

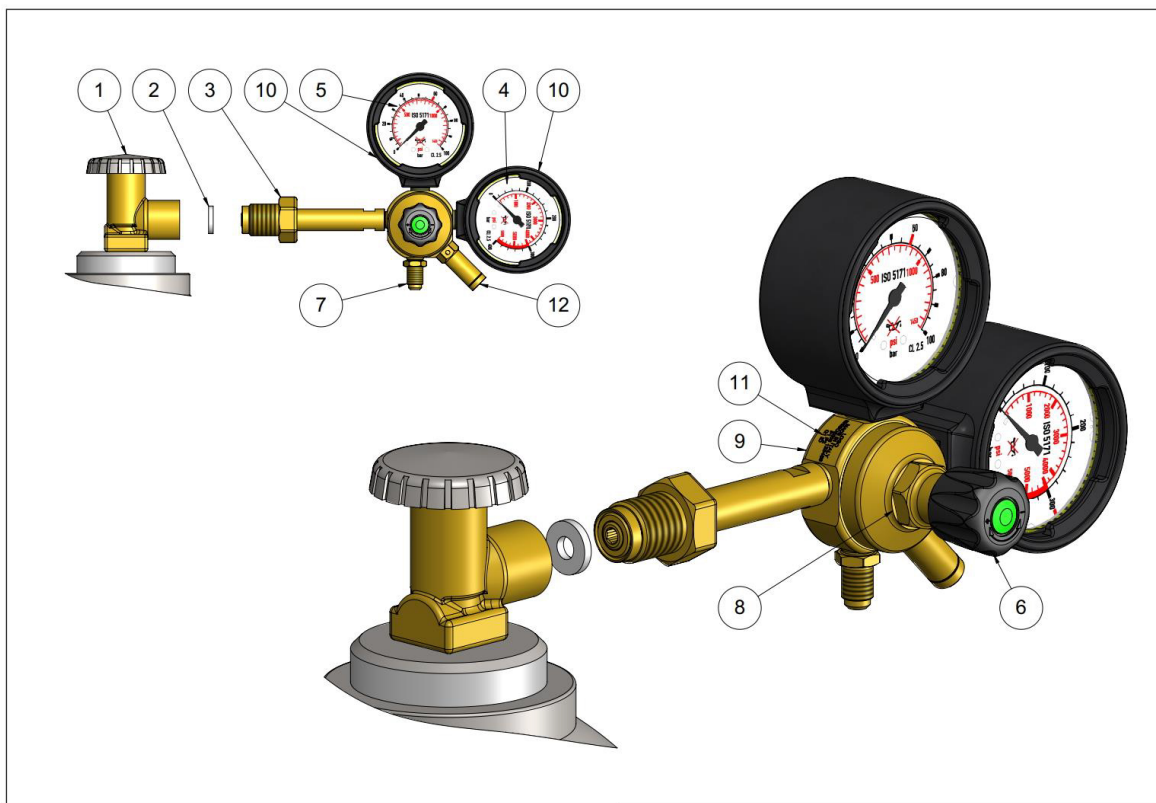


PRG-100

300/60 bar nitrogen regulator



User guide



PARTS LIST

- | | |
|------------------------------------|--|
| 1. Cylinder valve | 7. 7/16" - 20 UNF outlet connection (1/4" SAE) |
| 2. Inlet connection gasket | 8. Cover |
| 3. Inlet connection (nut, ferrule) | 9. Body |
| 4. High pressure gauge | 10. Gauge protection |
| 5. Low pressure gauge | 11. Marking |
| 6. Adjustment screw | 12. Relief valve |



IMPORTANT NOTICE

Before using the regulator, carefully read these instructions and keep them for future reference. They provide all necessary information for correct use while avoiding dangers and damage to the device. LINSTRUMENT declines all responsibility for accidents caused by improper use of the regulator or by modifications made to it.

Maximum inlet pressure: 300 bar

Outlet pressure: 60 bar

1. OPERATION AND FIELD OF APPLICATION

- The function of the pressure regulator is to stabilize the pressure of a gas by reducing it from the value at which it is contained in the cylinder to the value required for its use.
- This pressure regulator must be used exclusively in the air conditioning sector for leak testing, unclogging, cleaning and blowing of piping. It is intended for the industrial market and must be used by qualified personnel.
- The regulator is designed to be used only and exclusively with the type of gas specified and at the pressure indicated on the marking.
- It may be dangerous to attempt to use the regulator with other types of gas or pressure.



PRECAUTIONS

- Incorrect use of the regulator may cause serious damage. Users must read the instructions in this manual before using the regulator.
- The pressure regulator must be used as a precision instrument. It must be protected from accidental impacts and from contact with dust, oil or other impurities.
- Do not use the regulator if it does not function properly (see 5.1).
- Gas withdrawal must take place only from gas cylinders in vertical position and protected against falling.
- Do not expose the pressure regulator to direct sunlight and/or bad weather conditions
- Smoking near a pressurized container is prohibited.
- Keep out of reach of children.

2. INSTALLATION

2.1 Connection of the regulator

- Check the proper functioning of the pressure regulator before use.
- Check that the regulator indicates the type of gas and the cylinder pressure to be used.
- Turn the adjustment screw (6) towards the - sign to ensure that the regulator valve is closed.
- Replace the gasket (2) if it is damaged or lost using an appropriate tool.
- Check that the cylinder valve is not damaged. If damaged, do not screw on the regulator and contact your dealer.
- Before screwing in the pressure regulator, quickly open and close the cylinder valve (1) to remove impurities, possibly using compressed air. Make sure to turn the outlet of the cylinder valve towards the wall and carry out this operation away from heat sources.
- During this operation, it may be dangerous to stand or place your hand in front of the cylinder valve (1). Mount the regulator with the gauges facing the operator.
- Screw the inlet connection (3) onto the cylinder valve, tightening fully using an appropriate tool (no pliers)
- In case of accidental fall of the cylinder, check the proper functioning of the regulator as well as the container; if necessary contact the dealer.

2.2 Hose connection

- Connect the hose to the hose connector of the outlet connection (7).
- Use only compliant hoses.

2.3 Checks required before commissioning

When installation is completed, the following checks must be carried out:

- Check that there are no gas leaks from the regulator or hose connections (see 5.3).
- In case of gas leaks from the regulator, after releasing the pressure, check that all gaskets are made of suitable material and are present at the inlet/outlet connection points of the regulator.
- All regulator gaskets have already been checked at the factory; however, it is recommended to check them after installation together with the hose gaskets. Perfect tightness is essential before commissioning the device.

3. OPERATING INSTRUCTIONS

3.1 Opening

- Slowly open the cylinder valve (1); the high pressure gauge (4) will indicate the cylinder pressure.
- Opening the cylinder valve too quickly may damage the gauges.
- Slowly open the adjustment screw (6) towards the + sign: the low pressure gauge (5) will indicate the working pressure.



PRECAUTIONS

Before opening the cylinder valve (1), ensure that the regulator is completely closed (turn adjustment screw (6) towards the – sign).

3.2 Pressure adjustment

- Increase pressure: slowly turn the regulator adjustment screw (6) towards the + sign.
- Decrease pressure: slowly turn the regulator adjustment screw (6) towards the – sign.
- It is possible to compensate for a possible pressure drop by acting on the adjustment screw (6).



PRECAUTIONS

The outlet pressure must never be set higher than necessary for the operation to be carried out, nor beyond the red mark indicated on the low pressure gauge (5).

3.3 Closing

- Close the cylinder valve (1).
- Let the gas evacuate until the regulator gauge readings return to zero.
- Turn the adjustment screw (6) towards the – sign until completely closed.

4. MAINTENANCE

- The regulator must be kept as a precision instrument.
- If the regulator is not used for long periods, it is recommended to store it in protective packaging (if possible in its original box) to protect it from accidental impacts and contact with dust, oil, or other impurities.

5. HANDLING

- It is recommended not to attempt any maintenance or repair not indicated in this manual.
- Use only original spare parts and accessories.
- Spare parts are available from your dealer.
- In case of malfunction that cannot be repaired by following these instructions, return the regulator to the dealer.
- Do not clean the regulator, gauge glasses, or cylinder valve with gasoline, solvents, or any detergents.

5.1 Malfunction

- In case of malfunction (e.g. gauge or relief valve failure), stop using the regulator and immediately close the cylinder valve (1).
- Release the downstream pressure of the installation and contact the dealer.
- If there is no visible external damage, it is recommended to send the regulator to the supplier for inspection and repair.



PRECAUTIONS

Do not use the regulator if the following malfunctions occur:

- Gasket (2) damaged or lost
- Regulator or any of its parts (gauge, inlet or outlet connection) damaged or contaminated with dirt, oil, etc.
- Relief valve setting modified or gas escaping from it

5.2 Relief valve

- For safety reasons, an overpressure relief valve is installed in the regulator.
- In case of malfunction, this valve releases excess gas pressure to the outside.



PRECAUTIONS

Do not modify the calibration of the relief valve.

5.3 Tightness check

- To check regulator tightness, operate in ventilated areas and do not use flame; instead use soapy water or appropriate detectors.
- Spray the detector on the area to be checked.
- Gas leaks are indicated by the formation of bubbles or foam.
- Clean detector residues from the regulator before use.

5.3 Tightness check

- The maximum interval for periodic inspection must refer to the commissioning date or the last overhaul.
- Perform an annual inspection with a general functional test covering the entire range of service pressures.
- Perform a complete overhaul or replace the pressure regulator at least every 5 years.
- Complete equipment overhauls must be carried out by the manufacturer or authorized repairers.

6. DISPOSAL INSTRUCTIONS

Dispose of the regulator in accordance with current national regulations.

7. MANAGEMENT OF ANOMALIES

Fault	Cause	Solution
Impossible cylinder connection	• Incorrect connection • Damaged connection	• Use connections suitable for the port dimensions • Replace the equipment
Insufficient gas flow	• Passage section limited by handle • Undersized equipment • Equipment malfunctioning at outlet	• Open handle (6) towards + sign • Contact dealer • Replace equipment
Gas leak	• Tightening errors • Damaged gasket	• Close handle, tighten connections • Close valve (1), release downstream gas and replace gasket using appropriate tool. If leak persists, replace equipment
Increase in outlet pressure with consequent discharge of safety valve	Leak in main regulator valve	Replace encapsulated valve or contact dealer
Unstable outlet pressure	Flow rate too fast	Respect the pressure reducer flow rate
Vibrations	• Flow rate too fast • Presence of quick-opening valve on outlet connection	Limit flow rate using the handle or a calibrated orifice or contact dealer

8. WARRANTY

- The product is guaranteed for 2 years from the date of purchase.
- The warranty is void in case of handling or repair operations not authorized by the dealer.

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