

# Risk Assessment Guidance

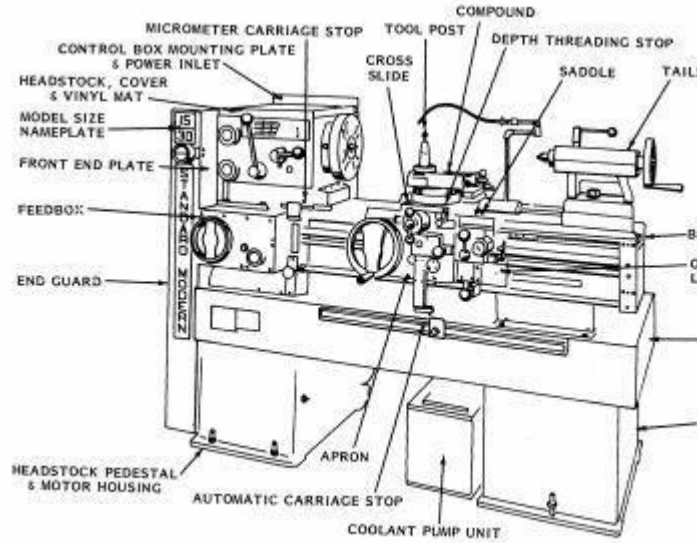
## Title

## Metal Lathe

This risk assessment has been carried out for the metal lathe located in workshops. This document is a general risk assessment for the use of the metal lathes.

All safety signage should be displayed in this area and only operatives who have been trained are permitted to operate this equipment.

This risk assessment should be reviewed fully by users of the lathe prior to use of such equipment for the first time and in the event that it is not sufficient to control the risk posed by the model in question then the user should report this to the supervisor.



Job Sequence	Hazard Identification	Controls
Conduct pre-operational checks	<p>Poor condition of the guard or chuck.</p> <p>Damage to the machine or guards.</p>	<p>A log of use must be kept for all lathes when deemed necessary by the manufacturer's instructions and serviced by a competent person as per the manufacturer's suggested intervals.</p> <p>Units must be visually inspected before each use and damaged machines reported to the workshop manager / supervisor. Damaged machines must not be used until a competent person has examined them. All guards and safety devices including emergency stop button must be in position and operational.</p> <p>All lathes must be maintained in accordance with the manufacturer's instructions.</p>
Operation of the lathe	<p>Entanglement with moving parts</p> <p>Risk:</p> <ul style="list-style-type: none"> <li>• Laceration</li> <li>• Bruising</li> <li>• Abrasions</li> <li>• Breaking of bones</li> </ul>	<p>The centre lathe has a number of moving parts – chuck, lead screw and feed shaft.</p> <p>The chuck must be adequately guarded to prevent contact whilst in motion. Ideally the chuck guard should be interlocked with a micro-switch to prevent operation when the chuck is exposed.</p> <p>Operators must be made aware that the lead screw or feed shaft rotate in use and may be unguarded with a danger of clothing being drawn in when in use.</p> <p>The lead screw and feed shaft should ideally be fitted with telescopic guards and must be disengaged when not in use. Operators should also be aware that when using the lead screw and feed shafts the hand wheels will turn and can become entangled with clothing.</p> <p>The machine should stop within 10 secs (POWER) but because of the momentum and power of the lathe it is impossible to pull trapped clothing away. No loose clothing to be worn. No jewellery to be worn. Long hair to be tied back. Machine only to be used by personnel after training in its safe operation.</p>

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	<p>Swarf and other waste materials</p> <p>Slipping on spillages of cutting fluid and or suds</p> <p>Manual handling of chucks and face plates</p>	<p>Materials should not project beyond the headstock gearing cover through the hollow spindle.</p> <p>Do not start machine with chuck key still inserted. Always clamp workpiece securely to the work bed. When using lathe for extended periods of time, wear the ear defenders provided.</p> <p>Ensure that the guard screen correctly shields the bit when drilling. Wear eye protection.</p> <p>When turning on the lathe, swarf will be produced. Swarf is extremely sharp and should never be handled with bare hands, appropriate tools should be employed.</p> <p>Mild steel and aluminium produce long spirals of swarf and no attempt should ever be made to remove it whilst the machine is in motion, as it can draw hands and clothing into the machine.</p> <p>Swarf should not be allowed to build up around the work-piece as it can be violently ejected.</p> <p>When turning brass the swarf takes the form of small sharp pieces, which can enter clothing and be extremely uncomfortable.</p> <p>Swarf can also be extremely hot and burns can occur.</p> <p><b>Goggles rated for impact must be worn at all times.</b></p> <p>The coolant pipe must not be adjusted when the machine is in motion.</p> <p>Suds oils that have been sprayed from the work-piece onto the floor should be soaked up immediately with an absorbent material and cleared away.</p> <p>Chucks and face-plates can be excessively heavy, they might require the construction of a purpose-made cradle to facilitate two- person lifting. This cradle should also prevent the danger of chucks rolling off the bed onto the hands and feet of the operator.</p>
Work Environment	<p>General environment, ventilation and lighting levels</p> <p>Space to operate and handle materials safely.</p> <p>Housekeeping.</p>	<p>There must be sufficient light to see the piece being worked clearly.</p> <p>The lathe should be fitted with a filament or high intensity LED lamp to overcome the stroboscopic effect of the fluorescent strip lights fitted in the workshops. At certain speeds the work-piece can appear to be stationary or travelling in reverse due to flickering of the fluorescent lights.</p> <p>Chuck and tool-post guards (where fitted) should be clean and free from scratches to limit the need for the operator to look around them see their work There must be sufficient space around the unit in order to allow the operator a free range of movement.</p> <p>Ensure power cables are properly isolated from the moving blade.</p>

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		<p>Ensure all control devices and in particular the emergency stop (if fitted) are within easy reach of the operator.</p> <p>Keep the floor around the unit free of oil and grease.</p>
Training	Untrained Person	<p>Only trained operatives are allowed to use lathes.</p> <p>They must ensure that no unauthorized persons are allowed in the vicinity of the works.</p> <p>The Supervisor must ensure that the appointed Health and Safety personnel is notified of any significant changes to these works before they commence.</p>
Personal Protective Equipment	Clothing Hand Protection	Suitable personal protective equipment (PPE) must be supplied and used, the user must ensure that the PPE is in good condition and being used correctly.
First Aid		<p>Information for the appointed medical personnel is displayed in workshops.</p> <p>Make sure you are aware of the first aid provisions in place.</p> <p>All accidents &amp; near misses must be reported to your Supervisor</p>

**All persons working with this equipment or within close vicinity must sign and show that they have read and understood the risk assessment guidance and that they will follow the above control measures set out whilst working.**

Additional Guidance	COSHH Assessment	Method Statement	Other (Specify)
	Material Dependent	N/A	Only trained persons are allowed to operate this equipment.
Name			
Signed			Date