

MILLING MACHINES AND CNC MILLS

Safety Precautions

MILL SAFETY HAZARDS

Milling machines and computer-numerical-controlled (CNC) mills use moving cutters and/or move stock materials to cut shapes materials such as metal, wood or plastic. Mills cut away material using rotating blades, and can throw or eject dust and chips at high speed. Flying chips present an eye injury hazard. Fine dust can be a respiratory hazard. Mills can also be very loud, presenting a threat to hearing as well as drowning out voices, phones, and alarms. Rotating machinery presents a serious hazard, as gloves, clothing, jewelry or loose hair can be caught and body parts drawn into the running machine. Mills have guards to prevent some exposure, and some are completely enclosed when running.



SAFETY PRECAUTIONS

Safety rules include:

- Get trained on the operation of the specific mill you are going to use.
- Never work alone, never leave the milling machine unattended while running, and know where the emergency stop controls are located.
- Securely clamp the stock material in place.
- Secure guards, shields, doors in place prior to starting.

- Keep hands, tools, and clothing at least 12 inches away from the moving mill and do not attempt to adjust the mill while operating.
- Wear safety glasses or goggles, and hearing protection if needed. Do not wear gloves near operating equipment.
- Keep the mill surfaces and shop floor clean of cuttings and dust. Metal filings can combust spontaneously and require a Class D fire extinguisher.

Machinery must be completely disconnected from power (and tested) if it is to be repaired or adjusted (see the Hazardous Energy Control page).

TRAINING AND PERSONAL PROTECTIVE EQUIPMENT (PPE)

- All users must be properly trained on the potential hazards, control measures, lab or shop and manufacturer's operating procedures, use of personal PPE, emergency procedures, and safety precautions for operating the milling machine.
- Fire Extinguisher Training as needed.
- Required PPE: Safety glasses to protect eyes from particles and debris, hearing protection (if necessary) and other PPE as needed.

Resources: [How to Plan for Safety When Adding CNC Machines](#) -- Other Machine Co
[Metalworking Machines -- Milling Machines FAQs](#) -- Canadian Centre for Occupational Health and Safety
[Health & Safety Manual](#) -- UW Civil & Environmental Engineering Dept.

For questions about Milling Machine safety, contact EH&S at 206.543.7262.