



BEACONMEDÆS[®]

Part of the Atlas Copco Group

Manifold Control Systems



FOR MORE INFORMATION CONTACT US

beaconmedaes.com

Life
is in the
details.[®]



MCS2 - THE MANIFOLD YOU NEED

For a safe and reliable supply of medical gases the MCS2 manifold control system is the product you need, offering:

- Very high flow rates
- Two stage regulation system to maintain a smooth and constant delivery pressure
- Inherently corrosion resistant design no sacrificial protection
- 12 V d.c. control system for maximum safety
- Ease of access for maintenance

SAFETY

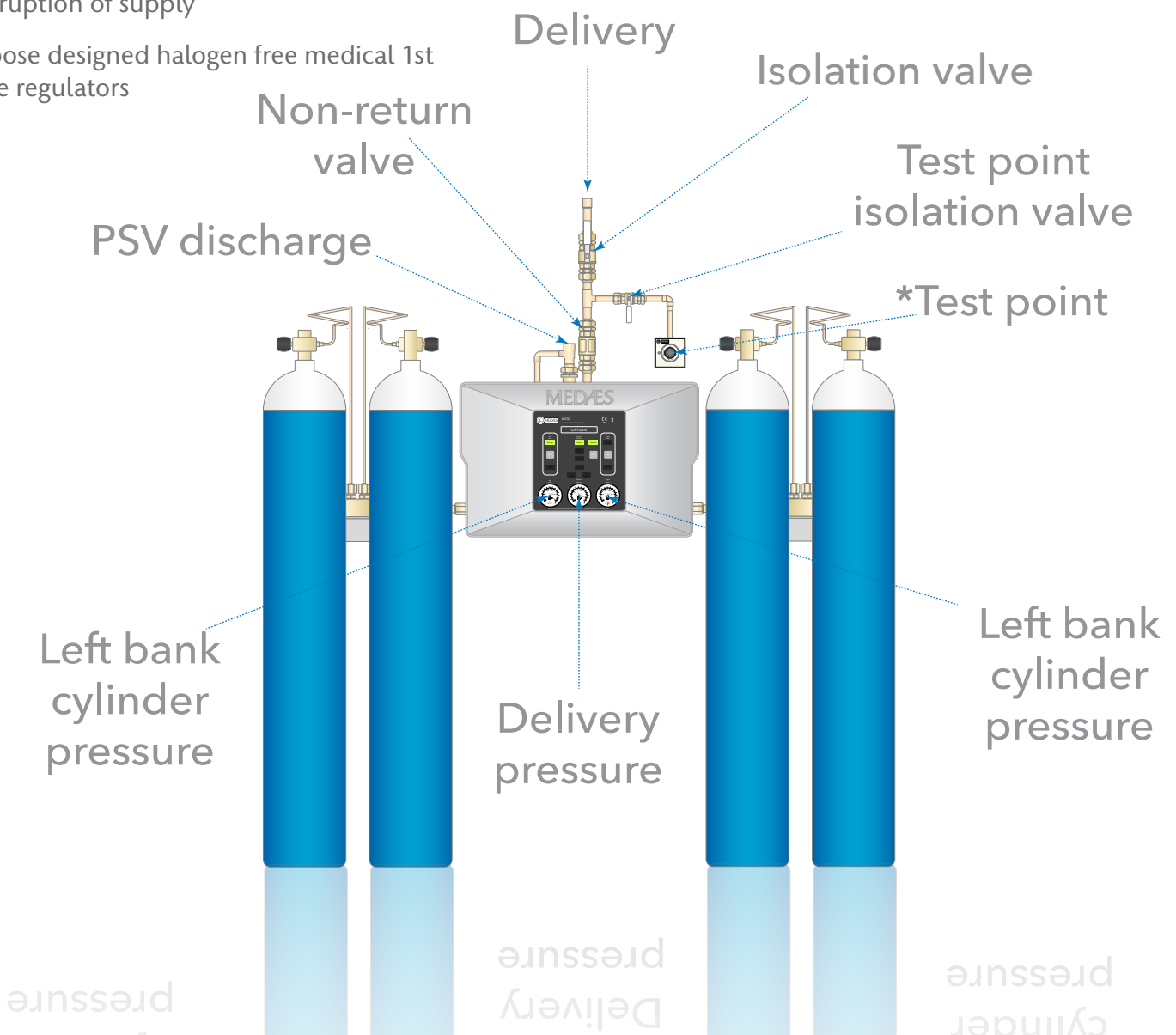
Continuity of supply is of paramount importance for medical gases, which is why the MCS2 includes features such as:

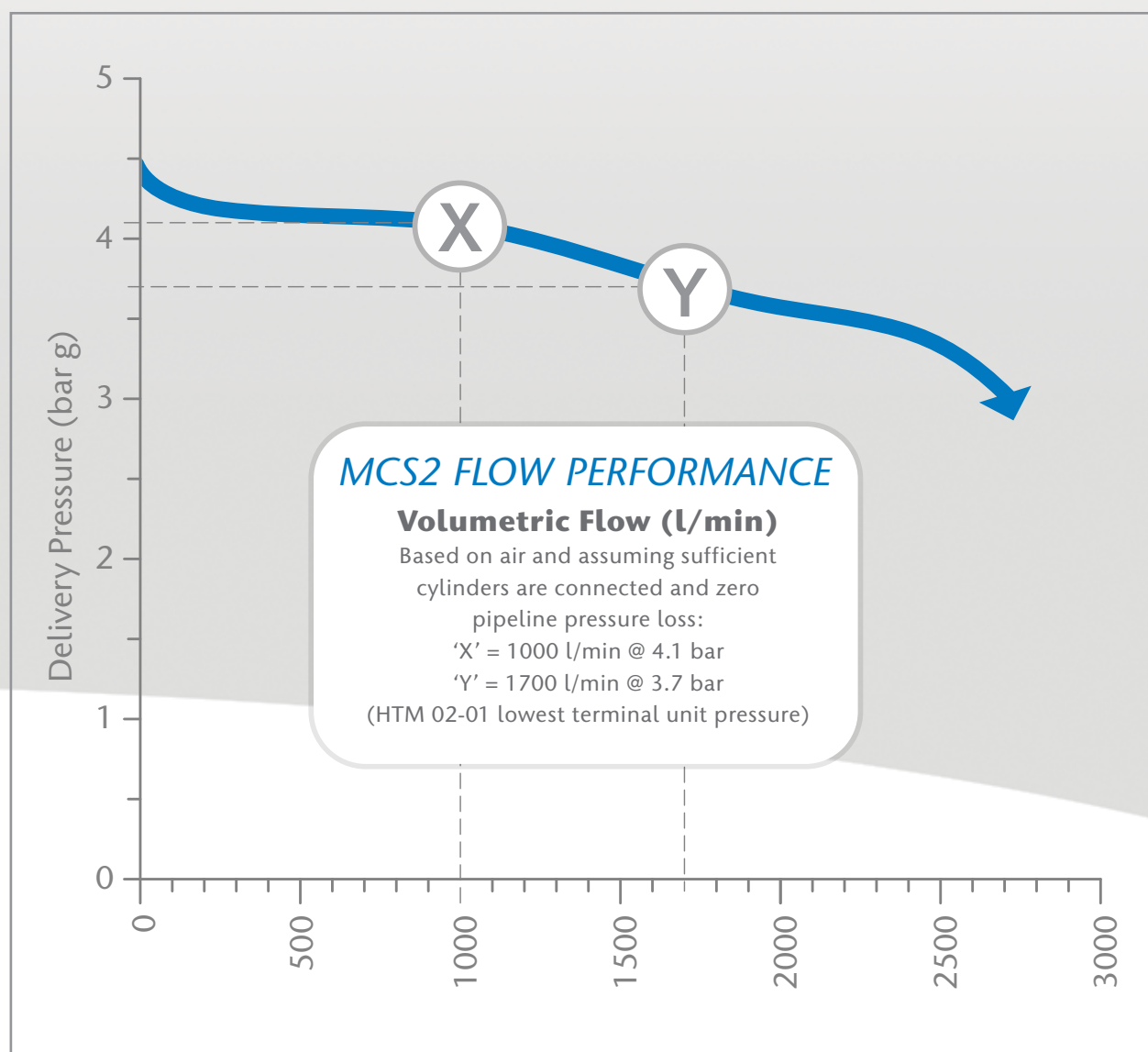
- Fail-safe solenoid valves in the event of power supply failure
- All major components are replaceable without interruption of supply
- Purpose designed halogen free medical 1st stage regulators

HIGH RELIABILITY

The MCS2 incorporates 1st stage regulators specifically designed for the purpose of supplying medical gases, whereas many other manifolds utilise regulators primarily designed for use with gas torch welding or brazing sets.

Since the intermittent high flows apparent with medical gases can exert high strains on the internal components, the MCS2 uses a regulator designed to cope with the rigorous demands of medical gas supply.





HIGH FLOW

The generously sized regulators used provide higher flows than most other medical manifold control panels. Unlike most other manifolds available, there are two totally separate stages of pressure regulation, which provide the following benefits:

- Smoother flow characteristics are achieved by splitting the pressure regulation stages
- Downstream components are not subjected to shock loading

MANIFOLD APPLICATIONS:

- Primary supply of medical gases
- Back up supply for medical or surgical air systems

Gases:

- Oxygen
- Nitrous Oxide
- O₂/N₂O 50/50
- Air 4 bar, 7 bar or 11 bar
- Carbon Dioxide
- Nitrogen 7 bar or 11 bar

Flow Capacity:

- 1,000 lpm @ 4 bar
- 2,000 lpm @ 7 or 11 bar

Standards:

- HTM02-01, HTM2022, C11, ISO7396-1



SIMPLE TO MAINTAIN

The carefully designed layout of the MCS2 control panel allows unrestricted access to all the major serviceable components, without the need to disassemble any other joints. Ball valves are provided to enable regulator replacement without interrupting the flow of gas from the manifold.

Each component utilises flat face 'O' ring sealed joints, making swap out of components fast, and the MCS2 the simplest manifold control panel to use and maintain.



STANDARD OPTIONS

Heater Kit (N2O & ztO2/N2O 50-50)	Protection against freezing of header rack & 1st stage regulator
High pressure bank valve kit	Enables complete closure of the full cylinder bank
Tailpipes	Cupro nickle to prevent work hardening to BSP bull nose, Pin indexed, CGA & other norms
300 bar pressure gauges	For use with high pressure 230 bar gas bottles
Spare cylinder racks	Powder coated steel rack with cylinder fixing chain
Modular manifold assemblies	including powder coated steel fixing rack, header assembly with non-return valve connections and cylinder fixing chain

KEY BENEFITS AT A GLANCE

- Corrosion resistant case for prolonged life
- Two stage pressure regulation for smooth and constant delivery pressure
- Halogen free 1st stage regulator for ultimate safety
- Flat faced 'O' ring sealed joints makes swapping out components quick and easy
- Hinged front cover assembly for easy access
- Easily adjustable 2nd stage regulator for easy on site set up
- Piped exhaust assembly for relief valves for added protection

EMERGENCY RESERVE MANIFOLD

Due to its unique two stage regulation design, the Emergency Reserve Manifold (ERM) is capable of delivering the same high flow rates as the MCS2 manifold control system.

With ultimate patient safety first in mind, no halogenated polymers are used in the high pressure gas stream. This is achieved by incorporating our bespoke Medical grade 1st stage regulator.

Not only is the ERM an ultra reliable product, but it is also quick and easy to install by integrating the primary 2 x 1 manifold header.

We understand that space limitations are common in many manifold rooms, so we have managed to reduce the width of our 2 x 1 panel by 24%. This makes our unit as tight and compact as possible without compromising access to high pressure shut off valves or gauge visibility.



MANIFOLD APPLICATIONS:

- Back up supply for primary manifold control systems
- Back up supply for medical air plant systems (HTM2022)

Gases:

- Oxygen
- Nitrous Oxide
- O2/N2O 50/50
- Air 4 bar, 7 bar or 11 bar
- Carbon Dioxide
- Nitrogen 7 bar or 11 bar

Flow Capacity:

- 1,000 lpm @ 4 bar
- 2,000 lpm @ 7 or 11 bar

Standards:

- HTM02-01, ISO7396-1



KEY BENEFITS AT A GLANCE

- Same key components as MCS2 for reduced number of on-site spare parts
- High and smooth flows due to two separate stages of pressure regulation
- Custom designed medical grade 1st stage regulator with no halogenated polymers
- Integrated 2 x 1 manifold header for reduced space, and quick and easy installation
- Integrated Gem10 test point

STANDARD OPTIONS

Cylinder
extension kit

To increase cylinder
capacity from 2 x 1 to 2 x 2*



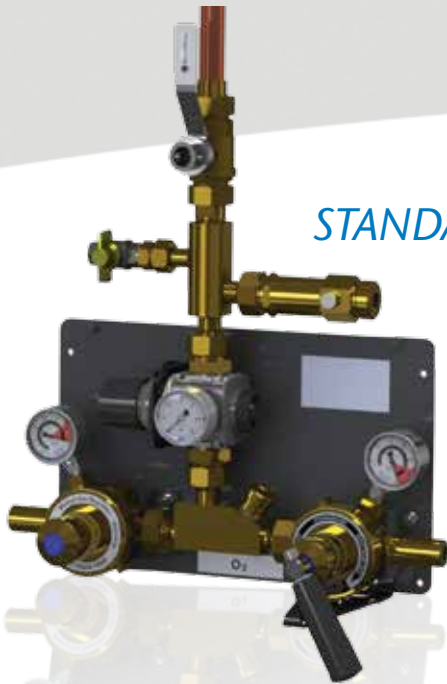
image shows ERM including extension kit

MEDICAL SEMI AUTOMATIC MANIFOLD

The semi-automatic manifold is designed for use in medical or laboratory gas applications. Contact gauges connected to each cylinder bank regulator will provide alarm notification when the duty bank is empty. By engaging the simple change over system, the standby bank of cylinders can be brought on line for continuity of gas supply.

The manifold control system is simple to install, easy to use and utilises the same time served, medical grade components as featured in the MCS2 and ERM manifold control products.

Users can select either the standard or full feature model. Or by choosing from a range of standard options configure a panel in line with your own requirements.



STANDARD MODEL

STANDARD OPTIONS

Cover panel	Protection against freezing of header rack & 1st stage regulator
High pressure bank valve kit	Enables complete closure of the full cylinder bank
Pressure sensor	For high or low pressure alarm signal
Alarm termination box	For easy connection to medical gas alarm system
Exhaust assembly	To safely pipe away any relieved gases - recommended for indoor installations

MANIFOLD APPLICATIONS:

- Primary manifold control system for private facilities, small clinics, etc where local standards are applicable
- Back up supply for medical air plant systems (HTM2022)

Gases:

- Oxygen
- Nitrous Oxide
- O2/N2O 50/50
- Air 4 bar, 7 bar
- Carbon Dioxide
- Nitrogen 7 bar or

Flow Capacity:

- 1,000 lpm @ 4 bar
- 2,000 lpm @ 7 or



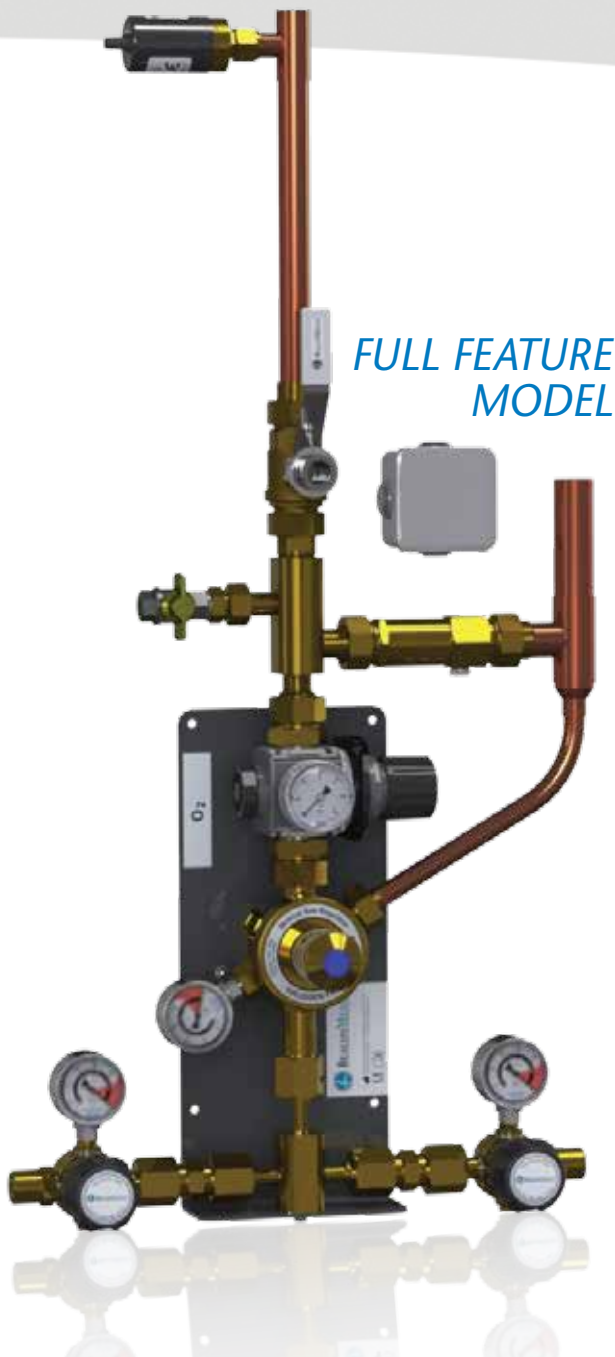
FULL FEATURE MODEL

MEDICAL MANUAL MANIFOLD

The manual manifold is designed for use in medical or laboratory gas applications. Contact gauges connected to each cylinder bank regulator will provide alarm notification when the duty bank is empty. Change over to the standby bank of cylinders is achieved by turning off the empty cylinders, and opening the standby cylinders for continuity of gas supply.

Alternatively a high pressure bank valve kit is available which enables the user to isolate one complete bank of cylinders from a single point.

As with the semi-automatic manifold control system it is simple to install, easy to use and utilises the same time served, medical grade components as featured in the MCS2 and ERM manifold control products.



*FULL FEATURE
MODEL*



STANDARD MODEL

KEY BENEFITS AT A GLANCE

- Two stage pressure regulation for smooth and constant delivery pressure
- Halogen free 1st stage regulator for ultimate safety
- Flat faced 'O' ring sealed joints makes swapping out components quick and easy
- Easily adjustable 2nd stage regulator for easy on site set up

PRESSURE REDUCING SETS

The BeaconMedæs pressure reducing set is designed for use in medical applications, to reduce the output pressure of the surgical or combined air system to the required pipeline pressure.

All components are fully duplexed allowing one side to be completely isolated for maintenance purposes, without interrupting the life supporting medical gas supply.

The manifold control system is simple to install with four mounted holes situated in the powder coated steel back plate.

Models are available with different input and output pressures to suit the differing supply pressures required on-site.

HTM02-01 requires NIST connections to be included downstream of the duplex pressure reducing set to enable cylinders to be connected in the event of an emergency. Our in-line, lockable NIST tee assemblies are available in all pipe sizes and can be positioned in the most convenient position on-site.

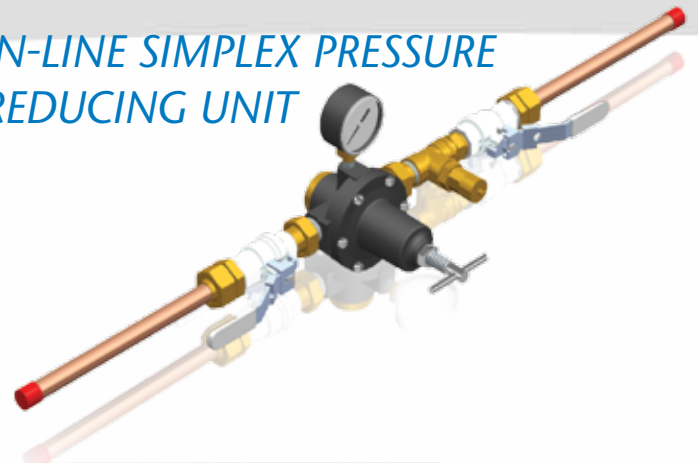
For localised pressure reduction our in-line simplex pressure reducing unit is available.

- 11-7 bar inlet to 4 bar outlet
- 11 bar inlet to 8-7 bar outlet
- Flow rate from 1,200 - 5,000 lpm

LOCKABLE NIST TEE ASSEMBLIES



IN-LINE SIMPLEX PRESSURE REDUCING UNIT



PB3/7-161014



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