Easy DIY with Tanalised® TIMBER

BUILD A TIMBER DECK

Create your outdoor living space for dining, entertaining, a children's play area or simply relaxing

Few additions to the home or garden can match a timber deck for usefulness, natural beauty and sheer enjoyment. Decks offer an outdoor living space for dining, entertaining or simply relaxing with your favourite book. They also provide children with an excellent and safe place to play.

And the best news is building a simple deck is easily accomplished by any competent DIY enthusiast.

What is Tanalised® Timber?

It is wood that has been pressure impregnated with Tanalith® wood preservative. It has decades of performance data to prove long-term protection against wood decay and insect attack, including termites and when treated to H4 is ideal for all ground contact applications.

Safety First

We recommend undertaking any DIY project with the help and assistance of a friend. Always wear protective safety gear when necessary.
Don't burn the off-cuts of treated timber. Dispose of them as you would ordinary household waste.

STEP 1: PLANNING YOUR DECK

Plan the design of your deck around existing factors within your garden - areas of sun or shade, ease of access, shelter from prevailing winds and anticipated use. When designing the deck, there are some important points to consider:

- How far off the ground will the deck be?
- What is going to happen to the crawl space underneath? Will it be concealed with latticing or bushes, or will lawn be grown underneath?
- What happens to objects falling through gaps in the deck flooring?
- It is essential to ensure efficient water run off. Where possible, use narrow boards as they are less susceptible to cupping. Narrow boards are easier and cheaper to replace in the event of damage.
- When it comes to the bedding of support posts, make sure that the bottom of the posts are not encased in concrete - see ***Fig 3*** (overleaf). This will ensure that water running down the posts is drained off easily and is not entrapped at the bottom, which may increase the risk of wood decay.
- When designing bearers, make sure that boards are joined over double bearers - see ***Fig 1*** (overleaf). The centre to centre distance between adjoining bearers should be no more than 20 times the thickness of a deck plank. For example, if a 35mm deck board is to be used, the spacing between bearers should be about 700mm.
- When the terrain is rocky, it may be difficult to install the number of poles required by a conventional design. In this case, it may be better to use thicker poles. This approach could allow for a spacing between support poles of 3m. In such an application, thicker bearers, 50mm x 228mm would be bolted to the support poles. Beams would then be placed on top of these bearers at a spacing dictated by floor board thickness. This design, because it requires stronger materials, could be more expensive.
- Take account of the spacing between boards. Depending on deck function and the material used, spaces of between 3 - 5mm should be allowed.

STEP 2: MATERIALS, FIXINGS AND TOOLS
(For a 4m x 6m deck)

Simple DIY tools are all you need to build your deck. A drill, a hammer, a hand saw and power saw, a screwdriver, a tape measure and spirit level.

Make sure that all your fixings - screws, bolts, nails - are hot dipped zinc coated or otherwise rustproof. This is because Tanalised® timber components will last long after ordinary fixings have rusted or weakened by corrosion.

top tip

Component List

120 × 139 Tanalised® H4 treated support poles (treated in compliance with SANS 457)	40
36mm x 152mm Tanalised® H3 treated bearers in 4.25m lengths	10
38mm x 76mm Tanalised® H3 treated deck boards (assuming a gap between boards of 5mm)	110
Dynabolts: 160mm by M10	5
Bolts and nuts: 185mm by M10	35
Bolts and nuts for double bearers: 210mm by M10	35
Washers M10	2 per bolt
Cement Sand Stone (19mm) (this assumes a cement, sand, stone mix of 1:3:6)	2 Bags 0.5m³ 1m³
75mm x 3.8mm Galvanised ringshank nails for boards	As required
Water repellent (see manufacturer's specifications for quality required)	

top tips

Should the ends of boards, beams, bearers or posts be cut, then it is essential to reseal them with a supplementary wood preservative such as brush-on Tanalised® Enseal Green before assembly to maintain the integrity of the timber protection.

It is essential that all ground contact poles are treated in accordance with the SANS 457 H4 hazard class specification. Beams, bearers and boards must be treated to minimum SANS 10005 H3 requirements.

*When choosing boards, it may be possible in some areas, to obtain boards with grooves on the underside. These grooves arrest curvature (cupping) to a degree, ensuring that the boards remain flat. Remember to round off the arrasses of the boards and be sure to install them so that the timber's growth rings will be situated in a concave position (See **Fig 3**). This will avoid any splintering and surface degradation.*

Figure 1 - Double bearers must be used where there are joins

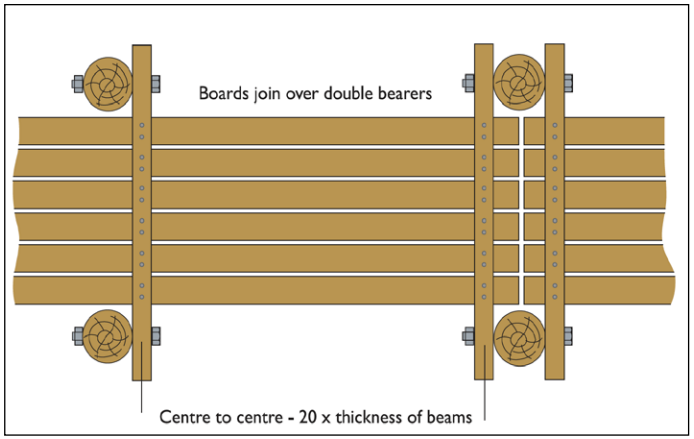


Figure 2 - Detail of bearer bolted to the wall

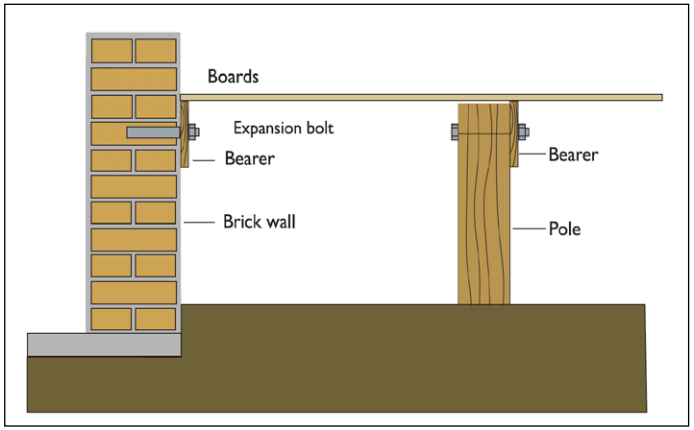


Figure 3 - Correct footing for post and angle for bearers ends

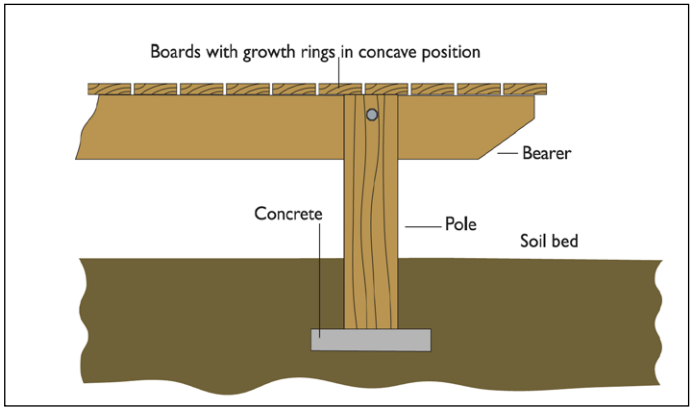


Figure 4 - Plan of a deck layout

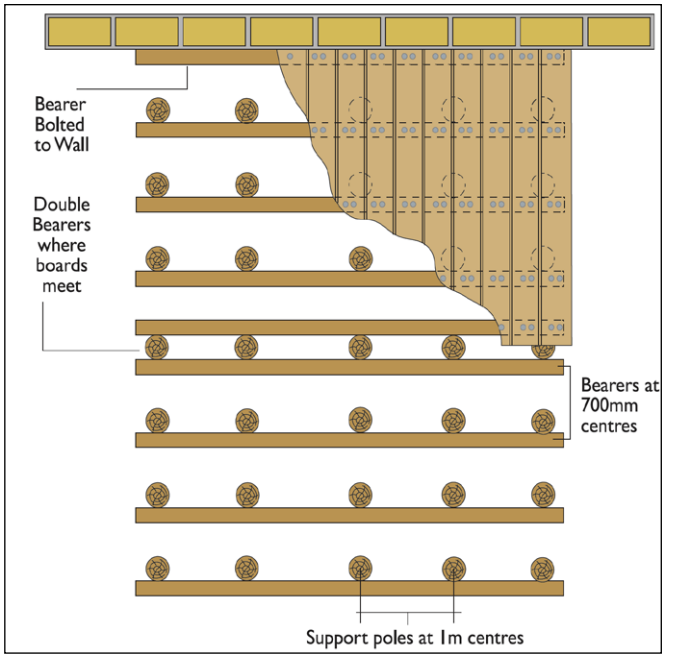
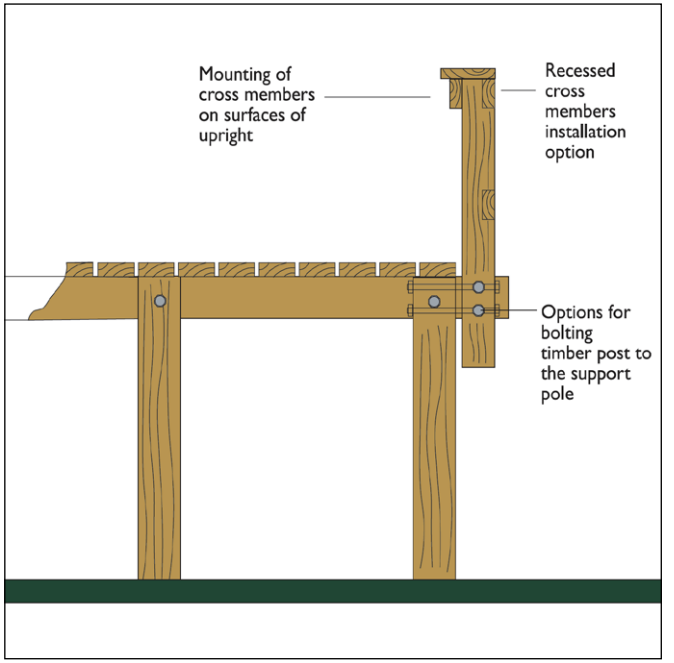


Figure 5 - Erecting a railing



STEP 3: CONSTRUCTION OF THE BASE

- The simple deck we will be building will abut a wall on one side. This means a bearer will have to be bolted to the wall - see ***Fig 2*** (previous page). The spacing between bolts on this bearer will depend on the nature of the wall and the deck to be built, but as a general rule of thumb, an interval of 1m should be suitable.

- Assuming you are looking at a simple deck - *4m wide and 6m long* - you would start off by deciding on the deck plank size. Select either 70mm x 38mm, if rough sawn, or 70mm x 35mm, if planed. This would dictate a space between the bearers of 700mm. Support poles will then be planted accordingly. The bearers should be 36mm x 152mm Grade S5 timber.

- Poles should not be encased in concrete. When installing the pole, plant the two end poles of each row first and align the faces, where the bearers are to be bolted to the intermediate poles, with a piece of string.

- The top ends of the poles need not be absolutely level. The bearers will provide a level plane for the deck. If the deck is less than 1m above ground, a planting depth of 500mm is adequate, which increases with greater ground clearance. Bearer ends should be cut as shown in ***Fig 3*** (previous page) to reduce the amount of end grain exposed to the elements.

- Double rail bearers should be installed where boards are to be joined. It is important to keep in mind that the overhang of unsupported board ends should not exceed 300mm. The layout of the proposed timber deck is shown in ***Fig 4*** (previous page).

This design has taken account of the need to use commonly available timber lengths. Thus, with a 6m long deck, two 3m long boards can be employed. While the choice of 38mm x 76mm boards dictates that the distance between bearers should be 700mm some latitude can be allowed. The spacing could, in fact, be as wide as about 750mm. In addition to the items already mentioned, it will necessary to obtain bolts, nuts and washers to tie the bearers to the poles and cement, sand stone and ringshank nails for fixing the boards to the bearers.

An extremely important aspect of constructing any deck is to obtain a level deck of the desired height.

Remember if the deck is to line up with an existing patio or step, the bearer bolted to the wall should be dropped below the level of the step by the depth of the board.

top tip

To obtain a level running away from the step, many people make use of a string in conjunction with a spirit level.

To obtain the horizontal level, line up the end poles and check levels of other poles in the same row against this level. In order to double check on levels, merely nail bearers to the poles. Only once levels have been achieved, should the bearers be finally bolted into place.

There should also be ongoing checks for squareness by lining up poles using string. With double bearer poles it is important to select poles of a even diameter.

STEP 4: CONSTRUCTION OF THE DECK FLOOR

- Install the boards from the patio side so they extend over the gap between double bearers. Chalk a line over the ends and cut off to obtain a straight line. Then install the remaining 3m boards.
- It is important to verify that the line in which the first board is laid is straight and at right angles to the wall. Make a spacer to ensure even spacing. In screwing or nailing the boards down, use only one nail in the centre of the board and, where possible, drive it through the centre of the bearer. Use a string to align all the screws or nails.
- Nail the boards into place proceeding from one side of the deck to the other, bearer by bearer. Remember to place deck boards with growth rings in a concave position.

ERECTING A RAILING

There are many options available when it comes to railings. Perhaps the easiest is to buy poles longer than required to support the deck, so that these poles can act as railing supports. With these supports, putting the cross members in place, is a simple process.

Alternatively, sawn timber posts can be bolted into the support poles to provide uprights for a railing system - see ***Fig 5*** (previous page). If desired, they can be recessed to allow for overhang.

There are obviously many cross-member configuration options. However, the Xformation is not recommended because when timber is cut in the centre in order to accommodate this formation, it will be exposed to moisture and other possible causes of future problems.

For more ***Easy DIY with Tanalised® Timber*** guides visit www.tanalised.co.za

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