

Preparing Integral Valved Cylinders

For Use in Ambulances and Other Emergency Service Vehicles



BOC: Living healthcare



Introduction

Integral valved medical gas cylinders are ideal for use by paramedics in the Emergency Services, whether in conventional ambulances as a supply source for the medical gas pipeline system or for portable cylinders, carried and used for patient treatment outside the healthcare centre environment.

These cylinders allow paramedics to deliver the relevant gases at specific flowrates, using standard 6mm tubing via a mask or nasal canula or to feed a medical device, by connecting to a standard pipeline outlet fitting.

Cylinders are always ready for immediate use, without the need to connect a separate regulator, and deliver the gas by connecting the patient's administering device using one of the two outlets and turning the cylinder on.

Every cylinder that BOC supplies is carefully filled and tested to make sure that it will deliver the right gas at the correct pressure and flowrate.

Our experience, having used these valves for the last twenty years, has shown that their use and performance means they are both reliable and robust for Emergency Service use.

Although every cylinder is thoroughly checked before supply, we recognise that the consequences of the cylinder failing to operate correctly when used remotely could have serious patient consequences.

As a precaution, to mitigate any issues with cylinders not functioning correctly, we recommend that you use this supplementary Instruction, alongside the standard BOC Integral Valve Cylinders Instructions for Use. This will ensure that when used remotely, your cylinders will function correctly.

Checking each cylinder before it is loaded onto your emergency service vehicle will ensure that any potential issues can be identified. This allows you to replace any cylinders that may have an identified or suspected fault before leaving site.

Preparing an Integral Valved cylinder for Emergency Service Use

Having selected the cylinders required from the full cylinder store, check the collar label to make sure they contain the correct gas, that that

cylinder valve handwheel cover is in place and that the contents gauge indicates the cylinder is full. Check the expiry date on the batch label.

1. Before putting the cylinders on the vehicle:



1.1 Remove the grey cylinder valve handwheel cover by pulling the tear ring – discarding the cover in the recycle bin.



1.2 Open the grey hinged outlet cover. Do not remove the cover as it needs to be closed after use to keep the outlets clean.



1.3 Check the outlets appear clean and free from any damage.

2. Checking that the cylinders will deliver gas before putting on the ambulance:



2.1 Turn the flow selector to 5 lpm and allow any gas in the regulator to vent. Return the flow selector to zero when you hear the gas stop flowing.



2.2 Holding the cylinder with the outlets facing away from you, slowly open the cylinder valve handwheel, turning it anticlockwise at least one full turn.



2.3 Turn the flow selector to 5 lpm and check that gas flows through the firtree for at least 5 seconds. Return the flow selector to zero.

3. For the portable cylinders used for patient treatment:



3.1 Using moderate force only, close the cylinder valve handwheel, turn the flow selector to 5lpm and listen for the flow of oxygen to stop, return the flow selector to zero.



3.2 Close the grey hinged outlet cover to keep the outlets clean whilst stowed in the ambulance. .



3.3 Stow the cylinder in the approved vehicle storage rack/holders, making sure they are correctly restrained.

4. For the larger cylinders used to supply the ambulance pipeline:



4.1 Having checked the cylinder is functioning correctly, close the cylinder valve handwheel, turn the flow selector to 5lpm and listen for the flow of oxygen to stop, return the flow selector to zero. Place the cylinder in the appropriate ambulance storage compartment. **Make sure it is correctly secured.**



4.2 Check the probe on the end of the manifold hose is clean and shows no signs of oil or grease.



4.3 Push the probe firmly into the pressure outlet, until you hear it click. Slowly open the cylinder valve handwheel and check for any audible leaks at the probe connection.

If a leak is evident, remove and refit the probe to see if the leak ceases. If the leak continues, remove the cylinder from the ambulance, close the cylinder valve handwheel and label the cylinder as faulty for replacement. Replace the cylinder with a new one, following the checking procedure above.

For any faults identified, please follow the Faulty cylinder procedure as detailed in the standard BOC Integral Valve Cylinders Instructions for Use to ensure faulty cylinders are returned to BOC.

NOTE;

Ideally, the cylinder valve handwheel should be left closed when cylinders are not in use. However, where cylinders are used to supply the ambulance pipeline system, it is acceptable that they are left open during ambulance operation to allow patients to be treated as required.

When valves are left open, any leaks on the ambulance pipeline system would cause the cylinders to eventually empty, potentially generating an oxygen enriched atmosphere within the ambulance.

Our recommendations for when the ambulance is off duty, is that the cylinder valve handwheels are closed, and the pipeline vented by selecting a flow through the firtree to prevent any potential leakage. Care is needed to ensure that when the ambulance is next used the cylinder valve handwheels are reopened so that the oxygen pipeline is ready for use.

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