

Safety Facts: Bench Grinder*



A bench grinder is a high-speed, two-sided benchtop type of grinding machine used to drive abrasive, fast rotating wheels of various sizes

Depending on the bond and grade of the grinding wheel, it may be used for sharpening a variety of cutting tools such as tool bits, drill bits, chisels, and gouges. It is also used to roughly shape metal prior to welding or fitting. Bench grinders have several basic adjustments and machine guarding components that must be used for safe machine use.

Typical accidents involving grinders have included fingers caught in the machine's components as well as eye and face injuries due to wheel disintegration, missing guards or misadjusted components. Understanding how to correctly use bench grinders can prevent these serious injuries as well as fires.

Key Characteristics of Bench Grinders

A bench grinder is a practical piece of equipment because of its versatility. This is partly because it's available in a broad range of sizes, models, and makes. Bench grinders create output that is generally considered rough.

This is because they are not designed to provide accurate or smooth and precise work. In most cases, the piece being fabricated must get to finer grinding in another machine for the necessary finished product.

Associated Risks

- Cuts and evulsion (action of forcibly pulling something out)
- Abrasions
- Electric shock
- Fires and Sparks
- Burns and Heat
- Flying Debris
- Entanglement
- Hot Components
- Crushing and/or pinch point hazards



Preventative Next Steps

Overall machine condition

- Securely mounted on a bench or pedestal
- Powered by a protected circuit
- Grinder runs without excessive vibration
- Tool rests intact and properly adjusted

Guard considerations

- Guards installed and adjusted properly
- Side plates installed and adjusted properly
- Clear components are crack-free and free of fogging or haze

Working area issues

- Working area around the grinder free of oils and flammable materials

Grinding wheels

- Correct wheel available for the job
- Wheel has been tested

Personal safety

- Operators have been shown safe grinder practices
- Appropriate PPE is used
- Testing of grinding wheels performed
- Grinding wheels are inspected at every change, whether new or old.



For additional resources visit:

CCOHS, Use of Bench and Pedestal Grinders Retrieved July, 2019

