

# MDM & Stand Pre & Post Use Checklist

## Checklist aims

This checklist has been designed for use with an MDM flowmeter that has been mounted on a four cylinder mobile stand. If followed correctly you will ensure that you have;

- Checked the contents of all four gas cylinders.
- Checked the correct function and controls of the flowmeter.
- Checked the automatic cut-out of Nitrous Oxide flow in the absence of Oxygen.
- Checked the reservoir bag for leaks.
- Checked the high pressure gas system and regulators for leaks.

## PRE USE

### Step 1: Cylinder contents & leak check

Aim: Check the contents of all cylinders.,  
Check for any leaks.

1. Open the "In Use" Oxygen cylinder by turning the valve anticlockwise then wait for five seconds. The needle on the cylinder contents gauge should rise and then settle when it reaches the cylinders current contents.
2. Close the "In Use" Oxygen cylinder by turning the valve clockwise then wait for 20 seconds. The needle on the cylinder contents gauge should not drop from its original position.
3. Repeat this process with the remaining cylinders in the following order; "In Use" Nitrous Oxide, "Full" Oxygen, "Full" Nitrous Oxide.
4. Before continuing with these tests open both the Oxygen and Nitrous Oxide "In Use" cylinders by turning the valve anticlockwise.

Please note; Due to Nitrous Oxide being stored in liquid form its pressure is not a clear indication of cylinder contents, the pressure gauge will read at 650psi until it is nearly depleted at which point it will drop rapidly. ALWAYS MAKE SURE YOU HAVE A "FULL" BACK UP CYLINDER BEFORE STARTING A PROCEDURE.

### Step 2: Oxygen flush test

Aim: Check the function of the Oxygen Flush

1. Check that both the Oxygen and Nitrous Oxide "In Use" cylinders are open before firmly pressing the Oxygen flush button. A strong flow of Oxygen should be present while the button is engaged.

Please note; Watch out for changes in your flow while the flush is engaged over time as this may be a sign that your stand requires attention.



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### Step 3: Oxygen failsafe (Hypoxic guard) check

Aim: Check the automatic cut-out of Nitrous Oxide flow in the absence of Oxygen.

1. Ensure that the Oxygen and Nitrous Oxide "In Use" cylinders are open then set the machine to a flow of 6 litres per minute.
2. Increase the Nitrous Oxide percentage to 50% and then close the Oxygen "In Use" cylinder. The needle on the Oxygen pressure gauge should slowly fall to zero and both Oxygen and Nitrous Oxide flows should gradually decrease before ceasing.

Please note; If the flow of Nitrous Oxide does not cease with the flow of Oxygen then your machine MUST NOT BE USED until it has been inspected by an RA Medical Services engineer.

### Step 4: Inspiratory Valve & Bag Check

Aim: Check the functionality of both the inspiratory valve and the reservoir bag.

1. Cover the common gas outlet (where your breathing system attaches to your MDM) using the palm of a gloved hand.
2. Press oxygen flush for two seconds to inflate the reservoir bag.
3. While you are blocking the common gas outlet the bag should remain inflated.

Please note; If your machine fails this test examine your current reservoir bag for tears and if possible repeat with a different reservoir bag. Repeated failures may be an indication of a damaged inspiratory valve.

### Machine is now ready for use

## POST USE

### Readying the machine for storage

Aim: To ensure that the machine is ready to be safely stored until next use.

1. Set the machine to a flow of 6 litres per minute and set the Nitrous Oxide percentage to 50%.
2. Close the "In Use" Nitrous Oxide cylinder by turning it clockwise. Wait for the Nitrous Oxide contents gauge to fall to zero.
3. Close the "In Use" Oxygen cylinder by turning it clockwise. Wait for the Oxygen contents gauge to fall to zero.
4. Ensure that the flow control has been turned off and that the percentage wheel has been set to 100%.

### Machine is now ready for storage

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