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 pigtails 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 pigtails will be provided for each cylinder gas connection except for Oxygen & Helium.
Rigid Copper pigtails will only be provided for Oxygen & Helium. The standard length for all pigtails will be 36".

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

Power Requirements	**Filter**	**Temperature Range**	**Weight**
100-240 VAC	40- micron	0 to 140°F (-18° to 60°C)	54 lbs.
Maximum Inlet Pressure	**Inlet Connection**	**Outlet Connection**	
3,000 PSIG (210 BAR)	CGA 1340 Bulkhead Fitting	1/2" NPT for Main 3/4" Valve (included)	

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

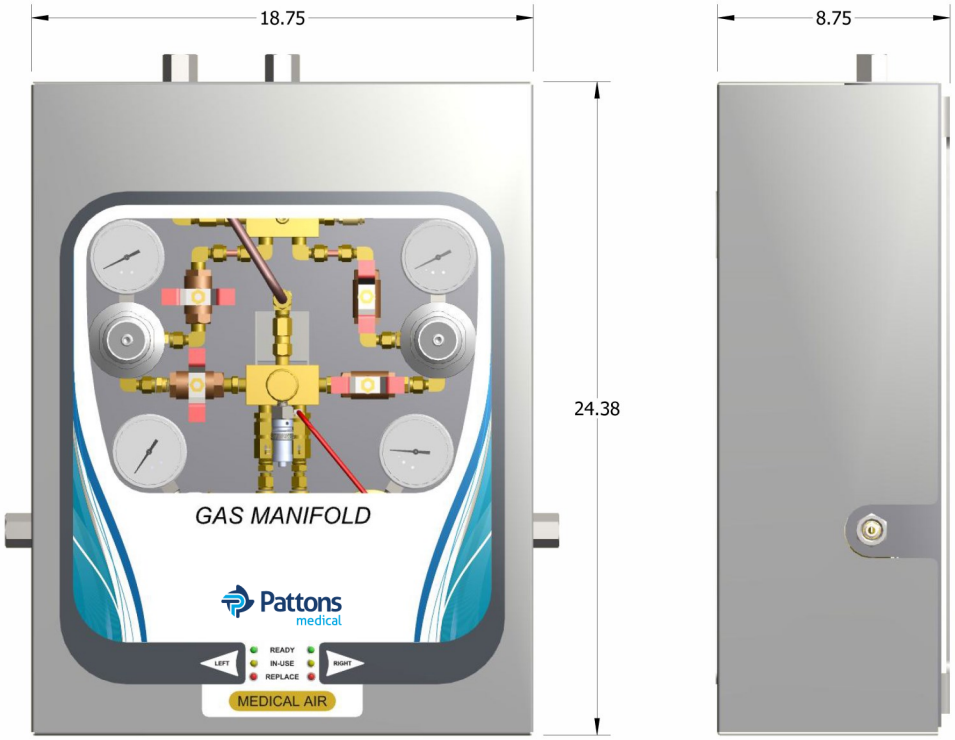
Materials:

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-XXX-XXX**

H = Heater (CO2 and N2O only)

HH = High Pressure
LH = Liquid x HP
LL = Liquid x Liquid

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

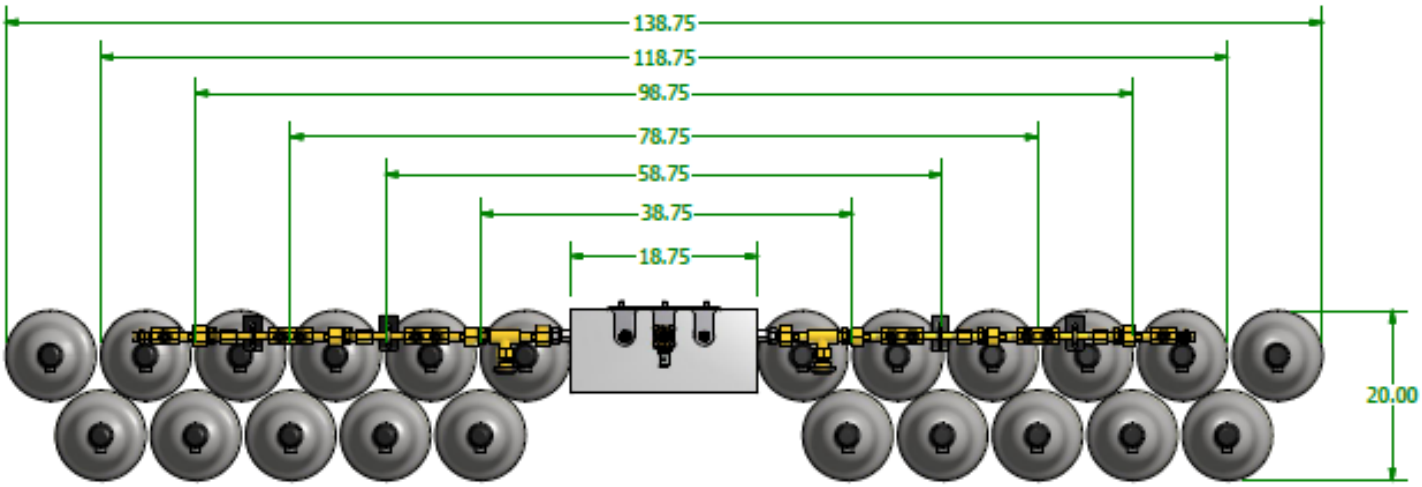
Header-Bar Assembly: **M1-HBBX-XX-XXX**

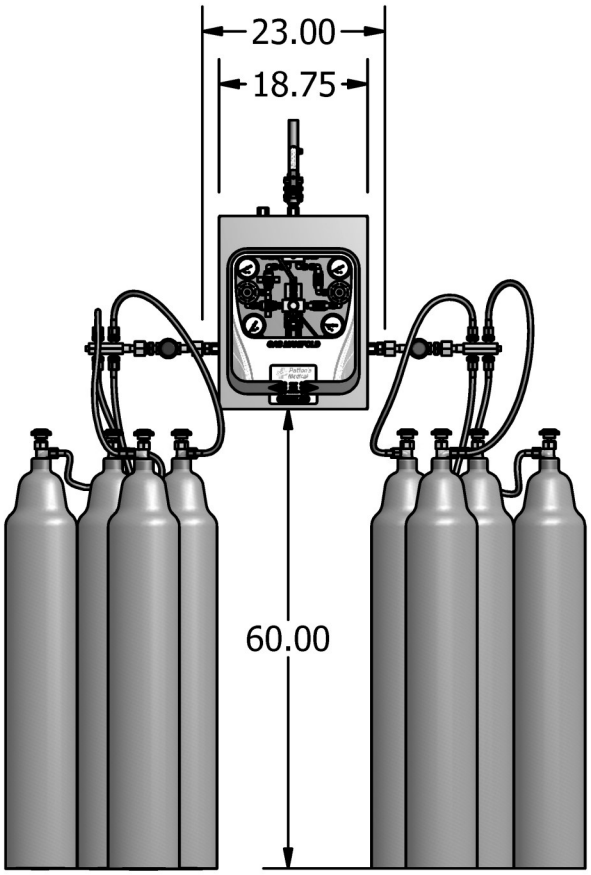
"BS" = Staggered c/w Stainless Pigtails
"BC" = Staggered c/w Copper Pigtails

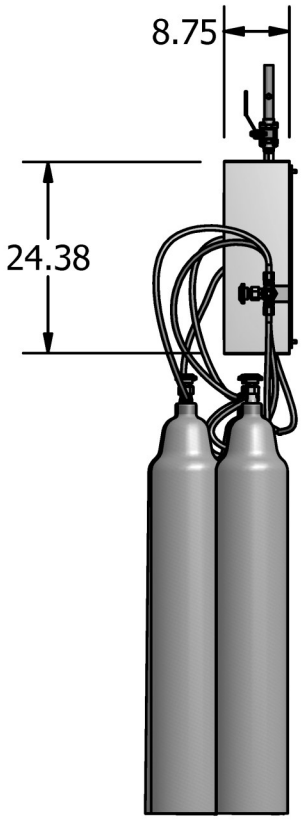
The "XX" defines the number of cylinders:

02 = 2 Cylinder (1 x 1)	18 = 18 Cylinders (9 x 9)
04 = 4 cylinders (2 x 2)	20 = 20 Cylinders (10 x10)
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)

Technical Specifications:







NOTE:

- Per NFPA 99, all electrical devices (manifolds) require at least a minimum height of 5’ (60”) from the floor
- Dimensions are based on approximate distances
- All header bars & pigtails shall be cleaned for oxygen
- Wall mounting brackets are standard
- Header bars are designed to allow cylinders to be placed underneath the manifold where applicable
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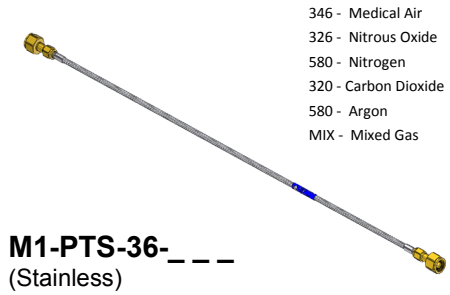
HEADER BAR ACCESSORIES

PIGTAIL CONNECTIONS

M1-PTC-36-_ _ _
(Copper)



M1-PTS-36-_ _ _
(Stainless)

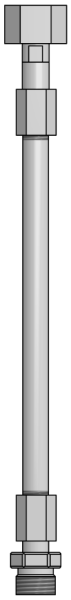
For Lengths other than 36", contact Patton's Medical

Cryogenic Pigtails

M1-PTY-72-_ _ _
(Cryogenic)

580 - Argon & Nitrogen
540 - Oxygen

HEADER BAR EXTENSION



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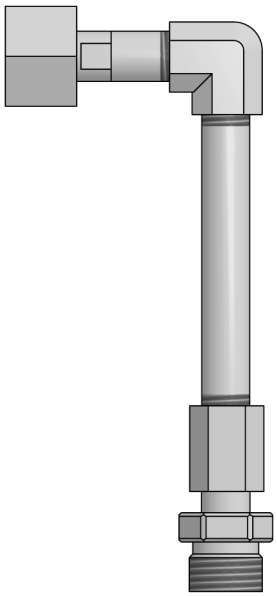
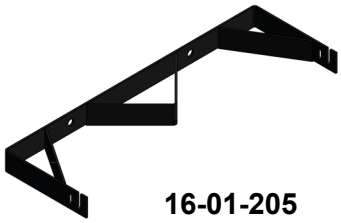
ELBOW CONNECTION



M1-HBEL

CYLINDER WALL MOUNTING BRACKETS

16-01-206



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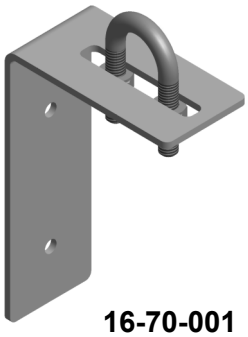
HEADER BAR WALL MOUNTING BRACKETS



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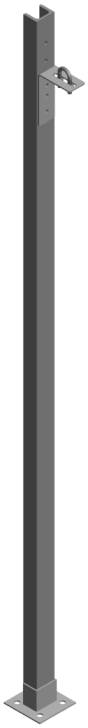

FLOOR STAND HEADER BAR MOUNTING BRACKETS

16-70-003

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