

Bullnose cylinders. Guide to using with a regulator.

Best-in-class cylinder packages

BOC Healthcare are continually reviewing the specification and design of their gas cylinder packages, in order to provide a robust, reliable and safe package. This ensures provision of gas packages which are capable of delivering high quality gas to support patient safety.

Bullnose cylinders

The Bullnose valve has a threaded valve connection and is primarily fitted to large medical oxygen cylinders used for treating patients on the wards.

The same valve is currently fitted to a number of other medical gases, but these are due to be phased out over a number of years.

The Bullnose regulator used with this cylinder is screwed into the top of the valve outlet.

This instruction guide concentrates on fitting a regulator to a Bullnose cylinder. However the same principles apply to the use and fitting of equipment to any medical gas cylinder.

With BOC as your cylinder supplier, you can be sure to benefit.



Instructions for use.

1. Initial safety checks

Before handling cylinders or the associated medical equipment/regulators ensure your hands are clean. If you have been using alcohol based gel or liquids to decontaminate your hands make sure the alcohol has totally evaporated.

When setting up cylinders for patient use it is good practice to connect the regulator to the cylinder, fit the ancillary equipment to the regulator and test the complete system before placing the cylinder near the patient.

2. Preparing a new cylinder for use



2.1 Ensure you have the correct medical gas by checking the cylinder label.



2.2 Check the expiry date on the batch label, normally fitted to the tamper evident seal on top of the cylinder. **We recommend you return cylinders which have passed their expiry date.**



2.3 Remove the tamper evident seal by pulling the tear strip around the base of the cap. **Retain the white plastic cap on the cylinder to refit to the valve outlet after use.**

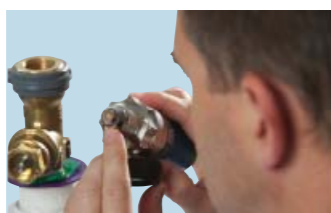


2.4 Lift the cap and inspect the valve outlet to ensure that it is clean and free from oil or grease, with no obvious signs of damage. **If the valve appears damaged or contaminated it must not be used and should be returned to BOC.**

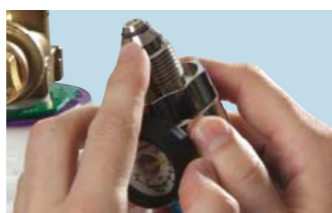
3. Connecting a regulator to the cylinder



3.1 Check you have the correct regulator for the medical gas. **Ensure the regulator is not due for any routine maintenance.**



3.2 Check the Bullnose regulator connection is clean and free from oil or grease.



3.3 Check the 'O' ring seal is in place, is in good condition and free from oil or grease. **If it is worn or damaged, replace the seal with a new one.**



3.4 Fit the regulator to the cylinder by turning the hand tight connector clockwise to tighten. **Do not apply excessive force.**



3.5 Attach appropriate gas delivery equipment to the regulator firtree outlet. **Where the regulator has a flow selector set this to zero before turning on the gas.**



3.6 Open the cylinder slowly using an appropriate cylinder key. **Do not apply excessive force.**



3.7 Where the regulator has a flow selector – set the flow to the prescribed flow rate.



3.8 Check for leaks by listening for a hissing sound. **If you suspect a leak shut off the valve.**



3.9 With the valve shut, allow the residual gas to vent. Remove the regulator and re-inspect the 'O' ring seal.



3.10 The 'O' ring seal should show no signs of wear or damage (see 'O' ring seal wear and damage diagram). **If in doubt replace with a new one.**



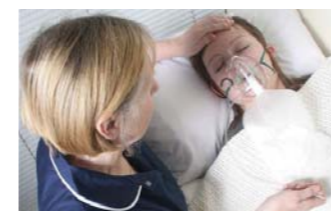
3.11 Refit the regulator and open the valve. Re-check for leaks. **If leaks continue, turn off the cylinder and inform BOC to arrange for its return and replacement.**

Note:

It is good practice to routinely change the 'O' ring seals on your equipment. We recommend that seals are changed every year (or sooner if they show signs of wear).

'O' Ring seals can be obtained from BOC Healthcare, call 0800 111 333 quoting part number 10147791 .

4. Monitoring during use



4.1 Ensure the clinical condition of the patient remains satisfactory throughout the therapy.



4.2 Check the contents gauge on the regulator at regular intervals to ensure there is sufficient gas for continued use.



4.3 If you notice leaks whilst in use, repeat steps number 3.8 to 3.11 above. **Ensure the gas supply for the patient is maintained.**



4.4 Shut off the gas whenever the cylinder is not in use. **Do not use excessive force.**

5. After use



5.1 Check the cylinder contents gauge to see whether it has sufficient gas for further use. **If the cylinder is empty return to the cylinder store.**



5.2 Close the cylinder valve using an appropriate cylinder key. **Do not use excessive force**



5.3 Allow the regulator to vent to atmosphere by selecting a flow on the system. **Remove the regulator when the contents gauge reads zero.**



5.4 Replace the cap over the valve to prevent contamination and return the cylinder to the appropriate in use or empty cylinder store.

'O' ring seal wear and damage



Blistered



Feathered



Split



Perished



Chipped



Cracked

In the event of an emergency, or if you suspect your cylinder is leaking, contact BOC Healthcare on 0800 111 333.

Medical oxygen Bullnose cylinder range

Oxygen	101-AF	101-F	101-G
Nominal contents (litres)	1360	1360	3400
Nominal cylinder pressure (bar)	137	137	137
Dimensions L x D (mm)*	670 x 175	930 x 140	1320 x 178
Nominal weight full (kg)	12.0	17.0	3.9

We also supply cylinders with Bullnose valve connections for other medical gases including:

	Medical air		Helium**	Carbogen (5% CO ₂ /95% O ₂)		
	191-F	191-G	163-F	131-F	131-G	131-J
Nominal contents (litres)	1280	3200	1200	1360	3400	6800
Nominal cylinder pressure (bar)	137	137	137	137	137	137
Dimensions L x D (mm)*	930 x 140	1320 x 178	930 x 140	930 x 140	1320 x 178	1520 x 229
Nominal weight full (kg)	17.0	39.0	17.0	17.0	39.0	78.0

Carbon dioxide/oxygen mixtures	5%/95%		10%/90%		20%/80%	
	288931-AV-PC	288931-L-PC	299032-AV-PC	299032-L-PC	299954-AV-PC	299954-L-PC
Nominal contents (litres)	1460	7300	1460	7300	1530	7650
Nominal cylinder pressure (bar)	137	137	137	137	137	137
Dimensions L x D (mm)*	680 x 180	1540 x 230	680 x 180	1540 x 230	680 x 180	1540 x 230
Nominal weight full (kg)	19.0	85.0	19.0	86.0	19.0	87.0

Carbon dioxide/air mixture	5%/95%		Helium/oxygen/ nitrogen mixture	9%/35%/56%	
	299034-AV-PC	299034-L-PC		299035-AV-PC	299035-L-PC
Nominal contents (litres)	1350	6750	Nominal contents (litres)	1310	6580
Nominal cylinder pressure (bar)	137	137	Nominal cylinder pressure (bar)	137	137
Dimensions L x D (mm)*	680 x 180	1540 x 230	Dimensions L x D (mm)*	680 x 180	1540 x 230
Nominal weight full (kg)	18.0	82.0	Nominal weight full (kg)	18.0	81.0

* (including valve) ** Only available in Ireland

Safety information and precautions

- Do not store or use medical gas cylinders near naked flames, sources of ignition or combustible materials.
- Ensure medical gas cylinders are stored in a safe and secure area where they cannot fall over and cause injury.
- Clearly identify the storage areas with appropriate signage. Ensure separation of full and empty cylinders.
- Store medical gas cylinders separately from industrial and other non medical cylinders in a well-ventilated area that is clean and dry, preferably inside.
- Smoking should not be permitted in the vicinity where cylinders are used or stored.
- Ensure labels remain clearly visible at all times and not removed or covered. Unauthorised labels/tags must not be fitted.
- Use a suitable trolley to transport and support cylinders. Any stationary cylinder trolley in a ward area should be fixed in place to prevent it falling over.
- When using the cylinder with a regulator prepare the cylinder for use prior to placing the cylinder near the patient.
- Do not use oil or grease (or any oil-based products, which includes hand creams) in the vicinity of medical gas cylinders.
- If you need to clean the cylinder do not use any materials which contain ammonium or chlorine compounds.
- Do not refill the cylinder or attempt to tamper with the cylinder package.

If you require a replacement, or have concerns about your cylinder package, please contact our Customer Service Centre on 0800 111 333 quoting your account number. This number should also be used in the unlikely event of an emergency or if you suspect your cylinder is leaking (our Customer Service Centre is open 365 days a year, 24 hours a day).

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