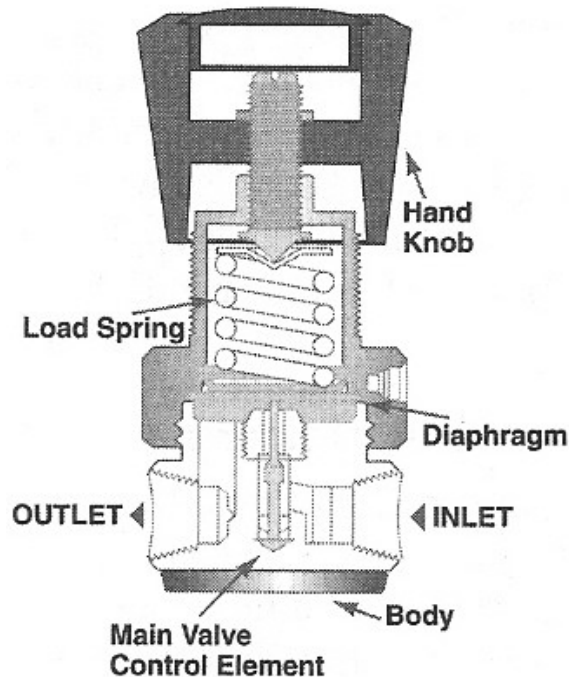


OPERATION MANUAL

PRESSURE REGULATORS



REGULATOR OPERATION:

1. High pressure GAS enters through the INLET in the high pressure chamber.
2. When the CONTROL KNOB (HAND KNOB) is turned clockwise it compresses the LOAD SPRING which exerts a force on the DIAPHRAGM, which then pushes the MAIN CONTROL VALVE ELEMENT.

3. This releases the gas into the low pressure side of the DIAPHRAGM thus tending to close the valve.
4. An equilibrium is reached when the spring force on the underside is equal to the opposing gas force acting on the underside of the diaphragm.
5. Delivery pressure is dependent upon the pressure of the gas in the control chamber; hence the delivery pressure can be varied by adjusting the control knob.
6. GAS emerges from the regulator via the OUTLET.
7. A REGULATOR only, controls PRESSURE and does not control FLOW.
8. For FLOW control a separate flow control valve is required at the outlet side of the REGULATOR.
9. Upstream filters are recommended for use with all fluids.
10. Do not bleed system by loosening fittings.
11. Prevent icing of the equipment by removing excess moisture from the gas.
12. Always use proper thread lubricants and sealants on tapered pipe threads.

PRESSURE SETTING OPERATION:

- 1) Close the regulator valve by turning the Hand knob anti-clockwise.
- 2) Close the flow control valve (if fitted).
- 3) Slowly open the cylinder valve.
- 4) Inlet pressure will be indicated on the inlet gauge (if fitted) on the regulator.
- 5) Slowly turn the Hand knob clockwise until the desired outlet pressure is registered on the outlet pressure gauge.
- 6) Open the flow control valve (if fitted) slowly and readjust the outlet pressure by turning the regulator knob after the desired flow conditions are established.
- 7) Check all joints for leakage with approved leak detection fluid or weak soap solution.

- 8) As the gas is consumed, the pressure inside the cylinder will come down on inlet side of the regulator.
- 9) This in turn will cause a rise in pressure in the delivery side and will be indicated in the outlet pressure gauge.
- 10) This pressure rise should be controlled by closing the regulator valve by turning the regulator hand knob anti-clockwise slowly till the desired outlet pressure level is reached.
- 11) This periodic adjustment is required till the inlet pressure drops below the desired outlet pressure level.



Make sure that the components and materials used in the fluid handling system are compatible with the fluid and have the proper pressure rating.

REPAIR SERVICE:

If a regulator or valve leaks or malfunctions, take it out of service immediately. You must have instructions before doing any maintenance. Do not make any repairs you do not understand. Have qualified personnel make repairs. Return any equipment in need of service to your equipment supplier for evaluation and prompt service. Equipment is restored to the original factory performance specifications, if repairable. There are flat fee repair charges for each standard model. The original equipment warranty applies after a complete overhaul.



Safe Component Selection

1. Consider the total system design when selecting a component to ensure safe, trouble-free performance.
2. The user is responsible for assuring all safety and warning requirements of the application are met through his/her own analysis and testing.
3. ALTAIR may suggest material for use with specific media upon request. Suggestions are based on technical compatibility resources through associations and manufacturers.

ALTAIR does NOT guarantee materials to be compatible with specific media -- THIS IS THE RESPONSIBILITY OF THE USER!

4. Component function, adequate ratings, proper installation, operation, and maintenance are the responsibilities of the system user.



Do not modify equipment or add attachments not approved by the manufacturer.

ASSEMBLY/INSTALLATION DRAWINGS & BILLS OF MATERIAL Drawings and parts lists for your product may be obtained by calling the number below. ALTAIR will provide these by fax or mail.



Call Toll Free (+91) – 1800-266-1399

for assembly/installation drawings & bills of material. Be sure to have your complete model number ready.