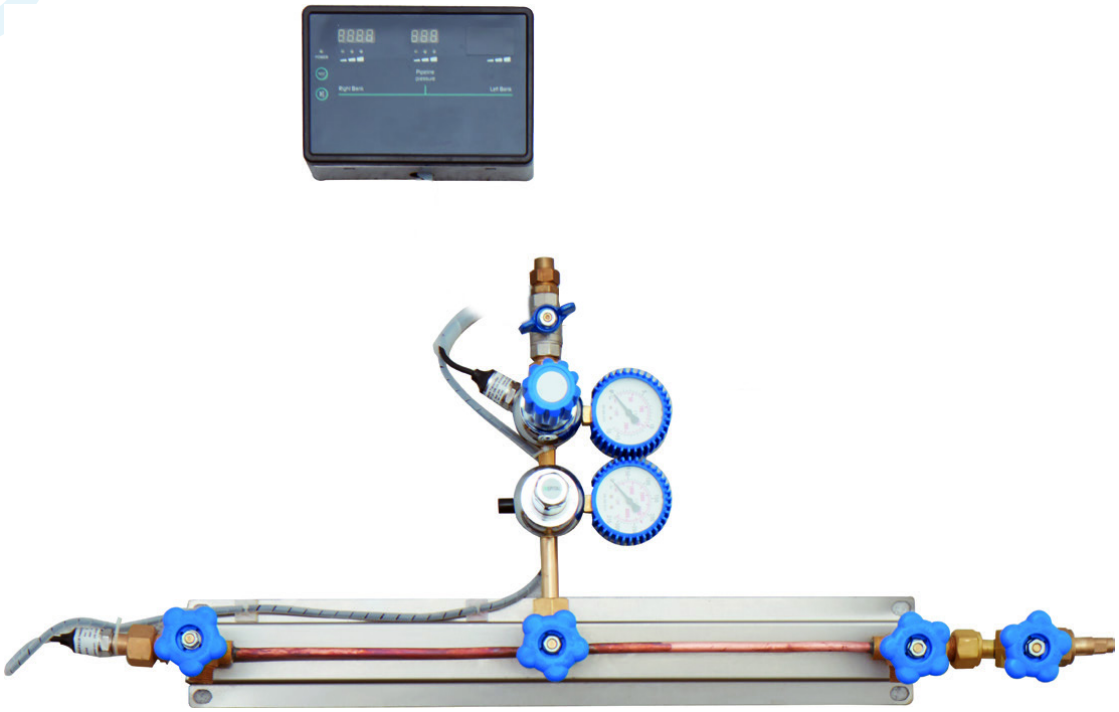
EMERGENCY RESERVE MANIFOLD



Description
ÜZÜMCÜ Emergency Reserve Manifold (ERM) has a two-stage regulation system that uses separate regulator units for each pressure stage. This system provides uninterrupted and balanced gas flow from high-pressure cylinder ramps to the medical gas pipeline during emergencies and maintenance and repair processes. The two-stage regulation is designed to prevent pressure drops even at high flow rates. When one cylinder bank is empty, manual switching to the other bank is performed. The required distribution pressure must be set to 400 kPa, 700 kPa, or 1000 kPa in the system. The ERM system must have the capacity to supply sufficient gas to the pipeline for a minimum of four hours. The non-return valve, a critical component of the system, first blocks flow in the system direction, ensuring that gas is directed only into the pipeline. Emergency backup manifolds and control panels are designed and certified for use with tube racks rated at 230 bar pressure. Additionally, manifold heads are equipped with a renewable non-return valve that prevents the entire tube rack from emptying in the event of a "tailpipe" explosion.

The ÜZÜMCÜ emergency backup manifold system consists of two main components:
• The Control/Regulator component used in the ERM system controls the transition of medical gases from the cylinder bank header manifold to the pipeline system and regulates the outlet pressure. Integrated cylinder header manifolds are designed to withstand high pressures and are configured to support gasspecific connections, tailpipes, and manifold headers on both sides of the regulator assembly. The heads, manufactured by ÜZÜMCÜ to withstand pressures up to 230 bar, enhance system safety; the middle section of the tailpipe is made of soft aluminum material that connects the outlet and inlet brass heads.

Classification
• The Emergency Backup Manifold System is manufactured in accordance with the following standards: HTM 02-01, BS EN ISO 7396-1, BS EN ISO 15001, and BS EN ISO 10524-2.
• It bears the CE mark in accordance with the Medical Device Directive 93/42/EEC and has been approved by Lloyd's Register Quality Assurance.
• Class IIb medical device.

Features
• The system operates manually; therefore, the duty tube ramp must be selected by opening the valve.
• The heads are specially designed to withstand a pressure of 230 kPa.
• All components of the manifold system must be oil-free for oxygen use.
• Non-return valves are installed at the tailpipe connection.

Medical Gases That Can Be Used
Oxygen
Nitrous Oxide
Oxygen + Nitrous Oxide (each 50%)
Medical and Surgical Air
Carbon Dioxide
Nitrogen

Pressure Regulator
• Maximum inlet pressure: 230 - 250 kPa
• Reduced outlet pressure: 400 kPa, 700 kPa, or 1000 kPa

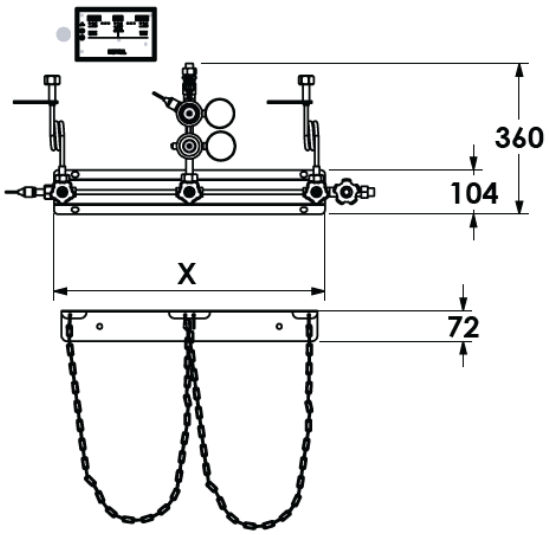
Material
• The main material of the backplate is stainless steel.
• The main material of the heads is brass.

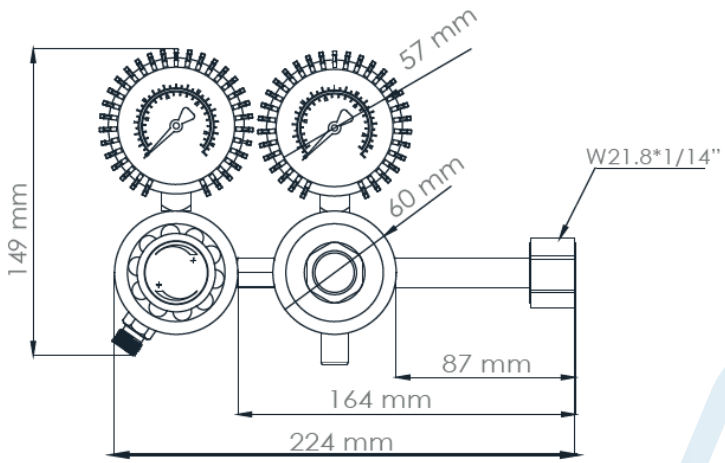
EMERGENCY RESERVE MANIFOLD

Oxygen Concentrator	Order No	66.1091	66.1092
Nitrous Oxide Central	**Order No**	**66.1089**	**66.1560**
High pressure regulator 40 m_3/h		1 pc	1 pc
Cylinder Fixing Chain		2 pcs	4 pcs
Flexible Connection Pipe		2 pcs	4 pcs
Drain Valve		1 pc	1 pc
Number of Pipe Connections in the Central Unit		2 pcs	4 pcs
Bed Feeding Capacity		5-10 pcs	8-12 pcs
Total Weight of Central Unit (~)		15 kgs	18 kgs

Medical Gas	Connection Female
Nitrous Oxide	M18*2
Oxygen	M20*2
Air	M24*2
Oxygen/Nitrous Oxide	M22*2
Carbon Dioxide	3/8 inch BSP
Nitrogen	M14*2

TECHNICAL DRAWING





	Dual	Quadruple
Order No	66.1091 66.1089	66.1092 66.1560
X	640	1240