



# Bench Grinder Safety Rules

A bench grinder is a machine used to drive an abrasive wheel or wheels. Depending on the grade of the grinding wheel, it may be used for sharpening cutting tools. To avoid accidents, the following operational safety rules must be observed by everyone working on the KCWG Bench Grinder. Failure to follow the safety rules will result in a loss of shop privileges.

## **Bench Grinder Safety Rules:**

1. Before working with a bench grinder, make sure the tool and it's accessories are in the proper working order.
2. "Ring Test" grinding wheels before mounting. Suspend the wheel on a pencil held horizontally through the center of the hole. Tap the wheel lightly with a plastic screwdriver handle, in spots 45 degrees from vertical. If it produces a clear ringing tone it is in good condition. If it sounds dull, REPLACE it.
3. Inspect the wheels for a hairline crack before using. **DO NOT USE A CRACKED WHEEL.**
4. Make sure the wheel housing guards are in place.
5. New grinding wheels should be balanced by dressing and truing to eliminate vibration.
6. Used wheels should be trued and dressed when worn out of round, or the surface face is clogged or worn smooth. This provides a clean sharp grinding surface and rebalancing of the wheel. Dress the wheel on the face only. Dressing the side of the wheel would cause it to become too thin for safe use.
7. Don't operate a grinder unless it is securely mounted to the workbench.
8. Do not heavy grind on the side of the wheel.

## **Start with a Risk Assessment to ensure a safe work area:**

1. A two foot perimeter around the grinder should be kept clear of people, debris that impair traction or footing to avoid slips and falls.

2. Safety glasses with side shields and a face shield must be worn. Hearing protection should be worn.
3. Remove loose fitting clothing, jewelry, and tie back long hair.
4. Give the work your undivided attention.

## **Operational Safety Rules:**

1. Approach your work in the KCWG Shop & on the bench grinder with a safe attitude!
2. Adjustments need to be made when the grinder is unplugged & stopped. Adjust tool rests 1/8" from the wheels and slightly below center and spark or shatter guards (at the top of the wheel housing guards) 1/16" away from the wheels. Re-adjust these as the wheels wear down to a smaller diameter.
3. Stand to one side of the wheel when turning on power. Allow the grinding wheel to run at full operating speed for one minute. DO NOT use a wheel that vibrates.
4. Bring the object into contact with the grinding wheel slowly and smoothly avoiding impact or bumping motions.
5. Move the object being ground, back and forth across the face of the wheel only, as this prevents "ruts" or grooves from forming.
6. Never grind small stock. Do not attempt to grind or sharpen anything that cannot be adequately supported by the tool rest. Use clamping pliers when grinding parts that cannot be held easily by hand.
7. Do not touch the ground portion of the workpiece until cooled.
8. Keep bystanders a safe distance away from the work area. Anyone entering the work area must wear his/her PPE.
9. Turn off grinder and wait until comes to a complete stop. Never stick an object into the wheel to stop the grinder quicker. Let it stop on it's own.