

## ***Abrasive wheels, buffers, and scratch brushes***

- Guard abrasive tools as completely as possible.
- When grinding, the maximum angular exposure of the periphery and sides should not exceed 180 degrees.
- Always enclose the top portion of the wheel when grinding
- Use adjustable guards to make the correct adjustment instead of removing the guard
- Always wear eye protection
- Keep an abrasive wheel away from water and oil, which might affect its balance
- Protect the wheel from blows by other tools, and avoid striking the sides of a wheel against other objects or dropping the wheel
- Hold and use the wheel correctly so that it does not touch the clothes or body
- Only trained employees should install wheels

- Guards for wheels must not be removed
- Wheels should be sound-tested (ring-tested) before being mounted
- Discard defective wheels immediately
- Ensure that maximum machine rotation (RPM) does not exceed the rating of the wheel

## ***Air powered Tools***

- Keep hands and clothing away from the working end
- Follow safety requirements applicable to the tool being used and the nature of the work
- Inspect and test the tool, air hose, and coupling before each use
- Use a short chain or hose safety pins to secure all air line couplings
- Never exceed the manufacturer's listed air pressure
- Use pin guards to prevent the pin from being thrown off during operation

## ***Pneumatic Tools***

- Handling heavy jackhammers causes fatigue and strain. Cover jackhammer handles with heavy rubber grips to reduce vibration and fatigue.
- Wear appropriate personal protective equipment, including shoe guards
- When two jackhammers are in use, work back-to-back to prevent injury from chips

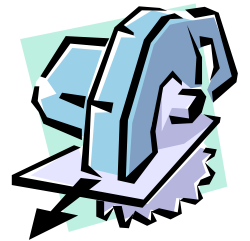
Always use three safety devices:

1. An automatically closing valve that is actuated by a trigger inside the handle
2. A retaining spring, or ring that holds the tool in place and prevents it from being fired from the barrel
3. A rubber-retaining ring that prevents the pin holding the tool in place from being released during operation

For additional information contact:  
**Environmental Health and Safety**  
650-3064,  
Environmental Studies 72, Mail Stop 9070

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# Portable Power Tool Safety



## Portable Power Tools

A portable power tool presents hazards similar to a stationary machine of the same kind. The mobility of power-driven tools means they can easily come in contact with the operator's body

- Before making adjustments to power tools, such as changing a bit or blade, make sure the power is off or the unit is unplugged
- Avoid loose clothing, jewelry, ties, or any dangling objects
- Tie back long hair that may catch in rotating parts or accessories
- If it has an electrical cord, constantly stay away from the cord's location
- Ensure removable parts are in good condition and securely attached to the power tool before use
- Unplug tools left unattended

## Electric Tools

Electric shock is the chief hazard from electrically powered tools

- Do not use electric tools in damp or wet locations, or in metal tanks
- Use only electric tools that are in good repair

- Use only double-insulated electric tools
- Use a Ground Fault Circuit Interrupter (GFCI) if a double-insulated tool is not available
- Use GFCIs in wet environments, confined spaces, and some construction activities

## Circular Saws

- Use guards as the manufacturer intended
- Check the guard frequently to be sure that it:
  - Operates freely
  - Encloses the teeth completely when cutting.
  - Encloses the unused portion of the blade when it is cutting
- Inspect masonry cracks after every use
- Do not use a circular saw that is too heavy for a worker to easily control
- Be sure the switch turns the tool on and returns to the off position after release
- Use sharp blades
- Use the correct blade for the application, and observe rotation marks on the blade during installation
- Make sure the blade has the proper size and shape arbor hole

- Check for the speed marked on the blade and that it matches the no-load speed on the saw nameplate
- Secure work with a clamp
- Use both hands for maximum control

## Belt or Disc Sanders

- Do not expose sander to liquids
- Do not use in damp or wet areas
- When adjusting the tracking of the belt on a portable unit, have the sander supported and positioned to avoid contact with yourself or an adjacent object
- The work area should be at least 3ft-4ft larger than the length of stock being sanded
- On stationary sanders, maintain a 1/16-inch maximum clearance between the work table and the sanding disc or belt on all working sides
- Always support your work piece with the table or backstop
- Use jigs, clamps, or fixtures to hold your work piece whenever possible

## Disc Grinders

- Use portable straight grinders only with high-strength, bonded wheels
- Equip tuck point grinders (a variation of straight grinders) with re-inforced abrasive discs and the appropriate guard
- Maintain firm control and balance of the tool, and never over-reach
- Do not allow the grinding wheel to bend, pinch, or twist in the cut or kickback may result
- Use angle grinders primarily for the removal of metal or masonry
- Equip angle grinders with reinforced abrasive discs or wire cup brushes
- Check for wheel speed, and do not exceed it
- Always check for cracks
- Do not use damaged grinding wheels
- Fragments from grinding wheels can be fire hazards

