

Triple Celtic Knot

I've received a few inquiries about the process behind creating this blank. There aren't any secrets to making it, so I'm going to attempt an explanation here. But first, I want to thank the guys who have been so willing to share their knowledge. I genuinely appreciate the helpfulness of the members here on the IAP who are always ready to lend a hand.

Some of you may question the cutting order for this Celtic knot blank. However, I've tried 3 different methods, so I'll share all three with you. The first one is the way I learned from watching videos. Cut once, then cut the opposite side, followed by cuts 3 and 4. The second method was to cut once, rotate blank 90 degrees, and cut side 2. Then continue to rotate and cut for sides 3 and 4. The third way is what I used here. I made all 3 cuts on one side and then glued in the inserts. Then I made all 3 cuts on opposite sides, and glued in inserts. Repeat for sides 3 and 4. If I'm making a "knot" that's all the same color and also a busy pattern, it doesn't seem to matter which cutting method I used. Cutting 3 slots at a time is just so much faster.

NOTE: for blanks filled with multiple layers of veneer I always use method 1.

Here is a list of things I do...

I start with an over-sized blank, usually 6" or so and 7/8" square.

I always use a sled for cutting. My band saw kerf is .043, so that is the thickness for my inserts. Sometimes I use my table saw for a wider kerf of about .060", depending on my design.

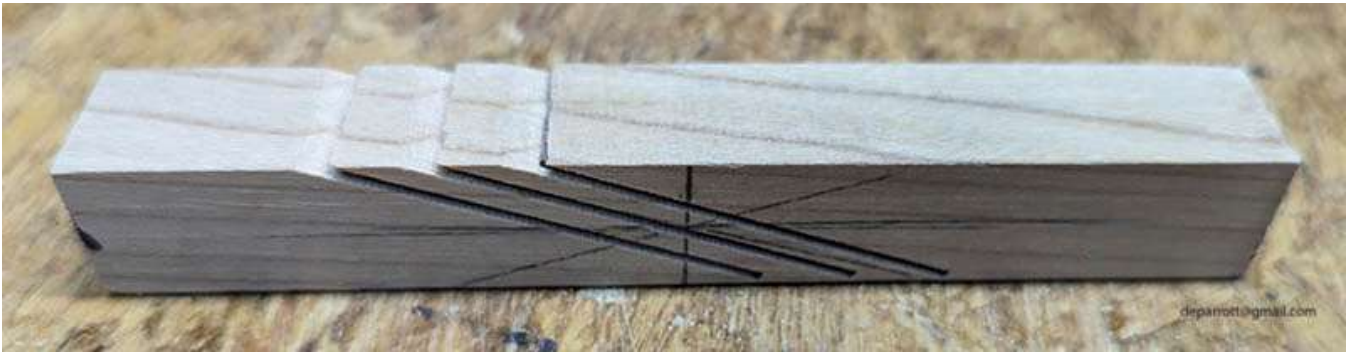
I use an angle of 72 degrees for the long blanks, and 60 degrees for shorter blanks. 72 degrees is not recommended for 7mm tubes because the smaller the diameter the more the design compresses.

My inserts are made one at a time using my band saw and mini thickness sander to get the required thickness. I use a Hog Thickness Sander and would recommend it if you have a smaller shop. Here is a link.
https://vanda-layindustries.com/html/the_hog_sander.html

My inserts are always cut at 3/4" wide so that they sit slightly below the surface of the blank when gluing. I use thin CA for all the glue joints.

First I clamp the 'ready to be glued' blank into my drill press vice. It provides even pressure along the length which helps keep the blank square. That's very important. Be careful not to glue the blank to the vice. With the 3 inserts in place and the blank secured, drizzle thin CA very carefully into the 3 slots that are sitting just below the surface. Wipe off excess glue and give it a spritz of activator. After a couple minutes, turn the blank over in the vice and make sure the glue went all the way through. If not, glue side 2 a bit. I don't put glue into the open end where the cut started at this time as it usually runs out somewhere.

After all the cutting and gluing are done, I mark the center point and measure out from there to cut the blank to size. Mark the centers on each end of the blank and turn until just round. I secure the round blank into the Nova pen jaws for drilling. When making the single tube cigar pen, I drill from both ends and meet in the middle. Accurate drilling is VERY important. Drilling off center can ruin your project.



The blank after the first 3 cuts.



The first 3 inserts are in place and ready for CA



This is how I clamp the blank for gluing. You can see how it keep the blank straight.



The first set of 3 glued in and the second side of slots cut.



Two sides glued in.



All 4 sides glued in.



With all 4 sides glued I place it in between centers and drizzle more Thin CA into all areas until it stops soaking it up.



Turned just enough to be round. The hidden ends of the inserts will become more visible as you turn to the finish diameter. I usually give it a thin coat of CA a couple of more times along the way, just in case.



The finished project.