# Grinders Meeting Kit


Grinders use powered rotating attachments to work metal and other materials. Bench grinders are mounted to a bench or tabletop while pedestal grinders are mounted to the floor on a pedestal. With an abrasive, wire brush, or buffing wheel attachment, grinders sharpen tools and shape, clean, or polish metal pieces.

**GRINDER MACHINE HAZARDS**

All types of grinding machines, whether pedestal, bench mounted, free-standing or portable, can be potentially hazardous if they are not well maintained and used correctly. In addition to the common hazards of flying particles, dust and sparks, shattering abrasive wheel while in Motion can cause severe injury to both the user and others. To avoid a potential hazard, we need to follow Grinder Safety.

**GRINDER OPERATIONAL PRACTICES**

**Before Use ensure that:**

- the guard and handles are secure
- there are no defects or damage to the disc (a disc which has been dropped may have developed cracks and should not be used)
- the correct flange and locking nut is in place for the type of disc being used (otherwise the disc can shatter at high speed)
- the tightening tool supplied by the grinder manufacturer is used to tighten the disc as other methods can damage the disc and grinder
- the correct disc diameter and central disc hole size for the spindle is used
- the correct type of disc is used for example grinding discs for grinding and cutting discs for cutting
- the correct type of disc is used for the material being cut or ground.

**During Use ensure that:**

- use two hands to operate the grinder. One hand should grip the handle and dead-man switch (if provided), while the other hand supports the weight of the tool
- allow the grinder to ‘run up’ to operating speed before applying it to the job

- hold the grinder against the work piece with minimum pressure, so the disc does not ‘grab’ and cause it to kickback
- never bump the grinder onto the object, or let the disc hit any other object while grinding
- keep the grinding disc at a 15 to 30-degree angle to the object. Ensure the work piece is held firmly, either as part of a larger item or in a bench vice
- where possible, keep the work at waist height during grinding
- adopt a comfortable stance with feet apart so you feel well-balanced, and ensure you have a clear view of the job
- never use a grinder between your legs while sitting on the floor
- stop at regular intervals for a short break to rest your hands and arms
- never put a grinder down until the disc stops rotating

**Best Safety Practices To Prevent Angle Grinder Accidents**

**Wear proper PPE.** You should always wear proper PPE when working with this power tool, including leather work gloves, eyes, hearing protection, work apron, natural fiber clothing with long sleeves, and respiratory protection.

**Choose the proper wheel size for your angle grinder.** Make sure that you choose the appropriate wheel with your grinder’s disc sizes.

Disc sizes can affect not only the tool’s RPMs but also your safety. An inappropriate disc that is not correctly calibrated for a safe operation will become unstable and kick back toward you if operating at high speed.

**Only use a wheel that matches with your grinder’s recommended RPMs.** The maximum recommended grinding disc is the safety line you should always follow when using a dangerous cutting tool like angle grinders. This spec is often noted on the tool’s body, in its packaging, or on the product description page.

**Always use safety guards as guidance.** Safety guards are meant to protect your hands and body from flying particles. They also provide kickback protection when the disc or the wheel breaks or shatters. Thus, always install the safety guards before running your angle grinder, even if you cut a small piece of wood in a few seconds.

**Don’t try to customize the grinder.** You should ask the manufacturer before making modifications to your grinder. They will help you indicate which modifications are safe and which ones are dangerous to do. Moreover, only use accessories that are designed for angle grinders. Using the wrong accessories can not only damage the machine but also result in risks to you as well as the people and objects around you.

**Examine the abrasives.** Always remember to examine the abrasives of the wheel like cracks, chips, or any other damages before working with a brand new or used disc. Why? Cutting wheels can experience drops during shipping or accidentally fell by another person.

**Warm up the tool**. You should freely run the angle grinder with the attached accessory for one minute before using it. This starting step will let the machine warm up to maximize its performance and also a chance to let you check if there is any problem with it.

**Keep your working area free of flammable objects.** You should make sure there is no flammable object, material, liquids, or gasses in your working area. Otherwise, the flying hot sparks when grinding or cutting metal will ignite fire hazards.

**Properly tighten the wheel.** Before starting the grinder, you should tighten its wheel using a pin wrench. Don’t use your hand to do this job, because it can be risky.

If you hate doing this job repetitively, you can also choose a Metabo angle grinder with a unique mechanism to tighten or release the discs whenever you want without a wrench.

**Control the grinder with two hands.** Except for small models with one-hand operation, you should always place your two hands in the correct positions to safely control and maneuver your grinder. Place one hand on the side handle and the remaining one on the back of the tool.

## FINAL WORD

Grinders are very powerful and dangerous equipment in our industrial infrasture.  As such, proper training for grinder use strict control measures must be provided in tandem to provide a safe and secure environment for workers.