



VAULT Installation Instructions

2017

Storage.

PERMADECK™ VAULT composite decking should be stored flat and off the ground. Standard 5800mm long packs of PERMADECK™ VAULT require a minimum of eight gluts (supports) under the pack for proper storage.

Safety & Tools.

Standard safe practices should, of course, be employed when using any tools during installation. PERMADECK™ VAULT composite decking can be drilled, sawn, sanded, fastened or routed with normal woodworking tools.

Foundation & Sub-structure.

PERMADECK™ VAULT composite decking is not for use as a component of the foundation or substructure. When constructing the substructure care must be taken to ensure that the joists are level, straight and square as PERMADECK™ VAULT decking will conform to the joists. As a general rule the closer the joists the better the deck. Do not exceed the maximum joist spacing of 400mm. Any overhang of decking boards at the ends or sides of the deck should be kept to a maximum of 50mm. Breaker boards and all board ends must be positioned above and secured to a joist. A fall of 3-4mm per metre away from the house should be planned for water run-off. PERMADECK™ VAULT composite decking should not be attached directly to any solid surface or watertight flooring system. For adequate drainage 5mm between each PERMADECK™ VAULT composite decking board. Boards are ok to be in direct contact with water and the ground. Deck board ends should not be hard against any other material and any moisture should be able to drain away freely.

Expansion, Contraction & Breaker Boards.

All products with a plastic component will expand when temperatures increase and this must be allowed for when planning a deck using composite material. Permadeck boards will elongate by a maximum of .5mm per metre when heated from cold. We recommend the use of Breaker boards on any deck longer than 6 metres to limit the expansion/contraction gaps to 1.5mm each end. The preferred method of deck design incorporates the use of breaker boards that are run across the deck at 90 degrees to the ends of the long boards so that the maximum gap possible is 3mm. Additional joists/support is required in the substructure wherever a breaker board is being used.

Colour & Orientation.

We recommend that wherever possible you purchase all of the boards required for your project at the same time in order to avoid any possible colour variation that may occur between different manufacturing runs. The natural fibres used in the manufacture of PERMADECK™ VAULT composite decking may mean some colour variation between boards and initially in full sun the colour will lighten a little but will stabilise after 8-12 weeks of full sun exposure.

Lay all the boards the same way (look for the tag to identify the different ends). The grain of PERMADECK™ VAULT composite decking will reflect light differently depending on the orientation of the boards. To ensure an even look across the deck it is advisable to lay out the deck boards before fixing to allow you to check your colour mix and grain orientation, this also ensures that each board is the same temperature prior to anycutting.

Starting and Finishing Boards.

The first board laid on your deck is referred to as the starter board and will normally be installed with one "free"

edge either gapped against the side of a wall or freestanding at the edge of your deck. The starter board can only be fixed via the Hidden Fasteners on the inner edge. The outer edge can be fixed by screwing through the starter board, or by using the Stainless Steel starter clip. This section illustrates the equator fastener specially cut down to fit the starter board at the front edge of the deck or against a wall. Before tightening the fastener on the starter board, make sure you place your next deck board over the deck clips so that both edges of the Hidden Fasteners are located. The finishing or last board should be treated in the same way as the starter board.

Fastening the boards to the joists.

Set the torque setting to the drill so that the screw sits flush with the clip, but doesn't go thru the clip. It is recommended that PERMADECK™ Hidden Fasteners and 316 Stainless Steel Screws are used when installing PERMADECK™ VAULT composite decking. **Do not use drill on hammer action or impact drivers.** Standard 60mm stainless steel decking screws can be used, however the screw heads will be visible and the added value of the concealed fixing option will be lost. Nailing is not recommended, and voids warranty.

Breaker boards, starter boards and finishing boards can be screwed directly through the board into timber joists, **or the "Quick Guide" section illustrates how the Permadeck fasteners are specially cut to fit and secure breaker boards,** starter boards and finishing boards by using the hidden fastener system.

Screw fixing.

All boards must be pre-drilled and countersunk in order to reduce the risk of splitting when screwing directly in to the face of the PERMADECK™ VAULT composite decking. Pre-Drill holes .5mm oversize. A minimum screw length of 60mm is required. Drivers should be adjusted to a low or medium torque setting when fixing screws in to PERMADECK™ composite decking. Screws should not be over tightened into the decking. Screw fixing directly through the PERMADECK™ board is not recommended on steel joists due to the different expansion and contraction characteristics of the two materials.

Gapping.

PERMADECK™ VAULT boards are designed to be installed with adequate gapping around the boards to aid air flow for the Subframe. Using Hidden Fastener deck clips to fix the boards to the joists sets a gap between the sides of each board and is the preferred fixing method. PERMADECK™ VAULT composite decking expands minimally when warm and contracts minimally when cold. It is important to be aware of the board temperature prior to cutting in order to determine the gap requirements when installing the decking. See temperature gapping chart to achieve this. Any boards that are butted together will need to sit on their own joist. The ends of two boards cannot sit on one joist.

Permadeck Hidden Fastener Installation.

15 Permadeck Hidden Fasteners are required per 5800mm board when on 400mm centre joists. Permadeck Hidden Fasteners can be installed in just four easy steps.

1. Place a Permadeck fastener in the slot of the composite deck board at each support joist.
2. Insert a stainless steel screw through each fastener into the joist.
3. Slide the next deck board into place so that the wings fit into the slot on the deck board side.
4. Repeat this process until the deck is complete.

To find out more about Permadeck Composite Wood decking solutions, please contact our knowledgeable team by emailing: info@permadeck.co.nz or phone us on 0800 952 952.