Sunbrella Contour Shade Sail Fabrication Guide

Sunbrella® Contour is available in 15 colors allowing you to make shade sails in a variety of colors, sizes and shapes. They are manufactured using a stainless steel cable, or shade sail webbing, that runs along the full perimeter of the fabric. The cable is secured at the corners of each panel with the use of stainless steel D-rings, or tri-rings, being attached to an existing structure or new frame system using turnbuckles or a shackle. Each corner is also reinforced with additional layers of webbing or a metal plate. All stitching is performed with a lock stitch sewing machine. Highly UV resistant outdoor threads are used in all sewing operations.

The tension on the perimeter of each sail creates a natural catenary curve to each panel of the structure. The system creates constant, evenly distributed tension across the surface of the fabric which eliminates wind whip, even in strong wind.

Sewing:

- Tenera® 1400 Denier, recommend clear and black. With a ten year warranty on the fabric, the thread must also be highly UV resistant. Polyester thread will degrade over time.
- 5 to 6 stiches per inch – allows to be able to pull fabric tight while attaching turn buckle.
- Webbing sewn around perimeter of the panel.
- Interior seams are created where the fabric is sewn face to face with a ½" seam allowance. Seam is then folded and top stitched.

Reinforcements

- 2" Shade sail webbing
- Sewn around complete perimeter of shade sail.
- ¼" or 5/16" wire rope/cable is inserted into the pocket
  – Each side of the webbing is sewn to the Contour fabric, forming a pocket for the wire rope/cable to pass through.
- Covered by Contour on the face of the fabric, ½ seam allowance to be folded and sewn to webbing for a finished edge.
- Option of wrapping webbing on both sides with Contour for a uniform look and color.
- When splicing webbing a 6" allowance for overlap is given. Webbing is "tacked" for additional security.
- Loops are formed in the webbing on each side of every corner to allow for pulling it tight while securing the D-Rings or tri-rings.
  – Loops may be cut off with hot knife upon completion or left in place.

Cutting

- Cutting is normally machine cut on a round knife plotter. Using a hot knife or hand cutting with shears is an option.
- It is recommended that all panels be cut in the same direction, following warp and weft, to prevent shading of panels and installation problems.
- Dimensions of the cuts will be determined by feeding desired final size of the sail into an M Panel program, which will calculate and make allowances for stretch. Estimated stretch for the MPanel software is 4% warp and 1.5% weft or fill.
- Fabric cuts should never be made larger than the desired size.

Corner hardware

- 2" Heavy Duty stainless D-Rings or Tri-Rings are recommended.
- For larger units, a 2" D-ring with a channel for wire rope is optional.

Framework/Support

- Framework should be engineered with the use of a CAD program or designed by a structural engineer.
- Posts and framework should be set in place in the field.
  – Final measurements taken.
  – Fabric panels can then be fabricated to match.