



018: Compressed Air

Dangers of compressed air

A person took a blast of air at 80 PSI in a small wound on his hand. The air caused his arm to swell to twice its normal size, and left him with shooting pains from his fingers to his shoulder.

A blast of 40 PSI can rupture an eardrum from four inches away. It can also cause a fatal brain hemorrhage.

Air at 12 PSI is enough to pop an eyeball out of its socket.

Air at 4 PSI can rupture your bowels. Don't ever "goose" somebody with an air hose.

Compressed air entering through the mouth can rupture lungs and other internal parts.

Using compressed air to blow dust or other debris off your clothing can actually drive it under your skin. This can result in an embolism and a painful death.

Cautions

Wear safety glasses whenever using air tools.

Before operating an air tool, take a quick look at the hose and fittings, to spot anything obviously wrong. If the hose is excessively cracked or worn, take it out of service.

When using compressed air for cleaning, use a pressure-limiting device that limits the nozzle pressure to 30 PSI. You can operate such a device in conjunction with a tank or pipe pressure of 80 PSI or higher. These devices are usually point of use regulator sets complete with a moisture trap.

Hold the nozzle when turning the air on and off. Otherwise, it may dislodge, jump, or in some other way go where it's not supposed to go.

Never kink an air hose to stop the airflow. That's the job of the air valve.

Don't patch a leaking hose with duct tape. You can replace the hose, or you can repair the leak by cutting out the bad section and joining the hose back together with a connector and clamps.

Keep air hoses out of aisles, if possible. If not possible, use a guard over the hose to protect it.

If you have a choice of nozzles, obtain the one with barrel holes perpendicular to the shaft, rather than one with a solid barrel. This is called a safety nozzle. The barrel holes release the pressure from the nozzle, if the tip is covered by anything—such as a body part.

Don't point the nozzle at other workers.

Portable air compressors

While it's unlikely you will be responsible for a plant air system, you may be responsible for a portable air compressor for use with power tools. A portable compressor has its own special requirements.

When loading it in the truck, don't set it on top of the hoses.

Discussion leader duties for this session:

If compressed air is being used on site, obtain a safety nozzle to show what it looks like.

What this Safety Talk covers:

The dangers of compressed air, and cautions to take.

Discussion notes :

