COMPOSITE SALES

PART OF THE PBSL GROUP

COMPOSITE BALUSTRADE INSTALLATION GUIDE

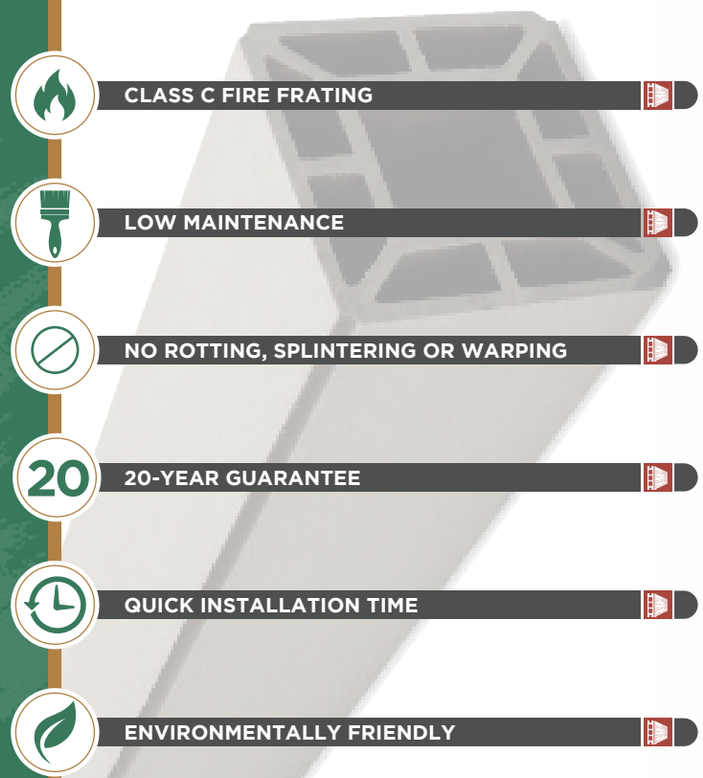
WELCOME TO

OUR INSTALLATION GUIDE

Our most versatile range of balustrades is designed to complement our composite decking range. Unlike their wood counterparts, composite decking balustrades are designed to be safe and sturdy. Moreover, they are both eco-friendly and stylish – the ideal finishing touch to any outdoor area.

Our balustrade system is made from a wood plastic composite, and is available in the following colours:

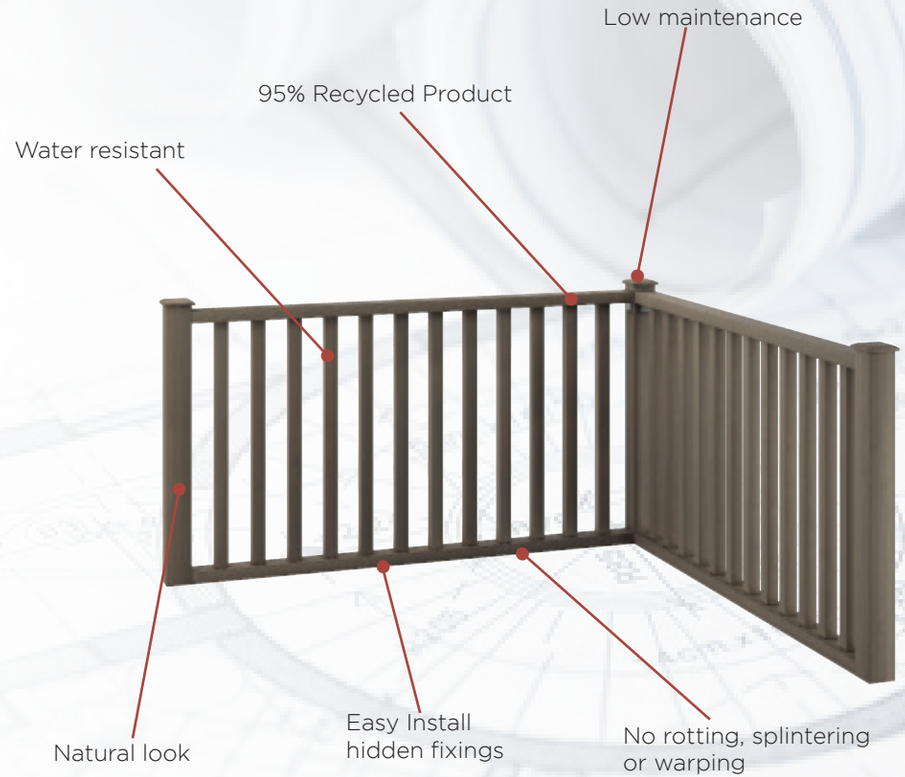
Charcoal / Graphite / Walnut / Ash / Autumn



- CLASS C FIRE FRATING
- LOW MAINTENANCE
- NO ROTTING, SPLINTERING OR WARPING
- 20-YEAR GUARANTEE
- QUICK INSTALLATION TIME
- ENVIRONMENTALLY FRIENDLY

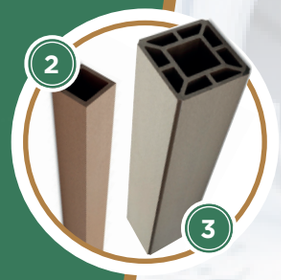
The Balustrade

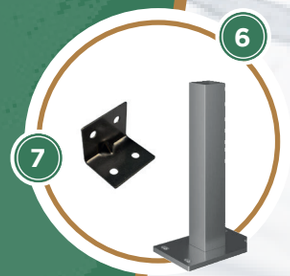
The organic timber effect of the posts and spindles keeps the clear and classic look of decking balustrades while the composite fibres and the latest technology guarantees there is no splitting, splintering, or rotting. This makes the balustrades a secure and durable option for any outdoor area.

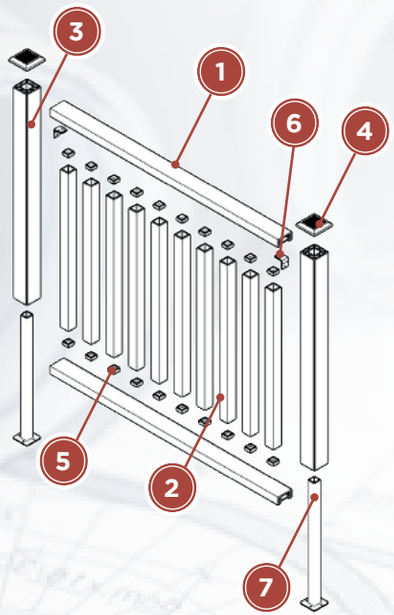


- Each balustrade is 1640 wide x 970mm high
- Please note that images are used for illustration purposes only. The actual product may slightly vary from the images supplied.

Components







1. Handrail -1640 x 93 x 45mm ECO09B
2. Spindle -900 x 54 x 54mm ECO11B
3. Newel Post -2400 x 95 x 95mm ECO07B
4. Post Cap - 115 x 115 x 50mm ECO10C
5. Spindle Inserts -37.5 x 37.5 x 15mm ECO09SI
6. Bolt Down Support -700 x 95 x 95mm ECO09BD
7. L-Brackets - 50 x 50 x 40mm ECO09LB

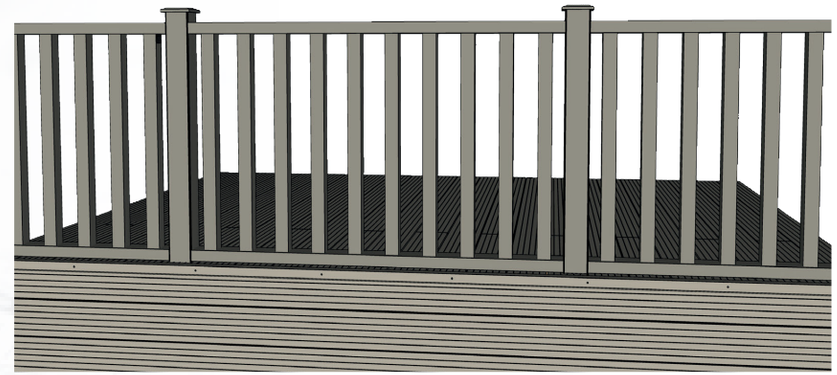
NB: You should consult a professional to ensure your installation complies with current building regulations for differences in level greater than 600mm.

Before you start

Whilst our composite materials are highly durable we do recommend you follow guidelines for storage and handling.

Materials should be stored under cover in shade, kept dry and protected from weather until ready to install. Products should not be stored outside and / or covered with plastic sheeting. All composite products should be stored supported off the ground at 500mm intervals on a flat surface.

Allow the composite fencing to acclimatise for a minimum of 3 days prior to installation.



Handling

Composite balustrades should be lifted and set down with care to avoid damage. Do not slide components over one another. When moving, avoid sliding or dragging any equipment across the components to prevent damaging the boards.

Safety

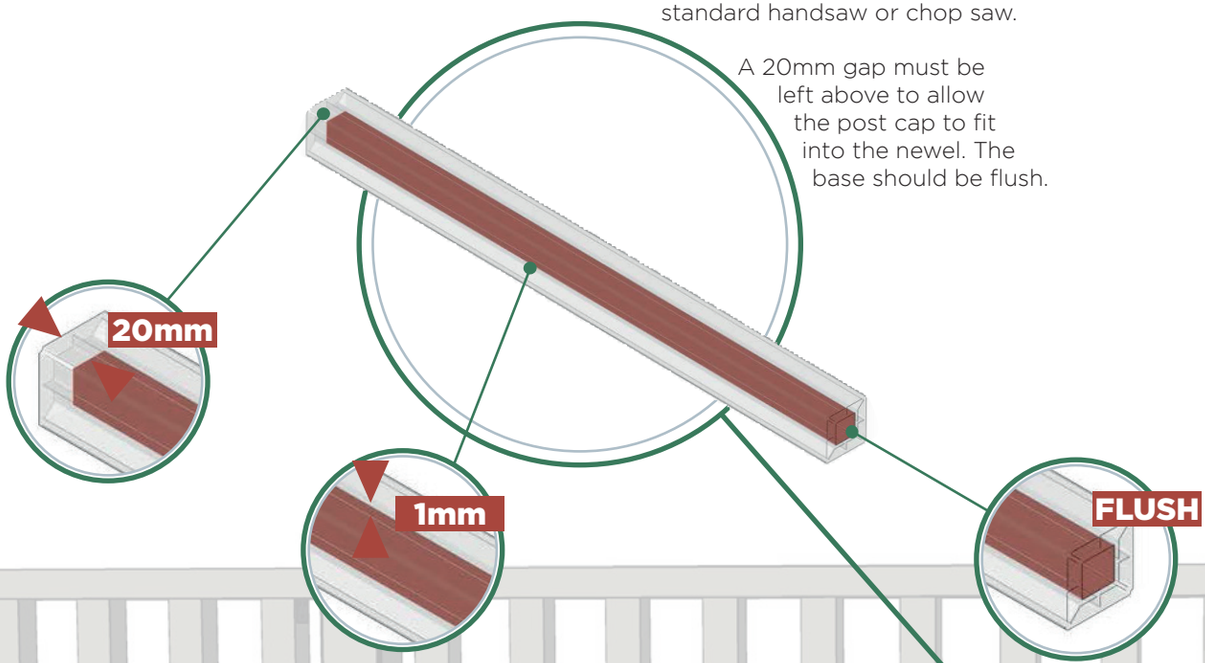
Personal protection equipment (PPE) should be worn at all times when installing composite balustrades.

We recommend to wear gloves, protective eye wear, and a dust mask.

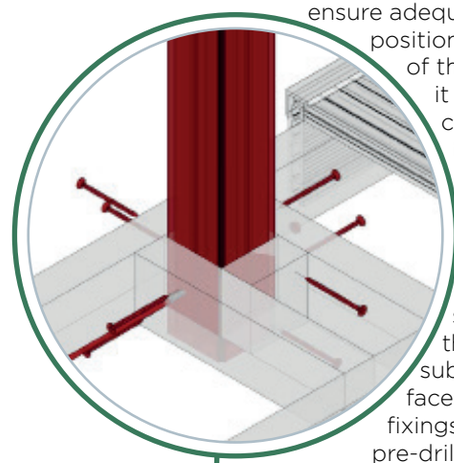
FITTING OPTION A
FIXING TO SUBSTRUCTURE

STEP 1a The newel post should first be cut to appropriate length, using a standard handsaw or chop saw.

A 20mm gap must be left above to allow the post cap to fit into the newel. The base should be flush.



STEP 2a When fixing newel to the decking substructure, the newel will need to be 'boxed in' using additional joist sections to ensure adequate support. Once in position, check the position of the newel, and check it is square. The newel can then be fixed to the substructure using an exterior grade M8 dome head coach bolt. Additional exterior screws should be fixed through the substructure into each face of the newel. All fixings should be pre-drilled to minimise risk of splitting.



Allow the composite balustrades to acclimatise for a minimum of 3 days prior to installation.

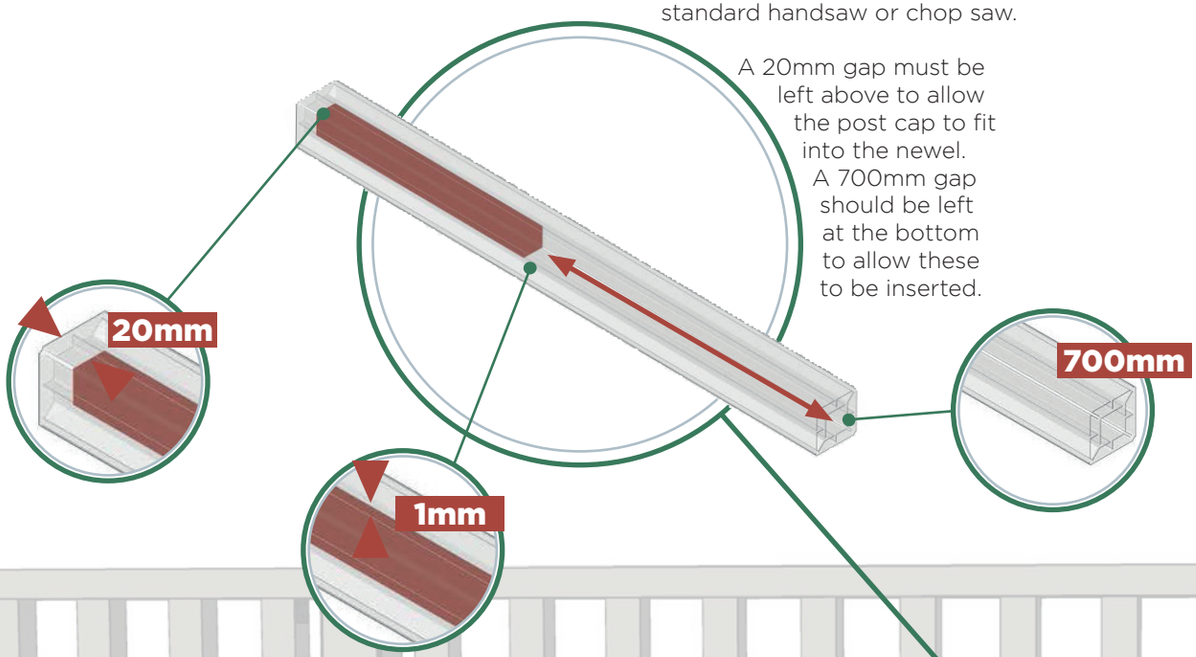
It is best practice to insert a piece of 44 x 44mm tanalised timber into the newel to ensure a strong, durable connection when fixing.

The timber insert should be planned to allow a minimum of 1mm expansion gap between timber insert and inner wall of newel post.

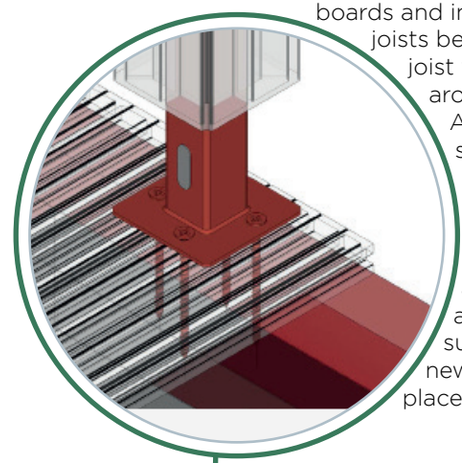
FITTING OPTION B
BOLT DOWN OPTION

STEP 1b The newel post should first be cut to appropriate length, using a standard handsaw or chop saw.

A 20mm gap must be left above to allow the post cap to fit into the newel. A 700mm gap should be left at the bottom to allow these to be inserted.



STEP 2b For this method, use exterior grade 7.5mm x 100mm masonry screws to fix the support through the decking boards and into the substructure joists below (a double joist will be required around the perimeter). All fixing holes should be pre-drilled to minimise risk of splitting. Before fitting the newel, a bead of flexible adhesive should be applied to the support to hold the newel securely in place.

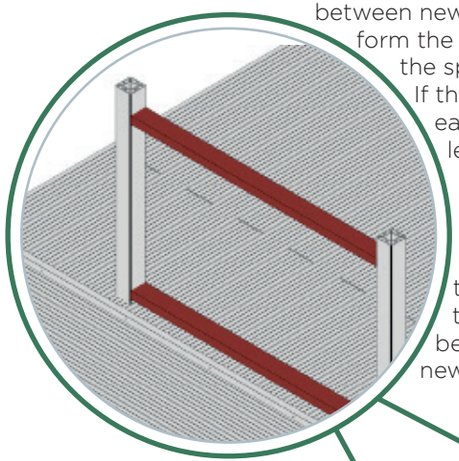


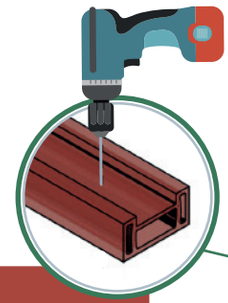
For a flush fit, the base of the newel can be filed, to miss the post support weld, as shown.

The bolt down support can also be used to fit balustrade directly on to masonry, using suitable fixings for your particular substrate.

STEP 3 Composite balustrade handrail should be used to form both a top handrail and a bottom rail. These sit between newel posts and form the frame to hold the spindles.

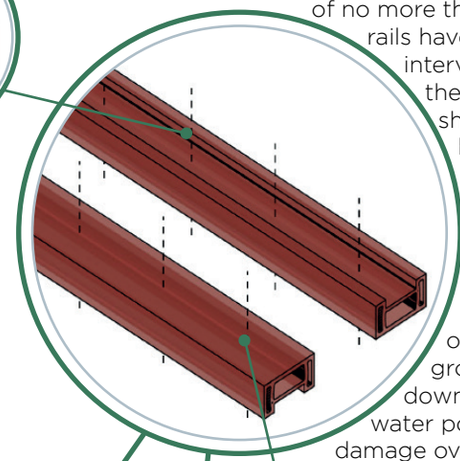
If the gap between each newel post is less than 1640mm, it will be necessary to cut the top and bottom handrail to size, to ensure they fit exactly between the newel posts.

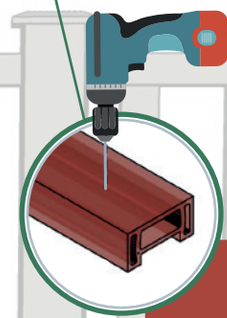




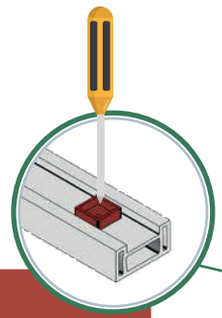
Top handrail. Pre-drill spindle & Insert pilot holes to grooved side

STEP 4 Mark the spindle and insert positions on top and bottom handrail. Spindles should be spaced equally between newel posts and placed at centres of no more than 99mm. Once the hand rails have been cut and preferred interval has been chosen, the position of each spindle should be marked on the handrail. Corresponding pilot holes for spindle inserts can then be drilled at the centrepoint of each spindle, ready for fixing. Ensure that both top and bottom rails are oriented to have the grooved side facing downward. This helps to avoid water pooling, which could cause damage over time.





Bottom rail. Pre-drill spindle & Insert pilot holes to flat side.



Top handrail.
Spindle Inserts to grooved side

STEP 5 Spindle inserts can now be screwed into the top handrail using a good quality 3.5 x 25mm exterior grade screw. Ensure spindle inserts are fitted square, as they will determine the orientation of the spindles.

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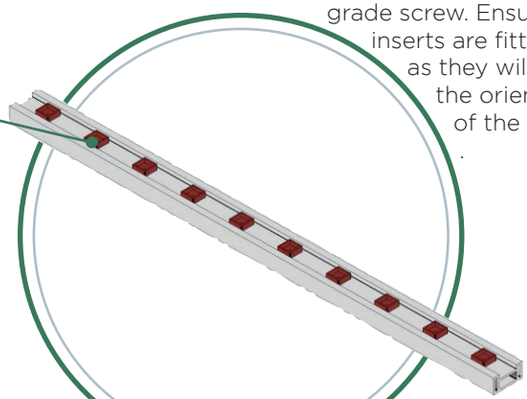


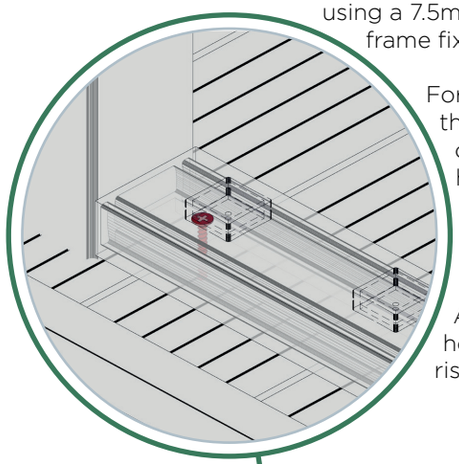
Best practise:

All screws should have pilot holes pre-drilled to minimise the risk of splitting

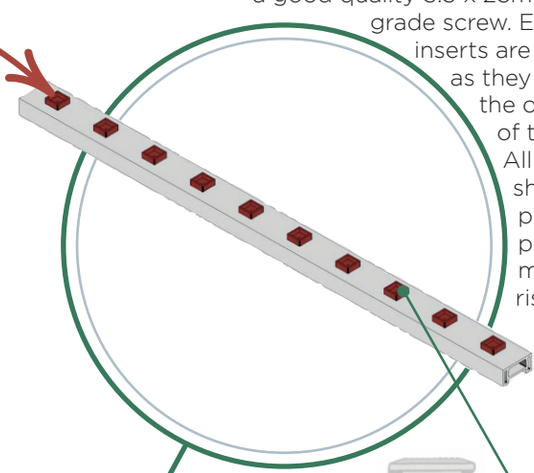
STEP 6a Before spindle inserts are fixed, the bottom handrail should be screwed down to the substructure through the deck using a 7.5mm x 100mm masonry frame fixing screw, or similar.

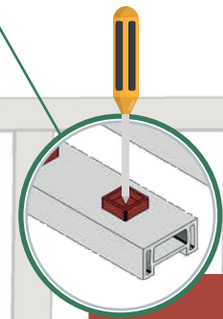
For best visual effect, the fixing screw should be countersunk into the handrail, in such a position that it will be hidden by spindle insert, once this is in place.

All screws should have pilot holes pre-drilled to minimise risk of splitting.



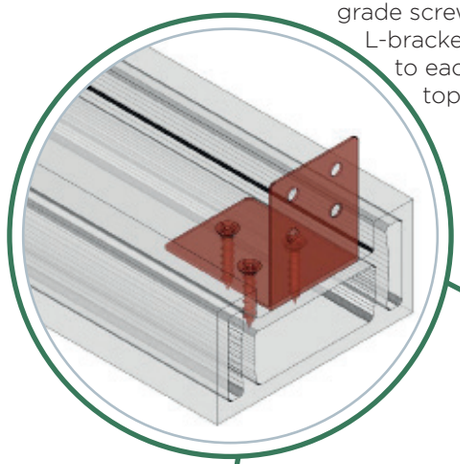
STEP 6b Spindle inserts can now be screwed into the bottom rail using a good quality 3.5 x 25mm exterior grade screw. Ensure spindle inserts are fitted square, as they will determine the orientation of the spindles. All screws should have pilot holes pre-drilled to minimise the risk of splitting.





Bottom rail.
Spindle Inserts to flat side

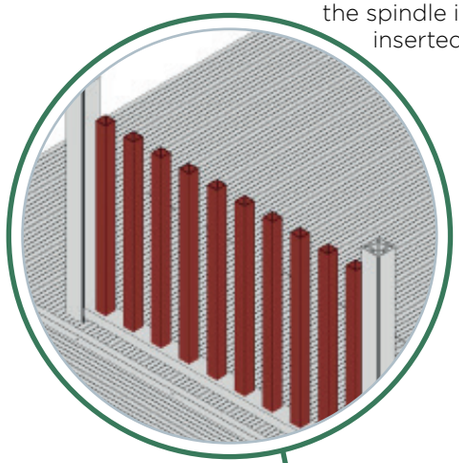
STEP 7 L-Bracket should be positioned horizontally with the end of the handrail, and fixed using a 3.5 x 25mm exterior grade screw. Repeat the L-bracket installation to each end of the top handrail.



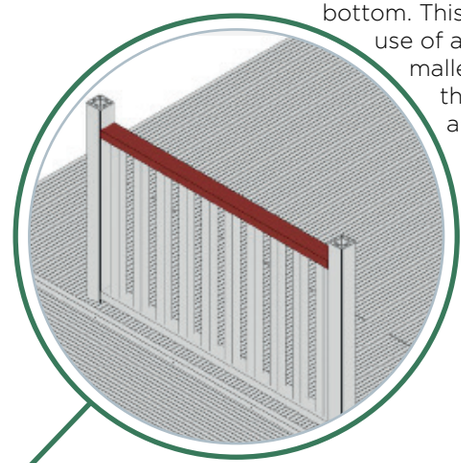
Best practise:

All screws should have pilot holes pre-drilled to minimise the risk of splitting

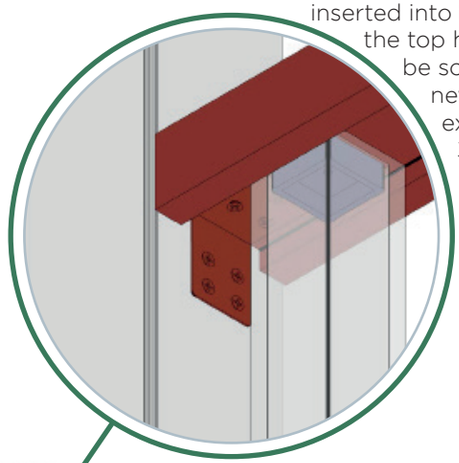
STEP 8 Push spindles onto the lower spindle inserts. This may require the use of a non-marking mallet, to ensure the spindle inserts are fully inserted into the spindles.



STEP 9 Push the top handrail onto the spindles. Ensure spindle inserts are fully inserted into the spindles at the top and bottom. This may require the use of a non-marking mallet, to ensure the spindle inserts are fully inserted into the spindles.

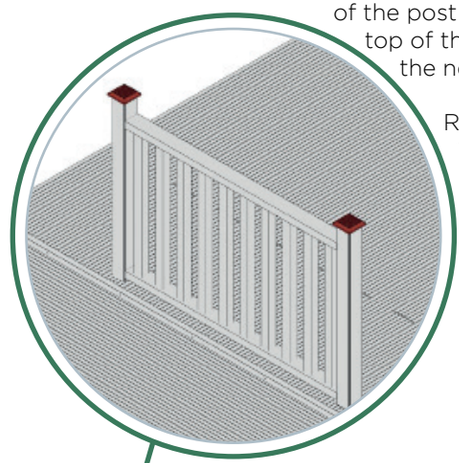


STEP 10 Once the top handrail is in position, and both the top and bottom spindle inserts are fully inserted into the spindles, the top handrail should be screwed to the newel post using exterior grade 3.5 x 25mm screws.



STEP 11 Finally, a post cap can be fitted to each newel post. Simply push the block on the lower portion of the post cap into the top of the recess in the newel post.

Repeat steps 1-9 for each section until the balustrade is complete.



Installation complete!