



Combo Membrane Separators

PRODUCT FEATURES / BENEFITS

- ◆ 70 lpm (2.5 scfm) Flow Capacity
- ◆ Designed For Fast Installation and Hassle Free Maintenance
- ◆ 2000 PSIG Max. Pressure Rating on All SS Units
- ◆ Hydrophobic Membrane Bonded to O-Ring for Ease of Service
- ◆ Analyzer Protection Against Liquid & Submicron Particles
- ◆ Protection For Continuous Process Sampling

Model GMS170: Enhanced Serviceability and Performance

The GMS170 series of integral coalescing membrane separators delivers superior protection for online sampling analyzers. Designed with a unique all-in-one base (head) porting configuration, these units simplify service, minimize leak points, and maintain a compact footprint. Ideal for space-constrained applications. While the GMS170 series can be mounted horizontally, vertical installation is recommended for optimal performance.



Two models are available:

- **GMS170:** Optimized for installations with limited space.
- **GMS170-4791:** A slightly larger model featuring an upgraded microfiber coalescing filter for enhanced removal of excessive liquids and particulates. This integrated coalescing-membrane design eliminates the need for a separate coalescing filter, offering efficient, all-in-one protection.

Key Benefits:

- Protects analyzers from liquids and sub-micron particles
- Reduces system complexity with an integrated coalescing and membrane design
- Simplifies maintenance with quick-service porting and minimal leak points
- Compact and efficient – ideal for both standard and demanding applications

Stainless Steel Model	GMS170	GMS170-4791
Port Size (NPT)	1/4"	1/4"
Drain & Sample Port (NPT)	1/4"	1/4"
Maximum Pressure (psig)	2000	2000
Internal Volume (cc)		
Upstream (Downstream)	33.23 (1.53)	48 (2)
Weight of Housing (lbs)	1.5	2
Principle Dimensions: (inch)		
Body Diameter	2.12	2.46
Overall Length	3.23	4.70
Space Required to Coalescing Element	1.61	3.19
Maximum Temp. (300°F)		
Standard Viton O-Ring	GVGMS170	GVGMS170-4791
Coalescing Element		
PTFE Membrane Code (1)	22/32-27-50CS	25-64-50CS
**Specify: M1 (Low Flow) or M2 (High Flow)	MT.33.□G/170	MT.33.□G/4791
Drawing	<u>GMS170</u>	<u>GMS170-4791</u>
For More Detail & Options		

Notes: (1) Replace the "□" with the flow required. i.e. MT.33.M1G/50C, MT.33.M2G/50C

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/170	MT.33.M2G/170
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

Membrane Size	MT.33.M1G/4791	MT.33.M2G/4791
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.