



*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.*

## **METAL DRYER**

**DEFINITION:** Rotary or box-type machine used to heat metal scrap (such as turnings) to remove moisture and oil (such as cutting fluid) contamination.

### **Potential Hazards:**

- Aerosolized particles
- Burns/Heat
- Electric shock
- Explosive atmosphere
- Fire
- Flammable gas/vapor/liquids
- Hazardous fumes
- Moving hydraulic parts
- Noise
- Pinch points
- Slippery walking/working surfaces

### **Guarding/Shielding:**

- Point-of-operation guards must prevent a worker from placing any body part into the machine's danger zone during the operation cycle. Danger zone includes pinch points, rotating parts, flying material, and hot surfaces.
- Access/loading doors must be equipped with interlock or similar mechanism that shuts operation down when door is opened.

### **Protective Equipment:**

Hard hats\*

Safety glasses\*

Steel toe/steel shank work boots\*

Gloves as needed

Respirator as needed

Fire resistant clothing

Oil resistant boots, gloves

*\*minimum requirements*

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**Safety Procedures:**

- Lockout/Tagout procedures must be developed, followed, and enforced for equipment maintenance/ servicing.
- Designate a safe zone around dryer to prevent burns to pedestrians.
- No smoking. No open flames.
- Keep flammables combustibles away.
- If indoors, dryer should have forced air ventilation to outside or to baghouse or other emission control device. Exhaust ducts should not discharge near doors, windows, or other air intakes.
- Determine, through air monitoring, whether use of respirators is required.
- Practice good housekeeping around dryer to prevent slips/falls.
- Maintain adequate drainage/collection of fluids.
- Maintain proper number and location of emergency stops.
- Eye wash station must be near area where oil/fluid splashes could occur.
- Fire extinguishers should be near dryer, well labeled, with unobstructed access.
- Post emergency shut-down procedures.
- Regularly check for fuel gas leaks.
- Main fuel shut-off must be located away from dryer, easily accessible and labeled.
- Post type of fuel in use at building entrance.
- Regularly monitor temperature readings.
- Train workers on unacceptable materials in dryer including closed containers, magnesium, nitrates, and volatile materials.
- Dryer frame must be grounded to minimize spark ignition hazard.
- Gas-fired units must have an auto safety shut-off valve that cuts fuel flow if pilot is extinguished.
- High volume water supply and hose should be near dryer and inspected regularly.

- Stacks or ducts passing through walls must be properly insulated or clearance provided.