

Model 330 & 331  
Hydrogen Sulfide Analyzers

# Cleaning Instructions

Last Updated: November 28, 2011  
Revision: 1



**CAUTION: Do not use solvents, brake cleaner, soaps or detergents.**

During startup or plant upset situations, the hydrogen sulfide analyzer may become contaminated with amine or hydrogen sulfide scavenger solution. This may cause the analyzer to read low (this can be determined at calibration). If the analyzer reads low, it will require incremental increases in the gain to maintain calibration. Please refer to factory calibration sheet for factory set gain factor. The scavenger solution is water soluble and therefore is relatively easy to clean.

Note 1: Leave the sweep valve on the sample filter slightly open at all times. This will decrease the likelihood of contamination.

Note 2: The flowmeter should be inspected for liquids and to ensure the float moves freely.

## Material List

*Cleaning kit part number: 330900*

- Alconox Laboratory cleaner or equivalent residue free cleaning agent
  - **Do not use solvents, detergents or soaps!**
- Fresh water
- 100% Isopropyl Alcohol
  - **Do not use rubbing alcohol!**
  - **Do not use brake cleaner product!**
- Large bucket to mix cleaning solution
- Rinse bottle

## Procedure

Step 1. Mix a 1% (2-1/2 tbsp per gallon) of Alconox in warm water

**Step 2. Sample line tubing**

- a. Shut off flow at the sample point prior to sample conditioning system
- b. Flush the sample line and components with cleaning solution
- c. Rinse with fresh water
- d. Flush with isopropyl alcohol
- e. Dry with clean, dry instrument air or gas

**Step 3. Sample conditioning system**



**CAUTION: Disassembly of the pressure regulator and solenoids in the field is not advised. Consult the factory if the regulator or solenoid appears contaminated.**

- a. Remove filter elements from filter housings and discard
- b. Remove all sample conditioning system components and soak in cleaning solution
- c. Ensure valves are fully open when cleaning
- d. Flush sample components with fresh water
- e. Rinse with isopropyl alcohol
- f. Blow dry with clean compressed air or fuel gas
- g. If the any clear (Tygon) tubing appears discolored, replace the tubing
- h. Tubing on humidifier should be replaced if it appears contaminated

Step 4. Re-assemble Stainless Steel Tubing to analyzer according to analyzer drawing (refer to back of manual)

Step 5. Once sample conditioning system has been re-assembled, apply calibration gas to the analyzer, refer to section E.2.

Step 6. Adjust gain to indicate value from calibration certificate

Step 7. Gains for streams should be  $\pm 2.00$  from factory cal sheet or last calibration.

- If the reading is not with in range, then the analyzer sample conditioning system may need further cleaning. Please consult factory.



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For further information, or a copy of our most recent cleaning manual, please visit us at [www.envent-eng.com](http://www.envent-eng.com). Envent Engineering Ltd. reserves the right to change product design and specifications at any time without prior notice.

All products carry a one year limited warranty from the date of start-up or 18 months from date of shipment, whichever occurs first, F.O.B. the factory, against defective parts or workmanship.