

## Pocket Pump

### Programmable Low Flow Sampler

- Advanced Technology
- Smart-charging battery system
- Programmable start/stop times
- No tools required
- PC compatible with Datatrac
- Two operating modes
- RFI/EMI shielding
- Flow fault features
- Flow range: 20 to 225ml/min.
- Continuous run with AC adapter
- Continuous sample volume calculations
- Security system protects data
- Intrinsically-safe (UL and CUL listed)

### Pocket Pump

Part Number	Description
SK-210-1002MH	Pocket Pump Only
SK-210-1000MH	Pocket Pump with charger, 115V
SK-210-1001MH	Pocket Pump with charger, 230V
SK-210-1000MHK	Single Pocket Pump Kit, includes 1 each: pocket pump single-station charger, Type A sample tube holder in a carrying case (115V)
SK-210-1001MHK	Single Pocket Pump Kit, includes 1 each: pocket pump, single-station charger, Type A sample tube holder in a carrying case (230V)
SK-877-90	Datatrac software for Pocket Pump includes Software, interface box, and cable; requires Windows 3.1 or higher
SK-223-228	Single charger, 115V
SK-223-229	Single charger, 230V
SK-P20129-1	Replacement Battery Pack

## For Your Low-Flow Applications



## 222 Series Low Flow Sample Pumps

The low flow sample pumps are dependable and durable. These miniature diaphragm-type pumps are ideal for on-worker or area sampling of gases and vapors in air. Using reliable stroke counter technology, the light-weight 222 Series pumps are motor-operated and powered by a rechargeable battery pack.

### 222 Series Low Flow Sample Pumps

Part Number	Description
SK-222-3	Pump Only 50-200 ml/min for use with sample bags or sorbent tubes
SK-222-4	Pump only 20-80 ml/min for use with sample bags, sorbent tubes, or long-duration color detector tubes
<i>Single Pump Kit includes one each; low flow sample pump, type A tube holder with connecting tubing, single charger, and a convenient carry case</i>	
SK-222-3DK	50-200 ml/min with charger (115V)
SK-222-3DKB	50-200 ml/min with charger (230V)
SK-222-4DK	20-80 ml/min with charger (115V)
SK-222-4DKB	20-80 ml/min with charger (230V)

## Simple & Reliable



### AirChek 52

Small and lightweight, the AirChek 52 sample pump is ideal for on-worker applications for short term or full shift sampling using sorbent tubes, impingers, long-duration color detector tubes, or filters. The AirChek 52 is an easy-to-use, economical pump designed for rugged and repeated use.

#### AirChek 52

Part Number	Description
SK-224-52	AirChek 52 Sample Pump featuring timer and fault shutdown with RFI/EMI shielded case and battery pack, screwdriver set, and operating manual
SK-223-224	Single Battery Charger (115V)
SK-223-225	Single Battery Charger (230V)
SK-224-52K	Single Pump Kit includes one of each AirChek 52 Sample Pump with RFI/EMI shielded case and battery pack, single charger, filter cassette holder, screw/driver set, and operating manual. (115V)
SK-224-52KB	Single Pump Kit (230V)

### PCXR4

#### With Timer & Fault Shutdown

Highly accurate yet easy to operate, the versatile PCXR4 Universal Sampler is suited for industrial hygiene studies, as well as for environmental testing in the 5 to 5000 ml/min flow range. Specifically designed for on-worker and fence line applications, this sampler is typically used for STEL, TWA, or Ceiling sampling.

- Constant flow with wide flow range
- Automatic fault features
- Back pressure compensation to 40 inches of water
- Built in low flow pressure regulator at no extra cost
- High accuracy timer
- Small and compact 964 grams
- Multi tube low flow sampling capability
- Ultra-quiet operation
- Built in rotameter and particulate trap
- RFI/EMI shielding and intrinsically safe

#### PCXR4

Part Number	Description
SK-224-PCXR4	Pump only (without charger) Range 5-5000 ml/min
SK-224-PCXR4KD	Single Pump Kit, Deluxe Range 5-5000 ml/min (115V)
SK-224-PCXR4KDB	Single Pump Kit, Deluxe Range 5-5000 ml/min (230V)

*Includes constant flow pump with RFI/EMI-shielded case and battery pack, single deluxe battery charger, low flow controller attached to type "A" protective tube cover, exhaust port fitting, filter cassette holder, screwdriver set, and instruction manual in a convenient carry case.*

## The Industry Standard!



## The Unexcelled Personal Sampler



### PCXR8

#### With Programmable Start and Stop Times

The battery-operated PCXR8 sampler is ideal for industrial hygiene studies and environmental sampling in the 5 to 5000 ml/min range. Specifically designed for on-worker and fence line applications, PCXR8 Universal Pump is easy-to-operate and offers unsurpassed flexibility. You can program a delayed start time for your test (e.g. during the night shift), an automatic shutdown time, or both. Accuracy is  $\pm 0.05\%$  ( $\pm 45\text{sec/day}$ ). The current "Elapsed Sampling Time" reading appears continuously on the large LCD. By pressing the appropriate key, you can instead display total elapsed time (including time delay) and pump run time.

- Constant flow with wide flow range
- Automatic fault features
- Back pressure compensation to 40 inches of water
- Built-in low flow pressure regulator at no extra cost
- Multi-tube low flow sampling capability
- Small and compact 964 grams
- Built-in rotameter and particulate trap
- Ultra quiet operation
- RFI/EMI shielding and intrinsically safe

### PCXR8

Part Number	Description
SK-224-PCXR8	Pump only (without charger) Range 5-5000 ml/min
SK-224-PCXR8KD	Single Pump Kit, Deluxe Range 5-5000 ml/min (115V)
SK-224-PCXR8KDB	Single Pump Kit, Deluxe Range 5-5000 ml/min (230V)

*Includes constant flow pump with RFI/EMI-shielded case and battery pack, single deluxe battery charger, low flow controller attached to type "A" protective tube cover, exhaust port fitting, filter cassette holder, screwdriver set, and instruction manual in a convenient carry case.*

### Pulse Pump III

The Pulse Pump III is a versatile, low-cost personal air sampling pump. Its compact size and proven reliability makes the instrument ideal for many air pollution and industrial hygiene uses. The unit's positive displacement dry piston pump, electronic controller and battery pack are contained in a rugged case. The pump offers dual mode operation; it can be used as a vacuum pump for filter sampling or as a pressure pump for filling gas sampling bags. The unit has an adjustable low flow rate variable from 1 to 20 liters per hour and a fixed high flow setting of 1.5 liters per minute. Applications include grab sampling, vacuum sampling through filter media, collecting integrated air samples for air pollution and industrial hygiene studies. It may also be used to transfer samples from one container to another.

### Pulse Pump III

Part Number	Description
MI-Pulse-III	Pulse Pump III

## Vacuum or Pressure at a Low Cost!



## The Buck-Basic™

### Personal Sampling Pump

- Displays both Actual Flow Rate and Cumulative Sample Volume
- Basic, dependable pump for personal and area sampling
- Dual flow range easily handles filters, impingers, cyclones, sorbent tubes
- One-hour rechargeable, interchangeable, battery packs
- "Flow Interrupt" features plus "Auto Restart" after flow fault
- Programmable in three languages: English, Spanish and French
- Constant Flow Compensation up to 40" water back pressure
- EMI-RFI protected, dust-proof
- Built-in Battery Maintenance program

### The Buck-Basic™

Part Number	Description
BU-927100	Buck Basic-1 Pump 5-600 cc/minETL, cETL, CE*
BU-927300	Buck Basic-1 Pump 5-600 cc/minEX, D, CE*
BU-929100	Buck-Basic-5 Pump 5-5000 cc/minETL, cETL, CE*
BU-929300	Buck Basic-5 Pump 5-5000 cc/min EX, D, CE*

*Includes pump with standard battery pack, Low Flow Holder BU-109033, non-adjustable Tube Holder BU-109032, Shirt/hose clip, 3ft vinyl flex hose and Operating Manual. Order Pump charger and Accessories separately.*

## Basic & Dependable



## The Buck-Genie™ VSS™

### Validated Sampling System

- Validated Sample System displays Actual Flow & Cumulative Volume
- Automatic data logging stores up to 10 days pump sampling history
- Print pump sampling history direct to printer, or download to PC
- Constant flow compensation up to 50" water back pressure
- Auto-correction for temperature and pressure changes
- EMI-RFI protected, dust-proof
- Programmable in three languages: English, Spanish & French

### The Buck-Basic™

Part Number	Description
BU-927000	Buck-Genie VSS-1 Pump 5-600 cc/min ETL, cETL, CE*
BU-927200	Buck-Genie VSS-1 Pump 5-600 cc/min EX, D, CE*.
BU-929000	Buck-Genie VSS-5 Pump 5-5000 cc/min ETL, cETL, CE*
BU-929200	Buck-Genie VSS-5 Pump5-5000 cc/min EX, D, CE*

*Includes pump w/battery pack, low flow holder BU-109033, non-adjustable tube holder BU-109032, Luer hose adapter, shirt/hose clip, 3ft. vinyl hose and operating manual. Order pump charger and accessories separately.*

## 10 Day Automatic Datalogging



## Calibrate with Ease!



### Buck-Basic™ & Buck-Genie VSS Accessories

Part Number	Description
BU-129022	Rechargeable Ni-CAD Batteries ETL, cETL, CE
BU-129020	Rechargeable Ni-CAD Batteries EX, D, CE
BU-601900	Single-station 120V/230V CE, UL/cUL, TUV
<i>One-hour charger for VSS &amp; Buck Basic Series Pumps</i>	
BU-109060	Pouch for Basic-1, & VSS-1, Pumps Nylon pouch with belt loop and shoulder strap for worker comfort, see-through window on front flap allows pump key operation and visual display. Washable.
BU-109070	Optional exhaust port for Basic and VSS Pumps
BU-109056	A/C Power Supply 120V/230V

## Mini-Buck™ Primary Flow Calibrator

### Accurate dependable flow measurements

- The first electronic calibrator
- Primary gas flow measurements, NIST traceable with accuracy of  $\pm 0.5\%$
- Suitable for verifying vacuum and pressure pumps, rotameters, setting instrument panels, calibrating gas chromatographs, etc.
- Wide choice of operating ranges:
  - M-1 0.1 - 300 cc/min
  - M-5 1 - 6000 cc/min
  - M-30 1cc/min - 30 LPM
- Completely field portable, rechargeable Ni-Cad battery powered provides up to 8 hours of use
- One button control, auto shut off battery saver
- Instant readout of flow rates
- Not affected by temperature or humidity changes, accurate at any altitude

### Mini-Buck™ Primary Flow Calibrator

All calibrators include, AC adapter/charger, soap solution, dispenser bottle and operating manual

Part Number	Description
BU-801000	Mini-Buck Calibrator, M-1 0.1-300 cc/min 120V CE*
BU-801010	Mini-Buck Calibrator, M-1 0.1-300 cc/min 230V CE*
BU-805000	Mini-Buck Calibrator, 120V M-5, 1-6000 cc/min CE*
BU-805010	Mini-Buck Calibrator, 230V M-5, 1-6000 cc/min CE*
BU-803000	Mini-Buck Calibrator, 120VM-30, 100 cc/min CE*
BU-803010	Mini-Buck Calibrator, 230VM-30, 100 cc/min

#### Calibrators Accessories

BU-108015	Battery pack of Mini-Buck Calibrators 4/5 A 4.8V, 4-in-line arrangement
BU-107014	Air Inlet Caps, Pack of 2
BU-108000	Small Carrying Case
BU-108010	AC Adapter/Charger for mini-Buck Calibrators, 120V
BU-108012	AC Adapter/Charger for mini-Buck Calibrators, 230V CE*
BU-107030	Soap Solution, 8 oz. Bottle
BU-107032	Dispenser Bottle, 1 oz.
BU-108016	Mini-Buck Calibrator Operating Manual



## We Ship Worldwide!





**For Field and Lab Measurements of Sample Flow Sampling Pump Diagnostics, and Trouble Shooting.**

## PDS™

Part Number	Description
BU-907020	PDS™, 500-5000 cc 120V CE*
BU-907220	PDS™, 230V 500-5000 cc CE*
<i>Includes AC Adapter/Charger and operating manual</i>	
BU-907001	Flow Cell S-1 Range: 0.1-300cc
BU-907005	Flow Cell S-5 Range: 1-6000cc
BU-907030	Flow Cell S-30 Range: 100cc-30L
<i>Includes 8oz. bottle of soap and soap dispenser bottle</i>	
BU-109102	Allows PDS™ and VSS Series Model pumps to print reports directly to printer
BU-108014	Battery Pack for PDS™4-in line arrangement
BU-108010	AC Adapter/Charger for PDS™ (120V)
BU-108012	AC Adapter/Charger for PDS™ (230V)
BU-108018	Small carrying case for PDS™ unit and accessories
BU-907004	PDS™ Operating Manual

## PDS™ Primary Flow Diagnostic System

- Compact, lightweight, easy to use
- Works with any make or model personal sampling pump
- Flow Range 0.5 to 5 LPM for portable flow verification ( $\pm 2\%$  and diagnostics in one compact 29 oz. unit)
- Optional PDS™ Flow Cells give primary gas flow measurements, NIST traceable, with accuracy  $\pm 0.5\%$  of any display

**S-1 Cell**                      0.1 - 300 cc/min

**S-5 Cell**                      1 - 6000 cc/min

**S-30 Cell**                     100 cc - 30 LPM

- Print sampling pump operating history and pump calibration direct to printer
- Automatically corrects for temperature and pressure, plus S.T.P. Volumetric Flow
- Ideal for IH and Enviro applications

## Portable Air Sampling Pump

Model BD Air Sampling Pump features durability and simplicity of use. Diaphragm vacuum pump draws air sample through absorbing reagent in impinger at a constant rate between 0 and 2.0 liters per minute. An integral flow meter regulates the airflow rate to control the amount of air sampled. Operates up to 48 hours on a single set of four size "C" batteries. An optional AC adapter is available. Pump includes one general-purpose impinger.

### Portable Air Sampling Pump

Part Number	Description
LA-1949	Portable Air Sampling Pump
LA-1705	Carrying Case
LA-1744	Optional AC adapter





## Quiet Pump

The Quiet Pump is a good option when conducting indoor air quality studies. Available in either HIGH or MEDIUM volume, the Quiet Pump features a durable chemical and water resistant housing which reduces operating noise. It has a lockable air flow valve, hour meter, internal cooling fan, replaceable HEPA filters, ON/OFF switch, and an integral three-section stand.

### Sampling Recommendations

The Air-O-Cell cassette is designed to operate at a recommended flow rate of 15 lpm. Lower flow rates may result in a lower collection efficiency of particles. Higher flow rates may damage the morphology of some materials or result in the loss of large particles (50µm or larger).

### Quiet Pump

Part Number	Description
ZE-ZAQP01	High Volume Quiet Pump. Adjustable air flow (open approx. 34 lpm). Typical Flow with 0.8 MCE x 25 mm filter is 20 lpm. <i>Includes three section stand and instructions.</i>
ZE-ZAQP04	Medium Volume Quiet Pump. Adjustable air flow (open approx. 19 lpm). Typical flow with 0.8 MCE x 25 mm filter is 1pm. <i>Includes three section stand and instructions.</i>

**Shhh.....Quiet Please**



## Vacuum-Pressure Station

### Features:

- Vacuum to 21.3" Hg
- Pressure to 35psi intermittent; 10psi continuous
- Free air capacity 0.39 CFM
- No vacuum oil required
- Quiet operation
- Portable w/molded carrying handle
- On/Off switch
- Convenient power cord compartment
- Low-friction piston service free motor
- UL & CSA listed for 115VAC, 60 Hz CE approved for 230VAC, 50Hz
- Supplied with 6ft. cord, US plug for 115/VAC, 230VAC model supplied with a Continental European plug

### Applications:

- Air/Gas sampling
- Pressure/Vacuum Filtration
- Precious Metal Recovery
- Process control
- Suction units
- Analysis instrumental

### Specifications:

*Free-Air Capacity:* 0.39 (11L)  
*Max Vacuum:* 21.3"  
*Max Pressure:* 35psi  
*Max Temp.:* 104°F/40°C  
*Power VAC, Hz:* 115V/60  
*Amps:* 1.6  
*Wt.Lb.:* 5

### Vacuum-Pressure Station

Part Number	Description
BN-400-3910	Vacuum-Pressure Station



**Tedlar Film with  
Heat-Sealed,  
Leak-Proof Double  
Seams**

## Air Sampling Bags

Sampling Bags are made from Tedlar polyvinyl fluoride (PVF) film with heat-sealed, leak-proof, double seams. Tedlar is chemically inert and will not absorb or concentrate the samples normally encountered in air monitoring, emission testing and nuclear gas collecting. Extremely low permeability insures minimum sample loss.

- Use to collect and store many gases
- Flexible and easy to use
- Lightweight, reusable, strong
- Bags are supplied with standard port, pinch clamp and 30cm of 1/4" ID Tygon Tubing

### Air Sampling Bags

Part Number	Description
MI-10-005A	0.5 liter 6" x 7"
MI-10-001A	1 liter 7" x 9"
MI-10-002A	2 liter 9" x 12"
MI-10-003A	3 liter 12" x 12"
MI-10-005A	5 liter 9" x 22"
MI-10-010A	10 liter 12" x 22"
MI-10-015A	15 liter 18" x 18"
MI-10-020A	20 liter 18" x 25"
MI-10-025A	25 liter 18" x 32"
MI-10-030A	30 liter 18" x 36"
MI-10-050A	50 liter 18" x 60"
MI-10-100A	100 liter 36" x 48"

## Tedlar Sample Bag

*With Single Polypropylene Septum Fitting and Metal Eyelet*

The industry standard, these sample bags feature a lightweight patented single fitting of inert polypropylene that combines the hose/valve and the septum holder into one compact fitting. This superior bag design includes a metal eyelet for easy transportation and storage.

### Tedlar Sample Bag

Part Number	Description	Qty
SK-232-02	0.5 liter 6" x 6"	10
SK-232-01	1 liter 7" x 7"	10
SK-232-01A	1 liter 7" x 7"	ea.
SK-232-03	3 liter 9.5" x 10"	10
SK-232-05	5 liter 12" x 12.5"	10
SK-232-05A	5 liter 12" x 12.5"	ea.
SK-232-08	10 liter 11.75" x 18"	10
SK-232-08A	10 liter 11.75" x 18"	ea.
SK-232-10	12 liter 13" x 20"	10
SK-232-15	25 liter 17.5" x 24"	5
SK-232-25	30 liter 27.25" x 19"	5
SK-232-20	40 liter 24" x 24.25"	5
SK-232-30	80 liter 28.25" x 30.5"	5
SK-232-50	100 liter 28" x 36"	3
SK-232-01-RS	Replacement Septums	10

## The Industry Standard



## Economy Tedlar Sample Bag

### *With Single Stainless Steel Septum Fitting*

These economical sample bags feature a unique patented stainless steel fitting that reduces the overall weight of using stainless steel by combining the hose/valve and septum fittings into one easy-to-use unit. The all stainless steel fitting construction prevents leakage and ensures that the sample comes in contact with only inert materials. The fitting design greatly reduces the cost of using sample bags when stainless steel fittings are specified. These bags do not have eyelets.

### Economy Tedlar Sample Bag

Part Number	Description	Qty
SK-233-02	0.5 liter 6" x 6"	10
SK-233-01	1 liter 7" x 7"	10
SK-233-01A	1 liter 7" x 7"	ea.
SK-233-03	3 liter 9.5" x 10"	10
SK-233-05	5 liter 12" x 12.5"	10
SK-233-05A	5 liter 12" x 12.5"	ea.
SK-233-08	10 liter 11.75" x 18"	10
SK-233-08A	10 liter 11.75" x 18"	ea.
SK-233-10	12 liter 13" x 20"	10
SK-233-15	25 liter 17.5" x 24"	5
SK-233-20	40 liter 24" x 24.25"	5
SK-233-30	80 liter 28.25" x 30.5"	5
SK-233-50	100 liter 28" x 36"	3
SK-233-01RS	Replacement Septums	10

## Quality with Economy



## The Flexible System

## Tedlar Sample Bag

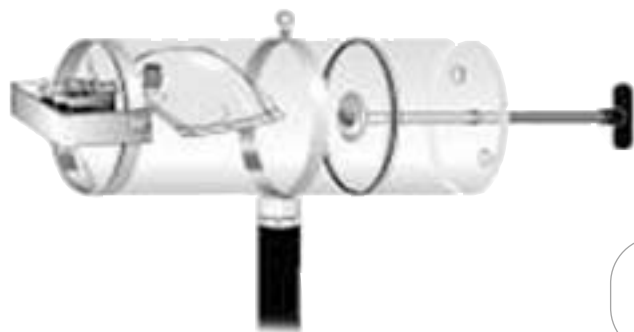
### *Tedlar with Dual Stainless Steel Fittings and Eyelet*

These flexible system sample bags feature two stainless steel fittings: the hose/valve for flushing, filling, and sealing the bag; and the septum with a syringe port for removing samples for analysis. These fittings are easy-to-use and provide sampling flexibility and reliability. A metal eyelet is included for easy transport and storage.

### Tedlar Sample Bag

Part Number	Description	Qty
SK-231-01	1 liter 7" x 7"	10
SK-231-01NE	1 liter 7" x 7" w/o eyelet	10
SK-231-01A	1 liter 7" x 7"	ea.
SK-231-03	3 liter 9.5" x 10"	10
SK-231-05	5 liter 12" x 12.5"	10
SK-231-05A	5 liter 12" x 12.5"	ea.
SK-231-08	10 liter 11.75" x 18"	10
SK-231-08A	10 liter 11.75" x 18"	ea.
SK-231-10	12 liter 13" x 20"	10
SK-231-15	25 liter 17.5" x 24"	5
SK-231-20	40 liter 24" x 24.25"	5
SK-231-30	80 liter 28.25" x 30.5"	5
SK-231-50	100 liter 28" x 36"	3
SK-231-9-04	Replacement Septums	10





## Vac-U-Tube

Tedlar sample bag to be placed inside. The bag is attached to the face plate that is then secured to the syringe. Sample by pulling the plunger or purge by pushing the plunger. The Vac-U-Tube can be used for headspace soil gas sampling.

### Vac-U-Tube

Part Number	Description
SK-231-945	Vac-U-Tube with carrying case
SK-232-945A	Vac-U-Tube Bags 0.7 liter Tedlar Bags

**Need Quick Bag Samples without a Pump? Use the Vac-U-Tube!**

## Air Quality Permitting

*R. Leon Leonard / Radian Corporation, Bellevue, Washington*

Air Quality Permitting covers all of the fundamentals for obtaining air quality permits for new sources of air pollutant emissions and Title V operating permits for operating sources.

### Air Quality Permitting

Part Number	Description
LB-L2004	Air Quality Permitting 1997 192pp



## 37mm Air Sampling Cassettes

- Polystyrene Housing, 2 or 3
- Meets NIOSH and OSHA standards
- Available in both two and three piece configurations
- Individually assembled and preloaded the fines quality membrane and support pads

### 37mm Air Sampling Cassettes

Part Number	Description	Qty
<i>MCE Filters</i>		
ZE-738MCE	37mm 3 piece cassette 0.8µm MCE Filter w/support pad	50/cs
ZE-728MCE	37mm 2 piece cassette 0.8µm MCE Filter w/support pad	50/cs
<i>PVC Filters</i>		
ZE-738PVC	37mm 3 piece cassette 0.8µm PVC Filter w/support pad	50/cs
ZE-728PVC	37mm 2 piece cassette 0.8µm PVC filter w/support pad	50/cs
ZE-735PVC	37mm 3 piece cassette 0.5µm PVC filter w/support pad	50/cs
ZE-725PVC	37mm 2 piece cassette 0.5µm PVC filter w/support pad	50/cs
ZE-731GF	37mm 3 piece cassette 1.0µm Type A/E Glass filter w/pad	50/cs
<i>PTFE Filters</i>		
ZE-721TF	37mm 2 piece cassette TF 1.0µm PTFE w/polypropylene & filter support pads	50/cs
ZE-7345TF	37mm 3 piece cassette TF 0.45µm PTFE w/polypropylene & filter support pads	50/cs
ZE-722PTPT-OP	37mm 2 piece cassette opaque polystyrene Zefluor 2.0µm PTFE w/PTFE support support & cellulose support ring.	50/cs
ZE-735PTU	37mm 3 piece cassette with a Zylon 5.0µm unsupported PTFE with support filter pads	50/cs



## 25mm PCM and TEM Cassettes

- 2" static conductive extension cowl, 3 piece housing
- Meets NIOSH and OSHA standards
- Ready to use, tapered inlet
- Compliant with asbestos regulations

### 25mm PCM and TEM Cassettes

Part Number	Description	Qty
<b>ZE-Z008BA</b>	25mm PCM Cassette with 0.8µ MCE filter w/support pad	50/cs
<b>ZE-Z008BA-S</b>	ZE-Z008BA w/stand up plug is installed in outlet end	50/cs
<b>ZE-Z00BA-N</b>	ZE-Z008BA each cassette is sequentially numbered	50/cs
<b>ZE-Z008BG</b>	ZE-Z008BA with plain band instead of standard logo band	50/cs
<b>ZE-Z008GA</b>	25mm PCM Cassette with 0.8µ MCE grided filter	50/cs
<b>TEM Cassettes</b>		
<b>ZE-Z045BA</b>	25mm TEM Cassette 0.45µ & 5.0µ MCE filter w/support pad	50/cs
<b>ZE-Z045BA-S</b>	ZE-Z045BA w/stand up plug is installed in outlet end	50/cs
<b>ZE-Z045BG</b>	ZE-Z045BA with plain band instead of standard logo band	50/cs



## Match-Weighed Cassettes

- Each cassette labeled with serial number, preloaded-ready to use
- Color coded to indicate filter type
- Contain two filters matched in weight, subject to noted tolerance
- Top filter collects particulate and the bottom filter serves as a control



### Pre-Weighed Cassettes

Part Number	Description	Qty
<b>5.0µ PVC Filter Media (color coded red)</b>		
<b>ZE-7P52P</b>	37mm 2pc 5.0µm PVC filters weighed to within .00001gm	50/cs
<b>ZE-7P53P</b>	37mm 3pc 5.0µm PVC filters weighed to within .00001gm	50/cs
<b>0.8µ PVC Filter Media (color coded yellow)</b>		
<b>ZE-7P82P</b>	37mm 2pc 0.8µm PVC filters weighed to within .00001 gm	50/cs
<b>ZE-7P83P</b>	37mm 3pc 0.8µm PVC filters weighed to within .00001 gm	50/cs

## Match-Weighed Cassettes

Part Number	Description	Qty
<b>0.8µ MCE Filter Media (color coded red)</b>		
<b>ZE-7M82M</b>	37mm 2pc containing two 0.8µ filters matched to within 100µg	50/cs
<b>ZE-7M83M</b>	37mm 3pc containing two 0.8µ filters matched to within 100µg	50/cs
<b>ZE-7M93M</b>	37mm 3pc containing two 0.8µ filters matched to within 50µg	50/cs
<b>5.0µ PVC Filter Media (color coded red)</b>		
<b>ZE-7M52P</b>	37mm 2pc containing two 5.0µ filters matched to within 20µg	50/cs
<b>ZE-7M53P</b>	37mm 3pc containing two 5.0µ filters matched to within 20µg	50/cs

## Pre-Weighed Cassettes

- Preloaded- ready to use, 2 or 3 housing
- Each cassette is labeled with serial number, color coded to indicate filter type
- Pre-Weight cassettes eliminate the user's inconvenience of pre-weighing filters for gravimetric analysis.



## Sorbent Tubes

### How Sorbent Tube Sampling Works

Sorbent tube sampling is the NIOSH/OSHA-approved method for collecting most hazardous gases and vapors from the air. Federal law has established Permissible Exposure Limits (PELs) for worker exposure to a variety of airborne chemical hazards. Three limits are specified as eight-hour Time-Weighted Averages (TWAs), Short-Term Exposure Limits (STELs), and Ceiling values. Eight-hour TWA limits are specified for full shift exposures, STELs are usually issued as 15 minute exposure limits, and ceiling values are issued as peak levels not to be exceeded at any time during the work day. Sorbent tubes have been validated as a reliable tool for each of these sampling requirements.



### Sorbent Tubes

Part Number	Description
SK-226-01	Anasorb CSC, Coconut Charcoal, 6mm O.D. x 70mm L, 50/box
SK-226-01A	Anasorb CSC, Coconut Charcoal, 6mm O.D. x 70mm L, 10/box
SK-226-01-Bulk	Anasorb CSC, Coconut Charcoal, 6mm O.D. x 70mm L, 1000/box
SK-226-01GWS	Anasorb CSC, Coconut Charcoal, 6mm O.D. x 70mm L, 50/box
SK-226-09	Anasorb CSC, Coconut Charcoal, 8mm O.D. x 110mm L, 50/box
SK-226-09-Bulk	Anasorb CSC, Coconut Charcoal, 8mm O.D. x 110mm L, 1000/box

**Sorbent Tubes  
are Easy to Use**

## Need to Screen Airborne Aerosols? Use Air-O-Cell Cassettes.



### Air-O-Cell Cassettes

The Air-O-Cell™ is a unique air sampling cassette specifically designed for the rapid collection of wide range of airborne aerosols including mold spores, pollen, insect parts, skin cell fragments, fibers (e.g. asbestos, fiberglass, cellulose, clothing fibers, etc.) and inorganic particulate (e.g. ceramic, fly ash, copy toner, etc.). The Air-O-Cell™ collects both viable and non-viable sample specimens, providing a much broader overview of potential allergens & contaminants than conventional sampling techniques.

### Air-O-Cell Cassettes

Part Number	Description
ZE-AOC010	Air-O-Cell™ Cassette 10/case
ZE-AOC050	Air-O-Cell™ Cassette 50/case

## The Air-O-Cell Mini Area Pump

The Air-O-Cell™ Mini Pump is designed for exclusive use with Air-O-Cell cassettes. The pump delivers a high flow rate using a portable battery powered design. Built in timer allows unattended operation at 15L/min. Operates in battery mode and in direct A/C mode with included adapter.

### The Air-O-Cell Mini Area Pump

Part Number	Description
ZE-ZMPT1	Mini Pump Kit includes pump, battery pack, charger, rotameter, manual and carrying case.





## Tubes For Volatile Organic Sampling Trains (VOST)

EPA Methods 0030 and 0031 specify Volatile Organic Sampling Train (VOST) tubes when sampling for VOCs and Principal Organic Hazardous Constituents from stationary emission sources. Method 0030 specifies a train of three sorbent tubes: one Tenax and petroleum-based charcoal, and two Tenax. Method 0031 specifies one Anasorb 747 tube and two Tenax tubes. Low background levels make these sorbent useful for collecting low concentrations of VOCs.

### Tubes For VOST

Part Number	Description	Sorbent/Amount
SK-226-135	Glass open Tenax TA/Petroleum Charcoal	16mm OD x 125mm L 1gm/1gm
SK-226-134	Glass open Tenax TA	16mm OD x 125 mm L 1.6gm (35/60 Mesh)
SK-226-133	Glass open Anasorb 747	16 mm OD x 125 mm L 5 gm (20/40 Mesh)

## WallChek™

### For non-destructive microbial sampling in wall cavities

Wall cavities, a common place for mold growth, can be checked using the non-destructive WallChek™ Sampler. Unlike destructive methods such as core sampling, WallChek™ creates only a small (3/8 inch) hole in the base of wall and greatly reduces the chance of fungal spore aerosolization while sampling. The WallChek™ is used with an Air-O-Cell Cassette and pump capable of 15L/min. When used correctly, Wallchek™ reliably samples fungal growth within wall cavities for accurate microbial identification during analysis.



### WallChek™

Part Number	Description
SK-225-9525	WallChek Kit includes unit, 50 end caps, 1/4' scratch awl, cap removal rod, carry case and operating instructions

*(Requires Air-O-Cell cassette and pump not included)*



## Air Quality Third Edition

*Thad Godish / Ball State University, Muncie, Indiana*

While earlier editions of this best-selling work have become standard texts for students and professionals alike, both the science and the practice of air quality management continue to evolve. Air Quality Third Edition includes all the new issues and challenges, as well as updated coverage of all the familiar concerns of environmental professionals.

This is a complete overview of the topic, written in an accessible, highly readable style by a respected expert in the field.

### Air Quality Third Edition

Part Number	Description
LB-G2082	Air Quality Third Edition January 1998 464pp



## The Biosampler™

The BioSampler achieves bioaerosol particle collection by drawing the airborne particles through three nozzles that are directed at an angle toward the inner sampler wall. This induces an air swirl and deposits the particles onto the inner wall of the cylindrical collection vessel. When the BioSampler is operated with a conventional collection liquid such as water or a non-evaporating liquid, the liquid is swirled upward, wets the collection surface, and moves the collected particles away from the collection surface. The BioSampler can also be operated with a dry or coated inner surface.

- BioSampler is designed for a flow rate of 12.5 l/min.
- Allows use of non-evaporating collection liquids
- Significantly reduces particle bounce, re-aerosolization, and microorganism injury
- Allows longer sampling time; substrate cannot be overloaded
- Preserves microorganism integrity and viability; non-viable components easily measured
- Reusable-can be autocalved
- Collects bioaerosols that can be analyzed by a variety of methods

### The Biosampler™

Part Number	Description
SK-225-9594	Complete BioSampler System includes One BioSampler, two 20 ml collection vessels with caps, with mounting rod, one Via Trap (125ml), one Vac-U-Go Sampler (SonicFlow) mounted in protective housing, and one rotameter. 115v
SK-225-9594B	Complete BioSampler System 230v
SK-225-9595	BioSampler, three piece glass includes inlet and outlet Section, and collection vessel 20ml
SK-225-9596	BioSampler Collection Vessel 20ml (for transporting samples)
SK-225-9598A	Via Trap collection media 125ml
SK-225-9598	Via Trap collection media 500ml
SK-228-9605	Vac-U-Go Sampler (Sonic Flow) 115V

**For Bioaerosol  
Particle Collection**



## MicroBio MB1

### Microbiological Air Sampler

The MicroBio MB1 Air Sampler collects airborne micro-organisms for quantitative measurement of bioaerosol contamination in both indoor and outdoor environments. Air is aspirated through a removable metal head through a series of 1mm diam. holes at a flow rate of 100 liters/min. Any micro-organisms are collected on the agar surface of a 55mm contact plate. After exposure the contact plate is removed and incubated, and the colony growths are counted. The count, along with the volume of air sampled is used to calculate the number of colony forming units (cfu) per cubic meter of air. Use of a selective agar media allows specific organisms to be detected and enumerated. Flow rate 100 liters/min., factory calibrated. Sampling volume 33 to 1000 liters. Battery Powered – rechargeable NiMH (4xAA) – charger supplied.

### Low cost Air Sampling for:

- Food processing
- Pharmaceutical Production
- Hospitals and Clinics
- Animal Houses
- Waste & Sewage Industries
- Ventilation Engineers

### MicroBio MB1

Part Number	Description
PA-MICROBIO-MB1	Microbiological Air Sampler

## Microbio MB2

The MicroBio MB2 Air Sampler collects airborne micro-organisms for quantitative measurement of bioaerosol contamination in both indoor and outdoor environments. Air is aspirated through a removable metal head (cover) through a series of 1mm diameter holes at a flow rate of 100 liters/min. Any micro-organisms are collected on the agar surface of a 55mm contact plate. After exposure the contact plate is removed and incubated, and the colony growths are counted. The count, along with the volume of air sampled is used to calculate the number of colony forming units (cfu) per cubic meter of air. Use of selective agar media allows specific airborne organisms to be detected and enumerated. Sampling volumes 25-1500 liters.

**MB2**

Part Number	Description
PA-MICROBIO-MB2	Sampler for airborne bacteria; spores, moulds, yeasts



## *Sampler for Airborne Bacteria, Spores, Moulds, Yeasts.*

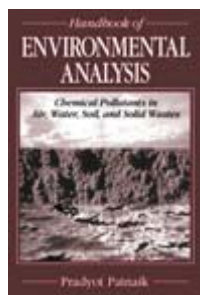
## Contact Plates

**Standard 55mm Plates**  
**for all surface testing and for use in Microbiological Air Samplers**

Contact plates are used to determine global microbial contamination by air sampling, or specific contamination of surfaces such as skin, kitchens, surgical rooms, refrigerated food presentation islands, etc. For air sampling the filled plates are placed in the MicroBio Air Sampler and the chosen fixed volume of air is sampled at 100 liters/min. Airborne organisms will adhere to the selected media in the plate, which is then removed and incubated. The count allows calculation of colony forming units per m<sup>3</sup> (cfu/m<sup>3</sup>).

**Contact Plates**

Part Number	Description
PA-CONTACT55	Contact Plates, available in sealed packs of 15 plates



## Handbook of Environmental Analysis (Chemical, Pollutants in Air, Water, Soil, and Solid Wastes)

**Pradyot Patnaik; Laboratory of Environmental Chemistry / Interstate Sanitation Commission, States Island, New York**

Serving as both a reference and a textbook, Handbook of Environmental Analysis is the first exhaustive treatment of the analysis of toxic pollutants in the environment. Areas addressed are ambient air, groundwater, surface water, industrial waste water, soils and sediments.

**Handbook of Environmental Analysis**

Part Number	Description
LB-P1831	Handbook of Environmental Analysis 1997 608pp

## IOM Sampler

The IOM incorporates a reusable filter cassette that holds a 25mm filter and conductive plastic-sampling head to measure exposure to total airborne particles. When attached to a personal sampling pump operating at 2 l/min and clipped onto a worker's collar, near the breathing zone, the IOM closely stimulates dust collection of the nose and mouth, effectively trapping particulate up to 100  $\mu\text{m}$  in size.

- Measures total airborne particulate
- Low cost
- Light-weight
- Available in stainless steel
- Meets ACGIH sampling criteria for inhalable dust
- Meets NIOSH method 5700 sampling criteria for particulate formaldehyde

The standard IOM samplers and reusable cassettes are made of lightweight, conductive plastic; they are also available in stainless steel for autoclaving at higher temperatures or solvent washing without dissolving. The custom-designed calibration adapter provides accurate and simple calibration. Conductive plastic caps are available for transporting the complete IOM with the filter loaded before and after sampling. The transport clip can be used for transporting the filter cassette only.

### Iom Sampler

Part Number	Description
SK-225-70	IOM Sampler and cassette in conductive plastic with transport clip
SK-225-76	IOM Sampler, body only, in stainless steel
SK-225-71	Cassette filter assembly in conductive plastic with transport clip
SK-225-75	Cassette filter assembly in stainless steel
SK-225-78	Conductive plastic caps for sealing the IOM unit 10/pack
SK-225-72	Transport clip, plastic, for transporting the cassette only
SK-225-73	Calibration adapter
SK-225-8-04	Filters, PVC, 5.0 $\mu\text{m}$ , 25 mm, 100/box
SK-225-19	Filters, MCE, 0.8 $\mu\text{m}$ , 25 mm, 100/box
SK-225-702	Filters, glass fiber AE, 25 mm, 500/box



## GS Respirable Dust Cyclone

### Meets ACGIH Sampling Criteria

The Gas Cyclone is a 10 mm, lightweight, 2-piece conductive plastic unit that holds a standard 37 mm cassette with filter for the collection of respirable dust particles. The GS Cyclone removable cassette adapter securely holds the filter in place. Designed to meet the ACGIH-CEN-ISO curve, the GS Cyclone has a 50% cut-point of 4.0  $\mu\text{m}$  (mean bias < 1%) at 2.5 l/min.

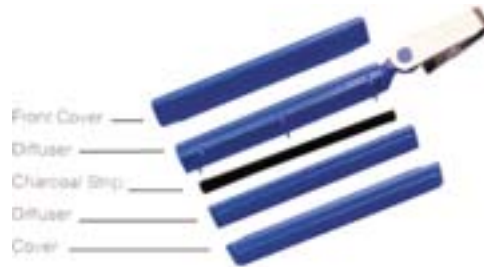
- Conductive plastic - prevents static collection effects
- 2.5 l/min flow rate for greater sensitivity and sampling accuracy
- Meets ACGIH sampling criteria for respirable dust
- Tangential air flow lessens particle impaction
- Eliminates effects from ambient wind speed or orientation
- Designed to overcome problems with Dorr-Oliver cyclone

### GS Respirable Dust Cyclone

Part Number	Description
SK-225-100	GS Cyclone (with 1 cassette adapter)
SK-225-101	GS Cyclone Cassette Adapter



## Protect Yourself with Economical Diffusion Badges!



### Traceair

#### Organic Vapor Monitoring System

Traceair organic vapor monitoring badges are simple, economical diffusion devices for determining concentrations of organic contaminants in the workplace. Extensive laboratory testing has proven that Traceair is a reliable sampling method exceeding NIOSH and OSHA accuracy requirements.

### OVM-1 Badge

- Ideal for low concentrations & short-term sampling
- Dual sampling rates

The OVM-1 badge contains a 300-mg high capacity coconut based charcoal strip, providing increased surface area for greater capacity than badges using petroleum based charcoal. This extends sampling periods and minimizes sample breakthrough.

### OVM-2 Badge

- Ideal for unknown environments
- Increased sampling periods
- Back up strip design

The OVM-2 badge design offers a second back up charcoal strip to allow additional material to be sampled at 45% the rate of the first, thereby extending the sampling period capability. The OVM-2 badge contains two 300 mg charcoal strips and has two times the sampling capacity of the other currently-available badges. *(Compound listing available please contact ERE)*

#### OVM Badges

Part Number	Description	Qty.
KM-380000-005	OVM-1 300 grams charcoal	5
KM-380001-005	OVM-2 600 grams charcoal	5



### 8210 N95 Particulate Respirators

This high quality, economical respirator is designed to help provide quality, reliable worker protection against certain non-oil based particles. Lightweight construction promotes greater worker comfort and increased wear time. Adjustable nose clip helps provide a custom fit and secure seal. Meets NIOSH TC-84A-0007. Twenty respirators per box.

#### 8210 N95 Particulate Respirators

Part Number	Description
GA-3M8210	8210 N95 Particulate Respirators (20)