

Installation Guidelines

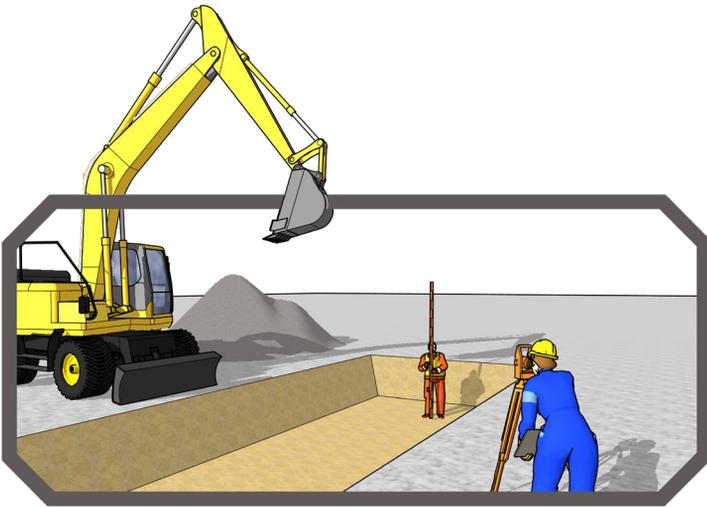


ROOTBOX[®]
structural soil cell system



Excavation works before placing RootBox

Prior to the installation of the soil cells, there are several tasks to be carried out beforehand.



Excavation.

The bottom of the pit should be on all sides 30 cm wider than the perimeter of the RootBox system. The excavation depth is project-specific.



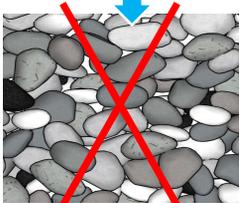
Drainage.

It is vital to prevent the tree bunker from remaining saturated. If the subsoil does not drain adequately, a drainage system should be installed.

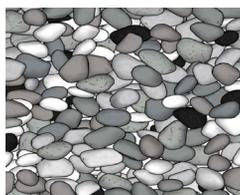


Solid foundation.

The subsoil on which the RootBox is placed should be level and water-permeable. And should also meet local bearing capacity requirements. Compaction according local requirements.



Do not use coarse gravel

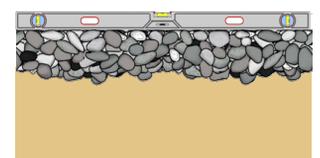


Gravel < 36mm
Free of debris



Prevent wobbling of the RootBox units

0 – 7%

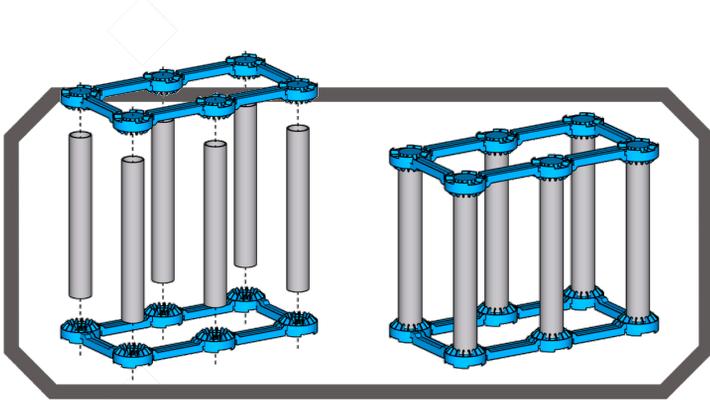


The subsoil must be level, max incline 7%

Installing RootBox Soil cell system

The actual installation of the RootBox system starts after the preparatory work has been carried out.

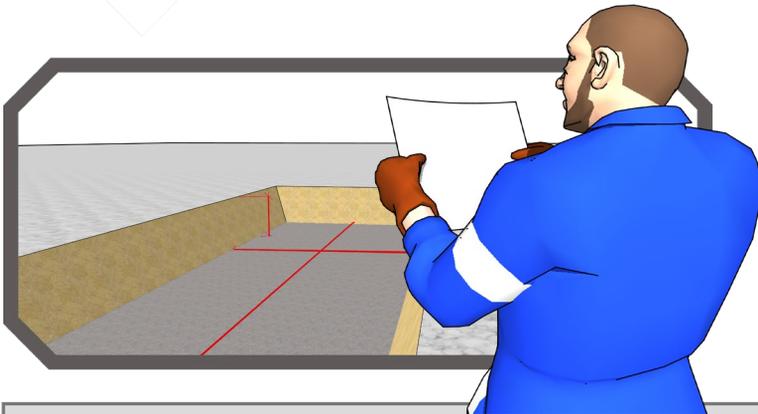
In addition to the RootBox, make sure enough people (min. 3 people) and all materials are present incl geofabrics, backfill and planting soil etcetera.



Assembling RootBox units.

You can put your employees to work in advance, let them assemble the RootBox units.

A RootBox unit consists of:
2pcs Frames + 6pcs Uprights (legs)
A RootBox system also includes:
Lids, spacers, geofabrics.

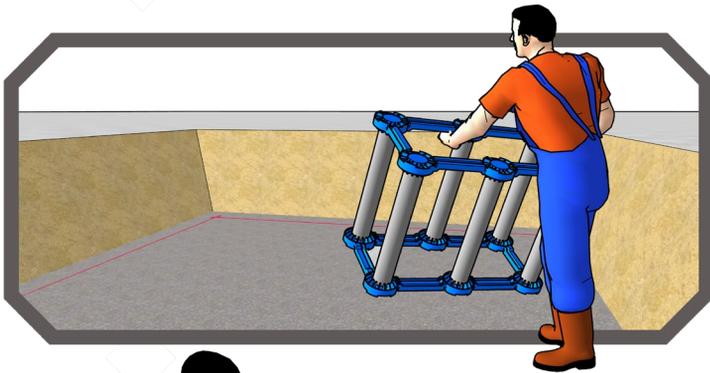


Checking the location.

While the RootBox units are being assembled, you are to complete the following checklist.

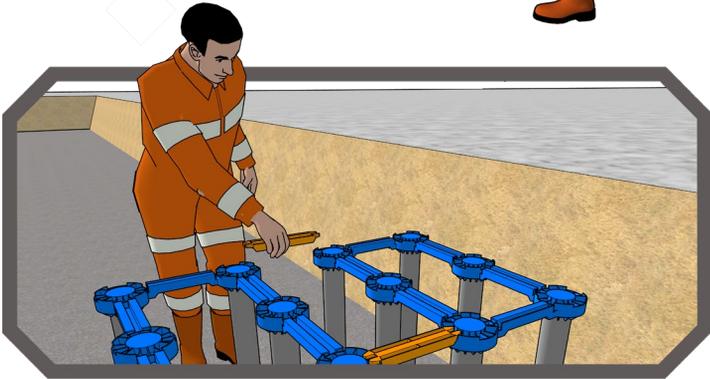
Checklist : ensure that the following items have been carried out correctly and that all necessary materials /machinery are available.

- | | |
|--|---|
| <input type="checkbox"/> Length and width | = system dimensions + 60cm |
| <input type="checkbox"/> Depth compared to new surface level | = system height + road build-up |
| <input type="checkbox"/> Adequate drainage | |
| <input type="checkbox"/> Plainness of the bed | |
| <input type="checkbox"/> Stability of the bed | |
| <input type="checkbox"/> Obstacles | |
| <input type="checkbox"/> Required machinery present | mobile crane, trench rammer, vibratory plate |
| <input type="checkbox"/> Sufficient workers | preferable minimum 3 persons excl. machine operator |
| <input type="checkbox"/> RootBox products | Geofabrics, vertical and horizontal |
| <input type="checkbox"/> Additional products | Planting soil, backfill material |
| | Tree pit edging |
| | Root guide |
| | Aeration system |
| | Etc. |



Placing RootBox units

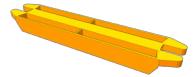
Mark the location of the tree and perimeter of the system with lines or paint before starting to place the RootBox units. Correct any discrepancies or errors.



Connecting the units

Attach the Spacers between the RootBox units press into place until it clicks. See layout plan where to attach.

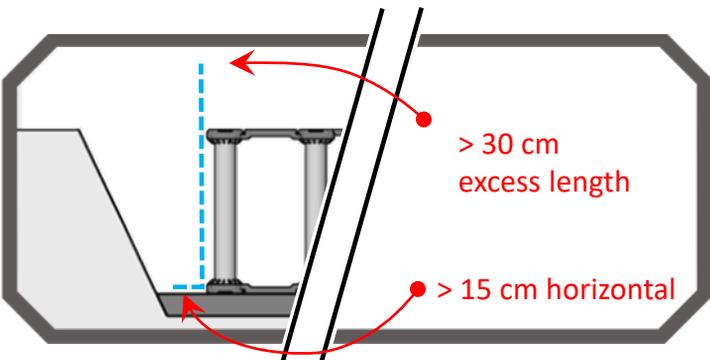
RootBox Spacer



Check the drawing for any additional products:

- Aeration, irrigation system
- Tree root ball anchoring
- Inspection riser
- Etc etc.

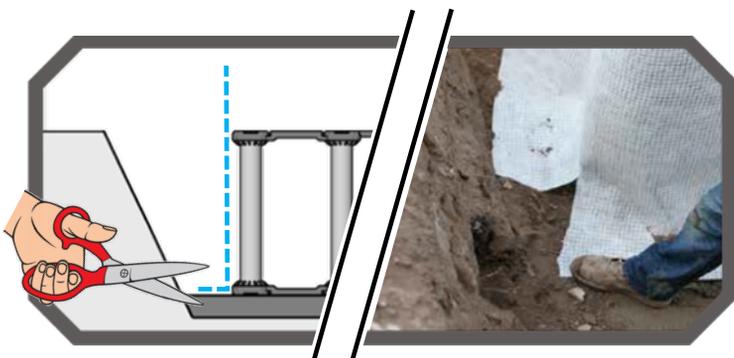
This manual does not provide instruction for any additional products.



Vertical pressure-distributing grid. (also called combigrid)

Place the combigrid around the system, with an overlap of approx. 1 m.

The height is equal to or greater than the height of the system + 15 cm at the bottom + 30 cm horizontally over the system.

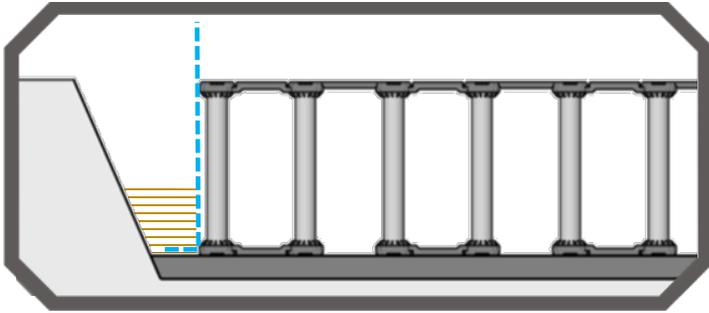


Attention to the corners.

In the corners, cut or trim the combigrid by 15 cm, to fold the combigrid correctly around the corner

The system is ready for (back-) filling

Backfilling the system is done at equal intervals. Both backfilling around and filling the system itself. Both, backfill material and planting soil, should therefore be available at the same time.



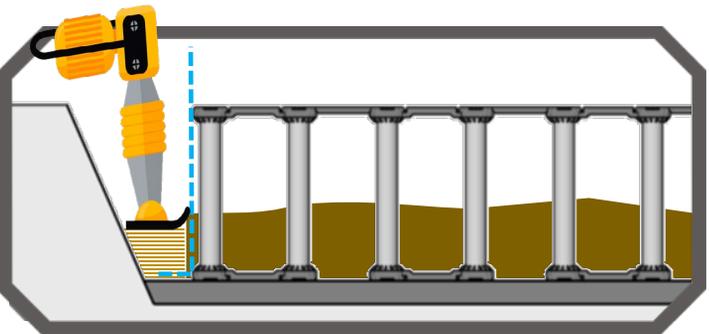
Start by installing loose backfill around perimeter

Placing a first lift of backfill material, but do not compact yet. Height of the layer is determined by local backfill compaction requirements.



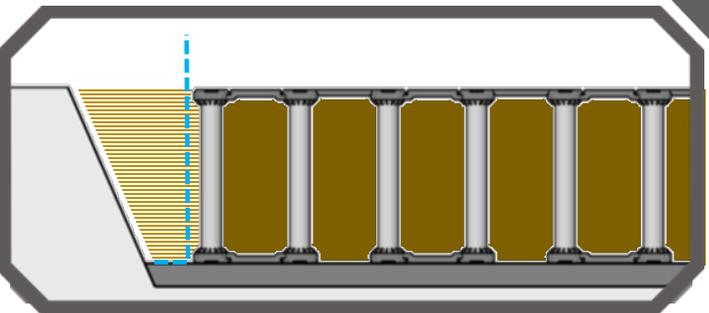
Install the first lift of planting soil.

The system can now be filled with tree soil. Do not fill higher than the level of the backfill material. Compact planting soil to 1 -1,5 MPa



Compact backfill material.

compact the backfill material around the perimeter. Add additional material and compact until the backfill is approximately the same height as the soil in the system.



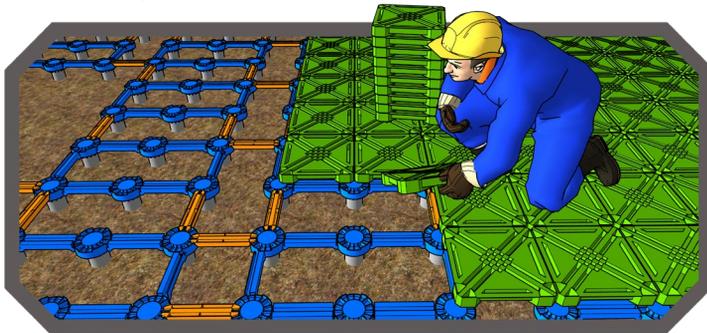
Repeat until system is filled up.

Repeat previous three steps until the system is fully (back-) filled.

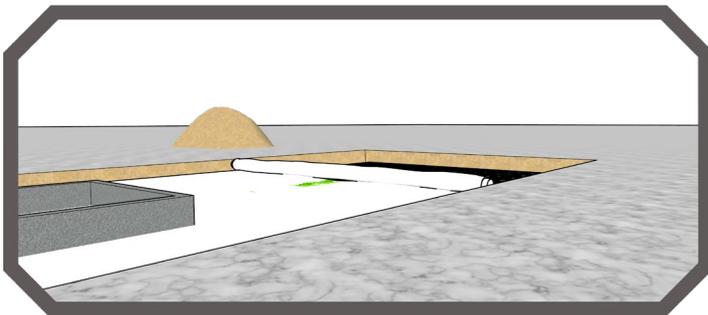
Compact planting soil to 1 -1,5 MPa

Completing the soil cells system

After the RootBox system is filled up, finishing can begin. Make sure you do not forget to apply any additional products, like aeration systems etc. See your project drawings for this.



Placing the RootBox Deck (Lid)
The deck closes the system. The decks provide force transfer to the posts.



Cover RootBox with geotextile.
The geotextile is a separating layer. We recommend applying the fabric about 30 cm beyond the excavation line.

Tree pit edging.
The edging around the open tree pit can be installed according design.



Applying foundation layer.
After the tree pit edging is in place, the foundation layer can be applied.

NOTE: Only after the paving is totally finished, the entire system is operational..