

# Drill Press Operation

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Technology Education

SSA+S

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# Applications

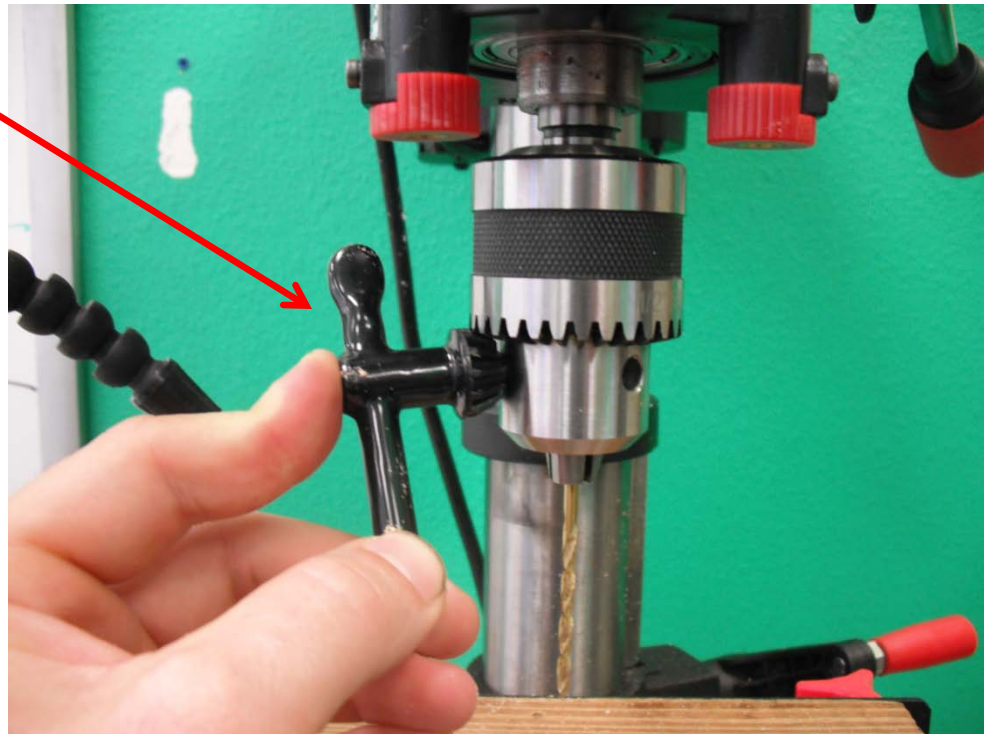
- This tool can be used for the following purposes:
  - Drilling in Wood
  - Drilling in ceramics, plastics, fiberglass and laminates
  - Drilling in Metals
  - Sanding using a “Sanding Drum”

**Note: In order to drill in different materials you need to have the proper bit!**



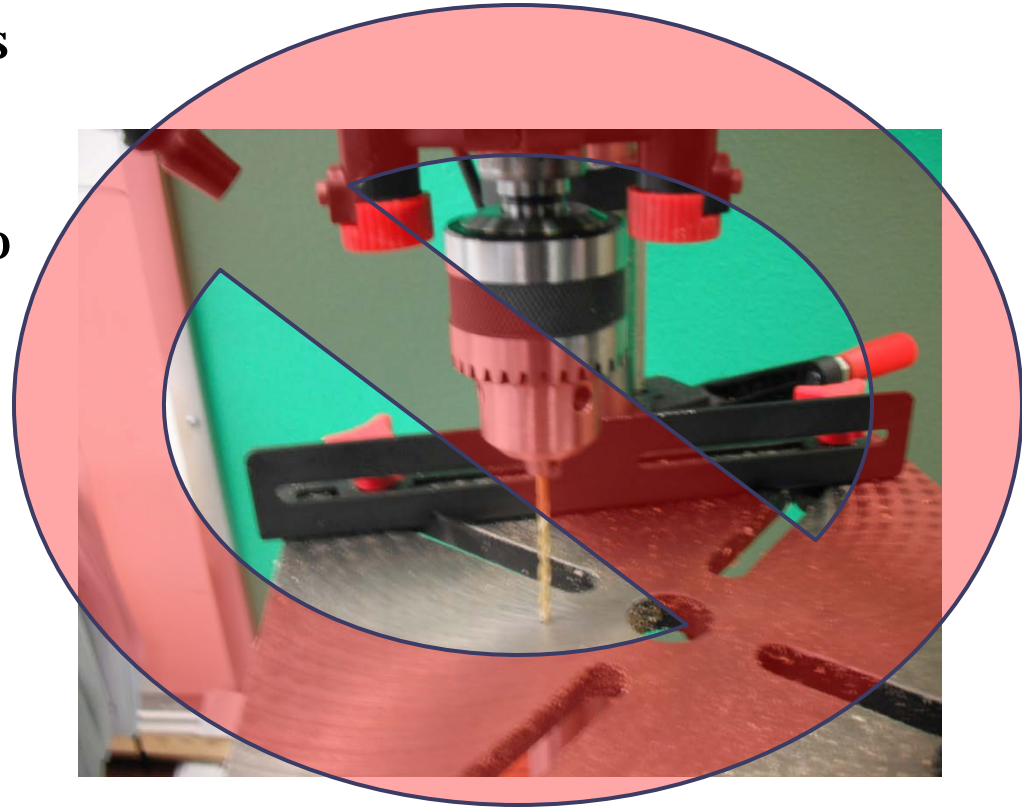
# Before starting the drill

- Be sure that the chuck key is removed from the chuck



# Before starting the drill

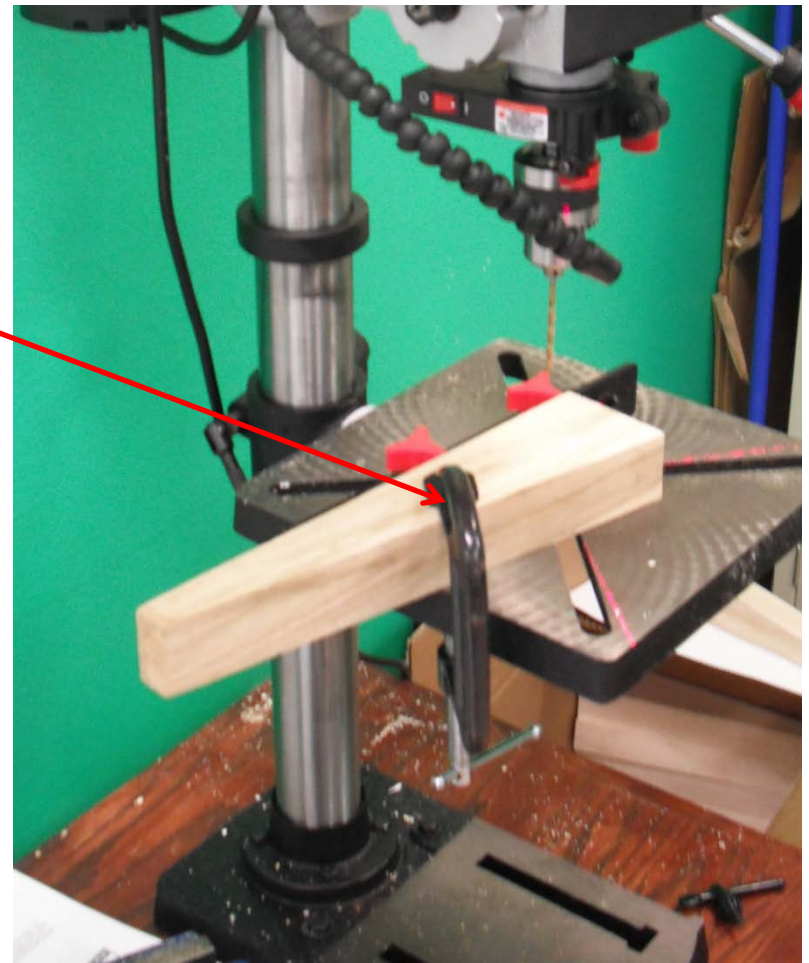
- Be sure that the table is securely clamped and that it is not possible for the drill bit or sanding drum to hit the table.
- Also the drill bit itself needs to be securely tightened in the chuck.



# Before starting the drill

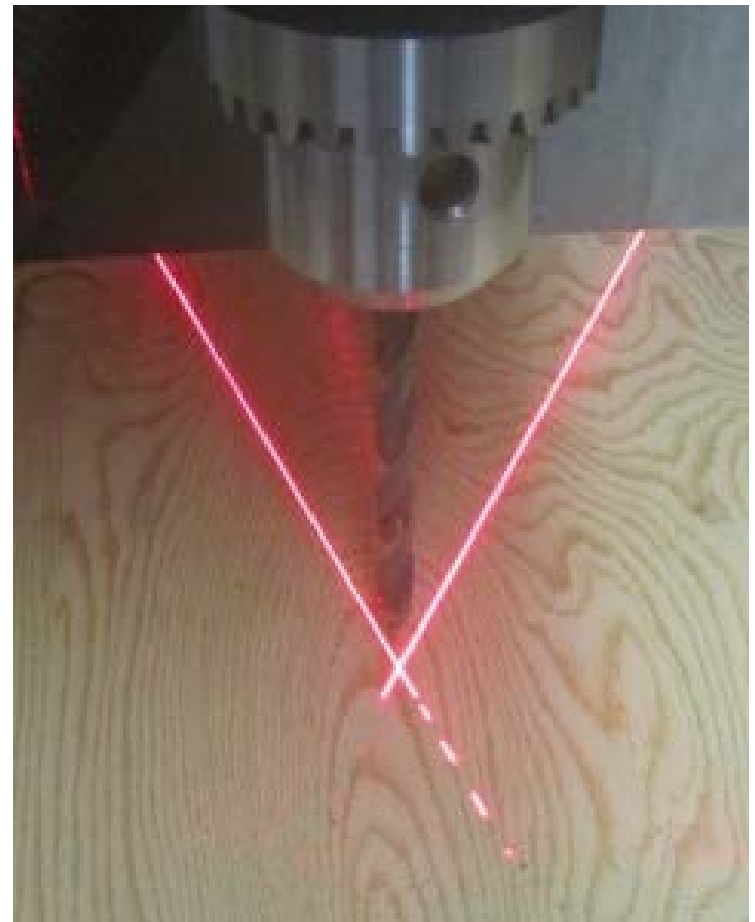
- Clamp the work piece to the work table using a C-clamp or similar device if you are not able to follow the 3 Inch Rule!!
- Make sure that the table is free of all loose objects and that the bit is not in contact with anything.

**3 Inch Rule** – fingers must not be within 3 inches of the bit or drum while drill press is in operation.



# Before starting the drill

- If you are clamping your work piece you will also want to be lining up the laser with the mark for your hole.
- Always lower the drill bit to be certain that it is lined up with the hole and that the laser is still accurate as it can shift from time to time.





# Operating the Drill

- Start drill and give it a little time to get up to speed.
- Plunging the bit into a material too early can cause the work piece to want to spin really fast possibly causing harm or could damage the drill itself.



# Operating the Drill

- Once the drill has reached its full speed you can slowly lower the drill bit into the work piece.
- Several seconds should be sufficient for the drill to reach full speed.





# Operating the Drill

- Observe the 3 inch rule. (Keep all hands and fingers at least 3 inches from the bit while operating.)
- Be sure to hold onto the workpiece very tightly
  - It could possibly spin around very quickly and strike you!!!



# Operating the Drill

- Feed the drill bit into the work piece at a slow even pace.
- Do Not talk to anyone else or look around while operating the machine.



# Operating the Drill

- Do NOT force the bit, let the drill press do the work!



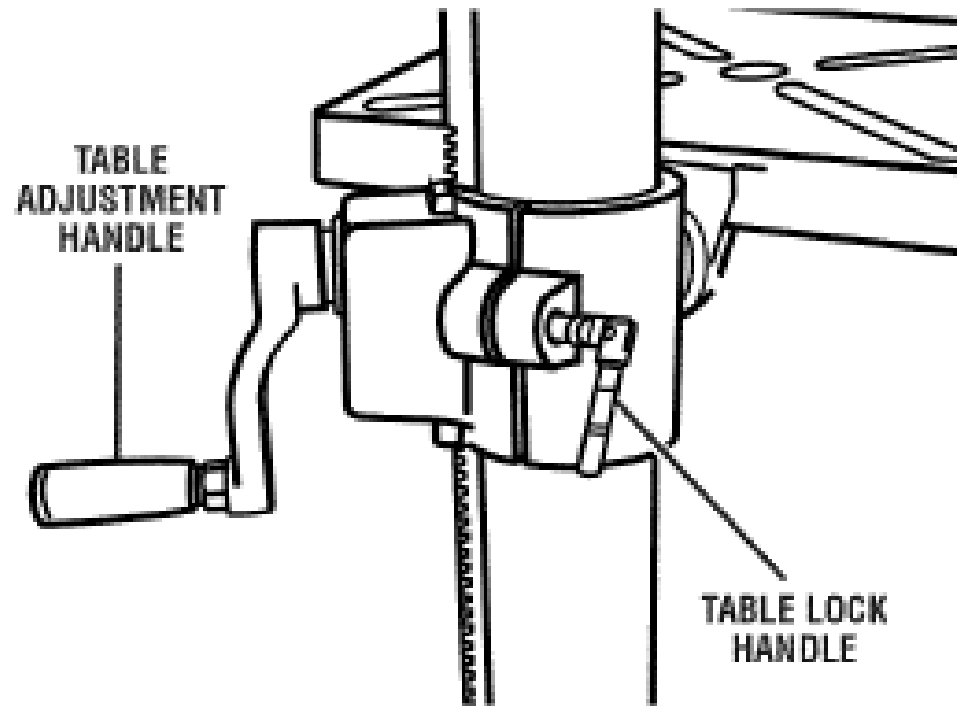
# Operating the Drill

- Do Not distract another person while they are using the machine.
- Once finished with the drill press be sure to turn it off, wait for the bit to stop, and then clean up after yourself.



# Adjustments

- Adjusting the work table height:
  - Hold the table with one hand and loosen the table lock handle.
  - Rotate the table adjustment handle clockwise to raise the table. Turn the other way to lower it.
  - Once you reach your desired height, tighten the table lock handle.



# Vocabulary

- **Drill Bit**
  - **Several Types for different materials:**
  - **Concrete**
  - **Metal**
  - **Wood / Plastics**
  - **Glass**



# Vocabulary

- **Chuck Key**
  - Used to remove and replace drill bits
- **Clamp**
  - Device used to secure materials





# Vocabulary

- Sanding Drum
  - Sandpaper wrapped around a drum that is used to sand surfaces in order to make them smooth.
  - Come in a variety of sizes.
  - Can aide in the creation of curves.



# Vocabulary

