

MACHINE GUARDING



Tables need to have proper guards

This Toolbox Talk is based on OSHA's machine guarding standards. Guarding involves protecting ourselves from machines and equipment in our work environment.

Basic Terminology:

Parts of the Machine Requiring Guarding

- **Point of Operation:** Area where machine performs work on material
- **Power Transmission Apparatus:** Belts, gears, flywheels, chains, pulleys, spindles, couplings, cams, machine components that transmit energy.
- **Other Moving Parts:** Reciprocating, rotating, traversing motions, auxiliary machine parts.



Barrier devices create a safety

Types of Mechanical Motion that Must be Guarded:

- **Pinch Points:** Points at which it is possible to be caught between moving parts, or between moving and stationary parts of a piece of equipment
- **Rotating:** Circular motion of shafts with a protrusion sticking out can grip clothing or pull body part into point of operation
- **Reciprocating:** Back-and-forth or Up-and-Down motion that may trap/ strike an employee between the moving object and a fixed object.
- **Traversing:** Movement in straight, continuous line that may strike or catch an employee in a pinch or shear point between a moving and fixed object.
- **Cutting:** Action of sawing, boring, drilling, milling, slicing
- **Punching:** Action resulting when a machine moves a slide (ram) to stamp a sheet of metal or other material.
- **Shearing:** Movement of a powered slide or knife during metal trimming or paper cutting
- **Bending:** action occurring when power is applied to a slide to draw or form metal or other materials



Buffer for employees

Common Machines That Require Machine Guards:

- Circular saw, reciprocating saw, band saw, jointer, power feed planer, shaper, lathe, sander, drill press, grinding wheels, mechanical power, mortising machine

Group Discussion Topics:

Identify the machines in your shop or that you use that require machine guarding. How could someone be injured by using these machines? How can this be prevented? Inspect your machines to ensure the guards are correctly positioned, intact and in place.



FM-OHS:

fm-ohs@virginia.edu

(434) 297-6379