

JOB PROCEDURE

Operating Milling/Drilling Machine

Materials Required: Machine
Hearing Protection
Eye Protection
Accessories (i.e.; Drill Bit, End Mill Bit)
Lubricant (i.e.; Wax Stick, WD-40)
Air Blower

Steps:

1. Familiarize yourself with all machines controls.
2. Make sure surrounding area is clear of any hazards.
3. Make sure long hair, loose clothing, and jewelry are contained.
4. Make sure machine is disconnected from power supply when changing accessories.
5. Choose cutting/drilling accessories. (i.e.; Drill Bit, Holesaw, End Mill Bit).
6. Place the accessories in chuck and make sure to tighten each jaw and REMOVE CHUCK KEY. To prevent key from dislodging and launching.
7. Set appropriate speed according to accessories chosen (i.e. Soft Material-Fast / Hard Material Slow).
8. Put on appropriate safety equipment. (i.e.; Glasses)

Drill Mode:

- A. Use an implement to prevent work piece from dangerous rotation.
(i.e. Use of a wooden high back angle when drilling rails)
(i.e. Use of Vise Grips when drilling small items.)
- B. Adjust head of drilling machine to appropriate height with head handle according to material and lock head down.
- C. Turn on machine in the proper direction. (Forward/Reverse)
- D. Allow motor to reach full operating speed before starting to drill.
- E. Always lubricate bit with a safe length wax stick or oil can pump every two holes.
- F. Lower the chuck with the drill bit with drilling handle slowly into material to desired depth. (Counter-clock wise).
- G. Raise the chuck with drilling handle back to original position making sure it is clear of material. (Clock-wise).
- H. Upon completion of the operation shut off the power and wait until chuck stops turning, before leaving the machine.
- I. Never leave machine running unattended.

Milling Mode:

- A. Place material in vise and secure
- B. Spray WD-40 over cutting area to prevent accessories heat build up.
- C. Lower the chuck with milling bit into material to desired depth with drilling handle.
- D. Lock bit height with fixed bolt.
- E. Material will be moved left or right with longitudinal feed hand wheel located on each end of the bed.
- F. Material will be moved front or back with cross feed hand wheel located in front of machine.
- G. Speed of bed movement must be done in accordance with thickness/hardness of material. (i.e. Aluminum is softer so it is faster-Steel is harder so it is slower.)
- H. Upon completion of operation bring bit back up to original position and turn off power and wait until bit stops rotating.
- I. Remove material from vise and blow off excess shavings and lubricant.
- J. Never leave machine running unattended.
- K. Clean work area around you.
- L. Above all be alert a bit designed to cut material can easily cut you.

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