

Special Electrical Construction: The gas mixer constitutes a Class I, Division 2, Group B, C, D hazardous location. The design meets the N.E.C. for that location. Local codes should be consulted concerning the installation.

Any additions or changes in the electrical components or wiring of components on this equipment must meet the National Electrical Code and Local Codes for a Class I, Division 2, Group B, C, D area. No changes in the flow components or piping should be made to change the classification from Division 2 to Division 1.

Adequate ventilation should be provided to prevent the accumulation of flammable gases in the event of a leak.

Do not install the gas mixer directly under ordinary electrical equipment with arcing contacts or other sources of ignition. In the unlikely case of a hydrogen leak or the leak of other gases lighter than air, the flammable gas will rise above the gas mixer.

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

Inlet Gas Pressures: The major and minor gas supply systems must be designed to supply gas at the maximum mixer flowrate while maintaining the inlet gas pressures above the minimum shown on the Data Sheet.

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.

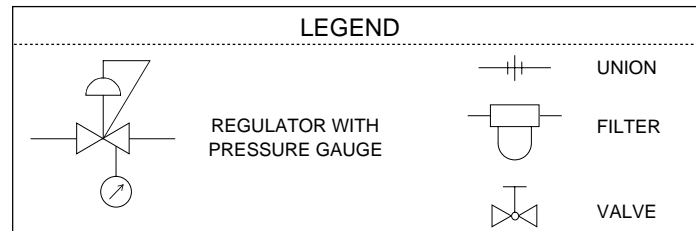
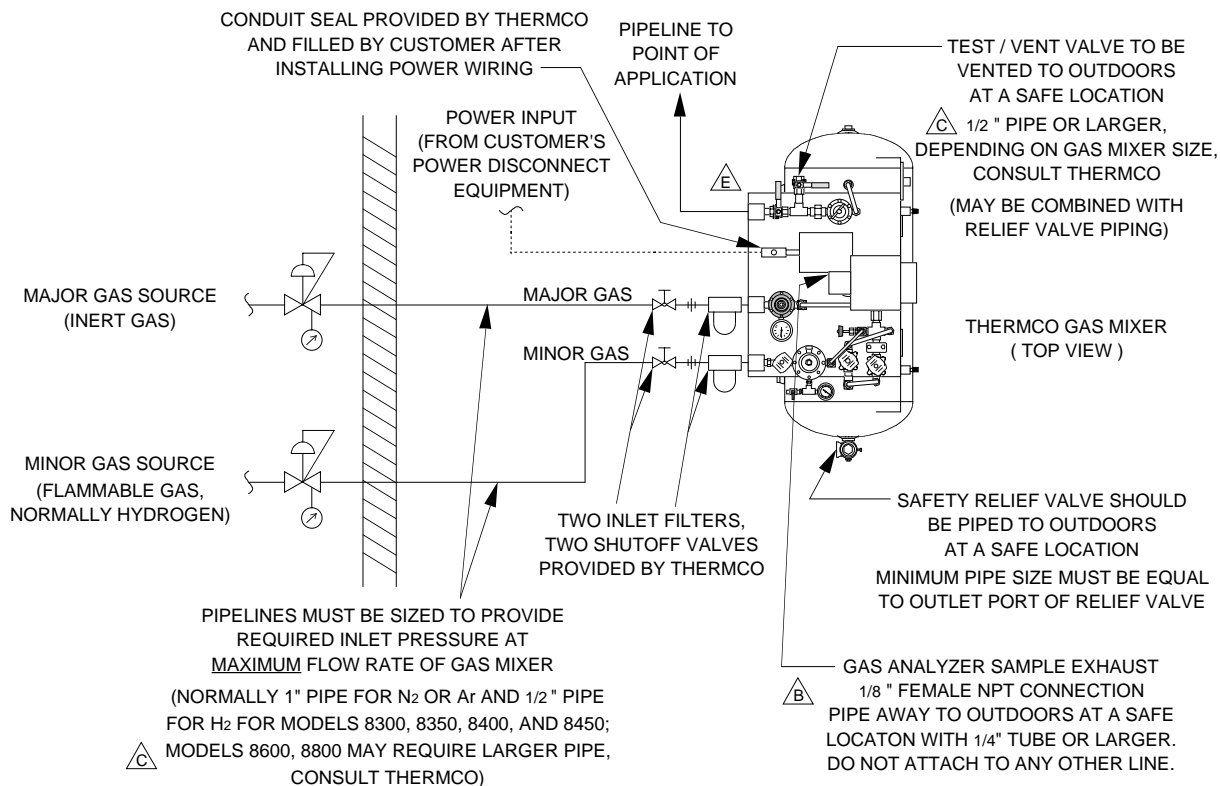
Gas Analyzer Sample Vent: The sample gas from the gas analyzer should be vented outdoors at a safe location. A 1/4" tube or larger is adequate. To avoid analyzer instability caused by pressure changes, do not run this piping into any other piping.

NFPA Requirements: Piping and piping components shown are the requirements for the gas mixing system but do not include all the requirements for a furnace atmosphere gas system. The NFPA 86 2003 standard states the requirements for flammable and non-flammable gas delivery systems. NFPA 50A and NFPA 50B state requirements for hydrogen gas systems. These standards should be consulted and followed in the installation of the hydrogen supply system.

Clearance Requirements: Leave at least 2 ft. clearance to both sides and above and 3 ft. clearance to the front and rear of the mixer. The mixer should be protected against damage or injury due to falling objects or working activity in the area.

OUTSIDE

INSIDE



E	UPDATED GAS MIXER INTERNAL CONFIGURATION	GAR	5-23-06	THERMCO INSTRUMENT CORPORATION	SCALE: N.T.S.	B. M. NUMBER:	DRAWN BY: DB
D	86 2003 WAS 86C 1999; ADDED 2 FT. CLEARANCE ABOVE; INLET WAS INPUT	GAR	1-21-05		DATE: 8-12-93	CUSTOMER:	APPROVED BY:
C	1/2" WAS 3/8"; 1999 WAS 1995; 1/4" SAMPLE VENT TUBE WAS COPPER; OTHER ADDITIONS AND CORRECTIONS TO NOTES	DMR	12-27-01	S. O. NUMBER:	SUPERSEDES: 2-9249		
B	UPDATED ANALYZER SAMPLE EXHAUST NOTE	DMR	9-24-01	TITLE: INSTALLATION DIAGRAM FOR FURNACE ATMOSPHERE GAS MIXER		DRAWING NUMBER: 1-10681	
A	UPDATED NOTE ABOUT NFPA REQUIREMENT	DMR	12-15-95				
	REVISIONS	BY	DATE				