Richard Burbidge

DECKPLANNER™

DECKING FACT SHEET
BUILDING YOUR DECK

Constructing the Frame

Please read these instructions carefully and with the appropriate balustrade installation instructions prior to building your deck.

If the deck is to be attached to the side of a house or building, the finished level of the deck should be at least two brick courses below the damp course level. Use a Richard Burbidge 150 x 47mm joist as a wall plate/ledger to carry and support the joists. Keep the wall plate off the wall by approximately 10mm by packing behind the plate or by fixing washers over the wall plate fixing (Fig 1). This will allow water running down the face of the brickwork to pass behind rather than on top of the plate. Alternatively if fixing the wall plate directly to the wall use a metal flashing keyed into the mortar in the brickwork and dressed down over the plate to keep water off the top surface.

For ground level and elevated decks it is important that the proposed site is marked out accurately if you want the finished deck to be square. To create a square deck and determine the overall size, mark out the area using a basic building technique consisting of batter boards (horizontal boards with a peg at each end to secure into the ground), pegs and string line (Fig 2).

To check the corners are 90° use a '3-4-5' Builders square, which you can construct from straight lengths of timber, creating a triangle with sides in the ratio of '3-4-5' eg 60cm, 80cm & 100cm. Adjust the string lines accordingly until square (Fig 2).

The construction methods for building either a ground level deck or elevated deck are basically the same; both are fixed to a frame constructed of Richard Burbidge 150 x 47mm joists. The main difference between the two is that for ground level decks you can use concrete paving slabs if desired rather than structural posts and beams to support the decks frame (Fig 3).

Ground Level Decks

As previously mentioned, a ground level deck can be laid onto concrete paving slabs. Use a minimum slab size of 600 x 600 x 50mm and bed these into position with either mortar, sand and cement or sand. Space the paving slabs at maximum centres of 1800mm. The frame to support and fix the deckboards is constructed from Richard Burbidge 150 x 47mm joists. These should be spaced at maximum 400mm centres and fixed to each other using Richard Burbidge landscape screws and/or galvanised nails, joist hangers, metal angles or 100 x 100mm timber offcuts. For additional strength, noggins (offcuts of joists) are then fixed at 90° to the joist. Alternatively your ground level deck can be constructed as detailed in the elevated deck section (Fig 4).

Elevated Decks

Richard Burbidge decking materials and accessories are suitable for decks elevated up to 600mm above ground. For high level decks over 600mm consult a reputable builder or structural engineer.

Elevated decks can be free standing or have one or more sides attached to the side of a house, building or wall. The joist frame used to support and fix the deckboards is in turn supported by posts and beams. Beams are constructed from Richard Burbidge joists and structural posts. Posts should be spaced at maximum centres of 1800mm. Fix the posts into the holes using concrete, cap the top of the concrete with a trowel so that water runs away from the posts. Once the posts have set, attach the beams to the posts using Richard Burbidge 150mm landscape screws at the desired height. The joist frame is then fixed to the beams by skew nailing or screwing with joist centres at maximum 400mm centres. For additional strength as with ground level decks, noggins should then be fixed at 90° to the joists. For maximum strength and stability fix the joists to the ledger boards/wall plates and framing joists using joist hangers.

Fixing Deckboards

There are three ways of fixing deckboards, either by using Richard Burbidge secret fix deck ties or traditional fixing using screws or nails.

Unless your deck design uses standard lengths of deckboards you will need to stagger the deckboards to cover the deck area. To prevent movement and give structural stability staggered boards must be fixed to a double joist (Fig 5).

It is perfectly natural for deckboards to swell when wet and shrink when dry. Some variation in the gaps between the deckboards is therefore inevitable and these gaps will vary in size from season to season.

Fig 1

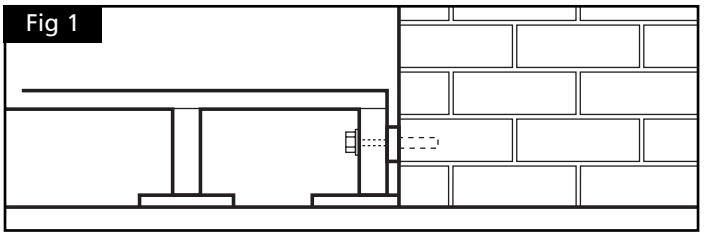


Fig 2

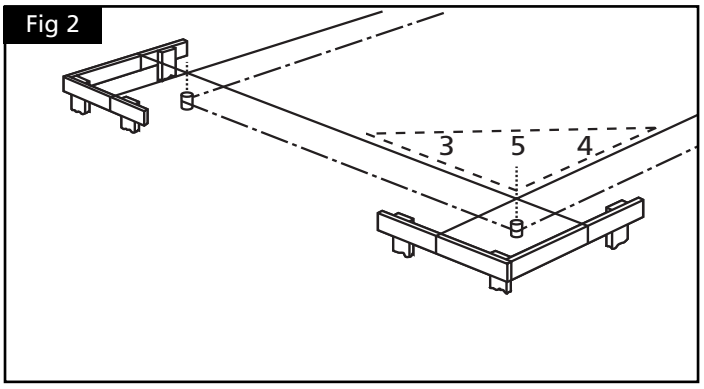


Fig 3

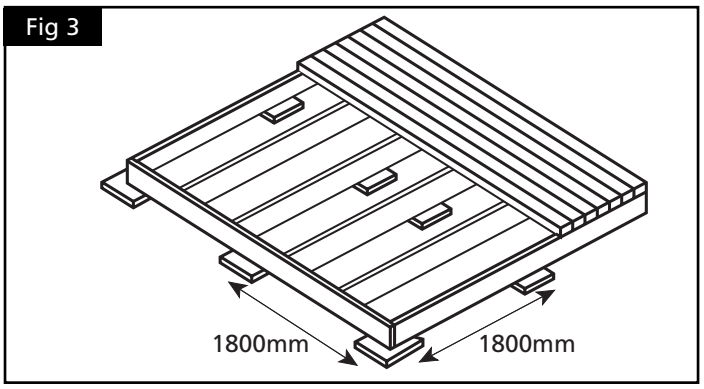


Fig 4

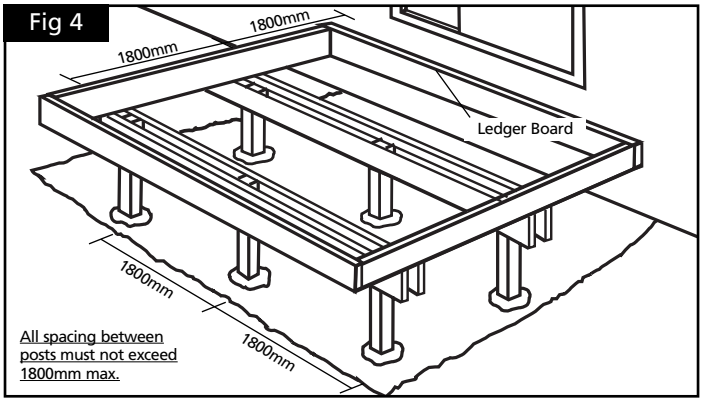
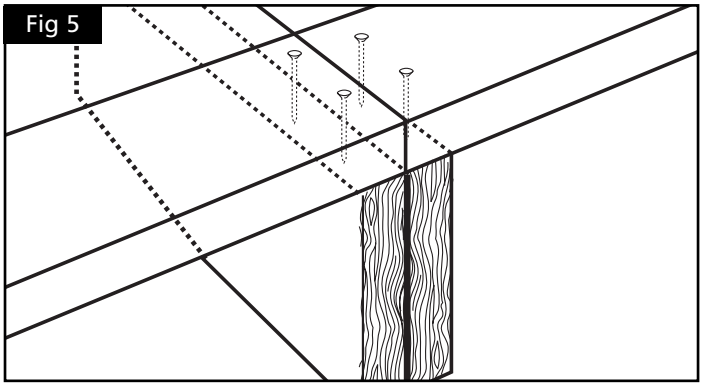


Fig 5



Deck Ties

You can eliminate installation damage to the face of deckboards, which can happen when screwing or nailing by using Richard Burbidge Deck Ties (Fig 6A).

Deck Ties automatically space the deckboards and are completely hidden when fixed. Please note when using deck ties for fixing deckboards during the planning stage you must allow for the joist arrangement to be at 90° to the finished deckboard laying pattern.

The back edge of the first deckboard should be fixed to the joists using Richard Burbidge 75mm Ceramic Galvanised Screws (Fig 6B). Countersink and fill the screw head to prevent possible injury to feet. Once the first row of deckboards has been fixed, position deck ties in the centre of each joist and to the edge of the deckboard.

Use a hammer to knock the deck ties into the joists and tap the face of the deck ties so that they are flush with the edge of the deckboard, secure using Richard Burbidge 40mm annular ring nails (Fig 7).

Place the back edge of the next board against the spikes of the previously fixed deck ties and using a timber block to protect the board knock onto the spikes with a hammer. To prevent the board springing along its length off the deck ties this is best done with two people (Fig 9).

Repeat this procedure until all the deckboards have been fixed. The final board should be fixed exactly as the first board, through the face of the deckboard using Richard Burbidge 75mm Ceramic Galvanised screws (Fig 8).

Traditional Fixing

For traditional fixing use either nails or screws. We recommend Richard Burbidge 75mm Ceramic Galvanised Screws as the preferred traditional fixing option as damaged individual deckboards are far easier to remove and replace.

Whichever fixing method you choose it is essential to use fixings of at least 75mm in length. The deckboards should be fixed along their length to every supporting joist using 2 fixings per face/joist.

Keep the fixings at least 25mm from the ends and edges of the boards and to minimise the risk of splitting it is recommended that the boards be predrilled to accommodate the fixings. The boards should be spaced with a 6 to 9mm gap to allow for drainage and movement.

Unless the size of the deck has been designed and planned to use single length boards it will be necessary to join boards along their length. It is essential that joined boards must always meet over a joist. Use additional sections of joist to increase the area for fixing.

To avoid injury to feet, nail and screw heads should always be fixed below the surface of the deckboards. Countersink screw heads below surface and use a nail punch for nails. Check once or twice a season and retighten or re-punch any raised fixings.

Use an endcoat preservative on all surfaces exposed by drilling and cutting.

Steps

The height and position of your deck will influence the style and height of your steps. Steps can be constructed from a combination of posts, joists and deckboards or Richard Burbidge Cut Strings.

The Richard Burbidge Decking system includes 2 sizes of cut strings for step building both having individual rises of 190mm.
3 step string/570mm rise and 5 step string/950mm rise.

The number of steps and risers required will be determined by the height of the deck and the available space in front of it.

Position the strings at right angles to the deck (Fig 10) at maximum 400mm centres and fix to the joists using suitable galvanised brackets or joist hangers.

At ground level rest and fix strings to paving slabs or concrete slabs for maximum stability.

Treads are created from deckboards allowing 30mm to overhang each string. Fix the deckboards to the strings using Richard Burbidge Deck Ties or 75mm Ceramic Galvanised Screws. Additional fixings such as galvanised angle brackets can also be used.

Fig 6A

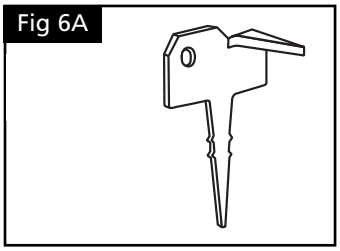


Fig 6B

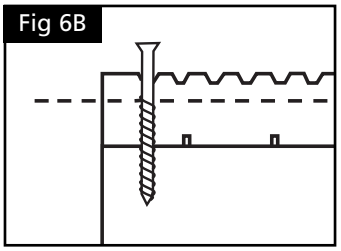


Fig 7

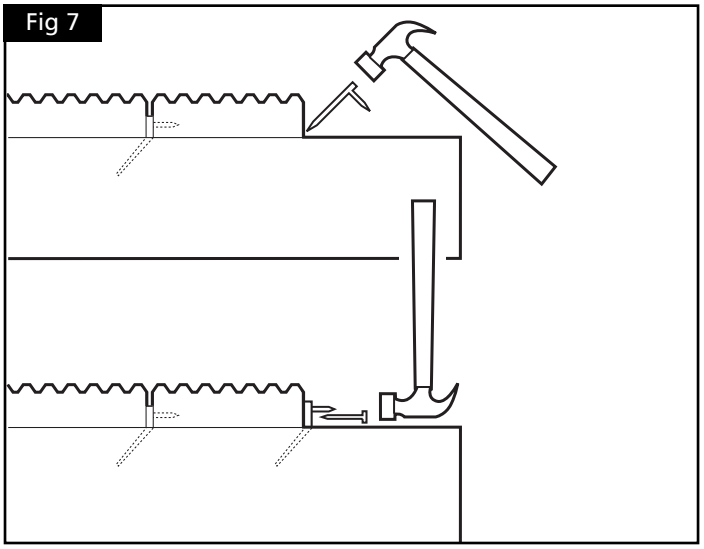


Fig 8

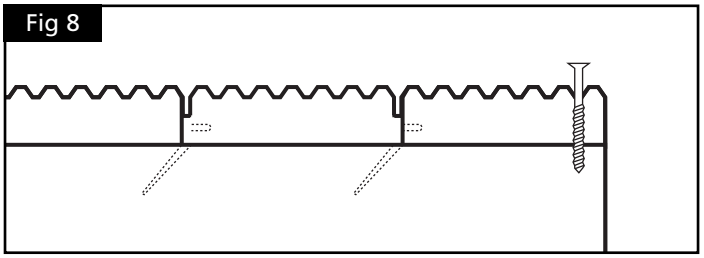


Fig 9

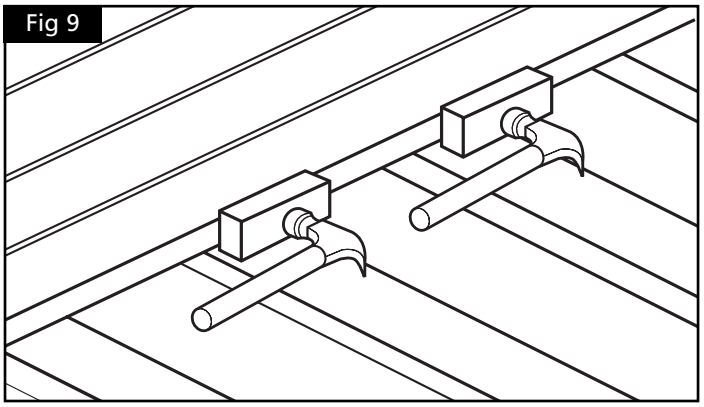
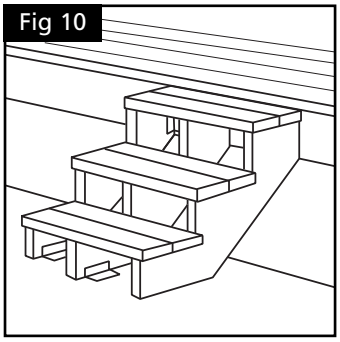


Fig 10



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