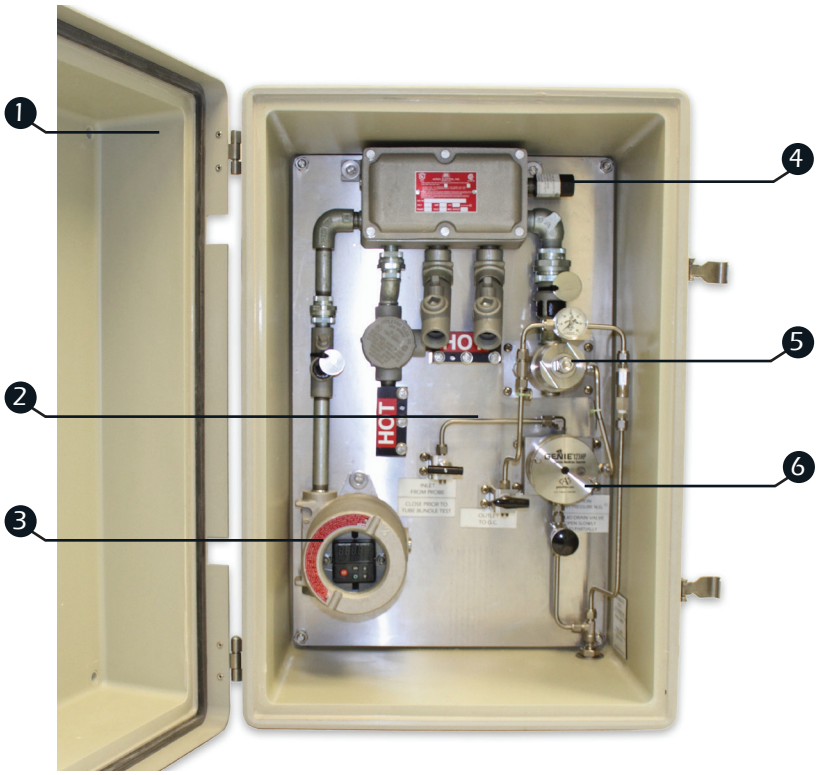
P53®

Mustang® P53® Sample Conditioning System

Mustang Sampling®

Item Number	Description
1	Insulated Enclosure
2	Self-Limiting Block Heater
3	PID Temperature Controller
4	System Temperature Limiter
5	Single or Multi-Stage Mustang® Heated Regulator
6	Liquid Membrane Separator



APPLICATION

The Mustang P53® Sample Conditioning System is an integral component to provide an Analytically Accurate® solution for natural gas sampling applications.

The Mustang P53 Sample Conditioning System solves the problem of hydrocarbon liquid condensation from Joule-Thomson cooling in natural gas analysis systems. High pressure natural gas samples are transported at a temperature well above the expected hydrocarbon dew point, which is maintained throughout the pressure reduction process, delivering a representative sample to the analyzers.

The Mustang P53 Sample Conditioning System is available with either the Mustang® Heated Regulator (MHR™) or Mustang® Joule-Thomson Heated Regulator (MJTHR™), used in combination with a heated liquid membrane separator and is designed for use with integrally controlled, remote Mustang Pony® Probe Enclosure products.

Natural Gas

FEATURES

- Patented technology utilizing existing power supplied by electric heat trace tube bundle
- Remote or Direct Mount
- Rated for Class 1, Division 1, Groups C, D, & T3 locations
- Multiple streams in and out
- Digital Controller
- Steel latching closures
- Glass Fiber Reinforced Polyester (GRP) or Stainless Steel (SS) Enclosure
- NEMA 4X Enclosure
- Low Pressure Pump System (available for systems such as flares, ducts and vapor recovery)

BENEFITS

- Requires no external power or natural gas for proper operation
- Conforms to the API Manual of Petroleum Measurement Standards chapter 14.1

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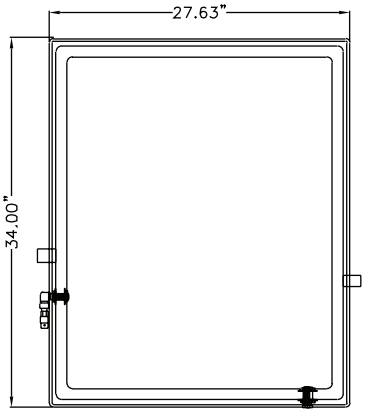
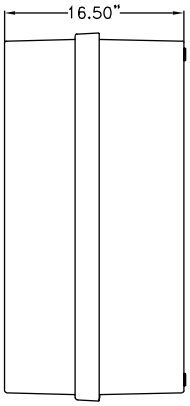
PRODUCT DIMENSIONS



Front View

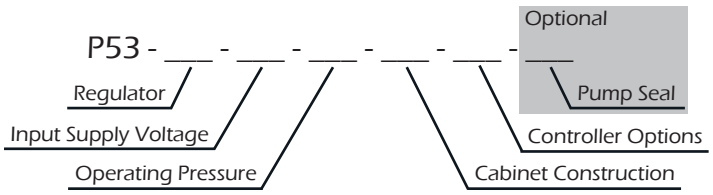


Side View

PRODUCT SPECIFICATIONS

Wetted Parts	316 SS
Contained Gas Volume	0.51 cu. in.
Maintains Sample Gas	Standard set point at 120°F (49°C) Adjustable from 60°F to 284°F (16°C to 140°C)
Regulator	**MHR**™ Single-Stage Regulator
	MJTHR™ Multi-Stage Regulator
Input Supply Voltage Options	**120** VAC, 375 Watts, 50/60 Hz, ± 10%
	240 VAC, 375 Watts, 50/60 Hz, ± 10%
	24 VDC, 205 Watts
Maximum Allowable Operating Pressure	**2000** psig @ 60°F (138 BAR at 16°C) (Standard Design - Liquid membrane separator upstream of MHR Single Stage Regulator)
	3750 psig @ 60°F (259 BAR at 16°C) (Liquid membrane separator downstream of MHR Single-Stage Regulator)
	6000 psig @ 60°F (414 BAR at 16°C) (Liquid membrane separator downstream of MJTHR Multi-Stage Regulator)
PID Temperature Controller Options	**OI** Oven Industries Controller
	W Watlow® Controller
Cabinet Construction Options	**GRP** Glass Fiber Reinforced Polyester
	SS Stainless Steel
Optional Diaphragm Pump (for low pressure systems)	**250**°F Teflon® Seals
	400°F Teflon®/EPDM Seals

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



STANDARD COMPONENTS

- Pressure gauge after regulator
- Door-mounted dial thermometer
- Relief valve port out
- Moisture block drain port out

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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