



Technical Installation Sheet for Membrane Housings

Warning

A filter housing is a pressure vessel, it must never be used above its stated maximum allowable working pressure and must be used within its stated temperature range. Ensure that these items are used in well-designed piping systems with suitable indicators to warn users and servicing personnel of the presence of pressure and high temperatures, wherever possible use pressure-limiting or safety devices. Remember that the pressure rating is reduced at high temperatures. Consult United Filtration for guidance.

It is the responsibility of the user to ensure that the materials of construction of the filter housing, gasket and filter media are suitable for the intended application. During every servicing, a visual inspection must be made of the surfaces of the housing for signs of corrosion, erosion or general wear. The housing must be removed from service if any of these signs are evident as there are no corrosion allowances used in the design of these filters. It is recommended that these filters not be used on unstable fluids.

The following items have **NOT** been taken into account during the design of the filter housing:

- a. Static pressure and mass of contents
- b. Traffic, wind and earthquake loading
- c. Reaction forces and moments resulting from mounting
- d. Decomposition of unstable fluids
- e. External fire

Comprehensive Installation Guide for All Filter Housings

A membrane separator is a pressure vessel the system connections and accessory outlets must be leak tight. It is normally good practice to use a pipe sealant on the fittings prior to connecting to the membrane separator ports. This will allow disassembly at a later time, if required. Any sealant such as PTFE tape, paste or other compound may be used if compatible with the filtered media. The membrane separator cap is designed to be hand tighten until it bottoms out on the membrane body, 30 FT-LB (Foot-Pound) of torque will suffice in sealing this component. The torque value of the fittings will depend upon the quality of the fittings and the type of sealant used but should typically be between 30 FT-LB (Foot-Pound) and 55 FT-LB (Foot-Pound). Ensure the fittings get inspected during servicing and re-tightened if necessary. **It is not recommended that caps and bodies from different filter assemblies be swapped.**

Wherever possible, installation of filter housings should be made using an appropriate mounting bracket to avoid excessive loads on the piping. The flow direction of the membrane housings is indicated by the engraving on the Head: IN, OUT and "DR" for Drain

Changing the Filter Element and Membrane

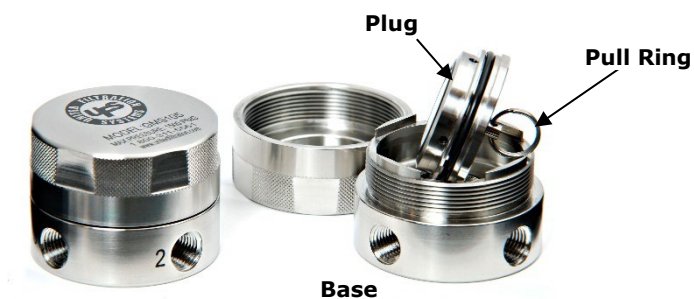
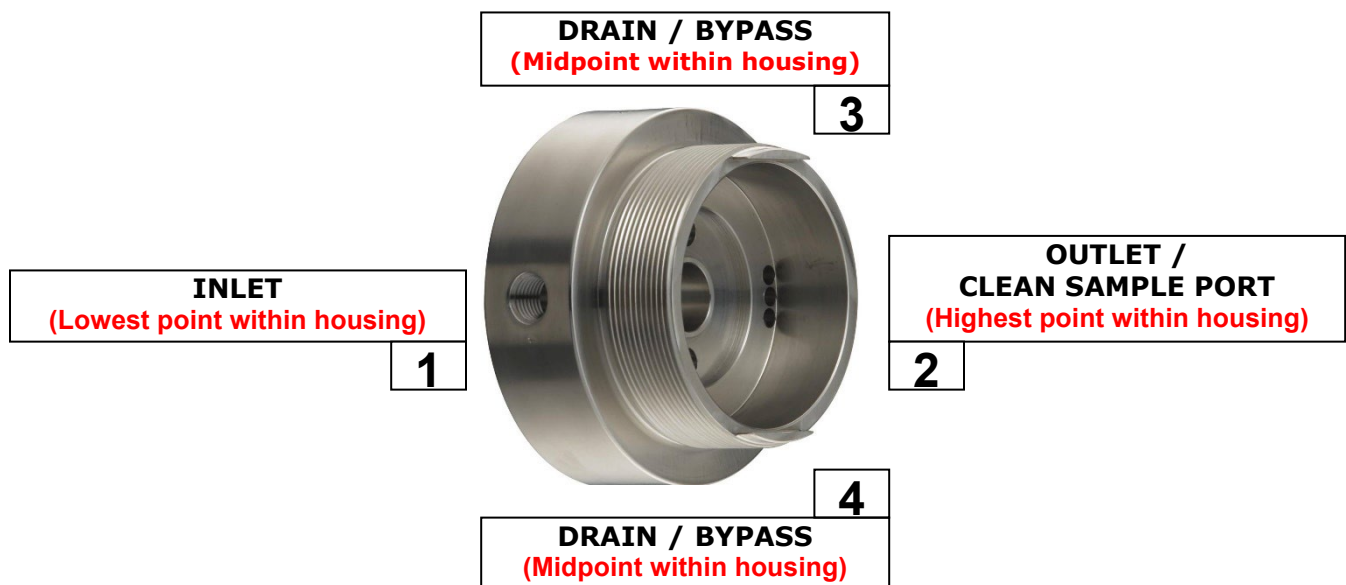
This design of housing allows the filter element and membrane to be changed without the need to disassemble any of the process connections. Ensure there is no pressure in the housing. Unscrew the Filter Bowl, unscrew the Element Retainer and remove filter element.

All GMS105 and GMS205 Membranes

- Viton O-Rings (Standard)
- 1500 PSIG
- 316 Stainless Steel
- Four Port Design
- Inlet Port (Stamped 1)
- Outlet / Clean Sample (Stamped 2)
- Drain / Bypass (Stamped 3 and 4)
- Mounting Bracket Included

Comes Complete with Low or High Flow Membrane Installed

Notes: GMS105-1/4" accepts MT.33.M1HG (Low Flow) or MT.33.M2HG (High Flow)
GMS205-1/4" accepts MT.61.M1HG (Low Flow) or MT.61.M2HG (High Flow)



New "Pull Ring" to easily remove the plug & service the membrane.

All GMS122 and GMS132 Membranes

- Viton O-Rings (Standard)
- 1500 PSIG
- 316 Stainless Steel
- Four Port Design
- Inlet Port (Stamped 1)
- Outlet / Clean Sample (Top)
- Bypass (180° From Inlet Port)
- Drain (Bottom Of Bowl)

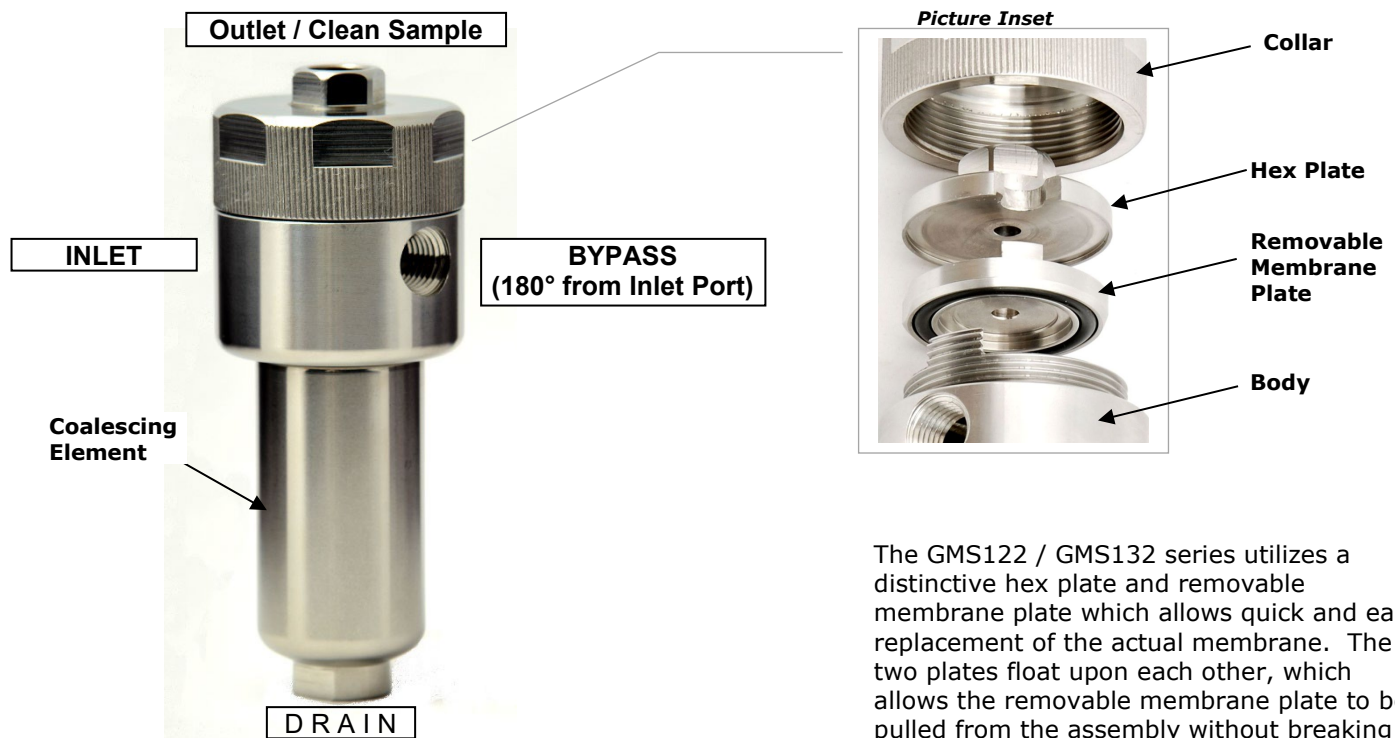
Comes Complete with Low or High Flow Membrane Installed

Model GMS122 Comes with a 12-57-50C Coalescing Pre-filter Installed

Model GMS132 Comes with a 25-64-50C Coalescing Pre-filter Installed

Notes: GMS122 accepts MT.33.M1HG (Low Flow) or MT.33.M2HG (High Flow)

GMS132 accepts MT.61.M1HG (Low Flow) or MT.61.M2HG (High Flow)



The GMS122 / GMS132 series utilizes the traditional T-type design, with a coalescing pre-filter built into the assembly, and the membrane mounted on top with a vertical exit point, which assists in keeping it clean.

The GMS122 / GMS132 series utilizes a distinctive hex plate and removable membrane plate which allows quick and easy replacement of the actual membrane. The two plates float upon each other, which allows the removable membrane plate to be pulled from the assembly without breaking the sample line connection. Only the collar needs to be loosened and removed for membrane service.

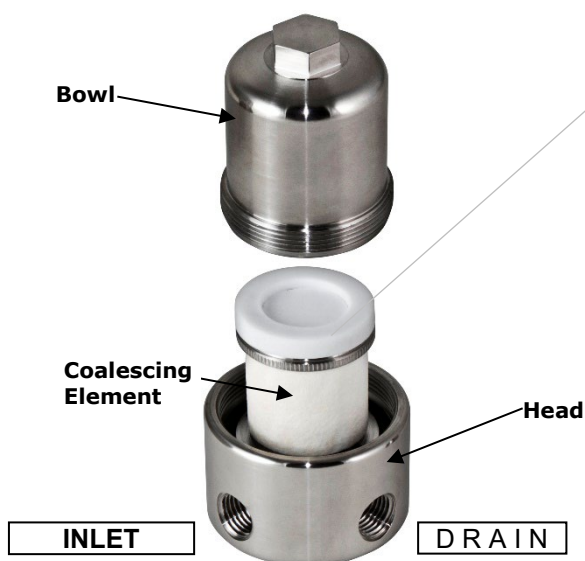
Inverted GMS170 Membrane

- Viton O-Rings (Standard)
- 2000 PSIG
- 316 Stainless Steel
- Four Port Design
- Inlet Port (Stamped IN)
- Outlet / Clean Sample (Stamped OUT)
- Bypass / Drain (Stamped DR & DR)
- Includes 2pc 1/4" SS Drain Plugs

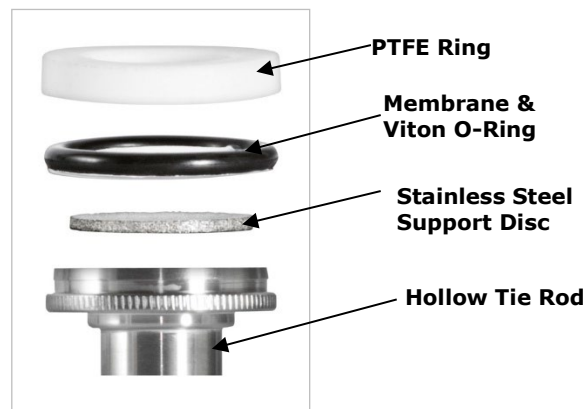
Comes Complete with Low or High Flow Membrane Installed

Model GMS170 Comes with a 22/32-27-50CS Coalescing Pre-filter Installed

Notes: GMS170 accepts MT.33.M1HG (Low Flow) or MT.33.M2HG (High Flow)



Picture Inset



To service the GMS170, make sure the pressure/flow is shut-off and the unit is vented to eliminate any pressure before servicing. To change a membrane, simply undo the knurled hollow tie rod, remove the coalescing element, gently pop off the PTFE retaining ring, pull the O-ring off install a new membrane. Make sure to re-use the support disc. The PTFE ring can be used multiple times and merely needs to be squeezed/bent for it to snap back into place.

No connections need to be broken for service. The GMS170 is designed to sit vertical with the bowl pointing down.