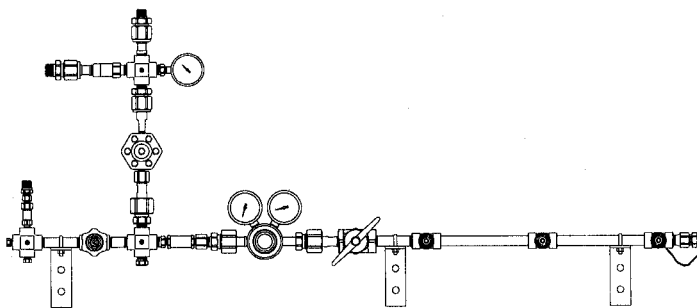


The Accu-trol model LA series manifold is designed for applications warranting liquid gas use as a primary gas source, but usage is insufficient to warrant liquid as a reserve. This LA series manifold will automatically switch over from service to reserve bank without any interruption of service. Line pressure will remain constant within a variation of $\pm 2\%$ throughout the changeover cycle. An alarm can be added to signal changeover from service to reserve banks by specifying the alarm option at the time of order and adding items: WME-4-9 pressure switch, WMS-1-97 orificed adapter, WMS-9-25C power supply box and BIA-3 remote audio visual alarm (see page 23).

Specifications:

- Model RM high pressure regulator included for LA and LAMP series. NOTE: RDM Series used for Oxygen. (Adjustable delivery pressure 20-160 PSIG). Optional regulators are available upon request for higher delivery pressures. See page 26 for regulator specifications.
- Model RS-300-MAN (40-210 PSIG) high pressure regulator included for LAHP series manifolds. See page 26 for regulator specifications.
- Manifold outlet: 1/2" NPT male.
- 24" Flexible stainless steel braided Teflon™ lined pigtails with check valves (EPDM seat all gases), for high pressure bank. Check valve is at header end of pigtail for all gases **except** Oxygen. Vertical crossover and staggered styles include half 24" and half 36" pigtails.
- High quality master valve and header shut-off valve on high pressure reserve system.
- Individual header valves at each cylinder location (units with 2 cylinders or larger - all gases except Oxygen). Oxygen units shipped with check valve outlets in place of header valves to provide added safety from "heat of recompression".
- Complete wall mounting hardware and operating instructions.
- High pressure reserve headers constructed of 1/2" brass pipe and tees, silver-brazed at each cylinder location, painted almond and labeled for the indicated gas service (optional unpainted headers slightly less expensive). All brazing is done by operators certified to ASME Section IX.
- Maximum working pressure for high pressure reserve system: 3000 PSIG (20680 kPa).
- Accessory heater kits available for Carbon Dioxide and Nitrous Oxide manifolds, see page 20.
- A check valve to prevent pressure from primary bank from registering on the high pressure regulator delivery gauge.
- Special header configurations available upon request, L-Shaped, Staggered, Crossover, and Vertical Crossover. Dimensional sketch of installation required for L shaped designs.
- Western will customize to meet your customer's special requirements.
- Designed to manifold up to two (2) portable cryogenic cylinders.
- Adjustable cryogenic line regulator: 40-85 PSIG on LA Series
40-130 PSIG on LAMP
40-210 PSIG on LAHP Series
- Maximum flow capacity: 750 SCFH - Model LA
750 SCFH - Model LAMP
800 SCFH - Model LAHP
- Cryogenic side includes 72" cryogenic pigtails with check valves (nylon inner core with polyester braid). Maximum working pressure 1375 PSIG.
- A high quality cryogenic master valve on the cryogenic side.
- Optional remote audio and visual alarm panels available.
- Line relief valve outlet: 3/4 NPT male.
- Cryogenic relief valve outlet: 1/2 NPT male.
- Inlet pressures from each liquid cylinder must be the same. If more than one cylinder is used per side a pigtail should be used to connect cylinder vent lines to ensure equalized cylinder pressure.
- **Minimum inlet pressure for LA: 125 PSIG (860 kPa)**
- **Minimum inlet pressure for LAMP 160 PSIG (1100kPa)**
- **Minimum inlet pressure for LAHP: 250 PSIG (1700 kPa)**
- **Maximum cryogenic inlet pressure 350 PSIG**
- **Made in the USA**

Design & Flow Capacity



Example: LA-9-1-3

How To Order:

Specify Control Type: (U)- Gas Service (V)-# of liquid vessels (W) # of high pressure cylinders (X) high pressure header configuration (Y) mounting (Z)

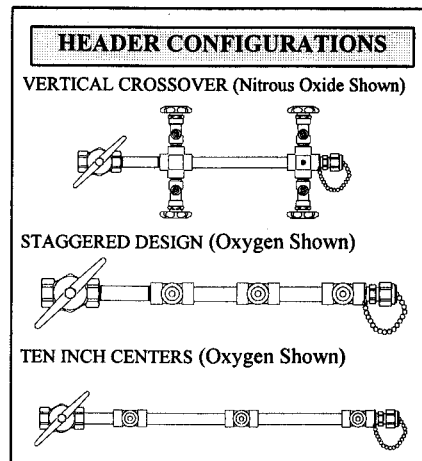
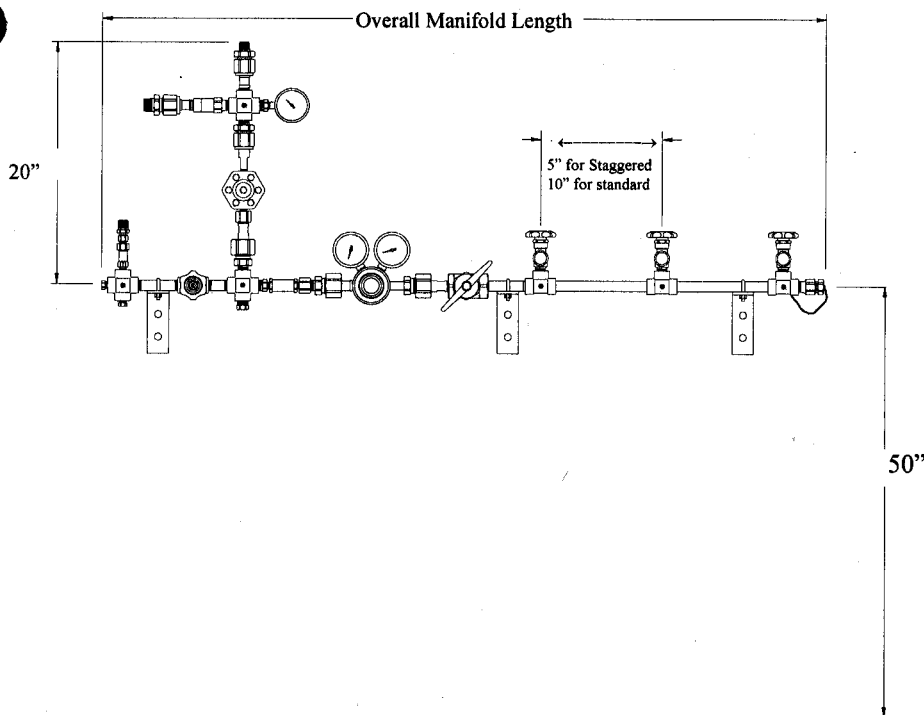
Control Type (U)	Gas Service (V)	# of Liquid Vessels (W)	# of High Press Cylinders(X)	High Pressure Header Configuration (Y)	Mounting (Z)
LA (40-85 PSIG)	(3) Argon (CGA 580)			BLANK - STANDARD 10" on center	Blank = Wall Mount (Standard)
LAMP (40-130 PSIG)	(4) Carbon Dioxide (CGA 320)			ST - STAGGERED -5" on center	
LAHP (40-210 PSIG*)	(7) Nitrogen (CGA 580)			VC - VERTICAL CROSSOVER	F = Floor Mount
	(8) Nitrous Oxide (CGA 326)			- Standard 10" on center	
	(9) Oxygen (CGA 540)			L-SHAPED - SKETCH REQUIRED	
				NP - NOT PAINTED	
				C - CROSSOVER	

* Custom model to deliver 450 psi available upon request

LA - SERIES AUTOMATIC MANIFOLDS FOR INDUSTRIAL APPLICATIONS

WESTERN ENTERPRISES®

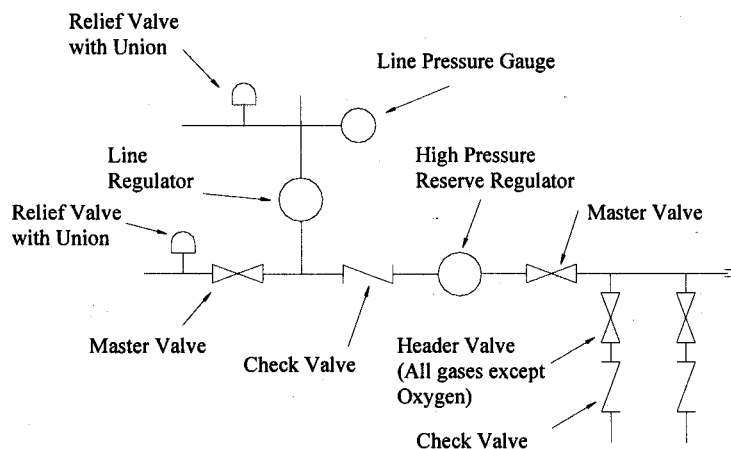
LA Series Manifold Dimensions



Design Lengths

TOTAL # OF HIGH PRESSURE CYLINDERS	2	3	4	5	6	7	8
10" CENTERS OVERALL MANIFOLD LENGTH	4'-1" (1.25M)	4'-11" (1.50M)	5'-9" (1.75M)	6'-7" (1.70M)	7'-5" (2.26M)	5'-4" (1.63M)	9'-1" (2.77M)
STAGGERED DESIGN(5" CENTERS) OVERALL MANIFOLD LENGTH	3'-8" (1.12M)	4'-1" (1.25M)	4'-11" (1.50M)	5'-4" (1.63M)	5'-9" (1.75M)	7'-10" (2.39M)	6'-7" (1.70M)
VERTICAL CROSSOVER (10" CENTERS) OVERALL MANIFOLD LENGTH	4'-1" (1.25M)	N/A	4'-11" (1.50M)	N/A	4'-4" (1.32M)	N/A	6'-7" (1.70M)

Piping Schematic



AMBIENT TEMPERATURE LIMITS

Maximum Temperature:..... 120°F/49C

Minimum Temperature:..... 0°F/17C

NOTE: Above limits are due to diminishing vaporization characteristics of portable bulk vessels at colder ambient temperatures.