ENVIROBUILD Hyperion Composite Decking Installation Guide

Contents

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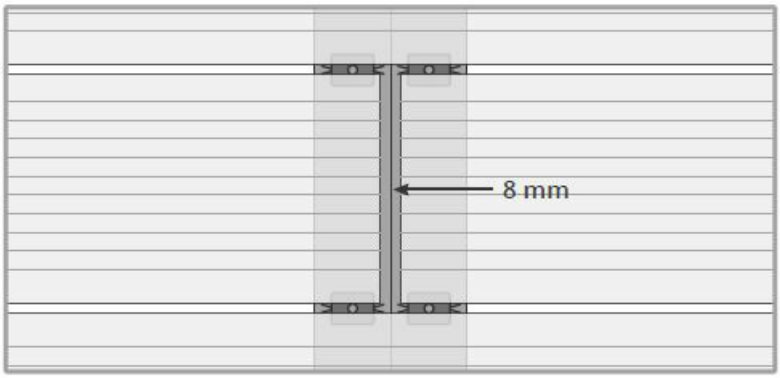
Please Note
EnviroBuild has a large variety of resources and expert help at hand, ready to answer any questions you may have. It is the customer's responsibility to determine the suitability of Hyperion® Decking for their particular private or commercial installation. It is solely the customer's responsibility to consult with their local building control to determine fire classification project requirements.

Must Read

While composites are highly durable, to ensure their lasting beauty, please follow these important guidelines when storing, moving and working with Hyperion® Decking products.

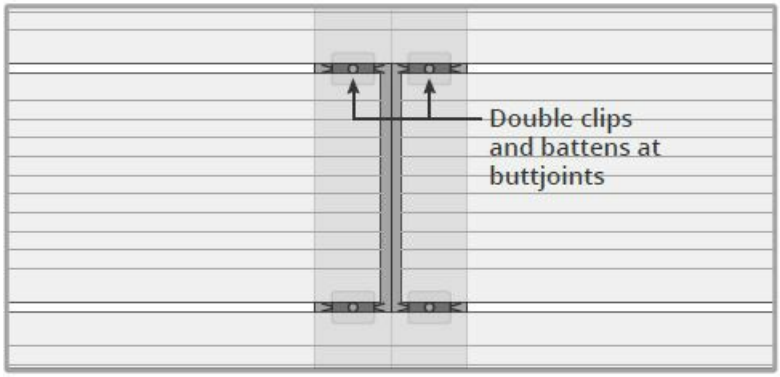
Always leave expansion gaps

- A minimum gap of 8 mm should be left at the board end butt joints to allow material expansion (or min. 0.2% of the length for trimmed boards).
- Gaps between board edges and solid abutting walls/objects should be a minimum of 20 mm.
- 20 mm should also be left between substructure butt joints.
- Not leaving an expansion gap will result in boards warping and will invalidate the warranty.



Do not share clips or joists between board ends

- Clips must not be shared between board butt joint ends and a double joist should be used to support both board ends fully.

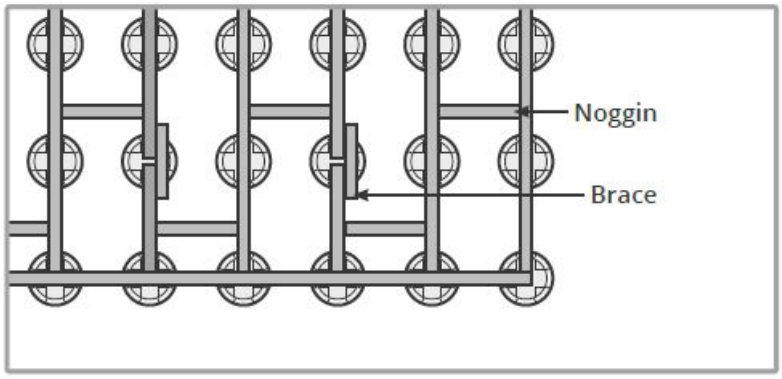


Always ensure an adequate drainage slope

- A minimum drainage slope of 0.5% (5 mm per 1 m) is required on the deck surface to ensure sufficient water run-off.
- Poor drainage will result in standing water and can lead to boards warping and a build-up of mould.

Always use noggins in larger substructures

- On larger decks, noggins should be installed between joist rows. Braces should also be used to join joist butt joint ends.



Be aware of tannins and natural 2–12 month colour fading

- Hyperion® Composites contain natural wood oils called tannins.
- For 2–12 months, tannins are gradually washed out of the wood by rain and moisture and during this process, water-like marks may appear like in the pictures below.
- Different environmental conditions can cause this process to be faster or slower.
- This is nothing to be worried about and they should disappear after the boards have been wet and dried sufficiently.
- This process makes the boards naturally lighten and stabilise after the tannins are fully washed out.

Prior to Installation

While composites are highly durable, to ensure their lasting beauty, please follow these important guidelines when storing, moving and working with Hyperion® Decking products.

Storage

- Materials should always be covered until ready to be installed to maintain a clean surface. If stored outside, use a non-translucent material.
- All products should be stored flat and level, supported above the ground at 500 mm intervals.
- Battens used to separate and support stored material should be spaced no more than 500 mm apart, to ensure the boards don’t bow.
- Stack units with banding and bottom supports aligned.
- Pallets of decking boards should not be stacked more than 4 pallets (3 m) in height.

Handling

- Hyperion® Decking materials should be handled with care when unloading.
- When removing boards from a unit, lift the boards and set them down. Do not slide boards against each other when moving them.
- Carry Hyperion® Decking boards on the edges for better support.
- During construction, do not slide or drag any equipment across the boards.
- The surface of the boards should be kept free of construction material and waste to prevent damage.
- Each 4 m decking board can weigh between 9.5 kg and 14.5 kg, so please ensure they are handled safely. We recommend that two people handle the boards during transportation.

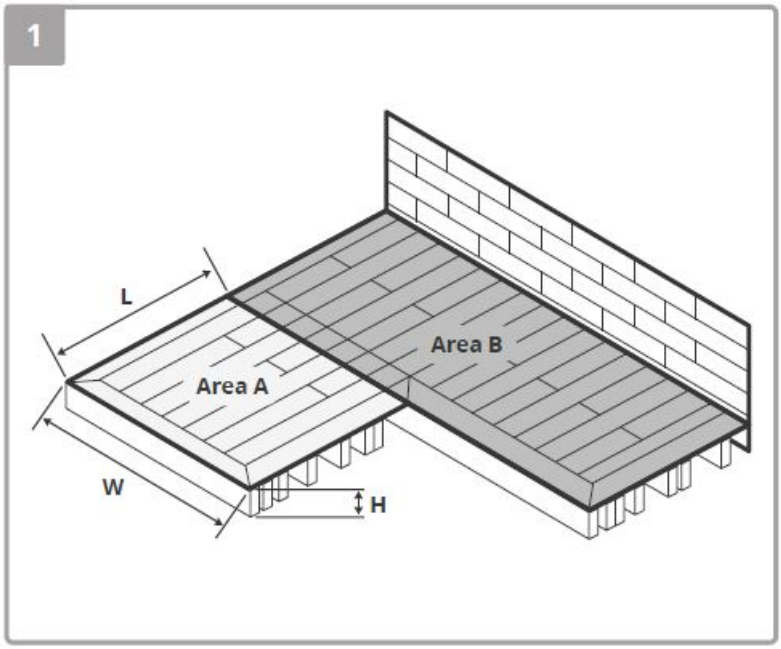
Recommended Tools

Standard woodworking tools can be used when working with Hyperion® Decking. If you are unsure on how to use

any tools, please consult the tool manufacturer's user manual.

- Safety Glasses and relevant Personal Protection Equipment (PPE).
- Circular Saw; we recommend a thin kerf 40-tooth alternate top bevel finish blade to achieve the cleanest cuts. If cutting Manticore® plastic lumber use a tungsten carbide blade (small metal fragments can get through the recycling process).
- Power Mitre Saw for efficiency and bevelled edges.
- Jig Saw
- Tape Measure
- Hand Drill: 3 mm and countersink drill bits (can use an all-in-one smart bit).
- Impact Driver; use T15 secure drill bit supplied in all Hyperion® hidden fastening packs and use low technique setting.
- Carpentry Square
- Spirit Level
- Chalk Line

Calculating Materials
When determining how much Hyperion® Decking material will be required, you can either use separate plans or follow the method below. Feel free to use our online calculator or speak to one of our technical experts on 0208 088 4888 for an accurate quote.

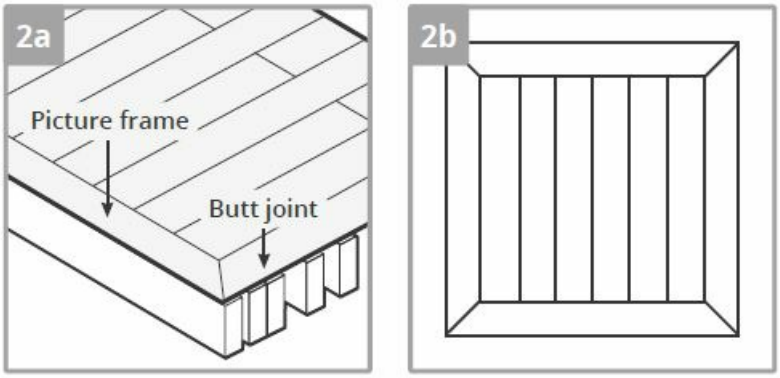


1. Start off by measuring the width and length of your proposed decking area(s) (fig. 1).
2. Plan which direction to lay your decking.
   The following example will use a decking area of 3 m wide and 6 m long and 4 m Explorer decking boards (145 x 21 mm) with 6 mm hidden fasteners:
3. If the boards are laid lengthways, to find the number of board rows, divide the deck width by the width of the board plus a 6 mm spacing per board (allows for the hidden fastener gap).
4. Multiply the length of the deck by the number of boards wide (given above). This gives you the total linear meters of deck boards required.
5. Finally, divide the total linear meters of decking by the length of boards being used.

- 3 m width / (0.145 m + 0.006 m) = 20 boards wide.
- 6 m length x 20 boards wide = 120 linear meters.
- 120 linear meters / 4 m board length = 30 lengths of 4 m decking boards.

Picture Frame Border

- If you plan to have a picture frame border (fig. 2a, 2b), add on the length of the boards running against the overall board direction, then divide by the length of the decking board used.
- 6 linear meters / 4 m length decking board = 1.5 boards
- Always round up to help you determine how many more decking boards and accessories will be required so in this case 2 boards.



Tips For Calculating Materials

- It is recommended that you add at least 5% to the total material required for a wastage factor. It is unlikely you will use the board lengths perfectly.
- For diagonally laid decking it is recommended that you add 15% extra material as you will generate more scrap from cutting.
- A drawing to scale may help you determine how much more material will be required.
- If you do not want butt joints (fig. 2a) across the deck and the width is no greater than 2.8 m, then you need to ensure you order enough extra 4 m boards to cover the area.
- Always round up the number of boards required.
- For multiple decking areas, follow the steps for each above and sum the quantities together.

You May Also Need

For fixings, finishings and substructures, the below guide will help determine how much of these materials you may require.

Finishings & Fixings

Item Product Profile (mm) Size Options Colour Options Quantity

	Explorer Fascia Board	72 x 12	2500 mm	Oak, Walnut, Granite, Stone, Silver Birch	–
	Frontier Fascia Board	140 x 12	2200 mm	Iroko, Teak, Slate, Marble	–
	Frontier Bullnose	143 x 22	4000 mm	Iroko, Teak, Slate, Marble	–
	Explorer Edge Board	54 x 54	2500 mm	Oak, Walnut, Granite, Stone, Silver Birch	–
	Explorer Corner Trim	54 x 40	2500 mm	Oak, Walnut, Granite, Stone, Silver Birch	–
	6 mm Hidden Fasteners	–	Box of 100	Black	20 clips
	3 mm Hidden Fasteners	–	Box of 100	Black	20 clips
	Starter Fasteners	–	Box of 50	Black	4 clips

Substructure

Item Product Profile (mm) Size Options Colour Options Quantity

	Manticore Plastic Joists	50 x 50 50 x 100 50 x 150	3100 mm 3400 mm 3400 mm	Black	4 m per m^2
	Manticore Plastic Posts	140 x 12	2200 mm	Black	0.5 m per m^2
	MESA Joist Cradle Risers	110 mm ring 90 mm base	10 - 30 mm 10 - 40 mm	Black	8 per m^2
	MESA Adjustable Pedestals	140 mm head 200 mm base	Heights from 12 - 595 mm	Black	4 - 9 per m^2

These are best estimates only, for more complex designs and features, a drawing to scale may help you determine how much material will be required.

Installing Your Subframe

Before You Install Your Subframe

Hyperion® Decking can be installed on various sub-frame choices; treated timber or plastic lumber anti-rot joists. For all types of sub-frames, you must adhere to the following rules to ensure warranty validity.

- The joists are designed to take live loads, any static loads must be placed over the supports.
- Only use tungsten carbide-tipped drill bits and saw blades for working with plastic lumber, we do not recommend diamond-tipped blades (small metal fragments can get through the recycling process).
- To allow sufficient drainage, a drainage slope of 0.5% (5 mm per meter) should be incorporated.
- Due to temperature-induced expansion and contraction with plastic lumber, you should never fix bearers directly to the foundations; if you have to fix the bearers to the foundations, use expansion clips.
- Plastic bearers should be installed with the greatest dimension as the upright.
- The bearer must not overhang support by more than 50 mm.
- Where lumber meets a cross beam, you must leave a minimum gap of 10 mm from the bearer end to the cross

beam. These can be joined using expansion L-brackets over support or with joist hangers.

- A joist must be used under deck board ends, and a double joist structure must be used to support deck butt joints.

When using 10–40 mm or 10–30 mm decking risers, loads must not exceed 350 kg per m2. These joist cradles should be spaced no more than 500 mm apart.

Spacing & Supports

The range of decking you use will determine the joist centres used for the project. Ensure widths between joist centres are no greater than the below table.

Range	Maximum Joist Support Span	Diagonal Support Span
Explorer	300 mm	250 mm
Frontier	400 mm	300 mm

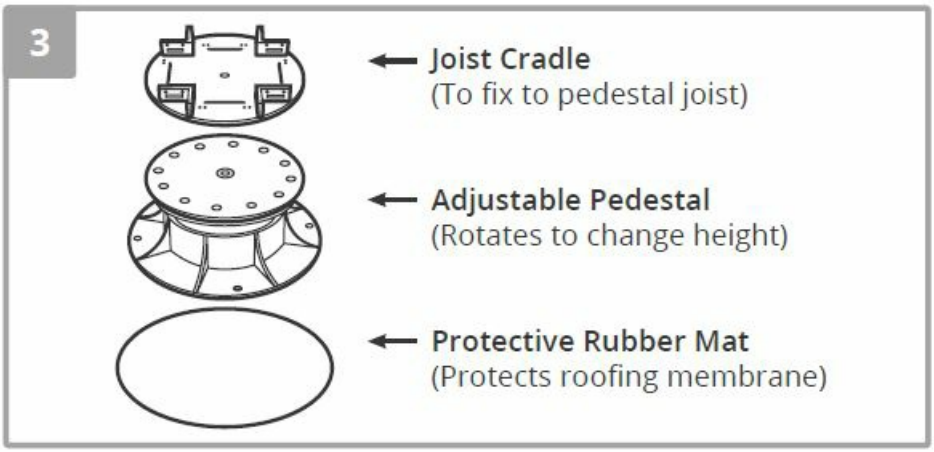
If you plan on using Manticore® Plastic lumber, the height dimension of the bearer will determine how often the joists need to be supported. Ensure widths between supports under joists are no greater than the 'Plastic Bearer Lumber Profile' table.

Plastic Bearer Lumber Profile	Maximum Pedestal Support Span
50 x 50 mm	500 mm
50 x 100 mm	750 mm
50 x 150 mm	1500 mm

If installing on soft ground, see Subframe on Soft Foundations (page 10). If the installation is on concrete foundations or a flat roof, read on below.

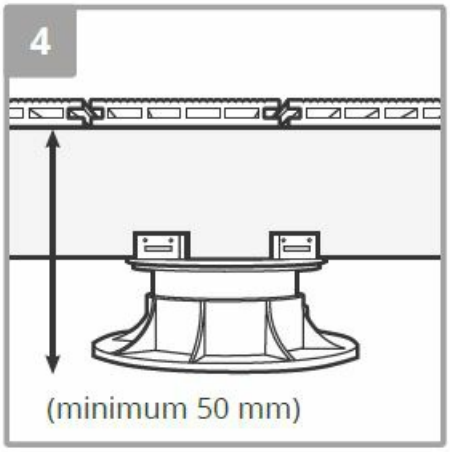
Subframe on Concrete Foundations

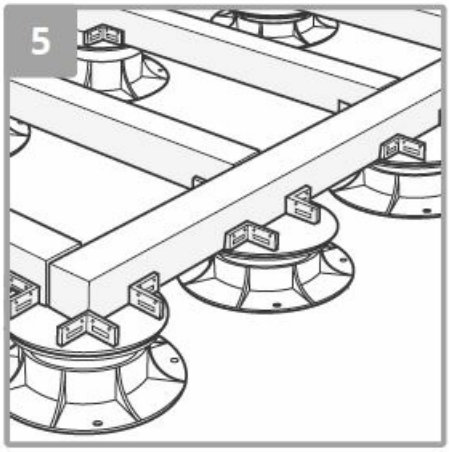
With solid flat foundations or a flat roof, the decking substructure can be supported with adjustable support pedestals (fig. 3). These are simply placed straight onto the ground with a protective rubber pad (for flat roofs) and the height of each is adjusted by rotating the pedestal top.



Preparing the Area (Concrete Foundations)

- The foundations should incorporate a drainage slope of 5 mm per meter to avoid water pooling.
- The installation condition should be flat and stable to avoid deformation of the decking surface.
- A gutter or scupper should be made in the foundations.
- Composite boards must be a minimum of 50 mm off the ground (fig. 4).
- In areas of potential excessive water and debris build-up, we recommend using Manticore® Plastic Bearers. If using pressure-treated timber joists, allow a minimum of 90 mm gap off the ground to ensure good air ventilation and water passage.





Preparation for Roof Terraces

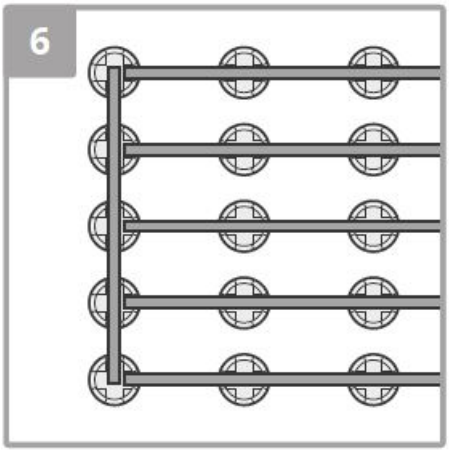
- Ensure the roofing membrane is 100% watertight and free of debris.
- On flat roofs, protective rubber mats should be placed under pedestals to avoid damaging the roofing membrane (fig. 3).
- Where a waterproof membrane is in place, pedestals cannot be bolted to the ground; the weight of the decking should be sufficient enough to keep everything in place.

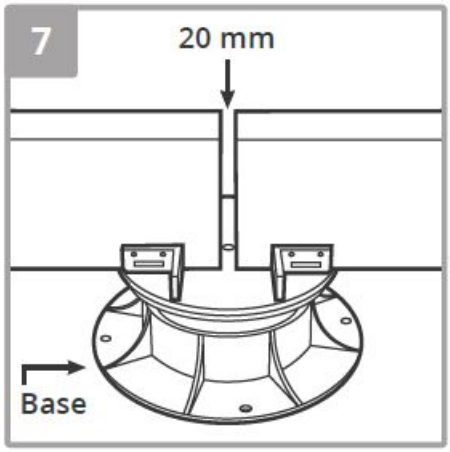
Laying the Pedestals (Concrete Foundations)

1. Starting from the edge of the decking area, lay out the pedestals (fig. 6):
    - Rotate the base clockwise to increase the pedestal height to your required size (fig. 7).
    - Your joist size will affect how often you need to lay the pedestals (see page 8, ‘Spacing & Supports’).

- In corners or along edges where the top of the pedestal cannot fully support the joist, you can simply turn the pedestal upside down.

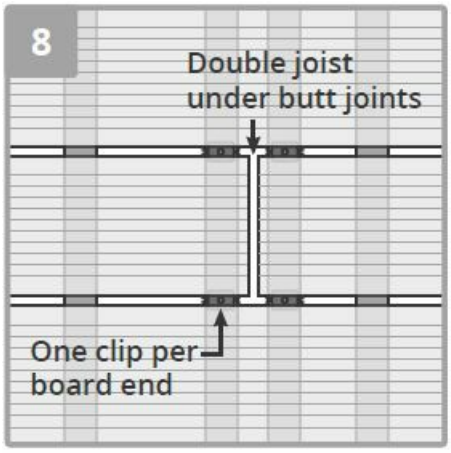
2. For roof terraces, it is recommended to use rubber base mats to provide an extra layer of protection.
3. If you're installing on a slope, use a spirit level to check the level of the pedestals. Adjust the heights of the pedestals by rotating the pedestal heads until a level surface is achieved.
4. To take slopes in the foundations into account, joist cradles can be used that can correct for the incline.

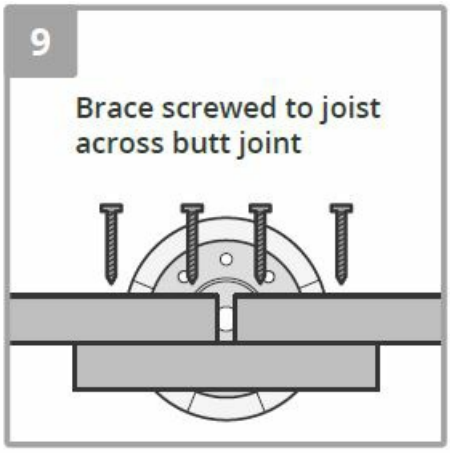


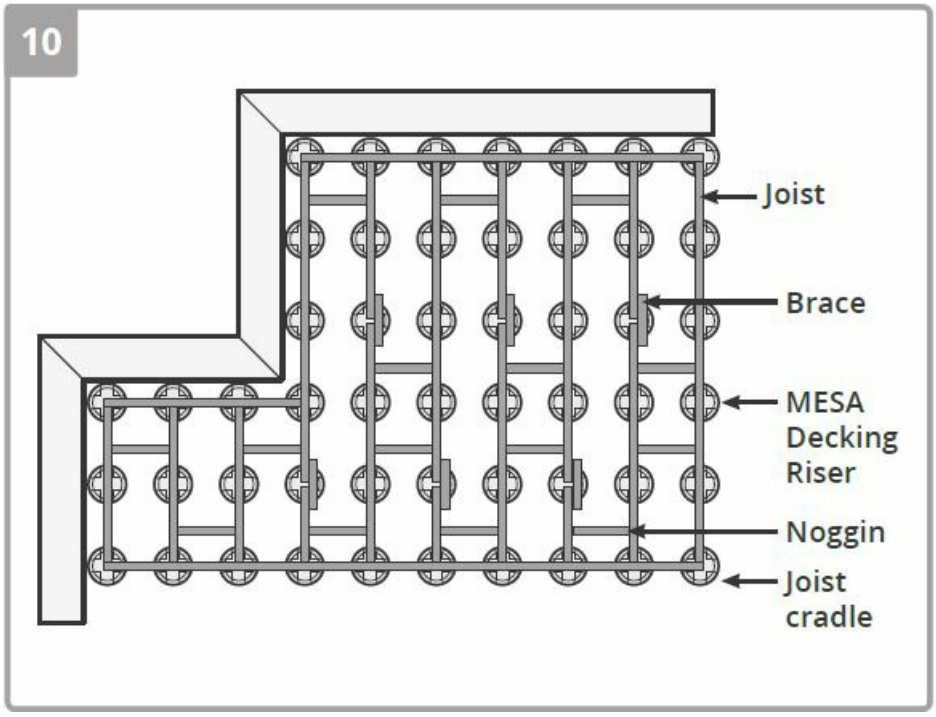


Laying the Joists (Concrete Foundations)

1. After laying the pedestals, place bearers on top of the pedestal centres starting from the edge of your sub-frame (fig. 6).
2. Ensure that each bearer/joist is supported in a minimum of 3 places. The support centres shouldn't be any further than the maximum support spans (see page 8, 'Spacing & Supports'). The decking range used will also determine the maximum distance between joist centres 'Spacing and supports'
3. If your substructure contains any joist butt joints, joists can be laid end to end when supported on a pedestal. Remember to leave a 20 mm expansion gap between the joist ends (fig. 7).
4. A full joist width and clip must be used under each deck board end, thus you must ensure to have a double joist structure for deck board butt joints (fig. 8).
5. When joining joists over pedestals (fig. 7) without installing a joist cradle, a brace should be added across joist butt joints. This is especially important when using joists beneath a larger terrace as the lumber may contract, putting pressure on the decking installed above. To secure the brace, screw a section of lumber across the joist butt joint (fig. 9). Holes should be oversized by 3 mm to allow for expansion and contraction.







Larger decks can be strengthened with noggins, which! contribute to the structural durability of the deck (see above).

Subframe on Soft Foundations

If installed on soft ground, post supports are recommended to support your deck.

Preparing the Area (Soft Foundations)

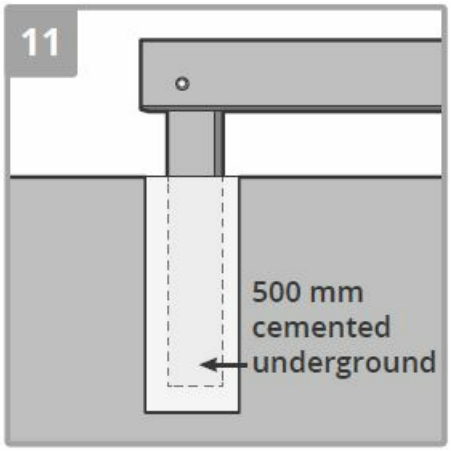
- Remove any top turf layer and lay screed/gravel to aid drainage. Use weed control fabric to prevent plants from growing below the decking.
- Incorporate a drainage slope of 4 mm per meter.
- Composite decking must be a minimum of 300 mm off the ground when over soft ground.
- The foundations must be higher than surrounding areas to avoid ponding.

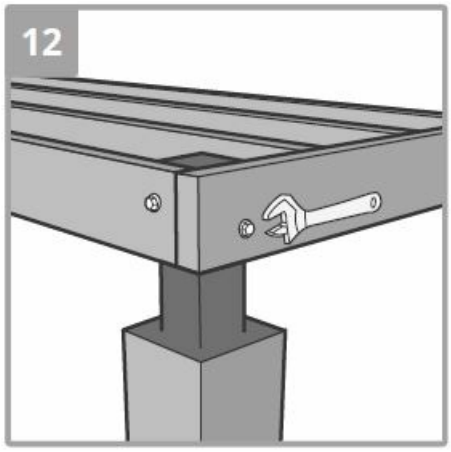
Installing the Substructure (Soft Foundations)

1. After preparing your area, start from the edge of the subframe and plant your posts into the ground:

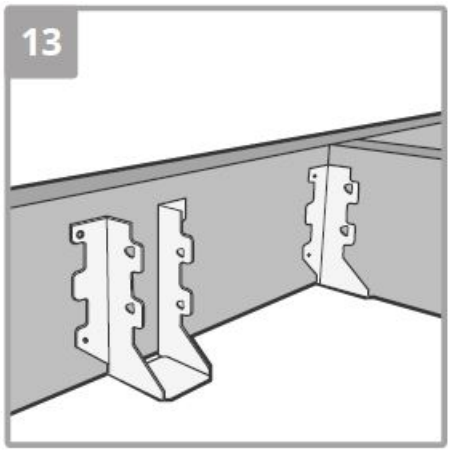
- Cement posts into the ground min. 500 mm or a third of the total post height (fig. 11).

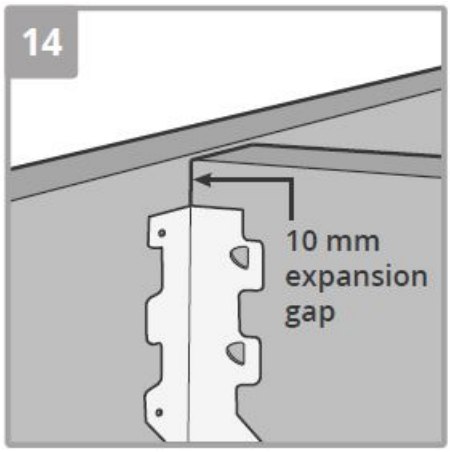
2. Once set, you can attach the joist frame:
    - Joists should be attached using good quality galvanised mushroom-capped bolts which penetrate both the bearer and the upright post; typically with countersunk nuts where appropriate (fig. 12).





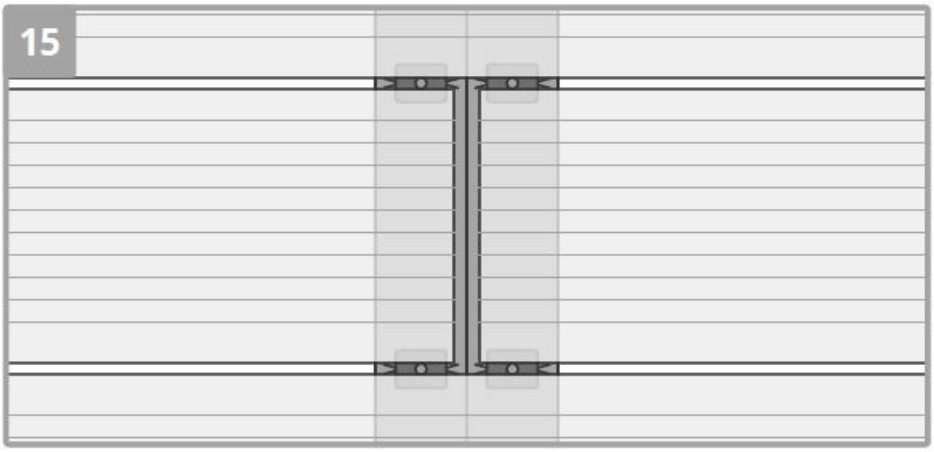
3. Ensure that each bearer/joist is supported in a minimum of 3 places. The support centres shouldn't be any further than the maximum support spans (see page 8, 'Spacing & Supports'). The decking range used will also determine the maximum distance between joist centres (see page 8, 'Spacing & Supports').
4. When using plastic lumber, bolt holes should be oversized by 3 mm to allow for expansion and contraction.
5. To strengthen the deck and reduce the amount of posts required, you can use joist hangers to fix joists to cross beams (fig. 13).
6. When using Manticore® Plastic Lumber, where the joist end meets a cross beam, you must leave a minimum gap of 10 mm to allow for joist expansion (fig. 14).





7. At butt joints the deck board ends should not share a single joist, each deck board end must be supported by a full joist. For deck board butt joints you must ensure to have a double joist structure underneath (fig. 15).

There should be one hidden fastener per board end at butt joints. Butt joints should not share one clip (fig. 15).

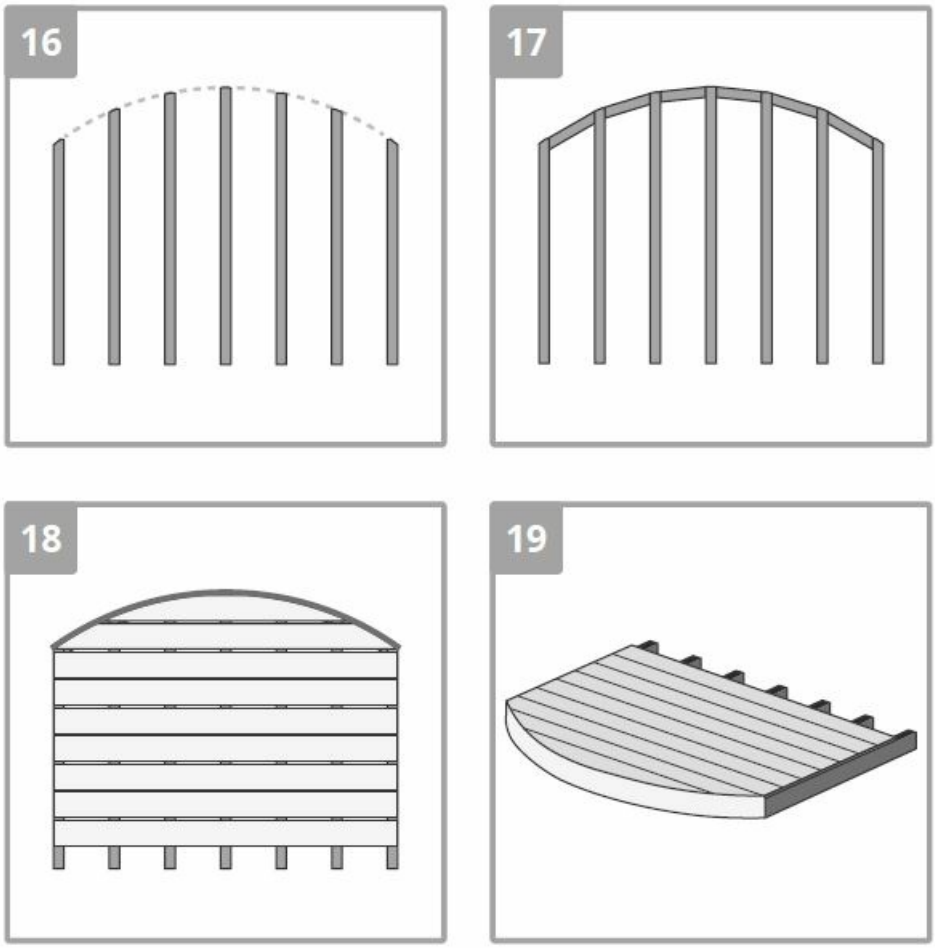


Using Noggins to Increase Substructure Strength

- Larger decks can be strengthened with noggins, which contribute to the structural durability of the deck (fig. 10).
- This involves fastening the joists to the decking posts using short pieces of lumber. The noggins will need to be installed in a straight line, perpendicular to the joists. Leave a 1 mm gap between the noggin and the joist at each side. Pre-drill the joists with two 10 mm holes at each end so the screw is free to move.
- Offset the noggins so that you can drill straight through the joist and into the end of the noggin to ensure security and stability.

Installing Decks With Curved Edges

1. Cut your joists to the desired curved shape:
    - Exact angles will depend on the desired position of the decking boards; it is possible to lay decking at up to 45° along joists, although joist spacing will need to be adjusted based on this.
    - It is important to keep the joists as close to perpendicular along the curved edge as possible (fig. 16).
2. Using straight lumber, brace the gaps between the joists, cutting the ends at angles to follow the curve (fig. 17). We recommend using Manticore® Plastic Lumber here.
3. Finally, after installing the decking boards as normal (page 18), a fascia board can be used to create the outer curve:
    - Gently bend the fascia board around the curve, screwing it into the ends of the joists.
    - Make sure to fix the fascia board to the joists rather than the braces (fig. 18, 19).



Common Mistakes & How to Avoid Them

Installing a substructure with no slope

- This results in poor drainage and mould.
- To ensure sufficient water run-off a drainage slope of 0.5% (5 mm per meter) should be incorporated within the substructure design.

Having no butt gaps between substructure joining

- Without butt gaps between joints, the boards may buckle and cause the decking to move apart. Where lumber ends at a butt joint, you must leave a minimum of a 10 mm gap from one lumber joist to the next. This allows space for expansion in higher temperatures.
- These gaps can be joined using a brace over a pedestal. This is especially important when using joists beneath a larger terrace as the lumber may contract, putting pressure on the decking installed above.
- To secure the brace, screw a section of lumber across the joist butt joint (See page 9, fig. 9). Holes should be oversized by 3 mm to allow for expansion and contraction.

Not using noggins on the substructure

- It is recommended on larger decks to use noggins (See page 9, fig. 10) between joist rows as noggins contribute to the structural durability of the deck (See page 10, ‘Using Noggins to Increase Substructure Strength’).

Using one set of fasteners for two boards

- When fastening over a butt joint, a total of four fasteners should be used, one for each side of the two boards. We also recommend double battening (or using a wider batten) underneath butt joints to provide extra support.

No butt gaps between boards or against walls

- When installing against a wall a minimum gap of 20 mm must be included from fixed objects. This is to ensure boards to not buckle or bend under heat expansion in the summer months.

Using fastener screws for corner trim and fascia

When installing finishings such as corner trim we do not recommend using adhesives. As composites will expand and contract with temperature variations, fixing with adhesives will result in the glue stretching and breaking. Instead, it is recommended to:

- Pre-drill 4 mm countersunk pilot holes. Fix with 50 mm countersunk screws.
- Do not overdrive screws when through composite products, finish tightening by hand.

Installing Your Decking

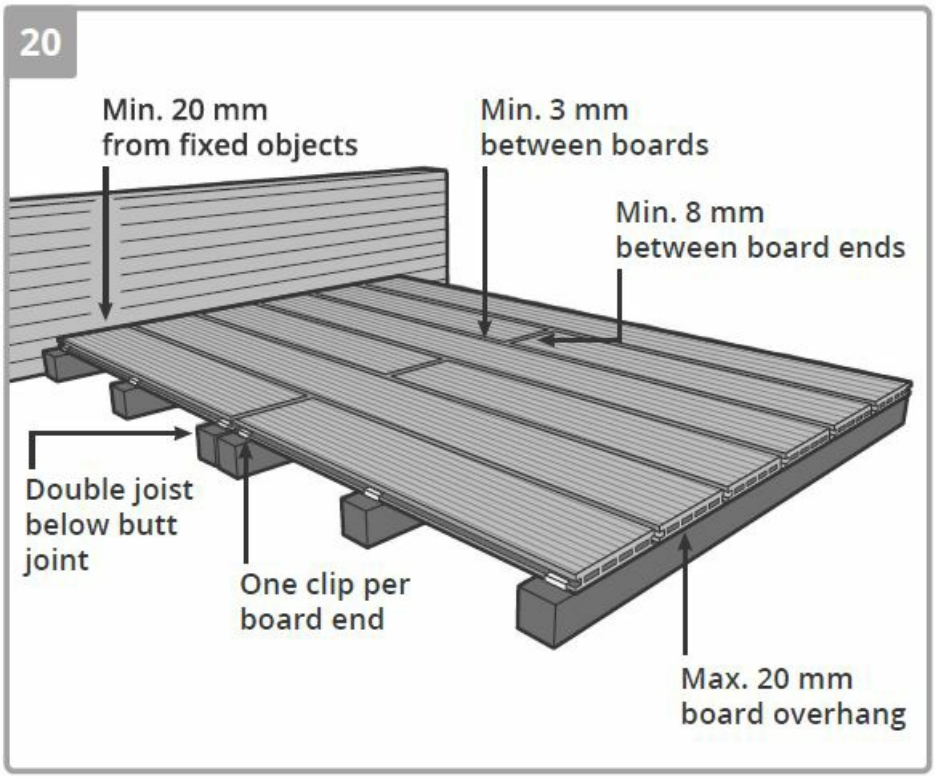
Spacing Composite Materials

- To avoid splitting, please ensure the correct sized 3 mm pilot holes (when using Hyperion® secure screws) are pre-drilled before screwing into all composite products. The length of the hole must be at least the same length of the screw.

Spacing the Boards & Subframe

Due to the natural expansion and contraction of material with temperature changes, please ensure the following gapping requirements for all Hyperion® Decking products:

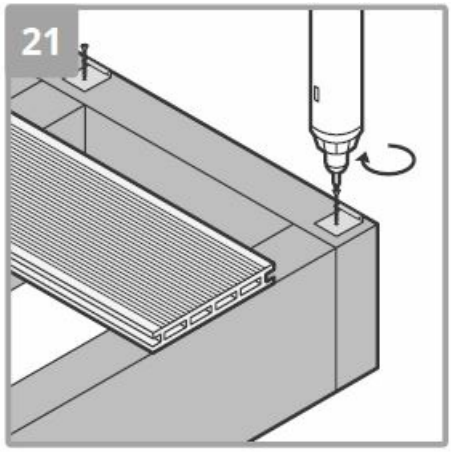
- Hyperion® Decking board side-to-side gaps should be a minimum of 3 mm.
- Hyperion® Decking board butt joint gaps should be a minimum of 8 mm.
- Plastic lumber joist butt joint gaps should be a minimum of 20 mm.
- When abutting to walls or other fixed objects, a minimum gap of 20 mm is required.
- Hyperion® Decking boards should not overhang joists by more than 20 mm.
- To ensure sufficient water run-off, a drainage slope of 0.5% (5 mm per meter) should be incorporated.

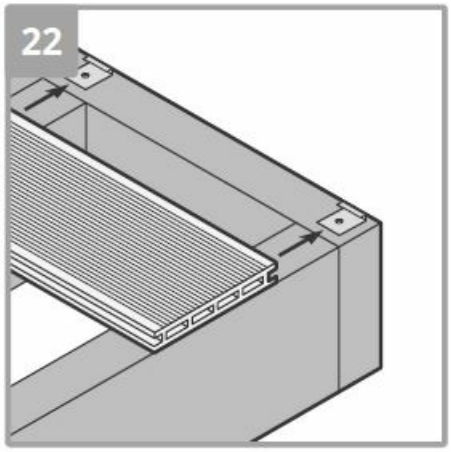


Installing the Decking Boards

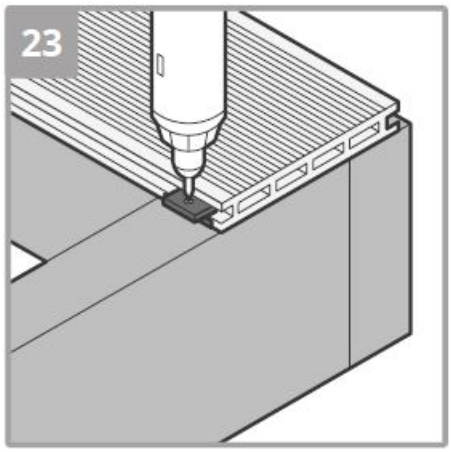
With your sub frame levelled and stable, you can now start installing your deck boards. If you are installing Frontier Bullnose Edging or Explorer Edge Board , it's recommended to install the corner trimmings before installing the deck boards, in which case you should skip ahead.

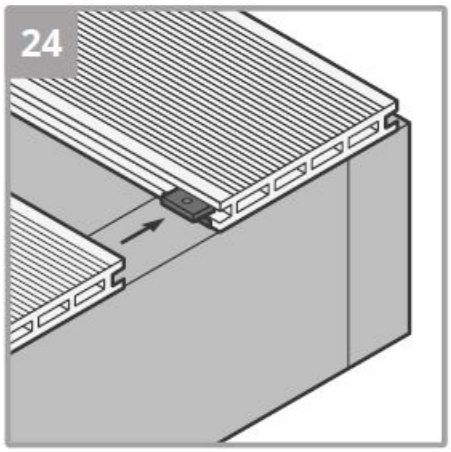
1. The first board must be fixed with Hyperion® Hidden Starter Fasteners, clipping into the side groove of the board (fig. 21):
    - Align the starter fasteners along the first joist, every 300 mm along the joist length.
    - Securely screw each fastener to the joist.
    - Clip the first decking board to the starter fasteners (fig. 22).
2. To fix adjacent boards, place Hyperion® hidden fasteners (3 mm or 6 mm) into the grooved edge of the fixed board and insert the secure screw into the hidden fasteners (fig. 22).
    - The screw holes should be lined up with joist centres.
    - Ensure the countersunk section of the hidden secure fastener is facing up.
    - Install 1 hidden fastener on each joist.
    - Always use hidden fasteners at board ends.
    - Use 1 fastener per board end at butt joints (never share a fastener across 2 board ends).



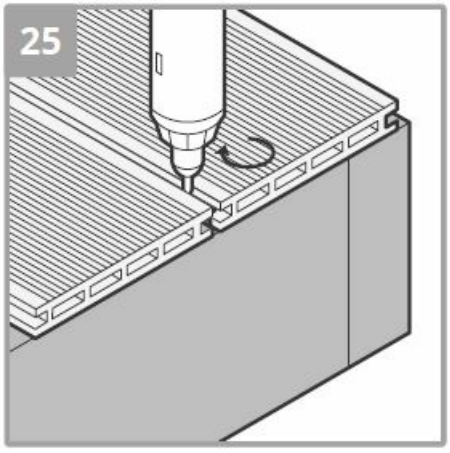


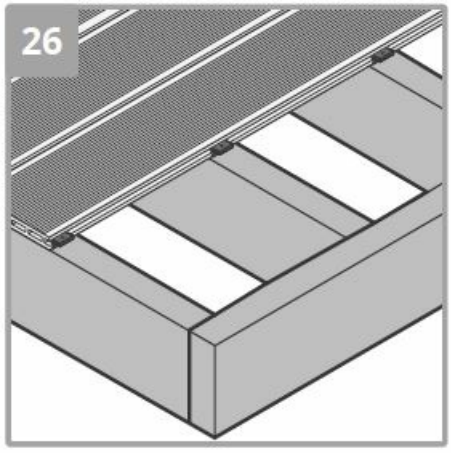
3. For 6 mm plastic hidden fasteners, lightly screw in place, do not tighten at this point (fig. 23). For 3 mm hidden fasteners however, fully tighten the screw at this point.
4. Place the next board into position against the hidden fasteners (fig. 24).
    - Slightly raise the outer edge of the board being installed and slide it onto the hidden fastener.
    - Ensure the decking board edge contacts the spacer tab.
    - Lightly tap into position if required.





5. Fully tighten the hidden fasteners, between the last boards installed, down to the joists (fig. 25).
    - Apply sideward pressure on the decking to ensure that the tabs are hard up against the inside of the decking groove.
6. Repeat steps 2–5 until you have reached the last 2 boards (fig. 26). The last board can be fixed in two different ways.
7. Depending on the required finish, the following steps will vary.
    - Your project can be finished with a ‘Picture-frame Border’.
    - Your project can be finished using Edge Boards.

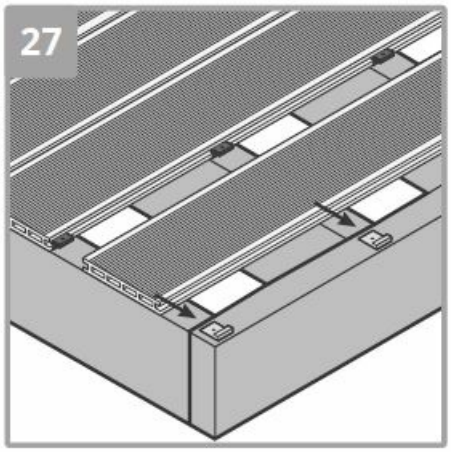


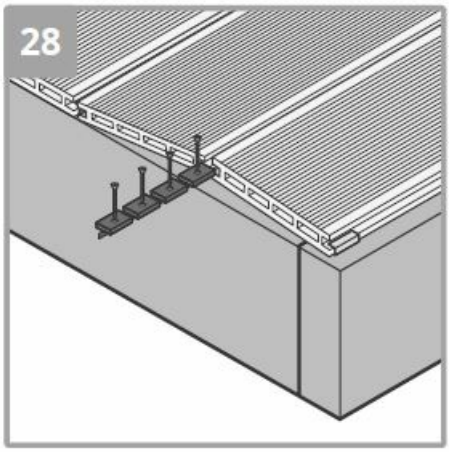


Installing the Last Deck Board

6 mm Hidden Fastener Method Knowing the width of the last 2 boards including the 6 mm spacing gap between them, mark on the last joist where the outer edge of the final board will lie.

- Using these marks, install the hidden starter fasteners securely in place for the outer edge of the last board.
- Clip the last decking board to these starter fasteners (fig. 27).
- With the final board in place, insert the penultimate board.
- With the 2 boards in place and at least a 6 mm gap between them, slide down the required number of 6 mm hidden fasteners (fig. 28). Partly inserting the screws into the fasteners will make it easier to slide them along between the boards, using the screws as ‘handles’.



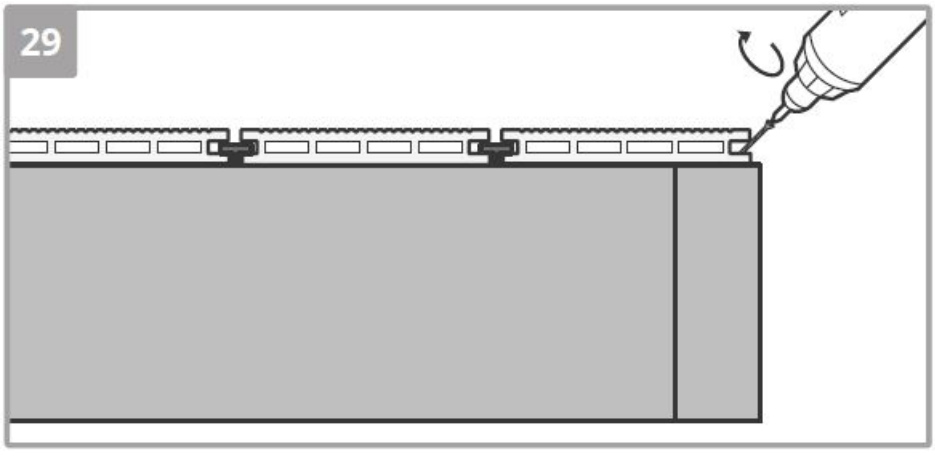


- Secure the fasteners to the joists in between the last boards.
- This option will only work with the 6 mm hidden fasteners. If you are planning on using the 3 mm fasteners, you must use the 3 mm Hidden Fastener Method.

3 mm Hidden Fastener Method

With the last board in place after securing all other boards, screw through the bottom edge of the last board at an angle, securing it to the joist at 300 mm intervals (fig. 29).

- Pre-drill pilot holes in the deck boards 2 mm wider than the width of the screw shank.
- Do not over drive screws into the deck boards. This could cause the material to split.



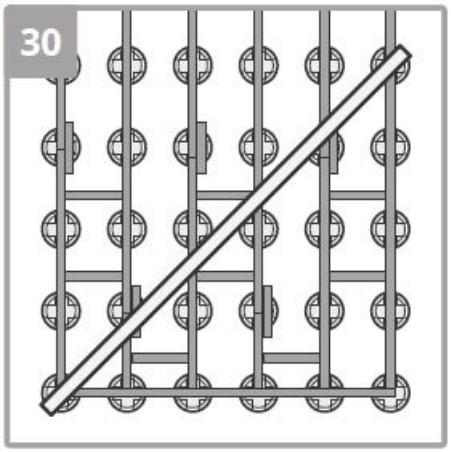
Installing Diagonal Decking

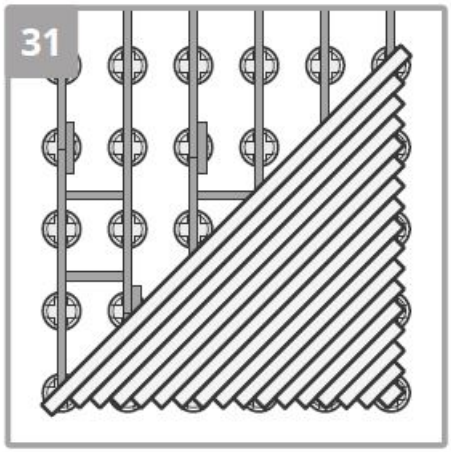
Before You Start

- The recommended maximum joist span for a diagonal decking installation is 250 mm.
- It's recommended that you add 15% extra material as you will generate more scrap from cutting during a diagonal decking installation.

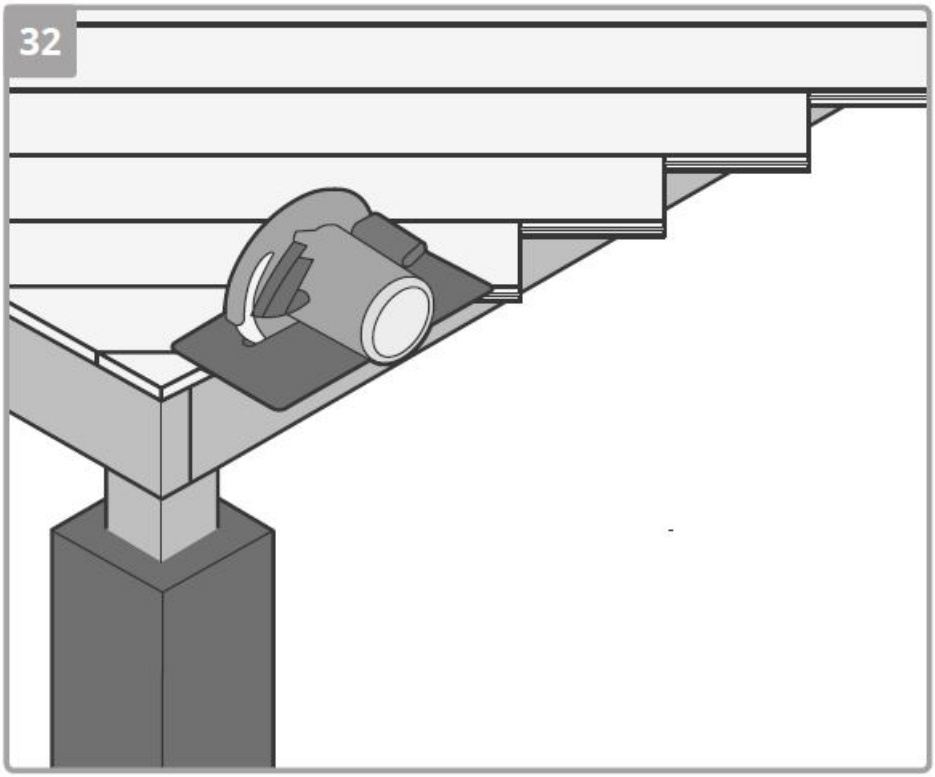
Diagonal Decking Installation Steps

1. Place the central board first; ensuring to place the board at a 45° angle (fig. 30).
    - Install 1 hidden fastener each time the board crosses a joist.
    - Always use hidden fasteners to secure board ends.
    - Use 1 fastener per board end at butt joints (never share a fastener across 2 board ends).
    - Use a mitre square to ensure an exact 45° angle.





2. After laying the central board, progressively place each board outward toward the subframe corners (fig. 31).
    - Board offcuts can be kept and used for finishing the corners.
    - Allow a slight overhang at edge of the substructure.
3. Once all boards have been fixed in place, trim the deck board overhang with a circular saw (fig. 32).
    - Complete the deck with your required finishing.

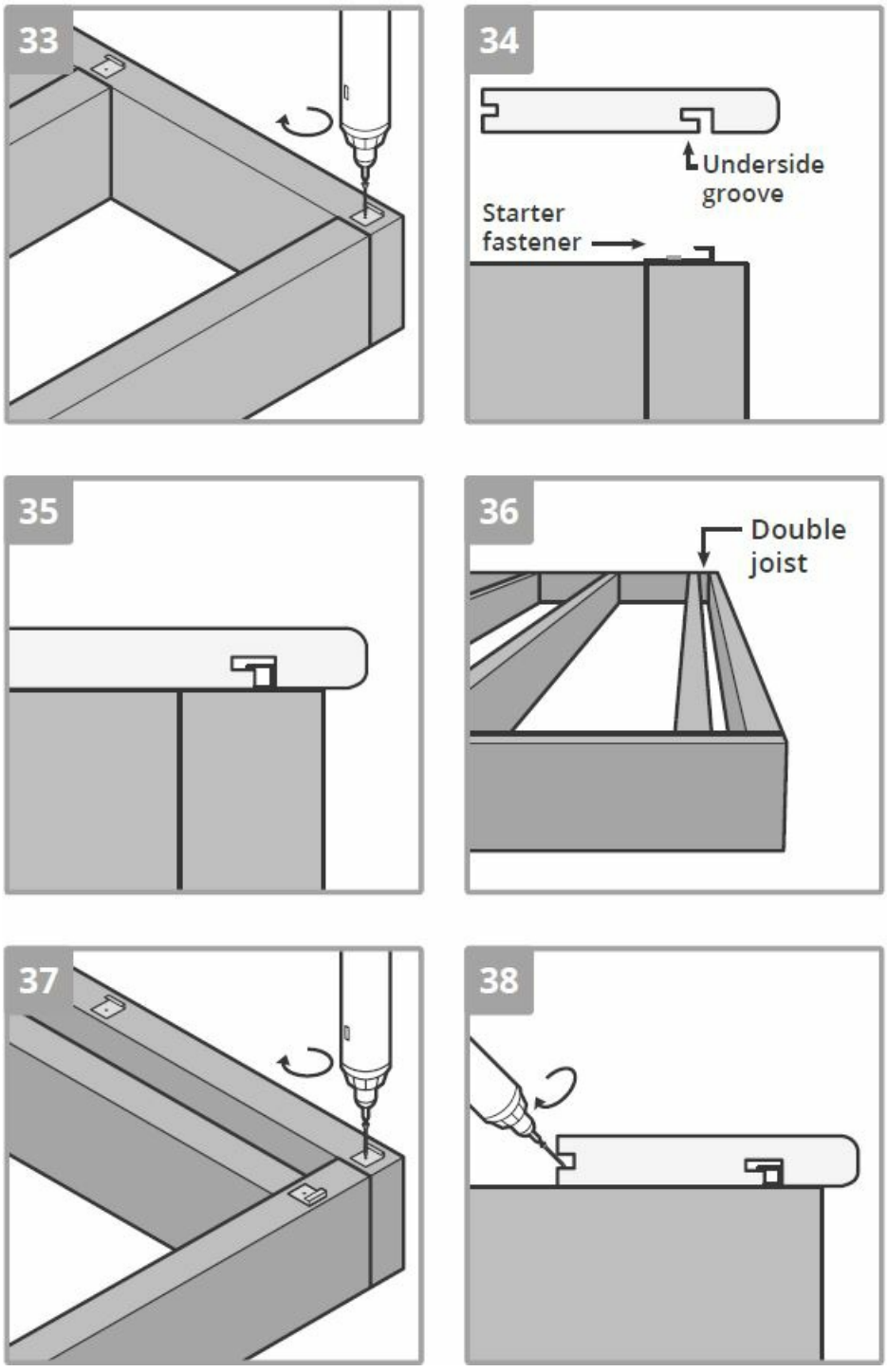


Finishing Your Decking

Installing Bullnose Boards

Parallel Bullnose Installation

1. When fixing the bullnose boards around a corner, mitre the ends at 45° angles.
2. Secure starter fasteners onto the outer joist at 400mm intervals (fig. 33).
3. Line up the bullnose board and lay the underside groove directly on top of the starter fasteners (fig. 34).
4. Push the board forward to lock the board (fig. 35).
5. Secure the remaining side of the bullnose board with hidden fasteners.



Perpendicular Bullnose Installation

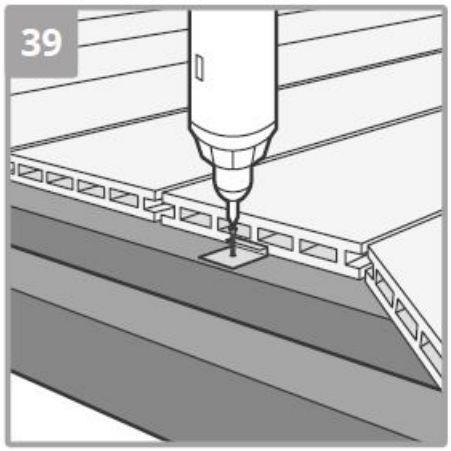
1. A full joist width must be used under each deck board end, thus where the bullnose board runs perpendicular to the main deck, you must have a double joist structure (fig. 36).
2. Secure starter fasteners onto the outer joist (fig. 37) at 400 mm intervals.
3. With the bullnose board in place, screw through the hidden fastener groove at a 45º angle, securing it to the joist (fig. 38).
    - Pre-drill pilot holes in the deck boards 2mm wider than the screw shank.
    - Do not over drive screws into the deck boards to avoid the material splitting.

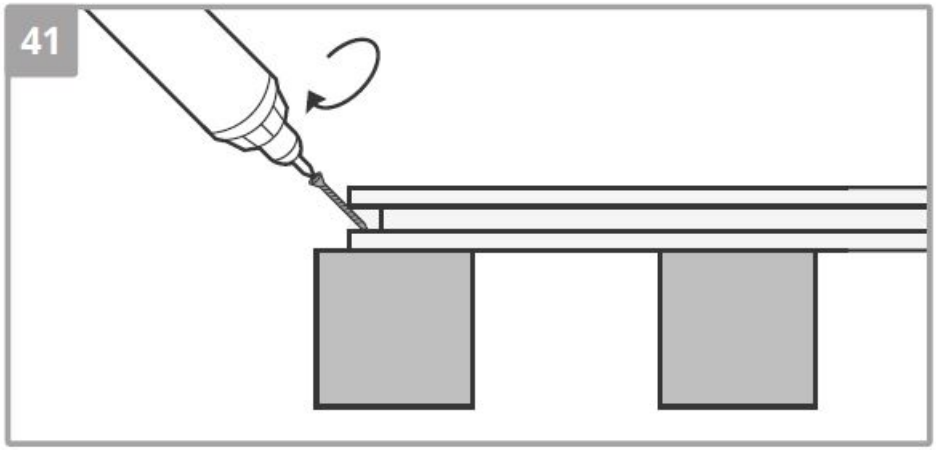
Installing a Picture Frame Border

Picture Frame Borders Using Decking Boards

If you are planning a picture frame border design (a board that runs around the perimeter of the deck) using either deck boards or Frontier Bullnose Edging you need to ensure you install the correct substructure layout.

1. A full joist width must be used under each deck board end, therefore where the picture frame board runs perpendicular to the main deck, you must have a double joist structure (fig. 36).
2. Where the picture frame runs parallel you can install the board as per the standard installation method (steps 1–6, pages 13, 14) with a 45° mitred end (fig. 39).
3. For the boards that run perpendicular to the main deck, place starter clips on the inner joist to hold the inner board edge in place (fig. 39).
    - A clip should be installed every 300 mm along the length of the joist.
4. Slide the picture frame board into the starter clips (fig. 40).
    - You must leave the standard expansion gap of 8 mm between the mitred ends of the picture frame border.
5. With the picture frame board in place, screw through it's outer bottom edge at an angle, securing it to the joist (fig. 41).





6. Pre-drill pilot holes in the deck boards 2 mm wider than the width of the screw shank.
    - Do not over drive screws into the deck boards. This could cause the material to split.

Picture Frame Borders Using Bullnose Boards

Hyperion® Bullnose Edging can be used with the hidden fastener system to create a flush finish for steps and deck board edges. There are two methods for installing the bullnose board, parallel or perpendicular to the decking.

- Keep a 6 mm expansion gap between edge board butt joints (a minimum of 0.2% of the boards length).

- The bullnose must be installed before laying down the decking.
- This option is only available for the Frontier range.

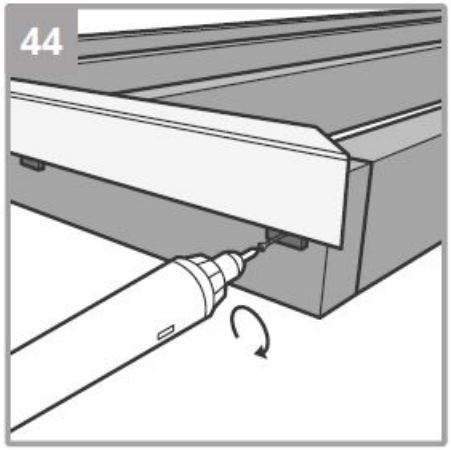
Installing Edge Boards (Explorer Only)

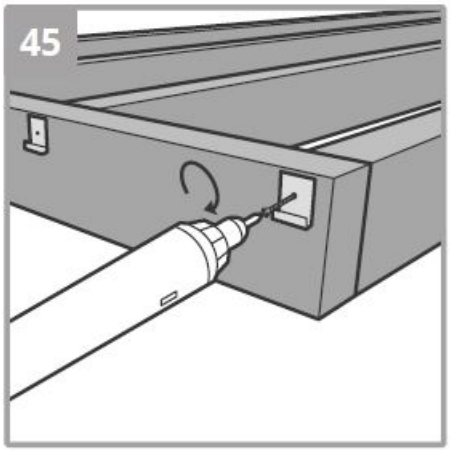
Hyperion® Edge Boards can be used with the hidden fastener system to create a perfectly flush finish on deck edges and steps. There are two methods for installing the board, parallel and perpendicular to the decking.

- Keep a 6 mm expansion gap between edge board butt joints (a minimum of 0.2% of the boards length).
- When using edge boards, use decking boards to complete the vertical deck skirting. Edge boards are not compatible with Hyperion® Fascia Boards
- This option is only available in the Explorer range.

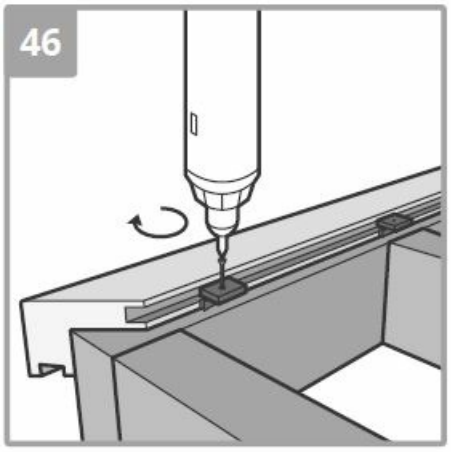
Parallel Edge Board Installation

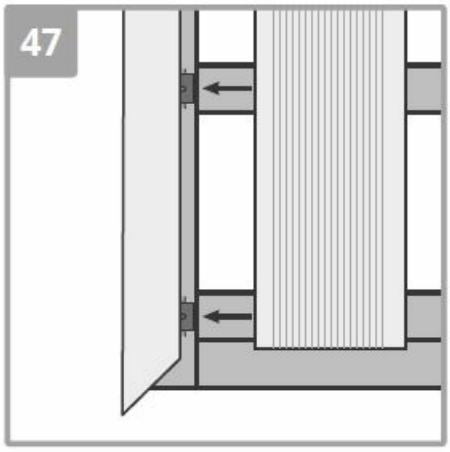
1. Where edge boards are being fixed around a corner, mitre the ends at 45° angles.
2. Place the edge board over the edge of the joist and secure in place with Hyperion® Hidden Fasteners at 300 mm intervals (fig. 44). Your chosen finish will determine the type of fasteners you should use to install the board:
    - If you are using a deck board for your fascia use a 6 mm or 3 mm hidden fastener to secure the bottom of the edge board (fig. 44).
    - If you are not planning to add fascia, you can use a starter fastener along the bottom edge (fig. 45).





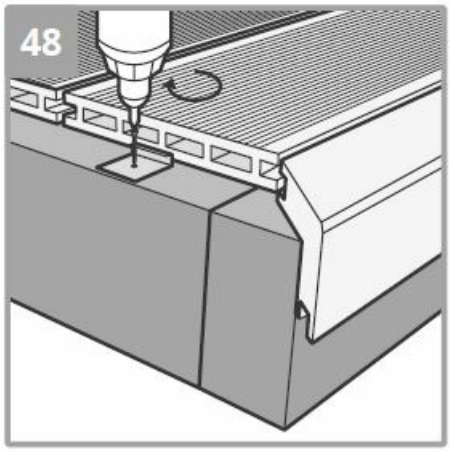
3. To secure the top side of the edge board with 6 mm hidden fasteners, lightly secure down to the joist (fig. 46) and fully tighten once the next board is in place.
4. Once secured in place, slide the first deck board into the hidden fasteners (fig. 47).
5. Fully secure the hidden fastener to the joist.

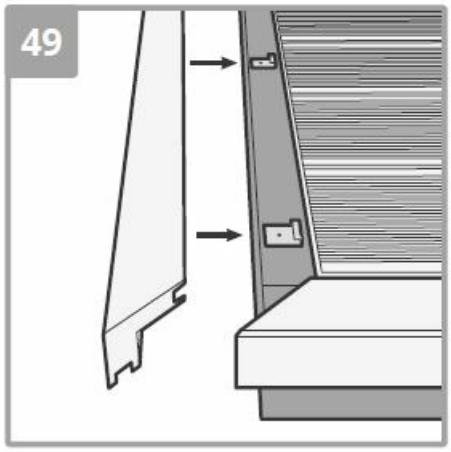




Perpendicular Edge Board Installation

1. Where fixing the edge boards around a corner, mitre the ends at 45° angles.
2. Install starter fasteners on the top side of the outer joist (the vertical clip edge should be 35 mm from the outer joist edge). Starter fasteners should be installed every 300 mm along the length of the joist (fig. 48).
3. Clip the edge board into the starter clips (fig. 49).
4. With the edge board in place, use hidden fasteners (3 mm or 6 mm) to secure the bottom side of the edge board.
    - Only secure lightly in place if you plan to install a deck board fascia, then tighten once the first fascia board is in place.





Installing Fascia Boards (Frontier Only)

Before You Start

You must ensure a suitable ventilation gap is left around the base of a deck to allow air flow:

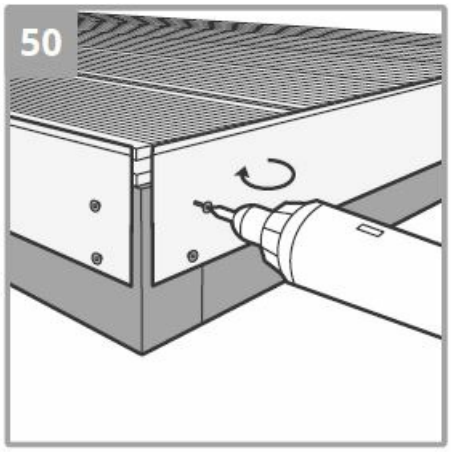
- For hard foundations (e.g. concrete) ensure a minimum gap of 20 mm.
- For soft foundations ensure a minimum gap of 40 mm.

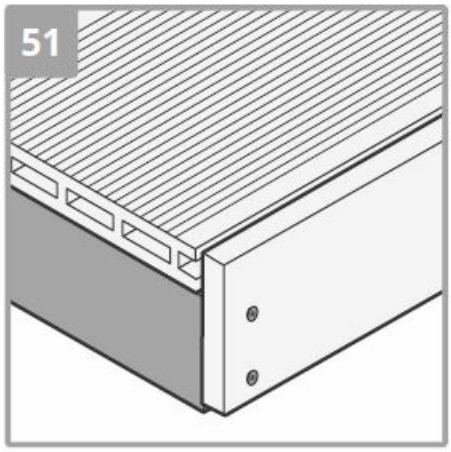
Fascia Board Installation

Hyperion® Fascia Boards can be used to skirt visible deck edges. This option is only available in the Explorer and

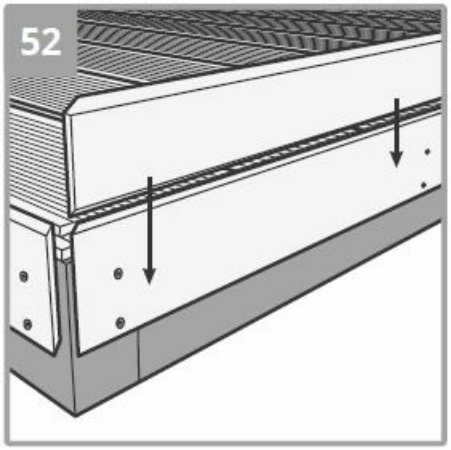
Frontier ranges and will result in visible screws.

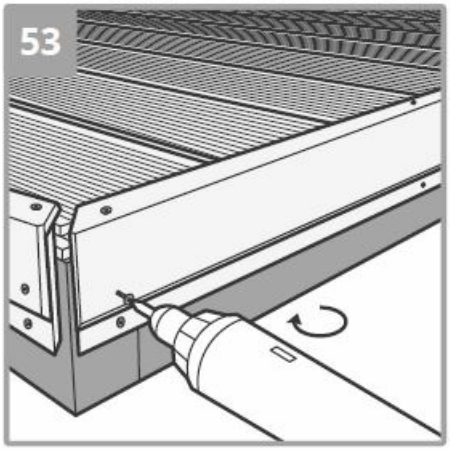
1. Line up the top fascia board edge with the top of the decking to hide the grooved decking edge (fig. 51).
2. Pre-drill 4 mm countersunk pilot holes through the fascia board to avoid material splitting (fig. 50).
3. Fix in place with 50 mm countersunk screws:
    - Fascia boarding should only be screwed in place.
    - It is not recommended to attach the boards using adhesive glue.
4. Ensure you have left appropriate expansion gaps where fascia board ends meet, min. 0.2% the board length.





    - Corner trims should only be screwed into the deck.
    - It is not recommended to attach the trim using glue.
5. Ensure you have left appropriate expansion gaps (a minimum of 0.2% of the total board length) where corner trim ends meet (fig. 53).





To skirt visible edges on Explorer decking, we recommend rip cutting a deck board, cutting along the grain (lengthwise), and installing it as you would fascia boards.

Installing Corner Trim (Explorer Only)

Hyperion® Corner Trim can be used with Hyperion® Fascia and Decking to cover exposed board sides and substructure. This option is only available in the Explorer range and will result in visible screws.

1. Measure the required amount of Hyperion® Corner Trim and cut down to size. Mitre down the ends at 45° angles if installing around corners (fig. 52).
2. Cover the deck edge with corner trim and attach with screws.
3. Pre-drill 4 mm countersunk pilot holes (fig. 53).

4. Fix with 50 mm countersunk screws (fig. 53).
    - Do not overdrive screws through composite products, finish tightening by hand.

Installing on Steps & Stairs

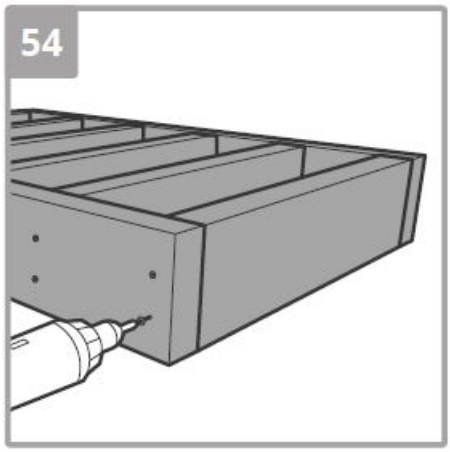
Installing on Steps & Stairs

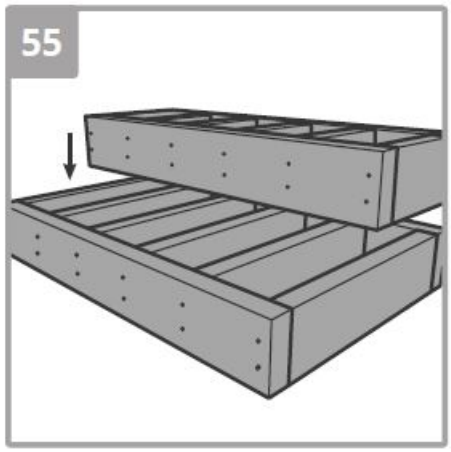
- Before You Start
- Steps must be a minimum of two boards deep and a maximum of 190 mm high per step rise (220 mm in private installations)*

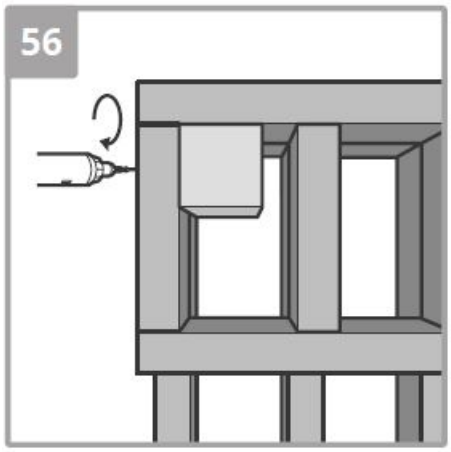
Installing Decking Steps & Stairs

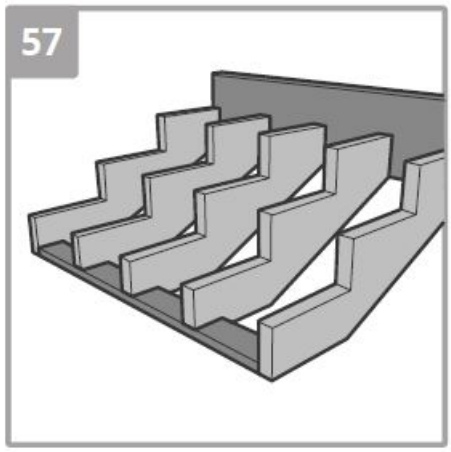
If creating the step support frame using Manticore® Plastic Lumber, it is recommended that you use 50×150 mm profile bearers and only in a box frame structure (fig. 56).

1. Plan your step area: While designing the tread and rise dimensions, take into account the deck board and riser width.
2. Create a box frame to support your step area (fig. 54).
    - Ensure that the boards are supported at the appropriate joist centres.
    - If you are creating multiple steps, ensure the base box is large enough to stack all steps on top (fig. 55).
3. For multiple steps, create additional smaller box frames and place on top (fig. 55).
4. You can secure the separate box frames by inserting a post into the inner corner and screwing in place (fig. 56).









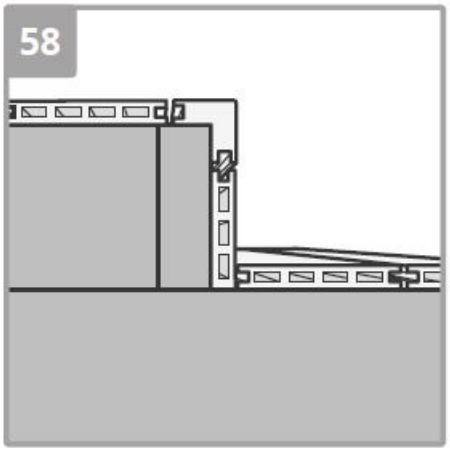
Alternatively you can create step stringers using appropriate width treated timber.

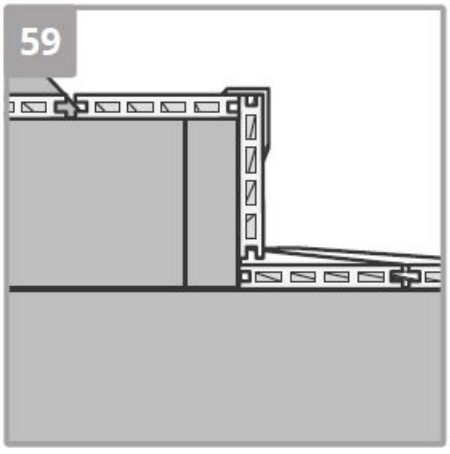
- You must use a minimum of 3 stringers with maximum 300 mm centres (fig. 57).
- It is the customers responsibility to ensure the installation meets the stipulation of the minimum and maximum step rise, step going (depth) and pitch required, as per ‘Document K: Building Regulations 1992’.

Finishing Your Steps & Stairs

Installing Edge Boards as Step Nosing

- Explorer edge boards can be used to create the perfect flush finish for steps (fig. 58).
- Install the edge boards and decking step treads, Parallel Edge Board Installation).





Installing Fascia Boards as Step Nosing

For the step riser, attach Explorer or Frontier fascia boards by screwing directly through into the step frame.

- Pre-drill 4 mm countersunk pilot holes and do not overdrive the screws.
- Install the first and second step tread boards (see pages 13–15, Installing Your Decking)

Installing Corner Trims as Step Nosing

- Install corner nosing trim (see page 16) when using Explorer range deck boards (fig. 59).
- Pre-drill 4 mm countersunk pilot holes and do not overdrive the screws.

Maintenance & Care

Hyperion® products are low maintenance, however with a little cleaning you can help keep your outside space looking beautiful for longer. Please note that although Hyperion® products are relatively colour stable, there may be some initial lightening of the Explorer range products as the product naturally weathers over the first 8-10 weeks. Cleaned or sanded areas may lighten, which can require 8-10 weeks exposure to the sun to match the remaining product, depending on location and specific application. Due to the wood content, composite products, like any wood-based product, may experience a naturally occurring process called extractive bleeding (known as tea staining). This process can cause a temporary discolouration that will fade with time.

Dirt & Grime

Maintaining a clean, dry surface is the best method for combating dirt, grime and mildew build up, where a periodic cleaning is all that may be required. Even though Hyperion® products are formulated to inhibit mildew growth and staining, mildew stains can occur where moisture and dirt or pollen is present.

Scrapes & Scratches

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

Painting & Staining

EnviroBuild does not guarantee or recommend anything be applied to Hyperion® products, however it is still possible for Hyperion® products to be painted or stained. Wait until the product has completed its weathering process and ensure you have a clean and dry surface prior to applying any paint or stain. Always apply products in accordance with the manufacturer’s application instructions.

Cleaning

With the proper safety precautions, Hyperion® products can be washed with either soapy water and a soft bristled brush, or with a power washer (a maximum pressure of 1500 psi is recommended). Make sure to spray in the direction of the grain of the boards and use a fan tip nozzle (at a minimum of six inches from surface) along with the proper cleaning product.

Spot Stains

Many stains can be cleaned with soap or household de-greasing agent and warm water. Scrub and soak the affected area as soon as the stain occurs to ensure best results, then rinse off with warm water. For more stubborn stains we recommend using a composite specific cleaner for more effective stain removal. With very set stains, you may want to use coarse sandpaper (60-80 grit) and sand lightly, always in the direction of the grain of the product (be careful when sanding the boards as this can remove the enhanced wood grain effect).

Frequently Asked Questions

What colours do Hyperion Decking® come in?

- Hyperion® Decking comes in a variety of colours. The Explorer range comes in the natural browns, Oak and Walnut, and the modern greys, Granite and Stone. The Frontier Range comes in Iroko, Teak, Slate and Marble.

Will the colour fade over time?

- The Explorer range is uncapped and will naturally lighten over the first 8-12 weeks, stabilising after this period. The Frontier range is capped and will not fade.

Does Hyperion Decking® require treating?

- Hyperion® products are already coloured so do not require painting at all. Also, due to the plastic content within Hyperion® products there is no need for any further treatment. This also makes it easy to clean.

How does Hyperion Decking® react when exposed to water?

- Hyperion® products are designed to take on very little water (c.1%).
- Our ranges have a much lower absorption rate than timber which heavily reduces the likelihood of wet rot over a longer period of time.

Do you have recommended installers I can use?

- EnviroBuild has an extensive network of recommended installers who we trust to bring your plans to reality.
- We have chosen these installers for their high quality of work and professionalism, but as with any third party, we recommend that you follow your own precautions before entering into a contract with them.

Can I see Hyperion Decking® samples?

- You can order samples at **https://ie.envirobuild.com/**.

Any other questions?

- For any other technical, installation or care questions, go to **https://ie.envirobuild.com/**, call our technical team on 0208 088 4888, or email us at **info@envirobuild.com**.

Need Help?

- EnviroBuild has a large variety of resources and expert help at hand, ready to answer any questions you may have.

Resource Centre

In our online Resource Centre you can find How-to Videos, Technical Downloads, Case Studies and more. Our Resource Centre is a handy place where you can find everything you'll need for your project. Construction methods may change, refer to the Resource Centre for the latest Installation Guide versions. **https://www.envirobuild.com/composite-decking/resources**.

Contact Us

Our expert team is more than happy to assist you in realising your project, from concept to completion. We can help you with any questions on installation and put you in touch with one of EnviroBuild's trusted installers. If we can help, please don't hesitate to get in touch.

- We're available:
- Monday to Friday, 8:30am to 6:00pm
- Saturday, 9:00am to 3:00pm

Phone

- UK, +44 (0) 208 088 4888
- IRE, +353 1 447 0406

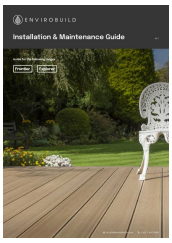
Email

- UK, **info@envirobuild.com**
- IRE, **ie-info@envirobuild.com**

Location

- 29 Pear Tree Street,
- London,
- EC1V 3AG
- **https://www.envirobuild.com/contact**.

Documents / Resources

	ENVIROBUILD Hyperion Composite Decking [pdf] Installation Guide Hyperion Composite Decking, Hyperion, Composite Decking, Decking

References

- Composite Decking, Cladding, Fencing & Flooring | EnviroBuild - Envirobuild Ireland
- Composite Decking, Cladding, Fencing & Flooring | EnviroBuild - Envirobuild Ireland
- Composite Decking Resources | EnviroBuild
- Contact Us | EnviroBuild
- User Manual