

Portable Tools: Pneumatic Power Tool Requirements

Department: Chemical and General Safety

Program: Portable Tools

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Authority: ES&H Manual, Chapter 25, Portable Tools

Use of portable pneumatic power tools, such as chippers, drills, hammers, and sanders, must meet the following requirements, in addition to those found in Portable Tools: Power Tool Requirements.¹

Note Always visually inspect tools before use and remove any found to be defective from service.

There are several dangers encountered in the use of pneumatic tools, which are powered by compressed air. The main one is the danger of getting hit by one of the tool's attachments or by some kind of fastener the worker is using with the tool.

General

1. Employees must check to see that pneumatic tools are fastened securely to the hose to prevent them from becoming disconnected. All pneumatic tools must be secured to the hose or whip by some positive means to prevent the tool from accidentally disconnecting.
2. A safety clip or retainer must be installed to prevent attachments, such as chisels on a chipping hammer, from being unintentionally shot from the barrel.
3. All hoses over 1.27 cm (0.5 inches) in diameter must have a safety device (pressure regulator) at the source of supply or branch line to reduce pressure if the hose fails. All connections must be provided with a device to prevent whipping.
4. Pneumatic tools must be disconnected from the source and any pressure in lines must be released before any adjustments or repairs are made.
5. The use of hose for hoisting or lowering tools is prohibited.
6. The manufacturer's safe operating pressure must not be exceeded for hose, pipe, valves, filters, and fittings.
7. Eye protection is required and face protection is recommended for employees working with pneumatic tools.
8. Protective screens should be used to protect nearby workers from being struck by flying fragments generated by the use of pneumatic tools.

1 Portable Tools: Power Tool Requirements (SLAC-I-730-0A21S-027), <http://www-group.slac.stanford.edu/esh/eshmanual/references/toolsReqPower.pdf>

Compressed Air Guns

1. Compressed air nozzles should not be aimed or pointed at other personnel unless the specific operation requires this action. Users should never *dead-end* a compressed air gun against themselves or anyone else.
2. Compressed air over 30 pounds per square inch gauge (psig) must never be used to blow dirt, chips, or dust from clothing while it is being worn.
3. Pneumatic nailers and staplers operating at more than 100 psi must have a safety device to prevent operation when the muzzle is not in contact with the surface.
4. Pneumatic nailers and staplers must be disconnected at the tool from the air supply when not in use.
5. Operators using pneumatic nailers and staplers on steep roofs (1/3 pitch or greater) must always wear a securely fastened safety belt and lanyard.
6. On roofs of 1/4 pitch or greater, the air hose for a pneumatic nailer or stapler must be secured at roof level to provide ample, but not excessive, amounts of hose.

Portable Compressors

1. Wheels must be fixed, locked, or blocked to prevent rolling.
2. Fans must be guarded with a shroud or side screens.
3. Air tanks must be drained of liquid according to the manufacturer's specifications.
4. Air receivers must comply with 29 CFR 1910.169² and with sections 461 through 466 of Title 8, *California Code of Regulations* (8 CCR 461–466).³

2 Title 29, *Code of Federal Regulations*, “Labor”, Part 1910, “Occupational Safety and Health Standards”, Subpart M, “Compressed Gas and Compressed Air Equipment”, Section 169, “Air Receivers”, (29 CFR 1910.169),

http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=9823

3 Title 8, *California Code of Regulations*, Division 1, “Department of Industrial Relations”, Chapter 4, “Division of Industrial Safety”, Subchapter 1, “Unfired Pressure Vessel Safety Orders”, Article 3, “Air Tanks” (8 CCR 461–466), <http://www.dir.ca.gov/title8/sb1a3.html>