



Operating Instructions

863 Valley View Road, Eighty Four PA 15330 USA
skctech@skcinc.com

VAC-U-GO Sampling Pump **Catalog No. 228-9605 (120V, 60 Hz)** **228-9605B (240V, 50 Hz)**

The VAC-U-GO non-compensating vacuum pump is a rotary vane-type pump that provides flows up to 30 L/min and maintains sonic flow when used with a critical orifice. AC-powered and portable, the VAC-U-GO Sampling Pump can be used for a variety of ambient and indoor air sampling applications including asbestos, bioaerosol, stack, VOC, and fenceline monitoring. It is ideal for sampling bioaerosols using the SKC BioSampler or the AGI-30 Impinger.

The line-operated VAC-U-GO Sampling pump has a permanently lubricated motor that is mounted in a housing with a vacuum pressure gauge to indicate sonic flow and a throttling valve to adjust flow. Both models are supplied with an extension rod for mounting media and a power cord. Critical orifices in flow rates ranging from 2 to 12 L/min are available as accessories. No critical orifice is needed if using the VAC-U-GO Sampler with the SKC BioSampler.

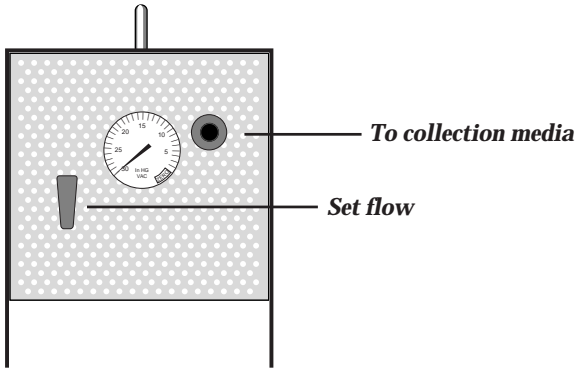
Performance Profile

- Flow range:**..... Free air flow up to 30 L/min
Sonic flow 5 to 13 L/min dependent on critical orifice
- Accuracy:** $\pm 5\%$ of specified flow rate with orifice at room temperature and no sample medium in place.
- Motor:** Permanently lubricated
- Power:** 120 V, AC, 60 Hz (Model 228-9605)
240 V, AC, 50 Hz (Model 228-9605B)
- Size:** 5.5 x 10.5 x 6.5 inches (13.9 x 26.7 x 16.5 cm)
- Weight:** 12 lbs (5.4 kg)

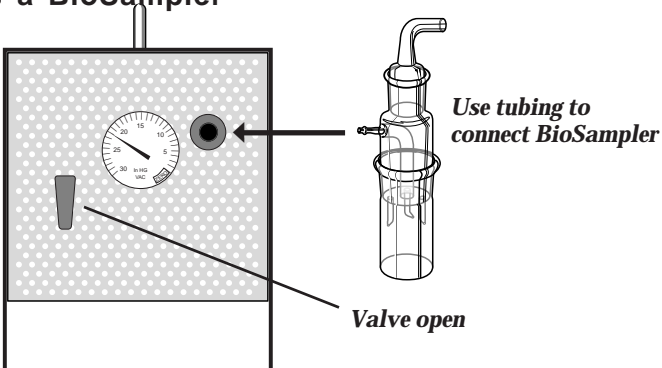
Three Modes of Operation

Caution: Use only a three-wire grounded cable.

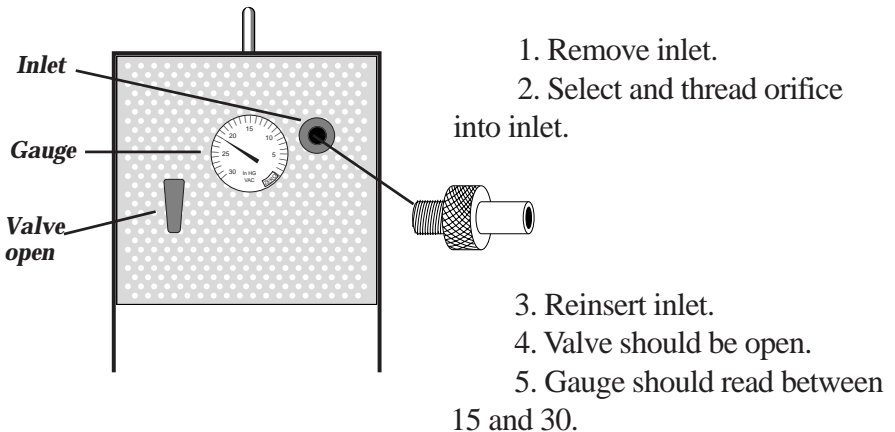
1. As a Vacuum Sampling Pump in Non-compensating Mode



2. As a BioSampler*



3. As a Sonic Sampler (*Orifice Accessory Required*)*



***VAC-U-GO Sampler Notes**

A. About Sonic Flow

Sonic flow is attained when a vacuum pump pulls air through an orifice to create a condition where the downstream pressure is 52% of the upstream pressure. At this point, air velocity through the orifice has reached the speed of sound and cannot increase, therefore, the orifice becomes "critical." The fixed air velocity at the critical orifice also limits the airflow so that the condition remains constant regardless of pressure variations in the system. Airflow will remain constant at vacuum levels between 15-30 inches Hg.

B. Sampling with the SKC BioSampler

The BioSampler has built-in critical orifices so no other orifice is needed.

C. Sampler Limitations

This vacuum (rotary vane-type) sampler is non-compensating and, therefore, unsuitable for compliance sampling in non-sonic mode. Sonic mode yields a more constant flow when back pressure across the media increases.

Vacuum (rotary vane-type) pumps produce a high-pitched whine when running. For low noise, compliance (non-sonic flow) applications such as indoor air studies, use a compensating high-volume AirChek® HV30 (Cat. No. 228-030), or Hi-Lite 30 (Cat. No. 228-031) pump.

Accessories

Description	Catalog No.
Orifices	
Brass, supplied complete with integral hose end connection and O-ring.	
2 L/min	228-100
5 L/min	228-101
8 L/min	228-102
10 L/min	228-103
12 L/min	228-104
Set of all 5 sizes	228-110
<i>Note: Orifice not needed when sampling with the SKC BioSampler</i>	
Rotameter	
Measures from 4 to 40 L/min on a 4" scale at 3% accuracy (full scale).	320-440

SKC INC. LIMITED ONE YEAR WARRANTY

1. SKC warrants that its instruments provided for industrial hygiene, environmental, gas analysis, and safety and health applications are free from defects in workmanship and materials under normal and proper use in accordance with operating instructions provided with said instruments. The term of this warranty begins on the date the instrument is delivered to the buyer and continues for a period of one (1) year.

This warranty does not cover claims due to abuse, misuse, neglect, alteration, accident, or use in application for which the instrument was neither designed nor approved by SKC Inc. This warranty does not cover the buyer's failure to provide for normal maintenance, or improper selection or misapplication. This warranty shall further be void if changes or adjustments to the instrument are made by other than an employee of the seller, or if the operating instructions furnished at the time of installation are not complied with.

2. SKC Inc. hereby disclaims all warranties either expressed or implied, including any implied warranties of merchantability or fitness for a particular purpose, and neither assumes nor authorizes any other person to assume for it any liability in connection with the sale of these instruments. No description of the goods being sold has been made a part of the basis of the bargain or has created or amounted to an express warranty that the goods will conform to any such description. Buyer shall not be entitled to recover from SKC Inc. any consequential damages, damages to property, damages for loss of use, loss of time, loss of profits, loss of income, or other incidental damages. Nor shall buyer be entitled to recover from SKC Inc. any consequential damages resulting from defect of the instrument including, but not limited to, any recovery under section 402A of the Restatement, Second of Torts.

3. This warranty extends only to the original purchaser of the warranted instrument during the term of the warranty. The buyer may be required to present proof of purchase in the form of a paid receipt for the instrument.

4. This warranty covers the instrument purchased and each of its component parts.

5. In the event of a defect, malfunction, or other failure of the instrument not caused by any misuse or damage to the instrument while in possession of the buyer, SKC Inc. will remedy the failure or defect without charge to the buyer. The remedy will consist of service or replacement of the instrument. SKC Inc. may elect refund of the purchase price if unable to provide replacement and repair is not commercially practicable.

6. (a) To obtain performance of any obligation under this warranty, the buyer shall return the instrument, freight prepaid, to SKC Inc., at the following address:

SKC Inc., National Service Center
863 Valley View Road
Eighty Four, PA 15330 USA

(b) To obtain return authorization information or for further information on the warranty performance you may telephone 724-941-9701 at the above address. See Service Policy section in operating manual (if applicable).

7. This warranty shall be construed under the laws of the Commonwealth of Pennsylvania which shall be deemed to be the situs of the contract for purchase of SKC Inc. instruments.

8. No other warranty is given by SKC Inc. in conjunction with this sale.

Form #3755 Rev 0207

Notice: This operating instruction may not address all safety concerns (if any) associated with this product and its use. The user is responsible for determining and following the appropriate safety and health practices and regulatory limitations (if any) before using the product. The information contained in this document should not be construed as legal advice, opinion, or as a final authority on legal or regulatory procedures.

Form 3772 Rev 0303