sysadvance®

MEDICAL AIR SYSTEM

AirSYS M®

MEDICAL AirSYS M®

MEDICAL AIR STANDARDS

EN ISO 7396-1 standard defines medical air as a medical gas. SYSADVANCE medical air systems are medical devices certified according to MDD 93/42/EEC - Class IIa. They also comply with the most demanding standards and regulations such as the European Pharmacopoeia - Medical Air Monograph and HTM 02-01 and HTM 2022. Sysadvance QMS is certified according to ISO 13485.

MEDICAL AIR APPLICATIONS

Medical air in gas state is mainly used in respiratory therapy as a power source for patient ventilators, and for blending with oxygen.
It is also used as the driving gas for nebulized drugs and chemotherapy agents.

ADVANTAGES

- ECONOMY
  - REDUCTION OF MEDICAL AIR COSTS
- CONTINUOUS AVAILABILITY
  - ELIMINATION OF ORDERS AND DELIVERIES
- CONVENIENCE - ELIMINATION OF THE LOGISTIC AND ADMINISTRATIVE OPERATIONS
- SAFETY - LOCAL AND REMOTE ALARMS
- CERTIFICATION
  - CERTIFIED MEDICAL AIR SYSTEMS ACCORDING TO MEDICAL DEVICES DIRECTIVE 93/42/EEC
- CONTAINER AND SKID
  - MOUNTED SOLUTIONS AVAILABLE
- ADSORPTION DRYER WITH DEW POINT CONTROLLER

COMPRESSOR TECHNOLOGIES

SCROLL – Oil free

Two spiral elements: one moves in eccentric circles and the other one is stationary. Air gets trapped between the two spirals at the suction side and gets transported and compressed to the center of the spiral. **Quiet operation and oil-free air.**

RECIPROCATING – Oil free

Positive displacement compressors in which the compressing and displacing element is a piston having a reciprocating motion within a cylinder. **Small footprint and oil free air.**

ROTARY SCREW

Two counter-rotating screws housed in a chamber (air-end). The area containing the air gets increasingly smaller as the air moves along, and the pressure increases.
High-volume, steady stream of compressed air, easy maintenance.

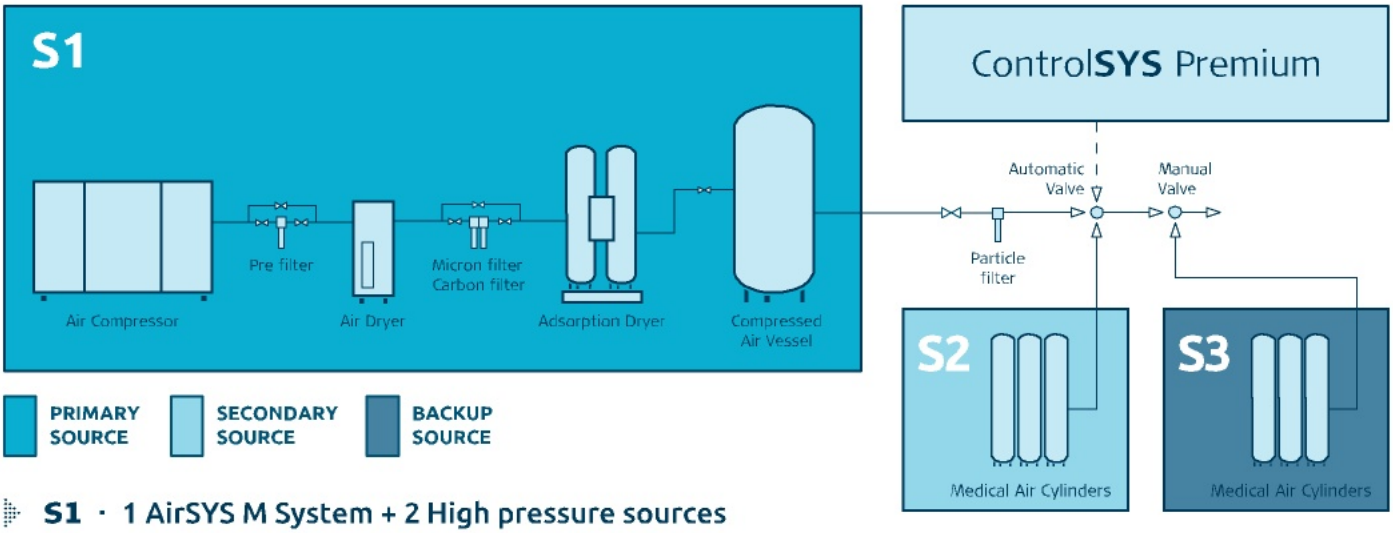
TREATMENT AND CONTROL TECHNOLOGY

The compressed air is fed to the refrigeration dryer, to condense water, decreasing the dew point to +3°C. Then, the air passes through the adsorption dryer, being stored, afterwards, in a high pressure vessel with a dew point below -40°C.

The cycling mode of the adsorption dryer is controlled by a built-in dew point meter allowing significant energy savings. The AirSYS M system is fully automated and controlled by PLC, not requiring any human intervention.

INSTALLATION OPTIONS IN ACCORDANCE WITH THE STANDARD:

EN ISO 7396-1 - Medical gas pipeline systems



PRIMARY SOURCE **SECONDARY SOURCE** **BACKUP SOURCE**

- **S1** · 1 AirSYS M System + 2 High pressure sources
- **S2** · 2 AirSYS M Systems + 1 High pressure source
- **S3** · 3 AirSYS M Systems

THE MEDICAL AIR SUPPLY SYSTEM SHOULD HAVE 3 SOURCES OF SUPPLY: PRIMARY, SECONDARY AND RESERVE.

SPECIFICATIONS

Operating Pressure: 8 barg.

MODEL	Air Flow	Vessel	Scroll	Screw	Piston
	m³/h	l			
AirSYS M 1	11	250	•		•
AirSYS M 2	16	250	•	•	•
AirSYS M 3	26	250	•	•	
AirSYS M 4	31	500	•	•	
AirSYS M 5	41	500	•	•	
AirSYS M 6	58	500	•	•	
AirSYS M 7	72	750	•	•	
AirSYS M 8	96	750	•	•	
AirSYS M 9	120	1100	•	•	
AirSYS M 10	140	1100	•	•	
AirSYS M 11	160	1500	•	•	
AirSYS M 12	219	1500	•	•	
AirSYS M 13	271	2000	•	•	
AirSYS M 14	286	2000	•	•	
AirSYS M 15	380	3000	•	•	
AirSYS M 16	450	3000	•	•	
AirSYS M 17	560	5000	•	•	
AirSYS M 18	720	5000	•	•	

ADVANTAGES OF FULL SYSTEM CERTIFICATION

**** Sysadvance designs and installs Medical Air Systems according to Medical Air Monograph.***

**** Full system certification includes:***

- Dimentioning and specification;
- Manufacturing;
- Full test and factory validation including mass spectrometer analysis;
- As-built layout and P&ID;
- Installation, start-up and training;
- On-site validation;
- Certified maintenance program;
- Periodic assessment of gas quality.

Sysadvance system certification provides health care facilities with Medical Air quality and security of supply under Medical Air Monograph requirements.

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SYSADVANCE develops and manufactures equipments for gas separation and supplies integrated solutions for gases and compressed air, such as N_2 Generators, O_2 Generators, Medical Oxygen 93 Generators, Biogas Upgrading systems, O_2 VSA Generators, Helium, Hydrogen and SF_6 Purification and custom engineering solutions.

Since its foundation in 2002, the company has experienced significant and continuos growth, as a result of its customer satisfaction oriented strategy as well as its superior technology and reliability of the products and technologies delivered.

With highly qualified technical personnel and a strong R&D culture, **SYSADVANCE** strives to deliver state-of-the-art technology to its clients in more the 40 countries, in different industries and sectors of activity.

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COMPETE
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