



Weekly Safety Meeting

Amputation Safety

Amputations are some of the most serious and debilitating workplace injuries. They are widespread and involve a variety of activities and equipment. Amputations occur most often when workers operate unguarded or inadequately safeguarded mechanical power presses, power press breaks, powered and non-powered conveyors, printing presses, roll forming and roll bending machines, food slicers, meat grinders, meat cutting band saws, drill presses, milling machines, as well as shears, grinders, and slitters.

These injuries also happen during materials handling activities and when using forklifts and doors, as well as trash compactors, and powered and non-powered hand tools. Besides normal operation, the following activities involving stationary machines also expose workers to potential amputation hazards: setting up, threading, preparing, adjusting, cleaning, lubrication, and maintaining machines as well as clearing jams.

Mechanical Components Present Amputation Hazards:

- Point of operation--the area of a machine where it performs work on material:
- Power transmission apparatus--flywheels, pulleys, belts, chains, couplings, spindles, cams, and gears, in addition to connecting rods and other machine components that transmit energy; and
- Other moving parts--machine components that move during machine operation such as reciprocating, rotating, and transverse moving parts, as well as auxiliary machine parts.

Mechanical Motion is Hazardous:

All mechanical motion is potentially hazardous. In addition to in-running nip points ("pinch points")--which occur when two parts move together and at least one moves in a rotary or circular motion that gears, rollers, belt drives, and pulleys generate--the following are the most common types of hazardous mechanical motion:

- Rotating--circular movement of couplings, cams, clutches, flywheels, and spindles as well as shaft ends and rotating collars that may grip clothing or otherwise force a body part into a dangerous location;
- Reciprocating--back and forth or up and down action that may strike or entrap a worker between a moving part and a fixed object;
- Traversing--movement in a straight, continuous line that may strike or catch a worker in a pinch or shear point created between the moving part and a fixed object;

- Cutting--action generated during sawing, boring, drilling, milling, slicing, and slitting;
- Punching--motion resulting when a machine moves a slide (ram) to e.g., stamp metal or other material;
- Shearing--movement of a powered slide or knife during metal trimming or shearing; and
- Bending--action occurring when power is applied to a slide to draw or form metal or other materials.

Amputation Protection:

Work practices, employee training, and administrative controls can help prevent and control amputation hazards. Machine safeguarding with the following equipment is the best way to control amputations caused by stationary machinery:

- Safeguards provide physical barriers that prevent access to hazardous areas. They should be secure and strong, and workers should not be able to bypass, remove, or tamper with them. Guards should not obstruct the operator's view or prevent employees from working.
- Devices help prevent contact with points of operation and may replace or supplement guards. Devices can interrupt the normal cycle of the machine when the operator's hands are at the point of operation, prevent the operator from reaching into the point of operation, or withdraw the operator's hands if they approach the point of operation when the machine cycles. They must allow safe lubrication and maintenance and not create hazards or interfere with normal machine operation. In addition, they should be secure, tamper resistant, and durable.
- Preventing amputation is a reality that can be accomplished by providing employees with everything they need to be safe. Educating employees on machine-specific dangers, hazardous energy, and proper use is the critical foundation to any program. Providing machine specific lockout-tagout procedures is not only the law, but also a visual reminder of how to properly start up and shut down equipment. Keeping employees safe with guards and devices is required during normal operations.
- The primary function of temporary traffic control is to provide for the reasonably safe and efficient movement of road users through or around work zones while protecting workers.

Remember:

Stay alert for hazards, so you won't become one more accident statistic. You can do a quality job without rushing. Maintain a positive attitude and keep your mind on your work. This is just common sense--something smart workers use!

***ALWAYS KEEP YOUR 'GUARD UP'
WHEN WORKING WITH POWERED EQUIPMENT!***

Safety Meeting Sign-In Sheet

Supervisor:	Subject:
Location:	Date:
Conducted By:	Trainer Signature:

Name (print clearly)	Signature	Comments / Safety Concerns / Training Requests