

Power Press Safety

Employers should train operators in the safe method of operating presses and maintenance personnel on how to maintain them.

Personal protective equipment required:

- ANSI approved eye protection with side shields should be worn by operators.
- Steel toed safety shoes for operators are recommended, and certainly advised for maintenance employees.
- Hearing protection
- Gloves

Inspections:

- Records should be kept of safeguarding inspections including the date of the inspection and identifying the press and what was inspected.
- Inspections should include the clutch/brake mechanisms, anti-repeat feature and singles stroke mechanisms and completed periodically; it is suggested this be done weekly if not daily.
- Any condition which could result in a component failure, should be corrected before the press is operated.

All injuries should be reported; but the State of Michigan requires that all injuries within the confines of the die be reported within 30 days of the incident.

Guarding the point of operation on full revolution clutch presses:

- Full barrier guarding that will prevent entry over, under or around the guard.
- 2-hand anti-repeat trips.
- Foot pedals protected from accidental activation.
- Hand operated levers with spring latch to prevent inadvertent activation.

Part revolution/air clutch presses: (Fixed barrier guarding)

- Two hand controls, protected from unattended operation, require concurrent pressure to prevent die entrance of hands and fingers during cycling and 2-hand controls for other operators.
- Automatic gate or removable barrier devices.
- Presence sensing devices
- Pull out devices, operated only by the press slide, adjusted after each operator change and inspected.
- Hold out or restraint device adjusted to prevent point of operation contact and inspected.

Note: the safety distance for presence sensing and 2-hand control devices on part revolution presses can be determined by the formula:

Safety distance (DS)= 63"/second x Ts where: Ts = stopping time of the press measured approximately at the 90 degree position of the crankshaft rotation in seconds

Also, guideposts can also be point of operation hazards if they are separated from the bushing by ¼" and need to be guarded. In addition hand tools are not considered point of operation protection and should not be used.

Die setting procedures:

- A written procedure should be established with maintenance personnel thoroughly trained.
- Provisions should be made to ensure that the upper and lower dies are protected from collapse by safety blocks preferably interlocked with the press when adjustments or repairs are made to the press. Also, the power should be locked out as prescribed in the energy control procedures.
- Brushes, swabs, lubricating roles and pressure guns to restrict access to the point of operation by die setters.