



## European Style Pens, Openers & Magnifying Glass Kits

Product # 06S45, 06S46, 06U90, 124962, 124963, 125268, 126454, 128260, 128262, 141658, 141659, 141660, 142508, 142509, 142510, 145652, 147072, 147073, 839366

### 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.

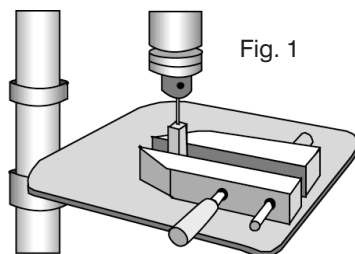
#### 1. Cutting Blanks

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.

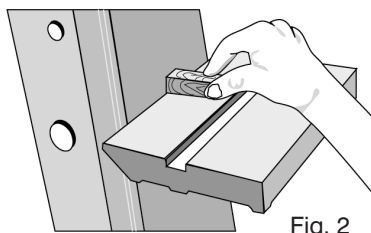


#### 3. Gluing Blanks to Tubes

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.



### 5. Mandrel Preparation

Woodcraft's new Pen and Pencil Maker's 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 (141468) or a #2 Morse Taper (141469). 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 bushing 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 (11L61) after wet/dry sanding creates a perfect, glass smooth finish.*

### 8. Assembly

All parts should fit together as depicted in the parts diagram for each project. In some cases a pen press or machinists 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

**Pen:** Cut two  $\frac{3}{4}$ " x  $\frac{3}{4}$ " blanks, one  $2\frac{3}{4}$ " long and another  $2\frac{1}{4}$ ".

**Letter Opener:** Cut one blank  $\frac{3}{4}$ " x  $\frac{3}{4}$ " x  $2\frac{3}{4}$ " long.

**Magnifying Glass:** Cut one blank  $\frac{3}{4}$ " x  $\frac{3}{4}$ " x  $3\frac{5}{8}$ " long.

### 2. Drilling Blanks

**Pen, Letter Opener & Magnifying Glass:** Drill a 7mm 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.

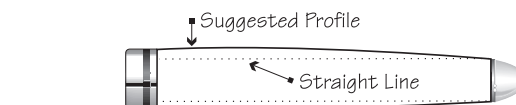
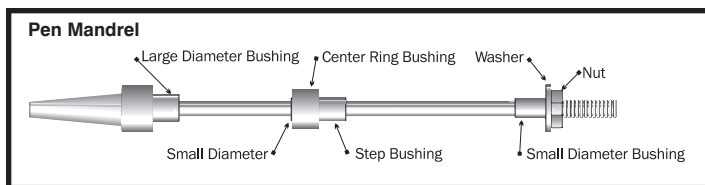
### 5. Mandrel Preparation

See General Instructions for details.

**Pen:** The bushing set (06S62) is made up of four pieces, large and small diameter end bushings, a step bushing, and a center ring bushing. These bushings must be placed on the mandrel in the order specified to turn blanks to the proper sizes. See Pen Mandrel Illustration for detail. Place the large diameter (.408" or approx.  $\frac{13}{32}$ "), end bushing on the mandrel followed by the short wood blank (E). Next place the center ring bushing on the step bushing so that the small diameter end faces the headstock and the large diameter end faces the tailstock. Next place the longer blank (B), and small diameter (.360" or approx.  $\frac{23}{64}$ ") bushing on the mandrel. Secure the bushing/blank assembly on the mandrel using the washer and retaining nut.

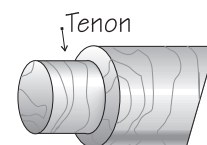
**Letter Opener/Magnifying Glass:** See Letter Opener/Magnifying Glass Mandrel Illustration for detail. Cut a spacer blank from scrap wood and drill a 7mm hole lengthwise through the center of the spacer. *NOTE: the lower, longer tube of the European Style Pen kit may be used instead of the wood spacer.*

Slide the large diameter (.408" or approx.  $\frac{13}{32}$ ") bushing on the mandrel followed by the handle blank (D). Next place the center ring bushing on the small diameter end of the step bushing so that the small diameter end faces the headstock and the large diameter end faces the tailstock, and place this bushing combination on the mandrel. Next place the wood spacer on the mandrel followed by the small diameter (.360" or approx.  $\frac{23}{64}$ ") bushing. Secure the bushing/blank assembly on the mandrel using the washer and retaining nut.



### 6. Turning the Blanks

See General Instructions for details.



**Pen/Letter Opener/Magnifying Glass:**

1. Turn a tenon (a projection of wood) on the center ring bushing end of the pen top (E) or handle (D) to accept the center ring bushing. Proceed carefully and check your progress by frequently test fitting the center ring bushing onto the tenon. The Pen/Opener/Magnifying Glass Center Ring (C) will ultimately be glued into place on this tenon. For a snug fit with the Pen/Opener/Magnifying Glass Center Ring (C), the tenon should be approx.  $\frac{13}{32}$ " (10.5mm) in diameter and  $\frac{3}{16}$ " (5mm) in length.

2. With the tenon complete and the center ring bushing in place on the tenon, turn the short blank (E) if turning a pen, or (D) if turning an opener/magnifying glass, to size using the center ring bushing and large diameter bushing as guides.

3. **Pen Only:** Turn the long bottom blank (B) to size using the large diameter of the step bushing and the small diameter bushing as guides.

### 7. Finishing the Blanks

See General Instructions for details.

### 8. Assembly

See General Instructions.

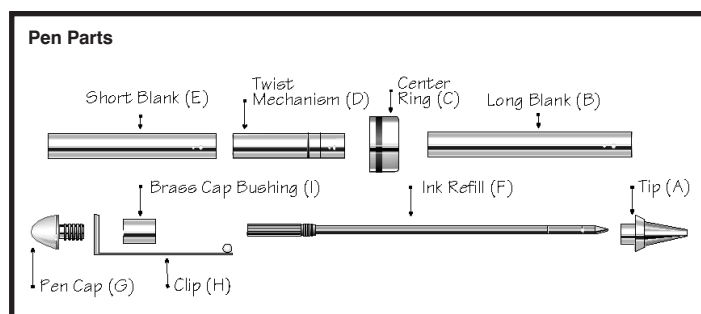
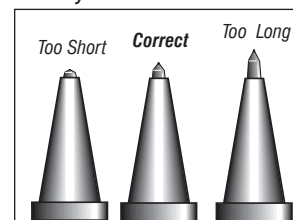
**Pen:**

1. Using a vise or clamp, press the pen tip (A) into the small diameter ( $\frac{11}{32}$ ") end of the long blank.

2. Press the twist mechanism (D), brass end first, into the opposite end of the long blank. The twist mechanism should be pressed into the tube

so that approximately  $\frac{7}{8}$ " of the chrome portion extends from the blank. Care should be taken so the mechanism is not pressed in too far. If pressed too far, the pen tip will not retract fully into the pen nib. While pressing the twist mechanism into place, test the position by extending the pen tip and noting its location with

Fully Twisted Position





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respect to the pen nib. To test extension/retraction of refill tip, screw refill (F) into twist mechanism (E) and rotate the twist mechanism. Proper placement of the twist mechanism will result in tip/nib position as shown in the illustration, page 2. This is a trial and error process.

3. Using a drop of CA glue, secure the center ring (C) band into place on the tenon of the short blank.

4. Place the stud on the gold pen cap (G) through the center hole of the pen clip (H) and screw the stud into the brass cap bushing (I). Press this assembly into the short blank opposite the pen center ring.

5. Complete the pen by pushing the pen top and bottom assemblies together.

### Letter Opener:

1. Using a vise or clamp, press a cap/blade bushing (indentation end first) (E) into the bottom (tenoned) end of the handle. If bushing (E) is threaded onto the blade, remove it before press fitting into handle. Screw the stud of the gold cap (C) into the other cap/blade bushing. Press this assembly into the opposite end of the handle.

2. Using a drop of CA glue, secure the center ring (A) band in place on the tenon of the handle.  
3. Screw the letter opener blade (D) into the cap/blade bushing previously pressed into the center ring end of the handle.

### Magnifying Glass:

1. Using a drop of CA glue, secure the center ring (C) into place on the tenon of the blank.

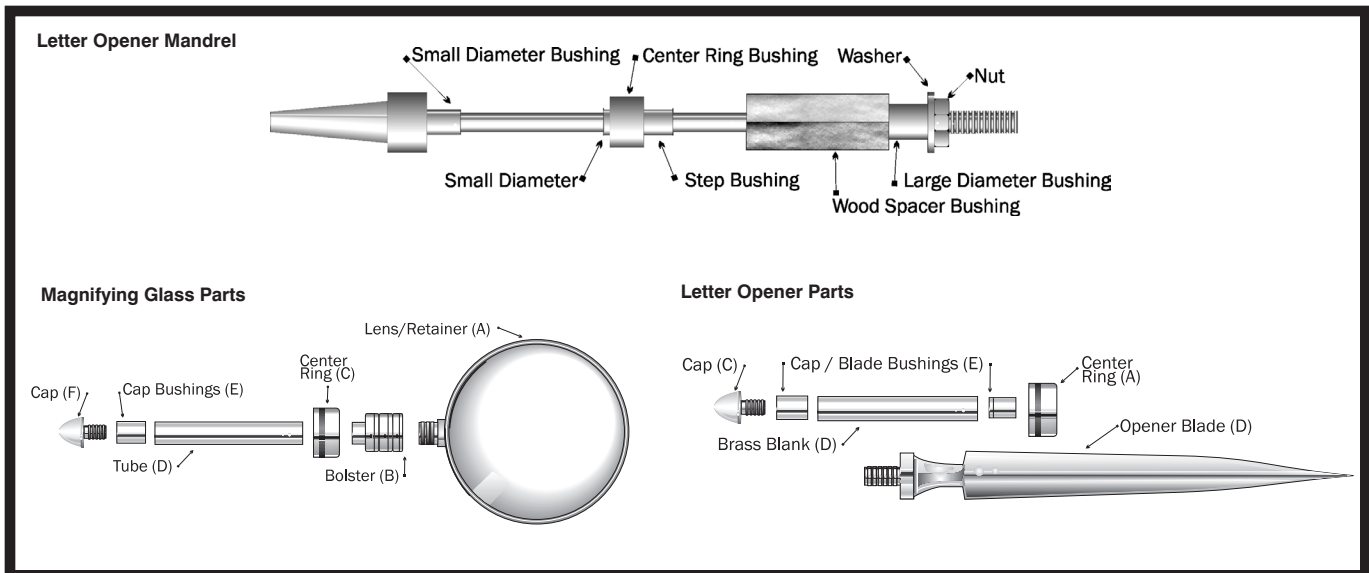
2. Using a vise or clamp, press the Bolster (B) into the tenoned end of the handle until seated against the center ring.

3. Screw the stud of the cap (F) into the cap bushing (E). Press this assembly into the opposite end of the handle.

4. Thread the Lens/Retainer (A) into the bolster (B).

### Additional Parts:

<b>06S53</b>	pen replacement tubes (5 pr.)
<b>124732</b>	letter opener replacement tubes (5)
<b>124983</b>	magnifying glass replacement tubes (5)
<b>142300</b>	1 medium/ black Cross refill
<b>142301</b>	1 medium/1 blue Cross refill



To Order Additional Parts Call: 800 225-1153  
For Technical Advice Call: 800 535-4486

