BOC
A Member of The Linde Group

At BOC, we're raising the bar.

Ensure your system can take the pressure.

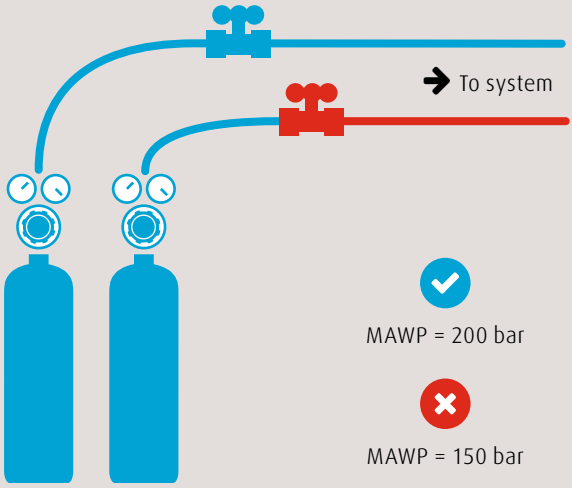
Pressure rating guide

With changes in cylinder pressure, it is important to ensure that all of your equipment connected to the cylinder is rated for the new pressure. This is a guide to help determine the pressure rating of your equipment.

Maximum Allowable Working Pressure (MAWP):
This is the maximum pressure that a pipeline or associated equipment operates at, based on the design codes that apply to the equipment. The MAWP of a system comprising multiple components will be limited by the lowest rated component within that system.

Test Pressure (TP)
This is the pressure which equipment has been tested to 'in excess' of its designed MAWP to ensure it will not fail under normal working conditions. Test pressures are typically in the range of 1.5 x MAWP but may be higher or lower, depending on the equipment and regulations that apply.

Relief valves
Relief valves are installed on systems to prevent equipment being exposed to pressures that exceed the MAWP. Relief valves are typically rated to protect the component with the lowest MAWP in the system.



Regulators

All regulators used in Australia and New Zealand must be compliant with AS4267. BOC and BASELINE® regulators meet or exceed the requirements of AS4267. If you are unsure your regulator is compliant it should carry the following information:

→ Country of assembly
→ Date of manufacture
→ Maximum inlet pressure
→ Maximum outlet pressure
→ Gas service

Maximum outlet pressure is the pressure that all downstream equipment may be subjected to. This is typically much lower than the gas cylinder pressure.

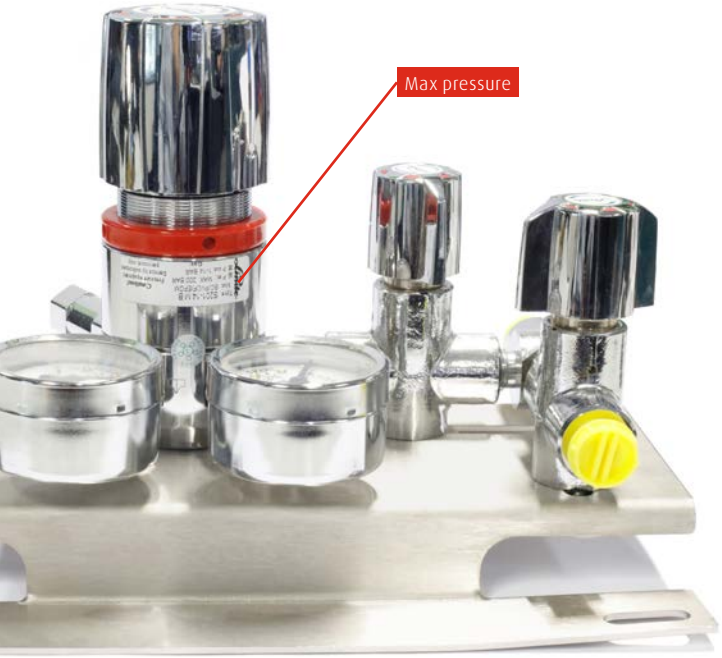
If you are unable to find these details, the supplier's or manufacturer's model and serial numbers should be found on the device. The supplier would be able to provide the maximum inlet/outlet information from this detail.

Manifolds

Cylinder manifolds are an assembly that combines multiple cylinder connections with isolation valves, change-over valves and regulators. As with conventional, standalone regulators, these must also be compliant with the Australian Standard and should be marked with similar information.

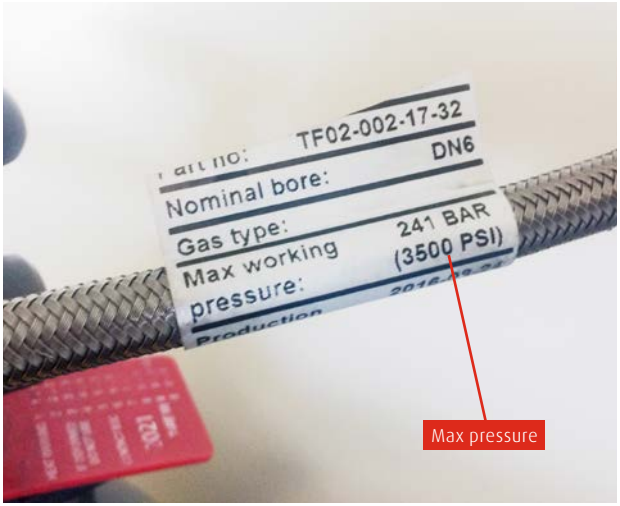
The labels or markings may not be visible from the face of the manifold. You may need to check the underside of the manifold with a torch and/or inspection mirror. If the information is not visible you can use the model or serial number to check with the supplier. All REDLINE® manifolds have been rated to 200 barg since 1992.

If a manifold is marked for 200 barg then all components within that manifold will meet or exceed that requirement.



Cylinder leads and hoses

Cylinder leads and hoses should all be tagged with a pressure rating and date of manufacture. Tags and labels may be in a variety of formats and may be lost or damaged on older equipment. For hoses which are connected and disconnected on a regular basis, it is recommended that they are replaced every 3 to 5 years depending on wear and tear. Hoses with evidence of external damage should be replaced immediately.



Other equipment

Other major components on the system should also be stamped or tagged with their pressure rating. This includes valves, relief valves, filters etc. This flyer highlights some examples, however, there are too many variants to cover all scenarios in this document.

Pipework and fittings may or may not be marked or labelled. Stainless steel Swagelok type pipework and fittings are typically rated at 220 barg and above but this will need to be checked by a qualified technician if you are unsure.

Some piping materials and components may be marked with a PN or ANSI Class number. PN is the European metric system and refers to pressure nominal in bar. ANSI is the Imperial system and refers to the American National Standards Institute in psi. Equipment may be pressure rated using different units of measure depending on the country of manufacture.

This is only a guide

Should you have any concerns regarding the suitability of your equipment to withstand the increased cylinder pressure, please contact the equipment manufacturer. If you still have any concerns please contact BOC.

If there are no identifying markings and/or the original manufacturer cannot be identified or contacted the device should be replaced with new equipment which is tested and certified for the correct inlet pressure.

Australia
131 262
contact@boc.com
www.boc.com.au

New Zealand
0800 111 333
sales@boc.com
www.boc.co.nz

MP19-0190 FDAUS 0619

BOC Limited ABN 95 000 029 729
10 Julius Avenue, North Ryde NSW 2113, Australia

BOC Limited WN007748
970–988 Great South Road, Penrose, Auckland, New Zealand