

OSHA Training Toolbox Talk: Cutting, Welding, & Compressed Gas Safety – Use of Gas Cylinders

[Reference: 1910.253 / 1926.350]

Here are some do's and don'ts to remember when using compressed gas cylinders.

- Compressed gas cylinders, cylinder valves, couplings, regulators, hose, and apparatus shall be kept free from oily or greasy substances, and must not be handled with oily hands or gloves. This is especially important when handling oxygen cylinders and associated equipment, as the oxygen increases the possibility of oil or grease to spontaneously ignite and burn when pressurized.
- Because oxygen greatly increases the combustion process, a jet of oxygen must never be permitted to strike an oily surface, greasy or clothes, or enter a fuel oil or other storage tank.
- Before connecting a regulator to a compressed gas cylinder valve, make sure the valve is free of foreign matter by opening it slightly and then closing it immediately. The valve shall be opened while standing to one side of the outlet; never in front of it. And never crack open a fuel-gas cylinder valve near welding work or near sparks, flame, or other possible sources of ignition.
- A hammer or wrench shall not be used to open cylinder valves. If a valve cannot be opened by hand, the cylinder must be removed from service and the cylinder supplier shall be notified.
- Cylinders not having fixed hand wheels shall have keys, handles, or non-adjustable wrenches on valve stems at all times while these cylinders are in use. In multiple cylinder installations only one key or handle is required for each manifold.
- An acetylene cylinder valve shall not be opened more than one and one-half turns of the spindle, and preferably no more than three-fourths of a turn.
- Cylinder valves shall be closed when work is finished. Valves of empty cylinders must also be closed, and the valve must remain closed at all times.
- Before a regulator is removed from a cylinder valve, the cylinder valve shall be closed and the gas bled off from the regulator.
- Any cylinder found to have a leaky valve or fittings which cannot be stopped by closing of the valve shall be taken outdoors away from sources of ignition and slowly emptied. A warning should be placed near cylinders having leaking fuse plugs or other leaking safety devices not to approach them with a lighted cigarette or other source of ignition. Such cylinders should be plainly tagged, and the supplier should be promptly notified and their instructions followed as to their storage and return.

By adhering to these simple precautions while using compressed gas cylinders, we can protect ourselves and others from a devastating fire or explosion that could inflict injuries or death.

Does anyone have any other safety tips for safely using compressed gas cylinders that you'd like to share? Thank you for participating in today's toolbox talk. Please make sure you sign the training certification form to get credit for attending today's training session.