MALPESA

IRIS SYSTEM

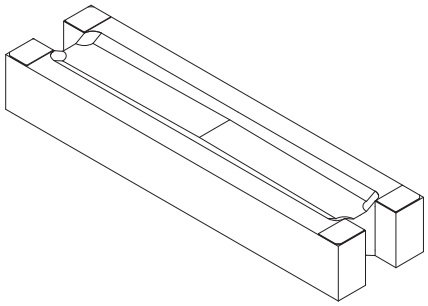
Assembly procedure

PASSING FAÇADE

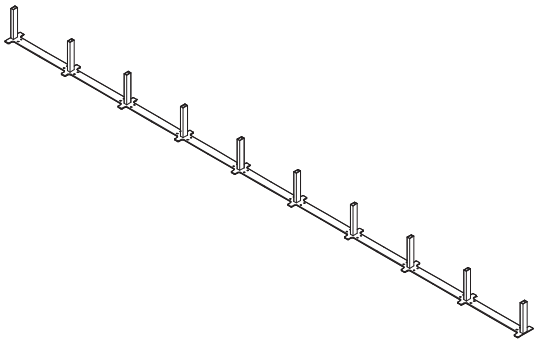
April 2025

Material

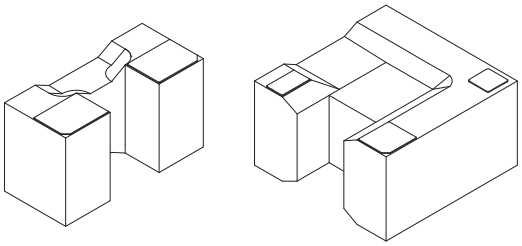
Standard brick 36x9x5 cm



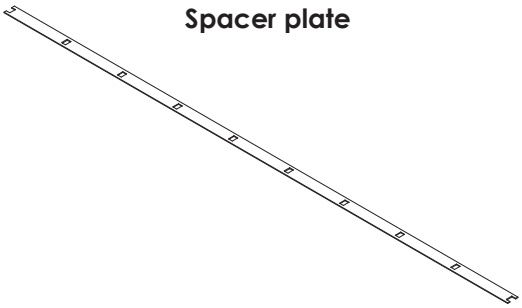
Starter plate



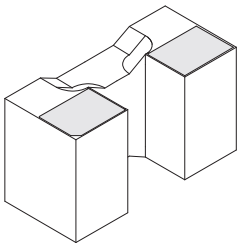
Side end pieces



Spacer plate

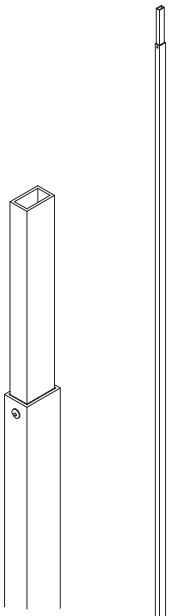


Side end pieces (with cut down)

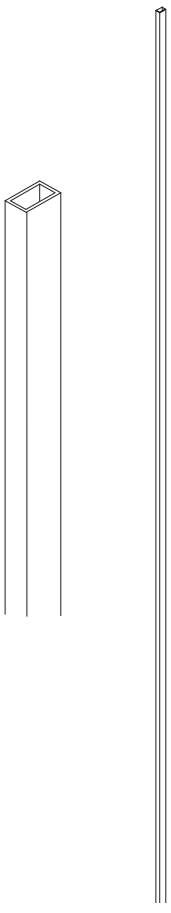


Vertical aluminium profile 30x20x2

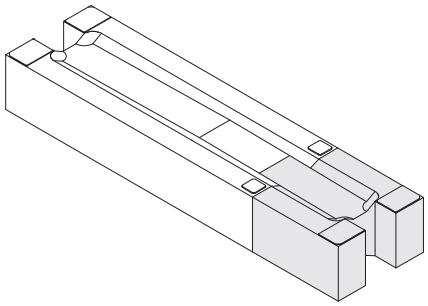
With male profile



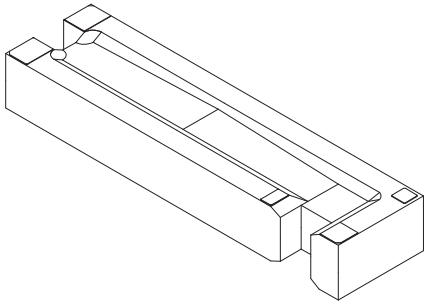
Without male profile



Adjustment brick according to stake out with leveling spacer

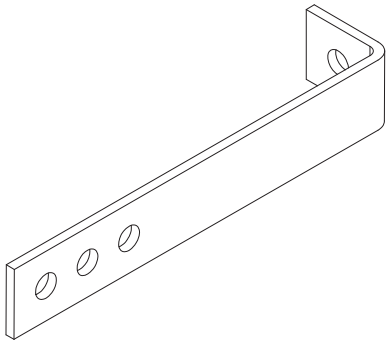


Corner brick

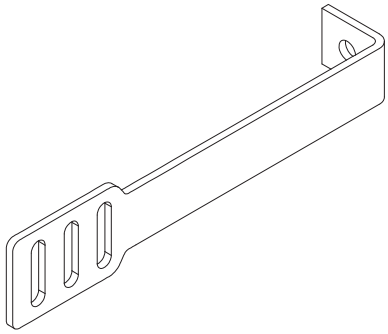


Material

Stainless steel fixed bracket

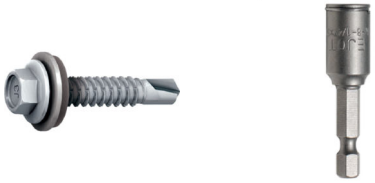


Stainless steel sliding bracket

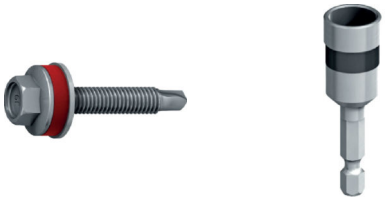


Fixing screws + Socket

· Angle bracket fixed to aluminium profile

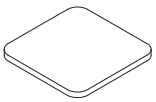


· Sliding bracket to Aluminium profile
· Retention clips
· U-brackets between profiles

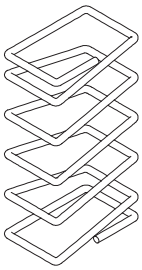


Additional material

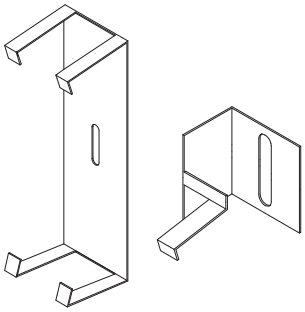
Leveling spacer



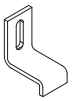
Thermal expansion spring



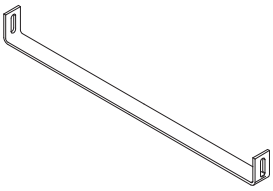
Retaining clips for side end pieces



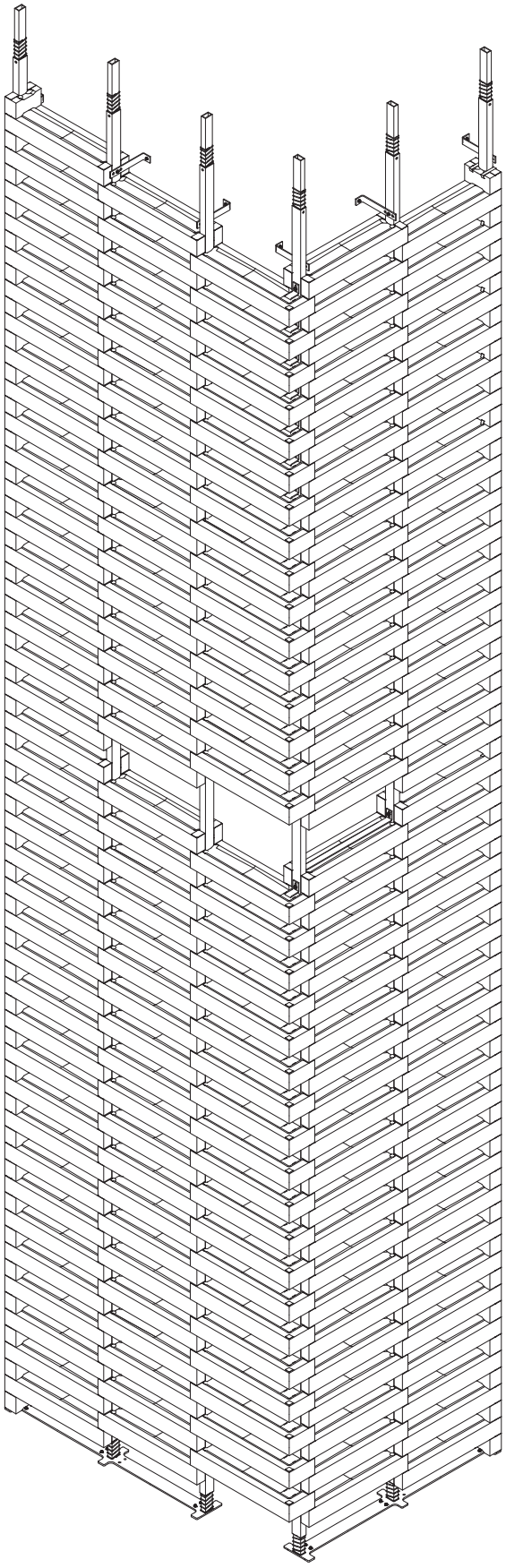
Corner piece retaining clip

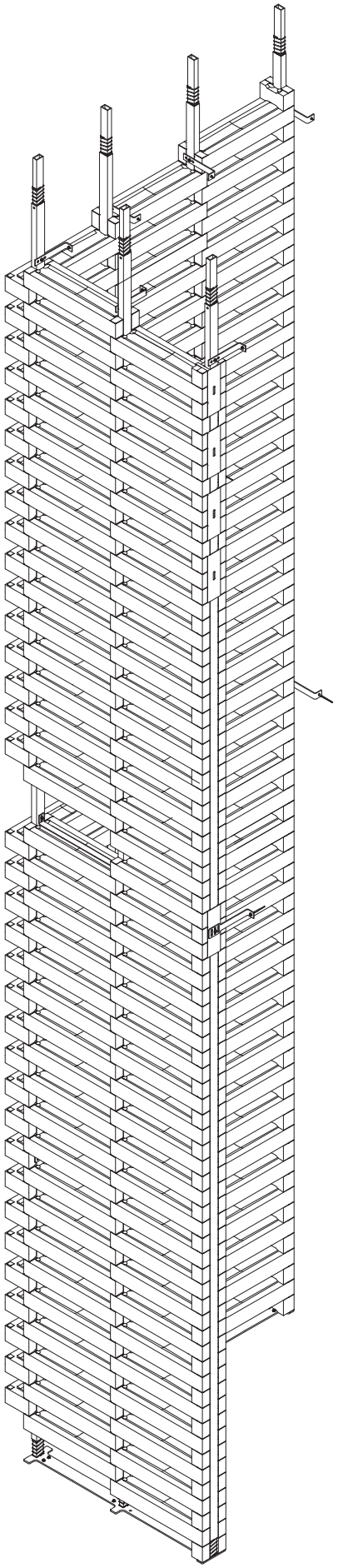


U-brackets between corner profiles



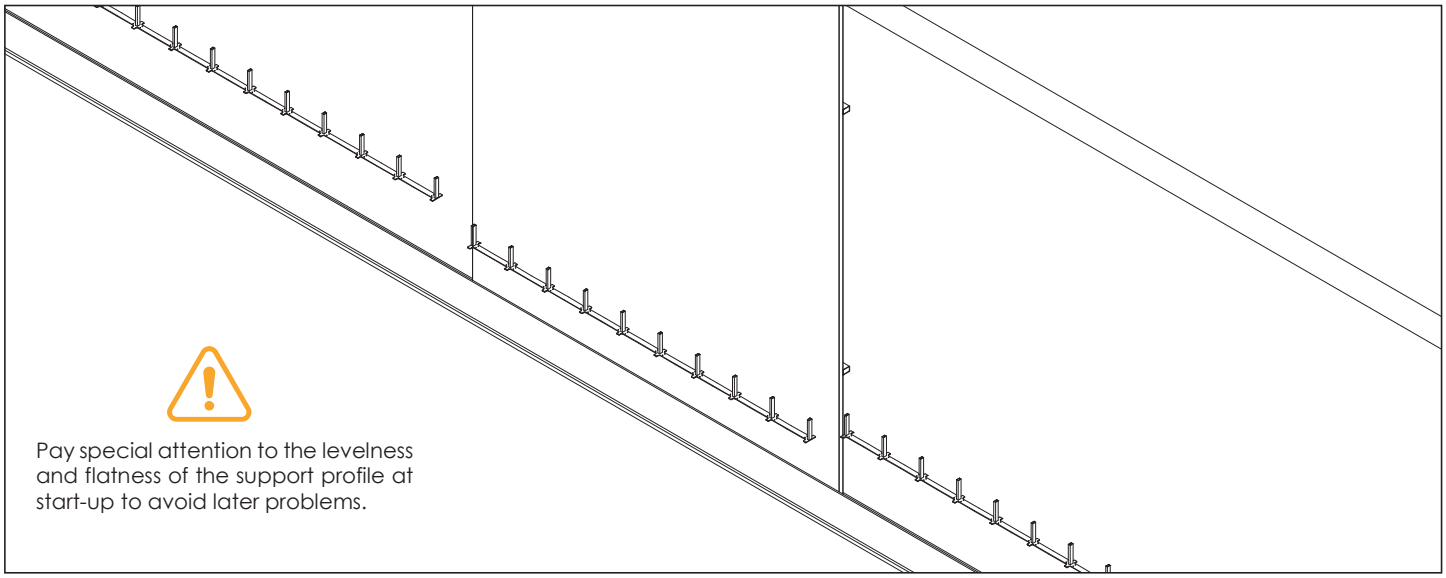
Overview



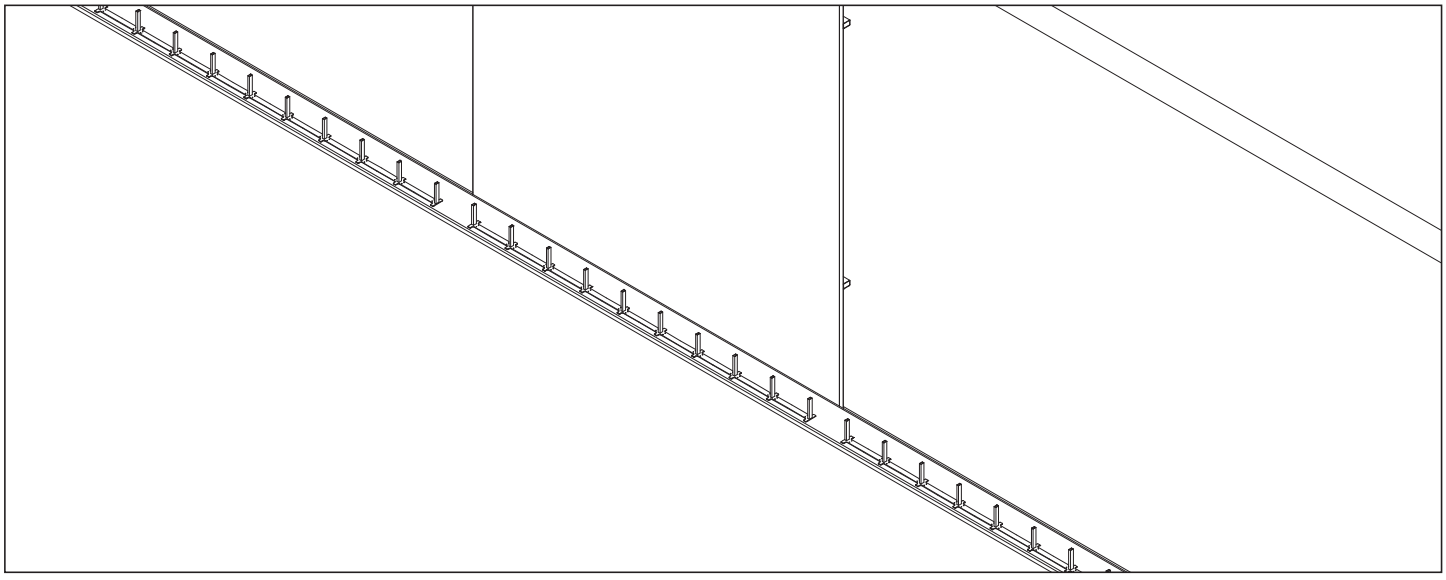


Phase 1: Assembly of the starting level

1 Lay out and set out the starting plates. Pay particular attention to the vertical alignment of the floor slabs (fixing structure) between levels and any differences between them to correctly position the starting plate and check the size of the necessary brackets.

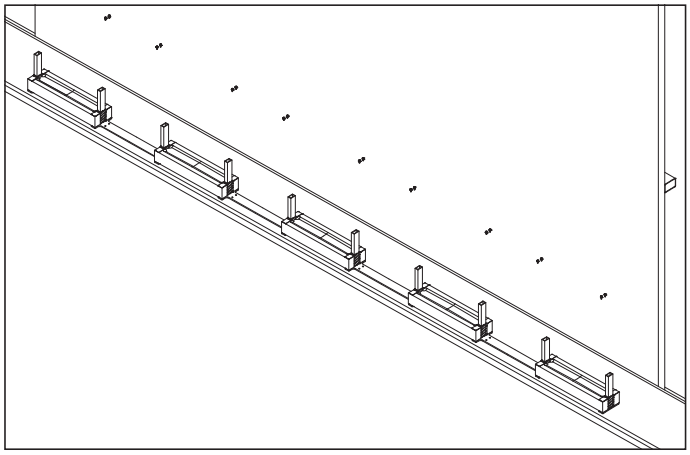


Pay special attention to the levelness and flatness of the support profile at start-up to avoid later problems.



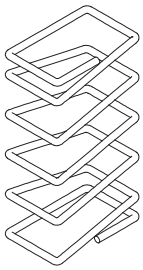
2 Fix the starting plates to the structural support, respecting the expansion joints. Fixing shall only be carried out in the support areas where there is no brickwork.

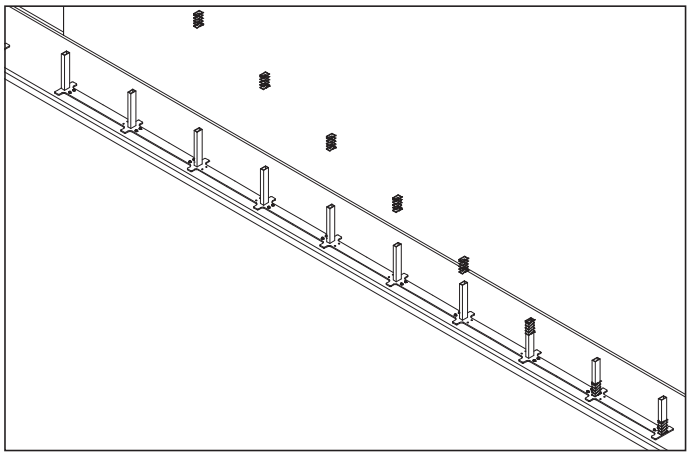
Irrespective of this guideline, the starting plate shall always be fixed at its ends, even if brickwork is present, taking special care that the head of the fixings does not come into contact with the ceramic pieces.



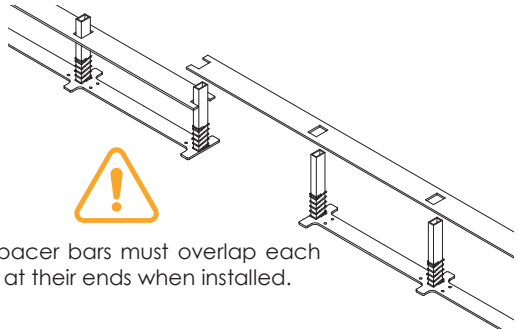
Phase 1: Assembly of the starting level

3 Fit expansion springs (rectangular springs) in the male profiles of the starter plate.

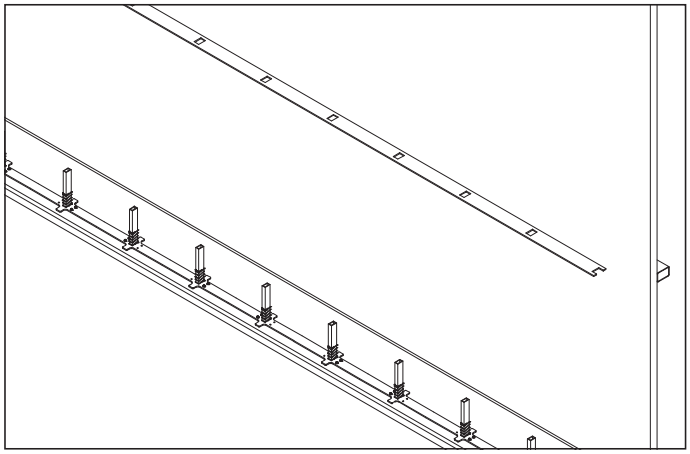




4 Place a spacer plate over the expansion springs.



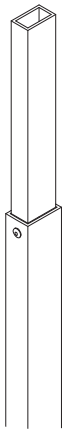
The spacer bars must overlap each other at their ends when installed.

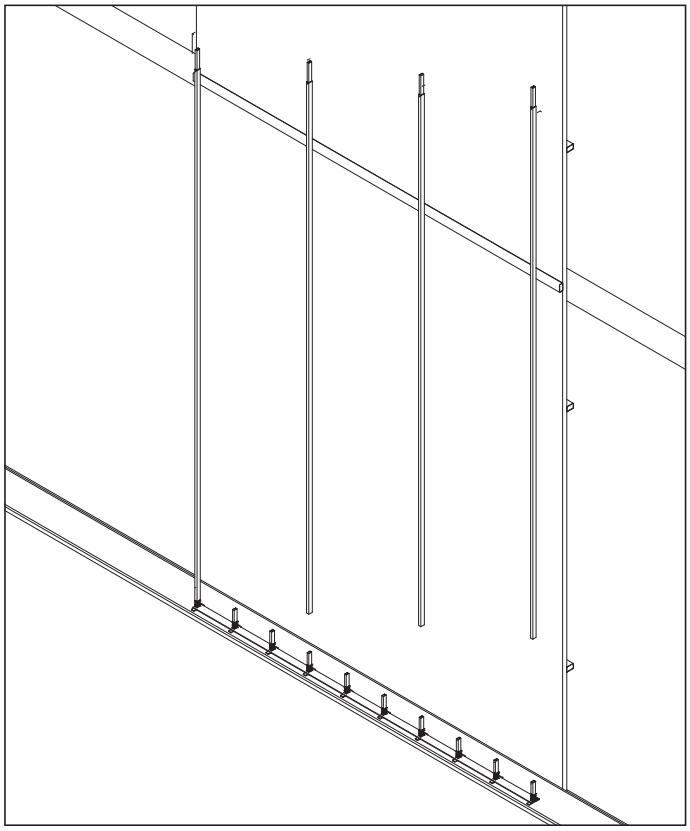


5 Insert the first, fourth, seventh, tenth,...i.e. one profile out of three into the starting plates (and into the spacer above the springs).

The profiles will not always be in the same position in relation to the starter plate. The important thing is to install every third profile.

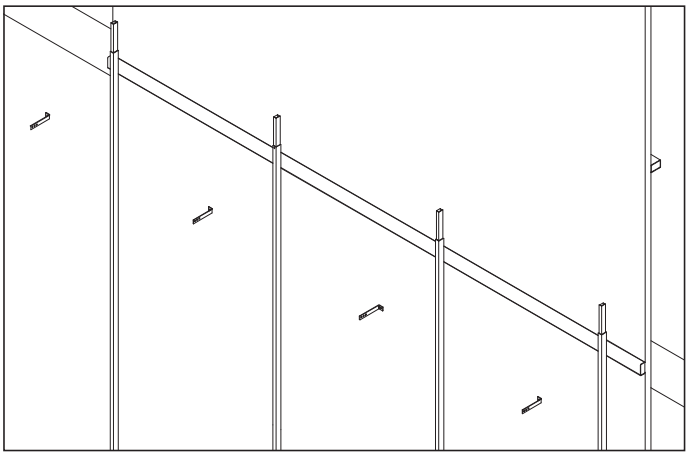
The vertical profiles of 30x20x2 shall be riveted at the top with a 25x15x2 lead to reference the vertical profiles of the next level.



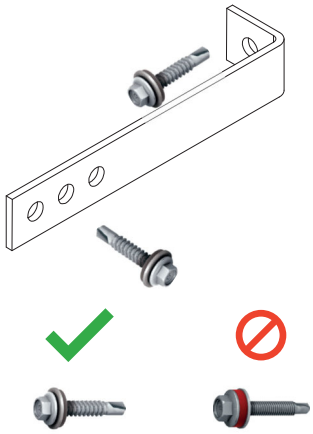


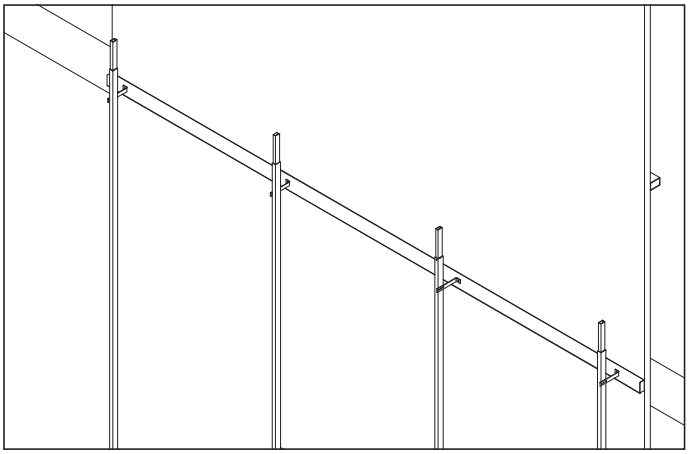
Phase 1: Assembly of the starting level

6 Fix the profiles from point 5 vertically by means of brackets attached to the floor slab (fastening structure). These brackets must be positioned on the appropriate side of the profile so that the spacer plate of the next level, which will be placed on top of it, can be supported correctly.

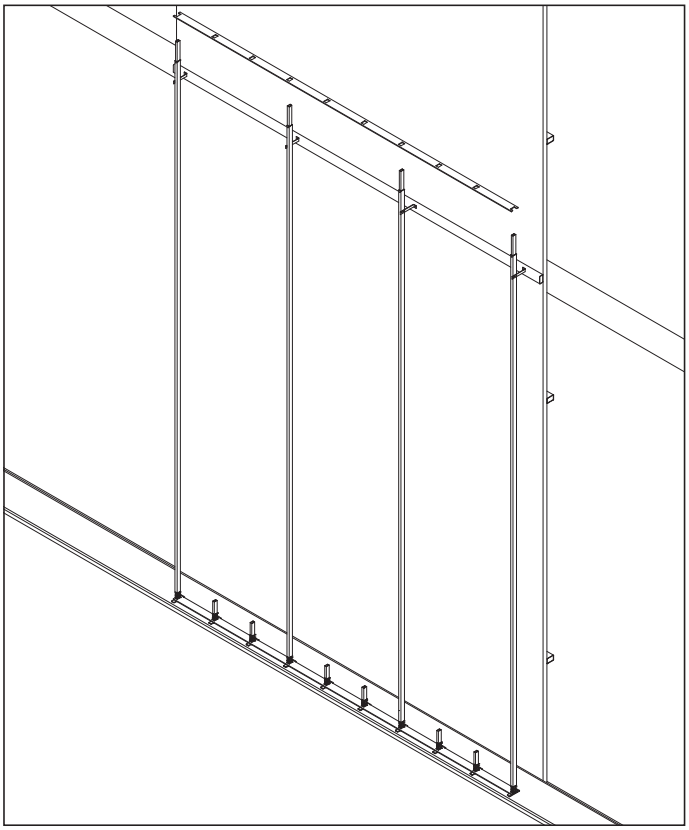


These brackets may be fixed in a temporary position and may have to be repositioned at a later date. This will be determined by the height of the brick course during installation.

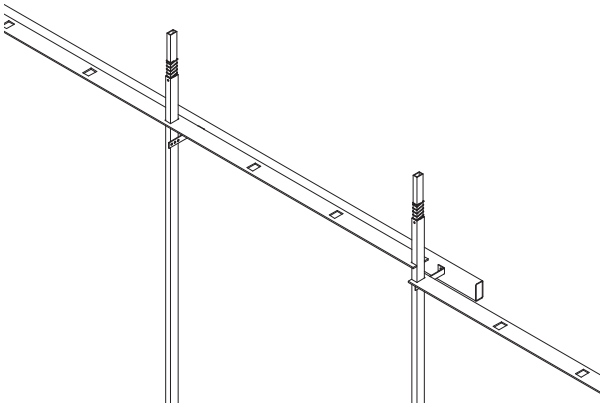




7 IInsert a second spacer plate at the top of these profiles, which will match the vertical profiles and rest on the already installed brackets. This new spacer plate will overlap the previous plate in the last profile.

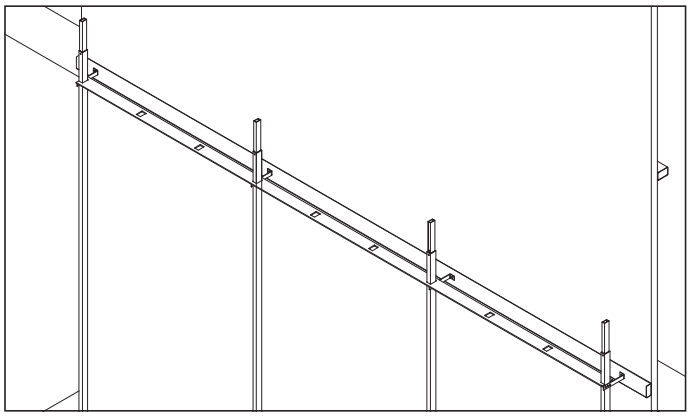


The spacer plates shall rest on the brackets. They must also overlap each other at their ends when installed.

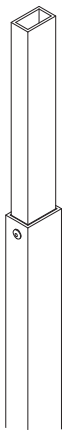


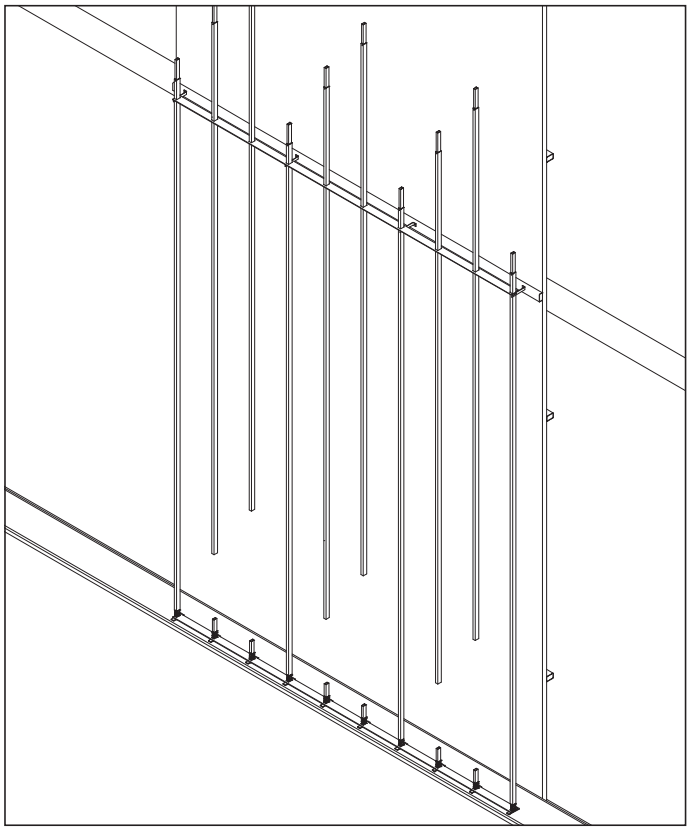
Phase 1: Assembly of the starting level

8 Once the master profiles have been fixed to the spacer plate and have been secured, the rest of the profiles are inserted through the hole in the upper spacer plate and then into the corresponding gap in the starter and spacer plate, over the expansion spring.



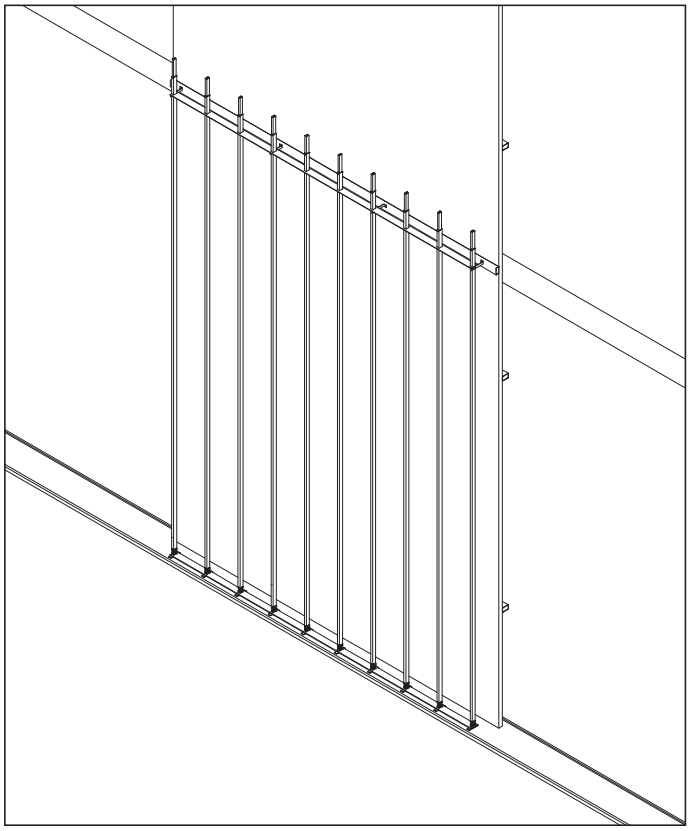
he vertical profiles of 30x20x2 shall be riveted at the top with a 25x15x2 lead to reference the vertical profiles of the next level.





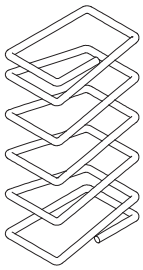
9 Continue to the next level in Phase 2.

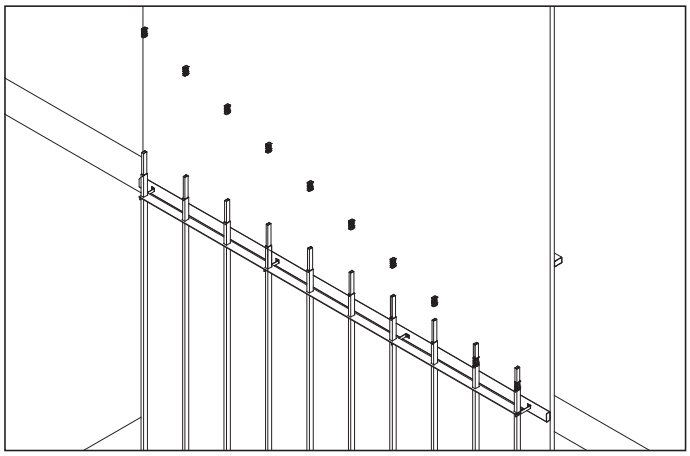
The profiles inserted in point 8 shall be fixed during the brick laying phase.



Phase 2: Assembly of crown level structure

10 Place expansion springs (rectangular springs) in the pipe waits of the previous level.

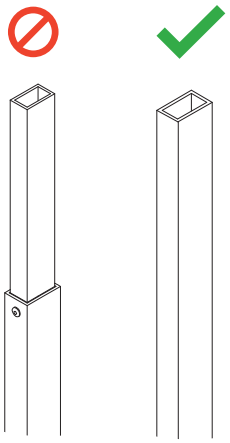


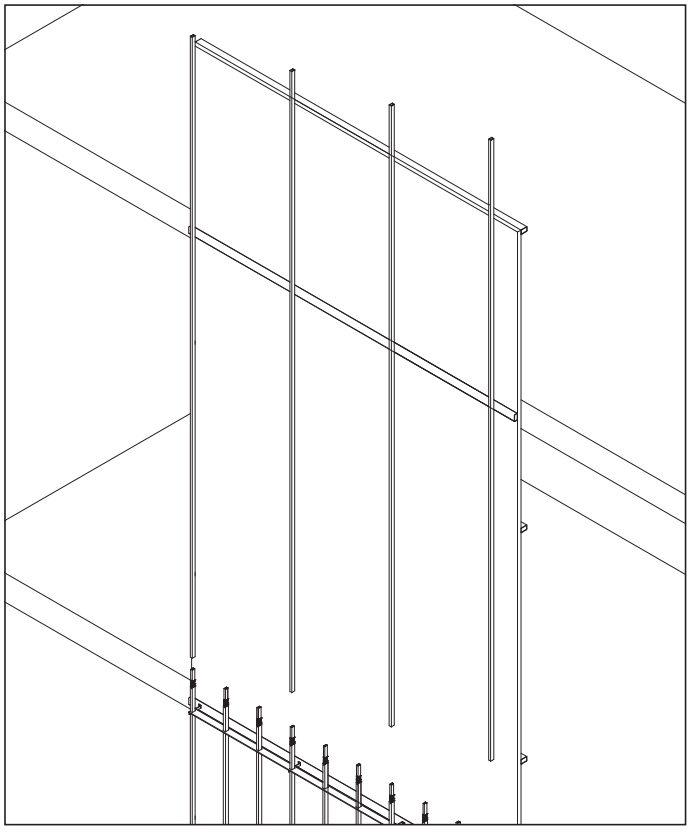


11 Insert the first, fourth, seventh, tenth, etc., profiles into the profile waiting points of the previous level (on the springs and on the spacer already in place), i.e., one profile out of three.

The profiles will not always be in the same position in relation to the starter plate. The important thing is to install every third profile.

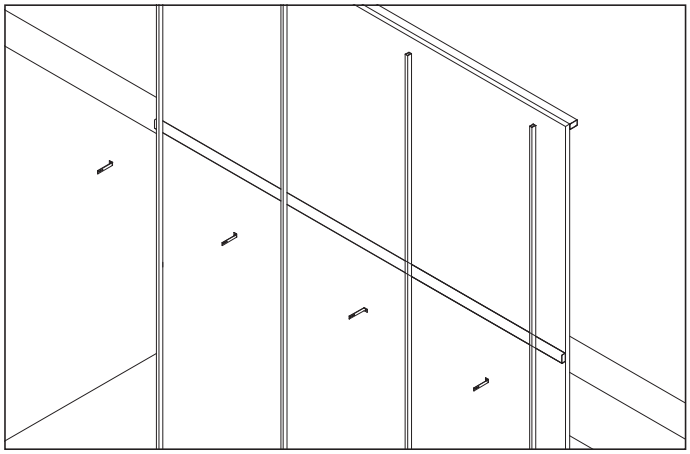
The vertical profiles of 30x20x2 at the crown level are not equipped with a male profile. These profiles are also longer than those with male profiles.





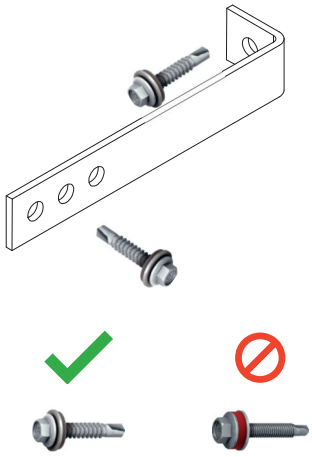
12 Fix the profiles of point 11 vertically by means of brackets attached to the floor slab (fastening structure). These brackets must be positioned on the appropriate side of the profile so that the spacer plate of the next level, which is to be placed on top of it, can be supported correctly.

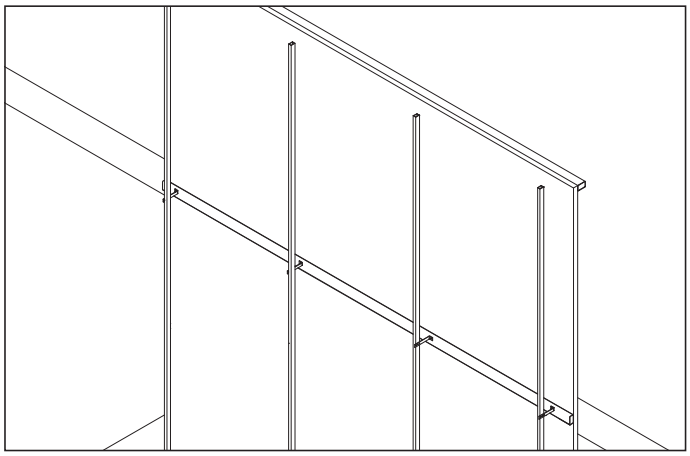
These brackets may be fixed in a temporary position and may have to be repositioned at a later date. This will be determined by the height of the brick course during the placement.



Phase 2: Assembly of crown level structure

12

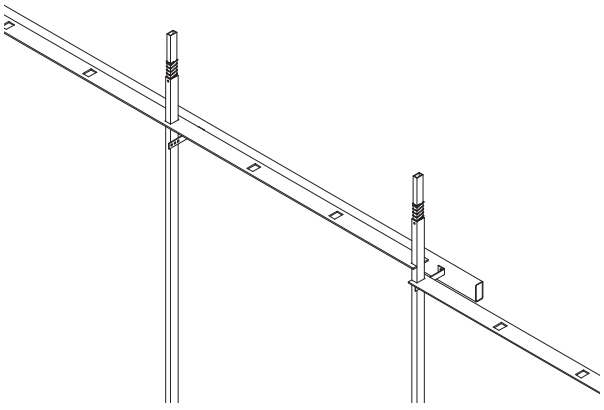


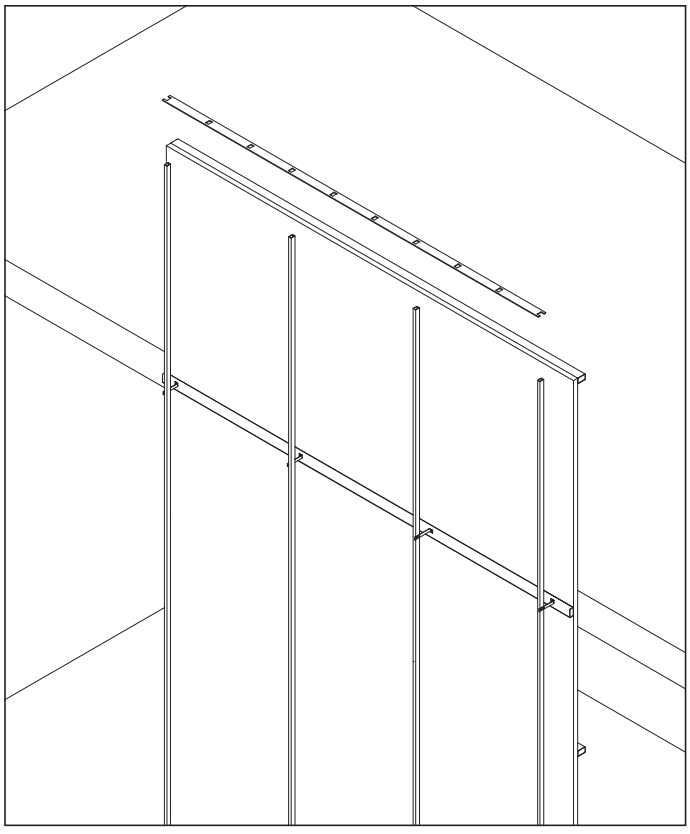


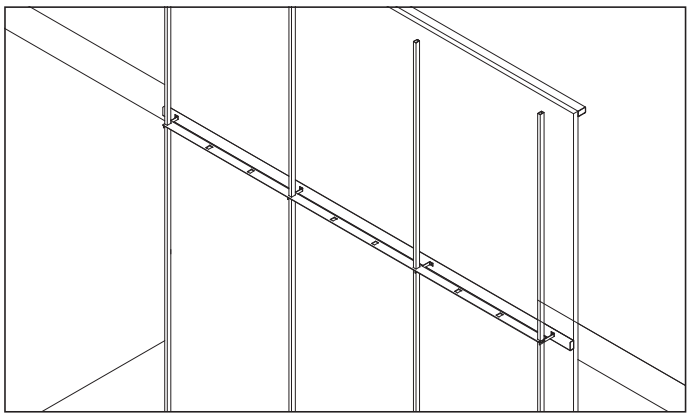
13

Insert a new spacer plate at the top of these profiles, which will match the vertical profiles and rest on the already installed brackets. This new spacer plate will overlap the previous plate in the last profile.

The spacer plates shall rest on the brackets. They must also overlap each other at their ends when installed.

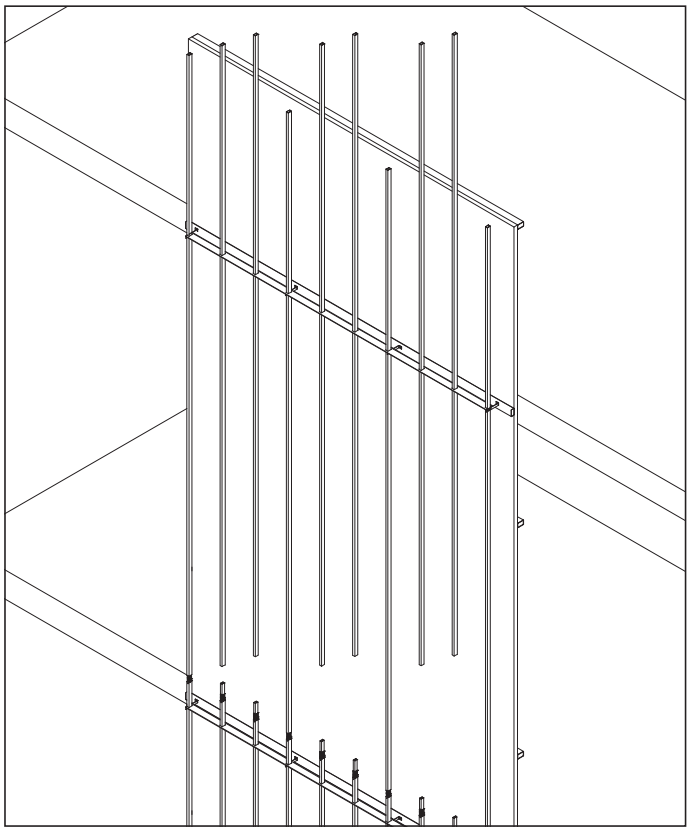




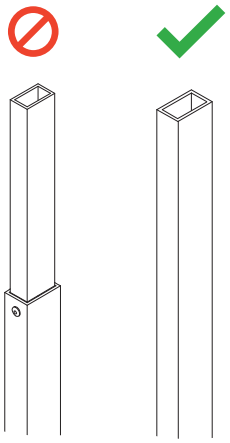


Phase 2: Assembly of crown level structure

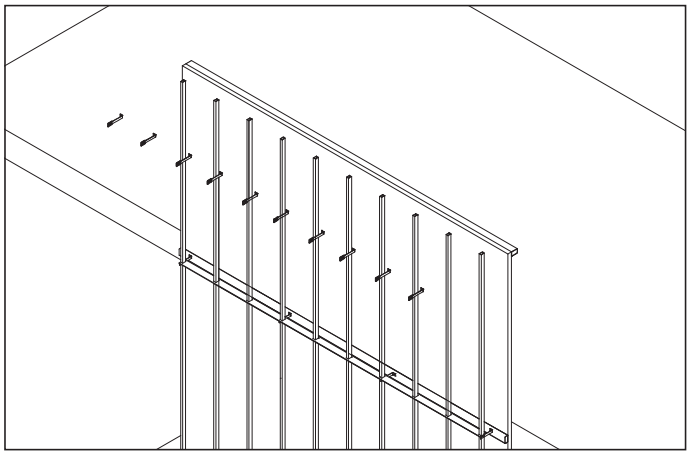
14 Once the master profiles have been fixed to the spacer plate and have been secured, the rest of the profiles are inserted through the gap in the upper spacer plate and then into the corresponding gap in the profiles and spacer plate on the lower level, over the expansion spring.



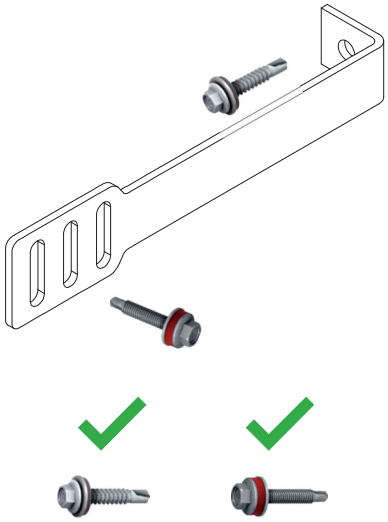
The vertical profiles of 30x20x2 at the crown level are not equipped with a male profile. These profiles are also longer than those with male profiles. If necessary, the final length of the profiles will be adjusted by cutting them on site.

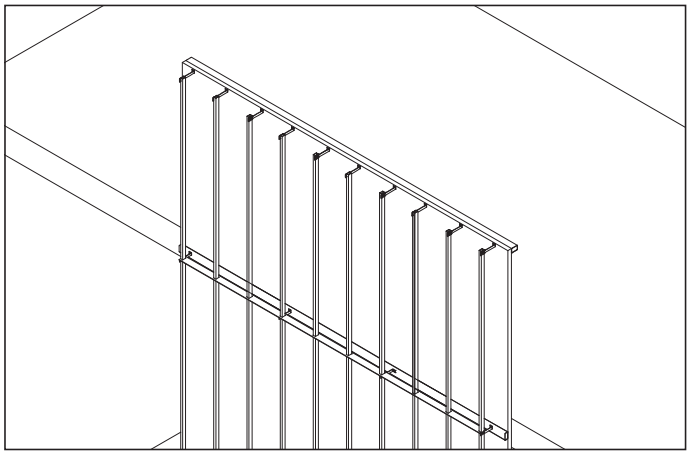


15 Fix the profiles at points 11 and 14 vertically by means of brackets attached to the floor slab (fixing structure). At the top of the panels, all the brackets are positioned.



These brackets may be fixed in a temporary position and may have to be repositioned at a later date. This will be determined by the height of the brick course during the placement.

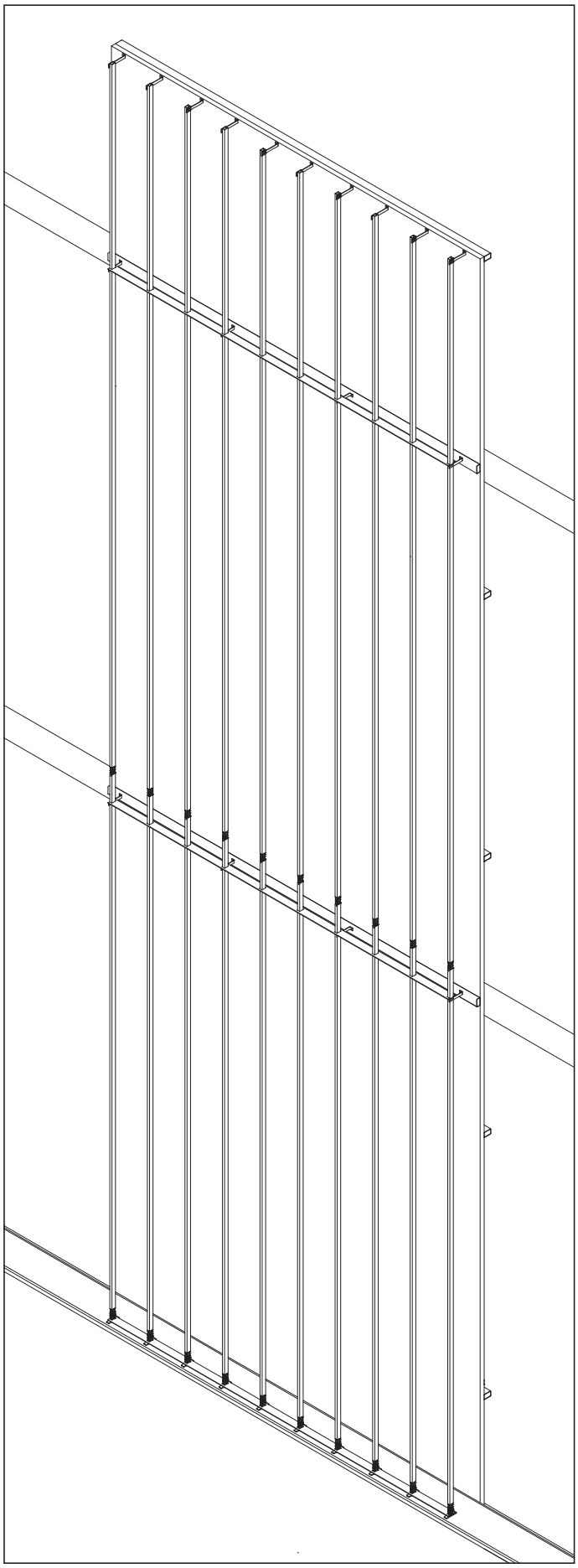




Phase 2: Assembly of crown level structure

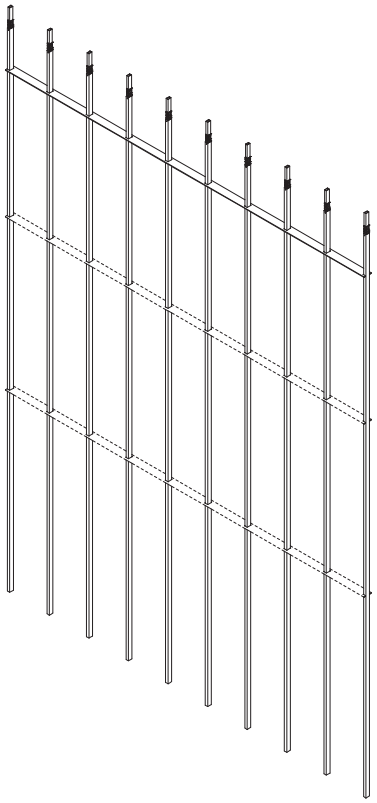
16 Continue in Phase 3 with the laying of the bricks.

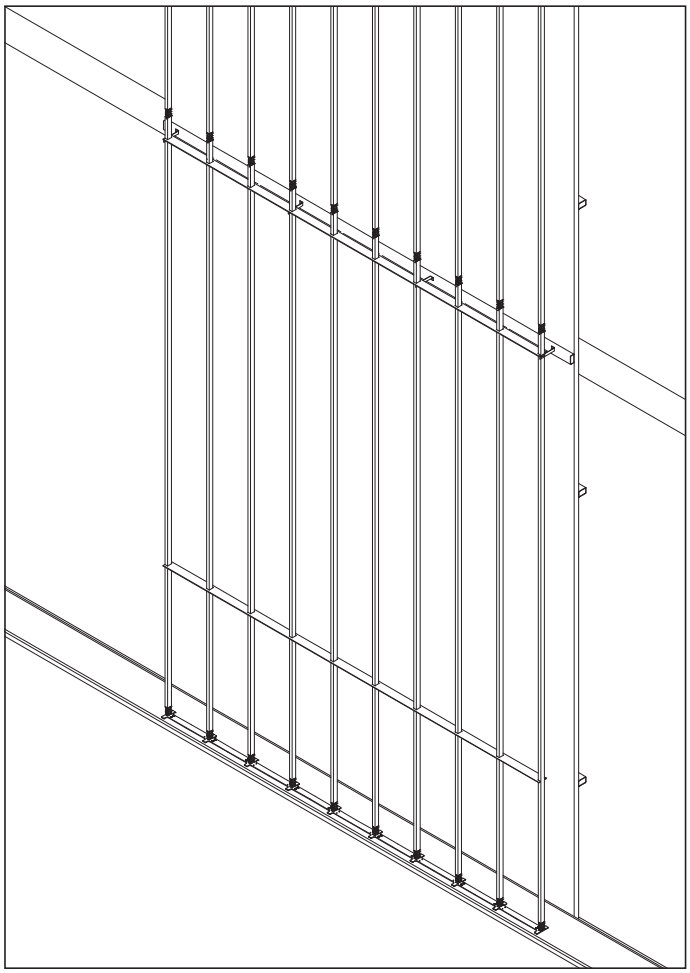
At the moment, the brackets fixed to the structure are those that correspond to the master profiles, except for the crown of the panel, where all the profiles are fixed.



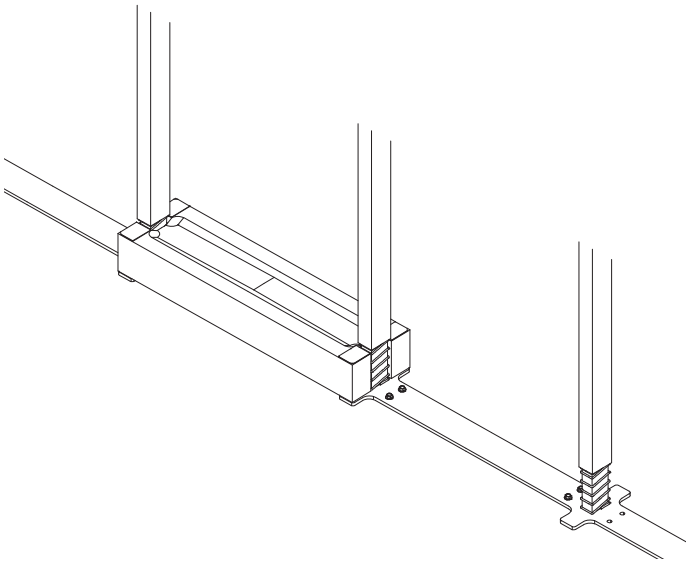
Phase 3: Laying the bricks

17 Slide the spacer plate vertically about one meter to secure the correct position of the vertical profiles. Fix the spacer plate to the profiles with compression jacks or similar tool.

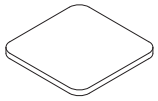




18 The bricks of the initial starter course shall be supported on the supports of the starter plate, so that the support is only at those points.



The bricks shall not rest directly on the starting base (supporting structure). After laying the second course, it shall be leveled, if necessary, by means of leveling spacers.

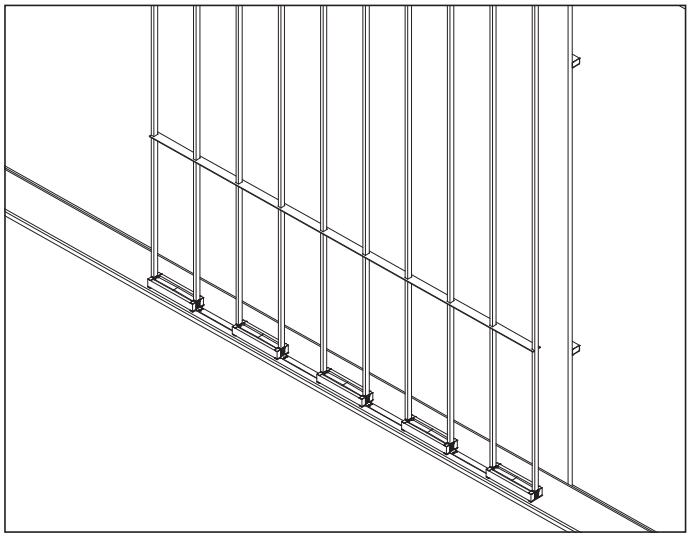


Phase 3: Laying the bricks

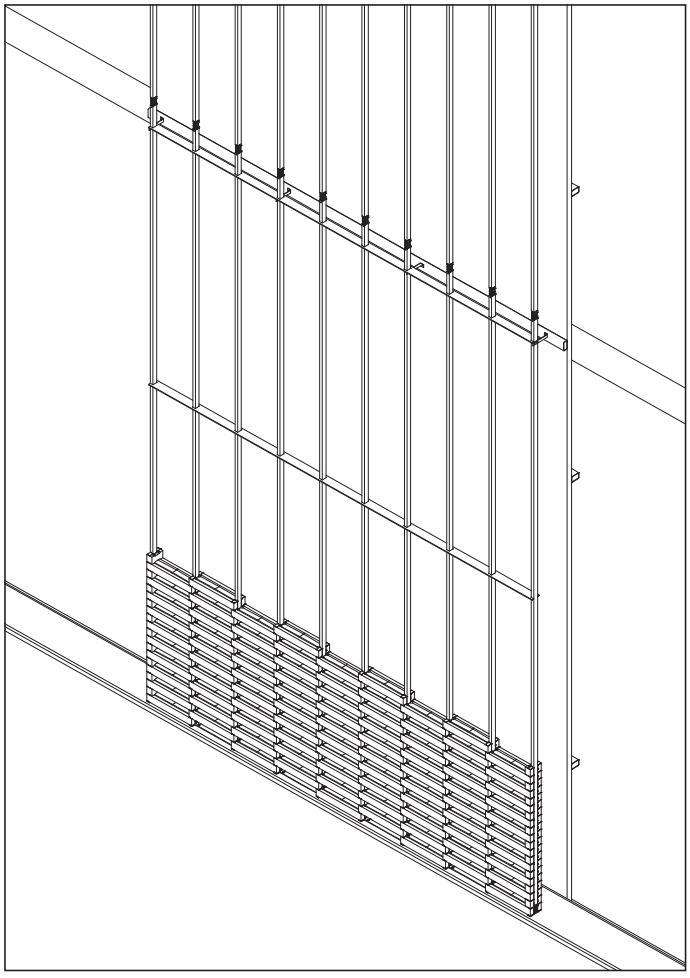
IMPORTANT NOTE

The brickwork used in this Phase 3 has a length of 3 m for representation purposes only. What is indicated in this phase is applicable for different lengths of brickwork following the same installation criteria.

19 Lay the bricks from the current level up to the next slab, leveling the courses with spacers and cut down pieces with the help of a cord like the one used for laying facing bricks or with the help of another similar auxiliary means (laser, large dimension level...).



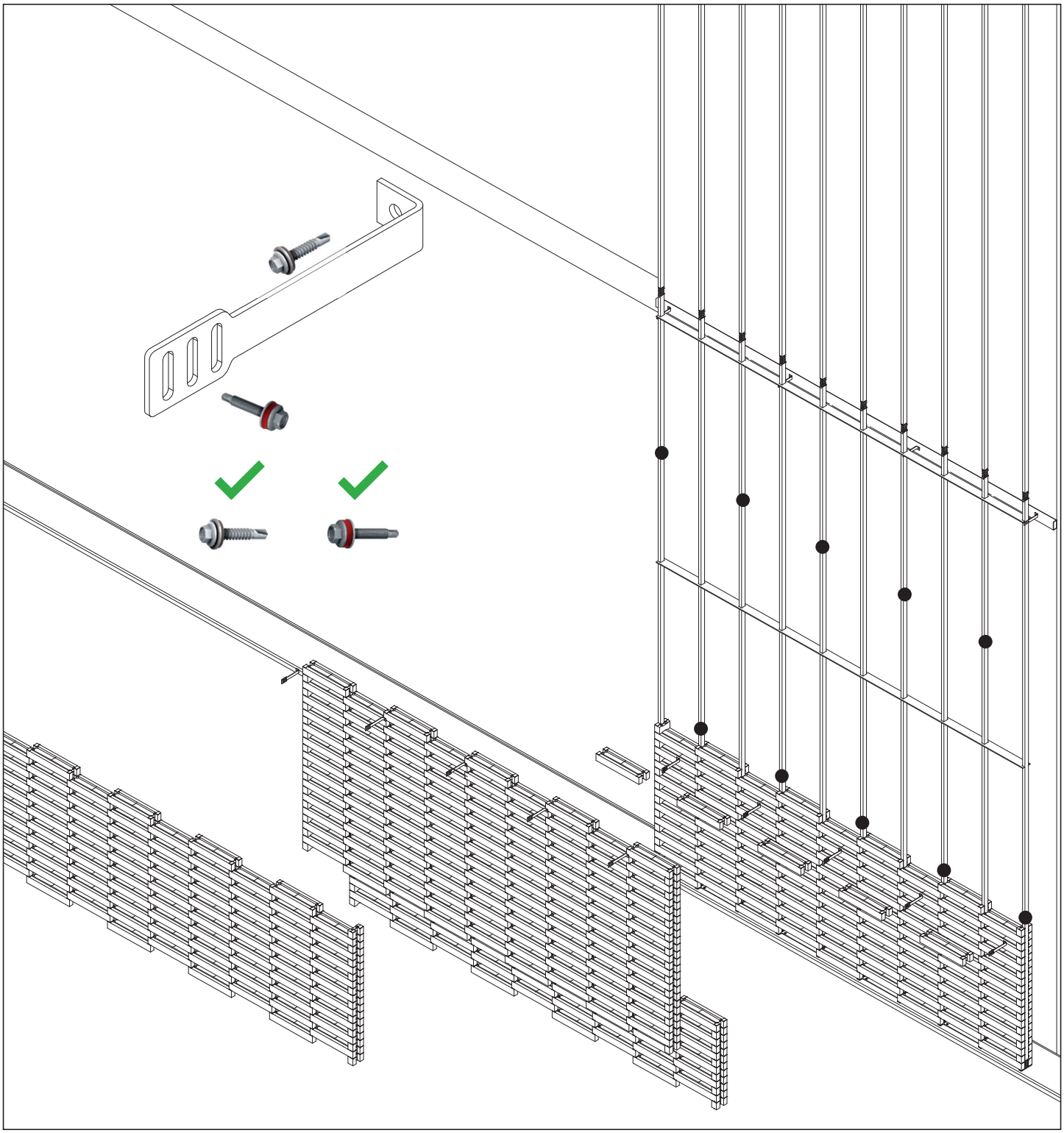
This leveling process will not be carried out every course, but approximately every 50 cm. During this process, the spacer plate of the level should be raised when deemed appropriate.



Following the usual recommendations for laying facing bricks, bricks from various packs should be mixed together, also taking the bricks from each pallet from top to bottom to ensure a better mixing of the pieces. In order to obtain a better façade finish, it is also recommended to lay the bricks in the position in which they come on the pallet (without turning them).

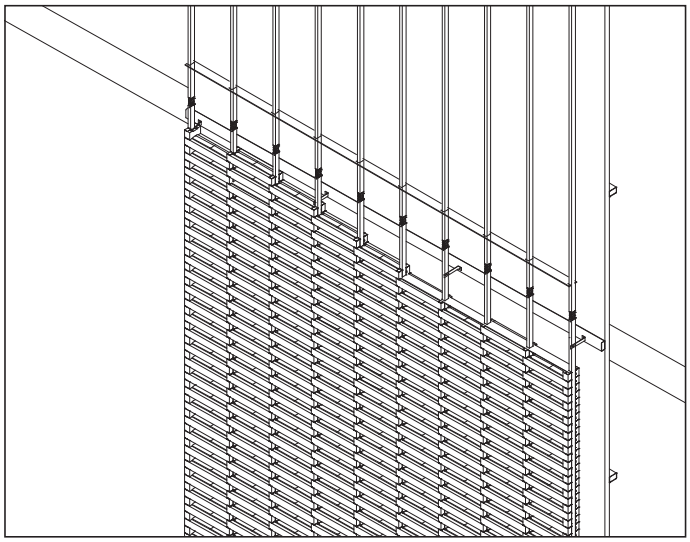
Phase 3: Laying the bricks

20 If sliding brackets are required, they have to be fastened in quincunx pattern rows on the substructure provided on the building and on the vertical profile with the corresponding screws (black dots in the illustration) each time the level of the sliding brackets is reached. If the springs are fully compressed, the profiles shall be raised to allow the spring to return to its position without full compression.

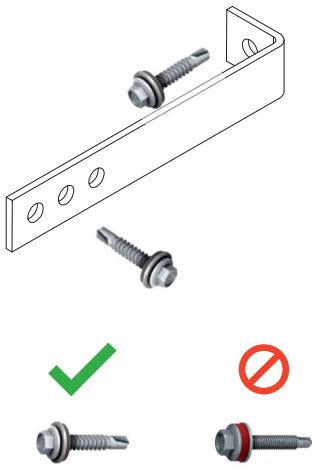


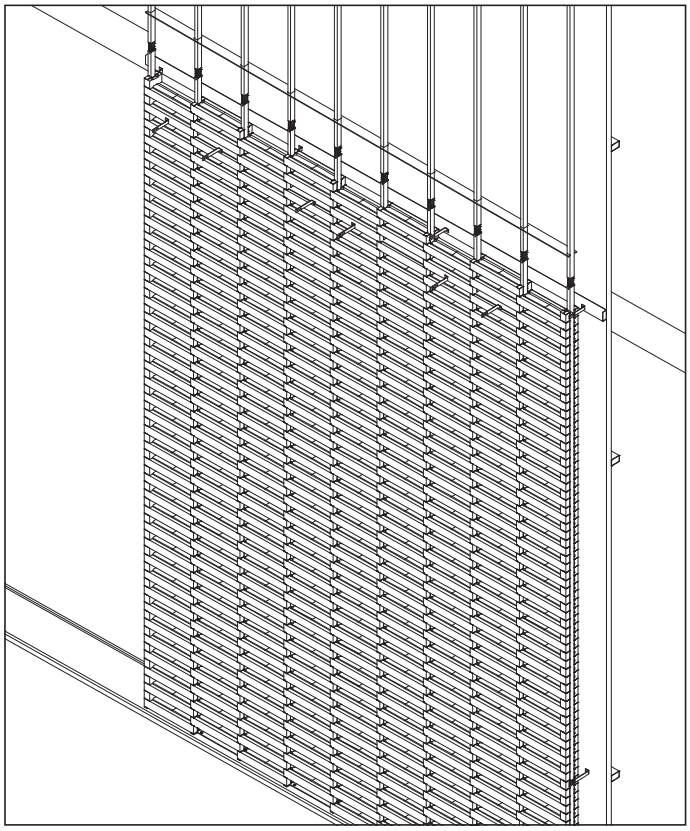
Phase 3: Laying the bricks

21 When we are sufficiently close to the next slab (about 20 cm), the spacer plate that we have been sliding from the base will be moved to the next level, dismantling the master brackets progressively and individually, never simultaneously. Once the position of each of the master brackets has been passed, they will be immediately fixed again, in a position where they are not expected to interfere with the laying of the brickwork.



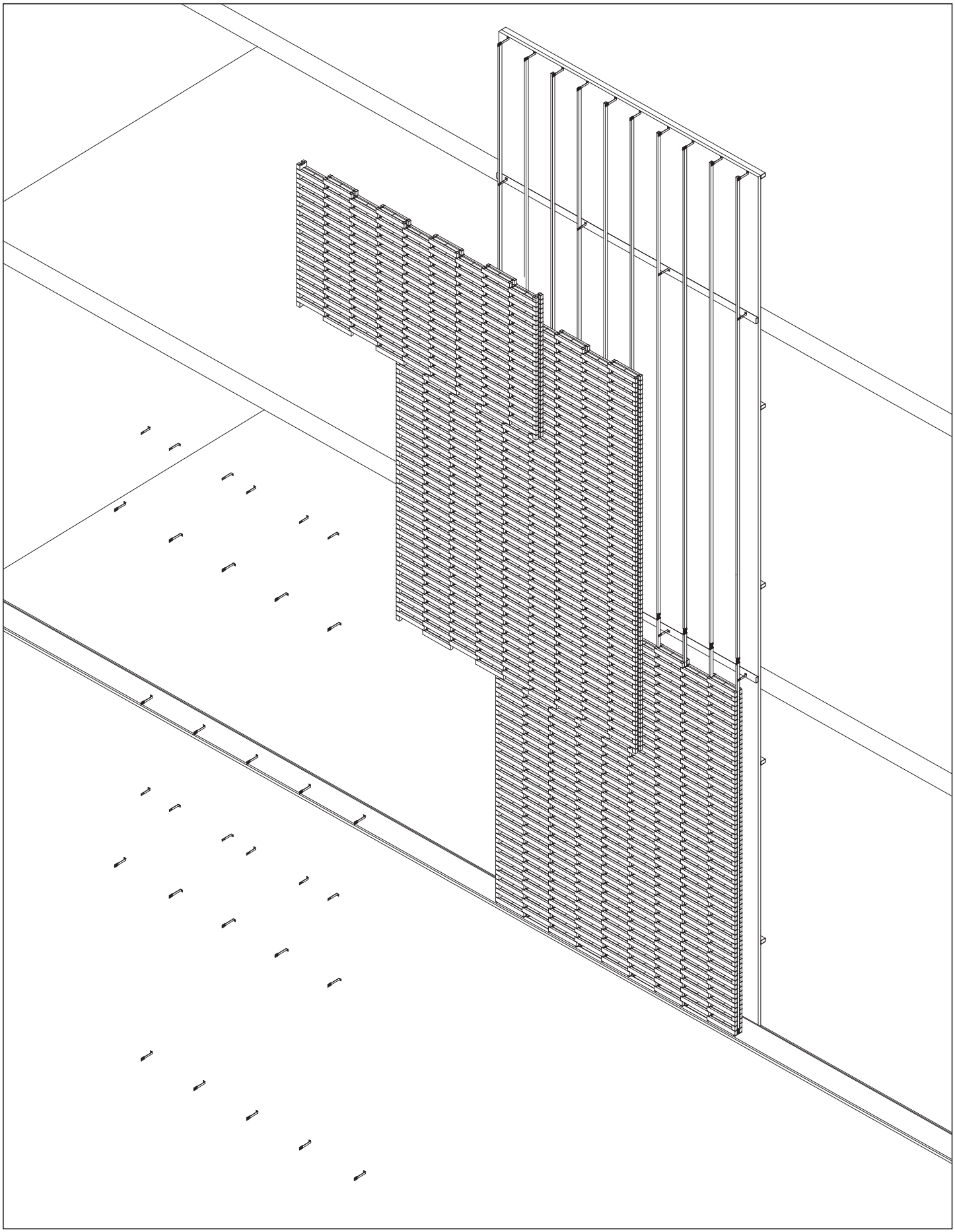
22 When the correct position of the fixed brackets is guaranteed, they shall be fixed in their final position, dismantling those brackets of the master profiles that interfere with the laying of the brickwork and which shall be correctly repositioned.



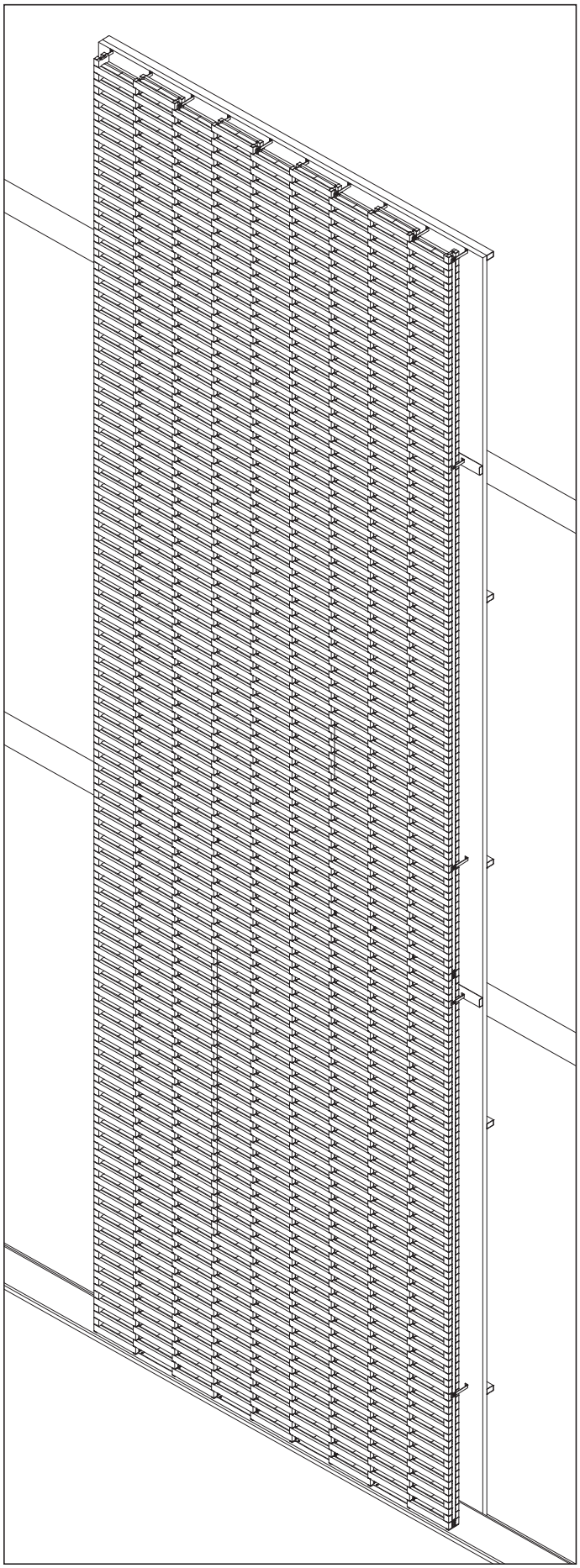


23 Continue laying bricks until closing by the entire façade wall.

Phase 3: Laying the bricks

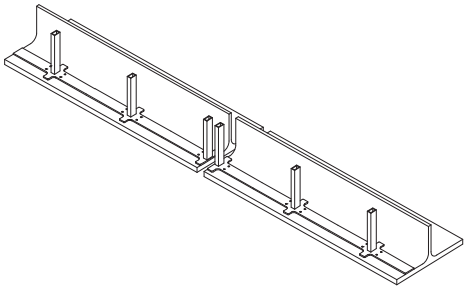


Phase 3: Laying the bricks

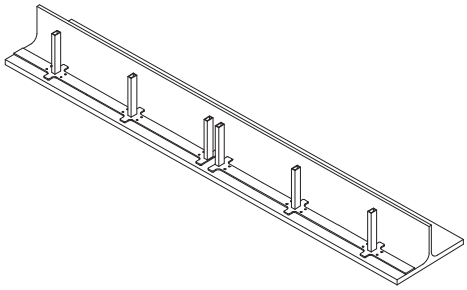


Singular points

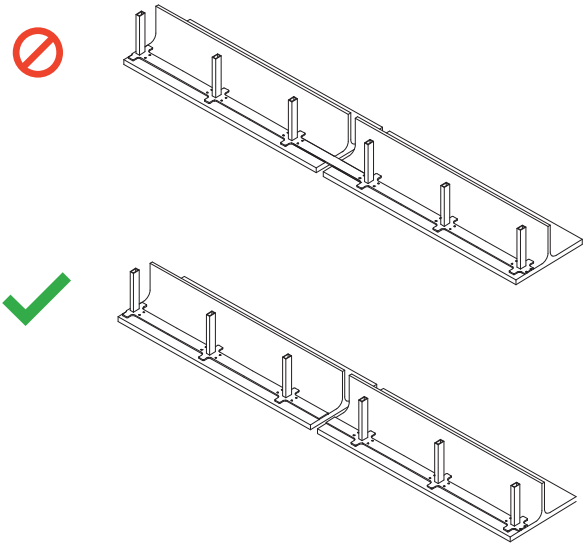
A1 When laying out the starter plates and during installation, it is important to respect the structural joint of the building if there is one. A starter plate shall be placed on each side of the structural joint. Each of these starter plates will belong to different facade panels.



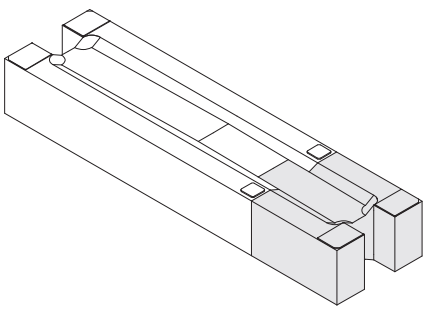
A2 The façade also has expansion joints, where necessary, which should be executed by installing separate starting plates as in the case of the structural joint.



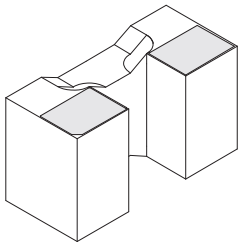
A3 When a starter plate passes over a joint between support profiles, it must be cut so that it does not interfere with the possible thermal expansion of the support profiles.



A4 At the start or horizontal ends of the façade walls, the standard piece that starts or ends the wall may be an adjustment piece. This means that its length will be different from the standard one, and it must be cut according to the plan or after the initial layout on site. In this case, it will be necessary to place levelling spacers on one of its faces during installation.

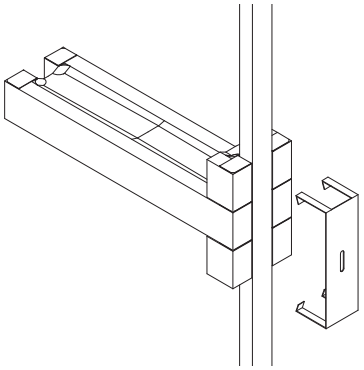


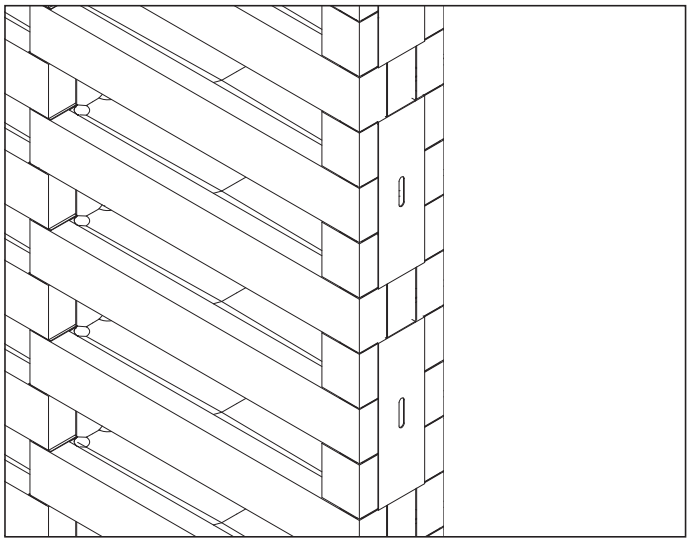
A5 Side trim pieces are available to assist the horizontal leveling of the courses. Cut down pieces shall be fitted where necessary according to on-site measurements.



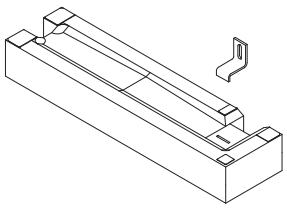
Singular points

A6 The side clips have to be placed on the last meter of the wall at the crown and also at mid-height between slabs. This part avoids the use of adhesives to fix the end pieces and at the same time makes it impossible to remove the side profile at the end of the panels.

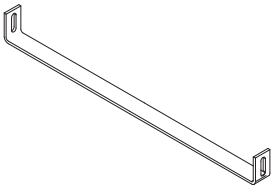


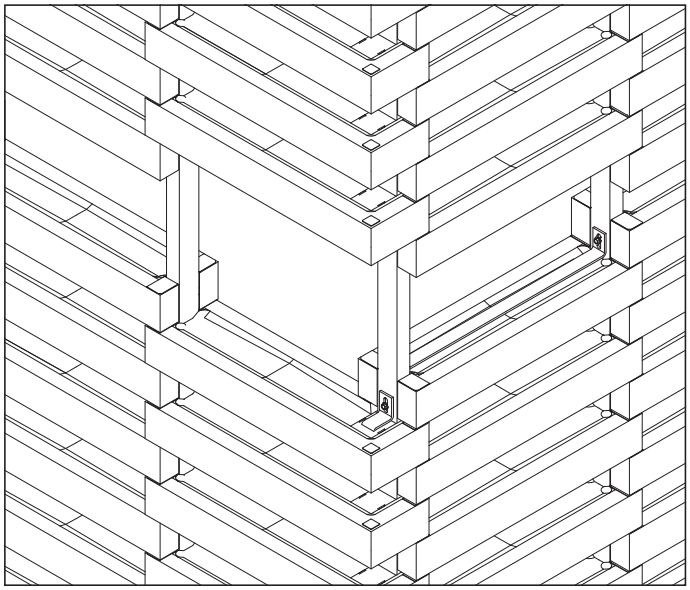


A7 The clips for corner pieces shall be placed in the last meter of the wall.

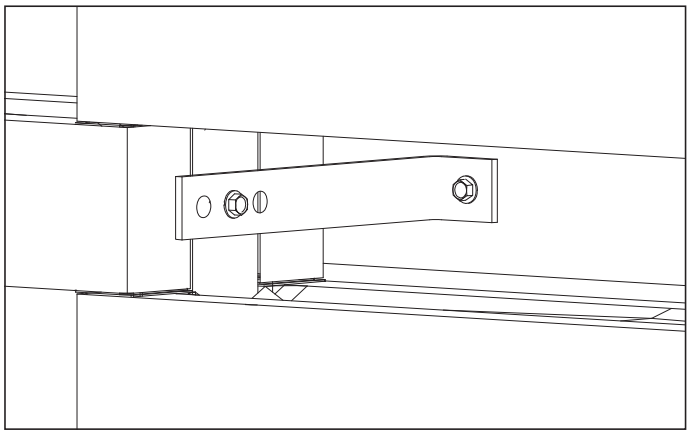


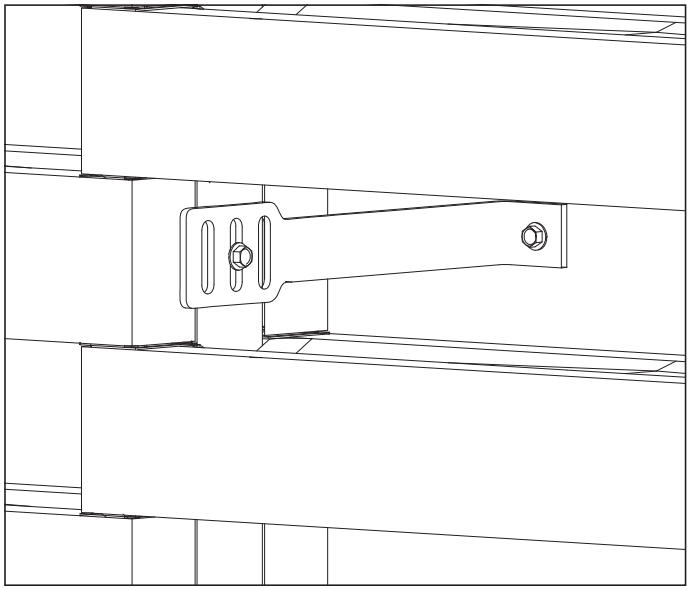
A8 U-brackets between vertical profiles shall be placed in the corner area, at mid-height between slabs and in the last meter of the wall together with the clips for corner pieces.





A9 The brackets shall be fixed at an intermediate height to avoid contact with the ceramic tiles. In the case of sliding brackets, the fixing screw shall be positioned centrally in the vertical plane.





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