

## 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 Shade Sails and intend to install your anchorages to suit, or you have told us about your site using our measurement form, and we have manufactured your Shade Sail to those measurements. As a general rule, it is easier for you to install the attachment points first and allow us to manufacture the sail to fit, however both options are

#### **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. How large a shade do you want? Be aware that exposed sites tend not to lend themselves to large Shade Sails due to the increased stresses involved.
- 2. Check which area you are shading. As the seasons progress, the Sun moves from low in the sky during the cooler months to high in the sky during summer. Your Shade Sail should be planned to provide maximum shade where it will be needed most
- 3. Consider if you need angle your Shade Sail to provide water run off, as if you plan to use a waterproof fabric, these need at least a 20 degree fall (or 1m height in 3m width) to achieve this.
- 4. Where are your electrical/telephone/water/gas supplies in relation to your proposed site? Consider underground and inside walls as well as the obvious overhead cables. Damage to services can be dangerous and expensive to correct.
- 5. Shade Sails normally need no official approval, but do 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 during poor weather and strong winds, the loads placed 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. You should ensure all fixing points are structurally sound and if unsure, obtain independent advice from a builder or engineer.
- 7. Are there any sources of potential damage to the Shade Sail in the vicinity? Overhanging trees will drop leaves, twigs, bird droppings and possibly branches; barbeques could potentially set it alight; there are likely be other factors specific to your site.

### PART B: MEASURING, ANCHORAGES AND FIXINGS

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 to decide where these need to be.

The Sail Loft, Unit 16, Sandford Lane Industrial Estate, Wareham, Dorset BH20 4DY



# **SHADE SOLUTIONS**

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Once the position of your Shade Sail 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 inadequate tension will be able to be maintained through the shade sail, it will sag and it will not look as good as it could have.

#### 2. BESPOKE SHADE SAILS

Simply measure between your fixings and fill in the measurement form that can be found on our website: www.shadesolutions.uk and 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 where the centre of the fixing points will be after they have been installed. 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.

#### PART C: INSTALLATION

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

#### **POSTS**

The diameter of wooden posts should be at least 150mm and they can be set to lean away from the centre of the sail if needed. Using an old engineering principal, posts should be placed with 1/3 underground and 2/3 above ground, and this should be taken in to 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 the sail. If you are digging through land fill 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, pour a 100mm deep concrete base at the bottom of the hole first to provide a solid pad) and insert the post. Use a plumb line or spirit level to ensure it is upright and temporarily brace the post.

Mix concrete according to manufacturer instructions on the packet and pour to the top of the holes ensuring it is packed well and ensure the surface is sloping away from the posts to assist water drainage. Allow poles to set in for a minimum of 48 hours before removing bracing to prevent any movement while it cures.

#### **FIXINGS**

Once all your anchorages are secure, fix the eye plates, eye bolts, eye shield bolts or your chosen alternative method to create a secure anchorage. It is from these rings that you would measure for a Bespoke Shade Sail.

## **TURNBUCKLES**

Once all mounting points have been installed and posts have set, you can fit the sail. Use the fixing accessories which best suit your own installation: in most cases this will be an M6 or M8 rigging screw (turnbuckle) between the corner ring of the Shade Sail and your fixing eye.

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## SHADE SOLUTIONS

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Wind the turnbuckle fully open and apply a lanolin or anti-seize compound to the thread. Attach the turnbuckle to the Shade Sail and fixing (for fork / fork rigging screws this will mean removing the split ring and clevis pin beforehand). Ensure all connections point approximately towards the middle of the sail and are secured.

Work around the Shade Sail tensioning each turnbuckle in turn, so that an even amount of tension is applied across the Shade Sail, and working a little at a time to ensure that the tension is even. 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.

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