

# Swirling Segments

## A Simple 'How to Guide'

This tutorial is meant as a guide only and is fairly wide open to interpretation by each individual.

This is an easy technique to master, needing very few tools, most of which many people will already own.

- Band saw with narrow blade (I use a ¼ inch)
- Pressure clamp for gluing
- CA glue, I use thick for gluing the cut segments
- Parcel tape or equivalent
- The usual turning tools

Any wood can be used for this project; I feel it is best to use two contrasting woods.

1. Choose your two blanks and sand one face on each blank and cut to the required length for the kit you are making (don't forget to allow a bit extra for squaring) **Fig 1**.

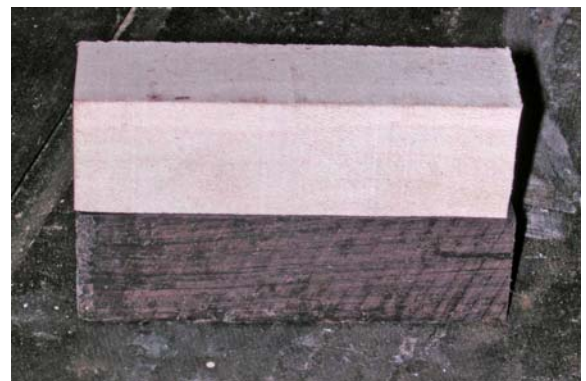


**Fig 1**

2. Next you need to stick the two sanded sides together Fig 3, use a small drop of CA glue on one end of the blank only. **Fig 2**. This is done to hold the blanks in place whilst cutting but makes it easy to separate the blanks after cutting.

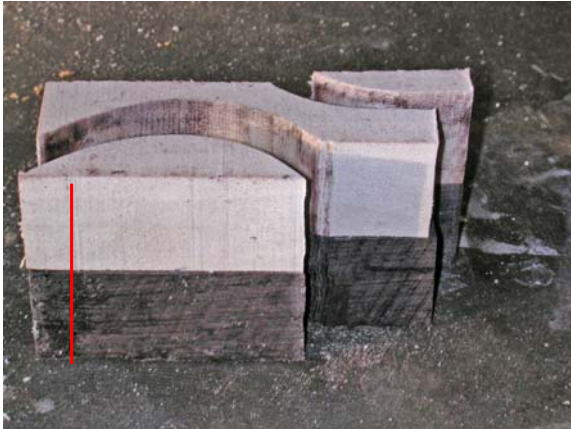


**Fig 2, 3**



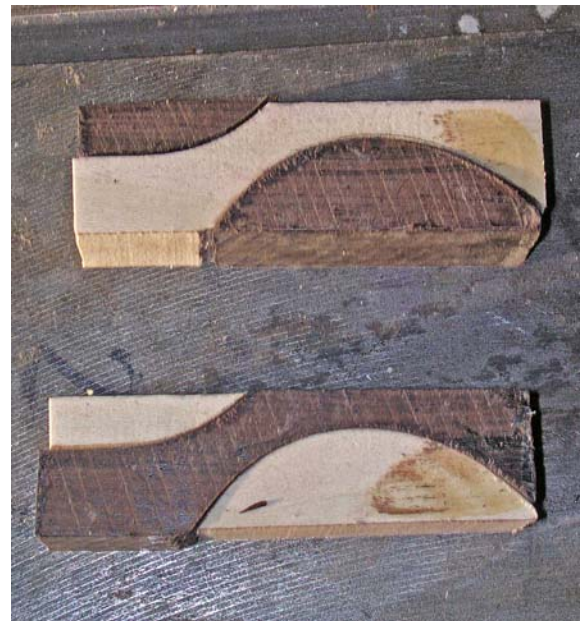
3. Now comes the cutting, this part of the work is where you can make it as complex as you wish. But remember the more cuts you do the more pieces you will have to put back together. I have only done two cuts in this tutorial to keep it easier to understand. **Fig 4**

When starting, cut the end which has NOT been glued first. The red line represents the glued end. **PLEASE TAKE GREAT CARE WHEN CUTTING AS FINGERS CAN BE VERY CLOSE TO THE BLADE.**



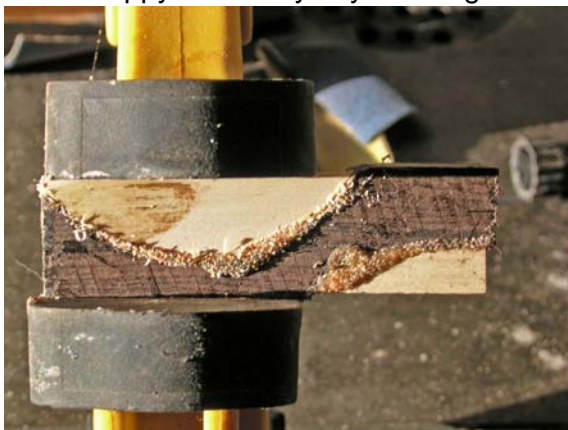
**Fig 4**

After you have done your cuts you need to separate the pieces and swap the cut pieces for each other. **Fig 5** . If the pieces do not separate easily I normally use the band saw and cut the two different pieces of wood along where they were glued.



**Fig 5**

4. The next step is to glue the pieces together, sometimes you may end up with a bit of a burr edge on some pieces, carefully hand sand of these burrs to get the best fit possible. When you are happy with a dry fit you can glue them together. I use a thick CA glue for this process



as it gives you better gap filling and more time to position the pieces. Use clamps if you have them to get the best possible fit, when I have clamped them together I normally throw a bit a sawdust onto the excess glue to stop it running onto the clamps **Fig 6**. Allow time to dry and then you are ready for the next stage.

**Fig 6**

5. If you want a more random look to your segments, you will need to do another series of cuts at 90 degrees to your first ones. Sand two of the faces and re-follow the steps from Number 2.

**Fig 7**

This figure shows the blanks ready for cutting a second time. The vertical face which is showing, is the one sanded the first time in step number one. Hopefully this will show you how the blanks need to be arranged before gluing up ready for the second cut.



6. You are now ready for drilling the blanks whether you have done 1 or 2 series of cuts, before drilling I put some parcel tape around the blanks to help reduce blow-outs **Fig 8**. This is especially important if you have done 2 sets of cuts as you will have some very small segments within your blanks which do pop out very easily



**Fig 8**

7. All that is left to be done now is to glue in your tubes and turn as you would do normally, the only difference is that you may need to do lighter cuts to avoid dig-ins which could destroy your blank. Remember that you will end up with two pens identical in pattern but with inversed colours.

If you have any further questions on how to do these pens please let me know and I will try and explain.

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## The Completed Pens



The 2 pens from the blanks used for this tutorial.

These are pens which have had 2 series of cuts done on them, giving them a more random "Swirling" pattern.

