

## The perfect guide to building your own steel post retaining wall.



This is a guide only and for a design that will comply with the relevant regulations, please consult a qualified engineer.

The first thing you need to do is establish the line of your wall and then follow by excavating 200mm behind it and use a laser level to set the finished height of the wall at either end, setting out a string line as a guide. Make sure you install adequate drainage behind the wall and check your local council for regulations.

### 1. FIRST THINGS FIRST: FOLLOW THE RULES

There is a general rule that you need to follow when using steel posts in constructing your retaining wall: the height of your wall above the ground should be the depth of your steel posts below it.

Following this rule will ensure that your sleeper retaining wall will remain stable and capable of withstanding the pressure from the soil, plus the many harsh natural elements that it is exposed to, over a long period of time.

Some landscapers follow another rule: one-third in, two-thirds out, requiring just  $\frac{1}{3}$  of your steel posts to be buried under the ground, instead of half.

Ultimately, the depth of your trench and how deep your steel posts should be in it will depend on your final wall height, as well as the pressure of the soil your wall is retaining, particularly if the soil is damp.

### 2. PREPARE YOUR RETAINING WALL LOCATION

Once you have determined exactly where you will be building your retaining wall, start clearing the area from plants and other vegetation.

### 3. MARK WHERE YOUR POSTS SHOULD STAND

Use spray paint or any brightly coloured ground marker for easier identification. You may need to cut your concrete or timber sleepers with a circular saw if they are longer than the distance between your posts.

#### 4. START DIGGING THE POST HOLES

Grab your shovel and start digging the holes for your steel posts according to your plan - just make sure it has been approved by a landscaping expert or the local council beforehand to ensure a smooth retaining wall construction process!

#### 4. SET-UP GUIDE POSTS

Drive two wooden posts on the ground, one on each side of your wall. Tie a string around one post then tie the other end of the string to the other post. Make sure the line formed by the string is a straight line. This will help you in aligning your steel posts.

#### 5. PLACE YOUR STEEL POSTS ON THE HOLE

Lower your steel posts into the holes, following the required depth. Check with the string line for alignment. You may also use a level to check whether your posts are level with one another.

#### 6. FILL THE HOLES WITH CONCRETE

Prepare the concrete mix according to the manufacturer's instructions. Grab your shovel and pour a sufficient amount on the hole where your steel post is partly buried. Allow it to set.

#### 7. INSTALL DRAINAGE

Put a drain pipe behind your steel posts to allow water from the soil to flow out. Cover your drain pipe with a layer of gravel, then place landscape fabric on top. Backfill with the excavated soil.

#### 8. INSERT YOUR SLEEPERS INTO THE STEEL POSTS

Insert your sleepers into the recesses of your steel posts, one row or course at a time. Regularly check for levels.

#### 9. CAP OFF YOUR WALL

Once you have inserted all the sleepers into your steel posts, finish it by attaching a long piece of concrete or timber (placed horizontally this time) to create a professional-looking capping or ledge on your wall.

**For more information on any of the above, please call or email the team at Metfab and we will be more than happy to help you.**



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