

BIFORM INSTALLATION INFORMATION

MEASUREMENTS

DECK BOARDS

SOLID (mm)	PROFILE	FINISH
130 x 19 x 4850	FORM 130	Solid - Smooth & Grooved
140 x 25 x 4850	FORM 140	Solid - Smooth & Grooved

FIXINGS

Bag of 100	FORM 130 FIXING CLIP
Bag of 100	FORM 140 FIXING CLIP
40mm 6 Gauge (Bag of 100)	BLACKENED SS SCREWS FOR FIXING CLIPS
50mm 10 Gauge (Bag of 50)	FORM 130 WINGED COMPOSITE DECK SCREW
65mm 10 Gauge (Bag of 50)	FORM 140 WINGED COMPOSITE DECK SCREW
Bag of 100	REDUCE GAP CLIPS
Bag of 10	STOP CLIPS

SPECIFICATIONS

	FORM 130	FORM 140
Substructure	Timber	Timber
Board Coverage	135mm	145mm
Maximum Joist Spacings	400mm	450mm
Maximum Board Overhang	10mm	20mm
Minimum Ground Clearance	300mm	300mm
Minimum Ground Clearance Over Membrane	50mm	50mm
Minimum Gap between Each Board	5mm*	5mm*
Minimum Screw Distance From Board End/Edge	25mm	25mm
Expansion Gap	0mm to 4mm	0mm – 4mm
Hidden Clip & Screw Required	Every joist	Every Joist
Winged Composite Deck Screw 316 Stainless Steel	50mm	65mm
Perimeter and Breaker Boards	Surface Fix	Surface Fix
Windy Exposure (Wind Break use)	Windbreak Plus	Windbreak Plus

*This gap can be reduced to 3mm by using a Reduce Gap Clip.

- Lengths are 4850mm however up to 5mm variation can occur. Please dock to uniform length on site.
- For timber joists, we recommend uniform height and thickness SG8 joists.

It is the responsibility of the installer to comply with all local regulatory body rules.

SAFETY EQUIPMENT

Be safe. Always use appropriate safety equipment. We highly recommend using the following:

- Safety Glasses
- Safety Gloves
- Dust Mask
- Ear Muffs/Plugs
- Safety Shoes/Boots
- Long Sleeves

It is the responsibility of the purchaser, contractor, builder or installer to comply with normal safety practice standards in regards to any application or use of any Biform Decking products.

TOOLS LIST

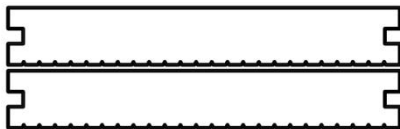
Ensure that you have the correct tools before you start, this will make installing your Biform deck an enjoyable experience.

- Square
- Tape Measure
- Spirit Level
- Rubber Hammer/Mallet
- Cordless/Electric Drill
- Circular Saw/Drop Saw- the more teeth the better.
- #1 Square Drive Head Bit- min 50mm (Supplied with each decking order)
- #2 Square Drive Head Bit (Not supplied)
- Builders Pencil

STORAGE & HANDLING

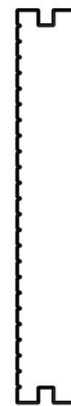
- Boards should be transported flat (eg. not angled on the back of a ute).
- Carry the boards vertically, as shown below.
- Store the boards on a dry, level surface preferably sheltered area.
- Lay the boards flat (as per picture) and not at an angle.
- Keep the boards off the ground using gluts underneath.
- Gluts should be used to support decking every 500mm.
- Be careful when stacking boards- do not drop, dump or throw.
- Cover the boards until they are required for installation

STORAGE

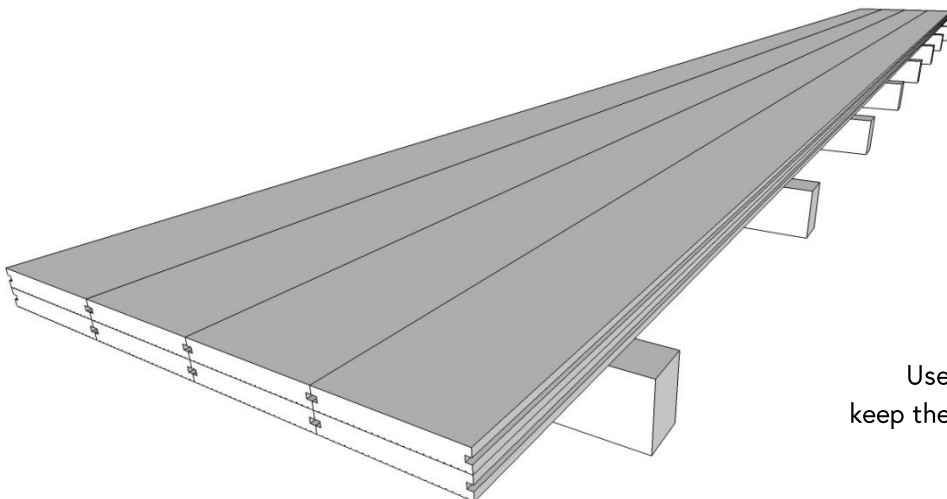


Store Boards Flat

HANDLING



Carry
Boards
Upright



Use gluts (timber) to
keep them off the ground

LAYOUT OPTIONS

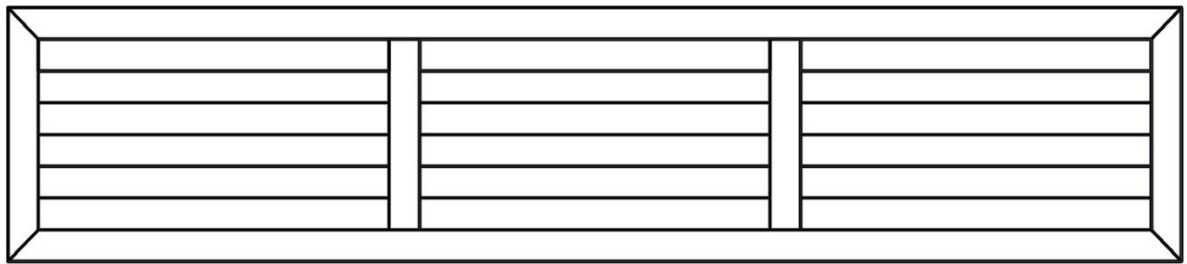
Breaker Boards

Composite decking can expand and contract with a rise and fall in temperature. Depending on the environment, there can be up to 5mm per full length board (approximately 1mm per metre). Due to this thermal movement, composite decking should be installed with the use of a picture frame and/or breaker boards. A breaker board is a board that runs perpendicular to the main run of decking and helps to minimise thermal movement.

See diagrams below for layout examples

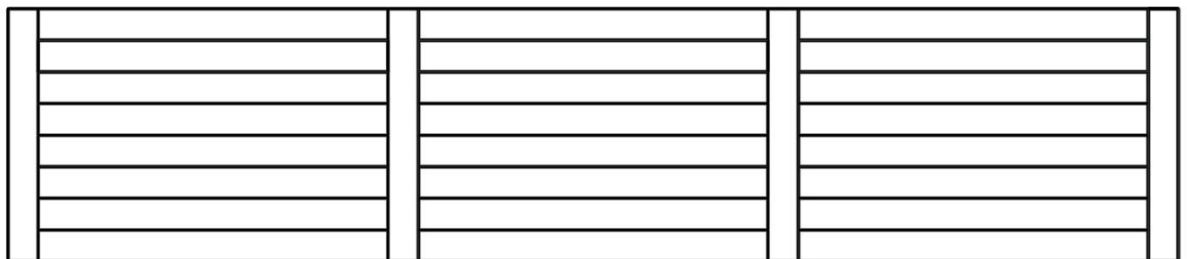
*Butt Joins are **NOT** appropriate with composite decking due to the expansion and contraction.

Picture Frame and Breaker Board example



While mitred corners are a popular option, due to the expansion and contraction, they work best when lengths are 2.4m or less, surface fixed and installed while cool and contracted.

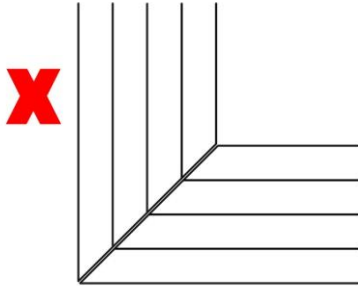
Breaker Board Only example



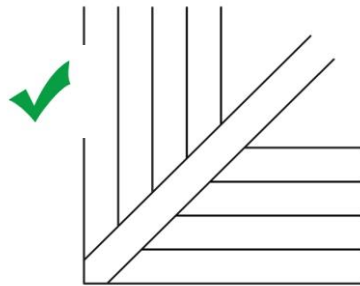
Breaker boards can be placed where ever you feel suits your outdoor area. While some customers will prefer the symmetry of the designs above, others can choose where to position their breaker boards, lining them up with doorways, windows, steps. Factoring in wastage, getting the most out of our 4850mm boards, is also a very important consideration.

CORNERING OPTIONS

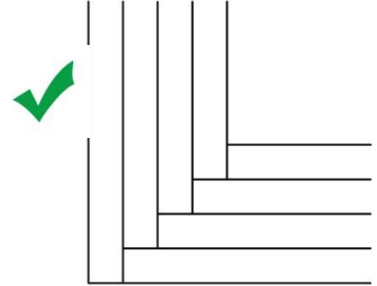
*Multiple Mitre Joins
(NOT RECOMMENDED)*



*Multiple Mitre Joins with Breaker Board
(RECOMMENDED)*



Herringbone Design



See our CAD Drawings online at www.biform.co.nz for a more detailed view of our recommended cornering options.

While these diagrams accurately depict how best to use our composite decking, we would still strongly suggest consulting with our friendly staff who are more than happy to assist with your decking layout.

PERIMETER/EDGE BOARDS

These boards are the SAME PROFILE as the deck board. The fixing channel may be:

- A) Left on as a negative detail (not recommended in high traffic areas)
- B) Ripped off
- C) Fashioned into a bull nose or other shape using a router

FACING BOARDS

The same decking boards can be used vertically as a facing board. As with decking over the top, butt joints are not recommended.

It is best to install facings when boards have been in the sun and are expanded to its maximum and surface fixings should be every 300mm to prevent bowing.

When fixing through the surface, predrilling is recommended.

STOP CLIPS

Centre of long boards

Stop clips can be used in the centre joist of each board to balance the thermal movement at either end.

Butt Joints

Traditional hardwood decking is often installed using random butt joints. Due to the thermal movement that occurs in composite decking, butt joints are often not appropriate as the impact of this movement is effectively doubled. We strongly discourage the use of butt joints when using our decking.

However, if butt joining is appropriate because of excessive wastage, then we can offer a compromised solution through the use of 'Stop' Clips.

These clips help to stop the thermal movement at the ends of the boards, meaning alternate butt joints are a feasible option in certain situations.

See diagrams below to help understand how the stop clips work.

NOTE: Only one stop clip is to be used per board, creating a maximum of one butt joint per run of decking.

Fig. 1. How to fix using stop clips

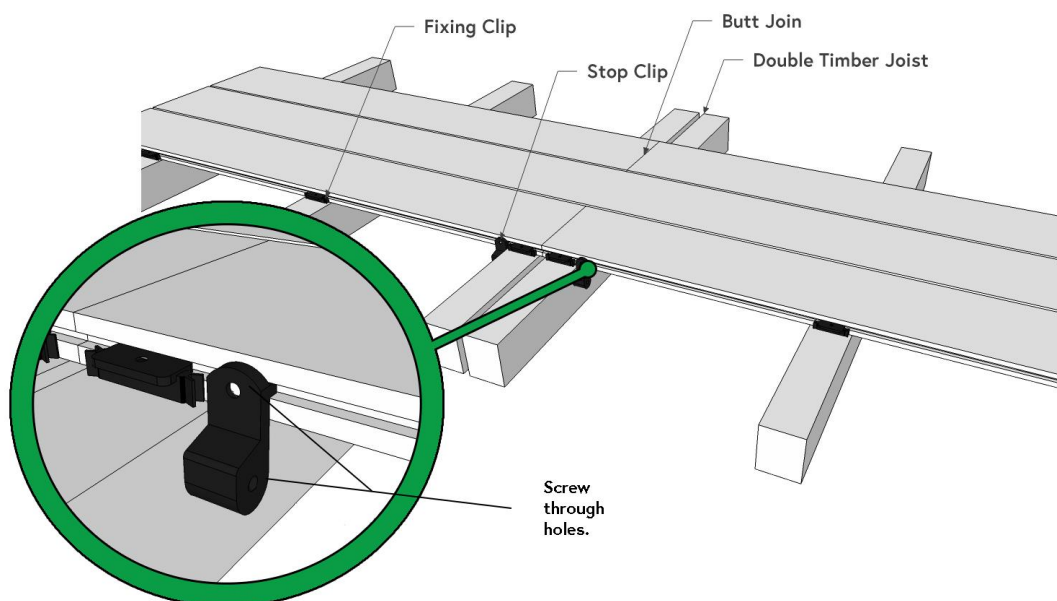
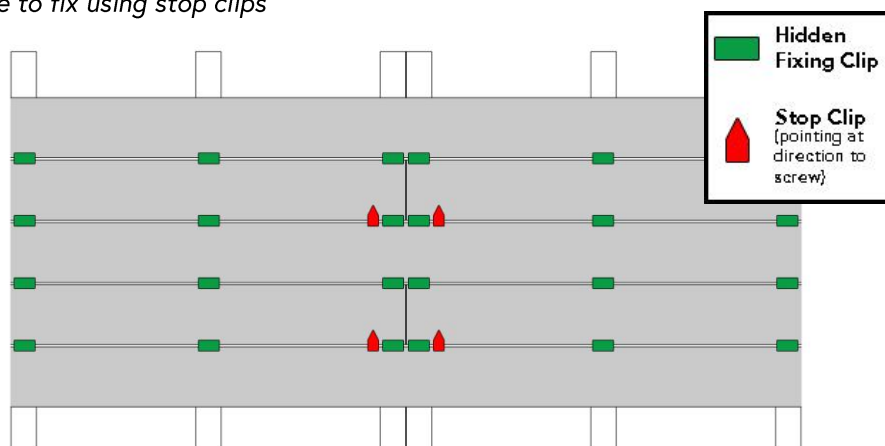


Fig. 2. Where to fix using stop clips



KEY INSTALLATION POINTS

Use a picture frame design

Use a breaker board at the ends of boards where necessary

Expansion gaps of 0mm – 4mm See Calculating expansion gap Page 9

Avoid butt joins

Joists at 400mm centres for Form 130 Profile

Joists at 450mm centres for Form 140 Profile

In windy exposures, use Windbreak Plus cloth- contact us for information on this custom solution.

INSTALLATION GUIDE

Example of a typical deck install.

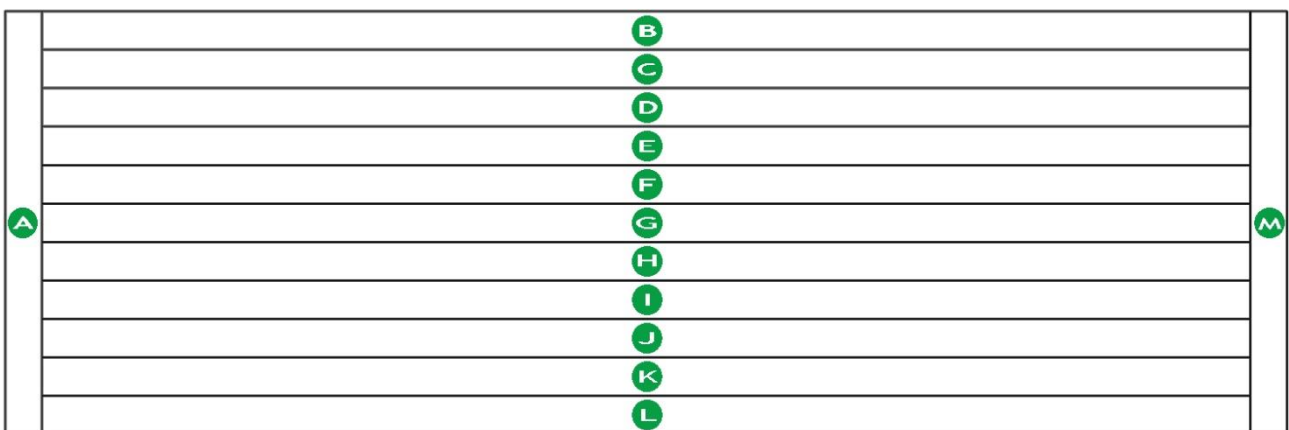


Figure 1.

Refer to Figure 1. Laying a deck, 5m x 1.48m using our Form 130 profile.

Once you have installed your substructure with joists at 400mm centres, you are now ready to lay your boards.

For help with substructure requirements please see our CAD drawings online at www.biform.co.nz.

Double joists are required for Boards B and L.

STEP BY STEP GUIDE

- 1 Cut your first perimeter Board A to size and lay. Surface fix a pair of screws at every joist with Winged Composite Deck Screws 316 Stainless Steel.

Note: Do not cut Boards B-M to size at this stage.

- 2 Lay your second perimeter Board, B. Make sure the end of the board is butted hard up against board A.
Surface fix with Winged Composite Deck Screws 316 Stainless Steel at every joist.
Once this board is fixed into place, take your Fixing Clip & Screw and slide this into the edge groove of the board at every joist and screw into place.

Do not over-tighten these Black Screws as this can make the next board difficult to slide into place.

- 3 Lay Board C. Make sure that the end of the board is 0 to 2mm away from Board A. Slide this into place so that the Fixing Clip also slides into the edge groove of this board. You may need to use a rubber hammer to lightly tap the board into place, then tighten the Black Screw at every joist. *Once again, do not over-tighten Black Screws.* The Fixing Clip will hold these two boards down into place.

One "stop clip" per board may be used on a central joist to equalise thermal movement at each end of the board.

Once this board is fixed into place, take a Fixing Clip & Screw and slide into the edge groove at every joist and screw down, ready for your next board.

- 4 Repeat Step 3 until you have laid Boards D-K. Ensure that the boards are butted hard up against Board A.
- 5 Lay your third perimeter board, Board L, making sure that the end of the board is butted hard up against your first perimeter Board, A.
Tighten the Fixing Clip & Screw down, then surface fix this board with the Winged Composite Deck Screws.
- 6 Now that you have laid your boards you are now ready to cut Boards B-L to size.
Make sure your boards are all at a similar temperature.
- 7 Time to lay your last perimeter board, M, which can now be cut to size.
Depending on the time of day, leave a 0 to 2mm gap from the ends of the newly cut boards, B-L, and surface fix a pair of screws at every joist using Winged Composite Deck Screws.

NOTES

- Install perimeter board first.
Surface fix with winged composite screws.
- In-fill with deck boards using concealed Black Fixing Clip & Black Screw on every joist and one stop clip per board on a central joist.
- Install the last perimeter/breaker board by surface fixing with winged composite screws.
- Leaving the appropriate expansion gap
- The decking expands and contracts lengthways due to the temperature changes throughout the day. BEFORE CUTTING, the temperature of each board should be assessed. Hot boards will shrink as they cool and cool boards will expand as they heat up. Control of this longitudinal expansion can be achieved by laying the boards and then docking when all the same temperature. Use of a central stop clip can equalise the movement at both ends of the board. Install the perimeter or breaker board at this time without leaving expansion gaps.
- CALCULATING THE EXPANSION GAP
The expansion gap depends on: 1) the length of the board, 2) the time of the day
 - A full board being trimmed and fixed at the hottest time of the day will require no expansion gap because it is expanded to its maximum.
 - A full board being trimmed and fixed at its coldest (first thing on a winters morning) will require a 4mm expansion gap (2mm at either end of the board)
 - A half board (2.4m) being trimmed and fixed at the hottest time of the day will require no gap
 - A half board (2.4m) being trimmed and fixed at its coldest (first thing on a winters morning) will require a 2mm expansion gap (1mm at either end of the board)

AFTER INSTALLATION

CLEANING

It is important to clean your deck immediately after installation.

A scrub with warm water and sugar soap will help to speed up the weathering process of your Biform deck.

Hose down with a wash garden hose. Use a sponge mop or a broom with the end wrapped in a towel to remove excess water.

Do not allow water to sit on the deck

Do not use a water blaster.

CARE & MAINTENANCE

Please forward Care & Maintenance Guide and Warranty to the home owner/maintenance department.