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# CLEMENTS

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proven through performance

## ANA 74300 Oxygen Regulator with Yoke Connector



### User Manual

Manual No. ANA 74300 001  
Issue 1

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## **Safety**

Thank you for purchasing this Clements Oxygen Regulator.

For your safety it is imperative that this unit only be operated by authorised personnel in accordance with the instructions as described in this manual. Operated in this way, the Oxygen Regulator will provide the standard of service specified.

Due to continual improvements in product design, the Oxygen Regulator may vary in detail from the descriptions in this manual. In the event of further questions please contact your local distributor or BMDi TUTA Healthcare direct.



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User Manual  
Oxygen Regulator  
Manual Number ANA 74300 001 Issue 1

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## **CAUTION**

PLEASE READ THOROUGHLY AND FOLLOW DIRECTIONS CAREFULLY BEFORE OPERATING EQUIPMENT.

## **WARNING**

OXYGEN IS A NON-FLAMMABLE GAS; IT WILL HOWEVER SUBSTANTIALLY INCREASE THE RATE AT WHICH FLAMMABLE MATERIALS BURN. OIL, GREASE AND OTHER HYDROCARBONS WHEN COMBINED WITH OXYGEN, WILL BECOME HIGHLY COMBUSTIBLE AND SHOULD NEVER BE USED ON ANY PART OF THE OXYGEN CYLINDER, REGULATOR OR OTHER EQUIPMENT USED WITH OXYGEN.

## **GENERAL SAFETY INFORMATION**

1. NO SMOKING - Remove matches, lighters, lighter fluid and other flammable materials from the oxygen therapy area before administering oxygen.
2. Inspect the oxygen cylinder valve, regulator and flowmeter thoroughly for dust, oil and grease. DO NOT USE THE OXYGEN REGULATOR IF OIL OR GREASE IS PRESENT! Inform your gas supplier of this condition immediately.
3. If using a humidifier or similar device, remove the device from the regulator before changing the cylinder. DO NOT ALLOW FLUIDS TO ENTER REGULATOR.
4. In any situation requiring emergency oxygen, call a physician or emergency medical service clinician immediately. This unit is an inhaler and is useful only on persons who are breathing prior to administering oxygen.

## **Intended Use**

Regulate the high pressure from an oxygen gas cylinder to a lower, constant pressure for use with oxygen therapy equipment.

## **Classifications**

<b>GMDN</b>	35300 Regulator, gas, high-pressure
<b>Classification</b>	Class IIb
<b>ARTG</b>	174010

## Specifications

<b>Gas</b>	Medical Oxygen
<b>Maximum Inlet Pressure</b>	20MPa [2900psi]
<b>Outlet Pressure</b>	400kPa [58psi]
<b>Regulator</b>	Fixed output pressure diaphragm style
<b>Inlet Connector</b>	Type pin-indexed yoke CGA 870 AS 2473.3-2007
<b>Outlet Connector</b>	Oxygen ring index AS 2896-1998
<b>Safety</b>	Pressure safety valve, ball and seat type
<b>Gauge</b>	50mm, kPa and colour coded capacity band
<b>Gauge Range</b>	0 to 20,000 kPa, graduated at 1,000 kPa
<b>Duty Cycle</b>	Continuous operation
<b>Standard</b>	AS 3840.1-1998
<b>Dimensions</b>	Unit: 170W x 135H x 90D Packed: 205W x 160 H x 165D
<b>Weight</b>	Unit: 1.08kg Packed: 1.3kg
<b>Ambient Temperature</b>	-18°C to 60°C
<b>Standard Conditions</b>	25°C, Sea Level, 101kPa

## Installation and Operation

### Check for Damage

Carefully examine the oxygen regulator for any visual signs of damage that might have occurred during shipment.

# Installation and Operation

## Connect Regulator to Cylinder

1. Inspect the oxygen cylinder valve, regulator and flowmeter thoroughly for dust, oil and grease. DO NOT USE THE OXYGEN CYLINDER IF OIL OR GREASE IS PRESENT! Inform your gas supplier of this condition immediately.
2. With the cylinder valve outlet facing away from you, slightly open the oxygen cylinder post valve to purge any debris from the valve seat, then re-close the valve.
3. Slip the yoke over the cylinder post valve and fit the yoke pins into the holes in the cylinder valve. The pins should fit easily into their respective holes. Do not force the pins into the holes.
4. Ensure that the sealing washer is in place on the regulator yoke connection and is in good condition
5. Ensure the Tee Handle screw point is seated on the dimple on the cylinder post valve. Turn the Tee handle clockwise and tighten until secure to provide a leak-proof connection.

## Connect Flowmeter to Regulator

1. Attach flowmeter to the regulator and tighten connector. If the flowmeter is a tube-style unit ensure that the tube is maintained in a vertical tube-up position.
2. Ensure that the flowmeter is off - turn flow control knob clockwise.

## Pressurise the Regulator

1. Slowly open the cylinder post valve.
2. Confirm that the cylinder pressure gauge indicates adequate capacity. A cylinder with less than 2MPa should be exchanged for a full cylinder to ensure an adequate supply of oxygen.
3. Confirm that there are no leaks in the oxygen cylinder, regulator and flowmeter circuit.

## **Adjust the Oxygen Flow**

1. Turn the flowmeter control knob anti-clockwise until the centre of the ball corresponds with the line indicating the required flow rate.
2. When finished administering oxygen therapy turn the flowmeter control knob clockwise to the off position. Confirm that the ball indicates zero.

### **WARNING**

Do not use high concentrations of oxygen for more than 5 hours without 1 hour interruptions.

## **Closing the Regulator**

If the regulator will be used again in a short time (one hour or less) turn the flowmeter control knob clockwise to off.

If the regulator will not be used for a longer period of time, turn the cylinder valve clockwise to the OFF position.

## **Removing the Regulator from a Cylinder**

1. Turn the cylinder valve clockwise to the OFF position.
2. Open the flowmeter control knob to bleed the residual pressure from the circuit. Allow the gas pressure in the regulator circuit to completely escape. The flowmeter and pressure gauge should both indicate zero.
3. Close the flowmeter control knob.
4. If using a humidifier or similar device, remove the device from the regulator flowmeter before changing the cylinder. Do not allow fluid to enter.
5. Turn the Tee handle anti-clockwise to allow pins to disengage from post. Remove regulator from cylinder.

### **WARNING**

Never attempt to remove a regulator from a cylinder if the pressure gauge shows pressure.



# Cleaning

## WARNING

DO NOT USE ANY OIL BASED OR HYDROCARBON PRODUCTS ON THIS OXYGEN REGULATOR.

## Cleaning

Clean using a pH neutral disinfectant for wiping clean. Wipe with a damp cloth and dry with paper towel to remove residue. Do not wipe the contact areas of the inlet and outlet connectors.

## Transportation and Storage

Environmental conditions for transportation and storage are shown in the following table.

Parameter	Minimum	Maximum
Temperature	10°C	40°C
Humidity	60% RH	95% RH
Barometric Pressure	700 mBar	1060 mBar

## Accessories and Spare Parts

ANA 74300 001	User manual for Oxygen Regulator
ANA 74100	Oxygen Flowmeter 0-15 litre/min
ANA 74100 100	Humidifier for Oxygen Flowmeter
ANA 74300 201	Kit, Gauge for Oxygen Regulator
ANA 74300 202	Kit, Yoke for Oxygen Regulator
ANA 74300 203	Kit, Bodok Seal for Oxygen Regulator (10)
ANA 74300 204	Kit, Inlet Filter for Oxygen Regulator (5)
ANA 74300 205	Kit, Service, Spring for Oxygen Regulator
ANA 74300 206	Kit, Service, Seal/Seat for Oxygen Regulator

## Maintenance

Period	Check	Action
Each Use	Visible Damage	Repair, replace
	Leaks	Repair, replace
Quarterly	Gauge Accuracy	Repair, replace
	Outlet Pressure	Replace
	Yoke seal washer	Replace

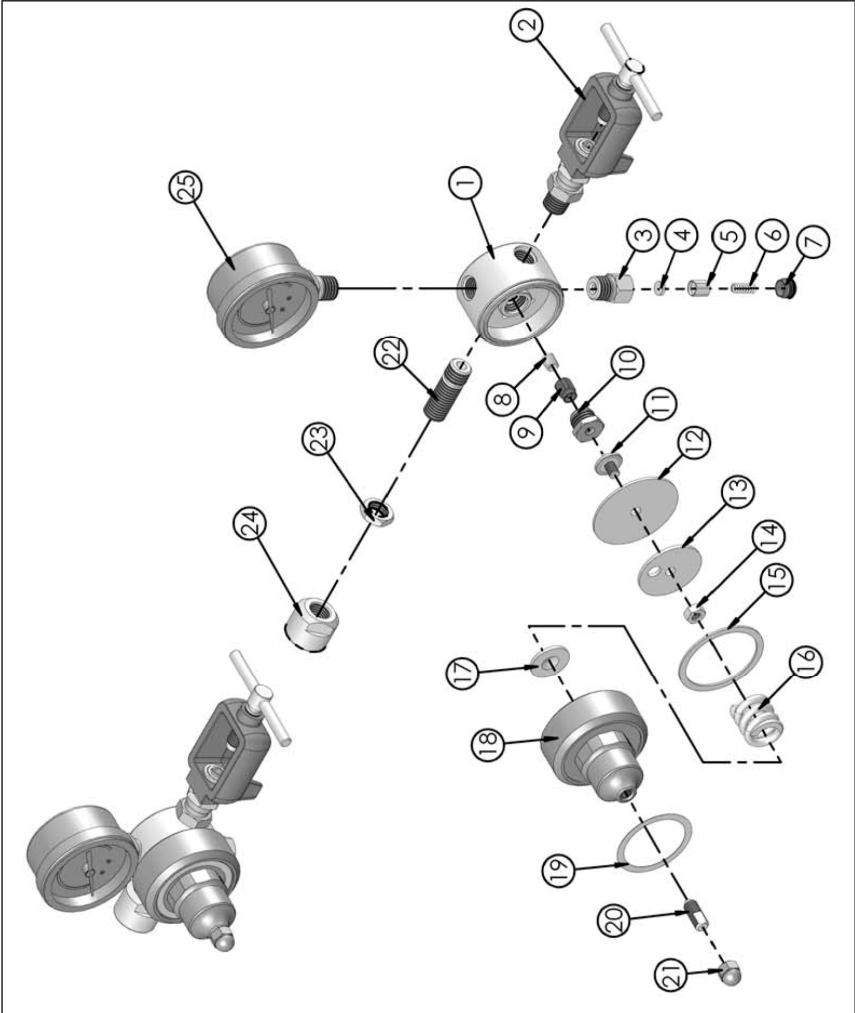
## Troubleshooting

<b>Fault</b>	<b>Check</b>	<b>Rectify</b>
No reading on pressure gauge	Cylinder Cylinder valve Pressure gauge Blockage in regulator	Replace cylinder Confirm turned on Replace Replace regulator
Leaks	Seal washer present and in good condition Debris on valve seat Tee handle secure	Replace seal washer  Clean Tighten
Outlet pressure incorrect	Cylinder valve Confirm pressure with calibrated gauge	Confirm turned on Replace regulator
No Flow	Self-sealing valve Blockage in regulator Inlet filter blocked	Replace regulator Replace regulator Replace inlet filter

### Service

Apart from the sealing washer (Bodok Seal), there are no user-serviceable parts on the oxygen regulator. Refer all service to suitably qualified and authorised personnel.

# Exploded View



## Part List

Item	Description
1	Body
2	Yoke Connector
3	Safety Relief Body
4	Safety Relief Seat
5	Seat Retainer
6	Relief Spring
7	Cap
8	Spring
9	Seat Assembly
10	Orifice
11	Retainer
12	Diaphragm
13	Diaphragm Plate
14	Nut
15	Gasket
16	Adjusting Spring
17	Spring Seat
18	Cover
19	Label
20	Adjusting Screw
21	Cap
22	Outlet Nipple
23	Lock Nut
24	Outlet Nut
25	Gauge

## **Warranty**

BMDi TUTA Healthcare Pty Ltd warrants that this product is free from defects in workmanship and materials for a period of 12 months from the date of shipment by BMDi TUTA Healthcare or its authorised agent to the purchaser. Subject to the conditions of this warranty, if the product fails to operate for any reason within the warranty period and the product is returned to the place of purchase at the purchaser's expense, BMDi TUTA Healthcare will repair or replace the product free of charge.

If a valid warranty claim is made within 30 days from the date of shipment, then BMDi TUTA Healthcare will also reimburse the purchaser for reasonable freight costs in returning the product to the place of purchase.

### **Conditions of Warranty**

1. The product must be returned to the place of purchase with proof of purchase.
2. This warranty is only available to the original purchaser of the product.
3. The product must not have had its serial number removed, defaced or changed, its casing opened, its power supply altered or have been tampered with in any other way.
4. This warranty does not cover :
  - inadequate or incorrect site preparation;
  - improper installation;
  - connection to the wrong voltage;
  - failure of the product due to misuse;
  - the use or operation of the product outside of the physical, electrical or environmental specifications of the product;
  - use in a manner or environment in which the product is not designed to be used;
  - improper adjustment, calibration or operation by the purchaser;
  - the use of accessories including consumables, hardware or software which were not manufactured or approved in writing by BMDi TUTA Healthcare ;

- any modifications of the product which were not authorised in writing by BMDi TUTA Healthcare ;
  - any contamination or leakages caused or induced by the purchaser; and
  - inadequate or improper maintenance of the product.
5. This warranty does not cover normal wear and tear.
  6. BMDi TUTA Healthcare will not be responsible for damage or loss caused during shipping.
  7. In Australia, apart from any warranties implied by the Trade Practices Act 1974 all other warranties expressed or implied and whether arising by virtue of statute or otherwise are hereby excluded.
  8. Outside Australia, all other warranties expressed or implied and whether arising by virtue of statute or otherwise (including any warranties implied by the Vienna Convention) are hereby excluded.
  9. BMDi TUTA Healthcare's obligations under this warranty are limited to the repair or replacement of the product, within the terms of this warranty and the total liability of BMDi TUTA Healthcare for loss or damage of any kind whether arising pursuant to the terms of the sale of the product or otherwise in connection with the product is limited to the amount paid by the purchaser to BMDi TUTA Healthcare for the product.
  10. Apart from any liability imposed by Part VA of the Trade Practices Act, BMDi TUTA Healthcare accepts no other liability for any loss or damage occasioned (including consequential loss or damages) in any way as a result of the use of the product.
  11. The warranty does not extend to cover damage to the following parts as they are inherently prone to wear :
    - motor brushes
  12. This warranty does not extend to cover corrosion due to any cause nor to any damage to painted or anodised surfaces.
  13. BMDi TUTA Healthcare will give the purchaser the benefit of any manufacturer's warranty in respect of any components in the product which were not manufactured by BMDi TUTA Healthcare , if such a manufacturer's warranty is available.

