



DecoDeck®

Installation Guide

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Introduction

Performance

As part of Deco's commitment to compliant building products, the DecoDeck® system has been designed to meet Australia's stringent building standards. The DecoDeck® range has been tested to and passed the following standards.

Certifications

All testing has been done using the detail provided in this installation guide and in order to claim the performances set out here within, the detail in this guide must be followed. The testing body for the following standards is CSIRO.

Description/Standard

- Combustibility test for materials - AS1530.1/CSIRO
- Determination of ignitability, flame propagation, heat release and smoke release - AS/NZ1530.3/CSIRO
- Heat and smoke release rates for materials - AS3837/CSIRO
- Slip resistance test on pedestrian surface materials - Wet Pendulum Slip Resistance Test, Class: P4 - AS4586-2013/SLIP CHECK

DecoDeck® is also compliant with:

- NCC Non-Combustible building elements. (C2D10 (6)(e) Non-Combustible building elements)
- AS3959:2018 Construction of building in bushfire-prone areas

BAL 40 / BAL FZ Decking* : The gap between Decking Boards must be enclosed to comply with the requirements of a BAL 40 / BAL FZ rating.

Deco provides Cover Strips (DC-DK106) to enclose the deck. Without covering the gaps, DecoDeck® can be used in areas up to BAL 29.

NOTE: Decking Cover Strips are required to be slid in from an open end. To do this, the deck must be installed with the boards running out from a wall with a free end.

Suggested Installation Tools

Screw/Rivet



Metal Support – colour-matched Pop Rivets or self drilling TEK screws

Wood Support – counter sunk screws with stem caps



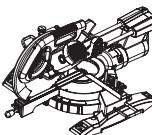
Sealant/Adhesive

Deco recommends the use of high quality sealants and adhesives.



Impact Driver

A high-quality Impact Driver with an appropriate driver bit is recommended for fixing all extrusions to the building structure.



Mitre Saw

A high-quality Mitre Saw equipped with an aluminium cutting blade is recommended for cutting the boards to length and trimming the board ends.

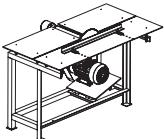
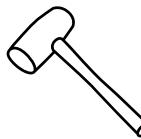


Table Saw

A high-quality Table Saw is recommended for ripping the final (top) board to the correct dimension for finishing of the installation.



Rubber Mallet

A Rubber Mallet is required for installing End Caps and Cover Strip accessories.

Preparation

Useable Extrusion Length

All DecoDeck® boards and accessories are supplied in 6.5m lengths. As part of the manufacturing process, the first 10mm of both ends of the extrusion are taped and not imaged, therefore each board will need to be trimmed by 25mm on each end to remove the tape and provide a clean finish. After the removal of each end, the useable length of each board is 6.45m.

Processing of DecoDeck®

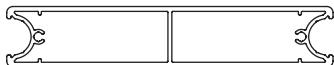
WARNING - When handling DecoDeck® products, care should be taken and appropriate Personal Protective Equipment should be worn at all times. Failure to do so risks potential serious injury, disablement or death. It is also important that the work space is clean and free from dust, sawdust, metal fines and/or shavings. Processing of the Decking Boards in areas with excessive dust, sawdust, metal fines and/or shavings risks potential damage to the finished surface.

Structure/Sub-Framing and Fixing

To ensure the finished deck is stable and safe, all framing should be constructed from steel or timber according to the requirements of the NCC and relevant standards, and all joists must be located at a maximum of 600mm centres.

Before installing any DecoDeck® products the supporting structure should be assessed to ensure that it is structurally sound and able to support the loads of the DecoDeck® products that are to be installed. Deco recommends that users contact a certified engineer to assess the supporting structure and fixings required when installing DecoDeck®, especially in high-risk areas.

DecoDeck® Profiles

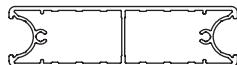


Decking Board 134mm x 25mm

DC-DK201

Coverage: 0.903m² / 6.45m Board

Weight: 1.898kg/m



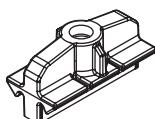
Decking Board 94mm x 25mm

DC-DK101

Coverage: 0.645m² / 6.45m Board

Weight: 1.240kg/m

DecoDeck® Accessories



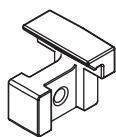
Deck Fixing Connector (DC-DK102)

The Deck Fixing Connector locks and aligns adjoining Decking Boards.



32 x 20 x 1.6 Angle (DC-ANG3220)

Angles are used to cover the ripped boards, or the side/edges of the Decking Boards as a finishing option (optional).



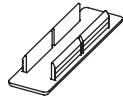
Wall Starting Connector (DC-DK103)

The Wall Starting Connector allows the decking system to start next to a wall/building.



32 x 25 x 3 Channel (DC-DKCH)

Using a Channel is an option for finishing the edge of the Decking Boards (optional).



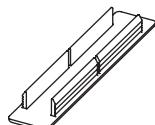
94mm Decking End Cap (DC-DK105)

Aluminium End Caps provide an aesthetic finish at the end of the Decking Board, making it look like a timber board. Deco can colour-match End Caps to the desired finish.



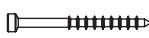
Fixing Screws - Metal (DC-DK114)

30mm Self Tapping Square Drive Metal Screws.



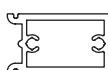
134mm Decking End Cap (DC-DK205)

Aluminium End Caps provide an aesthetic finish at the end of the Decking Board, making it look like a timber board. Deco can colour-match End Caps to the desired finish.



Fixing Screws - Wood (DC-DK104)

40mm Square Drive Wood Screws.



Deck Joiner 300mm (PC-DKIJC)

The Deck Joiner joins Decking Boards end to end for a seamless finish, while at the same time creating a strong structure for the decking (powder coated in black).



#2 Square Drive Bit (DC-DK107)

2 x 75mm Square Drive Bit with a narrow shaft. It is highly recommended this bit be used to avoid scuffing the boards which can be caused by other bits.



Cover Strip/Insert (DC-DK106)

Cover Strips are designed for two purposes: for covering the edge of the decking or for installation between Decking Boards, covering the gap and allowing the deck to be compliant with requirements for BAL 40 / BAL FZ (Flame zone). Deco can colour-match Cover Strips.



Pop Rivet (DC-PR01)

Colour-matched Pop Rivets provide an aesthetic finish for a Channel or Angle.



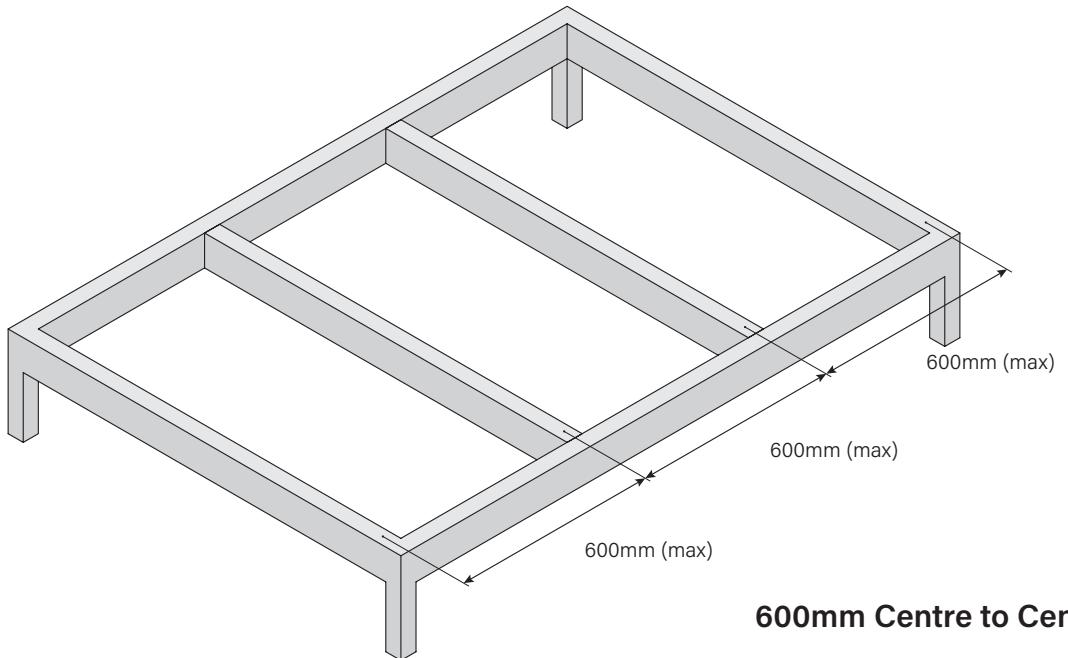
DecoDeck®

DecoDeck® Installation

Structure/Sub-Framing and Fixing

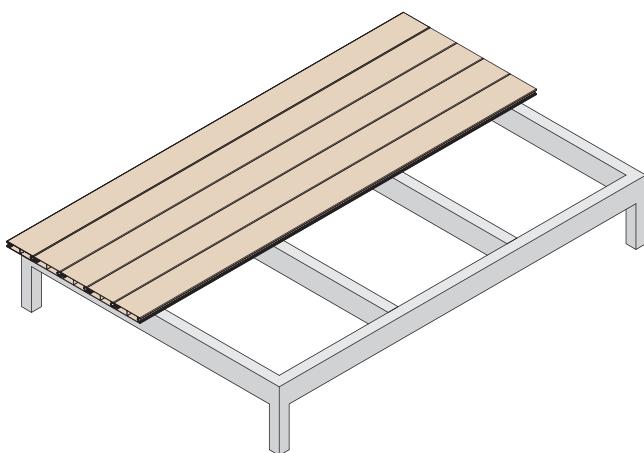
To ensure the finished deck is stable and safe, all framing should be constructed from NCC compliant material with relevant standards and all joists must be located at a maximum of 600mm centres.

Before installing any DecoDeck® products the supporting structure should be assessed to ensure that it is structurally sound and able to support the loads of the DecoDeck® products that are to be installed. Deco recommends that users contact a certified engineer to assess the supporting structure and fixings required when installing DecoDeck®, especially in high-risk areas.

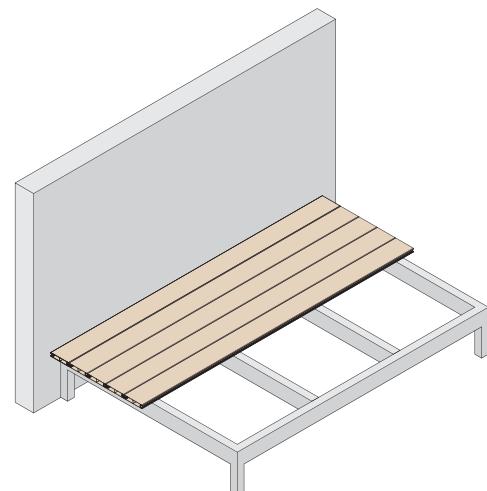


Determine Decking Layout

Below are two common layouts for your decking system: Option A - Exposed End and Option B - Enclosed End. Each option involves slightly different installation methods and different accessories. Please determine the appropriate option for the installation.



Option A - Exposed End



Option B - Enclosed End

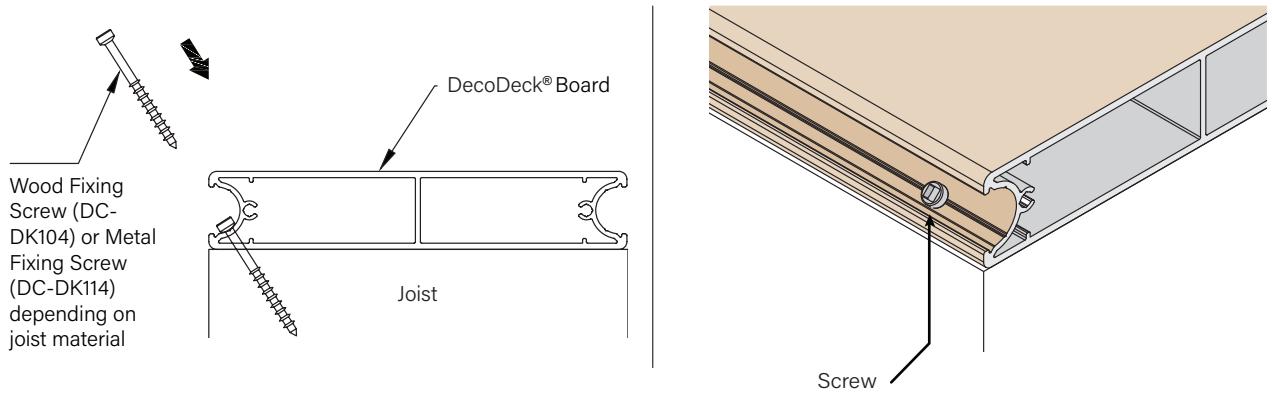
1

Starting Options

Option A involves starting the deck without connecting it to a building. Option B involves attaching the Decking Board to a building behind it. Please Note: For Option A, please skip to Step 3 after completing Step 1.

Option A - Exposed End

- 1) Determine the correct position for your board
- 2) Hold the board in place, using the v-groove as a guideline, pre-drill the board and the joist
- 3) Screw fix the board into place



Option B - Enclosed End

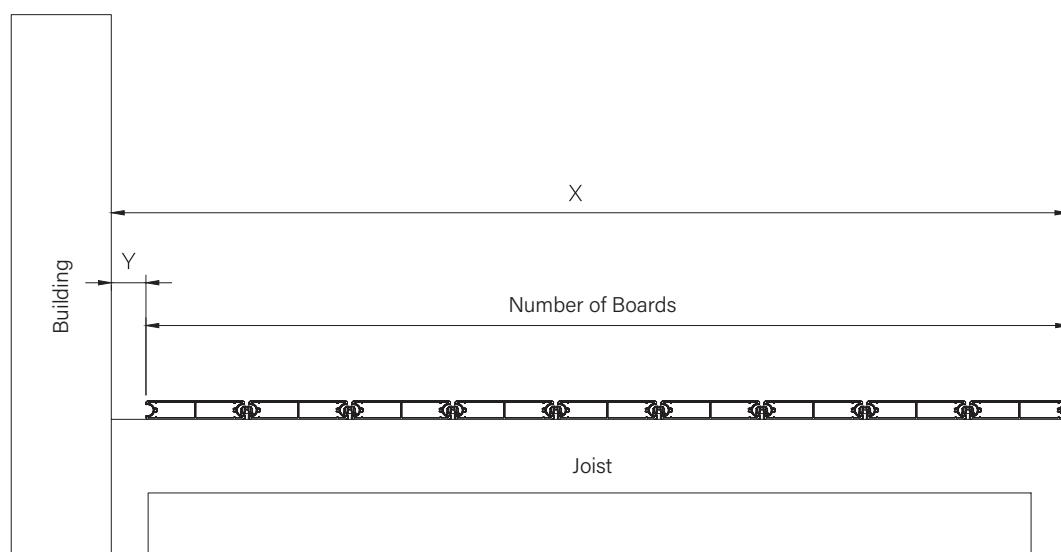
When building a deck adjoining a wall, the overall size of the deck should be measured in order to determine the starting location and the number of boards required. Measure the deck dimension (X) and divide it by 100 or 140 (depending on the board width that has been selected) to determine the number of full board widths required. Once you have determined the number of full board widths required, the remaining dimension ($Y = X - \{No. \text{ of full board widths} \times [100 \text{ or } 140]\}$) can then be addressed by:

- 1) Using a standard size section (25 x 25, 25 x 30, 25 x 40, 25 x 50 ect.) to ensure that the install finishes with a full board.

OR

- 2) Using an Angle to cover up the ripped board next to the wall.

If the dimension X allows you to fit in an exact number of full boards go with Option B1, otherwise go to Option B2 or B3.

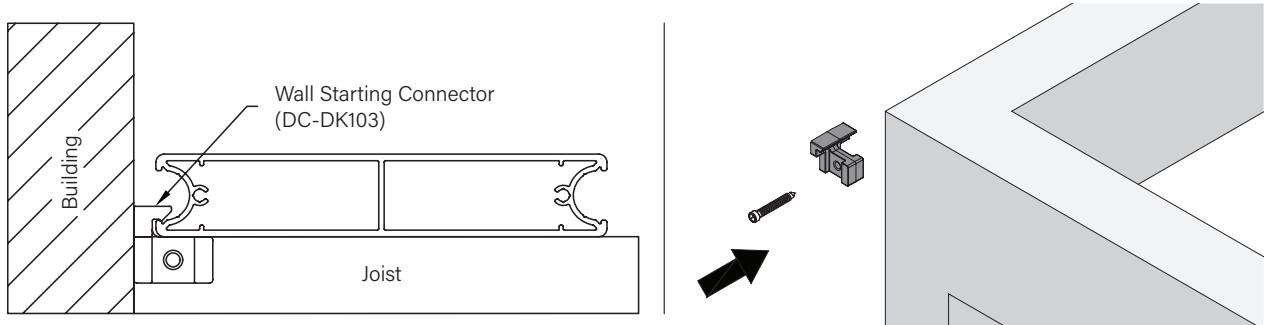


$$Y = X - \{No. \text{ of full board widths} \times [100 \text{ or } 140]\}$$

DecoDeck® Installation

Option B1

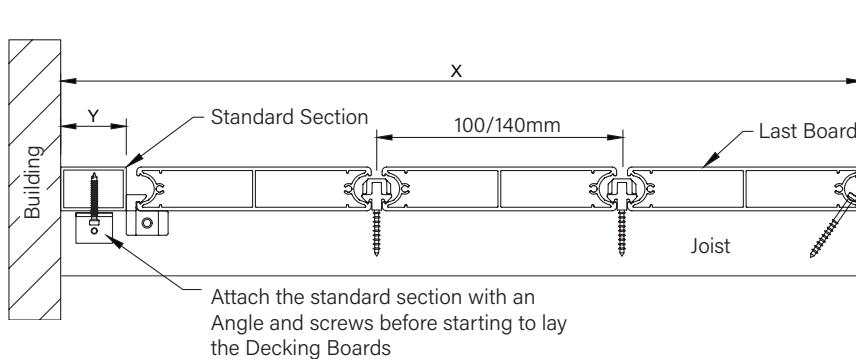
- 1) Position the Wall Starting Connector (DC-DK103) by pushing it against the wall and the joist
- 2) Screw fix it toward the joist from the side



Isometric View

Option B2

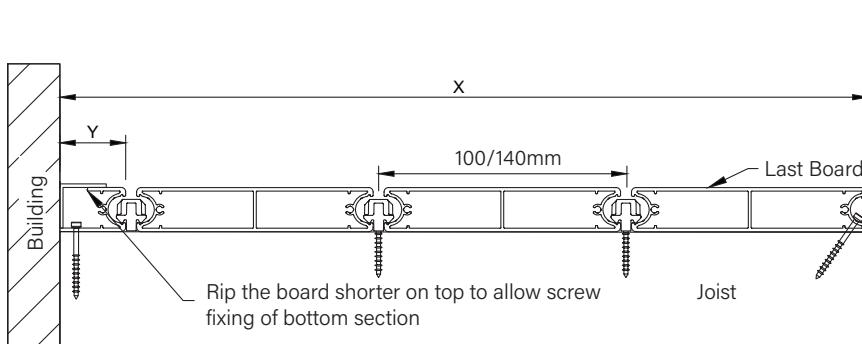
- 1) Cut the standard section to length and position it in place
- 2) Position the Angle from the bottom and screw fix toward the joist and the section
- 3) Position the Wall Starting Connector (DC-DK103) by pushing it against the standard section and the joist
- 4) Lastly, screw fix the Wall Starting Connector from the side



Bottom View

Option B3

- 1) Rip the board to length according to dimension Y
- 2) Rip the board shorter on top and screw fix the bottom section (see DETAIL B3)
- 3) Apply adhesive and position the Angle in desired location
- 4) Give constant pressure downward until adhesive is set



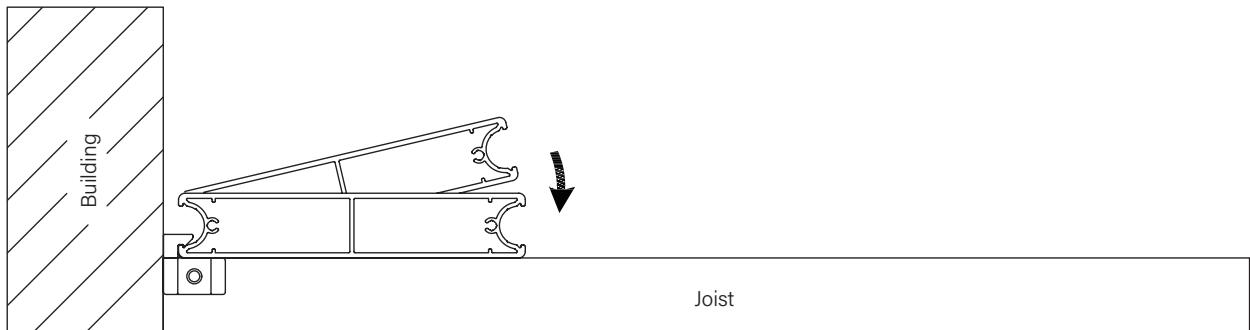
Isometric View

DecoDeck® Installation

2

First Board

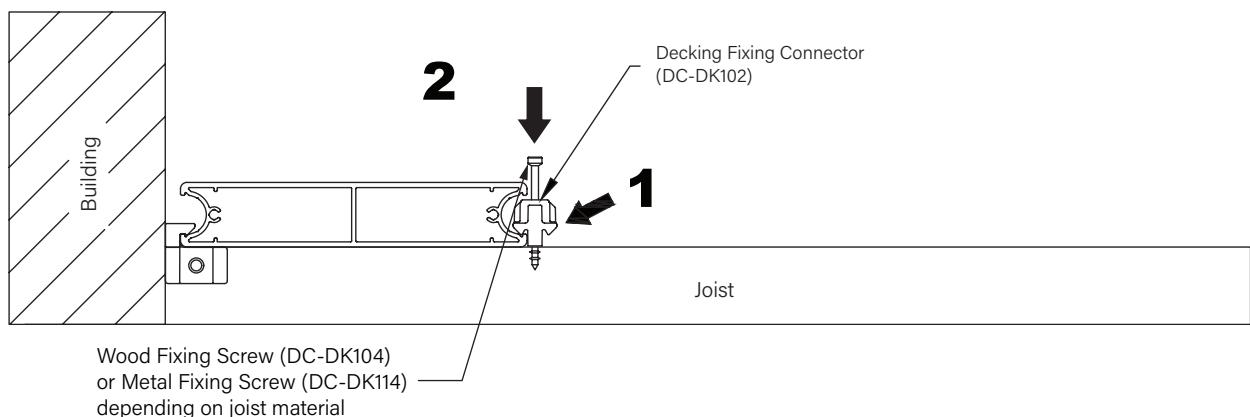
Cut DecoDeck® board to required length and clip the first board to the Wall Starting Connector (DC-DK103). **Please Note:** It may require light tapping with a rubber mallet to install.



3

Pre-Fix Decking Board

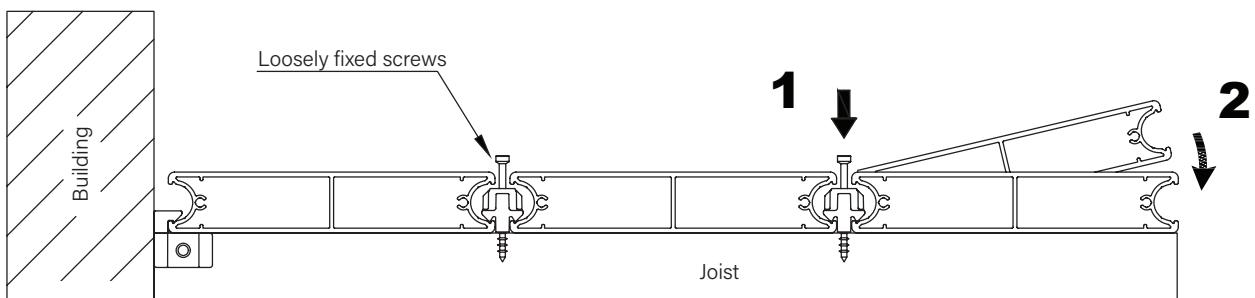
Attach Decking Fixing Connectors (DC-DK102) to the joist. Loosely fix into the joist. (This allows minor adjustment on the overall position at the end of the installation process).



4

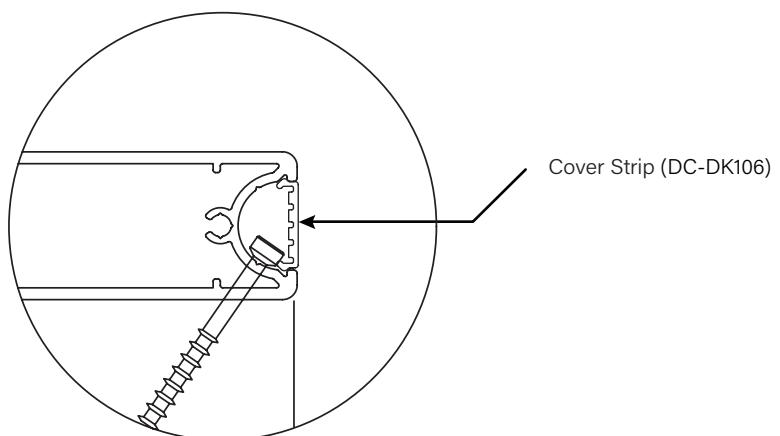
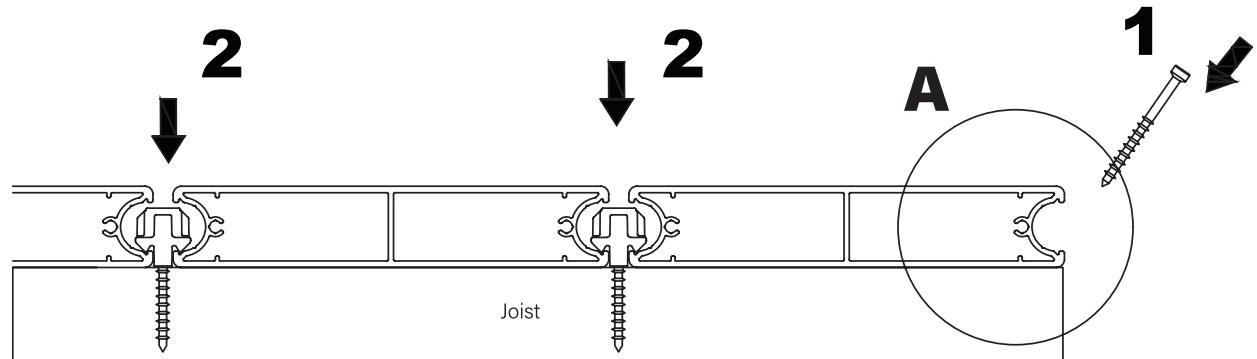
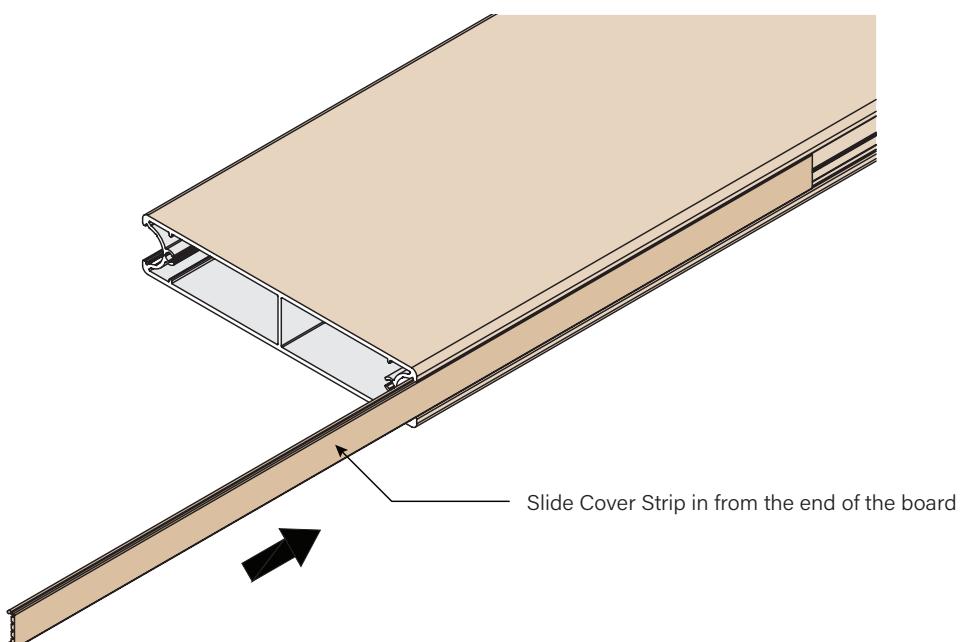
Install Additional DecoDeck® Boards

Repeat Steps 2 to 3 until all Decking Boards are installed, except the last Decking Board.



5**Finish the Decking Board**

For an open end finish, pre-drill Ø2.5mm at approximately 45 degrees into the Decking Board using the v-groove as a guide and fix the Wood Fixing Screw (DC-DK104) or Metal Fixing Screw (DC-DK114) through the hole into the joist. Slide in a Cover Strip (DC-DK106) to the edge of the Decking Board (See DETAIL A). Lastly, tighten off all the screws after all the Decking Boards have been adjusted into position (such as evenly spaced etc).

**Detail A**



Additional Details

Decking Edge Finishing Options

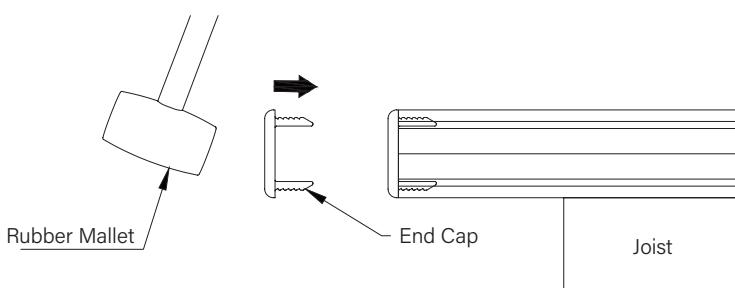
Deco offers three ways to finish DecoDeck® boards. All components can be colour-matched to your Decking Boards.

End Caps: Press fit the End Caps into the end of the Decking Boards; light tapping with rubber mallet may be required.

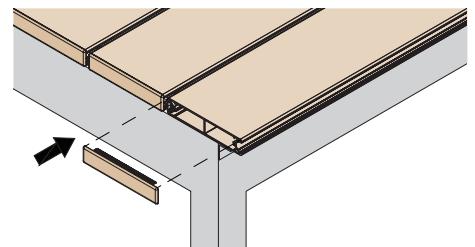
Channel: Position the Channel to the correct location, using colour-matched Pop Rivets to fix at the top/bottom or screw fix from the bottom of the boards (depending on application).

Angle: Position the Angle to the correct location, using colour-matched Pop Rivets to fix it at the top of the Angle.

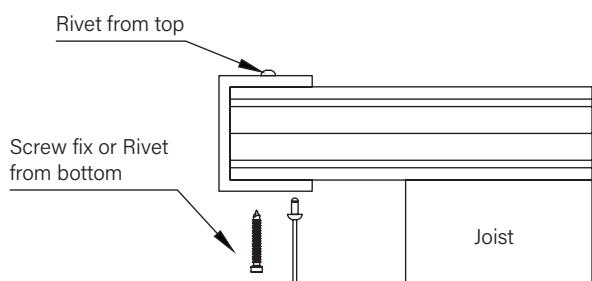
End Cap (DC-DK105/205)



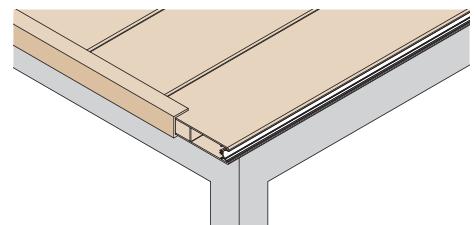
Please Note: May require light tapping with rubber mallet to install



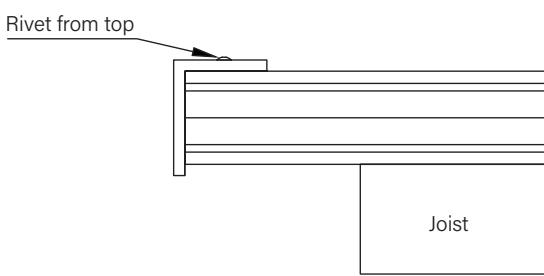
Channel 32mm x 25mm x 3mm (DC-DKCH)



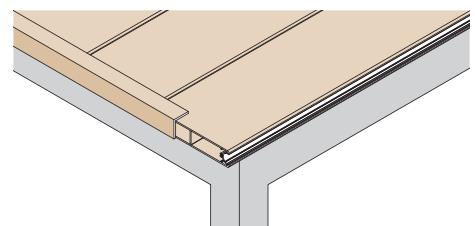
Please Note:
Rivets can be colour-matched to desired finish



Angle 32mm x 20mm x 1.6mm (DC-ANG3220)



Please Note:
Rivets can be colour-matched to desired finish

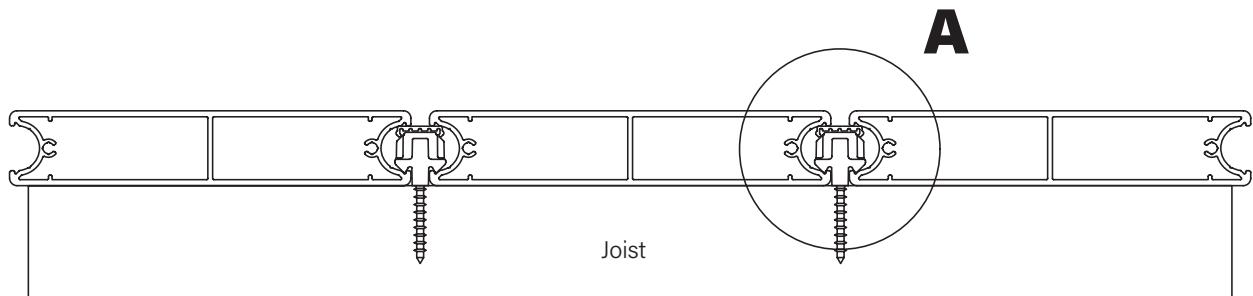


Flame Zone - Cover Strip Installation

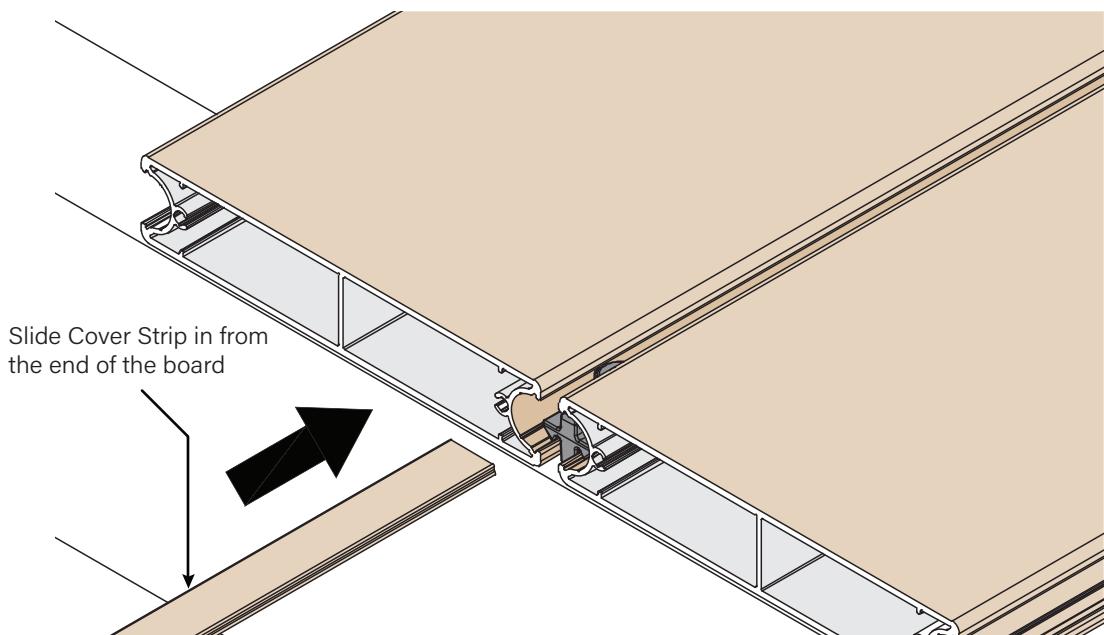
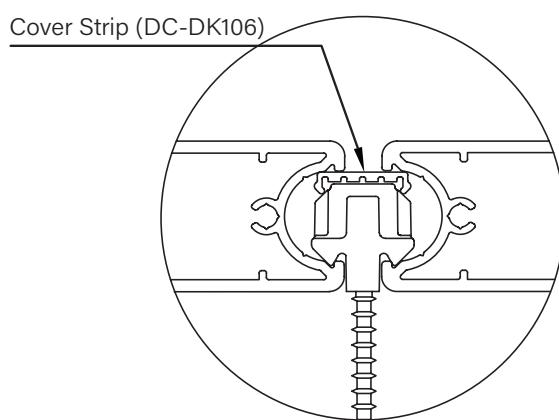
Flame Zone Rated Deck

When building in a BAL 40 / BAL FZ area, the gaps between your Decking Boards will need to be closed with a Cover Strip (DC-DK106). Slide a Cover Strip into the gap between the Decking Boards over the top of Decking Connectors (DC-DK102) (use a small screw driver to lift the Cover Strip over the connectors if necessary).

Please Note: The Cover Strip (DC-DK106) can only be installed by sliding in from the end of the decking before installing the End Caps/finish.

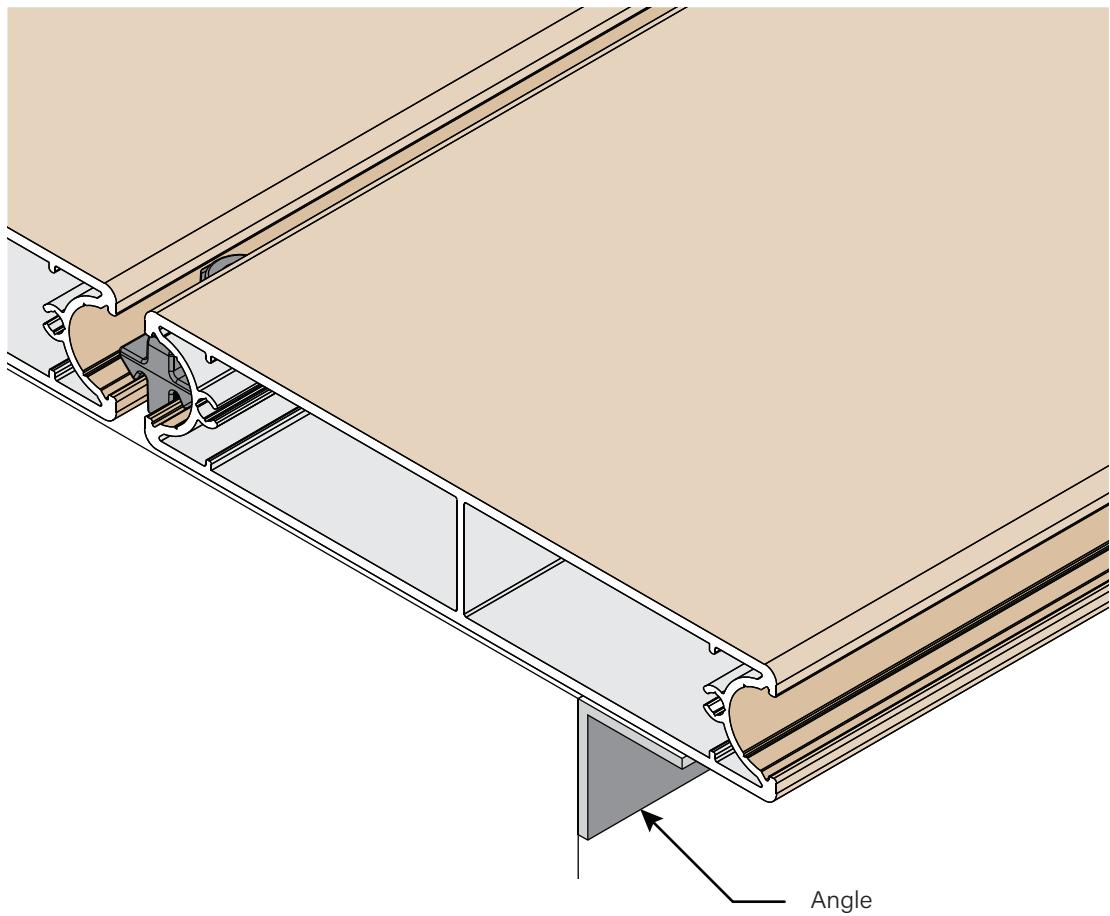
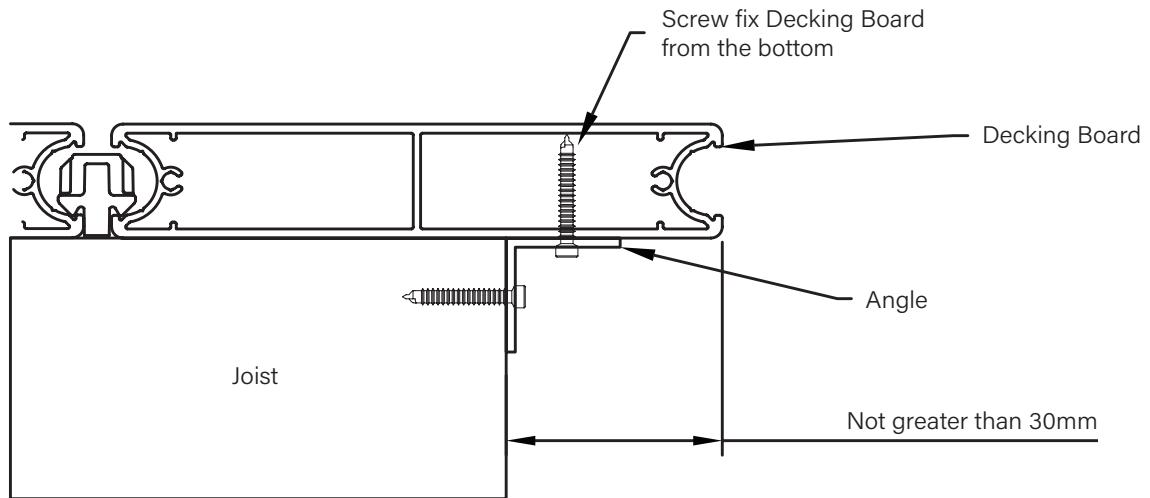


Detail A



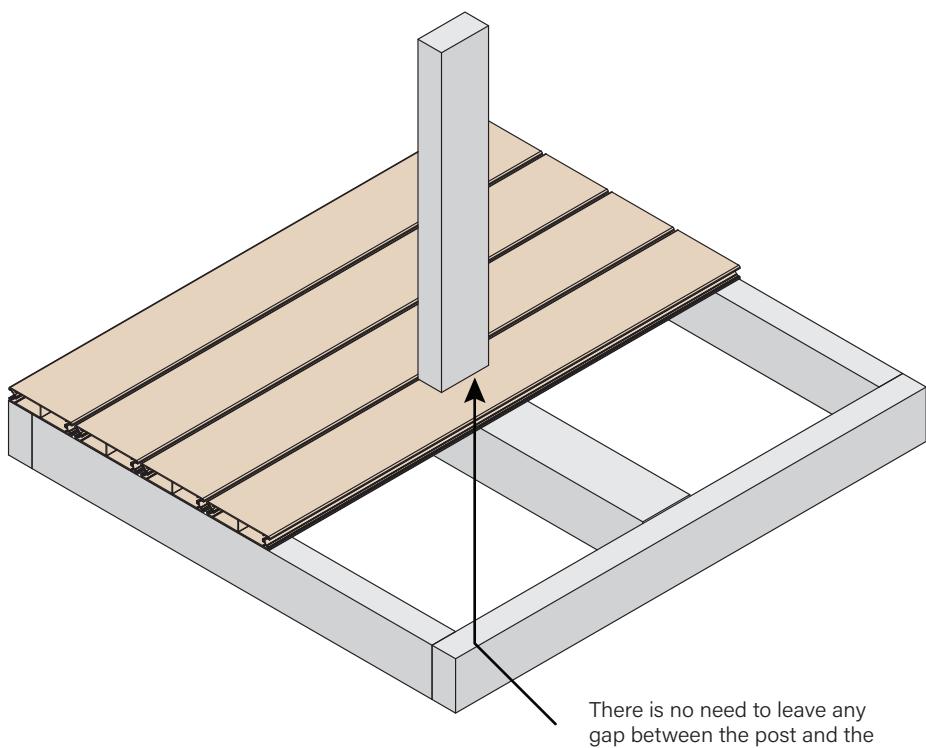
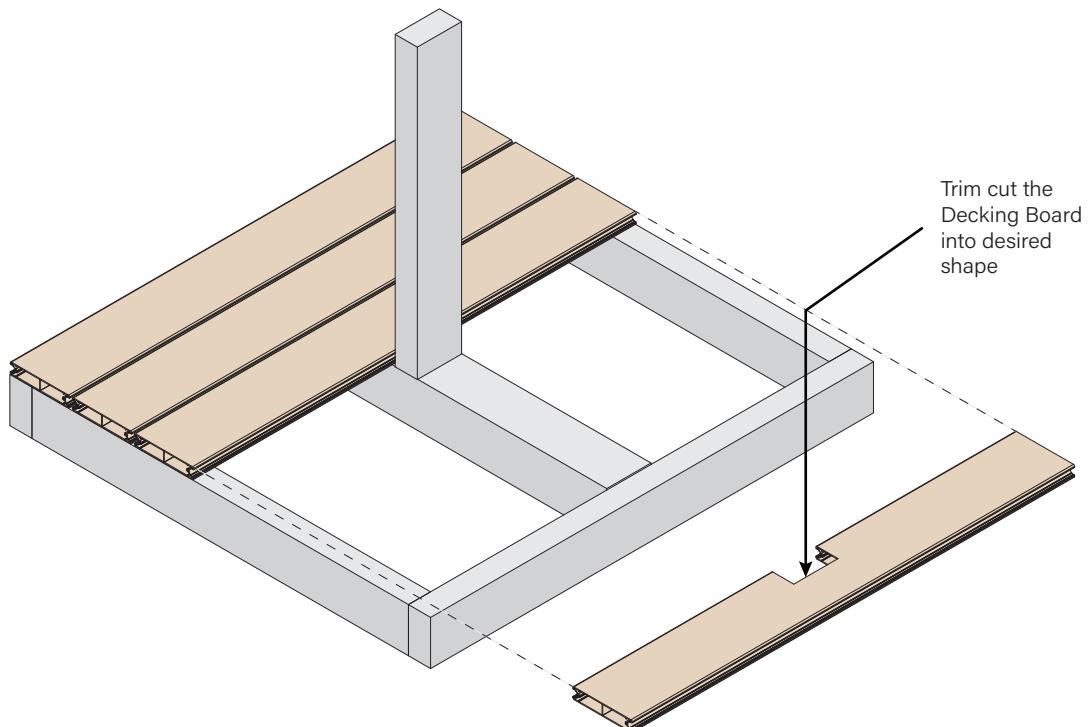
Overhang Effect

An overhang effect can be easily achieved by using an Angle fixing at the bottom of the decking edge. To create an overhang effect, screw fix the Angle into position, and screw fix the Decking Board from below.



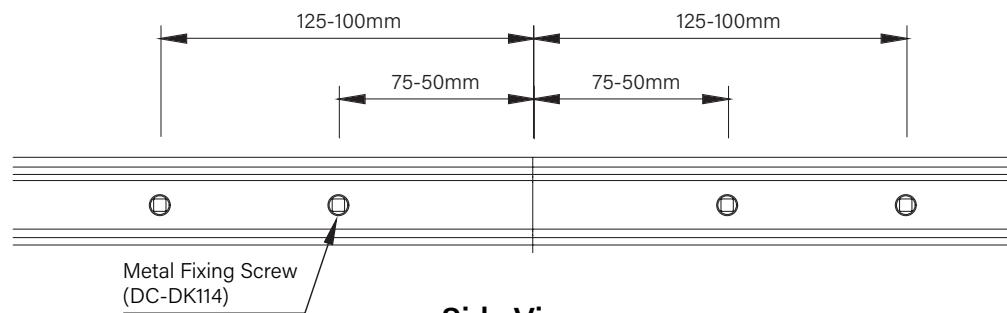
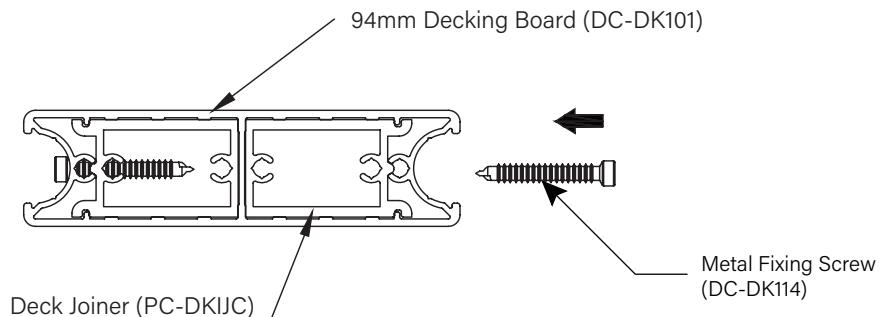
Notching Decking Around Post

DecoDeck® boards can be fitted around different shaped posts and structures. Measure and mark the dimension/shape of the post/structure on the Decking Board, then trim cut the marked area. Position the Decking Board and install.

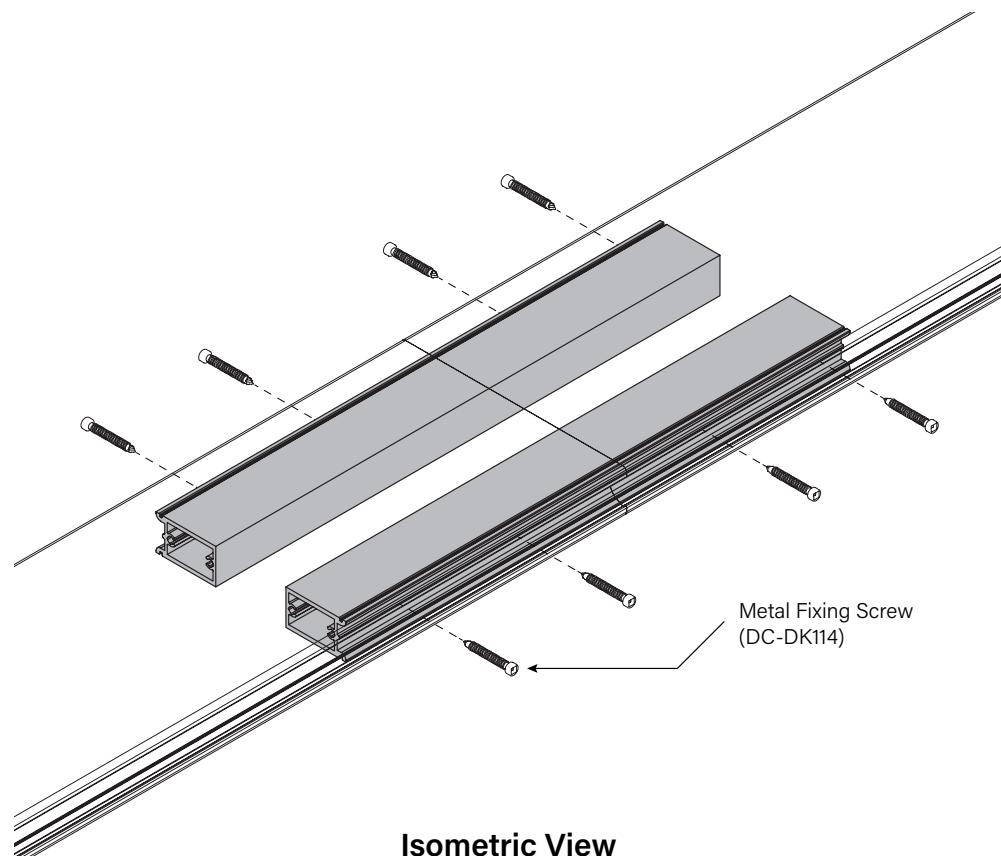


End to End Deck Joiner

The Deck Joiner (PC-DK1JC) connects two separate Decking Boards with a flush, tight and clean surface finish. The Deck Joiner can be applied anywhere along the span of the deck without the support of a joist. This allows you to maximise the use of the materials and minimise the wastage, and unlike real timber, the aluminium Deck Joiner can also minimise the separation of boards after installation. The Deck Joiner can be used with all DecoDeck® boards and should be installed 150mm deep inside both boards (see side & isometric view).



Side View



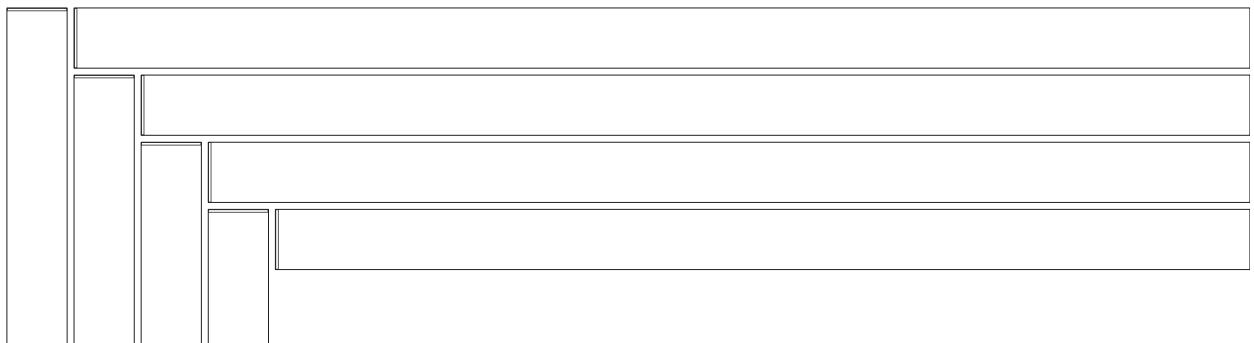
Isometric View

Achieving Different Corner Styles



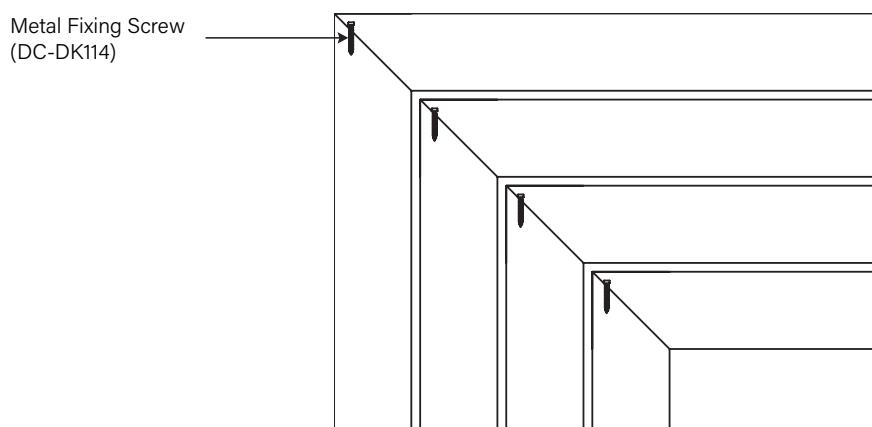
Herringbone Pattern

An attractive way to join the Decking Boards at a corner is to use a 'herringbone' pattern rather than mitre cutting the boards.

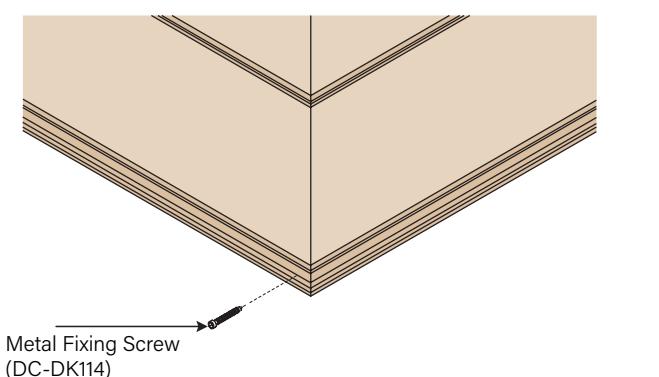


Mitre Joints

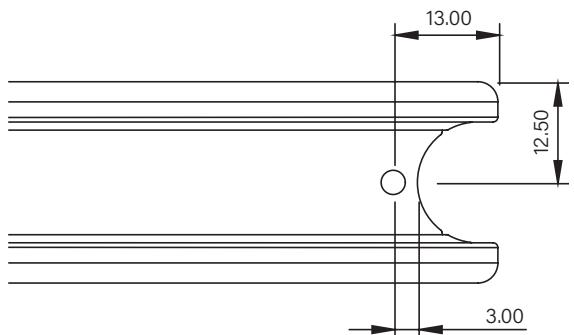
To achieve a mitre joint finish, the two boards can be joined by drilling through the screw flute according to the calculation (see Side View). **Please note:** This method only works with 90-degree mitre joints.



Top View



Isometric View



Side View

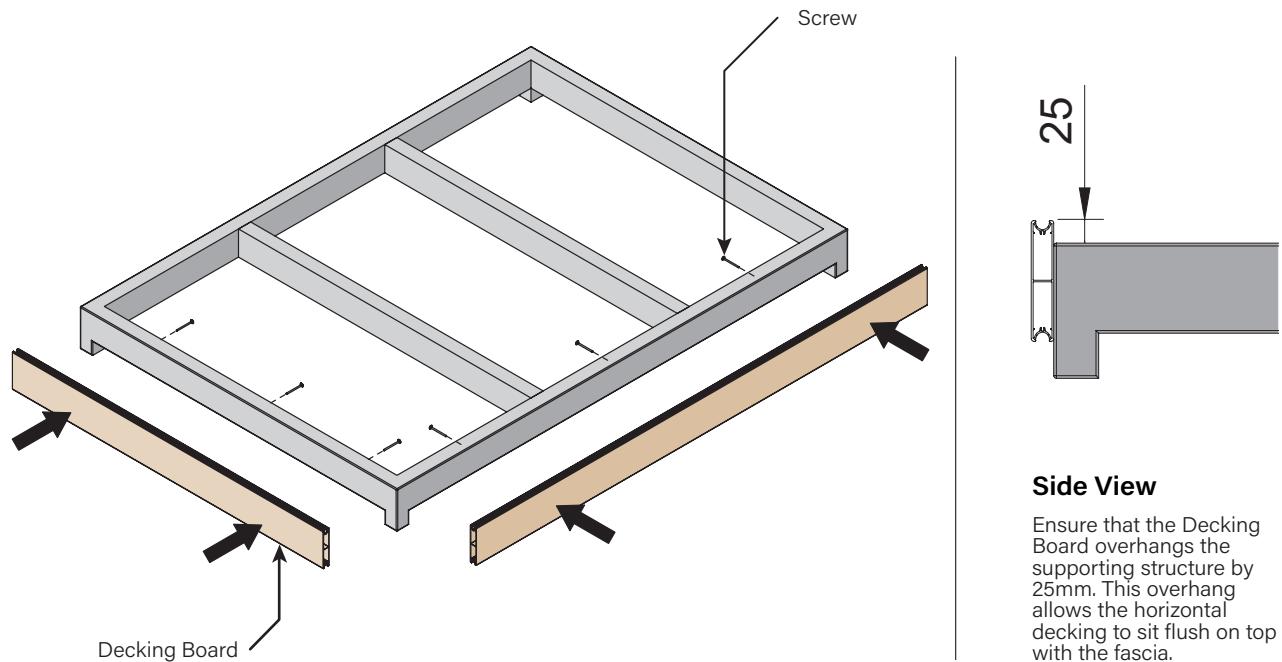
Fascia Decking Installation

Option 1 - Fascia Decking

1

Fix Fascia Decking

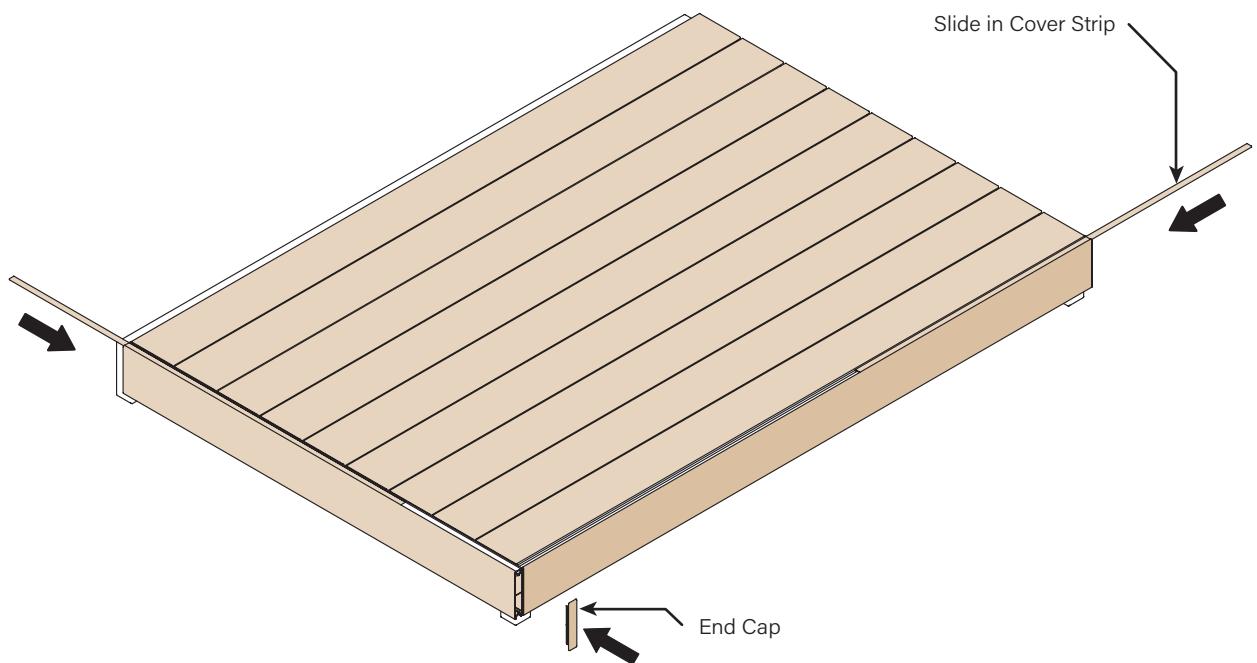
Before installing the decking, measure, cut and fix Decking Board so that it overhangs the supporting structure by 25mm on the side edge. Secure the decking from behind, through the supporting structure using screws, ensuring that the spacing between screws does not exceed 600mm centers.



2

Install Cover Strips and End Caps

After installing the decking, complete the install by using the necessary final components. This includes Cover Strips (DC-DK106) for the fascia Decking Boards and End Caps or Angles for the exposed ends.



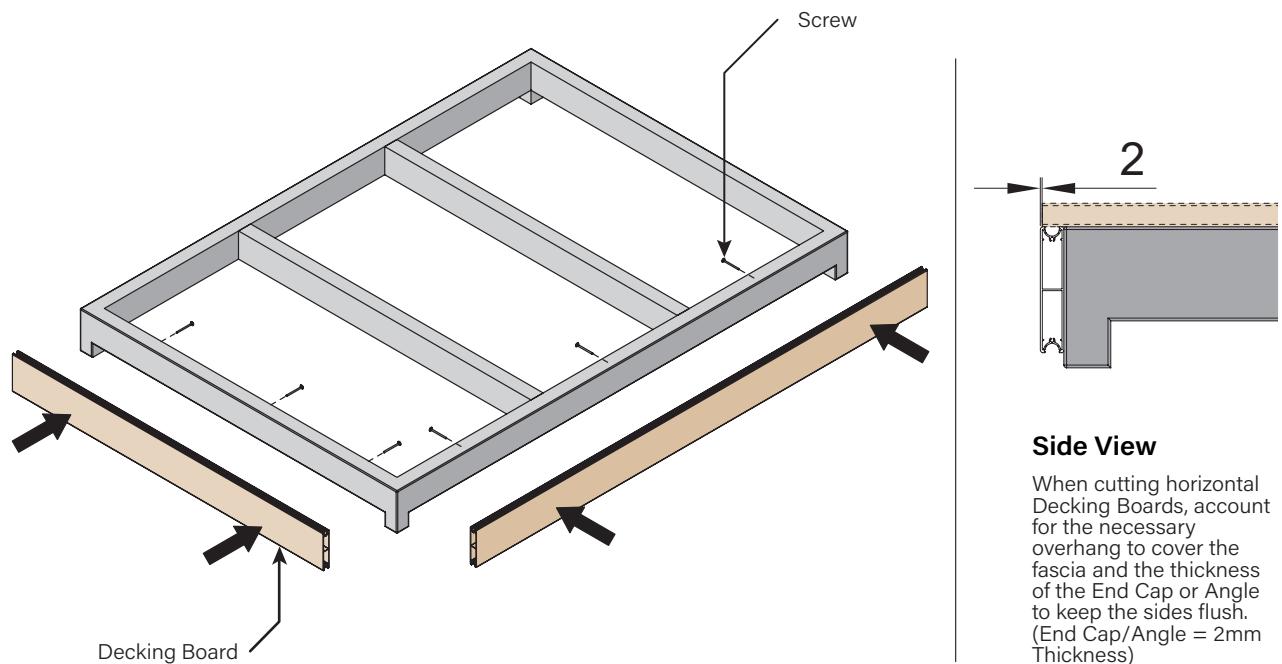
Fascia Decking Installation

Option 2 - Overhung Fascia Decking

1

Fix Fascia Decking

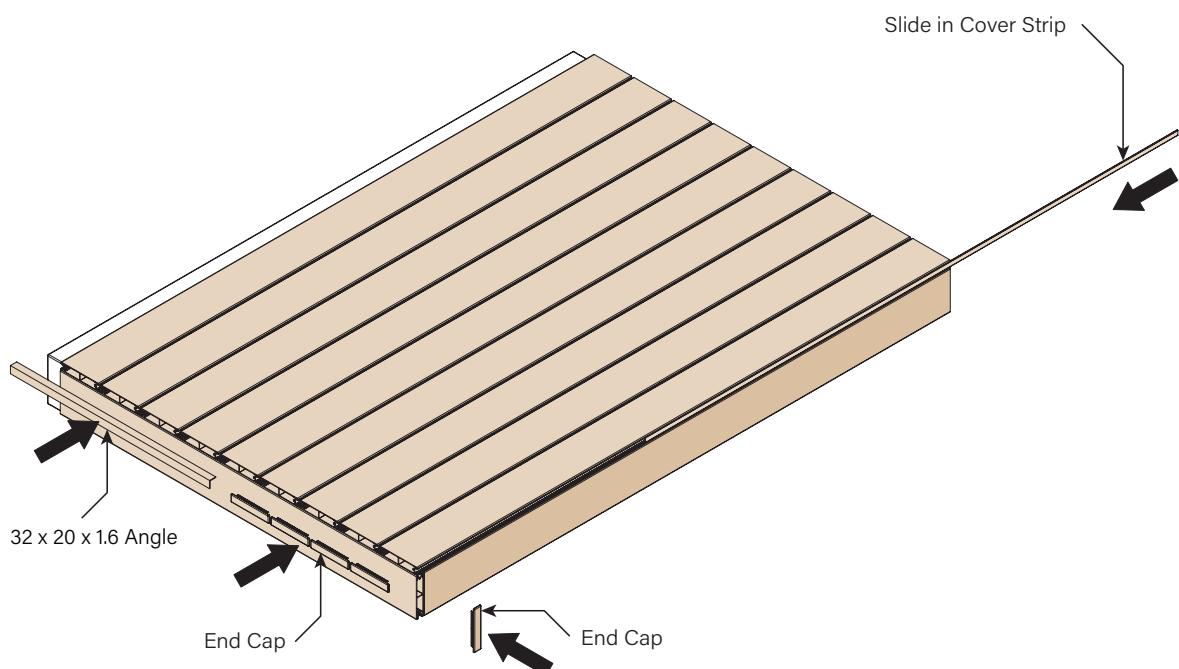
Before installing, measure and cut Decking Boards to wrap seamlessly around the structure's perimeter. Secure the decking from behind, through the supporting structure using screws, ensuring that the spacing between screws does not exceed 600mm centers. Ensure the fascia's top edge aligns flush with the support structure to allow decking installation over it.



2

Install Cover Strips and End Caps

After installing the decking, complete the install by using the necessary final components. This includes Cover Strips (DC-DK106) for the fascia Decking Boards and End Caps or Angles for the exposed ends.

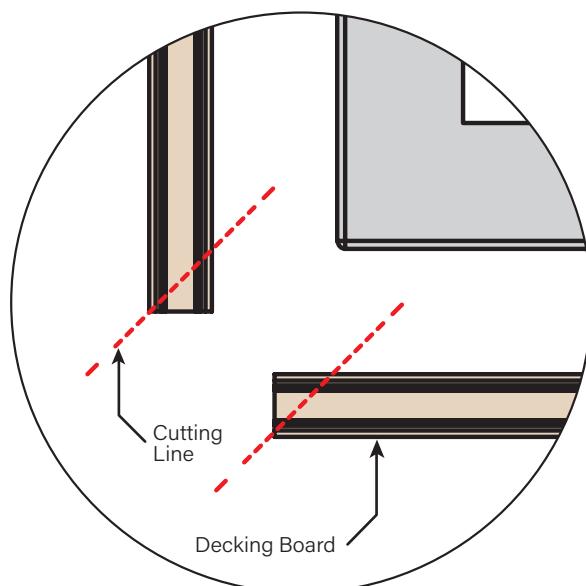
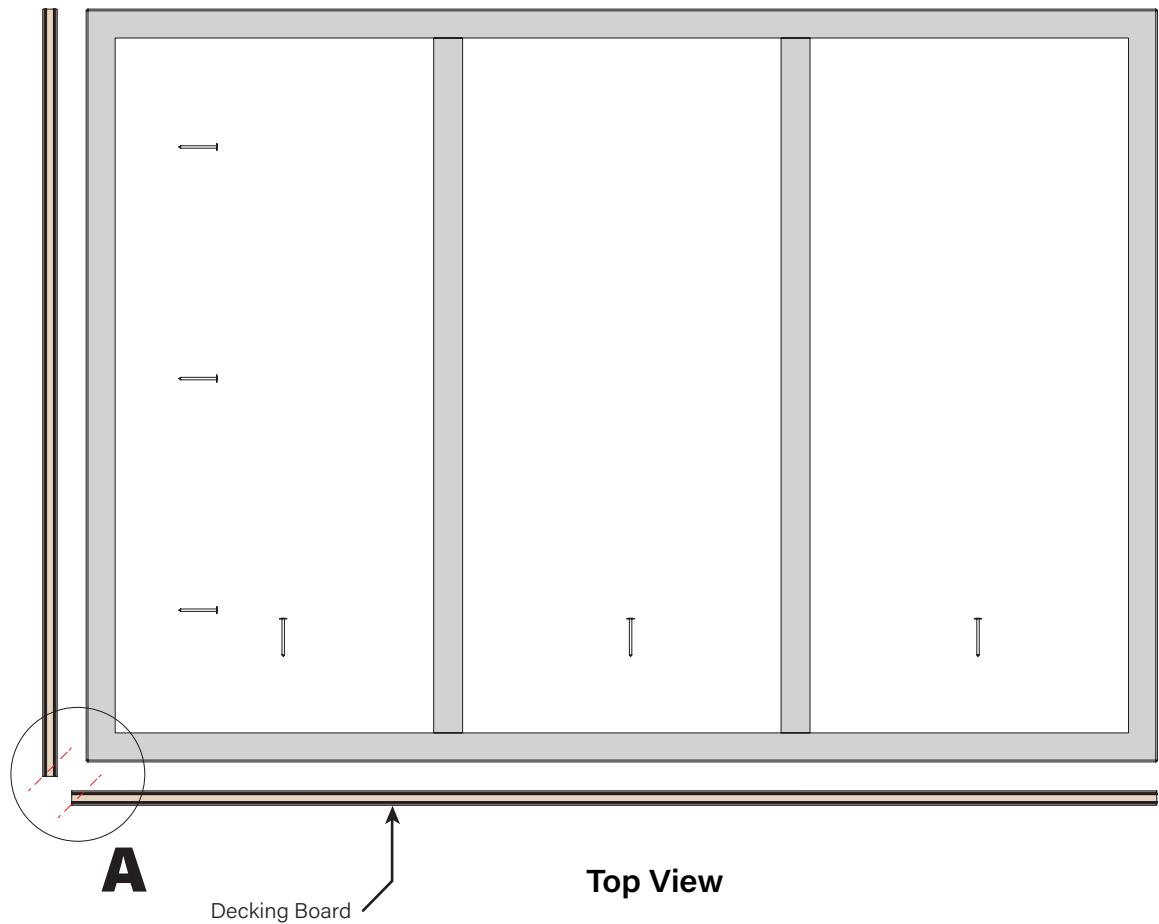


Option 3 - Picture Frame Fascia Decking

1

Fix Fascia Decking

Before installation, measure and cut the Decking Boards to ensure they fit seamlessly around the structure's perimeter. To allow for a picture frame finish, add 25mm to the length of a Decking Board if only one end requires a mitre joint, as the angled cut requires extra material. If both ends require mitre joints, add 50mm in total, allowing 25mm for each mitred end. Mitre the ends of the fascia board at 45 degrees to create a smooth, continuous wrap.



Detail A

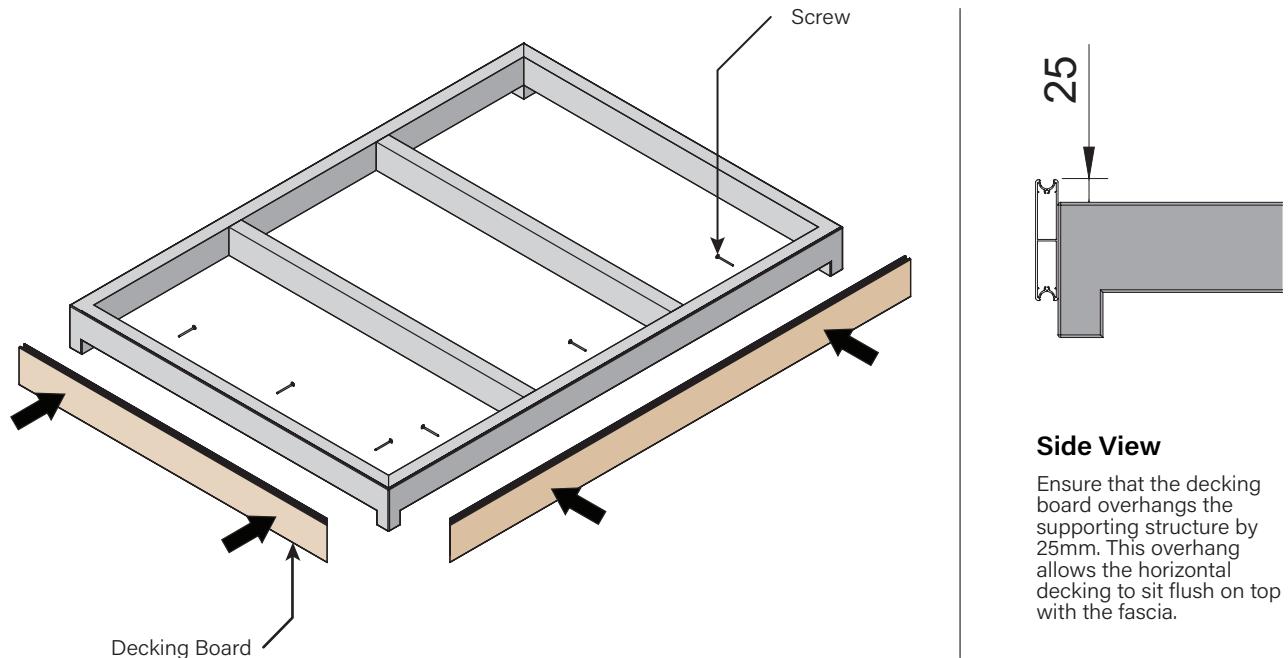
Fascia Decking Installation

Option 3 - Picture Frame Fascia Decking

2

Fix Fascia Decking

Secure the decking from behind, through the supporting structure using screws, ensuring that the spacing between screws does not exceed 600mm centers. Ensure that the decking board overhangs the supporting structure by 25mm. This overhang allows the horizontal decking to sit flush on top with the fascia.



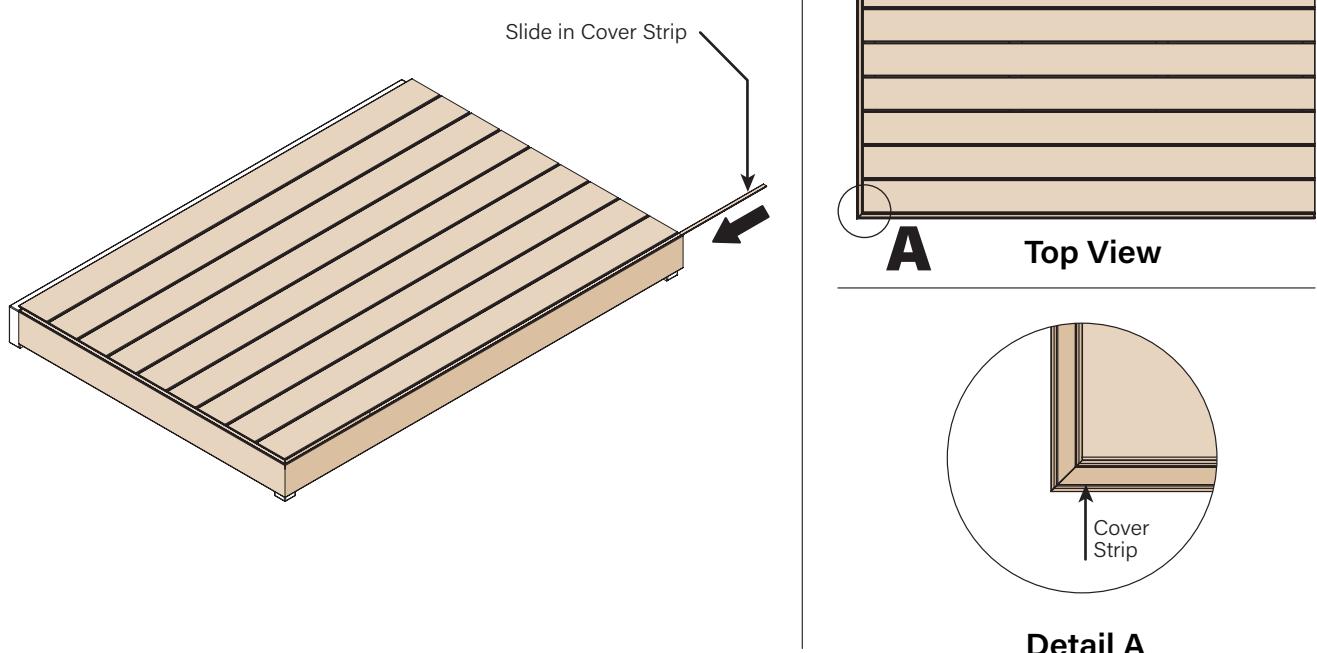
Side View

Ensure that the decking board overhangs the supporting structure by 25mm. This overhang allows the horizontal decking to sit flush on top with the fascia.

3

Install Cover Strips and EndCaps

After installing the decking, complete the install by using the necessary final components. This includes Cover Strips (DC-DK106) for the fascia Decking Boards and End Caps or Angles for the exposed ends. **NOTE: For this fascia picture frame application, ensure the Cover Strips are mitre cut at 45 degrees to align with the mitre cut Decking Boards.**



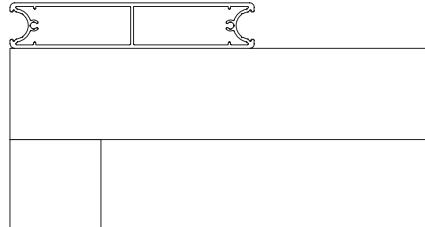
Detail A

Picture Frame Decking Installation

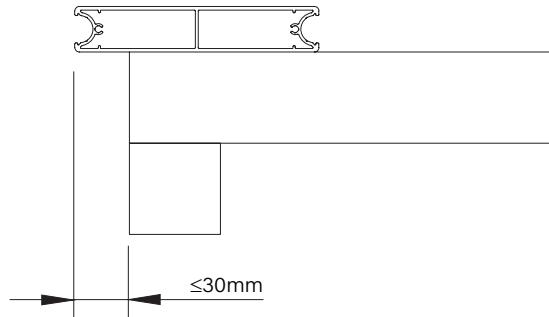
1

Determine Positioning of First Board

Begin the deck either overhanging or flush with the ground structure, based on the requirements of the site. For situations with an existing wall flush to the ground structure, align the deck with the structure. When using an overhanging board, ensure the overhang does not exceed 30mm. Refer to page 06 for installing options for the first board.



Flush

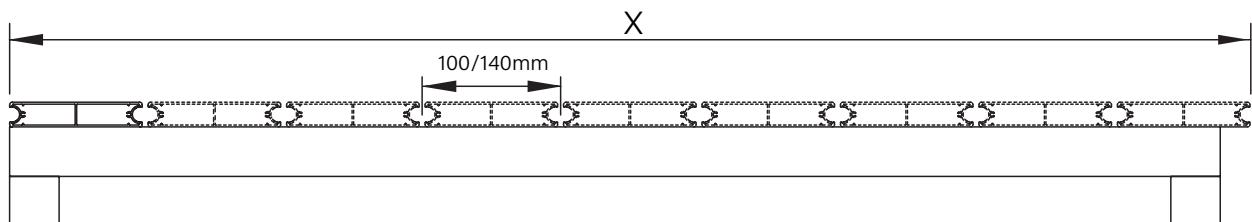


Overhang

2

Measure Length of Deck

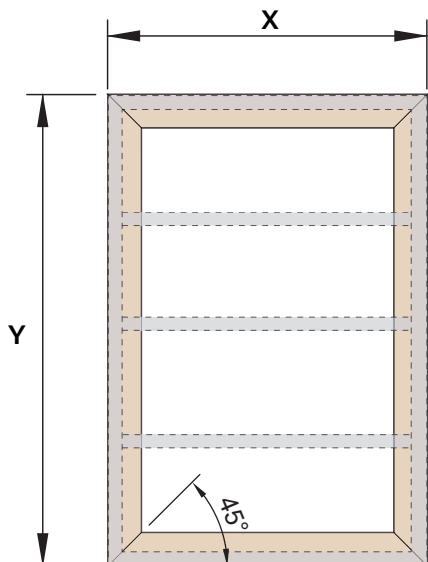
Determine the end point of the decking by measuring the number of boards required to cover the ground structure. Record the total distance from the starting point to the endpoint (x) and calculate the number of Decking Boards needed, including spacing for the Deck Fixing Connectors (DC-DK102). Adjust the calculation based on the chosen board width (100 or 140mm). If an overhang is included, ensure it does not exceed 30mm.



3

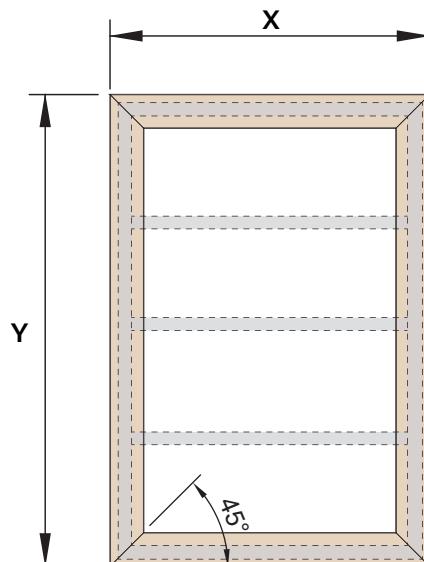
Measure and Cut Picture Frame Boards

Cut the picture frame boards to match the desired perimeter of the deck. If an overhang is required, include the overhang measurement (overhang \times 2) when cutting the boards. For a flush finish, cut the boards to the exact perimeter dimensions. Once all perimeter components are cut, mitre each end at a 45-degree angle to create a picture frame aesthetic.



Top View: Flush

Y = Length of supporting structure



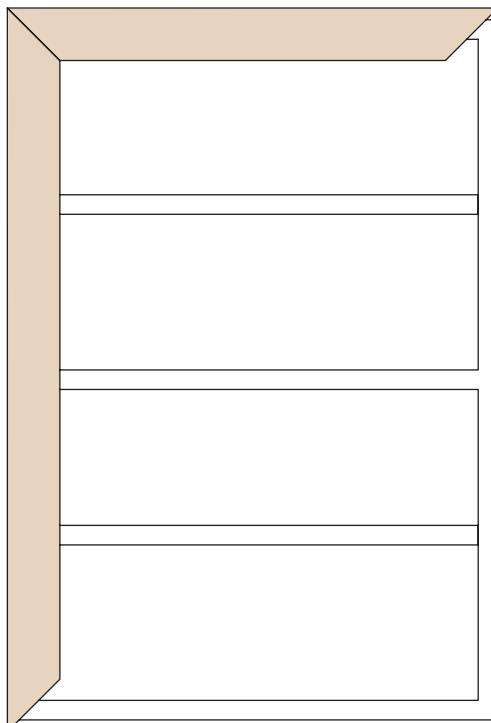
Top View: Overhang

Y = Length of supporting structure +
(desired overhang) + (desired overhang)

4

Install Starting Board and One Side

Install the starting board and one side of the deck as shown in the diagram. For guidance on installing the starting board based on specific scenarios, refer to the DecoDeck® Installation section on page 06. To install overhanging Decking Boards, refer to the Overhang Effect section on page 12.

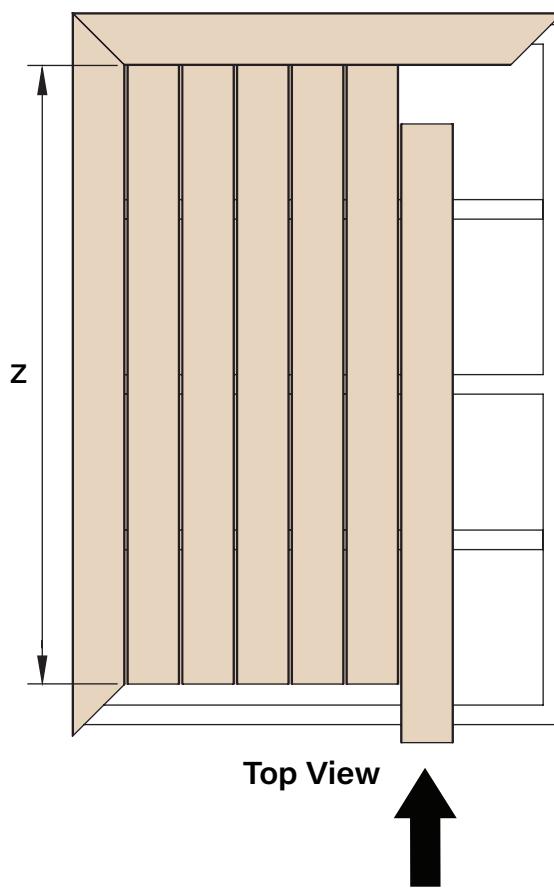


Top View

5

Measure, Cut and Install Internal Decking Area

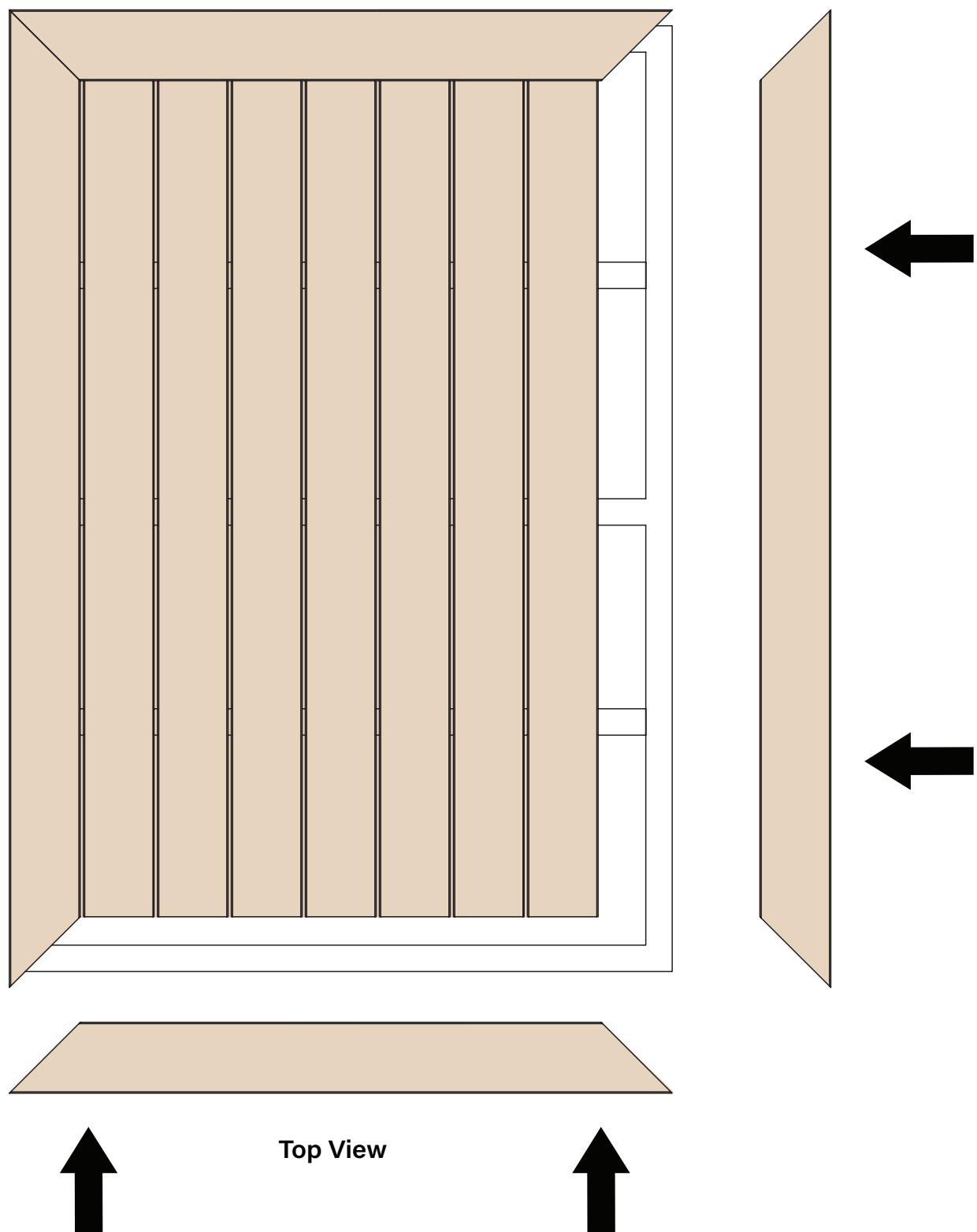
Measure and cut the required number of boards to the length of "Z" to fill the internal area of the deck. Ensure the boards are cut accurately to fit snug within the designated space.



6

Install Final Board and Remaining Side

Install the final board and the remaining side of the deck as illustrated in the diagram. For detailed instructions on installing the final board, consult the DecoDeck® Installation section starting on page 08. For guidance on installing overhanging Decking Boards, refer to the Overhang Effect section on page 12.

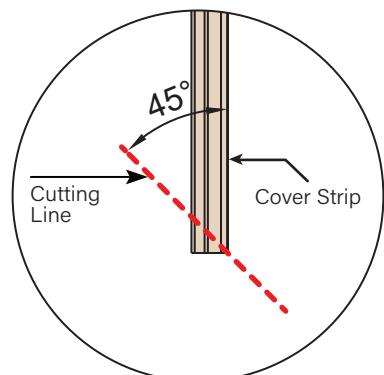
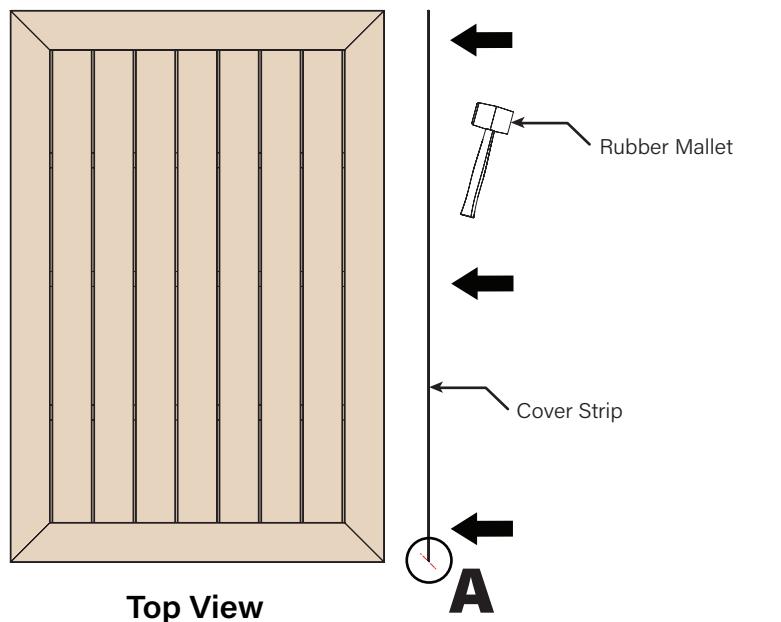


7

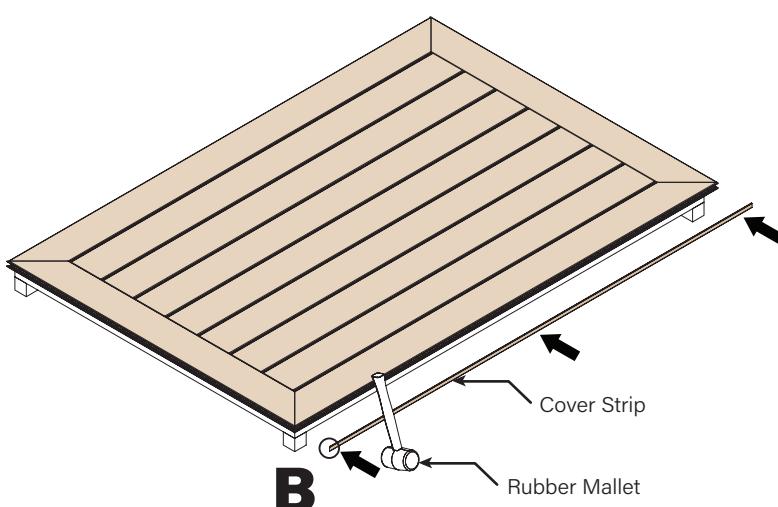
Final Touches

Once assembled, the decking is mitre joined by predrilling through the board's side and fixing it into the screw flute with a decking screw. Refer to page 15 (Achieving Different Corner Styles) for a mitre join detail.

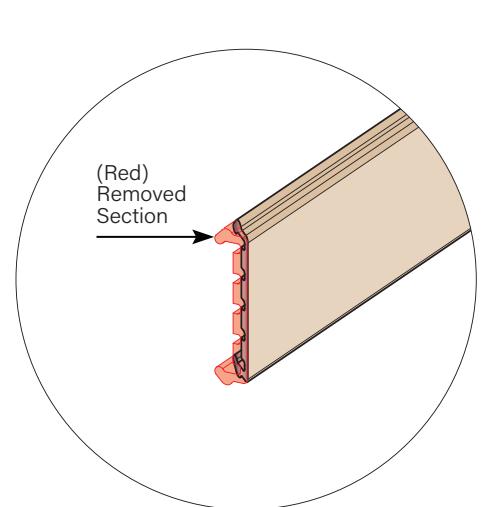
After installing the decking, finish with the final components: Cover Strips (DC-DK106) for the boards and End Caps/Angles for exposed ends. Mitre cut Cover Strips at 45° as shown below, for a seamless picture frame look. Cover Strips may need to be positioned on the Decking Board edge face and gently tapped in with a rubber mallet to protect the finish.



Detail A
Top View



Isometric View



Detail B
Isometric
View