



MACHINE GUARDING

Scope and Applicability Statement

This document provides general safety procedures and regulatory guidance for employers and workers in accordance with U.S. Occupational Safety and Health Administration (OSHA) standards under 29 CFR 1910.212 (General Requirements for Machine Guarding). These procedures apply to all workplaces where they are implemented as part of a comprehensive safety program.

Customization and Compliance Statement

Employers are responsible for ensuring compliance with all applicable local, state, and federal safety regulations. Workers must adhere to established safety protocols to maintain a safe and healthy work environment.



Purpose

The purpose of this procedure is to establish machine guarding safety requirements to prevent injuries related to equipment operation, including amputations, entanglement, and crushing hazards.

Scope

This procedure applies to all employees, contractors, and visitors working around machinery in workplaces where mechanical equipment is used.

Responsibilities

Supervisors & Site Leads:

- Ensure machine guards are in place and functioning before operation.
- Conduct inspections and enforce compliance.
- Halt machine use if guards are missing or damaged.

Employees & Operators:

- Use and inspect machine guards before operation.
- Never bypass, modify, or remove guards.
- Report missing or damaged guards immediately.

Maintenance & Field Service Teams:

- Repair or replace defective guards promptly.
- Ensure guards meet OSHA standards before returning equipment to service.

Safety Team:

- Conduct periodic audits to ensure compliance.
- Provide training on proper guarding practices.

Machine Guarding Requirements

Types of Guards:

- **Fixed Guards:** Permanent barriers covering hazardous machine parts.
- **Interlocked Guards:** Prevent machine operation if removed.
- **Adjustable Guards:** Adapt to different tasks while maintaining protection.
- **Self-Adjusting Guards:** Automatically reposition for safe operation.

Specific Guarding Applications:

- **Pumps, Motors, and Rotating Shafts:** Must have fixed guards to prevent entanglement.
- **Belt Drives:** Must have barrier guards or enclosures.
- **Cutting and Grinding Equipment:** Must have transparent shields to protect against flying debris.



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- **Electrical Components & Panels:** Must be locked and labeled per Lockout/Tagout (LOTO) procedures.

Safe Operating Procedures

Pre-Use Inspection:

- Ensure guards are properly attached and functional.
- Do not operate if guards are missing or damaged.
- Confirm emergency stop buttons are functional.

During Operation:

- Never bypass or remove a guard while the machine is running.
- Keep hands, clothing, and tools away from moving parts.
- Use proper PPE (e.g., gloves, safety glasses, face shields) when operating machinery.

After Use:

- Shut down and lock out equipment before performing maintenance.
- Replace all guards before resuming operation.

Training Requirements

Mandatory Training for Employees:

- Purpose and function of machine guards.
- Identifying machine hazards.
- Safe work practices for operating guarded equipment.
- Lockout/Tagout (LOTO) procedures related to machine guarding.

Machine guarding training must be repeated every three years.

Inspections & Maintenance

- Supervisors shall conduct weekly inspections of machine guards.
- Any defective guard must be reported immediately and repaired before use.
- Safety teams will perform monthly audits of machine guarding compliance at facilities and project sites.