

## 17" Printer, Sewing Machine & a new approach to Canvas Stretching

I hope this information may be of use to anyone in the same situation so please feel free to copy.

If there are any points I have not covered please contact Pat Cooper, patcooper@microsoft.co.uk

For a long time I have been thinking about producing canvas prints for my shop. The major problem is that it is an Epson 4900 and limited to 17" paper. To do a full gallery wrap I would have to use 10" stretcher bars which are just too small.

This problem was solved by sewing strips of canvas to the top and bottom edges. The strips are printed on a cheap roll of canvas and are 50mm wide. A registration line is printed 10mm from one edge and this is used as a guide when sewing to the main canvas. The strips are cut on the 50mm line using a rotary trimmer.



I had to invest in a sewing machine and ended up with a Toyota Super Jeans model. This is capable of stitching many layers of denim and was well up to the task of two layers of canvas. I experimented with several different types of thread but found Bonded Nylon worked really well.



Another problem I encountered was trying to accurately align the stretcher frame to the image. Not a real problem if the canvas has been printed full size but difficult if the borders are mirrored, stretched etc. I did try adding pencil lines to the back but the canvas always moved a bit during stretching. Trying to hold the canvas & frame together and looking at the front was nigh on impossible.

The solution here was to use an elasticated strap to hold the picture in place so correct alignment could be viewed on the image itself. The strap is made from two tarpaulin clips as used on market stalls etc.

Two varieties are available, a ratchet slide that grips harder when the cord is tied, and a screw clamp version. I found the ratchet difficult to remove after use so opted for the screw clamp. The cord is 5mm bungee threaded through two press button clamps as found on outdoor gear. Two of these were required to prevent the cord from slipping under tension.



A single strap is sufficient to keep the canvas tight but still allow the frame to be precisely adjusted.



Additional straps are fixed at regular intervals and the alignment checked again before fully tightening.



I prepared the corners as per a video demo I found online, really works well for me. Credit at the end of document



Once both ends are done they are folded and the canvas is tightened with a longer strap. For a 12" bar a single strap is ok, none of these straps are capable of stretching to drum tight but that is not the objective at the moment. All I want is to put in enough tension to remove any ripples etc. More long straps could be used but not really necessary.



The corners are folded in by about 30 degrees so that the white edges are not visible

The canvas is trimmed back to the stretcher bar and taped to secure the edges and neaten things up a bit. The picture is stapled along the stitched area which ensures the canvas will not be reliant on the cotton stitching to maintain tension.



Once the back is taped the wedges are inserted. This is where the final stretch takes place as the wedges are firmly tapped into place until the canvas is drum tight. The logic here is that the wedges are provided to allow re-tensioning at a future date so it follows that they can be used during initial construction. I would think that timber wedges will work better than the plastic types but have no proof of this.

This shows the precise alignment of the stretcher bar in relation to the mirror transition.



The finished picture.



Notes:

This process is a little slower than traditional stretching with hand tools but my turnover is only a few per week so not really a problem.

I can see this technique being a real bonus when trying to stretch a large canvas that either has to be square on to the frame or has mirrored sides.

It is quite scalable by making different length straps.

No stretching tools are required.

Canvas only stapled when you are happy with the fit, easily adjusted if a problem is found.

Stitching the canvas strips takes only a few minutes and you may find a normal domestic sewing machine will cope. However the Toyota can be used for all sorts of work so not a bad investment at around £130. I purchased a few extras such as a walking foot which grips the canvas from the top as well as the bottom making feeding a bit easier.

Thread is Bonded Nylon 40's Sewing Thread 3000M kingspool Black, eBay, enough for a few years I think...

Tarpaulin clamps are Sealey TARP4, eBay, around £2 each

Bungee cord & fittings from:

<http://stores.ebay.co.uk/Bouncing-Rabbit-Shock-Cord>

Preparing the corners prior to folding:

Video by Hal Schmitt

<http://vimeo.com/46155978>

Pat Cooper