

Kaleidoscope Twist Pen

Required Accessories

- 7mm pen mandrel
- 2-piece Bushing Set
- 8mm Drill Bit
- Barrel trimmer
- Live Tailstock Center
- Glue (Thick CA or Epoxy)

Preparing the Blank

- Cut 1 blank to the length of the tube and add 1/16" for squaring off.
- Drill a 8mm hole lengthwise through the blank.
- Spread glue over the tube; insert the blank with a twisting motion to spread the glue evenly inside.
- Center the tube lengthwise inside the blank.
- When the glue is dry, square the ends of the blank. Use a barrel trimmer, or a universal pen blank squaring jig with a power disc sander. Take the excess material down flush with the ends of the brass tube. (Do not trim beyond the length of the tube since this may interfere with operation of the mechanism and assembly). Use a barrel trimmer to clean the inside of the tube



Turning the Blank

- Mount the bushings and blank according the diagram above.
- Thread on the knurled nut and hand tighten to hold all components in place.
- Slide the tailstock up snugly against the mandrel shaft inserting the live center point into the mandrel dimple, lock in place.
- Hand tighten the quill adjustment to firm up the mandrel. (DO NOT overtighten, it could damage the mandrel.
- Using sharp tools, turn the blank down close to the bushing diameter. Turn the barrel (straight or to a profile of your choice)
- Sand the blank down to be flush with the bushings gradually increasing the sandpaper grits.
- Finish the barrel with your choice of polish. Allow sufficient time for the polish to cure.

Diagram A



Diagram B



Assembly

- Arrange parts according to Diagram A.
- Press the Short tube and the Twist mechanism onto the Tip (same as Diagram B).
- Next screw the Refill into the end of the Tip assembly.
- Screw the Cap with Clip onto the Kaleidoscope Assembly.
- Press the Long tube (finished blank wide end) into the Clip/Cap assembly.
- By hand, push the Tip assembly over the Refill and onto the end of Clip/Cap assembly. To advance the Refill hold onto the Tip of the pen and rotate the
- Clip/Cap Assembly clockwise, to retract the Refill hold onto the Tip of the pen and rotate the Clip/Cap Assembly counter clockwise.