



Safe Work Guideline Compressed Air

Prepared By:
Don Doherty

Effective Date:
February 2010

Revised By:
Don Doherty

Date:
March 2023

Many different types of tools are powered by compressed air. They are fast and powerful. Compressed air can be dangerous. Hazards include:

Air embolism: This is the most serious hazard, since it can lead to death. If compressed air from a hose or nozzle enters even a tiny cut on the skin, it can form a bubble in the bloodstream with possibly fatal results.

Physical damage: Compressed air directed at the body can easily cause injuries including damage to eyes and ear drums.

Flying particles: Compressed air at only 40 pounds per square inch can accelerate debris to well over 70 miles per hour when it is used to blow off dust, metal shavings, or wood chips. These particles then carry enough force to penetrate the skin.

The following safe work practices must be followed when using compressed air:

- Run combustion engines outside or in a well-ventilated area to prevent the build-up of carbon monoxide gas.
- When moving compressors to another location, ask for help or use mechanical devices to prevent back injuries.
- Wear the appropriate personal protective equipment (safety glasses, hard toed boots, hard hat, appropriate clothing, and hearing protection).
- Secure hose connection with wire or safety clips to prevent the hose from whipping around.
- Make sure hoses are clear of traffic and pose no tripping hazards.
- Never tamper with safety devices.
- Keep hands away from discharge area of pneumatic tools especially nail guns and staplers.
- Match the speed rating of saw blades, grinding wheels, etc. to tool speed. Too fast or too slow a rotation can damage the wheels, release fragments, and injure workers.
- **Never use air to blow dust or dirt out of clothes. Compressed air can enter the skin and bloodstream with deadly results.**
- Turn off the air pressure to hoses when the system is not in use.
- Never kink the hose to stop air flow.
- Follow manufacturer's instructions for use and maintenance.
- **Never allow students to use compressed air unless there is active supervision by a teacher or teaching assistant.**
- **Make sure that the air pressure is set at a suitable level for the tool or equipment being used.**