Stella Octangula Line Laundry

 February, 2007

The Stella Octangula is a geometric shaped windsock. Our Stellas are made of two high contrast colors. They show better in the sky and allow viewers to see the double triangle easily. Due to the large flat surface which points into the wind, high winds tend to flatten the Stella. A moderate wind is best for them.

Material list:

* 2 colors of 3/4 ounce ripstop nylon. Each color requires 1.5 yards, minimum 54" wide. Total 3 yards. (137 cm, minimum 137 cm wide. Total 2.74 meters)
* small amount of nylon netting for the air intake (available at fabric stores in the bridal section. 1/4 yard is plenty. You only need about 6 inches (about 16 cm).
* 2 pieces of 80# line, one 18 inches long (45 cm) and 8 inches long (20 cm).
* 24 feet of 50 or 80 # test braided Dacron line to make 4 bridle lines, each 6 feet long. (7-8 meters, divide equally into 4 lines.)
* 1 Sampo swivel size 4
* good quality thread matching at least one of the colors
* basic sewing supplies and sewing machine. Razor knife or hot cutter and the appropriate cutting surface, heavy weights. Pins and hand sewing needle.

Pattern: Draw an equilateral triangle, 50cm on each side. Cut from hardboard or counter top material such as Formica. The mesh air intake is 14cm on each side. Diagram 1.

Notes:

* Use either a 1/4 inch or 3/8 inch (1cm) seam allowance.
* Backstitch all seam beginnings and endings.
* Don't sew all the way to the edges of the pieces. See diagram 3.

Cutting and preparation: Cut 12 triangles of each color. See cutting diagram. You may fold your fabric in thirds, lengthwise, to make cutting go quickly. Make sure you can see both ends of the fabric after you have folded it and have the selvages even. Use heavy weights and a sharp snap knife. I don't recommend hot cutting 3 layers although it is possible. Single layers can be hot cut quicker and do not have to be separated. Cut 3 pieces of mesh nylon netting to the line indicated on the pattern.

Air intake preparation: Draw a line on 3 same color triangles as indicated on the pattern. This is a reference line to position the mesh as well as a reference line for sewing.

Sewing: *Air intake:* Position the mesh on the wrong side of the triangle, securing with tape. Straight stitch only the base line. Use the seam allowance you will use throughout the project, referencing it from the drawn line. Repeat with the other 2 triangles.

Fold back the triangle to expose the mesh. Right sides of the triangle will be together. Zigzag stitch within the seam allowance. This will hold the mesh securely. Cut the excess ripstop away, close to the zigzag. It will be a small triangle.

Assemble pairs: Straight stitch pairs of triangles together using one of each color. Do not start and stop the seams at the edges of the triangle. See diagram 2. When sewing the

triangles that have the mesh, be sure to have the right sides together. The raw edge of the *mesh* is on the wrong side. Make 12 pairs. Finger press each seam to one side.

Assemble first 4 triangles: We are going to assume you are making a red and white Stella *with the air intake being red*. **(Start with the color the mesh is sewn to but sew these pairs after reading the special instructions below.)** Lay 2 pairs right sides together, matching the colors to each other and pin at the seam. The seam allowances should be to the same side. Sew only the *red* section, from *the seam to the tip*, stopping within the seam allowance. Put your sewing machine needle right at the pin, take a few stitches forward, make a few reverse stitches to back tack and continue forward. Back tack the end of the seam as well. Take another pair and position it with one of the pairs just sewn. Repeat the first process. You now have 3 pairs connected. Join the red remaining seam, forming a triangle. Set aside. Repeat this process 2 more times ending up with 3 red 3-D triangles with the white sides not sewn. The mesh pairs will be done in the exact same manner with the addition of 80# line. This will reinforce the mesh and form the bridle point loop. See the sample and or photos. Use the longer piece of line and form the loop. This longer piece will be the reinforcement on two sides of the triangle. Add the short piece of line when sewing the final seam. It is for reinforcement only and ends at the start of the loop. Make sure you push the loop to the inside of the work. When the Stella is turned right side out, the loop will be on the outside. You now have 4 sections which I will call "units".

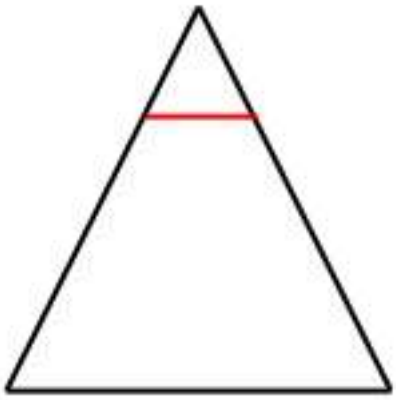
Assemble pairs of 3-D triangles: Using 2 units, lay them right sides together. You will sew 2 white seams. Pin at the middle seam area, having seam allowances to the same side. Sew from this mid point out to the tip. Flip the units over and sew again, starting back at the original point. You do not sew over any seam allowances using this method which ensures you have a clean, precise joint. Repeat with the other pair of units.

Final assembly of the Stella: Lay one of the large units on the table right side **up**, running side to side. ↔ Lay the other unit on top of the first, right side **down**, running the opposite direction. ↕ You will be able to see how you will fit in one white triangle from one unit to the 2 sewn together white triangles from the other unit. You will sew the 2 sides of the one triangle to the last sides of the double triangle unit. Leave an opening in the center of *one* of these seams for turning. It should be about 8 inches (20 cm) long.

Turn the Stella right side out, trying to get the tips of each triangle shaped nicely. To close up the final seam, sew as much as you can from the inside with the sewing machine. Hand stitch the remaining few inches to complete the seam. If you'd prefer, use matching thread and top stitch the opening very close to the edge.

Bridle: Use (4) 6 foot lines. Attach 3 to the corners of the base of the leading triangle. Put these 3 points together and evenly pull the 3 lines to near their ends. Tie a knot (to be removed later) and hang from the ceiling if possible. Add the fourth line to the loop at the air intake. Pull up on this 4th line until the Stella is hanging evenly from all 4 lines. Tie all four lines together in a knot. Trim the ends. Cut the longest of these pieces in half. Make 2 loops and attach the swivel to them. Lark's head one loop to the bridles and the other loop will attach the Stella to the kite line.

Done!



Not to scale. 50 cm per side. Red line is the cutting line for the mesh, 14 cm on each side. The red line is also the line to draw on 3 ripstop nylon triangles. Position base of mesh on this line. Use this line as the reference line for stitching. Stitch 1/4 " or 3/8" (1cm) away from it.

Diagram 1, Template.

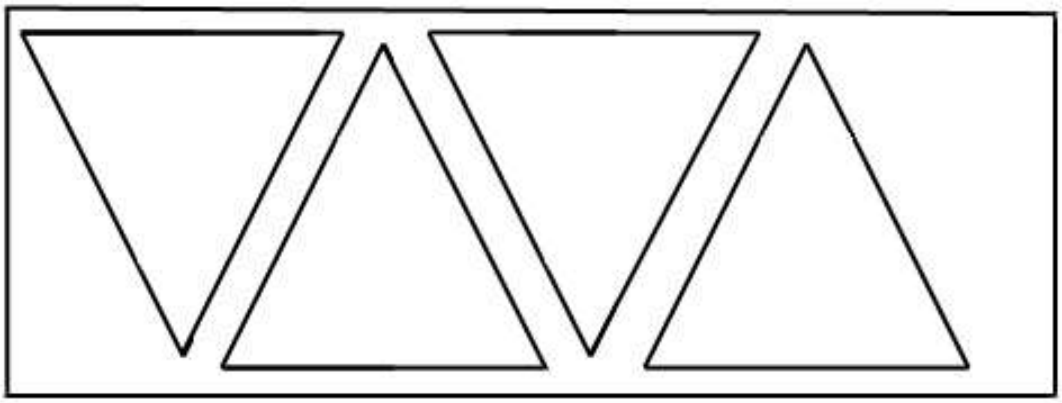


Diagram 2 Cutting layout, not to scale.
Fold fabric in 3rds lengthwise and razor cut 4 sets of triangles across the width.

Stitch from green dot to green dot. Do not stitch off the ends of the fabric.

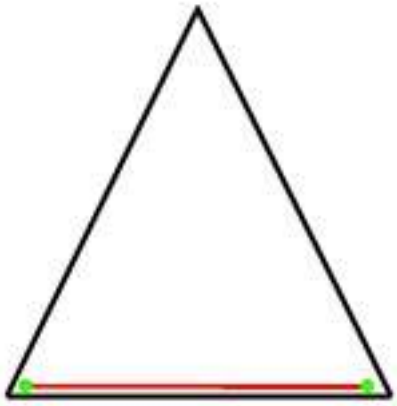


Diagram 3