

Bench Grinder

The bench grinder uses a motor to drive one or more abrasive wheels. Depending on the grade of abrasive, it may be used for sharpening cutting tools.

Safety Rules

1. When using the grinder, you must wear a full face shield *in addition to* your safety glasses with side shields.
2. Don't operate a grinder unless it is securely mounted to the workbench.
3. "Ring test" grinding wheels before mounting:
 - a. Suspend the wheel by putting a pin or your finger through the arbor hole in the wheel. Heavier wheels may be allowed to rest in a vertical position on a clean, hard floor.
 - b. Tap the flat side of the wheel with a light non-metallic implement, such as the handle of a screwdriver, at a point 45 degrees from the top center on each side of the wheel and 1"-2" from the edge of the wheel. Large, thick wheels may be struck on the periphery rather than the side of the wheel.
 - c. Rotate the wheel 45 degrees and repeat the test until the entire wheel has been checked. If it produces a clear ringing tone it is in good condition. If it sounds dull, replace it.
4. Inspect the wheels for hairline cracks before using. *Do not use a cracked wheel.*
5. Make sure the wheel housing guards are in place.
6. With the grinder stopped and unplugged, position the tool rests 1/8" from the wheels and slightly below center; position the spark guards (at the top of the wheel housing guards) 1/16" away from the wheels. Readjust the tool rest and guards as the wheel wears down.
7. Stand to one side of the wheels when turning on power. Allow the grinding wheel to run at full operating speed for one minute before grinding. *Do not use a vibrating wheel.*
8. Dress and true the wheel as needed to eliminate vibration or if it is out of round, clogged, or worn smooth. Dress the wheel on the face only. Dressing the side of the wheel could cause it to become too thin for safe use.
9. Do not grind on the side of the wheel.
10. Bring the tool or object you want to grind into contact with the grinding wheel slowly and smoothly.
11. Move the object being ground back and forth across the face of the wheel, as this prevents "ruts" or grooves from forming in the wheel, which can lead to disintegration of the wheel.
12. 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.
13. Do not touch the ground portion of the workpiece until it has had time to cool.
14. When you turn off the grinder, don't try to slow it down or stop it. Let it stop on its own.

