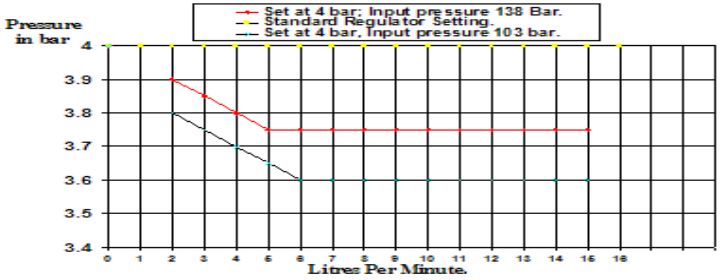
7. Test Specifications

- Test input pressure: Maximum 2000 psi (138 bar)
- Test input pressure: Minimum 1500 psi (103 bar)
- Safety valve blow off pressure: 80 -90 psi (5.5 - 6.2 bar)
- Output pressure at 58 ± 5 psi (4 bar Nominal)
- Flow Calibration tolerance: ± 10%
- Leak test, permissible leak: None

Ideal operating/storage temperature is ambient (recommended limits 0° to +40°C, keep item stored in packaging if not in use). Gauge accuracy 2.5%.

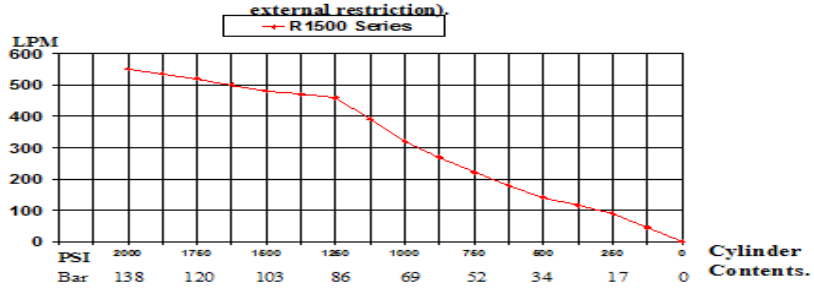
8. Line Charts

(Table 1) **Pressure characteristics with Flowmeter in operation.**



(Table 2)

Regulator Performance & Flow Characteristics.
(Measured without the Flowmeter attached and without external restriction).



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Oxylitre HOLDINGS

R1500 Series Medical Regulator

Operating & Safety Instructions

Made in the UK

1. Introduction

The Oxylitre R1500 series regulator is designed specifically for medical use. It is available for a range of gases including: Oxygen & Medical Air. Conforms to BS EN ISO 10524-1.

2. Specifications

Inlet Connection

All gas connections comply with National and International Standards for safety and prevention of connecting an incorrect gas (BS 341-3 for Bull Nose; BS EN ISO 407 for Pin Index).

Optional Outlet Connectors

Standard conical tubing tail which has been designed to fit most delivery tube sizes.

Outl**et Pressure**

The R1500 Series Regulators are preset to 4 Bar (400 kPa).

Filters

(Please Note: Filters should only be replaced by authorised/trained Personnel only).

Each Regulator is fitted with two integral filters that will protect the patient and/or the user from any foreign matter.

The first filter is placed in the inlet stem of the regulator.

The second filter is part of the main seat cartridge assembly.

Gauges

The regulator is fitted with an easy to read, colour coded Contents gauge. A safety system is placed in the rear of the gauge, which releases gas pressure in the event of a leak.

The regulator is also fitted with a 0 to 15 Lpm Flow gauge that is printed with illuminated characters and calibration divisions. Gauge type CL 2.5.

Safety Valve

The Safety Valve System has been designed to release gas pressure for the safety of the user/patient and/or the equipment connected to the Regulator. This will operate only if the working pressure increases due to a malfunction in the regulator.

(The Safety Valve System is not an adjustable device).

3. Instructions for use

Fitting to a Cylinder (Note: Take great care with these operations): Ensure to check cylinder contents for correct gas.

- **Before connecting a Regulator to a Cylinder, momentarily open and close the Cylinder Valve to blow out any accumulated dust or moisture. Inspect the inlet connector seal for signs of damage or contamination, if found <u>replace immediately</u>! These seals should be replaced at least once a year i.e. as part of a Standard Service (Note: NEVER use two seals together).**

  Seal for Pin Index Inlet Connectors = Part No: OX010 (BODOK)

  Seal for Bull Nose Inlet Connectors = Part No: BS110 ('O' Ring)

- **Connect the Regulator securely to the Cylinder.**
- **Always open the valve <u>very slowly</u> (approx one full turn) to reduce the danger of explosion or fire arising from pressure shock.**
- Before use, check the contents of the cylinder indicated on the pressure gauge.

Removing from a Cylinder:

- Turn OFF the cylinder valve.
- Bleed off the pressure, by opening a valve on the apparatus connected to the regulator.
- Disengage the regulator from the cylinder.

4. Safety Precautions for the prevention of Fire & Explosion

The Regulator / user **MUST NOT** be allowed near any source of ignition i.e.:

- Cigarette/cigar/pipe smokers
- Sparks
- Naked flame
- Open electrical appliances

This precaution applies during and after patient use.

Warning: Not to be used to drive any Medical equipment

Warning: This Regulator **MUST NOT** come into contact with any Oil or Grease, a reaction may cause an Explosion/Fire.

5. Maintenance

A medical regulator forms part of an essential support system. Regulators must be treated with care and be serviced on a regular basis, (i.e. preventative maintenance) to ensure the unit's reliability and quality for the purpose that it is used for. The units require cleaning on external surfaces only by using a solution of luke-warm water and "Dettol" or similar disinfectant fluid (read disinfectant instructions) and cleaning cloth.

Inspection

Recommended at least annually by a Service Engineer and consists of:

a. Connect regulator to the cylinder (as in section 3)
b. Check the contents of the cylinder that is indicated by the pressure gauge.
c. Close the cylinder valve and observe the contents gauge for pressure drop. If the needle on the gauge drops, this indicates a leakage in the system. The device will require a service and/or repair.

Service/Repair

Servicing should be only carried out by fully qualified technicians. **A Major Service is recommended every 5 years.** For service enquiries and information, please contact our sales office. **NEVER USE FAULTY EQUIPMENT**. Preventative maintenance ensures safety for the patient and user. There are no detachable parts associated with this unit.

6. Technical Data

Specifications

- Maximum inlet pressure: 2000 psi (138 bar)
- Minimum inlet pressure: 400 psi (27.6 bar)
- Output pressure: 58 psi (4 bar) ± 3 psi
- Flow rates: set at 58 psi (4 bar) Nominal
  - Back pressure drop to: 55 psi = 110 Lpm approx.
  - Back pressure drop to: 454 psi = 275 Lpm approx.
- Standard discharge = 125 Lpm

Please see Table 1 for the regulators performance specifications. This indicates the performance of the device set at the standard output pressure, standard discharge and the variations at varied inlet pressures.

Please see Table 2 for the regulator pressure characteristics when the Flowmeter is in operation. The chart indicates the variation of the output pressure during flow and when the regulator output pressure has been set at the upper and lower input pressures. Contraindications – "none known".

Flow calibration range

Oxygen or Medical Air: 0 to 15 Lpm ± 10%

Note: The unit can be returned to Oxylitre for disposal (with a decontamination certificate), alternatively dispose of responsibly via local protocol.