

## Bench Grinders

Bench grinders, which are sometimes referred to as offhand or pedestal grinders, are a common piece of equipment on job sites and in the shop. They are used for a variety of tasks, including sharpening, polishing, buffing and cleaning metal objects.

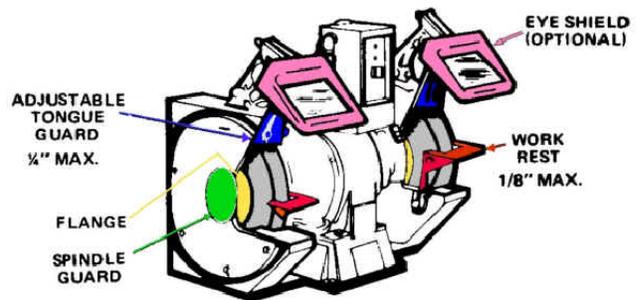
However, if used incorrectly, bench grinders can create a number of hazards. For instance, if the bench grinder is poorly maintained, the abrasive wheel may shatter, creating dangerous projectiles. What's more, loose clothing and jewelry can become tangled in the bench grinder during use, which can cause serious injuries.

This Safety Matters discusses Occupational Safety and Health Administration (OSHA) requirements for bench grinders and ways employees can stay safe on the job when using them.

### Guarding

Bench grinders are typically equipped with several types of guards, including tongue guards, work rests and side guards:

- **Tongue guards**—Tongue guards are metal plates located at the upper part of the wheel opening of the bench grinder. These guards prevent pieces of the grinding wheel from harming nearby workers should the wheel shatter. Per OSHA, tongue guards should be adjusted to ensure there's no more than a ¼-inch clearance between the guard itself and the grinding wheel.
- **Work rests**—Per OSHA, bench grinders must be equipped with a rest that can support workpieces. To prevent the workpiece from being jammed between the wheel and the rest, work rests must be adjusted in such a way that the gap between the face of the grinding wheel and work rest is no more than ⅛ of an inch.
- **Side guards**—Sometimes referred to as spindle guards, these guards are designed to enclose the wheel and spindle of a bench grinder. Per OSHA, side guards must cover the spindle and no less than 75% of the wheel.



For a visual representation of these guards, please review the above image.

### Additional Safety Considerations

While machine guarding is critical when it comes to bench grinder safety, there are additional precautions to keep in mind:

- Make sure the wheel you are using is compatible with the bench grinder. If the wheel isn't rated for the grinder, it could break and create serious injury risks.
- Perform a ring test before mounting a new wheel. These tests involve tapping the wheel with a nonmetallic object. If, during the test, you hear a dull, thud-like sound, the wheel may be damaged.
- Avoid standing directly in front of a bench grinder as you turn it on. If the wheel is damaged in any way, it may shatter as it gets up to speed.
- Wear the proper personal protective equipment when operating a bench grinder. This can include the following:
  - Face shields
  - Safety glasses
  - Hearing protection
  - Leather or canvas work gloves
- Be aware of items that could get caught in the bench grinder during use, such as loose clothing, jewelry or untied hair.
- Visually inspect the grinder before use, ensuring wheels, mounting flanges, electrical cords and other components are in good condition.
- Do not exceed the maximum recommended operating speed of the bench grinder.

Keeping in mind these precautions can go a long way toward ensuring your safety whenever you use a bench grinder. For more information, speak with your supervisor.

