

Hour Glass Twist Pen Kit

Kit Features:

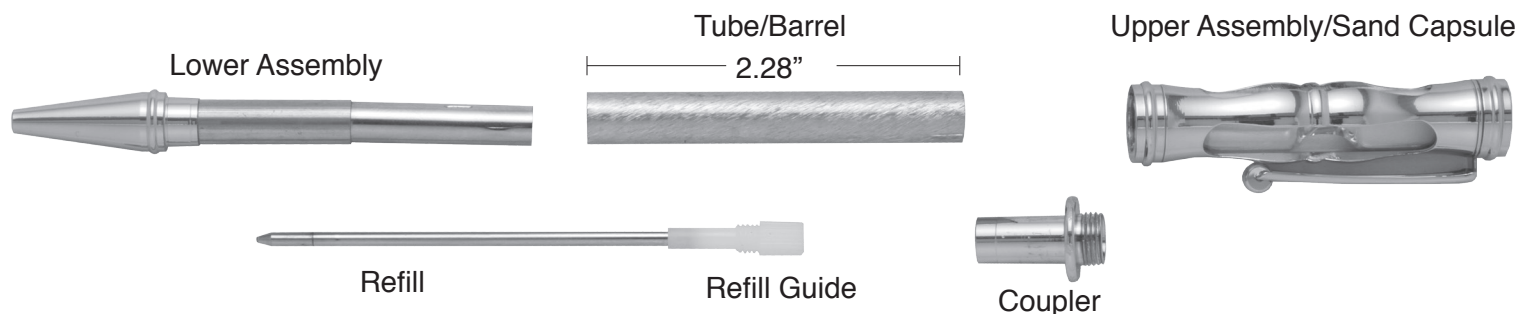
- Easy to turn with straight tubes
- Minimum parts - easy to assemble
- Available in multiple finishes
- 1 Minute (aprox) Timer
- Overall Length: 5-1/2"
- Uses refill: Mini #PKMINI-R5
- Tube size: 8mm
- Rolling Wheel Clip

Required Accessories:

- 7mm Pen Mandrel
- Drill Bit(s): 8mm #PKPARK-8MM
- Bushing set(2 pc): #PKHGBU
- Barrel Trimming: #PKTRIM8
- Live Tailstock Center
- 2 Part Epoxy Glue or Insta Cure (Cyanoacrylate) Glue
- Pen Blank: Minimum Size - 5/8" x 2-1/2"

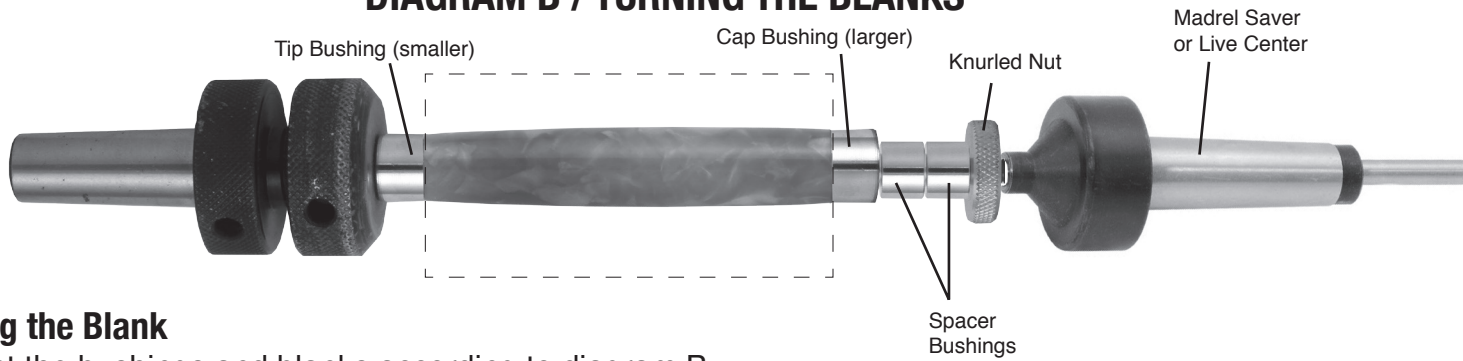


DIAGRAM A / PARTS LAYOUT



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 blanks. Use a 8mm 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.

DIAGRAM B / TURNING THE BLANKS**Turning the Blank**

- Mount the bushings and blanks according to diagram B.
 - 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.
- Refer to polish instructions.

Assembly

- Layout parts according to diagram A
- Press the barrel, narrow end in first into the lower assembly.
- Affix the refill guide over the mini refill (see dia. A)
- Insert the refill into the opening at the lower assembly, screw in to bottom.
- Screw the coupler into the upper assembly.
- Press the halves of the pen to close the gap.
- The pen operates by twisting the ends to advance or retract the refill tip.
- To operate hours glass hold vertically until all sand is in the lower capsule. Place pen on cap - sand will transfer in about a minute (see photo to right).

**Diagram C / Bushings #PKHGBU**