










### Safe Work Procedure

### Metalworking Machine Safety

OSEM 18.40.2

<b>Program/Services</b> Trades students & Instructors	<b>Safe Work Procedures</b>		<b>Department:</b> Safety and Emergency Management
<b>Personal Protective Equipment or Devices Used</b> <ul style="list-style-type: none"> <li>• Safety Glasses</li> <li>• Long and loose hair must be contained by a hat or hairnet</li> <li>• Work Boots</li> <li>• Hard Hat</li> <li>• Close fitting clothing or protective clothing must be worn (no baggy clothing)</li> <li>• Jewellery and watches should NOT be worn</li> <li>• Respirator with HEPA filters</li> </ul>	<b>Training Requirements</b> <ul style="list-style-type: none"> <li>• In class safety training</li> <li>• Hands-on shop training</li> </ul>	<b>Applicable Documents</b>	<b>Effective Date:</b>
			April 25, 2019

<p><b>ELECTRICAL HAZARD</b></p>  <p>Do not attempt to service electrical wires.</p>	<p><b>PINCH POINTS</b></p>  <p>Use LOCK-OUT procedures when performing maintenance or conducting any work within 12" of an exposed pinch point.</p> <p><b>NEVER</b> put your hands or feet near an exposed pinch point or gears!</p>	<p><b>HIGH SOUND LEVELS</b></p>  <p><b>HEARING PROTECTION</b> is required when working in designated.</p> <p>Required when Sound levels exceed 85 dB areas.</p>	<p><b>FOOT INJURY</b></p>  <p>Approved protective footwear is required when there is the risk of foot injury due to slipping, uneven terrain, abrasion, crushing potential, temperature extremes, corrosive substances, puncture hazards, electrical shock and any other recognizable hazard.</p>
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<p style="text-align: center;"><b>COMPRESSED GASES</b></p> <div style="text-align: center;"></div> <p>Do not</p> <ul style="list-style-type: none"> <li>• Drop</li> <li>• Keep near heat</li> </ul>	<p style="text-align: center;"><b>FIRE</b></p> <div style="text-align: center;"></div> <p>Maintain a clean workspace.</p> <p>Complete a hot works permit where required.</p>	<p style="text-align: center;"><b>RINGS AND DANGLING JEWELLERY</b></p> <div style="text-align: center;"></div> <p>Rings, watches or any loose or dangling jewellery must not be worn.</p>
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## PROCEDURES

### Basic Safety Tips when using metalworking machines

Metalworking machines can be dangerous if not used properly. Read the owner's manuals carefully. Make sure you receive complete instructions and are properly trained before using any tool or machine.

- Check and adjust all safety devices before each job.
- Ensure that the guards are in position and in good working condition before operating.
- Ensure that all stationary equipment is anchored securely to the floor.
- Ensure all machines have a stop/start button within easy reach of the operator.
- Each machine should have only one operator at one time. However, everyone should know how to stop the machine in an emergency.
- Ensure that keys and adjusting wrenches have been removed from the machine before turning on the power. Provide convenient tool rack.
- Ensure that all cutting tools and blades are clean and sharp. They should be able to cut freely without being forced.
- Stop the machine before measuring, cleaning or making any adjustments.
- Use a vacuum, brush or rake to remove cuttings. Do not handle cuttings by hand because they may have very sharp edges.
- Keep hands away from the cutting head and all moving parts.
- Avoid awkward operations and hand positions. A sudden slip could cause the hand to move into the cutting tool or blade.
- Return all portable tooling to their proper storage place after use.
- Clean all tools after use.
- Keep work area clean, well swept, and well lit. Floors should be level and have a non-slip surface.
- Ensure there is enough room around the machine to do the job /tasks safely.

- Obtain first aid immediately for all injuries.
- Understand that health and fire hazards can vary from material to material. Make sure all appropriate precautions are taken.
- Clean machines, ducts, hoods, and other areas if there is the possibility of a combustible dust situation. Some metal dust can pose a serious risk of explosion.

**What to avoid when operating metalworking machines**

- Do not distract an operator. Horseplay can lead to injuries and should be strictly prohibited.
- Do not wear loose clothing, gloves, lanyards, rings, bracelets, or other jewellery that can become entangled in the moving parts. Confine long hair.
- Do not remove cutting by hand. Wait until the machine has stopped running to clear cuttings with a vacuum, brush or rake.
- Do not leave machines running unattended. Turn power off.
- Do not free a stalled cutter without turning the power off first.
- Do not clean hands with cutting fluid.
- Do not use rags near moving parts of machines.
- Do not use compressed air to blow debris from machines or to clean dirt from clothes.

**Personal Protective Equipment Required**

- **CSA** - certified safety glasses with side shields or goggles and face shield. Prescription eyewear is not a substitute for safety glasses.
- **CSA** - certified safety footwear must be worn at all times.
- Respirator protection must be worn where required. When the job/task creates a large amount of dust or smoke.
- Hearing protection is required. If you have trouble hearing someone speak from one meter (three feet) away, the noise level from the machine is too high. Damage to the hearing may occur.

**RECORDS/VERIFICATION OF UNDERSTANDING**

Records of machine orientation for the student are to be kept with the Instructor and Chairperson

**SUMMARY OF CHANGES**

**Revision**

<b>#</b>	<b>Date</b>	<b>Change (include section #)</b>	<b>Issued By</b>
1	06/26/2014	NEW	OHS Officer
2	04/25/2019	Review, Revisions, and New Format	Safety Officer