

## Stamping Press Noise Controls

The MIOSHA occupational noise exposure standard requires the use of feasible engineering controls when employees are subjected to noise exceeding the regulated exposure level. The goal is to reduce the employee's noise exposure by controlling the noise generated by the machine.

### 1. Maintenance

- A. Replace worn or unbalanced parts.
- B. Properly lubricate machine parts.
- C. Maintain proper adjustment of equipment.
- D. Use sharp cutting and drilling tools.
- E. Repair leaks in compressed air piping systems.

### 2. Vibration Damping

- 1. Install vibration mounts and/or inertia pads to isolate presses where applicable.
- 2. Construct or modify chutes and material handling equipment using the following principles:
  - 1. Modify vibrational characteristics by use of:
    - a. perforated metal or
    - b. heavy gauge screening.
  - 2. Apply viscoelastic damping material or use a constrained layer damping technique where a vibration absorbing material is sandwiched between two rigid materials.
  - 3. Use construction materials of sufficient mass and stiffness so as to reduce vibration-produced noise.

### 3. Noise Reduction

- A. Eject parts mechanically rather than by compressed air.
- B. If air ejectors are used, install blow-off silencers designed to minimize noise production.
- C. Install mufflers on all pneumatic-actuated equipment.

### 4. Noise Sources

- 1. Provide acoustical enclosures for automatic presses and other noise sources.
- 2. Isolate high noise machines.
- 3. Block the path of high frequency noise sources.
- 4. Use acoustical material to treat building surfaces.

### 5. Operators

1. Provide noise isolation booths.
2. Locate the operator as far away from the noise source as possible.
3. Restrict unnecessary personnel from high noise areas.

## **6. Tools and Dies**

- A. Provide the maximum possible shear on tools and dies.
- B. Use multistage or progressive dies.

## **7. Other Controls**

1. Reduce excessive fan noise from ventilation systems by using an appropriately selected fan and use duct silencers and/or mufflers.
2. Use inlet mufflers for reciprocating air compressors or isolate compressor from work areas.
3. Use mufflers on the air discharge for large air-cooled electric motors (over 10 horsepower).
4. Use strain gauges on the press frame members to determine the minimum power requirement for proper forming.
5. Educate employees regarding the benefits and maintenance of all noise controls.

**NOTE:** This guide is intended for the benefit of the public and may not contain all of the information pertinent to a specific situation. For further information, consult:

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