Top Cap



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Clip

# **CYCLONE PEN KIT**

### Instructions

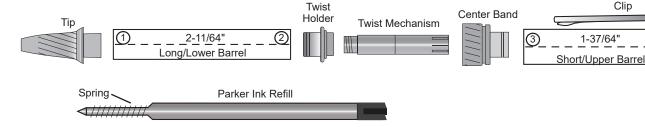
#### Kit Features

- · Shows off the wood in a way a smaller pen can not
- Uses a smooth-writing Parker<sup>™</sup> Refill

### **Required Accessories & Materials**

- 7mm mandrel
- 4-pc. Cobra bushing set (PKCOBRA-BU)
- 10mm and 11mm drill bits (DB10mm) (DB11mm)
- · Glue (We recommend the thick "gel" CA glue—GTHICK2)
- · Sanding and finishing supplies
- Barrel trimmers, sizing sleeve, and/or belt sander for squaring the tubes

## Diagram A - Parts and Assembly



#### **BLANK PREPARATION**

The tubes in this pen kit are of different lengths and diameter. Make sure that, as you cut the blanks for the tubes, you orient them so that the longer tube will be used as the lower pen barrel. The upper tube is the shorter one. Cut your blanks approximately 1/16" longer than the tube to allow for squaring with the barrel trimmer. If using wood blanks, mark the blanks so it is easier to keep the grain running in the same direction when you place them on the mandrel for turning. Use a medium drill speed to drill the blanks. Raise the bit from the blank every 1/4" to 1/2" to allow the chips to clear from the flutes of the drill bit. Don't force the drill bit; use an even pressure and let the bit do the work. After drilling the blanks, sand the exterior of the brass tubes to roughen their surface and use CA glue to glue the tubes inside the blanks. Sand or barrel trim to **square** the ends of the blanks.

### **TURNING THE PEN**

Set up the mandrel as shown in Diagram C. This pen has four bushings, so proper orientation is critical. In setting up your bushings, you will slide on one of the smaller bushings (bushing 1) first. Then slide the lower barrel onto the mandrel followed by the other small bushing (bushing 2). Next, place one of the larger bushings (bushing 3) on the mandrel followed by the upper barrel and then the last large bushing (bushing 4). Keep in mind which pen barrel you are turning as the top and bottom. Turn the blanks down to the bushings, then sand with abrasives and finish with your choice of polish.

#### **ASSEMBLY**

(Line up finished parts according to Diagram A) To avoid damage to components when assembling, use a pen press or a vise with covered jaws.

- 1. Press the cap assembly through the clip into one end of the upper barrel.
- 2. Press Centerband into opposite side of the upper barrel.
- 3. Press tip into one side of lower barrel.
- 4. Press twist holder into the opposite side of the lower barrel.
- 5. Drop the ink refill with the refill spring through the twist holder and screw on the twist mechanism.
- 6. Insert the twist mechanism on the lower barrel assembly through the centerband into the upper barrel.
- 7. The pen should be ready for use!

