



M.R Engg. Works Pvt. Ltd.



**MEDICAL GAS PIPELINE SYSTEM | CUBICAL CURTAIN TRACKS | NURSE CALL SYSTEM
MODULAR OPERATION THEATRES**

www.mrengineeringworks.in

Automatic Medical Analog Gas manifold



(CALISTRA AM2021)



Features:

- . Fully automatic with dual line regulators.
- . Input power 110 VAC to 240 VAC, 50 to 60 HZ.
- . Digital display noticeable even in poorest of lighting conditions.
- . 1" isolation valve for supply line (Customer scope).
- . Includes wall mounting bracket.
- . Removable cabinet enclosure made easy for easy installation and service.
- . Microprocessor based Fully automatic manifold system consist of two Primary regulators , two Secondary regulators and main Line regulator.
- . Display noticeable even in poorest of lighting conditions.
- . Includes wall mounting bracket Spacious cabinet enclosure made easy for easy installation and service Electronic Control with Alarm and BMS outputs for remote status indication.
- . With Inbuilt 40 micron Filters.
- . Option SMS texting alarm is available (on order).

Flow rate @4.2bar

Oxygen	- 1500 lpm
Nitrous-Oxide	- 700 lpm
MEDICAL Air	- 1500 lpm
Surgical Air	- 1500 lpm
Nitrogen	- 1500 lpm
Carbon di oxide	- 1200 lpm
Tri Gas	- 1500 lpm

General Specifications:

- . The manifold shall be a fully automatic type and shall switch from "Bank In Use" to "Reserve Bank" without fluctuation in the final line pressure.
 - . After the switchover, the "Reserve Bank" shall then become the "Bank in Use" and the "Bank In Use" shall become the "Reserve Bank." The control panel includes a line gauge, two bank gauges and incorporates Eleven LED's : two Amber for "Bank In Use," three Green for "Normal", two Green for "Stand by" and Three red for "Bank Empty" on the front of the cabinet. The manifold consists of two bank regulators (Primary) two regulators (Secondary) and One Regulator third stage (main line) to reduce the cylinder pressure to the two line regulators which in turn controls the final line pressure. The manifold has an intermediate and line relief valve that is connected to a Main line (28mm).
 - . The unit shall be compact, measuring 26" high x 24" wide x 8" deep (666 mm x 608 mm x 205 mm).
- PLEASE NOTE :**
- . The manifold shall be equipped with 1" (28 mm) outlet shutoff valve.
 - . The header bars shall be equipped with high pressure shutoff valves outside the cabinet to allow for emergency isolation of the header bars. The header bar shall incorporate integral check valves for each station.
 - . The manifold is equipped with pressure transducers, which sends information to the main circuit board for operation of the fail-safe relay which transmits a remote signal to the master alarm or buzzer.
 - . The manifold cabinet is for general purpose use with an optional NEMA-3R enclosure for the power supply.
 - . Optional heaters are available for Nitrous Oxide and Carbon Dioxide manifolds.
 - . **The flow capacity of a nitrous oxide and carbon dioxide manifold depends upon the environmental conditions at the installation site and the number of cylinders in service. Installing them in a location that exposes it to an ambient temperature below 32°F (0°C) is not recommended.**
 - . M.R recommends the control cabinet be located at an installation site protected from rain, snow and direct sunlight.
 - . Gas specific Cylinder header bar with integral check valves and cylinder pigtail assemblies (to be ordered separately).

Conforms to:

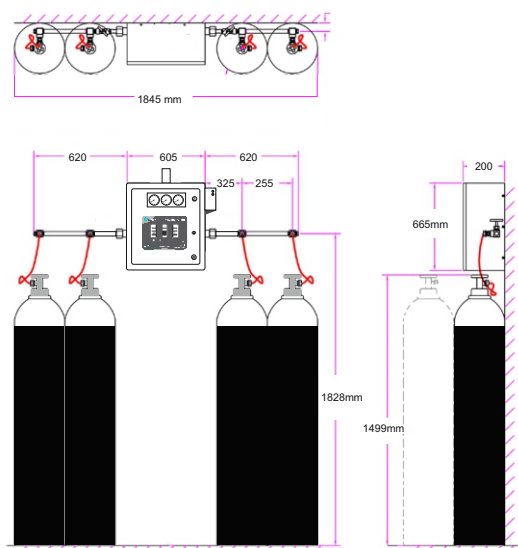
IS / ISO 7396 - 1: 2016
IS / ISO 10524 - 2: 2006
HTM 02 - 01 Part A: 2006

IS / ISO 10524 - 4: 2008
Class IIb - MDR 2017 / 745

Certifications: CE Medical Devices Marking according to 93/42/EEC Directive
ISO 9001:2015 - Quality management systems
ISO 13485:2016 - Medical devices - Quality management systems

Technical Specifications

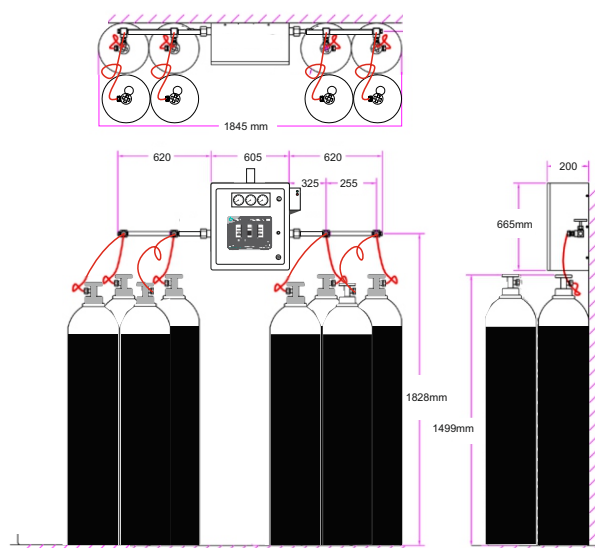
Figure 1: Standard Set-up



Standard 2 x 2 Auto Manifold with Straight Header Bars Layout

Figure 2: Optional Set-up

Top View



AUTOMATIC GAS MANIFOLD - TECHNICAL & ORDER INFORMATION

Model	Display	Switching mode	Item Code	Gas services	Inlet Pressure bar psi		Outlet Pressure bar psi		Flow lpm (max)
CALISTRA AM2021	Analog Display & LED Indicator	Auto Changeover	701007	Oxygen	150	2175	4.2	60	1500
			701008	Nitrous-Oxide	110	1595	4.2	60	700
			701009	Medical Air	150	2175	4.2	60	1500
			701010	Surgical Air	150	2175	7	102	1500
			701011	Nitrogen	150	2175	4.2	60	1500
			701012	Carbon di oxide	110	1595	4.2	60	1200
			701013	Tri Gas	150	2175	4.2	60	1500

DISCLAIMER: M.R CALISTRA AM2021 of "Changeover Unit" meet and exceed the requirement of relevant standards at the time of manufacture. However source, capacity, sizing and restrictions may prevent from attaining the stipulated values.

NOTE: Due to our policy of continuous product improvement, M.R Engg. Works Pvt. Ltd. reserve the right to alter dimensions and/or specification without notice although every effort will be made to advise of any such modifications.

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