SLAT FENCING INSTALLATION GUIDE

IMPORTANT

Please read carefully through this installation guide prior to starting the setting out of your new fence. Setting out the fence accurately and correctly will be the difference between a good and a great result.

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DESIGN VERSATILITY | BUILT TO LAST | EASY CONSTRUCTION

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INTRODUCTION

Thank you for choosing one of our quality products. We are the industry leaders in Aluminium Slat fences. This product will provide you with years of trouble free protection if installed in accordance with these directions.

The recommendations detailed in this guide produced by BelAire are formulated along the lines of good building practice.
They are not intended to be an exhaustive statement of all the relevant data. Further, as the success of projects depend on factors outside the control of BelAire (e.g. Quality of workmanship, particular design, detail requirements, etc), BelAire accepts 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 BelAire. We are always happy and available to answer questions regarding installation, no matter how small or insignificant you think they may be.

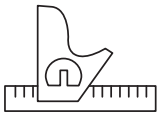
Technical and installation advice is available on 0800 235 2473

! IMPORTANT!

Throughout this installation guide you will see information boxes marked as IMPORTANT.

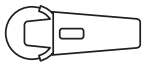
We recommended the reader pays particular attention to them to ensure a satisfactory installation and the long term performance of the products.

TOOLS & COMPONENTS



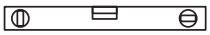
Square

Post Hole Digger

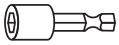


Angle Grinder

String Line

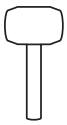


SpiritLevel



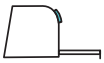
Hex Driver Bit

Drill/Driver

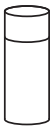


Rubber Mallet

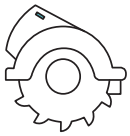
Shovel



Tape Measure



Line Marker Paint



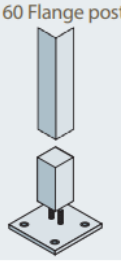
Drop Saw

Components

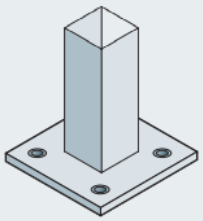
1. 60 x 60 Inground Post

2. 90 x 90 Inground Post

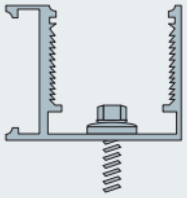
3. 60 x 60 Flange post



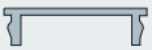
4. 90 x 90 Welded Flange Post



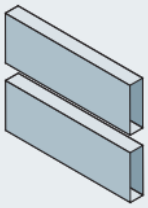
5. Slat channel



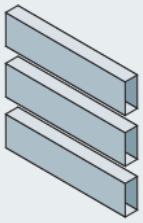
6. Channel Cover clip



7. 85 x 25 x 1.2mm Slat



8. 60 x 25 x 1.2mm slat



9. Aluminium Post cap

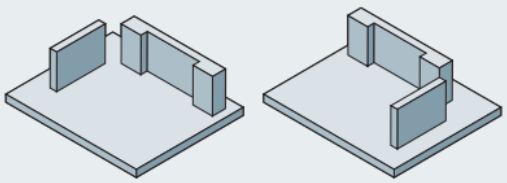
4. Plastic knock in cap

10. Concrete fixings

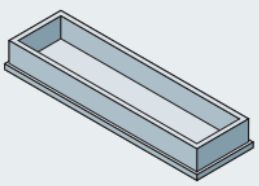
12. Timber Fixings

13. Tex screws

14. Channel End caps, Left and Right



15. Slat End cap



Special order only

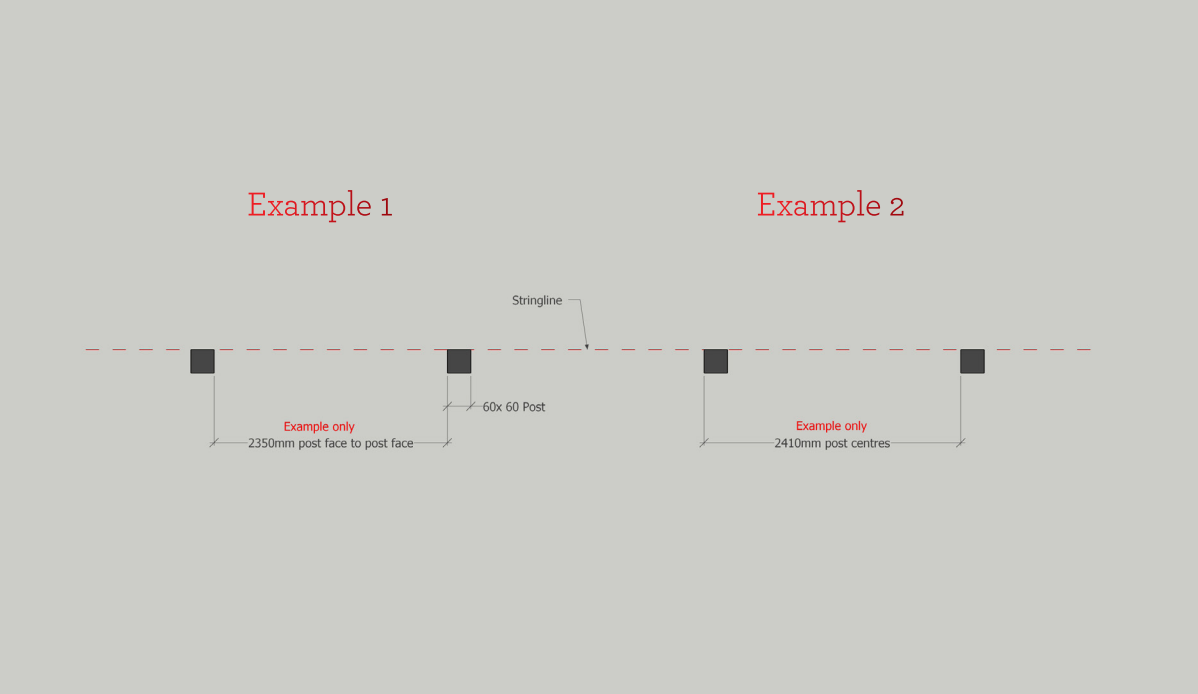
POST INSTALLATION

STEP 1 – Determine Boundary Line, Posthole Depths & Centres

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

Accurately determine the boundary line to where the fence will be installed, (in some cases a surveyor may be required) mark this with a string line as per the diagram below.

Note – The diagram below is for reference purposes only and shows the wall on the side of the boundary line, this may not always be the case depending on your individual circumstances.



Determine your post hole centres using the table on page 5 as a guide and mark out your post hole positions on the ground with line marking paint.

Note: Slat bays may be trimmed with a Drop Saw or Grinder if necessary to fit in within an exact measurement. If you require different spacing from what is shown in the graph, that is OK. The graph is merely a guide line.

Post holes can be dug by hand or with a mechanical auger. Use the Footing Depth Table on page 5 to determine your post hole depth and diameter.

POST INSTALLATION

Standard 'Post Centre to Post Centre' Guide

The table below allows you to work out what your post centres will be. Example - if you have 2330mm slats and you are using 60 x 60 posts then you will have a 2410mm post centre to post centre.

This also shows the in-between measurments, should you be fitting your slats between posts other than a 60 x 60 profile, i.e. Timber posts or concrete blocks, etc.

Slat Panel Length	60 x 60 Post hole Centres	60 x 60 In-between Post Measurements
2330mm	2410mm	2350mm
2630mm	2710mm	2650mm
2930mm	3010mm	2950mm

Footing Depth Table

Wall Height	Hole Depth into Firm Earth or Clay	
900mm	450mm	STOP IMPORTANT BEFORE YOU CONTINUE For higher walls you will need engineering advice beyond the scope of this publication. Please contact Belaire directly for this information.
1200mm	550mm	
1500mm	600mm	
1800mm	650mm	
2100mm (90x90 Posts Required)	700mm	

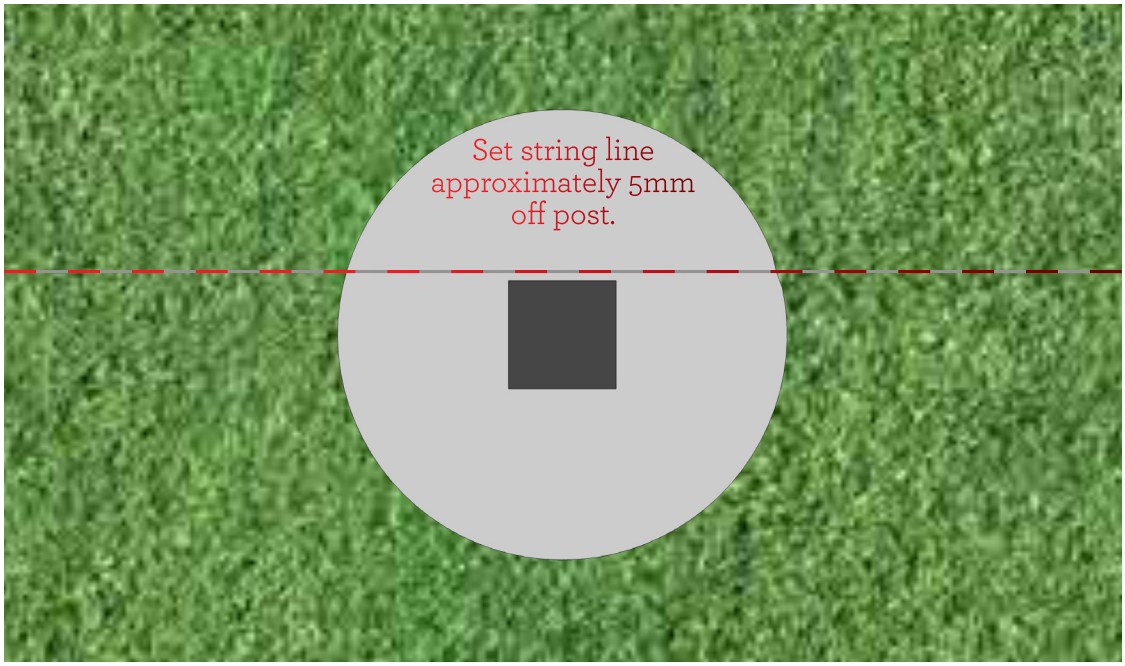
The diameter of your hole should be big enough to have a 75mm clearance around the post.

INGROUND POST INSTALLATION

STEP2 (A) – Post Setup and 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. Continually check the post alignment with a spirit level as the concrete is being poured.

Your string line should have a small amount of clearance between the string and your post. If you have your string line always touching the post you can risk pushing it slightly every time and the result will be an 'arc' in the line of the wall.



FLANGE POST INSTALLATION

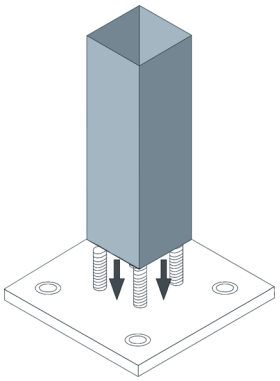
STEP2 (B) – Post Setup and Alignment

Ensure that you have marked out the placement of your posts thoroughly. Failure to do so will cause unnecessary holes in the surface of your concrete or timber.

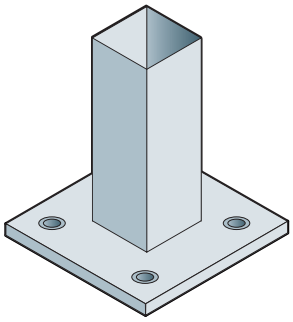
The same principal of the gap between a string line and the posts works for both in-ground and Flange posts, this will ensure a straight line of posts. Refer to page 6 for a diagram of this.

Refer to the table on page 5 for the standard spacings required to house the slats without the need for cutting bays down.

Fixing a flange post to the top of a Masonry block wall is not recommended. This can cause the face of a block to "blow-out"



60mm x 60mm flanged fixing (post slides onto fixing)



90mm x 90mm Welded Flanged Post

Our 60 x 60 Flange post system allows for ease of construction with a kit-set base that can be screwed to the ground easily. Simply use the supplied screws to attach the to the screw posts inside the post. The 90 x 90 Flange posts will all be welded from the post to the base to achieve a strong secure post.

SLAT CHANNEL INSTALLATION

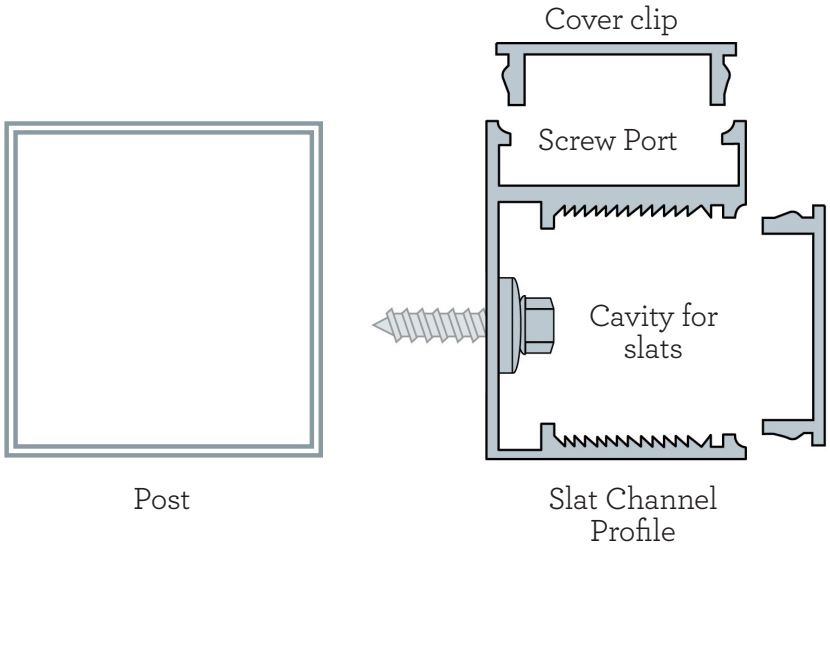
STEP3 – Fitting Slat Channels

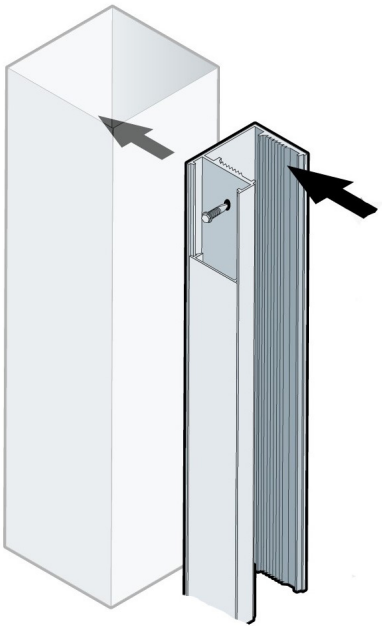
If your channels are not the desired length then these will need to be cut, ideally with a Drop Saw to obtain a nice clean cut with out heating the Aluminium too a point that it burns the powder coating.

With the use of a Tape Measure, String line/Chalk line or if you have access to a Laser Level you can mark the heights of the top of your slat channel on your posts.
Note* If your site has a sloping ground, it may be required that you step your fence from bay to bay. Typically a 100mm step works well to ensure the slats align with each other from bay to bay.

Once a height has been established for all your channels, using the Tek screws supplied, screw your channel directly to your post whilst keeping the top of your channel to the marks you have made on your post.

Your screws should be approximately 300-400mm apart down the length of your channel.





Note* The slat channel is asymmetrical, to ensure your fence aesthetically looks correct, make sure the 'screw port side' is all facing the same direction (generally on the inside our your property looks best).

SLAT INSTALLATION

STEP4 – Fitting Slats

Depending on the height of your slat fence and the number of slats you have, these factors will determine the slat spacings required for your fence.

Typically with the use of our 85mm x 25mm slat we would work on 1 slat per 100mm. Thus giving you a 15mm gap between each slat.

If you have specifically requested more or less slats, you will need to divide the height of your wall into the number of slats you have to obtain the spacings for each slat.

E.g. 1800mm high wall with 19 slats = 94.74mm spacings (9.7mm gaps between each slat)

Two methods can be used to set your slats out:

*The first is to use a Tape Measure and mark each slat out individually on the slat channel E.g. Every 100mm.

*The second is to cut 2 spacer blocks (can be from anything, Wood or Plastic) and once the first slat has been screwed in place the spacers will be used to separate the slats from one to the next.

Note* It is important to maintain both parallel and level within each bay. This will ensure a straight, professional looking fence.

This can be achieved by using a Tape Measure to check for 'parallel' from either the top of the channel or your starting point.

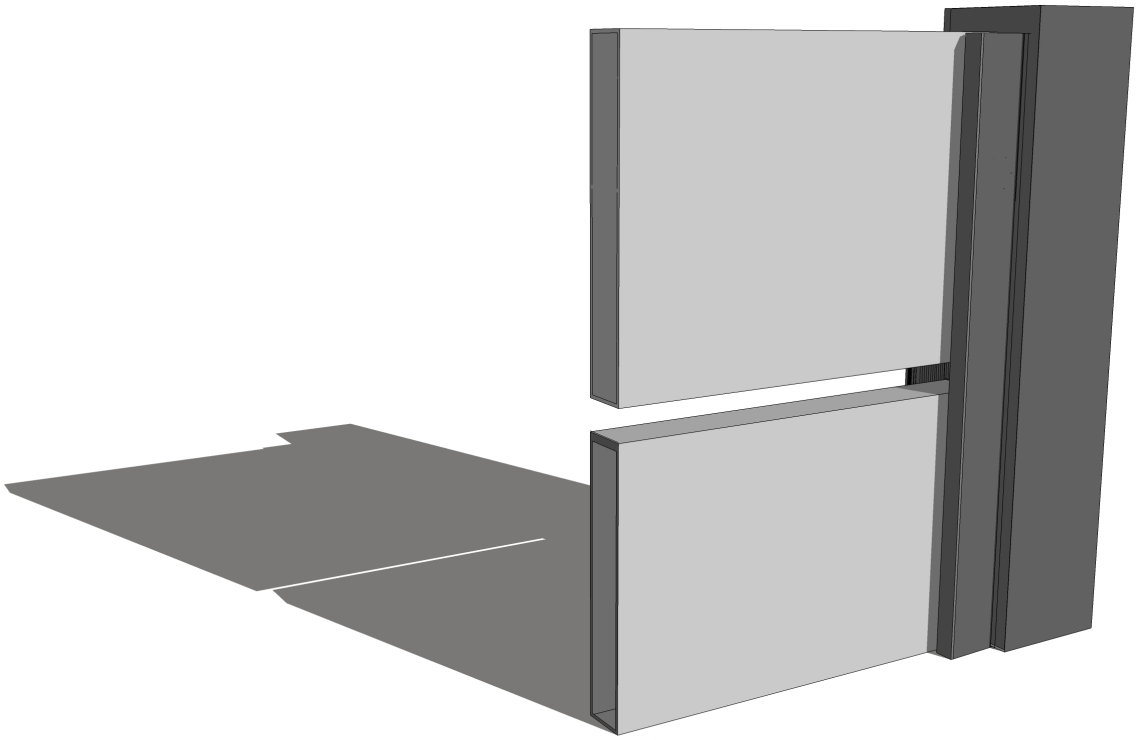
We do not recommend the slats are to be fitted with less than 5mm gaps between each slat. This may cause capillary action and cause corrosion to the slat system.

COVER CLIP INSTALLATION

STEP5 – Inserting Channel Cover Clip

Once all your slats have been assembled you can now install the 'Cover Clip' to the channel to hide all visible fixings. Make sure the cover clip is the same length as your slat channel then you are ready to go.

The easiest way to do this is to use either a rubber mallet or the rubber handle of your hammer. Insert one edge of the cover clip into the channel then with the rubber mallet/hammer handle from either the top or bottom, Tap the other edge firmly, this will clip it into place.Work your way to the other end until it is all secured in place.

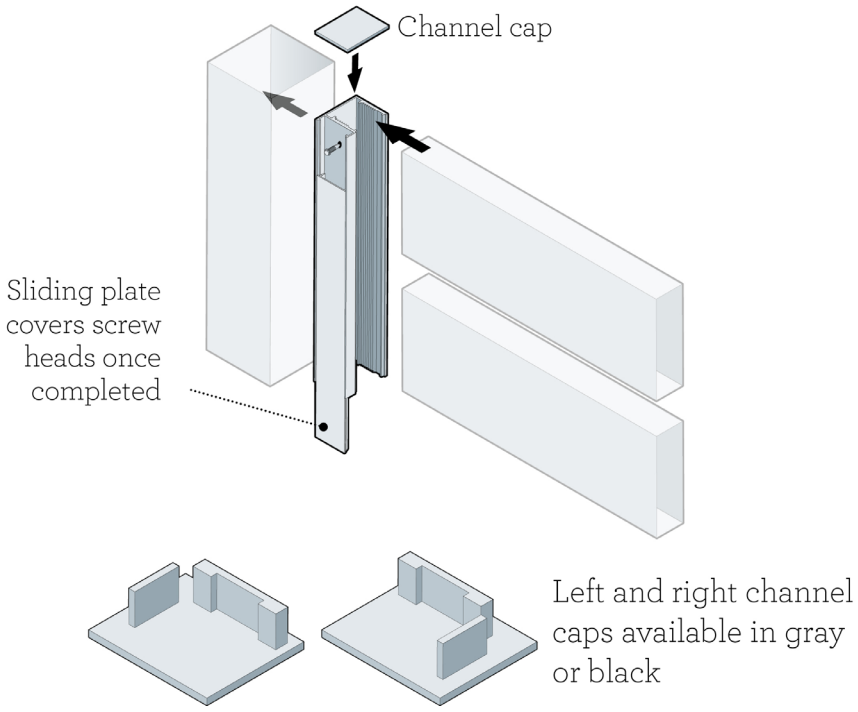


It is important that the object you use to tap the cover clip in with won't damage the powder coating. Do not use the metal part of your hammer, this will cause scratches or dents.

CAPPING INSTALLATION

STEP6 – Fitting Channel Caps

Once all the slats have been installed we have an optional cap to cover the profile of the slat channel system. These consist of a left and right hand cap. Two colours are available Black or Light Grey. Depending on the colour slat you have, will depend on the type you receive.



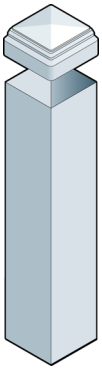
STEP7 – Fitting Post Caps

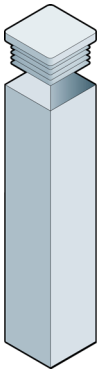
We have two options available:

*Powder-coated Aluminium that fit externally (apply a small dob of glue/silicone to hold in place.)

*Plastic knock in caps that fit internally. (Friction fit.)

60 x 60 Powdercoated Aluminium post cap





60 x 60 Plastic Knock in post cap *Available on request only.

VERTICAL SLAT INSTALLATION

Our vertical slat system is set out slightly differently to the standard horizontal slat bay. The slat channel system needs to be installed around the entire perimeter of each bay, with an additional slat running horizontally underneath the bottom slat channel, to provide support for the entire bay of vertical slats.

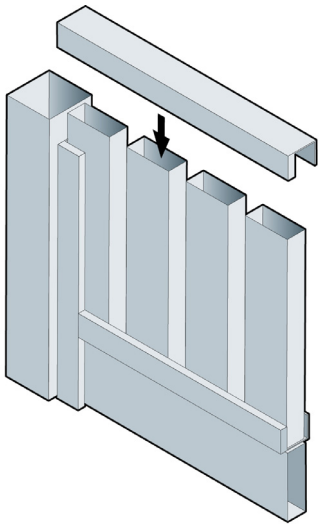
STEP1 – Fit the Side Channels

The side channels need to be screwed with the Tek screws to the posts first. This needs to be cut to a length that will run from the bottom of the slat wall to 50mm less than the finished height of the post. (These should be precut by BelAire)

The 50 mm will be made up of the following:

39mm will allow for the top slat channel to be fitted over the ends of the slats. (As shown in the image below)

10mm will be for the post cap to be fitted over the post without interfering with the slat bay.



All 85mm Vertical Slats

STEP2 – Install the Bottom Horizontal Slat

Fit the bottom slat flush with the bottom of the side channels. The purpose of this slat is to provide support for the entire bay of vertical slats.

STEP3 – Install Bottom Channel and 'Side' Vertical Slats

Once the bottom horizontal slat has been fitted, the bottom channel can then be cut neatly between the side channels, this is then placed on top and screwed to the bottom slat.

Now the two outside vertical slats can be cut to length, these need to be cut 25mm longer than the finished height of the side channels. This will give the top channel something to be fitted to.

Once the two slats have been cut to length they can be fully inserted into the side channels and screwed in at the bottom and also up the side. This will securely hold it in place.

VERTICAL SLAT INSTALLATION

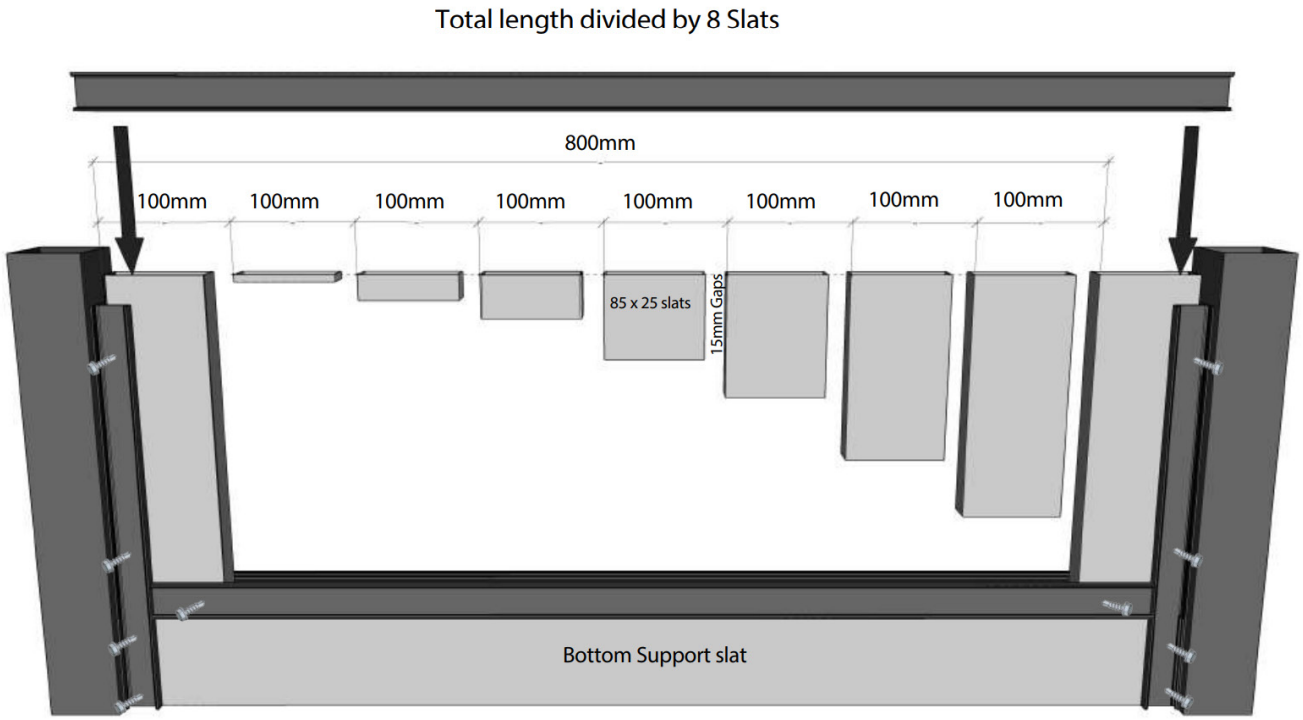
STEP4 – Inserting Top Channel

Once your outside slats have been secured in place, the top channel can now be cut and fitted neatly between the posts. The only place you can screw this in currently is the top 25mm of your side slats.

This should now complete the frame in which all your remainder slats can be fitted to.

STEP5 – Marking Out Your Slats

To establish the spacings of your vertical slats, measure from one edge of the outside slats to the same edge of the other 'outside slat' then divide this space up with the amount of slats you would like to have. (As shown below in the image)



FAQ

Can This be used for Pool Fencing?

Yes, however the slat fencing needs to be 1800mm high and have no more than 10mm gaps between each slat.

https://www.building.govt.nz/buildingcode-compliance/f-safety-of-users/pool-safety/

What is the Best Method to Cut Aluminium?

For best results, use a Drop Saw, this will create a nice clean square cut. A grinder is acceptable providing you use a thin metal cutting blade to reduce the risk of burning the powder-coating.

Can I Change the Spacings of my Slats?

Yes, generally we work on a standard 15mm gap between slats. Depending on the level of privacy you require you can either close or open the gap to meet your preferred gap size. *Note, if this is for pool fencing refer to:

https://www.building.govt.nz/building-codecompliance/f-safety-of-users/pool-safety/

Can This be Installed in Coastal Areas?

We have a 10 year Warranty on our products, which will not be applicable if you are with-in 0.25km from a coastal zone, though if you are within 0.5km from the ocean, an increase of cleaning and maintenance will be required, ideally once per season with warm water, mild detergent and a soft brush. We do not recommend the product to be in direct contact with salt water.

Why are There Holes in the Post Caps?

When the post caps are powder-coated they are hung up with a wire. When installing the caps orientate to hole to the side so it is not as visible, or alternatively use that hole to fix the post cap in-place with either a coloured rivet or screw.

Can This be Used as a Balustrade?

No, currently this has not been tested for Balustrade purposes. For Balustrade options visit:

www.belairefencing.co.nz

What do I do if I Have 'Hard water'?

Regular cleaning of your fence will be required to help prevent water spots from appearing. Hard water is corrosive to the powder-coating, therefore neglect will cause deterioration to your fence.

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WARRANTY & MAINTENANCE

☐ Tick to verify the fence has **not** been installed within 1.5m from a salt water pool or 0.25km of the ocean (warranty will not be applicable, if unticked)

Project Location & Date of Install

Signed

Name

Date

Warranty

This 10 year warranty form applies for both Aluminium Slat Fencing and Aluminium Slat Gates, that have **not** been installed within 1.5m from a salt water pool or 0.25km of the ocean.

- All products must be installed according to the Belaire Instruction Guides and recommended practices.

Maintenance

- Cleaning the fences and gates on a seasonal basis is required, using a soft brush and mild detergent - do **not** use any harsh substances. (If your fence is within 0.5km from the ocean, a more frequent cleaning schedule would be required, to account for being exposed to salty sea spray.)
- Avoid using any fertilizers and garden chemicals near fences to limit chances of contact.
- If possible, avoid any soil and earth coming in contact with the fence.
- Be sure to slope all concrete away from the posts, this will prevent any water build up around the base of the posts.
- If contact with salt water occurs, the fencing must be washed down as soon as possible (if near a salt water pool, wash down with fresh water after each swim.)
- To prevent the fencing being pushed out of alignment, avoid leaning or stacking materials against the fence.
- Do not set aluminium posts directly into rapid or quick setting concrete, the posts must be insulated in order to avoid immediate contact with these products as the additives can react with aluminium.
- During the installation of swing and sliding gates, drilling screws, rivet shanks, and other metal particles should be immediately removed to prevent staining and rust.
- All sliding gate tracks or racks should be cleared of any debris, including, sand, leaves and stones.
- Regularly examine drainage holes to check for any blockages.

PO Box 3030, Hawke's Bay Mail Centre, Napier 4142 New Zealand

Tel 0800 BELAIRE (0800 235 2473) Fax 06 878 5758

Email sales@belairefencing.co.nz

www.belairefencing.co.nz

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Panasonic

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PO Box 3030, Hawke's Bay Mail Centre, Napier 4142 New Zealand

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Email sales@belairefencing.co.nz

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