



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

**MAT-S Automatic Manifold  
Changeover System | NFPA version**





## 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

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

A constant supply of medical gases such as oxygen, nitrous oxide, and medical air is critical to ensure safe, quality patient care. That is why we designed the new MAT-S Automatic Manifold Changeover System to deliver superior reliability. Our medical gas supply system offers a higher utilization rate and uptime, so you can use it more frequently and for longer periods. In addition, its smart features make it easy and efficient to operate—your net result: is superior performance and durability and lower operational and maintenance costs



High reliability



High utilization and uptime



Low operational and maintenance costs



Smart & intelligent

## Applications

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

## Standards

- NFPA



## 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.



PATENT  
PENDING



# Proven manifold engineering

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



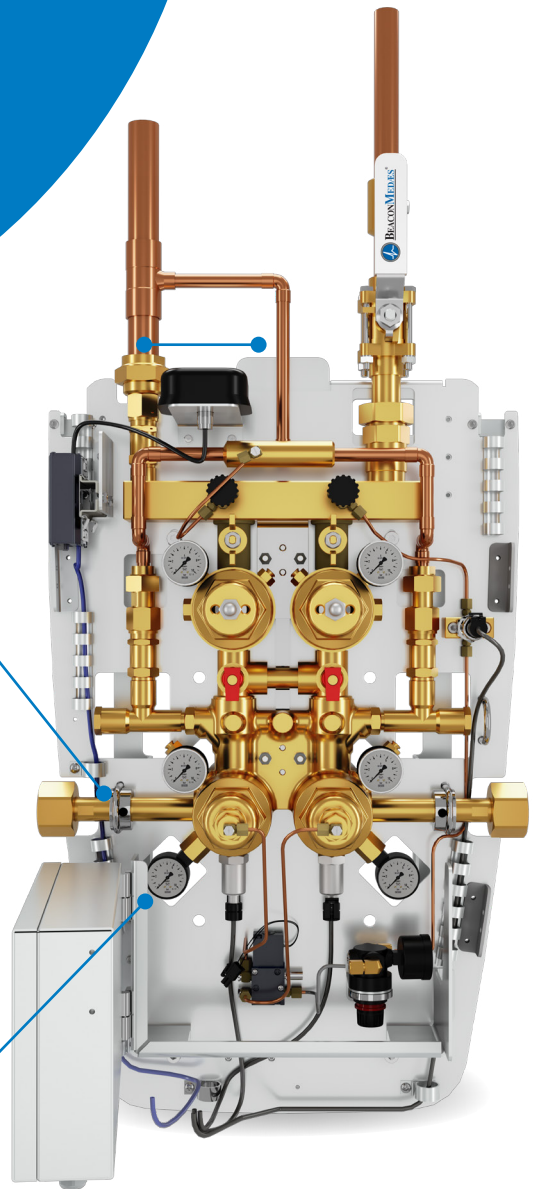
## Automatic changeover pressure setting

The changeover pressure for a 55 psi manifold is improved to 150 psi. This increases the cylinder utilization to minimize wastage, resulting in lower operational costs. The changeover pressure for a 100 psi and 180 psi manifold remains unchanged at 300 psi.



## Analog gauges

In addition to the digital control panel, MAT-S comes equipped with analog gauges to give you the peace of mind that you can always monitor gas pressure and operation.





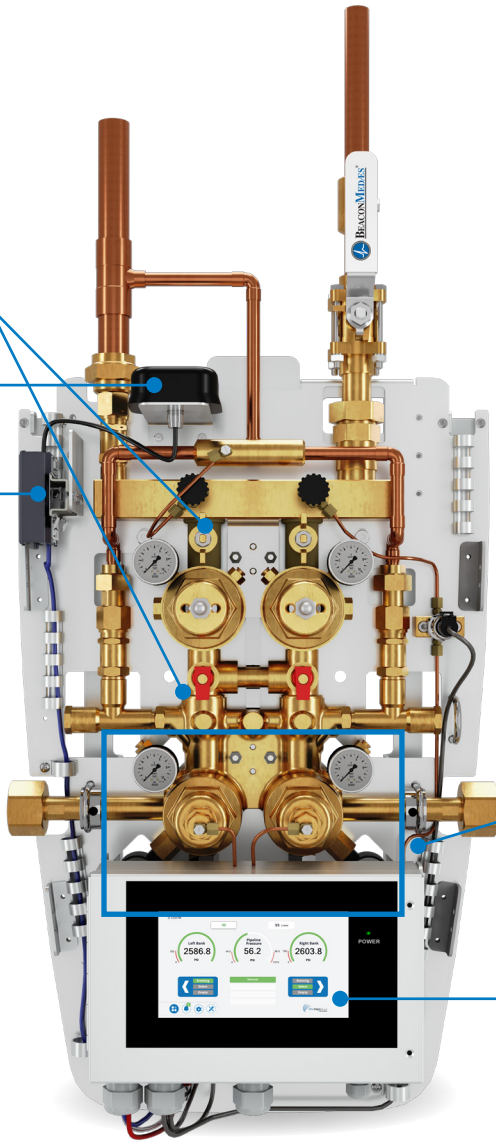
## Individual isolation valves

MAT-S has individual service valves after each bank (1st stage) and line (2nd stage) regulators. Each regulator can be isolated for service with the best redundancy. This allows you to service any regulator without disrupting the gas supply to the distribution system.



## Dome-loaded forged regulators

- The bias regulator design has proven its reliability and performance for over a decade. It helps reduce connections by 50% and therefore also the risk of leakages of gases.
- MAT-S Automatic Manifold Changeover System uses dome-biased bank (1st stage) regulators to ensure maximum flow rates. Dome-biased regulators do not open to the atmosphere. Thus, they are not subject to ice formation in the regulator. Accumulated ice in the regulator is a very common cause of manifold failure. No air and no ice ensure solid reliability.
- The new design enables servicing of the regulators without having to replace them. As a result, manifold offers faster and more cost-efficient maintenance



## New smart digital controller

MAT-S is powered by a smart operating system. The controller features a highly responsive 7" LCD color display with 1024px X 768px high resolution. The control is enabled by a simple, clean and easy-to-use, intuitive interface (U.I.)



## Built-in Smartbox

A Smartbox is included as a standard to allow real-time remote monitoring and reporting of the functioning of the manifold. It offers push notifications and access to machine 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
- The volume of gas delivered
- Alarms status and warning indications
- Operating bank indicating the current status

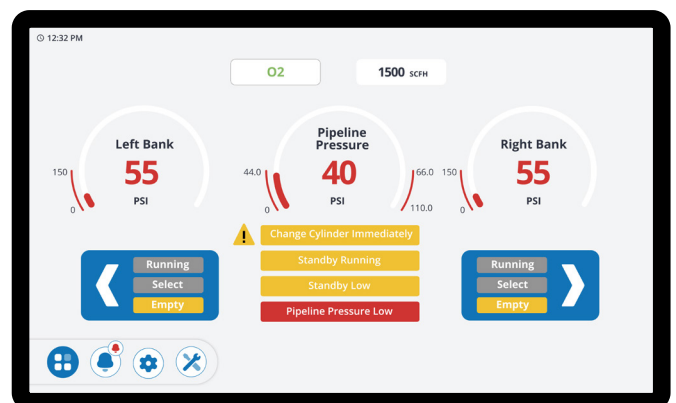
## Key performance indicators at your fingertips

- Alarm overview and logs
- Machine event history
- Service mode
- Service reminder
- Secured access
- Access machine information

### Normal status



### Warning status (simulated for visualization)

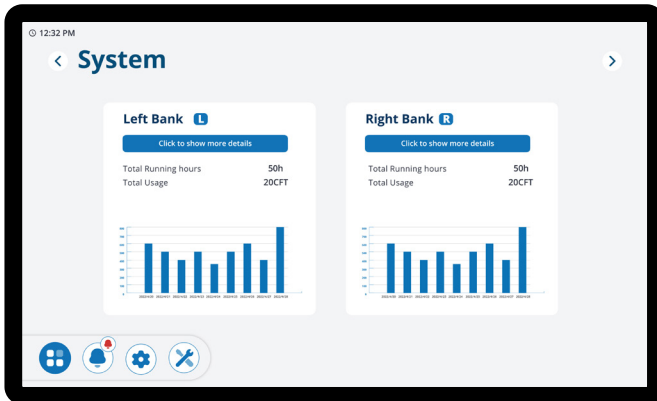




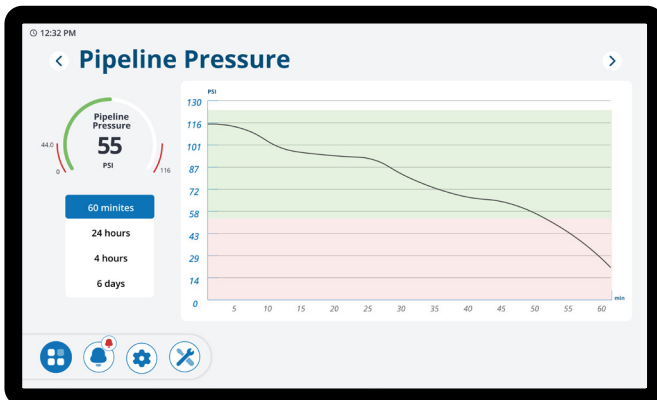
## Better gas management

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 understand your gas consumption.

\*The value and texts are shown for illustration purpose. The values and limits will be programmed as per the requirement of standards and units based on the gases.



The Manifold is MyMedGas enabled



# Options & specifications



Technical Specifications				
Nominal delivery/ Line output pressure	psi	55	100	180
Nominal delivery/ Line output flow	scfh	2250	3200	3600
2nd Stage regulator test pressure as per ISO10524-2	psi	57	101	183
2nd stage regulator output flow (single reg) as per ISO10524-2	scfh	2000	3100	3300
Input pressure range		150 - 2900	300 - 2900	
1st stage regulator pressure(Intermediate)		125	220	220
2nd stage regulator pressure output(Line)		55	100	180
High pressure regulator relief valve setting	psi	350		
Line pressure relief valve setting		75	150	250
Change over pressure		145	290	290
Power supply		100-250V 50/60Hz 1 Phase 0.3A		
Electrical protection		IP 54		
Gas types		Oxygen	Carbon Dioxide	Nitrogen
		Nitrous Oxide		
		Medical Air		
		Argon		
		Carbon dioxide		
		Helium	Surgical Air	Surgical Air
		Carbon Dioxide/Oxygen CO <sub>2</sub> over 7% (CO <sub>2</sub> O <sub>2</sub> )		
		Oxygen/Carbon Dioxide CO <sub>2</sub> not over 7% (O <sub>2</sub> CO <sub>2</sub> )	Oxygen	
		Helium/Oxygen Helium over 80% (HEO <sub>2</sub> )		
		Oxygen/Helium Helium not over 80% (O <sub>2</sub> HE)		



Life is in the details.®



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