



SHADE SAIL INSTALLATION GUIDE

Before installing your Shade Sail there are two different possibilities to consider. You will have either purchased one of our great value pre-designed Standard sized Shades and intend to install your anchorages to suit, or you have told us about your site using our measurement form, and we have designed a Bespoke Shade Sail to your measurements. As a general rule it is easier for you to install the attachment points first and we manufacture a bespoke shade to fit, however both bespoke and standard options are addressed here.

PART A : PLANNING

Before anything else, it is important to consider the site - proper planning now will ensure that your Shade Sail performs the way it was intended for years to come:

1. Size of your Shade Sail; Be aware that exposed sites tend not to lend themselves to large Shade Sails due to the increased stresses involved.
2. Check the area you are shading. As the seasons progress, the sun moves from low in the sky in Autumn/Winter to higher in Spring /Summer. Plan your shade to provide maximum shade where it is needed most.
3. Consider if you need to angle your Shade Sail to provide water run off. For materials with a higher water resistance we recommend a 20° angle (which equates to 1m fall every 3m of fabric) to achieve this.
4. Analyse the surroundings for potential sources of damage to your shade. Where are your electrical/water/gas supplies in relation to your proposed site? Consider the services both above and below ground. Damage to services can be dangerous and expensive to correct. Sails should also be kept clear of open flames, as such we recommend that BBQs / chimneys are kept clear of even FR fabrics.
5. Shade Sails normally do not require planning permission, but please check with your local authority as to relevant building regulations that may be a factor.
6. Where will you attach your Shade Sail? There may be existing structures you can use (e.g. pergola/sundeck, large tree, fence post), or you may want to install posts to create a free standing structure. Exercise care in using structures such as the walls of your house or fence posts - during poor weather and strong winds, the loads placed on the fixtures by your Shade Sail can be enormous, and should not be underestimated, so ensure that your structure is adequate to handle such loads. ***This stage of the installation is critical. Ensure all fixing points are structurally sound. If you are unsure, obtain independent advice from a builder or structural engineer.***

PART B : MEASURING

Which order you do these in depends on whether you have a pre-designed sail, or have had a Bespoke Shade Sail made for you.

1. PRE-DESIGNED SHADE SAILS

In order to fully tension the shade sail, a gap is required between the sail and fixing points for rigging screws, and catenary curves are designed in to the sides of the sail. To determine the fixing gap for one of our pre-designed Shade Sails, you will need to plan out the location of your fixing points relative to the sail's size. A 5m x 5m sail represents the measurements from corner to corner, and NOT from post to post, so it takes a small amount of working out to decide where these need to be.

Once the Shade Sail position has been decided, allow approximately 240mm diagonally away from each corner for placement of your anchorages. It will not hurt to leave more space between the anchorage and the sail, as this can be accommodated by a larger turnbuckle or even extra fixings if required, however if the gap is too small then there may not be enough room to tension the shade adequately; it will sag and will not look as good as it could have.

2. BESPOKE SHADE SAILS

Simply measure between your fixings and fill in the measurement form on our website www.shade-solutions.com, we will make allowances for fixings at the design stage of the manufacturing process.

In order to manufacture a quality shade sail, we need to obtain accurate measurements, measured to the centre of the fixing points (eye bolts, wall plates, etc.), after they have been installed, or to a marked position on the post to where these will be fixed. It would not be possible to properly create your shade sail without these, and we strongly advise that you spend the necessary time to obtain them thoroughly and correctly. Please see our associated measurement form for more information on this.

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PART C : INSTALLATION

The key to longevity of a Shade Sail is to maintain tension in the sail. With this in mind it is important that the shade is installed correctly from day one.

POSTS

The diameter of wooden posts should be at least 150mm and can be set with a lean away from the centre of the sail. Using an old engineering principal, posts should be placed with 1/3 underground and 2/3 above, which should be taken into account when procuring them. This is a very conservative way to measure footing depth, but we strongly recommend it as even a small movement of your footing will compromise the ability to tension your sail. When digging through landfill or raised garden beds, these depths should not be included in the overall depth of the footing.

In firm ground lay a 100mm depth of coarse gravel underneath the base of the post. (If the ground is soft use a 100mm layer of concrete first to provide a solid pad). Insert the post then use a plumb line or spirit level to ensure it is upright and temporarily brace the post.

Mix concrete according to the manufacturers instructions and pour to the top of the hole ensuring it is packed well. Ensure the surface slopes away from the posts to assist water drainage. Allow to set for 48 hours minimum before removing bracing to prevent movement while the concrete cures.

FIXINGS

ANCHORAGES (WALL/POST)

Fix eye plates or eyebolts or your chosen alternative method to the posts. It is from these points that you will measure for a Bespoke Shade Sail.

TURNBUCKLES (TENSIONING FIXINGS)

In most cases a size M8/ M10 rigging screw /turnbuckle sits between the post eye and shade eye in order to achieve shade tension; you can alternatively use fixing accessories which best suit your own installation.

Wind the turnbuckle open fully and apply lanolin or anti-seize compound to the thread. Attach the turnbuckle to the shade and post eye. For fork/fork turnbuckles this will mean removing the split ring & clevis pin beforehand.

Work around the Shade Sail winding each turnbuckle in turn, so that tension is applied across the Shade Sail, working a little at a time on each turnbuckle to ensure that the tension is even all around.

Stop tensioning when the shade sail is rigid with little or no creases, and then tighten the lock-nuts on the turnbuckle body to prevent loosening.

Be careful not to use long lever arms that will over tension the sail and stress your fixings, and check there is enough thread left on the turnbuckle for future tensioning.

Check once again to ensure all mounting points are solid, and re-tension periodically if required.

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