



Miniature Guardian Separators

PRODUCT FEATURES / BENEFITS

- ◆ Simple Inline Design for Easy Service
- ◆ Preserve Sample Integrity While Ensuring Analyzer Reliability
- ◆ Ambient Air Monitoring Systems
- ◆ Automatic Samplers, GC's, O2, and Moisture
- ◆ Ideal for Portable Analyzers

The GMS100 protects gas chromatographs and other online analyzers that require low sample flow rates from liquid and particulate contamination when only minimal amounts of liquid are present in the sample gas. The GMS100 assembly features a straight-through flow path, with the inlet port and drain positioned on the same plane. The clean sample outlet is located on the opposite plane, enhancing flow efficiency and reducing the risk of flooding. A simple collar secures both planes of the assembly, allowing for easy disassembly and maintenance without disconnecting any process lines. This user-friendly and compact design is well-suited for space-constrained environments, and the membrane can be mounted either vertically (as shown) or horizontally to accommodate various installation needs.

All our Guardian Membranes are available in exotic materials: PTFE, Hastelloy C, Monel 400, and Titanium. As an option we also offer Kalrez, EPDM, Buna and PTFE Encapsulated Viton O-rings.



Stainless Steel Model	GMS100
Port Size (NPT)	1/4"
Drain & Sample Port (NPT)	1/4"
Maximum Pressure (psig)	1500
Internal Volume (cc)	
In Sample Chamber (Behind Membrane)	3
Weight of Housing (lbs)	1.5
Principle Dimensions: (inch)	
Center of Port to Back	N/A
Body Diameter	1.97
Body Depth	2.01
Space Required to Remove Cap	1.38
Maximum Temp. (300°F)	GVGMS100
Standard Viton O-Ring	
PTFE Membrane Code (1)	
**Specify: M1 (Low Flow) or M2 (High Flow)	MT.33.□G
Drawing	<u>GMS100</u>
For More Detail & Options	
PTFE Model	N/A
Max. Pressure: 100 PSIG, Maximum Temp: 250°F	

Notes: (1) Replace the "□" with the flow required. i.e. MT.33.M1G, MT.33.M2G

Technical Details

Our porous membranes are manufactured from pure PTFE, offering exceptional chemical inertness and extremely low absorption characteristics. Designed for reliability across a wide range of applications, these membranes are available in two standard grades to suit various flow and fluid requirements:

- ♦ **M1 (0.1 micron):** A low-flow membrane ideal for most liquid applications.
- ♦ **M2 (0.8 micron):** A high-flow variant recommended for higher surface tension liquids, enabling faster processing without compromising separation integrity.

Membrane Size	MT.33.M1G	MT.33.M2G
Membrane Type	Low Flow	High Flow
Material	PTFE	PTFE
Diameter (mm)	33	33
Thickness (µm)	152	152
Maximum Temperature (°F)	300	300
Recommended Flow Rate (LPM)	0.35	10
Membrane Micron Size	0.1	0.8

The flow rates referenced above are based on a 3 PSID (pounds per square inch differential) across the membrane and are provided for general reference only. While flow can be increased by raising the pressure differential, we do not recommend exceeding 5 PSID, as doing so may compromise membrane integrity.

Membrane Application Guidance

- ♦ **M1 Membrane (0.1 micron):** Ideal for separating most liquids from gas streams.
- ♦ **M2 Membrane (0.8 micron):** Optimized for separating water and other high surface tension liquids from gases.

For best performance and membrane longevity, ensure proper pre-filtration and avoid pressure surges that could stress the membrane structure.