
oxyturbo®
TESUCO
TECHNICAL SUPPLIES COMPANY
HOSPITALITY
GAS SAFETY
INDUSTRIAL
SCIENTIFIC
MEDICAL
Operating Instructions
Nitrogen 6000 Regulator
HVAC-R High Flow
QUALITY GAS EQUIPMENT
www.tesuco.com.au

⚠ CAUTION

Read the following instructions carefully before using the pressure regulator, and keep them for future reference. The instructions provide all the information necessary for correct use of the instrument, to avoid damage and danger. Tesuco®/OxyTurbo is not responsible for any damage occurring due to incorrect use of the instrument, or to modifications made to it.

PARTS LIST (See page 7)

1. Cylinder valve
2. Inlet connection "O" ring (seal)
3. Inlet connection (nut & stem)
4. High pressure gauge
5. Low pressure gauge
6. Pressure adjusting knob
7. Outlet connection
8. Adaptor 1/4 - 5/16
9. Relief valve
10. Bonnet
11. Body
12. Gauge protectors
13. Markings

TECHNICAL DATA

Nitrogen 6000

Gas	N2
Colour	Blue
ID	N
P1 kPa	30,000

K-Class	-
P2 kPa	6,000
Q1 m³/h	50

P1 = Inlet Pressure P2 = Outlet Pressure Q1= Maximum Delivery Flow Rate

1. FUNCTION

- The function of the pressure regulator is to reduce and stabilize the pressure of a gas; the regulator changes the pressure at which the gas is kept in the cylinder into the pressure needed to use for the application.
- The pressure regulator has been designed so as to be used only and exclusively with the type of gas and at the pressures which are shown by the marking.
- To try and use the pressure regulator with types of gases and pressures other than those indicated can be dangerous.

1. FUNCTION

⚠ **CAUTIONS**

- **Incorrect use of the pressure regulator can cause serious damage. Users must be trained by competent people.**
- **The pressure regulator must be treated as a precision instrument. Protect it from accidental knocks, dust, oil and other sources of dirt.**
- **Do not use the pressure regulator if it is not in perfect working condition (see 5.1).**
- **When you draw gas, the cylinder must be placed upright and protected from falling.**

2. ASSEMBLY

2.1 Connection of the Pressure Regulator

- Check that the pressure regulator is correct both for the type of gas and the pressure in the cylinder in use.
- Turn the pressure adjusting screw (6) anticlockwise, to check that the pressure regulator valve is closed.
- Replace the "O" ring (2) if it is damaged every time you change the cylinder.
- Before screwing on the pressure regulator, briefly open the cylinder valve (1) then close to remove any impurity, in case using compressed air. Pay attention to direct the cylinder outlet towards a wall and far from heating sources.
- During this operation it is dangerous to stand, or place your hands in front of the cylinder valve (1).
- Position the pressure regulator with the gauges the right way up.
- Screw the inlet connection (3) tightly to the cylinder valve, by hand or by using a spanner.

3. INSTRUCTIONS FOR USE

3.1 Opening

- Slowly open the cylinder valve (1). The high pressure gauge (4) will show you the cylinder pressure.
- Opening the cylinder valve too quickly may make gauges malfunction.
- Open the pressure adjusting screw (6) very slowly. The low pressure gauge (5) will show the outlet pressure.

3. INSTRUCTIONS FOR USE

⚠ **CAUTIONS**

Before opening the cylinder valve (1), check carefully that the regulator is completely closed (turn the pressure adjusting screw (6) anticlockwise).

3.2 How To Regulate Pressure

- To increase pressure: slowly turn the regulator pressure adjusting screw (6) clockwise.
- To decrease pressure: slowly turn the regulator pressure adjusting screw (6) anticlockwise.

⚠ **CAUTIONS**

- **Using the pressure adjusting screw (6) it is possible to compensate an eventual pressure drop.**
- **Outlet pressure must not be regulated higher than the pressure you need to use when flowing.**
- **Outlet pressure must not be regulated higher than the red mark on the low pressure gauge (5).**

3.3 Closing

- Close the cylinder valve (1).
- Release the gas until the regulator gauges indicate "zero".
- Turn the pressure adjusting screw (6) anticlockwise till it is completely closed.

4. STORAGE

- The pressure regulator must be treated as a precision instrument.
- When the pressure regulator is not to be used for long periods, store it in its wrapping or in its box , to prevent contact with dust, oil and other sources of dirt.

5. MAINTENANCE

- Do not carry out maintenance or repairs, other than the following.
- Use only original OxyTurbo spare parts and accessories.
- Spare parts are available also from your retailer.
- In case of failures which cannot be repaired following these instructions, take your pressure regulator back to the retailer.

5. MAINTENANCE

- Do not clean gauge glasses with petrol, solvents or any other kind of detergent.

5.1 Malfunctioning

- In case of malfunction (e.g. leaks in the gauges or in the relief valves) stop use and close the cylinder valve (1) immediately.
- Unless there is visible damage to the outside of the instrument, we suggest that the pressure regulator be returned to the supplier to be checked and repaired.

⚠ **CAUTIONS**

Do not use the pressure regulator if there are the following malfunctions:

- **The "O" ring (2) is damaged or lost.**
- **The pressure regulator or any of its parts (gauge, inlet connection, outlet connection) are damaged or dirty, oily etc.**
- **There are any leaky connections.**
- **The relief valve adjustment has been modified or the valve leaks.**

5.2 Relief Valve

- For safety reasons, the pressure regulator is equipped with an excess pressure valve.
- In case of malfunctioning, this valve allows the excess gas pressure to vent.

⚠ **CAUTIONS**

Do not modify the calibration of the relief valve.

5.3 Checking The Seal

- This check must be carried out only in the open air: use either soapy water or a gas leak detector (Gas Control Part No: OTLDS). Do not use flames.
- Spray detector on the area to be checked.
- The forming of bubbles or foam is a sign of a leak.

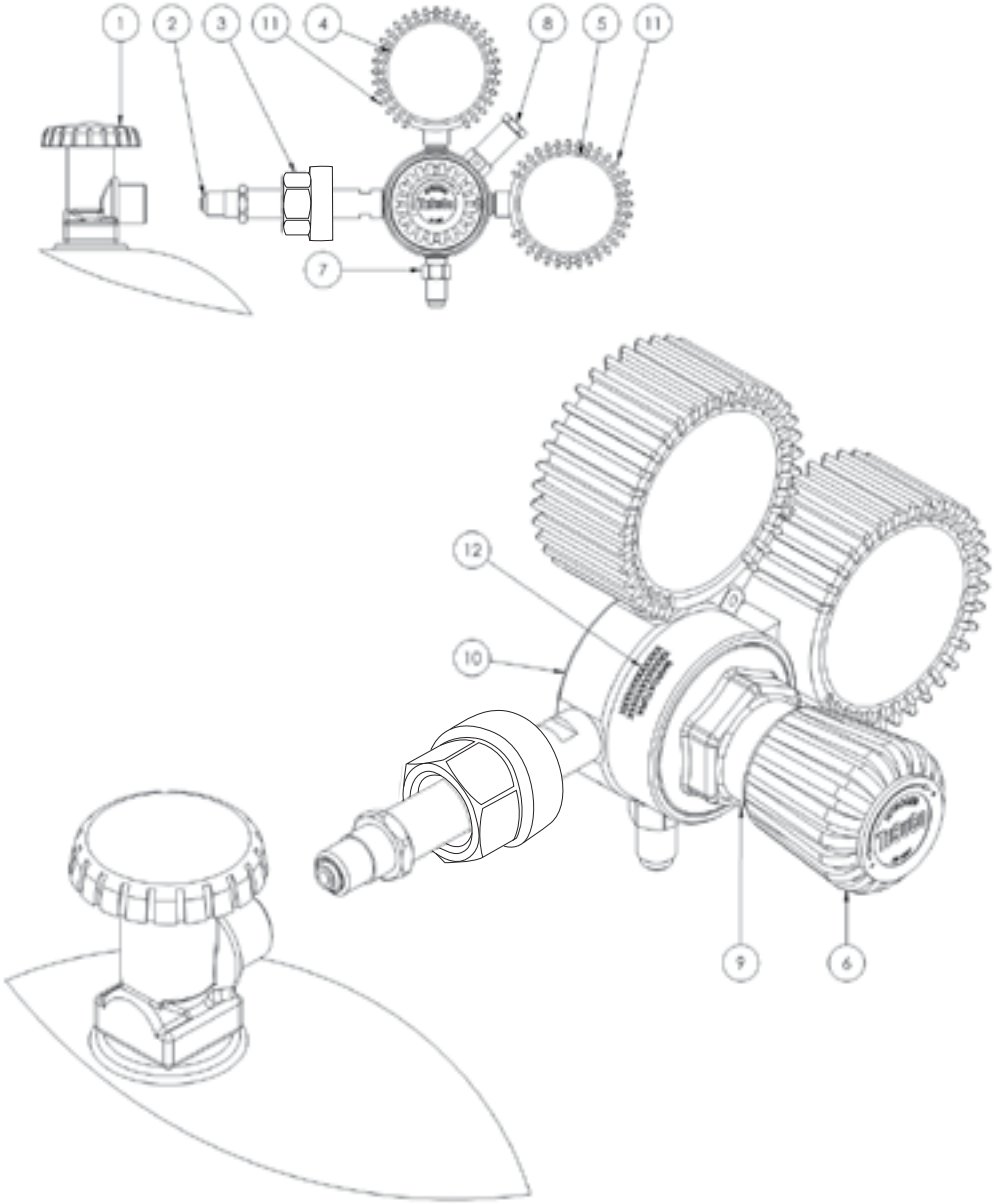
6. INSTRUCTIONS FOR DISPOSAL

Dispose of the regulator in accordance with local requirements.

7. MANAGING FAULTS

PROBLEM	CAUSE	SOLUTION
Cannot connect to the cylinder.	Incorrect inlet connection.	Only use correct cylinder connection for the gas type from AS 2473.2.
	Inlet connection damaged.	Replace the inlet connection with a genuine part.
Insufficient gas flow.	Regulator undersized.	Contact supplier.
	Blocked or damaged equipment downstream.	Replace the equipment.
Gas Leak.	Connection error.	Release the control knob, tighten the connections and re-check. Apply pressure again, if leak persists, repair or replace.
Increase in output pressure, when not flowing.	Leak through the regulator seat valve.	Replace the encapsulated seat.
Unstable output pressure.	Flow rate to high.	Check the flow of the regulator matches the requirement.
Vibrations	Flow rate to high.	Limit the flow with the control knob or a restricted oriface.
	Presence of a quick opening valve in downstream equipment.	

Note: Any repairs to regulators must be done with genuine OxyTurbo parts by a qualified technician.



Note: Some of the details in the illustration may differ from those of the appliance supplied. This company reserves the right to modify the product without prior warning.

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The information contained herein is provided to assist the operator in the safe use of a Tesuco® Nitrogen 6000 Regulator. However, the ultimate responsibility for the safe use of this and any attached equipment lies solely with the operator, including any requirements of associated Australian Standards.

Certified System™
Quality
ISO 9001

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