

FLOTEC INC

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Web Site: <http://www.floteco2.com>

Order desk: 800-401-1723
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The FLOTEC Oxygen Regulator Test Kit is designed to provide means for field personnel to evaluate a regulator for proper function. FLOTEC products contain no latex or latex byproducts.

SPECIFICATIONS:

Operating Range: 0-3000 PSIG

Flow Capacity: Maximum: 30 LPM

Temperature Range: Storage -20 to 150F (-28.9 to 65.5C)
 Operating 65 to 75F (18 to 24 C)

Inlet Configuration: CGA 540 and CGA 870 configurations.

Outlet Configuration: Hose Barb
 DISS-1240 fitting

REPLACEMENT PARTS:

RTA – 540 Oxygen Regulator Test Kit
 RTA – 870 CGA 870 Adapter
 RTA – 1240 DISS 1240 Adapter

008-1000-001 Mass Flow meter
 405-0101-102 Tygon Tubing
 3/16" X 1/16 wall 48" long (2 Req'd.)

INSTALLATION: Regulator Test Kit First connect the high pressure supply regulator to the supply tank. For testing CGA 870 regulators, a special adapter (RTA-870) should be attached to the outlet of the supply regulator. The RTA-870 adapter is equipped with a hand tight nut and should not be tightened with a tool. Attach the 870 regulator to the post of the adapter and tighten the clamp. CGA 540 regulators can be directly connected to the supply regulator. CGA 540 connections with hex nuts should be tightened with a 1-1/8" or adjustable wrench. Most 540 connections can seal with a light tightening of the nut. Over tightening the connection can cause premature wear of the connection. If the nut does not turn smoothly when starting the thread, check the nut and thread for damage or cross threading that can damage the connection. Open the tank valve slowly and check for leaks. If leakage is detected in the tank connection, try tightening the nut. If there is still leakage, then check the sealing surface for damage.

WARNING: Medical gases under high pressure can be dangerous, this equipment should only be used by personnel trained in the use of high pressure gases and equipment. Make sure that high pressure tanks are secure during use and any time that the protective cap is removed.

TESTING THE REGULATOR There are three different configurations for connecting the unit under test to the test equipment. Units with one or more DISS 1240 outlets can be pressure tested by connecting the pressure gauge (RTA-1240) to one of the outlets. Units with a hose barb outlet may be connected using the RTA-HB attached to the RTA-1240. Refer to drawing 707-0195-000 for connection configurations. Set the Supply Regulator to 1250 PSIG for regulator testing. The outlet pressure of the unit under test should be within the range of 49 to 54 PSIG. To check the flows connect the Mass Flow Meter to the hose barb using the tubing supplied. Starting from the lowest flow to the highest flow, select the flow setting then read the flow value on the flow meter.

Note: Mass flow meters are temperature dependent and readings will fluctuate with temperature variations. The meter should be powered up for 30 minutes before readings are taken for the most accurate readings and used in ambient conditions as close to 70 degrees F as possible. Readings should be taken after the meter stabilizes after changing the flow setting. A true reading is when the displayed value fluctuates above and below a particular value or remains the same. When large changes in flow occur, it may take some time for the unit to

recover and display a true reading. It is also best to have a straight line of at least four inches before the flow meter to straighten the flow before measurement.

Flow readings should be within +/- 20% for readings between 0 and 0.5 LPM and +/- 10% for greater than 0.5 to 25 LPM.

PREVENTIVE MAINTENANCE: The Flow meter should be tested and cleaned periodically to insure proper performance. Annual calibration should be performed to ensure accurate readings. The frequency of cleaning should be established according to usage, but it should be performed at least twice per year.

LEAK TEST: With the Unit Under Test connected to the supply, The flow selection set to zero and nothing connected to the unit, turn the post valve off for 870 units or the supply tank valve off for 540 units. Observe the pressure gauge of the unit under test. If it drops to zero within ten seconds then there is a leak in the system. If a leak is indicated, open the supply valve and apply an oxygen compatible leak test solution to all outlet fittings and check for bubbles. Tighten fittings as required to eliminate all external leaks. DO NOT over tighten threaded connections. Check the vent hole located on the body with a short hose with one end submerged in a glass of water and the other over the vent hole. Some venting is normal in a regulator, however, a continuous leak indicates an internal seal problem. Close the supply tank valve, then remove the unit for use or repair.

WARNING: Disassembly, assembly, and testing of regulators should be performed only by trained personnel. The work area must be free of hydrocarbon contaminants (oils) and residues because of the danger of spontaneous combustion when residues are exposed to gaseous oxygen.

SAFETY WARNINGS:

1. The use of FLOTEC Regulator Test Kit for gases other than compressed Oxygen is expressly prohibited by FLOTEC and the user must assume all liabilities.
2. Use no oil or grease.
3. Never administer oxidizing gases when smoking or when near an open flame.
4. Never use medical gases from a cylinder without reducing the pressure through a suitable regulator intended for that gas.
5. Ensure that the threaded fitting on the Regulator Test Kit is properly mated for the gas intended. Never attempt to force an incompatible connection.
6. Never permit compressed oxygen to enter a Regulator suddenly. Always open the valve slowly.
7. Fully open the valve when a Regulator is attached and in use.
8. Never leave a medical gas system valve open with Regulator attached when flow meter is not in use.
9. Before a Regulator is removed, fully close the medical gas system valve and release all residual gas pressure from within the Regulator.
10. Never interchange Regulators, hoses, or other equipment with similar equipment intended for use with other gases. Regulators and related fittings should never be handled with oily or greasy hands or gloves. Never hold hand over the outlet(s) to test for the presence of pressure.
11. Never use oxygen as a pressure medium to purge obstructed pipelines or equipment, to operate pneumatic tools, or to build up pressure in any tanks.
12. Do not stand in front of a flowmeter outlet when opening the medical gas system valve in case foreign particles are present which could cause a hazardous malfunction of the Regulator.
13. Secure cylinders to wall, stand, or cart in accordance with local codes.
14. Downstream equipment used in conjunction with the flowmeter should be equipped with suitable safety valves to prevent overpressurization and damage.

15. Carbon Dioxide must never be allowed to contact oil, grease or other petroleum-based substances. Therefore, do not use oil or grease on carbon dioxide flowmeters, cylinders, valves or other related equipment. Do not use or store carbon dioxide equipment near excessive heat (>150 F or 65.5 C) or open flame.
16. CAUTION: Do not use organic-based thread sealants on any portion of the regulator. Use only Teflon thread sealing tape.
17. Never leave pressurized oxygen within a Regulator. Always purge residual gases when not in use.

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Declaration of Conformity

Product identification

Product name : Regulators & Flow meters, Regulators with Flow meter.
Brand : Flotec
Cat. Number : RXXXX-XXXXX, FXXX-XXXXX, MXXXX-XXXXX, DXXXX-XXXXX
Batch/Serial Nr. : Numbered Sequentially

Manufacturer

Name : Flotec
Address : 7625 West New York Street
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Country : USA
Representative : Brian Davidson
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The Hague
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Notified Body

Name : UL International (UK) Ltd
Address : Wonersh House, The Guildway
Old Portsmouth Road
Country : UK- Guildford, Surrey, GU13 1LR
I.D. Number : CE 0843

Means of conformity

Flotec Inc. declares that the product listed has been classified as Class IIb - Annex IX, Rule 11

and is in conformity with the essential requirements and provisions of Council Directive: 93/42/EEC

Signature

Place and date : Flotec Inc 09-11-14

Signature : 

Name : Brian Davidson
[Name and Signature of authorized person within organization]

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Notified Body

Name : UL International (UK) Ltd
Address : Womersley House, The Guildway
Old Portsmouth Road
Country : UK- Guildford, Surrey, GU13 1LR
I.D. Number : CE 0843

<u>Symbols</u>	<u>Symbols</u>	<u>Definition</u>
PSIG		POUNDS PER SQUARE INCH GAUGE
KG/CM2		KILOGRAMS PER SQUARE CENTIMETER
BAR		KILOGRAMS PER SQUARE CENTIMETER
MPA		MEGA PASCAL
HP		HIGH PRESSURE PORT
LPM		LITERS PER MINUTE
SN		SERIAL NUMBER



USE NO OIL



- CONSULT INSTRUCTIONS FOR USE



- AUTHORIZED REPRESENTATIVE IN THE EUROPEAN COMMUNITY