



fitting instructions



**axxys® dek** is a contemporary range of decking products designed to inspire.

Available in two fabulous styles, **axxys® dek** breaks down the rigid boundary between your indoor and outdoor spaces and combines them to create a complete living environment.



**classic dek** is a range of traditional decking components that offer a value for money introduction to our outdoor portfolio.

Elegant spindles in a choice of styles can blend perfectly with our sunrise and cross-hatch panels to form your very first decking feature or the basis of a grand expansion to your current outdoor living area.

# axxys® dek™ fitting instructions

**axxys® dek™** is manufactured to precise tolerances but, as timber is a natural product, some distortion, expansion and shrinkage may occur.

We recommend that you store the pieces in dry conditions until you are ready to install your **axxys® dek™**. The timber parts can swell if they get wet, which may cause problems when attempting to fit the metal parts.

If timber components (i.e. universal rails, balusters and newels) are slightly oversized, gently sand or shave the timber until a tight fit is achieved, being careful only to sand or shave the section that will be concealed by the metal or plastic connector.

Alternatively, if the timber component is slightly undersized, the tolerance can be taken up by using a gap filling adhesive.

If the rails are tight they may need to be eased.

- The maximum recommended length of rail between posts is 2400mm.
- The space between the balusters should be no more than 95mm.

## Fixing the newel posts

The newel posts can be fixed to either the inside or the outside of the deck frame. When fitting to the inside use 100mm landscape screws and ensure that the two faces of the post can be secured through two joists at 90° if possible.

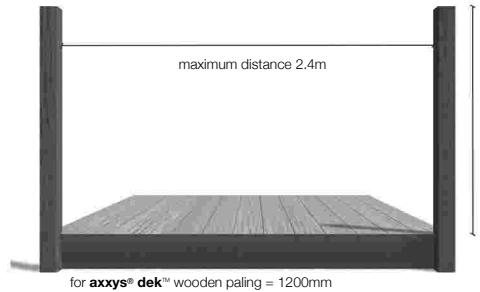
Posts that are fixed to the side of the deck frame should be half lapped or rebated if in the corner.

The newel posts should be fixed vertically in line with the top of the post at 1200mm above the deck board (see figure 1). Please ensure the newel posts are fixed securely.

## Fixing the rail brackets and rails

Take the measurements between the newel posts. Cut the universal hand and baserail to length taking off

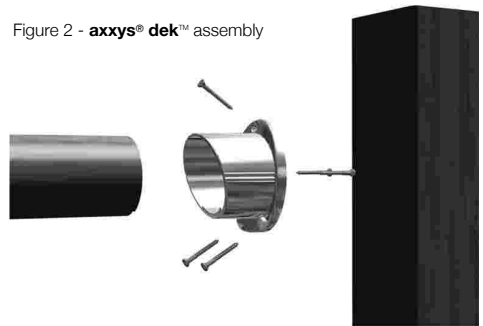
Figure 1 - **axxys® dek™** assembly



34mm to allow for the brackets. For example, if the space between the posts is 1800mm cut the rail to 1766mm to allow for the **axxys® dek™** rail brackets.

Slide the **axxys® dek™** rail bracket onto the rail and fix with the two screws provided from the back of the bracket (see figure 2) for assembly drawing.

Figure 2 - **axxys® dek™** assembly



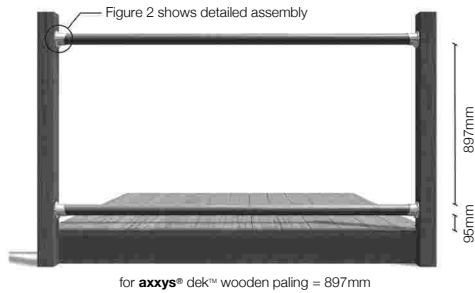
Fix one bracket to either end of the universal hand rail and baserail, bearing in mind there are top brackets for the handrail and bottom brackets for the baserail. Brackets must be pushed all the way onto the rail.

The rails are now ready to be fitted onto the newel. Firstly fix the bottom rail in place, this should be 95mm above the deck board (see figure 3).

Check the level of the rail and fix securely in place (see assembly drawing, figure 2).

# axxys® dek™ fitting instructions

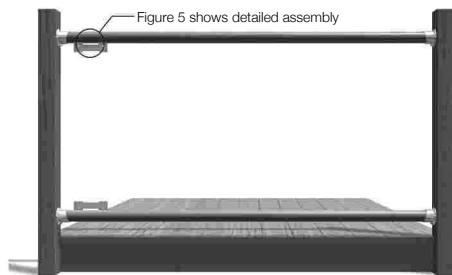
Figure 3 - **axxys® dek™** assembly



Assemble the **axxys® dek™** baluster loosely using both brackets as a guide and place at one end of the bottom rail making sure the brackets fit in the profile. Place the top rail onto the baluster and fix the top rail into position at one end. Repeat at the other end (see figure 5, disassemble the baluster).

## Fitting the timber balusters

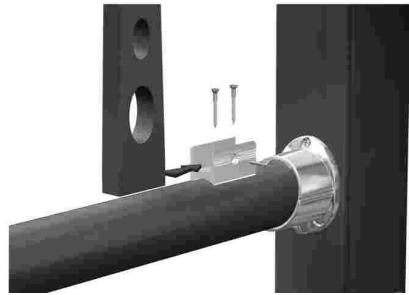
Figure 4 - **axxys® dek™** assembly



The timber baluster brackets fit into the **axxys®** profile and are secured with the two screws provided (see assembly drawing figures 4 and 5). Attach one bracket to the handrail (top) and one to the baserail (bottom).

To work out how many balusters you require, divide the distance between the newels by 140mm. For example,  $1680 / 150 = 12$  balusters. The balusters should be spaced equally, making sure the baluster brackets, top and bottom, are parallel to each other (see figure 4).

Figure 5 - **axxys® dek™** assembly wooden paling

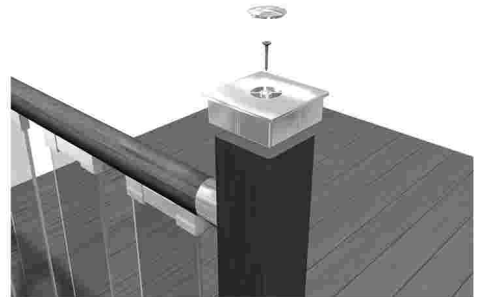


Once the pair of baluster brackets are fixed, slide the timber baluster into position from the side (see figure 5) and then fix securely with the screw provided. If the balusters are a tight fit they may need easing (see paragraph 1).

## Fixing **axxys® dek™** the newel cap

Slide the deck newel cap onto the deck post and secure with the screw provided (see figure 6). Finally, fix the button onto the deck caps to complete your stylish **axxys® dek™**.

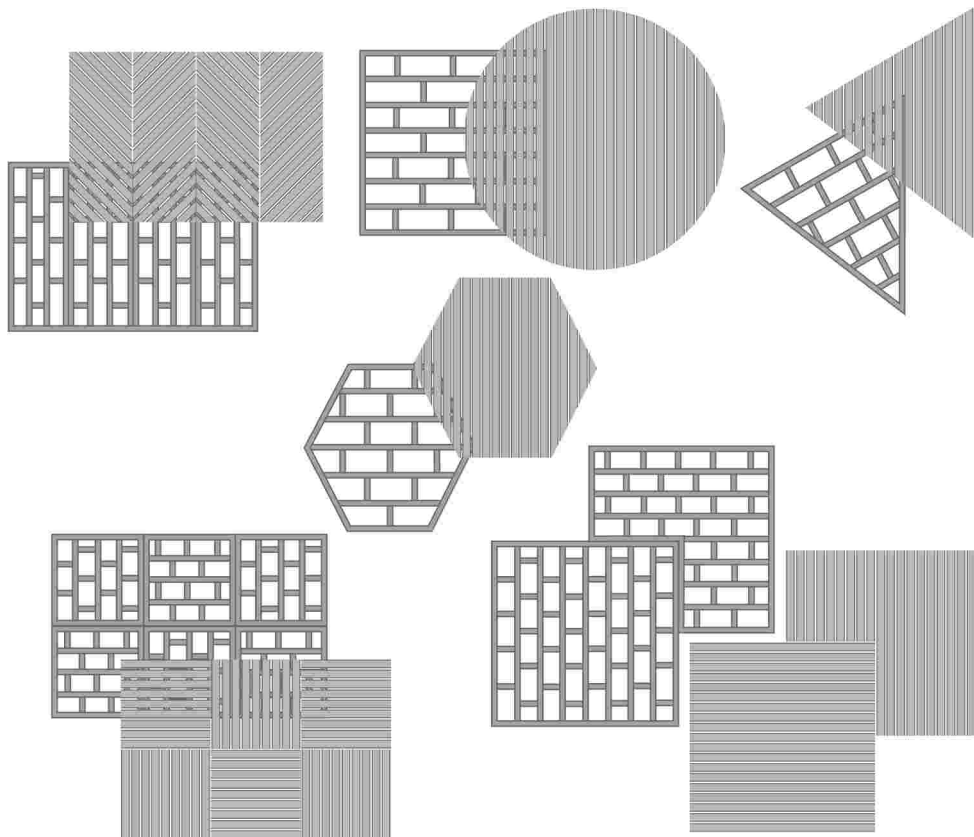
Figure 6 - **axxys® dek™** assembly



# classic dek™ ideas for building timber deck

Depending upon the final shape of your deck and the final pattern of deck boards you want to create, the frame of your deck will need to be carefully planned so that the interior joists will support the deck board design. Various deck design options are shown here and you will see that double

joists may be required to accommodate some deck board patterns. Also note the use of noggins between the interior joists that will strengthen the whole frame structure. Noggins can be made with short off cuts of the joist material.



# classic dek™ fitting instructions

## Step 1 - Before you get started

Check the depth and position of any underground pipes, cables or services under the proposed deck and allow access to any manhole covers or inspection chambers.

Consider the size and use of the deck. If it is to be used for dining, there needs to be plenty of room for tables and chairs.

Decking products are designed to be used on decks upto 600mm high. An elevated deck needs to be designed so that it is capable of taking the expected loading. If in doubt, seek professional advice.

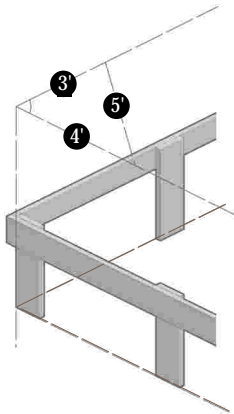
Consult a structural engineer or builder for high level decks over 600mm.

Check with your local Planning Office as to whether planning permission is required for your proposed deck. In most cases planning permission is not required for domestic decks unless the deck is within 20 metres of a road or exceeds 3 metres in height above ground level. If for non-domestic use, such as a hotel or pub, it is advisable to check with your local Planning Office.

## Step 2 - Building the subframe

Check there are no drainage problems in your area where you plan to build your deck. The deck design must maximise airflow through and around the construction to ensure good ventilation.

Mark out the site accurately and ensure it is square following the diagram below.



Decks can be free standing or attached to the side of a house. When attached to a house the finished deck level must be at least two brick courses below the damp proof course. If this is not practical, a gap must be left

between the house and deck to aid drainage. A ledger board is bolted to the wall and used to carry and support the joists. This can be done by using a 47mm x 150mm timber joist. The ledger board must be 10mm from the wall to ensure sufficient drainage.

Do not lay ground level decks directly onto grass. Remove all turf and cover the ground with permeable membrane or polythene (with holes pierced) and then gravel to prevent any weeds growing. Lay the framing on concrete paving slabs bedded into position or on an existing level concrete area.

For elevated decks 100mm x 100mm x 1200mm timber structural posts should be used, positioned no more than 1800mm apart. At least half the length of the post should be sunk into the ground and fixed with concrete.



# classic dek™ fitting instructions

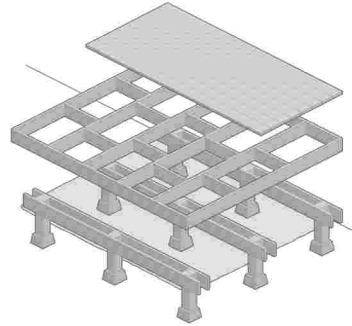
## Step 2 - Building the subframe

Beams are attached to the posts using 150mm landscape screws and the joist frame is fixed to the beams by skew nailing or screwing.

The frame is constructed from 47mm x 150mm joist timbers.

Joists should be fixed at 400mm centres for maximum support, using 100mm landscape screws, galvanised nails or joist hangers.

Noggins (offcuts of joist) are used to prevent the joists from twisting or buckling. These are attached at 90° to the joist in a staggered manner at 1200mm centres.



## Step 3 - Installing your timber accessories

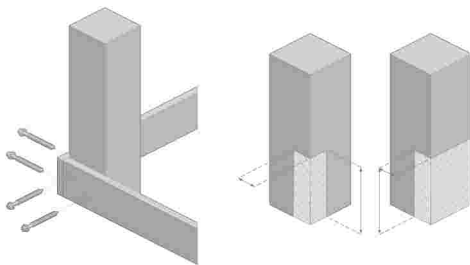
### Points to remember

The maximum recommended length of rails between posts is 2400mm.

The space between spindles must not allow a 100mm ball to pass through.

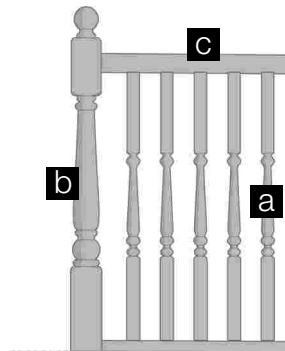
Newel posts can be fixed to either the inside or outside of the frame. When fitting to the inside, use 100mm landscape screws and ensure that two faces of the post can be secured through two joists at 90° if possible.

Posts that are fixed to the side of the deck should be half lapped or rebated when on a corner.



### Turned / Square / Stop Chamfered Range

Turned spindles (a), square spindles (not shown), stop chamfered spindles (not shown), turned newel (b), universal rail (c) and deck rail bolt (not shown).



The versatile universal rail can be utilised as both a top rail and bottom rail.

Determine the height of the universal rail in relation to the turned newel post.

# classic dek™ fitting instructions

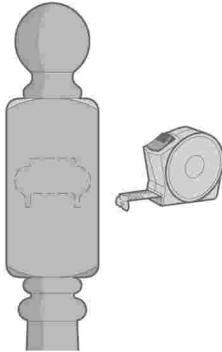
## Step 3 - Installing your timber accessories

Mark and drill all remaining posts in exactly the same way and fix inserts into position.

To determine the finished deck board level, measure 900mm from the top of the stencilled higher handrail, and mark a line on all four faces of the post.

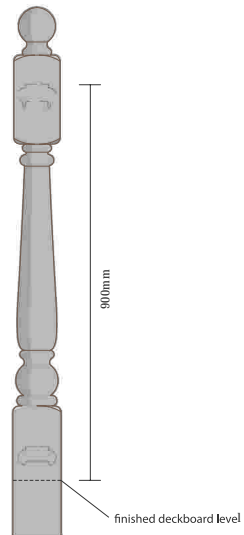
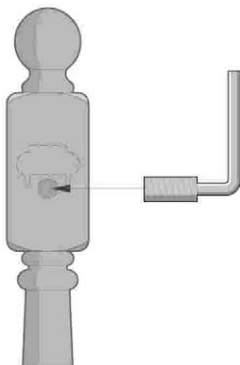
In order to mark the position on the bottom rail, measure up 75mm from the deck board level. Again, a small piece of rail should be utilised to mark out the profile onto the newel post.

The spindles can now be fitted to the handrails. Make sure you leave enough room for the metal angle bracket of the deck rail bolt at each end.



Using a 22mm flat bit, drill the post to a depth of 10mm.

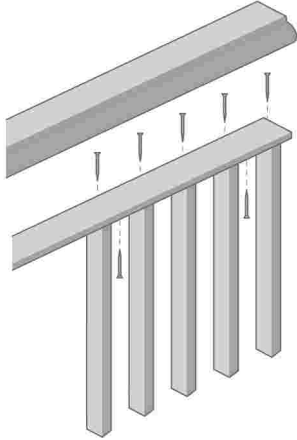
Using a 10mm drill bit, drill down the centre of the 22mm hole to a total depth of 30mm. Using a 8mm hexagonal key, screw the metal insert into the 10mm hole.



# classic dek™ fitting instructions

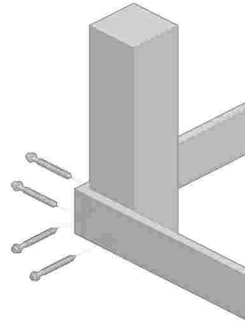
## Step 3 - Installing your timber accessories

When using the universal rail, spindles are attached to the bottom rail and fillet before attaching to the handrail and bottom rail to the newel posts.



In order to attach the fillet to the handrail securely, you should fix it every 3rd or 4th spindle with 40mm screws.

You should now have a complete panel of posts, rails and balustrading that can be attached to the joist framework using 100mm landscape screws. Ideally, fix the newels so that two faces of the post can be secured through two joists at 90°.



To determine the length of spindle needed, use a small section of fillet, insert into the top rail and place against the stencilled profile on the newel post. From the fillet measure down to the bottom stencilled profile and this will give you the length of spindle required. Once you have cut the spindle to the required length, attach them to the bottom rail by using 75mm screws.

The spindles are attached to the fillet by using a 50mm screw and screwing down through the fillet into the end of the spindle.

Spindles should be spaced appropriately giving a maximum gap between spindles of 100mm.

Bolt the metal angle bracket of the deck rail bolt to the insert.

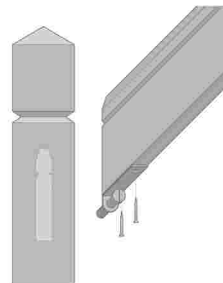
You should now be able to fix the spindles and universal bottom rail to the universal top rail. Then attach the handrails on to the newel posts by using the deck rail bolt.

### Chamfered Range

Chamfered spindles (a), patrice newel (b), rail (c) and deck rail bolt (not shown).

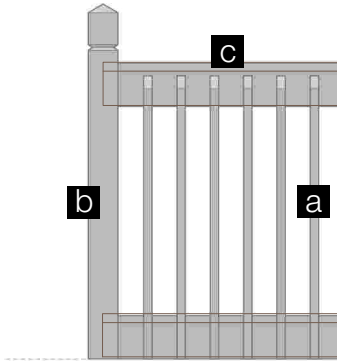
Determine the height of the rail in relation to the patrice newel.

To make this job easier, use a small portion of rail and mark out the profile onto the newel post using a pencil.

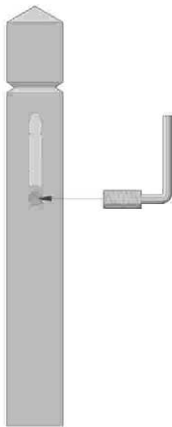


# classic dek™ fitting instructions

## Step 3 - Installing your timber accessories



To determine the finished deck board level, measure 900mm from the top of the stencilled higher handrail, and mark a line on all four faces of the post.



In order to mark the position on the bottom rail, measure up 75mm from the deck board level. Again, a small piece of rail should be utilised to mark out the profile onto the newel post.

In order to mark the position on the bottom rail, measure up 75mm from the deck board level. Again, a small piece of rail should be utilised to mark out the profile onto the newel post.

All other patrice newels and rails should be marked in the same way.

You now need to prepare the newel for the deck rail bolt. Place the metal angle bracket of the deck rail bolt underneath the template of the rail you have drawn. Mark with a pencil. This is where the bolt will be drilled.

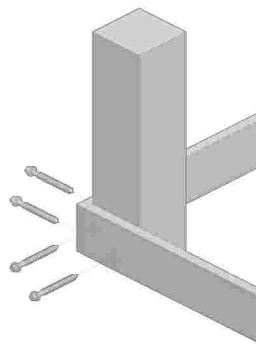
Using a 22mm flat bit, drill the post to a depth of 10mm.

Using a 10mm drill bit, drill down the centre of the 22mm hole to a total depth of 30mm. Using an 8mm hexagonal key, screw the metal insert into the 10mm hole.

Mark and drill all remaining patrice newels in exactly the same way and fix inserts into position.

The chamfered spindles can now be cut to length and attached to the rail using 40mm screws.

Balusters should be spaced at approximately 125mm centres giving a maximum gap between spindles of 100mm.



# classic dek™ fitting instructions

## Step 3 - Installing your timber accessories

You should now have a complete panel of posts, rails and balustrading that can be attached to the joist framework using 100mm landscape screws. Ideally, fix the newels so that two faces of the post can be secured through two joists at 90°.

Using the stencil lines you have already marked on the bottom of the patrice newels, set the panel 75mm above the finished deck board level.

Bolt the metal angle bracket to the post with the bolt provided.

Installation of the deck boards can now commence.

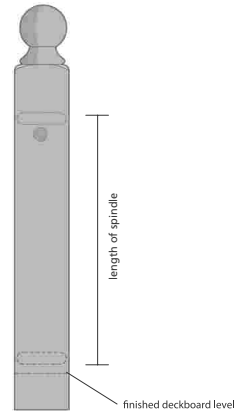
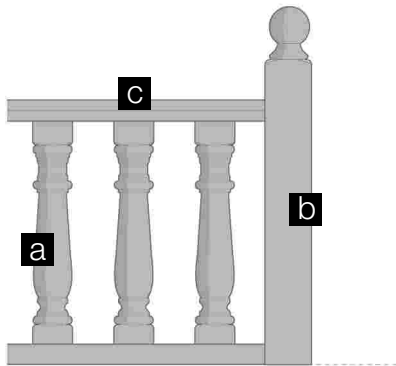


Figure 1

### Roman Range

Roman column (a), Roman newel (b), Roman rail (c).



Three rails are used when building the Roman column range. The first as a bottom rail, the second as a top rail, and the third is used to conceal screw heads. When marking out the rail profile onto the newel post, stencil two rails on top of each other (figure 2).

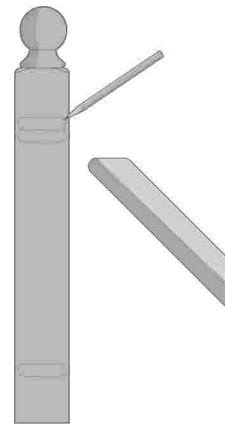


Figure 2

The deck bolt is used to fix the lower of the top two rails to the Roman newel (figure 3).

To determine the finished deck board level, measure the length of the column from the top of the stencilled higher handrail, and mark a line on all four faces of the post.

# classic dek™ fitting instructions

## Step 3 - Installing your timber accessories

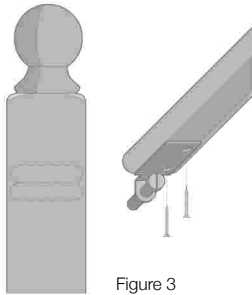


Figure 3

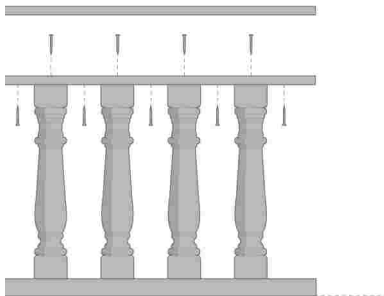
In order to mark the position on the bottom rail, measure up 75mm from the deck board level. Again, a small piece of rail should be utilised to mark out the profile onto the newel post.

All other Roman newel posts and rails should be marked this way.

You now need to prepare the newel for the deck rail bolt. Using the template you have drawn on the post, measure down 12mm from the bottom of the lower rail template. Using a 22mm flat bit, drill the post to a depth of 10mm.

Using a 10mm drill bit, drill down the centre of the 22mm hole to a total depth of 30mm. Using a 8mm hexagonal key, screw the metal insert into the 10mm hole.

All other Roman newel posts and rails should be marked in the same way.



The spindles can now be fitted to the handrails. Make sure you leave enough room for the metal angle bracket at each end.

Use 63mm screws to fix the Roman columns to the Roman rail.

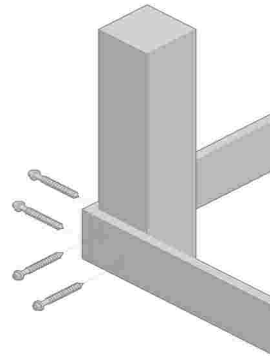
Columns should be spaced at approximately 185mm centres giving a maximum gap between spindles of 100mm.

Bolt the metal angle bracket to the insert with the bolt provided.

Place the rails in position and fix with screws provided.

The concealing, third handrail can now be fixed from underneath to the top handrail by using 40mm screws.

You should now have a complete panel of posts, rails and balustrading that can be attached to the joist framework using 100mm landscape screws. Ideally, fix the newels so that two faces of the post can be secured through two joists at 90°.



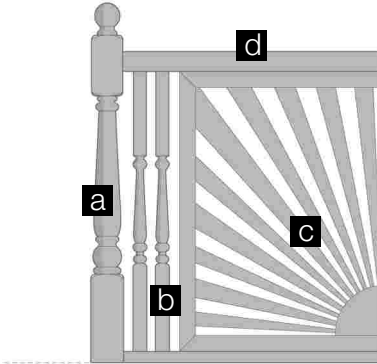
Using the stencil lines you have already marked on the bottom of the Roman newels, set the panel 75mm above the finished deckboard level. Installation of the deckboards can now commence.

# classic dek™ fitting instructions

## Step 3 - Installing your timber accessories

### Panels

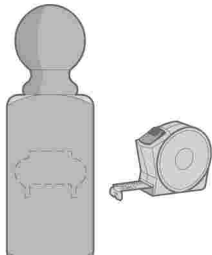
Turned newel (a), turned spindle (b), sunrise panel (c), universal rail (d), crossed panel (not shown).



All panels and spindles are fixed using the universal rail and can be used with any of the posts or newels. The panels can also be used in combination with spindles or by themselves.

Remember that the gap between the panels, posts, spindles and balusters should not allow the passage of a 100mm sphere. Panels should be assembled to rails and posts on a clean flat surface such as a garage floor and fixed to joists as a complete unit.

The versatile universal rail can be utilised as both a top rail and bottom rail.

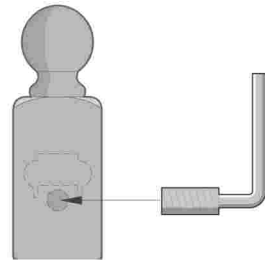


Determine the height of the universal rail in relation to the turned newel post.

To make this job easier, use a small portion of rail and mark out the profile onto the newel post using a pencil.

You now need to prepare the newel for the deck rail bolt. Using the template you have drawn on the post, measure down 12mm from the bottom of the lower rail template.

Using a 22mm flat bit, drill the post to a depth of 10mm.



Using a 10mm drill bit, drill down the centre of the 22mm hole to a total depth of 30mm. Using an 8mm hexagonal key, screw the metal insert into the 10mm hole.

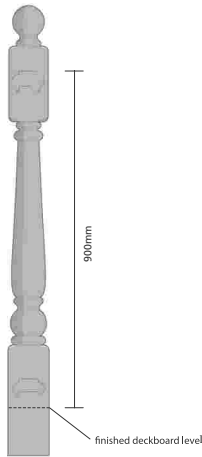
Mark and drill all remaining posts in exactly the same way and fix inserts into position.

To determine the finished deck board level, measure 900mm from the top of the stencilled higher handrail, and mark a line on all four faces of the post.

In order to mark the position on the bottom rail, measure up 75mm from the deck board level. Again, a small piece of rail should be utilised to mark out the profile onto the newel post.

# classic dek™ fitting instructions

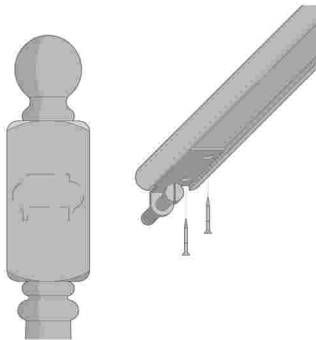
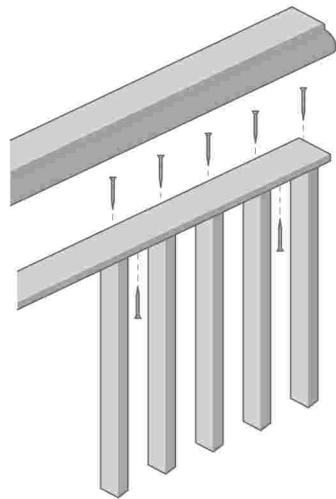
## Step 3 - Installing your timber accessories



profile on the newel post. From the fillet measure down to the bottom stencilled profile and this will give you the length of spindle required. Once you have cut the spindle to the required length, attach them to the bottom rail by using 75mm screws.

The panels spindles are attached to the fillet by using a 50mm screw and screwing down through the fillet into the end of the panel/spindle.

The panels and spindles can now be fitted to the handrails. Make sure you leave enough room for the metal angle bracket at each end.



When using the universal rail, the panels and spindles are attached to the bottom rail and fillet before attaching the handrail and bottom rail to the newel posts.

To determine the length of spindle needed, use a small section of fillet, insert into the top rail and place against the stencilled

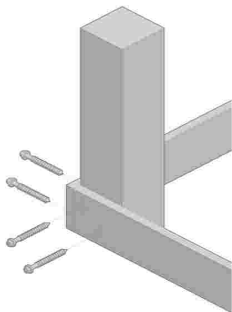
Bolt the metal angle bracket to the insert with the bolt provided.

You should now be able to fix the spindles and universal bottom rail to the universal top rail. Then attach the handrails onto the newel posts by using the deck rail bolt.

In order to attach the fillet to the handrail securely, you should fix it every 3rd or 4th spindle with 40mm screws.

# classic dek™ fitting instructions

## Step 3 - Installing your timber accessories



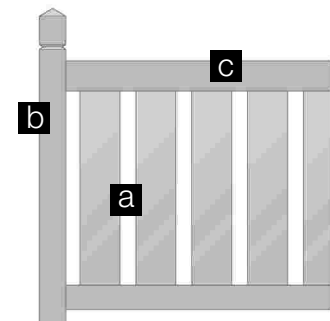
You should now have a complete panel of posts, rails and balustrading that can be attached to the joist framework using 100mm landscape screws. Ideally, fix the newels so that two faces of the post can be secured through two joints at 90°.

Note - when using a combination of spindles with timber panels always set and mark out the post to the pre-set length of the timber panel first and then cut the spindles to suit.

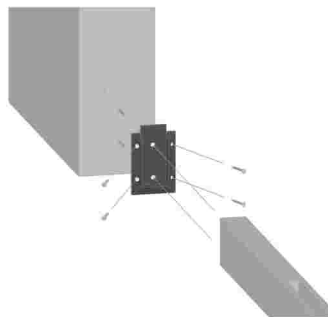
### Clearview Range

Clear spindles (a), patrice newel (b), clearview rail (c).

Clear balusters are fixed using Clearview rails and can be used with patrice, or square newels.

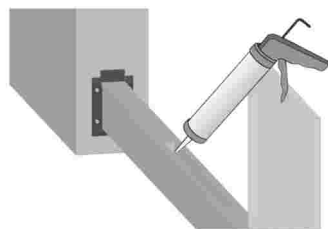


Determine the height of the clearview rail in relation to the newel post. To make the job easier, use the clearview bracket and mark out the height onto the newel post at both the top and the bottom using a pencil.



The Clearview glass rail is fixed to the newel post using the Clearview basket. Firstly cut the rail to the determined length, screw a bracket to either end of the rail, using the rail at the determined height and screw to the newel. Fix the bottom rail first.

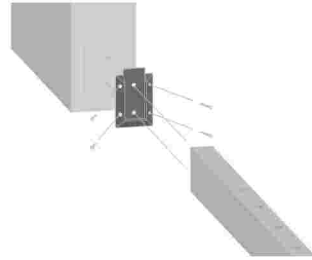
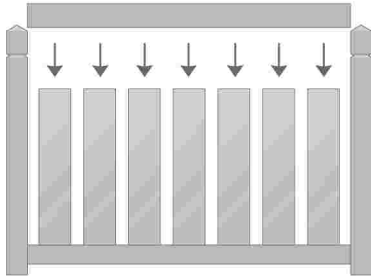
It's now time to insert the glass spindles. The Clearview rail is pre-slotted to ease installation. Before placing the spindles into the rail it is recommended that you squeeze a small amount of silicone into the slots to secure the baluster position. Place the baluster into the slots and silicone around the edge to prevent rainwater from getting into the slot. Wipe away excess.



# classic dek™ fitting instructions

## Step 3 - Installing your timber accessories

Once all the balusters are in position, the top rail can be fixed.



The Clearview metal rail is fixed to the newel post using the Clearview bracket. Firstly cut the rail to the determined length, screw a Clearview bracket to either end of the rail using the screws provided. Place the rail at the determined height and fix to the newel. Fix the bottom Clearview rail first.

### Metal Range

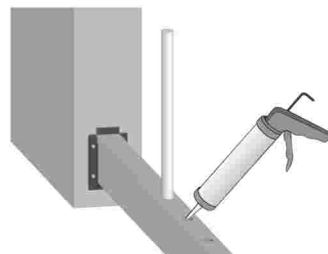
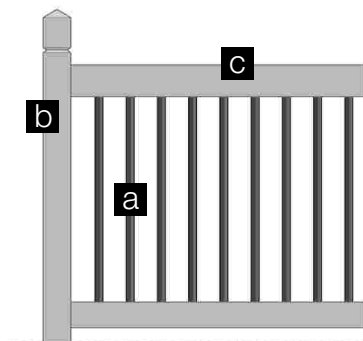
Metal baluster (a), patrice newel (b), metal rail (c).

Timber metal baluster are fixed using metal L rails and can be used with patrice, or square newels.

Determine the height of the Clearview metal rail in relation to the newel post. To make the job easier, use the Clearview bracket and mark out the height onto the newel post at both the top and the bottom using a pencil.

Place the bottom rail in position and fix with screws provided.

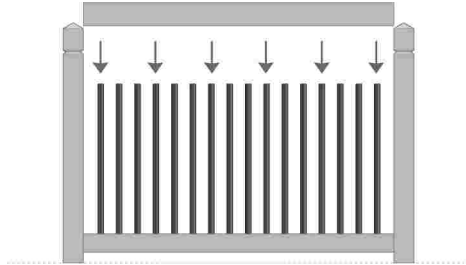
It's now time to insert the metal spindles. The metal rail is pre-drilled to ease installation. Before placing the spindles into the rail it is recommended that you squeeze a small amount of silicone into the drill holeS to secure the spindles position. Place the spindles into the drill holes and silicone around the edge to prevent rainwater from getting into the drill holes. Wipe away excess.



# classic dek™ fitting instructions

## Step 3 - Installing your timber accessories

Once all the spindles are in position, the top rail can be fixed.



## Step 4 - Three and five step installation

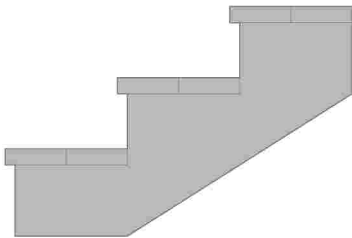
Ensure that you measure the height and space in front of your deck as this will influence the quantity of steps and risers you will need.

In order to attach your stair strings securely position them at right angles to the deck, and at centres of no more than 400mm.

Galvanised brackets or joist hangers can be used to fix the steps to the joists.

Make use of deck board offcuts by using them as step treads, with an overhang of 30mm on each step.

The step treads are fixed to the strings by using 75mm screws.



# classic dek™ fitting instructions

## Step 5 - Maintaining your timber deck

All fixings should be checked and tightened where necessary.

Decks should be cleaned on a regular basis, either by simply brushing the deck using a long bristled brush and ensuring that the gaps between components are also cleaned, or by using a power washer for a more thorough cleaning.

NB - power washing should not be carried out until all joists and connections have been checked and tightened. Avoid excessive pressure and keep water volumes to a minimum.

Specialist deck cleaning solutions are available and can be useful on heavily stained or weathered decks but should not be necessary if the deck has been maintained regularly.

If the underside of the deck is accessible, remove any debris and check the position and integrity of weed control arrangements.

Your deck will benefit from an annual treatment of water repellent to protect it.

Colour stains can be applied to your deck. A suitable exterior, solvent based product should be used.

## The best protection for your decking timbers

All our decking timbers are pressure treated within our treatment facilities with Tanalith E - the latest generation wood preservative. The resulting Tanalised E treated components are fully protected against all forms of wood decay and insect attack, helping to ensure a long and low maintenance service life.

The treated timber is initially pale green in colour, weathering to a honey brown and eventually to a silver grey. Tanalised E pressure treated timber does not need to be painted or stained to maintain this preservative protection, although a decorative coating can be added, if desired.

Any timber surface exposed by cross cutting, drilling, notching or boring must be brushed with ENSELE® end-grain preservative to maintain the integrity of the treatment.



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