

# FAQ - Gas Regulation

## ***What's the difference between single and two-stage regulators?***

A single stage regulator's outlet pressure actually creeps up automatically as the cylinder inlet pressure decreases. For example, an oxygen regulator's outlet pressure may rise from ¼ psi to 2 psi for every 100 psi decline in cylinder pressure.

Conversely, a two-stage regulator is designed to keep a stable outlet pressure and will maintain its outlet pressure setting even when the cylinder depletes from full pressure to the minimum you can use in the tank. Generally it is not necessary to use a two-stage regulator for most welding, cutting and brazing applications. Two stage regulators typically have a lower flow capacity than single stage regulators. Two stage regulators are beneficial for applications that require extremely constant gas flows.

## ***Can I use an acetylene regulator on an LP tank or an LP regulator on an acetylene tank?***

You can use an acetylene regulator on an LP/alternate fuel gas tank, but ***never*** use a regulator designed for LP/alternate fuel gases with acetylene.

LP/alternate fuel gas regulators are typically capable of producing outlet pressures as high as 50-60 psi, whereas an acetylene regulator is designed to operate at pressures slightly higher than 15 psi. Because acetylene becomes very unstable at pressures over 15 psi, using an LP/alternate fuel gas regulator would enable the operator to increase the pressure to a point where it is unsafe as acetylene is unstable when released from the cylinder at pressures greater than 15 psi.

## ***Can I use my oxygen regulator with other gases?***

No. Do not use your oxygen regulator with any other gas. Oxygen regulators are cleaned for pure oxygen and can easily be contaminated by other gases, leaving residual materials in the regulator. Because oxygen may not be compatible with those residual materials, the combination could lead to combustion when the regulator is pressurized. This combustion can cause the regulator to burn out and is a significant safety hazard.