
CLEMENTS

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ANA 74100 Oxygen Flowmeter with Ring Index Connector



User Manual

Manual No. ANA 74100 001 Issue 2

Safety

Thank you for purchasing this Clements Oxygen Flowmeter.

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 Flowmeter will provide the standard of service specified.

Due to continual improvements in product design, the Oxygen Flowmeter 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 Flowmeter
Manual Number ANA 74100 001 Issue 2
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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 flowmeter before changing the cylinder. DO NOT ALLOW FLUIDS TO ENTER FLOWMETER.
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

When connected to a fixed, low pressure oxygen source, to provide a controllable continuous flow of oxygen, within the specified operating range, for the purpose of oxygen therapy carried out by clinically trained and authorised personnel.

Classifications

GMDN	37132 Flowmeter, oxygen therapy
Classification	Class IIb
ARTG	163053

Specifications

Gas	Medical Oxygen
Maximum Inlet Pressure	400kPa [58psi]
Outlet Pressure	400kPa [58psi]
Regulator	Pressure compensated needle valve
Inlet Connector	Oxygen ring index AS 2896-1998
Outlet Connector	Chromed brass hosedtail
Safety	Pressure safety valve, ball and seat type
Flowmeter Type	Variable Area (VA) Tube
Flow Range	1 to 15 litre/min and FLOOD graduated at 1 litre/min
Duty Cycle	Continuous operation
Standard	AS 3840.1-1998
Dimensions	Unit: 180H x 50W x 55D Packed: 215H x 75W x 150D
Weight	Unit: 0.4kg Packed: 0.54kg
Ambient Temperature	-18°C to 60°C
Standard Conditions	25°C, Sea Level, 101kPa

Installation and Operation

Check for Damage

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

The Oxygen Flowmeter may be used either with:

- Medical oxygen ring index wall outlets for pipeline systems
- Medical oxygen gas cylinders with medical oxygen regulators

Pipeline Systems

Connect Flowmeter to Wall Outlet

1. Ensure that the flowmeter is off - turn flow control knob clockwise
2. Attach flowmeter to the medical oxygen wall outlet and tighten connector.
Ensure that the tube is maintained in a vertical tube-up position.

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.

Gas Cylinders

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 FLOWMETER.

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 area of the inlet connector.

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 74100	Oxygen Flowmeter 0-15 litre/min
ANA 74100 001	User manual for Oxygen Flowmeter
ANA 74100 100	Humidifier for Oxygen Flowmeter
ANA 74100 201	Kit, Outer Tube Oxygen Flowmeter
ANA 74100 202	Kit, Inner Tube for 15l litre/min Oxygen Flowmeter
ANA 74100 203	Kit, Knob Replacement Oxygen Flowmeter
ANA 74100 204	Kit, Hosetail Oxygen Flowmeter
ANA 74100 205	Kit, Inlet Nipple for Oxygen Flowmeter

Maintenance

Period	Check	Action
Each Use	Visible Damage	Repair, replace
	Leaks	Repair, replace
Quarterly	Flowmeter Accuracy	Repair, replace

Troubleshooting

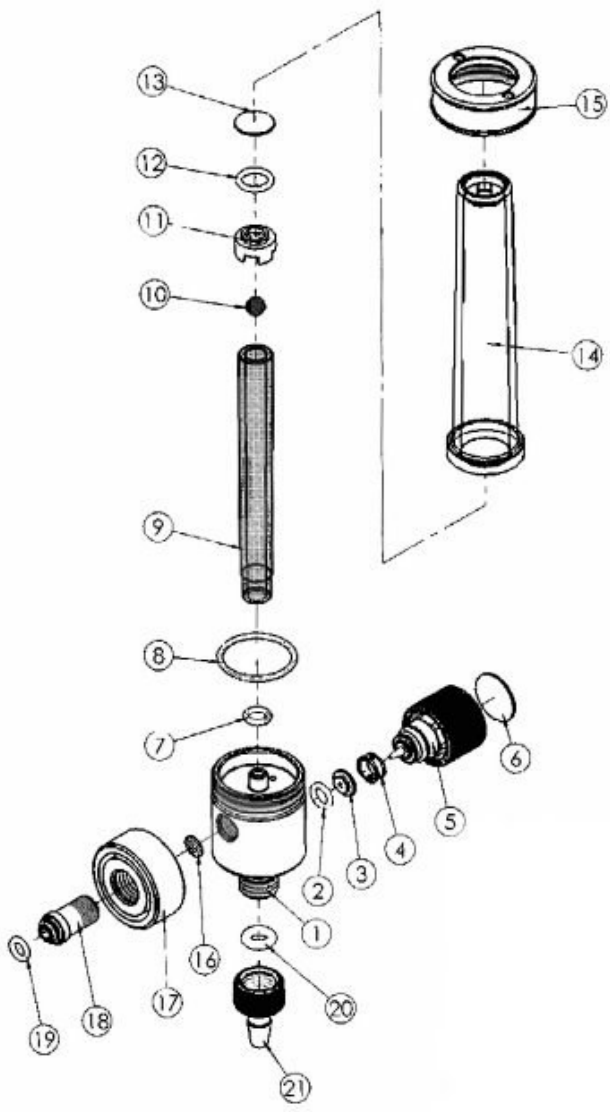
Fault	Check	Rectify
No reading on pressure gauge	Cylinder Cylinder valve Pressure gauge Blockage in regulator	Replace cylinder Confirm turned on Replace Replace regulator
Leaks	Seal washer present and in good condition Debris on valve seat Tee handle secure	Replace seal washer Clean Tighten
Outlet pressure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

Service

Apart from the hosetail there are no user-serviceable parts on the oxygen flowmeter.

Refer all service to suitably qualified and authorised personnel.

Exploded View



Part List

Item	Description
1	Flowmeter Body
2	O-Ring, Knob
3	Valve Block
4	Compression Ring
5	Knob Assembly
6	Knob Label
7	O-Ring, Inner Tube
8	O-Ring, Outer Tube
9	Inner Tube
10	O-Ring, Inner Tube
11	Safety Block
12	O-Ring, Inner Tube
13	Safety Diaphragm
14	Outer Tube
15	Nut, Outer Tube
16	Filter
17	Handwheel
18	Inlet Nipple
19	O-Ring, Inlet Nipple
20	O-Ring, Hosetail
21	Hosetail

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 every 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 Clements for the product.
 10. Apart from any liability imposed by Part VA of the Trade Practices Act, Clements 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. Clements will give the purchaser the benefit of any manufacturer's warranty in respect of any components in the product which were not manufactured by Clements, if such a manufacturer's warranty is available.

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