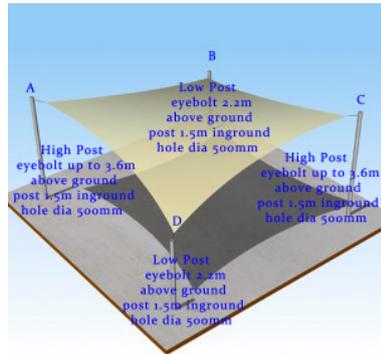


SHADE SAIL TECHNICAL DETAILS

HYPAR SHADE SAIL – FORMULA FOR POST HEIGHTS



Probably the most common design for shade sails in the industry is the standard “Hypar” Design. Hypar is short for hyperbolic parabola. This basically means twisting the sail to create a 3D effect. Typically when people look at a hypar shadesail for the first time they often mistakenly think that it is two triangles when in fact it is a single piece of fabric tensioned in such a way as to create this interesting architectural effect.

The hypar effect is created simply by installing diagonally opposed high and low attachment points. This then creates the 3D twist effect in the sail.

Installing a hypar design shadesail starts by working out the two low points. Usually the low points of the sail are 2.2 metres above ground. Where ever possible look to install at least one of the low points in the direction you want the shade to cast. For instance, if you want shade later in the afternoon then consider fitting one of the low points toward the west. That way you create a lower edge to the sail limiting the amount of sun which can cut in under it and maximising your usable shade.

There’s a simple formula for working out the twist in the sail. Let’s say you want to create a relatively gentle twist in your sail, nothing too dramatic. To do this you work measure the longest side of the sail and then times it by 15%. For example, lets say the longest edge to your shade sail was 6 metres. $15\% \text{ of } 6\text{m} = 900\text{mm}$. If your low points of attachment were 2.2 metres then you’d want the high points of attachment to be 3.1 metres above ground (i.e: $2.2 + .9 = 3.1$). If you want to create more dramatic effect, then increase the percentage of variance, say up to 20%.

Hypar shade sails are an industry standard because they work. They give good amounts of usable shade, they look great and they tension up easily. They don’t need to be limited to 4 points of attachment but can be 6, 8 or more. I’d say if your thinking about installing a shade sail then you should be thinking about how a hypar design can work for you.



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