KSU Facilities Safety Bulletin

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Machine Guarding Safety Talk

Guarding serves to protect employees from hazards created by rotating parts, pinch points, points of operation, and from flying particles and sparks created by the operation of machines. Unintentional contact with moving parts can cause cuts, amputations, burns, and even death.

According to the Occupational Health and Safety Administration (OSHA), workers who operate and maintain machinery suffer approximately 18,000 amputations, lacerations, crushing injuries, abrasions, and over 800 deaths per year.

General Guard Requirements

OSHA requires any machine part that could cause injury to be safeguarded. Some examples of where guards are required include moving belts, chains, drums, gears, shafts, pulleys, spindles, sprockets, and flywheels. Safeguards must prevent contact with the hazard, should not be easily removed or defeated, and must not create any additional hazards, such as pinch points.

March HSI/Vivid Course

All:

Machine Guarding

Login with your KSU eid and Password:
https://otis.osmanager4.com/KSU

Types of Guards

There are various types of machine guards, which serve different purposes. These are the most common types:

Fixed Guards – Guards that are permanently fixed to the machine. Adjusting or servicing of the guard requires the machine to be disassembled. An example is a fan blade or belt and pulley system.

Self-Adjusting Guards – Guards that are designed to automatically adjust to the size of material being fed into the machine. While not in use, the guard returns to a fully closed position. An example is use on a radial arm saw or jointer.

Adjustable Guards – These guards are similar to self-adjusting guards, but these must be manually set. This type of guard is useful when handling materials that vary in size. When improperly adjusted, guards can fail to prevent contact with moving parts. An example is what is used on a bandsaw.

Interlocking Guards – In order for the related machinery to turn on, the interlocking guard must be engaged. When the guard is disengaged or not in place, the machinery will shut off. An example is the guards used on a mixer or picker.

Source: Safety Talk Ideas