

# Safe Operation of Grinders

## Proper installation

- ◆ Check that wiring codes are followed and that recommended electrical connections are used.
- ◆ A ground fault circuit interrupter (GFCI) is required for portable electric grinders used in wet locations or with a liquid coolant.
- ◆ The grinder must be properly grounded or double-insulated.
- ◆ Follow appropriate lockout procedures when changing wheels or making repairs.
- ◆ Abrasive wheels must be stored, selected, installed, used, and periodically inspected in accordance with the manufacturer's instructions and recommendations.
- ◆ Never use an abrasive wheel that is rated for a slower speed (rpm) than the speed of the grinder spindle.
- ◆ Check that blotters and properly matched wheel flanges have been used to mount the grinding wheel onto the shaft of the grinder.
- ◆ Inspect the wheel for chips and cracks. Use the "ring test" to check wheels before installing.
- ◆ Check that the wheel covers are in place and are properly adjusted and tightened.
- ◆ Do not use an abrasive wheel for grinding non-ferrous materials (for example, copper, brass, aluminum, lead, and plastic) unless the wheel is designed for this purpose.

## Proper use

- ◆ Only properly instructed workers should use grinders.
- ◆ Secure loose clothing and remove ties, rings, watches, and other jewellery.
- ◆ Wear proper eye and hearing protection.
- ◆ Adjust and tighten tool rests on bench/ pedestal grinders to ensure the gap is no more than 3 mm ( $\frac{1}{8}$  in.) from the wheel.
- ◆ Stand to one side of the wheel when turning on the power to any grinder.
- ◆ The protective guard must be in place when using a portable angle grinder.
- ◆ If the wheel vibrates, do not use the grinder. Try dressing the wheel. If that does not stop the vibration, turn off the grinder and check to see if the wheel or bearings of the shaft are worn and need to be replaced.
- ◆ Dress the wheel on the face only; dressing the side of the wheel could cause it to become too thin for safe use.
- ◆ Use the face of the wheel for grinding unless the wheel is designed for side grinding.
- ◆ Do not apply excessive pressure to the grinding surface.
- ◆ Grinding creates heat; don't touch the ground portion of the workpiece until you are sure it has cooled.
- ◆ Do not leave a grinder unattended until the wheel has come to a complete stop.
- ◆ Clean the work area after using the grinder.