

# Operating Instructions

## Large Bag Sampling Chamber



Zefon bag sampling vacuum chambers are sealed boxes designed to allow sampling bags to be directly filled without the sample passing through the air sampling pump.

### Features:

- Fills bag without sample air passing through the pump.
- Durable, heavy duty design.
- Large viewing window allows monitoring of the bag filling process.
- Purge port makes purging and flushing bags easy.
- Easy to use quick-disconnect connections.



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## PRODUCT SPECIFICATIONS

Bag Capacity:	0.5 to 5.0 Liter
Port connections:	Quick Disconnect
Materials:	
Inlet Tubing:	Teflon PTFE
Inlet Port Connection:	SST fitting
Purge Port Connection:	SST fitting
Vacuum Source Port:	Polypropylene fitting with PVC tubing
Chamber:	Polypropylene
Viewing Window:	Polycarbonate
Interior Dimensions:	18.06" x 12.89" x 6.72" (45.9 x 32.7 x 17.1 cm)
Weight:	8.3 lbs

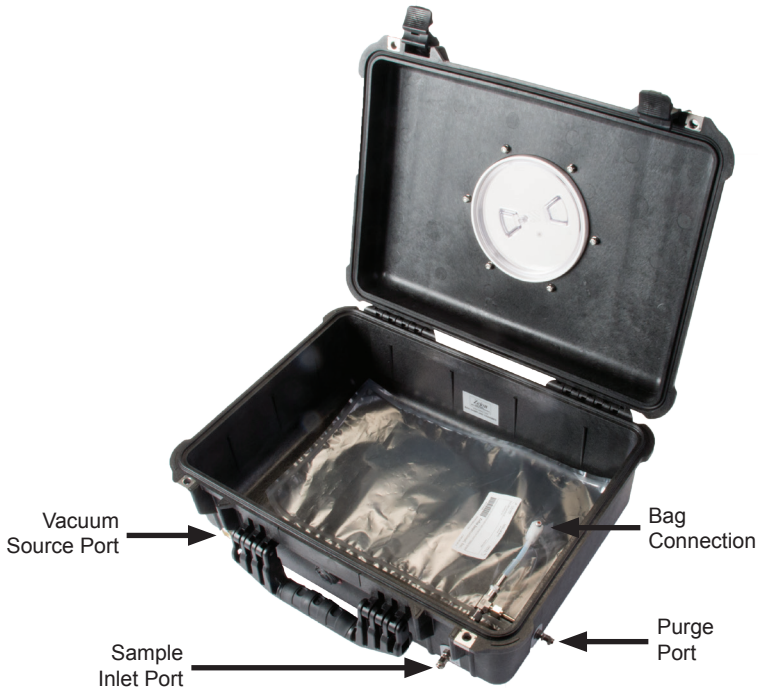
## INCLUDED ACCESSORIES

- Quick disconnect with ¼" ID tubing for vacuum source/purge connection.
- Quick disconnect with ¼" OD Teflon PTFE tubing for sample inlet.

## ADDITIONAL ITEMS REQUIRED

- An air sampling pump capable of performing at the desired flow rate.
- A primary flow calibrator.
- Tedlar Bag, sized according to the sampling standard being followed.

## SAMPLING CHAMBER OVERVIEW



## TAKING A SAMPLE

1. Prepare the air sampling pump by setting the flow rate as desired. If sampling in accordance with an analytical method, refer to that method for the correct flow rate to use. Note: Calibration of your pump using a primary flow calibrator is required when sampling according to a method.
2. Set up the bag sampling chamber near the location to be sampled.
3. Connect the supplied ¼" ID vacuum source tubing to the sampling pump and then connect the other end to the quick disconnect port of the sampling chamber.
4. Open the lid of the chamber by unlocking the latches and opening the lid. Do not attempt to open the chamber by removing or opening the viewing window.
5. Place sampling bag in chamber and connect the tubing to the bag port.
6. Open the valve on the sampling bag.
7. Close the sampling chamber and secure the latches down to create an air-tight fit.
8. Connect the supplied quick disconnect with PTFE sample inlet tubing.
9. Turn on the air sampling pump.
  - If sampling a pre-determined amount of time, shut off pump after the desired amount of time has elapsed.
  - If simply filling the bag, observe the filling process through the viewing window. Stop when the bag is approximately 80% full.
10. When sampling is complete, immediately disconnect the sample inlet quick disconnect to prevent sample loss.
11. Open the chamber lid, close the valve on the sampling bag and remove.  
Note: If chamber is hard to open, disconnect the vacuum source tubing from the air sampling pump to relieve any remaining vacuum.

## PURGING THE SAMPLE INLET TUBING

1. Connect the sample inlet tubing.
2. Connect the other end of the sample inlet tubing to a source of purified air or nitrogen.
3. Close the chamber and secure latches shut.
4. Connect an air sampling pump and run for 30 seconds.
5. Turn off pump and open chamber. The inlet tubing is now purged.

## FLUSHING A BAG

1. To flush a bag, connect the supplied ¼" ID vacuum source tubing to the sampling pump and then connect the other end to the PURGE port of the sampling chamber.
2. Unlock the chamber latches and open the lid.
3. Place sampling bag in chamber and connect the internal chamber tubing to the bag port and open the valve on the sampling bag.
4. Close the sampling chamber and secure the latches down to create an air-tight fit.
5. Turn on the air sampling pump to evacuate any air currently in the sample bag. Observe the bag through the viewing window.
6. Stop the pump and disconnect the tubing from the PURGE port when the bag is completely flat.
7. Connect the sample inlet tubing to the SAMPLE INLET port.
8. Connect the other end of the sample inlet tubing to a source of purified air or nitrogen. (Zefon recommends outfitting the source of purified air or nitrogen with a flow regulator, preferably one that reduces the pressure to 1 PSIG or less).
9. Slowly open the valve on the purified source and observe the bag being filled through the sample chamber viewing window. Shut the valve when the bag is approximately 80% full. Be careful not to overfill as the bag may rupture.
10. When full, immediately disconnect the tubing from the SAMPLE INLET port.
11. Re-connect the sampling pump to the PURGE port.
12. Repeat steps 6 and 7 to PURGE all air from the bag.
13. This process may be repeated several times, if desired, to ensure that all trace contaminants have been removed from the sample bag.

## WARRANTY

Zefon International warrants this product for a period of one (1) year from date of purchase. Zefon will without charge repair or replace, at its option, the defective product or component parts upon delivery to its repair facility.

This limited warranty covers defects in workmanship and material. It does not apply to:

1. Product damage by accident or weather related circumstances.
2. Misuse or abuse of product as a result of unauthorized repairs or alterations.
3. Lack of proper care and maintenance.
4. Failure to follow instructions.
5. Items that need to be replaced as a result of normal use (e.g. inlet/source tubing, o-rings).

If it should become necessary to return the product for service, please call Zefon at +1 (352)-854-8080 for a return authorization number and return instructions. The sender is responsible for shipping charges, freight, insurance and proper packaging to prevent damage in transit. A return authorization number must be issued prior to shipment and must be marked on your shipment.

## DISCLAIMER

Zefon shall not be liable for direct, indirect, consequential, incidental or other damages resulting from the sale or use of any goods including lack of use due to equipment failure. Zefon's total liability shall be limited to repair or replacement of the product.

Zefon assumes no responsibility whatsoever to any party whatsoever for any property damage, personal injury or death received by or resulting from, in whole or in part, the improper use or storage of this product by the user, person, firm, entity, corporation or party not adhering to the instructions and warnings in this manual.

## AVAILABLE PARTS AND ACCESSORIES

<b>Description</b>	<b>Product #</b>
Tedlar Bag, 3.0 Liter, with PP fitting	EG-PP-3
Tedlar Bag, 3.0 Liter, with SS fitting	EG-SS-3
Tedlar Bag, 5.0 Liter, with PP fitting	EG-PP-5
Tedlar Bag, 5.0 Liter, with SS fitting	EG-SS-5
Sample Inlet tubing and Quick Disconnect, SST	ZA0347
Vacuum Source tubing and Quick Disconnect	ZA0341
PTFE Tubing, 10'	ZA0345
PTFE Tubing, 50'	ZA0346



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