

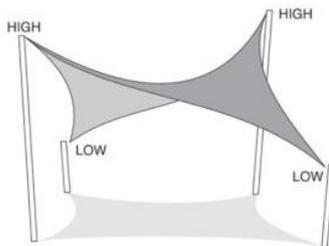


## SHADE SAIL INSTALLATION GUIDE

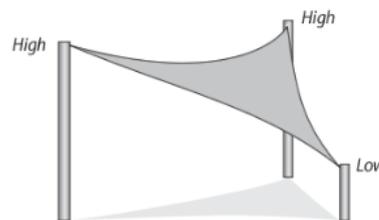
### CONSIDERATIONS AND PLANNING PRIOR TO INSTALLATION:

- Do you require permission and approval from your governing bodies, councils, landlords and any other authority which may influence the installation of the product in the location you have selected?
- With proper planning you will ensure that your shade sail performs in the manner it is designed and intended.
- There may be an opportunity to use existing structure points to fix the shade sail in the area you have selected.
- Consider if you require steel, aluminium or wooden columns to complete the installation.
- The rotation of the sun in relation to the area intended for cover is an important factor to consider ensuring maximum protection and shade is obtained after installation.
- Shade sails function best when under tension, so always try to make your sail as tight as possible without causing damage when fitting the product.
- **Square** Shade sails generally require installation with a twist 'Hyperbolic' shape in order to achieve maximum performance. This means that opposing corners must be high or low points when installed. The greater the difference between these points, the more effective water displacement will be. You can also create your own aesthetic result by playing with the height differences between the high and low points of installation.
- **Triangle** Shade Sails only require being 'mono-pitch' or sloping to one side. In this case you can select which is the high point and make the other two points low or vice versa.
- Shade sails which are installed 'flat' tend to pond or collect water in the centre after a heavy downpour and are not recommended in areas where the average rainfall is high unless the shade sail is removed prior to the advent of rain.

#### HYPERBOLIC INSTALLATION: Square Shade Sail



#### MONO-PITCH INSTALLATION: Triangle Shade Sail



- Remember that shade sails are manufactured from woven high density shade cloth which allows for a certain amount of stretch. You must therefore select a shade sail or combination of shade sails that are smaller than the intended area to allow for the product to be stretched and tensioned correctly. Normally allow **300mm – 500mm** of stretch in two directions for each shade sail depending on the size being fitted.
- When fixing to **existing structures**, ensure the structural integrity of the structure you are fixing to. Consult a professional or qualified builder if you are in doubt. We recommend in the event of unusually high wind and bad weather conditions, you remove the shade sail by releasing the snap hooks and tensioners on each corner.
- **Steel columns** are recommended as they are inherently stronger and cheaper to obtain. These columns need to be coated correctly to ensure rust prevention is assured. **Aluminium columns** are suitable but ensure you get the suitable size and wall thickness to prevent deflection. They are substantially more expensive but do not require rust prevention treatment or maintenance. **Wooden columns** are very affordable and readily available but you must ensure you increase the diameter significantly to prevent deflection. These columns do offer aesthetic appeal when treated correctly.
- All columns must preferably be installed at an angle to resist the deflection under loading.



#### COLUMN INSTALLED AT AN ANGLE OF 5-8 DEGREES

- **Footings** for columns must be in proportion and in relation to the size of shade sail and columns to be installed. As a general rule, the distance of column above the ground should be equal to half the distance under the ground. This is a safe and sure method as even a slight movement in the footing at ground level will compromise the tension of the shade sail considerably.
- **Landfill and garden beds** should not be considered in the overall depth of the column footing. Generally footings should start at 400mm wide and increase in size as the column diameter and length dictates.
- **Fixing points** to existing structures must be considered carefully and the more conservative approach is encouraged. The better the shade sail is installed and tensioned the longer life of the shade sail structure.



### **INSTALLING YOUR SHADE SAIL PRODUCT:**

1. Lay the shade sail on the floor (on a plastic sheet if protection is required). Each corner of the shade sail should be fitted with a Snap hook, D-shackle or Turnbuckle. The Turnbuckle tensioners must be opened and extended fully. The Snap hooks and D-shackles are used to link the shade sail to fixing points already in place.
2. When installing **Square Shade Sails**, the two high opposing fixing points must be fitted first and can be done by human strength alone. Bear in mind that these fixing points must be reached with some effort (these sails are manufactured with stretch in mind) thereafter you move to the low fixing points.  
NOTE: Force should be applied to reach the remaining fixing points and for this reason you will be required to make use of a block and tackle, come along pulley if in your possession. Another method used is to take a heavy duty braided rope which is inexpensive to purchase, and to apply the quasi-pulley method. This means that you tie the rope to the corner of the shade sail and loop it back and forth a couple of times between the corner and the ultimate fixing point then pull until the corner almost meets its destination. You now fit the unwound turnbuckle in place and release the rope.
3. When installing **Triangle Shade Sails**, apply the same procedure starting with the chosen one or two high points first.
4. **Tension** the shade sails by moving between fixing points and winding up the turnbuckles. The better the tension on the shade sail the longer it will live. The perimeters of the shade sails, the construction of the corners and the shade sail material is designed to handle loading so do not be afraid to pull the shade sail very tight. You should be able to bounce a coin off the surface of the membrane when completed.
5. **Temporary** installations when installing and removing the shade sails on a regular basis does not require maximum tensioning. Keep in mind to increase the tension on a windy day in order for the membrane not to incur unnecessary damage to the corners.

### **CARE AND MAINTENANCE:**

- **Clean** your shade sail using a mild detergent and water solution. Apply the solution with a sponge and use a soft bristled brush for ingrained dirt and dust. Give the solution time to stand on the shade cloth membrane before rinsing thoroughly.
- **DO NOT** put the shade sail in a washing machine or drier of any kind.
- **DO NOT** use any abrasive cleaner or scouring pads to wash the shade cloth fabric.

### **WARNING!**

- Always ensure that your shade sail and fixings are tightly secure.
- Inspect your shade sail regularly.
- Exposure to Chlorine and other chemicals even by strong vapour can cause a breakdown in the composition of the material and have a detrimental effect on the overall integrity of the shade sail product.
- **DO NOT** expose the Shade sail to open fire and flame. As the product is petroleum based it will be affected by extreme heat. The product is fire retardant and therefore the flames will not spread as a result of burning.

### **DISCLAIMER:**

These instructions are to be used as a guide only. Installation requirements can vary depending on soil conditions, fixing points and your geographical location. PEK Agencies accepts no responsibility for installations. If you are unsure about the installation of your shade sail, contact our offices or a qualified builder or engineer for assistance.

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