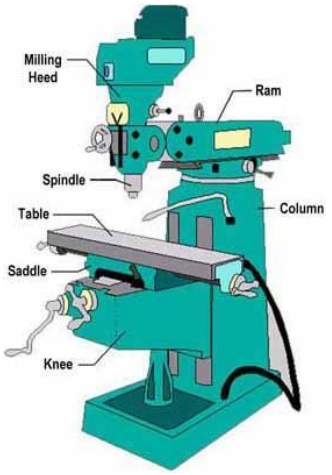
Risk Assessment Guidance

Title Vertical Milling Machine



This risk assessment has been carried out for the vertical milling machines located within workshops. This document is general risk assessment guidance for the use of the vertical milling machine.

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 vertical milling machine 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	Poor condition of the guard or chuck. Damage to the machine or guards.	A maintenance log must be kept for all machines and they must be inspected in accordance with the manufacturer's instructions and serviced by a competent person as per the manufacturer's suggested intervals. All guards must be in place around the cutter, the pulley drive gear must be totally guarded before use. 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.
Operation of the vertical milling machine	Entanglement of hair or clothing in moving machinery. Work piece or chuck key ejected from machine. Milling can cause damaging noise levels. Overheating of the cutting bit can cause fire. Ejection of chips/swarf into eyes.	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. Do not start the machine with the chuck key still inserted. Always clamp the workpiece securely to the work bed. When using the machine for extended periods of time, wear the ear defenders provided. Select an appropriate cutting speed and bit for the material. Allow the bit to cool down between uses. Maintain an appropriate fire extinguisher in the work area. Ensure that the guard screen correctly shields the bit when drilling. Wear eye protection.
Work Environment	General environment, ventilation and lighting levels. Space to operate and handle materials safely. Housekeeping.	There must be sufficient light to see the piece being worked on clearly. There must be sufficient space around the unit in order to allow the operator a free range of movement. Ensure power cables are properly isolated from the moving blade. Ensure all control devices and in particular the emergency stop (if fitted) are within easy reach of the operator. Keep the floor around the unit free of oil and grease.

		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.
Waste Material	Swarf and other waste materials.	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. 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. Swarf should not be allowed to build up around the work-piece as it can be violently ejected. When turning brass the swarf takes the form of small sharp pieces, which can enter clothing and be extremely uncomfortable. Swarf can also be extremely hot and burns can occur. **Goggles rated for impact must be worn at all times.**
Work Environment	General environment, ventilation and lighting levels. Space to operate and handle materials safely. Housekeeping.	There must be sufficient light to see the piece being worked clearly. The vertical mill 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. 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. Ensure all control devices and in particular the emergency stop (if fitted) are within easy reach of the operator. Keep the floor around the unit free of oil and grease.
Training	Untrained Person	Only trained operatives are allowed to use the vertical milling machine. Anybody carrying out these works must have suitable knowledge and training. Ensure correct cutting speed for material selected prior to starting machine and ensure material is correctly secured. The Supervisor must ensure that the appointed Halth and Safety personnel is notified of any significant changes to these works before they commence.
Occupational Health	Eye	Eye protection must be worn at all times when using the vertical milling aching even when guards are in position.
Personal Protective Equipment	Clothing Footwear Eye 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.

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First Aid		Make sure you are aware of the first aid provisions in place. All accidents & near misses must be reported to your Supervisor

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