

2019-2020 PRODUCT CATALOG



The Professionals Choice for Air Sampling Equipment



What is **KNOW THE DIFFERENCE?**



Customer Service

Zefon is a traditional 'brick and mortar' business formed in 1990. Our friendly customer service personnel are just a phone call away to help you with your ordering needs.



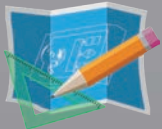
Fast Delivery

Zefon maintains a large inventory of product to ensure timely delivery. 98% of all orders placed leave our warehouse within 24 hours, and most often the same day.



Technical Support

In today's world, it is too easy for companies to sell you a product and forget about you later. *Zefon* is a specialist in sampling equipment and maintains a staff of fully trained sales and technical personnel to assist you after the sale.



Product Development & Engineering

Zefon knows sampling equipment, and focuses on new innovation – not product imitation. You can rest assured that the engineering staff at *Zefon* is always hard at work behind the scenes working on the latest in product designs or manufacturing process improvement.



State-of-the-Art Manufacturing

From our 50,000 square foot manufacturing facility in Ocala, Florida, *Zefon* operates one of the most state-of-the-art facilities in the industry. Automated processes with built-in, 100% quality inspections ensure our product is on a level our competitors just can't touch.



Customer Satisfaction & Feedback

Feedback from customers is encouraged at *Zefon* and is the lifeblood of our continuous improvement model. You can be assured that all comments or suggestions are heard – both positive and negative. In fact, many times your feedback results in product improvements and operational changes to improve your customer service and product usage experience.

Zefon International and its employees are committed to performing work in a manner that:

- Promotes defect free product
- Is on time to our customers and our fellow employees
- Complies with regulatory requirements

Our goal is to attain customer satisfaction by continually improving the effectiveness of our Quality Management System.

2019-2020 **PRODUCT CATALOG**

I would like to start by thanking all of our customers. From all of us here at *Zefon*, we truly appreciate you and look forward to serving you for many years to come. Without you we would not exist. If you are new to *Zefon*, Welcome. Please give us a chance to be your preferred source for all of your air sampling equipment needs.

As *Zefon* grows we continue to look for new ways to improve sampling devices. This year I am excited to present a couple of these new products:

The *Zefon*® DIS™ – Disposable Inhalable Sampler

The new *Zefon* DIS™ builds upon the already popular reusable inhalable sampler. It addresses a number of concerns related to the reuse of samplers while adding some new capabilities. Customers routinely tell us of issues cleaning samplers, parts getting misplaced, or samplers getting lost. The *Zefon* DIS eliminates these issues and many more.

Here are some key benefits:

- Lightweight filter capsule provides greater sensitivity for gravimetric sampling
- Dissolve the entire filter capsule for metals analysis
- No cleaning or cross contamination from reuse
- No assembly – ready to use right out of the package
- Available pre-assembled with a foam filter for respirable sampling.

Details of the *Zefon* DIS sampler can be found on page 44.

The *Zefon*® EoS™ Silica Cassette

NIOSH has spent a significant amount of time researching a solution to allow mines the ability to estimate silica concentration on samples before sending to the laboratory for analysis. The result is a system that allows users to place a specially designed cassette into a field portable FTIR. The FTIR results are then analyzed using a free software program developed by NIOSH called "FAST" (Field Analysis of Silica Tool). This can provide mines with estimates of concentration on the spot allowing corrections to be made quickly if needed. Further, the same sample can then be forwarded to a laboratory for analysis using NIOSH method 7500. *Zefon* has worked with NIOSH on this project to develop the cassette used with the portable FTIR. We call it the *Zefon* EoS™ (End of Shift) Silica Cassette. Check out page 43 for more details on this exciting new product.

Both of these products provide the ability to significantly improve sampling capabilities and ease of use. If you have an application that fits with one of these samplers, give them a try. I am sure you will quickly see the benefits in using them.

Until next time, we are off working on our next new products.

Sincerely,

Jeffery Mantz
Vice President



Easy Ordering



Toll Free: 800-282-0073
Hours: 8:00am - 5:30pm EST



Fax To: 352-854-7480
24 Hour Ordering



www.zefon.com
Secure 24 Hour Online Ordering



Orders of in-stock items are normally shipped the same day if received by 2:00PM EST. If any of the items you ordered are not in-stock, we will contact you with an expected availability date.

YOU are the final judge of our products and your satisfaction is important to us. If you are unhappy with your order for any reason - even if you simply changed your mind - you may return it to us within 30 days of the invoice date for an exchange, credit or refund of the full value of the item, minus any shipping charges. Please see our Terms and Conditions for full details.

Zefon

INTERNATIONAL


Manufacturer and Authorized
Distributor for the industry's best.

3M



BUCK

NEXTTEQ[®]



Met One
Instruments, Inc.

SENSIDYNE[®]

Industrial Health & Safety Instrumentation

If you are happy with our products and services,
please tell everyone. If you are unhappy with our
products and services, *please tell us.*

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Giving you more time for what's important.

Why does Zefon take personal exposure serious?
Because your health matters.

Zefon is committed to providing the best products and customer service for occupational air sampling. Better quality means better results.



The Professionals Choice for Air Sampling Equipment

Visit us at www.zefon.com | Call us at 800.282.0073 | Follow us on    

SAMPLING MEDIA & CASSETTES



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Air-O-Cell® Bioaerosol Cassette



The Air-O-Cell® is a unique sampling cassette designed for the rapid collection of a wide range of both viable and non-viable aero-allergens including mold spores, pollen, insect parts, skin cells, fibers and inorganic particulate.

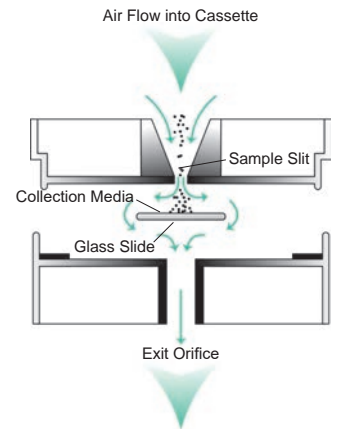
Features:

- Industry proven & accepted
- Independently validated
- Laboratory preferred, easy to analyze
- Proven results
- No sample loss during shipping & handling
- Pre-loaded, no slides to prepare

The Air-O-Cell operates upon the principle of inertial impaction. Particulate laden air is accelerated as it is drawn through the cassette's tapered inlet slit and directed towards a small slide containing the collection media, where the particles become impacted, and the air flow continues out the exit orifice. The adhesive nature of the collection media prevents the collected particulate from blurring or washing off during the staining process, and eliminates sample loss from vibration during handling and shipment.

After sampling is completed, the cassettes are sent to a laboratory, where the slides are removed and direct microscopic analysis can be immediately performed. The collection media is compatible with a wide range of biological stains and refractive index oils, allowing direct qualitative and quantitative analysis of organic and inorganic particulate.

Air-O-Cell can be used with any standard off-the-shelf sampling pump capable of drawing 15 LPM open flow, including the Zefon® Bio-Pump® Plus, a convenient battery powered hand-held pump for ease of sampling.



Examples of Particulate Collected with Air-O-Cell®



PRODUCT	DESCRIPTION	PRICE
AOC050	Air-O-Cell® Air Sampling Cassettes, 50/bx	\$199.00
AOC010	Air-O-Cell® Air Sampling Cassettes, 10/bx	\$50.00
AOCCAL	Air-O-Cell® In-Line Calibration Adapter, each	\$2.20

Air-O-Cell® Sampling Starter Kits

Starter kits are an easy, convenient way to get everything you need to begin sampling for mold. Each kit comes in a convenient toolbox-style carrying case and includes basic set-up and use instructions.

Ultimate Kit Shown



PRODUCT	BASE KIT	SAMPLING MEDIA	PRICE
Z-LITE-BMKIT	Basic Kit: Z-Lite™ IAQ Pump (Includes Integrated Combination Flow Meter/Regulator Valve) Tubing Sampling Stand Bioisolation Filter Toolbox Style Carrying Case	10 Air-O-Cell® Cassettes	\$325.00
Z-LITE-DMKIT	Deluxe Kit: Z-Lite™ IAQ Pump (Includes Integrated Combination Flow Meter/Regulator Valve) Tubing Sampling Stand Bioisolation Filter Toolbox Style Carrying Case	20 Air-O-Cell® Cassettes 25 Bio-Tape™ Slides 10 Mold Swabs	\$385.00
Z-LITE-UMKIT	Ultimate Kit: Z-Lite™ IAQ Pump (Includes Integrated Combination Flow Meter/Regulator Valve) Tubing Sampling Stand Bioisolation Filter Toolbox Style Carrying Case	50 Air-O-Cell® Cassettes 50 Bio-Tape™ Slides 50 Mold Swabs 10 Inner Wall Attachments	\$580.00



Don't forget to attend training classes for the proper use of this equipment and testing of mold. Our starter kits provide everything you need to begin testing along with general instructions on using the equipment. This is not intended to replace formal instruction, nor is it intended to teach how to perform an inspection. If you need help in locating a reputable training company, contact our sales department and tell them your needs. They can guide you in the right direction for upcoming training classes by various organizations.

MoldSNAP™ Sampler

A cost effective first-line mold screening tool that efficiently and reliably collects mold and allows for simple lab analysis.

MoldSNAP™ is designed as a first-line mold screening tool that can be easily used by home inspectors to get preliminary information on whether a mold problem may exist and further investigation is warranted. MoldSNAP is a type of “spore trap” impactor that uses slit impaction as the collection mechanism. This is important as slit impaction is not only the most reliable collection method, it is an industry recognized method that allows superior mold spore collection.

Features:

- 5 Liters x 5 minute sampling
- Quick, low volume sample
- Industry proven collection & analysis method
- Easy for labs to analyze
- Pre-loaded, no media to prep in the field



Currently using the Micro5® product for mold sampling?

Upgrading to MoldSNAP is not only easy, but provides many benefits. It is easy because all of your current pump equipment is compatible with MoldSNAP, and MoldSNAP offers an industry standard collection method that is universally recognized.

PRODUCT	DESCRIPTION	PRICE
MS050	MoldSNAP™ Sampler, 50/bx	\$209.00

Note: Limited shelf life

Inner Wall Sampling Attachments

Zefon® Inner Wall Attachments are used in conjunction with Air-O-Cell®, MoldSNAP™, or Via-Cell® cassettes to non-destructively access microbial contamination in a wall cavity.



To use, simply drill a 3/8" hole (preferably by hand). Connect the tubing attachment to the cassette and insert the tube into the wall.



AOCWS10-KIT

PRODUCT	DESCRIPTION	PRICE
AOCWS10-KIT	Air-O-Cell® Wall Sampling Adapter Starter Kit, Includes 10 adapters and a plunger rod	\$24.00
AOC-WS10	Air-O-Cell® Wall Sampling Adapters Only, 10/pk	\$12.00
SNAPWS10-KIT	MoldSNAP™ Wall Sampling Adapter Starter Kit Includes 10 adapters and a plunger rod	\$24.00
SNAP-WS10	MoldSNAP™ Wall Sampling Adapters Only, 10/pk	\$12.00

Via-Cell® Bioaerosol Sampling Cassette

The Via-Cell® bioaerosol sampling cassette is designed to collect both viable and non-viable bioaerosols, maintain viability of the viable mold spores and prevent growth during transport to the laboratory. Simply connect it to any pump calibrated to 15LPM and run your sample. The key to the Via-Cell is that the media used for collection maintains viability of spores and allows several analysis options.



One Sample, Multiple Analysis Options

Culturable Sampling

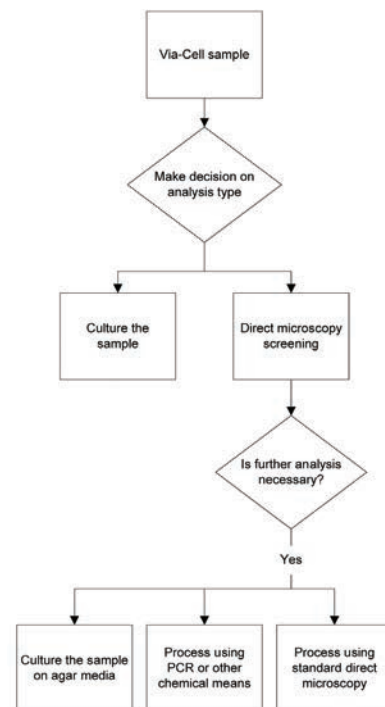
The Via-Cell sampler is the perfect tool for collecting viable organisms and culturing them on agar plates. Simply dilute the media in sterile water and transfer to a culture plate.

PCR Analysis

The Via-Cell utilizes a water soluble collection media which is ideal for PCR and other chemical types of analysis. Once the sample is diluted in water, it can be transferred most anywhere.

Direct Microscopy

Samples collected using the Via-Cell sampler may be “pre-screened” using direct microscopy methods, which allows the analyst to decide if additional analysis techniques are needed, which may include culturing or standard direct microscopy analysis.



PRODUCT	DESCRIPTION	PRICE
VIA010	Via-Cell® Air Sampling Cassettes, 10/bx	\$125.00

Note: Limited shelf life

Bio-Culture™ Microbial Air Sampler



APB-7080ZZ

The Bio-Culture™ air sampler is the smallest, most cost effective and easiest to use sampler available for microbial air sampling. The Bio-Culture air sampler features a selectable, continuous, constant sample flowrate and is simple to operate. No tools are required. Its quiet operation allows unobtrusive sampling in a variety of applications.

Features:

- Flow rate - 30-120LPM (user adjustable)
- Uses standard 90mm x 15mm petri dishes
- Sampling head design of 380 1mm diameter holes
- Battery powered - runs for 6-8 hours (depending on flow rate, battery maintenance and backpressure)
- Tripod mounting threads on bottom of unit - allows 90 degree sampling
- Sampling head may be sterilized by autoclave or gas torch
- Built-in timers of 1, 2, 5, and 10 minutes
- Optional calibration head allows field calibration of flow rate with a NIST traceable calibrator

(Note: A calibration head is required to calibrate the Bio-Culture™ pump, however it can be used to calibrate multiple pumps)

PRODUCT	DESCRIPTION	PRICE
APB-7080ZZ	Bio-Culture™ Pump, 120V Includes pump, standard 120V charger, pencil torch, carrying case and manual	\$1355.00
APB-7080ZZ-KIT	Bio-Culture™ Pump and Calibration Kit, 120V Includes pump, calibration head, standard 120V charger, pencil torch, carrying case and manual	\$2090.00



Bio-Culture™ Calibration Head

The Bio-Culture™ calibration head is a NIST traceable venturi calibrator with 1% accuracy that allows users to calibrate the flow of the Bio-Culture pump themselves without having to send the pump out for service or calibration.

Features:

- Allows flow calibration at flow rates between 30-120LPM
- Designed for use with impeller fan type pumps like the Bio-Culture, which require calibration devices with very little backpressure resistance
- Provided with a certificate of calibration traceable to NIST standards

PRODUCT	DESCRIPTION	PRICE
APB-708500	BioCulture™ Calibration Head	\$810.00

Zefon® A6 Impaction Sampler

The Zefon® A6 Impactor Sampler is an exact replica of the popular Andersen N-6 single stage impactor*. The A6 impactor is an aluminum device consisting of a top inlet “cone”, a sampling head impactor stage which contains 400 precision drilled holes and a base section, which holds the agar media. The sampler is held together by three spring clamps and sealed with two o-ring gaskets. When air is drawn through the sampler, multiple jets of air direct any airborne particles toward the surface of the agar collection media surface where the particles are impacted and collected. The agar collection media is then sent to a laboratory for analysis.

* Performance tests indicate that there is no statistical difference between the Andersen N-6 impactor and the Zefon® A6 impactor.



Z-A6

Features:

- Proven technology for viable sampling
- Identical to other single stage samplers, at a lower cost
- Uses 100mm x 15mm petri dishes
- Meets NIOSH Method 0800 and 0801 requirements



ZHV00-A6-KIT

Specifications:

- Flow Rate: 28.3 LPM (1 ACFM)
- Particle Size Cut Point: .65 µm
- Sampler Size: 4.25” diameter; 2.87” height; weight 1.23 lbs
- Material: Aircraft grade Aluminum

Kit Contents:

- Zefon® A6 Impaction Sampler
- Pump capable of pulling 28.3 LPM
- Pump flow meter
- ¼” ID Tubing
- Tripod stand
- Carrying case

PRODUCT	DESCRIPTION	PRICE
Z-A6	Zefon® A6 Impactor	\$389.00
ZHV00-A6-KIT	Zefon® A6 Impactor Kit Includes impactor, pump, flow meter, tubing, tripod and carrying case	\$780.00
ZA0043	Tripod Impactor Stand	\$42.00
Z-A6-CAL	Adapter for in-line impactor calibration	\$8.00



Accurate results when using an A6 Impactor depend on proper measurement of flow through the impactor inlet. This can be best measured using a bubble or dry piston flow calibrator traceable to NIST standard (such as a Bios Defender or Gilian® Gilibrator) set up with the A6 impactor “in-line”. To t your impactor “in-line”, be sure to order the Z-A6-CAL adapter, which fits over the impactor inlet and allows tubing to be connected to it.



Bio-Tape™ - Standardized Method for Surface Sampling

Bio-Tape™ provides a standardized surface sampling method used for the determination of possible microbial, bioaerosol, and inorganic dust contamination. It provides the ability to quickly take a sample and measure the relative degree of contamination. It is especially useful when sampling valuable or non-transportable materials and is very effective on smooth areas of concern.

The properties of the media and the slide material of the Bio-Tape make the product ideal for Scanning Electron Microscopy (SEM). Now surface samples can be taken with the lift method using *Zefon*® Bio-Tape and yield significant analysis results for material composition.



Features:

- Provides sample consistency
- Individually serialized for traceability
- Prevents cross contamination
- Eliminates problems of placing tape in a zip bag, or broken glass slides
- Samples may be archived by the laboratory for later review
- Requires less laboratory prep time

PRODUCT	DESCRIPTION	PRICE
BT0025	Bio-Tape™ Slides, 25/bx	\$26.00
BT0050	Bio-Tape™ Slides, 50/bx	\$49.00
BT0500	Bio-Tape™ Slides, 500/bx	\$410.00

Note: Limited shelf life

Sterile Surface Swabs

Sterile surface swabs are an easy way to sample suspect areas for mold contamination. Simply swab the suspect area and submit to a laboratory where the sample will be cultured and the type of mold identified. Each swab comes in an easy to use container for sampling, transport and storage. Swab kits include 10 swabs and 10 sterile 10cm x 5cm templates.



PRODUCT	DESCRIPTION	PRICE
ZA0020	Mold Swab Kit - Includes 10 swabs and 10 templates	\$35.00
ZA0023	Mold Swabs Only, 50/pk	\$32.00

Zefon® Carpet Sampling Cassettes

Zefon® Micro-Vac Carpet/Dust sampling cassettes are designed to be used with a vacuum pump to collect fibers and particulate from carpets and other dusty areas. For ease of collection, there is a special inlet with a 45° angle and all come preloaded with a filter and support pad. Cassettes are available as single cassettes or as part of a carpet sampling kit.



7345PCCC



Z045CC

PRODUCT	DESCRIPTION	PRICE
Z045CC	25mm Micro-Vac Cassette, 3pc Static Conductive Cowl, 0.45µ MCE filter	\$2.20
Z045CC-KIT	25mm Micro-Vac Carpet Kit Includes: (10) Z045CC cassettes, (10) 10cm x 10cm sampling templates and 10 zip style sample bags	\$28.00
7345CC	37mm Micro-Vac Kit with 0.45µm MCE filter	\$3.10
7345PCCC	37mm Micro-Vac Kit with 0.4µm Polycarbonate filter	\$3.20
7345PCCC-KIT	37mm Micro-Vac Carpet Kit Includes: (10) 7345PCCC cassettes, (10) 10cm x 10cm sampling templates and 10 zip style sample bags	\$40.00

Zefon® Carpet and Dust Vacuum Collection Nozzle



Sample collection simplified! All that is needed is a household vacuum cleaner with hose attachment. This unique dust collector fits directly onto the end of the vacuum hose.

When you vacuum carpets and bare floors, the nozzle collects dust into its internal filter chamber. When finished, remove the collection nozzle, replug, and send the entire piece to the laboratory for analysis.

Fits most standard household vacuum cleaners.

PRODUCT	DESCRIPTION	PRICE
ZA0059	Zefon® Carpet and Dust Vacuum Collection Nozzle	\$6.00

Transport Vials



Transport vials are ideal for sample collection, storage, and safety. Made from virgin polypropylene. Available Sterile or Non Sterile.

Features:

- Screw cap that has a molded-in sealing ring for a leakproof fit
- Conical tubes with freestanding units
- Tubes are autoclavable
- Graduation marks provide accurate references
- Write-on area on side

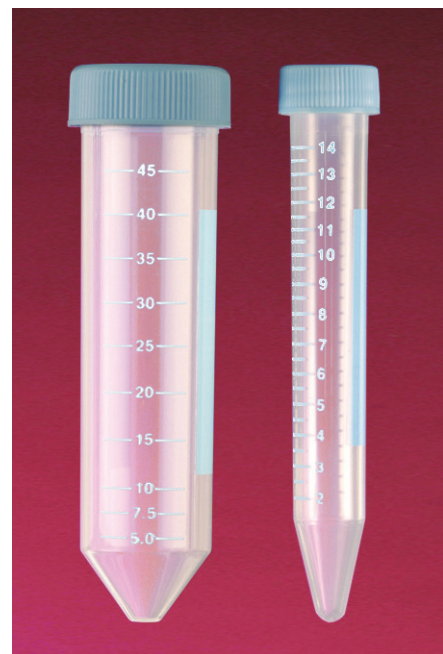
PRODUCT	DESCRIPTION	PRICE
SS-3261	Transport Vials, 50ml, Blue caps, non sterile, 500/cs	\$92.00
SS-3262	Transport Vials, 50ml, Blue caps, sterile, 500/cs	\$128.00
SS-3264	Transport Vials, 50ml, Blue caps attached, non-sterile, 500/cs	\$120.00

Centrifuge Tubes

Premium quality general purpose centrifuge tubes with molded in graduations.

Features:

- Easy to read with molded in graduations
- Superior clarity and durability
- 50ml: Made from premium Polypropylene copolymer for excellent chemical resistance; withstands temperature extremes of -40°C to 125°C; high centrifugation of 6000 RCF
- 15ml: Made from Polypropylene which has excellent chemical resistance and can withstand 6400 RCF
- Leakproof Seal: Molded in seal-ring ensures a leakproof seal without the contamination problems associated with cap liners.



PRODUCT	DESCRIPTION	PRICE
SS-3216	Centrifuge Tubes, 15ml Polypropylene, Sterile 50/tray, 500/cs	\$92.00
SS-3220	Centrifuge Tubes, 15ml Polypropylene, Non Sterile, Bag of 500	\$60.00
SS-3250	Centrifuge Tubes, 50ml Co-Polymer, Sterile, 25/tray, 500/cs	\$136.00
SS-3253	Centrifuge Tubes, 50ml Co-Polymer, Non Sterile, 25/tray, 500/cs	\$121.00

3M Swab Test Kits



3M Swab Test Kits are self contained test units which provide rapid, easy to use, specific test for specific chemicals on any surface. Simply rub the swab on any surface, if it turns color a hazardous level of the specified chemical is present.

EPA recognized for use on drywall and plaster.

Features:

- Simple, easy to use
- Immediate results
- Works on any surface
- Cost effective



PRODUCT	DESCRIPTION	PRICE
3M-LC8S10C	LeadCheck™ Swabs, 8/pk	\$29.80
3M-CC8S	ChromateCheck™ Swabs, 8/pk	\$29.80

LeadCheck™ and ChromateCheck™ Swabs are not available for shipment outside the USA.

Lead Surface Wipes



These lead wipes are used for the collection and sampling of lead in settled dust. Our formulation does not contain lanolin, aloe, or other interfering oils which may alter lab test results. The rayon substrate is easily digested in nitric acid.

Features:

- Actual size: 5" W x 8" H
- Date of Manufacture Lot # stamped on back
- Meets ASTM E1792-96 requirements for lead dust sampling wipes
- Listed in the AIHA policy on sampling materials for lead in surface dust



PRODUCT	DESCRIPTION	PRICE
AR-LWIPE100	Lead Wipes, 100/pk	\$11.40
AR-LWIPE1000	Lead Wipes, 1000/pk	\$105.00

25mm Asbestos Sampling Cassettes

Zefon® offers PCM and TEM 25mm conductive air sampling cassettes designed and manufactured to meet all applicable NIOSH, AHERA, OSHA, and EPA standards. The cassette housings are manufactured in-house from high quality polypropylene and are individually assembled and preloaded under stringent quality control standards. Once assembled, each cassette is individually tested prior to packaging for shipment. Random lot sample testing is performed daily by an independent laboratory to ensure compliance with asbestos regulations. Laboratory results are available upon request. Each cassette is banded and marked with a serial number and bar code.

Features:

- 2" Conductive Extension Cowl
- 3 Piece Housing
- Meets regulatory requirements
- Each cassette comes with a unique serial number

CASSETTE TYPE	PCM	TEM
		
FILTER TYPE	MCE	MCE
PORE SIZE	0.8µ	0.45µ + 5.0µ
HOUSING STYLE	25mm with Conductive Cowl	25mm with Conductive Cowl
COLOR CODE	BLUE	GREEN
APPLICATIONS	Asbestos	Asbestos
STANDARDS	NIOSH 7400 OSHA ID 160	NIOSH 7402 AHERA
PACK SIZE	50/bx	50/bx
PRODUCT	Z008BA	Z045BA
PRICE	\$29.60	\$45.00



Each *Zefon*® 25mm cassette undergoes stringent quality control that includes a 100% inspection for the correct filter/pad combination and a 100% inspection to ensure no filter parchment paper is present.

Then each lot of cassettes has numerous sample blanks verified by an independent laboratory to have acceptable background fiber counts as per NIOSH requirements.

Zefon® Asbestos Bulk Sampling System

Zefon® 3" Steel Sampling Modules (cutter sleeves) for asbestos bulk sampling. Extremely strong and durable. More robust than similar modules manufactured from copper. Compatible with the Zefon® solid aluminum T handle or the EMS T handle.



PRODUCT	DESCRIPTION	PRICE
ZA0070	Zefon® Asbestos Bulk Sampling Modules, 3" Length, 100/case	\$160.00
ZA0071	Zefon® T-Handle, Solid Aluminum	\$38.00
ZA0072	Zefon® Power Drill Driver	\$44.00

Asbestos Bulk Sampling Equipment

Wonder Makers Asbestos Bulk Sampling is the safest, most efficient way to collect bulk samples and project a professional image. It makes the way inspectors have been taking samples obsolete. This small compact device uses individual cutter sleeves in airtight transport containers for maximum safety and accuracy.



Features:

- Compact, lightweight design
- Eliminates cross contamination
- Is easy to use
- Encourages full-depth samples
- Removable cutter eliminates field decontamination and cross contamination problems
- Complies with OSHA asbestos regulations
- Cutter sleeves packed in see through slim vials with a write on surface and tight fitting cap
- Small bore reduces fiber release during sampling
- Double length cutters available for extra deep samples
- Complete with rugged carrying case and detailed instructions

PRODUCT	DESCRIPTION	PRICE
WM-10	Bulk Sampling Starter Set Includes 2 handles, 2 plungers, 100 cutter sleeves, 100 slim vials and carrying case	\$310.00
WM-11	Double Length Bulk Sampling Starter Set Includes 2 handles, 2 double length plungers & 100 6 3/4" cutter sleeves in slim vials	\$365.00
WM-100-100	100 Cutter Sleeves in Slim Vials	\$250.00
WM-100-1000	1000 Cutter Sleeves in Slim Vials	\$2350.00
WM-110-100	100 Double Length Cutter Sleeves in Slim Vials	\$310.00
WM-102	Handle	\$28.00
WM-105	Handle and Plunger	\$35.00
WM-103	Plunger	\$11.00
WM-111	Plunger for Double Length Cutter Sleeves	\$16.00
WM-107	Plunger Adapter	\$28.00
WM-104	Slim Plunger	\$11.00
WM-112	Plunger, Double Length, Slim	\$16.00
WM-12	Mini Sampling Pack, includes: pouch with assorted cutter sleeves, handle and filter	\$148.00
WM-13	Wonder Fill Insulation Repair Kit Fill insulation core holes using a 16oz squeeze bottle (approx. 250 repairs)	\$26.00
WM-15	Power Driver - attach cutter sleeve to power driver and cordless drill	\$40.00
WM-16	Coring Arm - attach a cutter sleeve to a 3' rod for sampling from a distance	\$140.00
WM-17	Additional 5' sections for coring arm	\$100.00

Preloaded Air Sampling Filter Cassettes



25 MM



37 MM

Zefon[®] offers a complete line of air sampling cassettes manufactured to meet all applicable NIOSH, OSHA, and EPA standards. All cassette housings are manufactured in-house from polystyrene or polypropylene and are available in two or three piece configurations. Cassettes are individually assembled and preloaded under stringent quality assurance standards with only the finest quality membrane and support pads.

Features:

- Fully assembled, preloaded and ready to use
- Leak free construction eliminates sample loss
- Configurations available to conform with most NIOSH standards that require filter cassettes
- Wide selection of filter membrane types
- Available with *Zefon*[®] Solu-Sert[™] or Gravi-Sert[™] filter capsules installed
- Sterile models available for fluid contamination sampling and microbiological analysis.
- Ultra Pure PTFE models available for pharmaceutical compound sampling.
- Custom configurations available. Contact *Zefon*[®] sales for more information.

PVC Preloaded Filter Cassettes

DIAMETER	PORE SIZE	HOUSING STYLE	NOTES	U/M	PRODUCT	PRICE
25MM	5.0μ	2-Piece, Styrene		50/bx	525PVC	\$150.00
	5.0μ	2-Piece, Styrene, Banded		50/bx	525PVC-CB	\$170.00
	5.0μ	2-Piece, Styrene, Banded	Match Weighed Filters**	50/bx	5M52P	\$290.00
	5.0μ	2-Piece, Styrene, Banded	Pre Weighed Filter**	50/bx	5P52P	\$230.00
	5.0μ	2-Piece, Styrene, Banded	Pre Weighed Gravi-Sert Filter capsule	50/bx	5P52P-GS*	\$380.00
	5.0μ	3-Piece, Styrene		50/bx	535PVC	\$160.00
	5.0μ	3-Piece, Styrene, Banded	Match Weighed Filters**	50/bx	5M53P	\$290.00
	5.0μ	3-Piece, Styrene, Banded	Pre Weighed Filter**	50/bx	5P53P	\$230.00
37MM	5.0μ	2-Piece, Styrene		50/bx	725PVC	\$80.00
	5.0μ	2-Piece, Styrene, Banded		50/bx	725PVC-CB	\$100.00
	5.0μ	2-Piece, Styrene, Banded	with Security Band	50/bx	725PVC-SB	\$120.00
	5.0μ	2-Piece, Styrene, Banded	Match Weighed Filters	50/bx	7M52P	\$250.00
	5.0μ	2-Piece, Styrene, Banded	Pre Weighed Filter**	50/bx	7P52P	\$195.00
	5.0μ	2-Piece, Styrene, Banded	Pre Weighed Gravi-Sert Filter capsule	50/bx	7P52P-GS*	\$340.00
	5.0μ	3-Piece, Styrene		50/bx	735PVC	\$80.00
	5.0μ	3-Piece, Styrene, Banded		50/bx	735PVC-CB	\$100.00
	5.0μ	3-Piece, Styrene, Banded	Match Weighed Filters**	50/bx	7M53P	\$250.00
	5.0μ	3-Piece, Styrene, Banded	Pre Weighed Filter**	50/bx	7P53P	\$195.00
	5.0μ	4-Piece, Conductive, Banded	Pre Weighed Filter** EoS FTIR	10/bx	7P54P-CF-FTIR	\$160.00

* Complete details about the Gravi-Sert Filter capsule and the benefits it offers can be found on Page 25

** Complete details regarding Match and Pre Weighed filter cassettes can be found on Page 26-27

MCE Preloaded Filter Cassettes

DIAMETER	PORE SIZE	HOUSING STYLE	NOTES	U/M	PRODUCT	PRICE
25MM	0.45µ	3-Piece, Conductive, Cone Style	Filter with Black Grids	50/bx	534AGMCE-CF	\$173.00
	0.45µ + 5.0µ	3-Piece, Cone Style with 2" Conductive Cowl	Banded For Asbestos TEM	50/bx	Z045BA	\$45.00
	0.8µ	2-Piece, Styrene		50/bx	528MCE	\$150.00
	0.8µ	2-Piece, Styrene	Solu-Sert Filter Capsule*	50/bx	528MCE-SS	\$235.00
	0.8µ	2-Piece, Styrene, Banded	Solu-Sert Filter Capsule*	50/bx	529MCE-SS	\$250.00
	0.8µ	3-Piece, Styrene		50/bx	538MCE	\$160.00
	0.8µ	3-Piece, with 2" Conductive Cowl	Asbestos PCM, Banded	50/bx	Z008BA	\$29.60
	0.8µ	3-Piece, with 2" Conductive Cowl	Banded, Black Grid Filter	50/bx	Z008GA	\$46.00
	0.8µ	3-Piece, with 2" Conductive Cowl	Banded, Green Grid Filter	50/bx	Z008GGA	\$48.00
	1.2µ	3-Piece, Conductive	Filter with Black Grids	50/bx	5312GMCE-CF	\$190.00
	1.2µ	3-Piece, Conductive, Cone Style	Filter with Black Grids	50/bx	531AGMCE-CF	\$173.00
	1.2µ	3-Piece, with 2" Conductive Cowl	Banded, Black Grid Filter	50/bx	Z012GS	\$58.00
	1.2µ	3-Piece, with 2" Conductive Cowl	Banded, Green Grid Filter	50/bx	Z0012BS	\$58.00
	37MM	0.45µ	3-Piece, Styrene		50/bx	7345MCE
0.45µ		3-Piece, Styrene	Sterile	50/bx	PS7345MCE	\$124.00
0.45µ		3-Piece, Styrene	Sterile, Black Grid Filter	50/bx	PS7345GMCE	\$124.00
0.45µ		3-Piece, Conductive		50/bx	734MCECF	\$84.00
0.45µ + 5.0µ		3-Piece, Conductive		50/bx	7345MCECF	\$103.00
0.45µ		4-Piece, Styrene	Filter placed between spacer rings	50/bx	7445MCE-C	\$76.00
0.45µ		4-Piece, Conductive	Filter placed between spacer rings	50/bx	7445MCECF-C	\$96.00
0.45µ		4-Piece, Conductive	Black Grid Filter placed between spacer rings	50/bx	7445GMCECF-C	\$120.00
0.8µ		2-Piece, Styrene		50/bx	728MCE	\$50.00
0.8µ		2-Piece, Styrene	Solu-Sert Filter Capsule*	50/bx	728MCE-SS	\$215.00
0.8µ		2-Piece, Styrene, Banded		50/bx	729MCE	\$75.00
0.8µ		2-Piece, Styrene, Banded	Solu-Sert Filter Capsule*	50/bx	729MCE-SS	\$230.00
0.8µ		2-Piece, Styrene, Banded	Match Weighed Filters**	50/bx	7M92M	\$220.00
0.8µ		2-Piece, Styrene, Banded	Match Weight Filters** Cellulose Support Ring with Security Band	50/bx	7M92M-R-SB	\$270.00
0.8µ		2-Piece, Tenite	Fuel Monitor ***	50/bx	728MCE-TN	\$180.00
0.8µ		2-Piece, Tenite	Match Weighed Filters** For Fuel Monitoring ***	50/bx	7M92M-TN	\$320.00
0.8µ		3-Piece, Styrene		50/bx	738MCE	\$50.00
0.8µ		3-Piece, Styrene	Sterile	50/bx	PS738MCE	\$124.00
0.8µ		3-Piece, Styrene	Sterile, Black Grid Filter	50/bx	PS738GMCE	\$124.00
0.8µ		3-Piece, Conductive		50/bx	738MCECF	\$84.00
0.8µ		3-Piece, Styrene, Banded		50/bx	739MCE	\$75.00
0.8µ		3-Piece, Styrene, Banded	with Security Band	50/bx	739MCE-SB	\$95.00
0.8µ	3-Piece, Styrene, Banded	Match Weighed Filters**	50/bx	7M93M	\$220.00	
0.8µ	3-Piece, Styrene, Banded	Match Weighed Filters** with Security Band	50/bx	7M93M-SB	\$240.00	

* Complete details about the Solu-Sert Filter capsule and the benefits it offers can be found on Page 24

** Complete details regarding Match Weighed filter cassettes can be found on Page 27

*** Meets requirements of ASTM D2276

Polycarbonate Preloaded Filter Cassettes

DIAMETER	PORE SIZE	HOUSING STYLE	NOTES	U/M	PRODUCT	PRICE
25MM	0.4µ	3-Piece, with 2" Conductive Cowl	Banded	50/bx	Z004PC	\$90.00
	0.45µ + 5.0µ MCE	3-Piece, with 2" Conductive Cowl	Banded	50/bx	Z045PC-MCE	\$95.00
	0.8µ	3-Piece, with 2" Conductive Cowl	Banded	50/bx	Z008PC	\$90.00
37MM	0.2µ	3-Piece, Styrene	Sterile	50/bx	PS7302PC	\$142.00
	0.4µ	2-Piece, Styrene		50/bx	7245PC	\$120.00
	0.4µ	3-Piece, Styrene		50/bx	7345PC	\$120.00
	0.4µ	3-Piece, Styrene	Sterile	50/bx	PS7345PC	\$142.00
	0.4µ	3-Piece, Styrene	Endotoxin Free	50/bx	PS7345PCEFC*	\$495.00
	0.8µ	2-Piece, Styrene		50/bx	728PC	\$120.00
	0.8µ	3-Piece, Styrene		50/bx	738PC	\$120.00

* These cassettes are specially manufactured to ensure there is no background interference when sampling endotoxins. Each lot is carefully checked and verified by an independent laboratory for endotoxins before product is released for shipment.

Glass Fiber Preloaded Filter Cassettes

DIAMETER	PORE SIZE	HOUSING STYLE	NOTES	U/M	PRODUCT	PRICE
37MM	1.0µ	2-Piece, Styrene	Type AE Glass Fiber	50/bx	721GF	\$68.00
	1.0µ	3-Piece, Styrene	Type AE Glass Fiber	50/bx	731GF	\$68.00

Quartz Preloaded Filter Cassettes

DIAMETER	PORE SIZE	HOUSING STYLE	NOTES	U/M	PRODUCT	PRICE
37MM	0.45µ	3-Piece, Styrene		50/bx	734TQ	\$180.00

PTFE Preloaded Filter Cassettes

DIAMETER	PORE SIZE	HOUSING STYLE	NOTES	U/M	PRODUCT	PRICE
	1.0µ	2-Piece, Conductive, Cone Style	PTFE with PTFE Support	50/bx	521PTFE	\$285.00
	1.0µ	2-Piece, Conductive, Cone Style	PTFE with PTFE Support PE Support Pad	50/bx	521PTFE-PE	\$300.00
	1.5µ	2-Piece, Ultra Pure Pharmaceutical Grade	PTFE with PTFE Support	50/bx	5215PTFE-PHARM*	\$320.00
	1.5µ	3-Piece, Ultra Pure Pharmaceutical Grade	PTFE with PTFE Support	50/bx	5315PTFE-PHARM*	\$390.00
37MM	0.45µ	3-Piece, Styrene	PTFE with PP Support	50/bx	7345TF	\$290.00
	0.45µ	3-Piece, Solvent Resistant PP	PTFE with PP Support	50/bx	7345TF-PP	\$330.00
	1.0µ	2-Piece, Styrene	PTFE with PP Support	50/bx	721TF	\$280.00
	1.0µ	3-Piece, Styrene	PTFE with PP Support	50/bx	731TF	\$280.00
	2.0µ	2-Piece, Styrene	PTFE with PTFE Support	50/bx	722PTPT	\$260.00
	2.0µ	2-Piece, Styrene, Opaque	PTFE with PTFE Support Cellulose Support Ring for NIOSH 5508/5515	50/bx	722PTPT-OP	\$270.00
	2.0µ	2-Piece, Styrene, Banded	PTFE with PTFE Support	50/bx	722PTPT-WB	\$280.00
	2.0µ	3-Piece, Styrene	PTFE with PTFE Support	50/bx	732PTPT	\$260.00

* These cassettes are specially manufactured using an ultra pure pharmaceutical grade plastic and pure PTFE filters designed to have extremely low extractables to eliminate any interference when sampling pharmaceutical compounds.

Make Zefon Your First Choice

We provide everything you need for silica, beryllium, mold, asbestos sampling, and more.

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Solu-Sert™ Soluble Filter Capsule



The Solu-Sert™ filter capsule is a self-contained filter “cassette capsule” that captures all particles collected by a filter cassette. It consists of an MCE filter membrane sealed to a cellulose shell to create the capsule. This capsule is then inserted into a *Zefon*® 2-Piece filter cassette with a support pad as a complete unit. After sampling the entire capsule is removed, digested in an acid solution, and then analysis performed. This process eliminates the need to rinse or wipe the cassette interior to account for “wall deposits” and makes it ideal for performing airborne metals analysis.

Features:

- Contains 100% of the sample collected within the capsule.
- Meets NIOSH requirements for including “wall deposits” as part of the sample.
- Suitable for 33 elements under NIOSH method 7306.
- Easy laboratory processing with NO rinsing or wiping.
- Lightweight shell design contributes to less background and improved limits of detection vs using a heavier weight shell.

Applications:

Solu-Sert™ is suitable for collecting the following contaminants under NIOSH Method 7306:

ELEMENTS						SPECIFICATIONS	
Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Shell Material:	Cellulose Acetate
Calcium	Chromium	Cobalt	Copper	Indium	Iron	Filter:	0.8µm pore size, mixed esters of cellulose (MCE)
Lanthanum	Lead	Lithium	Magnesium	Manganese	Molybdenum	Weight:	~200 mg @ 50% RH
Nickel	Phosphorus	Potassium	Selenium	Silver	Strontium		
Tin	Tellurium	Thallium	Titanium	Tungsten	Vanadium		
Yttrium	Zirconium	Zinc					

Solu-Serts have been shown to exhibit background levels at or below the detection limit of 25 elements. Measurable background levels of Ca, Mg and P, have been detected, however these levels are not significant in relation to the Occupational Exposure Limit (OEL) for e.g., Ca, (OH)2, MgO or H3PO4. (Background levels as presented by NIOSH in “NIOSH Guidelines for Aerosol Sampling”, Pg 33). Link: NIOSH Guidelines for Aerosol Sampling.

PLEASE NOTE that Solu-Sert™ is not appropriate for gravimetric analysis. Due to the hygroscopic nature of cellulose, tare weights will not be reproducible. For gravimetric analysis using a cassette capsule, use the Gravi-Sert™.

PRODUCT	DESCRIPTION	PRICE
CLCL-C2550	25mm Solu-Sert™ Filter Capsule, 50/pk	\$190.00
CLCL-C3750	37mm Solu-Sert™ Filter Capsule, 50/pk	\$190.00
528MCE-SS	25mm 2pc Cassette Preloaded with Solu-Sert™ Capsule, 50/bx	\$235.00
529MCE-SS	25mm 2pc Cassette BANDED Preloaded with Solu-Sert™ Capsule, 50/bx	\$250.00
728MCE-SS	37mm 2pc Cassette Preloaded with Solu-Sert™ Capsule, 50/bx	\$215.00
729MCE-SS	37mm 2pc Cassette BANDED Preloaded with Solu-Sert™ Capsule, 50/bx	\$230.00

Gravi-Sert™ Filter Capsule

Now available pre-weighed and pre-loaded!

The Gravi-Sert™ filter capsule is a self-contained filter “cassette capsule” that captures all particles collected by a filter cassette. It consists of a PVC filter membrane sealed to a static-dissipative PVC shell to create the capsule. This capsule is then weighed and inserted into a *Zefon*® 2-Piece filter cassette with a support pad as a complete unit. After sampling the entire capsule is removed and weighed.

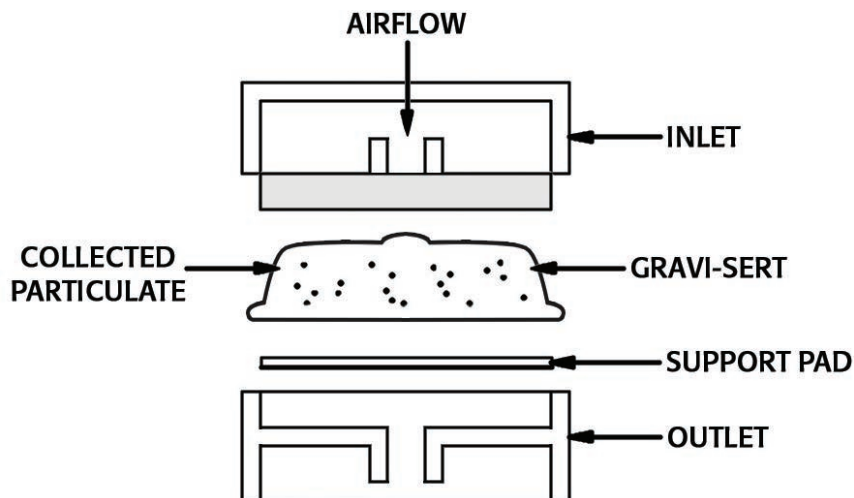
Features:

- Contains 100% of the sample collected within the capsule.
- Manufactured from weight-stable PVC materials.
- PVC shell is static-dissipative.
- Meets NIOSH requirements for including “wall deposits” as part of the sample.



How it works

Air flows into the filter cassette through the inlet and continues into the Gravi-Sert™. Particulate is then contained within the Gravi-Sert™ while the airflow continues through the filter membrane and exits out the cassette outlet.



NIOSH 0600 requires use of a Dorr-Oliver Cyclone. See Dorr-Oliver Cyclone on page 39.

Applications:

Gravi-Sert™ is suitable for collecting the following contaminants:

CONTAMINANT	NIOSH METHOD	SPECIFICATIONS
Carbon Black	5100	Shell Material: PVC (static-dissipative)
Dust - Total	0501	Filter: 5.0µm pore size, Polyvinyl chloride (PVC)
Dust - Respirable	0600	Weight: ~300 mg @ 50% RH

PRODUCT	DESCRIPTION	PRICE
PVPV-C3750	37mm Gravi-Sert™ Filter Capsule, 50/bx	\$182.00
PVPV-C2550	25mm Gravi-Sert™ Filter Capsule, 50/bx	\$182.00
7P52P-GS	37mm 2pc Cassette Preweighed with Gravi-Sert™ Filter Capsule, 50/bx	\$340.00
5P52P-GS	25mm 2pc Cassette Preweighed with Gravi-Sert™ Filter Capsule, 50/bx	\$380.00

Gravimetric Pre-Weighed Cassettes

Gravimetric analysis samples require filters to be weighed both before and after sampling to determine the amount of contaminate collected. *Zefon*[®] pre-weighed cassettes eliminate the inconvenience of pre-weighing filters by providing the filter weight on each cassette prior to sampling.

Zefon[®] begins the process of manufacturing pre-weighed cassettes by letting each filter equilibrate to the environmental conditions of 68° F and 50% relative humidity. Filters are then weighed using advanced microbalance equipment which records the weight. After reading the weight, filters are removed, placed into cassettes and sealed with a label bearing the weight and a unique serial number.

Features:

- Each cassette labeled with weight and serial number
- Use of pure homopolymer PVC filters provides excellent weight stability
- PVC filters specially designed with no silica and low ash properties



Environmental conditions can have a significant effect on filter weight readings. When using *Zefon*[®] pre-weighed cassettes, it is important that the post sample weighing is performed under the same environmental conditions used at the *Zefon*[®] factory. Those conditions are set at a temperature of 68° F and a relative humidity of 50%.

Using *Zefon*[®] pre-weighed cassettes does not comply with OSHA directives which require both the “tare weight” and “secondary weight” to be performed on the same microbalance and environmental conditions. If complying with this directive is a concern, match-weighed cassettes are a good alternative way to save time and still comply with the directive.

DIAMETER	PORE SIZE	HOUSING STYLE	WEIGHT TOLERANCE	U/M	PRODUCT	PRICE
25MM	5.0µm	25mm 2-Piece Styrene	15µg	50/bx	5P52P	\$230.00
	5.0µm Gravi-Sert™	25mm 2-Piece Styrene	15µg	50/bx	5P52P-GS	\$380.00
	5.0µm	25mm 3-Piece Styrene	15µg	50/bx	5P53P	\$230.00
37MM	5.0µm	37mm 2-Piece Styrene	15µg	50/bx	7P52P	\$195.00
	5.0µm Gravi-Sert™	37mm 2-Piece Styrene	15µg	50/bx	7P52P-GS	\$340.00
	5.0µm	37mm 3-Piece Styrene	15µg	50/bx	7P53P	\$195.00
	5.0µm	37mm 4-Piece Conductive FTIR	15µg	10/bx	7P54P-CF-FTIR	\$160.00
47MM	5.0µm	47mm 3-Piece Conductive	15µg	32/bx	4P53P-CF	\$230.00

The Professionals Choice for Air Sampling Equipment

Gravimetric Match-Weighed Cassettes

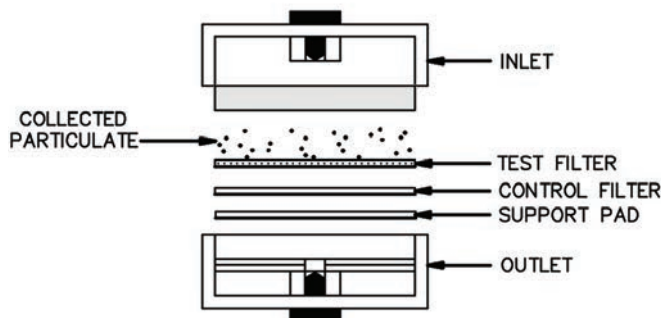
Gravimetric analysis samples require filters to be weighed both before and after sampling to determine the amount of contaminate collected. *Zefon*[®] match-weighted cassettes eliminate the need of weighing filters before sampling by providing 2 filters which are matched in weight. The top filter collects particulate and the bottom filter serves as a control. After sampling, both filters are weighed and the difference in weight equals the amount of contaminate collected.

Zefon[®] uses the most advanced microbalance equipment and technology available to produce premium quality weighed cassettes. Our process includes manufacturing under strict environmental controls to ensure weight reproducibility and numerous quality checks to ensure consistent weights. The end result is a quality product at a competitive price.

Features:

- Each cassette labeled with serial number
- Color coded to indicate filter type
- Preloaded - ready to use

Matched Weighed Configuration



FILTER	HOUSING STYLE	BAND COLOR	TOLERANCE	U/M	PRODUCT	PRICE
MCE 0.8µm	25mm 2-Piece Styrene	Blue	50µg	50/bx	5M92M	\$265.00
	25mm 3-Piece Styrene	Blue	50µg	50/bx	5M93M	\$265.00
	37mm 2-Piece Styrene	Blue	50µg	50/bx	7M92M	\$220.00
	37mm 2-Piece Styrene	Blue with Security Band	50µg	50/bx	7M92M-R-SB	\$270.00
	37mm 2-Piece Tenite	None	50µg	50/bx	7M92M-TN*	\$320.00
	37mm 3-Piece Styrene	Blue	50µg	50/bx	7M93M	\$220.00
	37mm Filter Only	None	50µg	50 Pairs	FMCE837-MW50	\$195.00
	47mm Filter Only	None	50µg	50 Pairs	FMCE847-MW50	\$240.00
PVC 5.0µm	25mm 2-Piece Styrene	Red	20µg	50/bx	5M52P	\$290.00
	25mm 3-Piece Styrene	Red	20µg	50/bx	5M53P	\$290.00
	37mm 2-Piece Styrene	Red	20µg	50/bx	7M52P	\$250.00
	37mm 3-Piece Styrene	Red	20µg	50/bx	7M53P	\$250.00
	37mm Filter Only	None	20µg	50 Pairs	FPVC537-MW20	\$215.00
	47mm Filter Only	None	20µg	50 Pairs	FPVC547-MW20	\$260.00

* Meets requirement of ASTM D2276

The weight tolerance of match weighed filters references the maximum difference in weight from the test (top) filter and the control (bottom) filter. A stated tolerance of 50µg means that the control filter may differ in weight no more than 50µg from the test filter. This is important to know during post sample weighing as the weight tolerance of the 2 filters needs to be considered when calculating results.

During manufacture, filters with matched weights (within the given tolerance) are inserted into the cassette in random order. Thus, it is possible for the control filter to weigh more than the test filter before sampling (within the given tolerance). If the control filter still weighs more after sampling, a sample likely was not collected. Please check your equipment for proper operation and pump flow.



MCE Membrane Filters

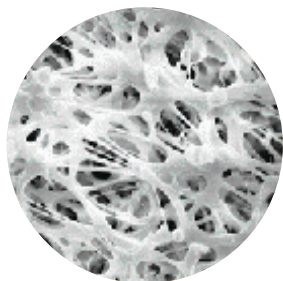
Mixed Cellulose Ester (MCE) Filter Membrane Discs are manufactured from a mixture of cellulose acetate and cellulose nitrate. MCE membrane filters are one of the most widely used filters in both air monitoring and analytical applications.



DIAMETER	PORE SIZE	FILTER SURFACE	NOTES	U/M	PRODUCT	PRICE	
25MM	0.2μ	Plain White	○	100/pk	FMCE0225	\$60.00	
	0.45μ	Plain White	○	100/pk	FMCE425	\$40.00	
	0.45μ	Black Grids	⊗	100/pk	FGMCE425	\$40.00	
	0.8μ	Plain White	○	100/pk	FMCE825	\$32.80	
	0.8μ	Plain White	○	Match Weighed Pairs	50 pairs	FMCE825-MW50	\$180.00
	0.8μ	Black Grids	⊗	100/pk	FGMCE825	\$40.00	
	0.8μ	Green Grid	⊗	100/pk	FGGMCE825	\$44.00	
	1.2μ	Plain White	○	100/pk	FMCE125	\$40.00	
	1.2μ	Black Grids	⊗	100/pk	FGMCE125	\$40.00	
	5.0μ	Plain White	○	100/pk	FMCE525	\$40.00	
37MM	0.2μ	Plain White	○	100/pk	FMCE0237	\$85.00	
	0.45μ	Plain White	○	100/pk	FMCE4537	\$52.00	
	0.45μ	Black Grids	⊗	100/pk	FGMCE4537	\$52.00	
	0.8μ	Plain White	○	100/pk	FMCE837	\$42.00	
	0.8μ	Plain White	○	Includes 34mm Pads	100/pk	FMCE837-T1*	\$70.00
	0.8μ	Plain White	○	Match Weighed Pairs	50 Pairs	FMCE837-MW50	\$200.00
	0.8μ	Plain White	○	Match Weighed Pairs	50 pairs	FMCE837-T1-MW50*	\$220.00
	0.8μ	Black Grids	⊗	100/pk	FGMCE837	\$55.00	
	1.2μ	Plain White	○	100/pk	FMCE137	\$58.00	
	1.2μ	Black Grids	⊗	100/pk	FGMCE137	\$58.00	
5.0μ	Plain White	○	100/pk	FMCE537	\$62.00		
47MM	0.2μ	Plain White	○	100/pk	FMCE0247	\$110.00	
	0.45μ	Plain White	○	100/pk	FMCE4547	\$72.00	
	0.45μ	Black Grids	⊗	100/pk	FGMCE4547	\$72.00	
	0.8μ	Plain White	○	100/pk	FMCE847	\$70.00	
	0.8μ	Plain White	○	100/pk	FMCE847-T1*	\$70.00	
	0.8μ	Plain White	○	Match Weighed Pairs	50 Pairs	FMCE847-MW50	\$240.00
	0.8μ	Plain White	○	Match Weighed Pairs	50 Pairs	FMCE847-T1-MW50*	\$260.00
	0.8μ	Black Grids	⊗	100/pk	FGMCE847	\$72.00	
	0.8μ	Green Grid	⊗	100/pk	FGGMCE847	\$75.00	
	1.2μ	Black Grids	⊗	100/pk	FGMCE147	\$75.00	
	1.2μ	Plain White	○	100/pk	FMCE147	\$75.00	
	5.0μ	Plain White	○	100/pk	FMCE5047	\$85.00	

* Meets requirements of ASTM D2276

PVC Membrane Filters

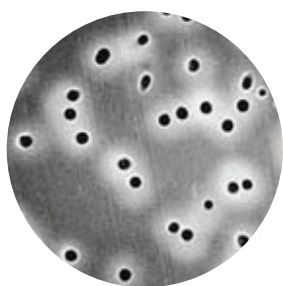


Polyvinyl Chloride (PVC) Membrane Filters are excellent membrane filters for sampling airborne metals, silica, and dust. Comprised of inherently low ash pure homopolymer PVC, these filters are particularly well suited to provided interference-free silica determinations. Low moisture pick-up and low tare weight assure gravimetric stability.

Features:

- Specified for use in numerous NIOSH and OSHA methods
- Suitable for gravimetric analysis and respirable dust sampling

DIAMETER	PORE SIZE	TYPE	NOTES	U/M	PRODUCT	PRICE
25MM	5.0μ	GLA-5000		100/pk	FPVC525	\$54.00
	5.0μ	GLA-5000	Match Weighed	50 Pairs	FPVC525-MW20	\$215.00
37MM	5.0μ	GLA-5000		100/pk	FPVC537	\$80.00
	5.0μ	GLA-5000	Match Weighed	50 Pairs	FPVC537-MW20	\$260.00
47MM	5.0μ	GLA-5000		100/pk	FPVC547	\$118.00
8" x 10" Sheet	5.0μ	GLA-5000		10/pk	FPVC8X10	\$350.00



Polycarbonate Membrane Filters

Polycarbonate track-etch (PCTE) membrane filters are manufactured from polycarbonate films. They feature a smooth flat surface, exhibit well-controlled pore size and shape, and have very low levels of extractables. Naturally hydrophobic.

DIAMETER	PORE SIZE	TYPE	NOTES	U/M	PRODUCT	PRICE
25MM	0.2μ	Polycarbonate		100/pk	FPC225	\$70.00
	0.4μ	Polycarbonate		100/pk	FPC4525	\$70.00
	0.8μ	Polycarbonate		100/pk	FPC825	\$70.00
	5.0μ	Polycarbonate		100/pk	FPC525	\$95.00
37MM	0.2μ	Polycarbonate		100/pk	FPC0237	\$95.00
	0.4μ	Polycarbonate		100/pk	FPC4537	\$95.00
	0.8μ	Polycarbonate		100/pk	FPC837	\$95.00
47MM	0.4μ	Polycarbonate		100/pk	FPC447	\$105.00
	0.8μ	Polycarbonate		100/pk	FPC847	\$105.00

PTFE Membrane Filters



PTFE membrane filters provide excellent chemical resistance and are suitable for use in the most aggressive sampling environments.

Features:

- Strong, chemically resistant membrane
- Naturally hydrophobic
- Suitable for gravimetric sampling
- Compatible with autoclave or ETO sterilization

ZePore™ PTFE Membrane with PTFE Support

The Zefon® ZePore™ is a unique PTFE membrane with a laminated PTFE support layer that provides improved handling combined with the superior chemical resistance pure PTFE provides. It is the best alternative to the discontinued Pall® Zefluor™ brand of PTFE membrane. The ZePore is suitable for use in particulate and gravimetric sampling, and the pure nature of the PTFE eliminates the need to pre-wash the membrane before some procedures.

DIAMETER	PORE SIZE	TYPE	NOTES	U/M	PRODUCT	PRICE
25MM	1.0µ	Laminated PTFE		100/pk	FPTFE125	\$300.00
37MM	1.0µ	Laminated PTFE		50/pk	FPTFE137	\$200.00
47MM	1.0µ	Laminated PTFE		50/pk	FPTFE147	\$300.00

PTFE with a Laminated Polypropylene Support Layer

These PTFE filters have a polypropylene backing laminated onto them to improve durability and ease of handling.

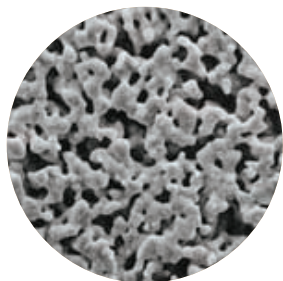
DIAMETER	PORE SIZE	TYPE	NOTES	U/M	PRODUCT	PRICE
37MM	0.45µ	Laminated PP		100/pk	FFTP4537	\$370.00
	1.0µ	Laminated PP		100/pk	FFTP137	\$350.00
47MM	0.45µ	Laminated PP		100/pk	FFTP4547	\$410.00

PTFE with a PMP (polymethylpentene) Support Ring (Teflo™)

Featuring a polymethylpentene (PMP) support ring bonded to the base PTFE material. Suitable for use in PM10 and PM2.5 dichotomous and other air sampling techniques.

DIAMETER	PORE SIZE	TYPE	NOTES	U/M	PRODUCT	PRICE
25MM	3.0µ	Laminated PMP Ring		50/pk	FPTPMP325	\$360.00
37MM	2.0µ	Laminated PMP Ring		50/pk	FPTPMP237	\$360.00
47MM	2.0µ	Laminated PMP Ring		50/pk	FPTPMP247	\$400.00

Silver Membrane Filters

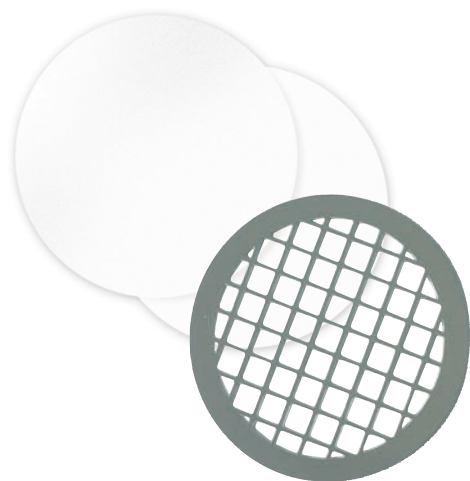


Silver Metal Filter Membranes are pure metallic silver (99.97% pure silver) and are available with particle retention ratings of 0.45 or 0.8 microns. Silver metal membranes are used in a variety of filtration applications, and their ability to withstand extreme chemical and thermal stress makes them ideal for applications involving aggressive fluids and/or high temperatures.

Features:

- 99.97% pure silver
- High temperature and chemical resistance
- Economical - can be cleaned & reused
- Smooth surface for particle capture and easy observation

DIAMETER	PORE SIZE	TYPE	NOTES	U/M	PRODUCT	PRICE
25MM	0.45µ	Silver		50/pk	FS2545	\$360.00
	0.8µ	Silver		50/pk	FS258	\$375.00
37MM	0.8µ	Silver		25/pk	FS378	\$345.00



Filter Supports

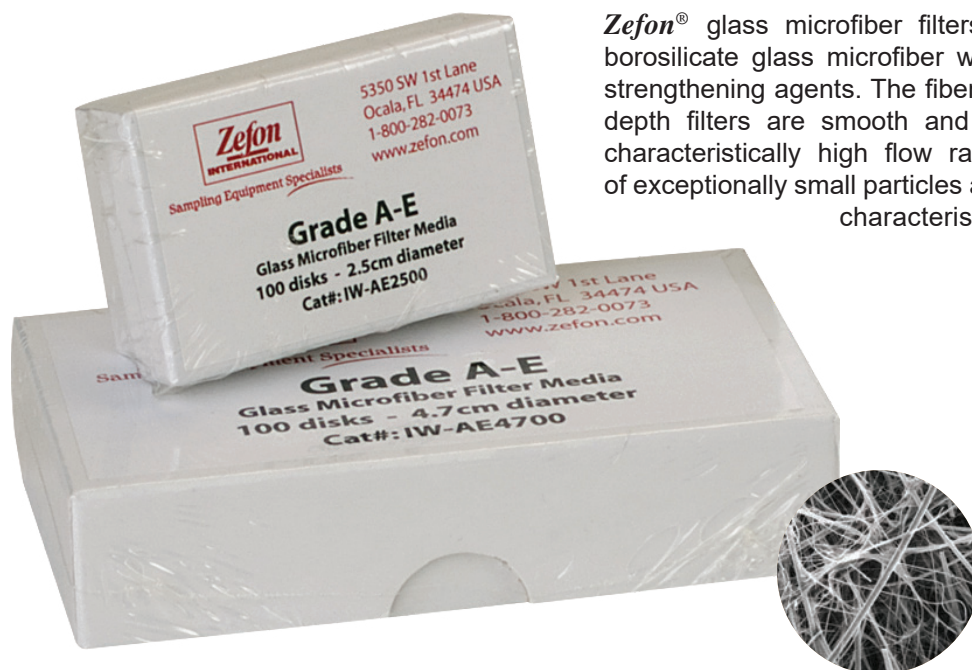
These filter supports are used behind filter membranes to support them from collapsing while still allowing free air flow through them.

Available in 3 different styles:

- Cellulose pads are made up of 100% pure cellulose and the most common support used in filter cassettes.
- Porous plastic supports work well when sampling chemicals that are not compatible with cellulose.
- Stainless steel grids can be used in a wide range of filter holders and can easily be cleaned and re-used.

SIZE	MATERIAL	NOTES	PACK SIZE	PRODUCT	PRICE
25MM	Cellulose		100/pk	FSP25	\$16.50
	Porous Plastic		100/pk	PFSP25	\$30.00
	Stainless Steel	Wide Mesh Grid	Each	ZA0014	\$10.40
34MM	Cellulose	Thick Pads	100/pk	FSP34-FM	\$24.00
37MM	Cellulose		100/pk	FSP37	\$17.50
	Cellulose	Support Ring For Use with NIOSH 5506/5515/5044	100/pk	FSP37R	\$21.00
	Porous Plastic		100/pk	PFSP37	\$45.00
	Stainless Steel	Wide Mesh Grid	Each	ZA0015	\$14.60
46.5MM	Cellulose	Adsorbent, Thick	100/pk	FSP465-AH	\$21.00
47MM	Cellulose		100/pk	FSP47	\$26.00
	Stainless Steel	Wide Mesh Grid	Each	ZA0016	\$17.00
8" x 10"	Cellulose		10/pk	FSP8X10	\$32.00

Glass Fiber Filters



Zefon® glass microfiber filters are produced from 100% borosilicate glass microfiber without the use of binders or strengthening agents. The fibers used to manufacture these depth filters are smooth and uniform. This permits their characteristically high flow rates while allowing retention of exceptionally small particles and high load capacity. These characteristics are particularly important in applications involving high concentrations of particulate.

Grade A-E

Grade A-E is the most popular grade used in air monitoring. Made from binderless borosilicate glass microfiber, it features a fine porosity and fast flow rate, with a 1.0µm size particle retention. DOP efficiency is 99.98%.

SIZE	NOMINAL PORE SIZE	TYPE	NOTES	U/M	PRODUCT	PRICE
25MM	1.0µ	Grade AE		100/pk	IW-AE2500	\$22.00
37MM	1.0µ	Grade AE		100/pk	IW-AE3700	\$24.00
47MM	1.0µ	Grade AE		100/pk	IW-AE4700	\$39.00
90MM	1.0µ	Grade AE		100/pk	IW-AE9000	\$61.00
8" x 10"	1.0µ	Grade AE		100/pk	IW-AES810	\$285.00

Grade 934-AH®

Grade 934-AH® is the standard for sampling suspended solids content and related measurements (Standard Methods 2540D and EPA Method 160.2). Made from a binderless borosilicate glass microfiber that enables use up to 550° C while featuring a fine porosity, fast flow rate, and a 1.5µm size particle retention.

SIZE	NOMINAL PORE SIZE	TYPE	NOTES	U/M	PRODUCT	PRICE
25MM	1.5µ	Grade 934-AH®		100/pk	IW-AH2500	\$24.00
37MM	1.5µ	Grade 934-AH®		100/pk	IW-AH3700	\$31.00
47MM	1.5µ	Grade 934-AH®		100/pk	IW-AH4700	\$45.00
8" x 10"	1.5µ	Grade 934-AH®		100/pk	IW-AHS810	\$455.00

Other Grades - Specialty

SIZE	NOMINAL PORE SIZE	TYPE	NOTES	U/M	PRODUCT	PRICE
25MM	1.2µ	Grade C		100/pk	IW-C2500	\$20.00
25MM	0.7µ	Grade F		100/pk	IW-F2500	\$31.00
37MM	0.7µ	Grade F		100/pk	IW-F3700	\$33.00
47MM	0.7µ	Grade F		100/pk	IW-F4700	\$41.00

PTFE Coated Glass Fibers

These filters are made from pure borosilicate glass microfibers reinforced with woven glass cloth and bonded with PTFE. They feature low air resistance for use in critical aerosol sampling tests that demand filter purity and non-hygroscopic properties such as diesel exhaust, stack emission control, and ambient air monitoring for particulate concentration.

SIZE	PORE SIZE	TYPE	NOTES	U/M	PRODUCT	PRICE
25MM	Not rated		99.95% (DOP)	100/pk	FGF25-PTFE	\$200.00
37MM	Not rated		99.95% (DOP)	100/pk	FGF37-PTFE	\$210.00
47MM	Not rated		99.95% (DOP)	100/pk	FGF47-PTFE	\$220.00

Quartz A

Quartz A is a binderless quartz microfiber featuring fine porosity with a 99.999% efficiency in air filtration for the retention of 0.6µm particles in air at a flow rate of 5cm/second. Primarily used in air pollution monitoring, atomic absorption spectroscopy, flame emission spectrometry and other applications where an extremely critical analysis is needed. Effective temperature range of up to 1000 °C.

SIZE	PORE SIZE	TYPE	NOTES	U/M	PRODUCT	PRICE
25MM	0.6µ	Quartz A		100/pk	IW-Q2500	\$47.00
37MM	0.6µ	Quartz A		100/pk	IW-Q3700	\$85.60
47MM	0.6µ	Quartz A		100/pk	IW-Q4700	\$97.00
50MM	0.6µ	Quartz A		100/pk	IW-Q5000	\$99.00
90MM	0.6µ	Quartz A		100/pk	IW-Q9000	\$270.00

Heat Treated Quartz Filters

These heat treated Quartz filters are uniquely designed for air monitoring in high temperature and aggressive atmospheres. Heat treated for reduction of trace organics and superior chemical purity. High flow rate and filtration efficiency. Ultra-pure soft waterprocessing to reduce residual ion content.

SIZE	PORE SIZE	TYPE	NOTES	U/M	PRODUCT	PRICE
25MM	Not Rated	Tissuquartz	432µm thick, Up to 1093°C	100/pk	FTQ25	\$190.00
	2.0-2.2µ	Quartz A, Heat Treated	460µm thick Up to 1150°C	100/pk	IW-HT-Q2500	\$58.00
37MM	Not Rated	Tissuquartz	432µm thick, Up to 1093°C	25/pk	FTQ37	\$70.00
	2.0-2.2µ	Quartz A, Heat Treated	460µm thick Up to 1150°C	100/pk	IW-HT-Q3700	\$102.00
42.5MM	2.0-2.2µ	Quartz A, Heat Treated	460µm thick Up to 1150°C	100/pk	IW-HT-Q4250	\$114.00
47MM	Not Rated	Tissuquartz	432µm thick, Up to 1093°C	25/pk	FTQ47	\$90.00
	2.0-2.2µ	Quartz A, Heat Treated	460µm thick Up to 1150°C	100/pk	IW-HT-Q4700	\$120.00
90MM	2.0-2.2µ	Quartz A, Heat Treated	460µm thick Up to 1150°C	100/pk	IW-HT-Q9000	\$320.00

Cassette Sealing Shrink Bands



Cassette Sealing Shrink Bands are a unique way to seal a cassette. They are stored in a liquid-filled plastic jar, then removed and placed around the cassette. As the band dries, it shrinks and forms a seal.

Dr. Z's Cassette Sealing Band Tips



The easiest way to use shrink bands is to simply take a handful of bands out of the jar and place on some paper towels. Remove all excess liquid by patting them dry. Then, place around the cassette. The bands will then begin to dry and in a few hours will form a tight seal.

25mm Cassette Bands

PRODUCT	SIZE	COLOR	PACK SIZE	PRICE
ZA0034	25MM	Clear	100/pk	\$17.00
ZA0036	25MM	Clear	1000	\$90.00
ZA0008	25MM	White	100/pk	\$17.00
ZA0029	25MM	White	1000/pk	\$90.00
ZA0032	25MM	Red	100/pk	\$18.00

37mm Cassette Bands

PRODUCT	SIZE	COLOR	PACK SIZE	PRICE
ZA0035	37MM	Clear	100/pk	\$18.00
ZA0037	37MM	Clear	1000/pk	\$120.00
ZA0007	37MM	White	100/pk	\$17.00
ZA0033	37MM	White	1000/pk	\$120.00
ZA0031	37MM	Red	100/pk	\$18.00
ZA0039	37MM	Red	1000/pk	\$125.00
ZA0030	37MM	Yellow	100/pk	\$18.00
ZA0038	37MM	Yellow	1000/pk	\$125.00
ZA0090	37MM	Blue	1000/pk	\$125.00
ZA0091	37MM	Orange	1000/pk	\$125.00
ZA0048	37MM	Black	1000/pk	\$125.00

47mm Cassette Bands

PRODUCT	SIZE	COLOR	PACK SIZE	PRICE
ZA0041	47MM	Clear	100/pk	\$24.00
ZA0044	47MM	Clear	1000/pk	\$160.00

Cassette Accessories



Cassette/Cyclone Holder
ZA0061



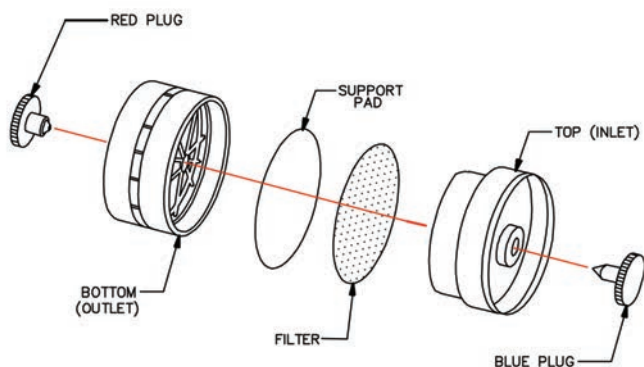
Cassette Opener
ZA0046



Filter Transport Case
ZA0010

PRODUCT	DESCRIPTION	PRICE
ZA0046	Cassette Opener for 25mm, 37mm, and Air-O-Cell® Cassettes	\$36.00
ZA0049	Cassette Opener for 47mm and Air-O-Cell® Cassettes	\$36.00
ZA0061	Cassette/Cyclone Holder	\$30.00
ZA0010	Filter Transport Case, 25mm, Conductive	\$7.00

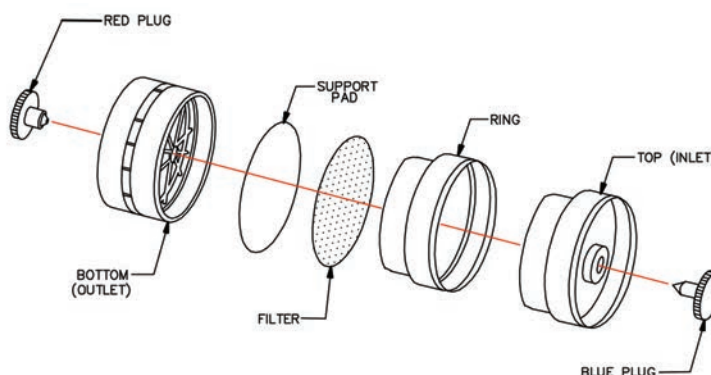
2-piece Standard Style Cassette Configuration



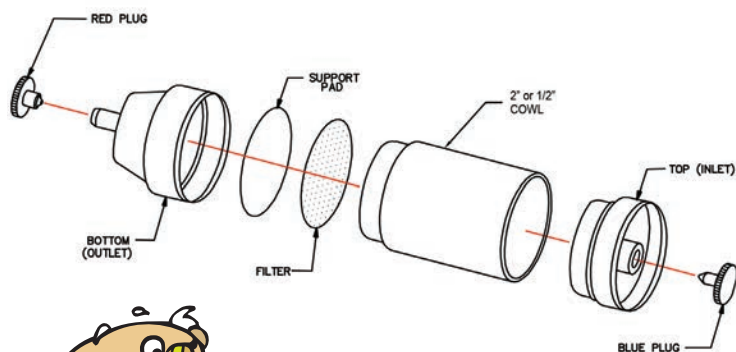
2-piece cassettes are advantageous when only “closed faced” sampling is required. This is because during sampling, contaminants will cling to the walls of the cassette from electrostatic forces. With approximately 35% less surface area in a 2-piece cassette vs. a 3-piece cassette, there is less surface area for contaminants to cling to and thus more contaminant where it should be — on the filter membrane.

3-piece Standard Style Cassette Configuration

3-piece cassettes provide flexibility because they can be used for both “open face” and “closed face” sampling as well as connect to cyclones. The main disadvantage would be that 3-piece cassettes have more static charge than 2-piece cassettes, resulting in more potential for sample loss.



3-piece Asbestos Style Cassette Configuration



3-piece asbestos style cassettes feature a 2” (50mm) or 1/2” long cowl and can be used for both “open face” and “closed face” sampling. These housings are available with a static conductive cowl or in a clear styrene material.



The term “closed faced” sampling refers to using a 37mm cassette with the inlet in place and only the plugs removed. Alternatively, “open faced” sampling refers to using a 3-piece cassette and removing the inlet piece, thus creating an “open face”.

Asbestos Style (Cone Outlet) Cassette Housings

Just like our preloaded cassettes, these unassembled cassette housings feature a leak free design and are manufactured in-house to stringent quality standards.



PRODUCT	SIZE	TYPE	HOUSING STYLE & MATERIAL	PACK SIZE	PRICE
25MMH	25MM	3-Piece	Asbestos Style with 50mm Conductive Cowl	50/bx	\$26.40
25MMH-SAN	25MM	3-Piece	Asbestos Style with 50mm Cowl, Styrene	50/bx	\$52.00
25MMH-2A	25MM	2-Piece	Asbestos Style, Clear Styrene	50/bx	\$65.00
25MMH-3A	25MM	3-Piece	Asbestos Style with 1/2" Spacer, Clear Styrene	50/bx	\$75.00
25MMH-2A-CF	25MM	2-Piece	Asbestos Style, Conductive PP	50/bx	\$75.00
25MMH-3A-CF	25MM	3-Piece	Asbestos Style with 1/2" Spacer, Conductive PP	50/bx	\$85.00
25MMH-2A-PP	25MM	2-Piece	Asbestos Style, Polypropylene	50/bx	\$75.00
25MMH-3A-PP	25MM	3-Piece	Asbestos Style with 1/2" Spacer, Polypropylene	50/bx	\$85.00
25MMH-3A-LIP	25MM	3-Piece	Asbestos Style with 50mm Cowl & extra Lip to support additional filter & pad on inlet side, conductive PP. For use with NIOSH method 6011.	50/bx	\$75.00

Cassette Plugs

Fits Zefon® 25mm, 37mm, and 47mm standard and asbestos style housings.

PRODUCT	DESCRIPTION	PACK SIZE	PRICE
ZA0012	Red Cassette Plugs	100/pk	\$12.00
ZA0013	Blue Cassette Plugs	100/pk	\$12.00



Dr. Z says...

Zefon® takes steps to assure its filter cassettes have a good seal. As part of our standard quality assurance program, random samples of cassettes are tested for leakage. During this test, cassettes are placed under a vacuum load that corresponds with the amount of vacuum load the cassette is likely to see during actual use. To

pass, there must not be more than 1 inch of mercury lost over a period of 30 seconds. Using cassettes that are not sealed properly can result in air leaking through the plastic seams or air that goes around and bypasses the filter. This may result in erroneous results or an underestimated sample size.

Standard Cassette Housings

Just like our preloaded cassettes, these unassembled cassette housings feature a leak free design and are manufactured in-house to stringent quality standards.



Standard Style Housings

DIAMETER	TYPE	HOUSING STYLE & MATERIAL	PACK SIZE	PRODUCT	PRICE
25MM	2-Piece	Standard Style Clear Styrene	50/bx	25MMH-2	\$75.00
	3-Piece	Standard Style Clear Styrene	50/bx	25MMH-3	\$85.00
	Ring	1/2" Spacer Ring Only, Clear Styrene	50/bx	25MMH-1	\$30.00
	Ring	1/2" Spacer Ring Only, Conductive	50/bx	25MMH-1-CF	\$52.00
37MM	2-Piece	Standard Style Clear Styrene	50/bx	37MMH-2	\$36.00
	2-Piece	Standard Style Opaque Colored Styrene	50/bx	37MMH-2-OP	\$54.00
	2-Piece	Standard Style Solvent Resistant PP	50/bx	37MMH-2-PP	\$54.00
	2-Piece	Standard Style Conductive	50/bx	37MMH-2-CF	\$54.00
	2-Piece	Standard Style Tenite	50/bx	37MMH-2-TN	\$98.00
	3-Piece	Standard Style Clear Styrene	50/bx	37MMH-3	\$38.00
	3-Piece	Standard Style Opaque Colored Styrene	50/bx	37MMH-3-OP	\$54.00
	3-Piece	Standard Style Solvent Resistant PP	50/bx	37MMH-3-PP	\$54.00
	3-Piece	Standard Style Conductive	50/bx	37MMH-3-CF	\$54.00
	4-Piece	Standard Style Clear SAN	50/bx	37MMH-4	\$54.00
	4-Piece	Standard Style Conductive	50/bx	37MMH-4-CF	\$88.00
	Ring	1/2" Spacer Ring Only, Clear Styrene	50/bx	37MMH-1	\$30.00
	Ring	1/2" Spacer Ring Only, Conductive	50/bx	37MMH-1-CF	\$45.00
	47MM	2-Piece	Standard Style Conductive	25/bx	47MMH-2-CF
3-Piece		Standard Style Conductive	25/bx	47MMH-3-CF	\$85.00

Material Explanations

Clear Styrene	Opaque Styrene	Polypropylene (Solvent Resistant)	Conductive Black Polypropylene
The most common material, a crystal clear styrene that provide excellent visibility inside the cassette housing.	Manufactured of the same styrene the clear one is, except it is an opaque brown color to prevent transmission of light into the cassette.	A natural polypropylene with a cloudy looking color. Material is resistant to a wide range of chemicals.	Manufactured using a polypropylene that is carbon filled making it conductive when grounded properly.

Coal Dust Sampling Cassettes



Zefon® Preweighed Coal Dust Sampling Cassettes consist of a sealed outer plastic capsule and an inner pre-weighed filter capsule. The inner capsule contains a 5 micron PVC filter and stainless steel supports. Each filter cassette is supplied with a mine data card, which has the weight of the filter capsule recorded to the nearest 0.001mg. Model 803462-2PK additionally include a mailing carton addressed to the Mine Safety and Health Administration (MSHA) and are components of the CMDPSU sampler specified for use in coal mine dust sampling per 30 CFR part 74.

PRODUCT	DESCRIPTION	PRICE
803462-2PK	Coal Dust Sampling Cassettes, MSHA Mandated Sampling, 2 Pack	\$55.00
711361	Coal Dust Sampling Cassette, Non-Regulated, General Purpose Use	\$35.00

Note: Coal Dust Sampling Cassettes are not returnable and the Zefon® normal 30 day return policy does not apply to this product.

Zefon® Heavy Duty 10mm Dorr-Oliver Cyclone

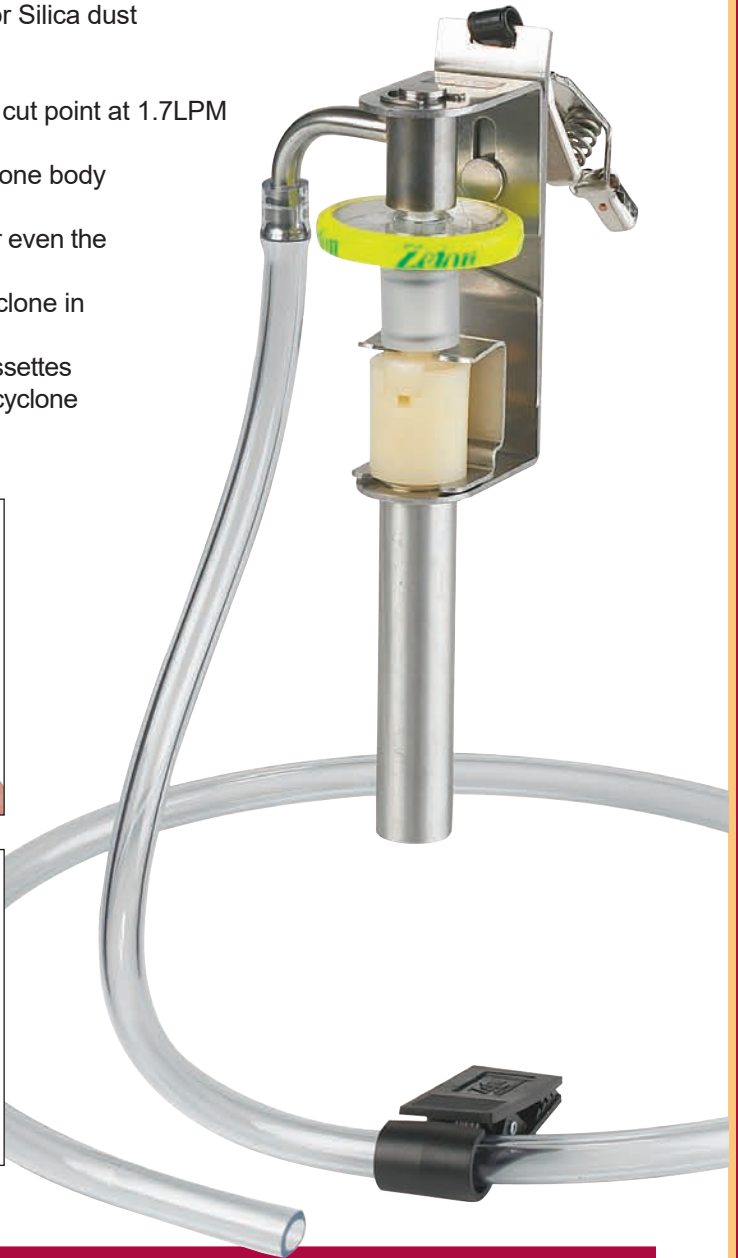
The Zefon® 10mm Nylon Cyclone is designed to separate respirable dust particles from non-respirable particles and allow the respirable particles to be collected on a filter cassette.

Applications:

- Specified for coal mine dust sampling per 30 CFR, Part 74 (model #456243)
- Designed to fit all standard 37mm Industrial Hygiene (IH) Cassettes (model #10044015)
- Specified in NIOSH method 0600 for Particulates Not Otherwise Regulated, Respirable
- Specified in NIOSH method 7500, 7501, 7601, 7602 for Silica dust

Features:

- Meets ACGIH/ISO/CEN respirable curve with a 4.0µm cut point at 1.7LPM
- Heavy Duty design withstands harsh environments
 1. Stainless steel protective sleeve fits over the cyclone body for protection.
 2. Strong collar clip with spike will not come off under even the harshest conditions.
 3. Cyclone and holder are designed to orient the cyclone in the proper position for sampling.
 4. Separate couplers for mining cassettes and IH cassettes prevent mixups between the wrong cassette and cyclone and allow easy identification.



PRODUCT	DESCRIPTION	PRICE
For use with Zefon® Mining Cassettes:		
456243	10mm Nylon Respirable Dust Cyclone for use with Zefon® Mining Cassettes Only	\$270.00
457391	Replacement Plastic Cyclone Coupler for Mining Cassette	\$24.00
For use with Standard Industrial Hygiene Cassettes:		
10044015	10mm Nylon Respirable Dust Cyclone for use with standard 37mm IH Cassettes	\$270.00
457392	Replacement SS Cyclone Coupler for 37mm IH Cassettes	\$35.00

Zefon® 10mm Static Conductive Nylon Cyclone

A static conductive replica of the 10mm "Dorr-Oliver" Nylon Cyclone.

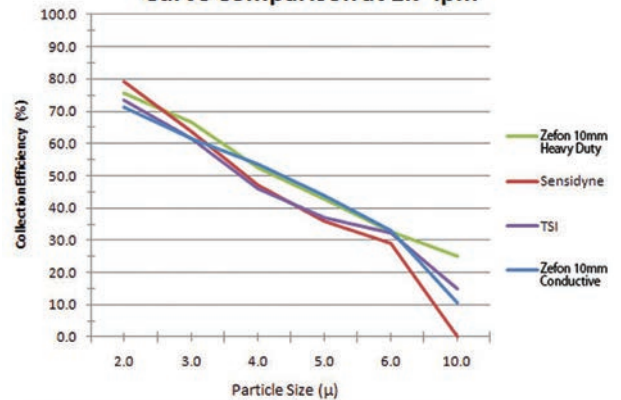
The Zefon® 10mm Conductive Nylon Cyclone (Dorr-Oliver style) is used in conjunction with 37mm filter cassettes to separate dust particles by size with the respirable particles being collected on the filter and larger particles being removed. The collection efficiency curve meets the standards set forth by ACGIH/ISO/CEN for a respirable curve with a median 50% cut point of 4µ when operated at a flow rate of 1.7 LPM. The Zefon® 10mm Conductive Nylon Cyclone has been designed to precisely match the internal workings of the Dorr-Oliver 10mm nylon cyclones currently on the market. This results in performance characteristics which are identical, but also provides the added benefit of being static conductive. The external characteristics of the Zefon® 10mm Nylon Conductive Cyclone have been designed for ease of use and is one of the lightest cyclones for users to wear.



A cassette/cyclone holder is required for use. The cyclone is compatible with Zefon® cassette/cyclone holder #ZA0061 or the SKC holder #225-1.

FLOW RATE (l/min)	APPLICATION	NOMINAL PARTICLE DIAMETER (µm)
1.7	ISO/ACGIH/CEN Convention	4.0
2.0	Other Applications	3.5

10mm Nylon Cyclone Collection Efficiency Curve Comparison at 1.7 lpm



Source: Internal Zefon performance tests with all 4 cyclones under identical conditions.

Features:

- Meets NIOSH requirements for 10mm nylon cyclones as specified in 0600 for nuisance dust and 7500, 7501, 7601 and 7602 for silica dust
- **Conductive** – Eliminates any possible bias in sampling results from static charging
- **Lightweight design** – Only 3.6oz (104g) for the complete assembly including cassette and holder
- Compatible with the Zefon® universal cassette/cyclone holder

PRODUCT	DESCRIPTION	PRICE
ZA0080	Zefon® 10mm Conductive Nylon Cyclone	\$80.00
ZA0081	Zefon® 10mm Conductive Nylon Cyclone with Cassette/Cyclone Holder	\$95.00
ZA0082	Replacement Grit Pots, 25/pk	\$8.00

Zefon® Aluminum Cyclone for Respirable Dust

The *Zefon*® Respirable Dust Aluminum Cyclone is used in conjunction with 25mm or 37mm 3 piece filter cassettes to separate and remove larger particles from the respirable particles collected on the cassette's filter. This *Zefon*® cyclone is a replica of the SKC Aluminum Cyclone*. The inner workings have been precisely machined to exactly match that of the SKC Cyclone with only slight cosmetic changes to the exterior.

As a result, the collection efficiency curve meets the standards set forth by ACGIH/ISO/CEN for a respirable curve with a median 50% cut point of 4 micron at 2.5 LPM flowrate.

A cyclone holder and 25mm or 37mm 3 piece filter cassette are required for use of the *Zefon*® Aluminum Cyclone. Both the *Zefon*® Cassette Cyclone holder (#ZA0061) and the SKC holder (#225-1) are compatible with the *Zefon*® Aluminum Cyclone.

Features:

- Aluminum construction is static conductive, eliminating interference
- Fully interchangeable with SKC Aluminum Cyclone
- Specified in NIOSH method 0600 for Respirable Particulates, and NIOSH 7500 for Silica, Crystalline
- Lightweight – 30 grams



ZA0060

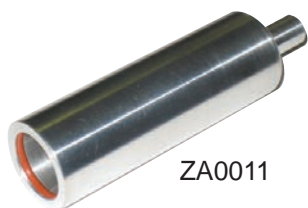
ZA0075



Shown with cassette installed in holder.

PRODUCT	DESCRIPTION	PRICE
ZA0060	<i>Zefon</i> ® 37mm Aluminum Cyclone for Respirable Dust	\$80.00
ZA0075	<i>Zefon</i> ® 25mm Aluminum Cyclone for Respirable Dust	\$80.00
ZA0062	<i>Zefon</i> ® 37mm Aluminum Cyclone for Respirable Dust with Holder	\$95.00
ZA0076	<i>Zefon</i> ® 25mm Aluminum Cyclone for Respirable Dust with Holder	\$95.00
ZA0061	<i>Zefon</i> ® Universal Cassette and/or Cyclone Holder only	\$30.00
ZA0066	Replacement Grit Pots for Aluminum Cyclone, 25/pk	\$8.00
ZA0067	Replacement O-Rings for Aluminum Cyclone, 5/pk	\$6.00

*Performance tests indicate no statistical difference between the SKC Aluminum Cyclone and the *Zefon*® Aluminum Cyclone.



ZA0011

Aluminum Cyclone Calibration Adapter

A chamber specifically designed to fit over the *Zefon*® aluminum cyclone and connect 1/4" ID tubing for flow calibration. This provides the best calibration option by taking an actual measurement as close to the cyclone inlet as possible. Chamber fits both *Zefon*® brand and SKC brand 37mm and 25mm aluminum cyclones.

PRODUCT	DESCRIPTION	PRICE
ZA0011	<i>Zefon</i> ® Aluminum Cyclone Calibration Adapter	\$34.00



ZA0063

Zefon® Calibration Jar

The *Zefon*® Cyclone Calibration Jar is a container with all the proper fittings and connections to calibrate Personal Sampling Pumps with the *Zefon*®, SKC, or Dorr-Oliver Cyclones, and inhalable dust samplers.

Features:

- Compatible with both *Zefon*® and SKC Aluminum Cyclones
- Complete with all fittings and Tygon® tubing for connecting the sampling pump

PRODUCT	DESCRIPTION	PRICE
ZA0063	<i>Zefon</i> ® 1 Liter Cyclone Calibration Jar (Aluminum Cyclone & <i>Zefon</i> ® Conductive Nylon Cyclone)	\$43.00
ZA0085	<i>Zefon</i> ® 2 Liter Cyclone Calibration Jar (Sensidyne & <i>Zefon</i> ® Dorr-Oliver Cyclone)	\$60.00

Zefon® NRD Sampler

The Zefon® Personal Nanoparticle Respiratory Deposition (NRD) sampler is designed to size-selectively collect nanoparticles with an efficiency that matches their deposition in the respiratory tract system.^{1,2}

Its lightweight, disposable design allows it to be worn easily for personal exposure monitoring while providing the convenience of a preloaded ready to use product.

Features:

- Engineered to collect nanoparticles likely to be deposited in the respiratory tract
- Filters out larger unwanted particles (>300nm)
- Lightweight; Designed to be worn for personal exposure sampling
- Used with a standard 25mm aluminum cyclone
- Compatible with personal sampling pumps capable of a 2.5LPM flow rate at 15" H₂O backpressure
- Can be analyzed using lower cost chemical analysis vs electron microscopy



How it works:

Stage 1

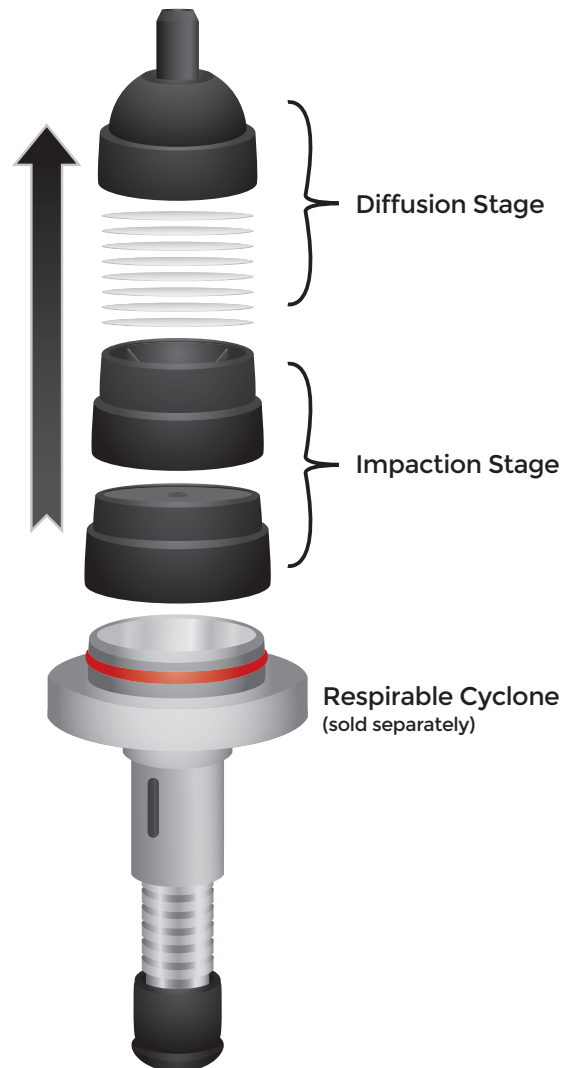
A respirable aluminum cyclone (ZA0075) at a flow rate of 2.5 LPM is used to remove particles larger than 4µm in size.

Stage 2

Air passes through an impaction stage where particles larger than 300nm are removed using an impaction plate.

Stage 3

Air passes through a diffusion stage consisting of either Nylon filters or a foam filter, collecting particles <300nm.



PRODUCT SPECIFICATIONS	
Housing Material	Carbon Filled Polypropylene
Filter Material (diffusion stage)	Nylon or Foam Filter
Collection Efficiency	<300nm with an efficiency designed to match the efficiency at which particles deposit in the respiratory tract
Cut-Point (cyclone stage)	4µm
Cut-Point (impactor stage)	300nm
Flow Rate	2.5 LPM

PRODUCT	DESCRIPTION	PRICE
ZNRD001	Zefon® NRD Sampler with nylon filter	\$26.50
ZNRD020	Zefon® NRD Sampler with foam filter	\$26.50
ZA0075	Zefon® Aluminum Cyclone, 25mm	\$80.00

1. A Personal Nanoparticle Respiratory Deposition (NRD) Sampler. Lorenzo G. Cena, T. Renée Anthony, and Thomas M. Peters, Environmental Science & Technology 2011 45 (15), 6483-6490
 2. International Commission on Radiological Protection (ICRP). Human Respiratory Tract Model for Radiological Protection, Publication 66; Elsevier Science, Ltd.: Oxford, U.K, 1994.

Zefon® EoS™ Silica Cassette

The Zefon® EoS™ (End of Shift) silica cassette was designed to work with the new NIOSH silica monitoring approach. This cassette is designed to work with a portable FTIR (Fourier Transform Infrared) for field-based monitoring of respirable crystalline silica. Air samples are taken using a traditional cyclone and the EoS cassette. After sampling, the inlet and outlet of the cassette are removed. The middle section is then placed into a portable FTIR for a direct-on-filter analysis. The results are interpreted through a software program developed by NIOSH called FAST (Field Analysis of Silica Tool). A pre-weighed version of the cassette can be reassembled and sent to a laboratory for respirable dust analysis.



Features:

- Carbon filled, conductive cassette to reduce wall deposits.
- Can be used for silica and respirable dust analysis.
- Sample stays intact allowing it to be sent to a laboratory if desired.
- Helps provide on-site analysis so immediate controls can be implemented, if needed.



A dust sample is first collected using traditional samplers. The sampling cassette is removed and placed in a portable Fourier-transform infrared (FTIR) instrument in the field. The FTIR instrument examines the dust sample and offers a complete analysis in one to two minutes. Source: Emanuele Cauda, PhD; Lauren Chubb, DrPH; and Valerie Coughanour, MA, MFA. <https://blogs.cdc.gov/niosh-science-blog/2018/02/21/engineers-week-mining>.

PRODUCT	DESCRIPTION	PRICE
745PVC-CF-FTIR	Zefon® 37mm FTIR Silica Cassette, 5.0µm PVC Filter. 10/bx	\$120.00
7P54P-CF-FTIR	Zefon® 37mm FTIR Silica Cassette, 5.0µm PVC Filter, Pre-weighed. 10/bx	\$160.00

Patent Pending

Zefon® Disposable Inhalable Sampler

Introducing the latest advancement in Inhalable Sampling

The Zefon® Disposable Inhalable Sampler (DIS) is a unique inhalable sampler with a physical design to replicate the collection of the original inhalable sampler (designed by the Institute of Occupational Medicine (IOM) in Scotland) at a flow rate of 2 LPM.

Features:

- Preloaded, ready to use
- Leak-free design
 - No more assembly errors from mismatched parts from different brands or versions of samplers
 - No more cleaning samplers or cross contamination
 - No more transport clips to worry about
 - No more expenses from sampling heads getting lost or misplaced
- Lower tare weight provides better sensitivity
- Accounts for wall deposits as recommended by NIOSH
- Collection and performance matches that of the original inhalable sampler designed by the Institute of Occupational Medicine (IOM) in Scotland.
- Meets all the same standards shown for the reusable inhalable sampler on page 45 except NIOSH method 5525.

Applications:

- ACGIH definition of inhalable particulate matter
- NIOSH Method 5700 for particulate formaldehyde
- British Method MDHS 14/3 for inhalable dust in air
- British Method MDHS 14/4 for sampling and gravimetric analysis of respirable, thoracic and inhalable aerosols
- British Method MDHS 25/3 for organic isocyanates in air
- British Method MDHS 6/3 for lead in air

Multi-Sampling Foam

Specially designed foam inserts can be used with the Zefon® DIS to enable the collection of both Inhalable and Respirable particles. When inserted into the DIS, inhalable particles are collected on the foam filter while respirable particles are collected on the filter membrane. Foam filters are available preloaded into the DIS sampler or separately for user installation.



DIS Filter Capsule



Shown with Multi-Sample Foam Inlet Filter - ZA0308

PRODUCT	DESCRIPTION	PRICE
CLCL-DIS0810	Disposable Inhalable Sampler, Cellulose/MCE Filter Capsule, 10/Bx	\$110.00
PVCL-DIS0810	Disposable Inhalable Sampler, Cellulose/PVC Filter Capsule, 10/Bx	\$110.00
PVPV-DIS5010	Disposable Inhalable Sampler, PVC Filter Capsule, 10/Bx	\$110.00
PVPV-DIS5010P	Disposable Inhalable Sampler, PVC Filter Capsule, Preweighed, 10/Bx	\$126.00
CLCL-DIS0810-F	Disposable Inhalable Sampler, Cellulose/MCE Filter Capsule, with Foam Filter, 10/Bx	\$140.00
CLCL-DIS0810U	Unassembled Disposable Inhalable Sampler, Cellulose/MCE Filter Capsule, 10/Bx	\$104.00
PVPV-DIS5010U	Unassembled Disposable Inhalable Sampler, PVC Filter Capsule, 10/Bx	\$104.00
ZA0308	Foam Inlet Filters, Multi-Sample (for Inhalable & Respirable Collection), 10/pk	\$30.00
ZA0307	Calibration Adapter for Inhalable Sampler	\$70.00

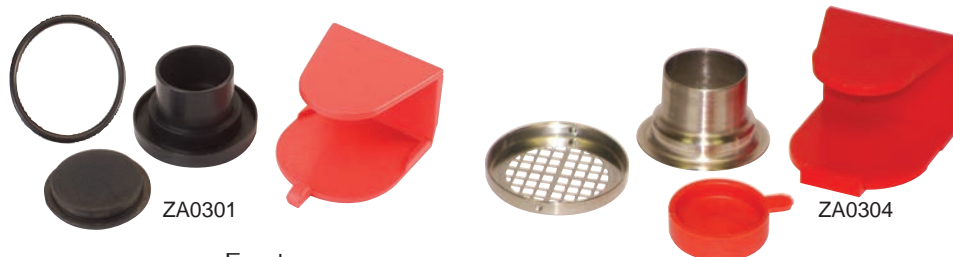
Patent Pending

Zefon® Inhalable Dust Sampler

The Zefon® Inhalable Dust sampler is a reusable filter cassette with a sampling head designed to measure the worker's exposure to inhalable particulates and respirable dust. When sampling at the recommended flow rate of 2 LPM, it collects a particle size distribution that includes particles of 100 micron and smaller. This meets the definition set forth by ACGIH for inhalable particulate.

The sampler is comprised of two main parts. The main sampling head, and a removable filter cassette assembly. This allows easy transport of the filter cassettes for analysis while the sampling head can then be reloaded with a new cassette and sampling may continue.

The physical design of the Zefon® Inhalable Dust Sampler is a replica of the sampling head developed by the Institute of Occupational Medicine (IOM) in Scotland during the 1980's and which is currently marketed under license from the IOM by SKC. As a result the Zefon® Inhalable Dust Sampler features identical performance and part interchangeability with the samplers marketed by SKC.



Features:

- 50% cut point at 100 microns when used at 2 LPM
- Conductive plastic cassette or stainless steel
- Small (128 x 33 x 25 mm) including lapel clip
- Light Weight (<1 ounce or about 25 grams)
- Complies with or meets the requirements of the following standards:
 - ACGIH definition of inhalable particulate matter
 - NIOSH Method 5700 for particulate formaldehyde
 - NIOSH Method 5525 for Isocyanates (stainless steel cassette only)
 - British Method MDHS 14/3 for inhalable dust in air
 - British Method MDHS 25/3 for organic isocyanates in air
 - British Method MDHS 6/3 for lead in air
 - Australian standard for inhalable particulate
 - ISO/CEN for bioaerosols (health-related fractions)

PARTICLE AERODYNAMIC DIAMETER (µm)	INHALABLE PARTICLE MATTER FRACTION COLLECTED (%)
0	100
1	97
2	94
5	87
10	77
20	65
30	58
40	54.5
50	52.5
100	50

PRODUCT	DESCRIPTION	PRICE
ZA0300	Zefon® Inhalable Dust Sampler with Conductive Plastic Cassette	\$89.00
ZA0303	Zefon® Inhalable Dust Sampler with Stainless Steel Cassette	\$165.00
ZA0301	Inhalable Sampling Cassette with transport clip, plastic	\$15.60
ZA0304	Inhalable Sampling Cassette with transport clip, stainless steel	\$89.00
ZA0308	Foam Inlet Filters, Multi-Sample (for Inhalable & Respirable Collection), 10/pk	\$30.00
ZA0305	O-Rings for Inhalable Sampler, 3/pk	\$5.00
ZA0307	Calibration Adapter for Inhalable Sampler	\$70.00

Each Zefon® Inhalable Dust Sampler comes with the sampling head, 1 cassette assembly and a cassette transport clip. **Filter membrane for the inhalable sampler can be found on pages 28-33.**



Zefon® Gemini® Twin Port Sorbent Tube Sampler

The Zefon® Gemini® Twin-Port Sorbent Tube Sampler can be used with the Escort ELF®, or just about any other sampling pump able to pull a flow rate of 1.5LPM at 25" of water backpressure. It offers increased flexibility and control in gathering samples through sorbent tubes. If air is being sampled for two or more contaminants, the Gemini can draw samples at independent flow rates through tubes containing different sorbents. In situations where a single contaminant is being sampled, sampling on two tubes of the same type can be done

simultaneously at different flow rates. This type of sampling protects against breakthrough which occurs when a tube's sampling capacity is exceeded because the concentration of a contaminant is higher than anticipated. Duplicate sampling at the same flow rate can also be done to achieve better results.

Features:

- Valved mechanism allows flow control down to .001 lpm
- Control the flow rate of each port independently
- Includes tube covers to fit both large and small tube sizes



PRODUCT	DESCRIPTION	PRICE
497697	Gemini® Twin Port Sampling Kit Includes: Gemini Sampler, tube protectors, Y-connectors, clips and carrying case.	\$250.00

Low Flow Sorbent Tube Holders

Available both with and without flow adjustment. Use non-adjustable when using a sampling pump designed specifically for low flow sampling without adapters. Use adjustable flow to use with standard sampling pumps in constant pressure mode. Tube holder comes setup for 6mm x 70mm tubes. Additional size tube covers may be purchased separately.

PRODUCT	DESCRIPTION	PRICE
APB-109032	Single Tube Holder with Non-Adjustable Flow	\$40.00
APB-109033	Single Tube Holder with Adjustable Flow (5-100cc)	\$65.00
APB-109030	Single Tube Holder with Adjustable Flow (5-800cc)	\$65.00
APB-109022	Tube Covers, 6mm x 70mm	\$14.00
APB-109024	Tube Covers, 8mm x 110mm	\$18.00
APB-109026	Tube Covers, 10mm x 150mm	\$18.00
APB-109028	Tube Covers, 10mm x 220mm	\$20.00



Sorbent Tube Holder
#APB-109030

Zefon® Sorbent Tubes

Zefon® Sorbent Tubes are high quality glass tubes that are packed with accurately weighed, high-purity sorbents. They are designed to adsorb vapors and gases passed over them when used with low flow sampling pumps and fit a variety of tube holders, including the Zefon® Gemini® Twin Port Sorbent Tube Sampler.

Many Zefon® sorbent tubes are divided into sections, with two absorbent sections being most common. The first section is twice the size of the back section and collects the compounds of interest. The second section is a backup section to determine if airborne contaminants breakthrough occurred on the front section.

Features:

- Highest sorbent material purity for contamination-free samples
- Accurate sorbent weight for uniform testing results
- Uniform pressure drop to assure repeatable sampling results
- Designed to comply with all NIOSH specifications for tube dimensions, sorbent quality, particle size, divider composition and pore size



PRODUCT	SORBENT	SIZE (mm) OD X L	SECTIONS	SORBENT (mg)	TUBE ENDS	SEPARATOR*	SKC EQUIVALENT	U/M	PRICE
ZST-001	Coconut Charcoal	6 x 70	2	100/50	GS	F/F/W	226-01	50/bx	\$44.00
ZST-001B	Coconut Charcoal	6 x 70	2	100/50	GS	F/F/W	226-01B	1000/bx	\$785.00
ZST-002	Coconut Charcoal	8 x 110	2	400/200	GS	F/F/W	226-09	50/bx	\$75.00
ZST-002B	Coconut Charcoal	8 x 110	2	400/200	GS	F/F/W	226-09B	1000/bx	\$1380.00
ZST-003	Coconut Charcoal	10 x 110	2	800/200	GS	F/W/W	226-16	50/bx	\$130.00
ZST-020	Chromosorb	8 x 110	2	100/50	GS	W/W/W	226-107	50/bx	\$245.00
ZST-040	Microlite*	6 X 70	1	200	GS	W/W	226-17-1A	50/bx	\$88.00
ZST-050	Silica Gel	6 X 70	2	150/75	GS	F/W/W	226-10	50/bx	\$56.00
ZST-051	Silica Gel	6 X 70	2	100/50	GS	F/W/W	226-51	50/bx	\$121.00
ZST-054	Silica Gel	8 x 110	2	520/360	GS	W/W/W	226-10-04	50/bx	\$125.00
ZST-058	Silica Gel	10 X 110	2	1040/260	GS	F/W/W	226-22	50/bx	\$180.00
ZST-060	Silica Gel (specially cleaned)	7 X 110	2	400/200	GS	W/W/G/W	226-10-03	50/bx	\$130.00
ZST-070	Tenax	6 x 70	2	30/15	GS	F/W/W	226-35	50/bx	\$160.00
ZST-074	Tenax	8 x 110	2	100/50	GS	W/W/W	226-35-03	50/bx	\$340.00
ZST-080	XAD-2	8 x 110	2	100/50	GS	W/W/W	226-30-04	50/bx	\$180.00
ZST-090	XAD-7	6 X 110	2	100/50	GS	W/W/W	226-95	50/bx	\$145.00

* Microlite sorbent is equivalent to Hydrar, Carulite, and the SKC Anasorb C300.

Separator Codes
 W: Glass Wool
 G: Glass Fiber Filter
 F: Polyurethane Foam

Tube Ends
 GS: Glass sealed
 GO: Glass open

PRODUCT	DESCRIPTION	PRICE
GIL-ST-900	Tube Tip Breaker, 5/pk	\$10.60

EconoGrab™ Tedlar® Gas Sampling Bags



Zefon® EconoGrab™ gas sampling bags are excellent quality, low cost Tedlar® gas sampling bags that feature a single polypropylene fittings and eyelet.

Features:

- Chemically inert Tedlar® film
- Reusable if purged with nitrogen
- Easy storage and handling
- Low cost combined with high quality



Polypropylene Valve Fitting
Combines the valve and septum into one easy to use fitting.



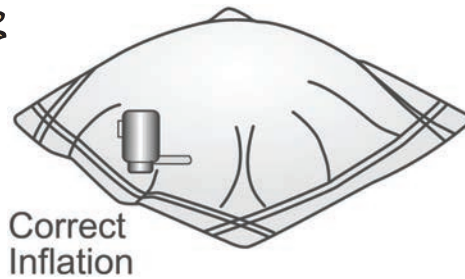
Stainless Steel Valve Fitting
Combines the valve and septum into one easy to use fitting.

CAPACITY	INTERNAL SIZE	BAG MATERIAL	FITTING TYPE	PRODUCT	U/M	PRICE
0.5 liter	8.0" x 4.5" (20.3cm x 11.4cm)	Clear Tedlar®	Polypropylene	EG-PP-05	Each	\$11.25
			Stainless Steel	EG-SS-05	Each	\$17.60
1 liter	8.0" x 6.0" (20.3cm x 15.2cm)	Clear Tedlar®	Polypropylene	EG-PP-1	Each	\$11.25
			Stainless Steel	EG-SS-1	Each	\$17.60
3 liter	9" x 11.5" (22.9cm x 29.2cm)	Clear Tedlar®	Polypropylene	EG-PP-3	Each	\$14.40
			Stainless Steel	EG-SS-3	Each	\$21.00
5 liter	9" x 15.5" (22.9cm x 39.4cm)	Clear Tedlar®	Polypropylene	EG-PP-5	Each	\$16.25
			Stainless Steel	EG-SS-5	Each	\$22.60
10 liter	16" x 15" (40.6cm x 38.1cm)	Clear Tedlar®	Polypropylene	EG-PP-10	Each	\$25.00
			Stainless Steel	EG-SS-10	Each	\$31.60
25 liter	17" x 25" (43.1cm x 63.5cm)	Clear Tedlar®	Polypropylene	EG-PP-25	Each	\$45.00
			Stainless Steel	EG-SS-25	Each	\$54.00
50 liter	34" x 19" (86.4cm x 48.3cm)	Clear Tedlar®	Polypropylene	EG-PP-50	Each	\$84.40
			Stainless Steel	EG-SS-50	Each	\$91.40
100 liter	34" x 30" (86.4cm x 76.2cm)	Clear Tedlar®	Polypropylene	EG-PP-100	Each	\$112.50
			Stainless Steel	EG-SS-100	Each	\$122.00



Dr. Z Tips

- Be sure to flush bags with nitrogen or purified air before use.
- When collecting your sample, do not fill the bag to more than 80% of the rated volume size.
- Avoid shipping EconoGrab bags by air in unpressurized planes.



Zefon® Tedlar® Bags

Zefon® Tedlar® bags are manufactured from 2 mil Tedlar® PVF (polyvinyl fluoride) film and feature a unique easy to use valve with built-in septum. Bags made from Tedlar® film offer good stability with VOC's and are recommended in many US EPA methods including TCLP and methods TO-3 (VOCs), TO-12 (NMOC), TO-14A (VOCs), TO-15 (VOCs), ASTM D-5504 (reduced sulfur compounds) and a variety of atmospheric gas methods.

Features:

- Unique Zefon® ZP valve is easy to use with built-in PTFE septum
- Includes grommet hanging hole
- Strong 1/4" wide seams



Zefon® ZP style valve



CAPACITY	INTERNAL SIZE	BAG MATERIAL	FITTING TYPE	PRODUCT	U/M	PRICE
0.5 liter	7.9" x 4.6" (20.1cm x 11.7cm)	Clear 2 mil Tedlar®	ZP Type Polypropylene	EG-ZP-05EA EG-ZP-05	Each 10/bx	\$12.00 \$96.00
1 liter	7.9" x 6.1" (20.1cm x 15.5cm)	Clear 2 mil Tedlar®	ZP Type Polypropylene	EG-ZP-1EA EG-ZP-1	Each 10/bx	\$12.00 \$96.00
3 liter	8.4" x 12.5" (21.3cm x 31.8cm)	Clear 2 mil Tedlar®	ZP Type Polypropylene	EG-ZP-3EA EG-ZP-3	Each 10/bx	\$15.00 \$125.00
5 liter	9.25" x 15.15" (23.5cm x 38.5cm)	Clear 2 mil Tedlar®	ZP Type Polypropylene	EG-ZP-5EA EG-ZP-5	Each 10/bx	\$17.00 \$152.00
10 liter	15.15" x 16" (38.5cm x 40.6cm)	Clear 2 mil Tedlar®	ZP Type Polypropylene	EG-ZP-10	10/bx	\$220.00
25 liter	15.65" x 27.25" (39.8cm x 69.2cm)	Clear 2 mil Tedlar®	ZP Type Polypropylene	EG-ZP-25	5/bx	\$210.00

Zefon® Tedlar® Bags with Open End and a Clip Seal

Used to collect bulk samples for off-gassing sampling, these bags have one end of the bag left open. Simply insert the item to be sampled, then seal using the provided clip for an air tight seal. Sampling of the off-gassing may be taken using the bags valve with built in septum.



CAPACITY	INTERNAL SIZE	BAG MATERIAL	FITTING TYPE	PRODUCT	U/M	PRICE
1 liter	7.9" x 6.1" (20.1cm x 15.5cm)	Clear 2 mil Tedlar®	ZP Type Polypropylene	EG-ZP-1-CSEA EG-ZP-1-CS	Each 10/bx	\$14.00 \$130.00
3 liter	8.4" x 12.5" (21.3cm x 31.8cm)	Clear 2 mil Tedlar®	ZP Type Polypropylene	EG-ZP-3-CS	10/bx	\$179.00
5 liter	9.25" x 15.15" (23.5cm x 38.5cm)	Clear 2 mil Tedlar®	ZP Type Polypropylene	EG-ZP-5-CSEA EG-ZP-5-CS	Each 10/bx	\$22.00 \$198.00
10 liter	15.15" x 16" (38.5cm x 40.6cm)	Clear 2 mil Tedlar®	ZP Type Polypropylene	EG-ZP-10-CS	10/bx	\$290.00

VeriAir Flex™ Manual Inflating Sample Bag

The VeriAir Flex™ patented sample bag design lets you rapidly collect an air sample in a bag without the use of a pump, saving you time and money when compared to other methods. Everything you need to collect a grab sample of air or gas is integrated into a simple, inexpensive system.

The VeriAir Flex sampling bag is ideal for emergency response situations, where an atmospheric air sample can be collected in a hot zone and then moved to a safe zone to be immediately tested with a portable gas chromatograph or other analytical instrument.



Features:

- Easy to Use
- Requires no electric pump set up, no pump calibration or required calibration equipment, no batteries to charge, no maintenance and no complex special training even for non-technical personnel.
- Ability to sample with a detector tube before sending to lab.

Always Ready

Lightweight, compact, and easily stored or carried, Nextteq's intrinsically safe VeriAir Flex sampling bag has handles made of static dissipative materials and is always ready to collect an air sample anywhere, at anytime.

Choice of Materials

Available in either a traditional Tedlar® film or in a durable foil material with internal polypropylene lining suitable for sampling light sensitive compounds.

STEP 1: OPEN VALVE



STEP 2: COLLECT SAMPLE



STEP 3: CLOSE VALVE



PRODUCT	DESCRIPTION	PRICE
31019	VeriAir Flex™ Manual Inflating Bag, 1 Liter, Tedlar®	\$39.00
31000	VeriAir Flex™ Manual Inflating Bag, 1 Liter, Foil	\$44.00
31029	VeriAir Flex™ Manual Inflating Bag, 5 Liter, Foil	\$49.00

Deluxe All-in-One Bag Sampling Chamber

A complete all-in-one bag sampling chamber that includes internal pump and battery.



Features:

- Fully integrated internal pump -- no separate pump to buy or connect
- Battery powered (take up to 100 samples on a full charge)
- Fills bag without sample passing through pump
- Overfill cut off switch prevents bag overfilling
- Fits bags sized 0.5L to 1.0L
- Clear lid makes it easy to watch
- Flexible, high purity Tygon® connection tubing
- Purge function to flush bag



PRODUCT	DESCRIPTION	PRICE
ZA0320	Deluxe All-in-One Bag Sampling Chamber	\$1500.00

Zefon® Gas Sampling Vacuum Chamber

Zefon® gas sampling vacuum chambers are sealed boxes designed to allow Tedlar bags to be directly filled without the sample passing through the air sampling pump or the vacuum source.

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.



PRODUCT	DESCRIPTION	PRICE
ZA0321	Zefon® Small Gas Sampling Chamber Designed for bags up to 1 liter in size.	\$390.00
ZA0325	Zefon® Large Gas Sampling Chamber Designed for bags up to 5 liters in size. All inlet connections made from stainless steel.	\$580.00

Impingers and Bubblers

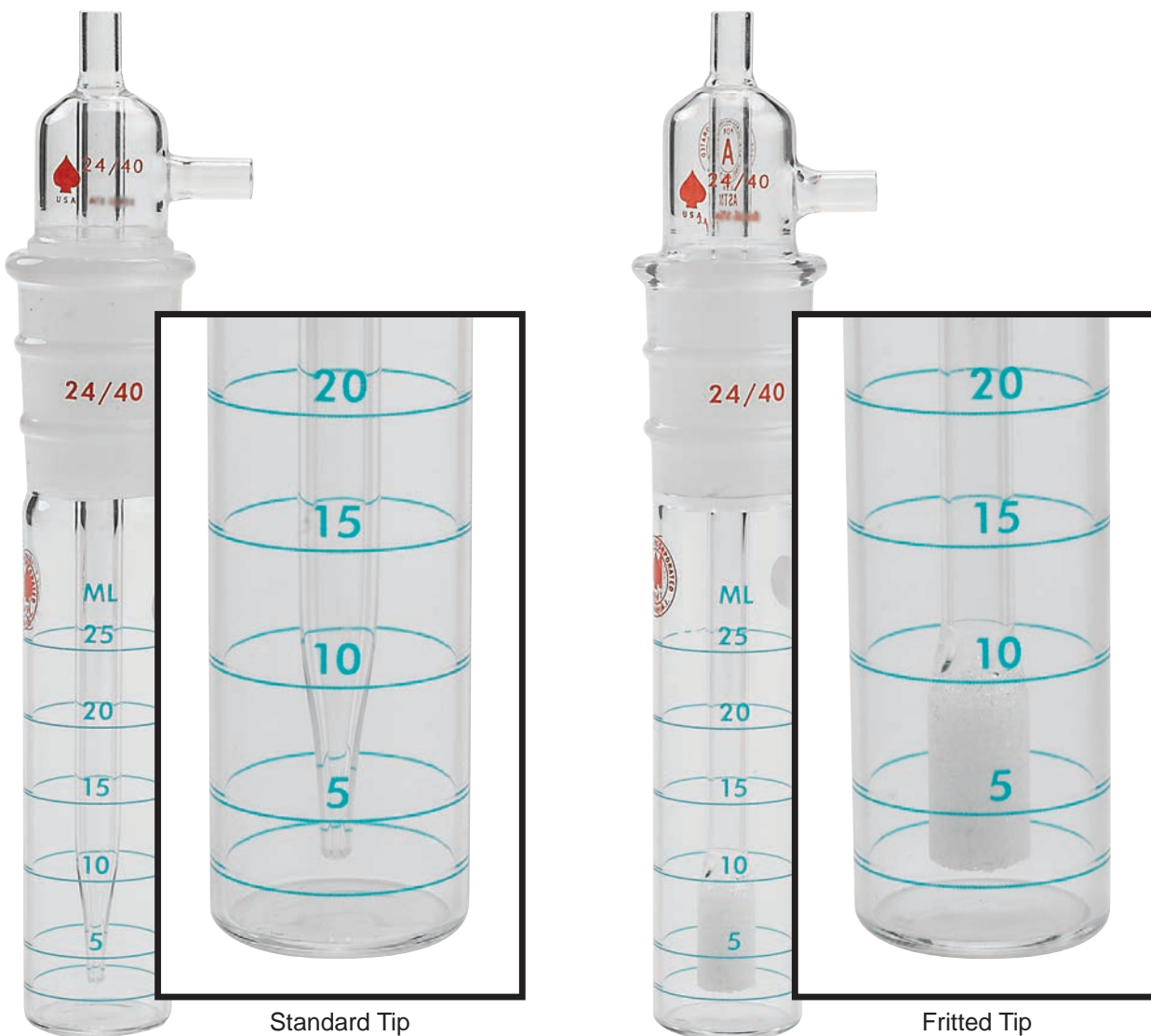
For collecting various airborne gases, vapors and particulates using a high flow personal sampling pump.

Impingers are special glass tubes designed to collect airborne contaminants by bubbling the sampled air at a high flow rate through a method specific absorbing liquid inside. The liquid used can then be analyzed to determine airborne contaminate levels.

Zefon[®] midget impingers consist of 2 pieces of glass fitted together using a 20/40 ground joint. They have a capacity of 25ml with a graduated scale along the side in 5ml. Each features a nozzle tip which is precisely located in relation to the bottom of the impinger.

Features:

- Fully encircling graduation marks every 5 ml
- 7mm inlet and outlet openings compatible with 1/4" ID tubing



IMPINGER	SIZE	DESCRIPTION	PRODUCT	PRICE
Standard Midget	25ml	Standard, 2pc, glass, 5ml increments	ZA0095	\$120.00
Fritted Midget (bubbler)	25ml	Fritted, 2pc, glass, 5ml increments	ZA0096	\$135.00

SAMPLING PUMPS & CALIBRATORS



IAQ Sampling Pumps: 54-57
Abatement Sampling Pumps: 58-59
Personal Sampling Pumps & Accessories: 60-75
Area Sampling Pumps & Accessories: 76-79
Calibration Equipment: 80-83
Pump Repair Service: 84

Zefon® Bio-Pump® Plus

The Zefon® Bio-Pump® Plus is the smallest, lightest and easiest to use portable, battery-powered IAQ pumps designed for exclusive use with Air-O-Cell® and Via-Cell® cassettes at a flow rate of 15 LPM.

Features:

- Battery Powered
- Quiet Operation
- Real Time Display Showing Actual Run Time
- Programmable Sample Time (allows unattended operation)
- “Sample Complete” Audible & Visual Indicators
- “Quick Sample” Operation
- Long Lasting NiMH Battery provides approx 8 hours continuous run time or approx 100 5-minute samples
- Battery Recharge Time of only 3 Hours
- Small Size: 4.5”(w) x 2.75”(h) x 8”(d)
11.43 cm (w) x 6.99 cm (h) x 20.34cm (d)
- Light Weight: Only 1.5 lbs (0.68kg)



The Zefon® Bio-Pump Plus is not only the most advanced, user friendly pump designed for IAQ, but they are a great value. Each pump includes extra items such as 10 FREE Air-O-Cell® cassettes, an Air-O-Cell® flow indicator, battery charger, and carrying case as standard items. This amounts to over \$100 savings when compared to other manufacturers.



ZBP-205-CKIT



ZBP-PROKIT-PLUS

PRODUCT	DESCRIPTION	PRICE
ZBP-205	Zefon® Bio-Pump® Plus with 110-230V Charger with North American Plug	\$749.00
ZBP-PROKIT-PLUS	Zefon® Bio-Pump® Plus Kit with Accessories	\$840.00
ZBP-205-CKIT	Zefon® Bio-Pump® Plus with TSI 4046 Calibrator Kit	\$2200.00

Bio-Pump® Plus Accessories



Bio-Pump with Bioisolation filter



Bio-Pump with remote extension tube



Bio-Pump on Tripod Stand

PRODUCT	DESCRIPTION	PRICE
ZBP-300	Battery, Bio-Pump®, ZBP-100, or ZBP-200	\$72.00
ZBP-315	Battery, Bio-Pump®, ZBP-205	\$72.00
ZBP-304	Charger, Bio-Pump®	\$54.00
ZBP-310	Remote Extension Tube, Bio-Pump®	\$35.00
ZA0047	Bioisolation Filter, Bio-Pump®	\$12.80
ZA0043	Tripod Stand - Heavy Duty	\$42.00

Bio-Pump® Plus Calibration Options

Calibration Traceable to NIST

For traceable calibration, *Zefon*® offers a TSI flow calibrator with all connectors and tools needed for proper calibration. This electronic flow calibrator is designed to work correctly with backpressure sensitive pumps such as the Bio-Pump Plus.

Flow Indicator

Each Bio-Pump Plus includes an Air-O-Cell flow indicator for calibration. Simply place the flow indicator on the pump, enter calibration mode and adjust the flow rate until the ball lines up with the 15 LPM line.



ZBP-302 Flow Indicator



Bio-Pump connected to a TSI Flow Calibrator

PRODUCT	DESCRIPTION	PRICE
ZBP-302	Flow Indicator, Air-O-Cell®	\$48.00
ZBP-305	Flow Indicator, Via-Cell®/Air-O-Cell® CSI	\$48.00
ZBP-200-CAL	TSI 4046 Flow Calibrator Kit for <i>Zefon</i> ® Bio-Pump® Plus	\$1450.00

Zefon® Z-Lite™ IAQ DC Powered Sampling Pump

The Zefon® Z-Lite™ IAQ DC Powered Sampling Pump is a battery powered portable pump designed for IAQ sampling with low backpressure sampling devices such as spore traps at flow rates from 2-20 LPM.

Features:

- Easy to use built-in timer
- Built-in adjustable flow meter
- Quick reset to 5 minute Run Time
- Flow Range: 5-20 LPM (low backpressure spore traps, such as Air-O-Cell®);
2-8 LPM (carpet sampling cassettes)
- Suitable for use on low backpressure sampling devices such as spore traps and for carpet sampling.
- Runs approximately 2.5-3 hours per battery charge
- Charger may be used to run the pump on AC Power
- HEPA Filtered Exhaust
- Low Battery Indicator
- 36" Telescoping sampling stand can be removed and stored inside the case.
- Quick disconnect tubing connection
- Housing Dimensions - 15" L x 9" W x 10.5" H (38cm x 23cm x 27cm)
- Weight - 18.8lbs (8.5kg) (including charger and sampling stand)
- One year warranty



PRODUCT	DESCRIPTION	PRICE
Z-LITE-IAQ-DC	Zefon® Z-Lite™ IAQ DC Powered Sampling Pump	\$730.00
03270	Replacement Male Quick Disconnect	\$4.80
03265	Replacement Battery for Z-LITE-IAQ-DC	\$68.00
03883	Replacement Battery Charger for 100-240 VAC, North American Plug	\$68.00

Note: Not suitable for filter cassette sampling.

Zefon® Z-Lite IAQ Sampling Pump



The *Zefon*® Z-Lite™ IAQ linear pump is a small lightweight pump capable of flows up to 30 LPM. Suitable for use with carpet samplers, Air-O-Cell®, Via-Cell® and all viable impactors (e.g. Andersen style impactor).

Pump comes complete with flowrate indicator, flow control valve, on/off switch and tubing.

Note: Not suitable for filter cassette sampling.

PRODUCT	DESCRIPTION	PRICE
Z-LITE-IAQ	<i>Zefon</i> ® Z-Lite™ IAQ High Volume Linear Pump, 120V	\$195.00
03752	Flow Meter, 5-30LPM, Z-LITE-IAQ Replacement	\$45.00

IAQ Pump Bioisolation Filters



ZA0045



ZA0047

Reduce cross contamination concerns!
 No longer will you ever have to ponder the “what if” scenario of cross contamination from one job to the next. *Zefon*® bioisolation filters are designed to prevent pump contamination during sampling from particles not collected by spore trap or agar impactors. Each filter may be used over and over until it has collected enough debris to affect pump performance or becomes visibly contaminated. Each filter provides an amazing 99.9999% efficiency in reducing cross contamination!

PRODUCT	DESCRIPTION	PRICE
ZA0045	Bioisolation filter for diaphragm, linear and rotary vane pumps 99.99% efficient in reducing cross-contamination	\$8.00
ZA0047	Bioisolation filter for the <i>Zefon</i> ® Bio-Pump® and Bio-Pump® Plus 99.9999% efficient in reducing cross-contamination	\$12.80

Gilian® BDX II Abatement Sampling Pump

The Gilian® BDX II Abatement Air Sampler from Sensidyne® is a dependable, low cost personal sampling pump. It is a “no frills” model designed for use with asbestos and lead sampling. Meets NIOSH 7400, 7082, 7105 and 7300 specifications.

Features:

- “No Frills model”
- Designed for Asbestos/Lead abatement
- Flow rates - 500-3,000 cc/min (0.5-3 LPM)
- Rechargeable battery pack system
- Built-in rotameter & flow adjust
- Compact, lightweight & quiet
- Full one-year warranty



**New
NiMH
Battery
Packs!**

BDXII 5 Pack Deluxe Kit
801863-171ZKIT5



BDX II Abatement Sampler Kit
GIL-801863-171-1201

PRODUCT	DESCRIPTION	PRICE
GIL-801863-171-1201	BDXII Abatement Sampler Kit, NiMH Includes pump, battery, charger, tool kit, tubing, clip assembly and manual.	\$278.00
GIL-801863-171-KIT	BDXII Abatement Sampler 5 Pack Kit, NiMH Includes 5 pumps, 5 batteries, 5 single chargers, 5 tool kits, 5 tubing sets, 5 clip assemblies, 5 manuals and a toolbox style carrying case.	\$1399.00
801863-171ZKIT5	BDXII Abatement Sampler 5 Pack Deluxe Kit, NiMH Includes 5 pumps, 5 batteries, Zefon® 5 station charger, 5 tool kits, 5 tubing sets, 5 clip assemblies, 5 manuals and a toolbox style carrying case.	\$1549.00
GIL-801863-171-KIT5	BDXII Abatement Sampler 5 Pack Deluxe Kit, NiMH Includes 5 pumps, 5 batteries, Gilian 5 Station Charger, 5 tool kits, 5 tubing sets, 5 clip assemblies, 5 manuals and a toolbox style carrying case.	\$1749.00
GIL-783-0008-04	Battery Pack, NiMH	\$100.00
GIL-911-0601-US-R	Single Battery Charger, 120V	\$88.00

Gilian products are not available for shipment outside the USA.

BUCK Libra™ Abatement Sampling Pump



The Buck Libra™ is a low cost, high performance, CONSTANT FLOW personal sampling pump. Suitable for use in asbestos abatement, lead sampling and industrial hygiene sampling. Designed for use with asbestos and lead abatement, the LIBRA provides full constant flow compensation using 25mm and 37mm cassettes.

Features:

- Flow rates - 0.8-4 LPM
- Constant Flow
- Rechargeable NiMH battery
- Built-in washable stainless steel filter
- Compact, lightweight & quiet
- Full one-year warranty



APB-942600 Shown

PRODUCT	DESCRIPTION	PRICE
APB-926000	Buck Libra™ Sampling Pump, 120V Includes pump, 120V charger, luer adapter, 36" tubing, shirt/hose clip and manual	\$330.00
APB-942600	Buck Libra™ Sampling Pump 5 Pack Kit Includes 5 each pumps, 5 luer adapters, 5 36" tubing sets, 5 shirt/hose clips, five manuals, one 120VAC Quick 5 Charger and carrying case	\$2350.00

Accessories including the low flow tube holders and fast charging option are listed on pages 74 & 75.

Personal Sampling Pumps for Industrial Hygiene

Personal Sampling Pumps are worn by workers during the work shift to determine exposure to ambient particulates, gases or vapors. They draw a carefully controlled volume of air and contaminants through collection media over a period of time. Media is then sent out to a laboratory for analysis, resulting in a calculated level of exposure.

Each of the pumps listed in the chart below represent the ultimate in reliability, quality and value. This is why *Zefon*[®] is a trusted supply source for many industrial hygienists and safety professionals.

PUMP	FLOW RANGE	PROGRAMMABLE	ATMOSPHERIC PRESSURE COMPENSATION	TEMPERATURE COMPENSATION	BACKPRESSURE COMPENSATION	INTRINSICALLY SAFE	PUMP	PAGE
LOW FLOW	1 to 350 cc	No	No	No	Up to 25" H ₂ O at 200cc	CSA & Atex	LFS-113	73
	100 to 600 cc	No	No	No	Up to 36" H ₂ O at 200cc	No	Libra Plus LP-1	63
	5 to 600cc	Yes	No	No	Up to 25" H ₂ O at 200cc	No	Elite 1	62
	5 to 600cc	No	No	No	Up to 25" H ₂ O at 200cc	UL	Allin 1	61
	5 to 600cc	Yes	Yes	Yes	Up to 25" H ₂ O at 200cc	UL	Allin Plus 1	61
	200 to 800cc	Yes	No	No	Up to 80" H ₂ O at 200cc	FM & Atex	Gilian 800i	72
MEDIUM FLOW	0.5 to 3 LPM	No	Yes	Yes	Up to 30" H ₂ O at 2 LPM	UL & Atex	Escort ELF	64
	0.5 to 3 LPM	No	No	No	Up to 25" H ₂ O at 2 LPM	UL	Escort LC	65
	0.75 to 3 LPM	Optional	No	No	Up to 15" H ₂ O at 2.5 LPM	UL	GilAir-3	66
MEDIUM-HIGH-FLOW	0.75 to 5 LPM	Optional	No	No	Up to 23" H ₂ O at 3 LPM	UL	GilAir-5	67
	0.75 to 5 LPM	Yes	No	No	Up to 60" H ₂ O at 2 LPM	FM	Gilian 5000	68
	0.2 to 5 LPM	Yes	Optional	Optional	Up to 30" H ₂ O at 2 LPM	FM & Atex	GilAir Plus	69
	0.5 to 5 LPM	No	No	No	Up to 50" H ₂ O at 2 LPM	No	Libra Plus LP-5	63
	0.5 to 5 LPM	Yes	No	No	Up to 50" H ₂ O at 2 LPM	No	Elite 5	62
	0.5 to 5 LPM	No	No	No	Up to 50" H ₂ O at 2 LPM	UL	Allin 5	61
	0.5 to 5 LPM	Yes	Yes	Yes	Up to 50" H ₂ O at 2 LPM	UL	Allin Plus 5	61
HIGH FLOW	4 to 10 LPM	Yes	No	No	Up to 14" H ₂ O at 10 LPM	FM & Atex	Gilian 10i	70
	3 to 12 LPM	No	No	No	Up to 12" H ₂ O at 10 LPM	No	Libra Plus LP-12	63
	3 to 12 LPM	Yes	No	No	Up to 12" H ₂ O at 10 LPM	No	Elite 12	62
	3 to 12 LPM	No	No	No	Up to 12" H ₂ O at 10 LPM	UL	Allin 12	61
	3 to 12 LPM	Yes	Yes	Yes	Up to 12" H ₂ O at 10 LPM	UL	Allin Plus 12	61
	4 to 12 LPM	Yes	No	No	Up to 23" H ₂ O at 10 LPM	No	Gilian 12	71

BUCK Allin™ Series Personal Sampling Pumps

The BUCK Allin™ Series are personal air sampling pumps suitable for use in locations where flammable gases, vapors, dust, or are present. It has steel fiber filled housing for RFI/EMI shielding, exclusive electronic circuit board for constant flow control, an LCD display with 2 lines of 16 characters, a single diaphragm pump mechanism, and a rechargeable NiMH battery pack.

Features:

- Flow Range:
 - Allin-1: 100-600 cc/min
(5-99cc/min with low flow tube holder, APB-109033)
 - Allin-5: 0.8-5.0 LPM
(5-800cc/min with low flow tube holder, APB-109030)
 - Allin-12: 3-12 LPM
- Backpressure Compensation:
 - Allin-1: Up to 25" H₂O at 200 cc/min
 - Allin-5: Up to 50" H₂O at 2 LPM
 - Allin-12: Up to 12" H₂O at 10 LPM
- Displays: elapsed time, accumulated volume and flow rate
- Accuracy +/- 5% of display reading
- "Auto-restart" within one minute of a Flow Fault
- Plus Models Additionally Include:
 - Datalogging: Record flow rate, elapsed clock time, accumulated volume, temperature, DP and any Flow Faults
 - Programmable for multiple start/stop times and duration.
 - Temperature and barometric pressure flow compensation
- Stainless steel belt clip with built-in tripod connector
- One year warranty
- Intrinsically Safe (UL US & Canada)



BUCK
A.P. BUCK, INC.

Allin™ Pump Ordering Information

PRODUCT	DESCRIPTION	PRICE
APB-905000	Buck Allin™ 1 Includes pump, 120V Charger, tubing/clip assembly, non-adjustable tube holder (109032), 3' of tubing & manual.	\$745.00
APB-905050	Buck Allin™ 1 - 5 Pack Kit Includes 5 pumps, Quick 5 charger, 5 tubing/clip assemblies, 5 tubing sets, 5 non-adjustable tube holders (109032), 5 manuals and carrying case.	\$3975.00
APB-905200	Buck Allin™ 5 Includes pump, 120V Charger, tubing/clip assembly, 3' of tubing & manual.	\$745.00
APB-905250	Buck Allin™ 5 - 5 Pack Kit Includes 5 pumps, Quick 5 charger, 5 tubing/clip assemblies, 5 tubing sets, 5 manuals and carrying case.	\$3975.00
APB-905400	Buck Allin™ 12 Includes pump, 120V Charger, tubing/clip assembly, 3' of tubing & manual.	\$1195.00

Allin™ Plus Ordering Information

PRODUCT	DESCRIPTION	PRICE
APB-905100	Buck Allin™ Plus 1 Includes pump, 120V Charger, tubing/clip assembly, adjustable tube holder (109033), 3' of tubing & manual.	\$845.00
APB-905150	Buck Allin™ Plus 1 - 5 Pack Kit Includes 5 pumps, Quick 5 charger, 5 tubing/clip assemblies, 5 tubing sets, 5 adjustable tube holders (109033), 5 manuals and carrying case.	\$4475.00
APB-905300	Buck Allin™ Plus 5 Includes pump, 120V Charger, tubing/clip assembly, adjustable tube hold (109030), 3' of tubing & manual.	\$895.00
APB-905340	Buck Allin™ Plus 5 - 5 Pack Kit Includes 5 pumps, Quick 5 charger, 5 tubing/clip assemblies, 5 tubing sets, 5 adjustable tube holders (109030), 5 manuals and carrying case.	\$4995.00
APB-905500	Buck Allin™ Plus 12 Includes pump, 120V Charger, tubing/clip assembly, adjustable tube hold (109030), 3' of tubing & manual.	\$1295.00
APB-109101	Buck PC Link Software Package	\$175.00

BUCK Elite™ Series Personal Sampling Pumps

The BUCK Elite™ is an advanced data logging, programmable personal air sampling pump. It features an easy to use programmable timer for delayed start/stop run with the capability for up to ten different ON/OFF duration cycles with repeat options. The optional PC Link Elite software connection capability lets you easily program the pump with just a few clicks and download the sampling data into a PC equipped with RS232 communications port.

Features:

- **Datalogging:** Record flow rate, elapsed clock time, accumulated volume, temperature, DP and any Flow Faults
- **Programmable** for multiple start/stop times and duration.
- **Displays:** elapsed time, accumulated volume and flow rate
- **Flow Range:**
 - Elite-1: 100-600 cc/min
(5-99cc/min with low flow tube holder, APB-109033)
 - Elite-5: 0.8-5.0 LPM
(5-800cc/min with low flow tube holder, 109030)
 - Elite-12: 3-12 LPM
- **Backpressure Compensation:**
 - Elite-1: Up to 25" H₂O at 200 cc/min
 - Elite-5: Up to 50" H₂O at 2 LPM
 - Elite-12: Up to 12" H₂O at 10 LPM
- **Accuracy +/- 5%** of display reading
- "Auto-restart" within one minute of a Flow Fault
- No tools required to change flow rates.
- Built-in washable stainless steel inlet filter.
- Flow Compensation for filter plugging and battery voltage
- Stainless steel belt clip with built-in tripod connector
- High impact Lexan case, antistatic and RFI shielded.
- Key pad lock system
- One year warranty
- CE Approved



BUCK
A.P. BUCK, INC.

PRODUCT	DESCRIPTION	PRICE
APB-908100	Buck Elite™-1 Includes pump, 120V Charger, tubing/clip assembly, non-adjustable tube holder (109032), 3' of tubing & manual.	\$800.00
APB-947300	Buck Elite™-1 5 Pack Kit Includes 5 pumps, Quick 5 charger, 5 tubing/clip assemblies, 5 tubing sets, 5 non-adjustable tube holders (109032), 5 manuals and carrying case.	\$4695.00
APB-908000	Buck Elite™-5 Includes pump, 120V Charger, tubing/clip assembly, 3' of tubing & manual.	\$775.00
APB-947200	Buck Elite™-5 5 Pack Kit Includes 5 pumps, Quick 5 charger, 5 tubing/clip assemblies, 5 tubing sets, 5 manuals and carrying case.	\$4550.00
APB-908300	Buck Elite™-12 Includes pump, 120V Charger, tubing/clip assembly, 3' of tubing & manual.	\$1250.00
APB-109101	Buck PC Link Software Package	\$175.00

The Professionals Choice for Air Sampling Equipment

BUCK Libra™ Plus Series Personal Sampling Pumps

The BUCK Libra Plus™ series pumps feature an LCD display showing flow rate, elapsed time and accumulated volume of the sample. The easy to use keypad provides for tool-less operation while providing a keypad lock feature. Advanced circuitry allows for long sampling times on a single charge of the NiMH batteries.



BUCK
A.P. BUCK, INC.

Features:

- Flow Range:
 - LP-1: 100-600 cc/min
(5-99cc/min with optional low flow tube holder, APB-109033)
 - LP-5: 0.8-5.0 LPM
(5-800cc/min with optional low flow tube holder, APB-109030)
 - LP-12: 3-12 LPM
- Backpressure Compensation:
 - LP-1: Up to 25" H₂O at 200 cc/min
 - LP-5: Up to 50" H₂O at 2 LPM
 - LP-12: Up to 12" H₂O at 10 LPM
- Accuracy +/- 5% of display reading
- "Auto-restart" within one minute of a Flow Fault
- Displays: elapsed time, accumulated volume and flow rate
- No tools required to change flow rates.
- Built-in washable stainless steel inlet filter.
- Flow Compensation for filter plugging and battery voltage
- Compact, rugged and quiet
- Stainless steel belt clip with built-in tripod connector
- High impact Lexan case, antistatic and RFI shielded.
- Key pad lock system
- One year warranty
- CE Approved

PRODUCT	DESCRIPTION	PRICE
APB-906800	Buck Libra Plus™ LP-1 Includes pump, 120V Charger, tubing/clip assembly, non-adjustable tube holder (109032), 3' of tubing & manual.	\$660.00
APB-946500	Buck Libra Plus™ LP-1 5 Pack Kit Includes 5 pumps, Quick 5 charger, 5 tubing/clip assemblies, 5 tubing sets, 5 non-adjustable tube holders (109032), 5 manuals and carrying case.	\$3995.00
APB-906200	Buck Libra Plus™ LP-5 Includes pump, 120V Charger, tubing/clip assembly, 3' of tubing & manual.	\$660.00
APB-946200	Buck Libra Plus™ LP-5 5 Pack Kit Includes 5 pumps, Quick 5 charger, 5 tubing/clip assemblies, 5 tubing sets, 5 manuals and carrying case.	\$3995.00
APB-906250	Buck Libra Plus™ LP-12 Includes pump, 120V Charger, tubing/clip assembly, 3' of tubing & manual.	\$1115.00

Zefon® Escort ELF® Sampling Pump

- New NiMH Battery Pack provides approximately 20% more operating time between charges
- Flow Range: .5-3.0 LPM
- Patented “Laminar Flow” control with temperature and pressure compensation permits the best accuracy in the business
- Internal secondary standard calibrates the pump continuously, maintaining OSHA compliance
- Check against a flow calibrator traceable to NIST only once a month (every 200 hours for MSHA coal mine dust sampling)
- Inlet filter traps moisture and particulate matter
- Stainless steel-filled plastic case provides EMI/RFI
- Lightweight – only 19oz
- Resolution display is .1lpm in standard mode, .01lpm in calibration mode
- “Key Pad” design allows adjustment of flow rates without tools or a potentiometer
- Tamper-resistant door restricts access to adjustment “Key Pad”
- Rated IP65 for resistance to water and dust ingress
- Flow-Fault Indicator shows any sample inlet blockage
- Run/Hold feature allows “time out” during sampling process
- Elapsed time readout and low-battery warning
- Low flow and dual tube sampling available with Gemini Twin-Port Sampler
- 2 Year Warranty



New NiMH Battery Packs!



Shown with Optional Protective Leather Holster/Case with Belt Loop (# 811741)



805563

Approvals

Escort ELF Sampling Pumps are UL approved as intrinsically safe for use in hazardous locations – Class I, Groups A, B, C, D; Class II, Groups E, F, and G; and Class III, Division I locations. NIOSH certified for coal mine dust sampling (TC-74-030). MSHA certified as intrinsically safe for underground use (Approval No. 2G-3924-1). Pennsylvania DEP, BFE6-11. ATEX Approved Models Available.

Single Pump Kits

PRODUCT	DESCRIPTION	PRICE
805558	Escort ELF® Pump with sampling line. No charger.	\$896.00
805560	Escort ELF® Pump with 120V charger and sampling line.	\$976.00
805559	Escort ELF® Pump with 120V charger, Gemini® Twin Port Sampler.	\$1190.00

5-Pack Pump Kits

PRODUCT	DESCRIPTION	PRICE
805563	Escort ELF® Pump with 5 station 120/240V, 50/60Hz charger and sampling line.	\$4960.00
711396	Escort ELF® Pump with 5 station 120/240V, 50/50Hz charger and Gemini® Twin Port Sampler.	\$6030.00

Zefon® Escort® LC Sampling Pump



- New NiMH Battery Pack provides approximately 20% more operating time between charges
- Flow Range: .5-3.0 LPM
- Watertight case withstands occasional water spray
- Inlet filter traps particulate matter; optional filter to trap moisture
- Stainless steel-filled plastic case for RFI/EMI
- One-way valve allows pump exhaust to vent and to prevent water entry
- Weighs only 18 ounces
- Minimum 12 hours of operation before charging is necessary
- Two controls - an ON/OFF key and a flow-rate potentiometer behind tamper-resistant cover helps to prevent unauthorized access to control functions
- Separate LEDs indicate pump operation and low battery
- Charging jack port is located on the battery pack allowing it to be charged while both attached and detached from pump
- Exceptionally quiet operation
- Intrinsically safe
- 2 Year Warranty

Approvals and Standards

Escort LC Sampling Pumps are classified by UL as intrinsically safe for use in hazardous locations – Class I, Groups A, B, C and D; Class II, Groups E, F and G; and Class III, Division I locations.

Single Pump Kits

PRODUCT	DESCRIPTION	PRICE
P1-ESLC-0-1-0-0	Escort® LC Pump with sampling line. No charger.	\$570.00
711400	Escort® LC Pump with 120V charger and sampling line.	\$650.00

5-Pack Pump Kits

PRODUCT	DESCRIPTION	PRICE
P5-ESLC-5-1-0-0	Escort® LC Pump with 5 station 120/240V charger and sampling line.	\$3330.00

Escort ELF and LC Accessories

PRODUCT	DESCRIPTION	PRICE
456226	Sampling Line, 36" Length	\$26.00
10087242	Battery Pack, NiMH	\$280.00
811741	Protective Leather Holster/Case	\$71.00
494716	Single Battery Charger, 120V	\$90.00
495965	Single Battery Charger, 230V	\$96.00
801759	Five Pump Battery Charger, 120/240V	\$520.00
802897	Inlet Water Stop Filter	\$26.00
808935	Inlet Dust Filters, Pack of 5	\$5.00
456243	Cyclone for Mining Cassettes	\$270.00
10044015	Cyclone for 37mm IH Cassettes	\$270.00
497697	Gemini® Sorbent Tube Sampler	\$250.00

Gilian® GilAir-3 Sampling Pump

The Gilian® GilAir-3 Constant Flow Sampling Pump provides industrial hygienists and safety managers with a dynamic air sampling system operating at a flow rate of 1-3,000 cc/min. This comprehensive 3-in-1 sampler performs filter cassette and single and multiple sorbent tube sampling with constant flow accuracy, while offering convenient programmable timing options.

Features:

- Constant flow: 750-3,000 cc/min
- Low flow: 1-750 cc/min
- Rechargeable battery pack system
- Built-in rotameter & flow adjust
- Programmable LCD clock timer (optional)
- Instant-fault function
- Compact, lightweight, & quiet
- UL listed intrinsically safe
- MSHA, CE & SIRA approved
- Full one-year warranty
- Multiple sorbent tube capability



PRODUCT	DESCRIPTION	OPTIONS	PRICE
GIL-800485-171-1201	GilAir-3R Sampling Pump Starter Kit, 120V Charger	Standard Pump	\$670.00
GIL-800508-171-1201	Includes pump, charger, Air Boss Kit, Tool Kit, Tubing, Cassette Holder Kit and manual.	Pump with Clock	\$820.00
GIL-800510-171-1201		Programmable Pump	\$920.00
GIL-800485-171-1205	GilAir-3R 5 Pack Sampling Pump Kit	Standard Pump	\$3680.00
GIL-800508-171-1205	Includes 5 pumps, universal 5 station charger, 5 Air Boss Kits, 5 Tool Kits, 5 Tubing Sets, 5 Cassette Holder Kits, manuals and carrying case.	Pump with Clock	\$4380.00
GIL-800510-171-1205		Programmable Pump	\$4900.00
GIL-783-0008-03	Battery Pack, NiMH		\$195.00
GIL-911-9901-US-R	Single Battery Charger, 120V		\$95.00

Gilian products are not available for shipment outside the USA.

GilAir 3 & 5 Accessories



#800320-1



#800518

PRODUCT	DESCRIPTION	PRICE
GIL-201050	Inlet Filter Replacement, GilAir-3 & 5, BDX II	\$7.00
GIL-800320-1	Air Boss Restrictor Kit, GilAir 3 & 5, BDX II	\$18.00
GIL-800518	Low Flow Module, Constant Flow, GilAir 3 & 5	\$146.00
GIL-800519	Low Flow Module, Multi Flow, GilAir 3 & 5	\$134.00
GIL-800556	Pump Filter Kit, GilAir 3 & 5 (includes 3 filters, 3 large and small o-rings, screw)	\$25.00

Gilian® GilAir-5 Sampling Pump

The Gilian® GilAir-5 Constant Flow Sampling Pump provides industrial hygienists and safety managers with a dynamic air sampling system operating at a flow rate of 1-5000 cc/min. This comprehensive 3-in-1 sampler performs filter cassette and single/multiple sorbent tube sampling with constant flow accuracy, while offering convenient programmable timing options.

External Filter Housing
Clear External filter housing allows an immediate visual inspection of filter's condition.

Flow Fault & Test Indicators
Flow Fault indicator lights up if unit operates outside \pm 5% of set flow rate. Battery Test indicator lights up when battery can provide a minimum of 8 hours of operation over operating range.

Basic, Clock, & Programable Models
Basic model is easy to use. Clock model provides elapsed-time clock display. Programable model provides auto start-stop and delayed start times up to 9999 mins.

Optional Low Flow Modules
Constant Low Flow module allows sampling from 5-500 cc/min. Constant Pressure (Multiflow) Module allows sampling from 1-750 cc/min.



Features:

- Constant flow: 750-5,000 cc/min
- Low flow: 1-750 cc/min
- Rechargeable battery pack system
- Built-in rotameter & flow adjust
- Instant-fault function
- Compact, lightweight, & quiet
- UL listed intrinsically safe
- MSHA, CE & SIRA approved
- Full one-year warranty
- Programmable LCD clock timer (optional)



PRODUCT	DESCRIPTION	OPTIONS	PRICE
GIL-800883-171-1201	GilAir-5R Sampling Pump Kit, 120V Charger	Standard Pump	\$750.00
GIL-800885-171-1201	Includes pump, charger, Air Boss Kit, Tool Kit, Tubing, Cassette Holder Kit and manual.	Pump with Clock	\$890.00
GIL-800884-171-1201		Programmable Pump	\$1010.00
GIL-800883-171-1205	GilAir-5R5 Pack Sampling Pump Kit	Standard Pump	\$4000.00
GIL-800885-171-1205	Includes 5 pumps, universal 5 station charger, 5 Air Boss Kits, 5 Tool Kits, 5 Tubing Sets, 5 Cassette Holder Kits, manuals and carrying case.	Pump with Clock	\$4700.00
GIL-800884-171-1205		Programmable Pump	\$5350.00
GIL-783-0009-02	Battery Pack, NiMH		\$235.00
GIL-911-9901-US-R	Single Battery Charger, 120V		\$95.00

Gilian products are not available for shipment outside the USA.

Gilian® 5000 Personal Air Sampling Pump

A powerful workhorse with flow rates up to 5 LPM.

The Gilian® 5000 is a 5 liter flow personal sampling pump featuring a flow range of 20 to 5000cc, high back pressure ability (up to 70" H₂O back pressure at 1 LPM), an easy to use interface and memory free NiMH batteries.



Features:

- **Live Flow Display**
Large display continuously shows real-time flow, total sample time, and total volume sampled.
- **Flow Range of 800cc-5000cc**
25-800cc requires additional low flow adapter.
- **High Backpressure Ability**
Up to 70" H₂O at 1 LPM
Up to 60" H₂O at 2 LPM
- **Intuitive Operation with Lock-Out Feature**
- **Programmable Functionality**
Allows scheduled sampling or intermittent cycles, delayed start and up to 4 program stages with repeat cycling.
- **30-Day Calibration**
Automatically compensates for changes in flow rate, pressure and temperature.
- **Intrinsically Safe**
Certified for use in explosive environments.
- **NiMH Memory-Free Battery**
Fast recharge time of 4 hours.



PRODUCT	DESCRIPTION	PRICE
GIL-910-0802-01	Gilian® 5000 Personal Air Sampling Pump Starter Kit with 120V Charger	\$900.00
GIL-910-0801-01	Gilian® 5000 Personal Air Sampling Pump 5 Pack Kit, 120V Includes 5 pumps, 5 station charger, 5 Air Boss kits, 5 tool kits, 5 tubing sets, 5 cassette holder kits, manuals and carrying case.	\$4700.00
GIL-783-0007-01	Battery Pack, NiMH	\$256.00
GIL-811-0802-01	Single Battery Charger, 120V	\$122.00
GIL-811-0801-01	Gilian® 5000 5 Station Charger	\$780.00
GIL-801961	Low Flow Adapter, 25-750cc	\$107.00
GIL-811-0012-01	Inlet Filter Replacement Kit, 10/pk	\$22.00

Gilian products are not available for shipment outside the USA.

GilAir® PLUS Personal Air Sampling Pump

QuadModeSM Air Sampling Technology
 GilAir Plus® features a full 1-5000 cc/min flow range without using external adapters. Easily change flow modes between high-flow constant pressure and constant flow (450-5,000 cc/min) and low-flow constant pressure and constant flow (1-499 cc/min). It's like getting two pumps in one.

Selectable Automatic Fault Recovery Pump automatically attempts restart to recover from temporary fault conditions.

Temperature & Pressure Compensation Pump operates in selectable ambient or standard mode correcting for temperature and barometric pressure when equipped with STP option.

Superior Design & Comfort
 One-third smaller than traditional personal air sampling pumps, light-weight, quiet, with a large backlit display.

Bluetooth Connectivity

- Remotely monitor an air sampling pump up to 5 meters away
- No disturbance of the worker
- Stay in unrestricted areas while workers are in restricted areas
- No need to suit up



Real-time Clock with Data-logging
 An optional computer interface for uploading program information or downloading time stamped data-logs through the docking station.

PRODUCT	DESCRIPTION	OPTIONS	PRICE
GIL-910-0901-US-R	GilAir® Plus Personal Sampling Pump Kit Pump kit includes: 1 air sampling pump, standard charging dock with power adapter, filter cassette holder, charcoal tube holder, and a user manual on electronic media.	Basic Model	\$999.00
GIL-910-0902-US-R		Datalogging Model	\$1075.00
GIL-910-0903-US-R		STP Model	\$1296.00
GIL-910-0904-US-R	GilAir® Plus 5 Pack Kit Pump kits include: 5 air sampling pumps, a five-station charging dock with power adapter, 5 filter cassette holders, 5 charcoal tube holders, and a user manual on electronic media. Data Logging models include a communication enabled charging dock and Gilian Pump Management software.	Basic Model	\$5298.00
GIL-910-0905-US-R		Datalogging Model	\$5370.00
GIL-910-0906-US-R		STP Model	\$6445.00

Accessories

PRODUCT	DESCRIPTION	PRICE
GIL-811-0913-01-R	Bag Fill Adapter	\$6.00
GIL-811-0905-01-R	Inlet Filter, 10/pk	\$12.00
GIL-783-0012-01-R	Battery Pack, NiMH	\$155.00
GIL-783-0013-01-R	Battery Pack, AA Alkaline	\$137.00
GIL-811-0901-US-R	Charging Dock, Single Station	\$191.00
GIL-811-0902-US-R	Charging Dock, 5 Station	\$814.00
GIL-811-0903-US-R	Charging & Communication Dock, Single Station	\$262.00
GIL-811-0904-US-R	Charging & Communication Dock, 5 Station	\$853.00
GIL-780-0015-01-R	SmartCal Cable for Gilian Gilibrator	\$102.00
GIL-780-0015-02-R	SmartCal Cable for Gilian Challenger	\$84.00
GIL-780-0015-03-R	SmartCal Cable for TSI Calibrator	\$89.00
GIL-780-0015-04-R	SmartCal Cable for Bios Defender	\$85.00

Gilian products are not available for shipment outside the USA.

Gilian® 10i High Flow Personal Air Sampling Pump

The Gilian® 10i is a high flow rate sampling pump capable of flow rates as high as 10 LPM in a small personal sampling pump size. It offers user programmability for easy, flexible preprogrammed sampling schedules, long battery life, intrinsically safe hazardous area certification in all zones and gases, and fast charge capability.



Features:

- **High Flow Capability**
The high flow capability of the Gilian 10i enables sampling capability for applications with flow rates between 5LPM and 10 LPM.
- **Small Size & Weight**
The Gilian 10i is the smallest high flow (above 5 LPM) personal sampling pump in the industry at a size of 3.2W x 5.4H x 2.3D inches and weight of 20.5 oz.
- **Highest Backpressure Ability**
Up to 14" H₂O backpressure at 10 LPM – the highest in the industry at 10 LPM for an intrinsically safe personal sampling pump.
- **NiMH Memory-Free Battery**
NiMH battery with quick-charge time in under 4 hours eliminates shipping and disposal issues prevalent with lithium ion batteries.
- **Programmable Functionality**
Four stage program with repeat cycling allows scheduled sampling or intermittent duty cycles along with programmable delayed start.
- **Intuitive Operation with Lock-out Feature**
Simple four-button design makes the pump easier to understand and operate.
- **Live Flow Display**
Large display continuously shows real-time flow, total sample time and total volume sampled.
- **Intrinsically Safe Certified**
Intrinsically Safe for use in explosive environments.



PRODUCT	DESCRIPTION	PRICE
GIL-910-1501-US	Gilian® 10i Sampling Pump Starter Kit with 120V charger	\$1400.00
GIL-910-1505-US	Gilian® 10i Sampling Pump 5 Pack Kit, 120V	\$7050.00
GIL-811-0802-01	Gilian® Single Station Charger, 120V	\$122.00
GIL-811-0801-01	Gilian® 5 Station Charger	\$780.00
GIL-783-0007-01	Battery Pack, NiMH	\$256.00

Gilian products are not available for shipment outside the USA.

The Professionals Choice for Air Sampling Equipment

Gilian® 12 High Flow Personal Air Sampling Pump

The Gilian® 12 is a high flow rate sampling pump capable of flow rates between 4LPM and 12 LPM. It offers user programmability for easy, flexible preprogrammed sampling schedules, small size and weight, intrinsically safe hazardous area certification in all zones and gases, and long battery life with fast charge capability.

Features:

- Higher Flow Applications
Flow Range 4 to 12 LPM
- Exceptional Flow Compensation
Up to 23" H₂O backpressure at 10 LPM – the highest flow compensation available from any personal sampling pump in the industry.
- Small Size & Weight
The Gilian® 12 is the smallest high flow (above 5 LPM) personal sampling pump in the industry at a size of 3.2W x 5.4H x 2.3D inches and weight of 20.5 oz.
- NiMH Memory-Free Battery
NiMH battery with quick-charge time in under 4 hours. Eliminates shipping and disposal issues.
- Programmable Functionality
Four stage program with repeat cycling allows scheduled sampling or intermittent duty cycles along with programmable delayed start.
- Intuitive Operation with Lock-out Feature
Simple four-button design makes the pump easier to understand and operate.
- Live Flow Display
Large display continuously shows real-time flow, total sample time and total volume sampled. Special flow control circuitry automatically compensates for changes in flow rate, back-pressure and temperature.



SENSIDYNE
Industrial Health & Safety Instrumentation

PRODUCT	DESCRIPTION	PRICE
GIL-910-1601-US	Gilian® 12 Personal Air Sampling Pump with 120V Charger	\$1550.00
GIL-910-1605-US	Gilian® 12 Personal Sampling pump 5 Pack Kit, 120V	\$7600.00
GIL-811-0802-01	Gilian® Single Station Charger, 120V	\$122.00
GIL-811-0801-01	Gilian® 5 Station Charger	\$780.00
GIL-783-0018-01	Battery Pack	\$256.00

Gilian products are not available for shipment outside the USA.

Gilian® 800i Powerful Low Flow Personal Air Sampling Pump

Gilian® 800i is a powerful personal air sampling pump targeting applications requiring a 200 to 800 cc/min flow range and backpressures up to 80 inches H₂O. Gilian 800i is an ideal solution for VOC monitoring applications using thermal desorption tubes, including modified versions of NIOSH method 2549 and EPA TO-17 at higher flow rates for improved sensitivities.



Features:

- **Low Flow Range**
Flow Range 200-800 cc/min
- **Exceptional Flow Compensation**
Up to 80" H₂O backpressure at 200cc/min
- **Ideal for EPA VOC's Monitoring**
Back pressure and flow range well suited for EPA method monitoring of volatile organic compounds.
- **NiMH Memory-Free Battery**
NiMH battery with quick-charge time in under 4 hours. Eliminates shipping and disposal issues.
- **Programmable Functionality**
Four stage program with repeat cycling allows scheduled sampling or intermittent duty cycles along with programmable delayed start.
- **Intuitive Operation with Lock-out Feature**
Simple four-button design makes the pump easier to understand and operate.
- **Live Flow Display**
Large display continuously shows real-time flow, total sample time and total volume sampled. Special flow control circuitry automatically compensates for changes in flow rate, back pressure and temperature.
- **Intrinsically Safe Certified**
Certified Intrinsically Safe for use in hazardous environments.



PRODUCT	DESCRIPTION	PRICE
GIL-910-1301-US	Gilian® 800i Personal Air Sampling Pump Starter Kit with 120V Charger	\$1200.00
GIL-910-1305-US	Gilian® 800i Personal Air Sampling Pump 5 Pack Kit, 120V	\$5900.00
GIL-811-0802-01	Single Battery Charger, 120V	\$122.00
GIL-811-0801-01	Gilian® 5 Station Charger	\$780.00
GIL-783-0007-01	Battery Pack, NiMH	\$256.00

Gilian products are not available for shipment outside the USA.

Gilian® LFS-113 Air Sampling System

The Gilian® LFS-113 Air Sampling System is a comprehensive function, dual-mode air sampler offering constant low flows of 1-200 cc/min and multi-tube flow rates of 1 to 350 cc/min.

Features:

- Elapsed time clock
- Multi-tube sampling capability
- Suction and discharge sampling
- Instant-fault functions
- Built-in sorbent tube end breaker
- Battery check LEDs
- Rechargeable Battery Pack System
- Compact, slips into a shirt pocket



Battery Pack
#GIL-783-0003-01



PRODUCT	DESCRIPTION	OPTIONS	PRICE
GIL-910-0301-01 GIL-910-0303-01	Gilian® LFS-113 Sampling Pump Starter Kit, 120V Charger Includes pump, charger, Air Boss Kit, Tool Kit, Tubing, Tube Holder Kit and manual.	Standard Pump Pump with Clock	\$800.00 \$920.00
GIL-910-0302-01 GIL-910-0304-01	Gilian® LFS-113 5 Pack Sampling Pump Kit, 120V Includes 5 pumps, universal 5 station charger, 5 Air Boss Kits, 5 Tool Kits, 5 Tubing Sets, 5 Tube Holder Kits, manuals and carrying case.	Standard Pump Pump with Clock	\$4250.00 \$4800.00
GIL-783-0003-01	Battery Pack, NiMH		\$206.00
GIL-911-0301-US-R	Single Battery Charger, 120V		\$95.00
GIL-811-0302-45	5 Station Charger, Gilian LFS		\$499.00
GIL-800681-1	Tube Breaker Kit		\$25.00
GIL-800093-3	Inlet Filter Replacement Kit, 3/pk		\$34.00
GIL-800685	Air Boss Restrictor Kit (required for bag sampling)		\$18.00
GIL-800149	Single Sorbent Tube Holder for LFS-113, 6mm x 70mm		\$50.00

Gilian products are not available for shipment outside the USA.

Personal Pump Accessories



Tygon® Tubing, 1/4" ID
#ZA0064



36" Sampling Line
with Tube Clip #456226



Universal Cassette or
Cyclone Holder #ZA0061



Metal Luer Adapter
#459743



37mm Cassette Tubing
Adapters #ZA0005



Gemini® Twin Port Sorbent Tube
Sampler #497697



Sorbent Tube Holder
#APB-109030

Sample Tubing

PRODUCT	DESCRIPTION	PRICE
ZA0065	Sample Line, PVC, 1/4" ID x 3/8" OD x 36" Length	\$15.00
456226	Sample Line, PVC, 1/4" ID x 3/8" OD x 36" Length with Tube Clip	\$26.00
ZA0064	Sample Line, PVC, 1/4" ID x 3/8" OD x 50' Length	\$95.00

Cassette Holders & Adapters

PRODUCT	DESCRIPTION	PRICE
ZA0061	Universal Cassette/Cyclone Holder	\$30.00
GIL-800143	Filter Cassette Holder Kit, Gilian®	\$37.00
ZA0005	Luer Adapter, Plastic, 10/pk (attaches cassette to 1/4" ID tubing)	\$7.40
459743	Luer Adapter, Metal, 3/pk (attaches cassette to 1/4" ID tubing)	\$21.00

Sorbent Tube Holders

PRODUCT	DESCRIPTION	PRICE
APB-109032	Single tube holder with non-adjustable flow	\$40.00
APB-109033	Single tube holder with adjustable flow (5-100cc)	\$65.00
APB-109030	Single tube holder with adjustable flow (5-800cc)	\$65.00
497697	Gemini® Twin Port Sampler	\$250.00

Personal Pump Batteries & Chargers

PRODUCT	DESCRIPTION	OPTIONS	PRICE
GIL-783-0008-04	NiMH Battery		\$100.00
GIL-911-0601-US	Single Battery Charger, 120V	BDX II	\$88.00
GIL-811-9919-US	Gilian® 5 Station Charger (formerly 850069)		\$499.00
APB-109029	NiMH Standard Battery, USB Mini B Connector		\$165.00
APB-129031	NiMH Triple Battery, USB Mini B Connector	Libra, Libra Plus, & Elite	\$265.00
APB-603940	Single Charger, USB Mini B, 120V		\$70.00
APB-605850	5 Station Charger, USB Mini B, 120-240V		\$520.00
GIL-783-0008-03	NiMH Battery-GilAir-3		\$195.00
GIL-783-0009-02	NiMH Battery-GilAir-5		\$235.00
GIL-911-9901-US-R	Single Battery Charger, 120V	GilAir-3 & 5	\$95.00
GIL-811-9919-US	Gilian® 5 Station Charger (formerly 850069)		\$499.00
GIL-783-0007-01	NiMH Battery, Gilian® 5000, 10i, 800i		\$256.00
GIL-783-0018-01	NiMH Battery, Gilian® 12	Gilian 5000, 10i, 800i, & 12	\$256.00
GIL-811-0802-01	Single Battery Charger, 120V		\$122.00
GIL-811-0801-01	5 Station Charger		\$780.00
GIL-783-0012-01-R	NiMH Battery		\$155.00
GIL-783-0013-01-R	AA Alkaline Battery Option		\$137.00
GIL-811-0901-US-R	Charging Dock, Single, 120V	GilAir Plus	\$191.00
GIL-811-0902-US-R	Charging Dock, 5 Station		\$814.00
GIL-811-0903-US-R	Charge/Comm Dock, Single, 120V		\$262.00
GIL-811-0904-US-R	Charge/Comm Dock, 5 Station		\$853.00
GIL-783-0003-01	NiMH Battery		\$206.00
GIL-911-0301-US-R	Single Battery Charger, 120V	LFS-113	\$95.00
GIL-811-0302-US	5 Station Charger (formerly 400324)		\$499.00
10087242	NiMH Battery		\$280.00
494716	Single Battery Charger, 120V	Escort ELF & LC	\$90.00
801759	5 Pump Charger		\$520.00



Gilian® Single Battery Charger



Escort® ELF & LC Single Battery Charger



Escort® ELF & LC NiMH Battery



Gilian® BDX II Pump Battery



Gilian® GilAir-5 Battery



Gilian® 5 Station Charger

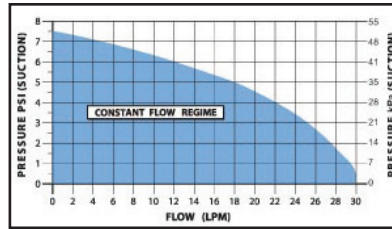


Escort® ELF & LC 5 Pump Charger

Gilian® Aircon-2 Programmable Battery Powered Pump



The Gilian® AirCon-2 sampler is a powerful 2 to 30 LPM constant flow sampler with DC powered portability and programmable timing options. It is ideal for asbestos background and clearance sampling, following NIOSH, OSHA, or EPA methodology, and for ambient dust monitoring. It comes with an adjustable tripod mast and connecting hose to hold the filter cassette at the proper height and isolate the filter from the vibration of the unit. Each pump ships complete with tubing, removable AC line cord, independent sampling mast, and manual.



AirCon-2 Samplers offer constant flow capability, over their entire 2 to 30 LPM flow range, at back pressures up to 7 psi (48 kPa). Flow is controlled within $\pm 5\%$ of the set point.

Extended Flow Range

2-30 LPM flow range designed for collecting particulates in a given plant area.

Fully Programmable

Can be programmed with up to three custom timing routines for unattended sampling up to 99 hours.

Touchpad & LCD Display

Allows easy programming of sampling starts and stops, delays, holds, and number of cycles.

Note: The Aircon-2 sampler does not include a power module or battery pack. It must be ordered separately. If using the sampler for AC operation, only the power module is needed. If using the sampler for DC operation, both the power module and battery pack are needed.

Instant Fault Function

When in fault mode unit stops sampling run and locks in time. "FAULT" appears on display to alert operator.

Instant Pressure Check

Back pressure load can be checked on LCD display by pressing a single button.



PRODUCT	DESCRIPTION	PRICE
GIL-801012-100	Aircon-2 DC Programmable High Volume Sampler	\$2420.00
GIL-801000-2	Aircon-2 Power Module, 120V/230V/DC, with 120V US Cord	\$634.00
GIL-801001	Battery Pack, 4 Hour	\$495.00

Gilian products are not available for shipment outside the USA.

Zefon® Diaphragm Area Sampling Pumps

Zefon® diaphragm area sampling pumps are economical and reliable workhorses. Each pump comes with a locking flow control valve, hose barb, tubing and on/off switch. Suitable for use with PCM, TEM, Air-O-Cell® and Via-Cell® cassettes.



PRODUCT	DESCRIPTION	PRICE
ZTHV01	Zefon® High Volume Diaphragm Pump, 120V	\$195.00
ZTHV01-KIT	Zefon® High Volume Diaphragm 2 Pump Kit, 120V Includes 2 Pumps, 2 Stands, Tubing and Case	\$520.00
ZTHV00-KCASE	Carrying Case for ZTHV01 Pumps Holds 2 ZTHV01 Pumps, 2 Stands, and Tubing	\$100.00

Rotary Vane Sampling Pumps

High volume rotary vane pumps are heavy duty workhorses with a 1/10 hp motor that can be used for most all sampling applications. Each pump comes complete with flow control valve, on/off switch and tubing. Suitable for use with PCM, TEM, Air-O-Cell® and Via-Cell® cassettes along with all viable impactors (e.g. Andersen style impactor).



PRODUCT	DESCRIPTION	PRICE
ZHV00	Rotary Vane High Volume Pump, 120V	\$250.00
ZHV00-KIT	Rotary Vane High Volume 2 Pump Kit, 120V Includes 2 Pumps, 2 Stands, Tubing and Case	\$620.00
ZHV00-KCASE	Carrying Case for ZHV00 Pumps Holds 2 ZHV00 Pumps, 2 Stands, and Tubing	\$100.00

Area Pump Replacement Parts



03113



03180



03200



9800-52



03184



03201



03179

For Zefon® Diaphragm Pumps

PRODUCT	DESCRIPTION	PRICE
03113	Air Flow Regulator Valve, 1/8"	\$12.00
03180	1/8" to 1/4" Conversion Fitting	\$2.20
03200	Hose Barb, 1/4"	\$3.00
03184	Rubber Foot for Diaphragm Pumps	\$2.00
03179	Muffler for Diaphragm Pump	\$4.80

For Rotary Vane Pumps

PRODUCT	DESCRIPTION	PRICE
03113	Air Flow Regulator Valve, 1/8"	\$12.00
03200	Hose Barb, 1/4"	\$3.00
03201	Rubber Foot for ZHV00 Pump	\$1.90
AL-9800-52	Exhaust Filter for ZHV00 Pump	\$4.00
ZGHV01	Glass Muffler Jar for ZHV00 Pump	\$6.00
AA928	Felt Filters for ZHV00 Pump	\$3.00

Area Pump Accessories



ZA0042



ZA0064



ZA0005



459743

PRODUCT	DESCRIPTION	PRICE
ZA0042	Economy Cassette Sampling Stand	\$32.00
ASB-1	Deluxe Cassette Sampling Stand	\$46.00
ZA0064	Tygon® Tubing, E-3603, 1/4" ID x 3/8" OD x 50' Roll	\$95.00
3010-0252	Tubing, PVC, 1/4" Area Pump Sampling	\$0.70/ft
ZA0005	Plastic Luer Adapter, 10/pk (use to attach cassette to 1/4" ID tubing)	\$7.40
459743	Metal Luer Adapter, 3/pk (use to attach cassette to 1/4" ID tubing)	\$21.00

Zefon® DigiCal™ Flow Calibrator

The DigiCal™ Flow Calibrator provides instantaneous calibration for instruments like the *Zefon® Escort®* LC Pump or the secondary flow standard inside the Escort ELF® Sampling Pumps.

Just press the plunger and the DigiCal Calibrator does the work. Its unique flow cell replaces conventional bubble tubes and makes calibration easier. The DigiCal Calibrator achieves extreme accuracy by utilizing a computerized flow meter that provides instantaneous flow readouts on a digital display. Accurate measurements are possible within $\pm 0.5\%$ at any altitude.

Features:

- Compact, lightweight, easy to use
- Work at any altitude without correction
- Instant readout of volumetric flow
- $\pm 0.5\%$ accuracy
- Microprocessor controlled to provide fast, accurate, repeatable measurements
- Two flow ranges to chose from:
 - 1-6000cc/min (DigiCal-5)
 - 0.1-30 LPM (DigiCal-30)



Each DigiCal Calibrator is shipped complete with calibrator, charger, soap solution, dispenser bottle and operation manual.

DigiCal shown here in an *optional* Pelican 1400 case.

PRODUCT	DESCRIPTION	PRICE
655101	DigiCal™ 5 Calibrator, 110V, (1-6000cc/min)	\$1100.00
655201	DigiCal™ 5 Calibrator, 230V (1-6000cc/min)	\$1100.00
655130	DigiCal™ 30 Calibrator, 110V (0.1-30LPM)	\$1150.00
655230	DigiCal™ 30 Calibrator, 230V (0.1-30LPM)	\$1150.00
655102	Air Inlet Caps for DigiCal, Pk of 2	\$17.00
655112	Charger/AC Adaptor for DigiCal, 110V	\$87.00
655273	Soap Bubble Solution, 8oz	\$34.00
655169	Battery Pack for DigiCal™	\$118.00
ZA0122	Pelican 1400 Carrying Case with Pick-N-Pluck Foam	\$120.00

Gilian® Gilibrator 3 Air Flow Calibrators

The Sensidyne Gilian Gilibrator 3 is the most advanced dry calibrator on the market, designed to provide performance, reliability, and ease-of-use. The Gilibrator 3 truly sets the standard for calibration integrity and data reporting. The Gilibrator 3 is an air flow calibrator by NIOSH definition, and delivers NIST traceability through Sensidyne's ISO 17025 accredited laboratory.

Features:

- StablFlow™ provides constant low back pressure to device being calibrated.
- Patent pending pulse-free valve technology maintains calibration integrity.
- Touch screen color display that is visible in direct light, and user defined fields for maintaining sample integrity.
- Multiple flow cells with a common base adds convenience and saves cost.
- Gilian CONNECT PC compatible for data retrieval, record keeping, and statistical analysis of data.
- SmartCal™ capable with GilAir Plus® pumps
- Fast and easy to use dry calibrator.
- Quick disconnect fittings allow for easy flow cell exchange.
- Can be configured to meet the user's calibration needs. The user may select between Continuous or Averaging modes.
- Live, instantaneous flow measurement, accurate within 1% of reading.
- Generates printable calibration reports and can store 100 timestamped calibration events in its on-board memory.



Gilibrator 3 Base with optional Dry Cells



GIL-910-1701-US-R

PRODUCT	DESCRIPTION	PRICE
GIL-811-1707-01-R	Gilibrator 3 Calibrator, Base Only	\$1425.00
GIL-811-1709-01-R	Gilibrator 3 Cell Assembly, Standard Flow	\$725.00
GIL-811-1708-01-R	Gilibrator 3 Cell Assembly, Low Flow	\$764.00
GIL-811-1710-01-R	Gilibrator 3 Cell Assembly, High Flow	\$798.00
GIL-910-1709-US-R	Gilibrator 3 Calibrator Base Pack, Std Flow	\$1698.00
GIL-910-1708-US-R	Gilibrator 3 Calibrator Base Pack, Low Flow	\$1698.00
GIL-910-1710-US-R	Gilibrator 3 Calibrator Base Pack, High Flow	\$3365.00
GIL-910-1701-US-R	Gilibrator 3 Calibrator, Deluxe Kit	\$3365.00
GIL-910-1703-US-R	Gilibrator 3 Calibrator Kit with Case, Std Flow	\$1990.00
GIL-910-1706-US-R	Gilibrator 3 Calibrator Kit with Case, Std/High Flow	\$2765.00
GIL-910-1702-US-R	Gilibrator 3 Calibrator Kit with Case, Low Flow	\$1990.00
GIL-910-1705-US-R	Gilibrator 3 Calibrator Kit with Case, Low/Std Flow	\$2765.00
GIL-910-1707-US-R	Gilibrator 3 Calibrator Kit with Case, Low/High	\$2765.00
GIL-910-1704-US-R	Gilibrator 3 Calibrator Kit with Case, High Flow	\$1990.00
GIL-615-1701-01-R	Gilibrator 3 Carrying Case	\$325.00

Gilian products are not available for shipment outside the USA.

Gilian® Gilibrator 2 Calibrators

The Gilibrator 2 System provides a convenient, accurate and highly automated method to check air sampling pumps for proper air flow function. It is available with interchangeable Wet Cells for low, standard, or high flow ranges. Wet Cells generate a perfect bubble film, and infrared technology “calculates” flow rate data for LCD display. Printer and PC interface options are available. Accurate to 1% of reading with wet cells.

Features:

- Easy Set-up and Operation
- Field Portable
- Low Maintenance
- Alphanumeric Display
- Built-in RS-232 Port
- Auto Averaging of readings
- Battery or AC operation



PRODUCT	DESCRIPTION	PRICE
GIL-800271	Gilibrator 2 Standard Flow Kit, 20cc-6LPM	\$1417.00
GIL-800270	Gilibrator 2 High Flow Kit, 2-30 LPM	\$1572.00
GIL-800272	Gilibrator 2 Low Flow Kit, 1-250cc	\$1440.00
GIL-800267-1	Low Flow Cell Assembly	\$540.00
GIL-800266-1	Standard Flow Cell Assembly	\$500.00
GIL-800265-1	High Flow Cell Assembly	\$660.00
GIL-800274	Printer Module with paper charger and cable	\$875.00
GIL-400681	Replacement Printer Paper, 5 rolls	\$109.00
GIL-811-0501-01	Flow Monitoring Software Kit	\$131.00
GIL-911-0501-US-R	Gilibrator 2 Charger, 120V	\$95.00
GIL-800450	Flow Cell Soap, 8oz	\$41.00
GIL-700560	Battery Pack	\$78.00

Gilian products are not available for shipment outside the USA.

TSI Flow Pump Calibrators

The TSI Calibrators are portable, battery-operated units that are lightweight, easy to use and accurate within 2% of reading. Volumetric flow rate is displayed continuously so adjustments to pump flow can be made in real-time.

Features:

- Provides continuous real-time volumetric flow rate readings, so pump adjustment and calibration is fast and easy
- Field portable—use the same calibrator for adjustment, calibration and periodic flow checks
- Battery powered, compact and lightweight
- 2 Flow ranges to select from:
 - **Model 4146** - 0.01-20 LPM
 - **Model 4046** (ZBP-200-CAL) - 2.5-300 LPM
- Comes with a NIST traceable calibration certificate
- Kits come complete and are ready to use



TSI-4046

PRODUCT	DESCRIPTION	PRICE
TSI-4146	TSI Flow Calibrator 0.01-20 LPM	\$1350.00
ZBP-200-CAL	TSI 4046 Flow Calibrator kit for Zefon® Bio-Pump® Plus Includes 4046 calibrator, all connection pieces required to connect to the Zefon® Bio-Pump or Bio-Pump Plus and a Pelican hard side carrying case.	\$1500.00
ZA0120	Pelican™ 1200 Carrying Case with Pick-N-Pluck Foam (Holds one model TSI 4146 Calibrator)	\$65.00

Each TSI Flow calibrator is shipped complete with the following: Calibrator, Battery pack including 6-AA size alkaline batteries, Tubing kit, carrying case, NIST traceable calibration certificate, and user guide.

Rotameters - Dwyer Visi-Float Flow Meters



Dwyer Visi-Float flowmeters are precision machined from solid, clear acrylic plastic blocks. This construction not only produces an attractive finish, but permits complete visual inspection.

Features:

- Scales are easy to read — The large 4" high front scale location and white background provide excellent visibility.
- Scales are hot stamped into the plastic and will not wear off.
- Mid-range calibration is established with a master flowmeter, providing an accuracy of 3%.
- Each flowmeter is supplied with 1 hose barb, tubing, and luer connector.

PRODUCT	DESCRIPTION	PRICE
116116	Rotameter Flow Meter, 0-4 LPM, non adjustable	\$70.00
195380	Rotameter Flow Meter, 1-20 LPM, non adjustable	\$70.00
195505	Rotameter Flow Meter, 3-30 LPM, non adjustable	\$70.00

Pelican™ Pump and Equipment Cases

Pelican™ equipment protector cases are unbreakable, watertight to 30 feet, and corrosion proof. They are made of an incredibly light structural foam resin shell that always looks new and is unaffected by dents, scratches and corrosion.

Features:

- Watertight, crush-proof, and dust proof
- O-ring seal
- Automatic pressure equalization valve
- Comfortable rubber over-molded handle
- Stainless Steel Hardware and padlock protectors
- Pick-N-Pluck™ foam with convoluted lid foam

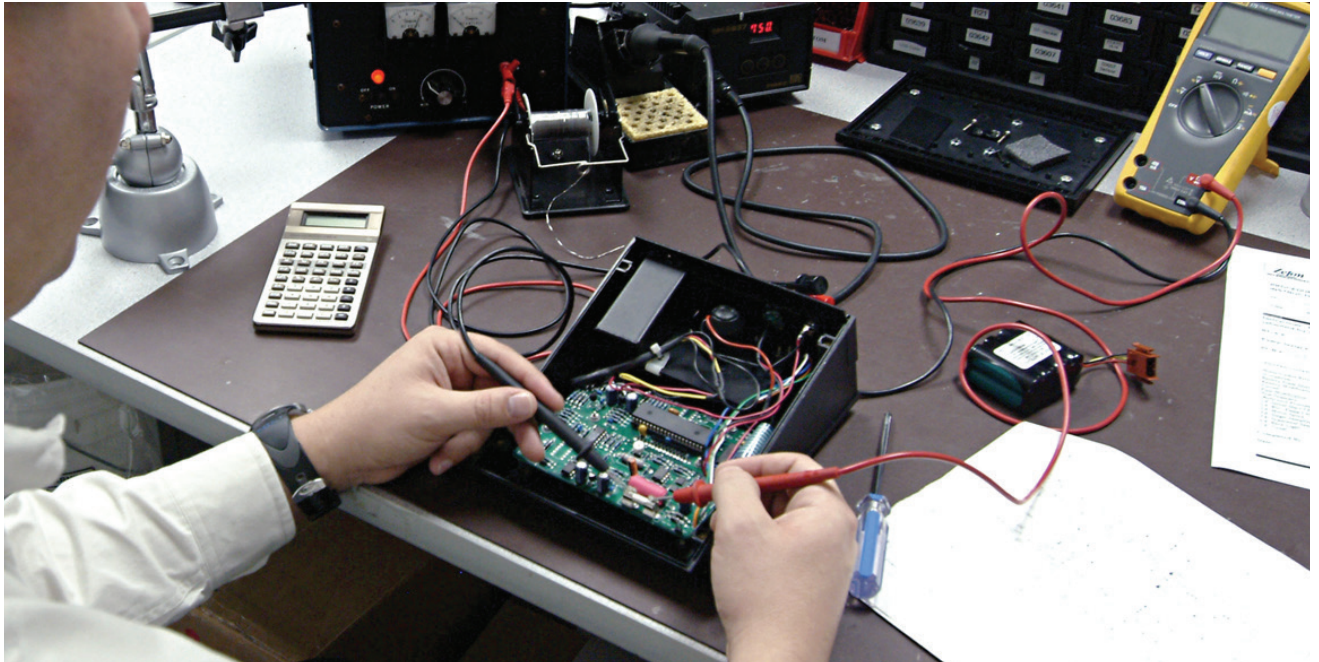


All Pelican cases shown above include Pick-N-Pluck foam. This foam can be easily “plucked” to provide a snug fit for your equipment or accessories.

PRODUCT	DESCRIPTION	INTERNAL SIZE	PRICE
ZA0120	Pelican™ 1200 Case, Black, with Pick-N-Pluck Foam Uses: Personal Sampling Pump & Charger, TSI 4146 Calibrator, Bios Defender Calibrator, Gilian Challenger, Drager CMS	9.25" x 7.12" x 4.12"	\$65.00
ZA0121	Pelican™ 1300 Case, Black, with Pick-N-Pluck Foam Uses: Personal Sampling Pump, Charger & Media or Buck Bio-Culture Pump	9.87" x 7.00" x 6.12"	\$80.00
ZA0122	Pelican™ 1400 Case, Black, with Pick-N-Pluck Foam Uses: Zefon® DigiCal Calibrator, Zefon® Bio-Pump Plus or Met-One Particle Counter	11.81" x 8.87" x 5.18"	\$120.00
ZA0123	Pelican™ 1450 Case, Black, with Pick-N-Pluck Foam	14.66" x 10.24" x 6.12"	\$150.00
ZA0134	Pelican™ 1430 Case, Black, with Pick-N-Pluck Foam	13.56" x 5.76" x 11.70"	\$125.00
ZA0124	Pelican™ 1500 Case, Black, with Pick-N-Pluck Foam Uses: 2 Rotary Vane Pumps or Buck Bio-Culture with Calibration head	16.75" x 11.18" x 6.12"	\$180.00
ZA0125	Pelican™ 1510 Case, Black, On Wheels Uses: 5 Personal Sampling Pumps and Chargers or 3 Personal Sampling Pumps with Chargers, and Calibrator or Media	19.75" x 11.00" x 7.60"	\$254.00
ZA0126	Pelican™ 1520 Case, Black, with Pick-N-Pluck Foam Uses: 2 Rotary Vane Pumps with Stands or 2-3 Bios Defenders	18.06" x 12.89" x 6.72"	\$198.00
ZA0127	Pelican™ 1550 Case, Black, with Pick-N-Pluck Foam Uses: 2 Diaphragm Pumps and Stands or 5 Personal Sampling Pumps with Chargers, Calibrators or Cyclones and Media	18.43" x 14.00" x 7.62"	\$220.00
ZA0131	Pelican™ 1620 Case, Black, On Wheels, with Pick-N-Pluck Foam Uses: Microscopes with accessories	21.48" x 16.42" x 12.54"	\$360.00
ZA0133	Pelican™ 1650 Case, Black, with Pick-N-Pluck Foam	28.57" x 17.52" x 10.65"	\$380.00

Factory Pump Repair Services

Providing expert factory repairs of *Zefon*® brand pumps, including Bio-Pump®, Bio-Pump® Plus, Escort® and IAQ DC Pump.



COMPREHENSIVE FLAT RATE REPAIR SERVICE

The *Zefon*® comprehensive flat rate program is a fully comprehensive repair service that covers all the parts and labor required for the product to operate correctly within its stated specifications including:

- Complete evaluation of the pump
- Repair or replacement of any parts necessary to bring the pump back into a condition of operating within specifications
- All labor involved for testing and repair
- Calibration of internal secondary standard (Escort ELF® only)
- Software upgrade (IAQ pumps only, if available and compatible)
- Full and complete run testing

Note: Comprehensive repair service includes all parts integrated into the product itself. It does not include external accessories or components of the product, such as battery chargers or flow meters.

ESCORT BRAND PUMPS

Zefon® IAQ PUMPS

Escort ELF® Repair + Calibration (includes calibration certificate) \$390.00

Escort ELF® Calibration only (includes calibration certificate) \$145.00

Escort® LC Repair \$300.00

Bio-Pump® Plus & IAQDC Pump Repair \$185.00



For repair of other brands of DC powered pumps or repair of AC powered pump, please contact us and we will provide manufacturer contact information or a qualified third party company to contact for repairs.

Please keep our health into consideration and make sure all pumps sent in for repair are free from hazardous materials. All pumps suspected to have been exposed to hazardous substances (including asbestos) should be decontaminated before sending in for repair. *Zefon*® recommends that each pump be placed in a plastic bag and marked as decontaminated, so that there are no questions about the status of the pump. Pumps that appear to have hazardous substances on them and are not marked or labeled will be returned at your expense without repair.

The Professionals Choice for Air Sampling Equipment

PORTABLE HANDHELD INSTRUMENTS



Noise Instruments: 86-87
Dust Monitors: 88-90
Optical Particle Counters: 91-93
IAQ Meters: 94-96
Differential Pressure Recorders: 97

Svantek SV 104 Personal Noise Dosimeter

Powerful Personal Noise Measurement for Improved Worker Safety and Hearing Protection Selection

The Svantek SV 104 is the most powerful and versatile noise dosimeter on the market. The three independent dosimeter profiles provide simultaneous measurements for OSHA PEL, OSHA HCA, ACGIH, or custom configurations in real-time within the compact dosimeter. These profiles allow safety professionals to perform multiple simultaneous surveys resulting in cost and time savings. Additionally, the octave band real-time analysis provides the data required for selection of personnel hearing protection.

■ Enhanced Design

Rugged enclosure with durable MEMS microphone for greater shock and damage resistance Color OLED display makes it easy to read results in dim light or direct sunlight.

■ Precision Measurement

Three simultaneous, independent dosimeter measurements for OSHA PEL, OSHA HCA, ACGIH, or custom configurations. Real-time octave band analysis provides hearing protector selection data.

■ Results Verification

Audio recording for peak or threshold noise-source identification. MEMS triaxial vibration sensor records possible instrument impacts.

SPECIFICATIONS	
Standards	ANSI S1.25-1991; IEC 61252;
Weighting filters	A, C and Z
Time constants	Slow, Fast, Impulse
Exchange rates	5, 3 (plus 2, 4, and 6)
Microphone	Class 2 microphone, 1/2" housing
Frequency range	30Hz to 8kHz
Dynamic range	95 dB
Data logging	Summary results for measurement time; Time-history logging of Leq/Max/Min/Peak with 1s logger step
Measurement profiles	3 unique real-time virtual dosimeters with independent setup profiles

■ Data Analysis

& Reporting
Customizable viewing, report generation and history database. Instrument manager and profile configuration.



Intrinsically safe certified models available!

SPECIFICATIONS	
Measurement results	Lavg/Leq, SPL, Max, Min, SEL, SEL8, PSEL, LEPd, Dose (%), TWA, E, E_8h, Peak, Run Time, Upper Limit Time (ULT), L(C-A), Projected Dose (D_8h)
Measurement profiles	3 unique real-time virtual dosimeters with independent setup profiles
Voice comments	Audio records on demand, created before or after measurement, added to measurement file
Audio recording (Add-on option)	Audio events recording, trigger and continuous mode, 12 kHz sampling rate, wav format (option)
1/1 octave (Add-on option)	Real-time analysis in octave band filters
Threshold	9 filters with centre frequencies from 31.5 Hz to 8 kHz (option) Threshold Any level between 70 and 90 dB in 5 dB steps

PRODUCT	DESCRIPTION	PRICE
SVAN-SV104	Svantek SV104 Noise Dosimeter	\$1695.00
SVAN-SV104K1	Svantek SV104 Noise Dosimeter Single Pack Deluxe Kit Includes calibrator and carrying case	\$2445.00
SVAN-SV104K5	Svantek SV104 Noise Dosimeter Five Pack Deluxe Kit Includes calibrator and carrying case	\$8495.00
SVAN-SV104IS	Svantek SV-104 Noise Dosimeter with Intrinsic Safety	\$1850.00
SVAN-SF104-OCT	1/1 octave analysis firmware option, single meter	\$425.00
SVAN-SF104-WAV	Audio events recorder firmware option, single meter	\$495.00

Svantek SV 971

Compact Sound Level Meter & Analyzer

Features:

- IEC 61672:2002 Type 1 sound level meter
- Ideal for general acoustic measurements, occupational health and safety noise measurements, environmental noise measurements
- Easy-to-use use with Start/Stop mode and configurable profiles
- Three parallel independent profiles
- Real-time 1/1 or 1/3 octave analysis
- Acoustic dosimetry functionality
- Self-vibration monitoring
- Compact sized, light weight and robust design

NOISE DOSIMETER & SOUND ANALYZER	
Dosimeter Mode Results	SPL, Leq, SEL, Peak, Dose, D-8h, Lav, SEL8, PSEL, E, E-8h, TWA, 'Peak Counter' and more Measurements simultaneous to the 1/1 or 1/3 octave analysis. Exchange Rate 2, 3, 4, 5, 6.
1/1 octave (Add-on option)	Real-time analysis meeting Type 1 requirements of IEC 61260, centre frequencies from 31.5 Hz to 16 kHz (option) available simultaneously with three profiles for broadband measurements (SLM), time history logging and audio recording.
1/3 octave (Add-on option)	Real-time analysis meeting Type 1 requirements of IEC 61260, centre frequencies from 25 Hz to 20 kHz (option) available simultaneously with three profiles for broadband measurements (SLM), time history logging and audio recording.

SPECIFICATIONS	
Standards	Type 1: IEC 61672-1:2002
Weighting filters	A, C, Z
Time constants	Slow, Fast, Impulse
RMS Detector	Digital True RMS detector with Peak detection, resolution 0.1 dB
Microphone	ACO 7052E, 35 mV/Pa, prepolarized 1/2" condenser microphone
Calibration	Automatic calibration @ 114dB/1kHz
Preamplifier	Integrated
Measurement Range	15 dBA RMS ÷ 140 dBA Peak
Internal Noise Level	Less than 15 dBA RMS
Dynamic Range	>110 dB
Frequency Range	10 Hz ÷ 20 kHz
Meter Mode Results	SPL, Leq, SEL, Lden, Ltm3, Ltm5, LMax, LMin, LPeak plus "running Leq" up to 60-minute. Simultaneous measurement in three profiles with independent set of filters and detectors.
Statistics	Ln (L1-L99), complete histogram in meter mode
Data Logger	Time-history logging of summary results, spectra with adjustable double (long and short) logging steps down to 1s
Audio Recording (Add-on option)	Voice comments on manual trigger



PRODUCT	DESCRIPTION	PRICE
SVAN-SVSVAN971-1	Svantek SVAN 971 Sound Level Meter Deluxe Kit with 1/1 Octave Bands, Datalogger and Voice Notes	\$3395.00
SVAN-SVSVAN971-2	Svantek SVAN 971 Sound Level Meter Deluxe Kit with 1/1 & 1/3 Octave Bands, Datalogger and Voice Notes	\$3395.00

Deluxe Kits all include microphone, micro USB Communication cable, windscreens, 4 x AAA batteries, Manufacturer's calibration certificate, and carrying case.

Aerocet-531S Mass Particle Counter/Dust Monitor



2-in-1 performance!

Particle Mass Profiler and Counter in a Single Handheld Unit

The Aerocet 531S is a small, handheld, battery operated, and completely portable unit. This unit provides both particle counts or mass PM measurements as stored datalogged values, real-time networked data, or printed results.

Six Mass Ranges and Four Particle Sizes
Six important mass size ranges (PM1, PM2.5, PM4, PM7, PM10, and TSP) are displayed in mass mode as well as four popular cumulative particle sizes (> 0.5, 1.0, 5.0 and 10.0 microns) in count mode.

Tailored Mass Conversion

The particle counts from eight size ranges are converted to mass using a proprietary algorithm for typical-density aerosols. Accommodation for special particulate with different densities is provided through user-programmable “K-factors.”

Flexible Data Interfaces

The Aerocet 531S stores up to 6,257 records. These records can be viewed on the display, or transferred to a computer via USB or RS232. Our included Comet download utility makes file transfers easy. Data files can easily be imported into an Excel® formatted output.

Temperature and Relative Humidity Option
A plug-and-play option that immediately adds ambient temperature and relative humidity capabilities to the displayed and logged data.



Met One Instruments

PRODUCT	DESCRIPTION	PRICE
MO-AEROCET-531S	Met One Aerocet 531S Mass Monitor	\$3150.00
MO-9801	Flow Meter Kit	\$150.00
MO-G3120	Temperature and Humidity Probe	\$350.00
MO-G3115	Portable Printer	\$450.00
MO-750509	Portable Printer Paper (per roll)	\$5.00
MO-550067	USB to Serial (RS-232) Converter	\$40.00

Met One Instruments Aerosol Mass Monitor

The Met One Instruments 831 Aerosol Mass Monitor simultaneously provides data of four important mass ranges in one minute. Ranges include: PM1, PM2.5, PM4 and PM10.

Handheld Operation

Survey the environment with this extremely portable, size selective mass monitor. This small lightweight instrument is only 28 ounces and is the perfect survey tool for a wide range of applications.

Four Mass Ranges (PM1, P2.5, PM4, PM10)

A mass monitor that simultaneously provides data of four important mass ranges in one minute.

Battery Powered

24 hours of typical intermittent operation and up to 8 hours of continuous use. Recharge time is only 2.5 hours. The included A/C charger/adaptor operates the counter even when the battery pack is discharged.

Simple Operation

Only two front-panel buttons accompany the multifunction rotary scroll wheel to provide simple and efficient operation. Just press and rotate to scroll thru the menu driven platform.

Sample History

View sample history easily on the display or export data via the USB port using the included software. Unit stores up to 2500 sample events. USB interface provides quick data download and field firmware upgrades.



Shown with optional protective boot.



Met One Instruments

PRODUCT	DESCRIPTION	PRICE
MO-AEROCET-831	Met One Instruments 831 Aerosol Mass Monitor	\$2100.00
MO-80450	Protective Rubber Boot for Met One 831 Aerosol Mass Monitor	\$15.00
MO-8517	Carrying Case for Met One 831 Aerosol Mass Monitor	\$45.00
MO-80846	Zero Filter Kit for Met One 831 Aerosol Mass Monitor	\$65.00
MO-80530	Flow Meter Kit for Met One 831 Aerosol Mass Monitor	\$160.00

Nephelometer Dust Monitor

The Sensidyne Nephelometer is an advanced real-time dust monitor accurately measuring dust concentrations using proven light scatter technology. This portable instrument accurately measures and records dust from 1-10,000 µg/m³ with resolution to 1 µg/m³. Sample modes are selectable between 60 second sample, 15 minute STEL, or continuous sampling.

Easy-to-Use

Two-button user-interface ensures easy dust level monitoring.

Accurate Dust Concentration

Proprietary algorithm provides accurate total suspended particulate (TSP) concentration. The sheath air feature prevents internal contamination and improves accuracy.

Highly Portable

All-in-one handheld instrument with long-life batteries that fully charge in less than 3 hours.

Environment Profiling

Easy to use software allows programming unique environmental profiles and recording sample data.

Wide Array of Applications

- Indoor Air Quality Investigation
- Walk Through Surveys
- Industrial Hygiene Quality Control
- Occupational Health Control
- Particulate Matter Study
- Workplace & Plant Monitoring
- Evaluating Dust Generation / Suppression
- Emissions Monitoring
- HazMat Investigations
- Emergency Response
- Site Boundary Monitoring & Environmental Measurement
- Industrial Process Monitoring
- Testing Air Filtration Efficiency
- Aerosol Research Studies
- Personal Exposure Monitoring
- Remediation Personal Surveillance
- Outdoor Environmental Monitoring
- Baseline Trending & Screening



Shown with optional protective boot.



PRODUCT	DESCRIPTION	PRICE
GIL-810-1001-01	Sensidyne Nephelometer Dust Monitor, Standard	\$3098.00
GIL-810-1003-01	Sensidyne Nephelometer Dust Monitor, Deluxe	\$3460.00
GIL-375-0008-01	Protective Rubber Boot	\$35.00

804 Four Channel Handheld Particle Counter

Accurate – Affordable – Reliable

Small Size — Big Performance

The 804 handheld particle counter is a 4 channel portable particle counter that counts particles 0.3 microns to 10.0 microns - giving you portability and reliability at the lowest price in the industry.

Completely Self-Contained — Selectable Particle Sizes

Don't let the size fool you – this unit is completely self-contained with its own internal battery and sample pump, and is programmable, allowing you to choose your particle sizes of interest from seven sizes: 0.3, 0.5, 0.7, 1.0, 2.5, 5.0 or 10.0 microns.

Fast Sampling

Unlike other counters that can take up to a minute to deliver results, the 804 incorporates user selectable sampling time up to 1 minute and displays counts in as little as 3 seconds. The unit will take single or continuous samples.

Simple Operation

Only two front-panel buttons and scroll wheel provide a user friendly, menu driven platform that provides ease in configuration.

Battery or AC Powered

The self-contained battery pack powers the unit for 30 hours of typical intermittent operation, and for up to 8 hours of continuous use. The included AC charger/adaptor operates the counter, even when the battery pack is discharged, and recharges the depleted battery in 2.5 hours.

Flexible Data Interfaces/ USB Communication

Stores up to 2500 records for output, Excel formatted output via included single computer software. USB interface provides quick data download and field firmware upgrades.



Shown with optional protective boot.



Met One Instruments

PRODUCT	DESCRIPTION	PRICE
MO-804	Met One Model 804 Particle Counter	\$1750.00
MO-80450	Protective Boot for Model 804	\$15.00
MO-80846	Zero Filter Kit for Model 804	\$65.00
MO-8517	Carrying Case for Model 804	\$45.00
MO-80530	Flow Meter Kit for Model 804	\$160.00

GT-521S Two Channel Particle Counter

Bench unit performance in the palm of your hand.

Big Performance, Small Size

Each unit is a full-featured, battery-operated, portable laser particle counter that provides the functionality of a bench unit with the convenience of a handheld! It can datalog particle counts continuously or send them to a network.

Dual Programmable Particle Channels

Two programmable particle channels with a range of 0.3 – 5.0 microns each show differential or cumulative particle counts in real time, with selectable count units.

Simple and Powerful Menu-Driven Command Set

A simple touch of a button sets particle sizes, sample time, alarm settings, and basic setup parameters such as date/time and communications settings. Remote operation via RS-232 or RS-485 communications ports allows extensive control, including all front-panel operations.

Flexible Data Interfaces

Stores up to 4,000 records for printer output, Excel® formatted output, or networked datalogging via the included single computer software.

Temperature and Relative Humidity Option

A plug-and-play option that immediately adds ambient temperature and relative humidity capabilities to the displayed and logged data.



Met One Instruments

SPECIFICATIONS

Particle Size Range	Two channels — from 0.3 to 5.0 µm (selectable in 0.1 µm increments)
Concentration Range	0 - 3,000,000 particles per cubic foot (105,900 particles/L)
Accuracy	± 10%, to calibration aerosol
Sensitivity	0.3 µm
Flow Rate	0.1 cfm (2.83 lpm)
Sample Time	Adjustable: 6 to 999 seconds
Hold Time	Adjustable: 1 to 999 seconds

PRODUCT	DESCRIPTION	PRICE
MO-GT-521S	Met One GT-521S Particle Counter	\$2500.00
MO-9801	Flow Meter Kit	\$150.00
MO-G3120	Temperature and Humidity Probe	\$350.00
MO-G3115	Portable Printer	\$450.00
MO-750509	Portable Printer Paper (per roll)	\$5.00
MO-550067	USB to Serial (RS-232) Converter	\$40.00

GT-526S Six Channel Particle Counter

The Affordable Six Channel Solution.



Handheld Operation

The GT-526S is a full-featured, battery-operated, portable particle counter that provides the functionality of a bench unit with the convenience of a handheld.

User Selectable Sizes

Six programmable particle sizes. Operator can set each size from 0.3 to 10 microns.

Count Alarm Limits

Two programmable count alarm limits. Alarms are indicated by an audible beep, displayed message and an alarm flag in the data file.

Data Storage

Store up to 8,000 sample events. Sample history events can be viewed, printed on the optional printer and download to a computer using Comet software or simple ASCII terminal commands.

Battery Powered

24 hours of typical (intermittent) operation and 10 hours of continuous operation. Recharge time is only 2.5 hours.

Temperature / Relative Humidity Option

A plug-and-play option that immediately adds ambient temperature and relative humidity capabilities to displayed and logged data.



Met One Instruments

SPECIFICATIONS

Particle Size Range	0.3µm - 10µm, 6 channels
Calibrated Sizes	0.3 µm, 0.5µm, 1.0µm, 2.0µm 5.0µm and 10µm
User Size Settings	0.1µm steps from 0.3µm - 2.0µm, 0.5µm steps from 2.0µm - 10µm
Concentration Range	0 - 3,000,000 particles per cubic foot (105,900 particle/L)
Accuracy	± 10% to calibration aerosol
Flow Rate	0.1 cfm (2.83 lpm)
Data Storage	8,000 samples
Sample Time	Adjustable: 1 to 999 seconds
Hold Time	Adjustable: 0 to 999 seconds

PRODUCT	DESCRIPTION	PRICE
MO-GT-526S	Met One GT-526S Particle Counter	\$2990.00
MO-9801	Flow Meter Kit	\$150.00
MO-G3120	Temperature and Humidity Probe	\$350.00
MO-G3115	Portable Printer	\$450.00
MO-750509	Portable Printer Paper (per roll)	\$5.00
MO-550067	USB to Serial (RS-232) Converter	\$40.00

TSI IAQ-CALC™ Indoor Air Quality Meters

TSI's IAQ-CALC™ Meters are exceptional indoor air quality instruments for investigating and monitoring building air quality. These IAQ instruments simultaneously measure and data log multiple parameters to monitor indoor air quality conditions. The Model 7525 measures CO₂, temperature, humidity, and calculates dew point, wet bulb temperature, absolute humidity, humidity ratio and % outside air. The Model 7545 IAQ meter additionally measure CO.

Features:

- Easy to use, accurate and reliable
- Take and record measurements for IAQ thermal comfort studies
- Temperature and relative humidity measurements help determine thermal comfort
- Calculates % outside air from either CO₂ or temperature
- Directly calculates dew point, wet bulb temperature, absolute humidity and humidity ratio
- Electrochemical sensor measures CO (Model 7545)
- Two-line display shows two parameters simultaneously
- Simultaneously records all parameters and logs up to 14,000 samples with time and date stamp
- TSI LOGDAT™ software permits easy transfer of data to a computer
- Data can be reviewed on-screen, printed or downloaded to a computer for easy report generation
- Statistics function displays average, maximum and minimum values, and the number of recorded samples



Specifications

TEMPERATURE	
Sensor Type	Thermistor
Range	32 to 140°F (0 to 60°C)
Resolution	±1.0°F (±0.6°C)
Accuracy	0.1°F (0.1°C)
RELATIVE HUMIDITY	
Sensor Type	Thermistor
Range	32 to 140°F (0 to 60°C)
Resolution	±1.0°F (±0.6°C)
Accuracy	0.1°F (0.1°C)
DEW POINT	
Range	5 to 120°F (-15 to 49°C)
Resolution	0.1°F (0.1°C)

CARBON DIOXIDE CO ₂	
Sensor Type	Dual-wavelength NDIR (non-dispersive infrared)
Range	0 to 5000 ppm
Accuracy	±3.0% of reading or ±50 ppm (whichever is greater)
Resolution	1 ppm
CARBON MONOXIDE CO (MODEL 7545 ONLY)	
Sensor Type	Electro-chemical
Range	0 to 500 ppm
Accuracy	±3.0% of reading or ±3 ppm (whichever is greater)
Resolution	0.1 ppm
Response Time	<60 sec to 90% step change

PRODUCT	DESCRIPTION	PRICE
TSI-7525	TSI 7525 IAQ-CALC™ Meter - Temp/RH/Dew Point/CO ₂	\$2045.00
TSI-7545	TSI 7545 IAQ-CALC™ Meter - Temp/RH/Dew Point/CO ₂ Plus CO	\$2340.00

This product is available for shipment in the USA only.

TSI 7515 IAQ-CALC™ Carbon Dioxide CO2 Meter

The TSI 7515 IAQ-CALC™ Meter is a cost-effective carbon dioxide CO₂ meter for investigating and monitoring building air quality and checking ventilation. The sampling function records multiple point measurements, and an optional portable printer provides hard copy documentation.

Features:

- Low-drift NDIR CO₂ sensor for stable, accurate readings
- Sampling function records multiple point measurements
- Ergonomic, overmolded case design

Applications:

- Verify building HVAC system performance
- Examine building IAQ conditions to optimize worker productivity.
- Comply with regulations and guidelines

Specifications:

- CO₂ Sensor Type: Dual-wavelength NDIR (non-dispersive infrared)
- Range: 0 to 5000 ppm
- Accuracy: ±3.0% of reading or ±50 ppm, whichever is greater
- Resolution: 1 ppm
- Response Time: 20 seconds
- Meter Dimensions (all models): 3.3 in. x 7.0 in. x 1.8 in. (8.4 cm x 17.8 cm x 4.4 cm)
- Probe Dimensions (Model 7515):
Length: 2.75 in. (7.0 cm), Diameter: 0.75 in. (1.9 cm)
- Weight (with batteries): 0.6 lbs (0.27 kg)



“Using a CO₂ meter like the TSI 7515 provides an easy way to check for indications that HVAC systems are delivering adequate amounts of outside air.”



PRODUCT	DESCRIPTION	PRICE
TSI-7515	TSI 7515 IAQ-CALC™ Carbon Dioxide CO ₂ Meter Includes instrument, hard carrying case, (4) AA alkaline batteries, operation and service manual, NIST calibration certificate	\$660.00

This product is available for shipment in the USA only.

TSI VelociCalc® Air Velocity Meters

Features:

- 0 to 2000 ft/min air velocity range
- 1 ft/min resolution
- Intrinsically Safe – UL Approved Class I, Division 1 and 2, Groups C & D, Group II, Groups E, F, & G, and Class III
- Model 9515 Features 0 to 4000 ft/min air velocity range



PRODUCT	DESCRIPTION	PRICE
TSI-9515	Air Velocity/Temperature Meter with Telescoping Straight Probe	\$680.00

TSI VelociCalc® Multi-Function Air Velocity Meters

The VELOCICALC®

Model 9565 series are portable, handheld, Multi-Function Ventilation Test Instruments featuring a menu driven user interface for easy operation in your local language. On-screen prompts and step-by-step instructions guide the user through instrument setup, operation, and field calibration. The 9565 also features an ergonomic, overmolded case design with probe holder and a keypad lockout to prevent tampering during unattended use. These instruments are available with or without a differential pressure sensor and are designed to work with a wide range of plug-in probes.

Features:

- Best-in-class air velocity accuracy
- Optional “smart” plug-in probes, including VOC, CO₂, and rotating vane probes
- Accommodates up to two K-alloy thermocouples
- Large graphic display
- Displays up to five measurements simultaneously
- On-screen messages and instructions
- Program for local language
- Intuitive menu structure allows for ease of use and setup
- Multiple data logging formats
- Bluetooth communications for transferring data or remote polling
- Includes TRAKPRO™ and LogDat2™ downloading software with USB cable



PRODUCT	DESCRIPTION	PRICE
TSI-9565-P	Multi-Function Meter with Differential Pressure Sensor (Probes sold separately)	\$1470.00
TSI-964	Air Velocity Probe, Straight, with Temp and Humidity	\$955.00
TSI-966	Air Velocity Probe, Articulated, with Temp and Humidity	\$1115.00
TSI-982	IAQ Probe with Temp, Humidity, CO ₂ and CO	\$2090.00

Note: The TSI 9565-P VelociCalc paired with the #982 IAQ probe is the same as the TSI Q-Trak product.

Omniguard™ 5 Differential Pressure Recorder



The Omniguard™ 5 is a differential pressure recorder in a completely self-contained package, designed from the beginning to be extremely flexible yet easy to use. It is ideal for Asbestos, Lead and Mold abatement and Clean Room monitoring.

It's easy to find a convenient spot to place the unit since the Omniguard 5 is not position sensitive and can be hung by its handle. Accurate measurements continue even if the unit is dropped or moved.

The touch screen navigation provides the easiest setup possible. Pressure is indicated with large easy to read characters and alarm setpoints are always displayed. Screen icons show the monitoring, printer and audible alarm status with a glance. Detailed information for job setup, feature settings and operating instructions are available on-screen at any time by accessing the help menu. Pressure readings are time stamped and logged into memory once containment has been established. Audible and visual alarms activate whenever the pressure reaches the alarm setpoints.

The Omniguard 5 ensures the site inspector that proper containment was maintained. Logs and summary reports can be printed at any time for easy inspection of the monitoring data. Durable and reliable, the Omniguard 5 is clearly the contractors choice for monitoring and documenting Vacuum and Pressure in a containment area.

Features:

- Touch Screen Navigation Interface
- High and low alarm setpoints
- Operates with the case lid closed
- Adjustable Print/log interval
- Automatic printout and logging of all changes to settings
- 30+ days of logging capacity
- Built-in USB and serial ports
- Supports offsite remote monitoring
- Built in cell modem lets you know what's happening at the job site automatically.
- Select which status updates you want to receive via email; power change, - waiting for pressure, alarm or normal operation.
- Email job log once per day at selected time.
- Enter up to four different email addresses to receive status updates, job logs or both.
- Free service for the first two years



Save logs directly to a USB flash drive on the job site. No need to carry a laptop with you or bring your Omniguards into the office just to retrieve the logs. You can view and store the log files on your PC later using the free software.



PRODUCT	DESCRIPTION	PRICE
ES-OG5C	OmniGuard™ 5 Pressure Recorder with Cellular Includes OmniGuard 5, USB cable, manual, 10' tubing and 1 roll of paper	\$1680.00
ES-TP201-Box	Thermal Paper Rolls, 5/bx	\$30.00
ES-OG-HOSE100	External Hose Replacement, 100'	\$50.00
ES-OG-WIRELESS	Omniguard™ 5 Cellular Wireless Modem	\$345.00
ES-OG-ALARM	Omniguard™ 3, & 5 Remote Alarm Also requires USB Adapter	\$249.00
ES-OG-DIALER	Omniguard™ 3, & 5 Autodialer with Cable	\$285.00
ES-OG-PORT	Omniguard™ 4 & 5 USB Port Adapter	\$35.00

Did you know...

Fine particles can travel long distances. For example, a puff of exhaust from a diesel truck in Los Angeles can end up over the Grand Canyon.



Particle Matter or PM

Particle matter, or PM, is the term used for particles found in the air, including dust, dirt, soot, smoke, and liquid droplets. Particles can be suspended for long periods of time. Some particles are large or dark enough to be seen as soot or smoke. Others are so small that individually can only be detected with an electron microscope.

PM10 consist of particles less than 10 micrometers in diameter, pose a health concern because they can be inhaled into and accumulate in the respiratory system. Particles of less than 2.5 micrometers in diameter or PM2.5, are considered "fine" particles and are believed to pose the greatest risk as they can be deposited deep into the lungs.

The Met One 831, Aerosol Mass Monitor, can simultaneously provide data of four important PM ranges. They are PM10, PM4, PM2.5 and PM1. This portable handheld device can deliver data of all four PM measurements, simultaneously, in one minute. This is an important piece of equipment for any professional testing air quality to help reduce possible exposure to unhealthy air environments.



GAS DETECTION EQUIPMENT



Dosimeter (TWA) Tubes: 100
Solution Tubes: 101
Detector Tubes & Pumps: 102-117
Passive Sampling Badges: 118

Gastec® Dosimeter Tubes



Gastec® dosimeter tubes are on the spot detector tubes, used to obtain a time weighted average (TWA) parts per million (PPM) concentration.

Use for sampling periods from 15 minutes to 24 hours. Easy to use and precise. All dosimeter tubes exceed NIOSH and OSHA performance criteria for TWA detector tubes.

Note: Tubes and holder clips sold separately.

PRODUCT	DESCRIPTION	PRICE
GASTEC-710-3	Dosimeter Tube Holder with Lapel Clip, 3/pk	\$54.00

CHEMICAL HAZARD	TUBE #	RANGE	PRICE
Acetic acid	GASTEC-81D	0.5-100	\$73.00
Acetone	GASTEC-151D	5-1500	\$73.00 R
Ammonia	GASTEC-3D GASTEC-3DL	2.5-1000 0.1-10	\$73.00 \$73.00
1,3-Butadiene	GASTEC-174D	1.3-200	\$73.00
Carbon dioxide	GASTEC-2D	0.02-12%	\$73.00
Carbon monoxide	GASTEC-1D GASTEC-1DL	1.04-2000 0.4-400	\$73.00 \$73.00 R
Chlorine	GASTEC-8D	0.08-100	\$73.00
Ethanol	GASTEC-112D	100-25000	\$73.00
Formaldehyde	GASTEC-91D	0.1-20	\$73.00 R
Hydrogen chloride	GASTEC-14D	1-100	\$73.00

CHEMICAL HAZARD	TUBE #	RANGE	PRICE
Hydrogen cyanide	GASTEC-12D	1-200	\$73.00
Hydrogen fluoride	GASTEC-17D	1-100	\$73.00
Hydrogen peroxide	GASTEC-32D	0.5-40	\$73.00
Hydrogen sulfide	GASTEC-4D	0.2-200	\$73.00
Methyl ethyl ketone	GASTEC-152D	2-600	\$73.00 R
Nitrogen dioxide	GASTEC-9D GASTEC-9DL	0.1-30 0.01-3.0	\$73.00 \$73.00 R
Sulfur dioxide	GASTEC-5DH GASTEC-5D	10-600 0.2-100	\$73.00 \$73.00
Tetrachloroethylene	GASTEC-133D	25-150	\$73.00 R
Toluene	GASTEC-122DL	2-500	\$73.00
Trichloroethylene	GASTEC-132D	3-300	\$73.00 R

All Dosimeter tubes are sold 10 per box.
 R = Tubes require refrigeration at 50 degrees Fahrenheit or below
 Note: Limited shelf life.

Sensidyne®/Kitagawa TWA Tubes

Sensidyne TWA tubes are designed to provide a long term sample by using a personal monitoring pump at a low flow rate. Samples up to 8 hours are possible, and the results are immediate with a direct reading length-of-stain tube. TWA Tubes eliminate laboratory turnaround time and allow fast implementation of correctable measures to worker exposure problems.

PRODUCT	DESCRIPTION	PRICE
800263	TWA Tube Holder Kit Includes holder, tubing, adapters & collar clip	\$52.00

CHEMICAL HAZARD	TUBE #	RANGE	PRICE
Ammonia	SENS-501-TWA	5-200 ppm	\$76.00
Carbon Monoxide	SENS-500-TWA	5-400 ppm	\$76.00
Hydrogen Sulfide	SENS-502-TWA	1-20 ppm	\$76.00
Sulfur dioxide	SENS-503-TWA	0.5-20 ppm	\$76.00
Toluene	SENS-504-TWA	20-200 ppm	\$76.00



TWA Tube Holder Kit



Note: Limited shelf life.

Gastec® Solution Tubes

Gastec® Solution Tubes are designed to measure dissolved substances in solutions. Measurements just require the user to immerse the tube into a liquid collected in a beaker or other container. Anyone can measure concentrations quickly, easily and accurately on site.

CHEMICAL HAZARD	TUBE #	RANGE	PRICE
Chloride ion	GASTEC-221L	25-1000mg/l	\$69.00
	GASTEC-221LL	10-200mg/l	\$69.00
Chromium (VI) ion	GASTEC-273	0.5-50mg/l	\$69.00
Copper ion	GASTEC-284	1-20mg/l	\$69.00 R
Free Residual Chlorine	GASTEC-222	0.1-10mg/l	\$69.00
			\$69.00
Iron ion	GASTEC-281	5-50mg/l	\$69.00
Mercury	GASTEC-271	1-20mg/l	\$69.00
Nickel	GASTEC-291	5-50mg/l	\$69.00
Ozone	GASTEC-218	1-10mg/l	\$69.00
Sulfide ion	GASTEC-211H	10-1000	\$69.00
	GASTEC-211M	2-300	\$69.00
	GASTEC-211	1-100	\$69.00
	GASTEC-211LL	0.5-20	\$69.00
Zinc	GASTEC-285	3-20mg/l	\$69.00

Note: Limited shelf life.

R = Tubes require refrigeration at 50 degrees Fahrenheit or below



Sensidyne®/Kitagawa Solution Tubes

These specialized tubes are designed to detect contaminants in water samples.

To use, both ends of the tube are broken off and the tube is immersed in a beaker of water. The sample is drawn by capillary action, by rubber bulb or by a syringe per the individual tube instructions. The concentration is then indicated by the length of stain on the tube.

CHEMICAL HAZARD	TUBE #	RANGE	PRICE
Chloride ion	SENS-201SA	5-2000 ppm	\$69.00
	SENS-201SB	3-200 ppm	\$69.00
Chlorine (free residual)	SENS-234SA	0.4-5 ppm	\$69.00
Cyanide Ion	SENS-204S	0.2-5 ppm	\$69.00
Salinity	SENS-205SL	0.01-0.8 %v	\$69.00
Sulfide Ion	SENS-200SA	2-1000 ppm	\$69.00
	SENS-200SB	0.5-10 ppm	\$69.00

Note: Limited shelf life.



Gastec® Grab Sampling Pump



The Gastec® Model GV-100S Gas Sampling Pump can precisely collect a sample volume for a detector tube. The full-stroke (100 mL) and the half stroke (50 mL) positions are marked exactly by the red line on the pump shaft, and the handle is precisely locked at those positions (each detector tube is calibrated based upon a prescribed (standard) volume of sample). The pump piston has been designed with a smaller diameter so that the handle can be pulled out with even less effort. The Gastec piston sampling pump design provides you with advanced non-sparking design and superior features. It is a convenient handy size and easily carried. It weighs a mere 230 g. Lifetime warranty!

**Own another brand of pump?
Ask about the special Trade-In-Program.**

 <p>Diamond Tube-Tip Breaker The built-in tip breaker incorporates a diamond edge that cuts the surface of the detector tube. This makes the tip breaking much easier, safer and convenient.</p>	 <p>Light-Pull Handle The full-stroke (100mL) and the half stroke(50mL) positions are marked exactly by the red line on the pump shaft, and the handle is precisely locked at those positions.</p>	 <p>Flow Finish Indicator The attached flow finish indicator tells you automatically when the stroke is complete. When the white disk pops out, the sample is complete.</p>
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PRODUCT	DESCRIPTION	PRICE
GASTEC-GV-100-S-TR	Gas Sampling Pump Complete (Gastec Gas Sampling Pump with Thermal Ring and Carrying Case; includes spare parts kit: 1 lubricant and 3 rubber tube holders with filter. Gastec Detector Tube Handbook, and accessories brochure)	\$423.00
GASTEC-GV-100-SO-HATR	GV-100-S-TR with One-Hand Adapter	\$479.00
GASTEC-GV-110-S-TR	Gas Sampling Pump Complete with Stroke Counter (Gastec Gas Sampling Pump with Thermal Ring and Carrying Case; includes spare parts kit: 1 lubricant and 3 rubber tube holders with filter. Gastec Detector Tube Handbook, and accessories brochure)	\$495.00
GASTEC-GV-110-SO-HATR	GV-110-S-TR with One-Hand Adapter	\$550.00
GASTEC-351A-10	10 Meter Extension Hose Extension hoses can be attached to the tip of the gas sampling pump and used for remote downward measurement in places such as manholes and tanks.	\$262.00
GASTEC-350BP	Extension Sampling Pole Extension Pole is a lightweight fiberglass pole with a compact body (78 cm) for easy portability that can be extended to a maximum length of 3 meters.	\$612.00
GASTEC-340	Hot Probe 3' extension allows gases to cool before entering detector tube for a more accurate measurement and reading of hot gases.	\$156.00
GASTEC-345A	Hot Probe Holder The Hot Probe Holder enhances the stability of the Hot Probe when measuring hot gases (140 to 1112 °F). The Hot Probe Holder can not be used with Twin-tubes and Oxygen tube No. 31B.	\$169.00
GASTEC-840	Portable Pyrolyzer For use with fluorochlorocarbon detector tubes for measuring fluorochlorocarbons, nitroparaffins, anesthetic gases, and other hard to detect compounds.	\$436.00
GASTEC-GV-700	One Hand Operation Adapter	\$124.00

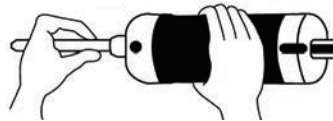
Gastec® Gas Detection Tubes

Gastec® detector tubes are thin glass tubes with calibration scales printed on them which allow you to directly read the concentrations of the substances (gases and vapors) to be measured. Each hermetically sealed tube contains detecting reagents that are especially sensitive to the target substance and quickly produce a distinct layer color change. To assure high precision indication, Gastec detector tube's inner diameters are tightly controlled and detecting reagents with long term stability are strictly selected.

All Gastec detector tubes undergo stringent quality control with each production lot independently tested and calibrated. Each detector tube comes with a quality control number printed on it. Tubes meet the following regulatory standards: JIS - Japanese Industrial Standard, BS 5354 (UK), DIN 33882 (Germany).



1. Prepare the gas detector tubes and break off both ends of tips by using the built in tip breaker.



2. Confirm the pump handle is fully pushed in, then insert the detector tube into the pump inlet with the arrow on the tube pointing toward the pump.



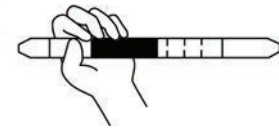
3. Align the guide mark (red line) on the back pale and the guide mark on the handle.



4. Direct the tube end to the point of measurement and pull out the handle fully (for 100mL sampling) or halfway (for 50mL sampling).



5. Wait until the sampling time has elapsed. The flow finish indicator on the handle will display white when complete.



6. Read the color change.

CHEMICAL HAZARD	RANGE (ppm)	U/M	PRODUCT #	PRICE	NOTES
Acetaldehyde	2.5-100	10/bx	GASTEC-92M	\$69.00	R
Acetaldehyde	5-750	10/bx	GASTEC-92	\$69.00	R
Acetaldehyde	1-20	10/bx	GASTEC-92L	\$69.00	R
Acetaldehyde	0.05-1.0	10/bx	GASTEC-92AA	\$95.00	ALI
Acetic Acid	0.125-25	10/bx	GASTEC-81L	\$69.00	R
Acetic Acid	1-100	10/bx	GASTEC-81	\$69.00	
Acetone	50-12000	10/bx	GASTEC-151L	\$69.00	R
Acetone	0.05-2%	10/bx	GASTEC-151	\$69.00	
Acetylene	0.05-4%	10/bx	GASTEC-171	\$69.00	
Acid Gasses	1-80	10/bx	GASTEC-80	\$69.00	
Acrolein	3.3-800	10/bx	GASTEC-93	\$69.00	R
Acrylonitrile	0.1-18	5/bx	GASTEC-191L	\$69.00	TT
Acrylonitrile	2-360	5/bx	GASTEC-191	\$69.00	TT
Aliphatic hydrocarbons	6-3000	10/bx	GASTEC-140	\$69.00	

NOTES:

All Gastec Detector tubes have a limited shelf life.

R = Tubes require refrigeration at 50 degrees Fahrenheit or below

TT = Twin Tube, 5 tests per box

PYR = Pyrolyzer required

ALI = For use specifically with Airborne Labs CO2 Analyzer and NOT compatible with Gastec Gas Sampling Pumps

Gastec® Gas Detection Tubes

CHEMICAL HAZARD	RANGE (ppm)	U/M	PRODUCT #	PRICE	NOTES
Amines	0.25-39	10/bx	GASTEC-180L	\$69.00	
Amines	1.5-280	10/bx	GASTEC-180	\$69.00	
Ammonia	0.2-32%	10/bx	GASTEC-3H	\$69.00	
Ammonia	0.5-78	10/bx	GASTEC-3L	\$69.00	
Ammonia	0.5-78	10/bx	GASTEC-3L	\$69.00	
Ammonia	2.5-200	10/bx	GASTEC-3LA	\$69.00	
Ammonia	0.05-3.52%	10/bx	GASTEC-3HM	\$69.00	
Ammonia	10-1000	10/bx	GASTEC-3M	\$69.00	
Amyl Acetate	10-200	10/bx	GASTEC-147	\$69.00	
Aniline	1.25-60	10/bx	GASTEC-181	\$69.00	
Aromatic Hydrocarbon	0.4-200	10/bx	GASTEC-120	\$69.00	
Aromatic Hydrocarbon	10-240ppb	10/bx	GASTEC-121AHS	\$95.00	ALI
Aromatic Hydrocarbon	5-120ppb	10/bx	GASTEC-121AHC	\$95.00	ALI
Arsine	0.04-10	10/bx	GASTEC-19LA	\$69.00	
Benzene	2-312	5/bx	GASTEC-121S	\$69.00	TT
Benzene	0.125-60	5/bx	GASTEC-121L	\$69.00	TT
Benzene	1-100	5/bx	GASTEC-121SL	\$69.00	TT
Benzene	0.5-10	5/bx	GASTEC-121SP	\$69.00	TT
Benzene	2.5-120	10/bx	GASTEC-121	\$69.00	
1,3-Butadiene	2.5-100	10/bx	GASTEC-174L	\$69.00	
1,3-Butadiene	0.5-5	5/bx	GASTEC-174LL	\$69.00	R, TT
1,3-Butadiene	50-800	10/bx	GASTEC-174	\$69.00	
Butane	25-1400	10/bx	GASTEC-104	\$69.00	
Butyl Acetate	10-300	10/bx	GASTEC-142L	\$69.00	
Butyl Acetate	0.05-0.8%	10/bx	GASTEC-142	\$69.00	
1-Butanol	10-150	10/bx	GASTEC-114	\$69.00	
2-Butanol	5-150	10/bx	GASTEC-115	\$69.00	
tert-Butyl Mercaptan	0.5-30mg/m3	10/bx	GASTEC-75L	\$69.00	R
tert-Butyl Mercaptan	2.5-150mg/m3	10/bx	GASTEC-75	\$69.00	
Carbon Dioxide	0.5-20%	10/bx	GASTEC-2H	\$69.00	
Carbon Dioxide	2.5-40%	10/bx	GASTEC-2HH	\$69.00	
Carbon Dioxide	100-4000	10/bx	GASTEC-2LC	\$69.00	
Carbon Dioxide	300-5000	10/bx	GASTEC-2LL	\$69.00	
Carbon Dioxide	0.13-6%	10/bx	GASTEC-2L	\$69.00	
Carbon Disulfide	0.1-8.1	5/bx	GASTEC-13L	\$69.00	TT
Carbon Disulfide	20-4000	5/bx	GASTEC-13M	\$69.00	TT
Carbon Disulfide	0.63-100	5/bx	GASTEC-13	\$69.00	TT
Carbon Monoxide	2.5-50	10/bx	GASTEC-1CO	\$95.00	ALI
Carbon Monoxide	0.1-10%	10/bx	GASTEC-1H	\$69.00	
Carbon Monoxide	2.5-2000	10/bx	GASTEC-1L	\$69.00	
Carbon Monoxide	1-30	10/bx	GASTEC-1LC	\$69.00	
Carbon Monoxide	25-2000	10/bx	GASTEC-1LM	\$69.00	

Gastec® Gas Detection Tubes

CHEMICAL HAZARD	RANGE (ppm)	U/M	PRODUCT #	PRICE	NOTES
Carbon Monoxide	8-1000	10/bx	GASTEC-1LA	\$69.00	
Carbon Monoxide	0.05-4%	10/bx	GASTEC-1M	\$69.00	
Carbon Monoxide	1-40%	10/bx	GASTEC-1HH	\$69.00	
Carbon Monoxide	5-50	10/bx	GASTEC-1LL	\$69.00	
Carbon Monoxide	5-600	10/bx	GASTEC-1LK	\$69.00	
Carbon Monoxide (in hydrogen with hydrocarbons)	5-100	5/bx	GASTEC-1LKC	\$69.00	TT
Carbon Tetrachloride	0.5-60	5/bx	GASTEC-134	\$69.00	R, TT
Carbon Tetrachloride	0.25-12	5/bx	GASTEC-134L	\$69.00	R, TT
Carbonyl Sulfide	2-125	5/bx	GASTEC-21LA	\$69.00	R, TT
Carbonyl Sulfide	5-200	5/bx	GASTEC-21	\$69.00	R, TT
Chlorine	25-1000	10/bx	GASTEC-8H	\$69.00	
Chlorine	0.1-16	10/bx	GASTEC-8LA	\$69.00	
Chlorine	0.25-10%	10/bx	GASTEC-8HH	\$69.00	
Chlorine	0.025-2	10/bx	GASTEC-8LL	\$69.00	R
Chlorine Dioxide	0.025-1.2	10/bx	GASTEC-23L	\$84.00	R
Chlorine Dioxide	0.1-10	10/bx	GASTEC-23M	\$85.00	
Chlorobenzene	2-500	10/bx	GASTEC-126	\$69.00	
Chlorobenzene	0.5-43	10/bx	GASTEC-126L	\$69.00	R
Chloroform	0.3-4.5	5/bx	GASTEC-137LL	\$69.00	R, TT
Chloroform	4-400	5/bx	GASTEC-137	\$69.00	R, TT
Chloroform	0.5-30	5/bx	GASTEC-137LA	\$69.00	
Chloropicrin	0.045-22	5/bx	GASTEC-233	\$84.00	
o-Cresol	0.4-62.5	10/bx	GASTEC-61	\$69.00	R
Cyclohexanol	5-100	10/bx	GASTEC-118	\$69.00	
Cyclohexanone	2-75	10/bx	GASTEC-154	\$69.00	R
Diborane	0.02-5	10/bx	GASTEC-22	\$69.00	
o-Dichlorobenzene	2.5-300	10/bx	GASTEC-127	\$69.00	
1,2-Dichloroethylene	5-250	10/bx	GASTEC-139	\$69.00	R
1,2-Dichloroethane	1-39	5/bx	GASTEC-232	\$76.00	R, TT
N,N-Dimethyl Acetamide	1.5-240	10/bx	GASTEC-184	\$69.00	
N,N-Dimethyl Formamide	0.8-90	10/bx	GASTEC-183	\$69.00	
Dimethyl Sulfide	0.25-10	5/bx	GASTEC-53	\$69.00	PYR, TT
Ethanol	0.01-7.5%	10/bx	GASTEC-112	\$69.00	
Ethanol	50-2000	10/bx	GASTEC-112L	\$69.00	
Ethyl Acetate	25-800	10/bx	GASTEC-141L	\$69.00	
Ethyl Acetate	0.1-1.5%	10/bx	GASTEC-141	\$69.00	
Ethyl Ether	10-1200	10/bx	GASTEC-161L	\$69.00	
Ethyl Ether	0.04-1%	10/bx	GASTEC-161	\$69.00	
Ethyl Mercaptan In Lp Gas	2.5-30	10/bx	GASTEC-72P	\$83.00	

NOTES:

All Gastec Detector tubes have a limited shelf life.

R = Tubes require refrigeration at 50 degrees Fahrenheit or below

TT = Twin Tube, 5 tests per box

PYR = Pyrolyzer required

ALI = For use specifically with Airborne Labs CO2 Analyzer and NOT compatible with Gastec Gas Sampling Pumps

Gastec® Gas Detection Tubes

CHEMICAL HAZARD	RANGE (ppm)	U/M	PRODUCT #	PRICE	NOTES
Ethyl Mercaptan	0.5-120	10/bx	GASTEC-72	\$69.00	
Ethyl Mercaptan	0.2-75	10/bx	GASTEC-72L	\$69.00	
Ethylene Glycol	10-100mg/m3	5/bx	GASTEC-165L	\$69.00	R, TT
Ethylene	0.2-50	10/bx	GASTEC-172L	\$69.00	
Ethylene	25-1680	10/bx	GASTEC-172	\$69.00	
Ethylene Oxide	0.4-350	5/bx	GASTEC-163L	\$69.00	R, TT
Ethylene Oxide	0.05-3%	10/bx	GASTEC-163	\$69.00	
Ethylene Oxide	0.1-10	5/bx	GASTEC-163LL	\$69.00	R, TT
Flourochorocarbons	1-54	5/bx	GASTEC-51L	\$69.00	PYR, TT
Fluorochlorocarbons	10-400	5/bx	GASTEC-51	\$69.00	PYR, TT
Fluorochlorocarbons	250-6000	5/bx	GASTEC-51H	\$69.00	PYR, TT
Formaldehyde	0.1-40	10/bx	GASTEC-91L	\$69.00	R
Formaldehyde (Automatic Gas Sampling Tube)	0.01-0.8	10/bx	GASTEC-91PL	\$69.00	
Formaldehyde	0.05-1	10/bx	GASTEC-91LL	\$69.00	R
Formaldehyde	8-6400	10/bx	GASTEC-91M	\$69.00	R
Formaldehyde	2-100	5/bx	GASTEC-91	\$69.00	TT
Gasoline (Petrol)	30-2000	10/bx	GASTEC-101L	\$69.00	
Gasoline (Petrol)	0.015-1.2%	10/bx	GASTEC-101	\$69.00	
Hexane	10-1200	10/bx	GASTEC-102L	\$69.00	
Hexane	0.015-1.2%	10/bx	GASTEC-102H	\$69.00	
Hydrazine	0.05-2	10/bx	GASTEC-185	\$69.00	
Hydrocarbons - High Class	100-3000	10/bx	GASTEC-105	\$69.00	
Hydrocarbons - Low Class	0.05-2.4%	9/bx	GASTEC-103	\$69.00	
Hydrogen	0.5-2%	10/bx	GASTEC-30	\$69.00	
Hydrogen Chloride	0.2-76	10/bx	GASTEC-14L	\$69.00	
Hydrogen Chloride	10-1000	10/bx	GASTEC-14M	\$69.00	
Hydrogen Chloride (for low humidity)	50-5000	10/bx	GASTEC-14R	\$89.00	
Hydrogen Cyanide	0.36-120	10/bx	GASTEC-12L	\$69.00	
Hydrogen Cyanide	0.05-1.6%	10/bx	GASTEC-12H	\$85.00	
Hydrogen Cyanide	0.2-7	10/bx	GASTEC-12LL	\$69.00	
Hydrogen Cyanide	17-2400	10/bx	GASTEC-12M	\$69.00	
Hydrogen Flouride	0.25-100	10/bx	GASTEC-17	\$69.00	
Hydrogen Flouride	0.09-72	10/bx	GASTEC-17L	\$69.00	
Hydrogen Flouride	0.05-24	10/bx	GASTEC-17LL	\$69.00	
Hydrogen Peroxide	0.5-10	10/bx	GASTEC-32	\$69.00	
Hydrogen Sulfide	10-4000	10/bx	GASTEC-4H	\$69.00	
Hydrogen Sulfide	25-1600	10/bx	GASTEC-4HM	\$69.00	
Hydrogen Sulfide	0.25-20%	10/bx	GASTEC-4HP	\$69.00	
Hydrogen Sulfide	1-240	10/bx	GASTEC-4L	\$69.00	
Hydrogen Sulfide	1-40	10/bx	GASTEC-4LK	\$69.00	
Hydrogen Sulfide	12.5-500	10/bx	GASTEC-4M	\$69.00	
Hydrogen Sulfide	0.1-4%	10/bx	GASTEC-4HH	\$69.00	

Gastec® Gas Detection Tubes

CHEMICAL HAZARD	RANGE (ppm)	U/M	PRODUCT #	PRICE	NOTES
Hydrogen Sulfide	1-40%	10/bx	GASTEC-4HT	\$69.00	
Hydrogen Sulfide	0.25-120	10/bx	GASTEC-4LL	\$69.00	SEI
Hydrogen Sulfide	0.1-4	10/bx	GASTEC-4LT	\$69.00	R
Hydrogen Sulfide + Sulphur Dioxide (separate quantification)	1.25-120 (H2S) 0.25-20 (SO2)	5/bx	GASTEC-45S	\$69.00	TT
Hydrogen Sulfide	0.5-12	10/bx	GASTEC-4LB	\$69.00	R
Hydrogen Sulfide (odorant)	10-200ppb	5/bx	GASTEC-4S	\$69.00	TT
Hydrogen Sulfide + Sulphur Dioxide (total quantification)	0.02-8%	10/bx	GASTEC-45H	\$69.00	
Isoamyl Acetate	10-200	10/bx	GASTEC-148	\$69.00	
Isoamyl Alcohol	5-300	10/bx	GASTEC-117	\$69.00	
Isobutyl Acetate	10-300	10/bx	GASTEC-144	\$69.00	
Isobutyl Alcohol	10-150	10/bx	GASTEC-116	\$69.00	
Isopropyl Alcohol	25-800	10/bx	GASTEC-113L	\$69.00	
Isopropyl Alcohol	0.02-5%	10/bx	GASTEC-113	\$69.00	
Isopropyl Alcohol	20-460	10/bx	GASTEC-113LL	\$69.00	
Isopropyl Alcohol	20-500	10/bx	GASTEC-146	\$69.00	
LPG - Liquefied Petroleum Gas	0.02-0.8%	10/bx	GASTEC-100A	\$69.00	
Mercaptans	0.5-120	10/bx	GASTEC-70	\$69.00	
Mercaptans	0.1-8	10/bx	GASTEC-70L	\$69.00	
Mercury Vapor	.05-13.2mg/m3	10/bx	GASTEC-40	\$69.00	
Methacrylonitrile	0.2-32	5/bx	GASTEC-192	\$69.00	TT
Methanol	20-1000	10/bx	GASTEC-111L	\$69.00	
Methanol	2-56	10/bx	GASTEC-111LL	\$69.00	
Methanol	0.002-4.5%	10/bx	GASTEC-111	\$69.00	
Methanol	5-60	10/bx	GASTEC-111MOH	\$95.00	ALI
Methyl Bromide	1-36	5/bx	GASTEC-136LA	\$69.00	TT
Methyl Bromide	10-600	5/bx	GASTEC-136H	\$69.00	TT
Methyl Bromide	2.5-200	5/bx	GASTEC-136L	\$69.00	TT
Methyl Bromide	0.1-3.0	5/bx	GASTEC-136LL	\$69.00	TT
Methyl Ethyl Ketone	0.02-0.6%	10/bx	GASTEC-152	\$69.00	
Methyl Ethyl Ketone	10-384	5/bx	GASTEC-152L	\$69.00	R, TT
Methyl Iodide	0.5-108	10/bx	GASTEC-230	\$69.00	R
Methyl Iodide	100-34800	10/bx	GASTEC-230H	\$69.00	
Methyl Isobutyl Ketone	0.05-0.6%	10/bx	GASTEC-153	\$69.00	
Methyl Isobutyl Ketone	2.5-130	10/bx	GASTEC-153L	\$69.00	
Methyl Mercaptans	0.25-140	10/bx	GASTEC-71	\$69.00	
Methyl Mercaptans	20-2700	10/bx	GASTEC-71H	\$69.00	
Methyl Methacrylate	10-500	10/bx	GASTEC-149	\$69.00	
Methylcyclohexanol	5-100	10/bx	GASTEC-119	\$69.00	
Methylcyclohexanone	2-100	10/bx	GASTEC-155	\$69.00	R

NOTES:

All Gastec Detector tubes have a limited shelf life.

R = Tubes require refrigeration at 50 degrees Fahrenheit or below

TT = Twin Tube, 5 tests per box

PYR = Pyrolyzer required

ALI = For use specifically with Airborne Labs CO2 Analyzer and NOT compatible with Gastec Gas Sampling Pumps

Gastec® Gas Detection Tubes

CHEMICAL HAZARD	RANGE (ppm)	U/M	PRODUCT #	PRICE	NOTES
Methylene Chloride	10-150	5/bx	GASTEC-138L	\$69.00	TT
Methylene Chloride	20-500	5/bx	GASTEC-138	\$69.00	TT
Nitric Acid	0.1-40	10/bx	GASTEC-15L	\$69.00	
Nitrogen Dioxide	0.5-125	10/bx	GASTEC-9L	\$69.00	
Nitrogen Dioxide	0.25-4	10/bx	GASTEC-9NO2	\$95.00	ALI
Nitrogen Dioxide NO2+ Nitrogen Oxide NO (separate quantification)	2.5-5.0 5-200	5/bx	GASTEC-10	\$69.00	TT
Nitrogen Oxides	0.04-16.5	10/bx	GASTEC-11L	\$69.00	
Nitrogen Oxides	50-2500	10/bx	GASTEC-11HA	\$69.00	
Nitrogen Oxides	5-625	10/bx	GASTEC-11S	\$69.00	
Nitroparaffins	0.5-30	10/bx	GASTEC-52	\$69.00	PYR
Oxides of Nitrogen	0.25-6	10/bx	GASTEC-11NOX	\$95.00	ALI
Oxygen	3-24%	5/bx	GASTEC-31B	\$79.00	
Ozone	0.025-3	10/bx	GASTEC-18L	\$69.00	
Ozone	4-400	10/bx	GASTEC-18M	\$69.00	
2-Pentenenitrile	0.5-15	5/bx	GASTEC-193	\$69.00	TT
Petroleum Naphtha	0.5-28mg/l	10/bx	GASTEC-106	\$69.00	
Phenol	0.4-187	10/bx	GASTEC-60	\$69.00	R
Phosgene	0.05-20	10/bx	GASTEC-16	\$69.00	R
Phosphine	0.15-5	10/bx	GASTEC-7L	\$69.00	
Phosphine	0.05-9.8	10/bx	GASTEC-7LA	\$69.00	
Phosphine	2.5-1000	10/bx	GASTEC-7J	\$69.00	
Phosphine	2.5-100	5/bx	GASTEC-7	\$69.00	
Phosphine	200-5500	10/bx	GASTEC-7H	\$69.00	
Polytec I	Various	10/bx	GASTEC-107	\$69.00	
Polytec II	Various	10/bx	GASTEC-25	\$69.00	
Polytec III	Various	10/bx	GASTEC-26	\$69.00	
Polytec IV	Various	10/bx	GASTEC-27	\$105.00	
Polytec V	Various	10/bx	GASTEC-28	\$105.00	
Propane (injection tube)	0.1-2%	10/bx	GASTEC-100B	\$69.00	
Propyl Acetate	20-500	10/bx	GASTEC-145	\$69.00	
Pyridine	0.2-35	10/bx	GASTEC-182	\$69.00	
Stoddard Solvent	50-8000 mg/m3	10/bx	GASTEC-128	\$69.00	
Styrene	2-100	10/bx	GASTEC-124L	\$69.00	
Styrene	10-1500	10/bx	GASTEC-124	\$69.00	
Styrene (odorant)	0.2-4.0	5/bx	GASTEC-124S	\$69.00	
Sulfur Dioxide	0.5-60	10/bx	GASTEC-5LA	\$69.00	
Sulfur Dioxide	0.05-10	10/bx	GASTEC-5LB	\$69.00	
Sulfur Dioxide	20-3600	10/bx	GASTEC-5M	\$69.00	
Sulfur Dioxide	0.1-25	10/bx	GASTEC-5LC	\$69.00	
Sulfur Dioxide	0.05-8%	10/bx	GASTEC-5H	\$69.00	
Sulfur Dioxide	1.25-200	10/bx	GASTEC-5L	\$69.00	
Sulfuric Acid	0.5-5mg/m3	10/bx	GASTEC-35	\$69.00	

Gastec® Gas Detection Tubes

CHEMICAL HAZARD	RANGE (ppm)	U/M	PRODUCT #	PRICE	NOTES
Sulfuryl Fluoride	1-20ppm	4/bx	GASTEC-231	\$105.00	
TBM & DMS	1-15mg/m3	5/bx	GASTEC-77	\$69.00	R, TT
Tetrachloroethylene	7-900	10/bx	GASTEC-133HA	\$69.00	R
Tetrachloroethylene	1-75	10/bx	GASTEC-133L	\$69.00	R
Tetrachloroethylene	2-250	10/bx	GASTEC-133M	\$69.00	R
Tetrachloroethylene	0.1-9	10/bx	GASTEC-133LL	\$69.00	R
Tetrachloroethylene (Automatic Gas Sampling Tube)	20-720ug/m3	5/bx	GASTEC-133P	\$69.00	TT
Tetrahydrofuran	20-800	10/bx	GASTEC-159	\$69.00	
Tetrahydrofuran	5-232	10/bx	GASTEC-159L	\$69.00	R
Tetrahydrothiophene	1-10	5/bx	GASTEC-76	\$69.00	TT
Tetrahydrothiophene	10-200	5/bx	GASTEC-76H	\$69.00	TT
Tetrahydrothiophene	10-100mg/m3	5/bx	GASTEC-76M	\$69.00	TT
Toluene	1-100	10/bx	GASTEC-122L	\$69.00	
Toluene	5-690	10/bx	GASTEC-122	\$69.00	
Total Sulphur	0.025-0.2	10/bx	GASTEC-4TSC	\$95.00	ALI
1,1,1-Trichloroethane	6-900	5/bx	GASTEC-135L	\$69.00	TT
1,1,1-Trichloroethane	100-2000	5/bx	GASTEC-135	\$69.00	TT
Trichloroethylene	2-250	10/bx	GASTEC-132M	\$69.00	R
Trichloroethylene	0.5-70	10/bx	GASTEC-132L	\$69.00	R
Trichloroethylene	20-1300	10/bx	GASTEC-132HA	\$69.00	R
Trichloroethylene	0.05-2.5%	10/bx	GASTEC-132HH	\$69.00	R
Trichloroethylene	0.125-8.8	10/bx	GASTEC-132LL	\$69.00	R
Vinyl Acetate	5-250	5/bx	GASTEC-143	\$69.00	TT
Vinyl Chloride	0.1-6.6	5/bx	GASTEC-131L	\$69.00	R, TT
Vinyl Chloride	0.25-54	5/bx	GASTEC-131LA	\$69.00	R, TT
Vinyl Chloride	0.025-2%	10/bx	GASTEC-131	\$69.00	
Vinyl Chloride	0.25-70	10/bx	GASTEC-131LB	\$69.00	R
Vinyl Chloride	2-60ppb	10/bx	GASTEC-131VCL	\$95.00	ALI
Vinylidene Chloride	0.4-40.6	5/bx	GASTEC-130L	\$69.00	R, TT
Water Vapor (pipeline dewpoint)	3-100LB/MMCF	10/bx	GASTEC-6LP	\$69.00	
Water Vapor (pipeline dewpoint)	2-10LB/MMCF	10/bx	GASTEC-6LLP	\$69.00	
Water Vapor	0.5-32mg/l	10/bx	GASTEC-6	\$69.00	
Water Vapor	0.05-2mg/l	10/bx	GASTEC-6L	\$69.00	
Water Vapor	2.5-50	10/bx	GASTEC-6H2O	\$95.00	ALI
Xylene	5-625	10/bx	GASTEC-123	\$69.00	
Xylene	2-200	10/bx	GASTEC-123L	\$69.00	

NOTES:

All Gastec Detector tubes have a limited shelf life.

R = Tubes require refrigeration at 50 degrees Fahrenheit or below

TT = Twin Tube, 5 tests per box

PYR = Pyrolyzer required

ALI = For use specifically with Airborne Labs CO2 Analyzer and NOT compatible with Gastec Gas Sampling Pumps

Sensidyne®/Kitagawa Detector Tube Pump



The Sensidyne® Gas Detection Pump Kit is a portable gas detection kit that is lightweight, rugged, and capable of on-the-spot detection of numerous gases and vapors. Kit comes complete with AP-20S Gas Detection Pump, lubricant, manual, tube handbook, and lightweight carrying pouch.

Tubes Sold Separately.



Features:

- Sample Flow Indicator
- Two-Stage Locking Mechanism on handle that allows samples at volumes of 50ml or 100ml
- Detector Tube Tip Cutter



Optional Extension Hose



Complete Kit (tubes sold separately)

PRODUCT	DESCRIPTION	PRICE
SENS-830-0001-01	Sensidyne® Model AP-20S Gas Detection Pump Kit	\$478.00
SENS-830-1001-01	5 Meter Extension Hose Extension hoses can be attached to the tip of the AP-20S pump and used for remote measurement in places such as manholes and tanks.	\$170.00
SENS-830-1002-01	10 Meter Extension Hose Extension hoses can be attached to the tip of the AP-20S pump and used for remote measurement in places such as manholes and tanks.	\$222.00
SENS-830-1003-01	Telescoping Extension Probe Telescoping and locking extension probe that can be extended to a maximum length of 3 meters.	\$938.00
SENS-7013602	Hot Probe The Hot Probe rapidly cools the gas before it enters the detector tube allowing the sampling of gases at elevated temperatures up to 482F for applications such as auto exhaust or stack emissions testing.	\$203.00



Own another brand of pump but want to use Sensidyne tubes?

Simply order 12 boxes or more of tubes and we will exchange your competitive brand pump for a brand new Sensidyne pump.

Sensidyne®/Kitagawa Gas Detector Tubes

Sensidyne®/Kitagawa gas detector tubes are made from high-quality borosilicate glass tubes with a uniform inside diameter. Inside, each tube is packed with a gas detecting reagent. When both ends of a detector tube are broken, insert the tube into the Sensidyne model AP-20S Pump, and pull the handle. An air sample is then pulled through the tube by means of pulling back on the pump handle. If the target gas is present, the detecting reagent changes color.



How to Use

The Sensidyne/Kitagawa detector tube system allow samples to be taken in just a few simple steps.



1. Break the glass tips off both ends of the detector tube.



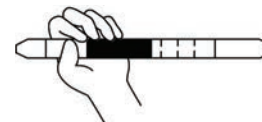
2. Insert tube into the pump inlet with the arrow on the tube pointing toward the pump.



3. Align the guide marks for the desired sample size, then pull the pump handle.



4. Wait until the flow finish indicator shows the sampling time has elapsed.



5. Read the color change.

CHEMICAL HAZARD	RANGE	U/M	PRODUCT #	PRICE	NOTES
Acetaldehyde	0.004-1%v	10/bx	SENS-133A	\$69.00	R
Acetaldehyde	5-140ppm	10/bx	SENS-133SB	\$69.00	R
Acetic Acid	1-50ppm	10/bx	SENS-216S	\$69.00	
Acetone	0.1-5.0%v	10/bx	SENS-102SA	\$69.00	
Acetone	0.01-4.0%v	10/bx	SENS-102SC	\$69.00	R
Acetone	40-5000ppm	10/bx	SENS-102SD	\$69.00	
Acetylene	50-1000ppm	10/bx	SENS-101S	\$69.00	
Acetylene-Ethylene	20-2000ppm	5/bx	SENS-280S	\$76.00	TT
Acrolein	0.005-1.8%v	10/bx	SENS-136	\$69.00	R
Acrylonitrile	0.1-3.5%v	10/bx	SENS-128SA	\$69.00	
Acrylonitrile	10-500ppm	10/bx	SENS-128SB	\$69.00	
Acrylonitrile	1-20ppm	5/bx	SENS-128SC	\$69.00	R, TT
Acrylonitrile	0.25-20ppm	5/bx	SENS-128SD	\$69.00	R, TT
Ammonia	0.5-10.0%v	10/bx	SENS-105SA	\$69.00	
Ammonia	50-900ppm	10/bx	SENS-105SB	\$69.00	
Ammonia	5-260ppm	10/bx	SENS-105SC	\$69.00	
Ammonia	0.2-20ppm	10/bx	SENS-105SD	\$69.00	
Ammonia	1-200ppm	10/bx	SENS-105SE	\$69.00	
Ammonia	0.5-30%v	10/bx	SENS-105SH	\$69.00	

NOTES:

All Sensidyne/Kitagawa detector tubes have a limited shelf life.

R = Tubes require refrigeration at 50 degrees Fahrenheit or below

TT = Twin Tube - 5 tests per box

Sensidyne®/Kitagawa Gas Detector Tubes

CHEMICAL HAZARD	RANGE	U/M	PRODUCT #	PRICE	NOTES
Ammonia	0.1-1.0%v	10/bx	SENS-105SM	\$69.00	
Aniline	1-30ppm	10/bx	SENS-181S	\$69.00	
Arsine	5-160ppm	10/bx	SENS-140SA	\$69.00	
Benzene	1-100ppm	10/bx	SENS-118SC	\$76.00	
Benzene	5-200ppm	5/bx	SENS-118SB	\$69.00	TT
Benzene	0.1 - 75ppm	5/bx	SENS-118SD	\$69.00	TT
Benzene	0.2 - 80ppm	5/bx	SENS-118SE	\$69.00	TT
Bromine	1-20ppm	10/bx	SENS-114	\$69.00	
1,3-Butadiene	0.03-2.6%v	10/bx	SENS-168SA	\$69.00	
1,3-Butadiene	30-600ppm	10/bx	SENS-168SB	\$69.00	
1,3-Butadiene	2.5-100ppm	10/bx	SENS-168SC	\$69.00	
1,3-Butadiene	0.1-10ppm	5/bx	SENS-168SE	\$76.00	TT
N-Butane	0.05-0.6%v	10/bx	SENS-221SA	\$69.00	
2-Butanol	4-300ppm	10/bx	SENS-189U	\$76.00	
Butyl Acetate	10-400ppm	10/bx	SENS-138U	\$76.00	
Butyl Acrylate	5-60ppm	10/bx	SENS-211U	\$76.00	
Carbon Dioxide	100-7000ppm	10/bx	SENS-126B	\$69.00	
Carbon Dioxide	0.1-2.6%v	10/bx	SENS-126SA	\$69.00	
Carbon Dioxide	0.05-1.0%v	10/bx	SENS-126SB	\$69.00	
Carbon Dioxide	100-4000ppm	10/bx	SENS-126SF	\$69.00	
Carbon Dioxide	0.02-1.4%	10/bx	SENS-126SG	\$69.00	
Carbon Dioxide	1.0-20.0%v	10/bx	SENS-126SH	\$69.00	
Carbon Dioxide	5-50%v	10/bx	SENS-126UH	\$76.00	
Carbon Disulfide	30-500ppm	5/bx	SENS-141SA	\$69.00	R, TT
Carbon Disulfide	0.8-50ppm	5/bx	SENS-141SB	\$69.00	R, TT
Carbon Disulfide	0.1-6.4ppm	5/bx	SENS-141SC	\$76.00	R, TT
Carbon Monoxide	1-50ppm	10/bx	SENS-106C	\$69.00	
Carbon Monoxide	10-250ppm	10/bx	SENS-106S	\$69.00	
Carbon Monoxide	5-1000ppm	10/bx	SENS-106SA	\$69.00	
Carbon Monoxide	1-50ppm	10/bx	SENS-106SC	\$69.00	
Carbon Monoxide	0.1-2.0 %v	10/bx	SENS-106SH	\$69.00	
Carbon Monoxide	3 - 500ppm	10/bx	SENS-106SS	\$69.00	
Carbon Monoxide	0.1-20%v	10/bx	SENS-106UH	\$76.00	
Carbon Tetrachloride	0.5-60ppm	5/bx	SENS-147S	\$69.00	TT
Carbonyl Sulfide	5-60ppm	5/bx	SENS-239S	\$69.00	TT
Chlorine Dioxide	1-20ppm	10/bx	SENS-116	\$69.00	
Chlorine	1-40ppm	10/bx	SENS-109SA	\$69.00	
Chlorine	0.1-10ppm	10/bx	SENS-109SB	\$69.00	
Chlorine	0.05-2ppm	10/bx	SENS-109U	\$76.00	
Chlorine, Free Residual	0.4-5 ppm	10/bx	SENS-234SA	\$69.00	
Chlorobenzene	1-140ppm	5/bx	SENS-178SB	\$69.00	TT
Chloroform	23-500ppm	5/bx	SENS-152S	\$69.00	R, TT

Sensidyne®/Kitagawa Gas Detector Tubes

CHEMICAL HAZARD	RANGE	U/M	PRODUCT #	PRICE	NOTES
Chloropicrin	0.05-16ppm	5/bx	SENS-172S	\$69.00	TT
Chloropicrin	0.5-20ppm	5/bx	SENS-169S	\$69.00	TT
Cresol	0.5-25ppm	10/bx	SENS-183U	\$76.00	
Cyclohexane	0.01-0.6%v	10/bx	SENS-115S	\$69.00	
Cyclohexanol	5-500ppm	10/bx	SENS-206U	\$69.00	
Cyclohexanone	2-100ppm	10/bx	SENS-197U	\$76.00	
Diborane	0.02-5ppm	10/bx	SENS-242S	\$69.00	R
P-Dichlorobenzene	10-150ppm	10/bx	SENS-215S	\$69.00	R
1,1-Dichloroethane	10-160ppm	5/bx	SENS-235SA	\$69.00	R, TT
1,2-Dichloroethane	10-160ppm	5/bx	SENS-230SA	\$69.00	R, TT
1,2-Dichloroethylene	5-400ppm	10/bx	SENS-145SA	\$69.00	R
2,2-Dichloroethyl Ether	2-30ppm	5/bx	SENS-223S	\$69.00	TT
Dichloromethane	10-1000ppm	5/bx	SENS-180S	\$69.00	R, TT
1,3-Dichloroprene	0.5-10.0ppm	5/bx	SENS-249S	\$69.00	TT
1,3-Dichloropropane	10-500ppm	5/bx	SENS-194S	\$69.00	R, TT
Diethyl Amine	1-20ppm	10/bx	SENS-222S	\$69.00	
Diethyl Ether	0.04-1.4%v	10/bx	SENS-107SA	\$69.00	
Diethyl Ether	20-400ppm	10/bx	SENS-107U	\$76.00	
Dimethyl Amine	1-20ppm	10/bx	SENS-227S	\$69.00	
Dimethyl Ether	0.01-1.2%v	10/bx	SENS-123S	\$69.00	
N,N-Dimethyl Formamide	1-30ppm	10/bx	SENS-196S	\$69.00	
N,N-Dimethylacetamide	5-70ppm	10/bx	SENS-229S	\$69.00	
Dioxane	0.05-2.5%v	10/bx	SENS-139SB	\$69.00	
Epichlorohydrin	5-50ppm	5/bx	SENS-192S	\$69.00	TT
Ethyl Acetate	0.1-5.0%v	10/bx	SENS-111SA	\$69.00	
Ethyl Acetate	20-1000ppm	10/bx	SENS-111U	\$76.00	
Ethyl Acrylate	2-60ppm	10/bx	SENS-211U	\$69.00	
Ethyl Alcohol	0.05-5.0%v	10/bx	SENS-104SA	\$69.00	
Ethyl Benzene	10-500ppm	10/bx	SENS-179S	\$69.00	
Ethyl Mercaptans	1-60ppm	10/bx	SENS-165SA	\$69.00	
Ethyl Mercaptans, Lp Gas	2.5-80ppm	10/bx	SENS-165SB	\$69.00	
Ethyl-Tert-Butyl Ether	1-60ppm	10/bx	SENS-248U	\$76.00	
Ethylene Dibromide	1-50ppm	5/bx	SENS-166S	\$69.00	TT
Ethylene Glycol	2-250mg/m ³	10/bx	SENS-232SA	\$69.00	TT
Ethylene Glycol	3-40mg/m ³	5/bx	SENS-232SB	\$69.00	TT
Ethylene Oxide	0.01-4%v	10/bx	SENS-122SA	\$69.00	
Ethylene Oxide	50-100ppm	10/bx	SENS-122SM	\$76.00	
Ethylene Oxide	1-15ppm	5/bx	SENS-122SC	\$69.00	TT
Ethylene Oxide	50-2600ppm	10/bx	SENS-122SL	\$76.00	
Ethylene	0.1-100ppm	10/bx	SENS-108B	\$69.00	

NOTES:

All Sensidyne/Kitagawa detector tubes have a limited shelf life.

R = Tubes require refrigeration at 50 degrees Fahrenheit or below

TT = Twin Tube - 5 tests per box

Sensidyne®/Kitagawa Gas Detector Tubes

CHEMICAL HAZARD	RANGE	U/M	PRODUCT #	PRICE	NOTES
Ethylene	20-1200ppm	10/bx	SENS-108SA	\$69.00	TT
Ethylene	1-200ppm	5/bx	SENS-108SC	\$76.00	
Formaldehyde	20-1500ppm	5/bx	SENS-171SA	\$69.00	R, TT
Formaldehyde	1-35ppm	5/bx	SENS-171SB	\$69.00	TT
Formaldehyde	0.05-4ppm	10/bx	SENS-171SC	\$69.00	R
Furfuryl Alcohol	2-25ppm	10/bx	SENS-238S	\$69.00	
Gasoline	0.05-0.5%v	10/bx	SENS-110S	\$69.00	
N-Hexane	0.05-0.6%v	10/bx	SENS-113SA	\$69.00	
N-Hexane	50-1400ppm	10/bx	SENS-113SB	\$69.00	
N-Hexane	5-800ppm	10/bx	SENS-113SC	\$69.00	
Hydrazine	0.05-10ppm	10/bx	SENS-219S	\$69.00	
Hydrocarbons (Arson)	Qualitative	10/bx	SENS-290P2	\$69.00	
Hydrocarbons	50-1400ppm	10/bx	SENS-187S	\$76.00	
Hydrogen Chloride	20-1200ppm	5/bx	SENS-173SA	\$69.00	TT
Hydrogen Chloride	0.4-40ppm	5/bx	SENS-173SB	\$69.00	TT
Hydrogen Cyanide	0.01-3.0%v	10/bx	SENS-112SA	\$69.00	
Hydrogen Cyanide	0.5-100ppm	10/bx	SENS-112SB	\$69.00	R
Hydrogen Cyanide	0.3-8ppm	5/bx	SENS-112SC	\$76.00	TT
Hydrogen Fluoride	0.25-30ppm	10/bx	SENS-156S	\$69.00	
Hydrogen Peroxide	0.5-10ppm	10/bx	SENS-247S	\$76.00	
Hydrogen Selenide	1-600ppm	10/bx	SENS-167S	\$69.00	
Hydrogen Sulfide Mercaptans	1-30ppm	5/bx	SENS-282S	\$76.00	TT
Hydrogen Sulfide	0.025-0.4 gr/100CF	10/bx	SENS-120GR	\$69.00	
Hydrogen Sulfide	0.25-4 gr/100CF	10/bx	SENS-120GT	\$69.00	
Hydrogen Sulfide	0.75-150ppm	10/bx	SENS-120SB	\$69.00	
Hydrogen Sulfide	25-2000ppm	10/bx	SENS-120SC	\$69.00	
Hydrogen Sulfide	1-60ppm	10/bx	SENS-120SD	\$69.00	
Hydrogen Sulfide	0.5-40ppm	10/bx	SENS-120SE	\$69.00	
Hydrogen Sulfide	25-2000ppm	10/bx	SENS-120SF	\$69.00	
Hydrogen Sulfide	0.1-4.0%v	10/bx	SENS-120SH	\$69.00	
Hydrogen Sulfide	0.05-1.2%v	10/bx	SENS-120SM	\$69.00	
Hydrogen Sulfide	0.2-6.0ppm	10/bx	SENS-120U	\$76.00	
Hydrogen Sulfide	2-20%v	10/bx	SENS-120UH	\$76.00	
Hydrogen Sulfide	2.5-40%v	5/bx	SENS-120UT	\$76.00	TT
Hydrogen	0.05-0.8%v	5/bx	SENS-137U	\$76.00	TT
Inorganic Gases, Qualit	qualitative	10/bx	SENS-131	\$76.00	
Isoamyl Acetate	10-400ppm	10/bx	SENS-188U	\$76.00	
Isobutyl Acetate	10-400ppm	10/bx	SENS-153U	\$76.00	
Isobutyl Alcohol	5-100ppm	10/bx	SENS-208U	\$76.00	
Isopentyl Alcohol	5-100ppm	10/bx	SENS-209U	\$76.00	
Isopropyl Alcohol	20-1200ppm	10/bx	SENS-150U	\$76.00	
Mercaptans	0.5-10ppm	10/bx	SENS-130U	\$76.00	

Sensidyne®/Kitagawa Gas Detector Tubes

CHEMICAL HAZARD	RANGE	U/M	PRODUCT #	PRICE	NOTES
Mercury Vapor	.01-10mg/m ³	10/bx	SENS-142S	\$69.00	
Mesityl Oxide	5-500ppm	10/bx	SENS-190U	\$76.00	
Methanol	0.05-6.0%v	10/bx	SENS-119SA	\$69.00	
Methanol	20-1000ppm	10/bx	SENS-119U	\$76.00	
Methyl Bromide	10-500ppm	5/bx	SENS-157SA	\$69.00	R, TT
Methyl Bromide	2.5-80ppm	5/bx	SENS-157SB	\$69.00	R, TT
Methyl Bromide	0.1-20ppm	5/bx	SENS-157SD	\$69.00	R, TT
Methyl Chloroform	15-400ppm	5/bx	SENS-160S	\$69.00	R, TT
Methyl Cyclohexane	2-100ppm	10/bx	SENS-198U	\$76.00	
Methyl Cyclohexanol	5-200ppm	10/bx	SENS-199U	\$76.00	
Methyl Ethyl Ketone	20-1500ppm	10/bx	SENS-139U	\$76.00	
Methyl Iodide	0.4-50ppm	10/bx	SENS-176SC	\$69.00	
Methyl Iodide	5-15000ppm	10/bx	SENS-176UH	\$76.00	
Methyl Isobutyl Ketone	5-300ppm	10/bx	SENS-155U	\$76.00	
Methyl Mercaptans	5-140ppm	10/bx	SENS-164SA	\$69.00	
Methyl Mercaptans	50-1000ppm	10/bx	SENS-164SH	\$69.00	
Methyl Methacrylate	10-160ppm	10/bx	SENS-184S	\$76.00	
Methyl Styrene	10-500ppm	10/bx	SENS-193S	\$69.00	
MITC (Methyl Isothiocyanate)	200-10000ppm	10/bx	SENS-245UH	\$76.00	
MITC (Methyl Isothiocyanate)	0.3-22ppm	10/bx	SENS-245UL	\$76.00	
MITC (Methyl Isothiocyanate)	10-1500ppm	10/bx	SENS-245UM	\$76.00	
Monoethanol Amine	0.5-50ppm	10/bx	SENS-224SA	\$69.00	
Nickel Carbonyl	20-700ppm	10/bx	SENS-129	\$69.00	
Nitric Acid	1-20ppm	10/bx	SENS-233S	\$69.00	
Nitro Oxide Comp (Flue Gas)	NO: 10-300ppm NO2: 1-40ppm	5/bx	SENS-174B	\$69.00	TT
Nitro Oxide Compound	NO: 10-300ppm NO2: 1-40ppm	5/bx	SENS-174A	\$69.00	TT
Nitrogen Dioxide	20-1000ppm	10/bx	SENS-117SA	\$69.00	
Nitrogen Dioxide	0.5-30ppm	10/bx	SENS-117SB	\$69.00	
Nitrogen Dioxide	0.1-1 ppm	5/bx	SENS-117SD	\$69.00	TT
Nitrogen Oxide	100-2500ppm	10/bx	SENS-175SH	\$69.00	
Nitrogen Oxide	0.5-30ppm	10/bx	SENS-175U	\$76.00	
Nitrogen Oxides	20-250ppm	10/bx	SENS-175SA	\$69.00	
O-Dichlorobenzene	5-100ppm	10/bx	SENS-214S	\$69.00	
Organic Compounds	5-2500ppm	10/bx	SENS-186	\$69.00	
Organic Qualitative	qualitative	10/bx	SENS-186B	\$76.00	
Oxygen & Carbon Dioxide	2-10%v/1-20%v	5/bx	SENS-281S	\$76.00	TT
Oxygen	1.5-24%v	5/bx	SENS-159SC	\$76.00	TT
Ozone	50-1000ppm	10/bx	SENS-182SA	\$76.00	
Ozone	2.5-100ppm	10/bx	SENS-182SB	\$69.00	

NOTES:

All Sensidyne/Kitagawa detector tubes have a limited shelf life.

R = Tubes require refrigeration at 50 degrees Fahrenheit or below
TT = Twin Tube - 5 tests per box

Sensidyne®/Kitagawa Gas Detector Tubes

CHEMICAL HAZARD	RANGE	U/M	PRODUCT #	PRICE	NOTES
Ozone	0.025-3.0ppm	10/bx	SENS-182U	\$76.00	
Pentyl Acetate	10-200ppm	10/bx	SENS-210U	\$76.00	
Phosgene	0.1-20ppm	10/bx	SENS-146S	\$69.00	R
Phosphine & Arsine	0.05-2.0ppm	10/bx	SENS-121U	\$76.00	
Phosphine	20-700ppm	10/bx	SENS-121SC	\$69.00	
Phosphine	0.25-20ppm	10/bx	SENS-121SD	\$69.00	
Phosphine	5-150ppm	10/bx	SENS-121SG	\$76.00	
Phosphine	10-3200ppm	10/bx	SENS-121SH	\$69.00	
Phosphine	200-6000ppm	10/bx	SENS-121SS	\$76.00	
Propane	0.02-0.5%v	10/bx	SENS-125SA	\$69.00	
Propyl Acetate	20-1000ppm	10/bx	SENS-151U	\$76.00	
Propylene Oxide	0.05-5.0%v	5/bx	SENS-163SA	\$69.00	TT
Propylene	50-1000ppm	10/bx	SENS-185S	\$69.00	
Silane	0.5-50ppm	10/bx	SENS-240S	\$69.00	R
Styrene	2.5-300ppm	10/bx	SENS-158S	\$69.00	
Styrene	1-100ppm	5/bx	SENS-158SB	\$76.00	TT
Sulfur Dioxide	0.1-3.0%v	10/bx	SENS-103SA	\$69.00	
Sulfur Dioxide	0.02-0.3%v	10/bx	SENS-103SB	\$69.00	
Sulfur Dioxide	20-300ppm	10/bx	SENS-103SC	\$69.00	
Sulfur Dioxide	1-60ppm	10/bx	SENS-103SD	\$69.00	
Sulfur Dioxide	0.25-10ppm	10/bx	SENS-103SE	\$69.00	R
Sulfur Dioxide, Flue Gas	0.02-0.3%v	5/bx	SENS-103SF	\$69.00	TT
Sulfur Dioxide, in CO2	0.1-25ppm	10/bx	SENS-103SG	\$76.00	
Sulfuric Acid	0.5-5mg/M3	10/bx	SENS-244U	\$76.00	
Tetrachloroethylene	5-300ppm	10/bx	SENS-135SA	\$69.00	R
Tetrachloroethylene	0.2-10ppm	10/bx	SENS-135SB	\$76.00	R
Tetrachloroethylene	0.1-2.0%v	5/bx	SENS-135SG	\$69.00	TT
Tetrachloroethylene	50-1250ppm	10/bx	SENS-135SM	\$76.00	
Tetraethoxysilane	5-200ppm	10/bx	SENS-243U	\$76.00	
Tetrahydrofuran	20-400ppm	10/bx	SENS-162U	\$76.00	
Toluene	10-500ppm	10/bx	SENS-124SA	\$69.00	
Toluene	2-100ppm	10/bx	SENS-124SB	\$69.00	
Toluene	100-3000ppm	10/bx	SENS-124SH	\$69.00	
1,1,2-Trichloroethane	10-100ppm	5/bx	SENS-236SA	\$69.00	R, TT
Trichloroethylene	5-300ppm	10/bx	SENS-134SA	\$69.00	R
Trichloroethylene	0.2-16ppm	10/bx	SENS-134SB	\$76.00	R
Triethylamine	1-20ppm	10/bx	SENS-213S	\$69.00	
Vinyl Acetate	5-120ppm	10/bx	SENS-237S	\$69.00	
Vinyl Chloride	0.05-1.0%v	10/bx	SENS-132SA	\$69.00	
Vinyl Chloride	5-500ppm	5/bx	SENS-132SB	\$69.00	R, TT
Vinyl Chloride	0.1-12ppm	5/bx	SENS-132SC	\$69.00	R, TT
Water Vapor	1.7-33.8mg/l	10/bx	SENS-177SA	\$69.00	

Sensidyne®/Kitagawa Gas Detector Tubes

CHEMICAL HAZARD	RANGE	U/M	PRODUCT #	PRICE	NOTES
Water Vapor	0.05-2.0mg/l	10/bx	SENS-177U	\$76.00	
Water Vapor	3-80lb/MMCF	10/bx	SENS-177UL	\$69.00	
Water Vapor	2-12lb/MMCF	10/bx	SENS-177UR	\$69.00	
Water Vapor	2-30lb/MMCF	10/bx	SENS-177UR2	\$69.00	
Xylene	5-1000ppm	10/bx	SENS-143SA	\$69.00	
Xylene	5-200ppm	10/bx	SENS-143SB	\$69.00	

NOTES:

All Sensidyne/Kitagawa detector tubes have a limited shelf life.

R = Tubes require refrigeration at 50 degrees Fahrenheit or below
TT = Twin Tube - 5 tests per box

Compressed Breathing Air (CBA) Analysis Kit



Sensidyne CBA system allows anyone to simply, quickly and quantitatively measure the quality of their compressed breathing air. Easy to use, the CBA system is an accurate and precise method for detecting Carbon Monoxide, Carbon Dioxide, oil mist, water vapor, and oxygen.

Sensidyne measures all four of the common contaminants in breathing air and provides a quick means to monitor the oxygen level. Using the CBA direct-reading detector tubes, simply connect the pressure reducer to your high-pressure air source (max: 3000 psi), compressor, cylinder or airline and adjust the flowmeter to the required setting. Sensidyne takes care of your entire measurement problem with one common system, reducing training and saving time and money.

Features:

- Quick Measurement
- User Calibration not required
- Suitable for Grade D air analysis

PRODUCT	DESCRIPTION	PRICE
SENS-7015406	Compressed Breathing Air (CBA) Analysis Kit	\$2950.00

Tubes for use with the kits are sold separately and listed below.

CHEMICAL HAZARD	RANGE	U/M	PRODUCT #	PRICE
Carbon Monoxide	5-100ppm	10/bx	SENS-600SP	\$76.00
Carbon Dioxide	100-300ppm	10/bx	SENS-601SP	\$76.00
Oil Mist	0.3-5mg/M3	10/bx	SENS-602SP	\$76.00
Water	20-160mg/M3	10/bx	SENS-603SPA	\$76.00
Oxygen	2-24%v	10/bx	SENS-604SP	\$76.00

3M Passive Air Monitoring Badges

3M™ Air Monitors are simple and effective devices that collect contaminants through the scientific principle of diffusion. They meet or exceed OSHA accuracy requirements of ±25% at 95% confidence level for many work contaminants.



Features:

- No batteries, hoses, pumps or equipment to calibrate.
- Can be analyzed in your lab or returned for analysis.
- 3M's manufacturing operation is ISO 9002 certified.
- Can also be used for area monitoring if sufficient air flow exists.
- Easy to use. Just clip the monitor to lapel, collar, or pocket.
- 3M provides reference information needed to use the monitors.
- 3M monitors are small, lightweight and will not interfere with employee activities.

ORGANIC VAPOR MONITOR 3500	ETHYLENE OXIDE MONITOR 3550	FORMALDEHYDE MONITOR 3720	ORGANIC VAPOR MONITOR 3520 WITH BACK-UP SECTION
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Single charcoal sorbent wafer for easy collection of organic vapors. Analysis by gas chromatography.	Designed for sampling personnel or work areas in the health care pharmaceutical, and chemical industries. Analysis procedure is available on request.	Monitors personnel or work areas in health care, laboratories, and in the chemical, pulp/paper, foundry and textile industries. Analysis procedure is available on request. Not acceptable for STEL monitoring.	Primary and back-up sorbent pads for sampling demanding environments. Especially suited for monitoring compounds like acrylonitrile, butadiene and methylene chloride for which activated carbon shows limited capacity.
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MONITOR TYPE	CONFIGURATION	PRODUCT	PACK SIZE	PRICE
Organic Vapor	Monitor Only	3M-3500	10/cs	\$199.00
	Monitor Only	3M-3500B	50/cs	\$920.00
	Monitor + Prepaid Lab Analysis	3M-3510	5/cs	\$664.00
Organic Vapor with Back-Up Section	Monitor Only	3M-3520	5/cs	\$120.00
	Monitor Only	3M-3520B	50/cs	\$1110.00
	Monitor + Prepaid Lab Analysis	3M-3530	5/cs	\$860.00
Ethylene Oxide	Monitor Only	3M-3551	5/cs	\$142.00
	Monitor + Prepaid Lab Analysis	3M-3550	5/cs	\$1059.00
Formaldehyde	Monitor Only	3M-3721	5/cs	\$178.00
	Monitor Only	3M-3721B	25/cs	\$838.00
	Monitor + Prepaid Lab Analysis	3M-3720	5/cs	\$1220.00

Note: Limited shelf life

LABORATORY & SAFETY SUPPLIES



Acetone Vaporizers and Clearing Supplies: 120-121
Microscope Slides & Cover Glass: 122-123
Sample Collection and Storage Bags: 124
Respirator Fit Test Kits: 125-127

Small Wonder Acetone Vaporizer

The Wonder Makers Small Wonder Acetone Vaporizer was developed as an economical and quick way to clear asbestos PCM slides. Specifically designed to meet NIOSH 7400, 7402, or ORM requirements for preparation of PCM samples.



Features:

- Heat control and thermometer built into vaporizer unit
- Padded carrying case protects equipment and supplies
- Detailed instruction manual
- Enough supplies for the analysis of 1/2 gross of slides
- Lightweight but solidly built
- Designed in strict compliance with the NIOSH 7400, 7402, or ORM requirements for preparation of microscope slides for PCM analysis

Specifications

DIMENSIONS	4-7/8" L x 4-1/2" W x 2-3/4" H (Small Wonder vaporizer) 13" L x 11" W x 4" H (Complete Analysis Kit)
MATERIALS	Plastic case, ABS plastic cover on vaporizer, clear plastic bottles, metal and plastic tools.
WEIGHT	2-1/2 lbs. (Small Wonder vaporizer) 8 lbs. (Complete Analysis Kit)
FINISH	Black vaporizer cover with gray cord. Case color may vary.



Complete Kit Shown
Includes everything needed to clear slides for PCM analysis

PRODUCT	DESCRIPTION	PRICE
WM-42	Small Wonder Analysis Kit Includes acetone vaporizer, 1 box microscope slides, 1/2oz Triacetin, 2oz Acetone, 1 microdropper, 1 syringe, 1 scalpel, tweezers, padded carrying case and instruction manual.	\$495.00
WM-44	Acetone reagent, 2oz, 99% pure	\$9.00
WM-45	Triacetin reagent, 1/2oz, 99% pure	\$11.00
WM-47	1cc Syringe	\$3.00
WM-48	Rounded Edge Scalpel	\$3.00
WM-49	Microdropper	\$2.00



Perm-O-Fix Acetone Vaporizer

A simple, easy to use, acetone vaporizer for use in preparing asbestos PCM samples as per NIOSH 7400.

PRODUCT	DESCRIPTION	PRICE
ZA0190	Perm-O-Fix Acetone Vaporizer, 120V	\$310.00
ZA0191	Perm-O-Fix Acetone Vaporizer, 220V	\$325.00



HSL/ULO (HSE/NPL) Phase Shift Test Slide

PRODUCT	DESCRIPTION	PRICE
ZA0210	HSE/NPL Phase Shift Test Slide, Green Band 5	\$850.00
ZA0215	HSE/NPL Phase Shift Test Slide, Red Band 4	\$850.00

Clearing Solution Supplies

PRODUCT	DESCRIPTION	PRICE
ZA0159	MCE Media for Clearing Solution, 0.5g sheets, 5/pk	\$16.00
ZA0167	Acetone Reagent, ACS Grade, 30ml Bottle	\$9.00
ZA0162	Triacetin, 30 ml Bottle	\$8.00
ZA0164	Dropper Bottle, 1 oz	\$2.50
ZA0165	Amber Bottle, 1 oz	\$1.50
ZA0166	Amber Bottle, 2 oz	\$2.50



Microscope Slides



Premiere® Brand 9100 Series Microscope Slides
 Premiere® Brand 9100 Series Microscope Slides are made of corrosion resistant glass with smoothly polished edges. Precleaned and suitable for a wide range of applications. Sized 3" x 1" x approximately 1mm thick.

PRODUCT	DESCRIPTION	QUANTITY	PRICE
ZA0260	Plain Clear 3" x 1" Microscope Slides	1 Gross (144 slides)	\$6.40
		10 Gross (1,440 slides)	\$57.60
ZA0261	Frosted 3" x 1" Microscope Slides	1 Gross (144 slides)	\$7.80
		10 Gross (1,440 slides)	\$70.20



Grafc0® Brand Microscope Slides

Grafc0® Brand Microscope Slides are exceptionally clear, water-white, extra hard glass. Rounded corners, ground and polished edges. Packaged in boxes with paper between each slide.

PRODUCT	DESCRIPTION	QUANTITY	PRICE
ZA0270	Plain Clear 3" x 1" Microscope Slides	1 Gross (144 slides)	\$6.40
		10 Gross (1,440 slides)	\$57.60
ZA0271	Frosted 3" x 1" Microscope Slides	1 Gross (144 slides)	\$7.80
		10 Gross (1,440 slides)	\$70.20

Microscope Slide Storage Boxes & Mailers



PRODUCT	DESCRIPTION	PRICE
CA-MSL-07	Single Slide Mailer, Plastic	\$0.35
CA-MSL-08	Double Slide Mailer, Plastic	\$0.45
CA-MSL-15	5 Slide Holder, Plastic	\$1.20
CA-97-0025	25 Slide Storage Box, White	\$3.20
CA-97-0055	50 Slide Storage Box, White	\$4.20
CA-97-0125	100 Slide Storage Box, White	\$5.20

Microscope Cover Glass

- Packaged in 1 oz boxes that include approximately 100 slides.
- #1.0 Thickness cover glass measures approximately .15mm thick
- #1.5 Thickness cover glass measures approximately .17mm thick

Platinum Line® Cover Glass

PRODUCT	DESCRIPTION	PRICE
ZA0280	Cover Glass 18mm x 18mm - #1.0 Thickness, 1 oz bx	\$5.20
ZA0281	Cover Glass 18mm x 18mm - #1.5 Thickness, 1 oz bx	\$5.20
ZA0282	Cover Glass 22mm x 22mm - #1.0 Thickness, 1 oz bx	\$5.20
ZA0283	Cover Glass 22mm x 22mm - #1.5 Thickness, 1 oz bx	\$5.20
ZA0284	Cover Glass 22mm x 40mm - #1.0 Thickness, 1 oz bx	\$5.20



Chase Brand Cover Glass

PRODUCT	DESCRIPTION	PRICE
ZA0290	Cover Glass 22mm x 22mm - #1.0 Thickness, 1 oz bx	\$5.40
ZA0291	Cover Glass 22mm x 22mm - #1.5 Thickness, 1 oz bx	\$5.40
ZA0292	Cover Glass 22mm x 30mm - #1.0 Thickness, 1 oz bx	\$5.40
ZA0293	Cover Glass 22mm x 30mm - #1.5 Thickness, 1 oz bx	\$5.40
ZA0294	Cover Glass 22mm x 40mm - #1.0 Thickness, 1 oz bx	\$5.40
ZA0295	Cover Glass 22mm x 40mm - #1.5 Thickness, 1 oz bx	\$5.40



Cassette Opener

Accessories

PRODUCT	DESCRIPTION	PRICE
ZA0046	Cassette Opener for 25mm, 37mm and Air-O-Cell® Cassettes	\$36.00
ZA0049	Cassette Opener for 47mm Cassettes	\$36.00
CA-9410	Scalpel, Disposable Plastic with #10 Stainless Blade, 10/bx	\$6.20
CA-9303	Scalpel Handle	\$3.40
CA-9310	Carbon Steel Blades, #10, 100/bx	\$13.80
ZA0053	Kimwipes®, 4.5" x 8.5", 280/bx	\$2.90
ZA0052	Alcohol prep pads, 200/bx	\$2.80
ZA0056	Via-Cell® Linking Solution, Sterile, 15ml	\$12.00
ZA0058	Via-Cell® Blue Stain, 15ml (For staining the sample for microscopic analysis when culture is not required)	\$12.00

Whirl-Pak® Bags



Nasco Whirl-Pak® sample collection bags provide an easy to use leakproof closure for collection of a wide variety of sample materials.

Features:

- Models with write-on strip make sample identification easier and more convenient by working with a wide variety of writing instruments including ballpoint pens, pencil, or felt-tip markers.
- Puncture proof tabs • Leakproof Closure • Guaranteed Sterile (sterilized after manufacturing)

Whirl-Pak® Bags Without Write-On Area

PRODUCT	DESCRIPTION	U/M	PRICE
B01009WA	3"w x 5"l, 2.25mil, 2oz capacity	500/bx	\$44.00
B00679WA	3"w x 7.25"l, 2.25mil, 4oz capacity	500/bx	\$45.00
B01018WA	5.25"w x 7.5"l, 3.0mil, 13oz capacity	500/bx	\$72.00
B00736WA	4.5"w x 9"l, 2.5mil, 18oz capacity	500/bx	\$64.00
B01020WA	6"w x 9"l, 3.0mil, 24oz capacity	500/bx	\$84.00
B01027WA	6"w x 15"l, 3.0mil, 42oz capacity	500/bx	\$120.00



The white, write-on strip makes sample identification easier and more convenient. It's easy to write on this white strip using an ordinary ballpoint pen, pencil, or felt-tip marker. The paper-like finish virtually eliminates ink smearing, and provides a surface that will accept a variety of writing instruments.

Whirl-Pak® Bags With Write-On Area

PRODUCT	DESCRIPTION	U/M	PRICE
B01064WA	3"w x 5"l, 2.25mil, 2oz capacity, includes write on area	500/bx	\$47.00
B01062WA	3"w x 7.25"l, 2.25mil, 4oz capacity, includes write on area	500/bx	\$49.00
B01489WA	3.5"w x 7"l, 2.5mil, 7oz capacity, includes write on area	500/bx	\$61.00
B01065WA	4.25"w x 9"l, 2.5mil, 18oz capacity, includes write on area	500/bx	\$69.00
B01297WA	6"w x 9"l, 2.5mil, 24oz capacity, includes write on area	500/bx	\$91.00
B01195WA	7.5"w x 12"l, 4.0mil, 55oz capacity, includes write on area	500/bx	\$160.00

Zip-Style Bags

These zip style reclosable bags with white write-on area are perfect for labeling custom orders, indicating manufacturing dates, assembly instructions or warnings, as well as labeling medium or heavy weight parts and samples. White-Block area accepts marker, rubber stamp, grease pencil, or pen. Side-seal construction strengthens the reclosable top. Meets FDA/USDA specifications.



PRODUCT	DESCRIPTION	U/M	PRICE
ZB1	2.5" x 3", 2mil with write on area	100/pk	\$2.60
ZB5	3" x 5", 2mil with write on area	100/pk	\$3.40
ZB4	3" x 5", 4mil with write on area	100/pk	\$4.80
ZB6	9" x 12", 2mil with write on area	100/pk	\$9.00
ZB2	9" x 12", 4mil with write on area	100/pk	\$15.00

Saccharin Respirator Fit Test Kit

The Saccharin Fit Test Kit offers OSHA-compliant testing of reusable and disposable dust and mist respirators. When the sweet taste of saccharin is detected, the respirator has failed its fit test. It includes polycoated hood, two nebulizers, sensitivity and fit test solutions, and instructions.



PRODUCT	DESCRIPTION	U/M	PRICE
AL-2040	Saccharin Respirator Fit Test Kit	Each	\$124.00
AL-2040-11K	Saccharin Sensitivity Solution Tubes	6/bx	\$11.40
AL-2040-12K	Saccharin Test Solution Tubes	6/bx	\$11.40
AL-2040-04	Replacement Fit Testing Hood	Each	\$19.00
AL-2040-08N	Nebulizer with Rubber Bulb	Each	\$42.00

Banana Oil Respirator Fit Test Kit

Iso Amyl Acetate (banana oil) offers the oldest method of testing respirator fit. Its strong, readily identifiable odor will be recognized if respirators don't obtain a fit. For quick fit testing the standard kit contains two 1 oz. bottles of test agent, vinyl test enclosure, measuring pipette, and paper towels in a handy carry bag.



PRODUCT	DESCRIPTION	U/M	PRICE
AL-0203	Banana Oil Respirator Fit Test Kit	Each	\$40.00
AL-0201	Banana Replacement Ampules	10/bx	\$5.60
AL-0203-01	Banana Oil Solution	Each	\$14.00

VeriFit® Irritant Smoke Generator for Respiratory Fit Testing

Patented all-in-one design is convenient and complete; no components to lose. Its small integrated bellows pump provides the optimum amount of smoke for fit testing yet minimizes the risk of overexposure. The plastic smoke generator eliminates danger from exposed broken glass for safer operation and disposal.

Features:

- Integrated pump provides correct amount of smoke each time
- All-in-one design - No parts to lose or replace
- Plastic Design - No glass to break



Respirator fit testing is accomplished in three simple steps:

1. Bend the smoke generator to break the enclosed ampule.
2. Remove the cap
3. Wait 5 seconds and compress bellows

PRODUCT	DESCRIPTION	U/M	PRICE
90095	VeriFit® Irritant Smoke Generator Kit	6/pk	\$32.00
50811000-310N	VeriFit® Irritant Smoke Generator Kit	10/pk	\$53.00

Bitrex® Respirator Fit Test Kit

The Bitrex® Fit Test Kit offers qualitative OSHA-compliant fit testing for disposable and reusable dust and mist respirators. Bitrex creates an unmistakable bitter taste that indicates break through in the respirator fit. Bitrex has been found safer than saccharin tests while producing identical results. Disposable glass ampules make pouring solution into nebulizers easier and reduces the chance of contamination.

Features:

- For testing the facepiece-to-face seal
- Fast, easy method for performing qualitative fit testing
- Use with any particulate respirator or any gas/vapor respirator with particulate prefilter
- Helps satisfy respiratory program requirements
- Can be used during respirator training programs
- Helps meet administrative respiratory protection training program regulations as specified in OSHA 29 CFR 1910.134



PRODUCT	DESCRIPTION	U/M	PRICE
AL-2041	Bitrex® Respirator Fit Test Kit Includes hood, 2 nebulizers, fit test solution, sensitivity solution and instructions	Each	\$124.00
AL-2041-11K	Sensitivity Solution Tubes	6/bx	\$11.40
AL-2041-12K	Test Solution Tubes	6/bx	\$11.40

Smoke Tubes Respirator Fit Test Kit

Field proven as an OSHA accepted method since 1982, irritant smoke qualitative respirator fit testing is an economical, fast, safe and reliable fit testing method. Smoke tubes are used with a wide variety of respirators by firefighters, HAZMAT teams, first responders, the military and many industrial applications.



- Kit Includes:
- 6 - Irritant Smoke Tubes
 - 1 - Precision Aspirator Bulb Assembly
 - 1 - Record Keeping Form
 - 1 - Carrying Pouch

Irritant smoke testing is fast, simple, easy-to-perform and economical. You save money because there is no need for nebulizers, electric pumps, mixing jars, batteries, special test masks, mask probes or testing hoods. Each kit has everything you need for over 50 tests without the cost of extra equipment. Plus, you save time because each smoke tube and aspiration bulb pump is pre-calibrated and ready for immediate use. No warm up time or calibration required.

PRODUCT	DESCRIPTION	U/M	PRICE
AL-500	Smoke Tube Kit Contains 6 smoke tubes, aspirator bulb and carrying case	Each	\$45.00
AL-501	Replacement Smoke Tubes 6/bx	6/bx	\$24.00



Looking for a non-irritant smoke generator for air current testing?

Check out our selection of non-irritant airflow indicator kits on page 98.

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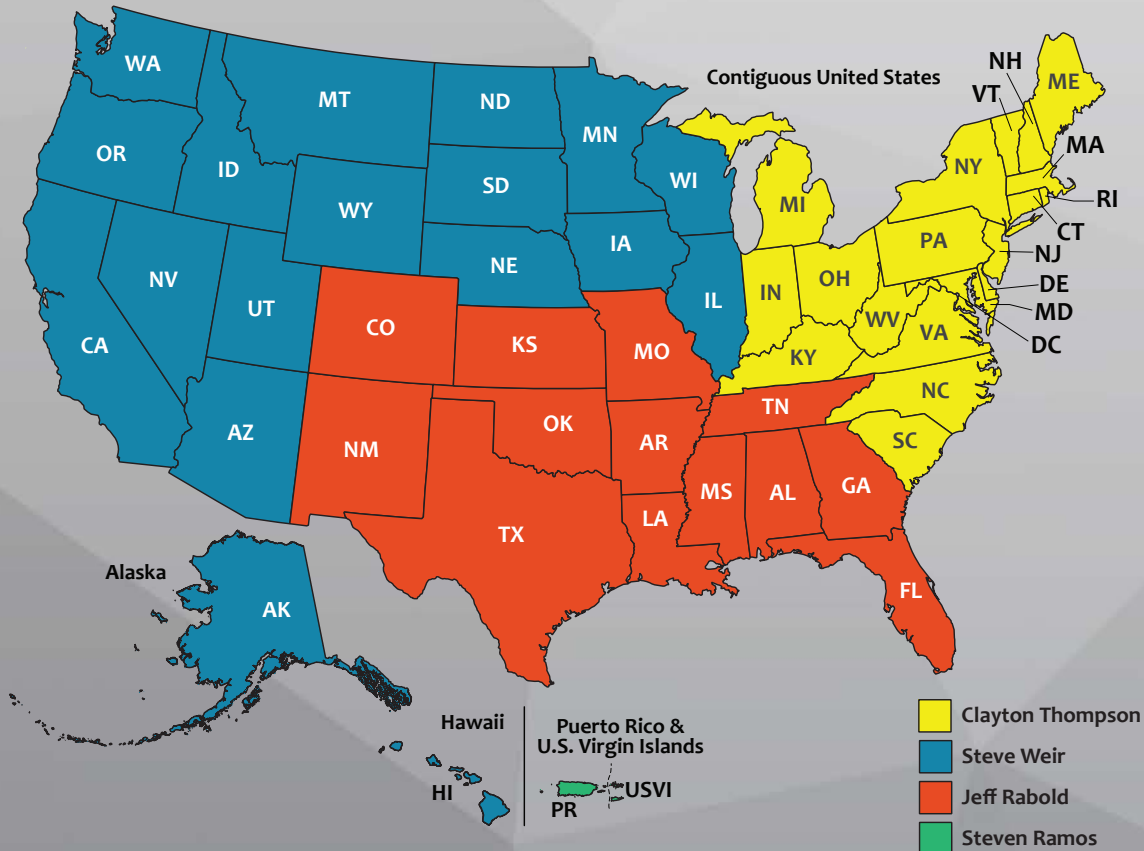
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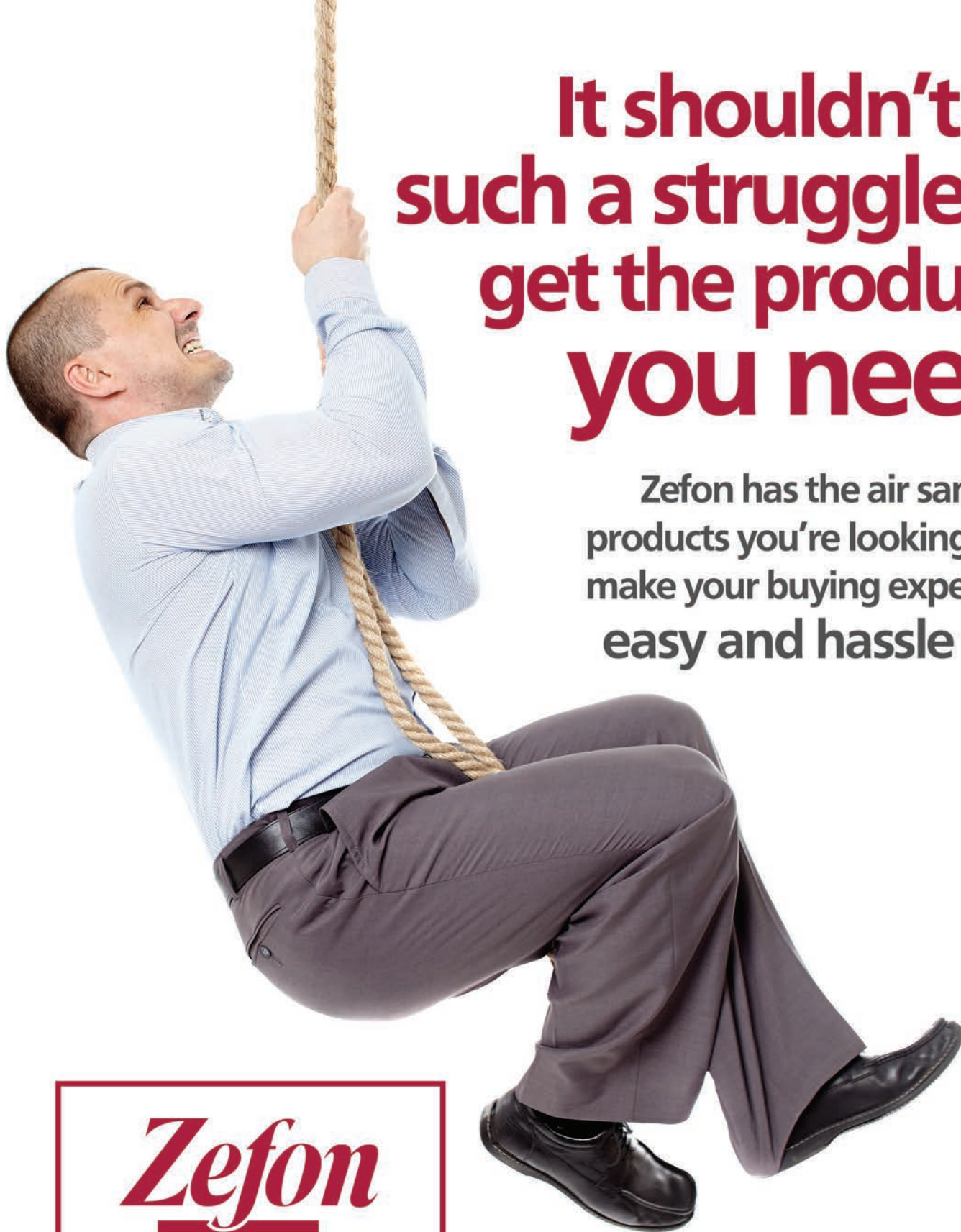
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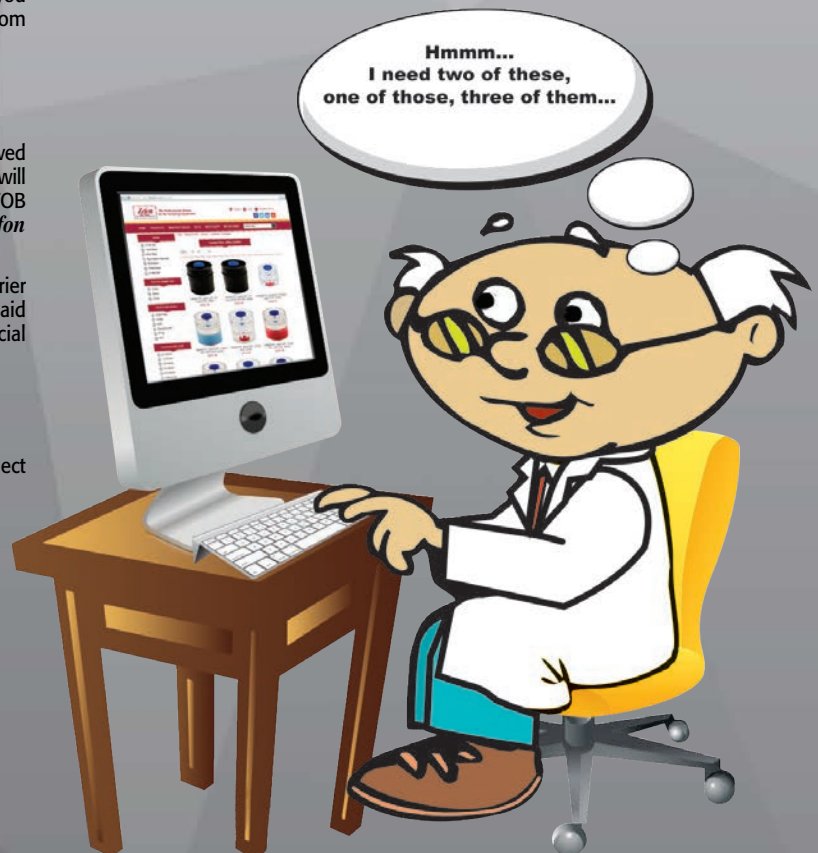
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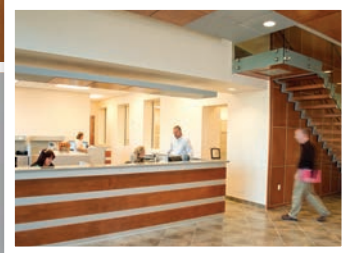
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