



This safety resource was written for the recycled materials industry by the recycled materials industry and was developed to assist you in making your recycling operation a safe place for employees, customers, and visitors. This resource covers OSHA requirements that may or may not be applicable to your operation.

GUILLOTINE SHEAR

DEFINITION: A hydraulically operated cutting device that consists of a horizontally-oriented fixed lower blade and a horizontally-oriented moving upper blade that travels in vertical guide channels. May include a hydraulically-operated hopper that compresses the material to be sheared.

Potential Hazards:

- Electric shock
- Falls
- Fire
- Explosive atmosphere
- Flying/protruding metal
- Hazardous fumes, gases or vapors
- High-velocity flying metal fragments
- Moving hydraulic parts
- Noise
- Oil and hydraulic fluids
- Pinch points
- Sharp objects/edges
- Slippery walking/working surfaces
- Swinging/suspended material

Guarding/Shielding:

- Point-of-operation guards must be installed to prevent a worker from having any part of his or her body in the machine's danger zone during the operation cycle.
 - Fixed shielding with overhead protection must be installed when the operating station is situated near overhead hazards.
 - Power transmission parts such as gears, shafts, belts or chains must be guarded to prevent accidental contact. Visual and/or audible warning signals must be installed to warn of impending start-up. Such warning device must provide at least five seconds of warning before the machinery actually begins to operate.
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- Shields of sufficient construction to stop high-velocity flying metal must be positioned to protect employees, customers and visitors who might be endangered by such flying parts.
- Curtains or deflectors must be installed beyond the throat of the shear to safely knock down high- velocity parts that may be ejected from the shear.
- Hydraulic lines and valves must be shielded or guarded in such a way as to prevent them from being accidentally struck by workers, objects or equipment.
- Slides, bins and other appurtenances must be designed and installed in such a way as to prevent scrap from falling on workers.

Protective Equipment:

Hard hats*

Safety glasses*

Steel toe/steel shank work boots*

Gloves as needed

Respirator as needed

Hearing protection as needed

**minimum requirements*

Safety Procedures:

- Hand tools for placing and removing materials must be such to allow their easy use without the operator having to place any part of his or her body in the machine's danger zone.
- Motors and other electrical equipment must be grounded to prevent electrical shock or ignition of flammable or combustible materials.
- Walking/working surfaces situated more than four feet (48 inches) above the adjacent walking/ working surface must be equipped with standard railings or fall protection equipment.
- All elements of OSHA's standard on The Control of Hazardous Energy (lock-out/tag-out) must be strictly adhered to
- Establish audible warning signals for start up and operation of the machinery and post signs describing the intent of these signals.
- The operator of the crane, loader or forklift used to load scrap must have a clear, unobstructed view of the all workers in the vicinity of the shear at all times. When workers step into harm's way, loading operations must be suspended immediately.

- Special care must be taken never to shear closed containers or cylinders that may contain hazardous materials.