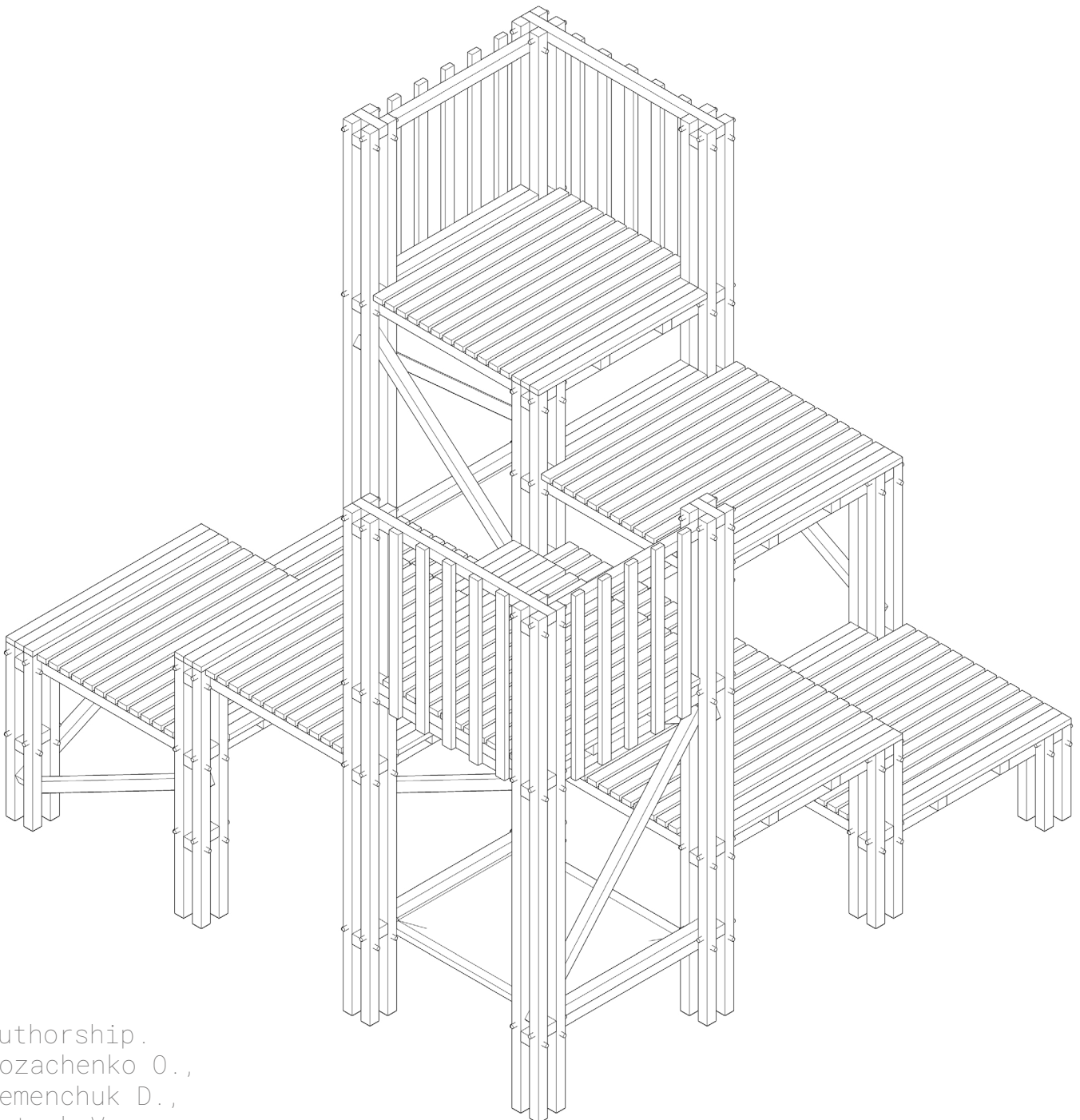




# INSTRUCTION

KHARKIV  
SCHOOL of  
ARCHITECTURE

## *soft*COLLIDER (3x3, outdoor variant)

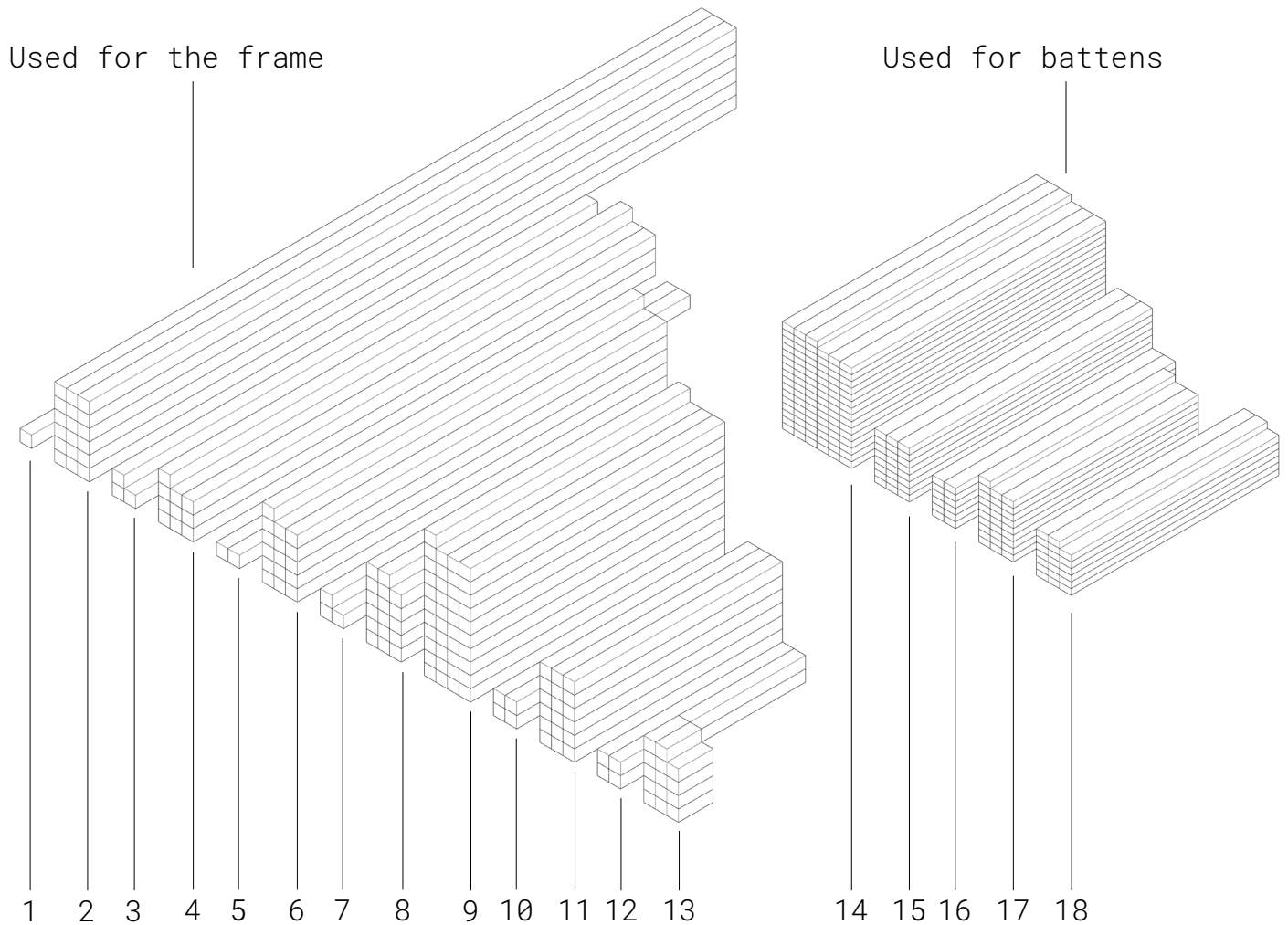


Authorship.  
Kozachenko O.,  
Semenchuk D.,  
Petryk V.

# **SPECIFICATION**

# SPECIFICATION\_1.

(TIMBER BEAMS)



## Balk 50 mm x 50 mm.

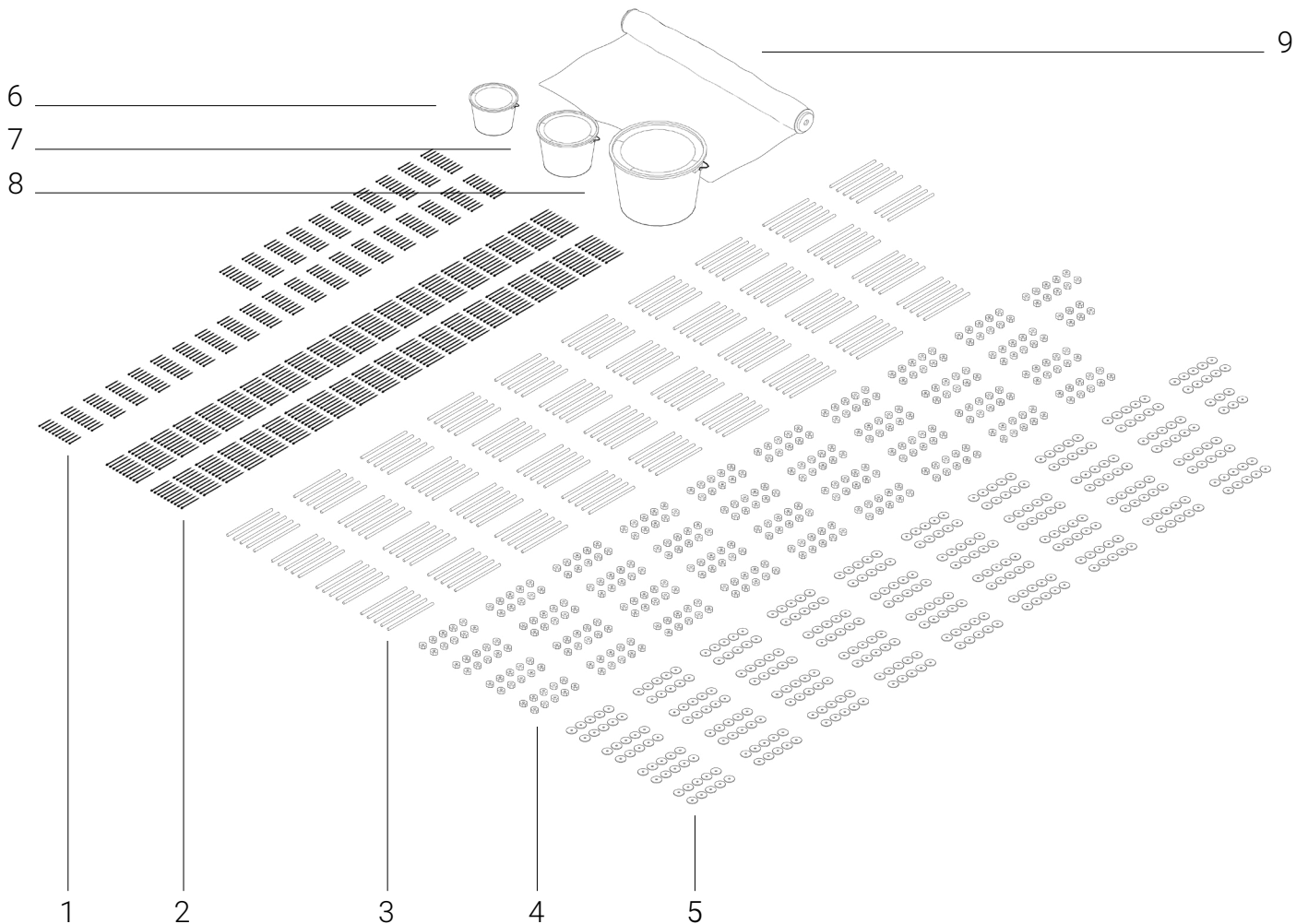
1.	3000 mm	1 pc.	7.	1500 mm	3 pc.
2.	2800 mm	18 pc.	8.	1200 mm	17 pc.
3.	2050 mm	3 pc.	9.	1100 mm	45 pc.
4.	2000 mm	10 pc.	10.	1050 mm	4 pc.
5.	1950 mm	2 pc.	11.	900 mm	18 pc.
6.	1600 mm	16 pc.	12.	800 mm	4 pc.
			13.	150 mm	14 pc.

## Balk 30 mm x 50 mm.

14.	1100 mm	93 pc.
15.	1050 mm	24 pc.
16.	950 mm	12 pc.
17.	900 mm	20 pc.
18.	800 mm	28 pc.

# SPECIFICATION\_2.

(FOR BEAMS)



## Joints.

- |                                     |         |
|-------------------------------------|---------|
| 1. Self-tapping screw.<br>3,5x55 mm | 200 pc. |
| 2. 4,2x76 mm                        | 400 pc. |
| 3. Threaded rod M8 200mm            | 188 pc. |
| 4. Nuts M8                          | 376 pc. |
| 5. Washers M8                       | 376 pc. |

## Finishing.

- |  |         |
|--|---------|
| 6. Rubber paint (Blue)                             | 1,2 kg. |
| 7. Bitumen-rubber mastic BauGut roof waterproofing | 3,5 kg. |
| 8. Jedyinka Impregnat colourless antiseptic        | 5 l.    |

## Hammock.

- |                                  |       |
|----------------------------------|-------|
| 9. Tent fabric<br>750mm x 1500mm | 2 pc. |
|----------------------------------|-------|



# WHAT TO DO WITH THE BEAMS?

# COLUMNS

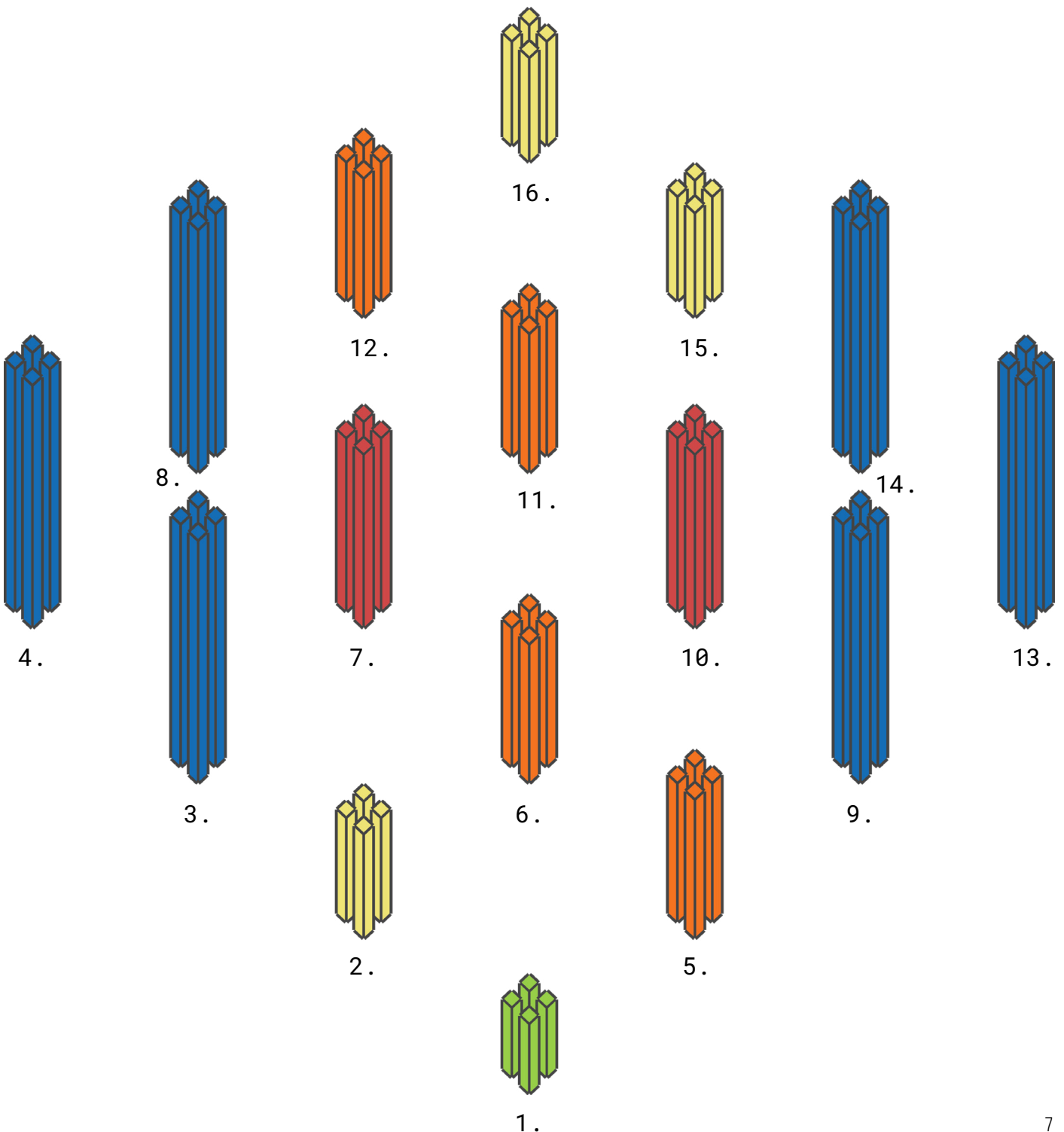
# ILLUSTRATION

(COLUMNS)

All elements of the columns are signed with numbers, it is important not to confuse them.

*In our project, the columns were dug into the ground by 400 mm. The dimensions in the instructions are given with an additional 400 mm.*

*If the structure is to stand indoors and no foundation is required, subtract 400 mm from the bottom of each column.*

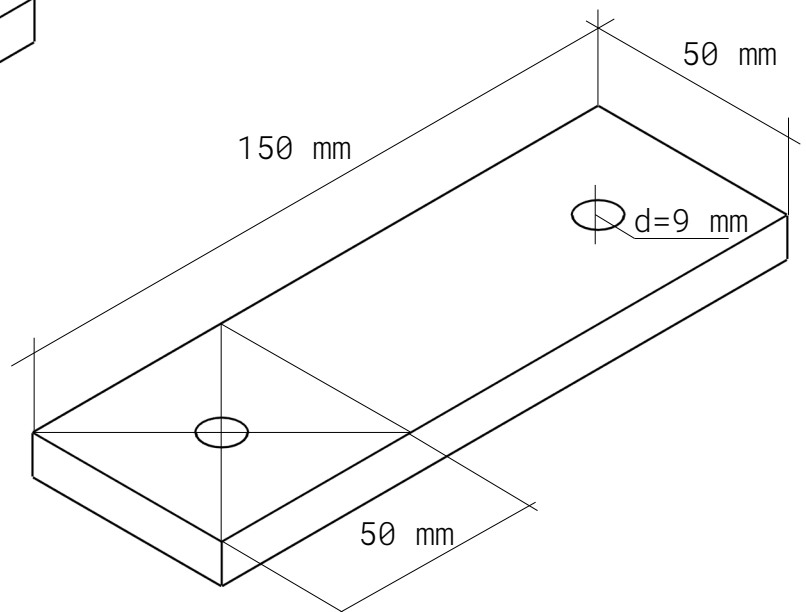
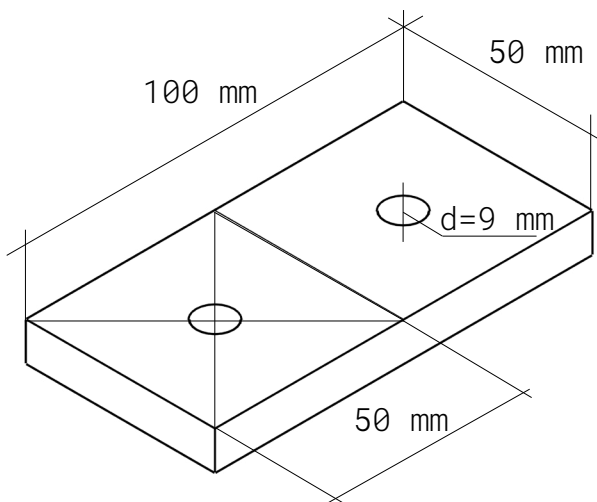


# RECOMMENDATION .

(TEMPLATES)

We recommend making templates from plywood, timber, etc. for the holes.

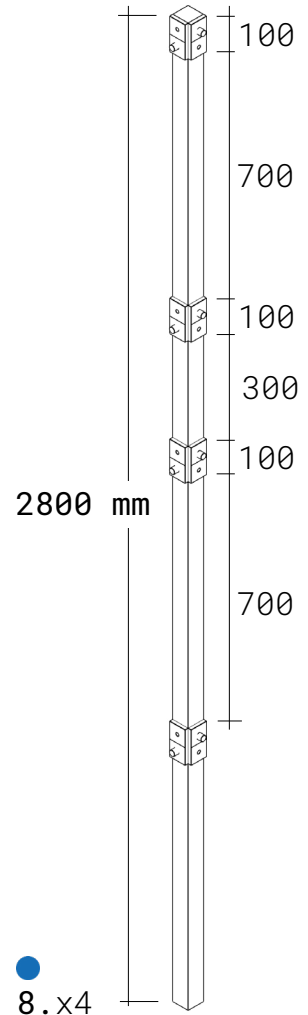
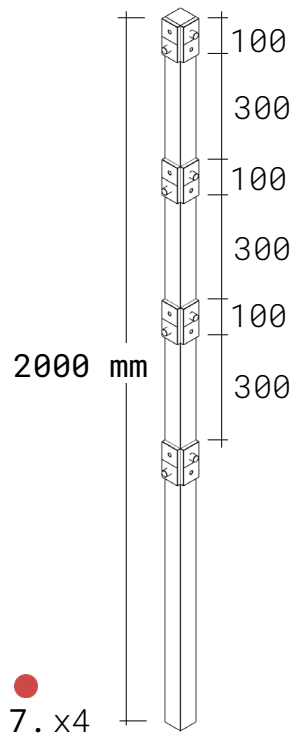
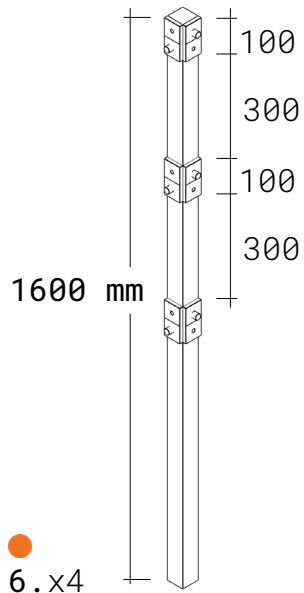
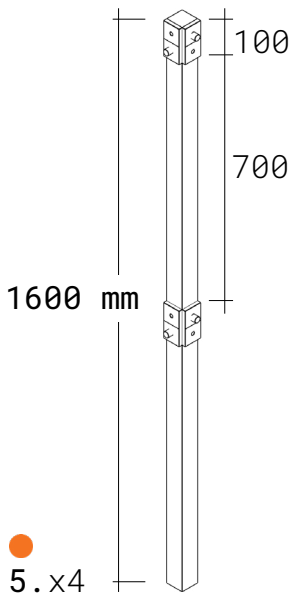
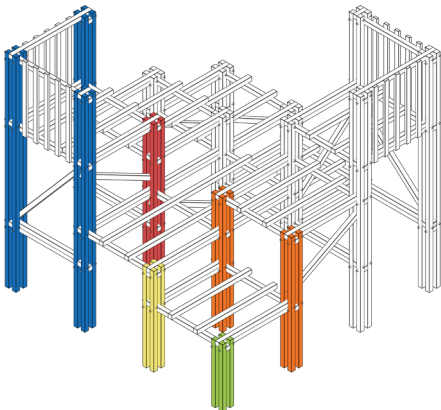
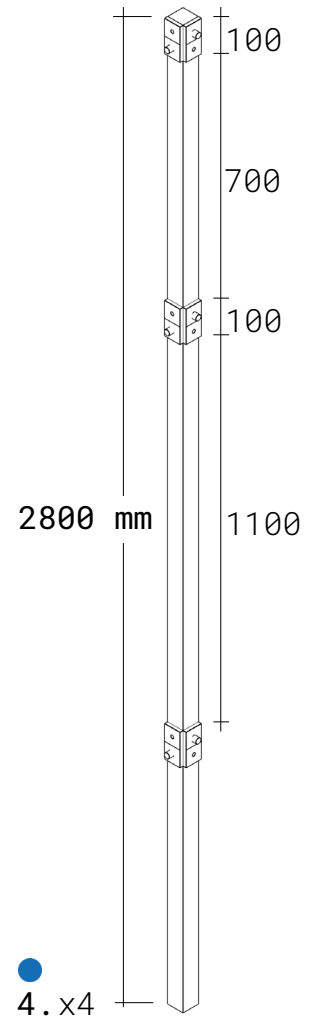
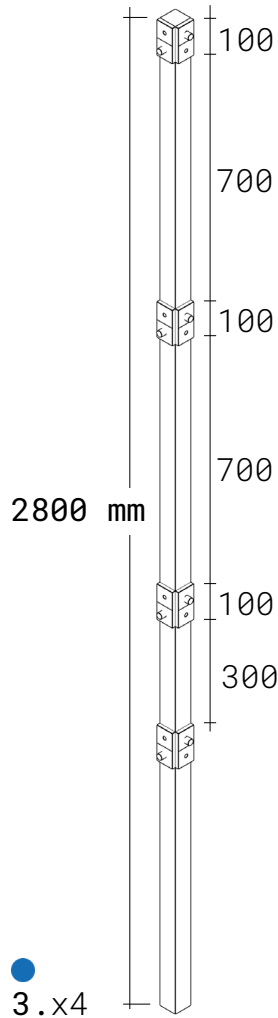
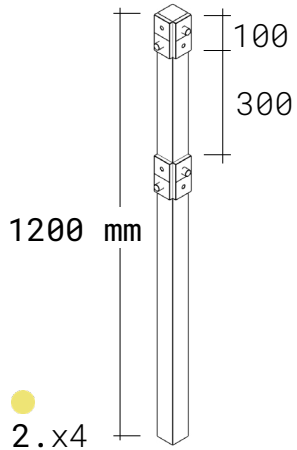
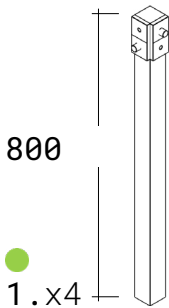
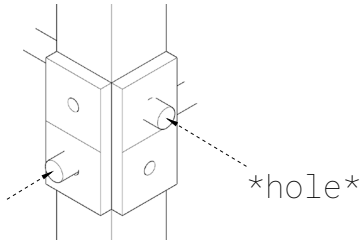
In the following instructions, the dimensions for drilling will be set according to the templates.

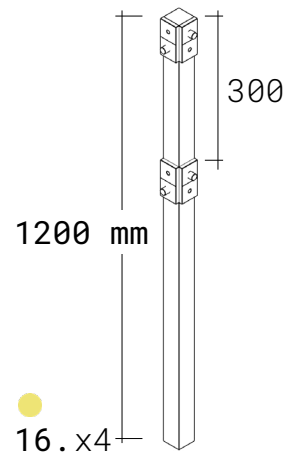
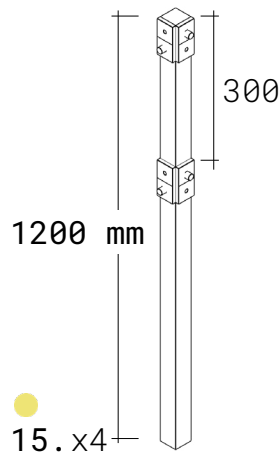
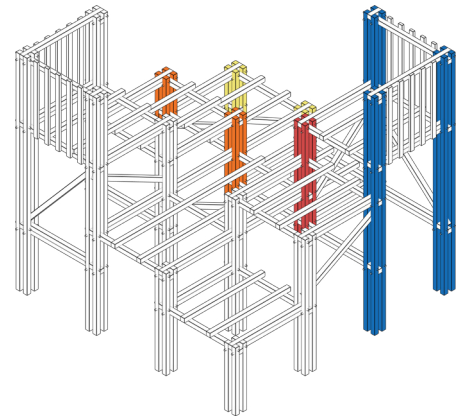
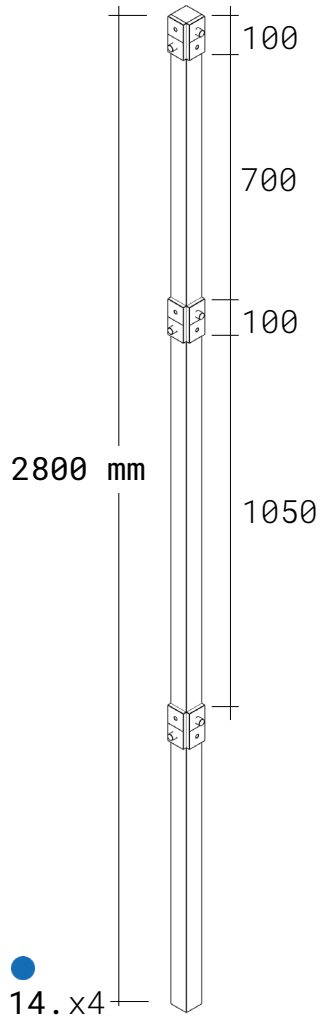
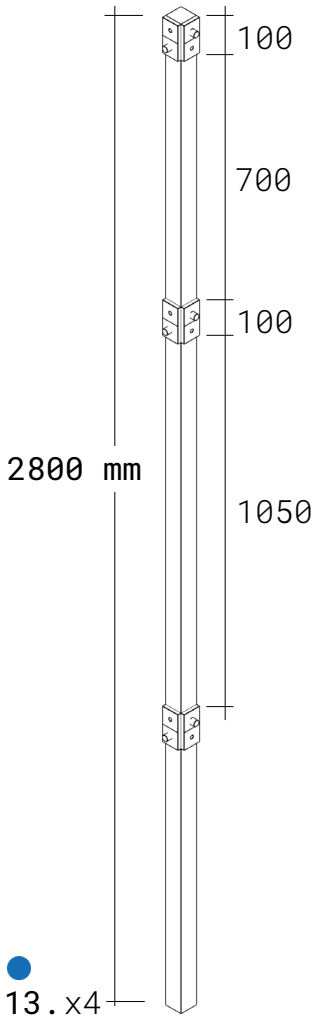
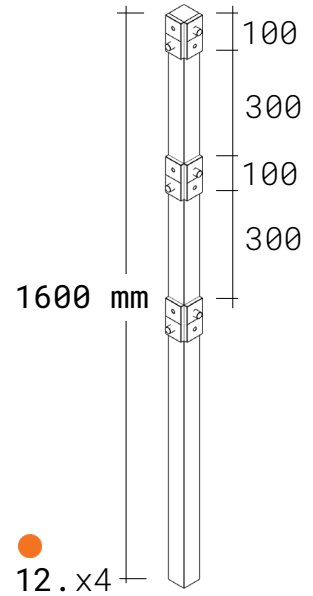
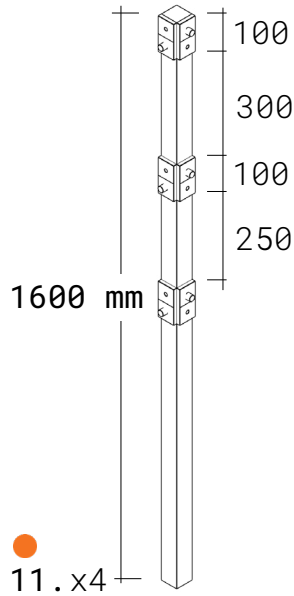
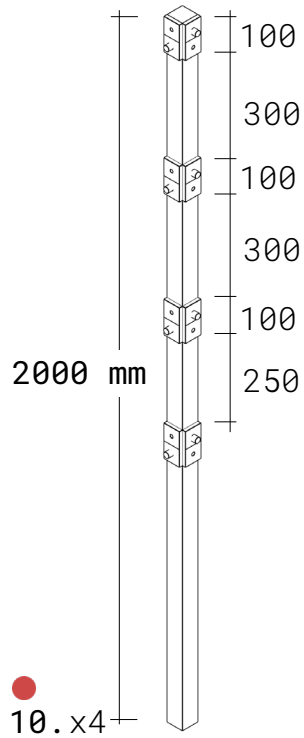
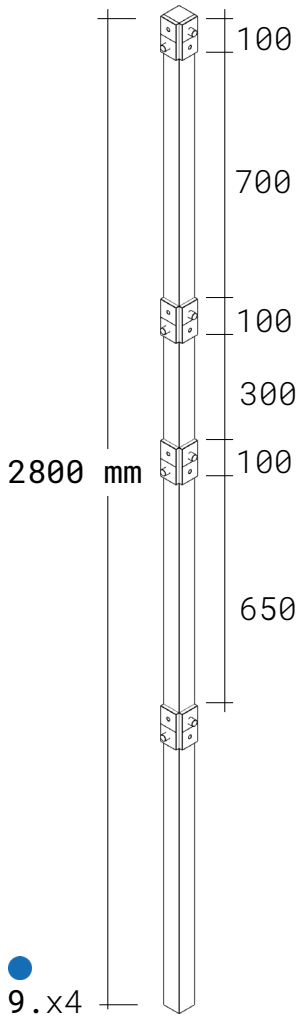


# SPECIFICATION\_3.

(COLUMNS)

Each column should be drilled from two sides as shown.

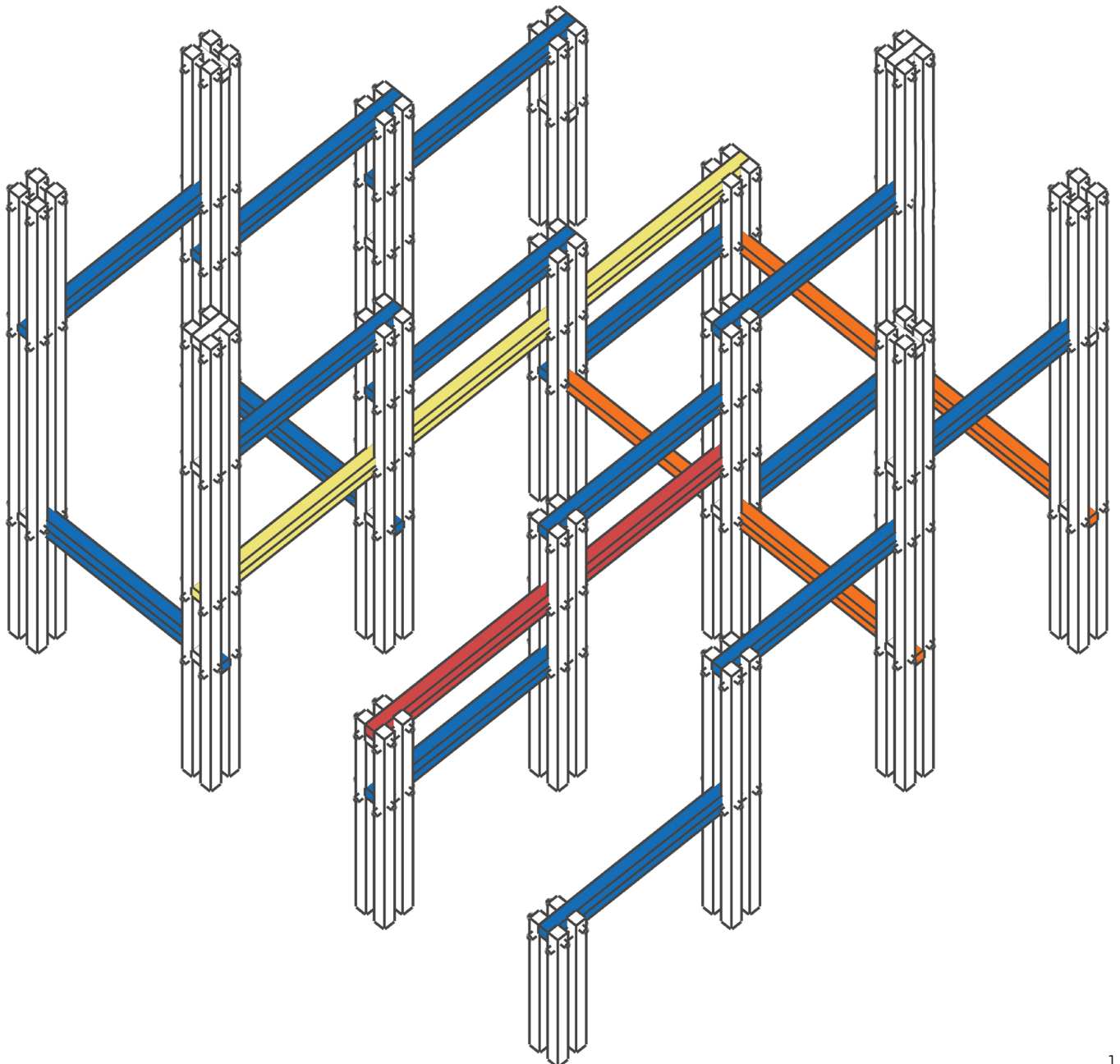




# BEAMS

# ILUSTRATION

(STACKED BEAMS)



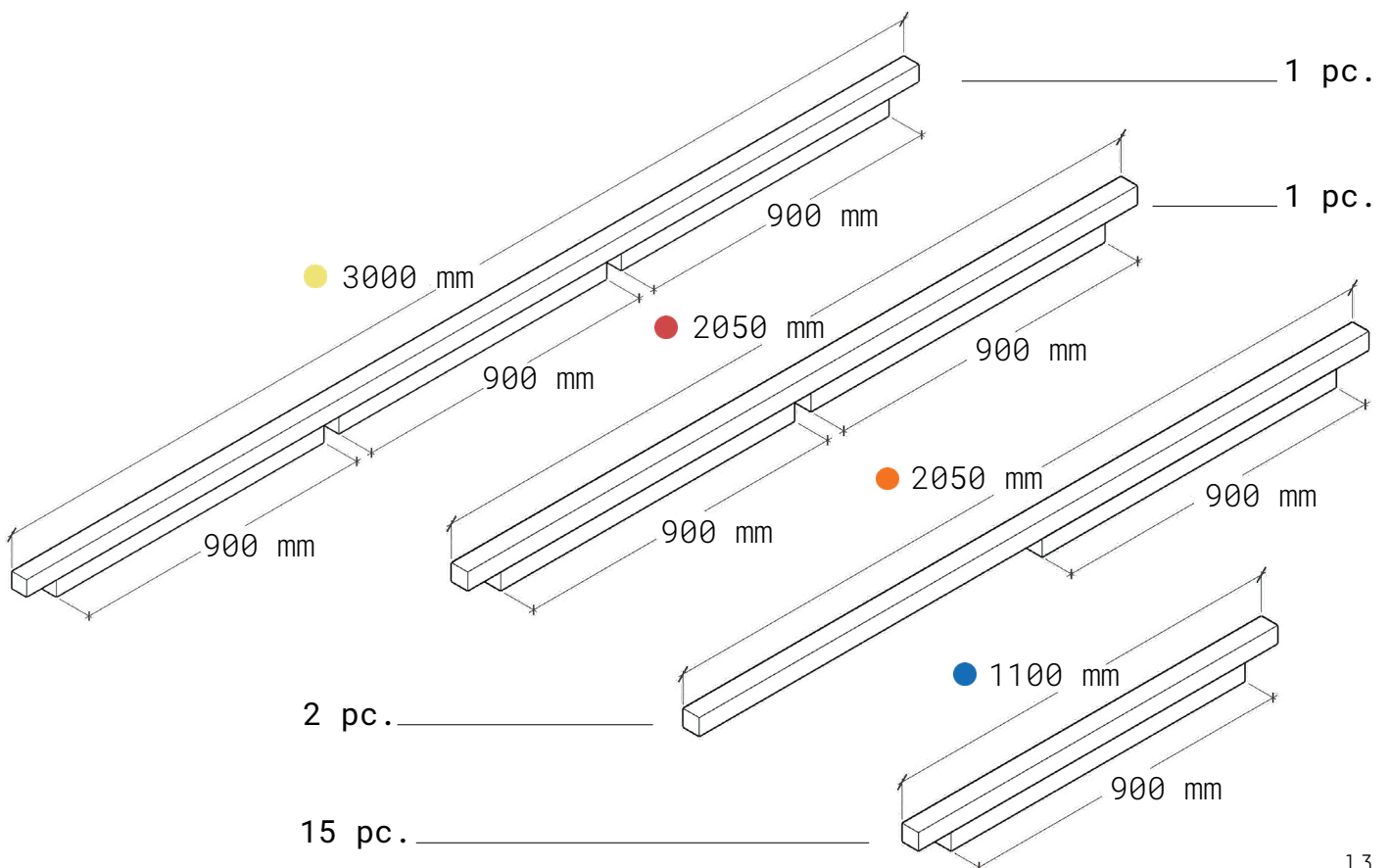
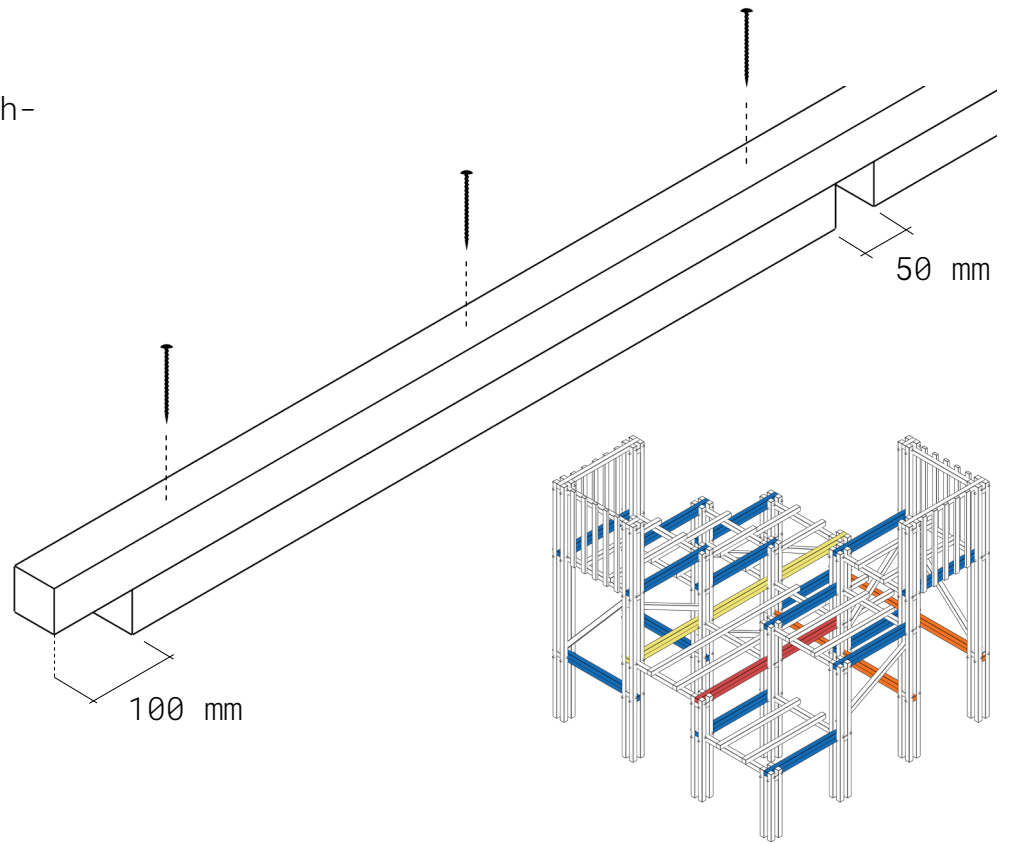


# SPECIFICATION\_4.

(STACKED BEAMS)

They are joined together with 76 mm screws.

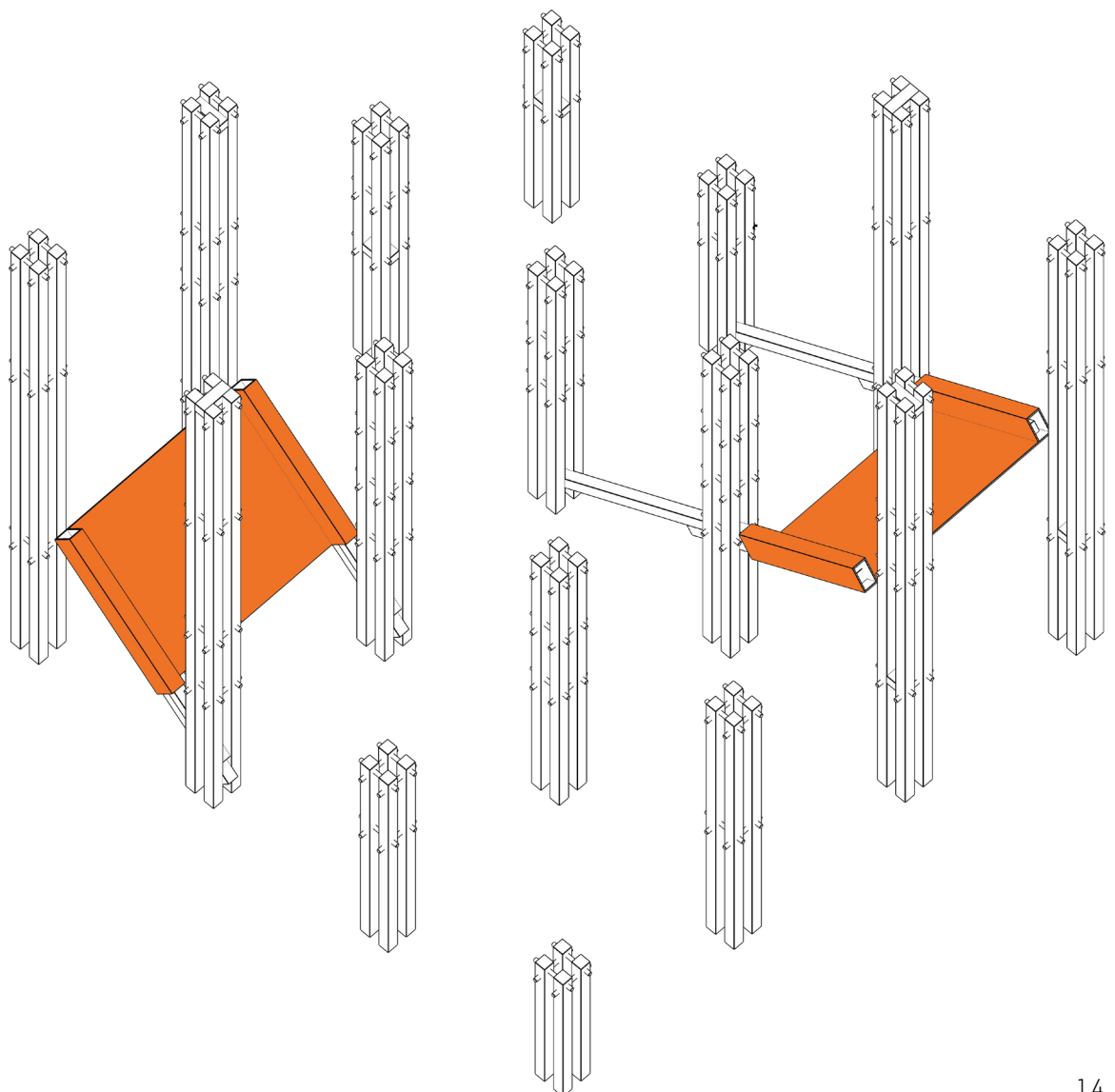
They serve as a 50x100mm beam.



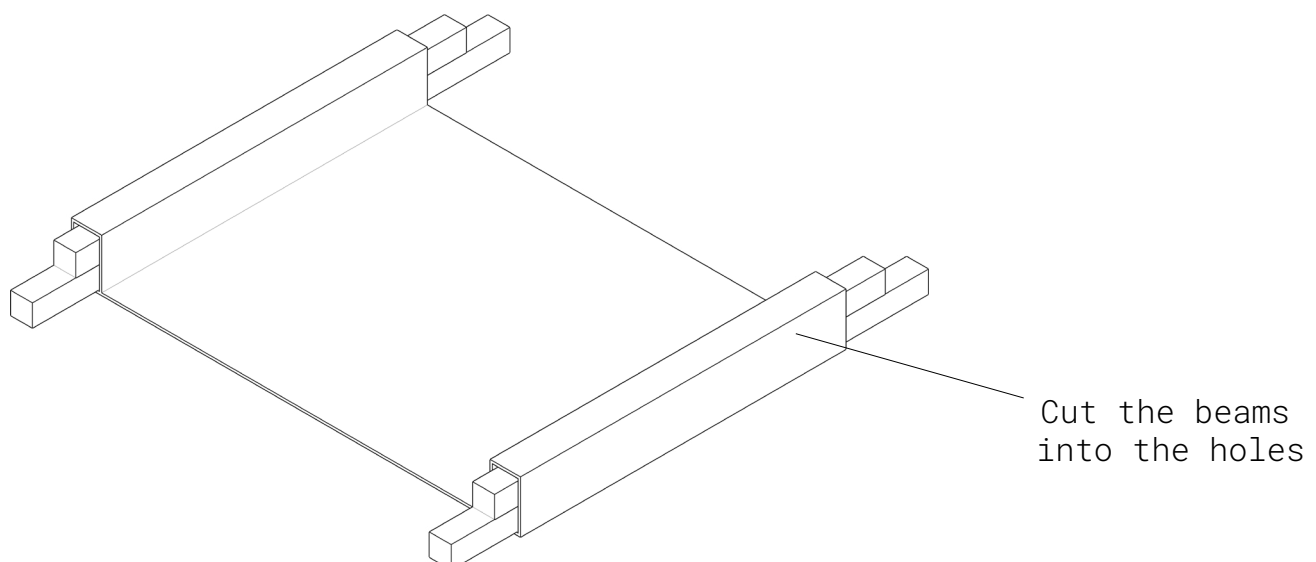
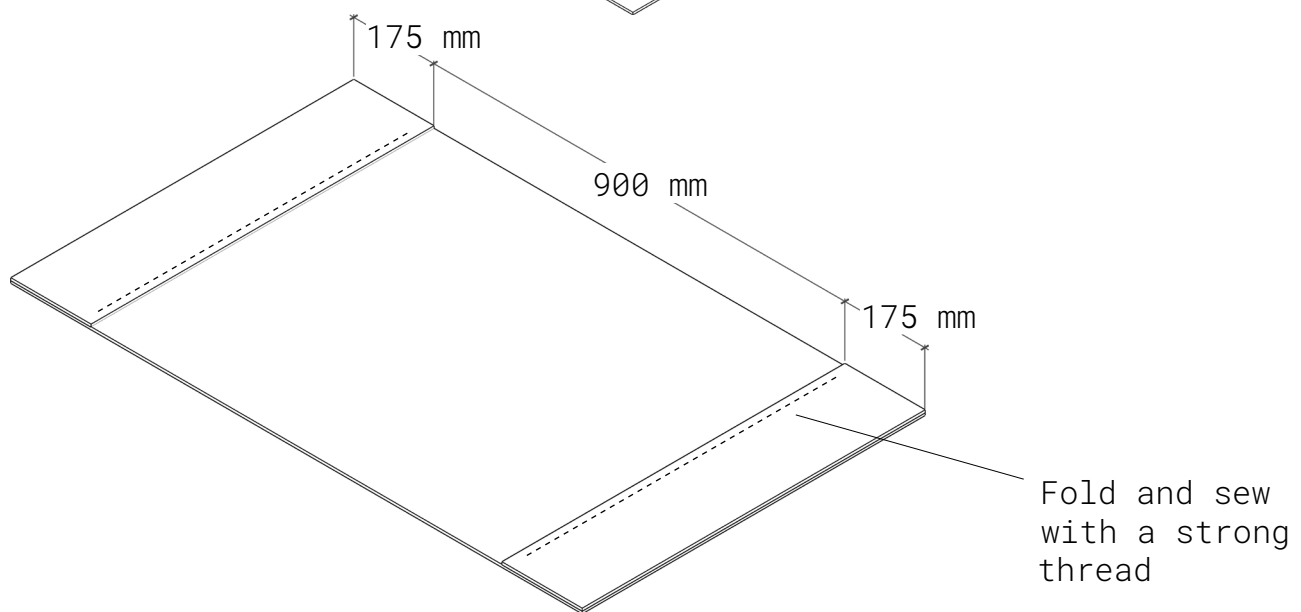
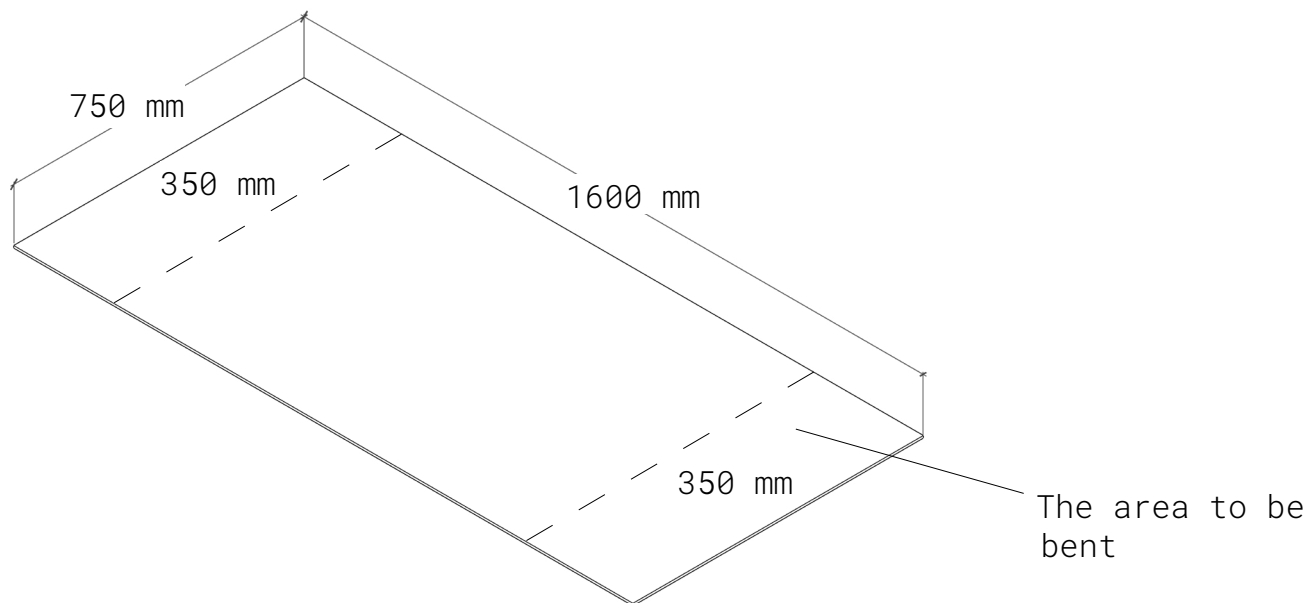
# HAMMOCK.

## IMPORTANT!

A hammock is put on 2x2050 mm and 2x1100 mm beams, it is important not to miss this moment, because it is put on after the beams are in place, but before they are fixed and screwed.



# HAMMOCK.

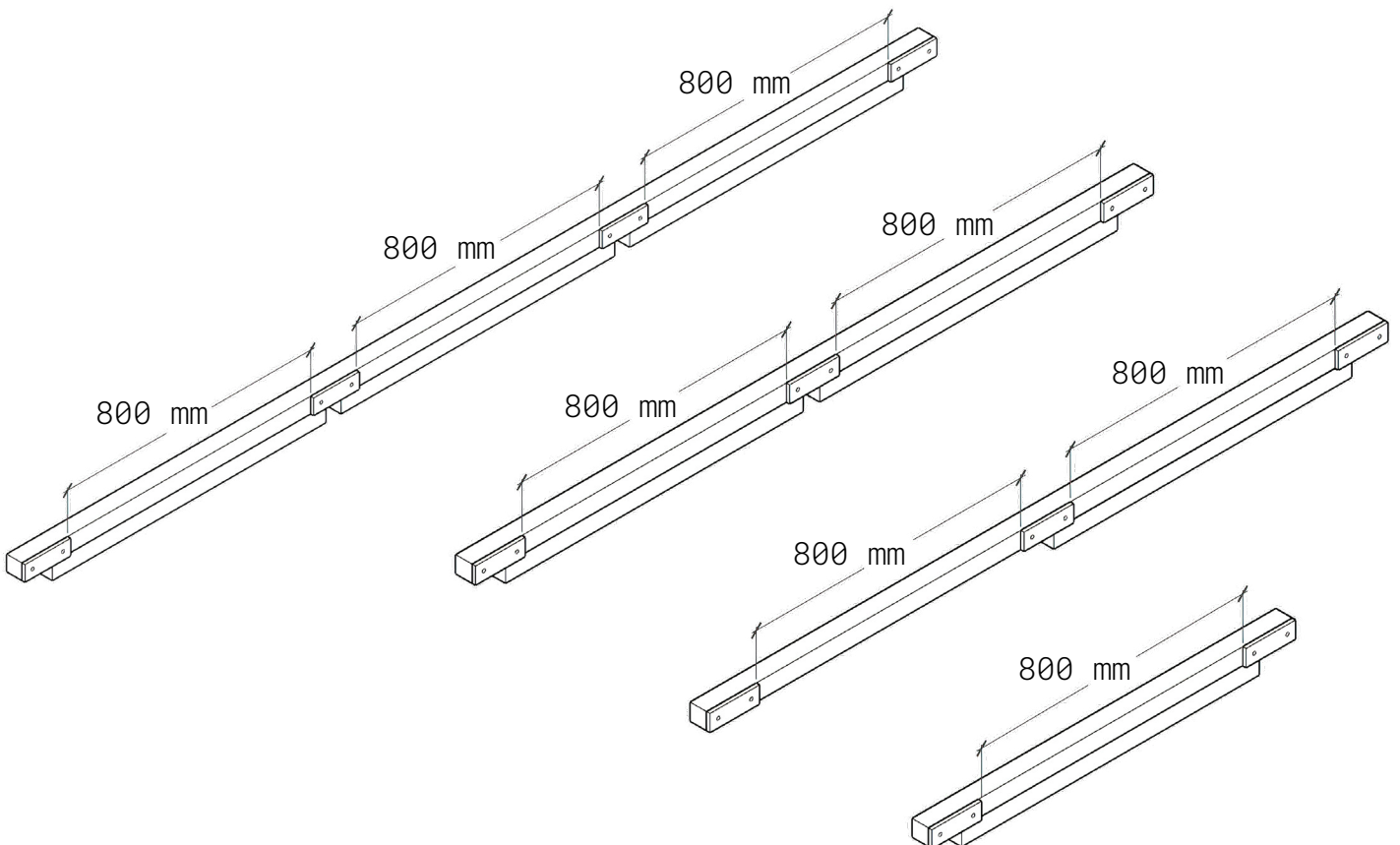
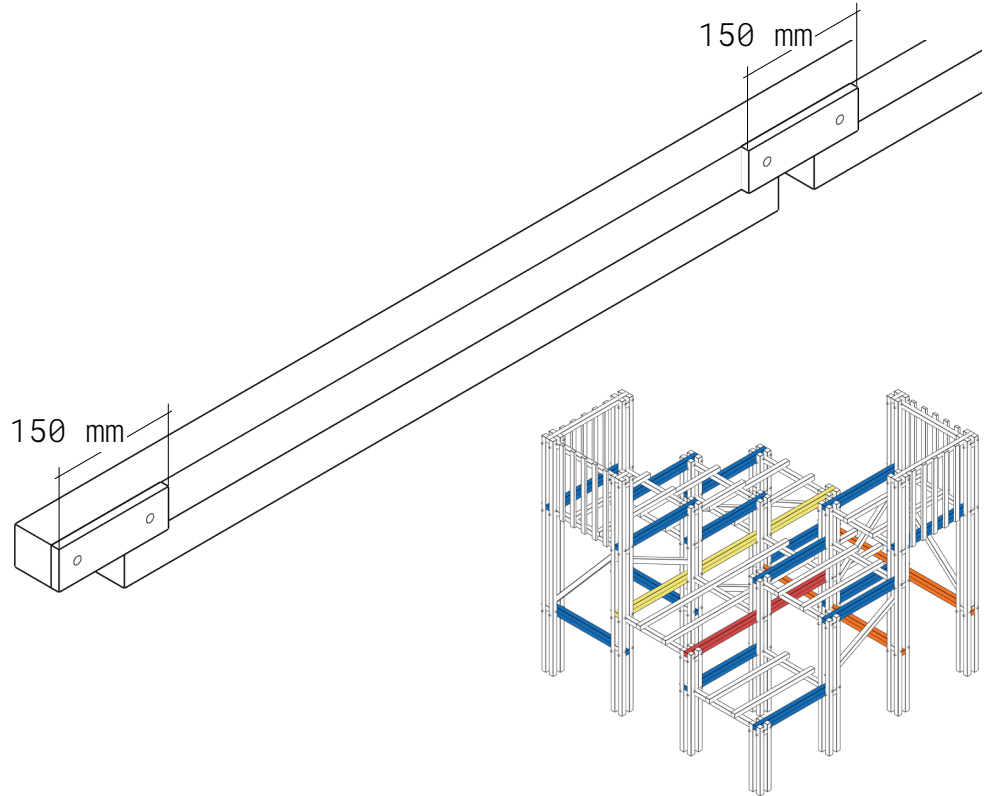


# SPECIFICATION\_5.

(HOLES IN THE STACKED BEAMS)

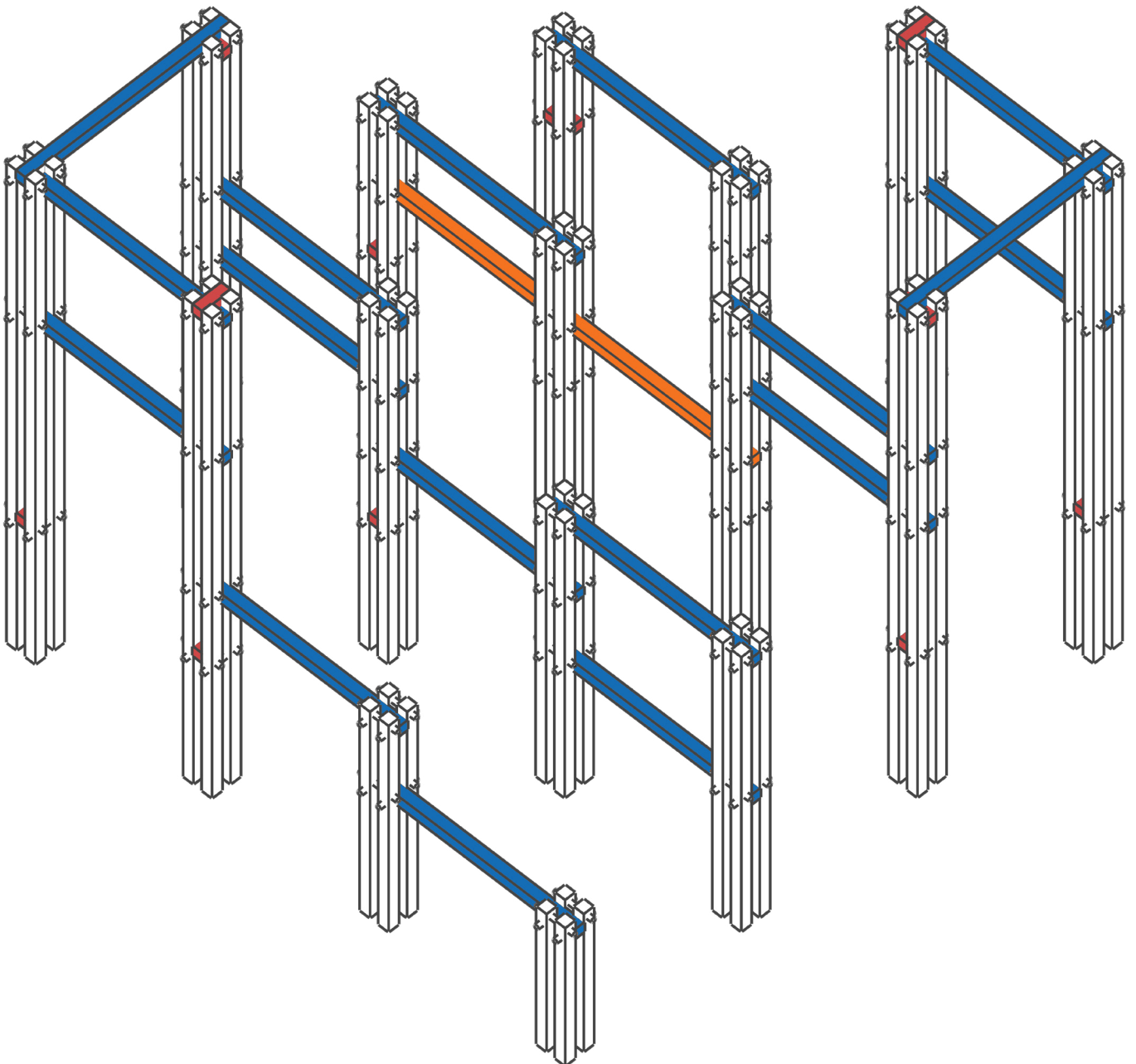
The holes are marked according to the templates.

The holes are drilled with a 9 mm or 10 mm drill bit on a drilling machine (preferably) or with a screwdriver.



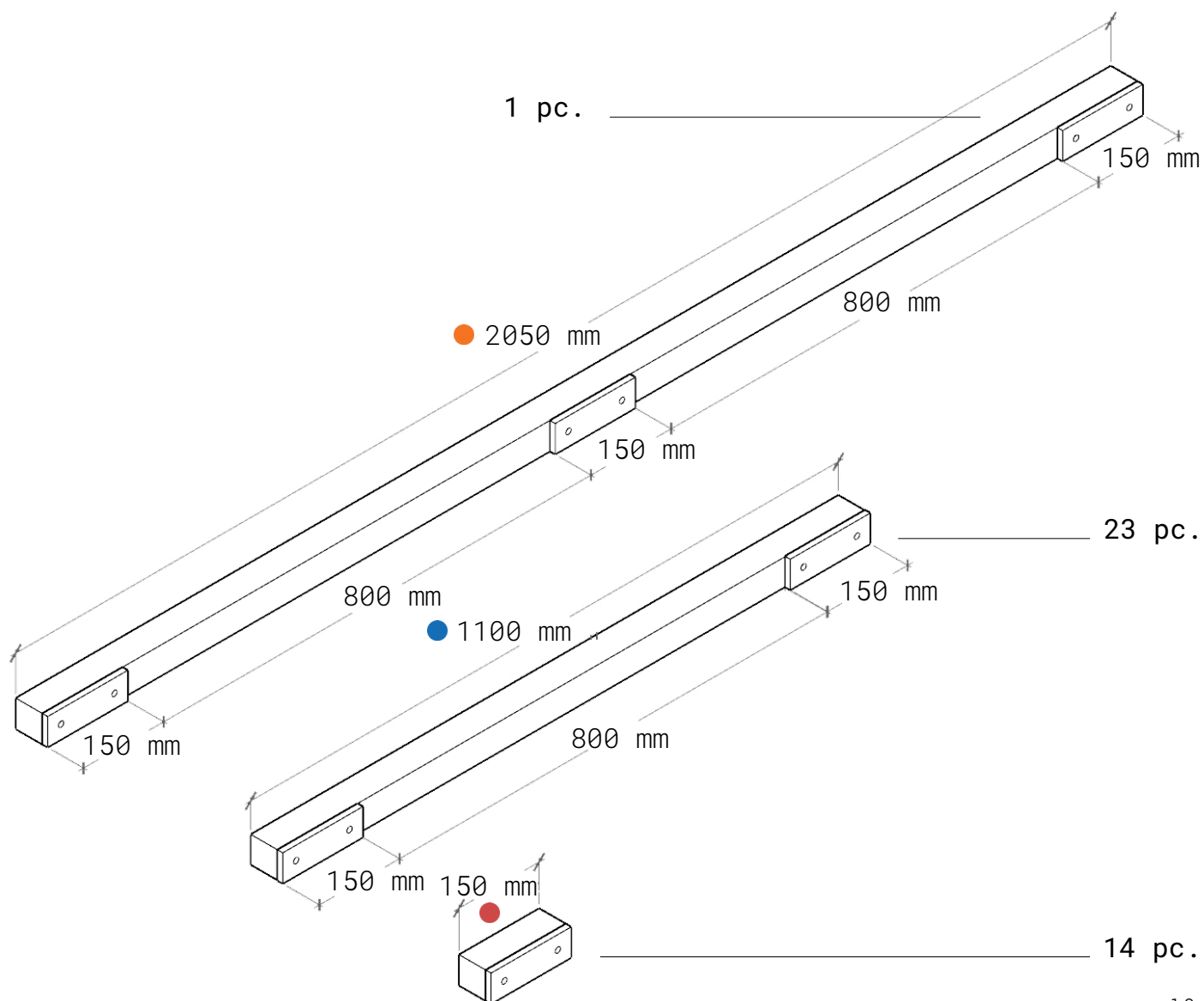
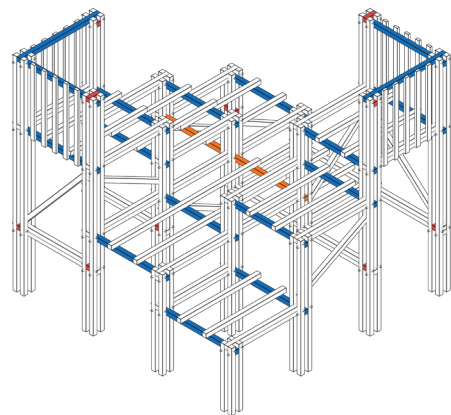
# ILLUSTRATION

(OTHER REQUIRED BEAMS WITH HOLES)



# SPECIFICATION\_6.

(OTHER REQUIRED BEAMS WITH HOLES)

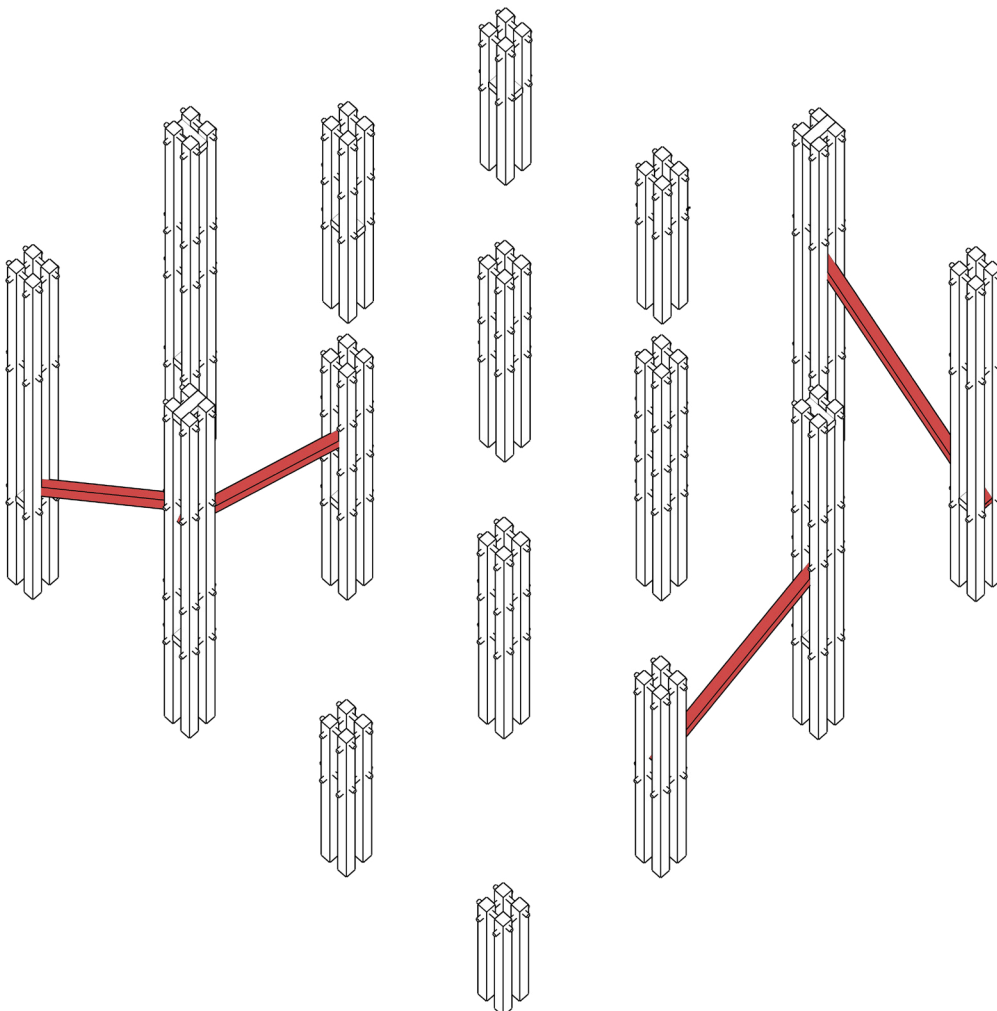
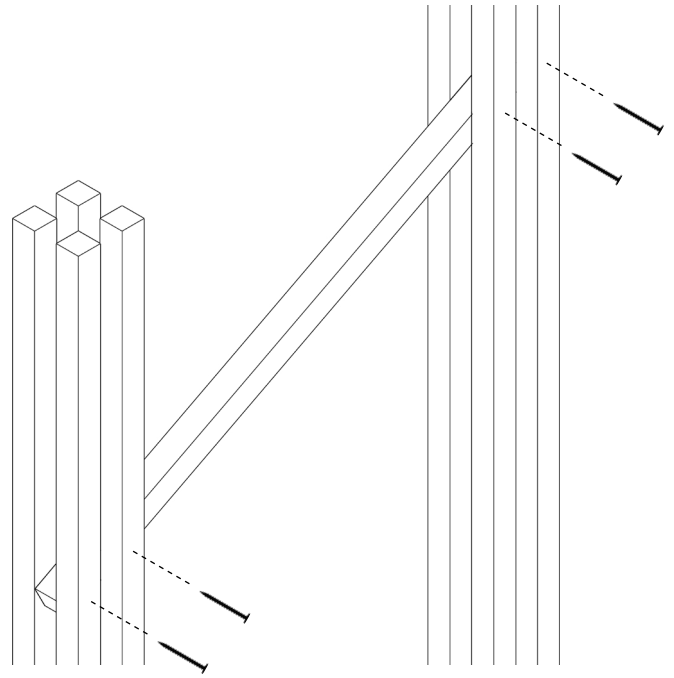


# DIAGONALS

# ILLUSTRATION.

(DIAGONALS)

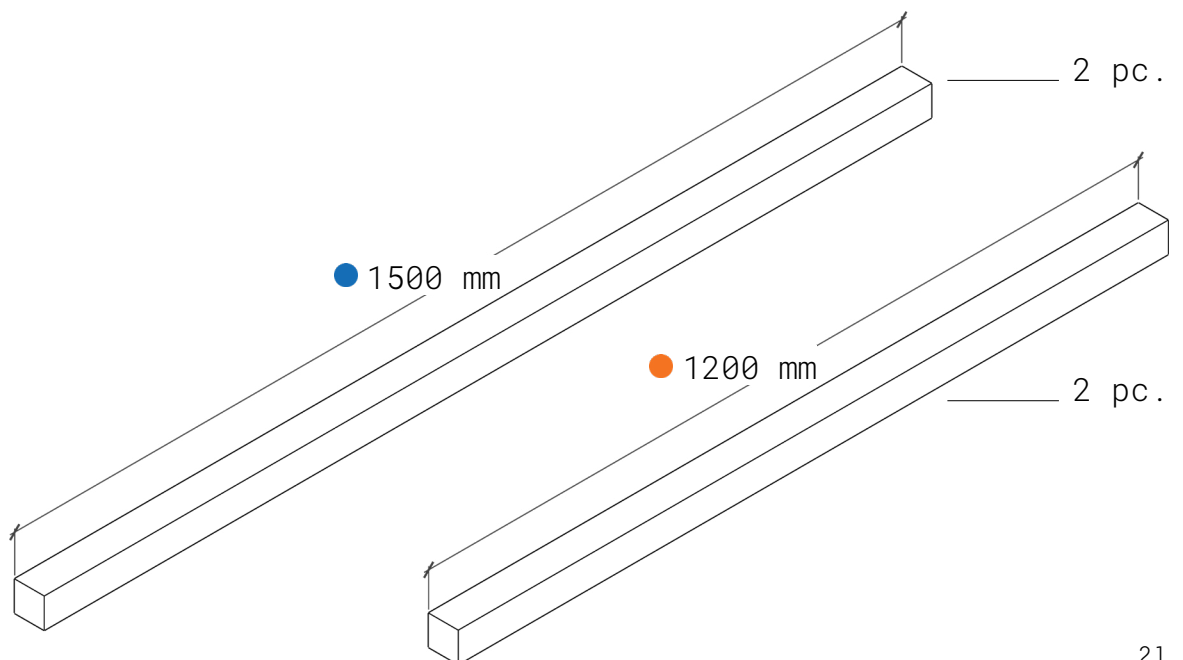
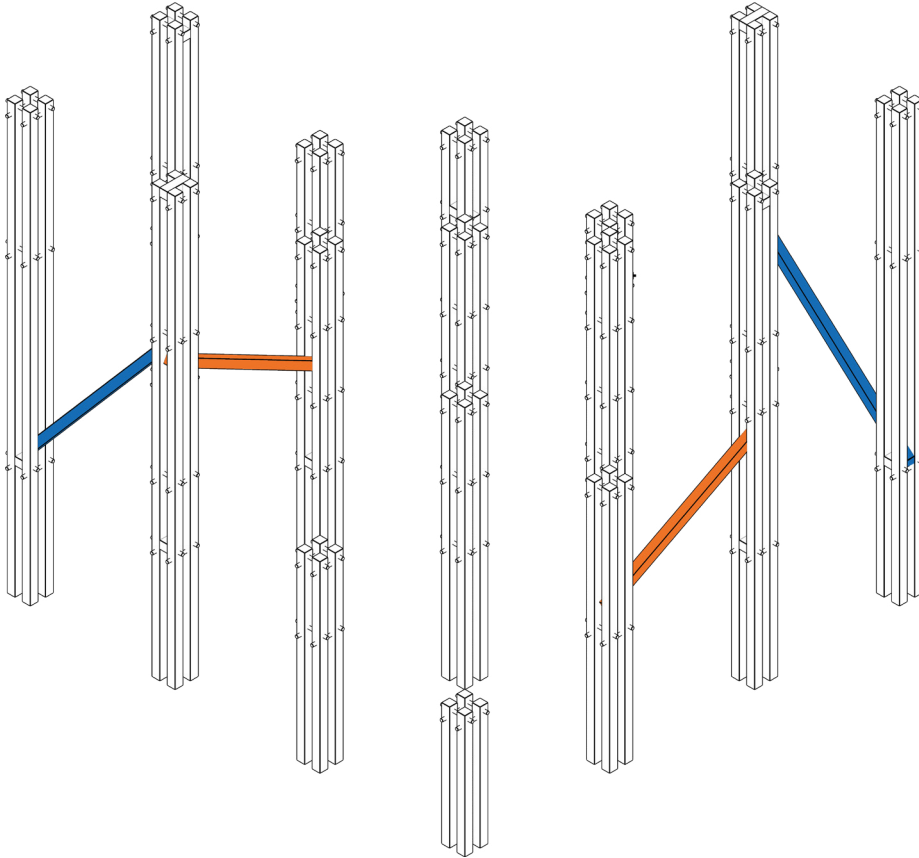
*The diagonals are mounted with 4 x 76 mm screws*





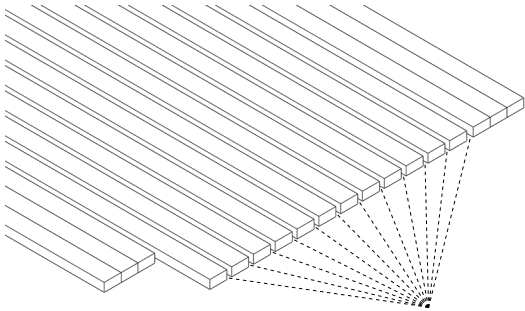
# SPECIFICATION\_7.

(DIAGONALS)



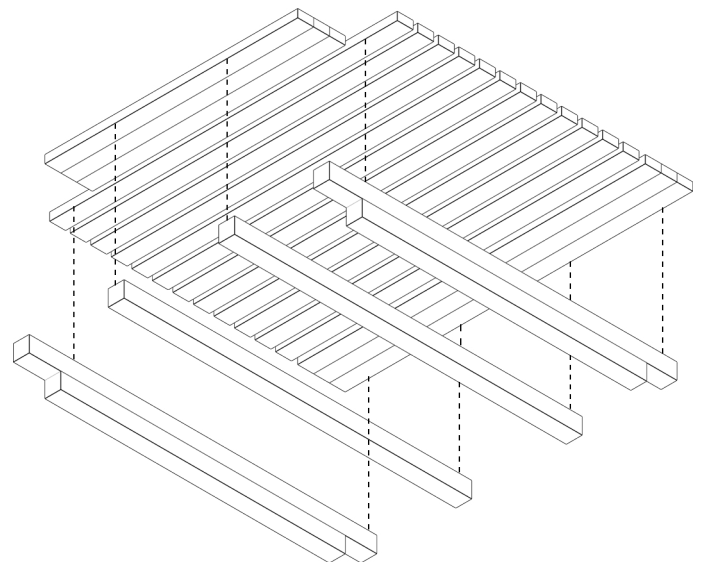
# **PLANS WITH DIMENSIONS FOR BATTENS**

# BATTENS .



Distance between boards **15 mm**

Fastening the boards to the beams.

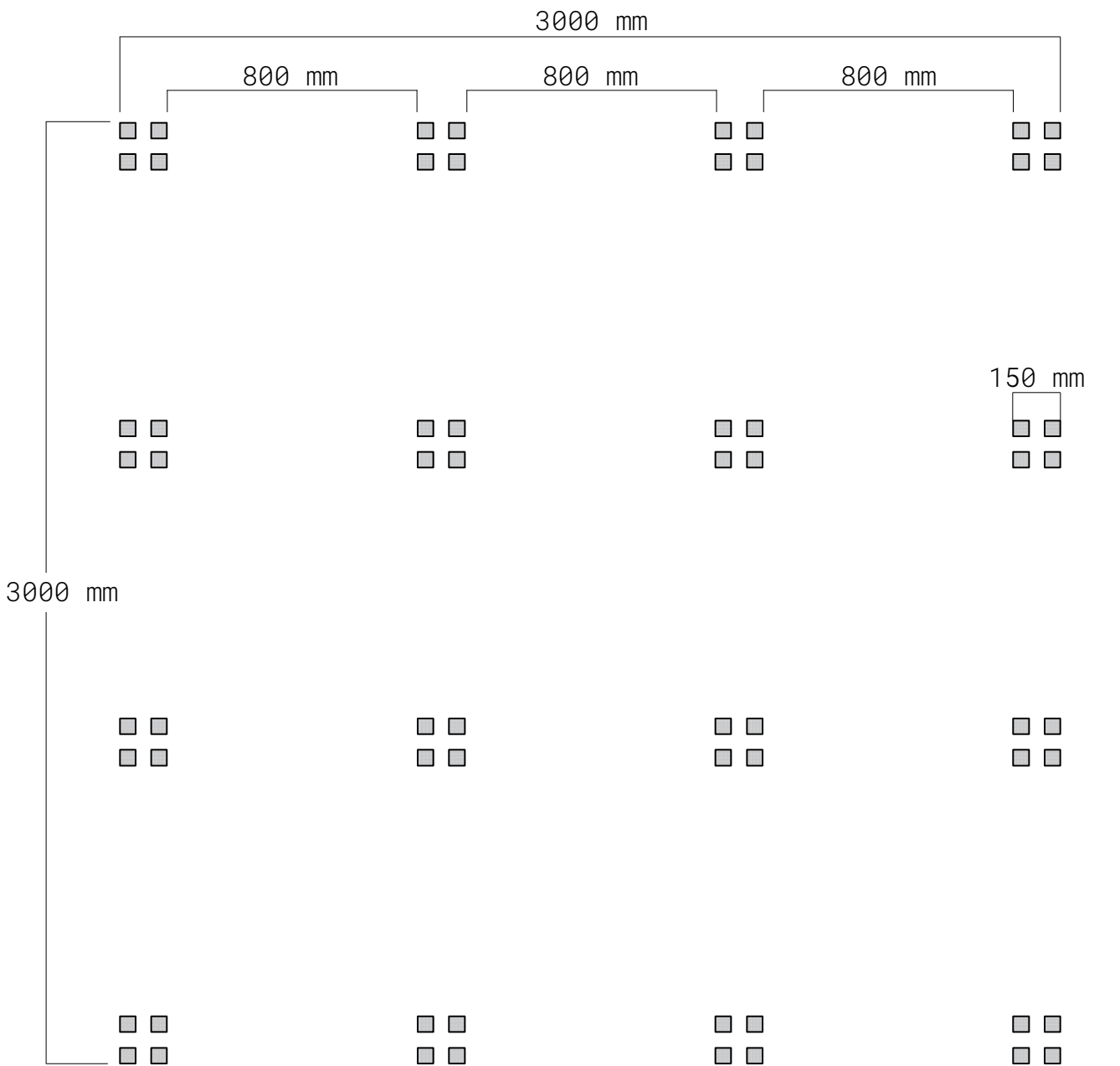
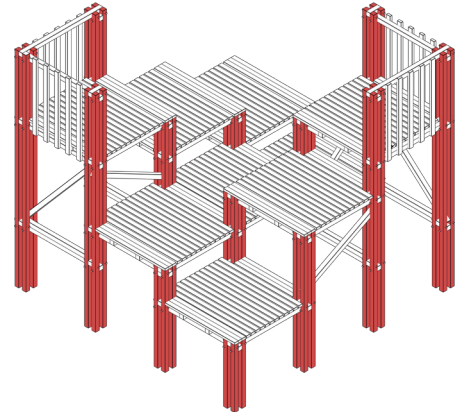


All boards are mounted on 4 beams.

Some edge boards (800mm and 950mm) can be mounted on 2 or 3 beams respectively.

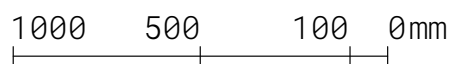
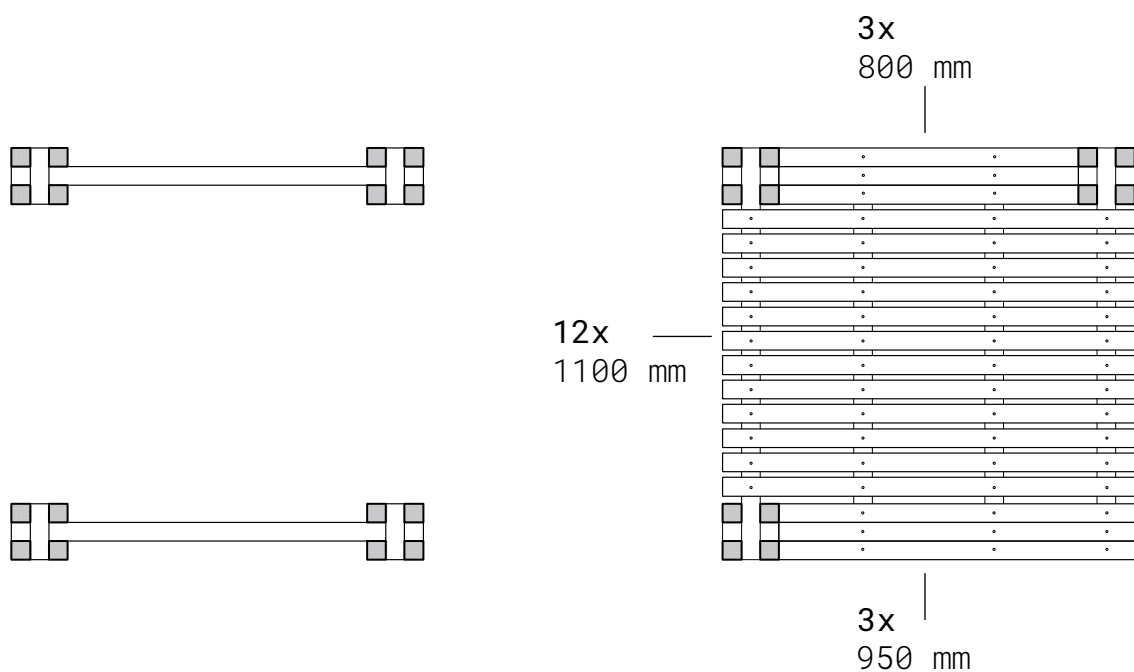
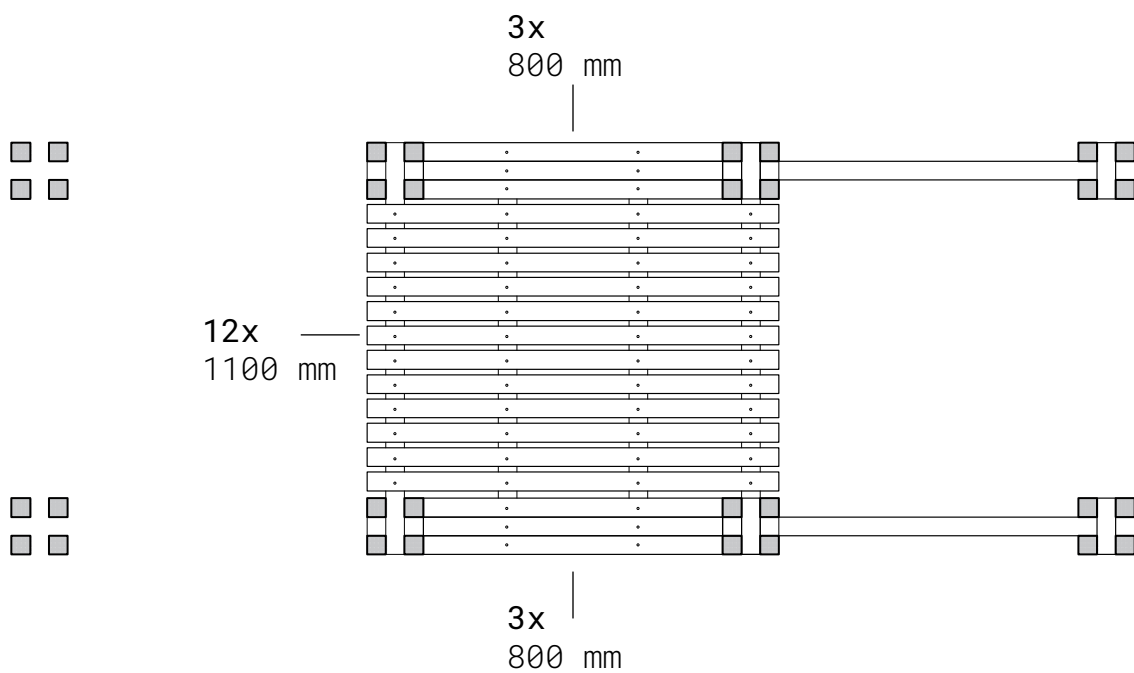
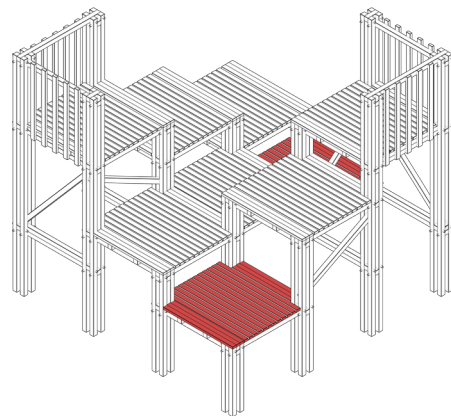
# PLANS.

(COLUMN ARRANGEMENT + DIMENSIONS)



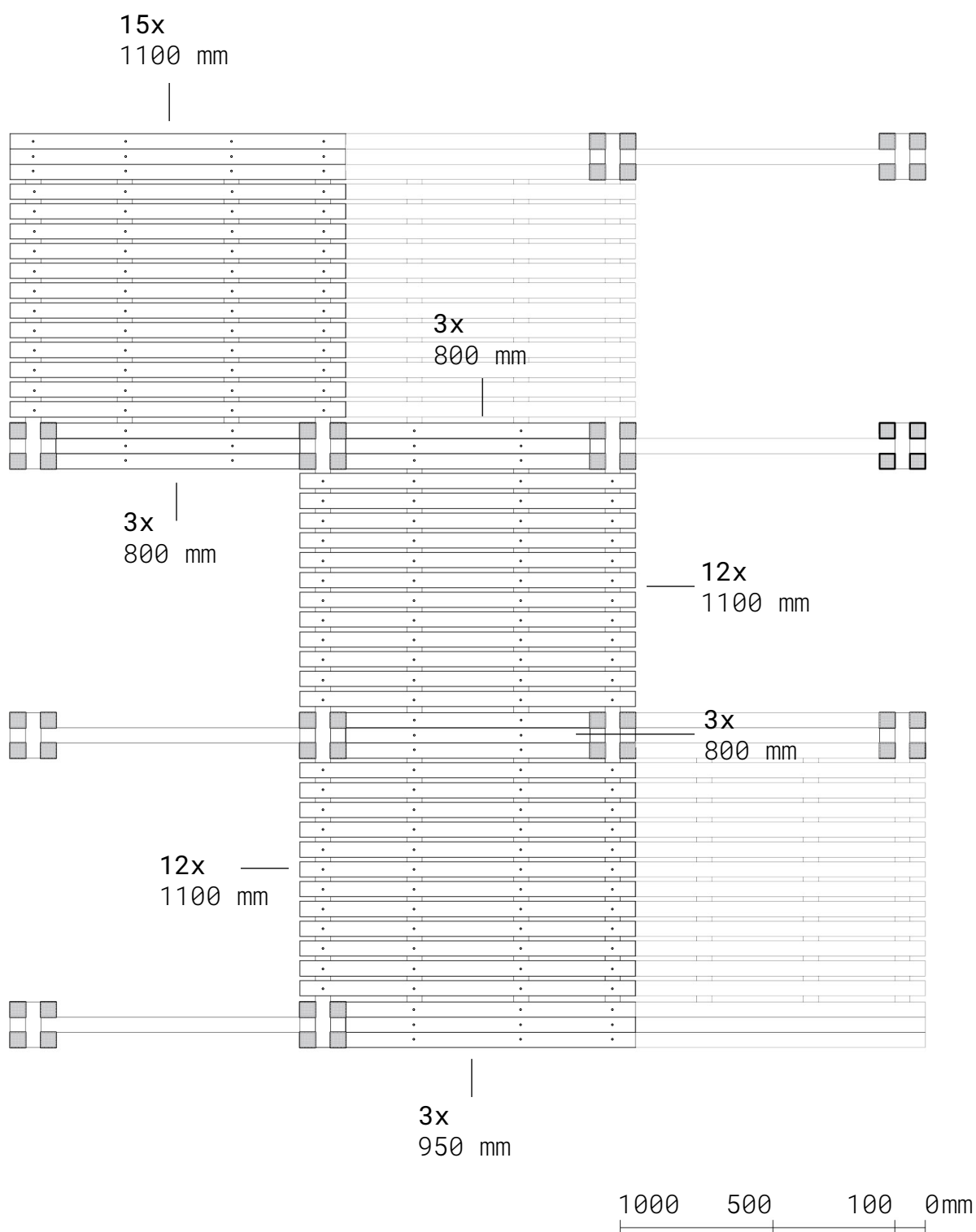
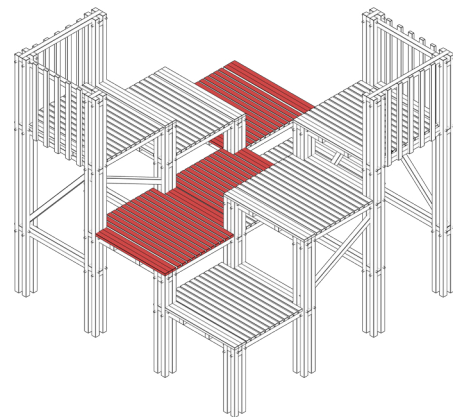
# PLANS .

(1 TIER)



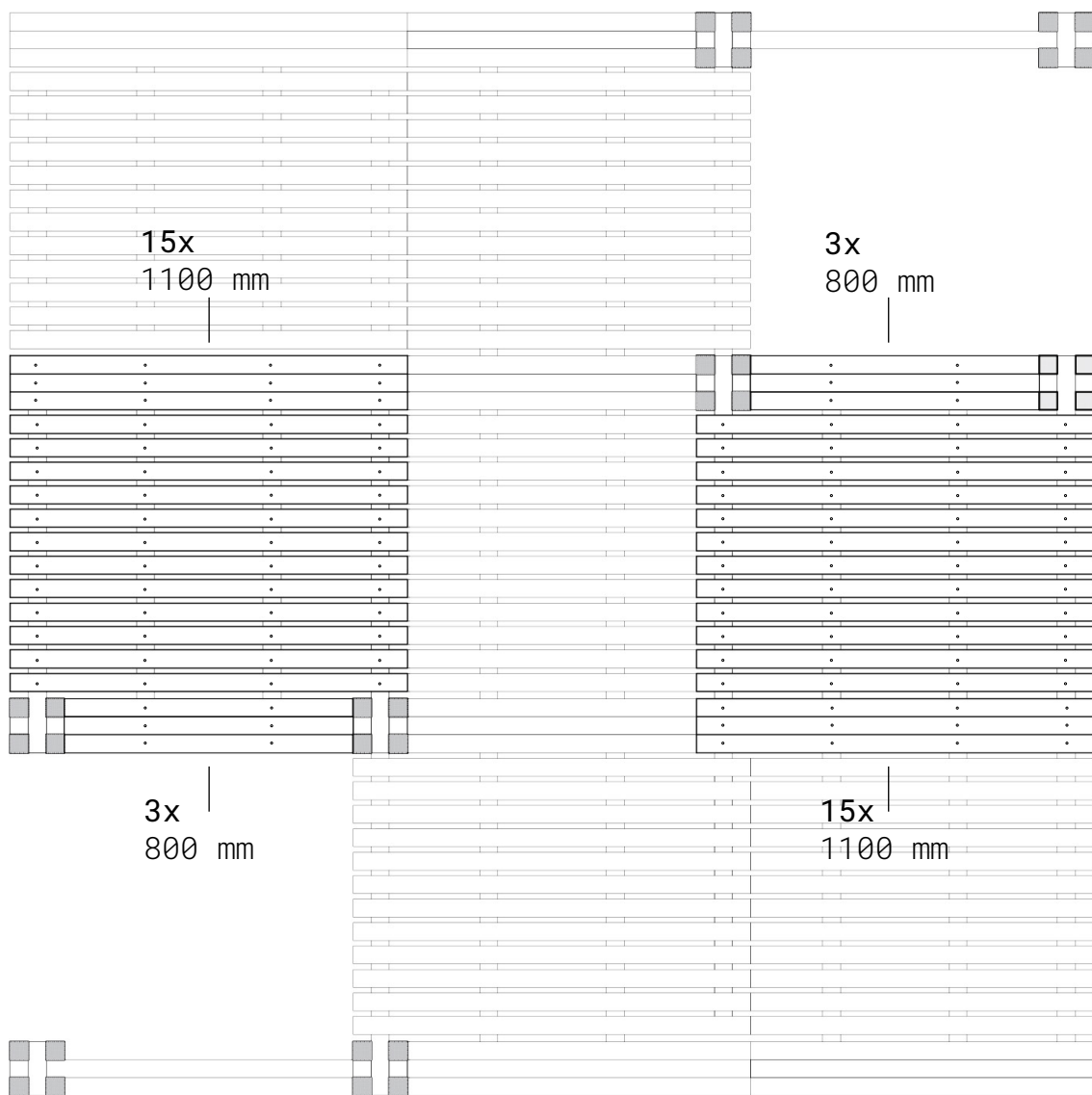
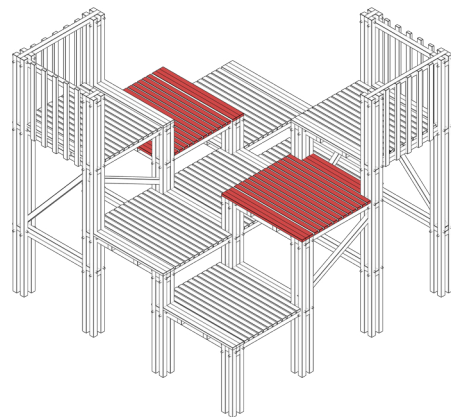
# PLANS.

(2 TIER)



# PLANS.

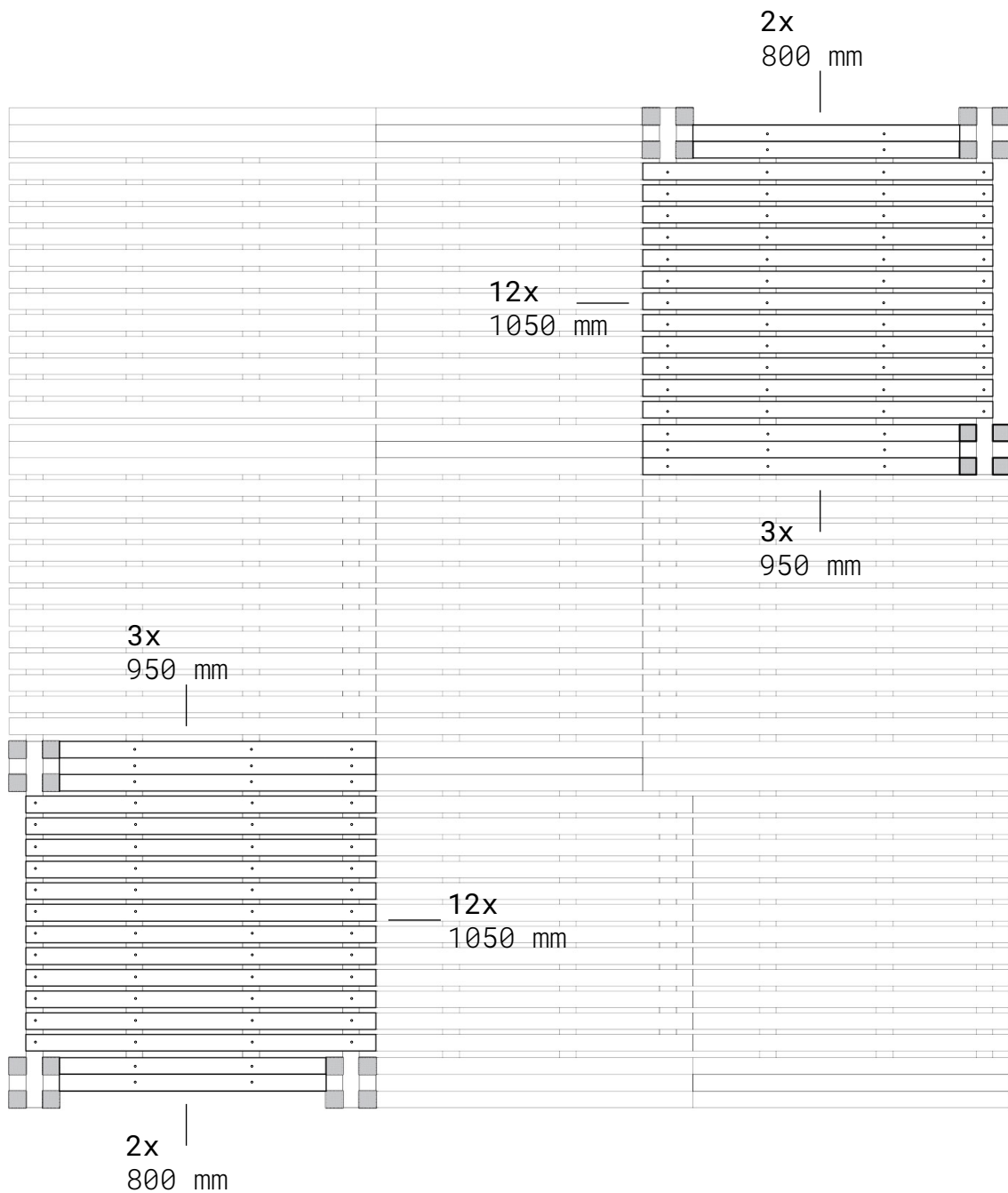
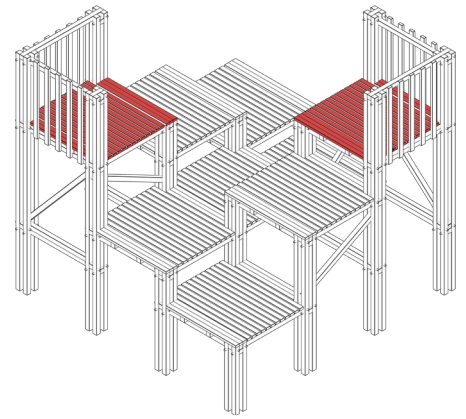
(3 TIER)



1000 500 100 0mm

# PLANS .

(4 TIER)



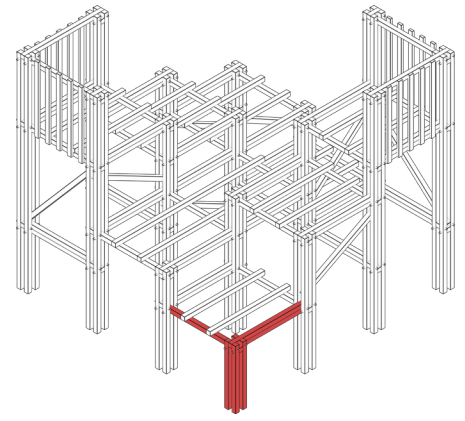
1000 500 100 0mm



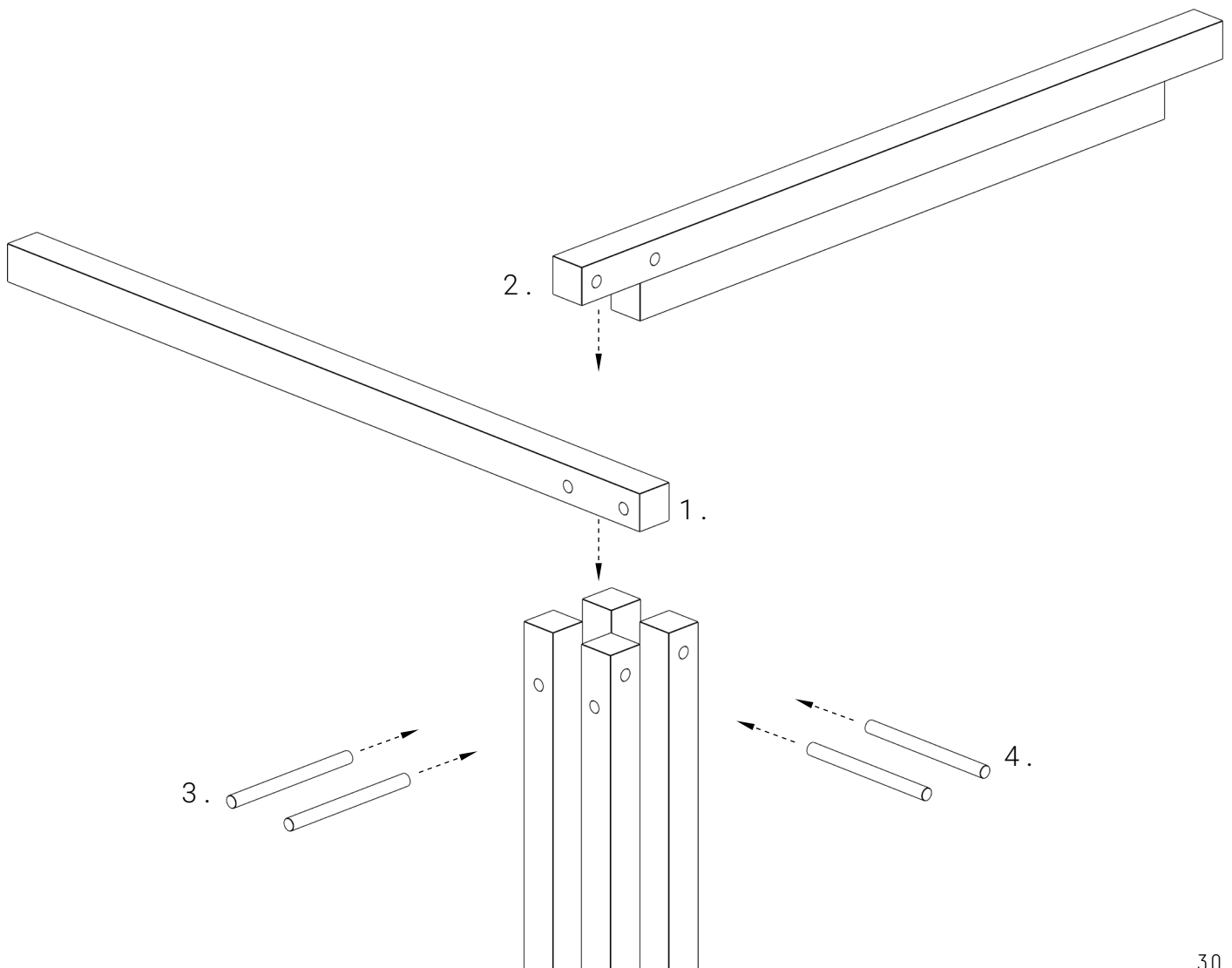
# JOINTS

# JOINT.

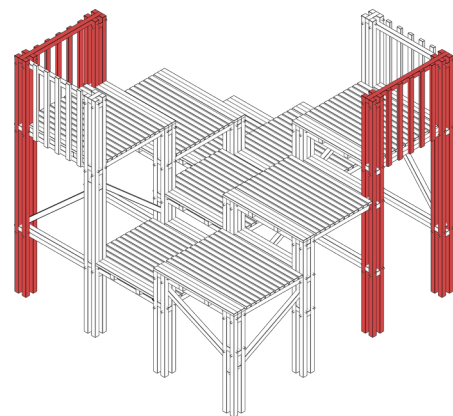
(PRINCIPLE OF FRAME ASSEMBLY)



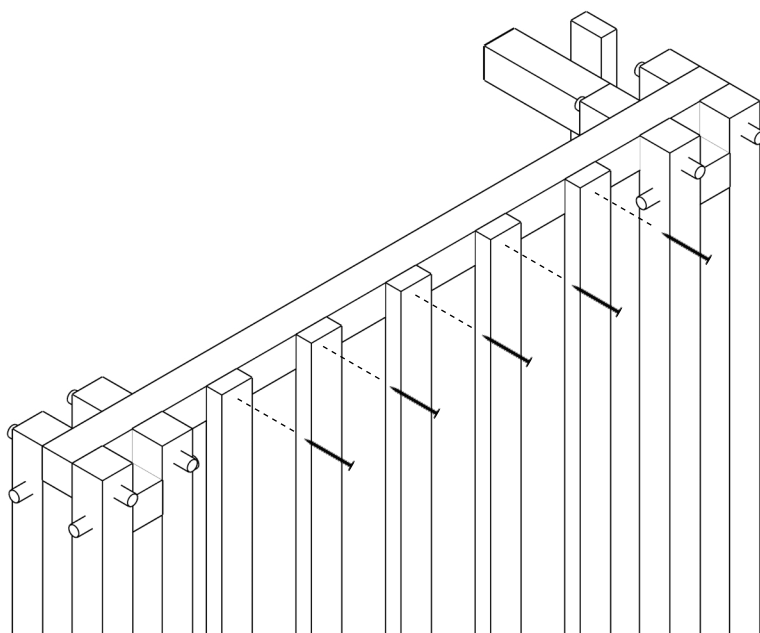
A typical joint.



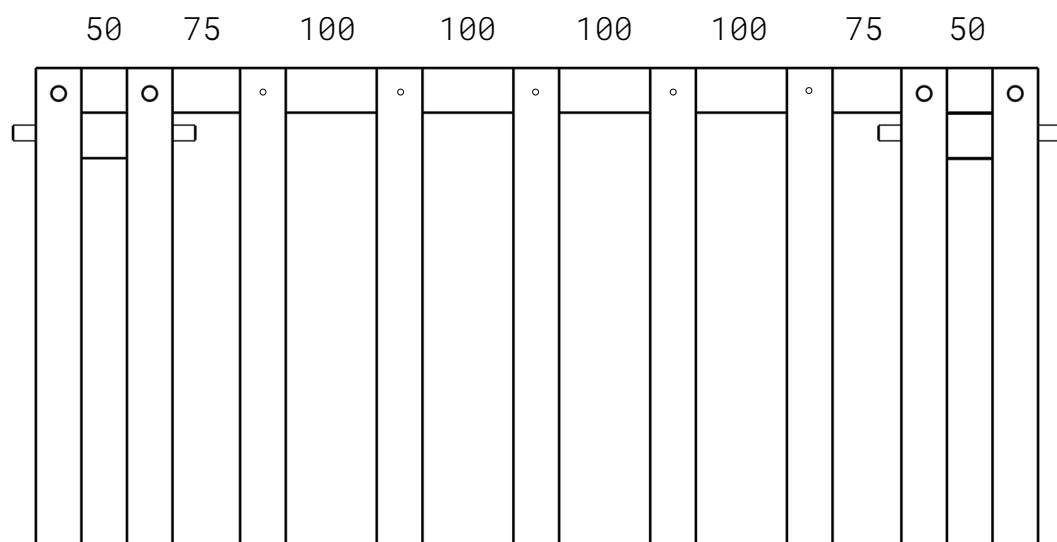
# RAILINGS



The vertical arrangement of the boards prevents children from climbing on them.



The board is attached to the timber with 55mm screws



Board spacing no more than 100mm

Board width 50mm

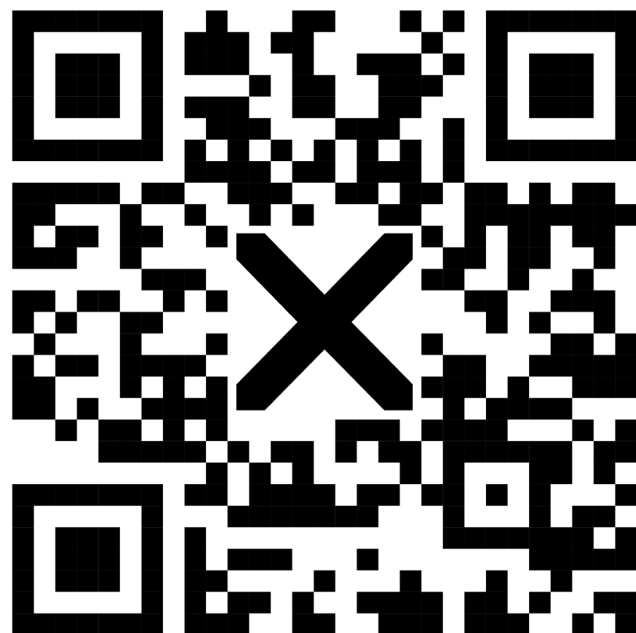
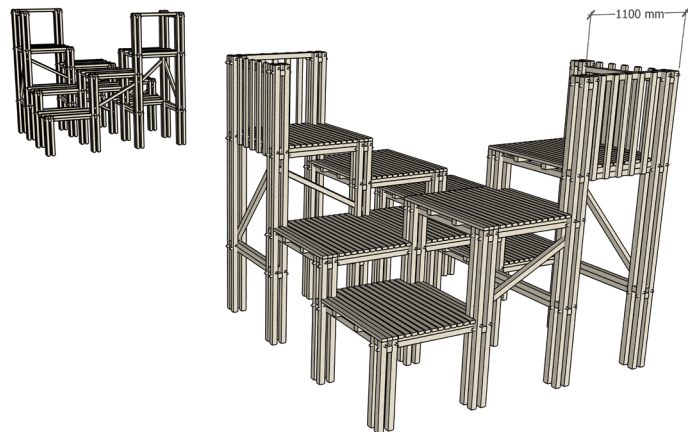
# 3D MODEL

# 3D MODEL .

(SCAN THE QR CODE)

The link leads to GoogleDrive with the file **.SKP** (SketchUp format)

A detailed 3D model with elaborate details will be the best addition to the manual.

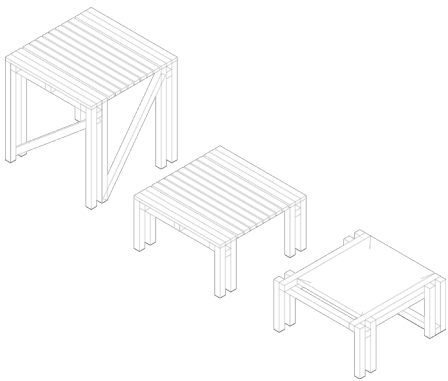


# **OTHER CONFIGURA- TIONS**

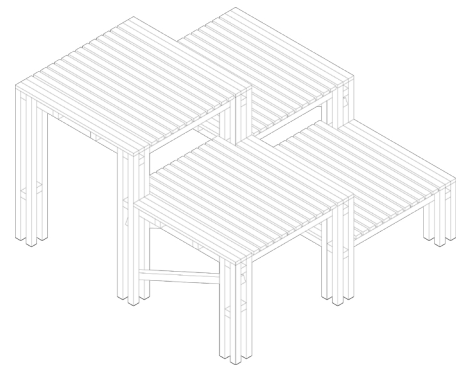
# VARIABILITY.

This structure retains the ability to be easily scaled up if desired.

*For example.*



1x1



2x2

3x6



# THE FINAL RESULT



# SCHOOL 73.

(LVIV)

The result. a successfully completed and tested object.

