

GEAR FILAGREE PEN Instructions

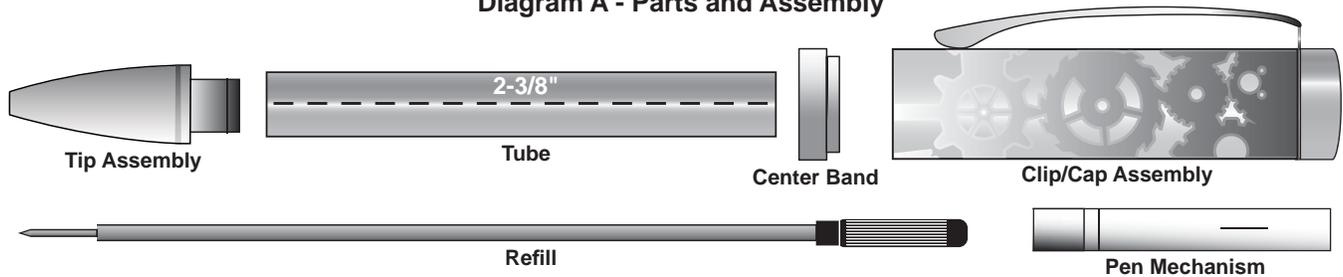
Kit Features

- Twist Mechanism
- Uses Cross® style ballpoint pen refill (RE-CROSS)
- Overall length: 5-1/2"

Required Accessories & Materials

- 7mm mandrel
- 2-pc. Gear Filagree bushing set (PKFILGEARBU)
- Drill bit – 7mm (DB7MM)
- Universal trimming kit (BTRIMKIT9)
- Glue (We recommend the thick “gel” CA glue—GTHICK2)
- Sanding and finishing supplies

Diagram A - Parts and Assembly



BLANK PREPARATION

The Gear Filagree Twist pen has a single tube measuring 2-3/8". **Cut** your blank approximately 1/16" longer than the tube to allow for squaring with the barrel trimmer. Use a medium drill speed to **drill** the blank. 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 blank, **sand** the exterior of the brass tube to roughen its surface and use CA **glue** to glue the tube inside the blank. Sand or barrel trim to **square** the ends of the blank.

TURNING THE PEN

Set up the mandrel as shown in Diagram C. The Gear Filagree pen's bushings both have an outside diameters of .387" and .512" (see Diagram B). **Turn** the pen blank to the bushing diameter at the ends. **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 vise with covered jaws or one of WoodTurningz' pen presses.

1. Press the tip into narrow end of the barrel.
2. Press the twist mechanism into the wider end of the barrel.
Note: The line on the mechanism is only a guide. Pressing it too far may cause your pen not to fully retract. Press the mechanism in, then screw the refill in and check it. Take the refill out, press a little more, and check it again. Repeat this until the fit is perfect.
3. Slide on the Center Band (as shown above).
4. Insert the refill through the upper end of the twist mechanism and screw it in.
5. Press Cap Assembly onto that same end.
6. The pen is now ready to operate.

Diagram B - Bushings



Diagram C - Turning the Pen

