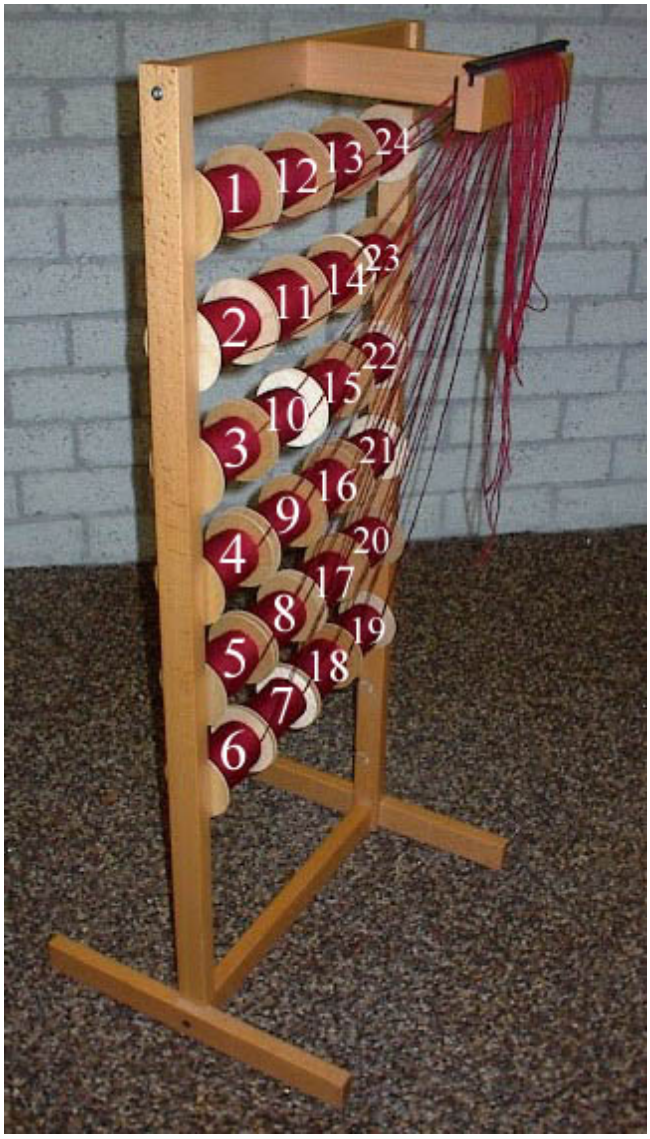
Tension regulator

Warping the individual sections with the tension regulator and bobbin rack

For every thread in the section you need a bobbin on the bobbin rack. With the bobbin rack you can have a maximum of 16 threads per cm with metric beams. If you have an imperial beam you need to replace the metric raddle with the imperial one, in which case you can have 32 threads per inch on one bobbin rack.

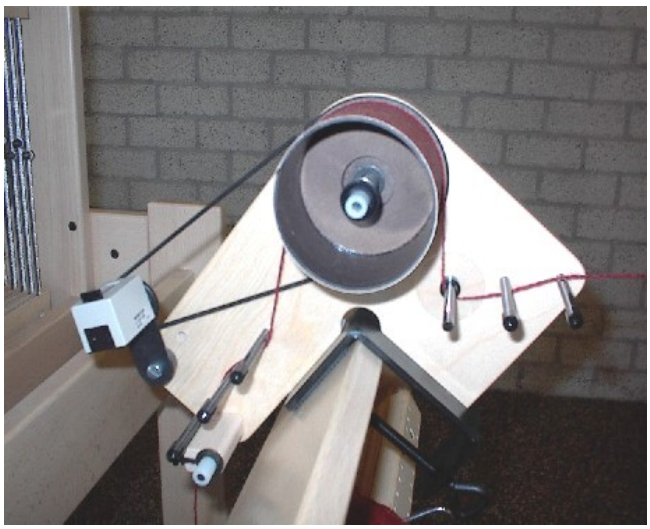
Use a bobbin winder to fill-up the bobbins. The length of the warp thread can be determined by comparing the full weight of the bobbin with the empty weight of the bobbin. Next, divide this weight with the known weight of 10 yards.



Hang the shafts filled with bobbins in the bobbin rack. The thread has to run from the bottom of the bobbin to the raddle.

Position each thread in an opening of the raddle. In the picture we have numbered the bobbins. This shows the sequence of the threads in the raddle.

Starting with the top bobbin, you go down, than up again etc.

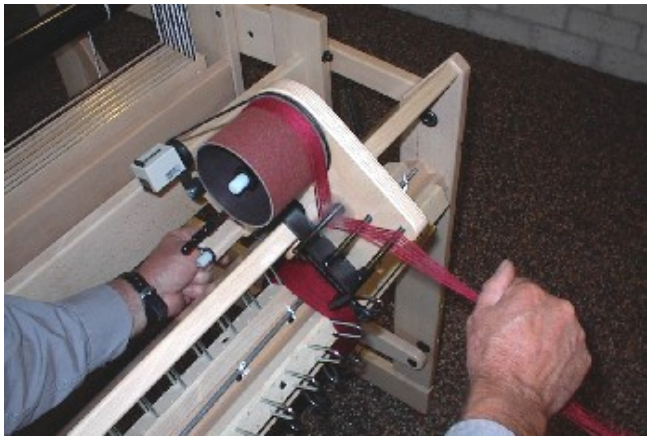


Attach the tension regulator on the back beam, just above the section you want to fill. Before running the threads through the tension regulator, loosen the two knurled nuts till the friction drum turns lightly. Take all but one of the plastic disks from the third shaft.

Guide the threads along the first three shafts over the friction drum. Make a cross between the first and second shaft. After every thread, put a plastic disk over the third shaft.

On the other side of the friction drum, make a cross between shaft four and five. The threads go under the sixth shaft, and over the small raddle.

Use the knurled nut to tighten the raddle in a position that will allow you to slide the threads between the sixth shaft and into the raddle.



Initially, the threads do not need to be exactly side-by-side on the friction drum. However, if you need extra room, pull the warp a couple of times back and forth. This will position the threads neatly side by side.

When all the warp threads of the section have been threaded through, put a knot in the warp threads past the little raddle, and cut the thread-ends even.

Take a tie-up cord and attach this with a lark's head onto the tie-up rod. Connect the other end of the tie-up cord to the warp also with a lark's head behind the knot in the warp yarns.

The friction of the drum will give tension to the warp while beaming up. Adjust this friction with the knurled nuts to get the right warp tension.

By tightening the two knurled nuts against each other, you will prevent the nuts to come loose during the warping process.

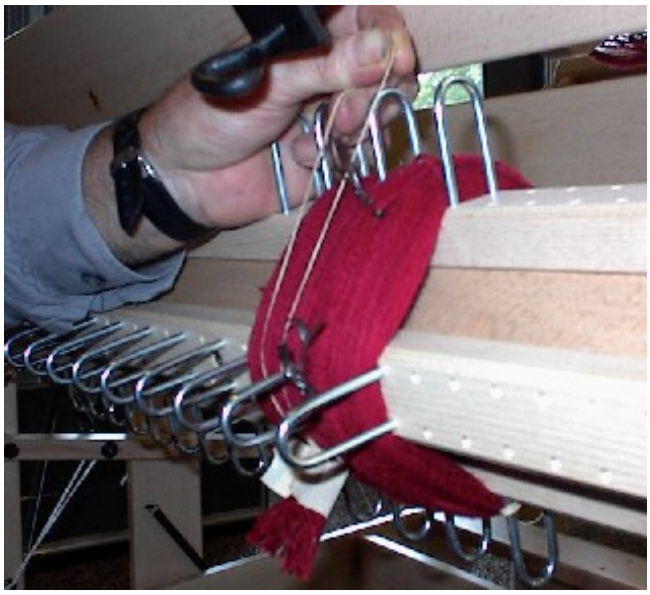
Turn the warp beam until the tie-up cord is tight. Because you want to have the same length of warp on each section, you have to remember the position of the warp at the moment you turn the counter to zero.

Take care to make sure during the first turn of the warp beam that the cord to the tie-up rod is tight. If the tension during the beaming-up is insufficient to lift the tie-up rod, help it by hand.

You need to correct the position of the warp tension regulator during the first turns of the warp beam, in order to let the warp yarns to fall exactly between the clips.

When the desired warp length has been beamed-up, you can use a piece of tape to keep the warp yarns in proper sequence. This is necessary, because there is no cross in the warp. The sequence of warp yarns on the tape is sufficient to keep the yarns in order while bringing the yarns forward and through the heddles. If in this process a couple of yarns are mixed-up, it should not affect the weaving.

Cut the warp yarns off just behind the tape.



Attach the end of the warp with an elastic band to a section clip. Do not use a clip of a section that still has to be warped.

Put a knot in the end of the warp that sticks out of the warp tension regulator.

Connect the tie-up loop for the next section to it.

When all sections have warp yarn, take the warp of one section by the time for threading through: remove the elastic band that holds the warp to the clip and turn the warp a couple of turns off the warp beam. Guide the warp yarns past the heddles to the front of the loom and take the yarns in sequence from the tape and slay the yarns through the heddles.

I you need to beam-up sections with different colors, you can fill-up the sections with the same colors first. After that you do the whole procedure of filling-up the bobbins, guiding the yarns through the warp tension regulator and beaming-up, with the following color.

If the changes in the color of the warp do not correspond with the sections, you can work with the Louët warping tool, so you can make warps for the sections in every desired color combination without much extra work.