

PROJECT PEN KITS



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AXMINSTER

woodturning

Wave Top Click Pen Kit - Gold

Code: 504641



WHAT'S REQUIRED

Bushing Set:
701603

Drill Bit Size:
8 mm

Minimum Blank Size:
16 mm x 16 mm x 105 mm

PREPARING THE BLANKS, HINTS & TIPS

Preparing a wooden or acrylic/polyester blank for a pen mandrel.

1. Cut a blank to the length of the tube plus approximately 2.5mm to allow for trimming and squaring off the ends.
2. Mark the centre on the end of the blank.
3. Using the recommended drill bit, drill a hole lengthwise through the blank.
4. Apply epoxy glue, Polyurethane glue or gap filling cyanoacrylate (super glue) to the tubes.
5. Insert the tube into the blank with a twisting motion to spread the glue evenly inside the hole.

6. Centre the tube lengthwise inside the blank.
7. Allow the adhesive to cure.
8. When cured, square the ends of the blank. Using a barrel trimmer with a guide matching the inner diameter of the tube or a universal pen blank squaring jig with a disc sander.
9. 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).

Tips/Hints

- Excessive pressure may cause the drill bit to wander and/or split the blank. Slow the feed rate and back the drill bit out repeatedly for chip removal.
- Roughen the brass tube slightly with abrasive for better adhesion.
- Certain acrylic blanks are more transparent than others, especially lighter colors or blanks with light colored swirls. To avoid the risk of the brass tube showing through the pen blank, paint the tubes white or black before gluing them in.
- The barrel trimmer guide also cleans any adhesive that may have gotten inside of the tube.

TURNING THE BLANK, HINTS & TIPS

1. Mount the bushings and blank onto a pen mandrel according to the diagram.
2. Secure the bushings and blank onto the mandrel.
3. Slide the tailstock with a live centre into place against the mandrel and lock in position. This is for support; only slight pressure is required.
4. Using sharp tools, turn the blank down to become the Pen Barrel with the profile of your choice.
5. Turn the blank very slightly oversize, then sand and polish the ends down to the same diameter as the bushings.
6. Using successively finer abrasives gradually sand and polish the Pen Barrel.
7. Finish the Pen Barrel with your preferred choice of polish.

Tips/Hints

- Don't be afraid to sharpen frequently especially when turning acrylics.



Continues over...

ASSEMBLY, HINTS & TIPS

1. Layout the parts according to diagram A
 2. Screw the Nib into the Threaded Insert and press this assembly into the bottom of the Pen Barrel.
 3. Unscrew the Nib leaving the Threaded Insert within the Pen Barrel.
 4. Insert the White Nylon Mechanism into the top of the Pen Barrel (larger end first)
- Note:** It helps if a tiny chamfer is produced on the inside of the Pen Barrel to aid entry.
5. Press the Pen Clip into the same end, which will push the White Nylon Mechanism to the desired depth.

6. Insert the Refill from the bottom end so that the threaded part of the White Nylon Mechanism can be seen at the top of the pen.
7. Attach the Small Spring to the end of the Refill and screw in the Nib in place.
8. Insert the Large Spring over the threaded rod of the White Nylon Mechanism.
9. Screw the Click Cap onto the White Nylon Mechanism.
10. The Pen is now complete.

Tips/Hints

- Use a woodworking vice, one handed bar clamp, arbor press or a dedicated pen press.
- Press parts together slowly and steadily
- When pressing the parts together, CHECK the parts are correctly aligned with each other and straight. If the part is crooked or misaligned, it will result in a poor fit or render the pen unuseable.
- When laying out your pen barrel with the parts, pay careful attention to keep the pen barrels in the same orientation as when on the mandrel. i.e. a pen barrel may have a "top" and "bottom", now is the time to be certain of the orientation.

DIAGRAM A



Visit the Knowledge blog 'How To Make A Pen' for hints, tips and videos
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