

Grinding and Cutting



Why do accidents happen?

- Fatigue
- Rushing to finish the job
- Lack of awareness of the potential risks
- Using the wrong tool or accessories
- Removing or bypassing the safety features

Accidents Happen... FAST!

A 6" thin cutting wheel has a no load speed of 9,600 RPM, which equals **170 MPH!**



PPE



Step 1: Properly Prepared Work Area

You see something or someone looks unsafe...
TELL A SUPERVISOR IMMEDIATELY

Grinders throw sparks

- Remove combustible materials - paper, cardboard, rags
- Never work near combustible liquids, gases or dust
- **Never operate power tools in wet environments**
- Clear your mind and avoid distractions

Step 2: Selection of the Proper Tool

- Match rated RPMs and power to the work
- Use specific tools for unique applications
- **Never Alter a Tool**
- Do not bypass the on/off switch
- Never use "non-grinder accessories"
- ONLY use recommended guards
- ALWAYS use a side handle WITH two hands on the grinder

Step 3: Proper use of Accessories

Always match the diameter of the wheel with rating on grinder.

- Always Inspect Wheels Prior to Using
- Visually inspect for chips or imperfections and replace
- **ALWAYS** start grinder with wheel facing away from body and other workers. Run for 60 seconds to test
- **NEVER** use a wheel with a rated speed lower than rated speed of grinder

Step 4: Proper Techniques

- Always keep an "athletic stance" with both hands on the grinder
- Do not overreach
- Properly support **BOTH** sides of the work to avoid pinch or bind
- Always cut from the top to the bottom - use gravity to your advantage
- Never cut two planes at once
- Properly tether tools when working at height as required

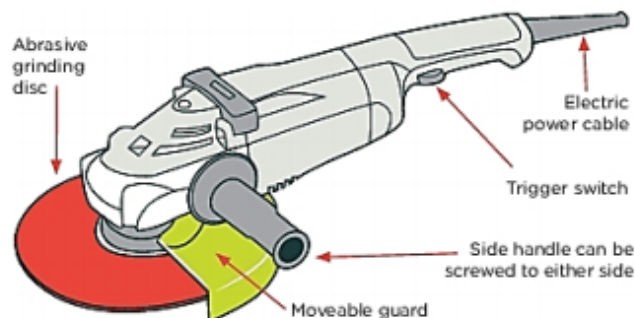
Step 5: Reducing Wheel Spin Downtime

It takes 8-12 seconds for a wheel to come to a complete stop.

Many accidents occur during this time

- Brush by accidents
- Catching your hand
- Swiping a nearby co-worker

Grinder may "walk, spin-out, run away, etc." if placed on surface before wheel stops



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Protect Against Hazards



Hazards

- Entanglement with turning wheel or disc
- Pressing too hard on a disc may cause it to explode
- Ejected sparks may ignite combustible material
- Flying debris
- Electrical current
- Noise
- Slips, trips & falls around the work area
- Workpieces may jam against discs, breaking them
- Exceeding the RPM of the disc may cause it to explode creating shrapnel
- If a grinder is put down before the disc stops turning it can spin out of control.

