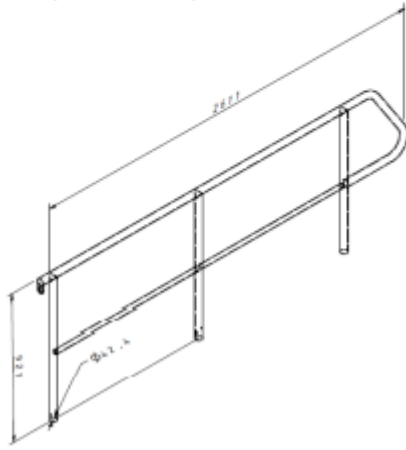
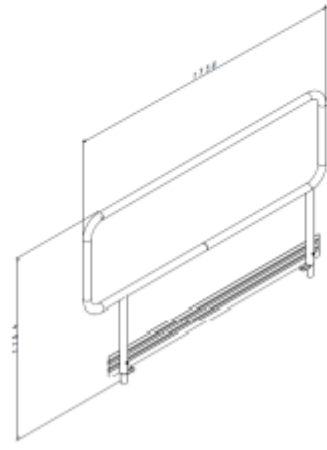


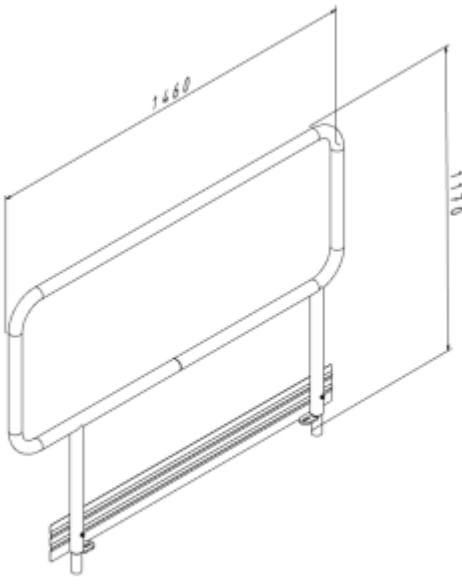

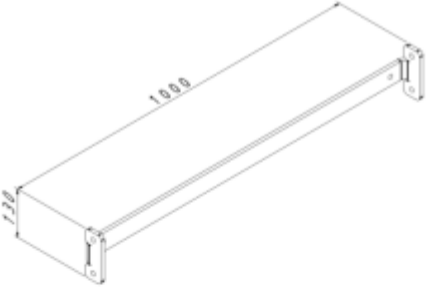
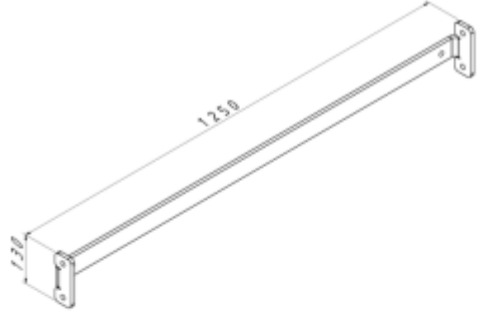
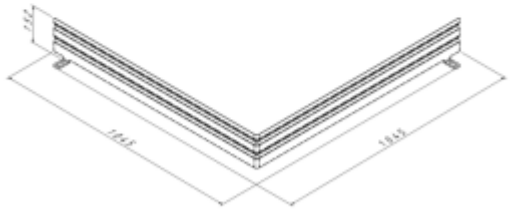
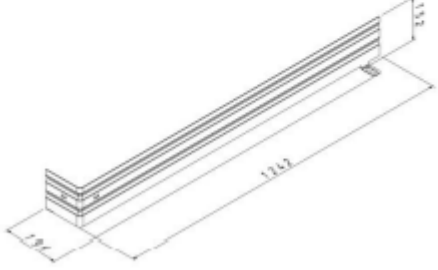
Weight: 16.75 kg

SK6-B4 (P-SK6-BP1.28-B)

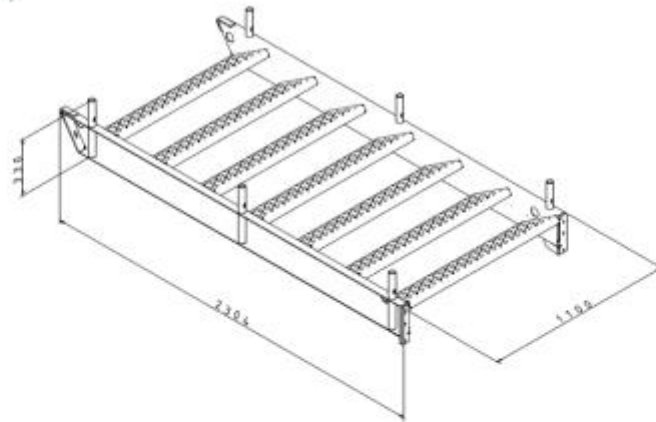


Weight: 16.95 kg

<p>SK5-B14</p>  <p>Weight: 18.1</p>	<p>SK5-B14 (P-SK5-BP-0.25)</p>  <p>Weight: 7.05 kg</p>
<p>SK5-B15 (P-SK5-BP3.0)</p>  <p>Weight: 29.56 kg</p>	<p>SK5-BS1 (P-SK5-BS)</p>  <p>Weight: 17.11</p>
<p>SK5-BS2 (P-SK5-BS-B)</p>  <p>Weight: 16.29 kg</p>	<p>SK6-B11</p>  <p>Weight: 16.55 kg</p>

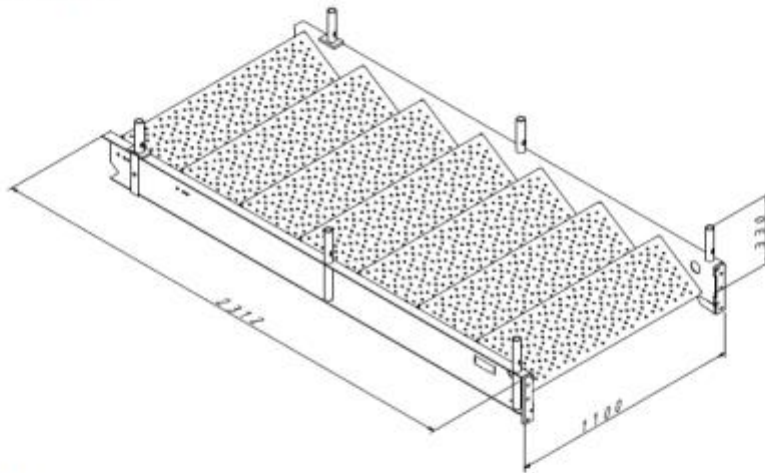
<p>SK5-B12</p>  <p>Weight: 10.73</p>	<p>SK5-X1 (P-SK6-X1)</p>  <p>Weight: 14.8</p>
<p>SK5-O1 (P-SK6-O1)</p>  <p>Weight: 4.8</p>	<p>SK5-O2 (P-SK6-O1)</p>  <p>Weight: 5.8</p>
<p>SK6-K01</p>  <p>Weight: 4.54</p>	<p>SK6-K03/SK6-K04</p>  <p>Weight: 3.16</p>

SK5-S1 (P-SK5-SB)



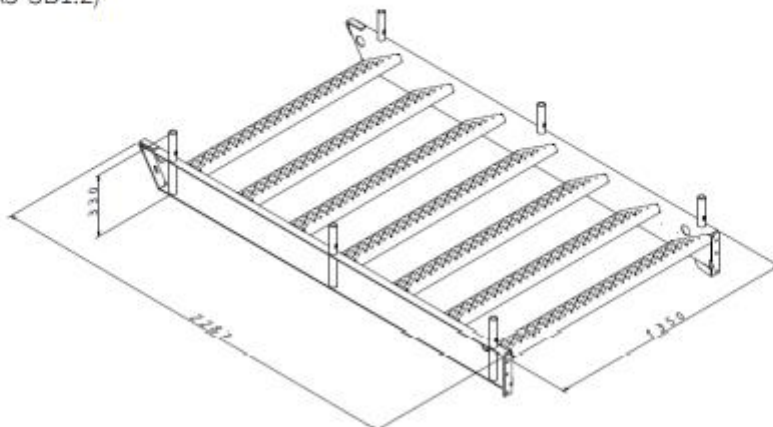
Weight: 87.31 kg

SK5-S2 (P-SK5-SB-E01)



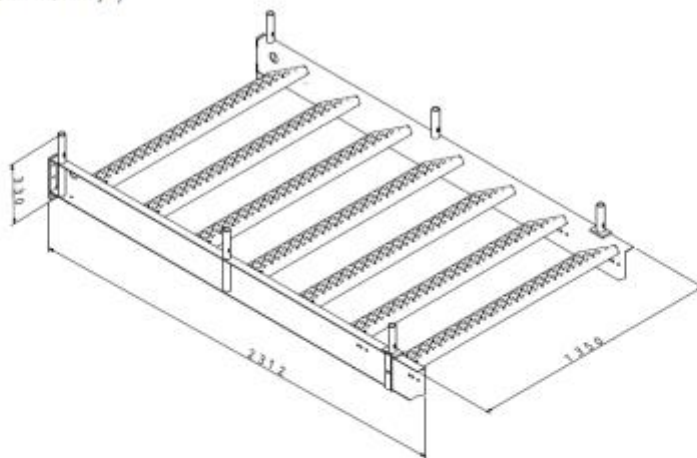
Weight: 86.88 kg

SK5-S3 (P-SK5-SB1.2)



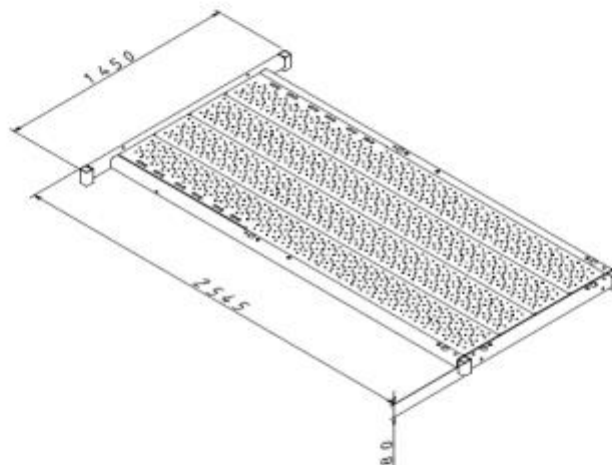
Weight: 97.22 kg

SK5-S4 (P-SK5-SB-E01-1,2)



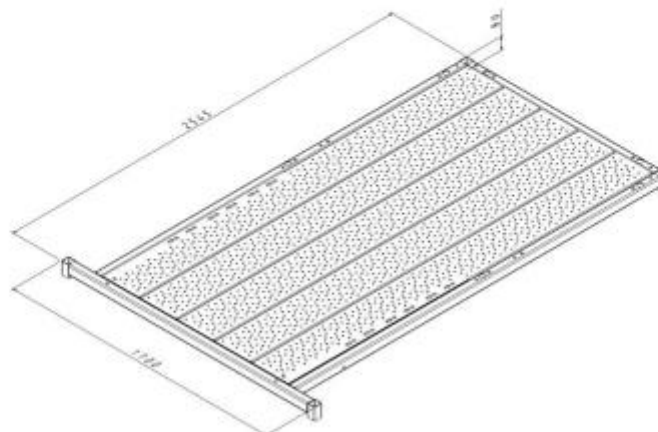
Weight: 96.79 kg

SK6-PD13



Weight: 115.39 kg

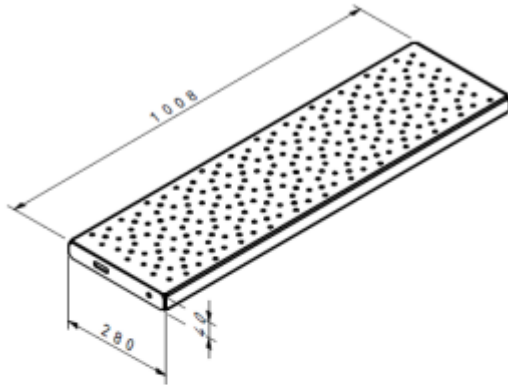
SK6-PD15



Weight: 137.5 kg

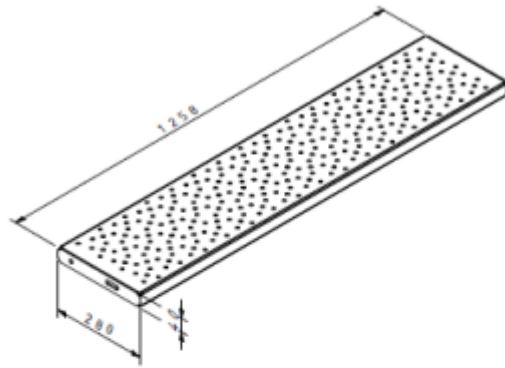


SK5-ST1



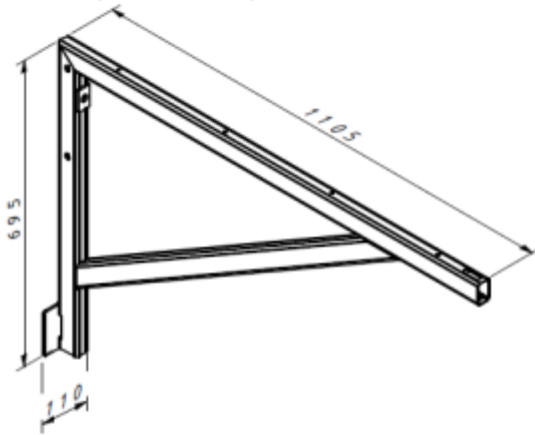
Weight: 6.47 kg

SK5-ST2



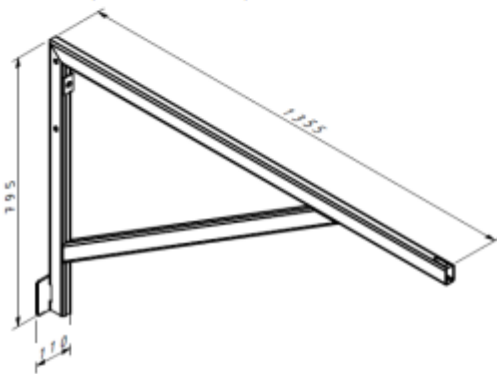
Weight: 7.88 kg

SK5-W1 (P-SK5-WT1.1)



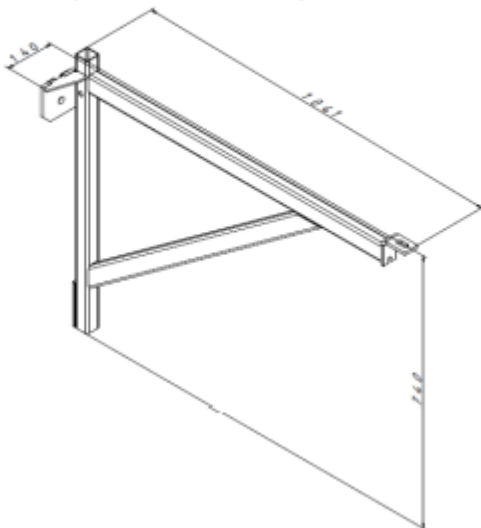
Weight: 9.15 kg

SK5-W2 (P-SK5-WT1.2)



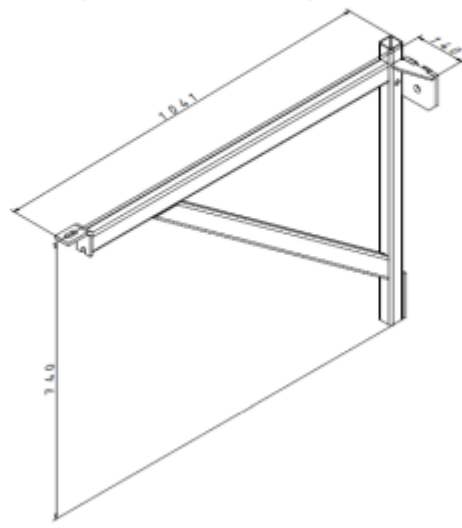
Weight: 10.74 kg

SK5-W3 (P-SK5-WT-1000-ML)



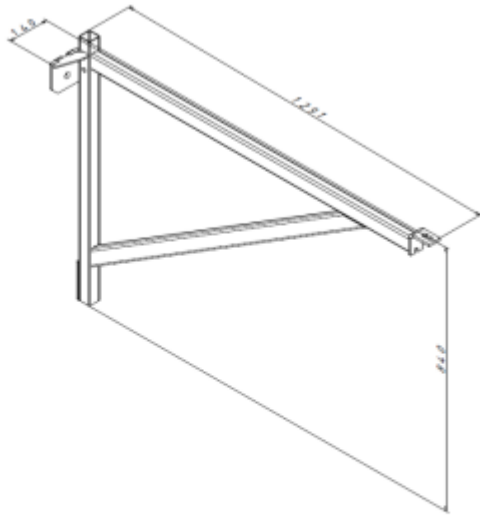
Weight: 9.71 kg

SK5-W4 (P-SK5-WT-1000-MP)



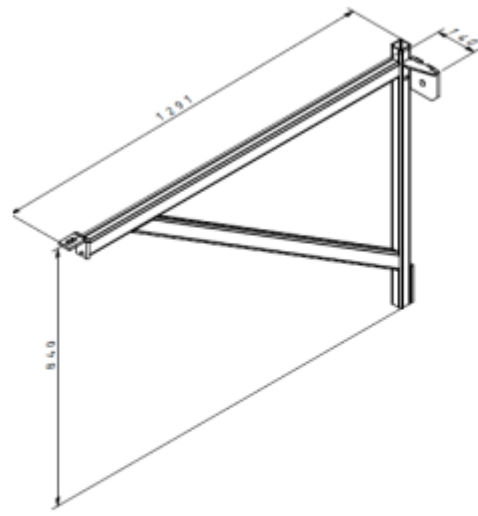
Weight: 9.72 kg

SK5-W5 (P-SK5-1200-ML)



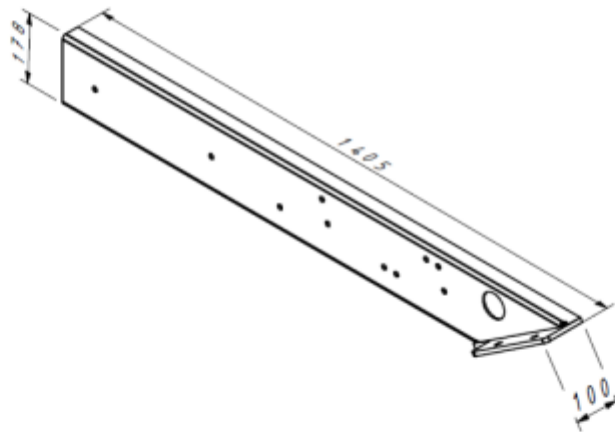
Weight: 11.81 kg

SK5-W6 (P-SK5-1200-MP)



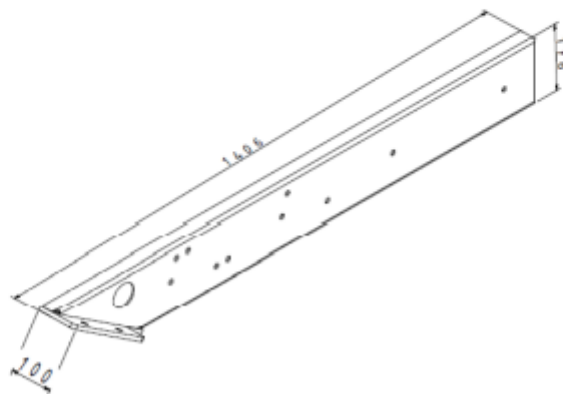
Weight: 11.81 kg

SK5-Z1

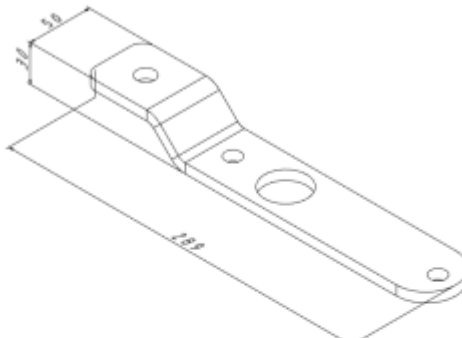
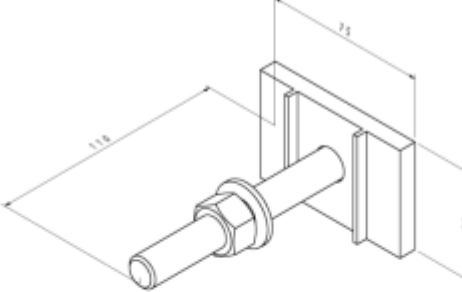
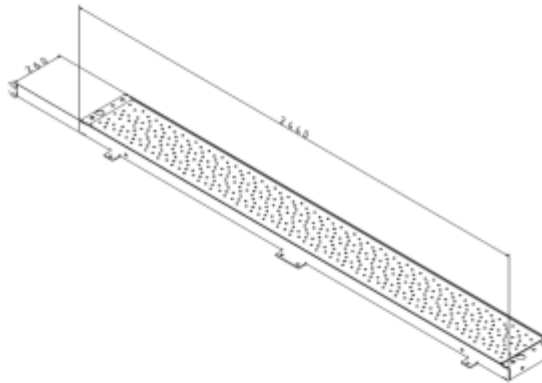
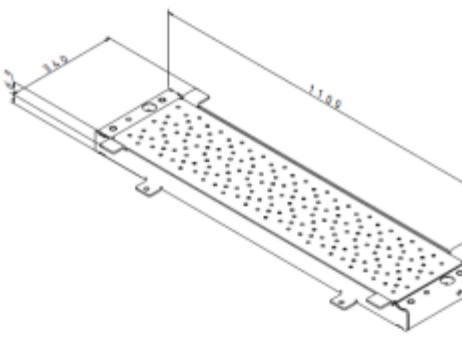
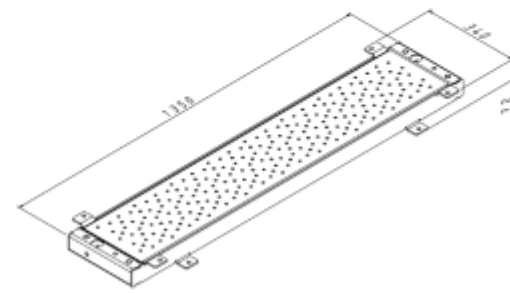
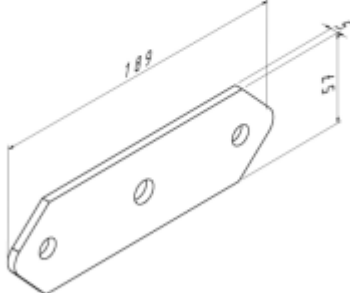


Weight: 11.50 kg


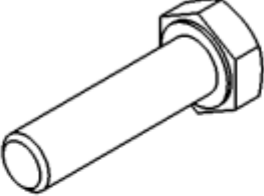



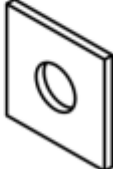
SK5-Z2



Weight: 11.50 kg

<p>SK6-L3</p>  <p>Weight: 0.1 kg</p>	<p>P-SK-ZW</p>  <p>Weight: 0.40 kg</p>
<p>SK6-P14</p>  <p>Weight:</p>	<p>SK6-P12</p>  <p>Weight: 15.96 kg</p>
<p>SK6-P16</p>  <p>Weight: 19.1 kg</p>	<p>SK6-L1 (P-SK6-LP5)</p>  <p>Weight: 0.36 kg</p>

### 3. Graphical list of SK5 system fasteners

 <p>M12 M10 M8</p>	 <p>M10x140      M12x50 M10x120      M8x60 M10x90        M8x40 M10x60 M10x30</p>	 <p>W12 W10 W8</p>
 <p>EW 12</p>	 <p>WS12 WS8</p>	 <p>SW 14</p>

## 4. List of SK5 system components

The list of components in table 1 presents the components of the container stair system, their quantity depending on the configuration, and the type of the system ordered by the customer (to be selected from the ID, component description columns).

Table 2- List of components

ID	Former ID	Component description	Configurations													
			1	2	3	4	4a	5	6	7	8	10	11	12	2P	
SK5-S1	P-SK5-SB	Upper stair module 1100	1	1	1	1	1	0	1	0	1	1	0	1	2	
SK5-S3	P-SK5-SB1.2	Upper stair module 1200														
SK5-S2	P-SK5-SB-E01	Lower stair module 1100	1	1	1	1	1	0	1	0	1	1	0	1	2	
SK5-S4	P-SK5-SB-E01-1,2	Lower stair module 1200														
SK5-Z1	-	Left stair foot	1	1	1	1	1	0	1	0	1	1	0	1	2	
SK5-Z2	-	Right stair foot	1	1	1	1	1	0	1	0	1	1	0	1	2	
SK5-P1	P-SK5-PD1.1	Platform 1100x1100	0	1	1	0	1	0	0	0	0	0	0	1	2	
SK5-P4	P-SK5-PD1.2	Platform 1200x1200														
SK5-P3	P-SK5-PD2.4	Platform 2440x1100	1	1	1	1	0	1	0	1	1	1	0	1	6	
SK5-P6	P-SK5-PD2.4-1.2	Platform 2440x1200														
SK5-P2	P-SK5-PD1.69	Platform 1690x1100	0	0	0	0	0	0	1	0	0	0	0	0	0	
SK5-P5	P-SK5-PD1.69x1.2	Platform 1690x1200														
SK5-P7	-	Platform 3000x1200	0	0	0	0	0	0	0	0	0	0	1	0	0	
SK5-P8	-	Platform 3000x1100														
SK6-P12	-	Platform filling 1100	0	0	0	0	0	0	0	0	0	0	0	1	2	
SK6-P16	-	Platform filling 1200														
SK6-P14	-	Platform filling 2P	0	0	0	0	0	0	0	0	0	0	0	0	1	
SK6-P13	-	Platform 2P 1100	0	0	0	0	0	0	0	0	0	0	0	0	1	
SK6-P15	-	Platform 2P 1200														
Supports	SK5-W1	P-SK5-WT1.1	Platform support 1100	2	2	2	1	1	2	1	4	2	0	2	12	
	SK5-L1	P-SK5-LP	LP1 Connector	1	1	1	1	1	1	1	2	1	0	1	6	
	SK5-W3 SK5-W4	P-SK5-WT-1000-ML	Left Platform Support 1100 for sea containers	1	1	1	1	1	1	1	2	1	0	1	1	6
		P-SK5-WT-1000-MP	Right Platform Support 1100 for sea containers	1	1	1	1	1	1	1	2	1	0	1	1	6
	SK5-W2 SK5-L1	P-SK5-WT1.2	Platform Support 1200	2	2	2	1	1	2	1	4	2	0	2	12	
		P-SK5-LP	LP1 Connector	1	1	1	1	1	1	1	2	1	0	1	1	6
	SK5-W5 SK5-W6	P-SK5-WT-1200-ML	Left Platform Support 1200 for sea containers	1	1	1	1	1	1	1	2	1	0	1	1	6
		P-SK5-WT-1200-MP	Right Platform Support 1200 for sea containers	1	1	1	1	1	1	1	2	1	0	1	1	6
SK5-PR1	P-SK5-PR	Post 01	1	3	3	2	2	0	2	n+1**	2	0	2	6	12	
SK5-PR2	P-SK5-PR2	Post 02	0	0	0	0	0	0	0	11+1**	0	0	11+1**	0	8	
SK5-PR3	P-SK5-PR3	Post 03	0	0	0	0	0	0	0	0	0	4	0	0	0	
SK5-PR4	P-SK5-PR4	Post 04	0	0	0	0	0	0	0	0	0	0	0	0	0	
SK5-BS1	P-SK5-BS	Industrial stair railing 01	2	2	2	2	2	0	2	0	2	2	0	2	4	
SK5-BS2	P-SK5-BS-B	Safety stair railing 01														
SK5-ST1	-	Supplementary step	x*	x*	x*	x*	x*	0	x*	0	x*	x*	0	x*	2x*	
SK5-ST2	-															

ID	Former ID	Component description	Configurations												
			1	2	3	4	4a	5	6	7	8	10	11	12	2P
SK5-BS3	-	Industrial stair railing 02	2	2	2	2	2	0	2	0	2	2	0	2	4
SK5-BS4	-	Safety stair railing 02													
SK5-B2	P-SK5-BP1.1	Industrial platform railing 1100x1100													
SK6-B2	P-SK6-BP1.1-B	Safety platform railing 1100x1100	1	3	3	1	2	0	1	0	2	1	0	4	7
SK5-B3	P-SK5-BP1.2	Industrial platform railing 1200x1200													
SK6-B3	P-SK6-BP1.25-B	Safety platform railing 1200x1200													
SK5-B6	P-SK5-BP2.4	Industrial platform railing 2440	1	1	1	1	0	1	0	1	0	1	0	0	3
SK6-B6	P-SK6-BP2.4-B	Safety platform railing 2440													
SK5-B5	P-SK5-BP1.69	Industrial platform railing 1690	0	0	0	0	0	0	1	0	0	0	0	0	0
SK6-B5	P-SK6-BP1.69-B	Safety platform railing 1690													
SK5-B15	-	Industrial platform railing 3000	0	0	0	0	0	0	0	0	0	0	1	0	0
SK6-B8	-	Safety platform railing 3000													
SK5-B14	SK6-BB4	Industrial railing 250	0	0	0	0	0	0	0	0	0	0	0	2	5
SK6-B10	P-SK5-BP-0.25	Safety railing 250													
SK5-L1	P-SK5-LP	LP1 connector	0	1	1	0	0	0	0	0	0	0	1	1	6
SK5-L2/ SK5-L3	P-SK5-LP2/ P-SK5-LP3	LP2/LP3 connector	0	0	0	1	1	0	1	0	0	2	0	0	0
P-SK-ZW	P-SK-ZW	Support clamp	2	2	2	1	1	2	1	4	2	0	2	2	12
SK5-D1	PK	PK washer	0	1	1	0	0	0	0	0	0	0	0	0	2
SK5-B4	P-SK5-BP1.28	Industrial platform railing 1280													
SK6-B4	P-SK6-BP1.28-B	Safety platform railing 1280	0	0	0	0	0	0	0	0	1	0	0	1	2
SK5-B1	P-SK5-BP1.04	Industrial platform railing 1040													
SK6-B2	P-SK5-BP1.04-B	Safety platform railing 1040													
SK6-O1	P-SK6-O1	Lock 1	0	0	0	0	0	0	0	0	0	2	0	0	0
SK6-O2	P-SK6-O2	Lock 2													
SK6-X1	P-SK6-X1	Bracing	0	0	0	0	0	0	0	0	0	4	0	0	0
SK6-L1	P-SK5-LP	SK6-L1 connector	0	0	0	0	0	0	0	0	0	4	0	0	0
SK6-L3	-	Platform filling connector 2P	0	0	0	0	0	0	0	0	0	0	0	1	2
SK6-K01	-	Toe board 2P 1100													
SK6-K02	-	Left toe board 2P 1200 Right toe board 2P 1200	0	0	0	0	0	0	0	0	0	0	0	0	1
P-SK5-ZS-PD2.4-Z	-	Fasteners of platform 2.4	1	1	1	0	0	1	1	2	1	1	1	1	0
P-SK5-ZS-PD1.1-Z	-	Fasteners of platform 1.1	0	1	1	1	1	0	0	0	0	0	0	1	0
P-SK5-ZS-SD-Z	-	Stair fasteners	1	1	1	1	1	0	1	0	1	1	0	1	0
P-SK6-ZS-2P-Z	-	Fasteners of variant 2P	0	0	0	0	0	0	0	0	0	0	0	0	1
P-SK6-ZS-SX-Z	-	Fasteners of bracing War 10	0	0	0	0	0	0	0	0	0	1	0	0	0
P-SK6-ZS-UZ-Z	-	Fasteners of filling War 12	0	0	0	0	0	0	0	0	0	0	0	1	0

\*\*n – number of joined containers

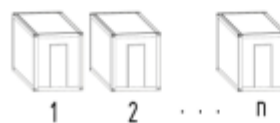






Table 2 Fastener sets

<b>P-SK5-ZS-PD2.4-Z</b>		
M-Z-S-SZ-10x140-8-ZO	Hexagon bolt M10x140-8.8 ISO 4014 hot-dip galvanized	2
M-Z-S-SZ-10x120-8-ZO	Hexagon bolt M10x120-8.8 ISO 4014 hot-dip galvanized	2
M-Z-S-SZ-10x90-8-ZO	Hexagon bolt M10x90-8.8 ISO 4014 hot-dip galvanized	5
M-Z-S-SZ-10x60-8-ZO	Hexagon bolt M10x60-8.8 ISO 4014 hot-dip galvanized	2
M-Z-N-SZ-10-8-ZO	Nut M10-8 hot-dip galvanized ISO 4032	11
M-Z-P-Z-10-ZO	Washer M10 hot-dip galvanized ISO 7089	22
<b>P-SK5-ZS-PD1.1-Z</b>		
M-Z-S-SZ-10x120-8-ZO	Hexagon bolt M10x120-8.8 ISO 4014 hot-dip galvanized	2
M-Z-S-SZ-10x90-8-ZO	Hexagon bolt M10x90-8.8 ISO 4014 hot-dip galvanized	5
M-Z-S-SZ-10x60-8-ZO	Hexagon bolt M10x60-8.8 ISO 4014 hot-dip galvanized	2
M-Z-N-SZ-10-8-ZO	Nut M10-8 hot-dip galvanized ISO 4032	9
M-Z-P-K-14-ZN-Z	Square Washer M14 zinc-plated 50x50x8	1
M-Z-P-Z-10-ZO	Washer M10 hot-dip galvanized ISO 7089	18
<b>P-SK5-ZS-SD-Z</b>		
M-Z-S-SZ-12x50-8-ZO	Hexagon bolt M12x50-8.8 ISO 4017 hot-dip galvanized (DIN933)	6
M-Z-S-SZ-10x30-8-ZO	Hexagon bolt M10x30-8.8 ISO 4017 hot-dip galvanized	14
M-Z-S-SZ-8x60-8-ZO	Hexagon bolt M8x60-8.8 ISO 4014 hot-dip galvanized	4
M-Z-S-SZ-10x90-8-ZO	Hexagon bolt M10x90-8.8 ISO 4014 hot-dip galvanized	2
M-Z-N-SZ-12-8-ZO	Nut M12-8 hot-dip galvanized, ISO 4032	6
M-Z-N-SZ-10-8-ZO	Nut M10-8 hot-dip galvanized ISO 4032	16
M-Z-N-SZ-8-8-ZO	Nut M8-8 hot-dip galvanized ISO 4032	4
M-Z-P-Z-12-ZO	Washer M12 hot-dip galvanized ISO7089	12
M-Z-P-Z-10-ZO	Washer M10 hot-dip galvanized ISO7089	32
<b>P-SK6-ZS-2P-Z</b>		
M-Z-S-SZ-12x50-8-ZO	Hexagon bolt M12x50-8.8 ISO 4017 hot-dip galvanized (DIN933)	16
M-Z-S-SZ-10x140-8-ZO	Hexagon bolt M10x140-8.8 ISO 4014 hot-dip galvanized	14
M-Z-S-SZ-10x90-8-ZO	Hexagon bolt M10x90-8.8 ISO 4014 hot-dip galvanized	55
M-Z-S-SZ-10x60-8-ZO	Hexagon bolt M10x60-8.8 ISO 4014 hot-dip galvanized	12
M-Z-S-SZ-10x30-8-ZO	Hexagon bolt M10x30-8.8 ISO 4017 hot-dip galvanized	22
M-Z-S-SZ-8x60-8-ZO	Hexagon bolt M8x60-8.8 ISO 4014 hot-dip galvanized	8
M-Z-S-SZ-8x40-8-ZO	Hexagon bolt M8x40-8.8 ISO 4017 hot-dip galvanized	2
M-Z-N-SZ-12-8-ZO	Nut M12-8 hot-dip galvanized, ISO 4032	16
M-Z-N-SZ-10-8-ZO	Nut M10-8 hot-dip galvanized ISO 4032	103
M-Z-N-SZ-8-8-ZO	Nut M8-8 hot-dip galvanized ISO 4032	10
M-Z-P-Z-12-ZO	Washer M12 hot-dip galvanized ISO7089	32
M-Z-P-Z-10-ZO	Washer M10 hot-dip galvanized ISO7089	206
M-Z-P-Z-10-ZO	Washer M8 hot-dip galvanized ISO7089	4
M-Z-P-P-12-ZO	Extension Washer M12 hot-dip galvanized ISO7093	4
<b>P-SK6-ZS-SX-Z</b>		
M-Z-S-SZ-10x90-8-ZO	Hexagon bolt M10x90-8.8 ISO 4014 hot-dip galvanized	28
M-Z-S-SZ-10x30-8-ZO	Hexagon bolt M10x30-8.8 ISO 4017 hot-dip galvanized ISO 4017	8
M-Z-N-SZ-10-8-ZO	Nut M10- hot-dip galvanized ISO 4032	36
M-Z-P-Z-10-ZO	Washer M10 hot-dip galvanized ISO7089	72
<b>P-SK6-ZS-UZ-Z</b>		
M-Z-S-SZ-10x140-8-ZO	Hexagon bolt M10x140-8.8 ISO 4014 hot-dip galvanized	1
M-Z-S-SZ-10x90-8-ZO	Hexagon bolt M10x90-8.8 ISO 4014 hot-dip galvanized	5
M-Z-N-SZ-10-8-ZO	Nut M10-8 hot-dip galvanized ISO 4032	6
M-Z-P-Z-10-ZO	Washer M10 hot-dip galvanized ISO7089	12



## 5. List of tools required for the container stair assembly

Table 3 List of tools

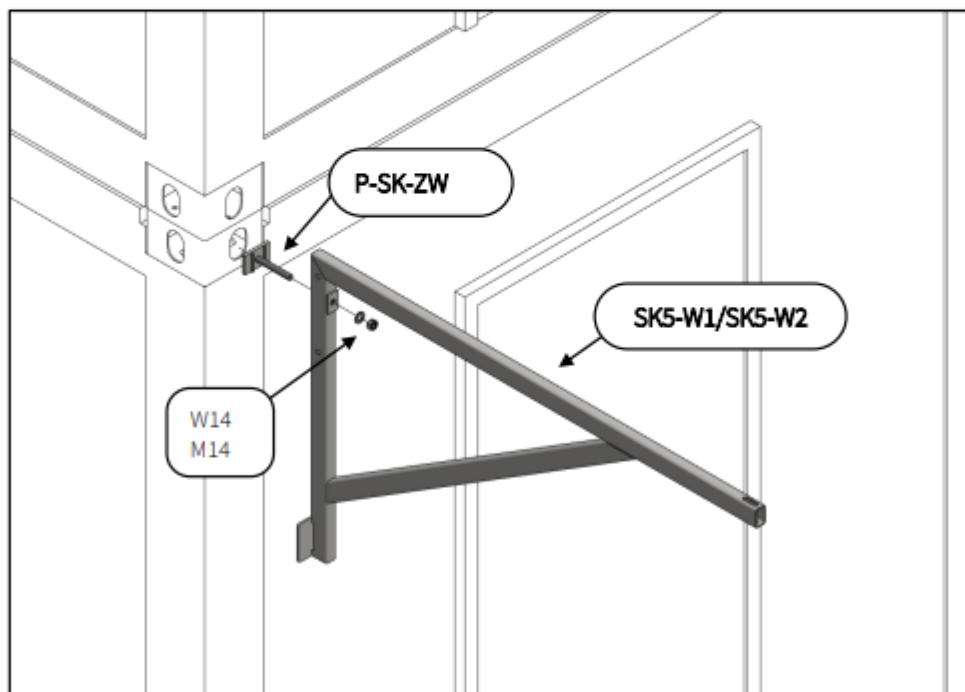
	<p>Wrenches: 22,19,18,17,16,13,10</p>
	<p>Level</p>
	<p>Tape measure</p>
	<p>Lifter with a lifting capacity of min. 1 t</p>

## 6. Assembly operations of individual components of the container stair system

The assembly manual has been prepared in a way that shows how to assemble the individual elements of the container stair system.

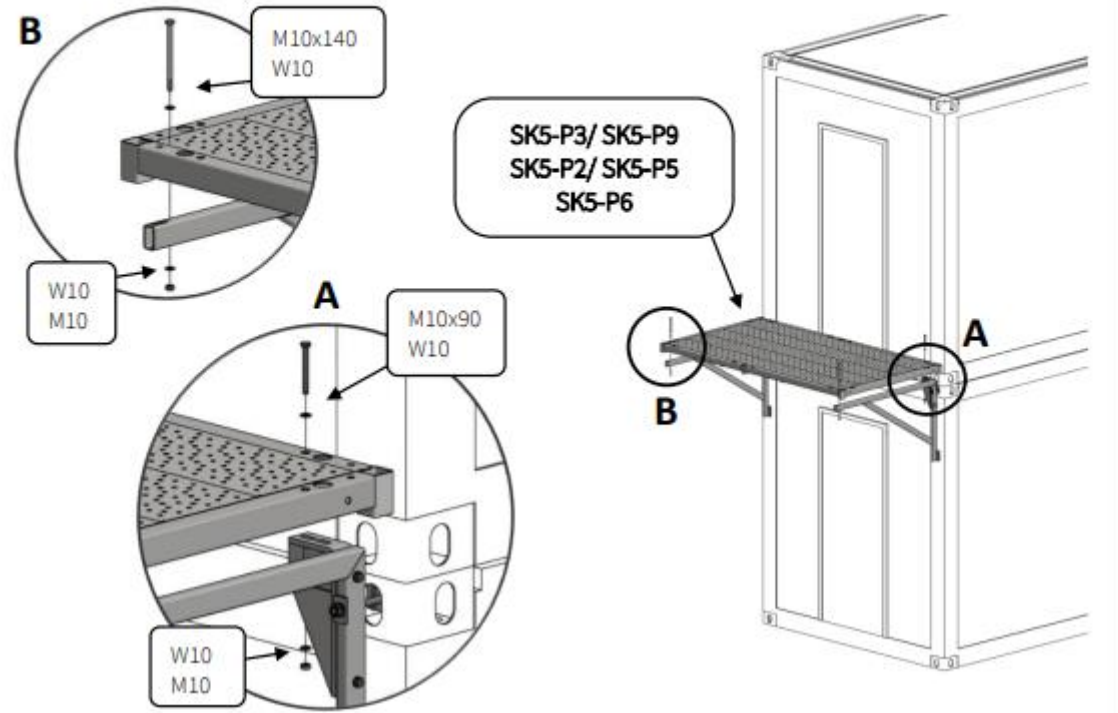
### 4.1. Support assembly

The supports are assembled by placing the support clamp in the container socket, then slide the support on and screw it with the washer and nut set.

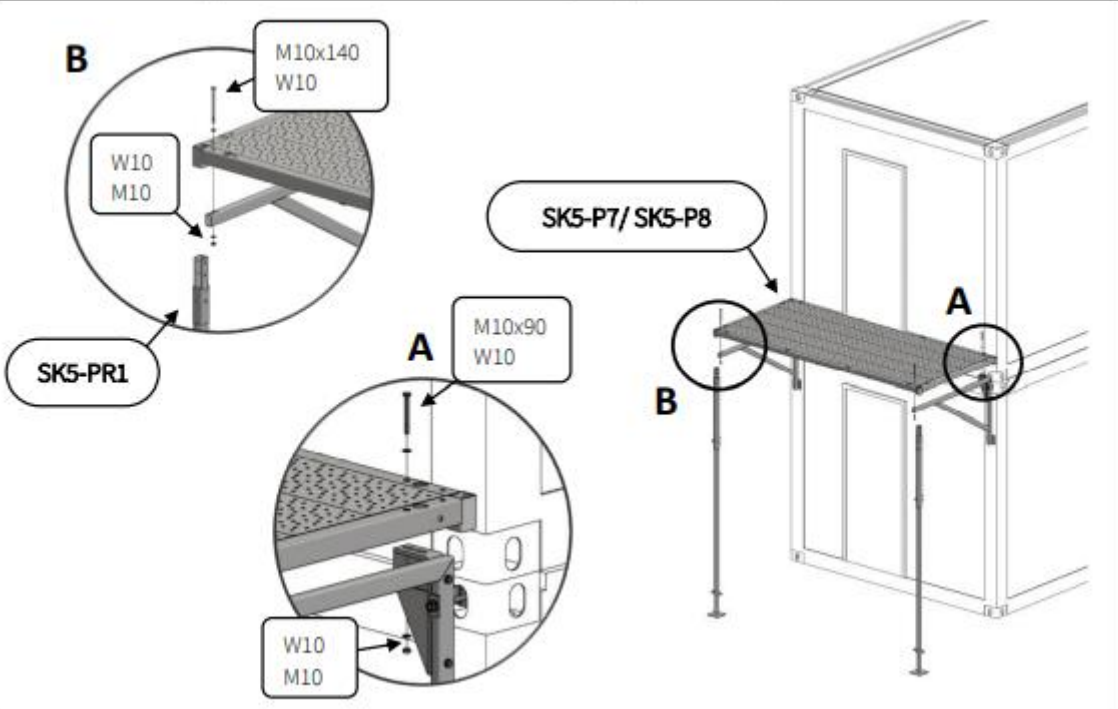


4.2. Platform assembly

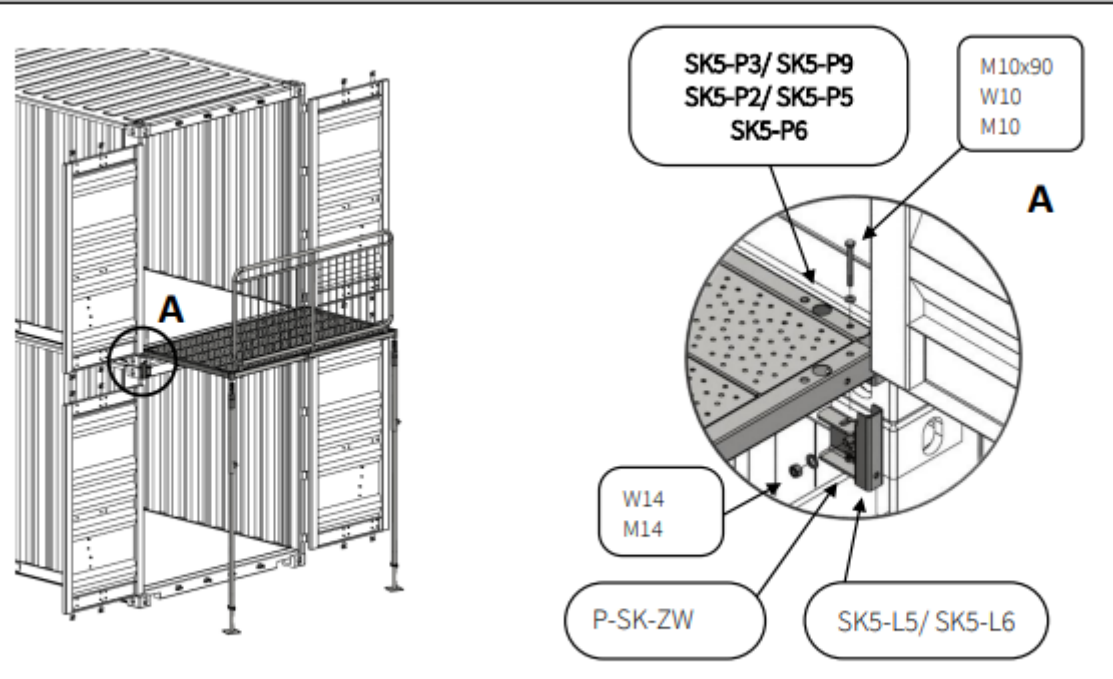
The platforms are assembled on supports and then screwed together with a set of a bolt, washer and nut.



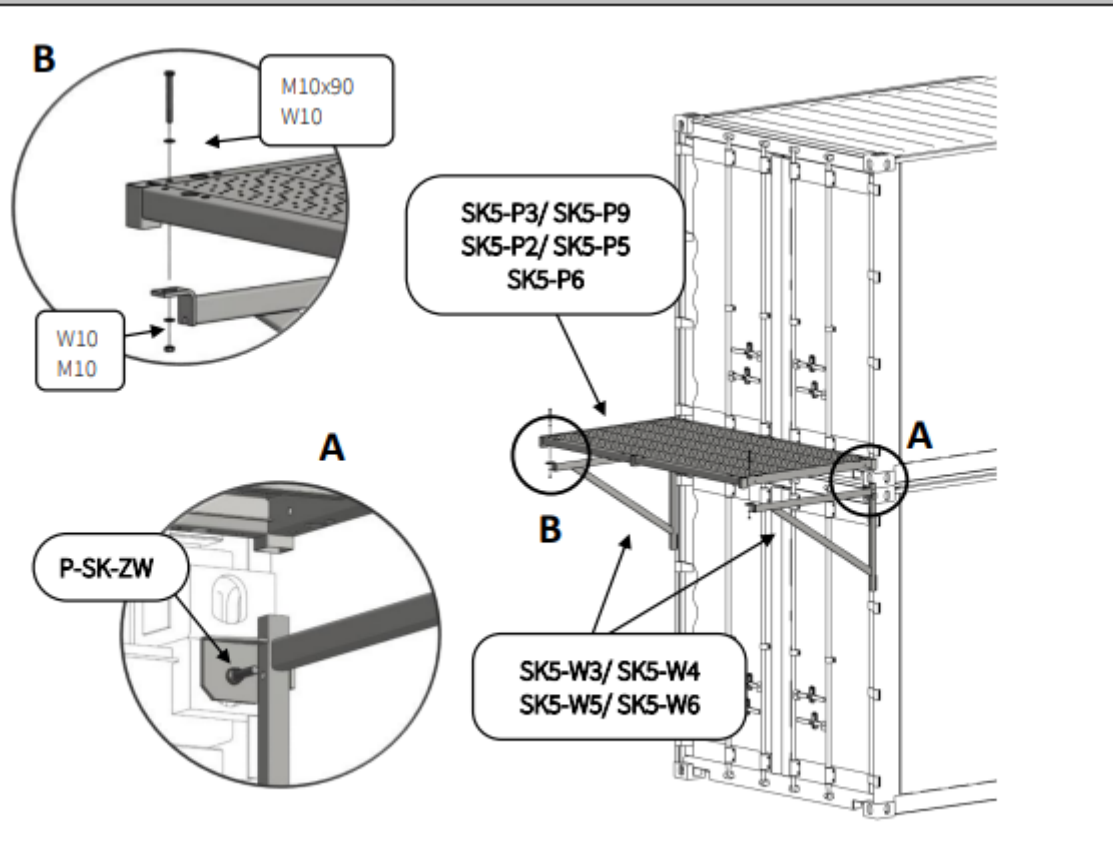
The 3-meter-long platform should be additionally supported with posts.



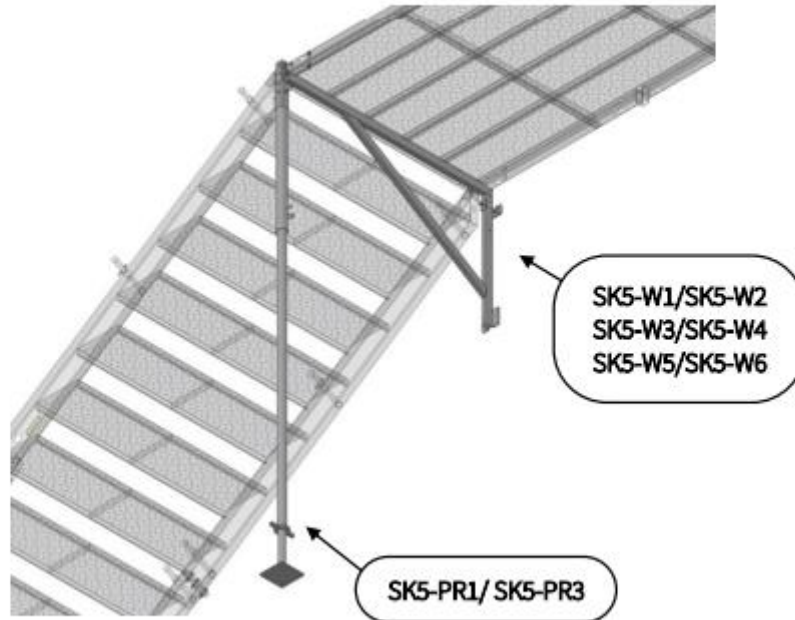
SK5-L5 (left) and SK5-L6 (right) supports are alternative supports for sea containers.



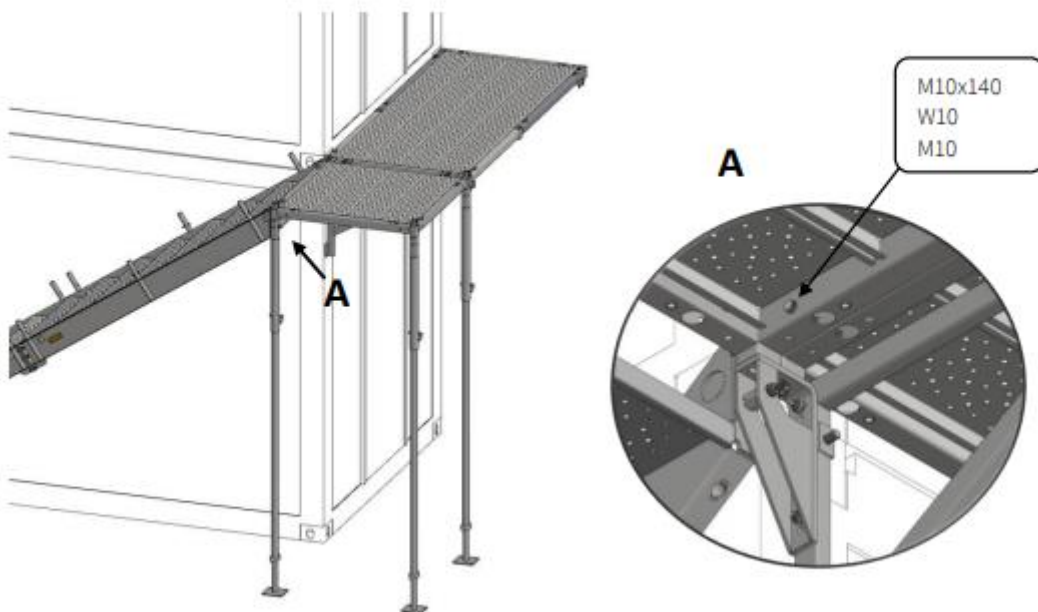
We use W3, W4, W5 and W6 supports for sea containers



In the case when stairs are assembled to the platform, on this side, the platform should be supported by two posts or a support and a post.

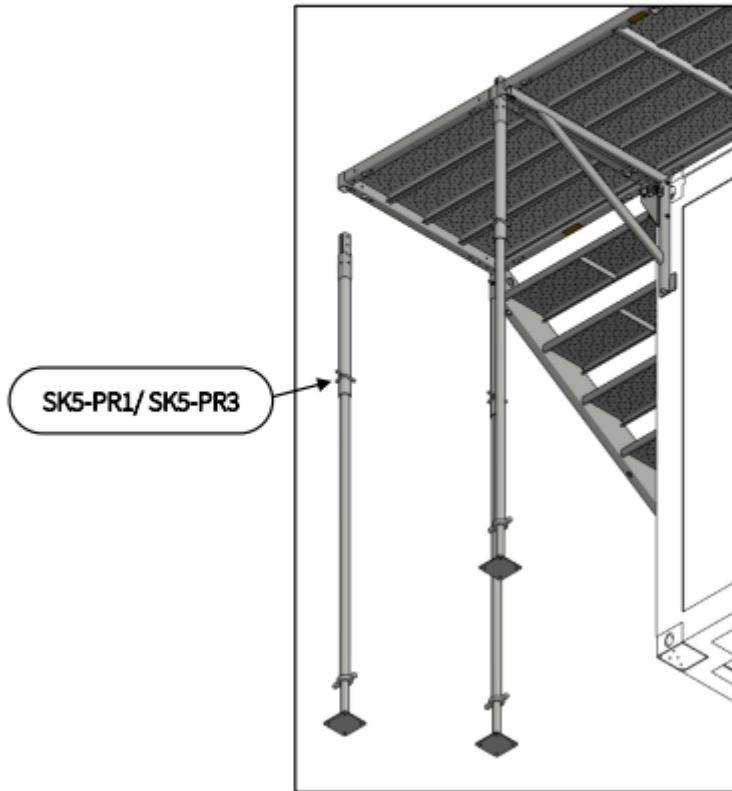


If it is not possible to assemble the platform on the supports, it should be supported at least in three sockets with posts and screwed to the adjacent platform which is assembled on the supports. The adjacent platforms should be screwed together with the set of washer PK, bolt, washers, nut.



4.3. Post assembly

The posts should be placed in the platform sockets.



In order to adjust to the height of the container, the PR1 / PR2 posts have three-step adjustments in the upper part. In the event of uneven ground, the PR1 post can be additionally adjusted with an adjustable foot.

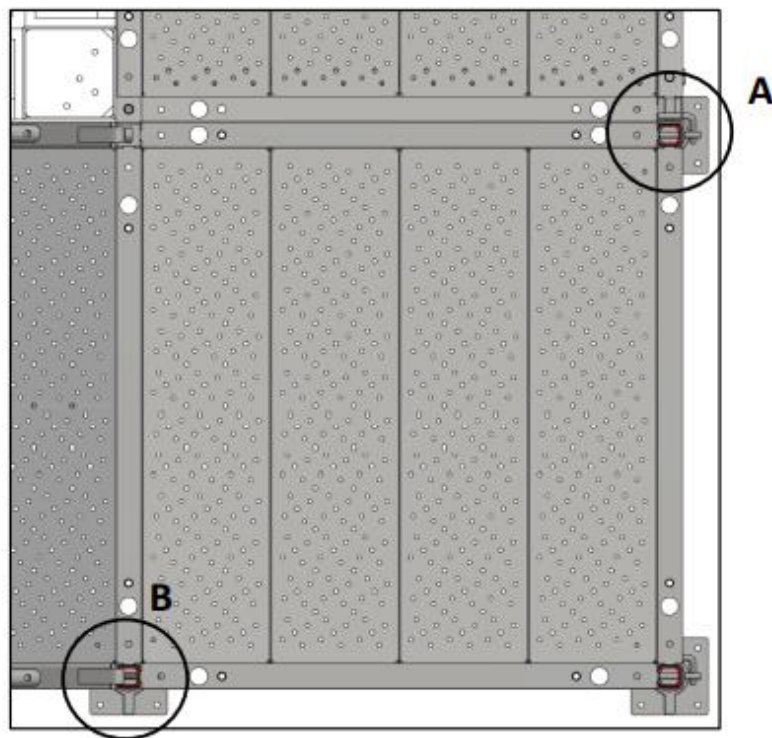
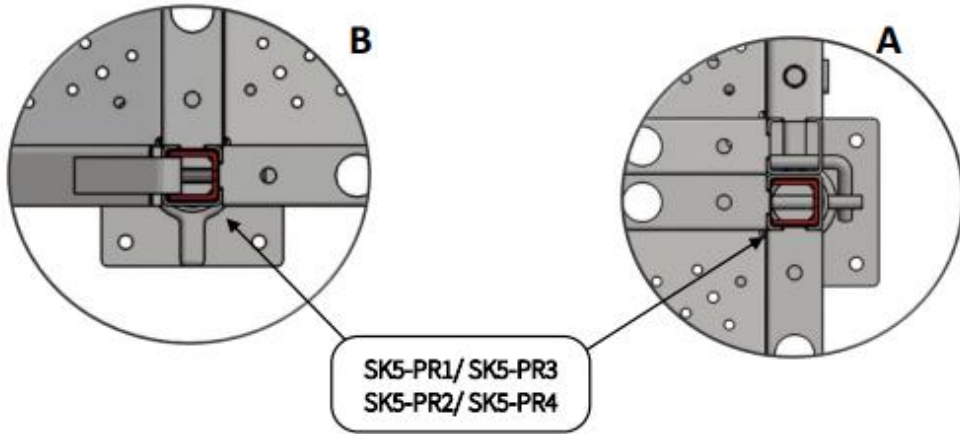


The height of the PR3 / PR4 post should be adjusted to the height of the container to which the stairs are assembled. To do this, disassemble the pins, adjust the height, and insert the pins in the appropriate holes.



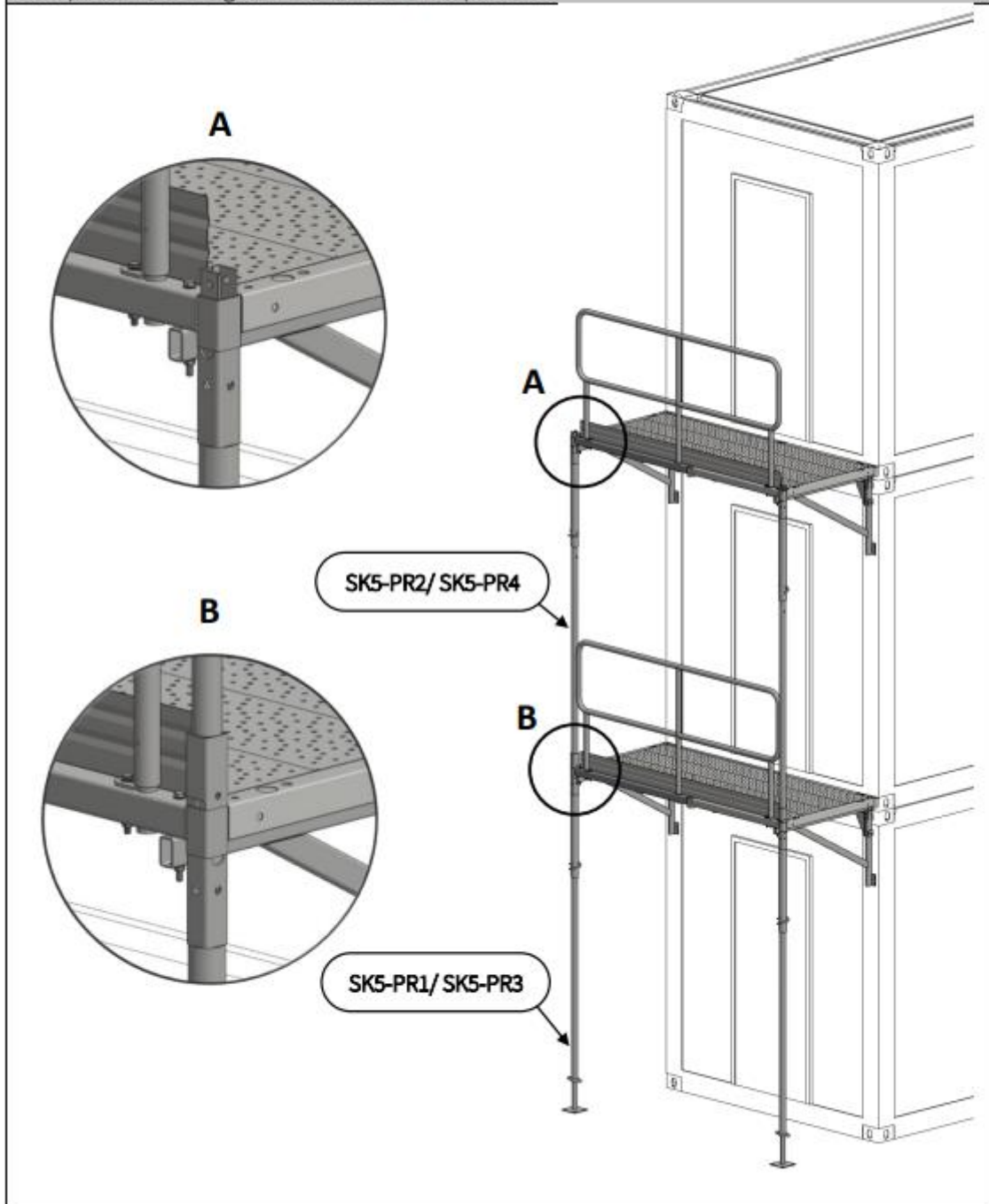


The posts that are assembled on the stairs should be placed so that the cut in the spindle of the post points towards the hook of the stairs.

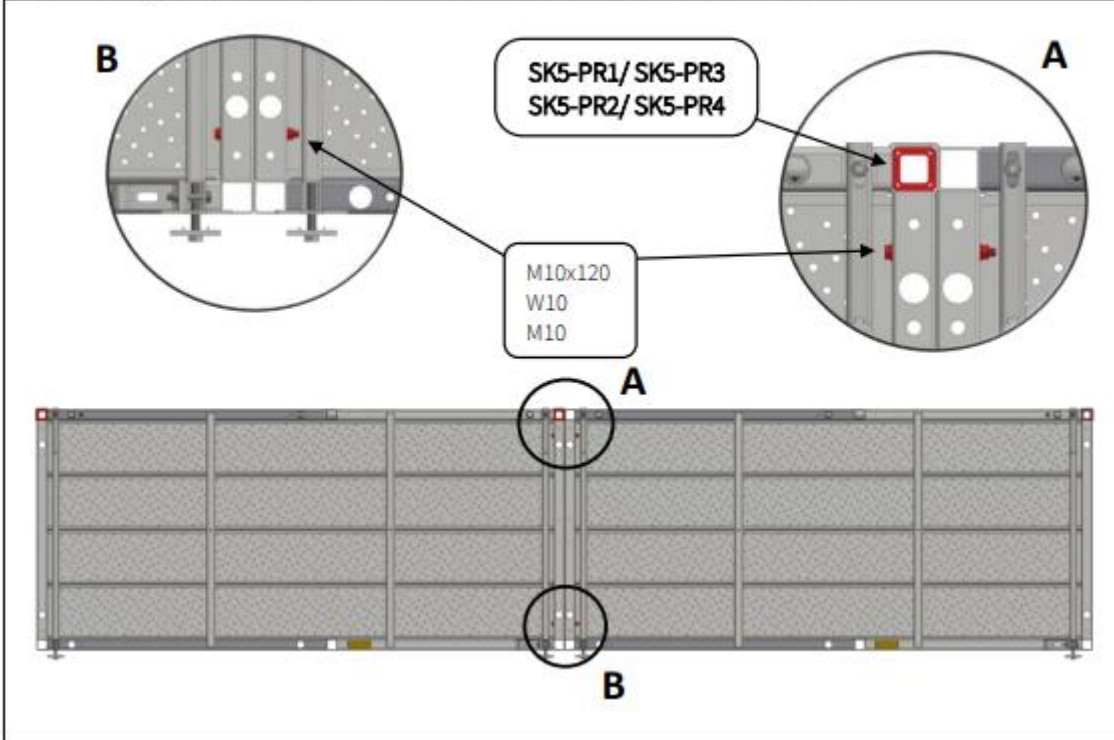




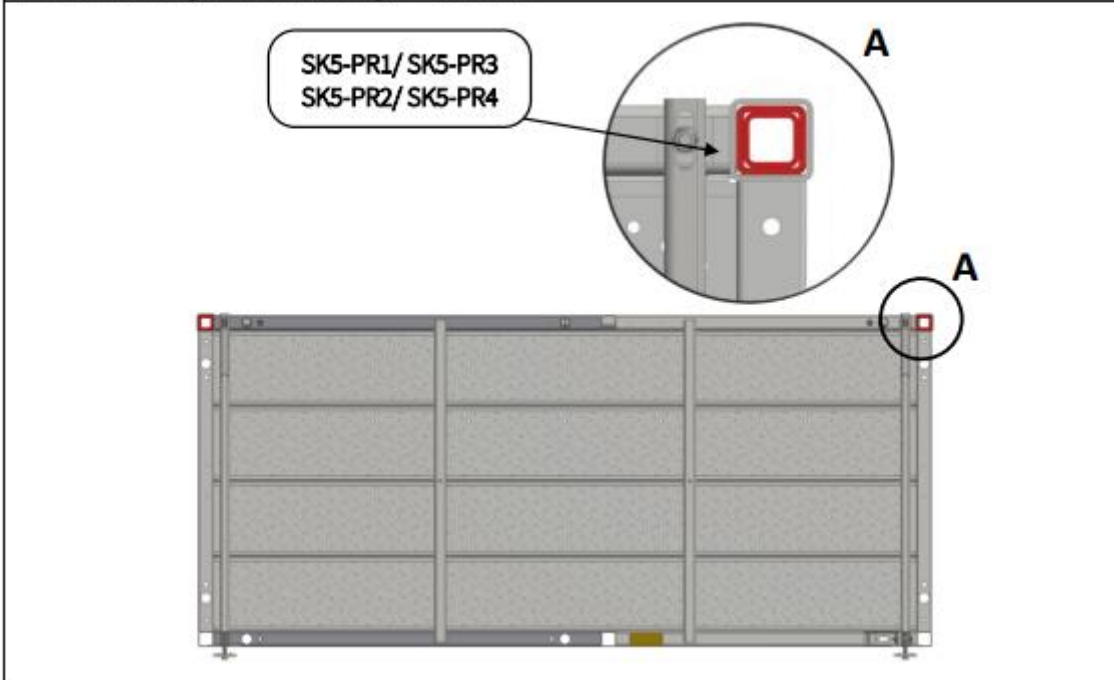
In the case of a multi-storey setting of container stairs, the platforms should be supported with posts from the ground level to the last platform.



The posts for the platforms that are juxtaposed with each other.  
Additionally, the platforms should be connected with two M10x120 bolts

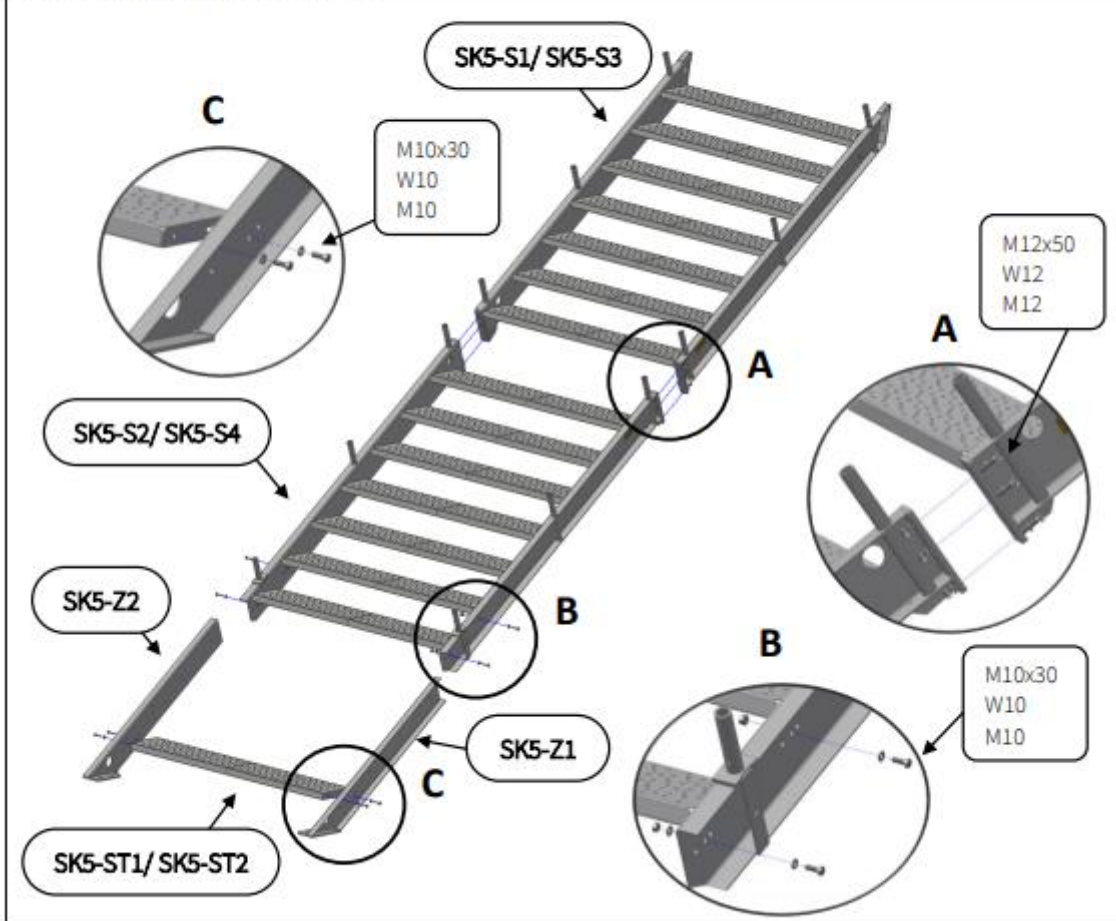


Posts for Configuration 7 in single assembly.

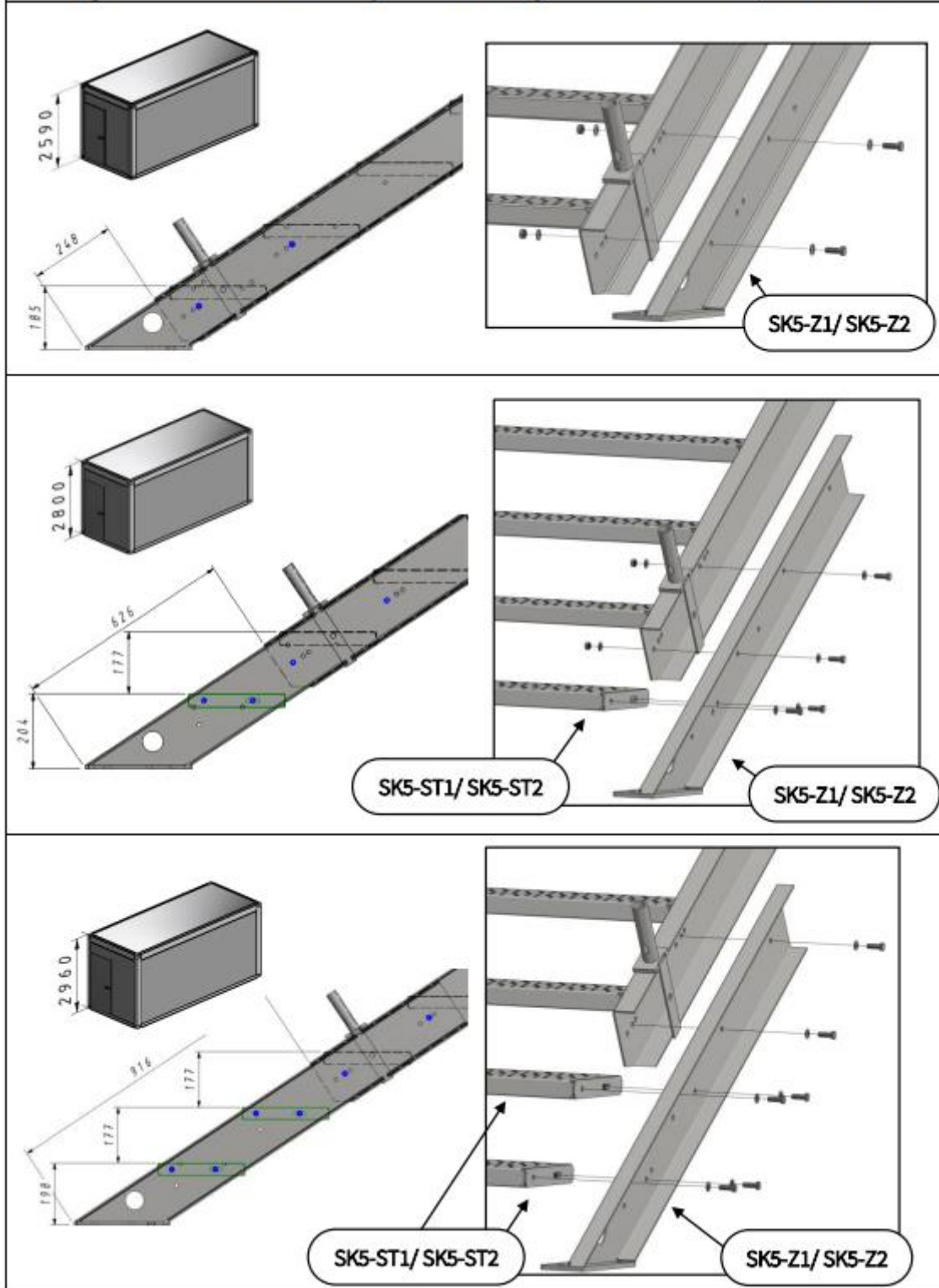


4.4. Stair assembly

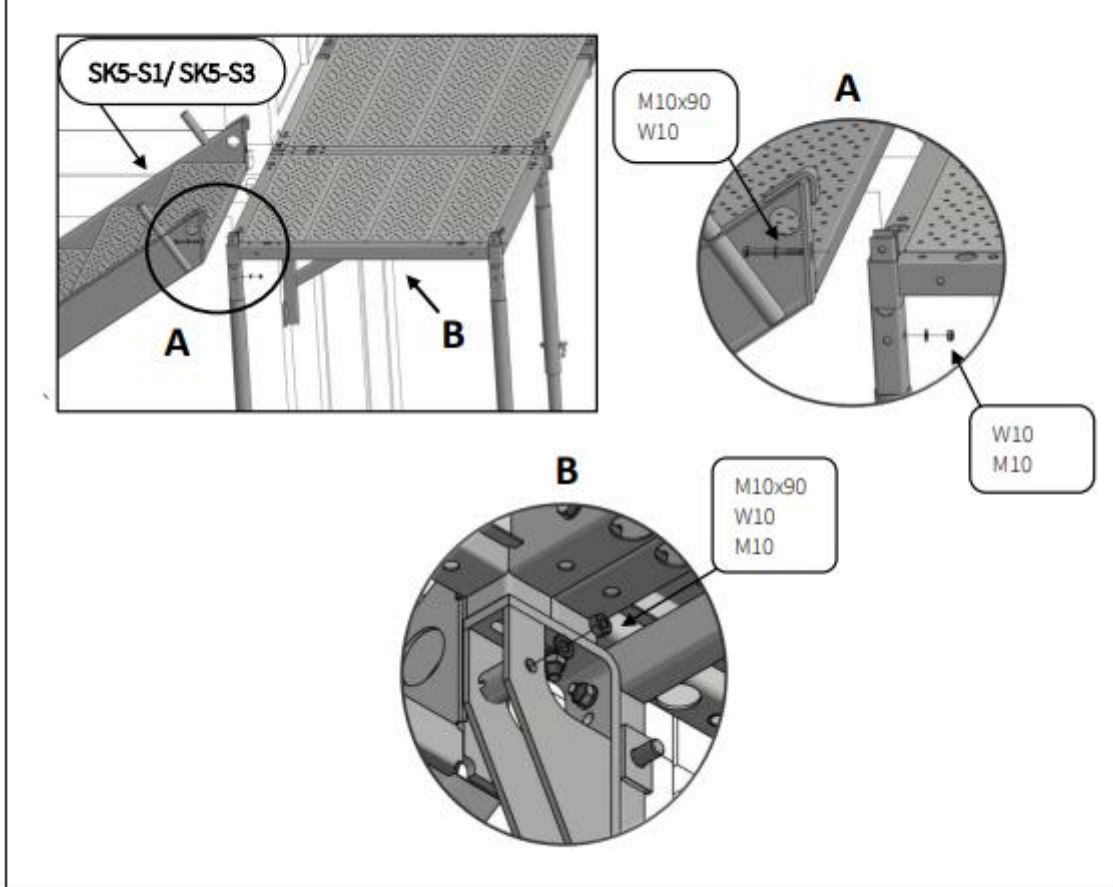
Scheme of the assembly of the stairs. The assembly of SK5-Z1 and SK5-Z2 elements depends on the height of the containers.



The height of the stairs should be adjusted to the height of the container as presented below.

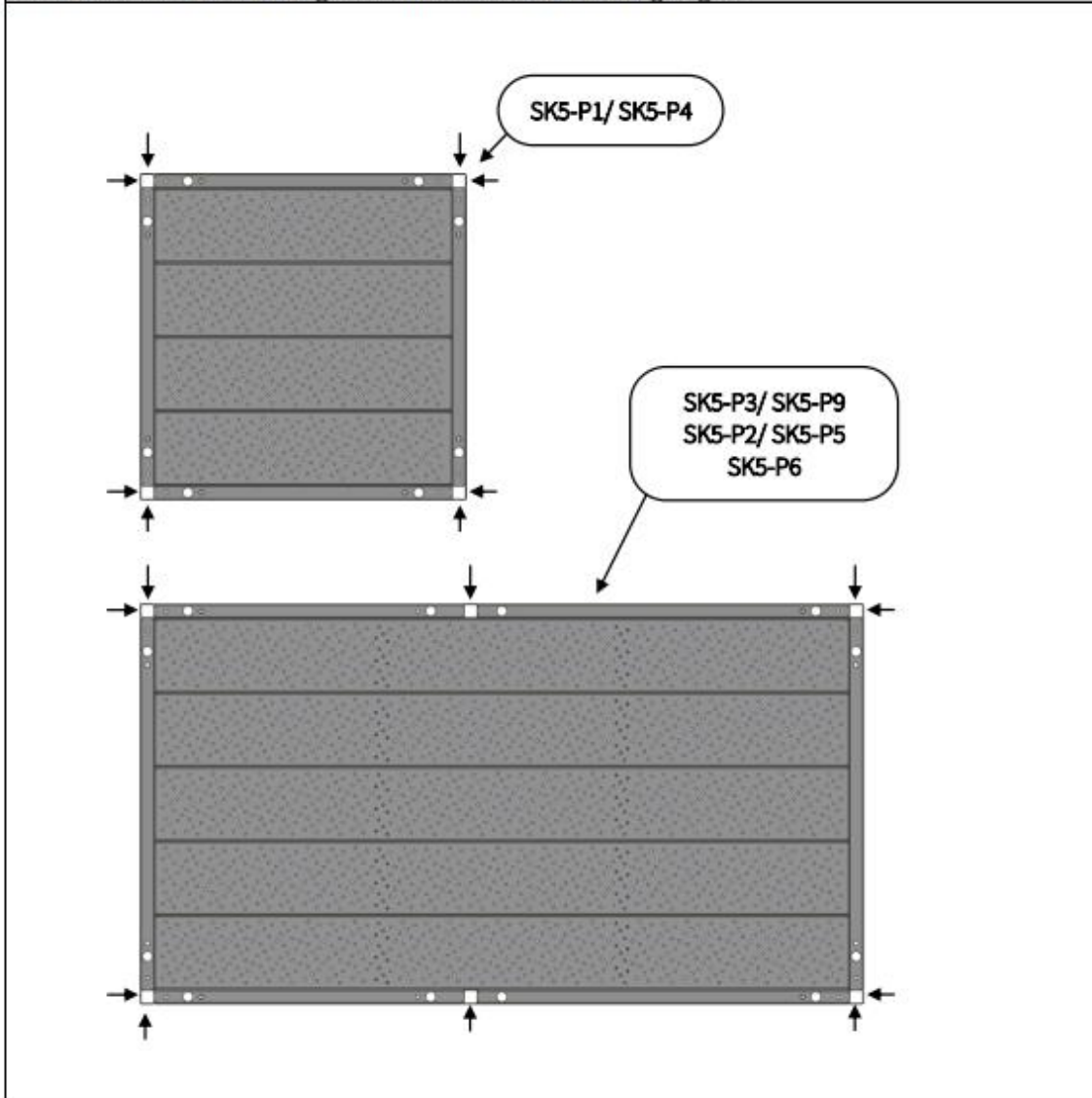


The stairs have hooks that facilitate assembly, they should be hung on the platform sockets and then screwed with a set of bolts, washers, nuts.

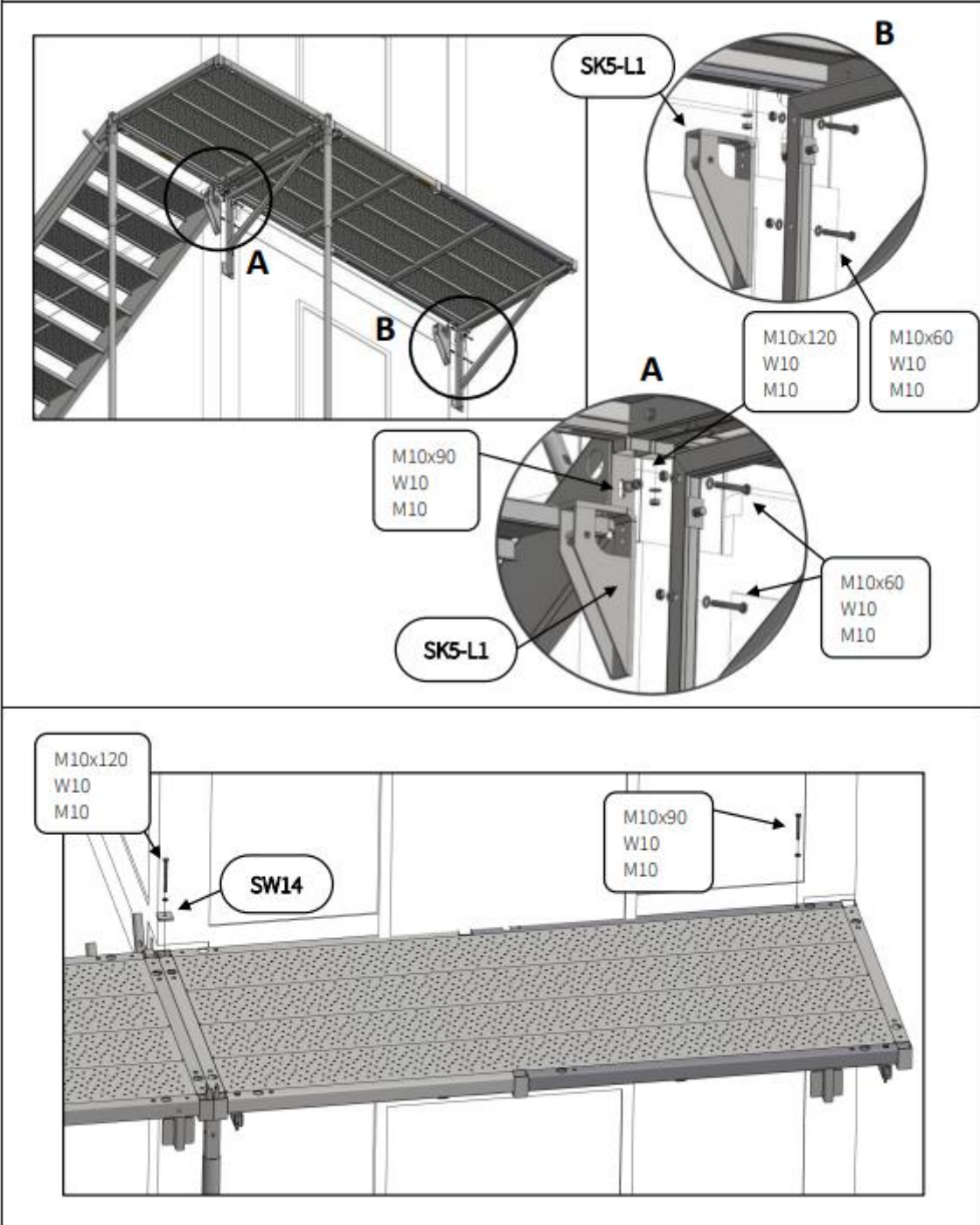




For the 1100x1100 and 1200x1200 platforms, the stairs can be assembled on four sides, depending on the needs. For platforms with a length of 2440 and 1690, the stairs should be assembled on the short edge or in the sockets on the long edges.



4.5. LP (SK5-L1) connector assembly

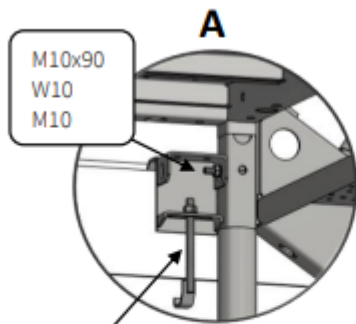
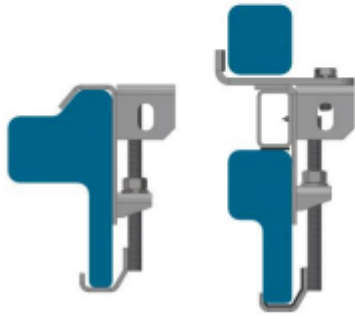




4.6. L2/L3 connector assembly

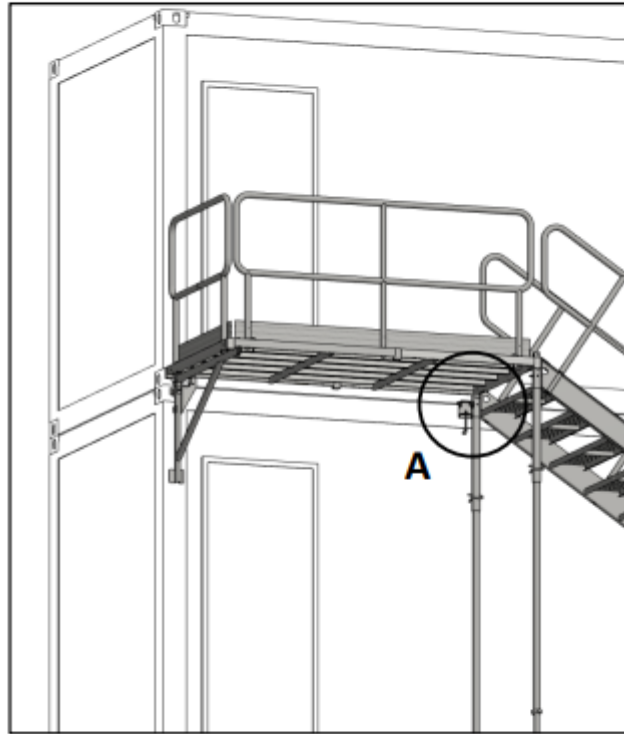
The L2 / L3 connector is assembled on the container cornice and screwed to the structure of the container stairs, it prevents the platform from moving away from the container when the platform is assembled on one support and two posts along the container.

**Installation scheme L2 / L3**



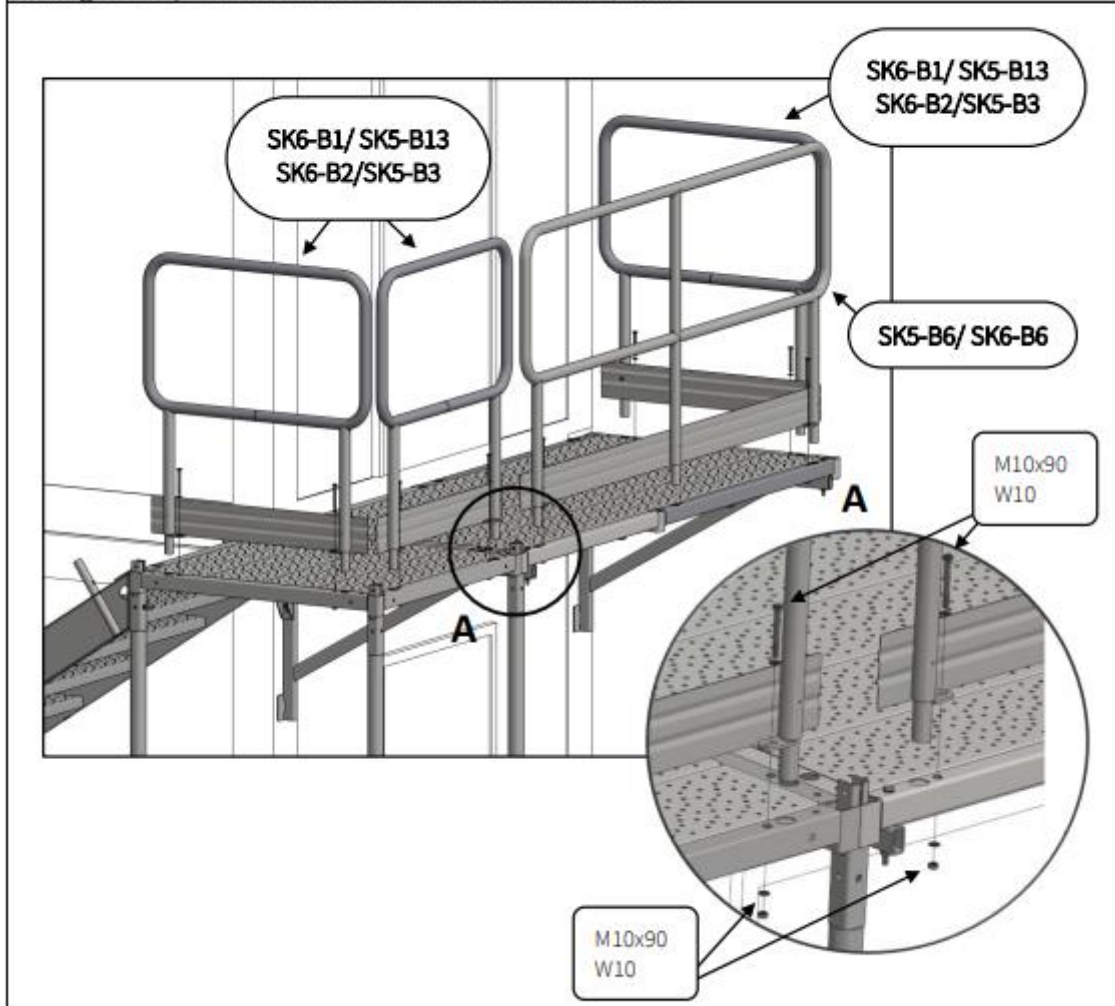
M10x90  
W10  
M10

SK5-L3/SK5-L2

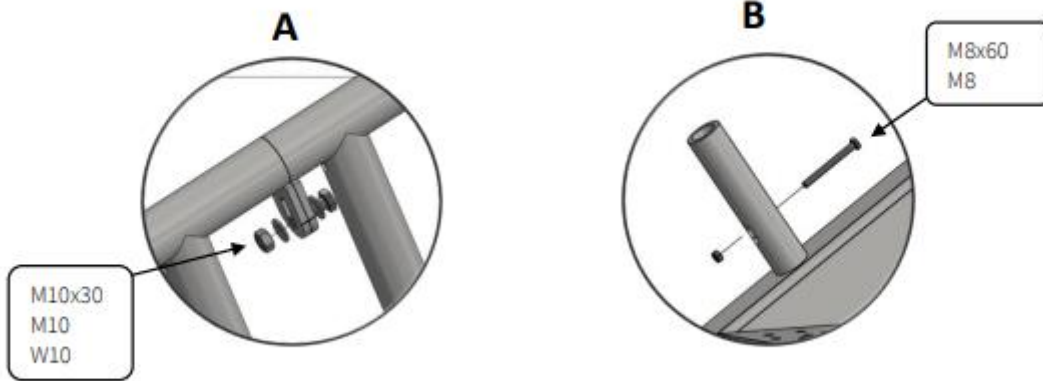
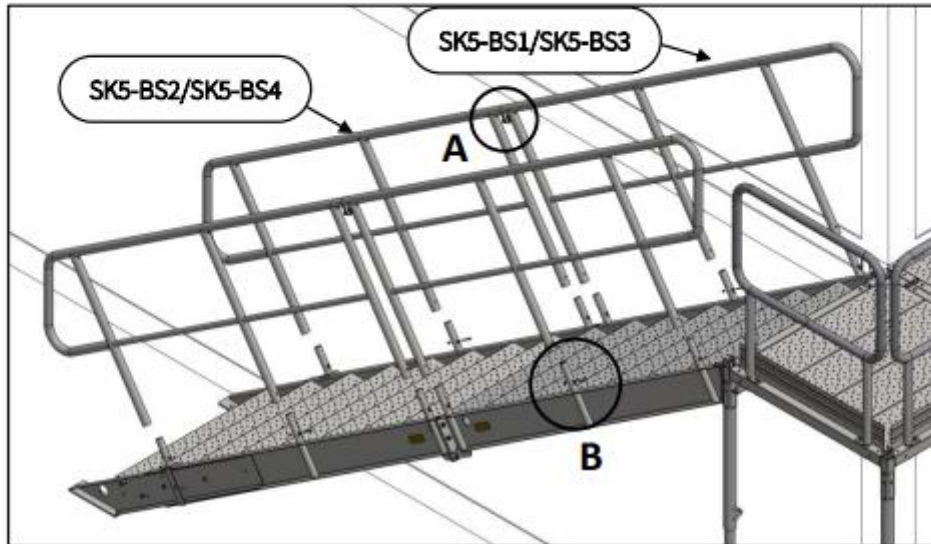


4.7. Railing assembly

The railings are assembled by placing the railing in the platform socket, then screwing the railing to the platform with a set of screws, washers, nuts.



The stair railing is assembled by placing railing in the stair spindles, and then securing it with a bolt and nut set. To prevent the railing from being pulled out, at least one bolt is used for one railing.



When the platforms are assembled only on posts, it is necessary to assemble the braces and screw them to the container frame with L2 or L3 connectors.



When assembling the configuration with the entry to the second level, the minimum required number of office containers is 9.

