

Safety Note # 153

Compressed Air Safety



Compressed air is used in many shops to operate tools and equipment, with air pressure often exceeding 100 pounds per square inch (psi). However, air pressure of less than 10 psi can cause injury if not used properly. This safety note provides guidelines for the safe use of compressed air.

General Compressed Air Guidelines:

- Examine all hoses, connections, and equipment to see that they are in good condition before turning the pressure on. If compressed air equipment fails the pre-use inspection, notify your supervisor and remove the equipment from service by attaching a red tag that states "DO NOT USE." Complete red tag with appropriate information.
- All pipes, hoses, and fittings must have a rating of the maximum pressure of the compressor. Compressed air pipelines should be identified (psi) as to maximum working pressure.
- Air supply shutoff valves should be located (as near as possible) at the point-of-operation.
- Air hoses should be kept free of grease and oil to reduce the possibility of deterioration.
- Hoses should not be strung across floors or aisles where they are liable to cause personnel to trip and fall. When possible, air supply hoses should be suspended overhead, or otherwise located to afford efficient access and protection against damage.
- Before turning on the air supply, the output hose should be connected to an implement or held securely to prevent whipping.
- Never kink the hose to stop the air flow - turn it off at the control valve.
- Always wear eye protection (safety glasses, goggles, or face shield) when using compressed air.
- Turn off the valve on both the tools and the air line when the job is finished.
- Never look into a charged compressed air nozzle apparatus and never point it at any part of the body.

Air Compressor Operation and Maintenance:

- Air compressor equipment should be operated only by authorized and trained personnel.
- Air intakes should draw from a clean, fresh, outside air source. Screens or filters can be used to clean the air.
- When working near an air compressor for prolonged periods, consider the use of hearing protection.
- Air compressors should never be operated at speeds faster than the manufacturers' recommendation.
- Equipment should not become overheated.
- Moving parts, such as compressor flywheels, pulleys, and belts must be effectively guarded.
- Gasoline or diesel fuel powered compressors shall not be used indoors.
- Equipment placed outside but near buildings should have the exhausts directed away from doors, windows, and fresh air intakes.
- During maintenance work, the switches of electrically operated compressors should be locked open and tagged to prevent accidental starting.
- Portable electric compressors should be disconnected from the power supply before performing maintenance.
- A permit is required for pressurized air tanks over 125 gallons. The permit must be posted in a conspicuous place on or near the air tank.

Using Compressed Air for Cleaning Equipment:

- When using compressed air for cleaning, make sure the pressure is no higher than 30 psi
- Wear eye protection (safety glasses, goggles, or face shield) when using compressed air for cleaning.
- Compressed air should not be used to clean dust or dirt from clothing.
- Never point an air hose nozzle at any part of your body or at any other person.
- Before using compressed air, make sure that dirt will not be blown onto other workers in the area. Only the user should be in the vicinity where compressed air is used to clean equipment.