

This guide specifically focuses on the critical aspects requiring attention when building a deck.

By ensuring the right preparations are made from the start, a deck can endure many years of wear.

Preparation is key

- > Work out the dimensions of the deck.
- Note the position of features such as stairs and drains.
- > Utilities (electrical wiring/cables and gas pipes) will also need to be marked up before work begins.
- > Ensure the ground is clear and undertake thorough weed control measures.
- > Lay drainage to prevent water from accumulating underneath the deck.
- > Unobstructed air flow is required below the deck. Add vents at various locations for decks with limited ventilation.

For decks less than 400 mm from the ground ensure:

Adequate ventilation is provided to the underside of the deck. Insufficient ventilation can create moisture containment below the deck, potentially causing a significant contrast in the moisture level below and above the deck, and leading to potential warping issues (cupping).

- Good surface drainage. When preparing the surface below it is required that the ground below the deck is graded away from the adjacent buildings and the deck so that water does not accumulate.
- > Access is allowed for maintenance or termite control.

Joist Span Recommendations

- Residential Installation a 450mm centre to centre joist span.
- Commercial installation a 300mm centre to centre joist span.
- > 45° angles installation 300mm centre to centre joist span.

Board Spacing

To compensate for expansion, boards must be properly spaced during installation:

- For boards up to 90mm use a spacer approximately 3mm thick.
- For boards over 90mm use a minimum 5mm spacer.
- For residential decking less than 400mm from the ground a minimum spacing of 8mm is required.



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Installation

Fixing timber deck boards to steel joists is not recommended. Large differences in their metal and timber expansion rates may result in splitting and failure of fixings.

When fixing joints, stagger the joints so they do not sit on adjoining joists to avoid joists splitting. Make sure that all joins in the boards sit over a joist. To obtain a tight fit on the joints a slight undercut will assist with the boards sitting flush.

Screws or nails can be used as fixings. However screws are our recommended method of fixing. Pre-drill holes (80% of screw diameter) into the board to avoid splitting. High quality self-drilling screws may remove the need for pre-drilling; please check with the manufacturer. Screws must be kept 12mm from edges and ends of boards and must be driven flush with surface.

Each board should be screwed to each joist with two screws as required by Australian Standard AS1684 for required fixings for domestic decking. Alternatively, proprietary fixings may be used in accordance with manufacturer's instructions. Only hot dipped galvanised or stainless steel (not plain steel or zinc plated) screws should be used to fix decking to joists. Fixings within 1m of a pool or moist area should be stainless steel. At intermediate fixings, screws should either be offset or driven at slightly opposing angles. When bullet head nails are used, they should be driven flush with the surface. Do not punch and fill.

Decking may be left to weather or coated and sealed. When applying coatings or sealants, ensure manufacturer's instructions are followed.

Ongoing Care and Maintenance

- 1. Inspect a hardwood timber deck at least annually to ensure that it is in good condition.
- **2.** Replace or re-secure loose or damaged boards and protruding screws or nails.
- **3.** Before recoating the deck, the gaps between the boards should be thoroughly cleaned, especially over the joist areas (where debris may build). Clean the deck with a specialised deck cleaning product.
- **4.** Once cleaned, lightly sand and reseal the deck with a stain, oil, paint or varnish depending on the aesthetic preference.

Consider Dahlsens for the whole decking solution.

- > Fasteners
- > Support posts
- Brackets
- > Nuts and bolts
- > Cement
- > Bearers
- > Joists and more

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