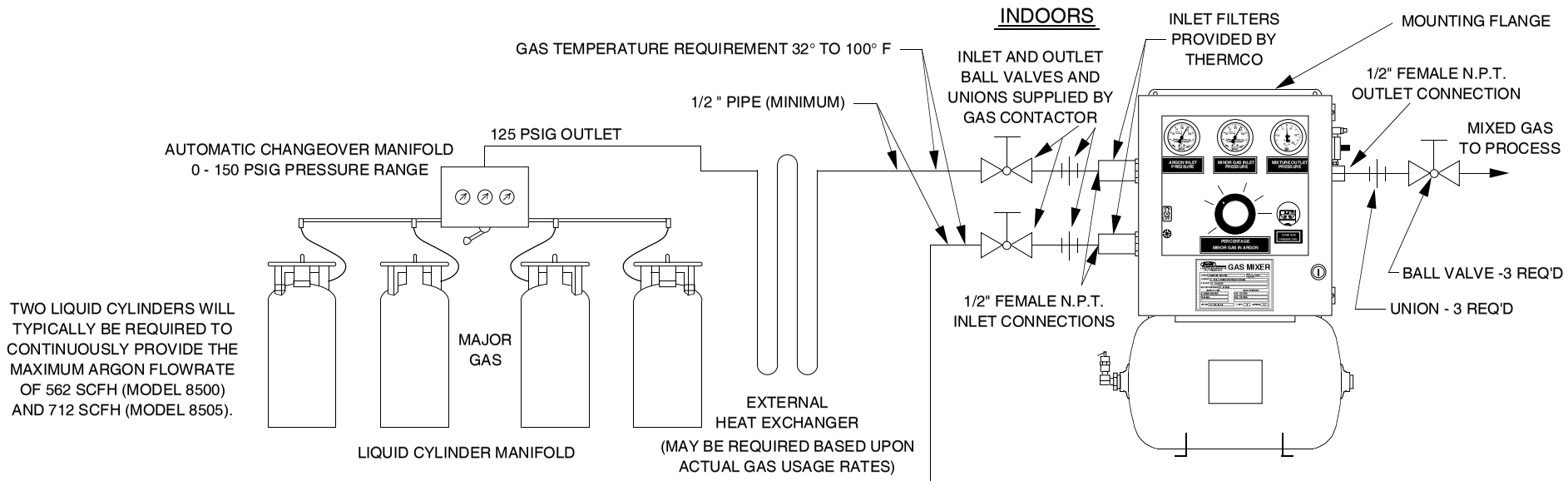


Mounting Location: Gas mixer should be mounted indoors; operating temperature range is 32°F to 100°F.

Piping Notes: Piping should be chosen with consideration for the pressure and chemical nature of the gas, and sized large enough to deliver the proper pressure to the gas mixer under flowing conditions. Piping for both major and minor gases must be at least 1/2".

Power Requirements: Gas mixers made for installation in the U.S. and Canada will require 115 VAC (± 10 VAC), 60 Hz, 1ø. For gas mixers for other locations, see the instruction manual for power requirements.

Gas Temperature: The two supply gases should enter the gas mixer at nearly equal temperatures to achieve the proper mixing accuracy. If the gas supplies will be at significantly differing temperatures, the resultant mixing inaccuracy should be considered, and the proper corrective action taken. Design to prevent exposure of the gas mixer to high pressures or liquid gases should be practiced. Gas temperature range is 32°F to 100°F.

Inlet Pressures: Standard pressures are 100 - 125 PSIG. Variations will be detailed in written instructions.

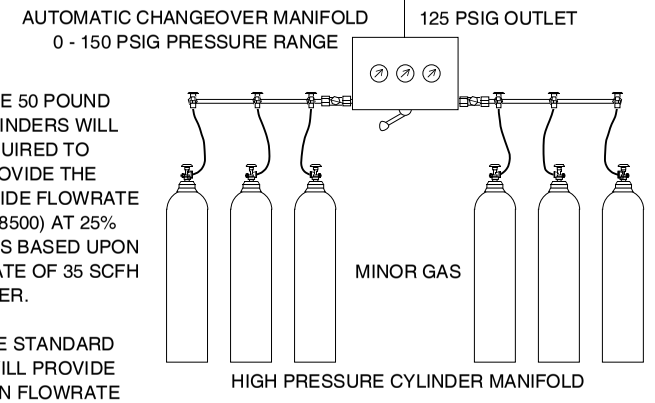
Clearance: Leave at least 2 feet to the sides and 3 feet to the front of the gas mixer for maintenance.

Applicable Models: Although Model 8500 is shown, this drawing also applies to Models 8505, 9775, 8510, and 8515.

Oxygen Piping: All oxygen piping to the mixer should be cleaned for oxygen service and compatible with oxygen. Do not allow any grease or oil to enter gas mixers intended for oxygen service (Models 8505 & 8515). Do not use oxygen in gas mixers not specially constructed for oxygen service.

Gas Systems: Gas systems shown are only examples; other systems may be used provided they deliver gas at the necessary pressure, temperature, and flowrate.

Peak Gas Flowrates: When the gas mixer begins a mixing cycle, the gas mixer will draw gases at the full flow rated capacity of the gas mixer. For the Model 8500, the argon flowrate will be 562 SCFH and at a mixture of 25% carbon dioxide, the carbon dioxide flowrate will be 188 SCFH. For the Model 8505, the argon flowrate will be 712 SCFH and at a mixture of 5% oxygen, the oxygen flowrate will be 38 SCFH. The duration of the mixing cycle will vary depending upon the mixed gas usage rate but could be 10 seconds or more.



FOR MODEL 8500, FIVE 50 POUND CARBON DIOXIDE CYLINDERS WILL TYPICALLY BE REQUIRED TO CONTINUOUSLY PROVIDE THE MAXIMUM CARBON DIOXIDE FLOWRATE OF 188 SCFH (MODEL 8500) AT 25% CARBON DIOXIDE. THIS IS BASED UPON A CONTINUOUS FLOWRATE OF 35 SCFH PER CYLINDER.

FOR MODEL 8505, ONE STANDARD OXYGEN CYLINDER WILL PROVIDE THE MAXIMUM OXYGEN FLOWRATE OF 38 SCFH AT 5% OXYGEN.

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Thermco® INSTRUMENT CORPORATION
LA PORTE, INDIANA USA

TITLE:

INSTALLATION DRAWING FOR MODELS 8500, 8505, 8510, 8515 AND 9775 GAS MIXERS

DATE: 4-10-03
SCALE: N.T.S.
DRAWN BY: DB
APPROVED BY:
SUPERSEDES: 1-10683
DRAWING NUMBER: 1-12216