



Safe Use of Bench Grinders

Toolbox Talk Lesson Plan

Pedestal or bench grinders are used to sharpen high-speed steel cutting tools used on lathes and milling machines. They are also used to deburr, or used to remove surface imperfections and to work extremely hard materials.



Procedure for Using a bench or pedestal grinder

1. Examine the grinder to see that the tool rest is set at the required height, is within 1/8 of an inch to the face of the wheel, and is securely fastened in this position. Tongue guard is to be set at 1/4" from the wheel.
2. Adjust safety glass shields on the grinder to permit clear vision of the part to be ground and still protect the operator from flying particles.

CAUTION: Always wear safety glasses and/or face shield when using a grinder.

3. Start the grinder.

CAUTION: Stand to one side of the wheel when operating the grinder.

4. Hold the work in one hand, and steady it with the other. Place the work on the tool rest; then guide it against the face of the revolving wheel and apply enough pressure to grind, depending upon the hardness of the material and the wheel itself.

Note: Support the work on the tool rest when grinding, except with small tool bits which can be guided better by supporting them with the fingers or with a hand resting on the tool rest.

5. Cool work in a water pot as it becomes heated from grinding, especially the small hardened tools that would lose their temper if overheated. **Twist drills should not** be cooled by dipping in water, as it may cause cracking. Grind the job to the required shape or size by moving the work back and forth across the face of the wheel. This will prevent wearing a groove into the wheel and will result in a flatter surface on the work.

CAUTION: Keep fingers away from the revolving wheel, especially when grinding small pieces. Also make sure the tool rest is close enough to the wheel to prevent the work from slipping into the space between the two.

Note: Remove as much metal by rough grinding as is possible; then use the finer wheel for finishing.

Do not grind on the side of the wheel except when absolutely necessary, and then with only **light** pressure.

6. Stop the grinder. Check work with a gage or other measuring tool.

This lesson plan is intended for general information purposes only. It should not be construed as legal advice or legal opinion regarding any specific or factual situation. Always follow your organization's policies and procedures as presented by your manager or supervisor. For further information regarding this bulletin, please contact your Safety Director at 877.398.3046.