

Medical Gas Hoses

Instructions for Use



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1. Symbols

Warning! Indicates a potentially hazardous situation which, if not avoided, could result in personal injury to the user or others

2. Warnings

2.1. Warnings!

- ▶ Read through this entire instruction manual before using or showing others how to use a medical gas hose. As with all medical equipment, attempting to use this device without a thorough understanding of its operation may result in patient or user injury.
- ▶ Oxygen is not flammable; however an oxygen enriched atmosphere will drastically increase the rate and severity of combustion. Oil and/or grease in the presence of an oxygen enriched atmosphere will become highly combustible. Oxygen must never be allowed to come into contact with oil, grease or other hydrocarbon based substances. Do not use oil or grease on this hose assembly.
- ▶ Many hand creams and moisturisers contain paraffin and petroleum bases which are highly flammable and must never be allowed to contact the Medical gas Hose. Ensure hands are clean and dry before operating the equipment.
- ▶ This device offers an impedance to flow. Following fitting of the hose ensure that the equipment that it is supplying is working in accordance with the manufacturer's specification.
- ▶ Do not couple two hose assemblies in series.
- ▶ Do not repair medical gas hoses.
- ▶ Do not use this hose outside of the range of operating pressures given in the specification below.
- ▶ Do not fit near an open flame or near a source of excessive heat that is likely to exceed 60 °C.
- ▶ The connectors fitted at either end of the hose assembly are gas specific. Ensure that the appropriate gas mating connector is used.
- ▶ The performance and safety of hoses can degrade with time. Ensure that hoses are replaced within 4 years of being put into use or 5 years of manufacture, whichever is the sooner.
- ▶ Do not submerge the device in any fluid. Ensure that no fluid is allowed to enter the hose assembly.

3. Functional Description

3.1. Intended Use

Medical gas hoses are used to provide a safe method for transferring low pressure medical gases to various medical devices.

The hoses are intended for use in the pressure range 300 kPa to 1400 kPa for compressed medical gases and between -10 kPa and -100 kPa absolute pressure for vacuum.

Medical gases covered by this range are Oxygen, Medical Air (MA4 and MA7), Nitrous Oxide and Vacuum.

3.2. Technical Description

Medical gas hose assemblies fundamentally comprise a length of hose with a connector crimped at either end.

There are a number of part numbers within the range based upon:

- gas type
- hose length
- type of connector at each end

Gas hose is purchased as a BS EN ISO 5359 component.

Connectors are manufactured to internal drawing specification that reflects that given by various type standards.

Every medical gas hose assembly is checked for burst pressure and flow before despatch. An additional test is undertaken for tensile strength on a sample basis.

Due to the conditions of use, medical gas hoses have a life expectancy of 4 years and should be replaced by the hospital on a routine basis.

4. Fitting Instructions

4.1. Preparation and Connection

Before fitting a new hose, ensure that the mating connector on the equipment is of the correct type and is clean and of the correct type.

Attach the equipment end connector first and tighten as required.

Connect the probe end of the hose to the pressure source. Give a light pull on the hose to ensure that the probe is properly connected.

4.2. Testing Prior to Use

Undertake a performance function check of the the equipment in accordance with the manufacturer's instructions to ensure that the hose is not offering any restriction. Pay particular attention to maximum flow rates and low pressure equipment alarms.

5. Maintenance

5.1. Labelling

The hose assembly is maintenance free for an intended life of 4 years in use or 5 years from the date of manufacture, whichever comes first.

A Manufacturing Date is printed on the device label and a blank area marked Installed: and Remove: is provided for the installer to mark the appropriate date. Use a permanent marker pen to do this.

5.2. Periodic Inspection

Check the condition of the hose at least every 6 months. Pay particular attention to the surface of the hose, crimps and condition of the gas specific connectors. Remove and dispose of any damaged hose.

5.3. Cleaning

Clean the hose using a damp cloth and mild detergent. A proprietary alcohol wipe can be used to disinfect the outside of the hose. Do not immerse the hose in any fluid.

5.4. Disposal

Hose assemblies that are at or beyond their Remove date must be removed and put beyond use. Hose assemblies can be returned to BPR Medical for disposal.

5.5. Maintenance Log

If you maintain a maintenance history log for the equipment then this should be completed in accordance with your standard operating procedure.

6. Specification

Specification	Value
Gas compatibility	Oxygen
	Nitrous Oxide
	Medical Air
Intended range of use:	Pressure gases: 300 – 1400 kPa
Hose inside diameter	6.5 mm
Environmental	Transport, Storage: -20 °C to +60 °C
	Operation: -10 °C to +40 °C
Regulatory	CE: Medical Device Directive 93/42/EEC - Class IIa
Applied Standards	
BS EN ISO 15001	Anaesthetic and respiratory equipment. Compatibility with oxygen
BS EN ISO 5359	Low-pressure hose assemblies for use with medical gases
BS EN 15908	Anaesthetic and respiratory equipment. Non-interchangeable screw-threaded (NIST) low-pressure connectors for medical gases
BS 5682	Specification for probes (quick connectors) for use with medical gas pipeline systems

7. Parts and Spares List

Part Number	Gas	Length	Probe Connector	Equipment Connector
832-1000	O ₂	2m	BS 5682	NIST
832-1001	O ₂	3m	BS 5682	NIST
832-1002	O ₂	4m	BS 5682	NIST
832-1003	O ₂	5m	BS 5682	NIST
832-1004	O ₂	6m	BS 5682	NIST
832-1006	O ₂	1m	BS 5682	NIST
832-2000	MA4	2m	BS 5682	NIST
832-2001	MA4	3m	BS 5682	NIST
832-2002	MA4	4m	BS 5682	NIST
832-2003	MA4	5m	BS 5682	NIST
832-2004	MA4	6m	BS 5682	NIST
832-2006	MA4	1m	BS 5682	NIST
832-3000	N ₂ O	2m	BS 5682	NIST
832-3001	N ₂ O	3m	BS 5682	NIST
832-3002	N ₂ O	4m	BS 5682	NIST
832-3003	N ₂ O	5m	BS 5682	NIST
832-3004	N ₂ O	6m	BS 5682	NIST
832-3006	N ₂ O	1m	BS 5682	NIST



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