



Operating Instructions for Carriage Control System

Once the carriage control system, precision mandrel system, and the carbide cutting tool have been installed, you are ready to turn pens. Use the following procedure:

- 1) Slide the tailstock far enough to the right to allow the pen blanks to go on the mandrel. Remove crossslide feed handwheel on short bed.
- 2) Make sure that you have the appropriate bushing set and that your pen blanks are properly glued-up and end-trimmed. Place the first bushing on the mandrel rod, then a pen blank, followed by another bushing, pen blank, and final bushing.
- 3) Screw the brass knurled nut onto the rod to hold the bushings and pen blanks in place. Snug the nut down, but do not over-tighten.
- 4) Slide the tailstock into place. Before securing the tail stock, make sure that the carbide cutting tool will make a complete pass over the entire length of the pen blanks. You may have to adjust the tailstock quill in or out to a position that allows you to make a complete pass. Lock the tailstock down with the allen screw at the base. Loosen the thumb screw on the quill and turn the crossslide feed handwheel clockwise until the point of the live center is engaged in the depression on the end of the mandrel rod. Tighten only to the point where the revolving point of the live center cannot be turned independent
- 5) Turn on the lathe and set the speed control to the fastest position. Slowly turn the carriage handwheel counter-clockwise until the tip of the carbide cutting tool begins to engage the wood. Retighten brass knurled nut if necessary.
- 6) Use the carriage control system's lever to slide the saddle/carriage assembly, moving the cutting tool over the entire length of both pen blanks. Remove the wood gently until the blanks are somewhat rounded. Once rounded, you can cut more aggressively. With experience, you will soon learn how rapidly to move the lever. When you are ready to make your final pass, do so slowly with a very shallow cut. This will result in a very smooth-finished cut that will require very little sanding.
- 7) Sand both pen barrels with Klingspore cloth sanding strips. The normal sanding sequence is 220, 320, 400 and 600 grit. You may be able to skip the first two grits, depending on the type of wood and the smoothness of your final cut.
- 8) For a beautiful, quick finish that goes on dry and easy, finish with your favorite variety of HUT.