



**Secure the reliability**  
of your medical  
gas supply

**MAT-S Automatic Manifold  
Changeover System | HTM/ISO Version**





## MAT-S : Next-Generation Automatic Manifold Changeover System

For a healthcare facility, a constant supply of medical gases is of critical importance to ensure safe, quality patient care. That is why we designed the new MAT-S Automatic Manifold Changeover System to deliver superior reliability. It offers a higher utilization rate and uptime, so you can use it more frequently and for longer periods of time. In addition, its smart features make it easy and efficient to operate.

-  High reliability
-  High utilization and uptime
-  Low operational and maintenance costs
-  Smart and intelligent

### A trusted leader

BeaconMedaes is a leading specialist in the design, supply and installation of piped medical gas distribution systems. We proudly play a vital role in hospitals around the globe in sustaining patients when they are at their most vulnerable.



### The BeaconMedaes promise:

- Industry expertise
- Commitment to innovation
- Product quality
- Flexibility and customization
- Design that puts patients and healthcare professionals first
- Service excellence
- Best-in-class solutions



### Standards

- HTM: NHS Health technical Memorandum Nos. 2022 (HTM 2022), 02-01 (HTM 02-01) and Scotland HTM.
- ISO: NHS Health technical Memorandum Nos. 2022 EN ISO 7396-1.



### In addition, MAT-S for HTM/ISO offers,

- Medical Device Certified with CE mark according to MDR\*.
- Third party-tested Electromagnetic Compatibility (EMC) and Low Voltage Directive (LVD)
- Halogen-free seal.
- Pressure regulators tested according to ISO 10524

### New cover design

A sturdy, lightweight ABS plastic cover brings a clean look and feel. It eliminates the risk of corrosion to ensure a long lifetime.

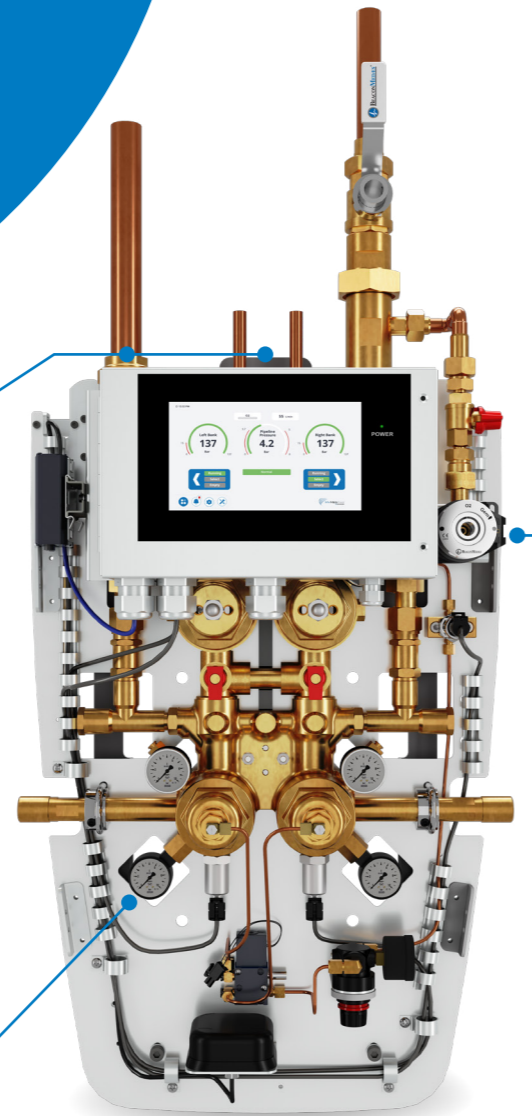


\*MDR certification - application in progress



# Proven manifold engineering

BeaconMedaes Automatic Changeover Manifolds combine a proven design with innovative features. As a result, you enjoy premium reliability and performance with low operational and service costs.



Scotland HTM version



## Individual exhaust line for pressure relief

MAT-S ensures Scotland HTM compliance with individual pressure relief valves for the left bank, right bank and the line to ensure separation of the high- and low-pressure exhaust pipes. It also comes with a retrofit kit for easy replacement of existing BeaconMedaes Lifeline Manifolds.



## Analog gauges

Analog gauges allow you to always monitor gas pressure and operation.



## Built-in test terminal unit

A medical gas terminal unit is built in for quick, easy and cost-efficient gas purity and other testing. It removes the need for the on-site installation of terminal units, copper pipes, brazing and testing.



## Individual service valves

MAT-S has individual service valves after each bank (1st stage) and line (2nd stage) regulators. Each regulator can be isolated for maintenance without disrupting the gas supply to patients.



## Integrated non-return valve

An integrated non-return valve along with a lockable valve ensure compliance with HTM standards and maximum safety.



## New smart digital controller

MAT-S is powered by a smart operating system. The controller features a 7" touch screen color display with a simple, clean and easy-to-use interface.



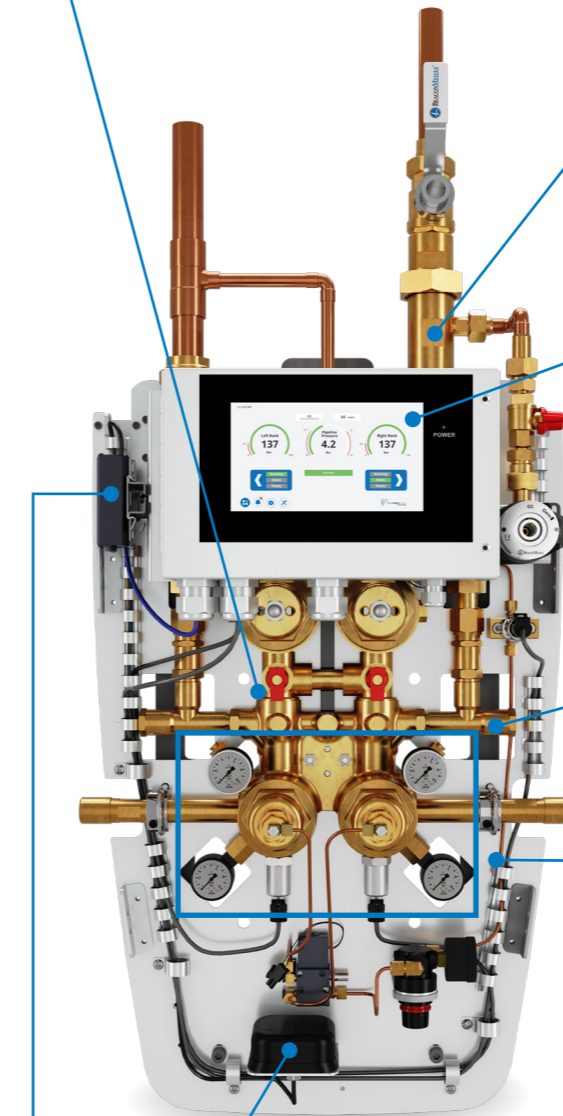
## Connection port for input from VIE panel

An ISO-compliant connection port is available to connect to the input from a VIE panel or to the emergency reserve. This may not be applicable for HTM regulations.



## Dome-loaded forged regulators

- The dome bias regulator design has proven its reliability and performance for more than a decade. It helps reduce connections by 50% and therefore also the risk of leakages. It is tested according to ISO 10524.
- The changeover pressure for a 4.0-bar manifold is improved to 10.4 bar. This allows you to increase cylinder utilization to save on operational costs. The changeover pressure for the 8.0-bar and 11.0-bar manifold is 20.0 bar.
- In the event of a power failure, MAT-S will automatically change to pneumatic mode and switch banks based on the pressure difference – with the left bank considered primary.



Main HTM version



## Built-in Smartbox

A Smartbox is included as standard to allow real-time remote monitoring and reporting of the functioning of the manifold. It offers push notifications and access to device details wherever you are.

## Advanced control and monitoring

Having a quality manifold is one thing, being able to operate it easily and efficiently is another. BeaconMedaes Automatic Manifold Changeover Systems come with a state-of-the-art operating system to give you a range of advanced features and operational benefits.

### Intuitive user interface

The display is easy to understand and use as it shows the real-time performance of the manifold:

- Left and right bank pressure status
- Line pressure status
- Volume of gas delivered
- Alarms status and warning indications
- Operating bank indicating current status

### Key performance indicators at your fingertips

- Alarm overview and logs
- Device event history
- Service mode
- Service reminder
- Secured access
- Access device information

#### Normal status



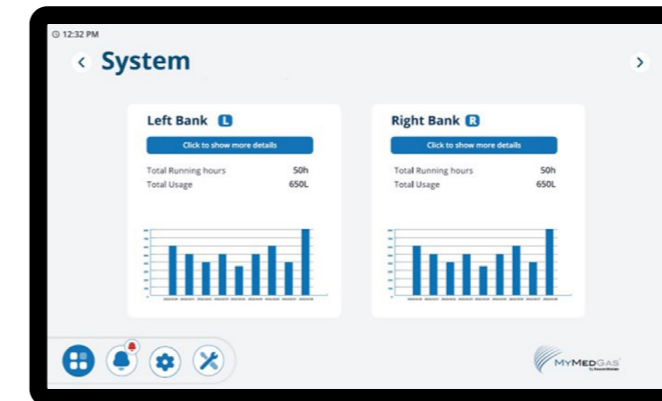
#### Warning status (simulated for visualization)



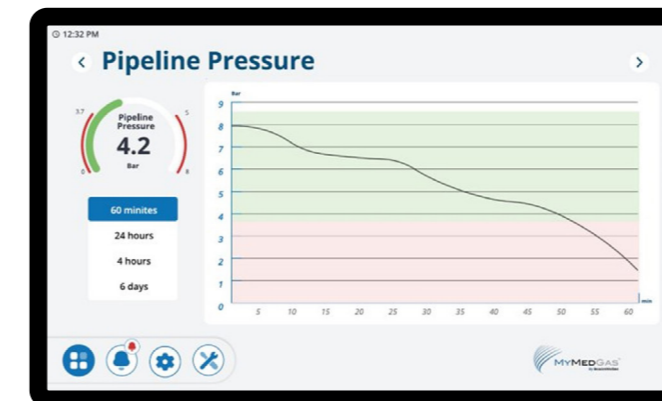
## Better gas management

Monitoring gas flow and pressure trends is an important practice to optimize your medical gas consumption and supply chain planning. MAT-S offers flow and pressure trend visualization, so you can track your gas supply and plan cylinder refills accordingly. It allows you to analyze and understand your gas consumption patterns and identify areas where you can make more efficient use of your gas supplies.

#### Flow trend



#### Pressure trend



MAT-S allows you to examine your weekly and monthly usage patterns to get a good insight into your gas consumption.

\*\* Shown values and content are for illustration purposes only. Actual system values and limits will be programmed per the requirements of standards and units based on the individual gases.



The Manifold is MyMedGas enabled



# Options & specifications



Technical Specifications				
Nominal delivery/ Line output pressure	bar	4.0	8.0	11.0
Nominal delivery/ Line output flow	lpm	1150	1450	1750
2nd Stage regulator test pressure as per ISO10524-2	bar	4.3	8.1	10.5
2nd stage regulator output flow (single reg) as per ISO10524-2	l/min	900	1250	1700
Input pressure range		10 - 230	20 - 230	
1st stage regulator pressure(Intermediate)		8.8	15	15
2nd stage regulator pressure output(Line)		4.0	8.0	10.3
High pressure regulator relief valve setting	bar	24.1		
Line pressure relief valve setting		5.2	11.0	13.0
Change over pressure		10.0	20.0	20.0
Power supply	V, Hz, A	100-250V 50/60Hz 1 Phase 0.3A		
Electrical protection	-	IP 54		
Gas types	-	Oxygen	Nitrogen Surgical Air	Nitrogen Surgical Air
		Nitrous Oxide		
		Medical Air		
		Entonox (50% O <sub>2</sub> & 50% N <sub>2</sub> O)		
		Carbon Dioxide		



Life is in the details.®



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