



## European Style Screw Cap Pens

Product #128435, 128440, 128441

### General Instructions

Whether you're a novice turner or a pro, you'll find these projects are all quick and easy to make. Using cut-offs and shorts, the type everyone saves but doesn't know what to do with, you'll find yourself making handsome, custom woodturning projects which are great for gifts or for sale. The following is general in nature, please refer to the instruction sheet on the opposite side for specific dimensions and sizes for your project.

#### 1. Cutting Blanks

Cut wooden blanks to the size specified in the enclosed instructions. For your safety, be sure that the blanks are solid and have no holes, checks or other defects.

#### 2. Drilling Blanks

Center and bore a hole through your stock as specified in the Project Instructions on the opposite side. The center of the blank can be located at the intersection of diagonal lines, drawn from opposite corners. All holes are easily drilled using a clamp and a drill press (**FIG. 1**). Before you start to drill be sure that your blank is at 90° to the drill press table. You may also chuck and drill the stock on your lathe.

#### 3. Gluing Blanks to Tubes

Rough the brass tube's surface with a fine grit sandpaper and use a quick drying CA type glue to secure the brass tubes into the blanks. Rotate the tube as you insert it to ensure maximum surface coverage of glue. If you find that CA glue is not providing adequate bonding, an alternative is any two part epoxy type glue.

#### 4. Sanding Blanks to Length

Using a belt or disc sander, square the ends of the brass tube/wood blank. The blank should be flush with the brass tube on both ends. Care should be taken to not sand into the tubes (**FIG. 2**). If any excess glue remains inside the tubes it should be gently scraped out.

*Tip: Excess glue can be scraped out using the threaded end of the mandrel when mounting the blanks for turning.*

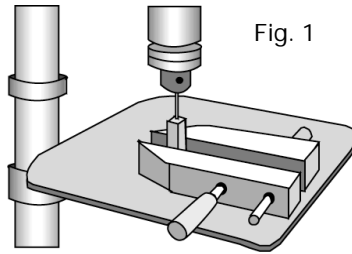


Fig. 1

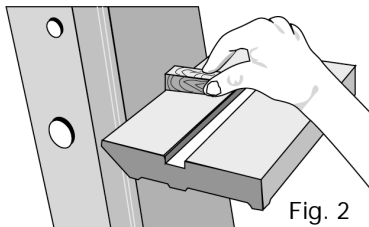


Fig. 2

### 5. Mandrel Preparation

Woodcraft's new Pen and Pencil Makers Mandrel system allows you to turn a variety of small projects without requiring the purchase of a unique, special mandrel each time. The only item you will need to purchase to turn new projects is the specially designed bushing set for the project of your choice. The mandrel is provided with either a #1 Morse Taper or a #2 Morse Taper. If you prefer to use the mandrel in a three jaw chuck, simply loosen the Morse Taper set screw and slide the Morse Taper off of the shaft. Now the mandrel shaft may be mounted directly in your three jaw chuck. With the bushing sets specified on the project instruction sheet, mount your wood blanks and bushings as depicted for each project. With the mandrel mounted in your lathe, slide a bushings onto the mandrel, followed by a wood blank and a second bushing or spacer as required, followed by the second wood blank if required. With the wood blanks installed on the mandrel secure the wood blank/bushing assembly using the washer and retaining nut provided. Bring up a live center in the tailstock to support the threaded end of the mandrel. Do not over tighten the tailstock or the mandrel will flex and bend causing oval shaped turnings.

### 6. Turning Blanks

Place your tool rest parallel and as close as possible to the blank. Rotate the blank by hand to ensure it will not touch the tool rest when the lathe is turned on. Using a turning speed of approximately 1,000 RPM begin turning the blank to a diameter slightly larger than the bushings. You can work the stock down to just short of the desired design or diameter by carefully scraping or sanding.

### 7. Finishing the Blanks

Blanks can be finished like any other wood project. Using a fine grit sandpaper, sand the blank until it is flush with the bushing for parallel sided projects or until the desired profile is obtained for custom projects. Use a wood filler, if desired, to fill any grain openings in the blank. Final sanding with a wet/dry paper will create a blank which is glass smooth. *Tip: We have found that use of Micro Mesh sanding paper after wet/dry sanding creates a perfect, glass smooth finish.*

### 8. Assembly, Tips, and Operating Instructions

All parts should fit together as depicted in the parts diagram for each project. In some cases a machinist vise will be needed to completely press the parts together. Protect all plated parts from scratching by covering them with a cloth or thin pad before placing them in a vise. Proceed carefully, many of the kit components are delicate and uneven or excessive pressure will cause permanent damage.



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### 1. Cutting Blanks

Cut 2 wood blanks  $\frac{5}{8}$ " x  $\frac{5}{8}$ " x  $2\frac{1}{8}$ " long.

### 2. Drilling Blanks

Using a  $\frac{3}{8}$ " brad point bit, drill a hole lengthwise through the center of each blank.

### 3. Gluing Blanks to Tubes

See General Instructions for details.

### 4. Sanding Blanks to Length

See General Instructions for details.

### 5. Mandrel Preparation

Mount the tube blanks and bushings (128452) on your lathe mandrel as follows. Place the bushing with the groove around it on the mandrel first. Slide a blank onto the mandrel and over the lip of the first bushing. Place the center "stepped" bushing on the mandrel with the smallest diameter end oriented toward the headstock and slip bushing lip into the first blank. Place the second blank on the mandrel, followed by the third bushing, ensuring the bushing lips slip into the blank. In this configuration the blank closest to the headstock is tube #1 (the pen bottom) and the blank closest to the tail stock is tube #2 (the pen top).

### 6. Turning the Blanks

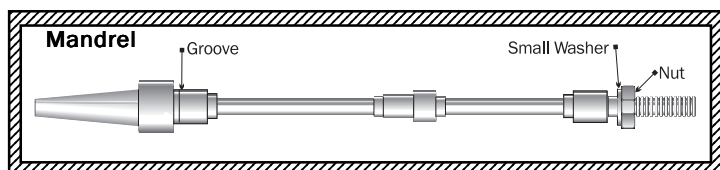
1. Turn the blanks to bushing diameters.
2. A portion of the wood on the pen top, Tube #2, must be parted off for pen assembly. After turning the pen top to the bushing diameter, part  $\frac{1}{8}$ " from the end of Tube #2 which is next to the center bushing and will be receiving the Center Ring (E). When parting, all wood should be removed down to the brass tube, being careful not to damage the tube.

### 7. Finishing the Blanks

See General Instructions for details.

### 8. Pen & Cap Assembly

1. Press the Center Ring (E) onto the portion of Tube #2 exposed by the part in step #2, flat side toward the wood.
2. Press the Brass Clip Bushing (F) into the opposite end of Tube #2, bevel end first, until it is flush with the end of the tube.



Position the Clip (G) even with the outside edges of the wood, and secure with the Top Finial (H). A drop of CA glue on the inside of the clip prior to screwing the finial on will secure both the clip and finial permanently.

### 9. Lower Barrel Assembly

1. Press one of the Threaded Reducers (B) into each end of the lower barrel, Tube #1.
2. Press the black Lower Barrel Finial (D) into one of the Threaded Reducers (B) installed in the last step. Placing a drop of CA glue on the interior threads of the Threaded Reducer prior to pressing the Lower Barrel Finial into place will permanently secure the Finial in place.

**If you are assembling a rollerball pen** drop the Spring (C) into the open end of the lower barrel, largest end first. Insert the Ink Refill (I), and screw the Rollerball Nib Assembly (A) into the barrel.

**If you are assembling a fountain pen** choose either the Ink Pump (K) or Ink Cartridge (L).

**Ink Cartridge.** If you are installing the cartridge, the Ink Pump (K) must be removed from the Nib Assembly (J) by gently pulling. To use the ink cartridge, simply press the nipple end of the cartridge into the Fountain Pen Nib assembly. You will feel the cartridge seat itself as the nib punctures the interior of the cartridge. Thread the Fountain Pen Nib/Ink Cartridge assembly into the lower barrel.

**Ink Pump.** If you are using the Ink Pump (K) you must first fill the pump with ink. Turn the black plastic knurled tip counter clockwise until the plunger is seated at the bottom of the ink reservoir. Place the tip of the reservoir into a bottle of ink such that the reservoir opening is always submerged in the ink. Turn the black knurled tip clockwise and ink will be drawn into the reservoir. Seat the Ink Pump back onto the Nib Assembly.

#### Additional Parts:

06S88 replacement tube set (5 pairs).

