

Spot The Safety Violation: Be Wary When Using Compressed Air



Is this how workers should be using compressed air'

Working with compressed air can be dangerous. The forceful streams of air can blow dust, wood chips, metal and plastic filings, and other materials into workers' eyes. It can also blow dust and particles into the air, allowing workers without proper PPE to inhale them and be exposed to respiratory conditions'and even creating an explosion hazard if used on combustible dust.

And the jet of air itself can cause serious injuries if it comes into direct contact with a worker's body. In fact, if compressed air enters a worker's blood stream, it creates an

air bubble or embolism, which is a very serious'and possibly fatal'medical condition.

The worker in this cartoon shouldn't be using compressed air to inflate his glove. First, such horseplay in the workplace is unsafe and generally barred by the OHS laws.

Second, directing compressed air directly at one's body is particularly dangerous. That's why workers should never use compressed air to clean off their work clothes. Instead, they should use equipment designed for this purpose, such as a vacuum, or remove the clothing and ensure that it's safely laundered.

In fact, because of the dangers posed by using compressed air to clean workers' clothing, the OHS laws may bar this use completely or permit it only under limited circumstances with proper protections.

For example, Sec. 171(8)(d) of Alberta's [OHS Code 2009](#) says workers must ensure that compressed air isn't used to blow dust or other substances from clothing.

And Sec. 66 of Ontario's [Industrial Establishments Regulation](#) says that a compressed air or other compressed gas blowing device can't be used for blowing dust or other substances:

- From clothing worn by a worker except where the device limits increase in pressure when the nozzle is blocked; or
- In such a manner as to endanger the safety of any worker.

The OHS regulations may also bar or limit the use of compressed air to clean materials, equipment, work stations, structures or other parts of the workplace, especially if:

- There's a risk of a worker being directly exposed to the jet;

- A fire, explosion, injury or health hazard is likely to result from such use; or
- Such use would result in a dangerous concentration of an airborne hazardous substance, such as combustible dust or asbestos.

8 COMPRESSED AIR SAFETY TIPS

The best way to control the hazards posed by using compressed air to clean in the workplace is to avoid it completely by using a safer cleaning method, such as a using a brush or vacuum.

But there may be circumstances in which compressed air is the only cleaning option available. In that case, follow these safety tips to ensure that workers are protected when cleaning with compressed air:

1. Develop and implement safe work procedures to be followed when using compressed air;
2. Train workers on these safe work procedures and on the proper use of the equipment involved as specified in the [manufacturer's instructions](#);
3. Require workers to wear appropriate PPE, such as full body coveralls, hand protection, [face shields or safety eyewear](#), [hearing protection](#) and [respiratory protection](#), while working with compressed air;
4. Require workers to hold the nozzle when turning air on or off to prevent the hose from whiplashing;
5. Always use the lowest possible pressure for the task, which may require use of a pressure reducing device or internally regulated nozzle;
6. Use protective guards to keep particles from blowing towards the worker;

7. Ensure other workers are protected from exposure to the airstream and any airborne materials or particles such as with the use of physical barriers or screens; and

8. Make it clear that [horseplay](#) with compressed air'such as that depicted in the cartoon'is very dangerous and strictly forbidden.