

# Collection of Gas Samples With Double-Ended Gas Cylinders

1. Check the pressure on the well or pipeline to be sampled with a reliable pressure gauge. If the pressure exceeds 1800 psi, **STOP**, a pressure reduction regulator **must** be used to collect the sample as the **maximum rated pressure** for these gas cylinders is **1800 psi**.
2. Remove the end caps from both ends of a cylinder and clean off the threads. Using the Teflon tape provided, place 2 to 4 wraps of tape on the threads on one of the valves.
3. Locate a valve or gauge port having a ¼" NPT female thread suitable for collecting the sample. Crack the control valve on the sampling port slightly so that you can hear a small amount of gas escaping.
4. With the gas still flowing slightly (to purge the air from the valve) screw the taped end of the gas cylinder valve into the sampling port as shown on the drawing and snug it down with a wrench. The control valve can now be fully opened.
5. Carefully open the inlet valve on the cylinder and allow 5 or 10 seconds for the cylinder to become pressurized up to the well pressure.
6. Close the cylinder inlet valve and then open the outlet valve to vent the gas in the cylinder. Leave the outlet valve open just until you can no longer hear gas escaping, and then close it.
7. Although these cylinders are fully evacuated before sending them to the field, it is advisable to repeat steps 5 and 6 once or twice to insure that all air has been flushed from the connecting line.
8. When the cylinder has been adequately flushed, check to see that the cylinder outlet valve is firmly closed and then open the inlet valve one more time. Allow 20 or 30 seconds for the cylinder to become pressurized and then close the inlet valve. **Do not use wrenches or pliers to close the valves. They have soft seats and excessive force can ruin them.**
9. Close the control valve on the well or pipeline and remove the cylinder. Be sure to use an adjustable or open-end wrench on the valve body; do not use a pipe wrench on the cylinder as this could loosen the valve from the cylinder. Clean the used tape off of the thread.
10. Wrap the threads on both ends of the cylinder with Teflon tape and replace the end caps. Use two wrenches to snug the end caps. This is important to insure that the sample will not be lost if one of the valves should leak or accidentally open.
11. Record the well name or number, the sample pressure, and the sampling date on the cylinder tag and return the cylinder to the shipping carton. Ship the samples to Isotech as explained in the enclosed shipping instructions.

