

WEN vertical Drill Press



Tool Type: "Vertical Milling Machine"

Location: "Innovations Workshop"

Supervisor	Tool Lead
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Description: "Drill Press"

Manufacturer: "WEN"

About

This vertical drill press is one of the largest upright tools in the Innovations Workshop. It has a speed control lever on the left side of the head, and a vertical quill feed on the right. The chuck key is located on the right side of the head and should be replaced after use to avoid mixing chuck keys.

Safety Concerns

- Safety glasses, close toe shoes, and long pants must be worn 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

Training Documentation

[Drill Press SOP](#)

Detailed Specifications

- Spindle Speed Range: 280-3,100 RPM (740-3,100 on main pulley)
 - Quill extension length: 4 3/8"
 - Max Drill Bit Diameter: 16 mm
 - Max Work piece Height: 44"
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Operating Procedures

1. Layout and center punch the holes you wish to drill
 2. Collect all necessary tools for your drilling operation.
 3. Insert the bit into the drill chuck, tighten with the chuck key, and remove the chuck key before continuing.
 4. Align the holes with the drill bit and secure the part using the vice or the drill bed clamp.
 5. Adjust the work table to the appropriate height and lock securely.
 6. Check that the tool can spin freely and that it is clear of the part.
 7. Adjust feed rate
 8. Apply cutting lubricant to the part.
 9. Turn the machine on (Do not leave running unattended).
 10. Use peck drilling operations to drill the hole, remove material in 0.05 inch increments.
 11. Remove chips and swarf using a brush.
 12. Power down the machine when done.
 13. Use a brush and/or rag to clean up any chips, shavings, and oil from the drill press and the surrounding areas.
 14. Return all tools to their proper location and power down the drill press. Tidy up the work area.
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Reference Documentation

[coe_student_machine_shop_safety_handout.pdf](#)

[coe_drill_press_sop.docx](#)

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