

# Grinding Wheel Safety

Safety is everyone's business in both the application and care of grinding wheels. Wheels improperly used may not only be breakable – they can be dangerous.

Grinding wheel operation must always be in strict compliance with the American National Standards Institute (ANSI) B7.1 Safety Requirements and the Occupational Safety and Health Act which regulates speed; safety guards; flanges; mounting procedures; general operating rules; handling, storage and inspection; and general machine conditions.

Experience has demonstrated that when a grinding wheel breaks in operation, the cause usually can be traced to one of five major sources: (1) faulty mounting, (2) excessive speed, (3) improper application, (4) negligent handling, (5) improper storage.

Extreme care is assigned by the manufacturer to enforce exacting quality control standards. Balancing, speed testing, thorough periodic inspection along the production line and careful packing prior to shipping are all standard industrial practices. The same meticulous attention to safety is given by the manufacturers of grinding machines and grinding equipment. Ultimately, the operator must be familiar with the fundamental considerations involved in the safe handling of grinding wheels and accept personal responsibility for their safe operation.

## *Using Grinding Wheels Properly*

- Always wear safety glasses or protective goggles.
- After the wheel is securely mounted and all guards are in place, turn on the machine, step back out of the way, and let it run for at least one minute at operating speed before starting to dress or grind.
- If wet grinding, start coolant flow and adjust nozzles for correct operation.
- Make grinding contact gently, without bumping or gouging.
- Grind only on the face of a straight wheel. Grind only on the side of a cylinder, cup or segment wheel. Consult ANSI B7.1 Safety Code for exception.
- Never force grinding so that the motor slows noticeably, or the work gets hot. Watching the machine ammeter can be a good indicator of correct performance.
- Always dress a newly mounted wheel to make sure it runs true. Re-dress when necessary.
- Turn off the coolant flow before stopping the wheel, to avoid creating an out-of-balance condition. Never allow stationary wheels to rest in fluids, since this will also create an out-of-balance condition.
- Never apply pressure to wheels to bring them to a stop.
- Protect grinding wheels when not in use. Store them safely if they are removed from the grinding machine, so they'll be ready to go to work on the next job.
- Never use wheels for purposes other than those for which they were designed.