

Safety Guide

for

Abrasive Wheels / Bench Grinders

The stated purpose of a work rest, properly adjusted to within one-eighth inch of the wheel, is to prevent the workpiece from being jammed thereby causing wheel breakage which could result in injury to the operator. In those instances, where due to the size of the workpiece, jamming is precluded, the enclosure (side guard) itself may provide protection.

The need for stabilizing the workpieces when grinding tools such as bits, chisels, drill bits, etc., is clear.

Powered abrasive grinding, cutting, polishing, and wire buffing wheels create special safety problems because they may throw off flying fragments. Always wear PPE such as safety glasses and in some cases it may be prudent to wear a face shield and respirator.

Changing Abrasive wheel:

Before an abrasive wheel is mounted, it should be inspected closely and sound- or ring-tested to be sure that it is free from cracks or defects. To test, wheels should be tapped gently with a light non-metallic instrument. If they sound cracked or dead, they could fly apart in operation and so must not be used. A sound and undamaged wheel will give a clear metallic tone or "ring."

To prevent the wheel from cracking, the user should be sure it fits freely on the spindle. The spindle nut must be tightened enough to hold the wheel in place, without distorting the flange. Follow the manufacturer's recommendations. Care must be taken to assure that the spindle wheel will not exceed the abrasive wheel specifications.

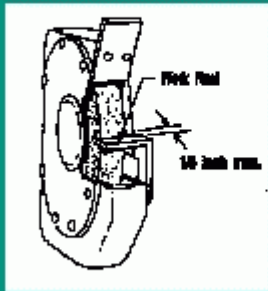
Start-up Hazards:

Due to the possibility of a wheel disintegrating (exploding) during start-up, the employee should never stand directly in front of the wheel as it accelerates to full operating speed.

In addition, when using a powered grinder:

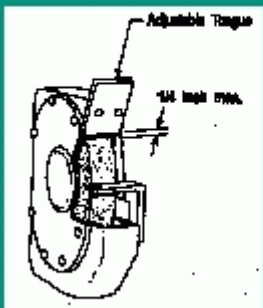
- Always use eye protection.
- Turn off the power when not in use.
- Never clamp a hand-held grinder in a vise.

Machine Guarding



- Bench Grinders require a work rest with a maximum clearance of 1/8 inch to insure that the work does not get drawn into the grinding wheel.

Machine Guarding



- The top clearance on a bench grinder should not exceed 1/4 inch.



example of a well guarded bench grinder