

OSHA Training Toolbox Talk:

Operating a Pedestal or Bench Grinder – Basic Safety Requirements

Can you believe the surface of an eight-inch diameter grinding wheel that is mounted on a bench grinder turning 3,100 RPM's is traveling at over 65 miles per hour? It's no wonder that thousands of people are injured in the United States each year because they do not follow basic safety precautions when operating a pedestal or bench grinder. So here is an overview of a few important OSHA requirements you need to remember when operating these type grinders.

First of all, make certain the bench grinder is firmly secured to the work bench or other work surface per the manufacturer's instructions. Failure to do so could result in the vibrations causing the grinder to move and possibly falling to the floor - or onto your foot. An unsecured grinder can also unexpectedly move as you apply pressure to the wheel, and this inadvertent movement could result in your hand making contact with the turning wheel. Talk about a knuckle-buster!

Next, make certain the lower work rest, also known as a tool rest, is installed when using an abrasive wheel, and that it is adjusted so the gap between the face of the grinding wheel and tool rest is not more than one-eighth of an inch (refer trainees to the handout accompanying this toolbox talk). Minimizing this gap helps prevent the item you are grinding from becoming wedged between the spinning wheel and the work rest, which could cause the wheel to shatter and send shrapnel back towards your body at over 65 miles per hour. And as the face of the wheel wears down over time and its diameter decreases as you operate the grinder, you will need to turn off the machine, let the wheel come to a complete stop, and then re-adjust the gap so as not to exceed the one-eighth inch maximum opening.

Also make sure the upper tongue guard, sometimes called an upper periphery guard, is installed and adjusted to where the opening between the face of the grinding wheel and that guard does not exceed one-quarter of an inch. The purpose of this upper guard is two-fold; it helps deflect sparks while you are grinding, but it also helps contain or deflect parts of the wheel should it shatter. Same as with the lower work rest, this upper guard needs to be adjusted as the wheel wears down to maintain the proper opening; just make certain it comes to a complete stop first.

Last but not least, make certain you have no loose-fitting clothing, gloves, jewelry, hair, or other items dangling as you operate the grinder. If one of those things get tangled up in the revolving grinder wheel, an injury is almost certain to occur.

