

Hexagon NIST Connector

Installation, Operating & Maintenance Instructions.



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Contents	Page
1. Introduction	3
2. Operation	3
3. Safety	4
4. Site Preparation	4
5. Installation	4
5.1 Mechanical	4
6. Testing	5
6.1 General	5
6.2 Commissioning & Testing	5
7. Maintenance	5
7.1 Preventative Maintenance	5
8. Spare Parts	6
9. Warranty	6



1. Introduction

The hexagon NIST connector comprises of a plated gas specific valve body which is soldered to a NIST converter then subsequently soldered to a copper stub pipe. The copper stub pipe is manufactured from medical gas copper tube compliant to BS EN 13348 and are factory soldered to the NIST converter.

The hexagon NIST connector is supplied with a red NIST nut and body plunger assembly for testing and to prevent of ingress of debris.

The copper pipe stubs are of sufficient length to enable brazing directly to the medical gas pipeline system utilising flux less brazing to WKO (82).

The hexagon NIST connector is manufactured under BS EN 13485 Medical Devices: Quality Management Systems and CE marked under the Medical Device Directive 93/42/EEC (CE0086).

All hexagon NIST connectors are fully pressure tested for leakage prior to packing and delivery.

All hexagon NIST connectors are batch numbered for traceability prior to packing and delivery.

Each hexagon NIST connector is individually end capped and sealed in a clear polythene bag to maintain cleanliness.

2. Operation

The hexagon NIST Connector is designed to be mounted directly into a medical gas pipeline system via copper tail pipe supplied.

The copper pipe stub on the hexagon NIST connector is intended to be of sufficient length to enable brazing directly to the medical gas pipeline system utilising flux less brazing to WKO (82) 1.

The hexagon NIST connector is soldered directly to the medical gas pipeline system, the hexagon NIST connector is used where a permanent connection to a medical gas is required.

3. Safety

Whilst recognising that no system is absolutely safe, the hexagon NIST connector is designed to be gas specific with the gas type stamped on the NIST body to prevent cross connection. The NIST connector when permanently fitted into a medical device and operated in normal use should present no risk in normal or single fault conditions.



This equipment should be kept clean and be free from oil and grease at all times. Oil and grease will ignite spontaneously in the presence of oxygen. If you suspect that any equipment is contaminated. **DO NOT USE IT.**

No attempt should be made to use or modify this equipment for use with gas other than the gas identified.

4. Site Preparation

Precision UK provides the advised support and backing necessary for the installation of the Hexagon NIST Connector. The preparation of the installation site must be made and the medical gas supply piping must be brought up to the correct point to enable the hexagon NIST Connector to be brazed to the medical gas pipeline.

5. Installation

The hexagon NIST connector should be installed and maintained by competent personnel who are fully conversant with the requirements for medical gas systems.

5.1 Mechanical

- a) Use suitable anchors or fixings, depending on the type of structure of the wall.
- b) Connect stub pipes to the distribution pipeline system and braze. The copper stub pipe is manufactured to BS13348 for connection to the pipeline system and joints shall be made on site using copper, phosphorus and silver brazing alloy CuP282 to BS EN 17672:2010. Brazing should be carried out using oxygen free nitrogen as an inert gas shield to prevent the formation of oxides on the inside of the pipe.

- c) Check and tighten all mechanical joints.
- d) Pressure test the system. If testing as part of the first fix test, plug the ports.

6. Testing

6.1 General

Prior to testing the installation, please check the following:

- a) All components have been installed and are tightened.
- b) The isolation valves are closed.

6.2 Testing and Commissioning

- a) Slowly open the isolation valves and allow the system to pressurise.
- b) Check all joints for leaks.

7. Maintenance

Maintenance of the hexagon NIST connector should be restricted to periodic checking and adjustment and if necessary the replacement of faulty components. It should be noted that although components appear to be standard items many have been selected and treated to make them suitable for the gases carried and the pressures involved.

7.1 Preventative Maintenance

The hexagon NIST connector should be inspected and maintained on a regular basis by competent personnel to ensure it is in good working order.

The unit should be subjected to regular inspection and testing as detailed below:

- Monthly
 - a) Visually inspect the unit for signs of damage.
 - b) Check all mechanical joints.

- Annually
 - a) Visually inspect the unit for signs of damage.
 - b) Check all mechanical joints.
 - c) Test the unit as detailed in section 6.2 to confirm correct operation.

All maintenance should be carried out with the knowledge of the hospital engineer and in accordance with the permit-to-work system.

8. Spare Parts.

When ordering spare parts, please quote the batch number of the equipment and a description of the components required to ensure that you receive the components you require.

9. Warranty

The hexagon NIST connector comes with a 12 month warranty from day of shipment. Within this period Precision UK will repair, replace any part on site, or at the factory, which is proven defective at Precision UK's cost.

Furthermore, Precision UK will warrant its materials to be free from defects for an additional period of four (4) years (five (5) in total from date of shipment). Within this period Precision UK will replace any part, at no charge, which is proven to be defective. Shipping cost after the first twelve (12) months will be borne by the customer.

This warranty is valid when the product has been properly installed according to Precision UK's specifications, used in a normal manner and serviced according to the factory recommendations. It does not cover failure due to damage which occurs in shipments or failures which resulted from accidents, misuse, abuse, neglect, mishandling, alteration, misapplication or damage that may be attributable to acts of god.

Precision UK shall not be liable for incidental or consequential damages resulting from the use of this equipment.

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