

INSTALLATION GUIDE DUOFUSE®

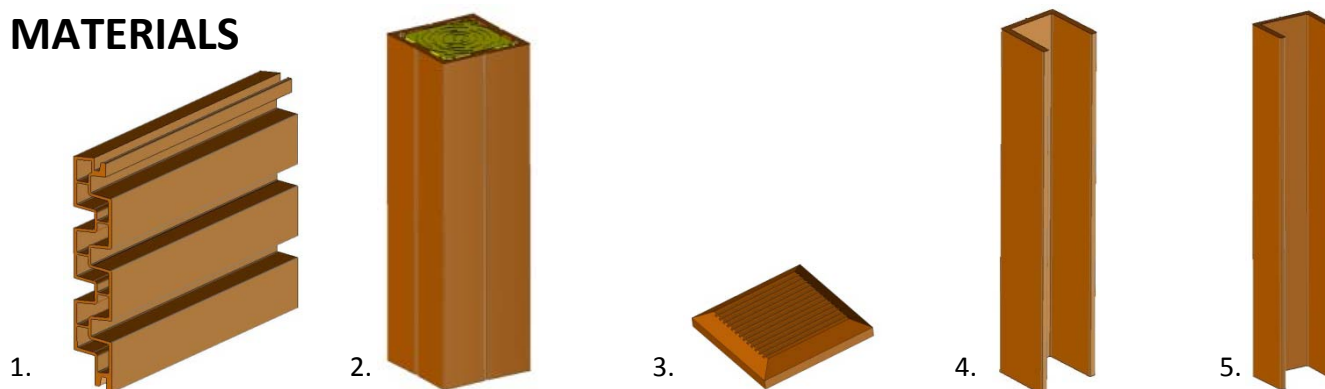
SLAT WALL SYSTEM

The Duofuse® wood composite slat wall system is much more durable than wooden fences, and correct installation is necessary to enjoy the fences for years.

We recommend reading through the entire installation instructions before starting, and please **check the website for the latest installation instructions**. **Plastivan disclaims responsibility for damage caused by, or failure of, the product as a result of faulty installation caused by failure to follow these instructions.** Failure to follow these instructions will void Plastivan warranty. All fencing and profiles should be acclimatised for minimum 24 hours before starting the installation. Remove packing if present. Stack the boards horizontally and cover against rain and sunshine. Do not install the fencing in temperatures below 5°C. Wood composite cuts, drills and installs similar to solid wood using standard wood working tools. We recommend carbide-tipped saw blades. Use a drill with low speed and high torque. Wood Plastic Composite products can in no circumstances be used as structural elements. Wood composite cuts, drills and installs similar to solid wood using standard joinery tools. The colours and the surface brushing may differ slightly from production deliveries and are not contractual. **We advise not to mix boards from different production batches. You can see the manufacturing date on the top of each board.**

When the fences have been exposed to some showers, water circles and drips may occur. This is a temporary process which is caused by the release of lignin out of the wood. By rinsing the fences with a garden hose the water circles disappear temporarily. After some time this process stops and the water circles disappear completely.

MATERIALS



- Slat wall boards (1.): 20x4.0x200cm (reinforced with galvanised steel - HxWxL).
 Composite post (2.): 9x9x300cm (reinforced with an impregnated wooden core – class 4).
 Cover cap (3.): 11x11x1.7cm (to avoid water infiltration in the composite post).
 U-profile for (4.): 2.7x3.5x202cm (fitting system for the boards and to use as finishing profile above the slat wall system).

In the installation guide we refer to the small U-profile as “horizontal U-profile” and “vertical U-profile” depending on the way it is used.

- Stainless steel screws: minimum 4x45mm (to attach the U-profile to the composite post).
 Stabilised sand: Semi-dry mixture of ballast, sand and concrete (200kg per m³ mixture).
 This mixture can also be bought ready to use at a specialised store.

OR:

- Concrete/Rapid concrete: Advised in cases of exposure to heavy wind (open field, ...)

OPTIONAL:

- Large U-profile (5.): 4.2x3.5x182cm
 Only needed if a concrete gravel board is used at the base

Suitable plugs, stainless steel screws and L brackets (when fixing to a wall)

Attention!: Due to the large surface area of a fence, steel fence post anchor supports cannot be used. These are not sturdy enough to withstand high wind speeds. L brackets, screws or plugs are never supplied by Plastivan NV. Please buy these at specialized shops.

TOOLS (depending on the way of fixing)

Garden spade / post hole auger
Water level
Mason rope or normal rope
Screwdriver
Drill
Wood drill

Countersink
Measuring tape
Sliding mitre saw / Jig saw / handsaw
Carbide tipped saw for cutting the boards
Laser

BASIC RULES

Height fence

By using the Duofuse® slat wall system, multiple combinations of panel frame (heights of 20cm to 200cm) are possible depending on the number of boards used. The fences can also be built in cascade, e.g. first fence 120cm high, second 160cm high,...

The boards can be placed directly on the soil as they will not rot. The fences can swell as a result of moisture absorption in width and height, therefore make sure the post exceeds the screen by minimum 5.5cm in order to leave enough expansion space.

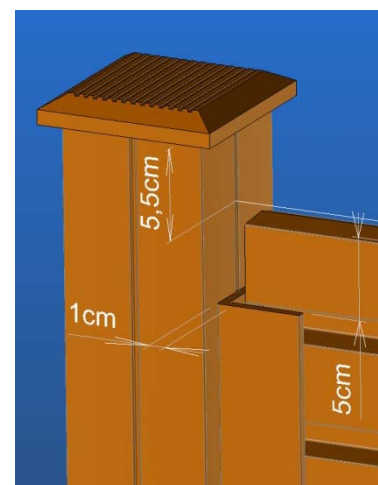
Length fence

Standard length of the boards is 200cm but boards can be cut to any length. By the presence of reinforcement profiles in galvanised steel, carbide tipped saw is necessary to cut the boards.

A minimum of 1cm gap is needed to be left at both ends to allow for expansion of the boards. When taking into account the thickness of the U-profile (0.5cm), the boards need to be at least 2x1.5cm smaller than the distance between two posts.

For the standard length of the fences the distance between two posts is 203cm.

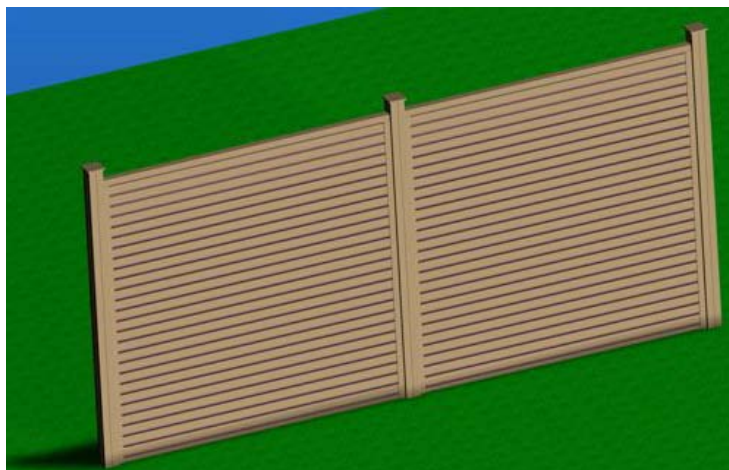
These values apply if installation is under dry circumstances with boards which were stored in a dry environment.



PROCEDURE INSTALLATION FENCE

Avoid damage of the wood composite materials:

- Use a slow drill speed when fixing a screw.
- Hammering on posts or boards is not allowed.
- Avoid installing wood composite material in temperatures below 5 °C.
- Counter sunk pre-drilled holes are essential for fitting.



Step 1 : Shortening the posts (optional)

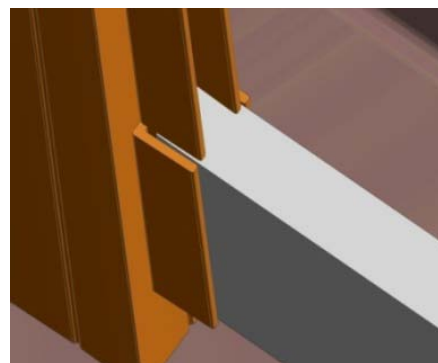
When installing fences of less than 200cm, you will have to saw the posts to the correct height. 1/3 of the length of a post needs to be into the ground (with a minimum of 60cm). For a fence of 200cm, 95cm into the ground is sufficient.

At one of both sides of the post the wooden core is attached to the composite post by means of a screw. Always crop the post at the other side.

When you need a short post, you can choose to saw the post in two. Then you will have to screw the post to the wooden core using a 4.0x45mm stainless steel screw at the bottom of the post. Make sure that the fully treated end of the core is located at the bottom of the post.

Step 2: When using concrete gravel board (optional)

When you want to use a concrete gravel board – up to 4cm thick – beneath the fence, you can attach it with the large Duofuse® U-profiles (width 4.2cm). Attach these U-profiles to the posts with at least 2 stainless steel screws of 4.0x45mm (max. intersection 40cm).

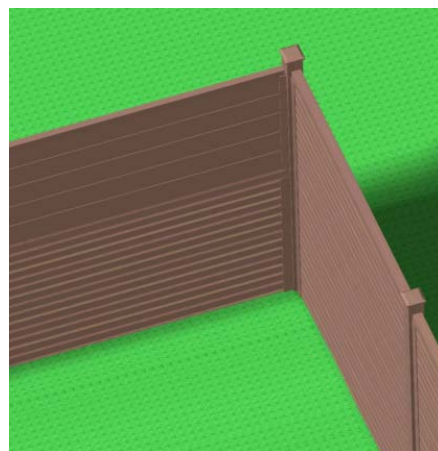


Step 3: Assembly of the U-profiles

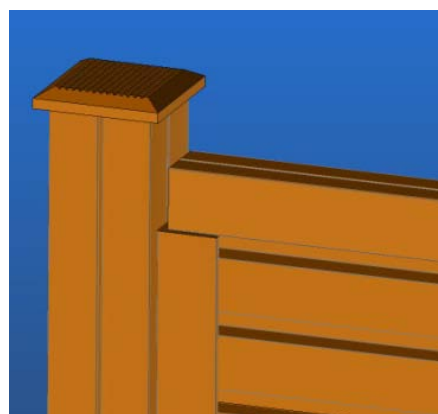
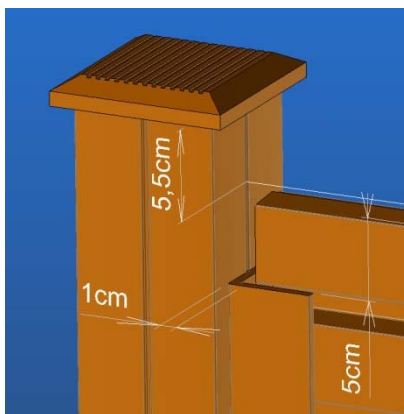
In order to create a corner or extra raised beds, you can attach at more than one side a U-profile (up to 4).

Attach the U-profile to the post with stainless steel screws of 4.0x45mm (max. intersection 40cm). Attach the U-profile each time at the same distance from the top of the post; e.g. 11cm.

- Attach the U-profiles to the posts before mounting the post in the ground. This makes it easier.
- When using a concrete gravel board you can attach the U-profiles for the slat wall system (width 4.0cm) to the post only after that the gravel board has been placed between the large U-profiles.



When you want to finish the upper board with a horizontal U-profile (Step 7), make sure that the boards are 5 cm higher than the vertical U-profiles, so that the horizontal profile can be placed onto the upper board. Therefore you will have to cut the vertical U-profiles by 7cm before attaching to the posts (the boards are 200cm high, the U-profile is 202cm long and the vertical U-profile should be 5cm beneath the top board).



Step 4: Mounting of the posts

One end of the impregnated wooden post is protected with a plastic liner to protect against rising damp. Make sure this edge is always put in the ground.

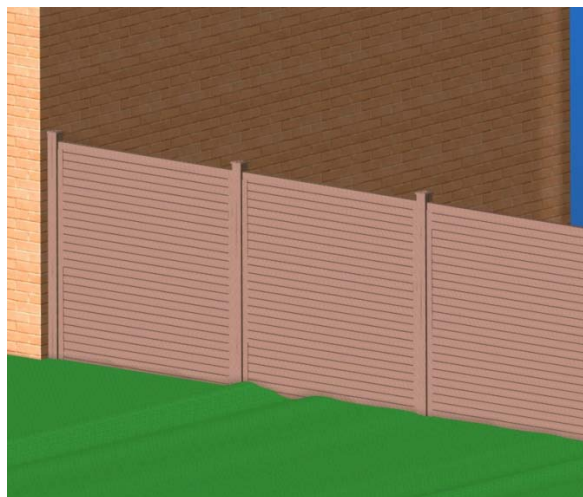
There are 2 possibilities to attach the posts:

- Against a wall
- Into the ground

4.1 AGAINST A WALL

- Saw the post to the desired length
- Drill the post so that the mounting screws can be placed through the post.
- Place the post on the right place, water level to the wall and drill the holes through the post into the wall.
- Withdraw the post, drill the plug holes into the wall and place the plugs.
- Attach the post with screws against the wall and make sure it's vertical.

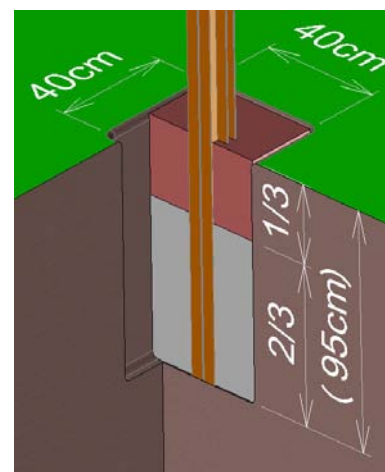
If the wall is not vertical, you can place a small wedge between the post and the wall. Make sure the head of the screw is levelled with the post. Alternatively you can use stainless steel L brackets to mount the post to the wall instead of direct fixing.



4.2 INTO THE GROUND

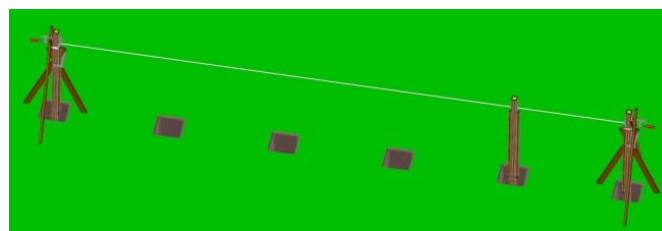
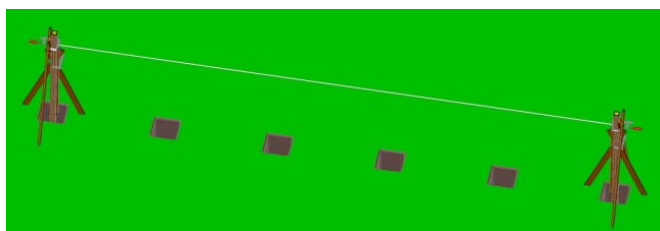
1/3 of the length of a post needs to be into the ground. For a fence of 200cm, 95cm into the ground is sufficient.

- Dig a hole of 40x40cm and 95cm deep and (if necessary) place a tile in the hole to avoid sinking of the post.
- Place the post in the hole.
- Fill the hole completely or at least for 2/3 with stabilised sand, concrete or rapid concrete. When using (rapid) concrete, wait until the concrete has become hard. Fill the rest of the hole with soil which you press hard. In doing so you can sow or plant against the pole.
- Use a level to make sure the post is standing 100% straight.



Step 5: Order of placing the posts

If applicable always start against the house, shed or other fix point. After installing the first post, install the last post. Anchor sturdily the first and the last post. Fix the last post temporary. This can be done by using 2 temporary struts. When installing the last screen the last post can be fixed permanently with concrete, stabilised sand,... . In this way a slight miscalculation or deviation can still be corrected. To be sure that all posts are as high you can use a transparent flexible hose filled with water or a laser. Stretch a (mason) rope between the first and the last post. Then place the second post and install the first fence.

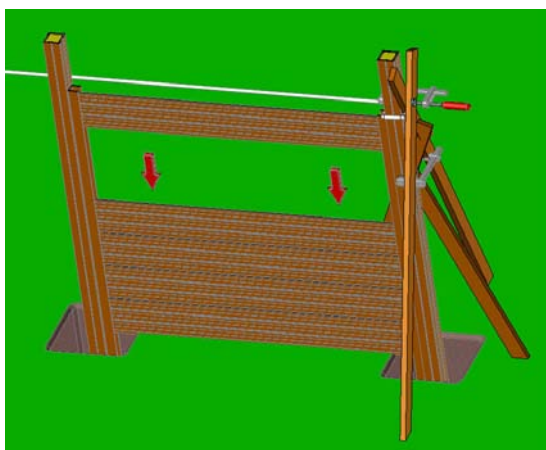


Step 6: Installation of slat wall boards

Place the boards from above into the U-profiles.

Make sure the board is placed with the single lip facing down (see drawing).

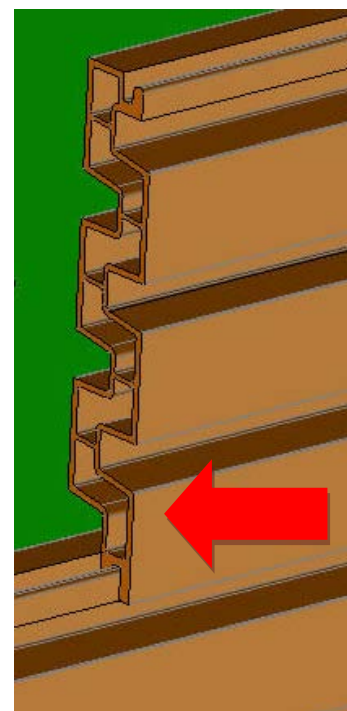
Press the boards to each other. An expansion space of min. 1cm at both sides needs to be respected. Avoid damaging of the boards.



If the screen is placed on grass or other soft surface, make sure that the screen cannot sink into the ground. Support the screen at ground level at 3 places by means of tiles, concrete slab or other hard material.

Then place the next post and build the next fence. Do not place all posts, but build fence after fence. Check during and after sliding the boards that the next post is still vertical.

When placing a corner or an extra intersection, repeat the above steps.



Step 7: Finishing

Horizontal U-profile

You can finish the fence by placing the U-profile on top of the upper board. For a nicer finish you can sandpaper the upper side of this profile manually.

When each fence has been completed, add the horizontal U-profile. In this way you can verify whether the used distances of the boards, posts and vertical U-profiles are correct. Make sure the U-profile is level on top of the upper board. You can achieve this by placing long level on top of the U-profile and adjust carefully with a rubber hammer.

Cover cap

The posts are to be finished by screwing the cover caps in the middle on to the post or by gluing the 5 inside edges of the cap to the post. By doing so a natural air flow inside the post can be ensured.

Attach the cover caps after all horizontal U-profiles have been put in place.

For posts placed against a wall, the cover cap needs to be cut at one side.

