Mini Drill Press

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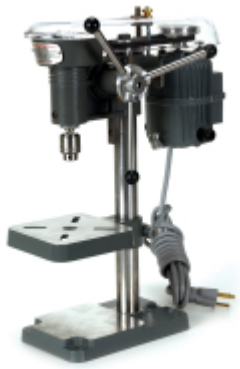
Tool Type: Drill press
Location: Elings 2442
Description: Mini drill press
Manufacturer: Cameron

About

Micro drill press for use with small tools and drill bits on precision or fine work pieces. Features an unlimited speed control motor with high torque at low RPM.

Safety Concerns

- Safety glasses, close toe shoes, and long pants must be warn when operating the machine
- Metal chips can be incredibly sharp, do not touch any chips directly instead using an acid brush to remove chips
- Do not inhale any fumes resulting from drilling using oil
- Do NOT wear gloves during operation of machine
- Do not touch tool or spindle until the machine has stopped completely

Operating Procedures

1. Layout and center punch the holes you wish to drill
2. Insert drill bit into the drill chuck, tighten with the chuck key, and remove the chuck key before continuing. Note: Do not tighten the chuck by powering on the machine and do not leave the chuck key in the chuck. These are both extremely dangerous and unsafe practices.
3. Align the holes with the drill bit and secure the part using the vice or the drill bed clamp.
4. Adjust the work table to the appropriate height and lock securely.
5. Check that the tool can spin freely and that it is clear of the part.

6. Determine the proper feed rate and speed rate for the given hole/material. Adjust the machine to this speed. There is a chart in the SOP that can be found under “Reference Documentation”.
7. Apply cutting lubricant to the part
8. Turn the machine on
9. Use peck drilling operations to drill the hole, remove material in 0.05 inch increments.
10. Remove chips and swarf using a brush. Do not use a rag or your bare hands to remove chips.
11. Apply additional cutting fluid as necessary throughout the operation
12. Reduce pressure when breaking through to prevent damage to the tool and part. Use backing board to prevent the part from blowing out.
13. Power down the machine when done. Do not attempt to slow the machine down by hand.
14. Use a brush and/or rag to clean up any chips, shavings, and oil from the drill press and the surrounding areas.
15. Return all tools to their proper location and power down the drill press. Tidy up the work area.

Detailed Specifications

- 1/7 HP DC motor
- 1000-30,000 RPM variable speed control
- Capable of drilling .002“ to 5/32”
- Spindle run out within .0002“
- 4” X 4“ work table
- J0 spindle taper

Reference Documentation

Drill Press SOP

drill-press-instructions-2.pdf

control-manual.pdf

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