ZENTURO SUPER GABIONS

INSTALLATION GUIDE



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DISCLAIMER

A filled gabion wall **DOES NOT** let through **WIND!**

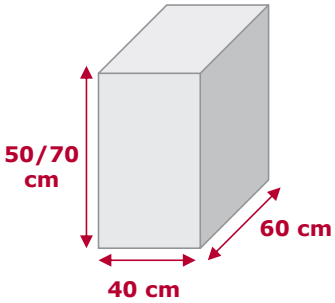
In order to avoid damages and injuries caused by accidents, please adhere to the following points

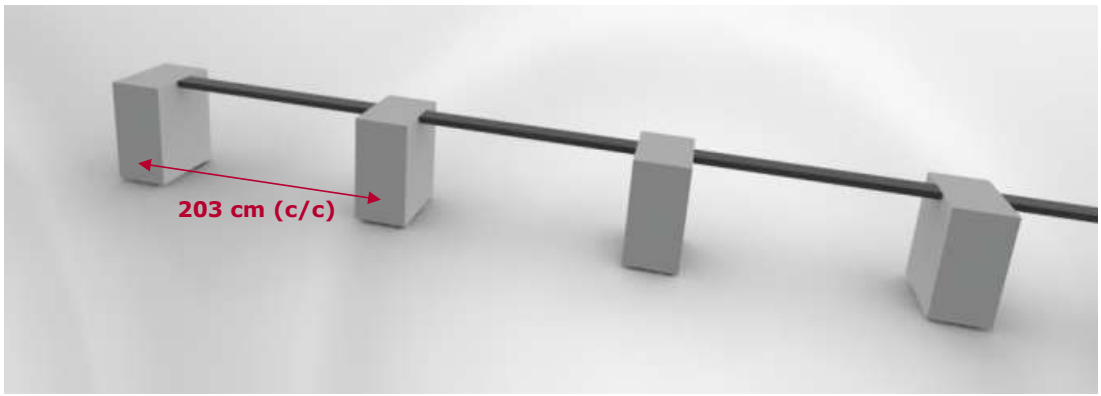
1. **Evaluate if the project location is not subject to strong winds**
   A filled Zenturo® wall of 200 x 200 cm (= maximum panel size) - installed with this post concept - resists a full frontal windload impact of 120 km/h.
2. **Make certain the posts are sufficiently dug into the ground and anchored with concrete**
   Respect the concrete foundation sizes!
3. **Never exceed the maximum height of the wall of 200cm**
   200 cm = maximum Zenturo® panel height

1. INSTALLATION IN CONCRETE

1.1 Installation In Concrete

1. Dig holes of a minimum:
   40 x 60cm x 50cm deep *(wall height ≤ 1550mm)*
   40 x 60cm x 70cm deep *(wall height >1550mm)*
   at a c/c (concrete centre) distance of 203cm
2. Make a trench:
   At least 5cm deep between the holes. The width of the trench must be a minimum of 150mm
3. Fill the trench:
   Using concrete, gravel, rubble granulate, stabilized sand, cobbles, old tiles, etc.

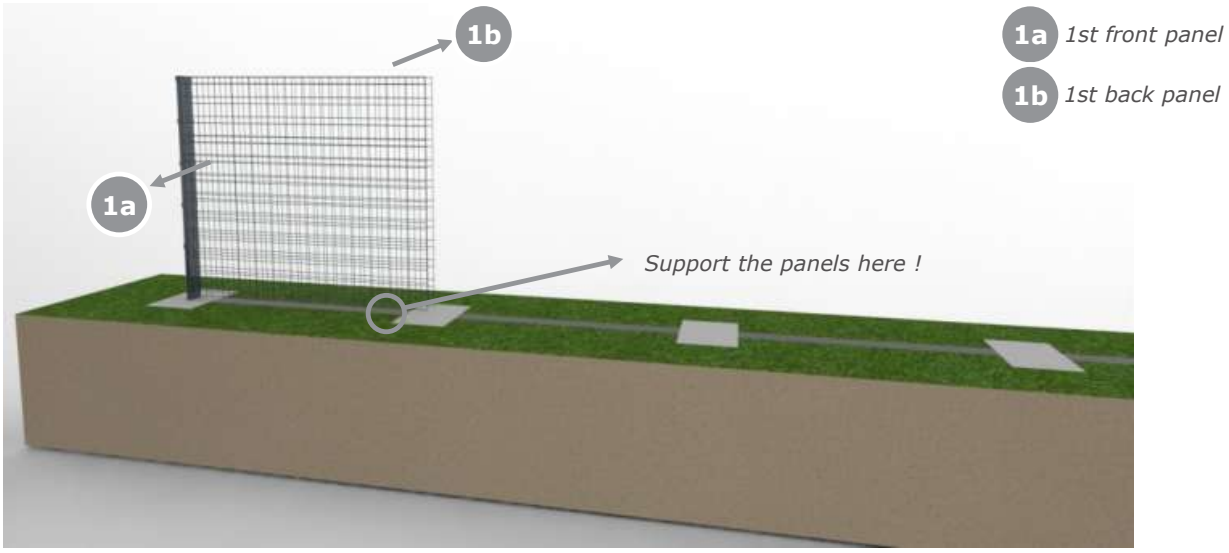




1.2 Installation In Concrete

Erect the first post and fix the panels:

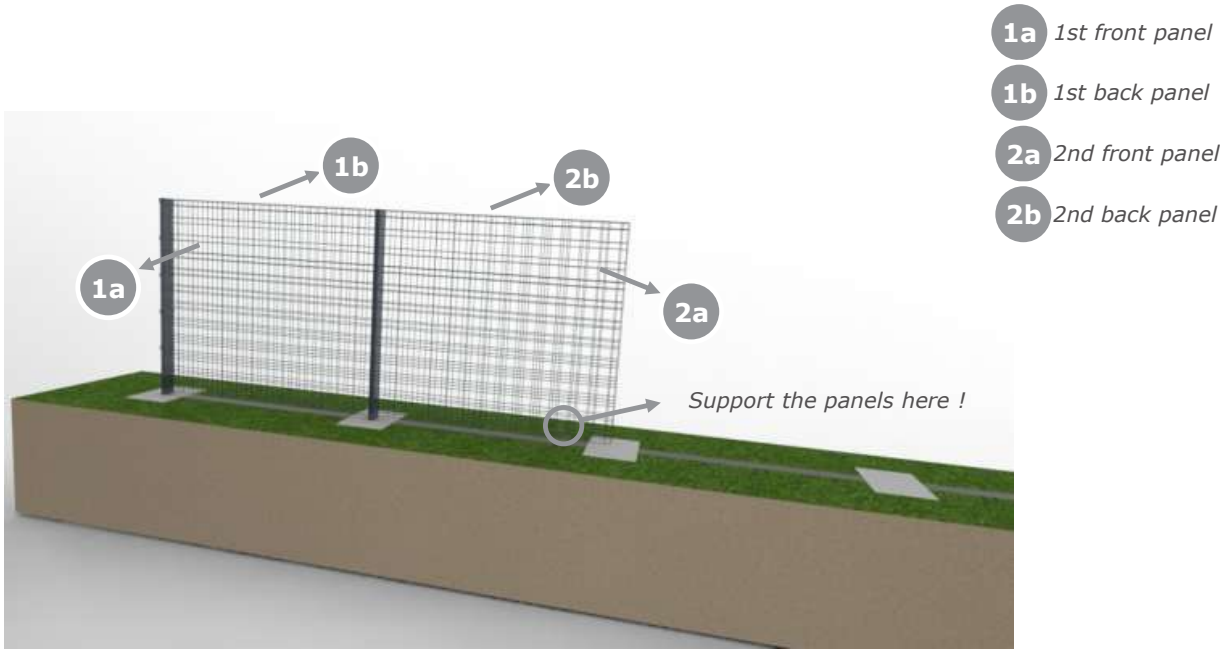
1. Put the first post in the first hole and pour a little dry concrete.
2. Attach the first two adjacent panels (1a /1b) to the post, fix them with the spider fixators.
3. Support the panels with a wood block or stone.
4. Check with a spirit level if the wall is completely horizontal and perpendicular.
5. Completely fill the first hole with concrete and stamp the concrete firmly.



TIP *Leave the smallest distance possible between the bottom of the panels and the filled trench.*

Fix second post and next two panels:

1. Put the second post in the second hole & pour a little dry concrete.
2. At the wall front side, simultaneously fix panels 1a and 2a to the second post with the fixators.
3. At the wall back side, simultaneously fix panels 1b and 2b to the second post with the fixators.
4. Support the panels 2a & 2b with a wood block or stone.
5. Check with a spirit level if the wall is completely horizontal and perpendicular. Now fill the second hole with concrete and stamp the concrete firmly.
6. Continue in the same way for all other panels.
7. Close the gabion wall with a finishing strip.

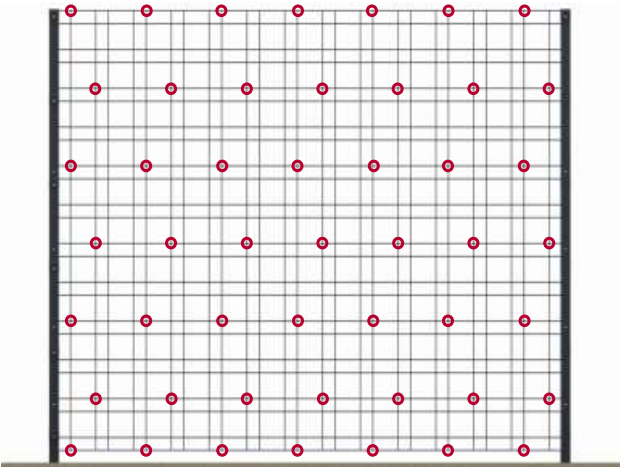


Install distance holders:

*In order to avoid bending of the panels due to the weight of the gabion infill, the use of distance holders (anchors) is a **MUST**.*

The distance between the anchors is - both in the vertical and horizontal direction - :

- +/- 50 cm for a light weight filling (wood bark, twigs, bamboo)
- +/- 30 cm for a heavy weight filling with other materials (all stone fillings, …)



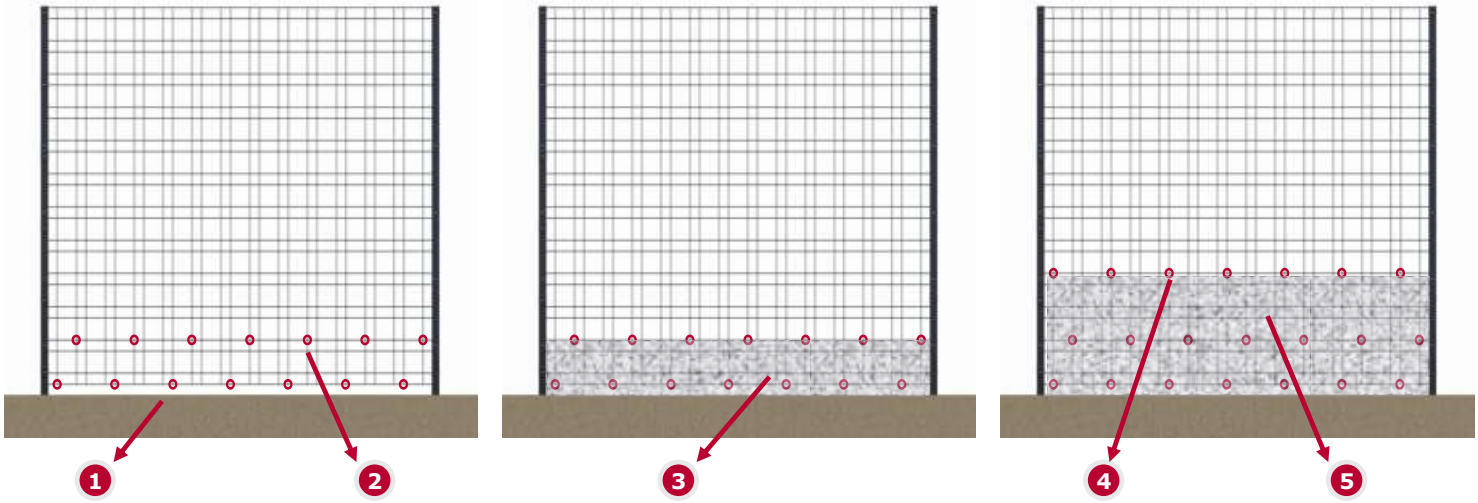
Example of anchor pattern (at 30cm distance)

***TIP** Always place the anchors around the welds of the panels. Always put a row of anchors at the bottom horizontal wire of the fence panel.*

Filling the opening between two panels:

After allowing the concrete to dry, the filling of the wall can be started:

1. Provide a first row of anchors at the very bottom of the panel.
2. Put a second row of anchors above the first row.
3. Fill the wall until just below the second row of anchors.
4. Provide a third row of anchors and fill again until just below it.
5. Continue in this way until the wall is filled up completely.
6. You will also need to provide a row of anchors at the top of the wall.



Filling the opening between two panels:

Choose a hard filling that is larger than the largest mesh size, for example (40 / 80) - (60 / 90) - (60 / 100)

• Frost free filling: cobbles / hard limestone / lava / brick / broken concrete / glass



• Other natural materials: logs / slices of wood / coconut shells / bamboo



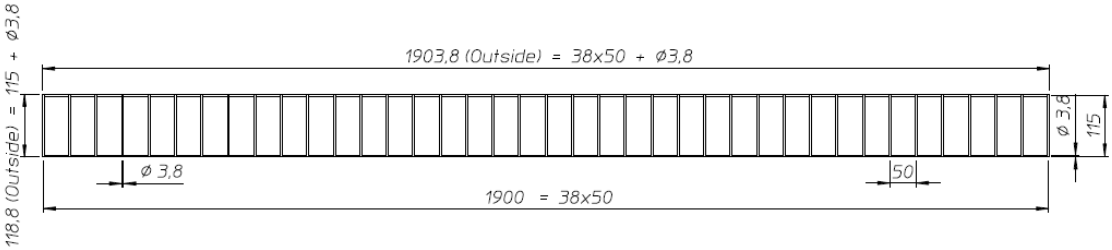
• If opting for a filling that is smaller than the largest mesh size (e.g. bark), the larger 100 x 50mm meshes need to be closed up

• Close the Zenturo® wall at the top with the finishing strip (see below).

1.3 Finishing Strip

Welded panel strip to be installed at the top of the Zenturo® wall (between the two panels), to avoid the infill being taken out (by children, thieves, vandals, animals).

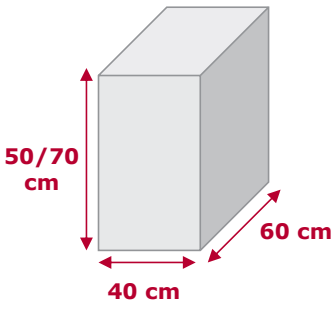


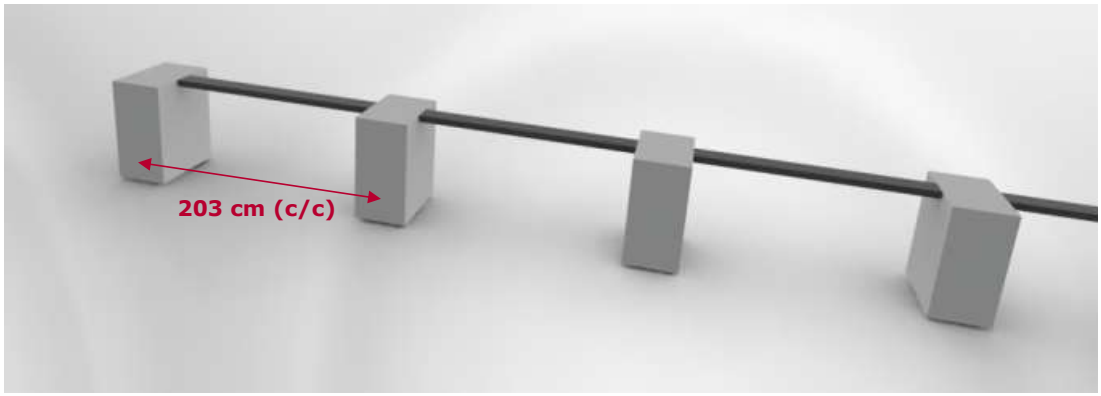


1.4 Installation Of Two Superpositioned Panels

Only possible for panels 955 + 655mm (post length 2400mm), and 955 + 855mm (post length 2700mm)

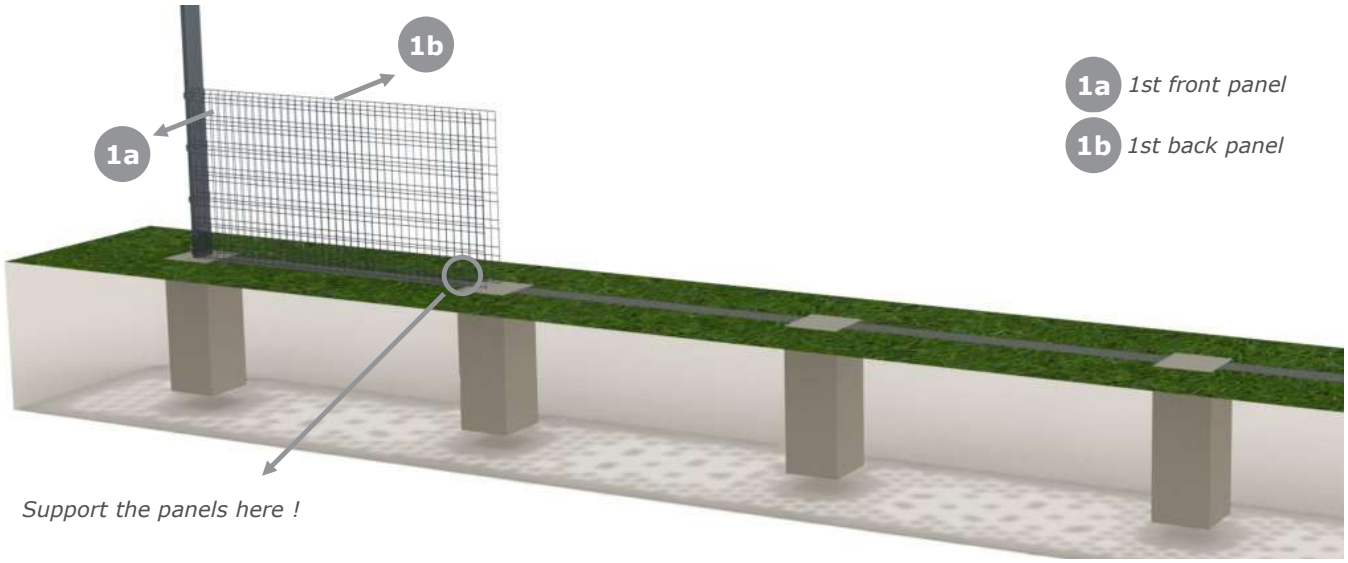
1. Dig foundation holes and trench as for the normal installation.





Erect the first post and fix the bottom panels:

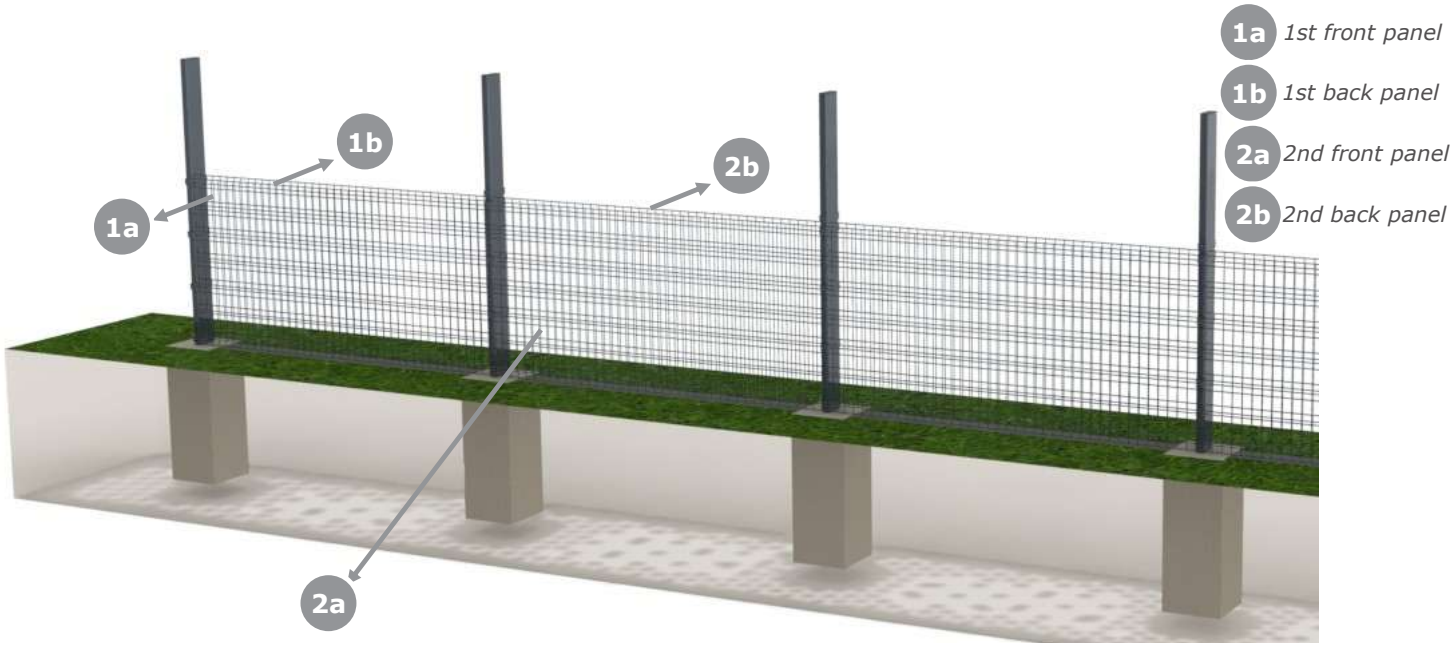
1. Put the first post in the first hole and pour a little dry concrete.
2. Attach the first two adjacent bottom panels (1a /1b) to the post, fix them with the spider fixators.
3. Support the panels with a wood block or stone.
4. Check with a spirit level if the wall is completely horizontal and perpendicular.
5. Completely fill the first hole with concrete and stamp the concrete firmly.



TIP *Leave the smallest distance possible between the bottom of the panels and the filled trench.*

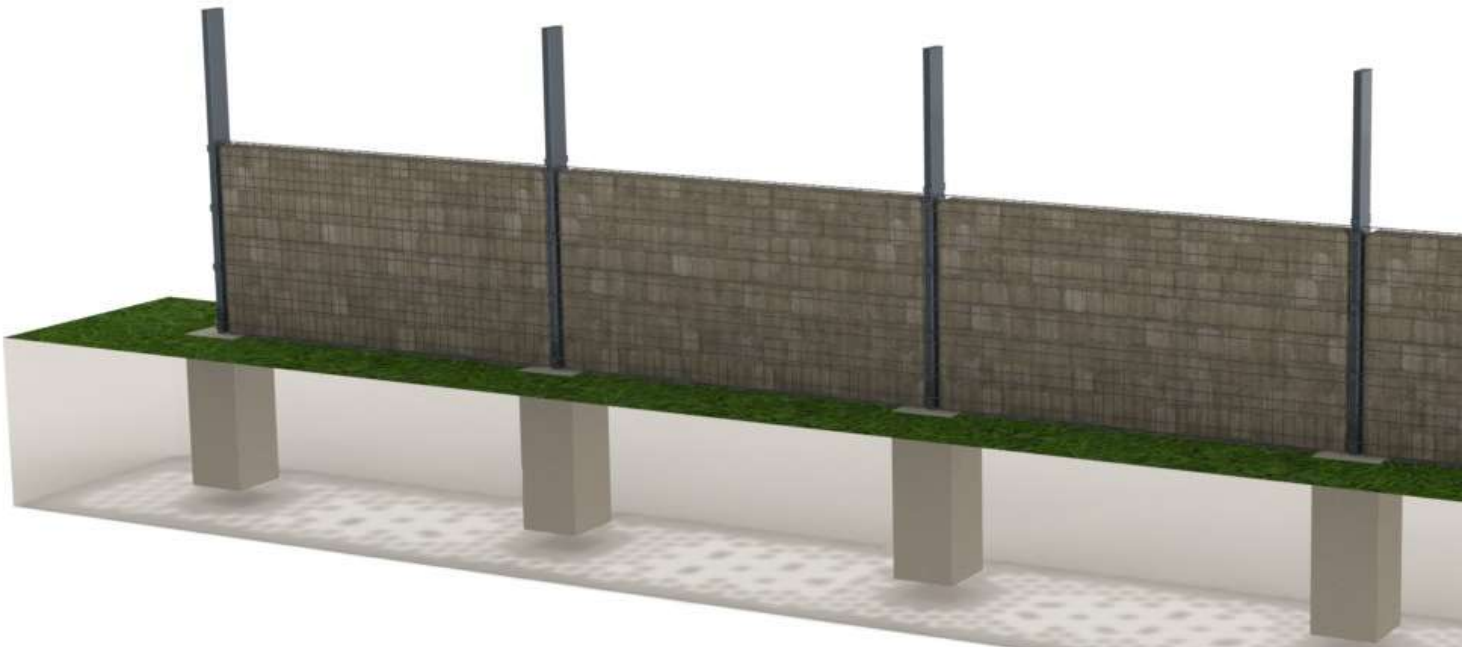
Fix the second post and next bottom two panels:

1. Put the second post in the second hole and pour a little dry concrete.
2. At the wall front side, simultaneously fix bottom panels 1a and 2a to the second post with the fixators.
3. At the wall back side, simultaneously fix panels 1b and 2b to the second post with the fixators.
4. Support the panels 2a and 2b with a wood block or stone.
5. Check with a spirit level if the wall is completely horizontal and perpendicular. Now fill the second hole with concrete and stamp the concrete firmly.
6. Continue in the same way for all other bottom panels.



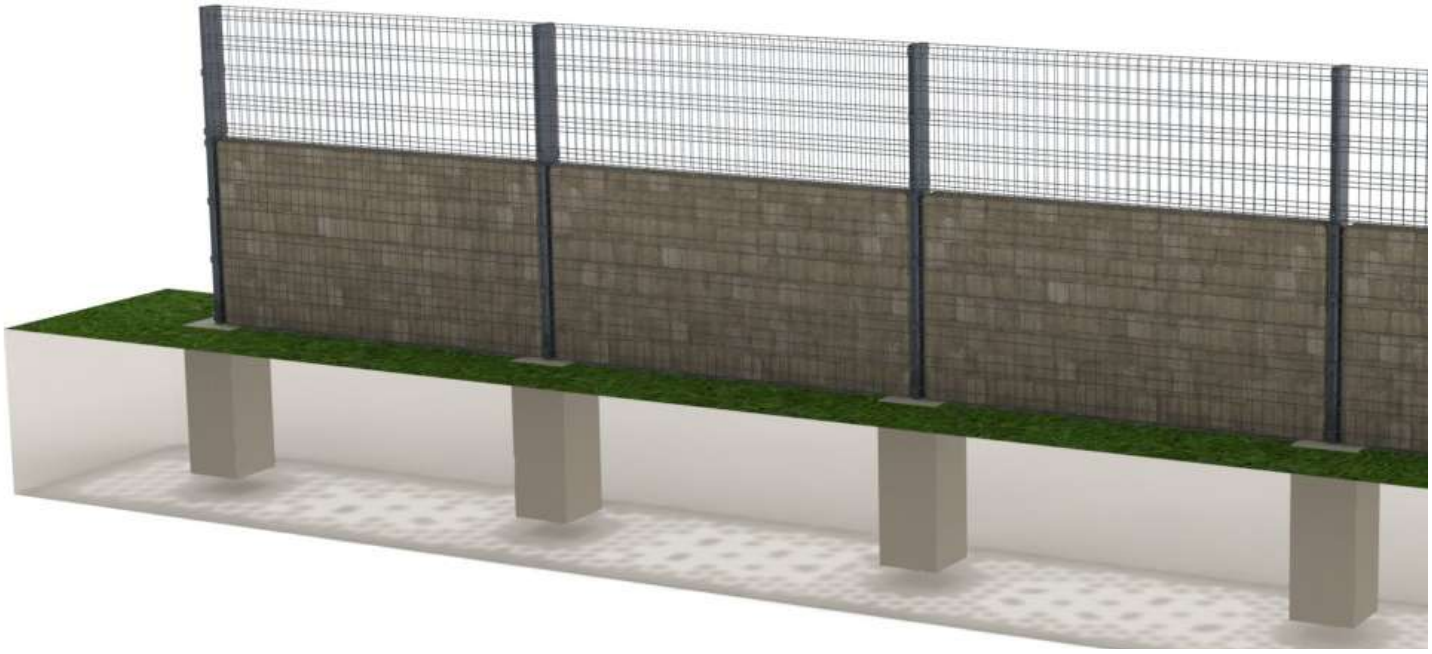
Fill the bottom panels:

1. Fill the bottom panels. Install the distance holders progressively, according to the instructions.
2. A finishing strip is not necessary between the two superpositioned panels.



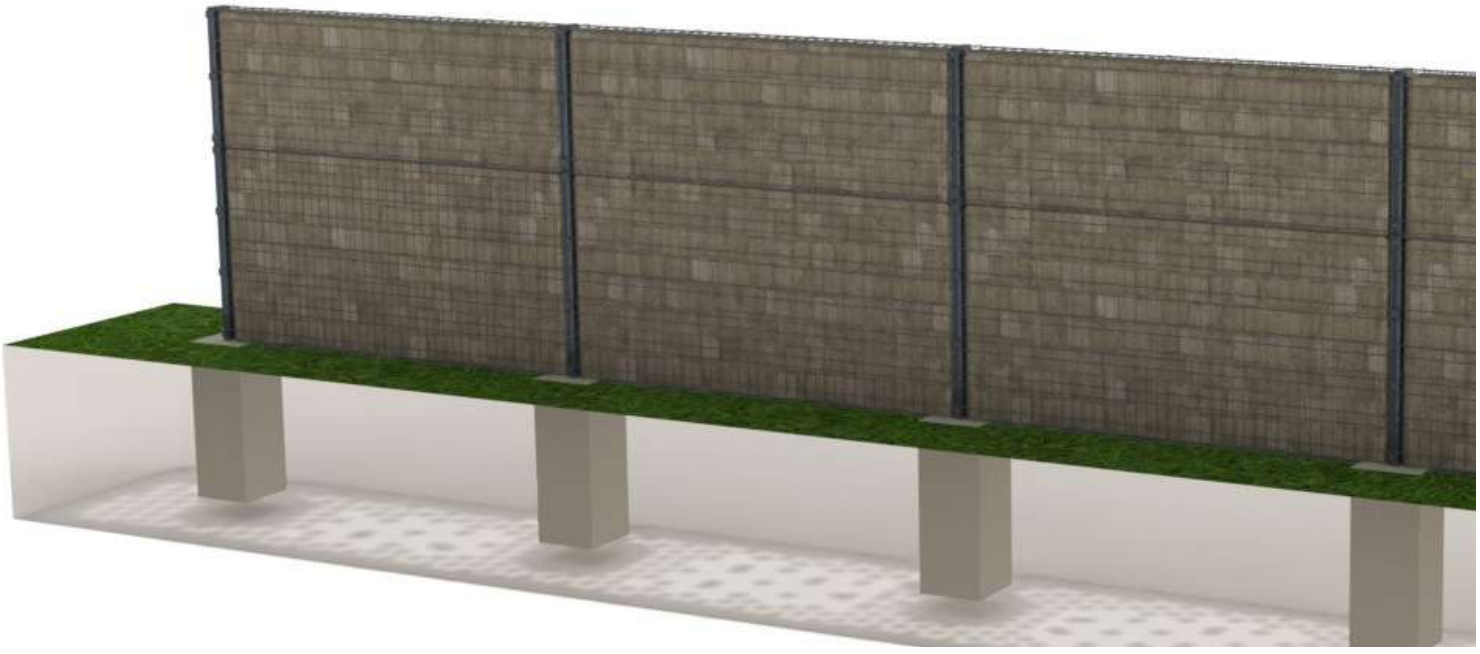
Install the top panels:

1. Install the top panels.
2. At both wall sides, simultaneously fix two adjacent panels to the post with the fixators.

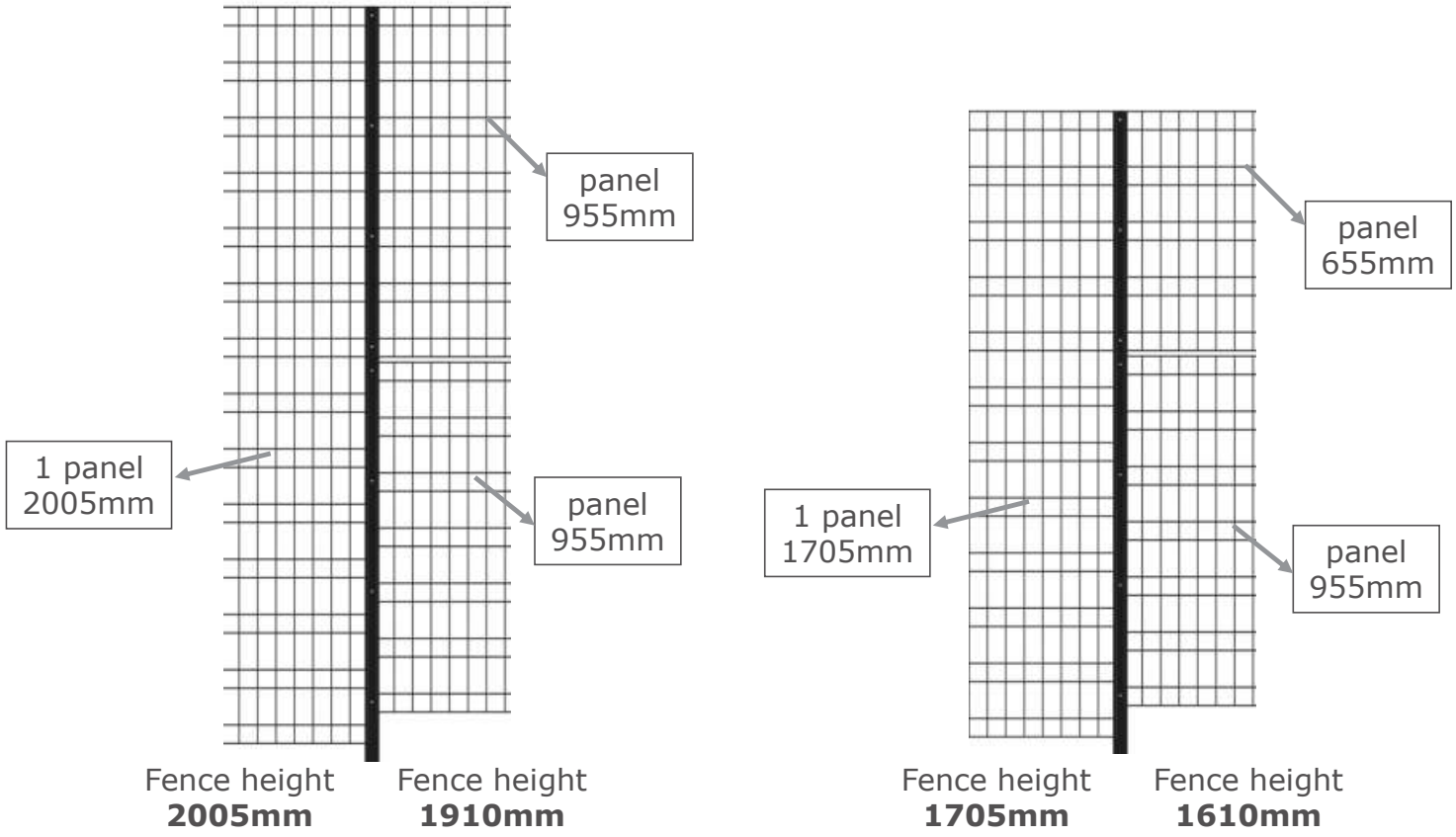


Fill the top panels

1. Fill the top panels. Install the distance holders progressively, according to the instructions.
2. Close the Zenturo® wall with a finishing strip.



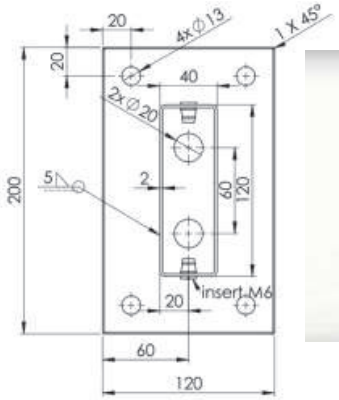
Comparison posts 2400mm and 2700mm with one panel versus two panels:

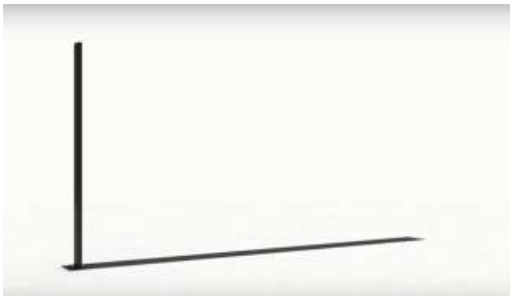


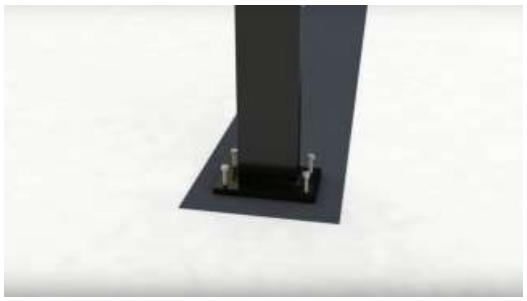
1.5 Installation On A Baseplate

Fixation of the baseplate:

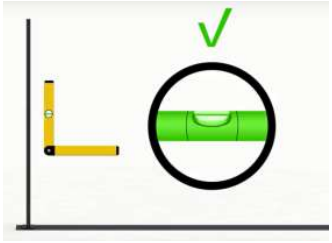
1. Install the mechanical anchors M10 according to the hole pattern of the baseplate. For anchor depth, check the installation manual of the anchor supplier. (mechanical anchors, washers and nuts are not supplied).
2. Mark the position of the holes with a small diameter concrete drill, this will help to centre the final drilling.
3. Drill the corresponding holes for the fixation according to the anchor supplier. Drillings must be in good vertical position.
4. Remove any dust and small particles from the drill holes using a brush and hand pump.
5. Place the anchors according to the instructions of the supplier. Drying times for chemical anchors must be respected.

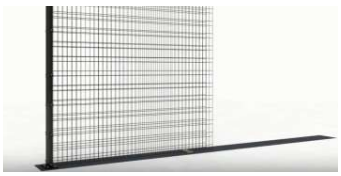






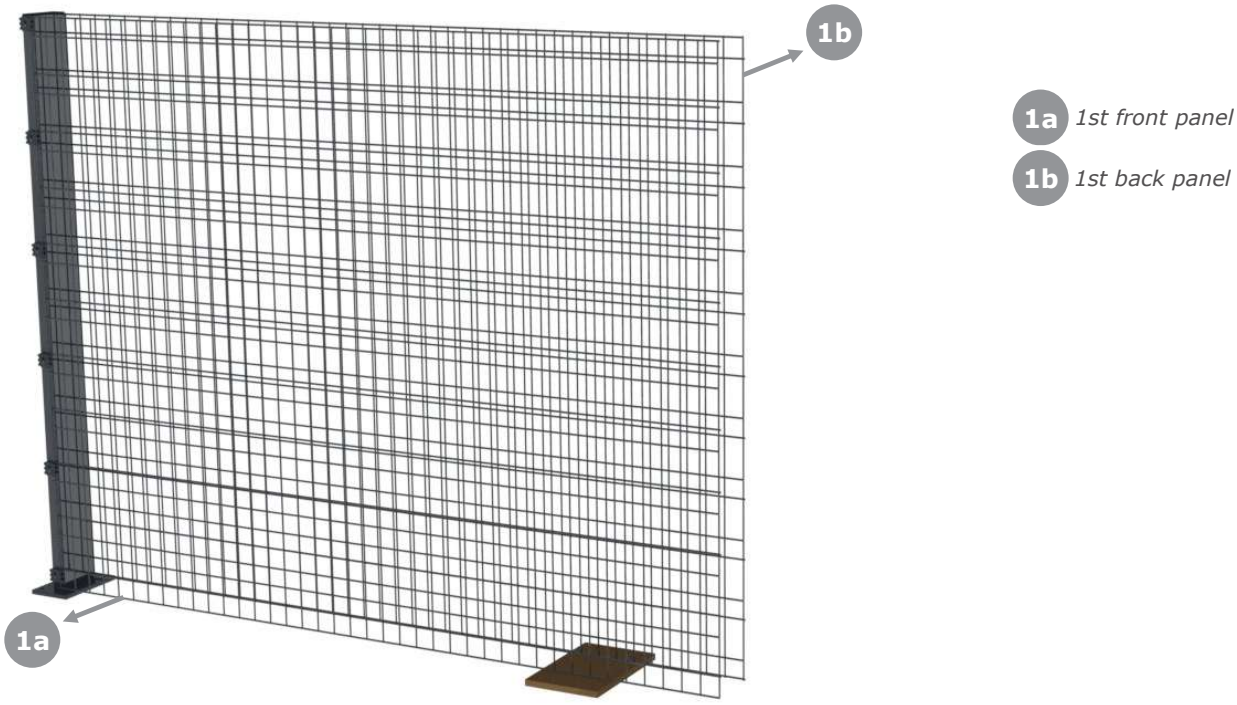
6. Place the anchors according to the instructions of the supplier. Drying times for chemical anchors must be respected.
7. If this is not the case: screw the bottom adjustment nuts on the ground anchors and place washers on the nuts.
8. Choose one anchor and turn its nut until the washer is levelled +/-15mm above concrete level. Use this anchor as reference and put all other nuts / washers at the same level, so they are perfectly horizontal one between another.
9. Install the post to the ground and fix it to the anchors by means of a washer and nut.





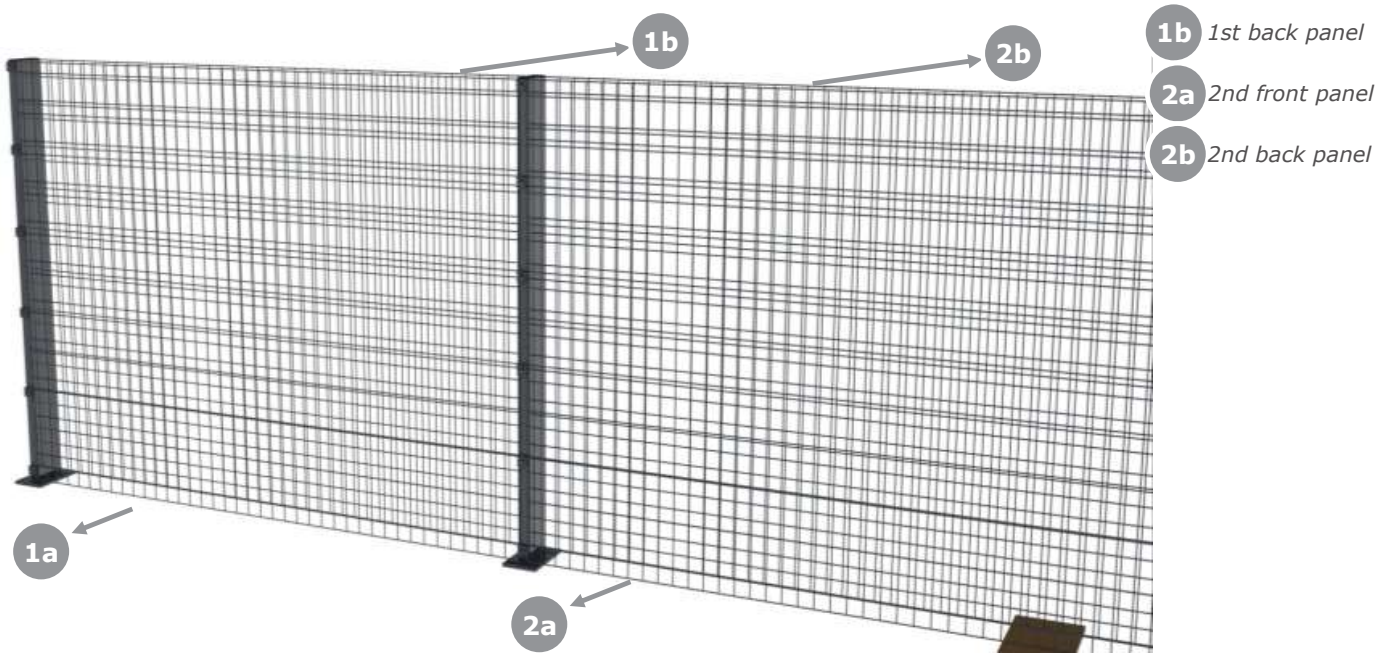
Installation of the panels:

1. Attach the first two panels (1a / 1b) to the post, fix them with the spider fixators.
2. Support the panels with a wood block or stone.



Installation of the next post and panels:

1. Install the second post with baseplate
2. At the wall front side, simultaneously fix panels 1a and 2a to the second post with the fixators
3. At the wall back side, simultaneously fix panels 1b and 2b to the second post with the fixators
4. Support the panels 2a and 2b with a wood block or stone
5. Continue in the same way for all other bottom panels.
6. Close the gabion wall with a finishing strip

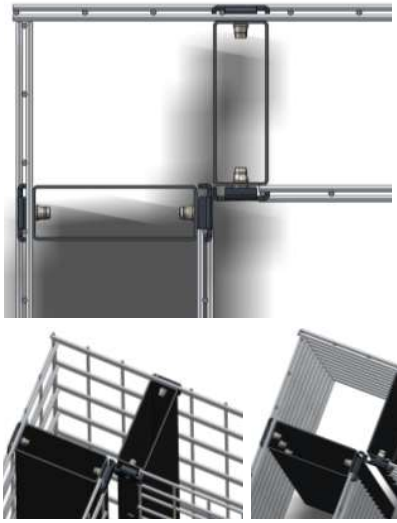


1.6 Installation in a corner

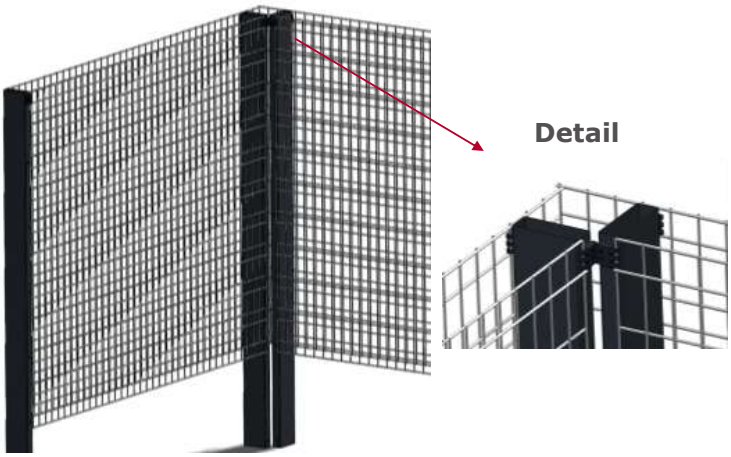
Option 1:

For installation of a gabion wall in a corner, use installation method shown below.

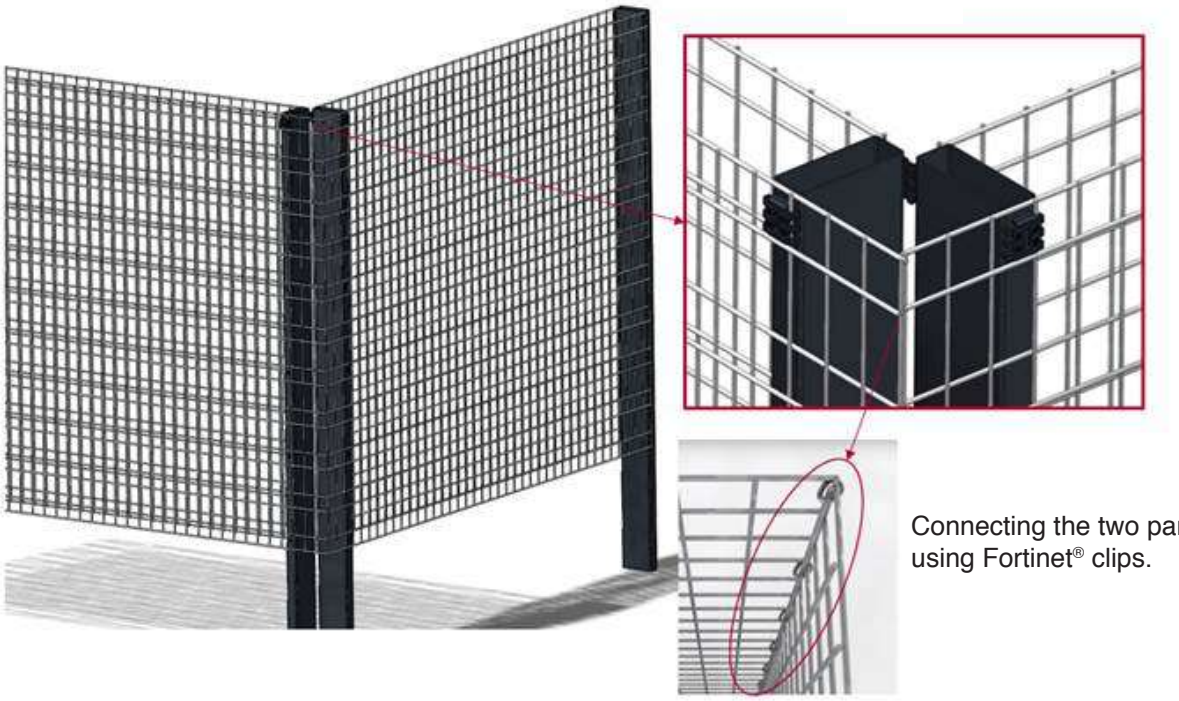
Top View



Perspective Views



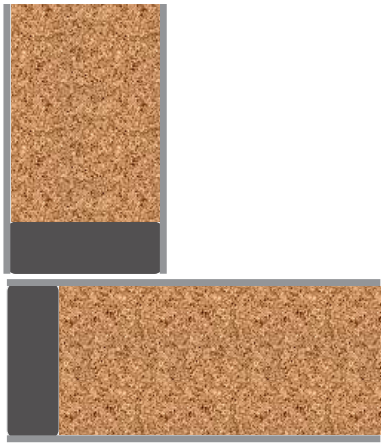
Back View

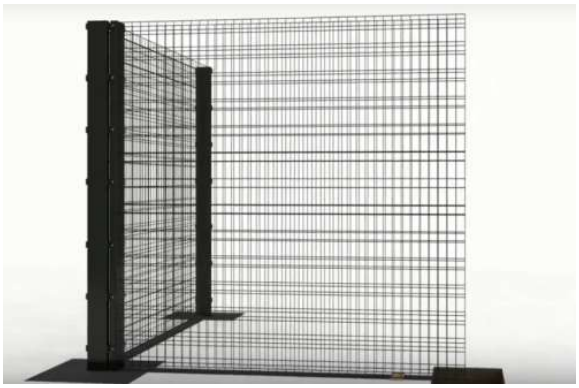


Connecting the two panels using Fortinet® clips.

Option 2:

For an alternative installation of a gabion wall in a corner, 2 posts should be used.





1. ADVANTAGES

The Zenturo® post system for gabion walls offers multiple advantages for the end-user, on several levels:

Installation:

1. No installation skills are required. The installation of the total panel fence system is very easy: fixation of the panels to the posts by simply screwing the spider fixators in the post (inserts are foreseen)!
2. The number of required tools for installation is limited to a minimum.
3. The installation is done according to the “panel / post-principle” and does not require pre-installation of the posts in concrete (= time loss).

Aesthetics:

1. Discrete fixation of the panels to the posts.
2. Attractive and unique design of the total system.
3. Attractive metallic anthracite colour.

Rigidity:

1. The specific post profile offers excellent rigidity (I/V 17,34 cm^3).
2. The spider fixators guarantee an excellent fixation of the panels to the post.

Security:

1. Thanks to the security hexagon bolt, the spider fixator cannot be easily removed from the post.
2. The Zenturo® gabion wall resists a full frontal windload impact of 120km/h.

Lifetime:

1. The posts are galvanised and finished with a qualitative polyester coating.
2. The spider fixators are hot dip galvanised and polyester coated.
3. Excellent fixation of the spider fixators to the posts is guaranteed.

Maintenance:

1. The Zenturo® panels and posts system do not require any kind of maintenance (painting, varnishing, cleaning,…) or adjustments in time.

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