



COMPRESSED GAS REGULATORS

Date:

TOOLBOX / TAILGATE TALK

Presenter:



Canadian Centre for
Occupational Health and Safety

Centre canadien d'hygiène
et de sécurité au travail



SAFETY INFOGRAM 109

LABORATORIES

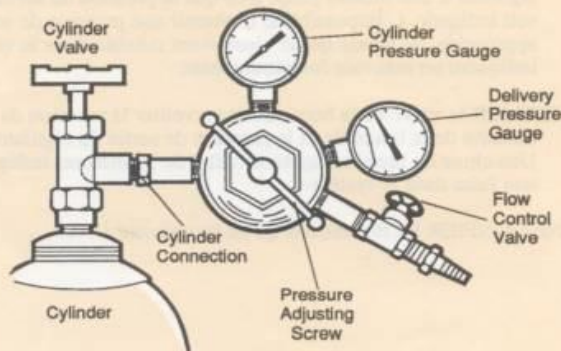
COMPRESSED GAS REGULATOR USE

ON

1. Check that flow control valve is closed.
2. Turn the pressure adjusting screw counterclockwise until it turns freely.
3. Slowly open the cylinder valve fully.
4. Check the cylinder pressure gauge for expected value. A difference indicates that valve, safety device, or plugs are leaking.
5. Turn the pressure adjusting screw clockwise until the required pressure is reached.
6. Control the gas flow by the flow control valve.

OFF

1. Shut cylinder valve first.
2. Allow residual gases in valves to drain.
3. Shut pressure adjusting screw when gauges fall to zero.
4. Close the flow control valve.



DO NOT ADJUST pressure by using the regulator to control flow rates. This defeats the purpose of the pressure regulator. When higher flows are obtained by this way, the pressure may be above the design of the system.

Maintenance Check

CHECK non-corrosive gas regulators (nitrogen and helium) monthly.

CHECK corrosive gas regulators (chlorine and hydrogen sulfide) weekly.

The procedure for checking regulators is as follows:

DRAIN all pressure from the system. Gauges should read zero.

OPEN cylinder valve and turn pressure adjusting screw counterclockwise until it turns freely. The high pressure gauge should register the cylinder pressure. The delivery outlet pressure gauge should not indicate any pressure.

CHECK the delivery pressure gauge to ensure it does not indicate a pressure increase after waiting ten minutes with the regulator outlet valve closed.

TURN the pressure adjusting screw clockwise until delivery pressure is indicated. Failure to attain a proper delivery pressure setting or abnormal adjustment of the screw indicates improper operation.

CLOSE the cylinder valve and observe the pressure on both cylinder contents and delivery sides of the regulator. A drop in the pressure reading after ten minutes indicates a leak in the system.

ENSURE that only the supplier makes the repairs.

Refer to SAFETY INFOGRAM I08, Compressed Gas Set-Up, for further information on regulators.

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