

# FLOTEC INC

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

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The FLOTEC nitrous oxide/oxygen mix regulator is designed to provide a constant flow of nitrous oxide/oxygen mix at approximately 50 PSI. The FLOTEC regulator is preset to deliver approximately 50 PSI through the optional DISS 2020 check valve(s), a hose barb or a DISS 2020 fitting. Every FLOTEC regulator design has an internal safety relief valve to prevent over pressurization of the regulator. FLOTEC products contain no latex or latex byproducts.

SPECIFICATIONS:

Operating Pressure: 250-3000 PSI  
 Outlet Pressure: Nominal 50 PSI  
 Inlet Configuration: CGA 965 Yoke  
 CGA 280 Nut & Nipple  
 Outlet Configuration: Hose Barb  
 DISS 2020 Fitting  
 DISS 2020 Check Valve

REPLACEMENT PARTS:

Tee Handle for CGA 965  
 Knob & Label  
 DISS 2020 Fitting or Hose Barb  
 DISS 2020 Check Valve  
 Piston/ Manifold Sub-Assembly  
 Hose Barb  
 CGA 280 Nut & Nipple  
 Gauge w/Rubber Boot  
 Washer for CGA 965

INSTALLATION: CGA 965 Connector:

When connecting the CGA 965 connection do not use a tool to tighten the Tee Handle. Doing so may damage the regulator. If leakage occurs between the regulator and cylinder after the Tee handle has been tightened by hand, inspect and replace the yoke washer if necessary.

INSTALLATION: CGA 280 Connector: Mount the regulator to a CGA 280 cylinder valve. Be careful to avoid cross-threading the connection. To achieve a proper seal for threaded cylinder connections, which use a gasket or O-ring, be sure the gaskets or O-ring is properly positioned before attaching the regulator to the valve.

INSTALLATION: Pipe Connector: Use only Teflon tape on the threads as a sealant.

INSTALLATION REGULATOR:

The Flotec regulator has an internal safety valve to prevent overpressurization of the regulator. Point of installation, local and state regulations may require venting of the relief valve to outside of the use/storage area.

WARNING: Never install a regulator to a post-type valve with more than one yoke washer between the valve and regulator inlet. Before attaching the regulator to the post valve, verify that the valve is not already equipped with a yoke washer. Never add another yoke washer to the regulator inlet while a yoke washer is in place. Leakage between two yoke washers may result in spontaneous combustion. Disassembly, assembly, and testing of regulators should be performed only by trained personnel. The work area must be free of hydrocarbon contaminants and residues because of the danger of spontaneous combustion when residues are exposed to gaseous nitrous oxide/oxygen mix.

PREVENTIVE MAINTENANCE: All regulators should be tested and cleaned periodically to insure proper performance. The frequency of testing should be established according to usage, but it should be performed at least once per year to evaluate for damage, contamination, wear and performance.

LEAK TEST: Attach the regulator to an appropriate cylinder, plug all outlets, turn the flow selector to "OFF" and slowly open the cylinder valve. Apply a compatible leak test solution to all outlets, fittings, and the junction of the gauge and regulator body. Tighten fittings as required to eliminate all external leaks. DO NOT overtighten threaded connections. Replace yoke washer if required. Close cylinder valve.

## SAFETY WARNINGS:

1. The use of FLOTEC nitrous oxide/oxygen mix regulators for gases other than that of design is expressly prohibited by FLOTEC and the user must assume all liabilities.
2. Storage areas should be dry, cool and well ventilated. Where practical, storage areas should be fireproof. Storage in sub-surface locations should be avoided. Storage conditions should comply with local and state regulations.
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. Make sure that the threaded fittings on regulators or the indexing pins on yokes are properly mated for the gas intended. Never attempt to force an incompatible connection.
6. Never permit compressed medical gases to enter a regulator suddenly. Always open the cylinder valve slowly.
7. Fully open the cylinder valve when a regulator is attached and in use.
8. Never leave a cylinder valve open with regulator attached when regulator is not in use.
9. Before a regulator is removed from a cylinder, fully close the cylinder valve and release all gas from the regulator.
10. Never interchange regulators, hoses, or other equipment with similar equipment intended for use with other gases. Pressure 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 nitrous oxide/oxygen mix 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 regulator outlet when opening the cylinder valve in case foreign particles are present which could cause a hazardous malfunction of the regulator.
13. Nitrous oxide/oxygen mix therapy may be critical treatment. The application of the regulator should be made in strict accordance with the prescription and instructions of a physician.
14. Secure cylinders to wall, stand, or cart in accordance with local fire codes.
15. The regulator is equipped with an internal safety, which is designed to protect the regulator. Downstream equipment used in conjunction with the regulator should be equipped with suitable safety valves to prevent overpressurization and damage.
16. Nitrous oxide/oxygen mix is not flammable. However, the presence of nitrous oxide/oxygen mix will drastically increase the rate and severity of combustion. Oil and/or grease in the presence of nitrous oxide/oxygen mix become highly combustible. Nitrous oxide/oxygen mix must never be allowed to contact oil, grease or other petroleum-based substances. Therefore, do not use oil or grease on nitrous oxide/oxygen mix regulators, cylinders, valves or other related equipment. Do not use or store nitrous oxide/oxygen mix equipment near excessive heat (>125 F or 51.5 C) or open flame.
17. CAUTION: Do not use organic-based threaded sealants on any portion of the regulator. Use only Teflon threaded-sealing tape or nitrous oxide/oxygen mix service thread compound.
18. **DANGER: Never install a regulator to a post-type valve with more than one yoke washer between the valve and the regulator inlet. The use of plastic yoke washer seals on Flotec regulators is prohibited.**
19. Never leave pressurized nitrous oxide/ oxygen mix within a regulator. Always purge residual gases when not in use.
20. The regulator must be tight to prevent O-ring extrusion. (When using CGA 280 Nipple with O-ring).
21. The regulator must be tight to prevent leaking around the CGA 280 Nipple and those using a tip seal or face washer.
22. The regulator must NOT be twisted or turned when it is tight on the cylinder valve and/or under pressure to prevent O-ring, tip seal, or face washer abrasion.

Flotec Patent #'s: 4909476, 5785050, 6026854, 6082396, 6328280, 7089956, 4982760, 6148841, 7255127

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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  
Indianapolis, IN 46214-4911  
Country : USA  
Representative : Brian Davidson  
Tel : +1 317-273-6960  
Fax : +1 317-273-6979

### Authorized Representative in Europe

Name : Emergo Europe  
Address : Molenstraat 15  
2513 BH  
The Hague  
Country : The Netherlands  
Tel : (31) (0) 70 345-8570  
Fax : (31) (0) 70 346-7299

### Notified Body

Name : UL International (UK) Ltd  
Address : Womersley House, The Guildway  
Old Portsmouth Road  
Country : UK-Guildford, Surrey, GU3 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 9-22-03

Signature :



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

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## Authorized Representative

Name : Emergo Europe  
Address : Molenstraat 15  
2513 BH The Hague  
Country : The Netherlands  
Tel : (31) (0) 70 345-8570

### Symbols

PSI  
KG/CM<sup>2</sup>  
BAR  
MPA  
HP  
LPM  
SN



### Symbols

### Definition

POUNDS PER SQUARE INCH  
KILOGRAMS PER SQUARE CENTIMETER  
KILOGRAMS PER SQUARE CENTIMETER  
MEGA PASCAL  
HIGH PRESSURE PORT  
LITERS PER MINUTE  
SERIAL NUMBER

USE NO OIL

CONSULT INSTRUCTIONS FOR USE

EC REP -

AUTHORISED REPRESENTATIVE IN THE EUROPEAN COMMUNITY