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TOOLBOX TALK

# MACHINE GUARDING

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.

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

#### **Common Machines That Require Machine Guards:**

Circular Saw Reciprocating Saw Band Saw Jointer
Power Feed Planer Shaper Lathe Sander

Drill Press Grinding Wheels Mortising Machine Mechanical-Power-

Press

#### **Group Discussion Topics:**

- Identify the machines in your shop or that you use that require machine quarding.
- 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. Contact FSRM if you need further assistance.



If guards are provided for a machine, they must be used according to manufacturer specifications.



This drill press should have a shield to protect operators in case the chuck key is left in the chuck prior to operation.

## FACILITIES MANAGEMENT SAFETY & RISK

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