

Safety Issues- Lathes

Because Lathes are designed to remove metal they have the capacity to cause injury if not used correctly. Following are some issues the operator must be aware of when operating a lathe.

Power - On, Off, emergency stop, Familiarise with stopping,
Forward, Reverse—Familiarise with the direction of rotation before using the machine.
Spindle must be stopped before changing direction or changing speeds.
On some machines the belt and chuck guards are fitted with safety switches. These must be closed otherwise the machine will not start, close chuck guard if fitted.

Chucks / Face Plate - When turning it is important that the job or work to be machined is firmly clamped or held.
Always make sure the stop button has been depressed and the spindle has stopped before making adjustments or removing / replacing the job.

Always remove the chuck key before starting, otherwise when the chuck begins to rotate it will fly out of the chuck and could cause injury. Also cover the chuck with the chuck guard if fitted.

Because irregular shapes can be held in a 4 Jaw Independent Chuck or Face Plate, the speed should be adjusted and slowed in proportion to the amount of weight. As a general rule, when using a 4 Jaw Independent Chuck or Face Plate, the speed should not exceed 1/2 the speed for the particular application. The job needs to be firmly clamped in a chuck or on a face plate, otherwise it can fly out of the chuck and become a missile.

Tooling and Cutting - Tooling can be sharp and caution needs to be exercised when working around tooling.

Swarf or offcuts can have either sharp edges or can be hot, so use pliers or hand protection when removing or handling. It is dangerous to remove swarf while the machine is running, as the swarf can get caught in a rotating component. If caught the rotation could wind the swarf in and in turn drag the operators hand in to the rotating component.

Leadscrew, Feedscrew and Handwheels - It is possible for loose clothing to get caught on any of these. Always wear close fitting clothing when using a lathe and do not lean over the machine.

Eye Protection - must be worn at all times when using a lathe

Hands - Keep hands clear of the spinning components during operation, ie. chuck and work piece

Loose Clothing and Hair - Must be restrained at all times when using Lathe

Operators Responsibility: Please take the time to read the manufacturers instructions.

Descriptive notations in our catalogue and discussions with staff are offered as a guide only. Purchasers must satisfy themselves as to (a) The suitability of the product for their particular application and (b) The process by which the product is used.

Metal working machines and tools are potentially dangerous, therefore the purchaser of product offered in our catalogue and sold by Minitech Engineering and Model Supply and Myford Machine Tools Australia should take every precaution to avoid injury. Courses of instruction are also offered by many Technical Colleges and books are available from most libraries. Books are available for instruction in safe use of metal working machines and tools.

Helpful Books include:

0852422881 - The Amateurs Lathe (L.H. Sparey)
WPS -15 - Work Holding in the Lathe (Tubal Cain)
WPS - 5 - Milling operations in the Lathe (Tubal Cain)
1854861522 - Model Engineering - A Foundation Course (Peter Wright)

Finally, If you are unclear or have any questions regarding the operation of the machine, please contact us.

Safety Issues—Milling Machines

Because Milling Machines are designed to remove metal, they have the capacity to injure if not used correctly. Following are some issues you must be aware of.

Power - On, Off, emergency stop, Familiarise with stopping,
Forward, Reverse if fitted— familiarise with the direction of rotation before using the machine.
Spindle must be stopped before changing direction or changing speeds.
On some machines the belt and chuck guards are fitted with safety switches. These must be closed otherwise the machine will not start, close chuck guard if fitted.

Work Holding or Clamping - When milling, it is important that the job or work to be machined is clamped or held firmly eg: in a vice because the action of cutting metal can dislodge the work piece if not held correctly.

Chucks / Spindles - Always make sure the stop button has been depressed and the spindle has stopped before making adjustments or removing / replacing the job.

Always remove the chuck key before starting, otherwise when the chuck begins to rotate it will fly out of the chuck and could cause injury.

Always keep hands, clothing and hair away from the rotating spindle otherwise the rotating spindle or chuck can catch or pull and cause injury.

Tooling and Cutting - Tooling can be sharp and caution needs to be exercised when working around tooling.

Swarf or offcuts can have either sharp edges or can be hot, so use pliers or hand protection when removing or handling. It is dangerous to remove swarf while the machine is running, as the swarf can get caught in a rotating component. If caught the rotation could wind the swarf in and in turn drag the operators hand in to the rotating component.

For smooth cutting the feed direction should be opposite the direction of rotation of the cutter

Eye Protection - must be worn at all times when using a Milling Machine

Hands - Keep hands clear of the spinning components during operation, ie. chuck and work piece

Loose Clothing and Hair - Must be restrained at all times when using a Milling Machine. Caution is needed when inspecting the work while the spindle is running as hair can get caught in the rotating spindle.

Operators Responsibility: Please take the time to read the manufacturers instructions.

Descriptive notations in our catalogue and discussions with staff are offered as a guide only. Purchasers must satisfy themselves as to (a) The suitability of the product for their particular application and (b) The process by which the product is used.

Metal working machines and tools are potentially dangerous, therefore the purchaser of product offered in our catalogue and sold by Minitech Engineering and Model Supply and Myford Machine Tools Australia should take every precaution to avoid injury. Courses of instruction are also offered by many Technical Colleges and books are available from most libraries. Books are available for instruction in safe use of metal working machines and tools.

Helpful Books include:

WPS - 2 - Vertical Milling in the Home workshop (Arnold Thorp)

WPS - 17 - Gears and Gear Cutting (I. Law)

WPS - 35 - Milling a Complete Course (Harold Hall)

Finally, If you are unclear or have any questions regarding the operation of the machine, please contact us.