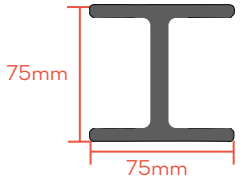
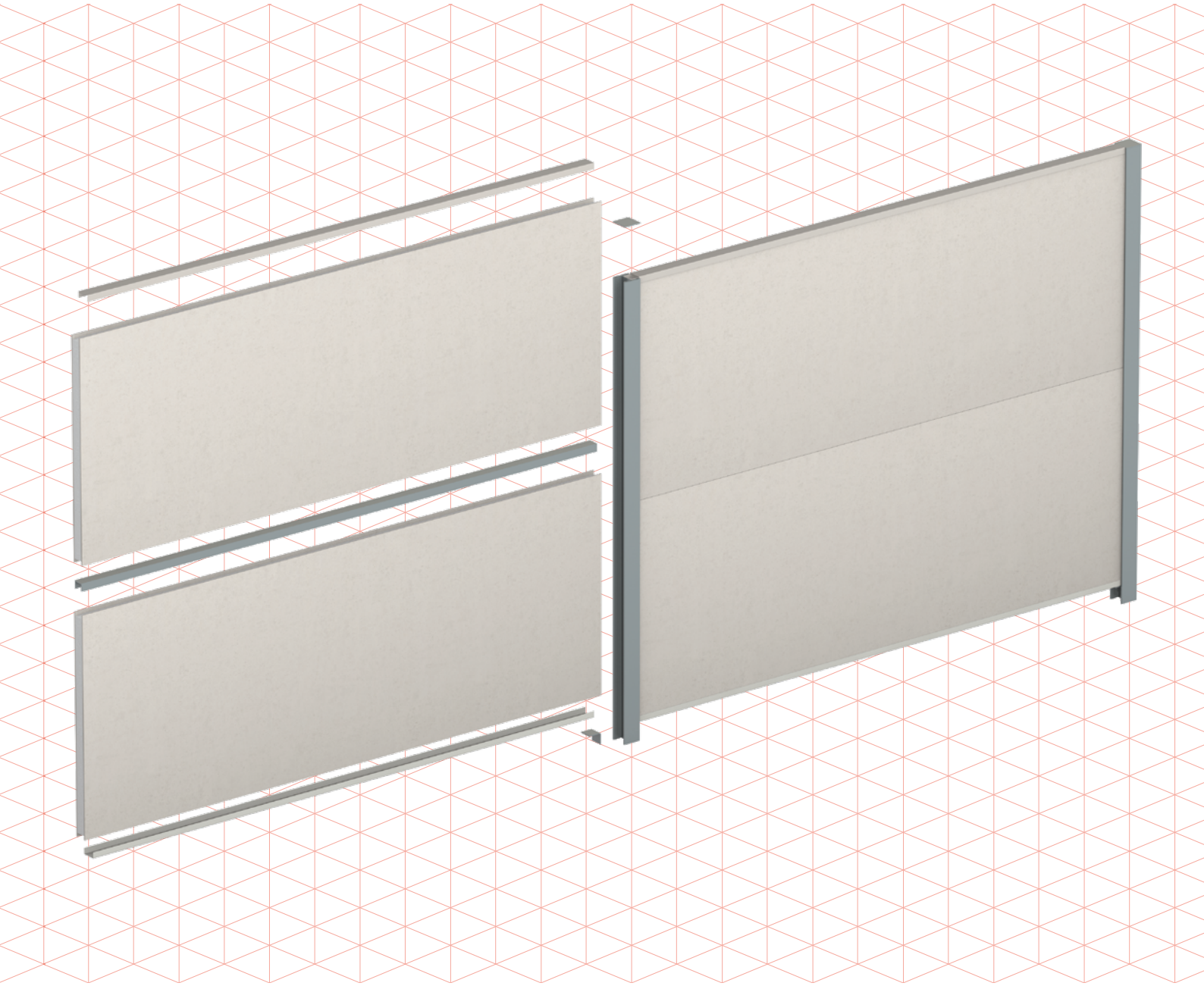
INSTALLATION GUIDE

SLIMWALL™



ALUMINIUM POST

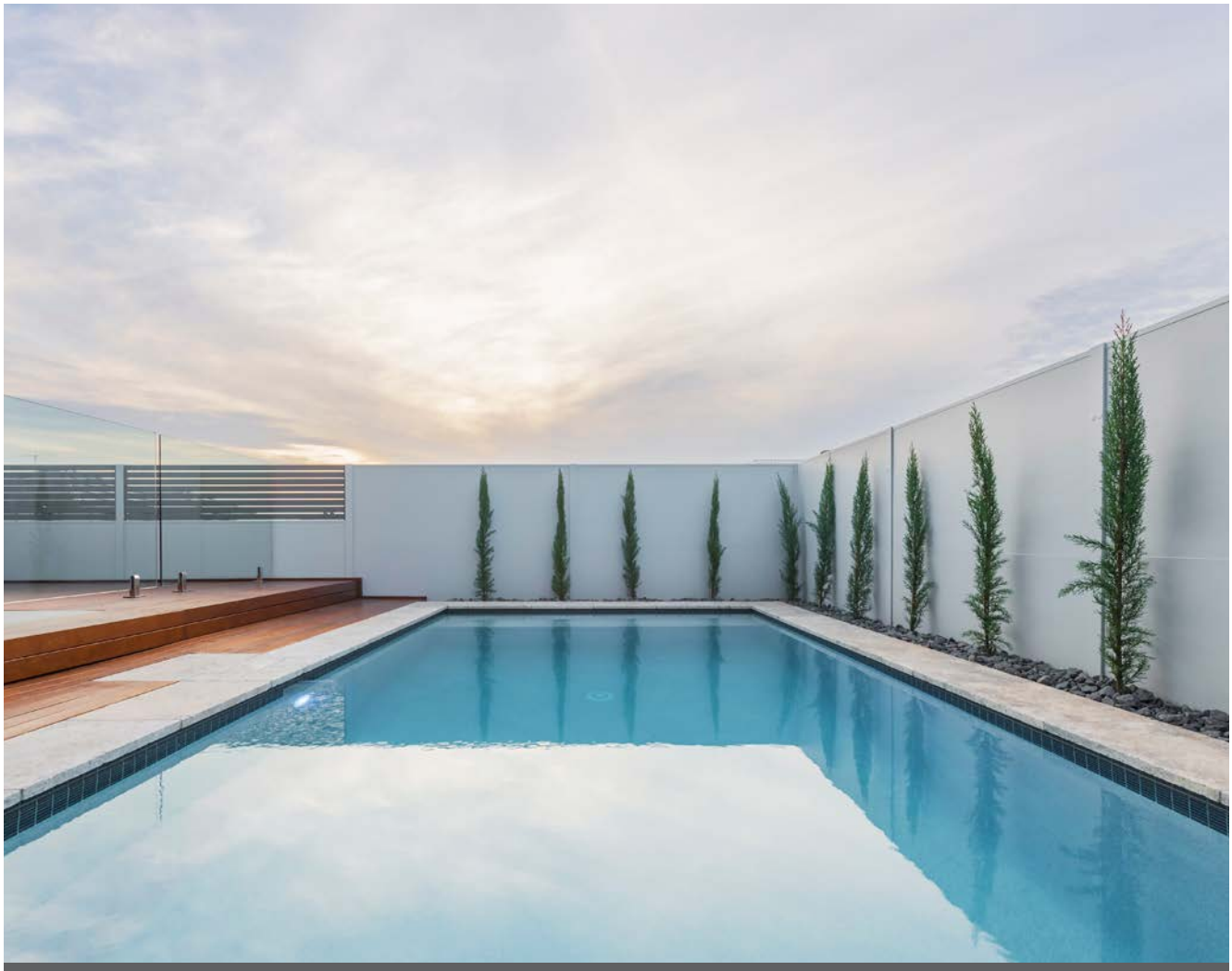


810280SWA

MODULARWALLS®

THANK YOU FOR CHOOSING SLIMWALL.

AS THE INDUSTRY LEADERS IN COST EFFECTIVE, ACOUSTIC WALLS AND FENCES, WE ARE CONFIDENT THIS PRODUCT WILL STAND THE TEST OF TIME AND WITHSTAND THE ELEMENTS, IF INSTALLED IN ACCORDANCE WITH THESE GUIDELINES.



SLIMWALL™ ALUMINIUM

NOTE
It is recommended that the reader pays particular attention to items identified as a NOTE in this manual, to ensure satisfactory installation and long-term performance of the products.

For correct finishing of your modular wall, you must paint or seal the entire wall system within 30 days of installation.

CONTENTS

BEFORE YOU START

The recommendations detailed by ModularWalls in this guide are formulated along the lines of good building practice.

They form a "common-sense" approach and are not intended to be an exhaustive statement of all the relevant data.

Furthermore, as the success of projects depend on factors outside the control of ModularWalls (e.g. quality of workmanship, particular design, detail requirements, etc.), we accept no responsibility for, or in connection with, the quality of the projects or their suitability when completed.

If you are in any doubt please seek independent advice or contact ModularWalls. We are always happy and available to answer questions regarding installation procedures, no matter how small or insignificant you think they may be. 7 day technical and installation advice is available on 1300 556 957.

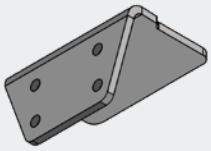
7 DAY A WEEK TECHNICAL AND INSTALLATION ADVICE IS AVAILABLE BY PHONING 1300 556 957 AND SELECTING THE AFTER HOURS OPTION

COMPONENT LIST

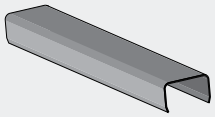
1. Post

2. 90° Connection

3. Support Bracket

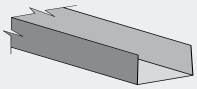


4. Panel Joining Profile



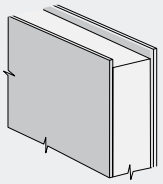
5. Post Infill

6. Capping Channel

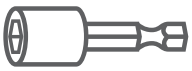


7. Post Tops

8. Wall Panel

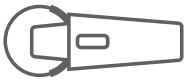


TOOLS NEEDED



5/16" Hex Bit

Drill/Driver



Angle Grinder

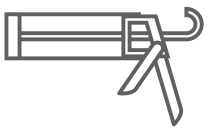
Square

Spirit Level

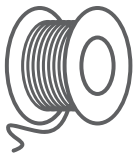
Shovel

Line Marking Paint

Circular Saw

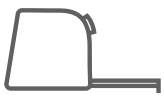


Caulking Gun



String Line

Post Hole Digger



Tape Measure

STEP 1: HOLES

DETERMINE BOUNDARY LINE, POST HOLE CENTRES & DEPTHS

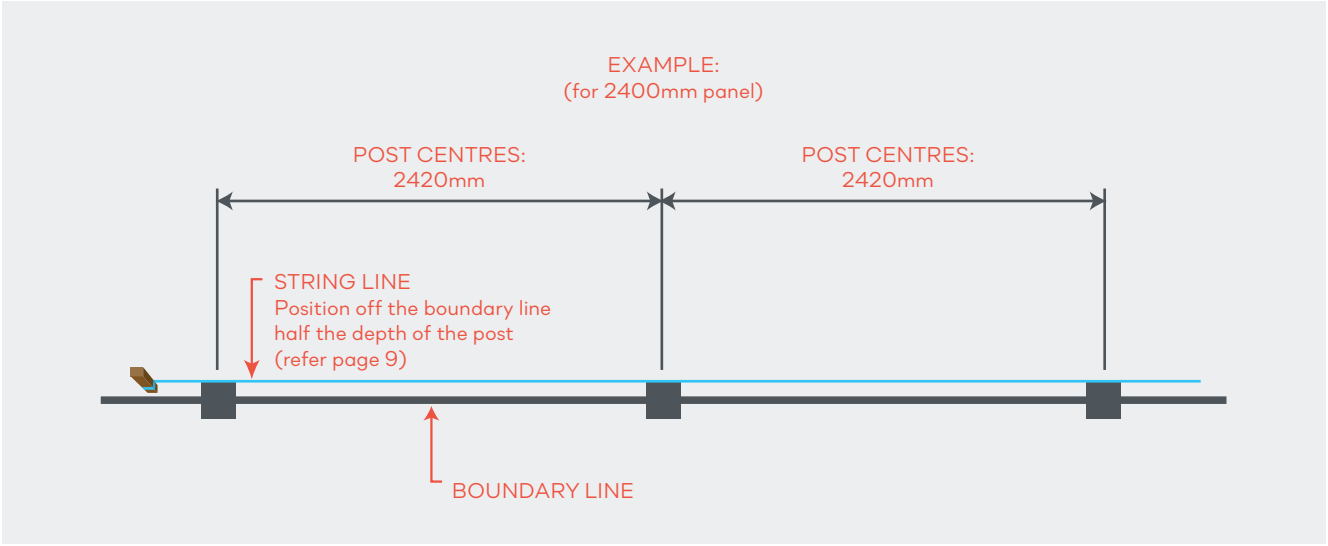
Please read the wind region and post hole depth charts carefully prior to starting your installation.

We recommend you plan your wall set out/post position on a piece of paper first, to save unnecessary digging.

Where installation is to take place on uneven or sloped ground, you should also consider the instructions listed under "Additional Information" towards the end of this guide.

Accurately determine the boundary line to where the fence will be installed and mark this with a string line as per the diagram below. In cases where the boundary line is unknown or unclear, a surveyor will need to be engaged.

NOTE: The diagram below is for reference purposes only & shows the wall splitting the boundary line; this may not always be the case and will depend on your individual circumstances.



Standard post centre-to-centre measurement when using a 2400mm panel will be 2420mm minimum (plus 5mm extra is an allowable tolerance, i.e 2425mm). This will give you the required clearance when installing the wall panels.

NOTE: Wall panels may be trimmed by a circular saw if necessary to fit within exact measurement (panel cutting procedure is detailed on page 22 of this guide).

STEP 1: HOLES

FOOTING DEPTHS

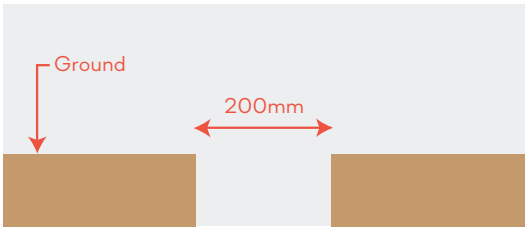
Wall Height	Hole depth into firm earth or clay (100kPa)		Hole depth into sand, soft clay or loose earth (60kPa)		Hole diameter
	Wind regions A and B Terrain Categories 2.5 and 3	Approx concrete required (20kg bags)	Wind regions A and B Terrain Categories 2.5 and 3	Approx concrete required (20kg bags)	Wind regions A and B Terrain Categories 2.5 and 3
900	450mm	1.5 per hole	550mm	1.5 per hole	200mm
1200	550mm	2 per hole	650mm	2 per hole	200mm
1500	600mm	2 per hole	700mm	2.5 per hole	200mm
1800	650mm	2 per hole	800mm	3 per hole	200mm
2100	700mm	2.5 per hole	900mm	3 per hole	200mm

WIND REGION A
WIND REGION B
WIND REGION C
WIND REGION D

Proven wind load performance means your wall will withstand all nature can throw at it.
Rated and suitable for regions A & B, terrain categories 2.5 & 3.
Details above available on request from ModularWalls™.

NOTE: Footing sizes are provided as a guide only. Final design parameters should be subject to the review of geotechnical conditions.

All footing diameters are 200mm.



NOTE: Recommended footing depths listed here are for terrain categories 2.5 and 3, within wind regions A and B. If you are building your wall in a Cyclonic wind area, on the top of a hill, adjacent to an escarpment, on a ridge, or in terrain category 1, you will need engineering advice beyond the scope of this publication. Please contact ModularWalls directly for this information.

NOTE: For the two footings adjacent to a non-returning 'free end' or gate, embedment depth is to be increased by an additional 150mm.

Use minimum 20 MPa concrete mix.

STEP 2: POSTS

FIXING THE BASE BRACKETS TO THE POST

Attach the panel support bracket onto the post with the hex head screws supplied.

Either slide the bracket down from the top, or twist it into position with the fixing holes facing downwards (typically).

The measurement from the top of the post to the top of your bracket should be your final wall height plus 5mm. This 5mm will allow for panel joins plus the thickness of the capping channels.

Example: an 1800mm high wall will have the brackets set at 1805mm from the top of the post.

Fasten the bracket to the web of the post using two hex head screws in a diagonal arrangement as pictured below in FIGURE 1. The bracket on the opposite side of the post should be posotioned over the petruding hex head screws. Secure this second bracket by screwing two more hex head screws into the remaining holes as pictured in FIGURE 2.

NOTE: **Should you need a marginal step in the wall height, which will cause a colision with the opposing hex head screws, you can turn your bracket upside down. You may need to take care when inserting the panel to ensure that it does not colide with the upturned bracket.**

USING EXPRESSED JOINTS?

If you are using the Expressed Joint feature, please refer to **page 16** for specific bracket instructions.

INSTALLING ON SLOPING GROUND?

If you are stepping or raking your wall on sloping ground, please refer to **page 17** for specific brackket instructions.

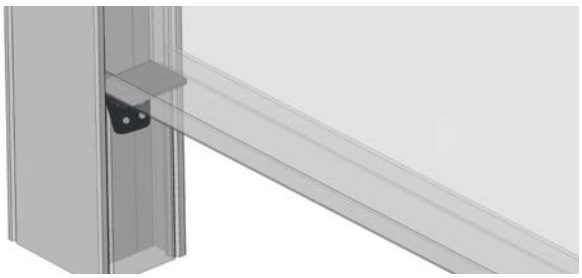
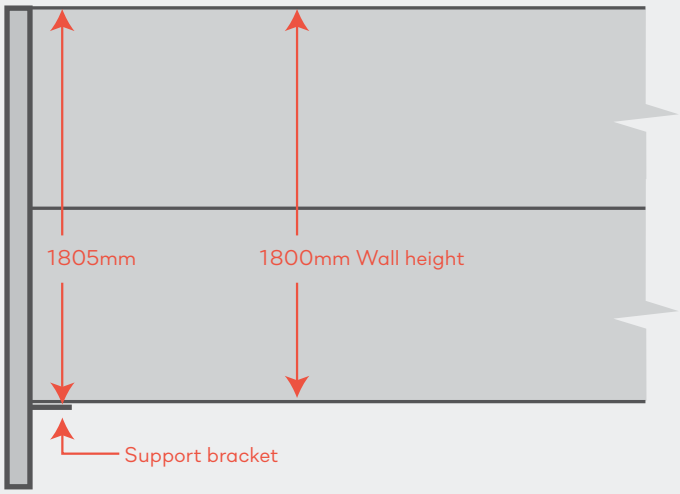


FIGURE 1

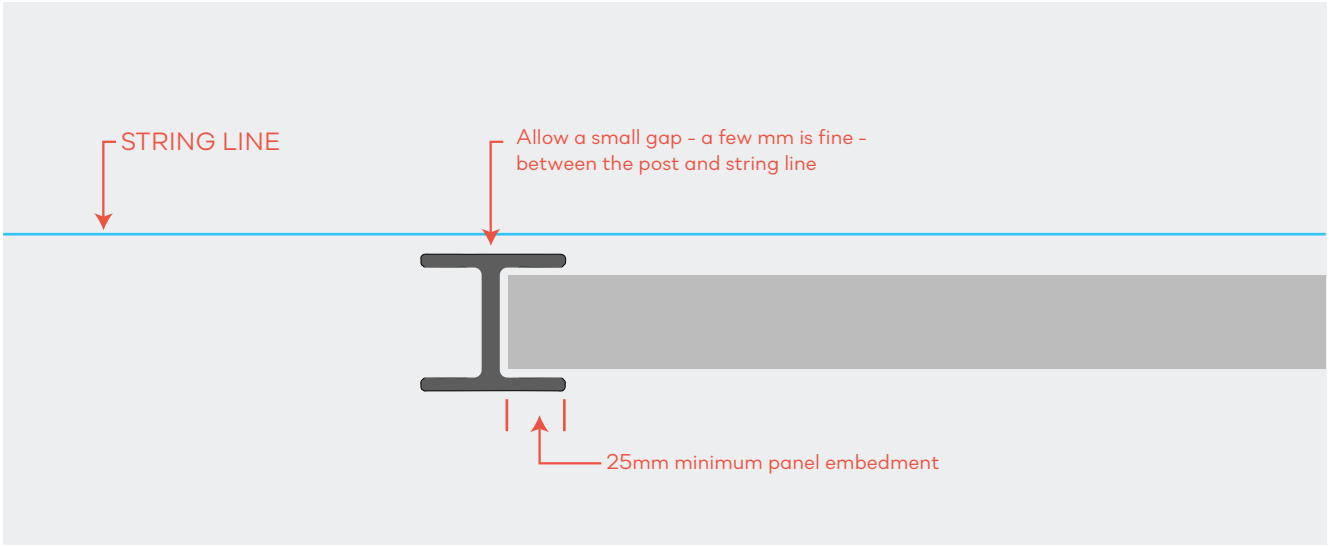
FIGURE 2

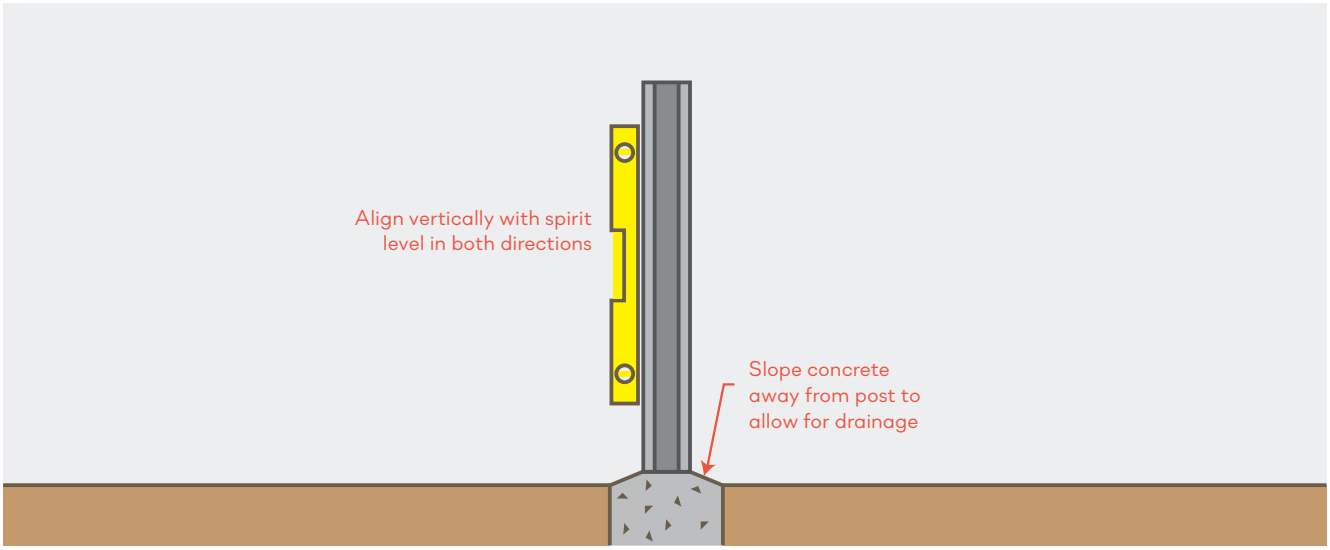


STEP 2: POSTS

POST FITMENT & ALIGNMENT

Working to a string line on the face of the post, insert the first post into the hole and gradually pour in the concrete (mix as per the manufacturer's recommendations). Continually check the post alignment with a spirit level as the concrete is being poured.

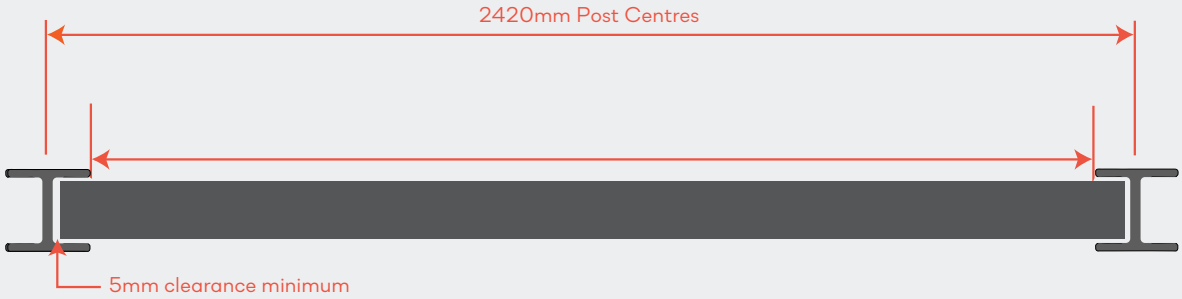




STEP 2: POSTS

SPACING CONSECUTIVE POSTS

The centre to centre measurement is 2420mm when using a 2400mm panel. We recommend that you cut a "spacer" bar for easily checking your post centre-to-centre layout. A piece of 2"x4" pine or similar will suffice.

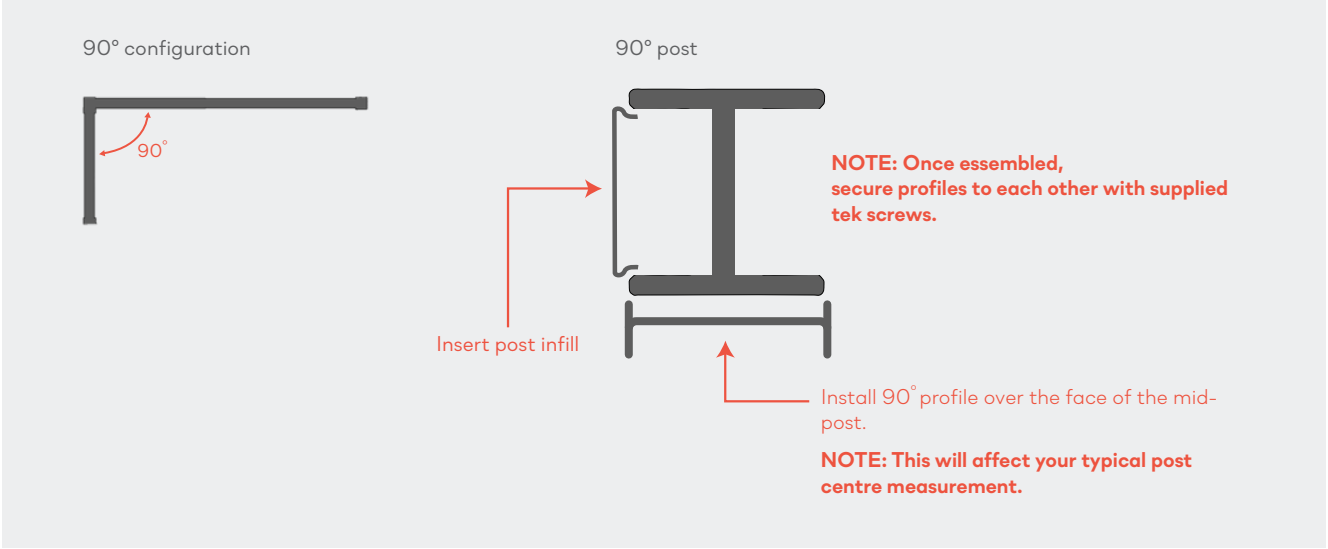


This example is based on a 2400mm panel being installed

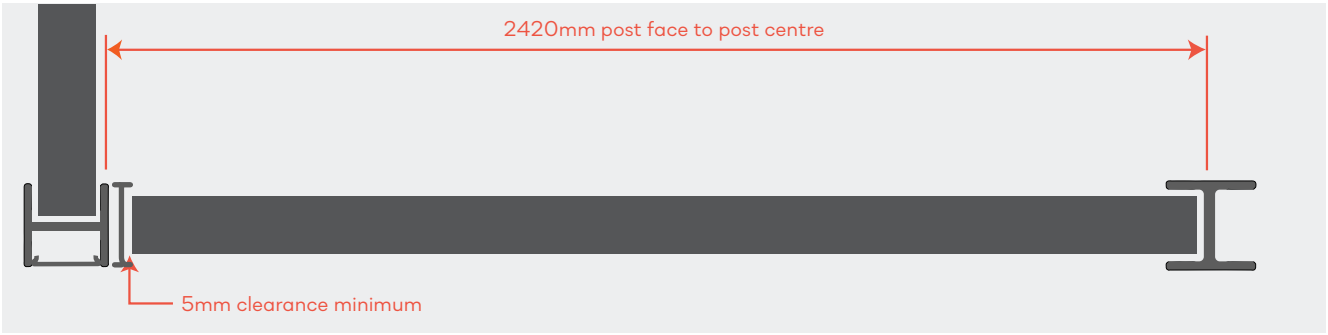
STEP 2: POSTS

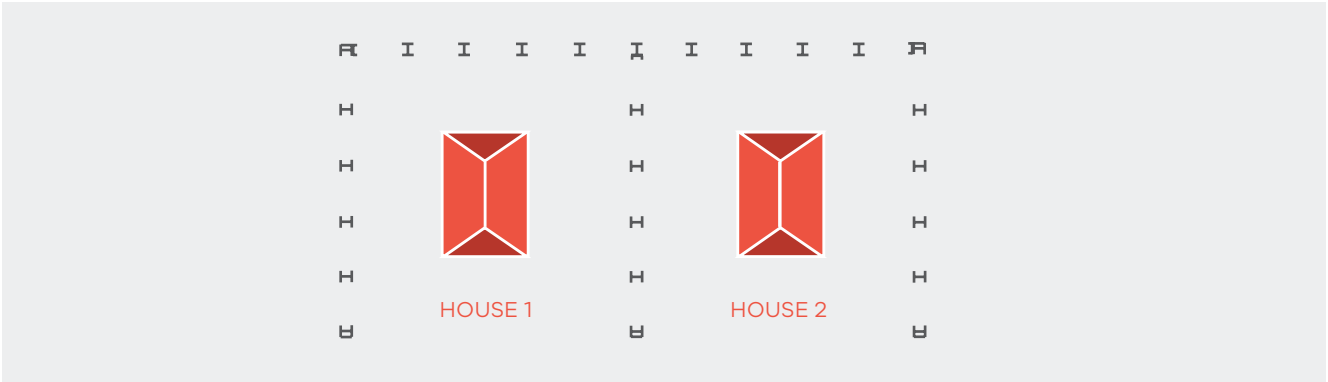
SPACING CORNER POSTS

To create a corner post, install the 90º profile over the face of the post, for the new run of fence, and insert a post infill over the exposed recess of the corner post.



The centre to centre measurements will now also be slightly different for this post; see below diagram.





STEP 3: PANELS

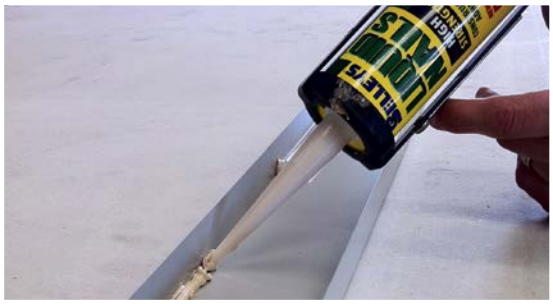
INSERTING WALL PANELS ONTO BASE CHANNEL

Place your base channel onto the brackets. The base channel should enter the post by at least 5-6mm from the post face on each side. For a 2400mm panel, the supplied base channel is 2362mm, which is 12mm longer than the post face to post face measurement.

This 6mm will allow for expansion and contraction without exposing the end of the capping channel past the face of the post.

Apply 'FLEXIT' or similar along both internal radiuses of the base channel, as shown in the picture below. This adhesive will make contact with the fibre cement sheets once the panel is seated.

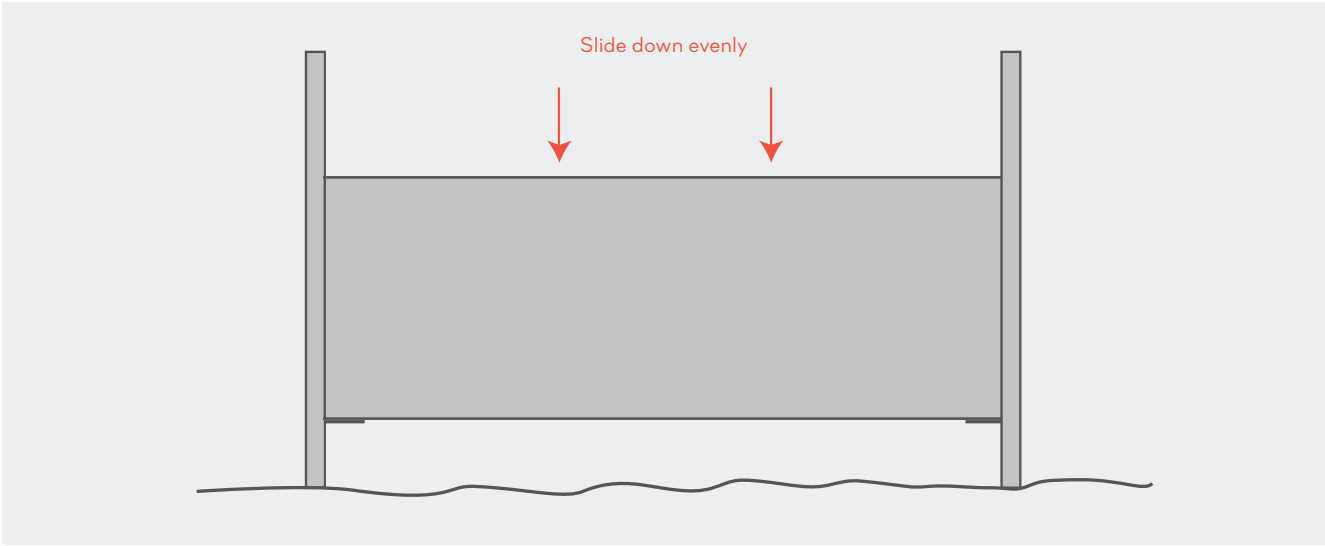
Then with one person at either end, lift the panel vertically and insert it into the top rebates of the post. You may need a small platform to stand on to achieve the required height.



Next, carefully press the panel down onto the base channel making sure you have not caught any of the fibre cement edges on the lip of the base channel. Once seated, pull up on the base channel to ensure it is fully seated against the panel.

NOTE: The panel must be guided down at an even and level rate or it will jam.

NOTE: Always take special care if working from heights or lifting objects above your head.



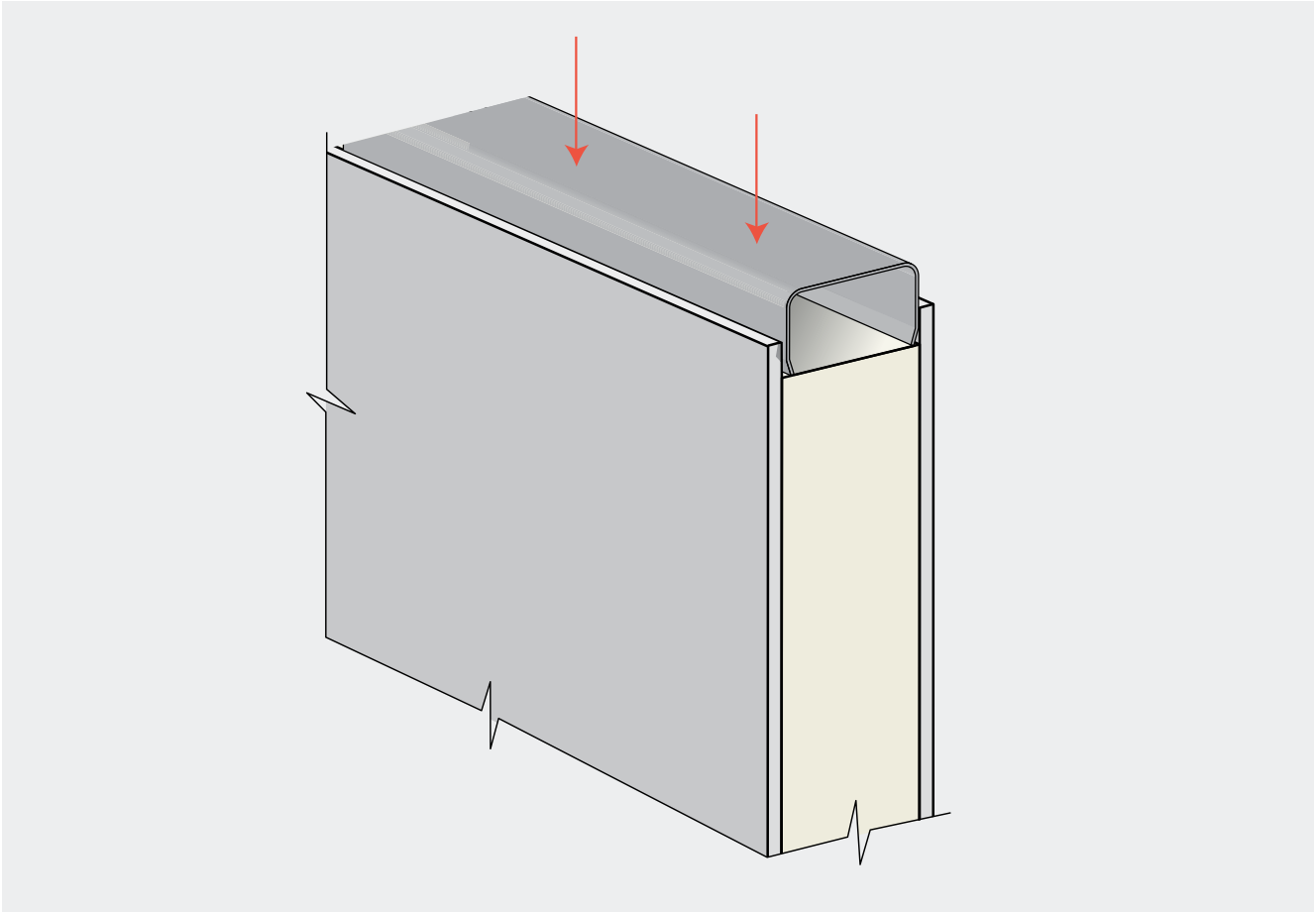
INSTALLING ON SLOPING GROUND?

If you are stepping or raking your wall on sloping ground, please refer to **page 18** for specific instructions.

STEP 3: PANELS

JOINING PROFILE

Insert the joining profile into the bottom panel, making sure it is seated all the way down against the polystyrene core.



USING EXPRESSED JOINTS?

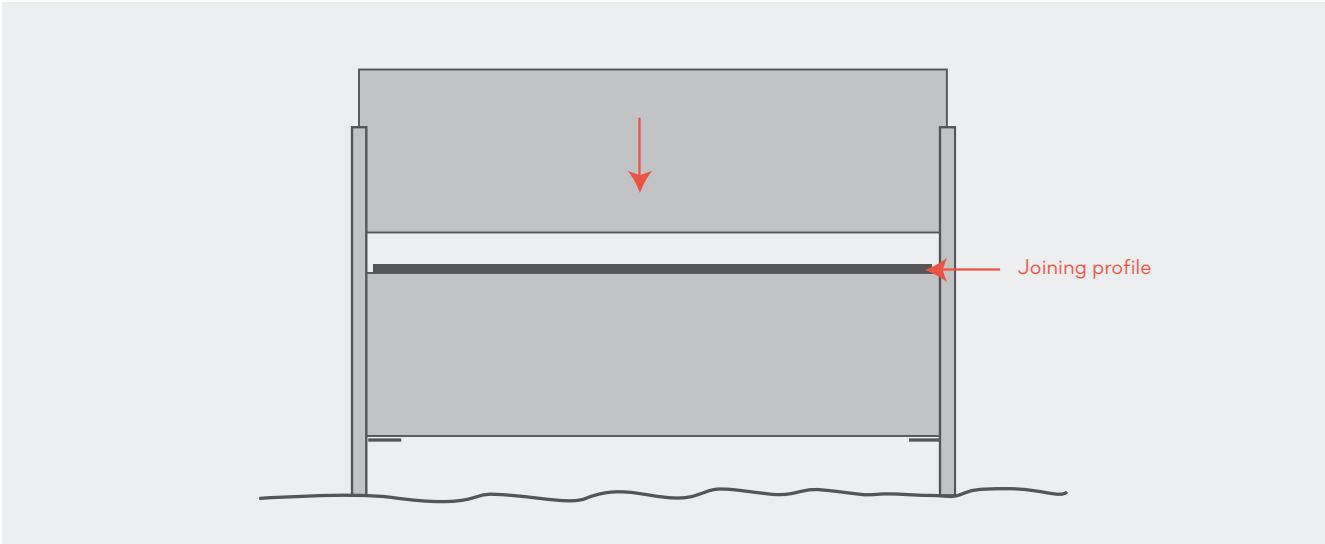
If you are using the Expressed Joint feature, please refer to **page 17** for specific instructions.

STEP 3: PANELS

INSERTING CONSECUTIVE PANELS

Guide the second panel down on top of the base panel and press down to align the panels together with the joining profile.

NOTE: If they do not seat together with light downward pressure it may be necessary to 'tap' the top panel down using a heavy block of wood in a 'pivoted slapping action' to bring it together completely.



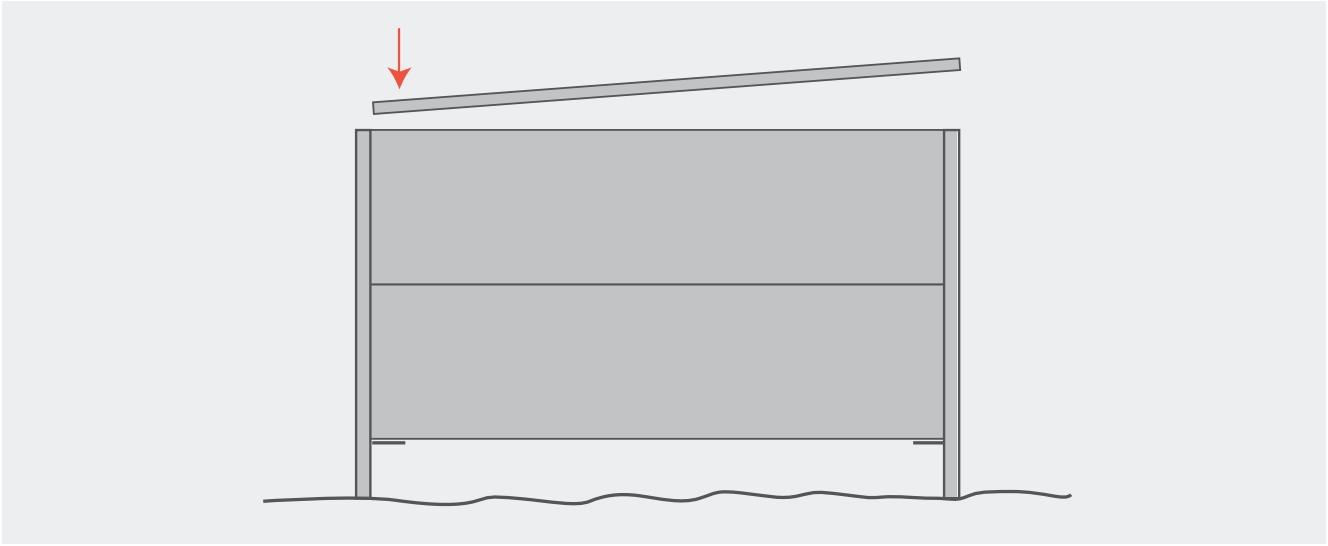
STEP 4: FINISHING

TOP CAPPING CHANNEL

Once the top panel has been installed you can now install the top capping channel.

With a correctly spaced post, the capping channel will not need trimming to length. It will fit inside the post at either end by approximately 5mm - 7mm from the face of the post. Should you need to cut a capping channel to length, measure the inside dimension from post face to post face, and add 12mm.

NOTE: Apply a bead of liquid nails (FLEXIT or similar) to the inside radiuses of the channel before fitment.



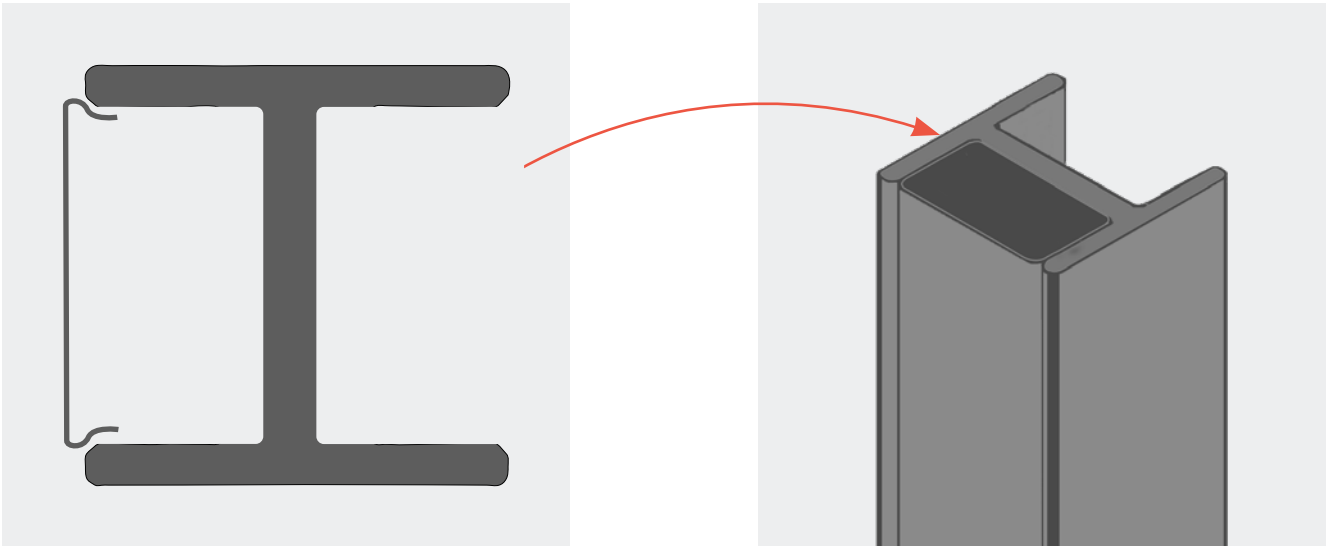
STEP 4: FINISHING

POST INFILLS & CAPS

POST INFILLS

Use a post infill to hide any exposed recesses in the posts; these occur at the end posts and where there are steps.

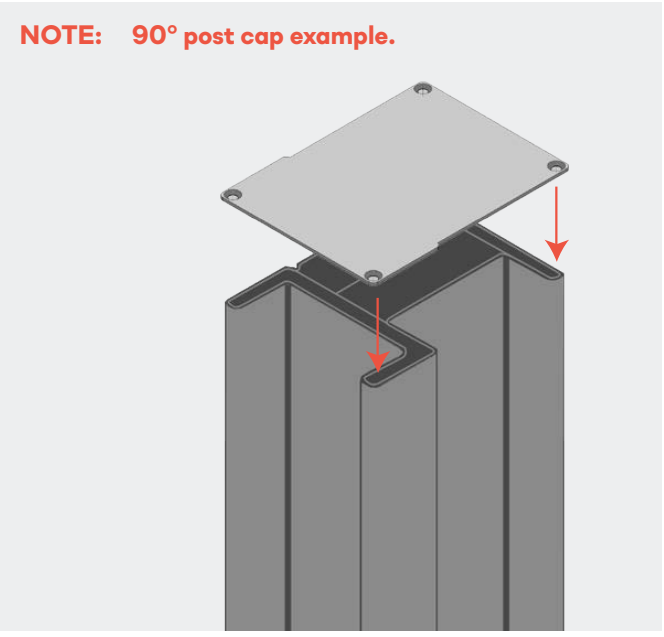
NOTE: Where your wall is stepped, this insert can be cut to size to suit the step and inserted in the exposed recess.



POST CAPS

Making sure your panel is either level or slightly below the top of the post, position the aluminium post cap and fix down with supplied screws.

NOTE: 90° post cap example.

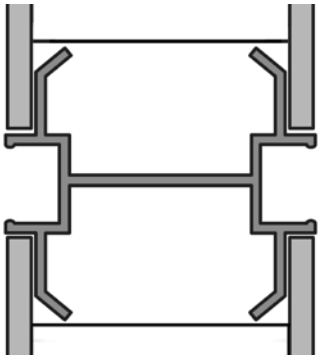


ADDITIONAL

EXPRESSED JOINTS BETWEEN PANELS

An Expressed Joint is used to create an architectural feature by providing a 10mm rebate between horizontal panels.

See example below of an 1800mm high SlimWall with Expressed Joints. This 1800mm high SlimWall is made up of 3 x 600mm panels.



1. SETTING YOUR BRACKET HEIGHT

For every Expressed Joint you need to add 15mm on top of your normal bracket height as outlined in Step 3.

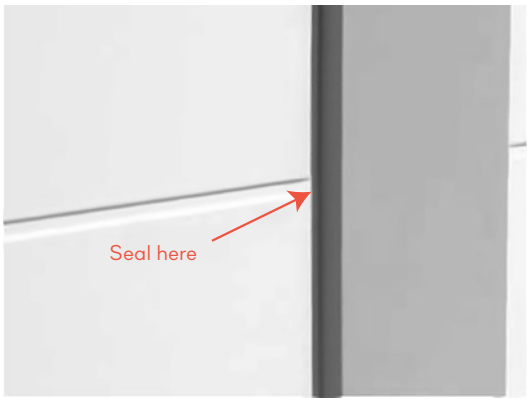
EXAMPLE: You are installing an 1800mm high wall as per the guide given in step 3. This measurement from the top of post to the bracket is 1805mm. If you are installing an Expressed Joint this will increase by 15mm (per joint) to 1820mm. If you you had two Expressed Joints on an 1800mm wall as per the picture below, you will need to add 30mm.

2. INSTALLING THE EXPRESSED JOINT JOINING PROFILE

Install the Expressed Joint profile in between the horizontal panel joins by simply pushing it into place between the external skins of the lower panel. Guide the top panel down over the profile in a similar manner as outlined in Step 7.

3. SEALING

To prevent water ingress, seal between the inside of the rebate and the post junction with an exterior grade 'paintable' sealant upon completion.



ADDITIONAL

STEPPING OR RAKING YOUR WALL

This will generally be the most complex part of any installation.

Please take the time to draw it out on a piece of paper before setting any posts in the ground. Having to remove posts that are concreted in can be very disheartening! And remember we are always here to help you get it right, so if you are unsure, please ask.

There are three methods for dealing with sloping ground. The examples below are based around an 1800mm high wall.

METHOD 1

Stepping the bottom of your panels and maintaining a minimum 1800mm wall height at one end and a taller wall height at the low end of the slope.

NOTE: This will leave a void/gap under one end of your wall panels.

METHOD 2

Raking/cutting the base panel and maintaining a maximum 1800mm wall height.

NOTE: This will leave no void/gap under your wall panels but will reduce your wall height at one end.

METHOD 3

Raking/cutting the base and maintaining a minimum 1800mm wall height at one end and a taller wall height at the low end of the slope.

NOTE: This will leave no void/gap under your wall panels but will increase your wall height at the lower end of the slope above 1800mm. A longer base panel is required for this method and as such should be a consideration at the time of ordering.

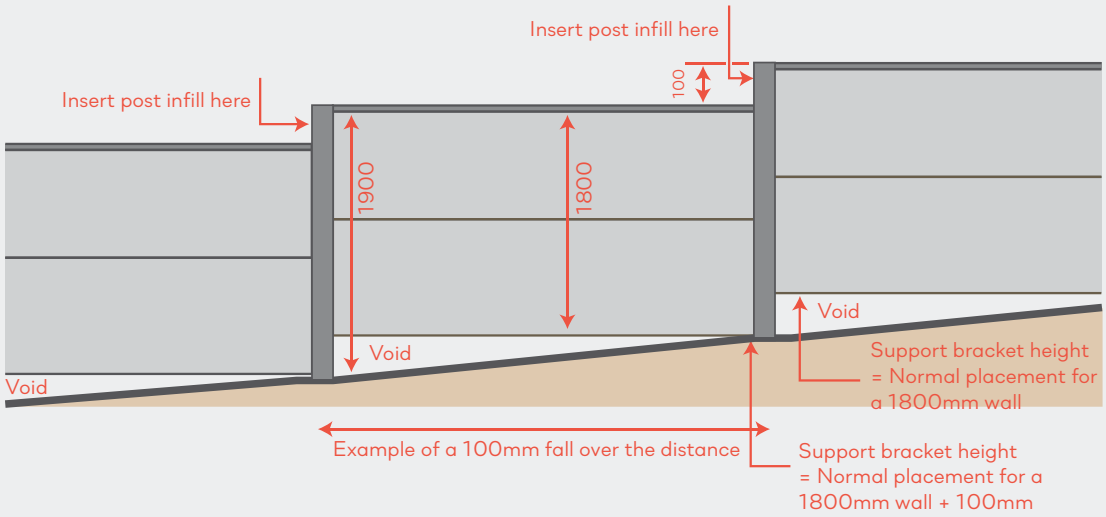
ADDITIONAL

STEPPING OR RAKING YOUR WALL

STEPPING METHOD 1 - MAINTAINING A MINIMUM 1800MM WALL HEIGHT

As pictured below it should be noted that you will be left with a void at the low end of the slope but you will maintain a minimum 1800mm wall height. In most cases on gradual slopes this void won't be large and can either be left as is or planted in front of.

1800-1900mm high wall shown



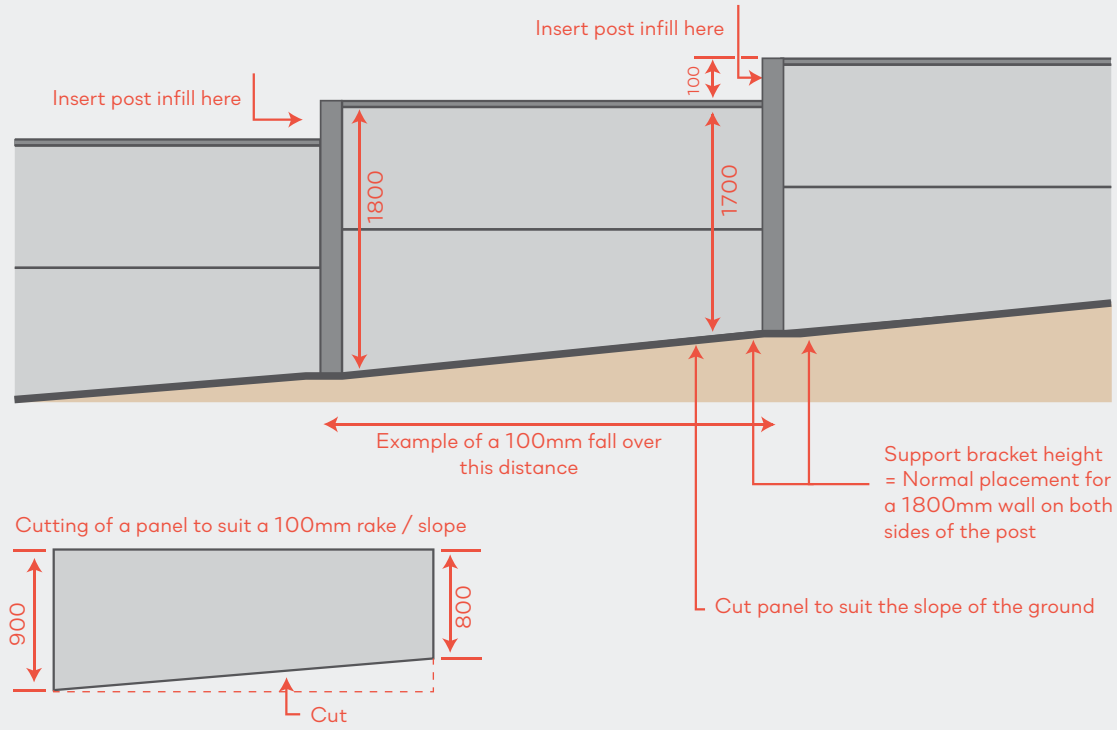
ADDITIONAL

STEPPING OR RAKING YOUR WALL

STEPPING METHOD 2 – RAKE/CUT YOUR BOTTOM PANEL TO THE SLOPE USING 1800MM WORTH OF WALL PANELS

You will maintain a maximum height of 1800mm wall height – as pictured below it should be noted that your wall height at the high side of the slope will be reduced by the amount of the rake (in this situation, 100mm).

1700-1800mm high wall shown



ADDITIONAL

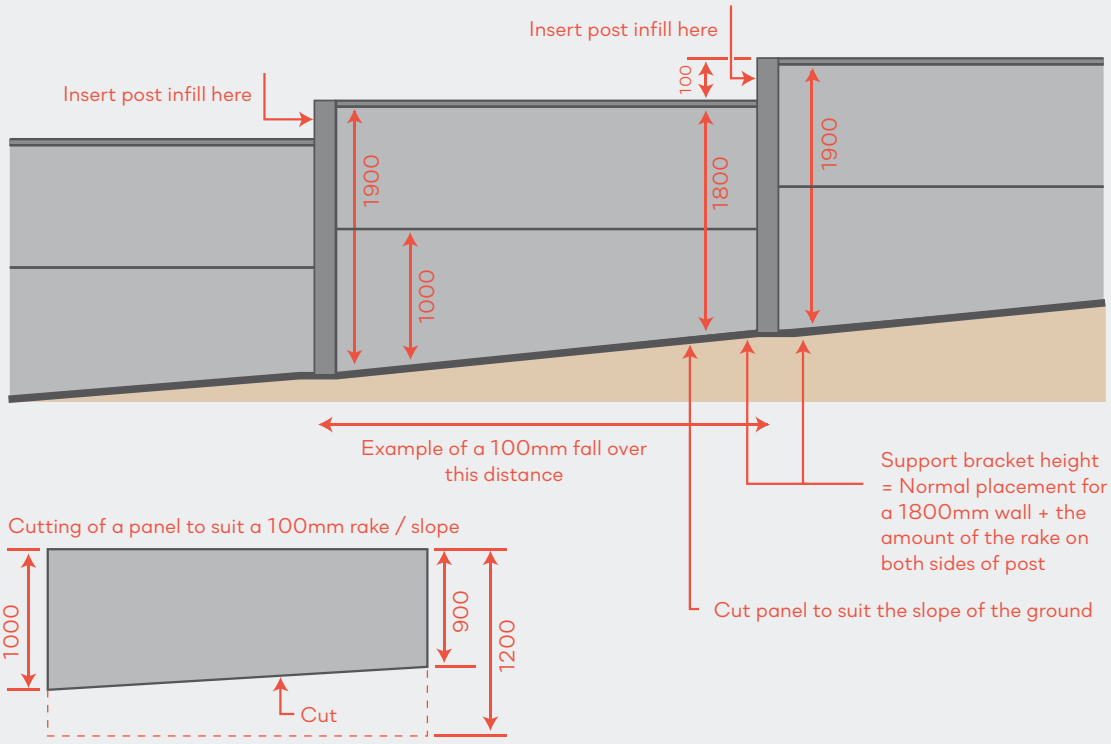
STEPPING OR RAKING YOUR WALL

STEPPING METHOD 3 – RAKE/CUT YOUR BOTTOM PANEL TO THE SLOPE USING 2100MM WORTH OF WALL PANELS TO MAINTAIN A MINIMUM 1800MM WALL HEIGHT.

You will maintain a maximum height of 1800mm wall height – as pictured below it should be noted that your wall height at the high side of the slope will be increased by the amount of the rake (in this situation, 100mm).

Depending on the additional height gained by doing this, you may require deeper footings and longer posts. Please contact us for specific advice before installation.

1800-1900mm high wall shown



ADDITIONAL

CUTTING POSTS, TRIMS & PANELS

CUTTING POSTS AND TRIMS

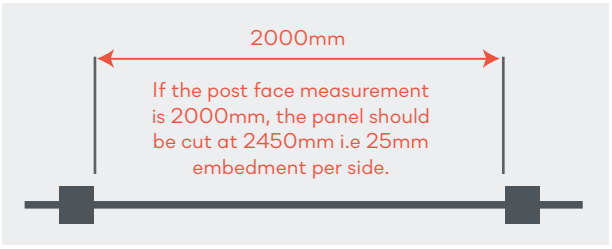
If you need to cut a post for any reason, please take note of the following:

- Be sure to wear appropriate safety wear, such as safety goggles and ear muffs.
- Mark accurate measurements around all sides.
- Use an angle grinder with a 1mm cutting blade.
- Best practice is to cut over grass or protect the floor surface, as the swarf (shavings) from the cut may create rust marks if not cleaned up well.
- Treat the cut end with a cold galvanising spray.
- Where possible, place the cut end of the post into the foundation to ensure a level finish with post capping.

CUTTING PANELS

If you are raking the top or bottom of your wall, or have had to position your posts shorter than the standard centres, you will need to cut your panels down.

To cut panels to length, take the face-to-face measurement of your posts and add 25mm panel embedment per side i.e. the panel should go minimum 25mm into the post rebate.



- Be sure to wear appropriate safety wear, such as safety goggles and ear muffs.
- Place the panel so it is level and well supported.
- Mark both sides of the panel with a pencil line.
- Unless you have a circular saw with a minimum 80mm depth cut, you will need to cut one side and then flip the panel and cut the other - a standard timber blade will suffice
- If you are cutting one side first, set the depth of the blade to half of the panel thickness; this way, the core will still be strong enough support the end of the panel and allow you to flip the panel without risk of breakage. Have a second person support the last cut, as pictured.

NOTES:

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