## Mandela-Jan van Leeuwen, Translation Jolanda van Leeuwen

This is a beautiful 3D-kite designed by Fridolin Anders from Germany. With a nice colour combination this will be a fabulous kite. Looking at the shape, you would expect the construction to be difficult ( 72 panels), but building it isn't that hard $(-)$.

## Material Required

Spinnaker in different colours (same quality).
25 m spinnaker edging tape.
6RCF- tube $\varnothing 4 \mathrm{~mm}, 2 \mathrm{~cm}$ long.
6 brass connector $\varnothing 4 \mathrm{~mm}$.

## Sails

The description is based on using three colours for the design. For every piece ( $\mathrm{A}, \mathrm{B}$, or C ) another can be used but this is optional.

The kite has different parts: $36 \times$ the small triangle (A), $18 \times$ the big triangle (C) and $18 \times$ the diamond shape (B). By sewing the different pieces together, there will be an outer circle. By putting the three circles together, the kite will get its shape.

Because you have to seal all the parts multiple times, a template is necessary. Make it very carefully, this is the first step to success. For the edges the edging tape is used, so an allowance for the seam is not required. The seam for putting the parts together is 7 mm. Seal all parts.

## Assembly of the pieces.

First sew the triangles (A) to the diamonds (B). Each time start at the position where piece $C$ will be attached and put the diamond on top.

The needle will be on the other side of the fabric each time, so the deviation will be the same.

When all 36 triangle are attached to the 18 diamonds, we can make the edge of free side of triangle (C). After that put the already assembled parts to the other sides. Put them exactly on the right spot, because there will be problems otherwise.

Once this is done, there will be three nice flat circles. Put edging tape on the outside of the circles.

To connect the circles pin two of the circles exactly together with the seams on each other.

Stitch one side (as marked in the drawing Side view) with a straight stitch together then fold the upper fabric to one side and put the other circle on top. Then sew this side (drawing Front view) then put the two top circles together (drawing Front view).

These 6 stitches also determine if it's possible to put the kite together without wrinkles.
Now make the loops. Folded edging tape is the best. 30 pieces of 6 cm , no more or the frame is too small. Now double-sided tape can be useful. With a little piece stick the ends of the folded loop on the edge. Then sew the loop on the edge, by sewing back and forth a few times (see Detail 1).

On the spot where the circles are connected also put a loop, for the two pieces of frame.

## Frame

Put a brass connector on one side of the carbon frame with a piece of tape. It is a bit difficult to put
the frame in the first circle, so you need some help. It may seem a bit too long. Now put the other tubes in place. Only when the circles deform, should you shorten the frame. All spares the same length, but be very careful not to make them too short.

## Bridle

This is the easy part. This kite doesn't have one! The line is just attached to a cross point of two pieces of frame.

And then... Fly. This model doesn't need a tail and with a thin line, it can be flown with a little wind (1.5 to 3.5 Bft )

Have fun with your MANDELA


