Machine Safety Moving Right Along Meeting Kit

What’s At Stake

Machines are one of the leading causes of occupational injury. Improperly trained operators are often the victims.

What’s the Danger

COMMON MACHINE MOVING PARTS HAZARDS

Pinch point. Where two parts move together and at least one of the parts moves in a circle, “pinch points” are a hazard. These are also called mesh points, run-on points, and entry points. Examples include belt drives, chain drives, gear drives, and feed rolls.

Wrap points. Wrap points are any exposed component that rotates. Examples include Rotating shafts such as a PTO shaft or shafts that protrude beyond bearings or sprockets. Watch components on rotating shafts, such as couplers, universal joints, keys, keyways, pins, or other fastening devices.

Shear points. Shear points are present where the edges of two moving parts move across one another, or where a single sharp part moves with enough speed or force to cut soft material.

Crush points. Crust points occur between two objects moving toward each other or one object moving toward a stationary object.

Pull-in points. These are points where objects are pulled into equipment, usually for some type of processing. Machines are faster and stronger than people. Never attempt to hand-feed materials into moving feed rollers. Always stop the equipment before attempting to remove an item that has plugged a roller or that has become wrapped around a rotating shaft.

Thrown Objects. Any object that can become airborne because of

moving parts. Keep shields in place to reduce the potential for thrown objects. Wear protective gear such as goggles to reduce the risk of personal injury.

HOW TO PROTECT YOURSELF

INJURIES/DANGERS CAUSED BY MOVING MACHINERY

- Workers can be struck and injured by moving parts of machinery or ejected material. Parts of the body can also be drawn in or trapped between rollers, belts and pulley drives
- Sharp edges can cause cuts and severing injuries, sharp-pointed parts can cause stabbing or puncture the skin, and rough surface parts can cause friction or abrasion
- People can be crushed, both between parts moving together or towards a fixed part of the machine, wall or other object, and two parts moving past one another can cause shearing
- Parts of the machine, materials and emissions (such as steam or water) can be hot or cold enough to cause burns or scalds and electricity can cause electrical shock and burns
- Injuries can also occur due to machinery becoming unreliable and developing faults or when machines are used improperly through inexperience or lack of training

WORKERS CAN PREVENT MACHINE ACCIDENTS

Before The Start

- Check that the machine is complete, with all safeguards fitted, and free from defects. The term ‘safeguarding’ includes guards, interlocks, two-hand controls, light guards, pressure-sensitive mats etc. By law, the supplier must provide the right safeguards and inform buyers of any risks (‘residual risks’) that users need to be aware of and manage because they could not be designed out
- Produce a safe system of work for using and maintaining the machine. Maintenance may require the inspection of critical features where deterioration would cause a risk. Also look at the residual risks identified by the manufacturer in the information/ instructions provided with the machine.

- Ensure every static machine has been installed properly and is stable (usually fixed down)
- Choose the right machine for the job. Do not put machines where people may be exposed to risk.

Ensure The Machine Is:

- safe for any work that must be done when setting up, during normal use, when clearing blockages, when carrying out repairs for breakdowns, and during planned maintenance
- properly switched off, isolated or locked-off before taking any action to remove blockages, or clean.

Make sure you identify and deal with the risks from:

- electrical, hydraulic or pneumatic power supplies
- badly designed safeguards. These may be inconvenient to use or easily overridden, which could encourage your workers to risk injury and break the law. If they are, find out why they are doing it and take appropriate action to deal with the reasons/causes

WORKER RESPONSIBILITY-USE OF MACHINERY

- their own health and safety.
- not harming others through their actions or inaction.
- following any safe work procedures their employer has in place.
- identifying and reporting hazards.
- using all guarding.
- keeping their work areas clear, clean and tidy.
- wearing and using all protective equipment and clothing.
- alerting their supervisor to any machinery faults or maintenance needs.
- telling their supervisor about any illness or condition that could stop or limit their ability to work with machinery.

Machine operators should:

- check that the machinery they use is in sound working order
- report immediately any problems to their supervisor

- use any safety devices, guards, appliances, protective devices to make the machinery safe.

FINAL WORD

Before you turn on any machine, know the hazards and make a safety check. Is everybody clear? Are the guards and safety devices in place and properly adjusted? Don’t start the machine unless they are. Never tie down or block a guard or safety device. Always follow established lockout/tagout procedures.