



SAFETY UNLIMITED, INC.

Weekly Safety Meeting

Safety with Air Compressors

Compressed air is present across just about every industry; companies are using compressed air for many functions, from running huge equipment to powering simple air tools. Compressed air is a valuable utility and is a safe power source when used properly. As with any other energy-carrying power source, compressed air should be regarded with caution and handled with care to avoid accidents and user injury.

There are two main external safety features associated with a pressure vessel. These are the pressure cut out switch and the pressure relief valve. The pressure cut off switch is a pressure sensitive device. When the pressure drops below a pre-set level, it closes and the compressor starts. When the pressure reaches a pre-set upper limit, the switch opens and the pump stops. It is simple to check this switch. Watch the pressure gauge on the tank. The pump should shut off before or at the working pressure, or the pressure shown on the Permit to Operate. If it does, fine. If not, tell your supervisor.

General safety requirements for compressed air:

- 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.
- Hose ends must be secured to prevent whipping if an accidental cut or break occurs.
- Pneumatic impact tools, such as riveting guns, should never be pointed at a person.
- Before a pneumatic tool is disconnected (unless it has quick disconnect plugs), the air supply must be turned off at the control valve and the tool bled.
- Compressed air must not be used under any circumstances to clean dirt and dust from clothing or off a person's skin. Shop air used for cleaning should be regulated to 15 psi unless equipped with diffuser nozzles to provide lesser pressure.
- Goggles, face shields, or other eye protection must be worn by personnel using compressed air for cleaning equipment.

- Static electricity can be generated through the use of pneumatic tools. This type of equipment must be grounded or bonded if it is used where fuel, flammable vapors, or explosive atmospheres are present.

Air Compressor Operation:

- Only authorized and trained personnel should operate air compressor equipment.
- The air intake should be from a clean, outside, fresh air source. Screens or filters can be used to clean the air.
- Air compressors should NEVER be operated at speeds faster than the manufacturer's recommendation.
- Equipment should not become overheated.
- Moving parts, such as compressor flywheels, pulleys, and belts that could be hazardous should be effectively guarded.

Compressed Air Injury:

A machine operator in a woodworking plant covered with sawdust decided to clean himself off with compressed air. He held the nozzle 12" from the palm of his left hand. When he opened the nozzle the air, under 80 pounds of pressure, struck and entered his hand.

Before he realized what had happened, his arm had blown up as big as a grapefruit and was shooting pain – from fingertips to shoulders. He had excruciating pain in his head and a feeling that the top of his head was about to be blown off. This feeling was so real and the pain so intense that when help arrived, he was actually trying to hold the top of his head in place.

The surgeon said it might have been worse. Had the air forced its way into the blood stream, it would have made its way to the very small blood vessels of the brain causing a clot, which would have burst the vessels and caused death.

Never utilize an air hose to clean dust or debris off yourself or anyone else.

Remember:

Ensure that air tanks and compressors are inspected regularly and maintained in a safe and operational condition, are serviced on a regular basis using OEM (original equipment manufacturer) oil, and that all repairs and servicing are documented.

SAFETY IS A FRAME OF MIND...SO THINK ABOUT IT ALL THE TIME!

Safety Meeting Sign-In Sheet

<i>Supervisor:</i>	<i>Subject:</i>
<i>Location:</i>	<i>Date:</i>
<i>Conducted By:</i>	<i>Trainer Signature:</i>

Name (print clearly)	Signature	Comments / Safety Concerns / Training Requests