



Phormium
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HORIZONTAL SCREENING

Installation manual

Welcome to the Phormium screen installation manual.

This short installation manual is designed to provide all essential information for installers of Phormium screens. This guideline includes a step by step procedure with tips and tricks. Please be sure to read all instructions thoroughly and keep where they will be read by all installers (staff and contractors).

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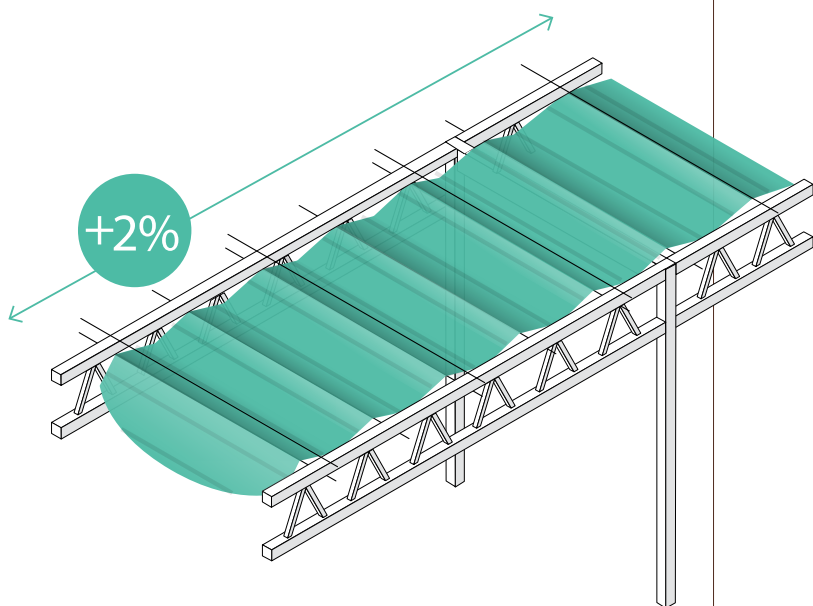
1. Ordering the correct length

Extra length should be ordered so that the installed screen is long enough without being tensioned. Sufficient overhang is important for correct installation.

Keep in mind when it comes to overhang it's easier to cut off extra material than to add extra.

One should add at least 2% to the net length.

$$\text{(Net greenhouse length + overhang)} \times 1,02 = \text{Length to be ordered}$$

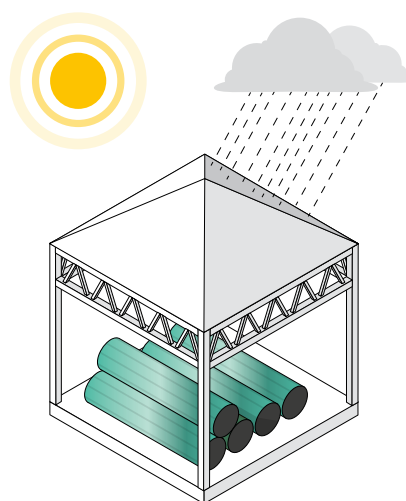


2. Delivery

Any and all freight damage or losses must be reported immediately to the freight carrier and indicated on the official freight documents.

In order to prevent damaging the product, do not lift the rolls with the fork-lift truck or drag them on the floor.

The rolls should be stored in a dry place out of the sun, if they are not installed immediately.



If a defect is detected during installation, one should stop installing the screen and immediately inform Phormium.

* Note: extra fabric is added to the roll, since the last 0,50 lm might be damaged when it was glued to the core.

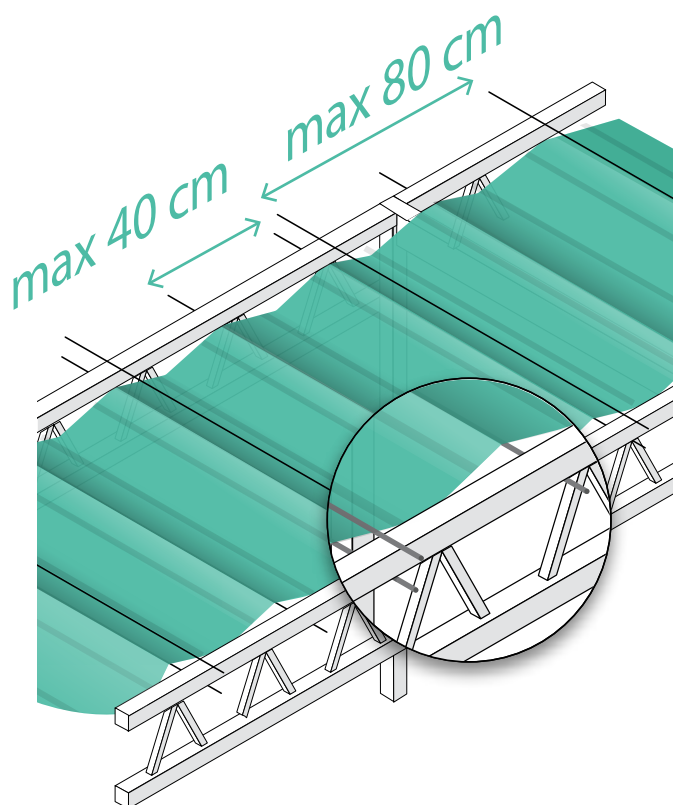
3. Pulling in the screens

a. Wires

Non-stretchable plastic supporting wire should be placed on a distance of max. 40 cm. One should not use iron or steel wires, unless they are coated.

Avoid sliding the screen over rough surfaces. Above the screen one should install staying wires every 80 cm or less.

It is recommended to replace the wires when the screen is replaced. Dirty or rough wires can damage the screen.

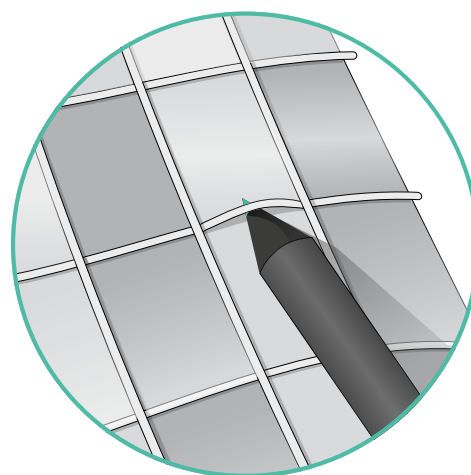


b. Determining upper side of the screen

Aluminium screens should be installed with the shiny side up (facing towards the sun).

For other screens, one can distinguish the upper and lower side as follows:

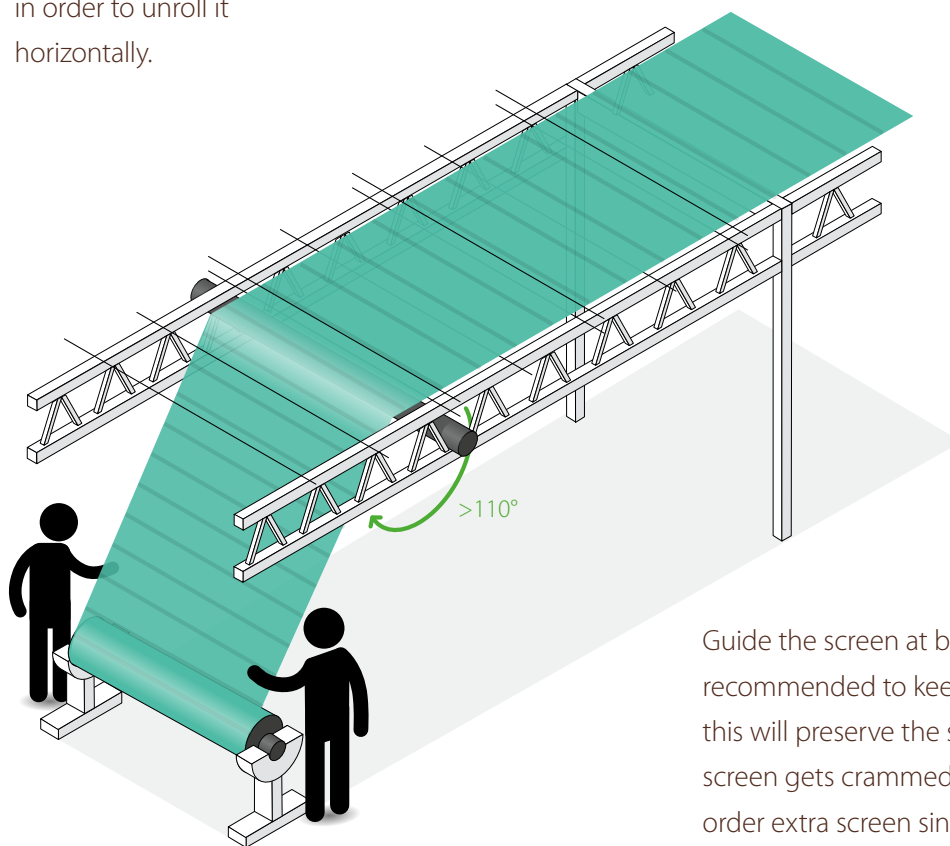
the upper side of the screen is the side where one can pick up the acrylic yarn by following the length direction of the screen.



c. Unrolling

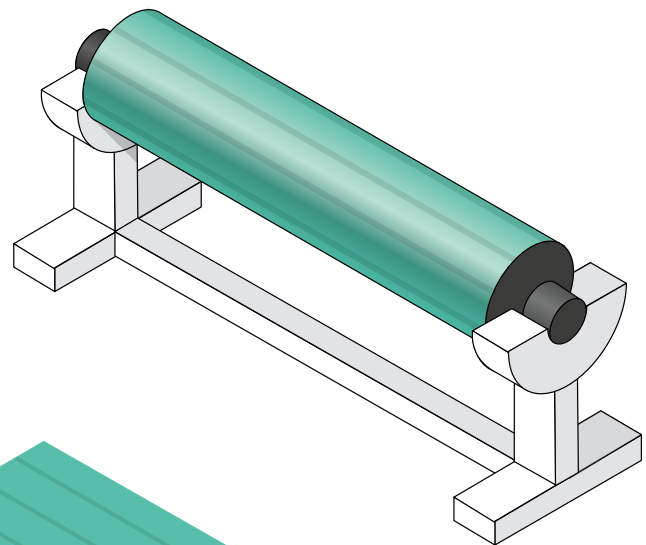
The fabric should be unrolled on the basis of a freely rotating shaft to prevent unnecessary soiling, damage and/or displacement of tapes.

It is preferable to hang the roll in the top of the greenhouse in order to unroll it horizontally.



Make sure that the angle is greater than 110° and the screen is pulled over a smooth, plastic tube (minimum $\text{Ø } 125 \text{ mm}$) for minimum friction.

This will also reduce stretching of the screen while pulling it in.



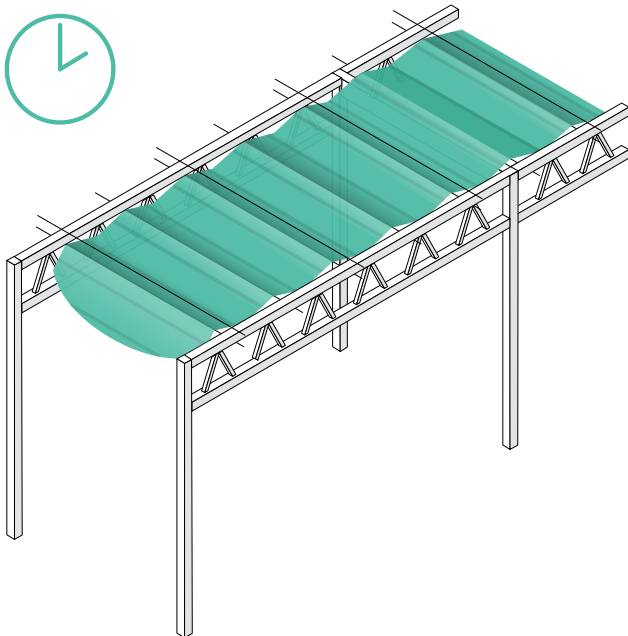
Guide the screen at both sides while unrolling. It is recommended to keep the screen as wide as possible; this will preserve the structure of the screen. If the screen gets crammed to be pulled in, one has to order extra screen since the crammed part will get damaged.

Watch out for sharp objects like heating installations, crop-hooks, profiles etc.



4. Mounting

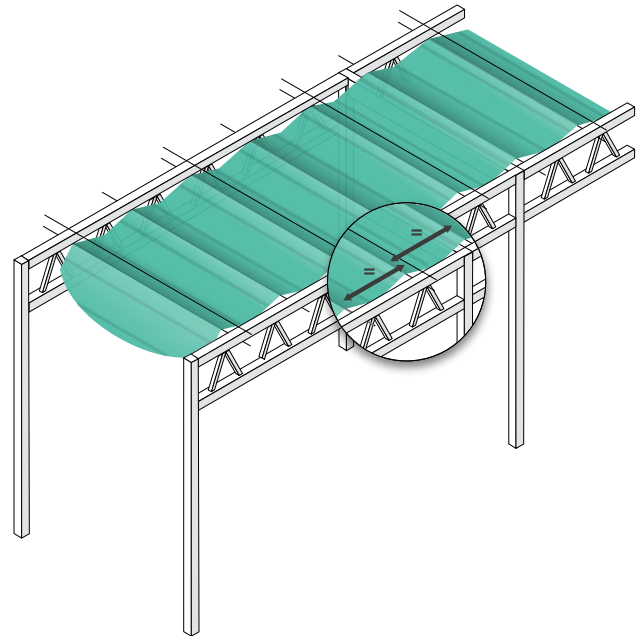
After pulling in the screen, take out the tension in the length direction of the screen, and leave additional material every 50 meters (164 ft). Let the screen rest for at least 24 hours before fastening it. This allows the screen to relax from stretching during pulling in and from being stretched on the rolls. This is even more important during wintertime.



During mounting, an extra 1,5% material should be evenly spread over the total length of the panel.

We recommend that you start mounting from the middle of the lane and work towards each end. If an overhang is attached on one end of the screen, start mounting the screen from this end.

We recommend the following to distribute the extra screen material evenly: first keep the screen flat from the first post to the next, then add the extra material, spread it over the truss and mount it. Repeat this at every post.



* Note: make sure that the leading and the back edge side of the screen remain parallel in order to avoid wrinkles.

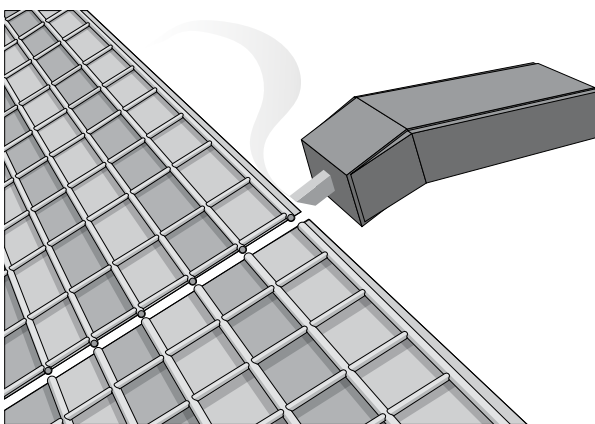
5. Finishing the screen

When the screen is mounted correctly, the middle of the overhang is longer than at the truss and profile side.



When the length of a panel needs to be adjusted, use a hot knife or power scissors to cut the end. You could also use a UV stable tape and cut on the tape (1).

When cutting off the screen, make sure you cut parallel to the weft of the fabric. When doing it correctly, no weft tapes could be cut.



If the finishing of the screen is done by the installer, he becomes responsible for the type and quality of this finishing.

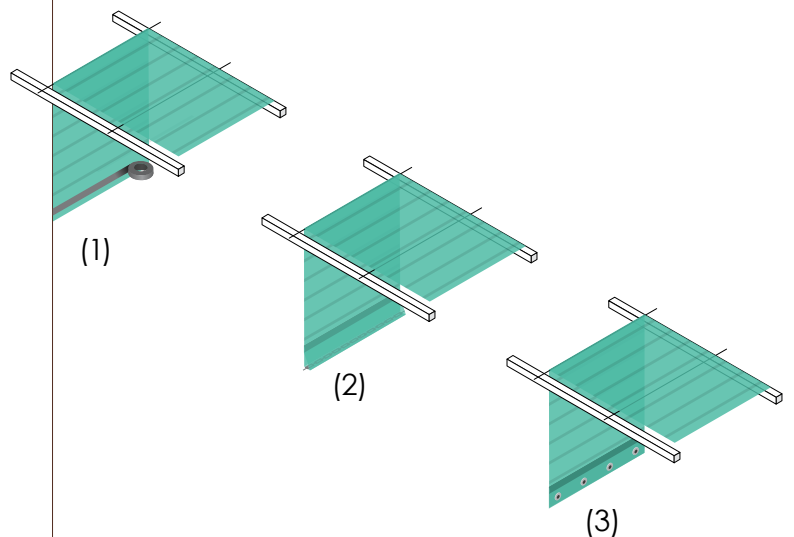
We recommend using dedicated screens for the overhang. This will make the overhang more hard wearing. It also helps prevent damage and twisted stripes, in turn limiting energy used and light leakage.

* Note: PhormiTex Black needs to be installed with its shiny side towards the installation. This side is coated in order to prevent wearing by moving over the screen installation).

If screens are fastened to installation by means of hooks, the hooks can only be fastened after the relaxation period. Even then, one has to make sure not to apply any tension to the screen, but to fasten it rather loosely.

Use screen weights (3) or a chain (2) or something similar to prevent the beginning and end of each panel from being pulled over the end wire.

* Note: a metal chain should be replaced once it is rusted.



During fire the screen fabric has a tendency to shrink. Make sure that both the back edge and the leading edge will not come loose during fire, but remain connected to the leading edge profile or tube and truss or steel support wire.

6. Warning

Keep all screens away from the following:

- ◆ Flames
- ◆ Sparks
- ◆ Welding
- ◆ Heating units
- ◆ Electrical devices
- ◆ Any device that can cause a spark or flame



FOR MORE INFORMATION OR QUESTIONS
PLEASE CONTACT US AT INFO@PHORMIUM.COM

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