

Instruction Manual GA Pressure Regulator ISO 2503 / ISO-EN7291



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Operating Instructions for GA Cylinder Pressure Regulators

These instructions are produced in accordance with current regulations to ensure the safe operation of cylinder pressure regulators. Specific attention to these instructions will help to avoid risks and loss of production as well as enhance the reliability and durability of the cylinder pressure regulators.

THESE INSTRUCTIONS MUST BE KEPT PERMANENTLY AT HAND IN THE WORKSHOP!





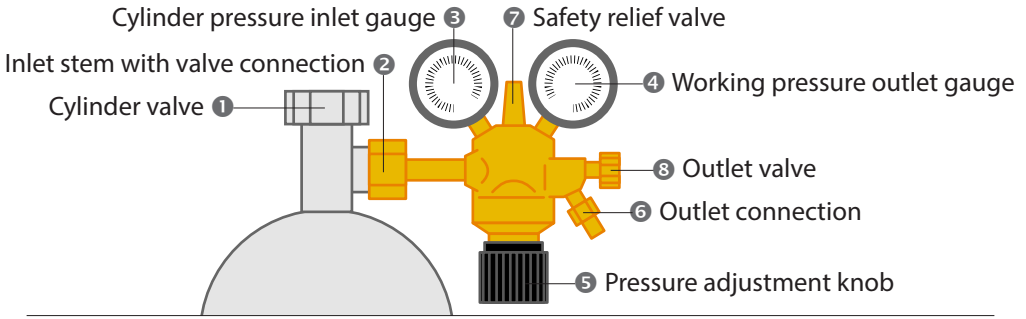
All indications showing this exclamation mark are important safety instructions. For safety instructions, also see paragraph 2. If in any doubt please consult the manufacturer.

1. Operation



- 1.1 Cylinder pressure regulator use in accordance with current regulations:
Cylinder pressure regulators are designed to reduce the respective cylinder pressure to ensure a constant outlet working pressure. They are used with compressed gases, pressurized dissolved gases in cylinders and liquid gases having a filling pressure of up to a maximum of 200 or 300 bar.
- 1.2 Cylinder pressure regulator use contrary to current regulations:
Cylinder pressure regulators must not be used for gases in a liquid state. Cylinder pressure regulators must not be operated below temperatures of -30°C or above $+60^{\circ}\text{C}$. Cylinder pressure regulator must not be used for corrosive gases such as ethylamin, dimethylamin, ammonia etc.

2. Safety Instructions

- 2.1 GA cylinder pressure regulators complies with all current relevant technical regulations and meets all existing standards.
- 2.2 Under no circumstances must the cylinder pressure regulator be modified or tampered with without the written consent of the manufacturer.

- 2.3 Intermediary connections between the cylinder valve and the cylinder pressure regulator are strictly prohibited.

- 2.4 Incorrect use may endanger the operator and other personnel, damage to the cylinder pressure regulator and installation may also result.
- 2.5 These instructions correspond to ISO 2503 for cylinder pressure regulators and ISO-EN7291 for manifold systems.



3. Operating Instructions

- 3.1 Keep hands and tools clean, oil and grease can cause an explosion on contact with oxygen. 
- 3.2 The operator should be fully familiar with these operating instructions prior to the use of this equipment. All instructions should be adhered to when in use.
- 3.3 Check that the cylinder pressure regulator is suitable for the gas to be used. See label.
- 3.4 Check that the cylinder valve connection is clean and undamaged; if not, **you must not connect the cylinder pressure regulator.** 
- 3.5 Before connecting the cylinder pressure regulator, the cylinder valve should be swiftly opened and closed to dislodge water or foreign matter from the valve/regulator inlet seating.
Do not stand in front of the cylinder valve. **Do not** hold your hand in front of the cylinder valve.
- 3.6 Connect the cylinder pressure regulator to the cylinder valve ① by means of the inlet nut on the inlet stem or yoke ②.
- 3.7 Connect the hose to the cylinder pressure regulator outlet ⑥. Use hoses corresponding to ISO 3821 and hose connections conforming to EN 560; secure by appropriate hose clamps.

3.8 Operating the cylinder pressure regulator. Setting the pressure.



Prior to releasing gas into the system check the following:

1. Correct cylinder pressure regulator.
2. All gauge pointers at zero.
3. Pressure adjusting knob ⑤ fully screwed out (anti-clockwise).
4. Downstream valves are closed.


Slowly open the cylinder valve ①, ensure that the cylinder pressure is showing on the inlet gauge ③, open the downstream (blowpipe) valve, and with the pressure adjusting knob ⑤ rotate clockwise to set the required working pressure using the outlet gauge ④.

4. Closing Down the Cylinder Pressure Regulator


- 4.1 Prolonged interruption:
Close cylinder valve ①, unwind (anti-clockwise) the pressure adjusting knob ⑤, vent the pressure in the system by opening the downstream (blowpipe) valves. Once the system has been purged, close the downstream valves.
- 4.2 Temporary interruption:
Close outlet valve ⑧. Adjusted pressure will be restored when this is opened again.

5. Operation and Maintenance Instructions

5.1 Protect the cylinder pressure regulator from damage. Check visually for any signs of damage regularly.


 5.2 The preset pressure area of the safety valve ⑦ must not be changed.

5.3 Ensure that all gaskets, O-rings, and mating surfaces are in a satisfactory condition.

 5.4 If it is suspected that the cylinder pressure regulator is not functioning correctly, or is found to have any form of leakage, close the cylinder valve and remove from service immediately.

 **Do not under any circumstances undertake, or allow any repairs by unauthorised personnel.**

6. Repairs

 6.1 Repairs of cylinder pressure regulators shall be carried out by competent personnel at an authorized service or repair workshop. Only original spares may be used.

6.2 Repairs or modifications carried out by the user or non-authorized third party will entail loss of liability.

7. Cylinder Pressure Regulators with Flowmeter Gauge

Paragraphs 1 to 6 of these Operating Instructions apply also to cylinder pressure regulators with flow gauge. The flow set by the pressure adjusting knob ⑤ may be read at the flow-meter gauge ④. If the apparatus or equipment to be used downstream also has a flowmeter device, please remove it as it will not be calibrated with the cylinder pressure regulator.

8. Pressure Regulators for manifold systems

Paragraphs 1 to 6 of these Operating Instructions also apply to pressure regulators for manifold systems. Such regulators are manufactured according to ISO-EN7291 and feature a pipe on the safety relief valve ⑦ that may be connected to the systems evacuation pipes.

Attention

Please use these products exclusively for the purpose indicated by and only if the operator is fully conversant with current practices and procedures. If any further information or assistance is required with applications of a product please contact your local specialist.



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