

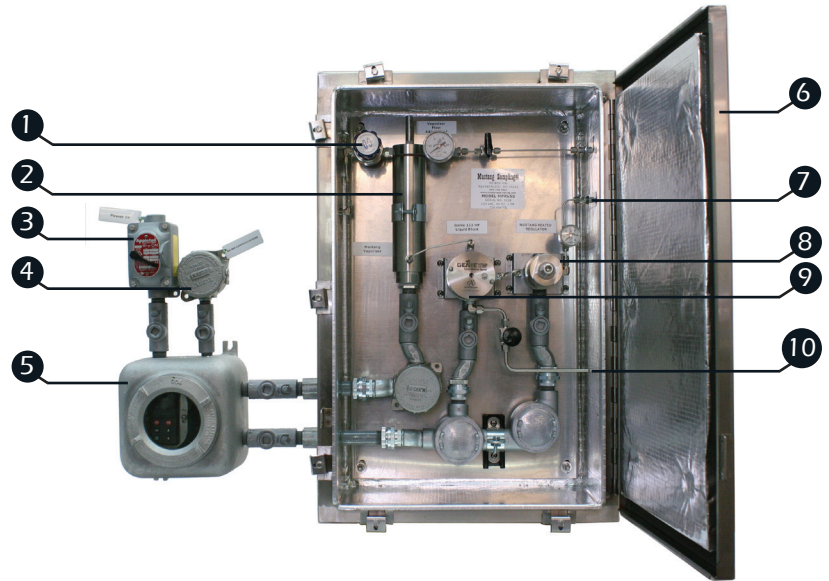
MNGL™



Mustang Sampling®

Mustang® NGL Sample Conditioning System

Item Number	Description
1	Manual Liquid Pressure Regulator
2	Single Path Vaporizer
3	Power Input
4	RS-485 Communications
5	Dual Temperature Controllers
6	SS Insulated Enclosure
7	Outlet
8	Single or Multi-Stage Heated Regulator
9	Heated Liquid Membrane Separator
10	Drain



APPLICATION

The Mustang NGL Sample Conditioning System (MNGL™) combines a Mustang® Vaporizer and Mustang® Heated Regulator with a PID temperature controller and a liquid membrane separator to create a robust, single-path pressure regulating and vaporizing sample conditioning system for natural gas liquids.

A representative sample is delivered to a flash chamber within the vaporizer, preventing pre-vaporization. An independently controlled electric cartridge heater, with sufficiently large surface area, maintains a stable gas temperature throughout the process. The liquid membrane separator eliminates entrained liquids and particulates at high pressure. Pre- and post-regulation heat exchangers, along a tortuous gas path in the Mustang Heated Regulator, ensure sample and phase stability for introduction into natural gas analyzers. The Mustang NGL Sample Conditioning System is available with dual Mustang Vaporizers if redundancy is required as well as dual filtration and shut down.



FEATURES

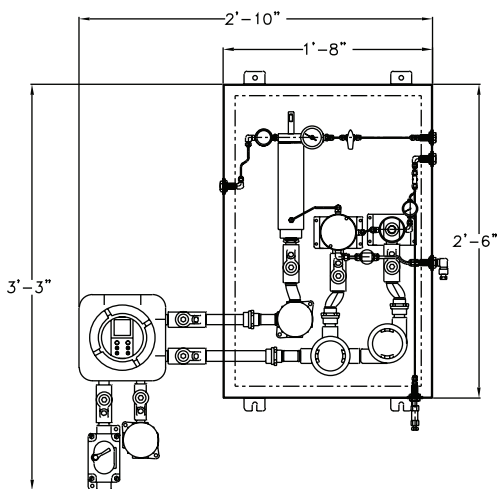
- Patented technology
- Continuous gas flow design
- Vented cabinet having a gas sample input
- Dual temperature controller
- Pressure regulator
- Single path vaporizer
- Liquid membrane separator
- Heated regulator
- NEMA 4X Enclosure

BENEFITS

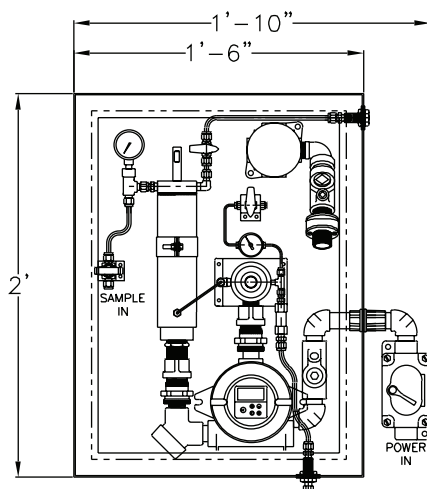
- Provides an accurate and reliable representative sample to the Gas Chromatograph
- Eliminates post-vaporization hydrocarbon liquid dropout
- Reduces the incoming liquid pressure
- Eliminates the presence of any remaining liquid in the natural gas sample
- Able to condition a wide range of liquids



PRODUCT DIMENSIONS



Front View - Unit with Dual Temperature Controller & Liquid Membrane Separator

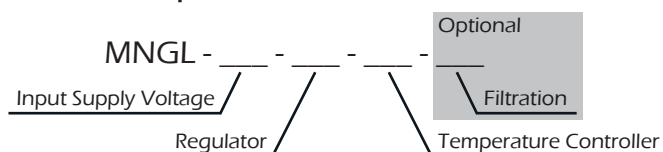


Front View - Unit with Single Temperature Controller

PRODUCT SPECIFICATIONS

Maximum Allowable Operating Pressure	3750 psig (359 bar)
Proportional Temperature Control Range	0°F to 300°F (-18°C to 148°C)
Port Sizes	1/4" female NPT
Conduit Sizes	3/4" female NPT
Electrical Enclosure Classification	Class 1, Division 1 & 2, Groups C, D, T3
Wetted Materials	Machined parts: 316 stainless steel/NACE compliant All other metal parts: stainless steel/NACE compliant (other materials available upon request)
Input Supply Voltage Options	115 VAC , 815 Watts, 50/60 Hz, ± 10% 208/230 VAC , 815 Watts, 50/60 Hz, ± 10%
Regulator Options	MHR™ Single-Stage Heated Regulator MJTHR™ Multi-Stage Heated Regulator
Temperature Controller	Sr Dual Temperature Controller & Liquid Membrane Separator Jr Single Temperature Controller
Filtration & Shut Down	FS Dual Filtration & Shut Down

Use the bold alpha-numeric characters from the table above to build your model number:



SAMPLE CONDITIONING STAGES

- **STAGE 1**—Single-path unit designed to flash vaporize Natural Gas Liquids
- **STAGE 2**—A liquid membrane separator utilizes innovative technology to remove 100% of entrained liquid and particulate in a gas sample
- **STAGE 3**— A pre and post-heated pressure regulator designed to prevent hydrocarbon dew point dropout and reduce sample pressure which is then delivered to the heated membrane separator

Analytically Accurate®
TECHNOLOGY

About Mustang Sampling

Mustang Sampling, LLC is the innovator of Analytically Accurate® solutions within sample conditioning systems. We provide custom solutions of products and services globally to the Natural Gas, Natural Gas Liquids (NGL), and Liquefied Natural Gas (LNG) industries. Mustang Sampling continues to pioneer integrated control systems, allowing our customers to maintain phase stability from sample extraction at the source through sample analysis. Our products are continuously improved and subjected to the highest quality standards which provides our customers with the best sample conditioning solutions.

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U.S. Patent 9,285,299

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