

The following safety information is based in part on material contained in the ANSI B7.1 Safety Requirements for the "Use, Care and Protection of Abrasive Wheels". All personnel involved with grinding wheels should become familiar with ANSI B7.1.

Proper Use of Grinding Wheels

When using the correct wheel, in accordance with approved procedures, safe operation will depend largely on the treatment to which the wheel is subject during shipping and handling, application and storage. The following are guidelines to ensure safety when using grinding wheels.

WARNING

Inspection
Grinding wheels should be inspected upon receipt for signs of damage: i.e., chips, cracks, discoloration. Damaged wheels must not be used.

Always

- Ensure that guards and work rests are properly adjusted and secure before starting machine.
- Use a safety guard that covers at least one-half the grinding wheel.
- Allow a newly mounted wheel to run at operating speed with guard in place at least one minute before beginning to dress or grind.
- Wear protective glasses or some type of eye protection when grinding.
- Dress or make grinding contact gently.
- Re-dress the wheel when necessary.
- Before stopping the wheel, turn off coolant to avoid creating an out of balance condition.

Never

- Exceed the maximum operating speed established for the wheel.
- Start the machine until the guard is in place.
- Stand directly in front of the wheel when the machine is started.
- Jam the work into the wheel, nor use excessive pressure or infeed.
- Force grinding so that the motor slows noticeably or the work gets hot.
- Grind on the side of the wheel (see ANSI B7.1 for exception).
- Allow stationary wheels to rest in fluids.
- Apply pressure to wheels to stop them.
- Continuously use glazed wheels without dressing.
- Use wheels for purpose other than those for which they are designed.

Handling

- Any type of mishandling that can result in the wheel being subjected to any shock loading can cause damage. This can occur due to the product being inadvertently dropped, knocked over or banged against any other object. This is equally true if the wheel is secured on a pallet which has been dropped heavily from a fork lift truck.
- Any grinding wheel subjected to such mishandling should be carefully examined for signs of damage: i.e., chips, cracks or discoloration. If in doubt – do not use.

Wheel Handling

- Only a trained person should mount a grinding wheel.
- Be sure that the proper machine is used for wheel being mounted. Never mount a wheel on a machine for which it is not intended.
- Before mounting, grinding wheels should be inspected closely ensuring that they were not damaged while in storage or transit.
- Never perform ring test in a noisy area. Perform ring test only in a place where the tone of the ring can be easily heard.
- The speed of the spindle on which the wheel is mounted should never, under any circumstances, exceed the maximum speed specified for the wheel.
- Bushings should not project beyond the side of the wheel and the wheel blotter when used. The wheel should fit freely, but not loosely, on the spindle.
- Wheels, blotters and flanges should be free from foreign matter.

Proper Storage of Grinding Wheels

- Never subject wheels to humidity, water or other liquids, freezing temperatures or sudden temperature changes.
- Use suitable bins, drawers or boxes to store small wheels up to 4" diameter, together with cones, plugs, mounted points and wheels.
- Cylinder wheels (type 18), straight cup wheels (type 6), dish wheels (type 27) and saucer wheels (type 28) should be stacked on flat sides with cushioning material between them.
- Thick rim and hard grade cylinder and straight cup wheels may be stored on the periphery.
- Store soft grade, straight cup wheels, and all taper cup wheels (type 11), base to base and rim to rim to prevent chipping of edges and cracking of walls.
- Stack thin, plain wheels, such as cutting off wheels or saw sharpening wheels on a flat surface of steel, or similar rigid material.
- Other plain or shaped wheels of appreciable thickness are best supported on the periphery in racks. To prevent the wheels from rolling the racks should provide cushioned, two point, and cradle support.