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Types of Greenhouse Bases - With Pros & Cons of Each

Typically, the next step after choosing a greenhouse is deciding on the foundation or base upon which the structure will stand. With your climate and soil conditions in mind, there are many different types of greenhouse bases that you can choose from.

In this guide, you will learn:

- [Should You Install a Greenhouse Base?](#)
- [How to Assess Which Base is Best For You?](#)
- [Concrete Slab Base](#)
- [Wood Base \[Video\]](#)
- [Perimeter Base](#)
- [Raised Perimeter Base](#)
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Should You Install a Greenhouse Base?

The primary benefit of installing a base is freezing and unfreezing the soil, which shifts over time and might affect the greenhouse structure (5-7 years).

At Planta Greenhouses, we add galvanized steel legs in all models that go directly into the ground (about 1 foot). These legs will hold the greenhouse; however, it doesn't reach the frost level for most cold areas, and that's where a greenhouse base is something you might consider.

Keep in mind that installing a base is optional, but we recommend doing so to extend the greenhouse lifespan.

Planta Greenhouses's heavy-duty galvanized steel (rust and dust resistant) makes the model sturdy and long-lasting. The greenhouse frame can last you up to 70 years (depending on the soil's corrosiveness).

While the greenhouse frame can last for 20+ years, the polycarbonate panels will last for up to 15 years, at which point you can replace with new ones and install them on the existing frame. Contact our customer service to find out how you can purchase individual polycarbonate panels.

Regardless of which base you're choosing to install, pin it to the ground to prevent high winds from lifting the entire frame off the ground.

We recommend that you secure, level and make sure the foundation is squared first and build the greenhouse on top.



In the image: Planta's greenhouse frame with legs (included with your greenhouse package)



In the image: frame without legs, on a wooden base (the customer opted out of using them).

How to Assess Which Base is Best For You?

Pick a good location with ample sunlight (the south side of the garden gets the most sunlight) and assess the soil underneath it.

Wind resistance and snow load of the greenhouse will be increased depending on the bases you choose.

Don't be tempted to take shortcuts with the foundation for the base. Doing this right from the beginning will save you money and headaches down the road.

Keep in mind that additional hardware might be required, which isn't provided in your kit.

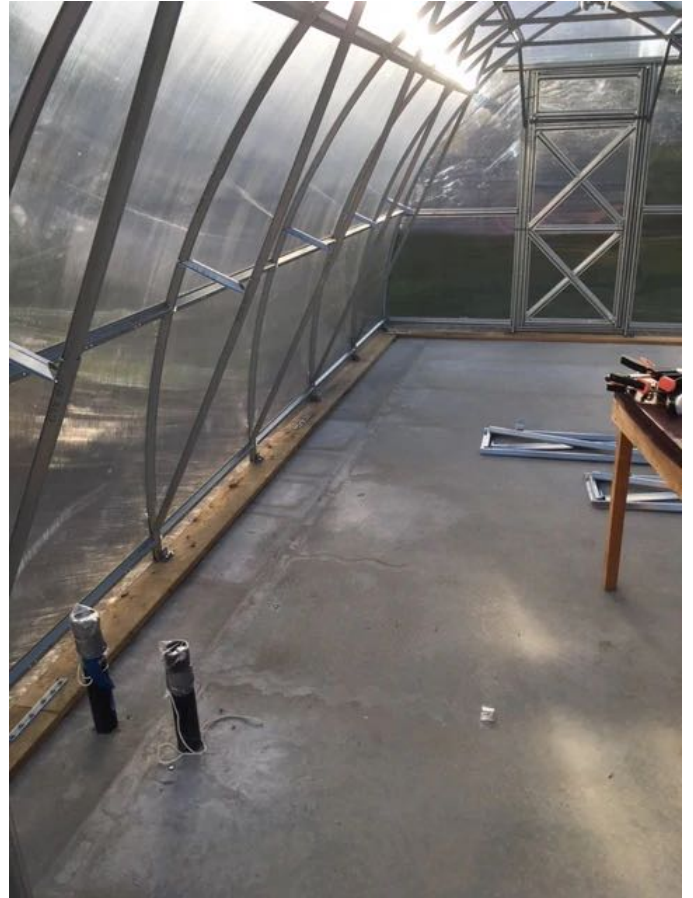
We do recommend securing your base to the ground to provide maximum sturdiness to the structure.

The following are examples of foundations our customers have created for their greenhouse base, including pictures they've taken themselves.

We've arranged them from sturdiest to least sturdy + pros/cons:

Concrete Slab Base

A concrete slab base is the most durable foundation for a greenhouse. It does require planning and labour ahead of time, but once it's complete, you can forget about logistics and focus on growing your food.



Concrete Base Pros

- This base will provide maximum sturdiness to the greenhouse.
- A concrete base can be a good solution in cases the land isn't levelled.
- Maintenance is as easy as swiping with a broom and washing with detergent when needed.
- A concrete base is long-lasting and permanent.
- Rodents will not be able to tunnel inside the concrete base.

Concrete Base Cons

- You'll be able to plant only in garden beds, pots, etc.
- Standing water may be a problem since it can only drain around the edges of the greenhouse base. However, drilling drainage holes will solve this problem.
- A concrete base is the most expensive option but the most cost-effective long term.

- Once all shuttering is put in place to pour the concrete inside, it is relatively easy to construct. It is also possible to use more robust fixings, such as expansion bolts, to hold the greenhouse base in place.
- Since a concrete pad is a permanent structure, you might be required a permit from the municipality depending on where it would be installed.
- Although the greenhouse is removable, you won't be able to move the base with it.

Wood Base

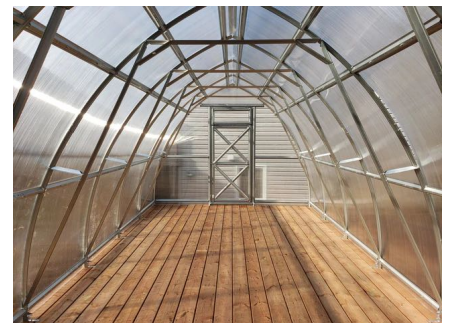
A wooden base is an excellent solid structure to build your greenhouse on. You can install it on your existing deck.

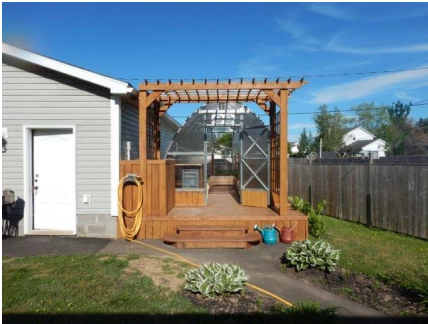
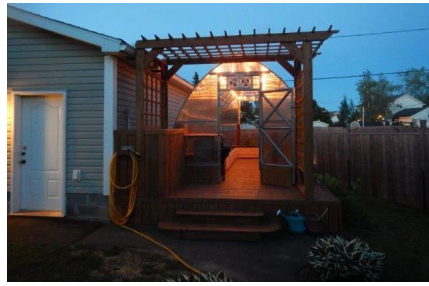


Building a wood base for your greenhouse is a cost-effective option in the long run.

The best wood for this project would be pressure-treated lumber or naturally rot-resistant material like cedar or redwood.

As you can see in the images below, many of our customers choose wood as their greenhouse base:





Wood Base Pros

- A more accessible and more cost-effective option you can install yourself without depending on contractors.
- It's adjustable and can be extended and used for larger greenhouses.
- It's easy to maintain and clean, similarly to how you'd treat a deck with a waterproof coating to prolong the wood's lifespan.
- It's easier to provide appropriate drainage through the gaps between each unit.

Wood Base Cons

- Pressure-treated woods have chemicals added to them which can leach into the soil and affect your crops; however, if you go with naturally rot-resistant wood (i.e. cedar or redwood), it won't happen but will be pricier.
- Not as durable as concrete.
- In the long term, wood is more mould-prone unless it is rot-resistant or pressure-treated.
- If you build it on a deck, insulation might be an issue if you plan to use your greenhouse during the wintertime because a deck doesn't provide insulation from below.

Perimeter Base

Another option is to build a solid perimeter for the metal base to sit on. You can make it from breeze blocks, paving slabs, wood or concrete.

There are two types of perimeter bases: Wooden and Concrete.

Wooden perimeter base





Concrete perimeter base

The best way to install your greenhouse over a perimeter base is to place the frame on the outside edge. This option will allow the polycarbonate panels to overlap the bottom to provide better insulation.



Before starting, mark the metal base's size on the ground using spray paint to ensure that the top fits the bottom neatly.

Perimeter Base Pros

- It is a good option in situations where the ground isn't wholly levelled, and you want to save the extra labour of levelling everything out beforehand.
- You can adjust the height of your greenhouse based on the base you're going to go with (easiest to do with a wooden perimeter base)
- Inexpensive but sturdy as a wooden base.
- Easy to build.

Perimeter Base Cons

- If the slabs (or blocks) aren't secured firmly (using a cement mixture), the entire structure might collapse.
- We don't recommend laying blocks or slabs on sand alone, as it will wash away eventually and make the base unstable.
- It's crucial to have the proper measurements as there is no room for error.

Raised Perimeter Base

Quite a few of our customers prefer to construct raised beds for planting in the greenhouse. This option does require initial planning, purchasing materials and construction time, but once you have everything set up, planting becomes delightfully easy and joyful.

The raised perimeter base provides you with the option of controlling your greenhouse height, which will give extra space inside the greenhouse to grow taller plants.



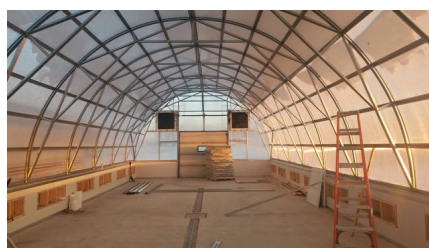
Raised Perimeter Base Pros

- You can control the base's height, making it easier on your back while planting and harvesting.

- Planting with a raised bed gives you the option of growing directly on the soil and using portable soil.
- A raised bed greenhouse eliminates weeds and insects because it's filled with fresher and often healthier soil.
- A healthier soil contains organic compost or fertilizer, allowing your plants to start their journey in soil that's loose, clean, and beneficial for them.
- Similar pros as with the perimeter base.

Raised Perimeter Base Cons

- If extending the raised bed from the ground, make sure you weed out any roots that might interfere with growing your plants in the long run.
- The biggest issue with the raised foundation is that you might need to shift the greenhouse door, make an additional custom one or make a step to get in.
- With this option, you might have to create a path for accessing the plants, which means the area isn't optimized fully for planting.



Soil or Earth Base

If your soil is firm and well compacted, the cheapest and simplest option is to concrete in the four metal posts at the corners of the frame (verifying that everything is levelled before the concrete sets). You might need to secure the structure in place while the concrete dries up.

Soil & Earth bases are only suitable for our Sungrow Compact, Sungrow Urban, Sigma Urban and Ministar. For larger-sized greenhouses, you might need to pour additional footings of concrete to secure the structure.

If the area you're dedicating for the greenhouse isn't levelled or sloppy, we recommend you flatten it out by adding more soil and compacting it down firmly with a roller or a vibrating plate. You can rent out both inexpensively from a local gardening shop.

Soil base Pros

- A greenhouse with a soil base and concreted leg posts is the most cost-effective option for smaller-sized conservatories.
- You can plant directly into the soil inside the greenhouse with good drainage.

Soil base Cons

- As said previously, soil/earth base isn't a good option for commercial greenhouses.
- Depending on the type of soil you have, planting in the ground runs the risk that the earth has poor drainage, too much compaction, or lacks an ideal pH balance.
- With soil bases, there's always a risk that the frame might sink, leading to bending of the greenhouse frame and breaking of the encapsulating plastic.
- Moreover, the inside could become saturated with water and muddy.
- It's also possible for rodents to tunnel inside.
- Now that you've decided which greenhouse base is suitable for you, it's time to build it and enjoy growing food even when the weather outside isn't ideal for gardening.



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