



Cushion Grip Click Pen

Product #144636

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.

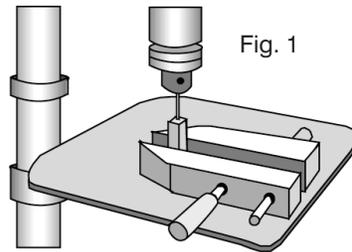
1. Cutting Blanks

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.

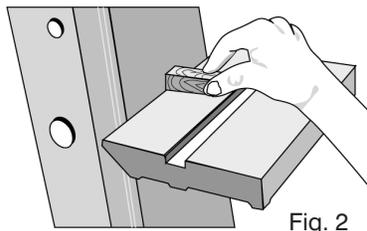


3. Gluing Blanks to Tubes

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 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 (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

This pen requires only one blank $\frac{5}{8}$ " x $\frac{5}{8}$ " x approximately $2\frac{1}{8}$ ".

2. Drilling Blanks

Using a letter "O" bit (123209), drill a hole lengthwise through the center of each blank.

3. Gluing Blanks to Tubes

See General Instructions for details.

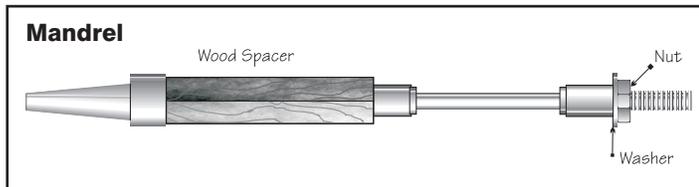
4. Sanding Blanks to Length

See General Instructions for details.

5. Mandrel Preparation

Note: Because this pen requires only one turned wood/tube blank you must either use mandrel compression stop nut, wooden spacers, or adjust the length of your Woodcraft Professional mandrel to the required length.

Place the first bushing (144638) on the mandrel with the lip facing the tailstock. Slide the wood/tube blank onto the mandrel and over the lip of the first bushing, followed by the second bushing making sure the lip of the bushing slides into the wood/tube blank. Secure with the mandrel washer and nut.



6. Turning the Blanks

See General Instructions for details.

7. Finishing the Barrels

See General Instructions for details.

8. Assembly

Lower Barrel (cushion grip end)

1. Press the nib (A) into one end of the cushion grip barrel (B).
2. Press the center ring (C) into the other end of the cushion grip barrel (B).

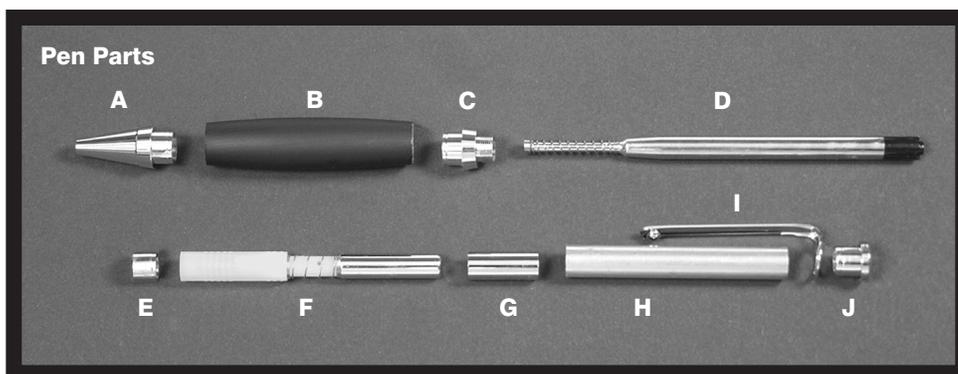
Upper Barrel (turned blank)

1. Slide the finial (J) through the clip (I) and press this assembly into one end of the upper barrel (H).
2. Slide the small chrome tube (G) over the top of the clicker mechanism (F) until it covers the spring on the clicker mechanism.
3. Slide the clicker mechanism (F), brass top first, into the open end of the upper barrel. Use the ink refill (D) to push the clicker mechanism up through the finial until it stops.

4. Note: Failure to use a press block as described in this step to press the chrome threaded insert will damage the clicker mechanism.

Make a press block to press the chrome threaded insert into the upper barrel by drilling a 6mm hole in a scrap of $\frac{3}{4}$ " thick wood. When pressing the chrome threaded insert (E) into the upper barrel, insert the gold "click" button into the hole in the scrap wood so that you are pressing on the finial (J) and not the gold clicker mechanism button.

5. Insert the ink refill/spring assembly into the lower barrel and screw the upper barrel onto the lower.



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|----------------------------|-----------------------|
| (A) Nib | (F) Clicker Mechanism |
| (B) Cushion Grip Barrel | (G) Chrome Tube |
| (C) Center Ring | (H) Brass Top Barrel |
| (D) Ink Refill | (I) Clip |
| (E) Chrome Threaded Insert | (J) Finial |