

17 money saving solutions for shade structures

Mistake Number 1

Calling the wrong type of Shade Structure Company

Like headache tablets, all Shade Structure Companies are not the same. The first pitfall to avoid is calling in a company who doesn't specialise in true tension membrane shade structures. Sure most companies you call will give you a quote to do the job, but if they do not manufacture tension membrane shade structures day in and day out you could be in for problems like:

- The shade structure company underquoting because they don't really understand how complex these projects can be.
- Quoting an inflated price to cover themselves because they don't know what to expect with this type of job. If you get two or three of these companies to quote and they do not specialise in tension shade structures then you won't even know if they all have gone ahead and over-quoted.
- Installation of tension shade structures can be daunting to the inexperienced contractor requiring specialised tools and equipment, your project could drag on for far longer than it should.

Solution Number 1

Choose a company that specialises in tension shade structures.

Such a company will know the pitfalls to look out for. They'll know how to correctly estimate the construction costs involved, so you'll be investing the correct amount of money and not paying too much.

They'll also know exactly how to go about the job quickly and efficiently so your project won't drag on and on.

An experienced shade structure company has at its disposal all the necessary specialist tools for efficient design, manufacture and installation of your complete project. At Shade to Order we have this equipment and it is continually renewed.

Mistake Number 2

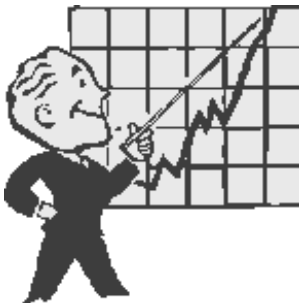
Not checking your shade structure companies` credentials.

Choosing a company to build your shade structure can be a huge decision. Yet many clients make this decision without checking anything the company tells them. The results could be disastrous.

Solution Number 2

Run the following checks.

- Check the companies web site, browse their completed projects, are there similar completed projects to your proposal?
- Ask the company to supply you with the addresses of at least 3 recent projects they have undertaken.
- Ask the company for references, most professional companies ask and receive referrals from satisfied clients.
- Ask if the company designs, manufactures and installs their shade structures themselves, there are lots of shade structure companies that may manufacture the sail and not the structural steel or sub-contract out the installation. Worse still is the fact that the shade structure industry has many brokers who just own a mobile phone and live on mark ups and commission.



Mistake Number 3

The use of woven shade cloth instead of specialised Architectural Fabric.

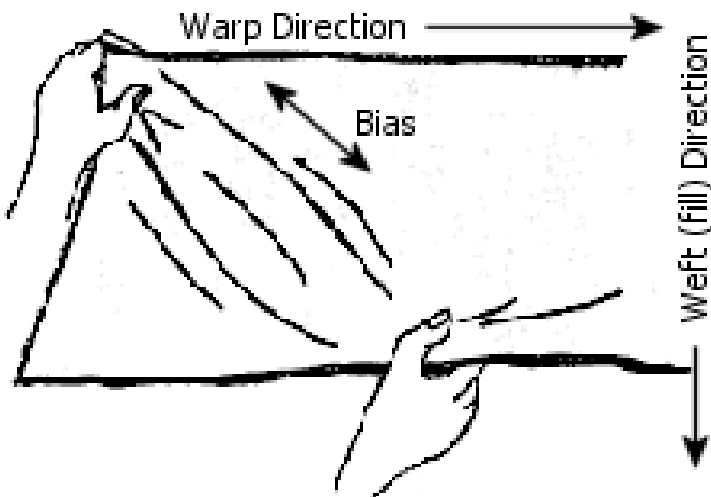
- Woven shade cloth is a low budget solution for a shade structure, it is stitched together creating a weak point on each seam, the fabric has poor structural properties and will quickly stretch and sag between attachment points creating a shape different to the design expected and approved by the client.
- Woven shade cloth acts like a filter to the dirt. The mesh traps dirt and mildew rapidly and is very hard to clean. If you must use this product then choose a very dark colour so the stains, trapped dirt and mildew are not as conspicuous.
- Woven shade cloth is not waterproof or hail resistant, large hailstones will destroy woven shade cloth contrary to some opinion.
- Most woven shade cloth is warranted for UV degradation only, so after it is tensioned on as a shade structure, there goes your warranty.

Solution Number 3

Use Architectural grade specialised fabric for tension shade structures.

- Architectural fabrics are designed with the structural loads in mind for tension shade structures. These fabrics can be fully waterproof or a pvc mesh fabric. Architectural fabrics are not stitched but high frequency welded in the case of pvc and pressure sealed in the case of teflon coated glass fabric (ptfe). This results in the seam being as strong as the fabric surface and in the case of waterproof fabric no leakage through the seam... **guaranteed!**

- Architectural fabrics will not stretch out of shape and the designed shape is maintained throughout the life of the structure... **guaranteed!**
- Architectural fabric structures rely on the fabric remaining in tension to hold their designed shape. If you have been given a sample of woven shade cloth by a another company hold the fabric in your hand and stretch it on the bias (as shown below), that is at 45 degrees across the sample or thread line, see how much it stretches, now try this with a sample of architectural fabric and notice you cannot stretch it. Bias stretch is the main reason woven shade cloth fabric structures fail.
- Architectural fabrics are hail resistant.
- Architectural fabrics carry a full warranty with some of the more popular having a 15-year warranty. The warranty covers the use of the fabric in a high-tension situation, after all that is what it is designed to do!



Mistake Number 4

Designing a flat or triangular sail.

- Inexperienced shade structure manufacturers fall for this one all the time, they manufacture flat structures or triangles because they lack specialist computer software or more often the technical expertise to manufacture complex 3 dimensional shapes required of tension membrane shade structures.
- Flat 2 dimensional shaped sails will nearly always pool with water even if installed at high angles of pitch. The reason for this is again the lack of tension in the flat fabric surface allowing the water to slow down approaching an edge cable or beam and pooling in this area.
- Triangular structures provide very poor shade covered area and unless the sun is directly overhead the shaded area can be metres away. The narrow corner angles of triangular sails make it very hard to design proper strengthening corner plates and attachments.

Solution Number 4

Always design architectural fabric structures with the correct amount of 3 dimensional shape.

- 3 dimensional shape is required to allow the fabric surface to maintain the correct level of fabric surface tension (pre-stress).
- A 3 dimensional shape allows water to runoff efficiently and pre-stress is maintained evenly across the surface. Water can also be diverted to lower corners if needed.
- Because 3 dimensional sails have 4 or more attachment points the corners can have large angled strengthening patches and corner plates to distribute the surface loads. The covered area is more efficient and high and low connection points can be used to provide more or less coverage as required.

Mistake Number 5

Using tape measures to measure a shade structure and attachments.

- Inexperienced companies rely on the use of tape measures to measure the shade structure and its attachments. It is almost impossible to accurately measure large distances with a tape measure sagging between two people, one reading off measurements that are generally written down wrong anyway. It is also impossible to measure large 3 dimensional projects in 3D with 2D tape measures.

Solution Number 5

Use an experienced shade structure company that owns and uses Total Station Surveying Equipment.

- The correct method to measure any 3 dimensional structure is with the use of Total Station Survey Equipment, Shade to Order owns and uses this equipment for precise measurements and no mistakes.
- The use of survey equipment means quick and accurate coordinate measurements transferred to a specialist cad computer program.



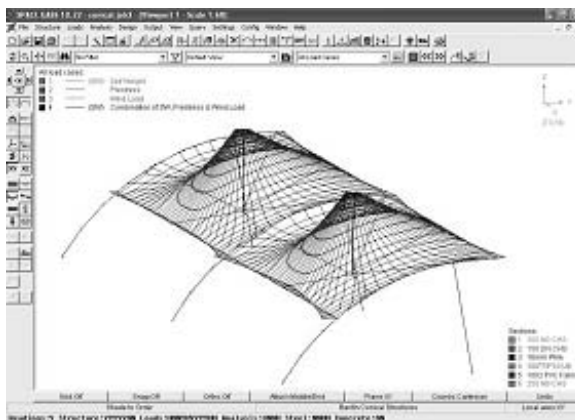
Mistake Number 6

Using a company that does not use specialised computer programs that will generate the 3D fabric surfaces required as well as not using structural and finite element analysis programs.

Solution Number 6

Use a company whose team are trained and skilled in the use of these specialised computer programs.

- Professional shade structure companies will have at least one of each of the above programs they use for shape generation and to establish corner, attachment and wind loads as well as reaction loads to pass on to the structural engineer. Shade to Order owns and uses 5 shape generation programs as well as 4 structural and finite element analysis programs.
- Just because a company owns the software does not mean they are experienced in using it. It may be hard to establish this but a check of their previous projects, the detail and fit should show.



Mistake Number 7

Not being supplied with an Engineers Certification on project completion.

Solution Number 7

Insist on Engineers Certification of all projects.

- In these days of litigation you do not want to end up in court if the unthinkable happens.
- Professional shade structure companies engineer their projects.
- Don't believe companies that say "we have engineered all our structures of a certain style", every project needs separate engineering certification.



Mistake Number 8

The use of hot air or hot wedge pvc welding.

Solution Number 8

Use a company that utilises industry standard practices with correct machinery.

- Architectural pvc fabrics must be welded together with industry standard high frequency welding machines. High frequency welders weld both sides of the pvc through the substrate onto the other panel and into its substrate resulting in seams as strong as the parent material. Hot air and wedge welders only “tack” one pvc surface to another resulting in very weak seams.
- Ask if your shade structure company will be using high frequency welders. Inexperienced companies generally use hot air or wedge welders because they cost a few thousand dollars, industry standard high frequency welding machines are a \$90,000 investment, Shade to Order have three industry standard high frequency welding machines.



Mistake Number 9

Using multiple contractors for one project.

- Who is responsible for the finished project? Many contractors involved mean lots of finger pointing at each other when there is a problem. It will be hard determining who is responsible in this situation.

Solution Number 9

Use one contractor if possible then the buck stops with them.

- Ask if your shade structure company designs, manufactures and installs their projects themselves.
- There are lots of “brokers” in this industry, Shade to Order completes every stage of the project at our factory at Gateshead NSW near Newcastle. We alone are responsible for your project wherever in the world it is required.



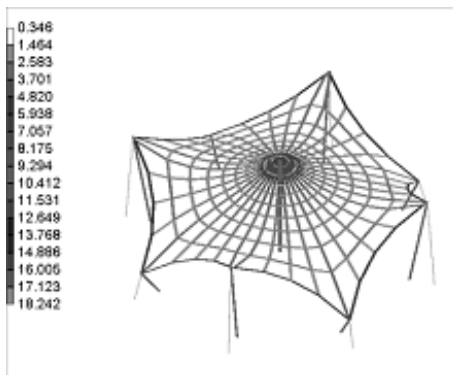
Mistake Number 10

Using a shade structure company that has no in house design service.

Solution Number 10

Make sure your shade structure company is designing your project.

- Ask if your shade structure has a complete in house design service. If not then how will they design and manufacture the sail, structural steel and attachments? This should be completed by the same company for a smooth transition from sail to structural steel.



Mistake Number 11

Using a company that cuts panels by hand on the floor.

Solution Number 11

Visit their factory if possible and see how they manufacture their products. Most experienced companies will welcome your visit and have nothing to hide.

- Experienced companies own and use plotter/cutter machines that plot seam allowances and number each panel and then automatically cut each panel out for ultimate accuracy. Panels are generated in specialist software then transferred to these cutters.
- Ask if your shade structure company uses these automated cutters, if not then panels hand cut are just not accurate enough. Shade to Order owns and operates a huge 20mtr x 3mtr plotter/cutter with the associated vacuum table for holding cloth for accurate cutting. We also cut fabric and manufacture for other shade companies both here and overseas.



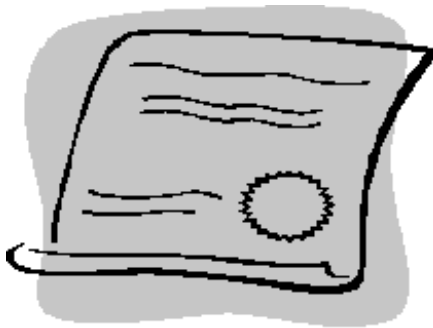
Mistake Number 12

Using a company that is not properly insured.

Solution Number 12

Make sure your company is fully insured

- Experienced companies have all the necessary insurances in place, ring and ask for the certificates of currency to be sent out to you.



Mistake Number 13

Using a company who is hard to contact.

- Problems on building sites have a habit of getting worse if not addressed early. Often a client might have concerns about what they see happening on site, these concerns frequently only require an explanation from the company's representative to put the client's mind at ease that all is actually going to plan. If you can't get in contact with the company you may be caused unnecessary anxiety while waiting to have your questions answered.

Solution Number 13

Your shade structure company should be contactable at all times.

Your shade structure company should:

- Have an office that is open during normal business hours.
- Give you the mobile numbers of their supervisor and construction manager.
- Be contactable by facsimile and email.



Mistake Number 14

Using a company with a high turnover of staff.

- High turnover of staff makes it very difficult for the company to ensure a consistently high quality of workmanship.

Solution Number 14

Use a company with loyal employees, this is easy to see by a factory visit.

- Look for a company that has had the same employees for many years. This shows that the company has stability and is not likely to “go broke” midway through your project. It also helps ensure a consistently high quality finish.
- Look for a company that has been in business for many years, they are sure to still be there in years to come. Shade to Order was a division of C & KA Flanagan Sailmakers Pty Ltd who started making sails for yachts in 1980, Shade to Order Pty Ltd has been manufacturing high quality shade structures from 1989.



Mistake Number 15

Choosing a company whose service stops with the final payment.

- Some companies receive your final payment and hope you never contact them again with any maintenance issues, even though the law requires that they take care of them. Worse still, some shirk their responsibilities by not responding to maintenance issues until eventually the client gives up and pays someone else to fix the problem.

Solution Number 15

Choose a company who follows up once the project is completed.

- Shade to Order will follow up after the project is completed and will offer a maintenance contract for your investment.



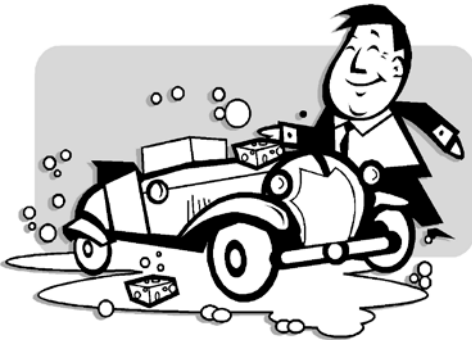
Mistake Number 16

Thinking that your new structure is maintenance free.

Solution Number 16

Sorry nothing is maintenance free. You wouldn't purchase a new car and never wash it or worse still drive it and never check the oil level. So you should expect to maintain your new shade structure investment. This means putting a maintenance procedure in place to clean the sail and structural steel as well as having someone with experience checking the sail and connections for anything unusual.

- Shade to Order will maintain your new investment if you so wish.



Mistake Number 17

Using a shade structure company that is foreign owned and operated.

Solution Number 17

Ask if your shade structure company is 100% Australian owned and operated, Shade to Order is and we also like to deal with other Australian Companies as much as possible.

- Check it out, you may be surprised how many other companies in Australia are foreign owned or broker your project out to foreign companies.
- There are only a few companies in Australia that can manufacture shade structures from teflon coated glass (ptfe) one is foreign owned and the others are Australian owned including Shade to Order.
- Australian shade structure companies are among the worlds best, you would probably guess that's because of our climate. Shade to Order has designed, manufactured and installed shade structures in many countries around the world including Brunei, Malaysia, the United Arab Emirates, Oman, The Maldives, The United Kingdom, India, United States of America, Singapore, Holland and Japan. The export dollars come back to our economy and we think that's great!



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