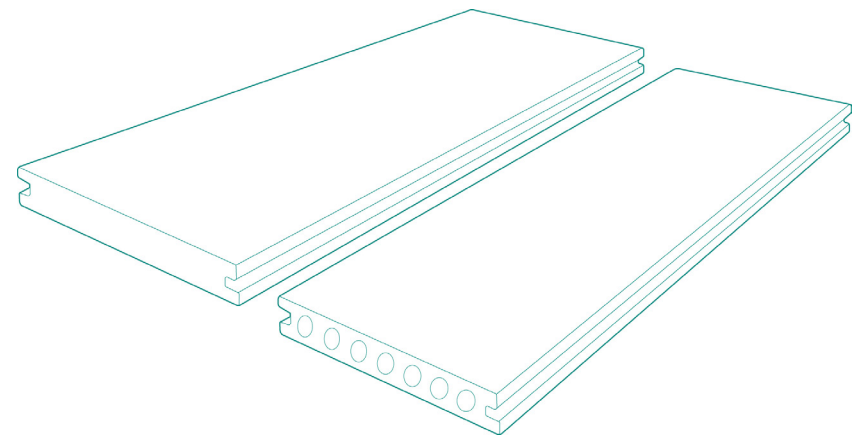




# COMPOSITE DECKING

Installation Guide



[assuredcomposite.com](https://www.assuredcomposite.com)

[info@assuredcomposite.com](mailto:info@assuredcomposite.com)

0800 802 1357



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# TIPS & ADVICE

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## Plan your project

- Use a minimum of 2 people to make the project easier
- Plan all areas and think about what is trying to be achieved
- Measure twice to ensure the correct measurements are taken before cutting any material
- Ensure all working areas are clear and free from any obstacles to avoid damage or injury
- Clear all vegetation where necessary to avoid unnecessary growth
- Pre-drill holes where necessary to avoid splitting materials

## Prepare for installation

- Allow a 1% - 1.5% decline on concrete bases and subframes, running away from a property to avoid water build up
- Only leave a maximum 20mm deck board overhang
- Double joist where deck boards meet for support
- Use a clip on every joist for more strength
- Allow expansion gaps where advised to avoid unnecessary repairs
- Allow a minimum 25mm space under deck boards for ventilation
- Always lay joists the opposite way to the deck boards apart from when picture framing or when creating a unique design

## Recommended tools

- Only use Assured fasteners and fixings with Assured products
- Refer to manufacturers user manual before using tools if unsure

## Safety first

- Always wear safety equipment
- Always have safety in mind

## Not sure about anything regarding installation?

Please contact us

 [assuredcomposite.com](https://www.assuredcomposite.com)

 [info@assuredcomposite.com](mailto:info@assuredcomposite.com)

 0800 802 1357

# HANDLING & STORAGE

## Looking after composite materials

When handling and storing our composite products follow the advice of our experts, this helps prevent damage and injury before installation

- When moving composite products please ensure the correct safety equipment is worn
- Check that the area where the products are being placed are clear and free from any obstacles
- Ensure the ground is a flat hard surface and place battens every 450mm approx intervals to support products above the ground
- We advise that 2 people move products due to the weight and length
- Do not drag or slide products especially when laying on top of one another
- Allow 24 hours for products to acclimatise to the environment before installation
- Any composite products stored for a long period of time will need to be covered

# RECOMMENDED TOOLS & SAFETY EQUIPMENT

## Safety matters

When installing our products you must install them as safely as possible. Ensure you have the right tools available which have been recommended by our team of experts



Tape Measure



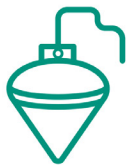
Spanner



Impact Driver



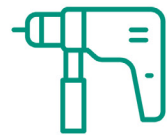
Circular Saw



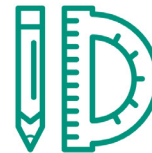
String Line



Safety Clothing



Hammer Drill



Set Square



Spade



Jigsaw



Spirit Level



Clamp

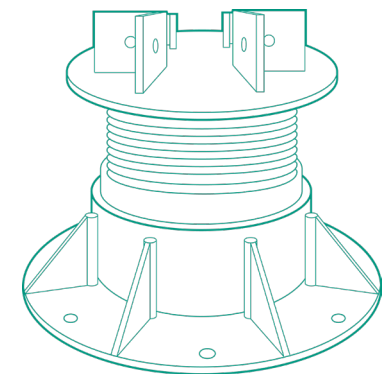
If you are unsure on how to use any tool refer to the manufacturers user manual before continuing





# FOUNDATIONS & SUBFRAME

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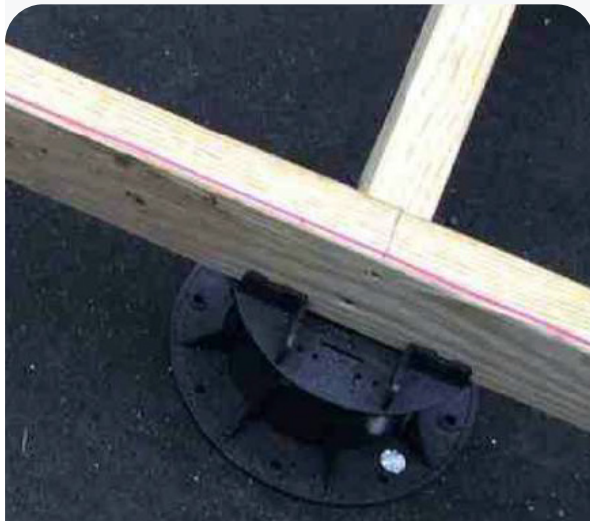


## Subframe options

Various subframes can be used when installing our composite deck boards. Be sure that you choose the right subframe taking into account the foundation and the space underneath deck boards for ventilation (minimum 25mm)

### Adjustable Pedestal Supports

Our adjustable pedestal supports are used in areas where you require the joists raising off the surface. These are for hard foundations and can be used with timber, plastic, metal or solid composite joists



### Hollow Composite Joists

Our hollow composite joists are used where a concrete foundation is in place so the joists can be fixed directly to the foundation



### Plastic or Timber Joists & Posts

Plastic or timber joists and posts can be used on hard or soft foundations and are ideal in situations where the ground is uneven or you require a high raised decking area



# INSTALLING ADJUSTABLE PEDESTAL SUPPORTS

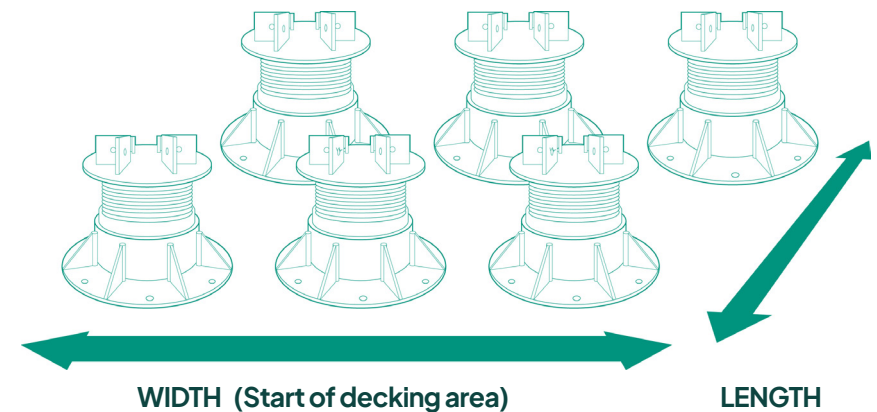
## How to install adjustable pedestal supports

We advise using adjustable pedestal supports on a solid foundation and creating a decline of 1% - 1.5% away from a property acting as a drainage slope. Pedestals can be used on a roof terrace but we do not advise fixing them down

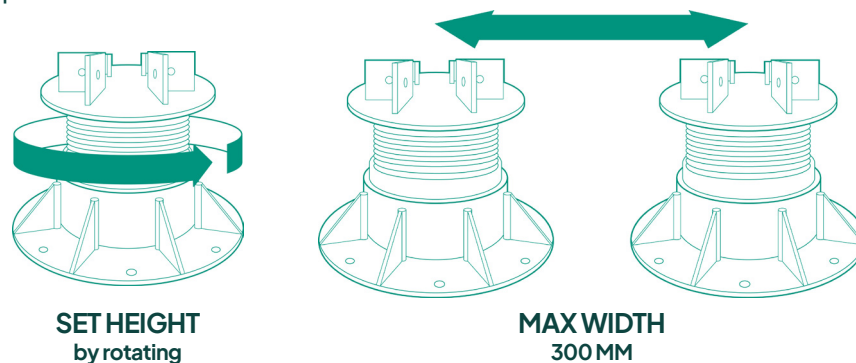
- 1 Start from the edge of the decking area and place the pedestals width ways in a gridline format leaving a 300 mm max interval between each pedestal centre

Spacing between the pedestals length ways will depend on the thickness of the joists

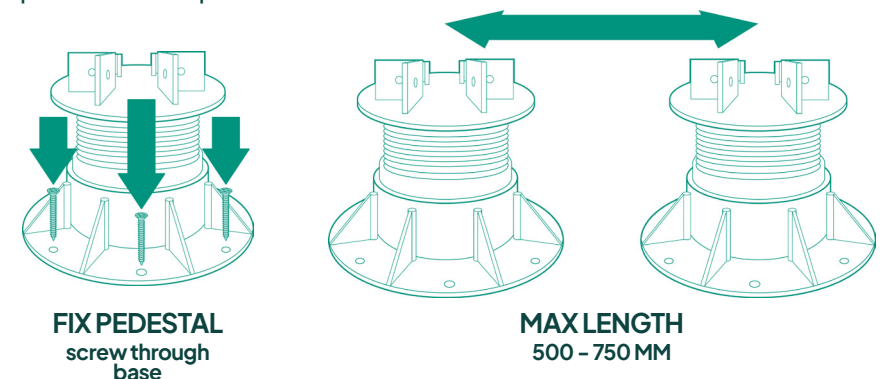
JOIST	MAX INTERVALS
50x50 mm	500 mm
50x125 mm or 50x150 mm	750 mm



- 2 Rotate the base clockwise or anti-clockwise to set the required height. Check the heights from one pedestal to another with a spirit level



- 3 Pedestals can be fixed through the base if required. In most cases the weight of the joists and deck boards will hold the pedestals in place

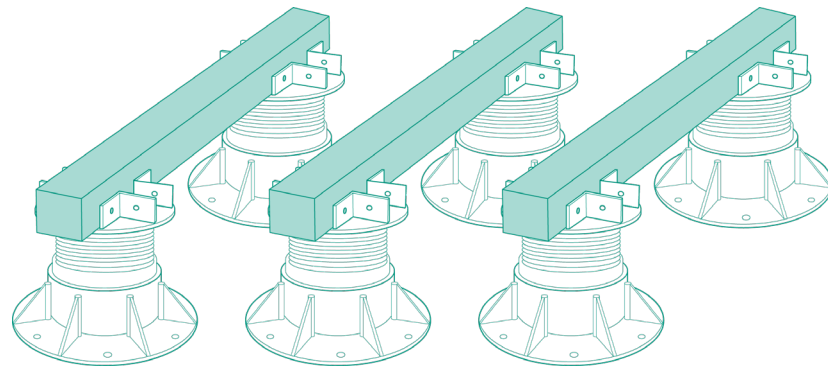


# INSTALLING JOISTS ON PEDESTALS

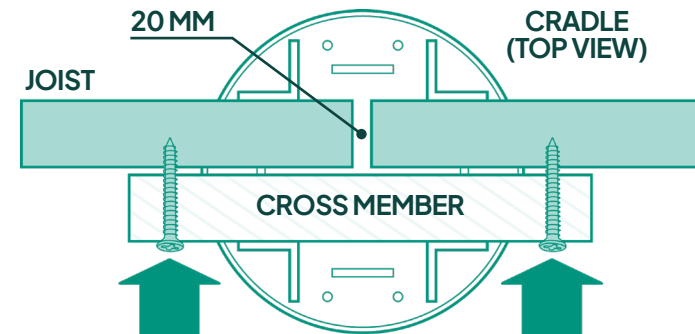
## How to lay joists onto the adjustable pedestals

Measure and cut joists where required

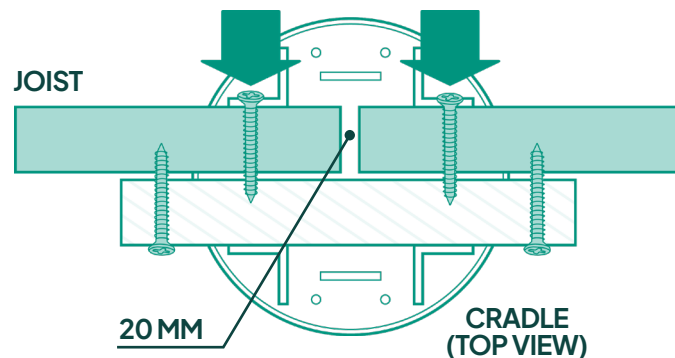
- 1 Lay the joists through each pedestal joist cradle. Ensure your joists sit level with the assistance of a spirit level



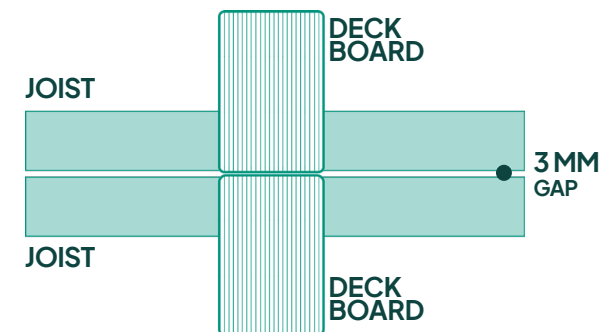
- 2 Allow a 20mm expansion gap between joist butt joins and use a 300mm cross member for support. Fix by screwing the joists and cross member together



- 3 Fix the joists to the pedestals by screwing through the joist cradle



- 4 Double joist where deck boards meet at butt joins allowing 3mm between joists



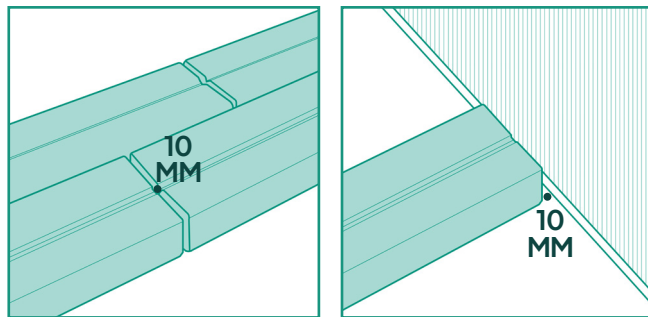
# INSTALLING HOLLOW COMPOSITE JOISTS ON SOLID FOUNDATIONS

## How to install hollow composite joists on solid foundations

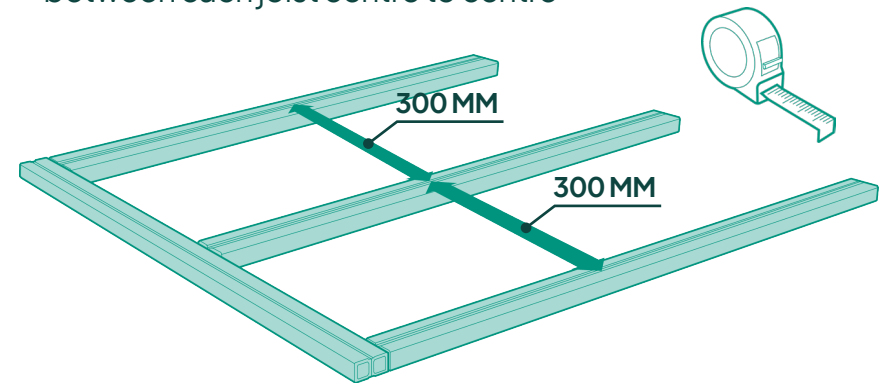
Hollow composite joists need a solid concrete foundation to fix to. We advise creating a decline of 1% - 1.5% running away from a property acting as a drainage slope. Drainage holes or gutters can be placed in the concrete foundations if required

Measure and cut joists where required

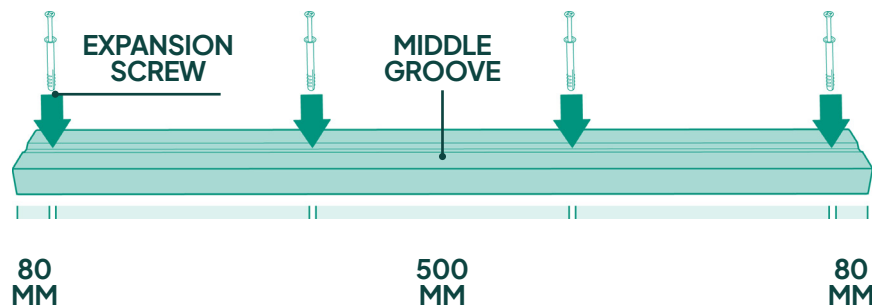
- 1 Leave 10mm expansion gaps close to a property and at joist butt joins



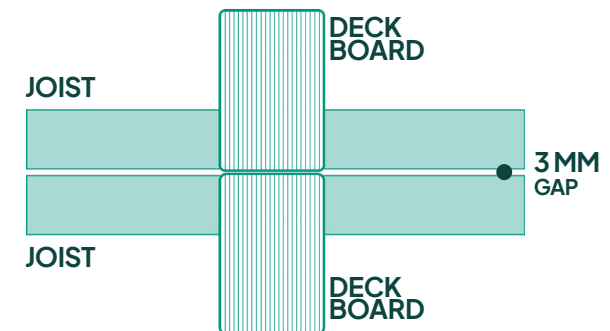
- 2 Lay joists into position leaving 300mm max intervals between each joist centre to centre



- 3 Fix joists into place by drilling holes through the middle groove of each joist and into the foundation. Start at 80mm approx and then at 500mm approx intervals



- 4 Double joist where deck boards meet at butt joins allowing 3mm between joists

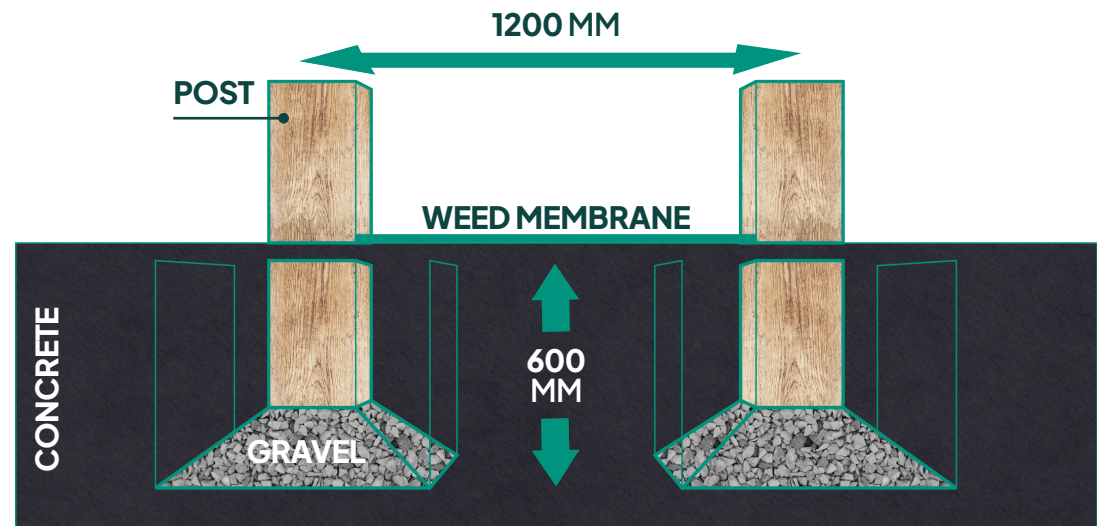


# INSTALLING PLASTIC OR TIMBER JOISTS & POSTS ON SOFT FOUNDATIONS

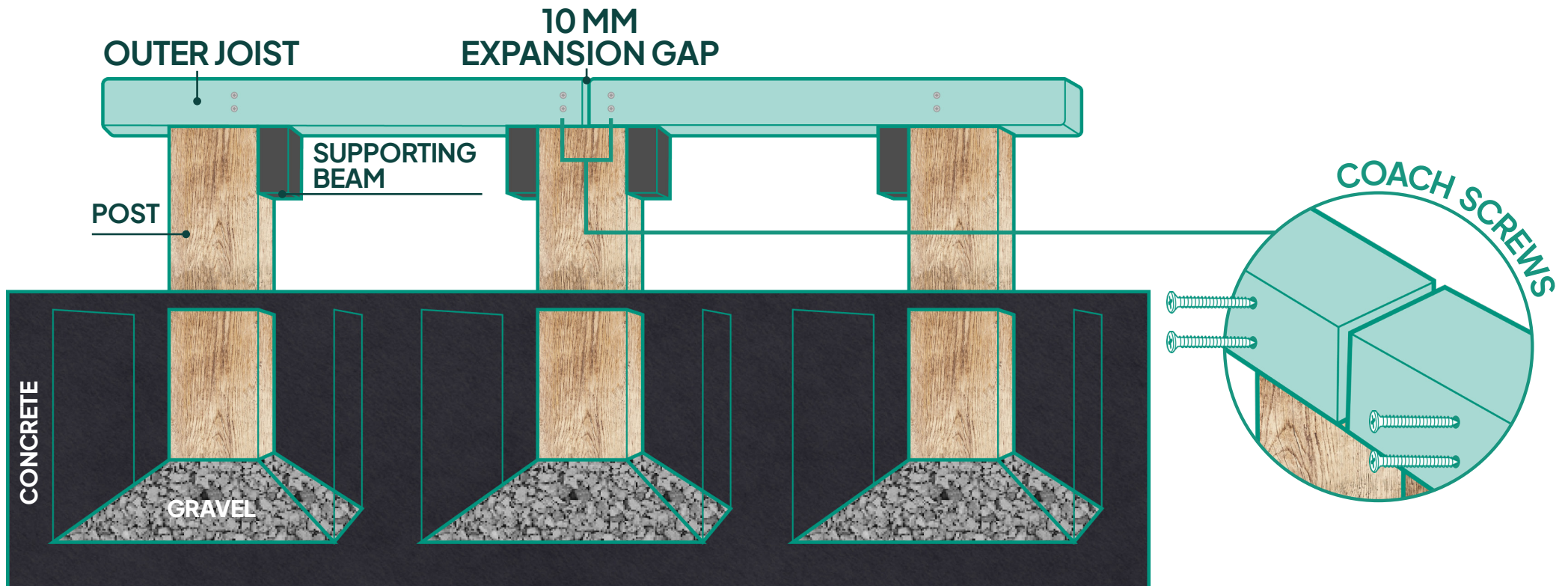
## How to install plastic or timber joists & posts on soft foundations

When installing plastic or timber joists & posts ensure the area is clear and free of any obstacles including any cables and pipes

- 1 Measure and mark out the area including where holes need to be dug for posts ensuring posts are spaced every 1200mm approx. If newel posts are used, ensure the holes are dug in the right place
- 2 Dig 600mm minimum holes into the ground making sure the width of the hole is at least 4 times the width of the post
- 3 Measure and cut posts to the required height. Posts can be left longer and cut down at the end if preferred
- 4 Place a layer of gravel into each post hole to help hold the posts in place while the levels are checked
- 5 Pour concrete into the holes and wait to set
- 6 We advise using a weed membrane to stop any vegetation growing. Roll the membrane out over the area and cut to size. Gravel or pegs can be used to hold in place
- 7 Check all dimensions including outer board dimensions allowing any space for Newel Posts where required



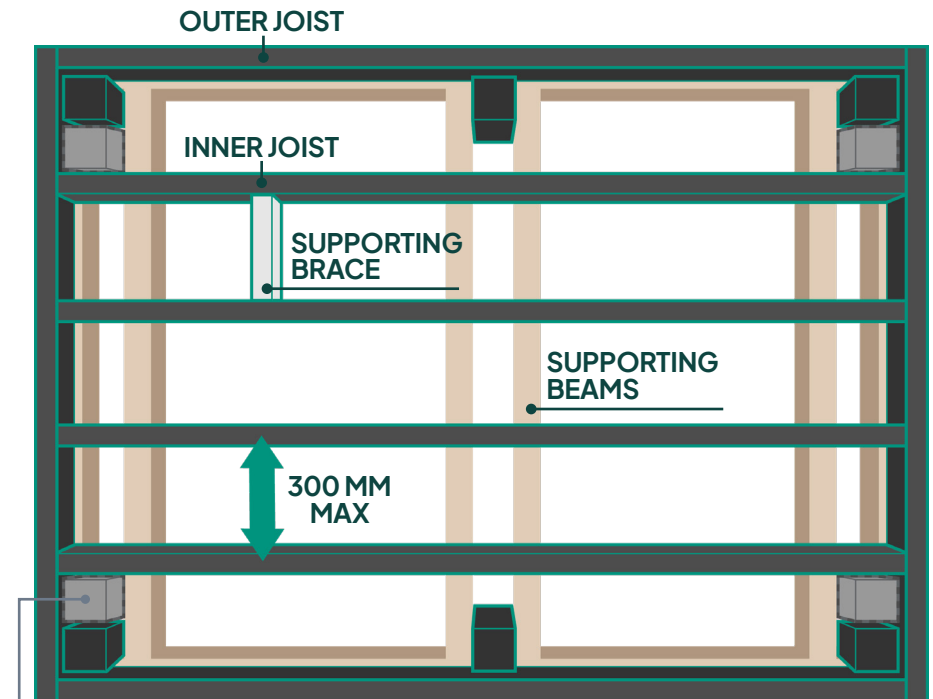
# INSTALLING PLASTIC OR TIMBER JOISTS & POSTS ON SOFT FOUNDATIONS



# INSTALLING PLASTIC OR TIMBER JOISTS & POSTS ON SOFT FOUNDATIONS

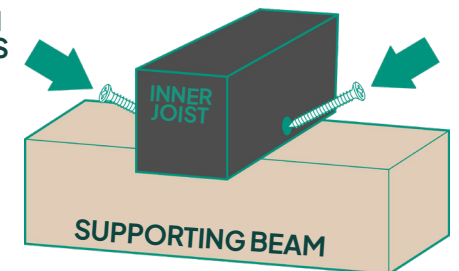
Measure and mark the height of the deck taking into account deck boards. We advise creating a decline of 1% - 1.5% away from a property acting as a drainage slope

- 1 Measure and cut outer joists where required and clamp into place where marked. Pre-drill holes and screw together using 2 coach screws at each post
- 2 Measure and cut support beams where required for underneath the outer joists. Pre-drill holes and screw together using 2 coach screws at each post
- 3 Measure and cut inner joists where required. Pre-drill holes and screw together through the outer joists at each end at 300mm max intervals (centre to centre) using 2 coach screws. Add extra support by screwing through the inner joists and into the supporting beams
- 4 Leave a 10mm expansion gap between joist butt joins
- 5 Double joist where deck boards meet at butt joins allowing a 3mm gap between joists
- \* If newel posts are used measure and cut where required. Pre-drill holes and screw together using 2 coach screws through the outer joist and into each post. Ensure the posts are flush with the bottom of the outer joist. If numerous newel posts are used we recommend evenly spacing allowing access to the deck



POST POSITIONING  
when using newel post

COACH  
SCREWS

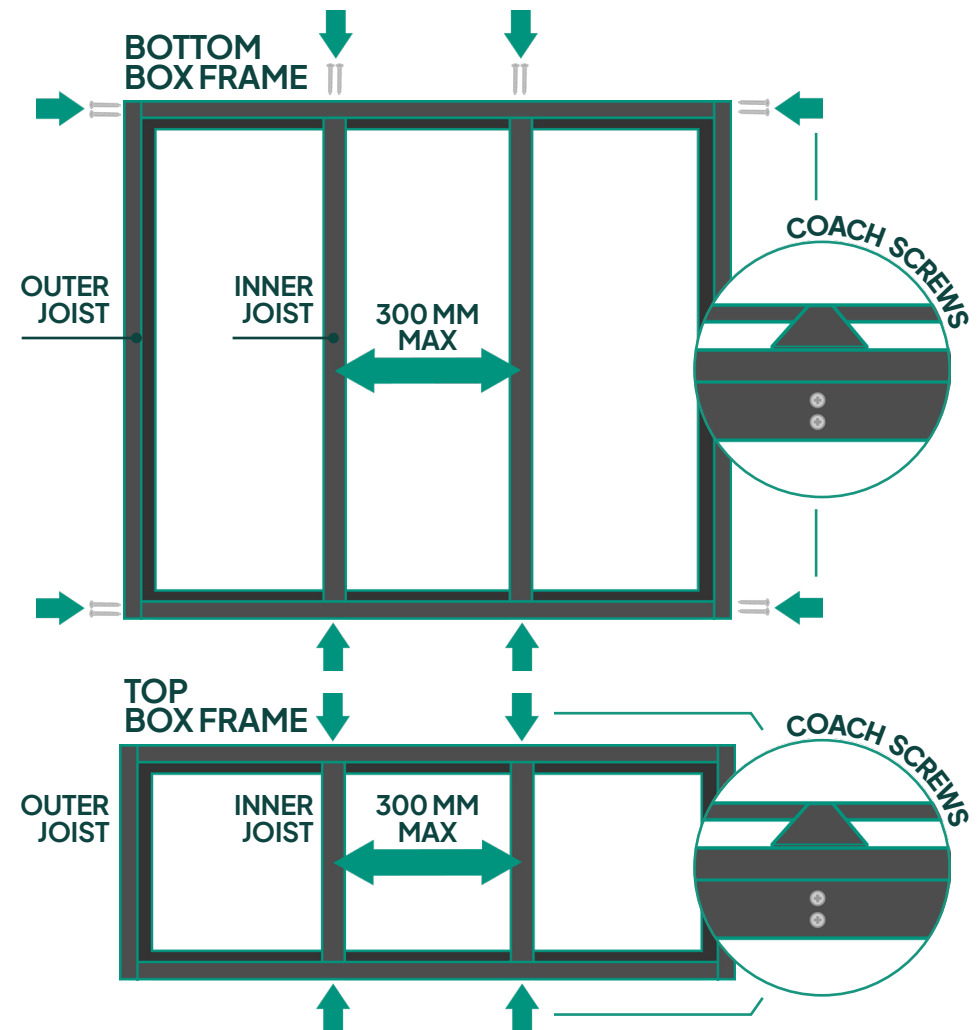


# INSTALLING BOX FRAMED STEPS

## How to prepare box framed steps

Box framed steps consist of a run of boxes on top of each other made from either composite, timber, plastic or metal. These all support each other to form a run of steps to a required height

- 1 If the ground is soft, uneven or steps are above 2 metres high we recommend concreting posts into the ground to support the box frames (following the process on page 13)
- 2 Carefully plan the area taking into account the deck board and riser width when designing the tread and rise dimensions. Ensure the rise and tread is consistent along the steps
- 3 Measure and cut 4 outer joists where required to the size of the step area/bottom box frame. Pre-drill holes and screw together at each corner using 2 coach screws
- 4 Measure and cut inner joists where required. Pre-drill holes and screw together at each end using 2 coach screws at 300mm max intervals centre to centre
- 5 Double joist where deck boards meet at butt joins allowing a 3mm gap between joists
- 6 Place the bottom box framed step into position and work from that creating as many box framed steps as required using the same method





# INSTALLING BOX FRAMED STEPS

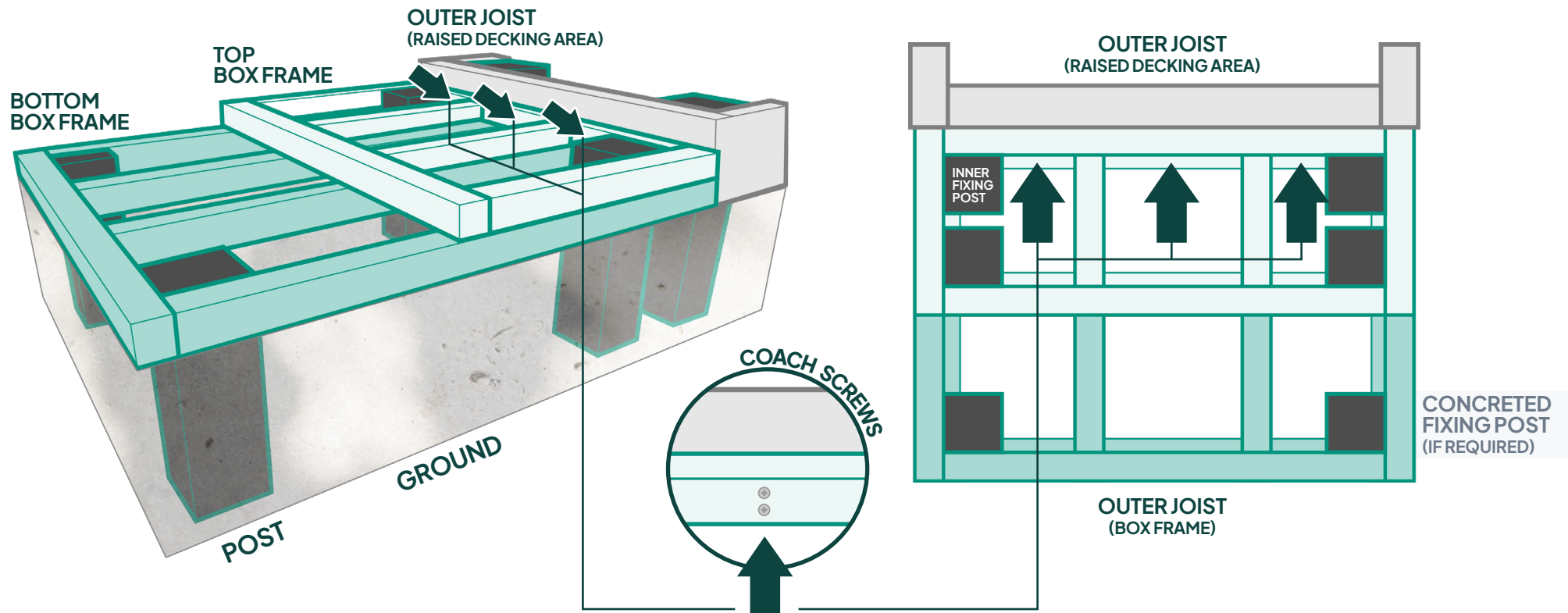
## How to install box framed steps for your decking project

- 1 Fix the box frames together by measuring and cutting posts for each inner corner to the height required

Pre-drill holes through the joists and into the posts and screw together using 2 coach screws at every post and box frame

- 2 Fix the box framed steps to the raised decking area by pre-drilling holes through the back of the top box frame (at the centre points between each joist) and into the decking area outer joist. Screw together using 2 coach screws at each point

Reinforce posts or outer joists of the decking area if required

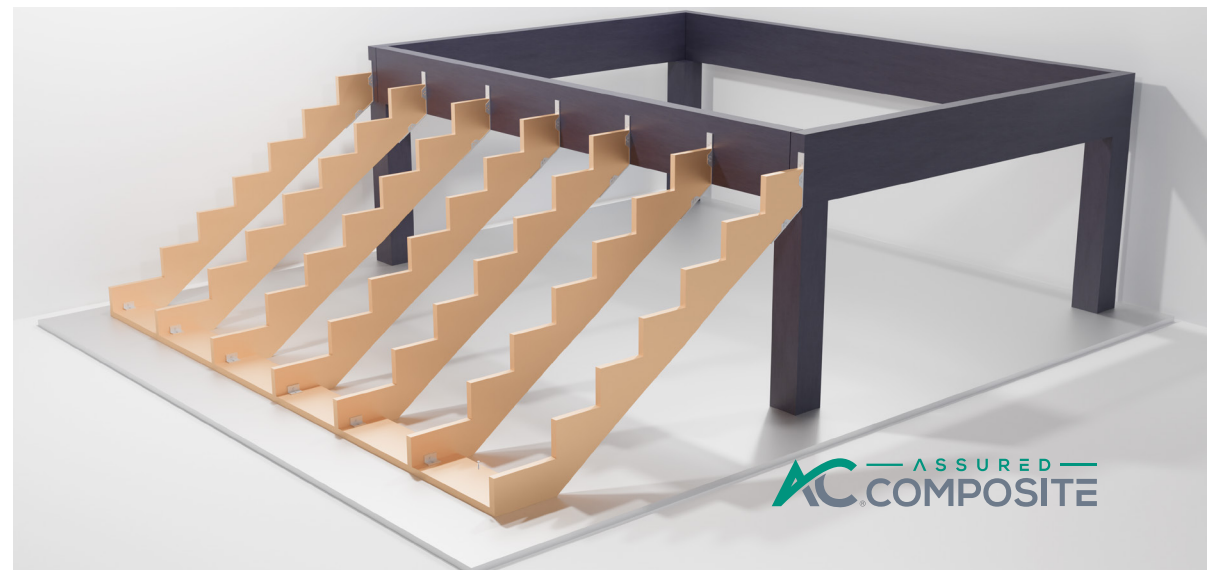
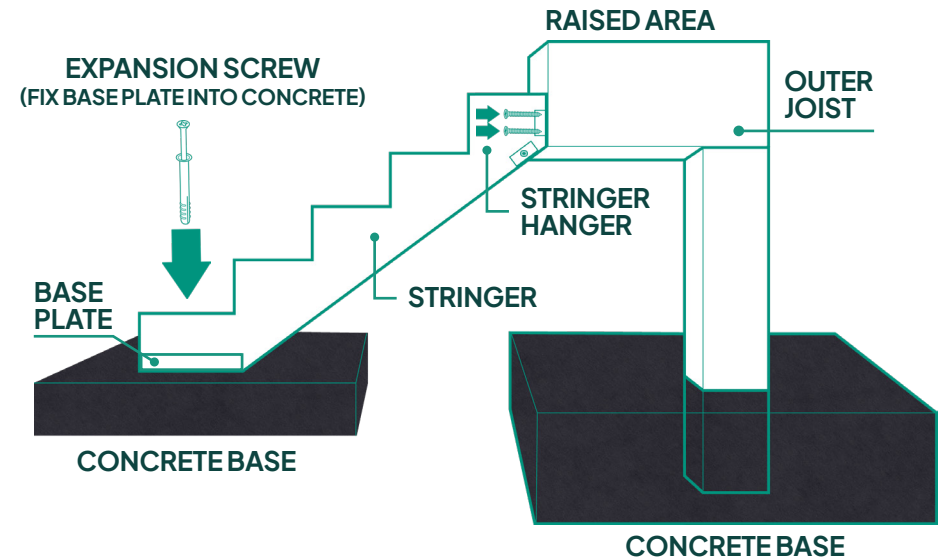


# INSTALLING STRINGER STEPS

## How to prepare stringer steps

Stringer steps consist of a row of stringers attached to a raised area and a landing area to form a framework of steps

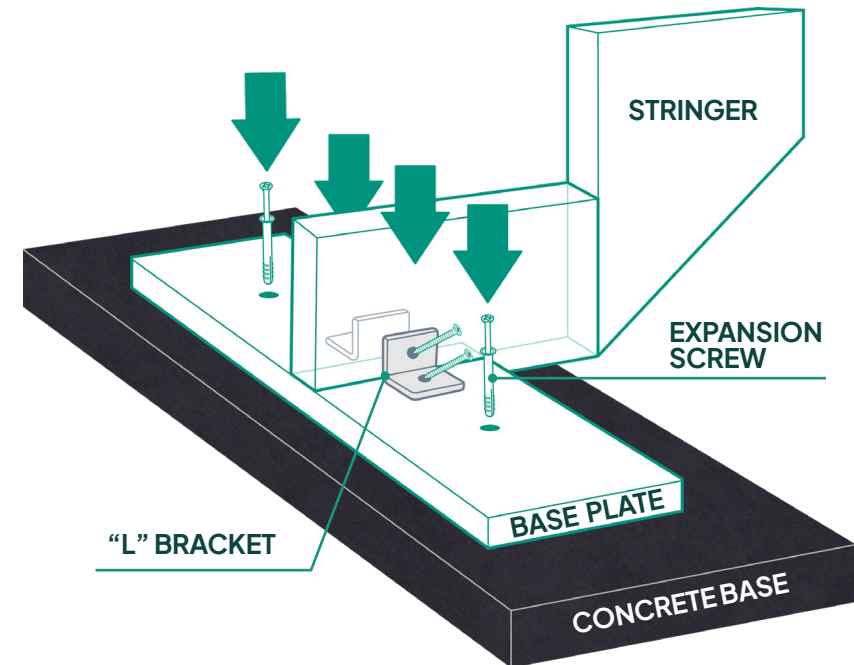
- 1 We recommend landing areas to be on a solid ground. If the ground is soft or uneven we recommend concreting posts into the ground to support each stringer (following the process on page 13)
- 2 Carefully plan the area taking into account the deck board and riser width when designing the tread and rise dimensions. Ensure the rise and tread is consistent along the steps and allow space at the bottom of the stringers for the thickness of the base plate
- 3 Measure and cut stringers and base plates where required
- 4 Measure and fix the stringer hangers to the raised area using coach screws, pre-drilling all holes. Reinforce the raised area if required and ensure each stringer is spaced at 300mm max intervals centre to centre



# INSTALLING STRINGER STEPS

## How to fix stringer base plates to a concrete base

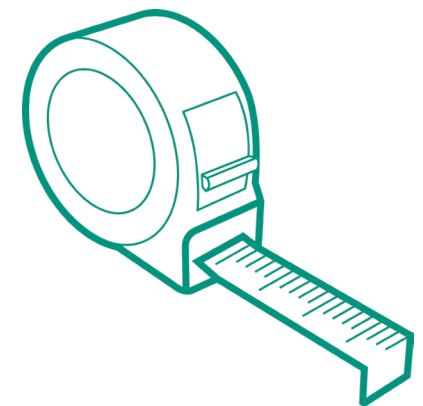
- 1 Measure and fix the base plates to the landing area by pre-drilling holes and screwing them down using expansion screws. We advise every 100mm approx intervals
- 2 Fix stringers to hangers by screwing together using coach screws, pre-drilling all holes
- 3 Use “L” brackets to fix stringers to base plates using coach screws, pre-drilling all holes. Ensure that each stringer is spaced at 300mm max intervals centre to centre





# DECKING & ACCESSORIES

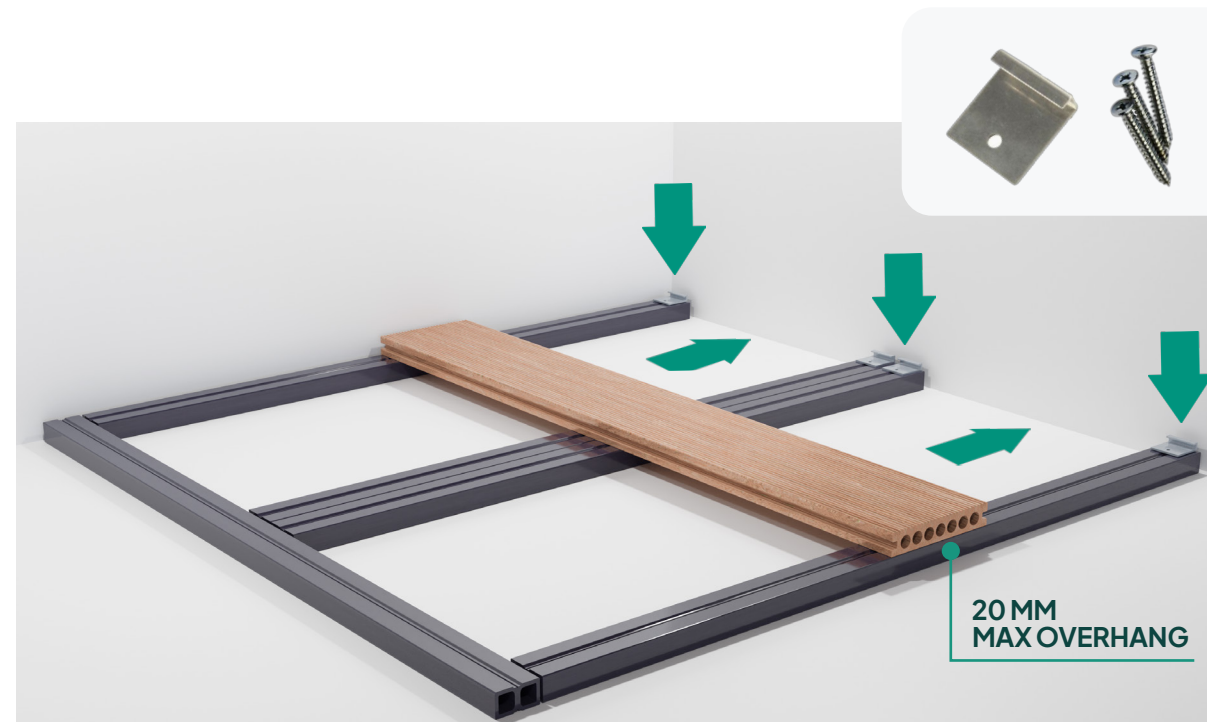
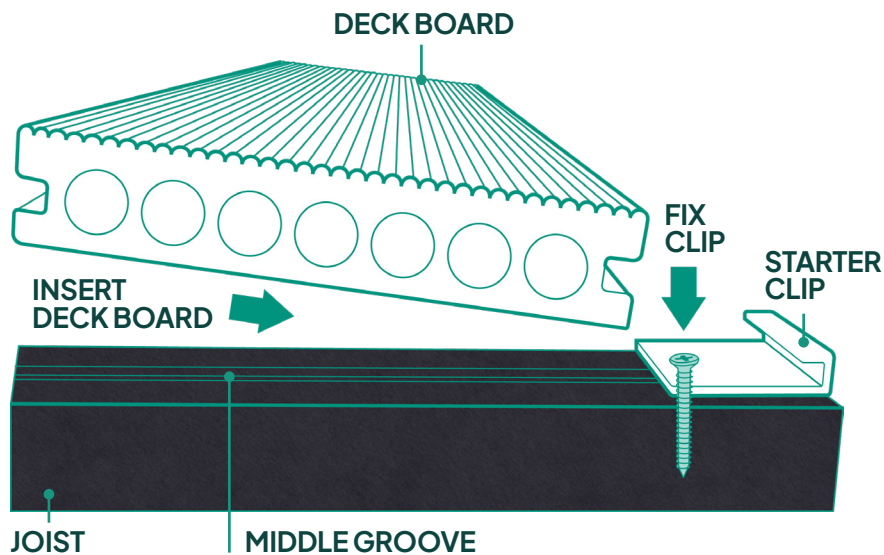
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# INSTALLING DECKING BOARDS USING STARTER CLIPS

We recommend a maximum deck board overhang of 20mm

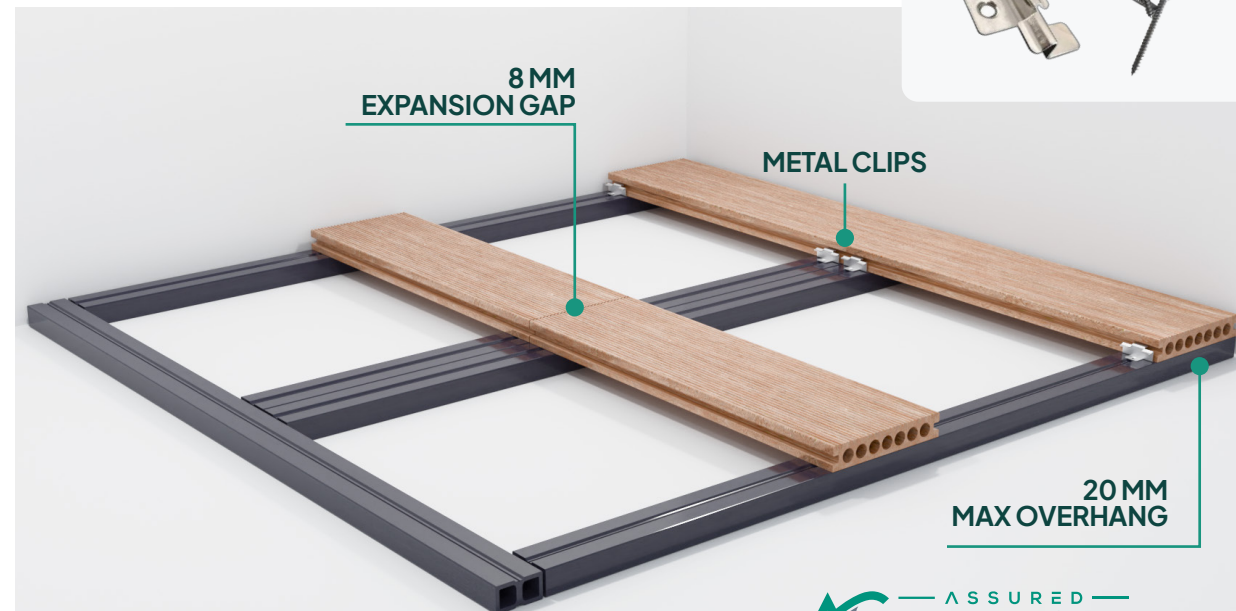
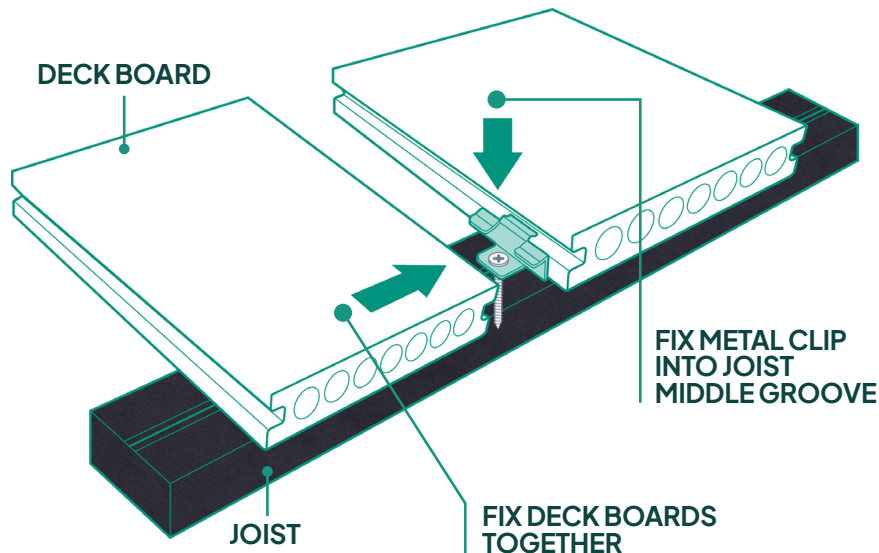
- 1 Fix starter clips to the edge of the framework at every joist. Screw through the hole on each starter clip with the screws provided ensuring that the screws are fully screwed into place to prevent catching on the deck board underneath
- 2 Fix the first deck board by pushing into the starter clip. Check the deck board is securely in place before continuing
- 3 If installing deck boards with metal clips please refer to page 22. If installing deck boards using plastic clips please refer to page 23



# INSTALLING DECKING BOARDS USING METAL CLIPS

We recommend a maximum deck board overhang of 20mm

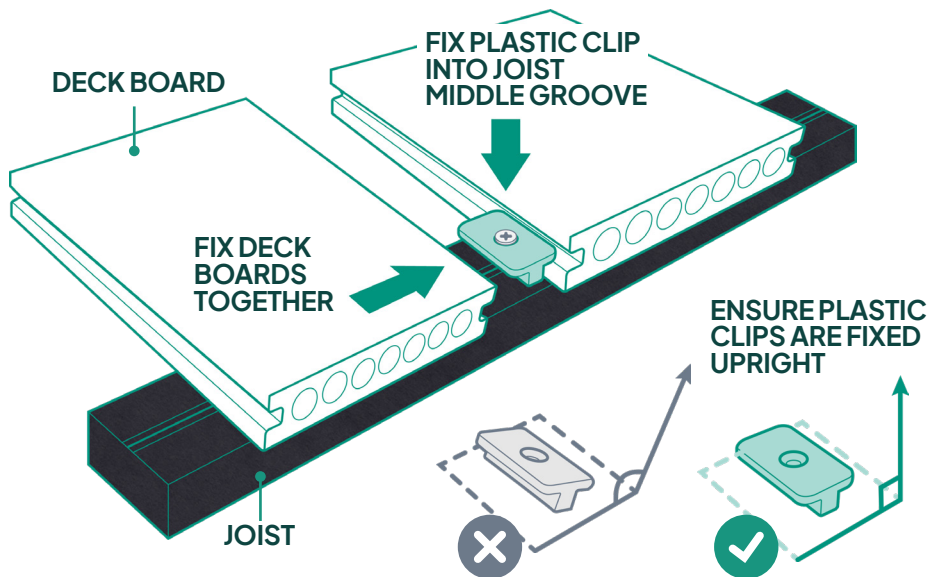
- 1 Fix metal clips to the first deck board at every joist with the screws provided. Place the metal clips into the deck board groove and screw the other side down through the hole into the joist. Fix the next deck boards into place
- 2 Where deck boards meet leave an 8mm expansion gap
- 3 Continue with the same process until the last deck board, cutting deck boards where required
- 4 Fix the final deck board. Please refer to page 24



# INSTALLING DECKING BOARDS USING PLASTIC CLIPS

We recommend a maximum deck board overhang of 20mm

- 1 Fix plastic clips to the first deck board at every joist with the screws provided. Place the side of the plastic clips into the deck board groove and screw down half way ensuring they are upright. Screw down fully when the next deck board is in place
- 2 Where deck boards meet leave an 8mm expansion gap
- 3 Continue with the same process until the last deck board, cutting deck boards where required
- 4 Fix the final deck board. Please refer to page 25



# INSTALLING LAST DECK BOARD USING METAL CLIPS

- 1 Fix the final deck board as normal but do not fix the metal clips to the outer groove
- 2 Pre-drill holes and screw through the outer groove at an angle and into the joist. Start at 80mm approx then at every 300mm approx intervals
- 3 Where the groove is not accessible pre-drill holes and screw through the face of the deck board avoiding the groove

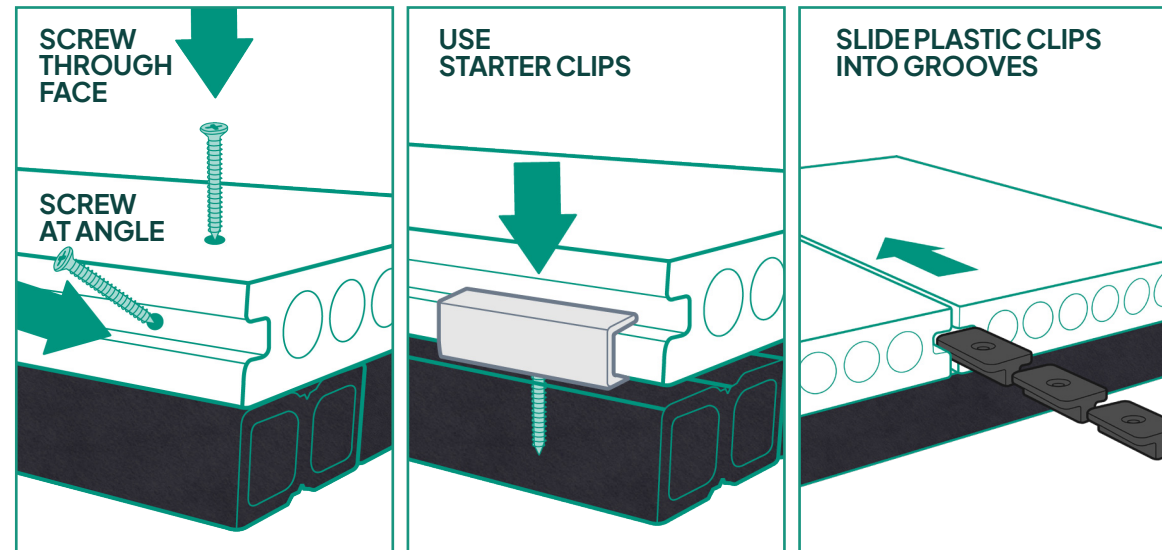




# INSTALLING LAST DECK BOARD USING PLASTIC CLIPS

There are 2 ways to fix the final deck board when using plastic clips

- 1 Fix the last deck board as normal but do not fix plastic clips to the outer groove**
  - Pre-drill holes and screw through the outer groove at an angle and into the joist
  - Start at 80mm approx and then at every 300mm approx intervals
  - Where the groove is not accessible pre-drill holes and screw through the face of the deck board avoiding the groove



- 2 Do not fix the last 2 deck boards**
  - Measure 2 deck boards width and 2x6mm gaps and mark
  - Fix the starter clips to the joist framework every 300mm intervals at every joist
  - Screw through the hole on each starter clip with the screws provided ensuring that the screw is fully screwed into place to prevent catching on the deck board underneath



# INSTALLING LAST DECK BOARD USING PLASTIC CLIPS

- Fix the last deck board by pushing into the starter clip. Check the deck board is securely in place before continuing
- Fix the penultimate deck board(s) into the plastic clips which are already in place leaving a 6mm gap. Slide the number of plastic clips required between the last 2 deck board grooves and fix into place at every joist using the screws provided



# INSTALLING BULLNOSE EDGE STEPS

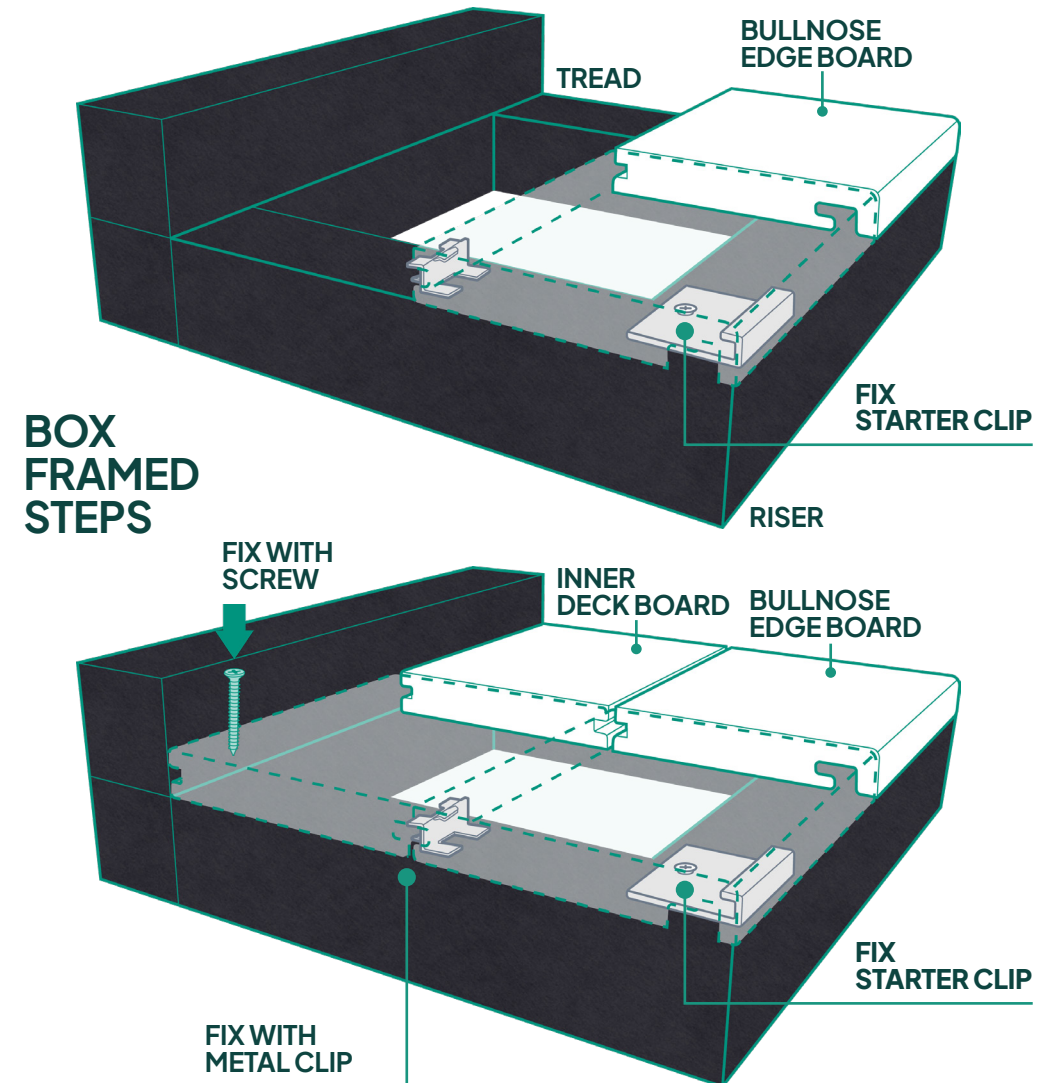
Carefully plan the area checking all measurements. Measure and cut deck boards where required and where deck boards or bullnose edges meet leaving an 8mm expansion gap

- 1 Fix starter clips to the edge of the step at every 300mm max intervals centre to centre. Screw through the hole on each starter clip with the screws provided ensuring that the screw is fully screwed into place to prevent catching on the deck board underneath
- 2 Fix the bullnose edge by pushing into the starter clip. Check the bullnose edge is securely in place before continuing

## USING METAL CLIPS

- 1 Fix metal clips to the bullnose edge at every joist with the screws provided. Place the metal clips into the deck board groove and screw the other side down through the hole
- 2 Fix the inner deck board as normal into the metal clips. Pre-drill holes and screw through the face of the deck board avoiding the groove. Start at 80mm approx then at every 300mm max intervals

Deck boards or fascia can be used for the risers

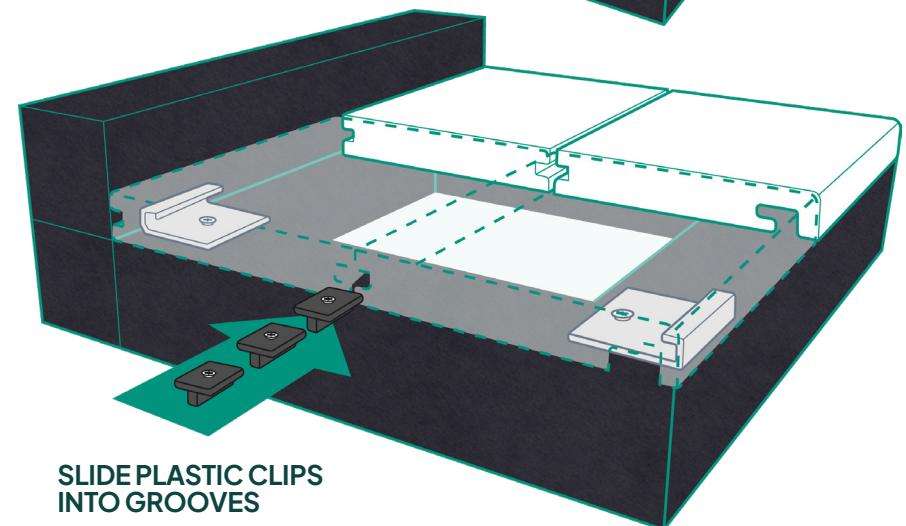
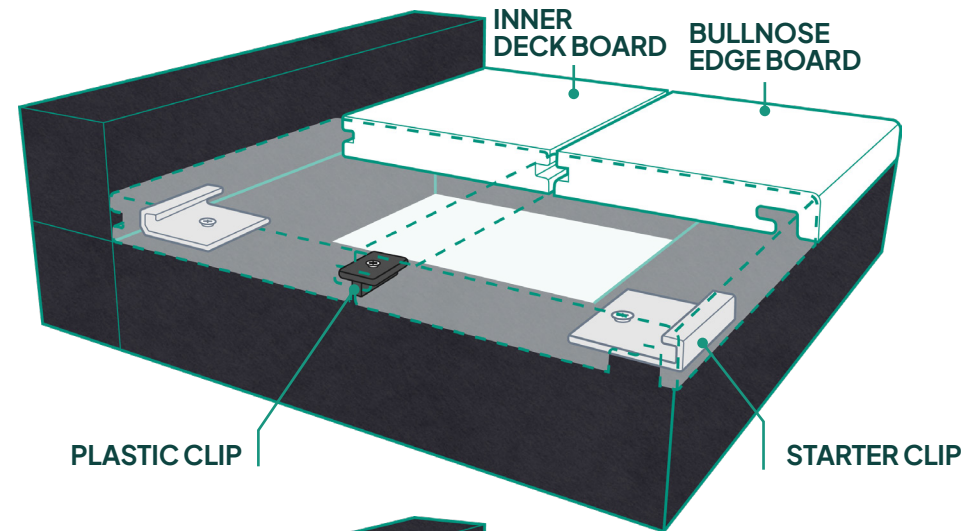


# INSTALLING BULLNOSE EDGE STEPS

Carefully plan the area checking all measurements. Measure and cut deck boards where required and where deck boards or bullnose edges meet leaving an 8mm expansion gap

## USING PLASTIC CLIPS

- 1 • Fix the inner deck board by measuring from the bullnose edge the width of a deck board and a 6mm gap and mark
  - Fix the starter clips at every 300mm max intervals
  - Screw through the hole on each starter clip with the screws provided ensuring that the screw is fully screwed into place to prevent catching on the deck board underneath
- 2 • Fix the inner deck board by pushing into the starter clip. Check the deck board is securely in place before continuing
- 3 • Slide the number of plastic clips required between the deck board grooves and fix into place at every joist using the screws provided



# INSTALLING DECKING BOARD STEPS

Carefully plan the area checking all measurements. Measure and cut deck boards where required and where deck boards or bullnose edges meet leaving an 8mm expansion gap

- 1 Fix the deck board to the riser by pre-drilling holes top and bottom and screwing through the face of the deck board. Start at 80mm approx then at every 300mm max intervals. Ensure that the deck board finishes flush with the top of the tread and avoid screwing through the grooves
- 2 Fix starter clips to the inside of the tread every 300m max intervals. Screw through the hole on each starter clip with the screws provided ensuring that the screw is fully screwed into place to prevent catching on the deck board underneath
- 3 Fix the inner deck board by pushing into the starter clip. Check the deck board is securely in place before continuing

## LAST DECK BOARD

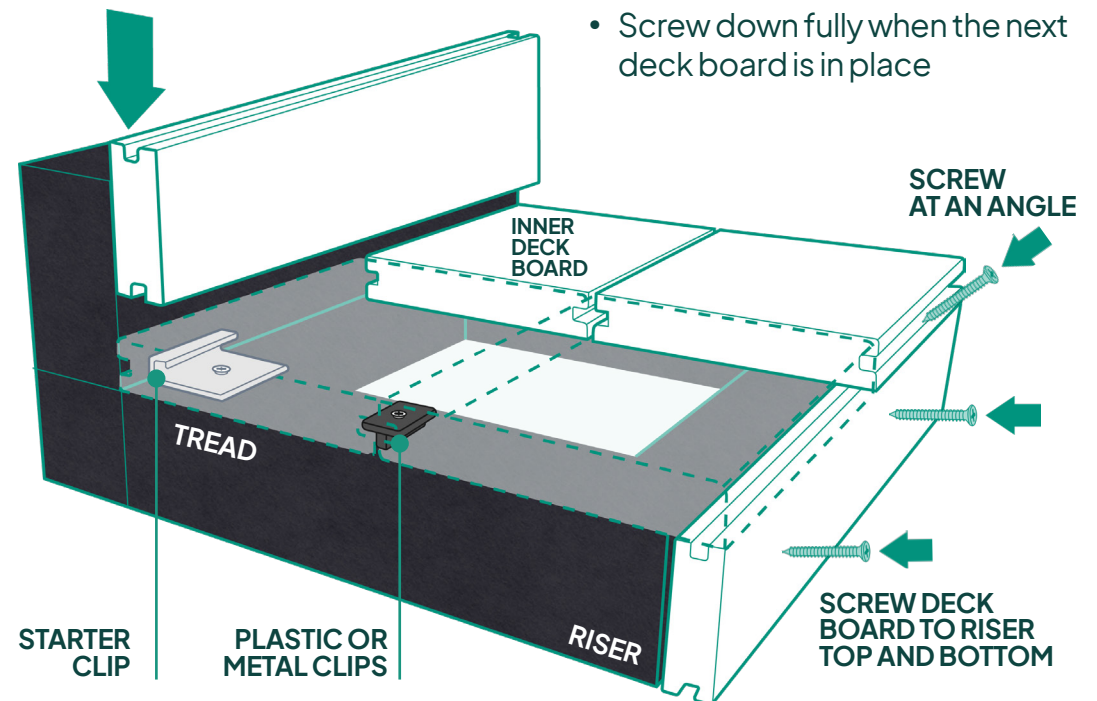
Fix the last deck board as normal finishing flush with the deck board riser but do not fix any clips to the outer groove. Pre-drill holes and screw through the outer groove at an angle and into the joist. Start at 80mm approx then at every 300mm approx intervals

## USING METAL CLIPS

- Fix metal clips to the inner deck board at every joist with the screws provided
- Place the metal clips into the deck board groove and screw the other side down through the hole

## USING PLASTIC CLIPS

- Fix plastic clips to the inner deck board at every joist with the screws provided
- Place the side of the plastic clips into the deck board groove and screw down half way ensuring they are upright
- Screw down fully when the next deck board is in place



# INSTALLING DECKING BOARD STEPS AND FASCIA

Carefully plan the area checking all measurements. Measure and cut deck boards and fascia where required and where deck boards or fascia meet leaving an 8mm expansion gap

- 1 Fix starter clips to the inside of the tread every 300mm max intervals. Screw through the hole on each starter clip with the screws provided ensuring that the screw is fully screwed into place to prevent catching on the deck board underneath
- 2 Fix the inner deck board by pushing into the starter clip. Check the deck board is securely in place before continuing

## LAST DECK BOARD

Fix the last deck board as normal finishing flush with the deck board riser but do not fix any clips to the outer groove. Pre-drill holes and screw through the outer groove at an angle and into the joist. Start at 80mm approx then at every 300mm approx intervals

## FASCIA

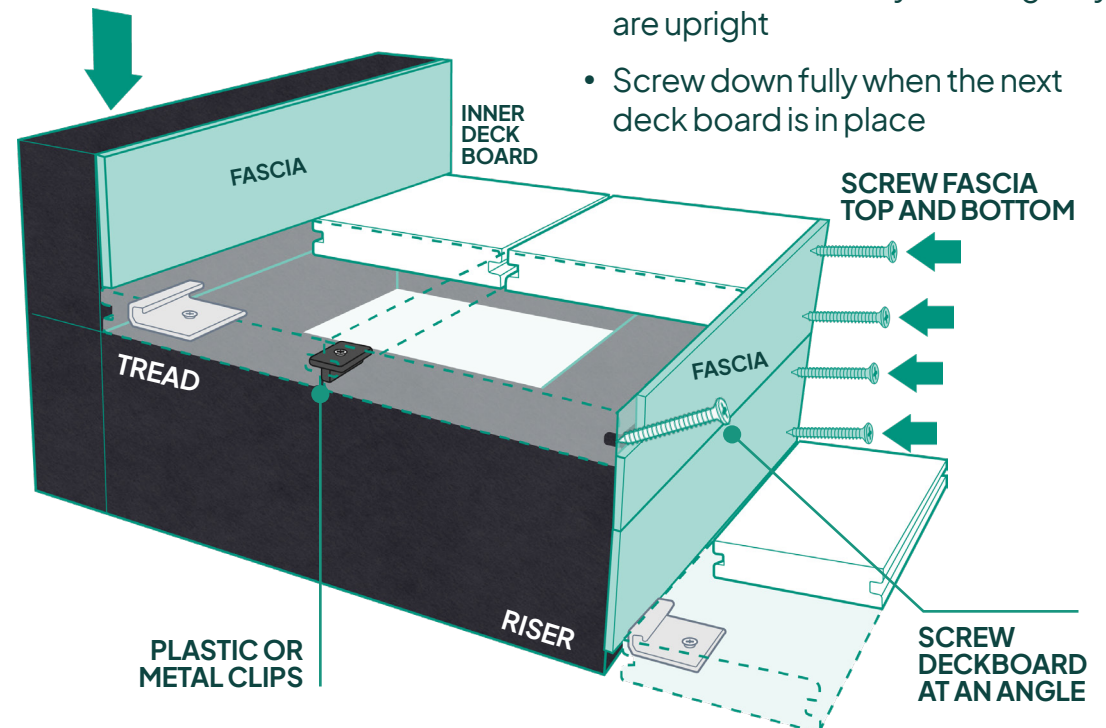
Fix the fascia to the riser by pre-drilling holes top and bottom and screwing through the face of the fascia. Start at 80mm approx then at every 300mm approx intervals. Ensure that the fascia finishes flush with the top of the deck board and leave a 8mm expansion gap when joining fascia

## USING METAL CLIPS

- Fix metal clips to the inner deck board at every joist with the screws provided
- Place the metal clips into the deck board groove and screw the other side down through the hole

## USING PLASTIC CLIPS

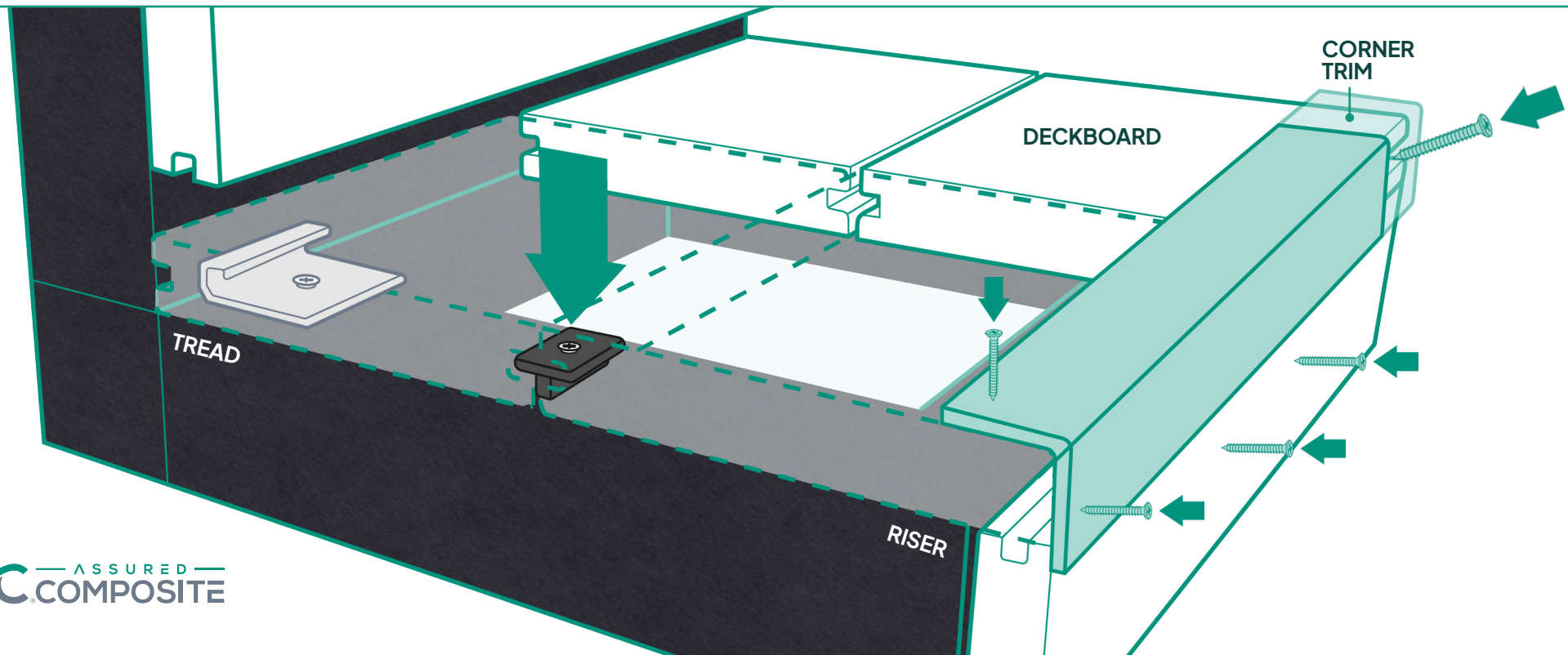
- Fix plastic clips to the inner deck board at every joist with the screws provided
- Place the side of the plastic clips into the deck board groove and screw down half way ensuring they are upright
- Screw down fully when the next deck board is in place



# INSTALLING CORNER TRIM

Carefully plan the area checking all measurements. Measure and cut corner trim where required

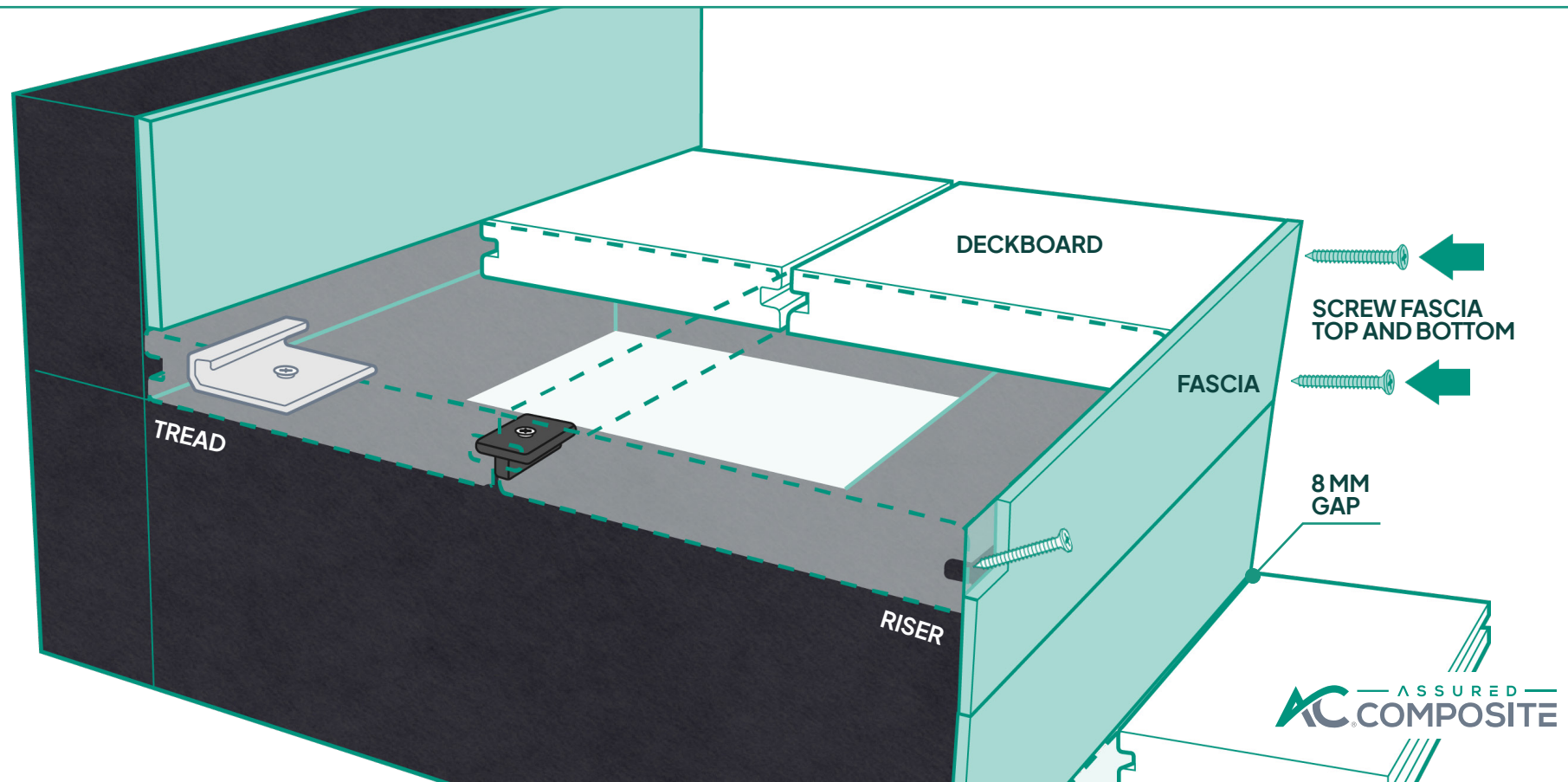
- 1 Fix the corner trim by covering the deck board edge
- 2 Pre-drill holes and fix into place by screwing directly through the corner trim and into the deck board and riser. Start at 80mm approx and then at every 300mm approx intervals. Leave an 8mm expansion gap when joining corner trim
- 3 Corner trim can also be fixed into place using a high bond strength grab adhesive



# INSTALLING FASCIA

Carefully plan the area checking all measurements. Measure and cut fascia where required

- 1 Fix the fascia by pre-drilling holes top and bottom and screwing through the face of the fascia. Start at 80mm approx then at every 300mm approx intervals
- 2 Ensure that the fascia finishes flush with the top of the deck board and leave an 8mm expansion gap when joining fascia







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