

Apollo Ballpoint Twist Pen Kit

Kit Features:

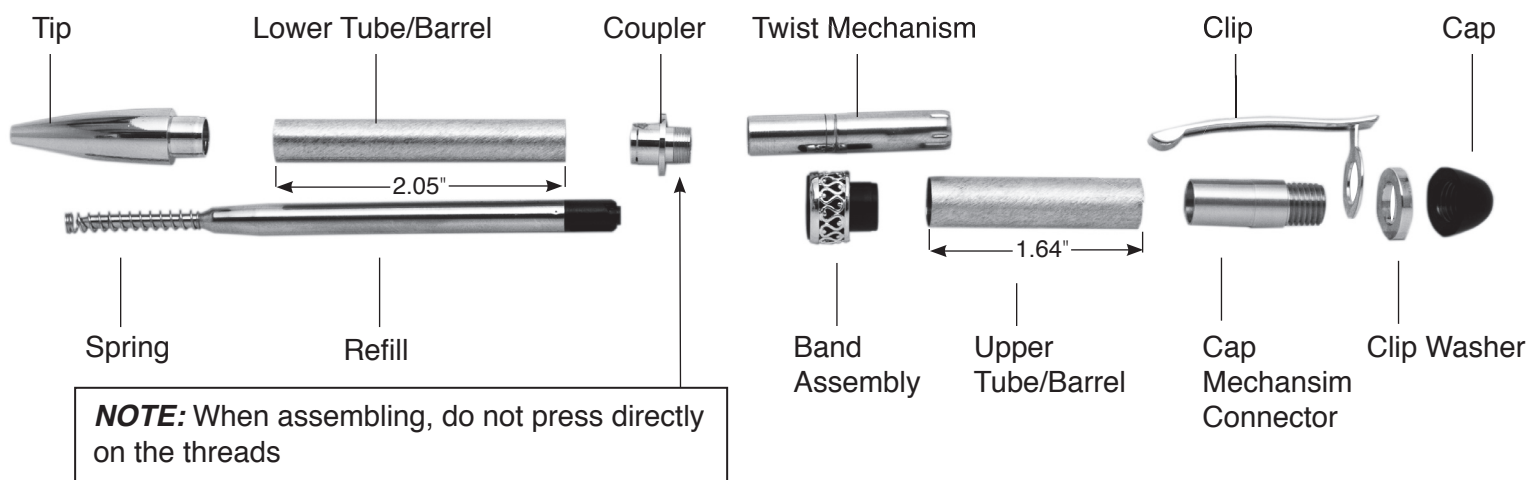
- Easy to turn with straight tubes
- Available in multiple finishes
- Elegant Apollo Pen features
- Uses Parker style refill
- Overall Length: 5 $\frac{3}{8}$ "

Required Accessories:

- 7mm Pen Mandrel
- Drill Bit(s): 8mm #PKPARK-8mm & $\frac{3}{8}$ " #PKEXEC-38
- PKAPBBU Bushing set (3 pc)
- 8mm & $\frac{3}{8}$ " Barrel Trimmers
- Live Tailstock Center
- 2 Part Epoxy Glue or Insta Cure (Cyanoacrylate) Glue
- Pen Blank: Minimum Size - $\frac{5}{8}$ " x 4" L



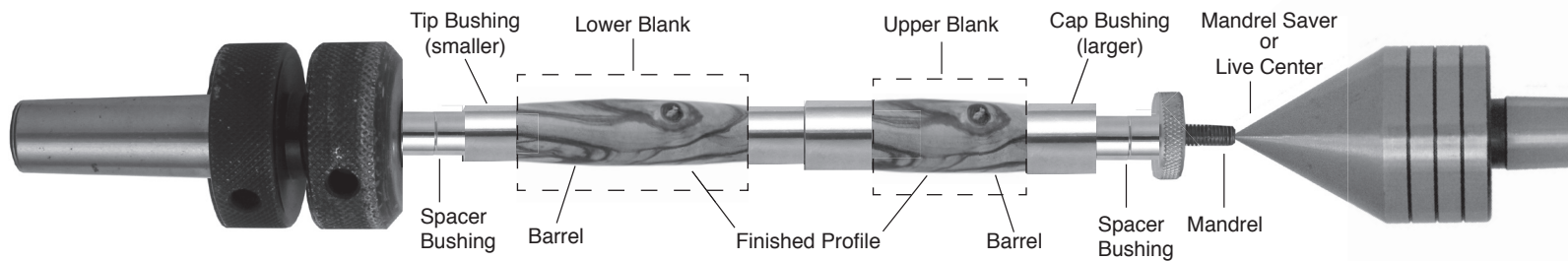
DIAGRAM A / PARTS LAYOUT



Preparing the Blank:

- Cut 2 blanks to the length of the tubes and add 1/16" for squaring off.
- Drill 8mm and $\frac{3}{8}$ " holes lengthwise through the blanks.
- Spread glue over the tubes, insert the blank with a twisting motion to spread the glue evenly inside.
- Center the tubes lengthwise inside the blanks.
- When the glue is dry, square the ends of the blanks. Use a 8mm and $\frac{3}{8}$ " barrel trimmers, 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

- Note: Layout finished parts according to diagram A
- Press the tip into the narrow end of the lower barrel.
- Press the coupler into the opposite end of the barrel*.
- ***WARNING:** It is not advised to press directly over the threads, instead use a pen blank. Cut a section 3/4" long. Drill a 8mm hole through. Affix this blank over the threads and press the coupler in.
- Affix the spring over the refill, drop both into the opening at the lower barrel. Screw the mechanism over the coupler.
- Press the center band black extension into either end of the upper barrel.
- Affix the clip and the washer over the threaded end of the cap mechanism connector. Thread the cap cover tight.
- Press this assembly into the opposite end of the barrel.
- Press the cap over the mechanism to close the gap between the pen barrels.
- The pen operates by twisting the ends to extend or retract the refill.
- Remove/replace refill by twisting the cap until it unthreads and exposes refill – Do not pull off!

Diagram C / Bushings #PKAPBBU

