



The Shade Sail Shop

Vgrip V160 Shadegrip

ShadeGrip was designed for woven and knitted shade cloths up to 1.5mm in thickness. Applications include Pergolas, Patios, Gazebos, Shade houses and Shade enclosures. It also finds use in greenhouses and other horticultural applications. It can be attached to any supporting structure whether timber, metal or masonry.

Major advantages:

Unlike traditional methods using nails, battens, eyelets and ties that lack strength and can damage the fabric, ShadeGrip is a continuous fastening system and extremely strong.

No edge preparation required.

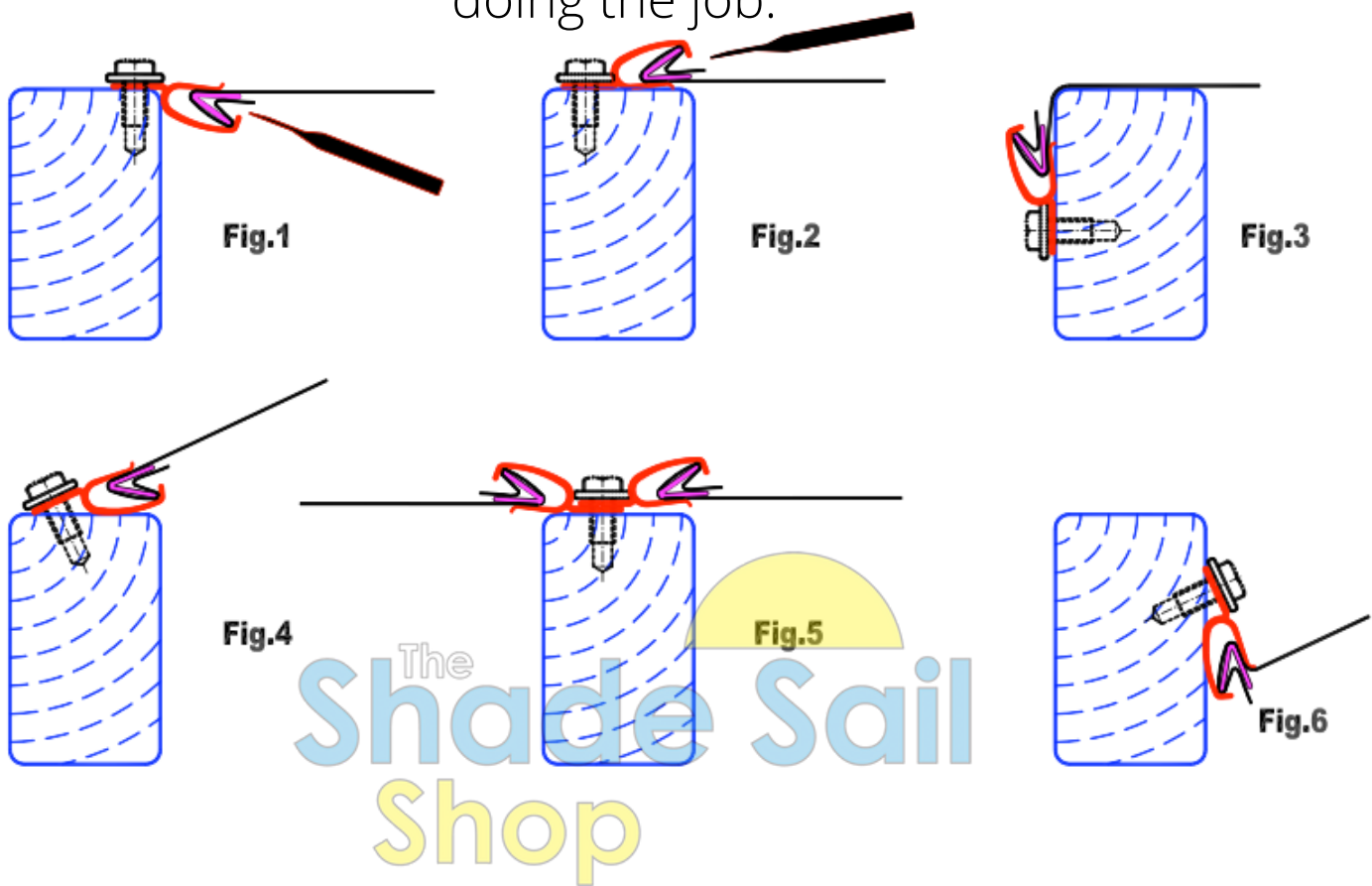
Easy installation and removal of the fabric.

Drum tight professional finish.

Does not penetrate or damage the fabric

Alternative fixing arrangements

These are some of the ways in which ShadeGrip can be attached to structures of any type. The ShadeGrip channel has drilling guide grooves on both sides of the flange. This means it can be fixed either way depending on which side is more convenient for doing the job.



Gloves

Wearing gloves is recommended when fixing shade cloth as it can be very abrasive on the hands.

Tools

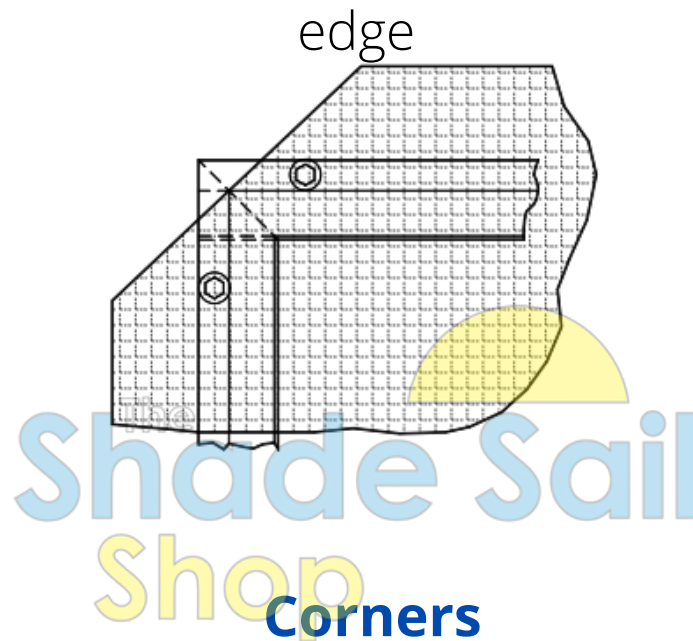
Special ShadeGrip insertion/release tools are available from your ShadeGrip supplier. Otherwise, simple tools, found in most households, are all that is required for attaching ShadeGrip and fixing the fabric to it. Once screwed to the structure, all that is needed is an insertion/release tool or a wide stiff spatula such as a putty knife or blunt edge paint scraper. The blade should be about 30 - 50mm wide (1" -2") by about 1.2mm (1/16") thick. A small mallet may be useful too. If the blade is too flexible, cut it short. Screwdrivers, sharp or thick bladed tools are not suitable. For releasing the fabric a Tupperware citrus peeler or a letter opener is ideal.

Attaching ShadeGrip

The easiest way to attach ShadeGrip to metal or timber structures is with self-drilling Tek screws. It can also be fixed to brick walls or masonry with conventional wall plugs. The fixing centres will depend very much on the particular application but the maximum recommended spacing is 350mm (14") and no more than 50mm (2") from the ends of the ShadeGrip strips.

Attaching the fabric

The fabric needs to be large enough to cover the space between the previously fixed ShadeGrip strips, with at least 50mm (2") to spare at each edge



Corners

When fixing the fabric on all four edges, the ends of the ShadeGrip can be mitred or just placed corner to corner. The corners of the fabric should be snipped off to avoid bunching

Curves

ShadeGrip will curve easily on its flat surface down to at least 1.5 metres (5'-0"). For tighter bends cut notches in the outer leg at about 50mm (2") spacing. It can then be curved down to 300mm (12") or less. The plastic keeper will follow the curve

Re-tensioning

If there is a wrinkle or loose area in the fabric, just pull it out of the ShadeGrip local to the area, pull it through and re insert the Keeper.

Soapy water

If the fabric is a bit rough or tends to stick, use a little soapy water to lubricate the contact surfaces when fitting to ShadeGrip.

Trim off

Once the fabric is in place, trim it off to about 30mm (about an inch), and push the loose fabric into the groove of the channel to give a neat finish to the job.

Large spans

Shade cloth can be fitted in to ShadeGrip at least 3 metres (10 feet) apart without intermediate supports. Because of the weight of the fabric, it is a good idea to support it temporarily by wires or other means while inserting the fabric into the ShadeGrip.

It is not necessary to get the fabric tight at first. Just get it up reasonably tight and then go back and re-tighten it a little at a time.

Fixing the cloth on wide spans is easier if the ShadeGrip is fixed around the corner of the support batten at one edge (see Fig. 3 in section 2 above). This makes it easier to push in downwards and get it tight.

Joins in fabric

ShadeGrip will only accommodate fabric up to 1.2mm (0.05") thick. If there is a join in the fabric it must be trimmed back or the Keeper interrupted locally. It might be possible to sew the fabric edge to edge so that it is only one thickness through the join. This applies only to thick woven or knitted fabrics.



Impervious reinforced fabrics are ideally suited to being fixed with ShadeGrip. It is possible to insert two layers of material into the ShadeGrip so that narrow widths can be overlapped. Always overlap so that the upper layer is upwind.

As the material is reinforced and does not stretch easily inserting it into the ShadeGrip requires more effort than shade cloth. To make it easier soapy water and light mallet can be used. Another suggestion entails pushing the material into the groove of the ShadeGrip first and then inserting the Keeper.

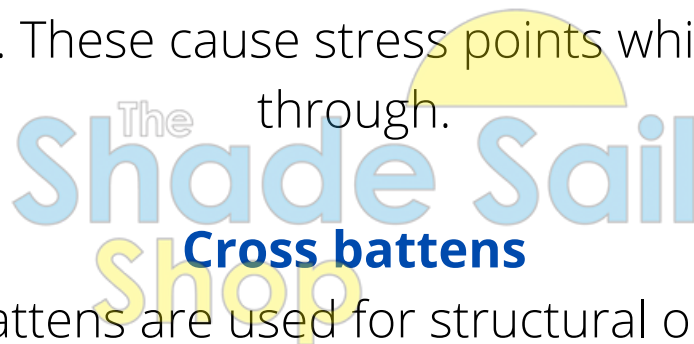
Naturally, the roof must be sloped slightly to allow for drainage. At the lower edge the ShadeGrip should be arranged as shown in Figs. 1 or 3 in section 2 above to allow rain to flow over the edge.

Releasing the fabric or film

If you ever want to release the fabric to change or remove it, simply pull on the loose edge. Make sure there is no accumulations of dust or dirt in the groove which would prevent the Keeper legs from folding together. If the fabric is very tight or flimsy it may be necessary to push the Keeper in slightly to release the gripping force. Once started, the rest can be released easily by sliding a thin blunt narrow blade like a citrus peeler or letter opener between the outer edge of the ShadeGrip channel and the fabric

No intermediate fixings

ShadeGrip will hold very strongly over large spans, depending on the fabric. Never use fasteners between the edges. These cause stress points which will tear through.



Cross battens

If cross battens are used for structural or aesthetic reasons and the ShadeGrip is used so that it is accessible from below (fig 1 in section 2 above), the battens must be set down or notched by 12mm (½") to clear the ShadeGrip.



Insect screening

ShadeGrip can be used with fibreglass fly netting but we recommend using 50% black shade cloth instead. It is just as effective as fly netting at keeping out insects, it is stronger and is available in greater widths. Black is easier to see through than coloured shade cloth. It may even be cheaper.

Vertical screens

ShadeGrip works well at the top and sides of vertical screens. One possible arrangement is shown here. However, fixing at the bottom edge needs some care if it is to be attached to the floor. A lot depends on the floor itself and the span involved.

Be aware that there will be a significant upward pull when the wind blows which may well lift tiles or brick paving. If the floor is solid enough, you could screw a batten to the floor with masonry anchors and fix the ShadeGrip to it.

Another suggestion is to use ShadeGrip at the top and sides only leaving the self edge as close to the floor as possible. The sides can be pulled really tight but leave the top edge straight. Alternatively, you could sew a wide hem on the bottom edge of the cloth and put a batten through it. The batten could then be fixed at the ends to the walls.



Stretching Lengthways

When fixing long lengths of fabric it is important to ensure it is stretched along the length. With most fabrics it is possible to pull the short Keeper 'tacks' sideways along in the aluminium channel. Hence, after anchoring one corner and tacking the first long edge, pull the fabric along to smooth out any lateral wrinkles. Starting in the middle of the other long edge, insert the Keeper working the fabric both ways to ensure a smooth wrinkle free finish.

SPECIFICATION SHEET

The : ShadeGrip®
Commercial V160 shadecloth fastening system

Metal Channel:

Material : Marine Grade Aluminium T6 temper

Standard lengths: 3.00 metres (for large orders lengths can be specified.)

Overall width: 30mm

Overall depth: 11.2mm

Flange width: 13mm

Flange thickness: 1.10mm

Drilling guides: Top & bottom of flange for reversible fixing

Interlocking flanges: For back-to-back fixing of fabric

Tube seating: Aligns flange to tube structure.

Mass per metre: approx 160 grammes per metre

Fasteners: No.8 screws or 3mm pop rivets

Fixing centres: 250 to 450 depending on loadings

Fastener material: SS for high corrosion areas, otherwise standard plated steel screws or aluminium pop rivets.

Plastic keeper:

Material: High impact Polypropylene co-polymer

Solar protection: Whitener & UV additives

Standard lengths: 1 metre

Overall width: 10.5mm to 11.5mm (varies according to fabrics used)

Mass per metre: approx. 21 grammes

Performance:

Maximum fabric thickness: 1.5mm

Pull out force: 400 kg per metre - minimum

Tools:

Insertion: V-Grip insertion tool.

Design note:

The small size of this V-Grip section is actually an advantage. The most critical part is the Keeper leg between the hook and the bottom arm of the channel (see below). This is under compression and acts as a strut or prop. As any structural engineer or underground miner will tell you, "... the shorter the prop, the stronger it is...". Of course, this is relative to the cross section at the buckling point but for maximum efficiency, V160 has been deliberately designed to be as compact as possible in relation to the design thickness of the fabric.



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