

Pressurized Gas Cylinders

It takes more than common sense when dealing with pressurized cylinders to: (1) protect the cylinder itself, (2) protect the property surrounding the cylinders, and (3) protect the people handling the cylinders. It is important to know the rules for safe use, storage, and movement of pressurized cylinders just as it is important to know why cylinders must be protected.

If a neck of a pressurized cylinder should be accidentally broken off, the energy released would be sufficient to propel the cylinder to over three-quarters of a mile in height. A standard 250 cubic foot cylinder pressurized to 2,500 PSIG (33 lbs.) can become a rocket attaining a speed of 34 miles per hour in one tenth of a second after venting from the broken cylinder connection.

The following practices should be followed in a safe storage, moving and use to prevent accidents with cylinders.

Storage

1. Secure empty and full cylinders to a wall or vertical support by use of chains, etc., in an upright position.
2. Keep valve protective caps in place when the cylinder is not in use.
3. Mark empty cylinders "EMPTY" or MT".
4. Keep valves closed on empty cylinders.
5. Keep empty and full cylinders segregated.
6. Keep oxygen cylinders a minimum distance of 20 feet from flammable gas or combustible materials. If this can not be done, separate with a noncombustible barrier at least 5 feet high having a fire-rating of at least one half hour.
7. Leaking cylinders should be taken outdoors away from sources of ignition. Such cylinders should be plainly tagged, and the supplier should be promptly notified.
8. Cylinders should be kept away from sources of heat.
9. Cylinders should be kept away from electrical wiring where they may become part of the circuit.
10. Storage areas should be well ventilated.
11. Protect cylinders from extremes of weather. Store out of direct sunlight in the summer and protect from accumulations of ice and snow in winter.
12. Storage should not exceed 300 lbs. per storage area. Additional storage should be minimum 300 feet away.

Moving

1. Use a cylinder cart with the chain restraint in place.
2. Don't use slings or electric magnets.
3. Don't use cylinders as rollers for moving material or equipment.

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