



Weekly Safety Meeting

Your Safety Is Our Business®

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Portable Grinder Safety

Portable grinding wheels are designed to operate at very high speeds. If a grinding wheel shatters while in use, the fragments can travel over 300 miles per hour. The potential for serious injury, material damage, and other losses from these shooting fragments is great. To ensure that grinding wheels are safely used in your workplace, know the hazards and how to control them.

The OSHA regulations contain important protections for anyone who works with abrasive wheel grinders. The key to safety with these machines is “guarding.” OSHA says that, with some specified, limited exceptions, portable abrasive wheels “shall be used only on machines provided with safety guards.”

OSHA defines a guard as “an enclosure designed to restrain the pieces of the grinding wheel and furnish all possible protection in the event that the wheel is broken in operation.”

Hazards:

Grinding wheels can pose many health and safety hazards.

Health hazards:

- Breathing in dusts can cause respiratory problems.
- Contact with lubricating oils and metallic dusts can irritate the skin.
- If compressed air (used with air-powered grinders) enters the bloodstream, it can be deadly.
- Vibration can cause vibration-induced white finger.
- Noise can damage hearing and be stressful.
- Electric shock can kill.

Safety hazards:

- A wheel that shatters can seriously injure the operator and those working nearby.
- Shooting fragments of a wheel can injure the eyes and face.
- Contact with a wheel can cause cuts and scrapes.
- If a portable grinder is dropped, it can injure the legs and feet.
- Sparks can cause burns.

Safety precautions:

- Guards must be provided and adjusted properly to protect you. Replace damaged guards because if an abrasive wheel breaks while rotating, it can cause a serious injury.
- Before use, check the manufacturer’s stated running speeds, or markings on the grinder and grinder wheel, for the maximum speed at which it can be used.



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- Follow the manufacturer's manual for the safe use of grinder wheel guards.
- Clean and service grinders according to manufacturers' recommendations. Record all maintenance for grinders.
- Ensure that a machine will not operate when unattended by checking the dead-man (constant pressure) switch.
- Wear safety glasses or goggles, or a face shield (with safety glasses or goggles), to protect against flying particles. Gloves, aprons, metatarsal safety boots, and respiratory protection may be required, depending on the work.
- Ensure the floor around the work area is clean.
- Do not use wheels that are cracked or those that excessively vibrate.
- Do not operate a grinder on wet floors.
- Use both hands when holding the grinder.
- Keep the power cord away from the grinding wheel and the material being ground.

Grinder don't's:

- Avoid using grinders near flammable materials.
- Do not clamp portable grinders in a vise for grinding hand-held work.
- Do not use any liquid coolants with portable grinders.
- Do not force wheels onto a grinder that is the wrong size or change mounting hole sizes.
- Do not tighten the mounting nut excessively.
- Do not put the grinder on the floor or working surface until the wheel has stopped turning.
- Do not keep any materials close to the grinding wheel when it is not in use.
- Do not wear loose clothing or dangling jewelry as they may get caught in the moving parts of the grinder. If you have long hair, keep it tied back.

Abrasive wheel grinders are great machines, but careless operation can injure your hands, fingers, eyes, and respiratory system. The fact that OSHA finds so many abrasive wheel grinder violations every year should be a warning to all of us. A wheel that fragments at high speed can cause severe personal injury and possibly death.

Don't get caught with your guard off....it could be dis-arming!!



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Safety Meeting Sign-In Sheet

Supervisor:	Subject:
Location:	Date:
Conducted By:	Trainer Signature:

Name (print clearly)	Signature	Comments / Safety Concerns / Training Requests

