

Automatic Changeover Medical Manifold - NFPA99

General Specifications:

The NFPA99 compliant dome biased fully-automatic dual line medical manifold offers continuous, fail-safe pressure and flow control from high pressure medical cylinders. The manifold provides an uninterrupted supply to the facility at a constant pressure. The manifold utilizes balance stem regulators to reduce inlet cylinder pressure to the dual final line regulator ensuring reliability.

Visual indication of changeover, via front panel LEDs, and Master Alarm interface contacts (3 isolated provided) are provided to indicate when the "Reserve" Bank is in use. No manual resetting is required when the Primary Bank is replaced and system pressure level returns to the Primary Bank. Header Bars shall be a High-Pressure modular assembly. All header bars and pigtailed shall be cleaned for oxygen.

Each Header Bar shall be equipped with a master valve to be placed on the left and right bank, outside the Manifold cabinet to shut off the gas in emergency situations. Each inlet port shall be equipped with a gas specific check valve to permit changing of cylinders without gas leakage.

Flexible Stainless Steel pigtailed will be provided for each cylinder gas connection except for Oxygen & Helium. Rigid Copper pigtailed will be provided for Oxygen & Helium. The standard length for all pigtailed will be 36".

NOTE: Header bar assemblies greater than 5 X 5 will include wall mounting brackets as a standard feature.



Power Requirements

100-240 VAC

Maximum Inlet Pressure

3,000 PSIG (210 BAR)

Filter

40- micron

Inlet Connection

CGA 1340 Bulkhead Fitting 1/2" NPT for Main 3/4" Valve (included)

Temperature Range

0 to 140°F (-18° to 60°C)

Outlet Connection

Weight

54 lbs.

NFPA99 Note 9.3.6.8 - A transfer or manifold room shall maintain a temperature not greater than 52°C (125°F) and not less than -7°C (20°F).

Flow Capacity:

1200 SCFH @80psi

Materials:

Bodies

Brass barstock

Seats

Viton®, Neoprene

Seals

PTFE, Neoprene and Viton®

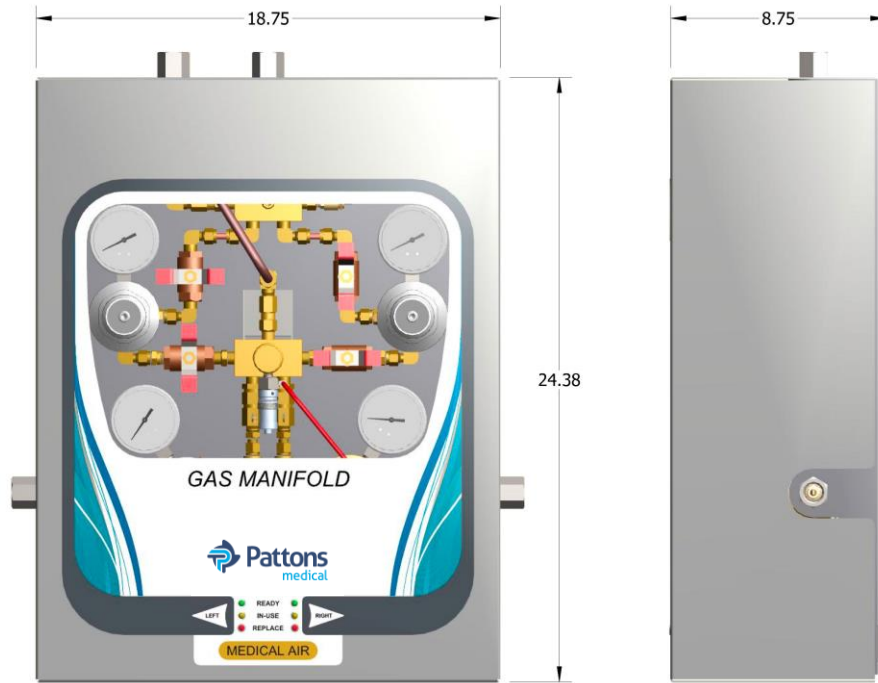
Enclosure

Powder Coated Steel NEMA 1 Enclosure, removable front cover for ease of service.

Features:

- High Flow Regulators
- Left side reserve inlet option
- NEMA 1 enclosure
- Micro-processor control
- Low loss technology
- Self-diagnosis software
- Master alarm interface(Reserve in Use)
- Service button allows technician to manually alternate banks
- Simple Installation and set-up
- Pushbutton for transducer calibration
- Pushbutton bleed valves to aide in setting primary regulators
- Primary Source Valve included (3/4" isolation valve)
- Separate Wall Mounting bracket included for ease of installation
- Pressure Relief valve set at 150% of nominal pressure upstream of final line regulators

Technical Specifications:



Model Numbers

Manifold Cabinet: **M1DL-HH-XXX**

The "XXX" Defines the Gases:

Oxygen	=	OXY
Medical Air	=	AIR
Nitrous Oxide	=	N2O
Nitrogen	=	NIT
Carbon Dioxide	=	CO2
Argon	=	ARG
Helium	=	HEL
Instrument Air	=	INA
High Pressure Air	=	AIRHP
Mixed Gas	=	MIX

Header-Bar Assembly: **M1-HBBX-XX-XXX**

The "XX" defines the number of cylinders:

02 = 2 Cylinder (1 x 1)	18 = 18 Cylinders (9 x 9)
04 = 4 cylinders (2 x 2)	20 = 20 Cylinders (10 x 10)
06 = 6 cylinders (3 x 3)	22 = 22 Cylinders (11 x 11)
08 = 8 Cylinders (4 x 4)	24 = 24 Cylinders (12 x 12)
10 = 10 Cylinders (5 x 5)	26 = 26 Cylinders (13 x 13)
12 = 12 Cylinders (6 x 6)	28 = 28 Cylinders (14 x 14)
14 = 14 Cylinders (7 x 7)	30 = 30 Cylinders (15 x 15)
16 = 16 Cylinders (8 x 8)	32 = 32 Cylinders (16 x 16)

"BS" = Staggered c/w Stainless Pigtailes
 "BC" = Staggered c/w Copper Pigtailes

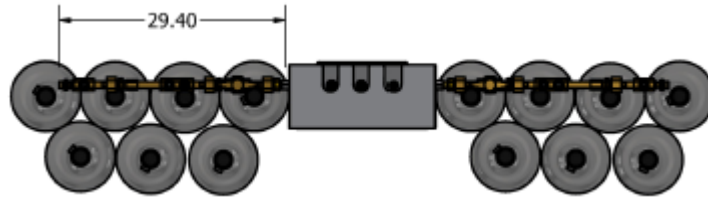
Note: A heater is available for CO2 and N2O manifolds for high Flowrate systems

Statement of Warranty

Patton's Medical warrants all Medical Air Manifolds, to be free of defects in material and workmanship under normal use for a period not to exceed thirty (30) months from date of shipment, or twenty-four (24) months from date of start-up

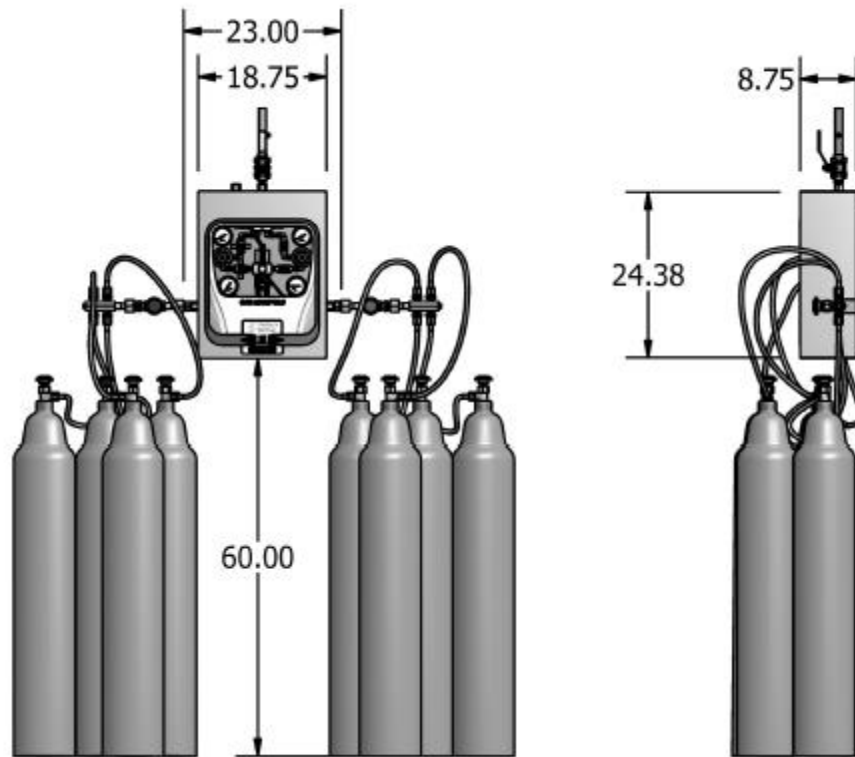
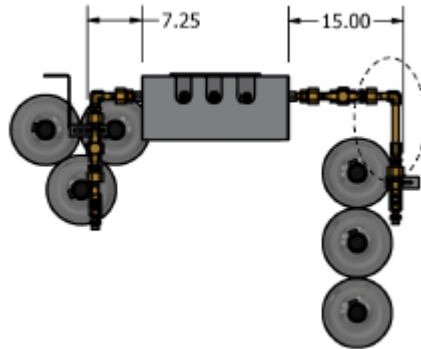
Additional Technical Specifications:

STAGGARED LAYOUT
(Example: M1-HBBS-14-XXX)



SPACE SAVING LAYOUT
(Example: M1-HBBS-6-XXX)

- Left: with M1-HBEL-003
- Right: with M1-HBEL



HEADER BAR LENGTHS (ONE SIDE)

# of cylinders per bank	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Header bar length (inches)	12	12	15	15	16	26	27	27	29	38	40	40	52	51

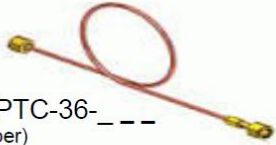
NOTE:

- Dimensions are based on approximate distances
- Wall mounting brackets are standard
- All header bars and pigtails shall be cleaned for oxygen service
- Header bars are designed to allow cylinders to be placed underneath the manifold where applicable

Header Bar Accessories:

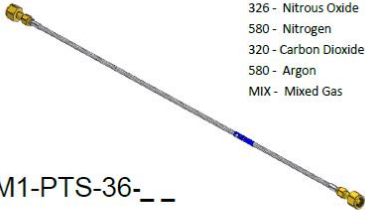
PIGTAIL CONNECTIONS

540- Oxygen
580- Helium



M1-PTC-36-___
(Copper)

346 - Medical Air
326 - Nitrous Oxide
580 - Nitrogen
320 - Carbon Dioxide
580 - Argon
MIX - Mixed Gas



M1-PTS-36-___

For Lengths other than 36",
contact Patton's Medical

Cryogenic Pigtails

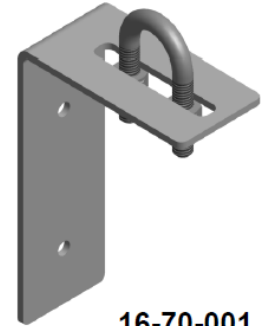
M1-PTY-72-___ 580 - Argon & Nitrogen
(Cryogenic) 540 - Oxygen

ELBOW CONNECTION



M1-HBEL

HEADER BAR WALL MOUNTING BRACKETS

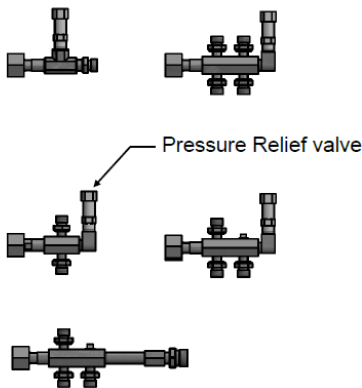


16-70-001

FLOOR STAND MOUNTING BRACKETS

- 16-70-002 Manifold Floor Stand
- 16-70-003 Header Bar Floor Stand

LIQUID HEADER BARS



Pressure Relief valve

CYLINDER WALL



16-01-206



16-01-205

