## TIMBER FENCING



Before purchasing tools, timber and materials, read every step thoroughly then talk to one of our experts

## Step 1: Before You Start

Regardless of the type of fence you plan to build, be sure you know exactly where your property line is located and check any local regulations applying to fences before beginning construction. Also discuss the matter with your neighbour(s).

## Step 2: Choosing Materials

The majority of decorative fences are made using treated pine. Treated pine timber should have an H4 rating for the posts ( $90 \times 90$ ) and an H3 rating for the rails( $70 \times 45$ ).

The timber is treated with compounds of copper, chromium and arsenic, termed CCA. When using this material:

- Wear gloves and dust masks when sawing.
- Any cut or sawn surface of this material will need resealing to ensure its effectiveness in resisting attack.
- Dispose of any off cuts by burying them. Don't burn them as the smoke and ash are toxic.
If you use hardwood, select a timber with a very durable rating for posts and a durable rating for rails. Use a wood preservative to treat the section of the post that will be underground. Allow the post to stand overnight in the preservative so it can become well-saturated.

Nails should be hot-dipped galvanised to ensure maximum resistance to corrosion and also to reduce marking of the timber from rust stains. Bolts, nuts, washers, coach screws or any other fixing device should also be hot-dipped galvanised to maximise the longevity of the fence.

## Step 3: Setting Out



Run a string line along the outside of your proposed fence line and to ensure a right-angled corner use the 3-4-5 rule measure 3 metres away from a corner in one direction and 4 metres in the other
direction. The corner is square if the distance across the hypotenuse of this triangle is 5 metres.

As a rule, you should set fence posts about 1800 mm to 2400 mm apart. The spacing of the posts depends on the type of fence you build, the terrain, the purpose of the fence, and other such factors. Drive in stakes at the exact position where the post holes are to be dug. If necessary shorten the post spacing at corners for the best appearance and don't forget to include any gate posts in your calculations.

## Step 4: Setting The Fence Posts

Posts are the foundation for your wooden fence. Sometimes they stand only as high as the tops of the fence panels and sometimes the posts extend above the panels. In the latter case, adding finials is an option for fences performing a decorative function.

Set all wood fence posts with about one third of their total length buried in the ground. This is especially important on corner posts and any posts that will carry heavy weight or withstand high wind pressure.


Use a post hole digger to dig the post holes about 150 mm deeper than the desired depth of the post and fill in the base of the hole with gravel or small stones. This will drain any moisture away from the post and help prevent the post from rotting and also provides leeway for setting the vertical height of the posts. You can anchor the posts more firmly by making the holes slightly larger at the bottom than at the top.
Set the corner or end posts first, making sure that the faces of the posts run parallel to the string line. Use a level and timber braces to ensure a post is vertical while filling in the hole with either compacted dirt or concrete. A rapid set concrete mix is ideal for setting posts as the setting time is around 30 minutes as opposed to 2448 hours for conventional mixes.

To help eliminate water standing at the post base, slope the concrete slightly away from
 the post and round it off with a trowel.

Similarly, if you are using dirt as the fill you should build a compact mound around the post.

After setting the corner posts add another string line to the top of the posts and use both lines as guides to set the intermediate posts, again making sure that the faces of the posts run parallel to the string line

## Step 5: Adding Rails To Fence Posts

Rails do the spanning work in wooden fences, running parallel to the ground and connecting one post to the next. It is the rails to which the panels will be attached.
Typically you would use 2 rails for 900 and 1200 high and 3 rails for 1500 and 1800 high.

Attach a top and bottom rail to the fence posts. The type of joint you use (see diagram) to attach the fence supports to the post depends primarily on the type of fence you are building.


TYPICAL BOTTOM RAIL JOINTS


Try to keep the bottom rail of any fence at least 50 mm above the ground. This helps eliminate the problem of decay and makes it easier to trim grass around the base of the fence.

On level ground, fasten lower rail in desired position, ensuring that both ends are the same height off the ground. Measure from the bottom rail to the desired height on posts and fix top rail in position. When your fence runs up a hill, build it in a step fashion or follow the contour of the land as illustrated.


## Step 6: Adding The Panels

The panels are the chief screening component in privacy wooden fences and may take the form of pickets, palings, slats, boards or louvres and should not come in contact with the ground. There are literally hundreds of variations in panel styles; it all depends on what you want to achieve.
Below are just a few examples of what can be achieved using the construction methods described above ... and a little imagination.


The most common pickets are 70 mm wide and the standard gap is 30 mm , therefore you will need 10 pickets per 1.0 m of fence.
Common picket heights are $900 \mathrm{~mm}, 1200 \mathrm{~mm}, 1500 \mathrm{~mm}$ and 1800 mm . Some profiles are also available in 2400 mm .
Pickets and palings should be secured to rails with $4 \times 40 \mathrm{~mm}$ screws or $4 \times 50 \mathrm{~mm}$ timber-grip nails. Drive nails/screws at least 25 mm from end of board to prevent splitting.

When assembling a large number of boards with equal spacing, ensure that the first board is straight and use a spacer or cleat to ensure equal spacing of the boards.


Panels are sometimes attached so as to obscure the posts on one side or the other. Alternatively, the posts may be allowed to jut out in relief on one or both sides.

## Step 7: Finishing Your Fence

Use 2 or 3 coats of a suitable outdoor acrylic paint or oil based stain to prevent surface checking and discolouration due to the effects of weathering. Many people paint the posts, rails and boards prior to assembly to ensure that all pieces have a complete coating of paint.

## Fencing Hints

- When nailing rails or boards horizontally, do not have all the joints on one post. Your fence will be stronger if you stagger the joints.
- Each posthole will consume about 30 kg of dry-mix concrete.
- A gate opening should be at least 915 mm wide with the posts on both sides of the gate firmly set in the ground


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