

Guidelines for Building a Compressed Gas Cylinder Anchoring System

A simple compressed gas cylinder anchoring system can be constructed with a few items including; 2" x 6" boards, concrete bolts or other device to anchor the boards to the wall, eye bolts, lengths of chain, and swivel hooks. The swivel end of the swivel hook attaches to a chain, and the hook end goes through the eyebolt. The distance between eyebolts on the 2" x 6" board should be approximately one to one and one half times the gas cylinder diameter. If you can't find swivel hooks, other types of hooks can be used as long as they can be fastened to the anchor chains and can be anchored through the eyebolts. Cylinders should be anchored approximately $\frac{2}{3}$ of the way up the cylinder. They must never be anchored at or below the halfway point of the cylinder. If you construct your own cylinder anchoring system, please make sure that:

- 1) the 2" x 6" board is securely attached to the wall,
- 2) anchor chains are snug so that there is little or no room for the cylinders to move,
- 3) cylinders are anchored individually,
- 4) chains are strong enough to hold the weight of a cylinder should it get knocked over accidentally,
- 5) eyebolts are securely attached to the 2" x 6" board, and
- 6) cylinders are anchored $\frac{2}{3}$ of the way from the bottom.

As always, all regulations concerning cylinder storage and use found in the Chemical and Laboratory Safety Manual (section 2.I.3 and appendix C) are applicable, even when homemade anchors are employed.