

Name: _____

Date: _____

Subteam: _____

CougarTech Training Module Mechanical Safety – Drill Press

Learning Material

Please read and watch the following

Drill Press Procedure:

1. Put on safety glasses and make sure appropriate attire is being worn.
2. Select the correct drill bit, loosen the drill chuck, insert the bit completely and tighten the drill chuck until the bit is secure.
3. Place the piece to be drilled in a drill vice making sure that the area being drilled is over a hole in the vice. If the piece extends off the drill table, place it up against the column so the vice and the material will not spin away if the drill catches.
4. If the piece is too big to fit in the vice securely, clamp the piece to the table of the drill press.
5. Crank the drill bit down in order to line the material up correctly. Adjust the table height appropriately.
6. Be sure that the speed or rpm of the drill is appropriate for the task and adjust as necessary.
7. Turn the drill on and make sure the bit is in line and not wobbling.
8. Hold the vice or material securely in place and crank the drill down making sure to slow down when the bit comes in contact with the material. Be aware that the bit might grab and twist the material, especially if it is being drilled through too quickly.
9. After the drill penetrates the material, slowly raise it back up, still keeping a secure grip on the vice or material.
10. When the bit is all the way up, turn off the drill.
11. When removing the material from the vice or table, be aware that the friction caused by the drilling will cause the material to heat up.
12. Be sure to return the drill bit to the correct case.



The drill press can be used with wood, aluminum and nylon. If you would like to drill other materials, please ask a mentor about how to do so safely. If you experience any problems while using the drill press such as grabbing, be sure to turn off the drill and ask for help. After drilling metal pieces please use the deburring tool to make the edges of the holes smooth. When using a hole saw drill bit, be sure that material does not get stuck in the bit.

Watch the following instructional video:
<http://www.youtube.com/watch?v=pNpekRqNoBw>

Material Quiz

Answer the following questions

1. If you can't use a drill vice, how should use secure a piece to the drill table?
2. What materials can you drill with the drill press?
3. What is the first thing you should do if the drill bit grabs?
4. What personal protective equipment should you be wearing when using the drill press?

Practice/Assessment

Find a qualified mentor and follow the procedure under observation

Task: Safely demonstrate use of the drill press on a piece of wood.

Mentor name: _____

Signature: _____

Date: _____