



Pneumatic powered (compressed air) tools and equipment are used in many operations. However, if not used carefully, air power can be a hazard in the workplace. Examples of tools and equipment that are powered by compressed air include jackhammers, rock drills, nail guns and staplers, and an assortment of air wrenches.

The driving force of the pneumatic system is the air compressor.

Compressed air storage tanks may become a hazard unless used and maintained properly. Air storage tanks must be installed so that all drains, hand-holes, and manholes are easily accessible. Under no circumstances may a compressed air storage tank be buried underground or located in an inaccessible location. A drainpipe and valve must be installed at the lowest point of any air receiver to provide for the frequent and complete removal of accumulated oil and water.

Requirements for Compressed Air Equipment Safety:

- **Every storage tank** must be equipped with a pressure indicator gauge with one or more spring loaded safety valves.
- Pressure gauges must be readily visible.
- The pressure relief safety valves may not exceed the rated working pressure of the air storage tank.

- No valve of any type may be placed between the safety valve and the air storage tank.
- Safety valves, pressure gauges, regulators, and other controlling devices must be designed and installed so that they cannot be easily rendered inoperative by any means, including weather elements.
- **All safety valves must be tested** frequently to determine proper operating condition.
- Never install compressors on an unrated air tank. The air storage tank must be rated equal to or higher than original equipment.
- If pressure gauges or pressure relief valves are damaged, replace them with compatible equipment before using the compressor.
- If a compressed air storage tank is dented, deeply gouged, or badly rusted, compressor must be removed from service.
- Do not use compressed air to pressurize barrels, pipes, or other containers not designed or intended as pressure vessels.
- If an air storage tank is equipped with a quick connect/release fitting, make sure the lock collar is fully engaged when hose is connected. When the hose is released from the fitting, firmly grasp the hose close to the fitting before releasing the lock collar.
- **Before servicing a compressor**, disconnect it from the power source and bleed the pressure from the tank. (Use appropriate lock out tag out procedures LOTO)

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- Pulleys and belts on compressor motors and pumps must be properly guarded.
- If using a gas or diesel fueled compressor, **engine must be shut off before refueling.**
- If an electric powered compressor, check power cord for cuts and abrasions, if the cord, plug, or any components are damaged, replace before use.
- The manufacturer's safe operating pressure for hoses, pipes, valves, filters, and other fittings must not be exceeded.

General rules required for using Pneumatic Powered Tools are as follows:

- **Appropriate Personal Protective Equipment (PPE)** must be worn at all times when using compressed air tools and equipment.
- Pneumatic powered tools must be secured to the hose by some positive means to prevent the tool from becoming accidentally disconnected.
- **Safety clips or retainers** must be securely installed and maintained on pneumatic impact (percussion) tools to prevent attachments from being accidentally expelled.
- All pneumatically powered nail guns, staplers, or other similar equipment with automatic feed, that operate at over 100 psi at the tool, **must have a safety device on the muzzle** to prevent the tool from cycling and ejecting fasteners, unless the muzzle is in contact with the work surface.
- **Compressed air must not be used to clean except** where pressure is reduced to less than 30 psi or have a safety relieve valve.