

## **Importance of Compressed Gas cylinder Storage**

Pressure cylinders are cylinders having contents of various chemical composition under pressure in liquid or gaseous state. Pressure cylinders possess huge potential energy, which can lead to disasters on enormous scale, for both the lives and properties, if not managed with appropriate safety measures during transportation, unloading, storage, handling and use.

When handled improperly or abusively, compressed gas cylinders can be exceedingly dangerous. Due to its pressure and/or contents, compressed gas cylinder safety is essential as it can pose a number of risks.

There is a chance of being simultaneously exposed to mechanical and chemical risks depending on the specific gas.

### **ALWAYS (DO)**

- Statutory rules should be strictly followed while storing full and empty cylinders.
- Store cylinders upright with valve protection caps and valve outlet seals in place.
- Secure cylinders when in transit, storage, or use.
- Store cylinders in specific areas designated for that purpose.
- Separate full and empty cylinders.
- Store cylinders in a well-ventilated, away from combustible materials, dry, cool and secure area protected from the weather.
- Always maintain a minimum of 20 feet distance between flammable gas cylinder and oxygen cylinder or the storage area should be separated, at a minimum, by a fire wall five feet high with a fire rating of 0.5 hours.
- Ensure that there is adequate separation from combustibles as specified by national regulations.
- Keep check on the atmosphere in areas where gases may vent and collect.
- FIFO (first-in, first-out) inventory system should be used to prevent full containers from being stored for long periods of time.
- Store only the amount of compressed gas required for the specific application.
- Prohibit use of naked flames and smoking etc., in storage spaces, whether indoor or outdoor, shall be prohibited.
- All doors or gates giving direct access to the cylinder storage shall open outwards.
- Cylinders should be stored away from emergency exits and heavily travelled areas.
- Protect cylinders from damp or wet ground.

### **NEVER(DO)**

- Permit storage temperature to exceed 52°C (125°F).
- Store oxygen cylinder, full or empty in the same vicinity as inflammable gases
- Store cylinders on upper floors or below ground level.
- Allow smoking or open flames in oxidizer or flammable gas storage areas.
- Store grease and oily materials around oxygen; nor should oil or grease be applied to fittings.
- Expose cylinders to corrosive materials such as ice melting compounds

