



OSHA's 'Top 10' list of most frequently cited violations included lack of Machine Guarding. Over 34,000 people sustain lost time injury in the workplace annually due to machine accidents.

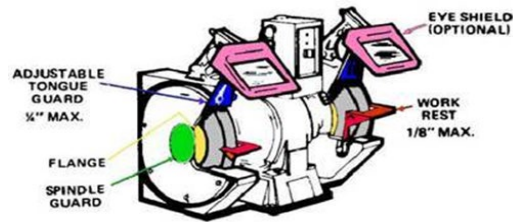
Some guards can prevent tools and objects from falling into moving machinery that could then become projectiles. By preventing contact with a machine's dangerous moving parts, guards can protect workers from accidentally putting themselves into or near machine hazards that can cut, crush, amputate, and even cause death.

Guards should not create new hazards while they protect employees from the moving machinery parts. Guards should be installed so that they do not impede performance.

Employees require training in the machines they use and maintain. The training should be specific to each piece of equipment and cover the potential hazards of the machinery. Each guard's purpose, use, maintenance, and settings should be taught. Workers should learn when and how to safely remove guards and lockout/ tag the equipment during maintenance or repair.

Machines and their guards should be inspected periodically to ensure proper functioning. Employees need instructions on how to inspect guards and machines for safety, report problems to their supervisor, and tag equipment out of service

for repair. **Guards should never be removed, bypassed, or temporarily disabled.**



Which parts of the machine require guarding?

Point of Operation: Area where the machine performs work on material.

Power Transmission Apparatus: Belts, gears, or machine components transmit energy.

Other Moving Parts: Any reciprocating, rotating machine parts.

Types of Mechanical Motion that Must be Guarded

Pinch Points: Points at which it is possible to be caught between moving parts.

Rotating: Circular motion of parts that can grip clothing or pull body parts into the point of operation

Reciprocating: Motion that may trap or strike an employee between moving and fixed objects.

Traversing: Movement in a straight, continuous line that may strike or catch an employee in a pinch or shear point between a moving and fixed object.

Cutting: Sawing, boring, drilling, milling, slicing

Punching: 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: When power is applied to a slide to draw or form metal or other materials.

Resources: <https://lni.wa.gov/safety-health/safety-training-materials/online-safety-training>
<https://www.osha.gov/Publications/osha3170.pdf>