

# COLLECTING H<sub>2</sub>S WITH AN ISOTrap®

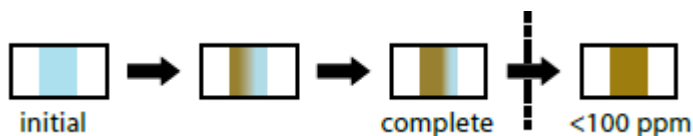
## FOR SULFUR ISOTOPIC ANALYSIS



The IsoTrap Sampler includes a pressure regulator that is rated for a maximum of 3000 psi (200 bar). If pressures higher than this could be encountered, additional pressure control is required.

Hydrogen sulfide (H<sub>2</sub>S) is a highly toxic gas even at low concentrations. All necessary precautions associated with the handling of samples containing H<sub>2</sub>S must be taken prior to using this product.

1. Locate a suitable sampling port that is equipped with a ¼" female NPT connection and a control valve to turn the gas on and off. The sampling port should supply a dry gas stream.
2. Make sure that the threads on the IsoTrap Sampler are clean, and then wrap 2 or 3 layers of Teflon® tape clockwise onto the male threads of the adapter.
3. Screw the IsoTrap Sampler into the port and tighten using a wrench on the body of the filter.
4. Attach a vent hose to the outlet of the IsoTrap Sampler and divert downwind, safely away from the sampling point.
5. Insert the GOLD valve of the IsoTrap into the GOLD chuck, and push against the spring until there is enough clearance to insert the RED valve into the RED chuck. **The IsoTrap MUST be installed in this configuration to collect an adequate sample.**
6. Turn the regulator adjustment knob completely counterclockwise (out) so that no gas will be allowed to flow through, and then slowly open the control valve on the sampling port.
7. Slowly increase the gas delivery pressure by rotating the regulator knob clockwise (in). The delivery pressure will be indicated on the gauge; the maximum pressure is 40 psig. Sample should now be flowing through the IsoTrap.
8. Continue to flow sample gas through the IsoTrap until the indicator has noticeably changed color from blue to brown-black. For low concentrations of H<sub>2</sub>S below 100 ppm, it is best to flow gas through the IsoTrap until the indicator has fully changed from blue to brown.
9. When sampling is complete, turn the regulator knob completely counterclockwise again to stop the flow, and then shut the control valve on the sampling port.
10. Remove the IsoTrap from the manifold.
11. Label the IsoTrap with all relevant sample information, and also record this information on a chain-of-custody form (a printable and fillable version can be found at [isotechlabs.com](http://isotechlabs.com)).
12. Ship samples, along with the chain-of-custody form, to Isotech at the address below. The sampled IsoTraps are not HAZMAT and have no special shipping requirements.



H <sub>2</sub> S Concentration	Volume Required
5 ppm	500 L
50 ppm	50 L
500 ppm	5 L
5000 ppm	0.5 L
5%	50 mL