Drilling pen blanks

There are two main ways to drill pen blanks – on the drill press or on the lathe.

If you're using a drill press:

- Use a vise to hold the pen blank firmly when drilling
- It is very important that the blank is held square to the drill
- You can use a self centering drilling vise or drill press vise.

If you're drilling on the lathe:

- Hold the pen blank in a chuck on the headstock of the lathe.
- A dedicated pen blank chuck is a good choice for this.
- Hold the drill in a drill chuck (Jacobs chuck) on the tailstock of the lathe.
- With this method the pen blank turns while the drill does not.

Regardless of which drilling technique you are using, here are some good drilling practices:

- The faster the speed you use the greater the friction and chance of overheating.
- Harder materials require slower speeds.
- Recommended speeds range from 500-800rpm.
- If the drill bit starts to get hot, allow it to cool down so as not to cause expansion and splitting of your pen blank.
- Make sure your drill is properly centered on the blank. This will ensure that you maximize the amount of material left on the outside of the blank and reduce the risk of splitting the pen blank.
- Drilling on the lathe reduces the amount of vibration which can cause out of round holes.
- Withdraw the drill frequently to prevent clogging of the flutes.
- Flutes packed with material will increase the chance of overheating and splitting the pen blank or the bit wandering off course.
- When drilling all the way through the blank, reduce the amount of pressure as the bit nears the point of break-through at the bottom on the blank. This will reduce the change of breaking away material as the bit exits the blank.
- Grip the tailstock chuck lightly when withdrawing the drill from the pen blank to avoid the chuck disengaging from the morse taper.
- If you still have a problem with blanks splitting, try cutting the blank slightly over-length, drill just short of breaking through, and then saw off the excess to expose the drill hole.