



PPE Required: **Safety Glasses**

Prohibited Clothing: gloves, loose clothing, neckties, jewelry

Machine Access Level: **Supervised Only**

Materials Allowed: **wood, plastics, composites**

Note: no metal of any kind can be drilled on this machine!!

Operating Procedure

1. Machine Safety Inspection and Work Area Check-Out

- A. **PPE:** Make sure you are wearing the proper PPE and not wearing any equipment listed on the first page that could get caught in the drill.
- B. **Machine Warning Signs:** Make sure you read and follow the machine warning signs that are attached to the machine. If you have any questions, ASK!!
- C. **Work Area:** Make sure the work area is clean and the work area around the machine is free and clear of debris and personnel.

2. Work Supervision

- A. This machine requires supervision by an AFL employee. A Supervisor or TA will assist you in the set-up and operation of the machine. **You may not operate this machine without supervision.**

3. Machine Adjustment

- A. **Note:** The machine adjustment is to be done with the machine **OFF!**
- B. **Select drill bit(s) necessary:** Ask the TA to help you locate the correct drill bits for your job.
- C. **Install drill bits:** Install the drill bit in the chuck, using the chuck key to tighten the drill in the chuck. Remove the check key from the chuck. **A TA must check your drill bit installation before continuing to the next step.**
- D. **Adjust table:** When applicable, adjust the height and tilt of the drill table. The TA will assist you with this step.
- E. **Clamp part to table or vise:** The part **MUST** be clamped to the table or vise. **You may NOT use your hand to hold the part to the table!** In certain application, additional fixturing may be required. The TA will assist you with this step.
- F. **Adjust drill depth:** When applicable, adjust the depth that the drill will go through the part. When possible, do not drill into the center plate of the drill table. The TA will assist you with this step.
- G. **Chuck Guard:** Must have machine chuck guard in place before operating.
- H. **Identify the machine controls:** Identify the red stop button and the green start button. These controls start and stop the drill press.

4. Machine Operation

- A. **Turn the machine on:** Check with the TA that it is safe to turn on the machine, and push the green start button when instructed to do so.
- B. **Adjust spindle speed:** **Once the machine is in operation,** adjust the speed of the spindle according to the drill speed chart and material being used. The TA will assist you with this step.
- C. **Safely drill the part:** **Go slow! Always keep hands and fingers away from the drill bit, spindle, and chuck.** Using the pinion shaft handles, slowly lower the drill bit through the part. Ask the TA for help.
- D. **Turn the machine off:** When finished drilling, push the red stop button to shut the machine off. Let the spindle come to a stop. **Never touch a moving spindle, chuck, or drill bit.**

5. Clean Up

- A. **Disassemble work set-up:** Disassemble any fixturing, drill bits, or clamp used in the drilling operation. Return all parts to their proper location and the appearance of the drill to how it looked when you started.
- B. **Clean up the area:** Clean up all messes (for example: use a shop vacuum to clean up any additional saw dust), return all tools, etc. The TA will check that the area is clean before you can sign-out of the AFL.