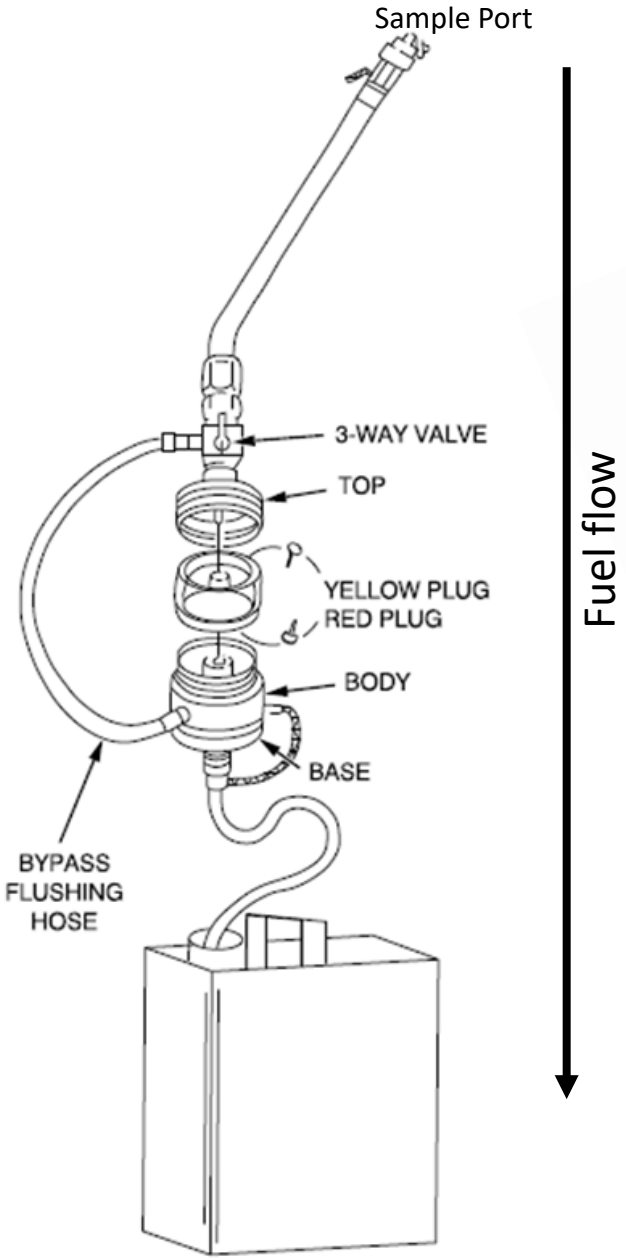
Only the matched weight monitors (MWM) (yellow and red plugs) can be used for filter effectiveness testing. The MWM have two membranes along with the support pad in them.

Note: The blue and red monitors only have a single membrane and will not work for filter effectiveness testing.

Below is a graphical representation of how to properly insert the MWM into the sampling device to ensure the fuel flows through the two membranes properly.



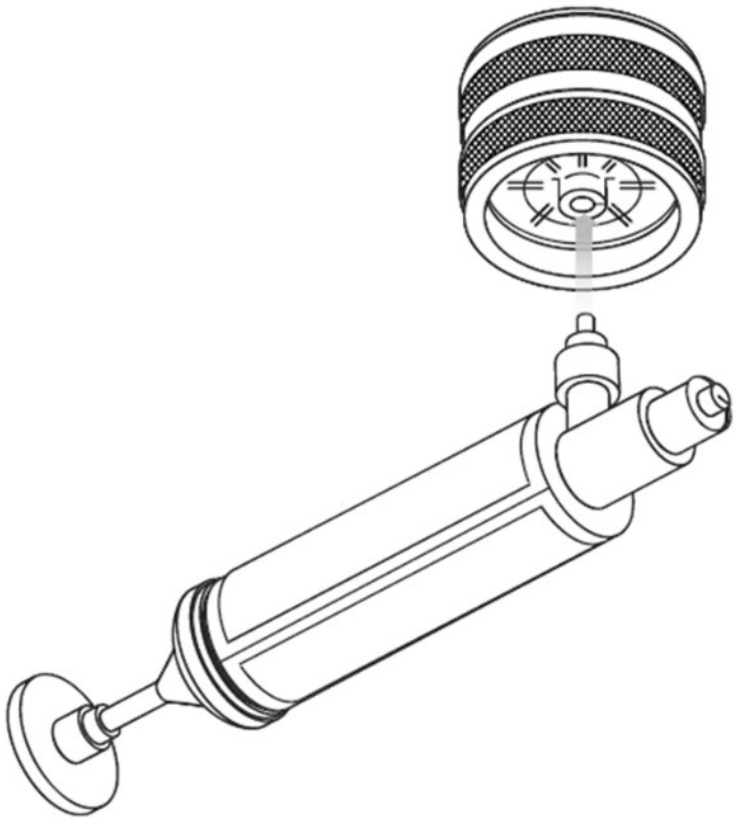
Place the MWM into the sampler base with the outlet side (red plug side, also noted as the “spoke” side, “wagon wheel” side, or “spider web” side) facing down.

Note: If the MWM is upside down, the fuel flow can cause puncture/rupture/tears and the sample test results would be invalid because the fuel didn’t pass through the membranes.

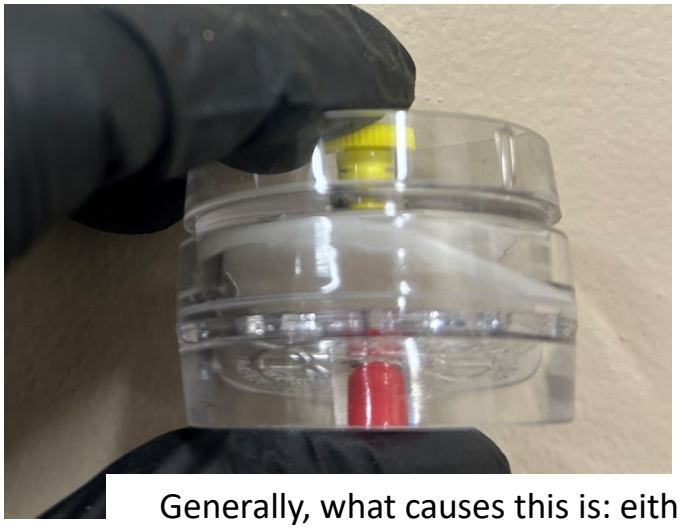
Once sampling is complete, use the vacuum syringe to remove any fuel remaining inside of the monitor by connecting the syringe to the outlet (“spoke” side) of the monitor and pumping two to three times and pointing the outlet of the syringe into a waste container.

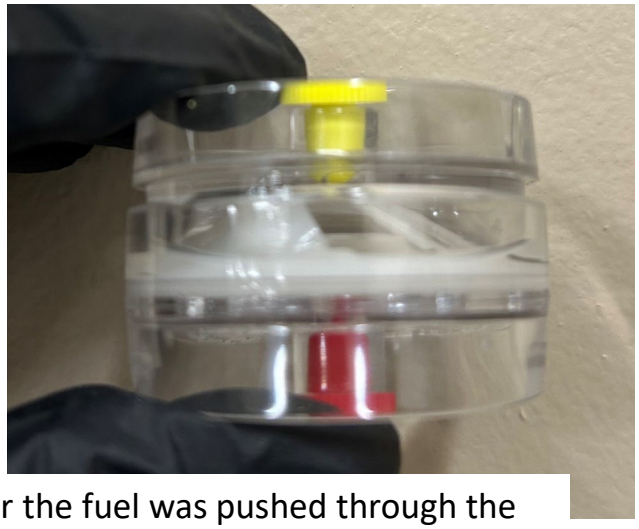
Note: Do not use the vacuum syringe on the inlet side as it will cause puncture/rupture/tears of the membranes inside the MWM. If there are any puncture/rupture/tears, the MWM cannot be tested.

Replace the yellow and red protective plugs and wipe the outside dry with a clean, lint-free cloth. Do not open it.

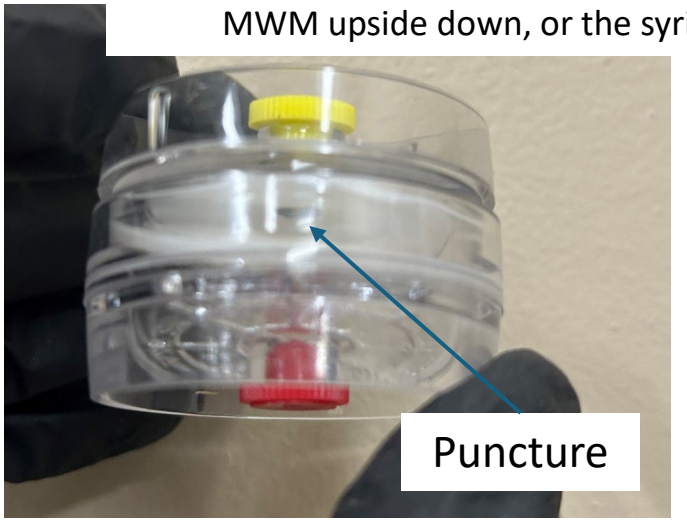


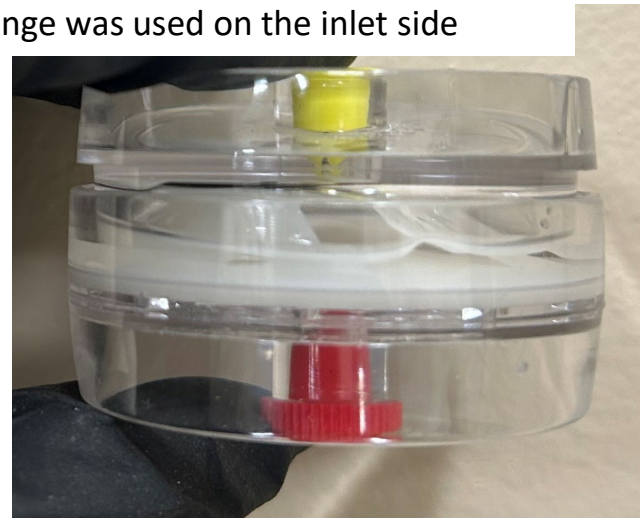
Rupture/Puncture/Torn Examples





Generally, what causes this is: either the fuel was pushed through the MWM upside down, or the syringe was used on the inlet side





Note: if your MWM looks like the above, do not send it to the lab as it won't be tested. Resample following the procedures in FTL 22-01.

What right looks like