Collecting Mud Gas Samples with the IsoSampler™ MFC and IsoTubes®

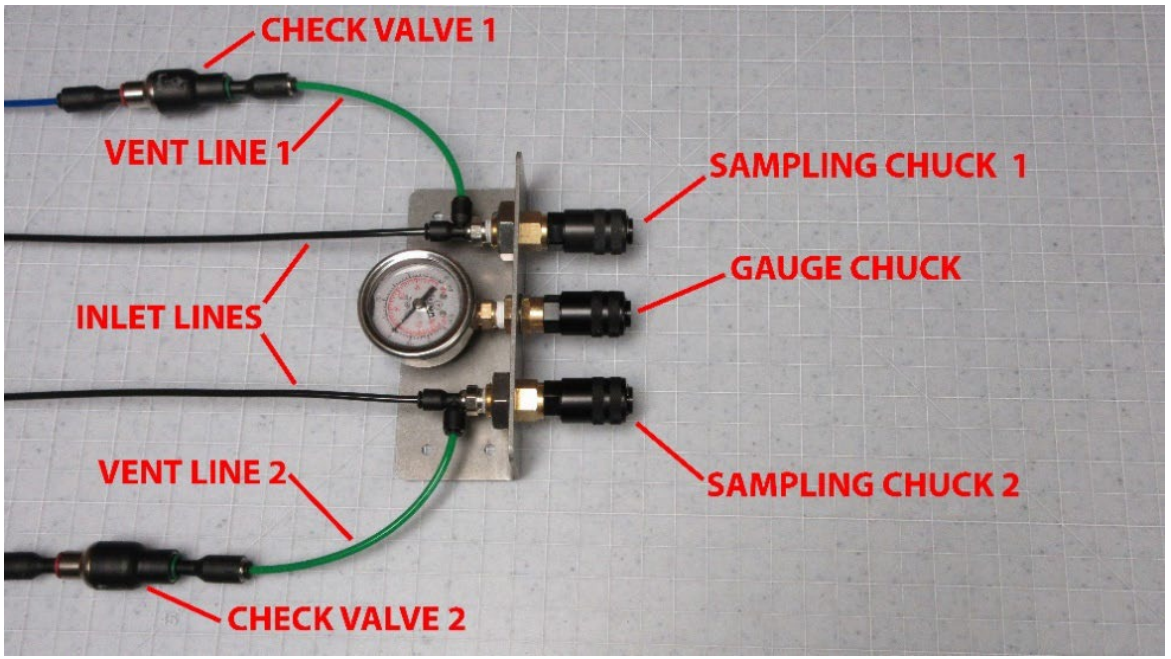
The IsoSampler MFC is designed for use with a pressurized gas source from 10-25 psig.

IsoTubes are NOT suitable for gases containing hydrogen sulfide (H_2S, sour gas).

Section 1: Sampling Procedure

Set Up the IsoSampler MFC

1. Connect the inlet lines to the inlet ports, and connect the vent lines to the check valves.



ISOTECH
a Stratum Reservoir brand

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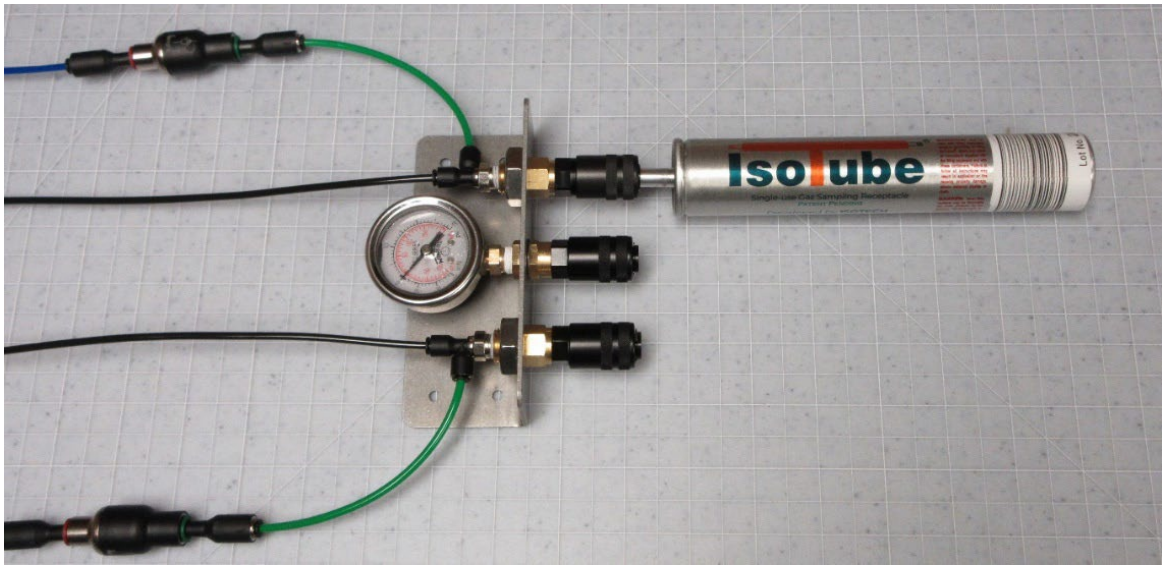
Check an Evacuated IsoTube

2. Remove a new IsoTube from the plastic film. Connect the IsoTube to the gauge chuck by pressing the valve stem into the chuck until it clicks into place as shown.
   - The vacuum reading on a new IsoTube should be between -30 and -20 inHg. If the reading is not at least -20 inHg of vacuum, do not use the IsoTube. Open another IsoTube and repeat.
   - After confirming the vacuum level, remove the IsoTube from the gauge chuck by pulling back the outer sleeve of the chuck until the tube is released.

Collect a Sample

3. Connect the IsoTube to a sampling chuck by pressing the valve stem into the chuck until it clicks into place.
   - Allow the IsoTube to fill with sample gas for at least 10 seconds.
   - When sampling is complete, remove the IsoTube from the sampling chuck by pulling back the outer sleeve of the chuck until the tube is released.

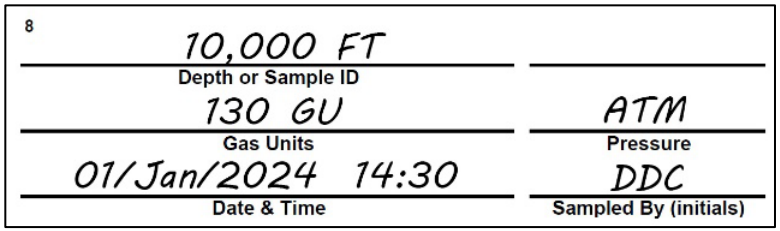


Check the Sample Pressure

4. Connect the filled IsoTube back to the pressure checker.
   - Sample pressure should be approximately equal to the line pressure, though **it is most important that the pressure is not negative.**
   - If the IsoTube is still evacuated, repeat the collection process with a new evacuated IsoTube.
   - If multiple samples consecutively fail to generate pressure, troubleshooting may be required.
   - When finished, remove the IsoTube from the gauge chuck.

Label and Package Collected Samples

2. Replace the end cap on the IsoTube valve and fill out one of the included labels with the sample information using a ball point pen (press hard, as three copies are made).
   - Attach the label to the IsoTube and return the IsoTube to the shipping carton.
   - When an entire sheet of sample tags has been used, one of the copies should be placed in the box with the IsoTubes and the other can be retained for your records.
   - Shipping instructions for return shipping to the laboratory are included with every box of IsoTubes and can also be found at isotechlabs.com.



Section 2: Maintenance

We recommend changing the o-rings every 400-500 samples.

Materials needed: Replacement o-rings, open-ended 9/16” wrenches (2)

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Replace the Gauge Chuck O-Rings

1. Use two 9/16” wrenches to disassemble the gauge chuck.
   - Separate the brass chuck body from the chuck sleeve assembly.

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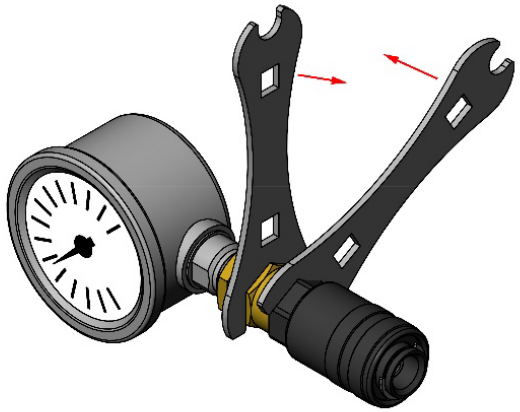
<td>  </td>
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2. Remove the spring and tube from the sleeve assembly.
3. Remove the o-rings from the tube and discard.
4. Install new o-rings from the spare parts kit.
5. Insert the tube and spring back into the sleeve assembly. **Make sure the tube is oriented correctly as pictured.**
6. Re-assemble the chuck and torque just past finger-tight with the wrenches.

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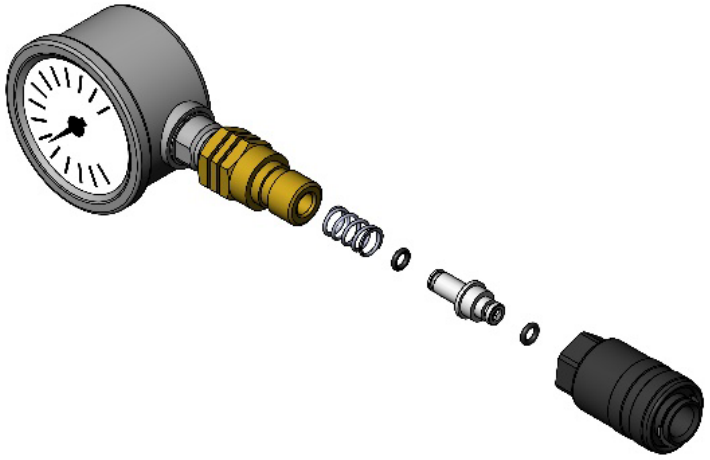
<td>  </td>
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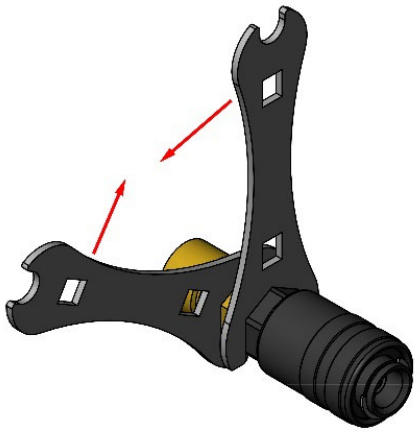
Replace the Sample Chuck O-Rings

1. Use two 9/16” wrenches to disassemble the sample chuck.
   - Separate the brass chuck body from the chuck sleeve assembly.



2. Remove the spring, pin, and tube from the sleeve assembly.
3. Remove the o-rings from the tube and discard.
4. Install new o-rings from the spare parts kit.
5. Insert the tube, pin, and spring back into the sleeve assembly. **Make sure the tube and pin are oriented correctly as pictured (small end of the pin goes toward the sleeve assembly)**
6. Re-assemble the chuck and torque just past finger-tight with the wrenches.