

## SAFETY, INSTALLATION, & OPERATION PRECAUTIONS

### **PRESSURE REGULATORS**

**DO NOT ATTEMPT TO SELECT, INSTALL, USE, OR MAINTAIN THIS REGULATOR, VALVE, OR ACCESSORY UNTIL YOU HAVE READ AND FULLY UNDERSTAND THESE INSTRUCTIONS.**

**BE SURE THIS INFORMATION REACHES THE OPERATOR AND STAYS WITH THE PRODUCT AFTER INSTALLATION.**

**DO NOT PERMIT UNTRAINED PERSONS TO INSTALL, USE, OR MAINTAIN THIS REGULATOR, VALVE, OR ACCESSORY.**



**IMPROPER SELECTION, IMPROPER INSTALLATION, IMPROPER MAINTENANCE, MISUSE, OR ABUSE OF REGULATORS, VALVES, OR RELATED ACCESSORIES CAN CAUSE DEATH, SERIOUS INJURY, AND/OR PROPERTY DAMAGE.**

**Possible consequences include but are not limited to:**

- High velocity fluid (gas or liquid) discharge
- Parts ejected at high speed
- Contact with fluids that may be hot, cold, toxic, or otherwise injurious
- Explosion or burning of the fluid
- Lines/hoses whipping dangerously
- Damage or destruction to other components or equipment in the system



#### **SAFETY PRECAUTIONS:**

1. Inspect the regulator, valve, and accessories before each use.
2. Never connect regulators, valves, or accessories to a supply source having a pressure greater than the maximum rated pressure of the regulator, valve, or accessory.
3. Refer to product SPECIFICATIONS or at the simplest check the Inlet & Outlet pressure indicating gauges mounted on the regulator for maximum inlet

& outlet pressures. If this rated pressure cannot be found, contact ALTAIR representative for the rated pressure prior to installation and use. Verify the designed pressure rating of all equipment (e.g., supply lines, fittings, connections, filters, valves, gauges, etc.) in your system. All must be capable of handling the supply and operating pressure.

4. Clearly establish flow direction of the fluid before installation of regulators, valves, and accessories. It is the responsibility of the user to install the equipment in the correct direction.
5. Do not tighten fittings, gauges, or components in pressurized systems.
6. Never turn regulator or valve body. Instead hold regulator or valve body and turn fitting nut.
7. If a regulator or valve leaks or malfunctions, take it out of service immediately.
8. Do not modify equipment or add attachments not approved by the manufacturer.
9. Apply pressure to the system gradually, avoiding a sudden surge of fluid or pressure shock to the equipment in the system.
10. Regulators are not shut-off devices. Install a pressure relief device downstream of the regulator to protect the process equipment from operating pressure increases. Shut off the supply pressure when the regulator is not in use.
11. Periodic inspection and scheduled maintenance of your equipment is required for continued safe operation.
12. The frequency of servicing is the responsibility of the user based on the application.
13. Never allow problems or lack of maintenance to go unreported.
14. Read and follow precautions on compressed gas cylinder labels.
15. It is important that you analyze all aspects of your application and review all available information concerning the product or system. Obtain, read, and understand the Material Safety Data Sheet (MSDS) for each fluid used in your system.
16. Oxygen service requires special expertise and knowledge of system design and material compatibility in order to minimize the potential for death, serious injury, and/or property damage.
17. Never use materials for regulators, valves, or accessories that are not compatible with the fluids being used.
18. Users must test under normal operating conditions to determine suitability of materials in an application.

19. Vent fluids to a safe environment, and in an area away from employees. Be sure that venting and disposal methods are in accordance with Federal, State, and Local requirements. Locate and construct vent lines to prevent condensation or gas accumulation. Make sure the vent outlet is not obstructed by rain, snow, ice, vegetation, insects, birds, etc. Do not interconnect vent lines; use separate lines if more than one vent is needed.
20. Do not locate regulators, valves, or accessories using flammable fluids near open flames or any other source of ignition.
21. Some fluids when burning do not exhibit a visible flame. Use extreme caution when inspecting and/or servicing systems using flammable fluids to avoid death or serious injury to employees. Provide a device to warn employees of these dangerous conditions.
22. Many gases can cause suffocation. Make certain the area is well ventilated. Provide a device to warn employees of lack of oxygen.
23. Never use oil or grease on these regulators, valves, or accessories. Oil and grease are easily ignited and may combine violently with some fluids under pressure.
24. Have emergency equipment in the area if toxic or flammable fluids are used.
25. Upstream filters are recommended for use with all fluids.
26. Do not bleed system by loosening fittings.
27. Prevent icing of the equipment by removing excess moisture from the gas.
28. Always use proper thread lubricants and sealants on tapered pipe threads.

#### INSTALLATION:

Inspect the regulator, valve, and accessories for physical damage and contamination. Do not connect the regulator, valve, or accessory if you detect oil, grease, or damaged parts. If the regulator, valve, or accessory is damaged, contact ALTAIR representative to have the regulator cleaned or repaired.



**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.