SHADE SAILS

DESIGN INFORMATION

SHADEFORM
SAILSHADES & ARCHITECTURAL RIGGING

INTRODUCTION

Shade sails can provide a dynamic, contemporary and functional shading solution to almost any commercial or residential application when designed effectively. This document will provide some important background information to assist you to develop ideas before liaising with Shadeform's experienced design team to create your unique shading solution.

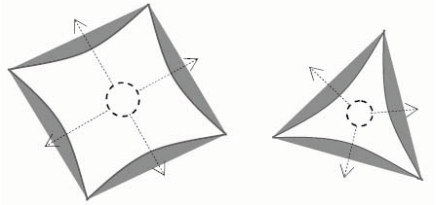
BASIC CONSTRUCTION

Shade sails are constructed using a variety of fabrics either welded or stitched together with edging and corner patch reinforcing. Shadeform utilise stainless steel wire around the edges to ensure the uniform tension and quality throughout life of the sail.

The sail will always have a hollow (concave curve - see above photo) along unsupported edges between fixing points. In certain circumstances ropetrack edges can be installed to eliminate this gap.

The cable running along the sail edge will pull straighter under tension, in turn pulling the sail fabric tight.

FIGURE 1



SAIL LAYOUT

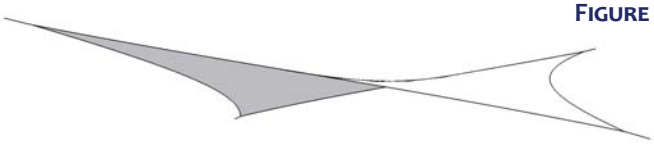
The shape of the sail is a large determinant in the overall effectiveness of the resulting shade.

At Shadeform we custom make all of our sail shades allowing us to design the sail to have multiple corners and angles, however we recommend a minimum of 4 corners. This is because a 3 sided sail will provide less than 50% of the effective shade than a 4 cornered sail with the same length edges (see figure 1) keeping in mind the hollow edges.

Height differences in the sail corner points are also important in the overall effectiveness and longevity of the shade sail. To maintain tension in the sail fabric the sail requires a degree of twist or shape much like that of a boat sail. This shape is created by alternating high and low corner fixing points to twist the sail fabric (see figure 2). Shadeform design this shape into the seams of the sail in construction to ensure maximum stability of the sail when tensioned.

This twist can only be generated if the sail has 4 or more corners as the twist requires a diagonal and hence a triangular shape again is flawed. Triangular sails will always remain flat on any angle and are therefore never as stable as a four cornered sail.

FIGURE 2



FABRICS

There are 3 main fabric types that Shadeform commonly use in shade sail construction. These are Knitted Shadecloths, Woven Polyester Meshes, and Waterproof PVC Coated Polyesters.

Knitted Shadecloths provide up to 95% UV blockout and are stiched with cable edges.

Polyester Meshes are tightly woven in contruction and provide up to 95% UV blockout. Their polyester base allows Shadeform to heat weld the joining seams eliminating stiching breakdown in the UV and becomes much easier to clean.

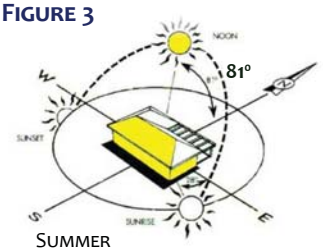
Waterproof PVC Coated Polyester fabric is a heavy duty structural fabric with 100% UV and Waterproof finish creating a long lasting all weather space.

All fabrics are available in a range of colours to suit your unique decor.

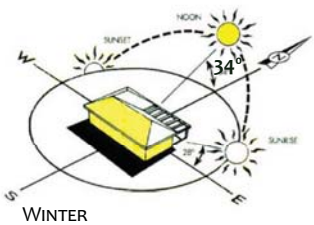
SHADING CONCEPTS

When designing your shade sail layout it is important to consider the path of the sun not only throughout the day, but throughout the year.

FIGURE 3



SUMMER



WINTER

The sun rises in the East, sets in the West and is at its highest elevation at noon. The season determines the height of this elevation in the Northern sky, with the sun being as low as 34° above the horizon at noon in winter (see figure 3).

It is important to consider the times of day and year that shade coverage is required to aid Shadeform in the design layout and height differences of your shade sail to proivide the most effective solution to your unique area.

WHY SHADEFORM?

Shadeform is an entirely South Australian, family owned business specialising in the design, manufacture and installation of Shade Sails and Structures with over 25 years experience in the Sailmaking and rigging trade.

- We use the most up to date computer design software to generate our sail shapes, analyse the loadings and generate panel layouts.

- Our sails are all computer cut and high frequency welded (except shadecloths) at our Flinders Park factory to ensure maximum accuracy and longevity.
- We use only the highest marine grade stainless steel wires and fittings on all of our sails to ensure the utmost quality and durability.
- We can handle the whole job from initial concept design to final project completion, including engineering, manufacture and installation.

WHERE TO NOW?

Call Shadeform today for more information on your unique project, consult our new website or visit our comprehensive showroom at the following address:

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Fax: (08) 8354 2118
Web: www.shadeformsails.com.au
email: enquiries@shadeformsails.com.au

SHADEFORM
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Shadeform are also the exclusive South Australian Distributors of:

SeaShell AWNINGS
Flexshade®
issey sun shade systems