

Single-Stage Pressure Regulator

User Manual

>> YQAr Brass Pressure Regulator



>> YQJF Stainless Steel Pressure Regulator



***** For use with ATO gas detector calibration process**

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I. Usage

- ATO-YQAr type standard gas pressure reducer can be used as decompressor in various gas explosimeters and shielded welding to reduce & stabilize gas pressure and control gas flow rate.
- ATO-YQJF type single stage pressure regulator can serve on condition of corrosive (YOJF series) high –pressure gas, precision adjustment for standard mixed gas and analysis instruments with high requirements of gas purity and quality as well.

II. Feature

1. Valve diaphragm adopts metal diaphragm to avoid secondary pollution from rubber diagram to high purity gas.
2. The sealing is very good due to high bearing high-pressure structure.
3. Pressure feature and flow characteristic is enhanced considerably, comparing to oxygen regulator.
4. Its reasonable structure with multi-way filter device can be durable and be fit for gas replacement and operation.

III. Applicable gas

- YQAr type: H₂, O₂, N₂, CO, CO₂, CH₄, He, Ne, Ar and other non-corrosive gas.
- YQJF type: NH₃, SO₂, H₂S, HCL, NO and other corrosive gas.

IV Main Technical Data

1. YQAr Type Pressure Regulator

Model	ATO-YQAr-01L
Max. Input Pressure	≤15MPa
Max. Output Pressure	0.25MPa
Flowmeter Range	0.1-1.5 L/min
Connection	Inlet port: W21.8-14; Outlet port: Φ6 flexible tube

2. YQJF Type Pressure Regulator

Model	ATO-YQJF-1
Input Pressure Gauge Range	0-25MPa
Output Pressure Gauge Range	0-0.6MPa
Gauge Class	2.5
Input Pressure	≤15MPa
Output Pressure	≤0.45MPa
Rated Flow	0.6 m ³ /h
Connection	Inlet port: W21.8-14; Outlet port: Φ6 flexible tube

V. Material

1. YQAr

- Main body: brass

- Upper cover: brass
- Diagram: 316L
- Valve seat: brass
- Valve stem: nylon

2. YQJF

- Main body: 316L
- Upper cover: 32L
- Diagram: 316L
- Valve seat: 316L
- Valve stem: PCTFE

VI. Installation and Use

1. Make sure no oil or grease before use.

Note: If there is oil or lubricant at the cylinder valve, please stop using.

2. Install the regulator on the gas cylinder properly, and screw the intake connector tightly to prevent air leakage. (If necessary, examine with leak-test agent or grease-free soapy water.) Do not contact any fatty matters during operation.

3. Standing at a side of the gas cylinder, quickly open and close the cylinder valve, in order to clean the valve sealing surface.

Note: Do not directly face the cylinder valve port, and do not open too long, otherwise the reverse pressure of the exhaust will cause the cylinder to tip over.

4. Before opening the gas cylinder, turn and loose the handle of pressure regulator to make the spring be a fully-loose state (or state of bearing no force).

Note: When opening the pressure regulator, if the pressure regulating handle is not completely loosened, the instantaneous pressure may damage the diaphragm and the low-pressure meter head, resulting in the failure of the pressure reducer, and serious injury.

5. When opening the gas source valve, do not stand in the front or back of the pressure regulator. The gas source valve should be opened slowly until the pressure of the gas cylinder is fully indicated by the high pressure gauge.

6. Adjust the output pressure: turn the handle clockwise to increase the output pressure, and turn the handle counterclockwise to decrease the output pressure.

7. Slowly turn the handle to adjust the user's working pressure (or you can gently tap the meter head to avoid excessive adjustment error). If the actual pressure is higher than the operating pressure, you should loosen the handle to release a certain amount of gas and then adjust again. (If necessary, after the regulator has worked for about 2 hours, you can re-adjust to meet the use requirements.)

8. After use of the pressure regulator, turn off the gas cylinder valve first, and then circumrotate and loosen the handle to set the spring into a fully-loose state.

9. The working pressure of the two meters should not exceed 75% of the upper measurement upper limit, and regular verification should be carried out. If the meter fails, the meter should be replaced.

10. The pressure regulator should be properly kept before and after use. Avoid shock and vibration. The adjustment handle should be in the loose state.

11. The single-stage pressure regulator should be stored in a place without corrosive medium.