

SELECT
COMPOSITE

A REALLY EASY GUIDE TO YOUR NEW BALUSTRADE



Fire resistant



Fade resistant



Stain resistant



Weather resistant



Easy to install



Greener option

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Introduction

Congratulations on taking the first step towards your brand new balustrade.

Composite balustrades are a great way to easily install stunning, environmentally friendly vertical dividers at your home or business.

WHAT IS WPC?

WPC (wood plastic composite) is a hybrid product made of wood and plastic to produce a durable composite material. 90% of the materials that go in to make WPC are recycled.

No new trees are cut down and waste plastic is removed from our environment.

ULTIMATE CUSTOMISATION

Our balustrade kits can be customised to create almost any design and finish you like.

All components can be cut down to size to fit any space, and additional materials such as glass, steel wire and rope can be incorporated to create a unique effect.

NOTE: For the purposes of this installation guide, all information provided is based on a 'standard balustrade set-up'.

For more information on how you can customise your balustrade, get in touch with a member of our team.



**GREENER
OPTION**



**FADE
RESISTANT**



**STAIN
RESISTANT**



**EXPANSION
RESISTANT**



**EASY TO
INSTALL**



**FIRE
RESISTANT**

ABOUT OUR RANGES

Our composite balustrade sets include all the elements you need to build your balustrade.

Each balustrade set includes:

1 x post

1 x top rail

1 x bottom rail

2 x L brackets (screws included)

9 x spindles

1 x post cap

18 x spindle connectors (screws included)

1 x post base

Additional posts, post caps and post bases are available separately.

Additional fittings

Depending on the installation method you choose, you may need to purchase additional fittings. See **page 6** for our shopping list.

Throughout this guide, additional fittings are highlighted for easy identification.



Additional fittings may be required for this stage.

**BEFORE YOU GET
STARTED**

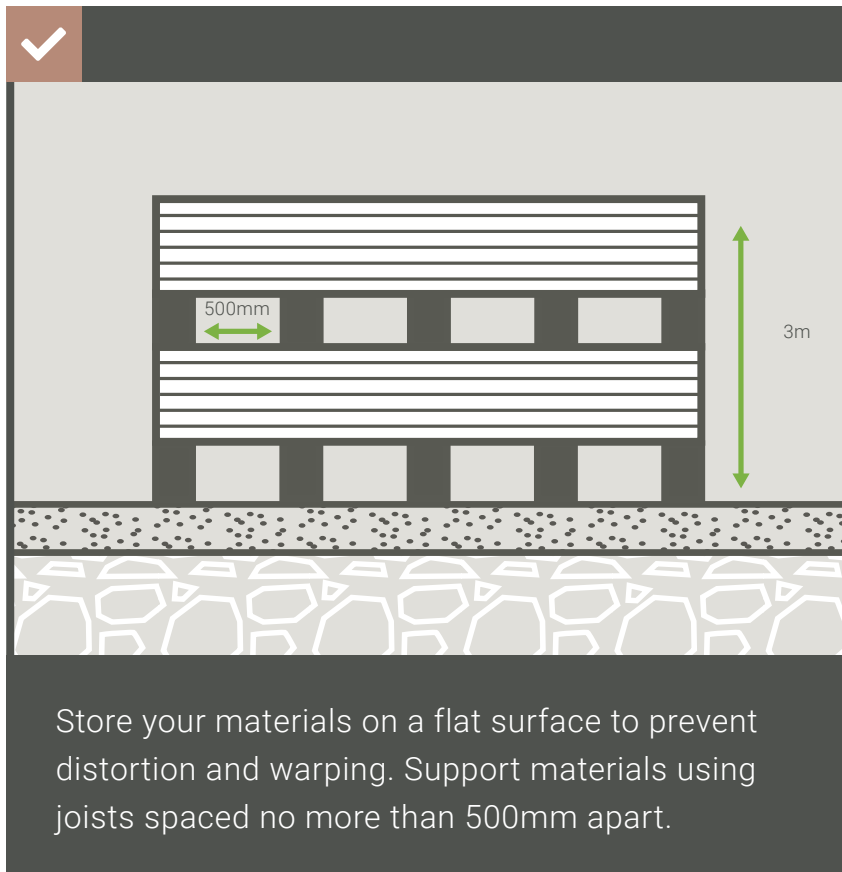
1. Shopping list

You may need some or all of the following tools and fittings to complete your project. We recommend that you read through this guide before you start to determine what additional supplies you will need. All items can be found in your local hardware store.

- Drill**
- Hammer drill** (if using expansion bolts)
With masonry drill bits
- Mitre saw**
- Circular saw**
- Spirit level**
- Tape measure**
- Safety glasses and personal protection equipment (PPE)**
- Rubber mallet**

2. Storage and handling

2.1 Storage



NEVER store materials directly on the ground.



NEVER stack materials higher than 3m.



ALWAYS store materials inside or keep covered.



ALWAYS let your materials acclimatise for at least **2 days** before beginning installation.

2.2 Handling



HEAVY ITEMS



Place materials down carefully.
DO NOT dump.



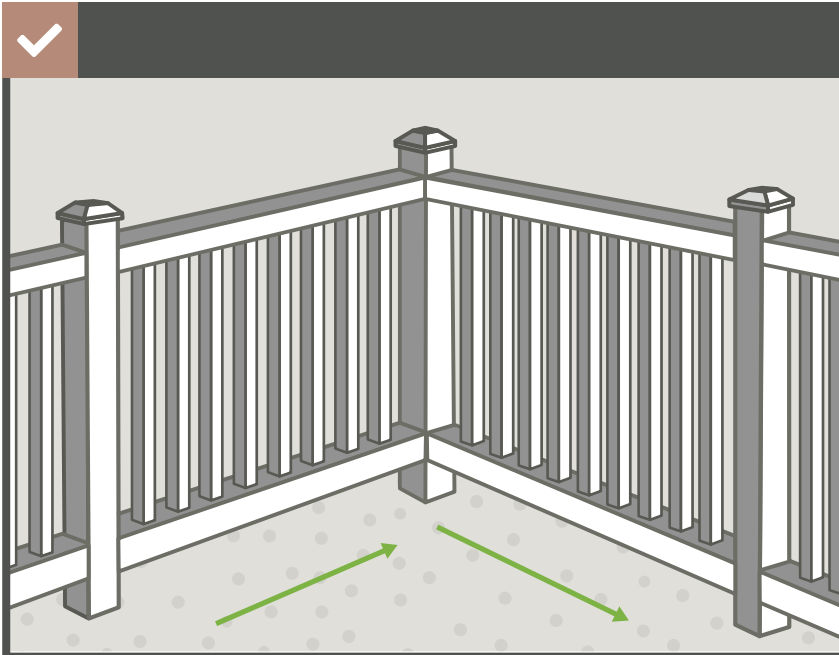
DO NOT slide or drag equipment across materials.



DO NOT slide materials against each other when handling.

3. Planning

3.1 Preparing the area



Decide where your balustrade will be installed and measure the length and width of the total area.

We recommend installing a balustrade on all decking areas that are raised 600mm or more above ground level.



For more complex designs, a drawing to scale may help you determine how much material will be required.

3.2 Calculating materials

Each balustrade set contains:

- 1 x post
- 1 x top rail
- 1 x bottom rail
- 4 x L brackets (screws included)
- 9 x spindles
- 1 x post cap
- 18 x spindle connectors (screws included)
- 1 x post base

Additional posts, post caps and post bases are available separately.

To calculate how many balustrade sets you will need, measure the area you wish to balustrade carefully.

1

Measure the length (in mm) of the area where you plan to install the balustrade.

2

Once assembled, our standard, un-cut balustrade set measures 1300mm wide (1200mm for the rails + 100mm for each post).

Subtract 100mm from the length of the area you plan to install the balustrade (to allow for the end post), then divide the length by 1300mm to determine how many balustrade sets you will require.

Rails can be cut down to size as required (pg 18).



If your balustrade is being installed in multiple different runs, **DO NOT** add the total lengths together, as this will affect the quantity of materials required.



Always round **UP** when calculating the amount of material you need.



EXAMPLE

Your area length is 3m (3000mm).

$$3000 - 100 = 2900$$

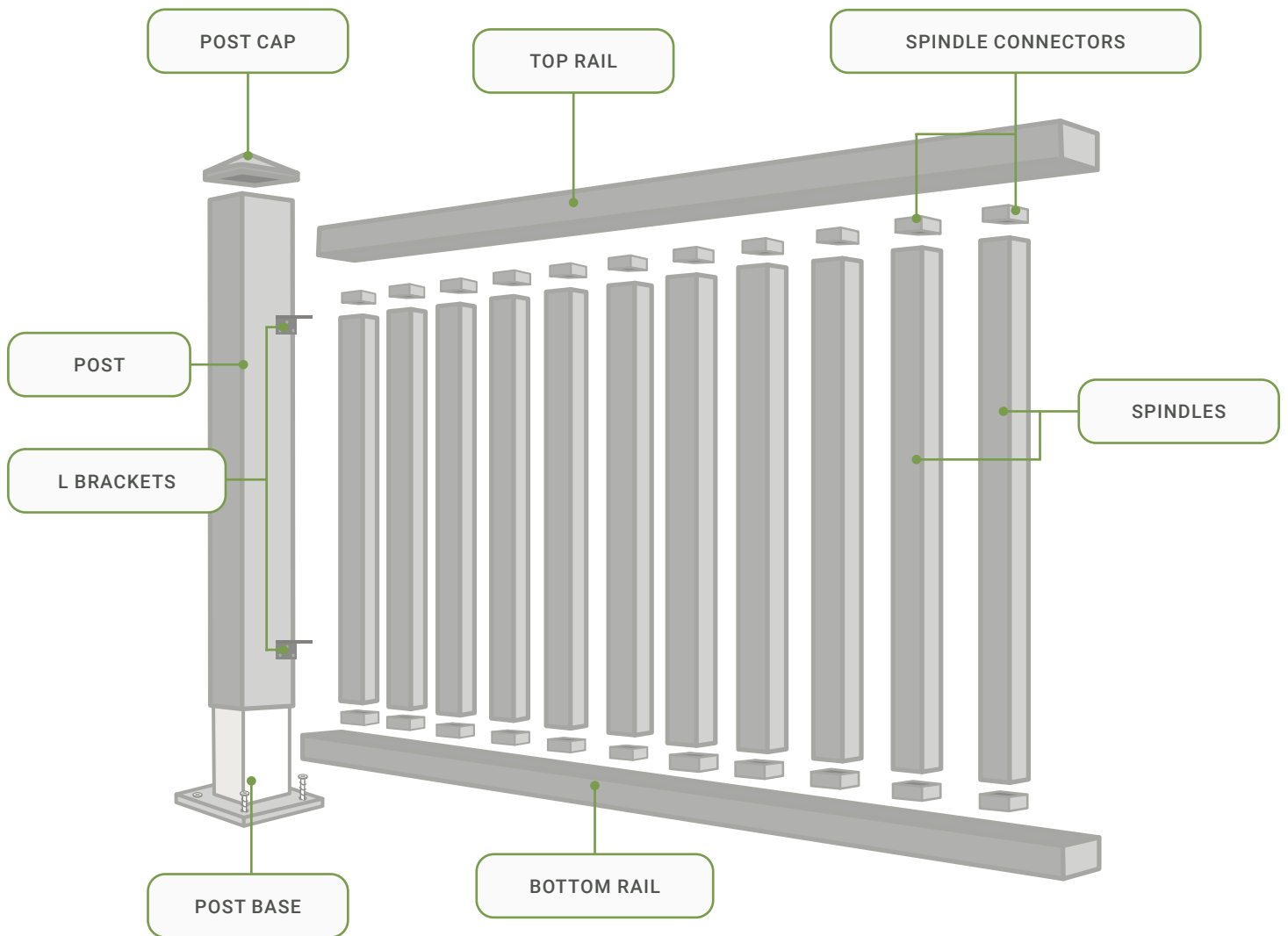
$$2900 \div 1300 = 3^* \text{ balustrade sets needed}$$

(+1 additional finishing post)

* Rounding result **UP** to nearest whole number

INSTALLING YOUR BALUSTRADE

Getting to know your balustrade



4. Installing the post bases

4.1 Installation methods

Your balustrade can be installed in three ways:

- i) **Directly onto a subframe;**
- ii) **Onto a solid deck board;**
- iii) **Directly onto a concrete base.**

If you are installing your balustrade with new decking, we always recommend fixing the balustrade post bases directly to the decking subframe **before** installing your decking. This will give you a more secure structure.

INSTALLING ONTO A SUBFRAME OR EXISTING DECKING

If you are installing your balustrade onto a subframe or decking, use screws to secure the post base in place.

INSTALLING ONTO A SOLID OR CONCRETE BASE

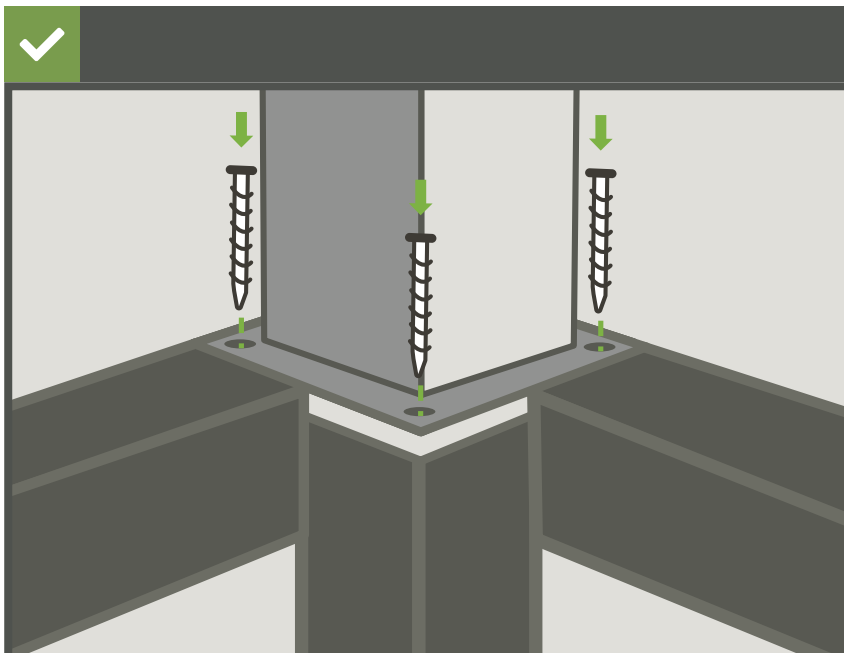
If you are installing your balustrade onto a solid or concrete base, use expansion bolts to secure the post base in place.

For the purposes of this guide, the following illustrations show the post bases being fixed to an eco lumber subframe.



If fixing to concrete, you must ensure the concrete has a depth of **at least 10cm.**

4.2 Installing the first post base



Start at the beginning of a run or on a corner.

Position the first post base where you want your balustrade run to start.

Screw post base into position using sufficient screws.



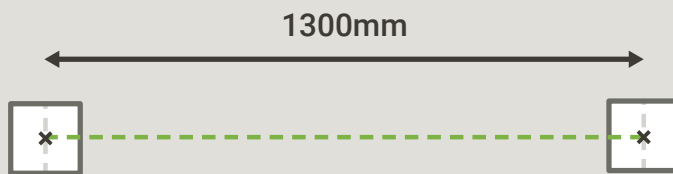
Use a string or builder's line to ensure your balustrade is straight.



Additional fittings may be required for this stage.

4.3 Installing subsequent post bases

1



Measure 1300mm* from the centre point of the previous post base and make a mark. Position the next post base so that it is centrally aligned over this mark.

* If using full-length rails. If using cut-down rails (pg 18), add 10mm to the length of the rails to make this measurement.



Post bases **must be placed 1300mm** apart to allow the rails to fit (unless using cut-down rails).

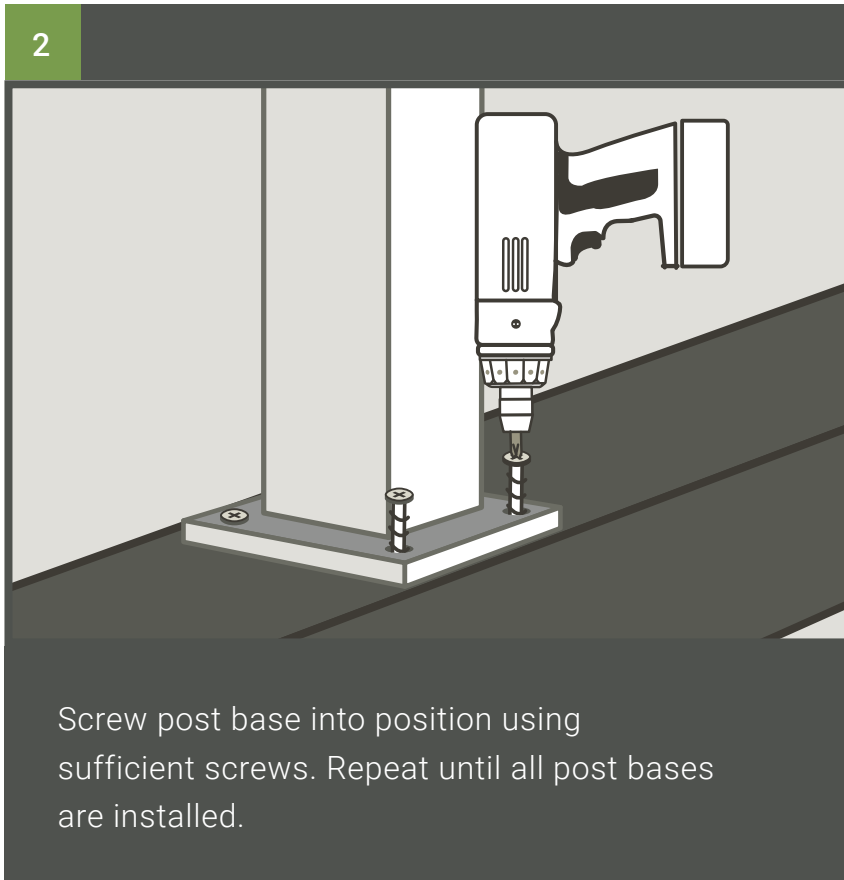


ALWAYS measure post bases from centre to centre.



Additional fittings may be required for this stage.

4.3 Installing subsequent post bases (continued)

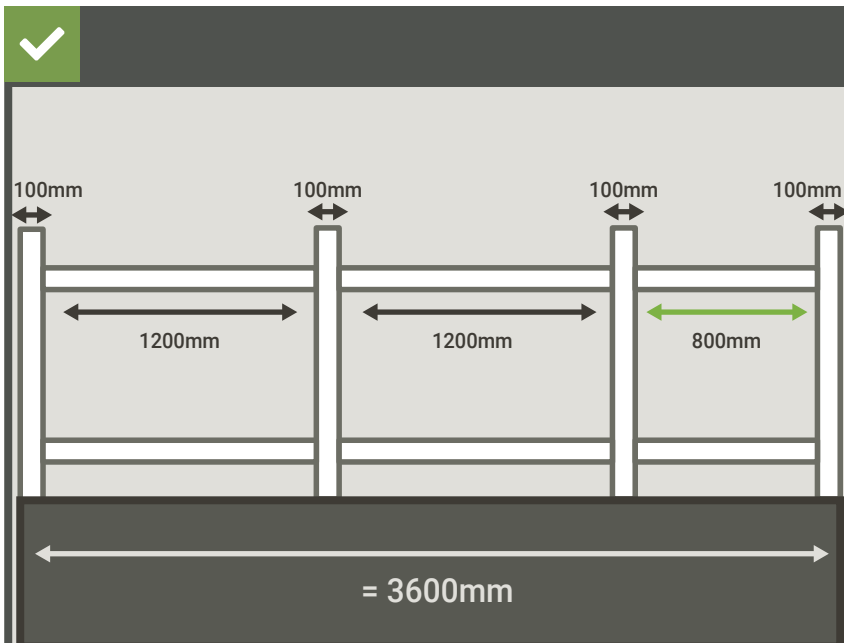


Additional fittings may be required for this stage.

4.4 Cutting rails to size

It is likely that you will have to cut your rails down to fit your area.

To do this, cut down the top and bottom rails to your required size using a circular saw.



EXAMPLE

To create a balustrade run along a 3600mm length of decking, you would need 4x posts (100mm each) and 3x rail sets (1200mm each). In order to fit the balustrade into this area, one set of rails would need to be cut down to 800mm.

$$100 + 1200 + 100 + 1200 + 100 + 800 + 100 = 3600$$



Note that the shorter rails do not necessarily need to go at the end of the run. We recommend installing any cut-down rails in the place least visible within the run.



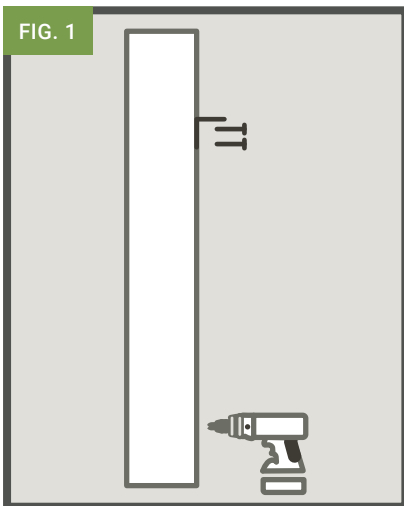
A circular saw blade suitable for cutting metal will be required to cut down the steel support insert.

5. Preparing the posts

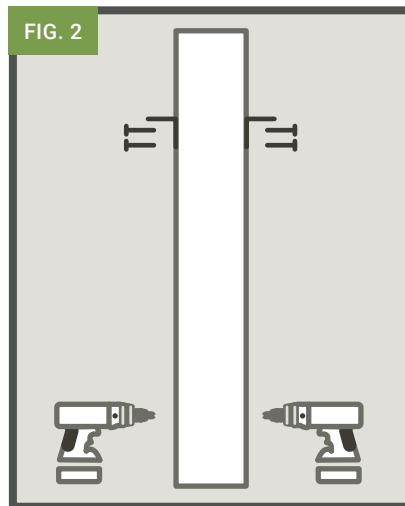
Before the posts can be installed over the post bases, they need to be prepared as described on the following pages.

The top rail L bracket will need to be screwed into the posts.

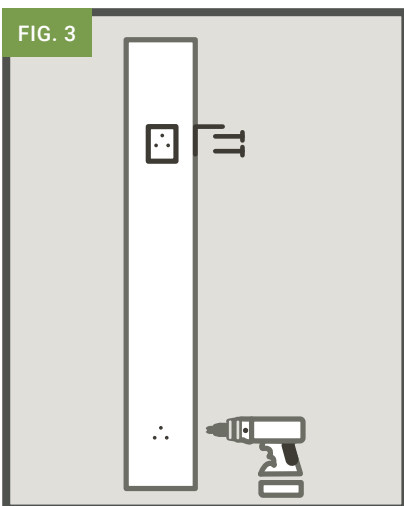
For the bottom rails, pilot holes will need to be pre-drilled into the posts in preparation for the L bracket to be attached later.



On the first and last posts of the balustrade run, you will only need to do this on the inside of the post (fig. 1).

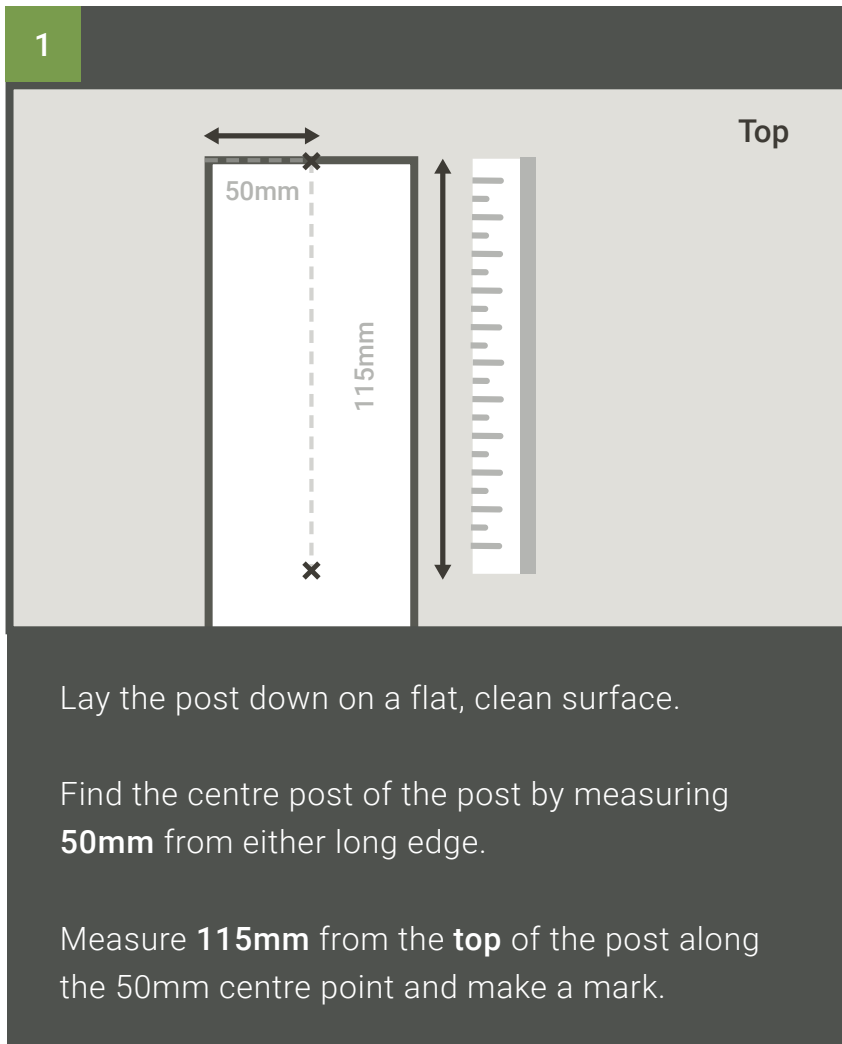


For all connecting posts, you will need do this on two opposite sides (fig. 2).



For all corner posts, you will need to do this on two adjacent sides (fig. 3).

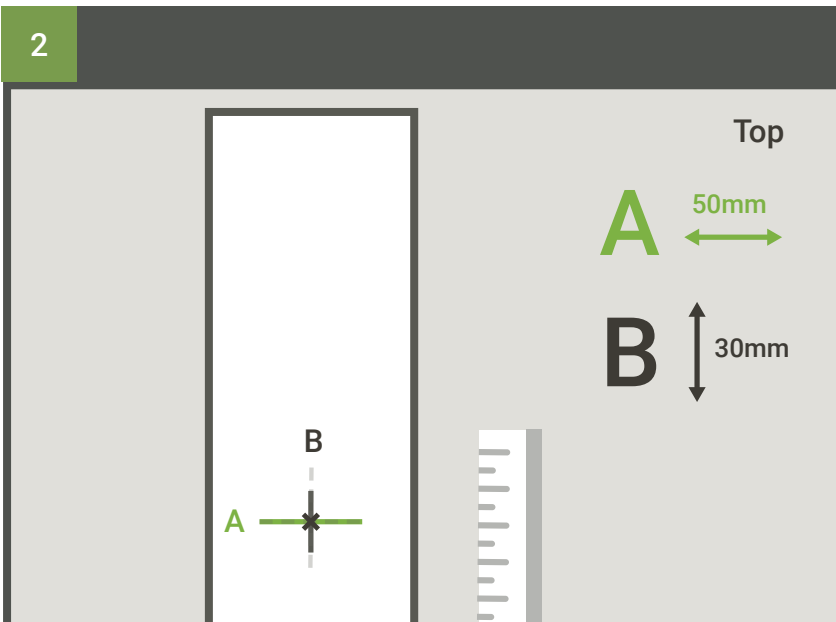
5.1 Fitting the top rail L bracket



Marking lines will not be visible once the bottom rail is installed.

5.1 Fitting the top rail L bracket (continued)

2



At the 115mm mark, draw a 50mm line (**Line A**) parallel to the short edge.

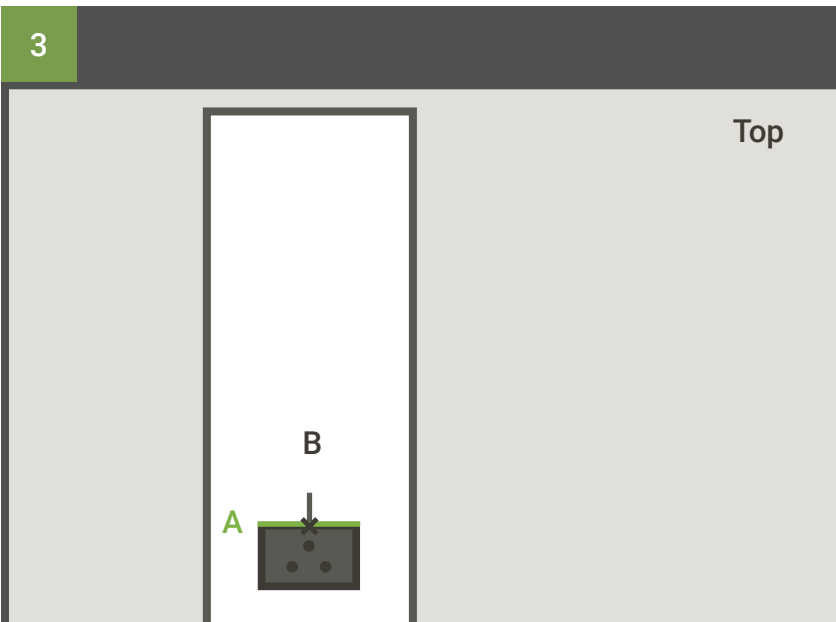
On this line, measure 50mm from the long edge of the post and mark a 30mm line (**Line B**) parallel to the long edge of the post.



Marking lines will not be visible once the bottom rail is installed.

5.1 Fitting the top rail L bracket (continued)

3

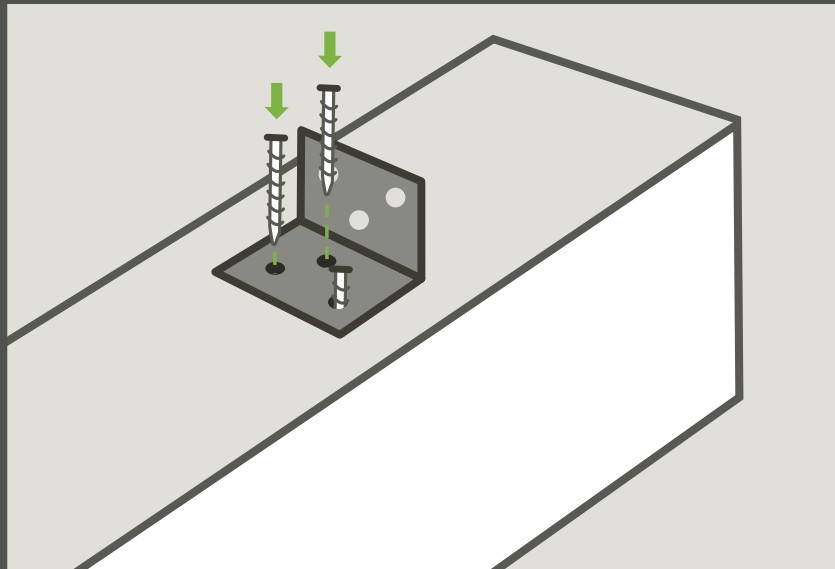


Position the L bracket so that the top edge of the bracket is on **Line A** and the centre point of the bracket is on **Line B**.

Mark out screw holes and pre-drill using a 3mm wood drill bit.

5.1 Fitting the top rail L bracket (continued)

4



Fix L bracket in position by screwing through L bracket holes and into pre-drilled holes in the post. Use 3 x 50mm screws when screwing into posts.

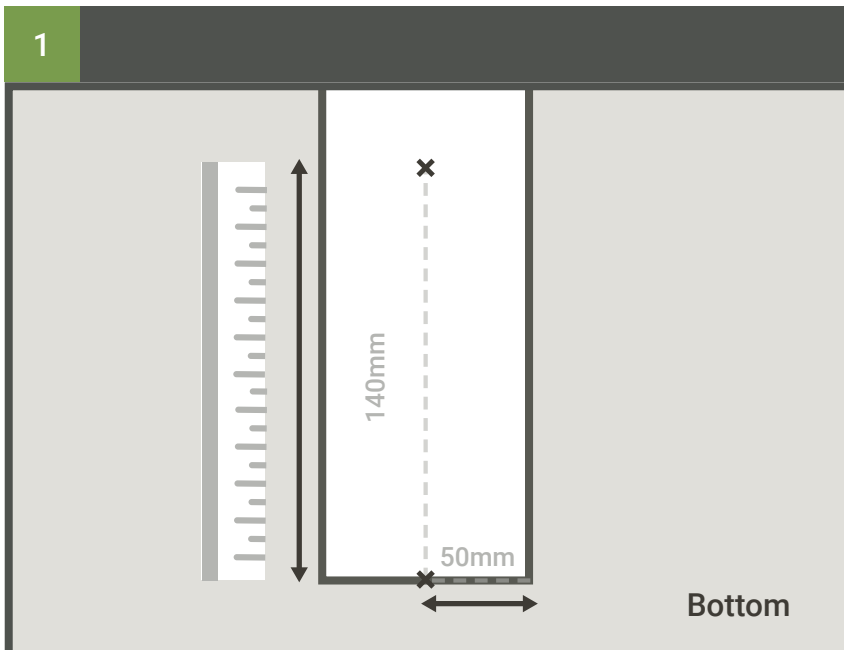
Repeat this process until all top rail L brackets are fixed in the correct position on each post.



Additional fittings may be required for this stage.

5.2 Fitting the bottom rail L bracket

1

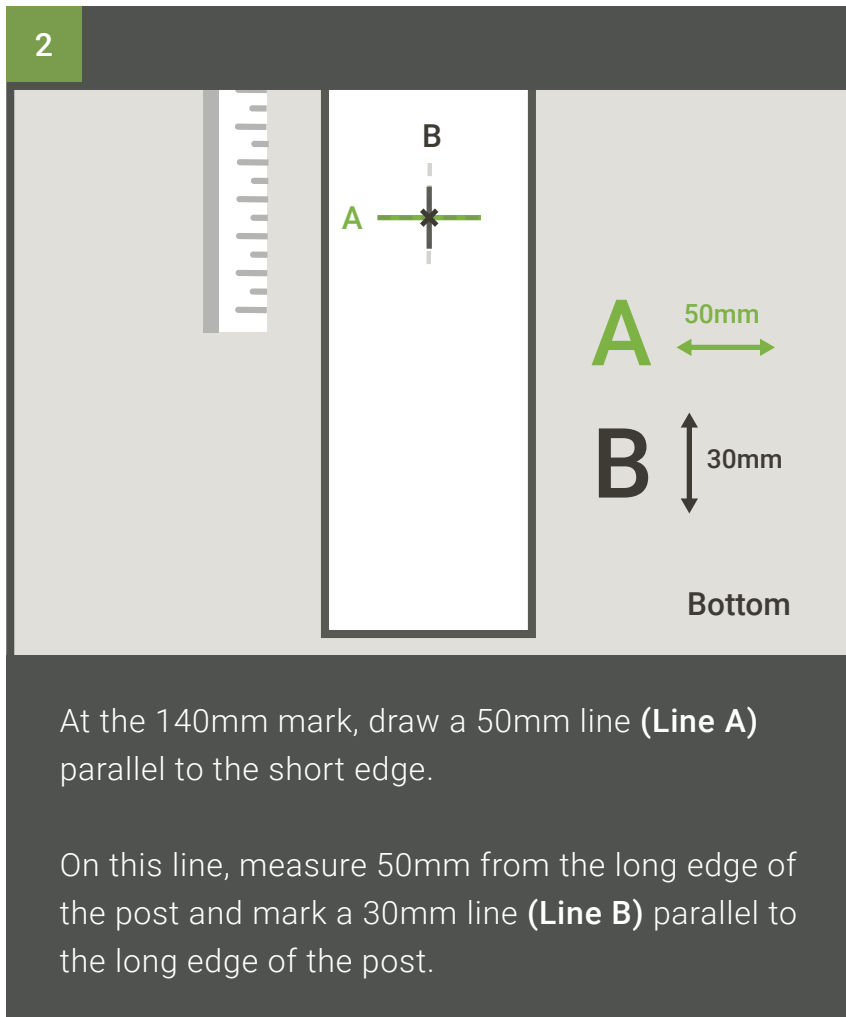


Lay the post down on a flat, clean surface.

Find the centre point of the post by measuring **50mm** from either long edge.

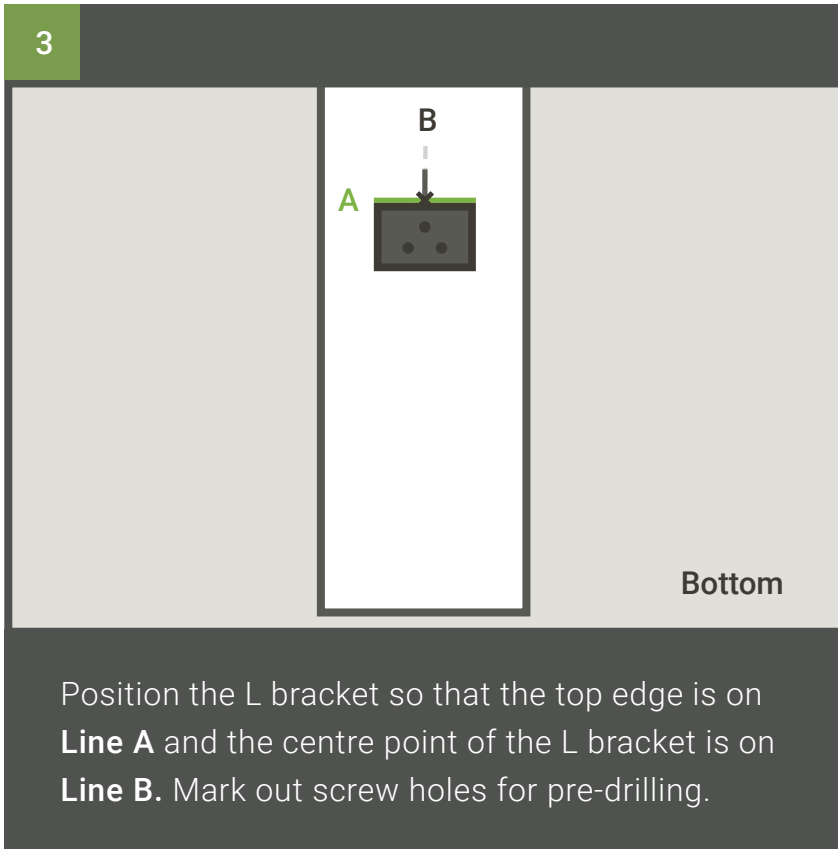
Measure **140mm** from the **bottom** of the post along the 50mm centre point and make a mark.

5.2 Fitting the bottom rail L bracket (continued)



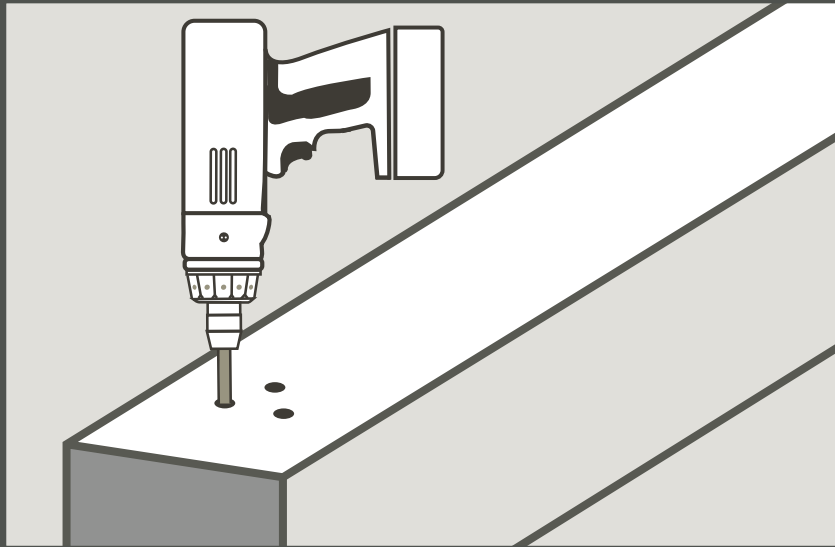
Marking lines will not be visible once the bottom rail is installed.

5.2 Fitting the bottom rail L bracket (continued)



5.2 Fitting the bottom rail L bracket (continued)

4

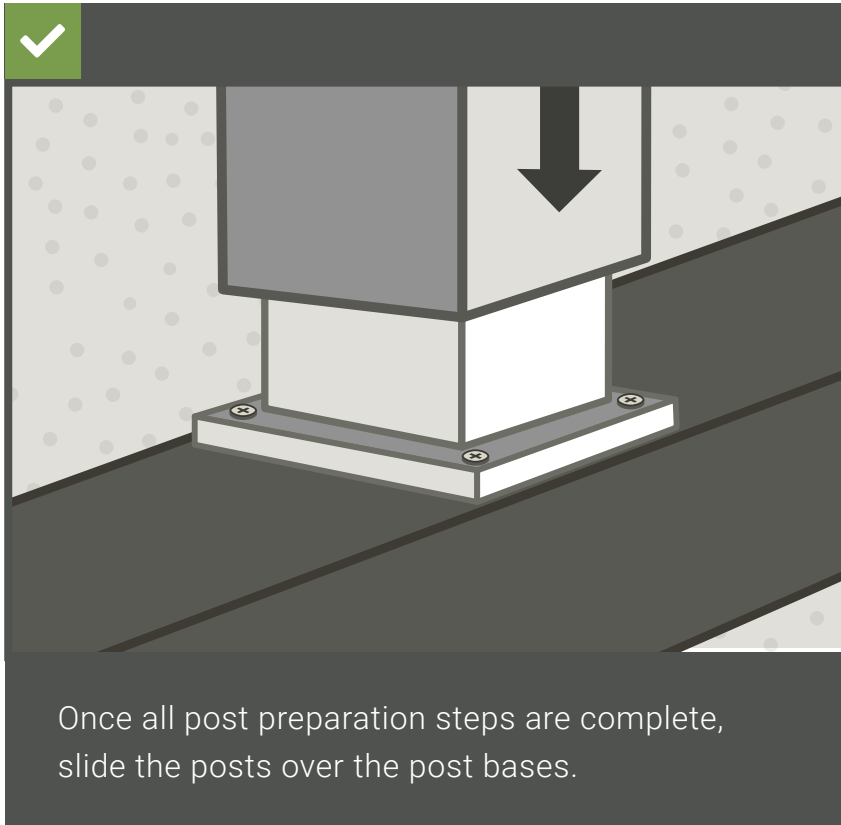


Pre-drill through the three screws holes in the L bracket and into the post using a 3mm wood drill bit.

Do not screw the bottom rail L bracket to the post at this point. It is fitted to the bottom rail in a later stage (pg 33).

6. Fitting the posts

6.1 Installing the posts over the post bases



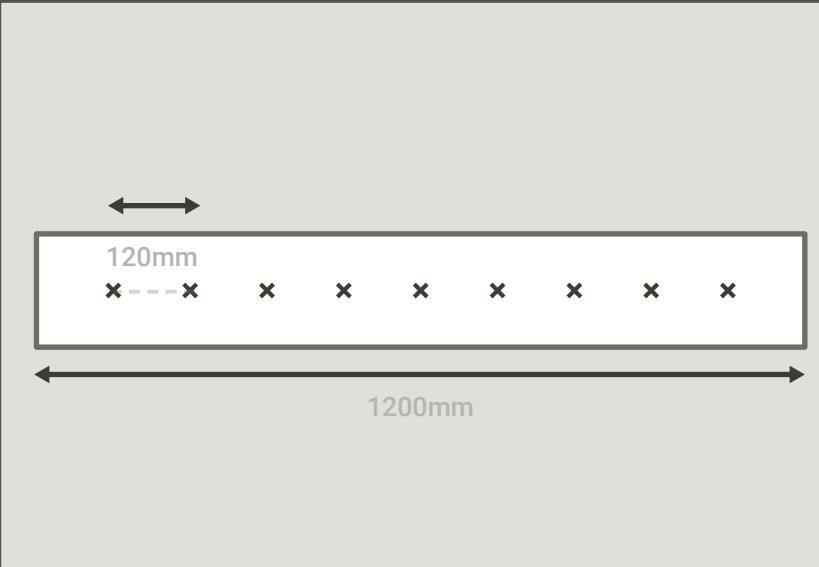
If you are installing decking, we recommend you begin the decking board installation at this point.

It is much easier to install decking before the balustrade is fully in position and it will allow you to make cuts into the decking to fit neatly around each post.

7. Fitting the spindles and rails

7.1 Aligning the spindles

1



The diagram illustrates a 1200mm long rail with 9 spindles. A 120mm spacing is shown between the first two spindles. The rail is represented by a horizontal line with 'x' marks for spindles. A double-headed arrow above the first two spindles is labeled '120mm'. A larger double-headed arrow below the entire rail is labeled '1200mm'.

To ensure the spindles are evenly spaced, divide rail length by the number of spindles +1.

EXAMPLE
When fitting 9 spindles on a full-sized rail, divide the rail length (1200mm) by 10 = 120mm.



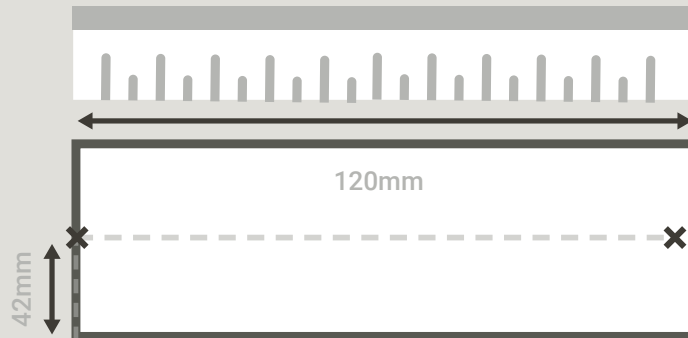
You can use as many or as few spindles as you like, depending on the final look you want.



You will need to repeat this process for both top and bottom rails.

7.1 Aligning the spindles (continued)

2



Lay the rail on a flat clean surface. Find the centre of the rail by measuring 42mm from either long edge and make a mark.

Along the centre line, make a spindle mark at every 120mm* along the length of the rail.

* Or appropriate measurement based on the length of the rail and number of spindles.



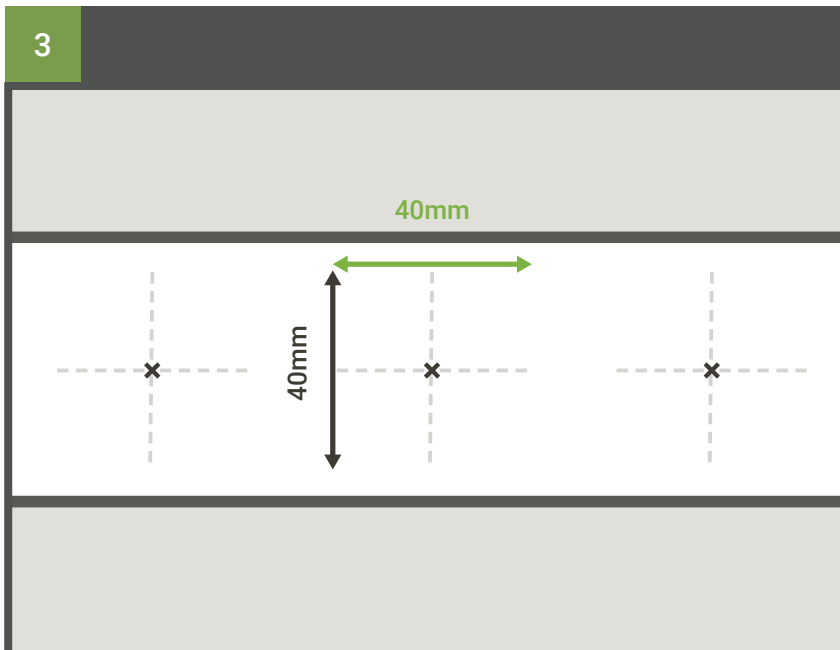
You can use as many or as few spindles as you like, depending on the final look you want.



You will need to repeat this process for both top and bottom rails.

7.1 Aligning the spindles (continued)

3



At each spindle mark, draw a line 40mm parallel to the long edge of the rail and 40mm parallel to the short edge of the rail (so that the line sits 20mm either side of each spindle mark).



You can use as many or as few spindles as you like, depending on the final look you want.

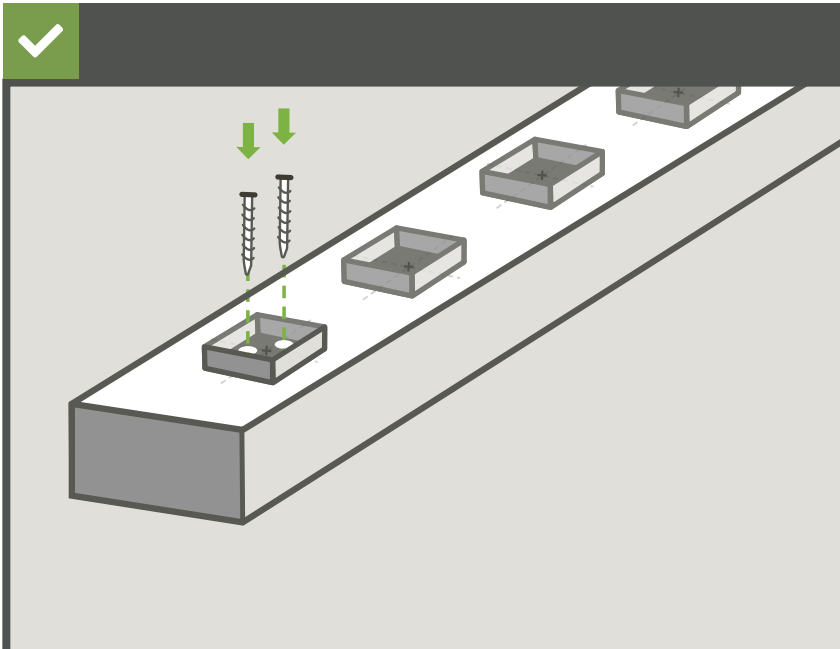


You will need to repeat this process for both top and bottom rails.

7.2 Installing the spindle connectors

Spindle connectors must be attached to both top and bottom rails before the spindles can be fitted.

There are two corresponding connectors for each spindle - one for the top rail and one for the bottom rail.



Position each spindle connector over the spindle marks you made on the rail. Ensure the connector is square to the rail.

Pre-drill screw holes into the rail through the two holes in each connector.

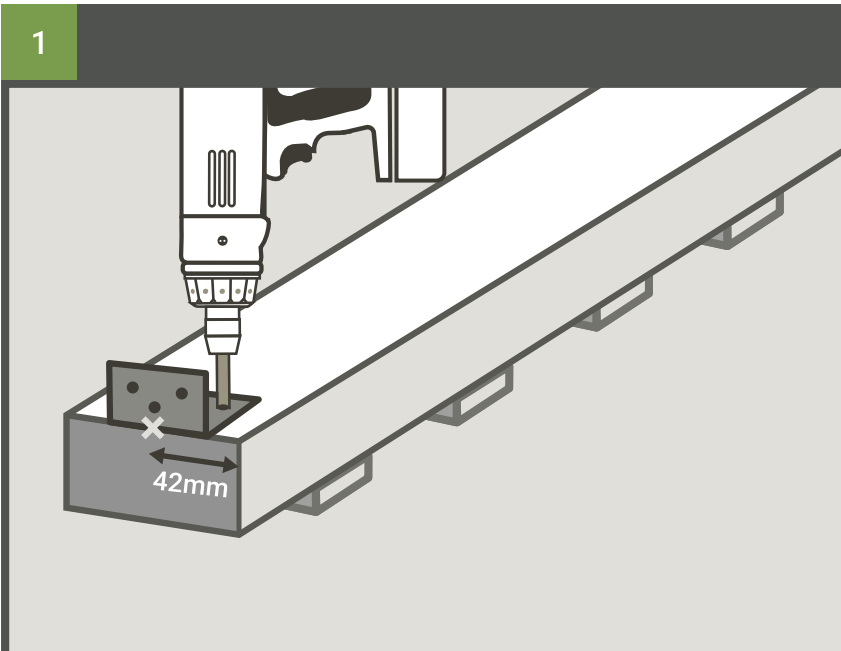
Screw through the pre-drilled holes into the rail to fix into position. Repeat until all spindle connectors are in position.



You will need to repeat this process for both top and bottom rails.

7.3 Fitting the L bracket to the bottom rail

1



Turn the bottom rail over so that the spindle connectors are facing down.

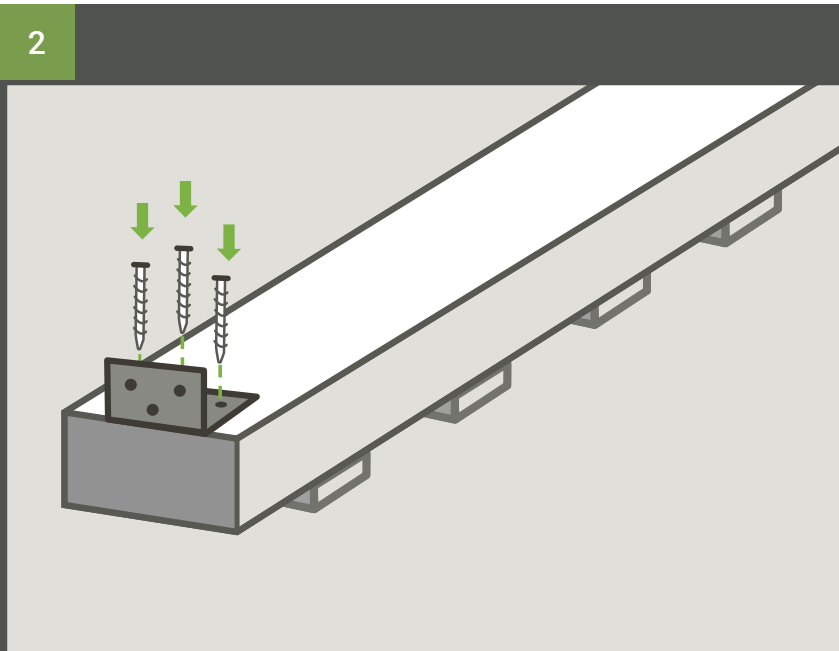
Find the centre of the rail by measuring 42mm from either long edge and make a mark.

Position the L bracket so that the centre point of the L bracket is in line with the centre mark, and the edge sits flush with the short edge of the rail.

Pre-drill screw holes into the rail through the three holes in the L bracket.

7.3 Fitting the L bracket to the bottom rail (continued)

2



Fix the L bracket into position by screwing through the L bracket holes into the pre-drilled holes in the rail using 38mm screws.

Repeat this process at both ends of all bottom rails.

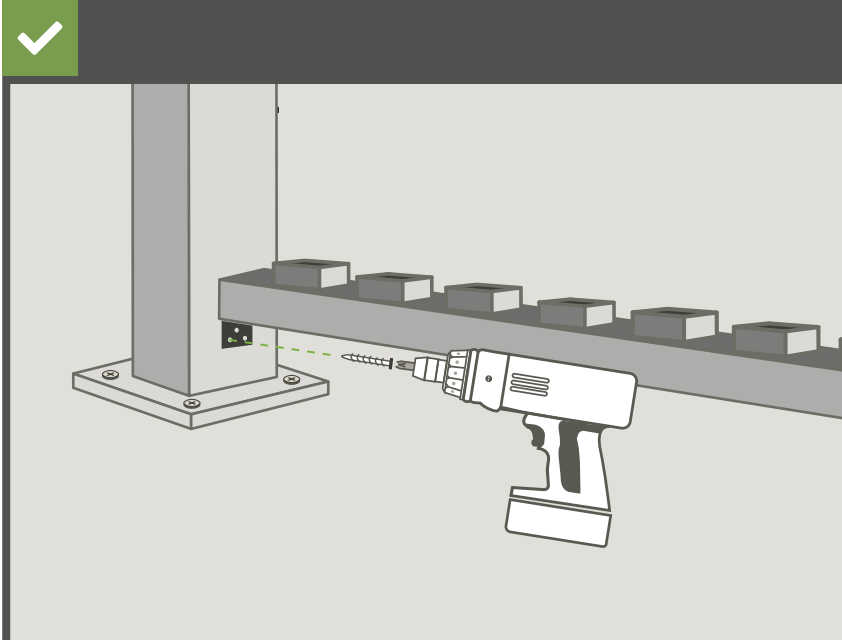


Ensure the steel support insert is not protruding out at either end of the rail.



Screw the outer holes of L bracket first to make screwing through the steel bar easy.

7.4 Fitting the bottom rail to the posts



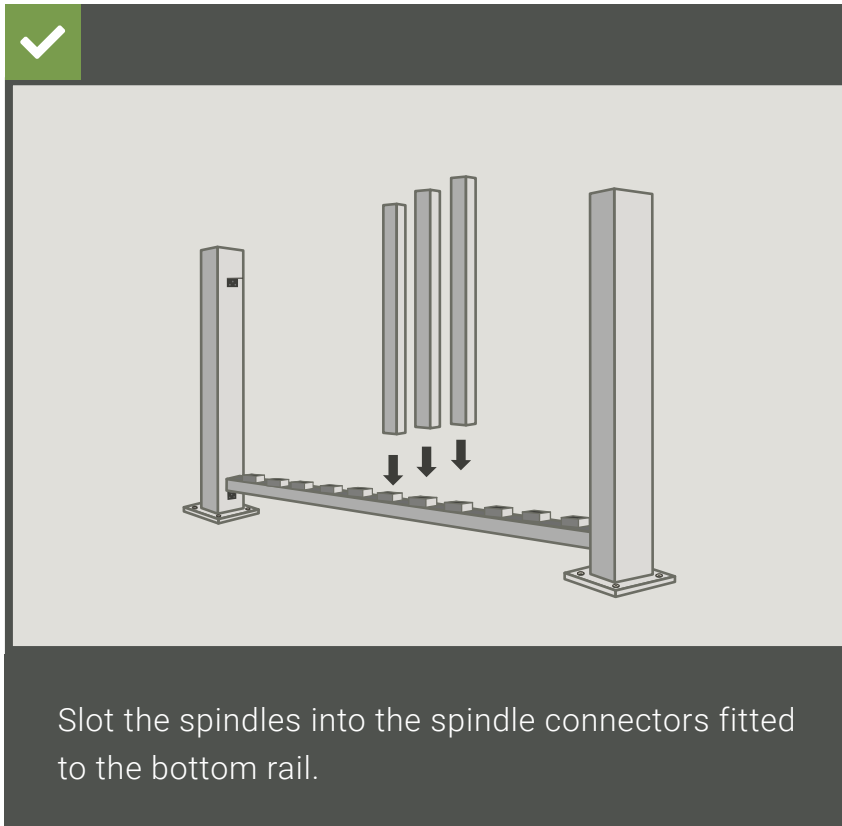
Position bottom rail so that the L bracket is on the lower side and the spindle connectors are facing up.

Using 50mm screws, screw through the three holes in the L bracket and into the three pre-drilled holes in the post. Do the same at both ends of the bottom rail.



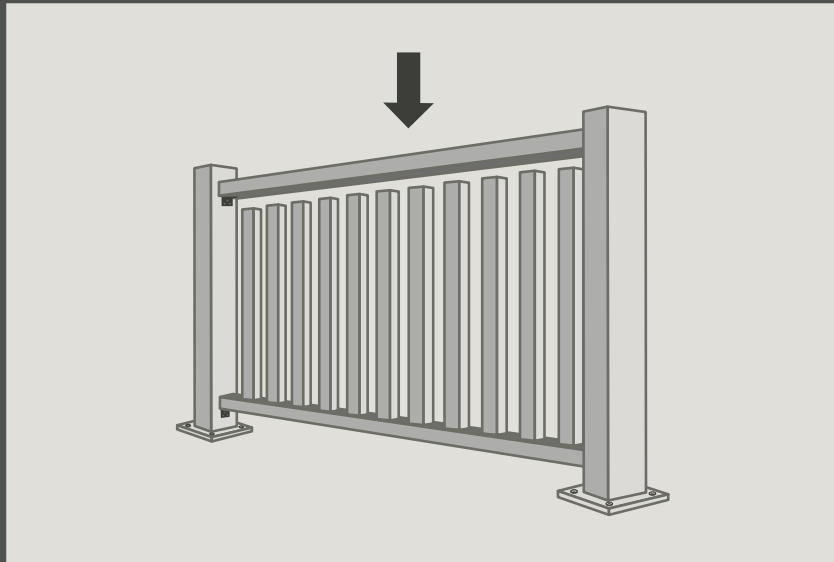
Screw the outer holes of L bracket first to make screwing through the steel bar easy.

7.5 Fitting the spindles to the bottom rail



7.6 Fitting the top rail

1

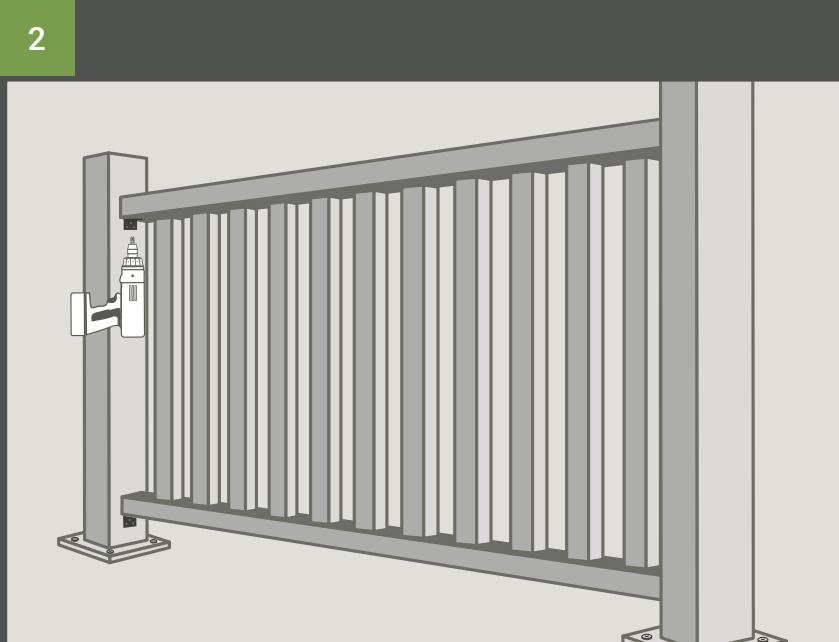


Hold the top rail with the spindle connectors facing down.

Place the top rail into position, ensuring all the spindles are slotted into the spindle connectors.

7.6 Fitting the top rail (continued)

2



Ensuring the top rail is centred to the post, pre-drill through the three holes in the L bracket and screw into place using 38mm screws.

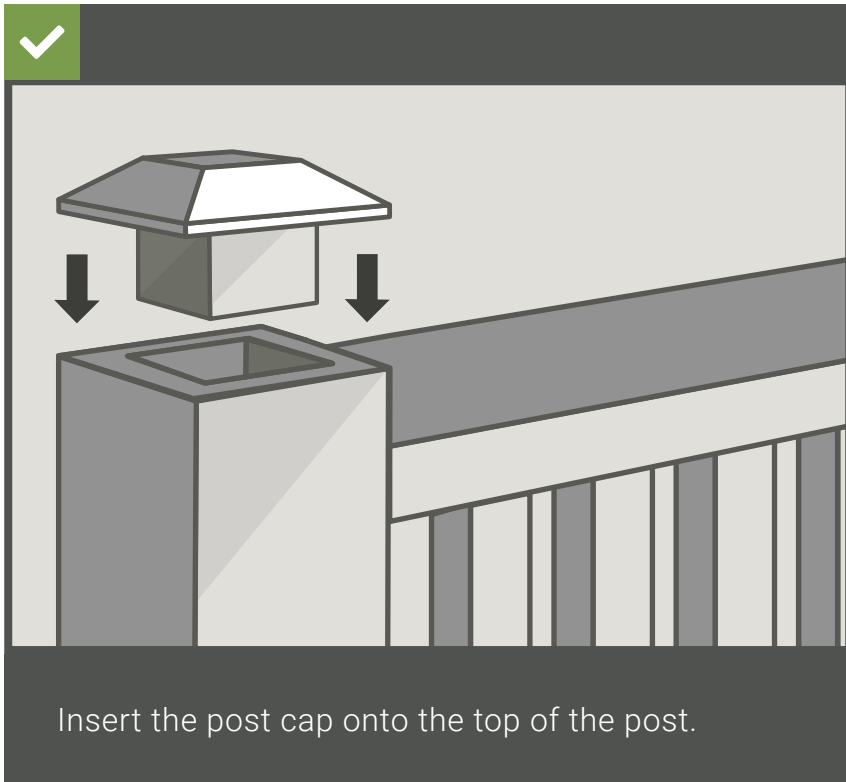


The screws are self-drilling, so you not need to pre-drill the steel support insert.



Screw the outer holes of L bracket first to make screwing through the steel bar easy.

7.7 Fitting the post cap



CARE AND SUPPORT

8. Maintenance

GENERAL CARE TIPS

Our products are designed to be low maintenance, but light cleaning and care can keep your balustrade looking brand new for longer.

Note that although our products are relatively colour stable, there may be some initial lightening as the product naturally weathers over the first 8-10 weeks.

Your balustrade can be washed with soapy water and a soft-bristled brush, or with a power washer. We recommend using no more than 1500psi pressure. Spray in the direction of the grain and use a fan tip nozzle.

DIRT AND GRIME

Maintaining a clean, dry surface is the best method of combating dirt, grime and mildew build-up. Although our products are designed to inhibit mildew, stains can occur where moisture, pollen or dirt has built up.

SPOT STAINS

Most stains can be removed using household cleaners. Soak the affected area as soon as possible, then scrub and rinse.

For more stubborn stains, we recommend using a composite-specific cleaner.

For very set stains, sand lightly with coarse sandpaper (60-60 grit), always in the direction of the grain. Be careful not to sand away the grain effect.

Cleaned or sanded areas may appear lighter. 8-10 weeks of sun exposure should correct this.

Like any wood-based product, composite products can sometimes experience a natural process known as extractive bleeding (also known as tea staining). This can cause temporary discolouration that will fade over time.

SCRAPES AND SCRATCHES

Surface scratches and abrasions will fade with weathering. However, marks can be eliminated using a wire brush or coarse sandpaper (60-80 grit). Simply brush/sand in the direction of the grain until the mark has gone. The treated area will weather back in around 8-10 weeks.

PAINTING AND STAINING

We do not recommend painting or staining your balustrade.

However, it is possible for our products to be painted or stained.

Wait until the product has been weathered for 8-10 weeks to ensure you are working with the final colour.

Clean and dry the surface before applying any product.

Always follow manufacturer's instructions when applying paint or stain.

9. FAQs

Q. WHERE CAN I USE COMPOSITE BALUSTRADES?

A. Our balustrade ranges can be used in a variety of locations, both residential and commercial.

Q. WHAT COLOURS ARE AVAILABLE?

A. Our composite balustrade comes in a variety of colours. Visit our website or showroom to view the full range.

Q. WILL THE COLOUR FADE OVER TIME?

A. Our balustrade products will naturally lighten over the first 8-12 weeks and then will stabilize after this period.

Q. IS COMPOSITE BALUSTRADE WEATHER RESISTANT?

A. Our balustrade is designed to withstand all weather conditions with the correct installation methods.

Q. HOW DO YOUR PRODUCTS REACT WHEN EXPOSED TO WATER?

A. Our products are designed to take on very little water (c.1%). Our ranges have a much lower absorption rate than timber, which greatly reduces the likelihood of wet rot developing.

Q. DO YOU HAVE RECOMMENDED INSTALLERS I CAN USE?

A. We have an extensive network of recommended installers who we trust to bring your plans to reality.

We have chosen these installers for their high quality of work and professionalism, but as with any third party, we recommend that you follow your own precautions before entering into a contract with them.

Q. DOES THE BALUSTRADE REQUIRE TREATING?

A. Our products are already coloured so do not require painting or treatment at all.

Q. ANYTHING ELSE?

A. For any other technical, installation or care questions:

Call our technical team on **0115 684 8754**

Or email us at **info@selectlivinggroup.co.uk**