

SATURN PEN KIT Instructions

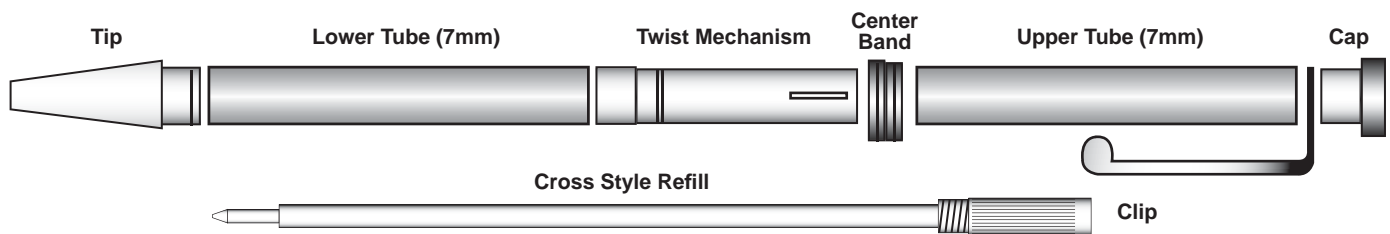
Kit Features

- Larger and more substantial than the Slimline pen
- Shows off the wood in a way a smaller pen cannot
- Elegant and distinctive – a very popular showpiece
- Uses a standard Cross® style refill (RE-CROSS)

Required Accessories & Materials

- 7mm mandrel
- 3-pc. Saturn bushing set (PKSATURNBU)
- 7mm drill bit (DB7MM or DB7MMCT)
- 7mm barrel trimmer or belt sander to square the ends of the blanks to the tubes
- Glue (We recommend the thick “gel” CA glue—GTHICK2)
- Sanding & finishing supplies

Diagram A - Parts and Assembly



BLANK PREPARATION

The tubes in a Saturn pen are of equal lengths. The lower tube holds the pen tip and twist mechanism, and the upper tube holds the cap and clip. **Cut** your blanks approximately 1/16" longer than the tubes to allow for squaring with the barrel trimmer. If using wood blanks, mark the blanks so it is easier to keep the grain running in the same direction when you place them on the mandrel for turning. Use a medium drill speed to **drill** the blanks. 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 blanks, **sand** the exterior of the brass tubes to roughen their surface and use **CA glue** to glue the tubes inside the blanks. Sand or barrel trim to **square** the ends of the blanks.

TURNING THE PEN

Set up the mandrel as shown in Diagram C. **Turn** the pen blanks 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 the lower barrel.
2. Press the twist mechanism into the opposite end of the lower 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. Continue doing this until the fit is perfect.
3. Insert the refill through the upper end of the twist mechanism and screw it in.
4. Place the center band over the exposed end of the twist mechanism.
5. Insert the cap through the hole in the clip and press the cap into the upper barrel.
6. Slide the top end of the pen over the exposed end of the twist mechanism and push the barrels together.

Diagram B - Bushings

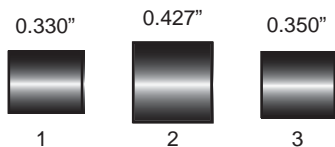


Diagram C - Turning the Pen

