

Metal Drill Press

•Review dress code

- Safety Glasses must be worn at ALL times in the Shop.
- Remind students that long hair must be tied back, loose clothing and/or jewelry must be removed
- Remind students that the EDGES of metal may be VERY sharp.

•Intro/Strengths

- Recall training from wood drill presses
- Show power switch
- Demonstrate how to adjust table height
- Demonstrate how to use the chuck key and the importance of removing it before starting machine

•Operation

- NEVER use brad-point, forstener or spade bits on metal! (holesaw can be used for some applications)
- Remind students steel and other metals are MUCH harder than wood.
- Drilling speeds are more important
 - Larger bit, slower speeds. Smaller bit, faster speeds
 - SLOW is good!!!! With both drill and feed speeds
 - Get tech help with speed adjustment if necessary
- Always clamp material to table
 - Demonstrate use of vice grip clamps in grooves
 - Demonstrate use of machine vice
 - Use oil or cutting fluid
 - Tighten chuck
 - Remove chuck key before operating.
 - Use peck drilling to clear chips
- Use center-punch to locate hole position so drill does not walk
- Demonstrate operation
- Describe and show de-burring hole after it has been drilled

•Students Drill hole

- Student locates hole with center punch
- Students drill hole

•Remind students to clean up after themselves.

- Remove ALL materials and scraps from table and floor
- Use rag to clean up ALL oil/cutting fluid from machine and surrounding area
- Use hand broom to clean table and surrounding area.
- Show them where the metal recycling, brooms, etc. are located and what our expectations for clean-up are.

REMEMBER- We are here to help. If you have any questions, ask!