

## Pillar Drill safety instruction notes

A pillar drill is used for drilling holes through materials such as wood, plastic and metal. Using a pillar drill can be hazardous, so as with any kind of machinery, you should always read the instructions before use and follow safety rules to prevent injury.

1. Describe structure of Bandsaw – A pillar drill and is and.
  - a. Has a long column that stands on the floor
  - b. Motor and gearbox mounted on the top
  - c. Used to drill larger pieces of materials
  - d. Used to make larger holes
  - e. Machine table
  - f. Keyless chuck – Much safer than a keyed chuck.
  - g. Vices & clamps can be used to hold work
  - h. Special jigs – ‘V’ blocks etc
2. PPE and extraction.
  - a. No loose clothing
  - b. Safety glasses or visor at all times
  - c. No Gloves
  - d. Dust mask if prolonged drilling of fibrous materials – MDF etc.
  - e. Portable dust extractor can be used if necessary
3. Adjustments

Most will be previously set up by workshop cleaning/maintenance team

  - a. Use appropriate fence and/or jig
  - b. Set the speed to suit the material and drill type/size. NOTE – release the belt tension BEFORE adjusting the belt positions and then re-tension the belts
  - c. Set the table height to match the size of the material
  - d. Close the chuck guard – The machine has interlocks that prevent it starting if the guard is not in place
4. Keep work piece clear of the blade, start the machine and **LISTEN**
  - a. Rumbling, whining or vibration indicates a problem

Now we're ready to start Drilling

5. Follow basic safety rules
  - a. Position the workpiece before starting the machine
  - b. If required set the depth stop to the required depth
  - c. Keep hands clear of chuck and bit at all times – Use vices/clamps as required.
  - d. Allow the machine to reach full speed before starting to drill
  - e. Feed drill at steady rate – do not force. Any signs/smells of friction or burning stop the machine without withdrawing the work piece.
  - f. If cutting metal use cooling/lubricating oil (place some paper towel around the edge of the machine table to minimise mess and spillage) and use vice or clamps to secure the workpiece.
  - g. Do not apply lateral (sideways) force to the drill bit
  - h. If the drill stalls (stops rotating) stop the machine immediately
  - i. When drilling round or irregular shaped stock use appropriate jigs to effectively support the work piece.
6. Useful functions of the machine
  - a. Through Holes
  - b. Blind holes
  - c. Variety of bits for different materials & purposes.