



MSA Gas Detection System

[for LEL Hexane Monitoring in the Grain Processing Industry]

Application

Hexane is used in the grain processing industry to extract oil from soy beans. Soy oil readily dissolves into hexane and when the mixture is heated the hexane volatilizes, leaving the soy oil behind. The hexane is then cooled and reused.

Unfortunately, the very properties which make hexane a great solvent for oil extraction add a very hazardous element, as hexane vapors can rapidly reach explosive levels. To reduce the explosive risk, extraction plants use LEL combustible gas detectors. However, most detectors do not hold up well in the extraction plant environment where they are subjected to heat and humidity and often coated in oil.

Product Description

MSA has designed a solution to this monitoring problem using the Chemgard™ Photoacoustic Infrared Gas Monitor. The Chemgard Monitor is a highly stable sample-draw analyzer with internal sequencer and an external pump that enables a shorter, 60-second draw time. If possible, a general purpose unit with flash-back arrestors on the sample lines can be mounted in a control room; otherwise, an explosion-proof unit can be used.

One of the keys to the success of this system is the use of special end-of line filters located on the inlet of the external pump. Since these plants are regularly washed down with pressure hoses, MSA has designed the filters to prevent the water from getting into the sample lines. Easily changed in-line filters are installed to trap grain dust. Finally, coalescing filters are added to the sample line near the Chemgard Monitor to trap any dirt or moisture that may get past the other filters.

For more information on the standard Chemgard Gas Monitor see data sheet #07-2033.



Specifications

Operating Temperature

Range: 0-50°C; 32-122°F

Chemgard Power

Supply: 120 VAC
±10% at 0.56 amps;
240 VAC
±10% at 0.3 amps

Chemgard Alarm

Relays: 3 relays at 8 amps
resistive

Chemgard Enclosures and Physical Specs.

General Purpose: 18"H x 16"W x 7"D;
40 lbs.
Explosion Proof (XP): 19-1/8"H x 19-1/8"W
x 9-1/2"D;
100 lbs.

Pump Power

Requirements: 110 VAC

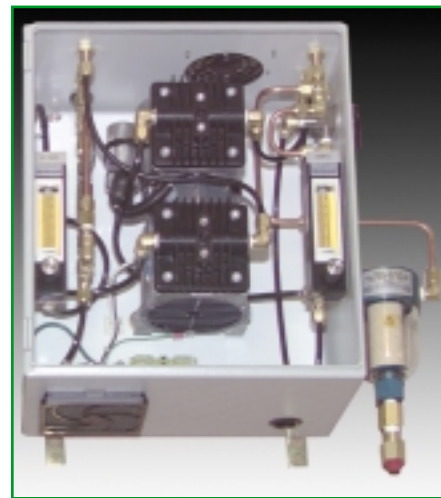
Pump Flow Rate: 3 cubic feet/ hour

Maximum Total Tubing

Length: 400' with 3/16" ID



Interior, Chemgard Gas
Monitor



External Pump

Note: This is a representative description of this product and its potential applications. Contact MSA Custom Products at customproducts@msanet.com for information on customizing this unit to fit a specific need.

Note: This Data Sheet contains only a general description of the product shown. While uses and performance capabilities are described, under no circumstances should the product be used except by qualified, trained personnel, and not until the instructions, labels or other literature accompanying the product have been carefully read and understood and the precautions therein set forth followed. Only they contain the complete and detailed information concerning this product.

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Instrument Division:
P.O. Box 427
Pittsburgh, PA 15230 U.S.A.
www.MSAGasdetection.com

In U.S.:
Phone: 1-800-MSA-INST
Fax: 1-724-776-3280

In Canada:
Phone: 1-800-MSA-INST
Fax: 1-905-238-4151

In Mexico:
Phone: 52-55 2122-5770
Fax: 52 (5) 3 59 43 30

MSA International:
Phone: 412-967-3228
Fax: 412-967-3373

Offices and representatives
worldwide

For further information:

