

# 2019-2020 PRODUCT CATALOG



**International Edition**



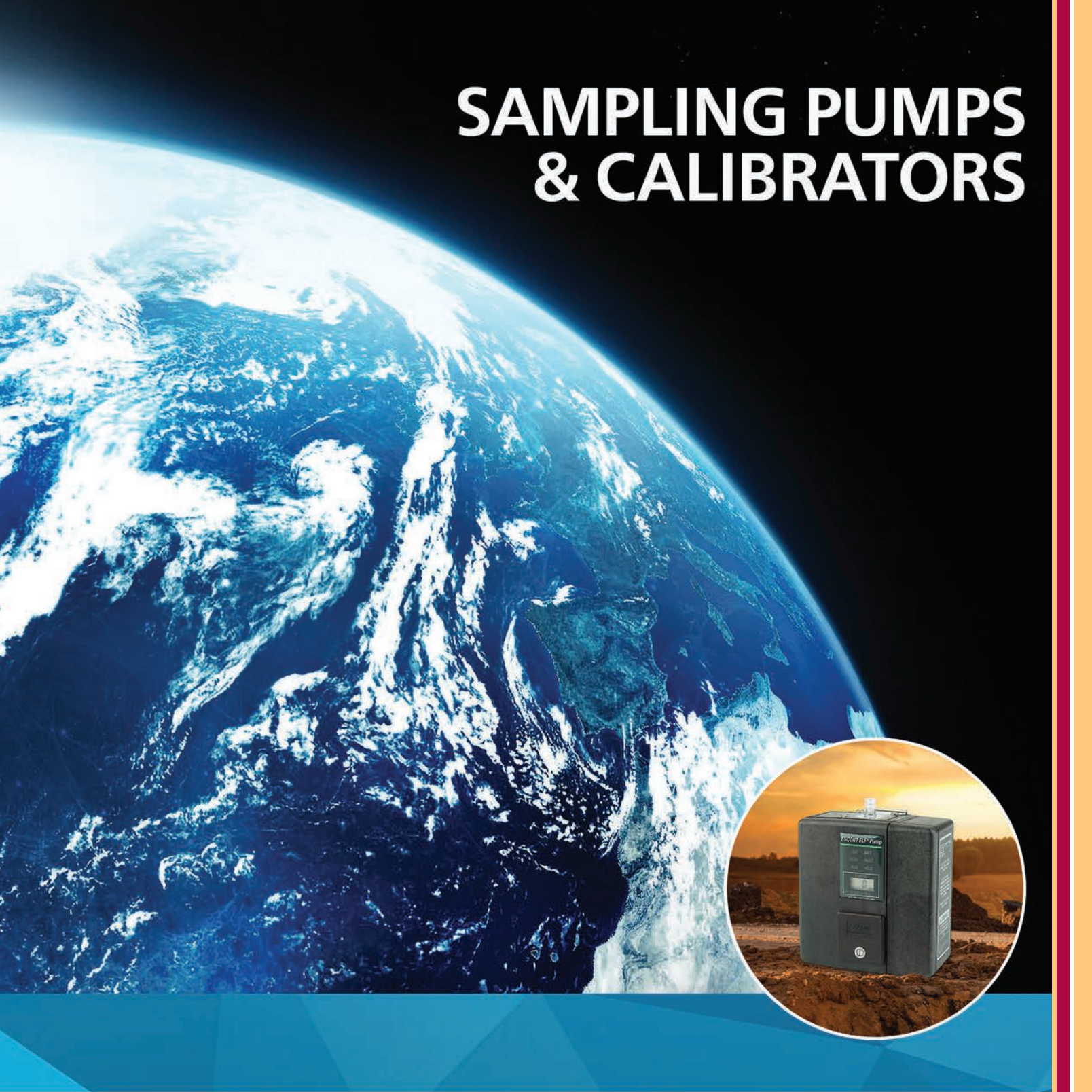
***Zefon***

**INTERNATIONAL**

*The Professionals Choice for Air Sampling Equipment*



# SAMPLING PUMPS & CALIBRATORS



IAQ Sampling Pumps: 53-56  
Abatement Sampling Pumps: 57  
Personal Sampling Pumps & Accessories: 58-65  
Area Sampling Pumps & Accessories: 66-67  
Calibration Equipment: 68-70  
Pump Repair Service: 71

# 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
ZBP-205	Zefon® Bio-Pump® Plus with 110-230V Charger with North American Plug
ZBP-PROKIT-PLUS	Zefon® Bio-Pump® Plus Kit with Accessories
ZBP-205-CKIT	Zefon® Bio-Pump® Plus with TSI 4046 Calibrator Kit



## Bio-Pump® Plus Accessories



Bio-Pump with Bioisolation filter



Bio-Pump with remote extension tube



Bio-Pump on Tripod Stand

PRODUCT	DESCRIPTION
ZBP-300	Battery, Bio-Pump®, ZBP-100, or ZBP-200
ZBP-315	Battery, Bio-Pump®, ZBP-205
ZBP-304	Charger, Bio-Pump®
ZBP-310	Remote Extension Tube, Bio-Pump®
ZA0047	Bioisolation Filter, Bio-Pump®
ZA0043	Tripod Stand - Heavy Duty

## 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
ZBP-302	Flow Indicator, Air-O-Cell®
ZBP-305	Flow Indicator, Via-Cell®/Air-O-Cell® CSI
ZBP-200-CAL	TSI 4046 Flow Calibrator Kit for <b>Zefon®</b> Bio-Pump® Plus

## 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
Z-LITE-IAQ-DC	Zefon® Z-Lite™ IAQ DC Powered Sampling Pump
03270	Replacement Male Quick Disconnect
03265	Replacement Battery for Z-LITE-IAQ-DC
03883	Replacement Battery Charger for 100-240 VAC, North American Plug

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
Z-LITE-IAQ	<b>Zefon® Z-Lite™</b> IAQ High Volume Linear Pump, 120V
Z-LITE-IAQ230V	<b>Zefon® Z-Lite™</b> IAQ High Volume Linear Pump, 230V
03752	Flow Meter, 5-30LPM, Z-LITE-IAQ Replacement

## 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
ZA0045	Bioisolation filter for diaphragm, linear and rotary vane pumps 99.99% efficient in reducing cross-contamination
ZA0047	Bioisolation filter for the <b>Zefon® Bio-Pump®</b> and Bio-Pump® Plus 99.9999% efficient in reducing cross-contamination



# 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

**BUCK**  
A.P. BUCK, INC.



APB-942600 Shown

PRODUCT	DESCRIPTION
APB-926000	Buck Libra™ Sampling Pump, 120V Includes pump, 120V charger, luer adapter, 36" tubing, shirt/hose clip and manual
APB-926020	Buck Libra™ Sampling Pump, 230V Includes pump, 230V charger, luer adapter, 36" tubing, shirt/hose clip and manual
APB-9426ZZ	Buck Libra™ Sampling Pump 5 Pack Kit, 120V Includes 5 each pumps, 5 luer adapters, 5 36" tubing sets, 5 shirt/hose clips, five manuals, five standard 120VAC overnight chargers and toolbox style carrying case
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

Accessories including the low flow tube holders and fast charging option are listed on pages 64 & 65.

**The Professionals Choice for Air Sampling Equipment**

# 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 <sub>2</sub> O at 200cc	CSA & Atex	LFS-113	73
	100 to 600 cc	No	No	No	Up to 36" H <sub>2</sub> O at 200cc	No	Libra Plus LP-1	63
	5 to 600cc	Yes	No	No	Up to 25" H <sub>2</sub> O at 200cc	No	Elite 1	62
	5 to 600cc	No	No	No	Up to 25" H <sub>2</sub> O at 200cc	UL	Allin 1	61
	5 to 600cc	Yes	Yes	Yes	Up to 25" H <sub>2</sub> O at 200cc	UL	Allin Plus 1	61
MEDIUM FLOW	0.5 to 3 LPM	No	Yes	Yes	Up to 30" H <sub>2</sub> O at 2 LPM	UL & Atex	Escort ELF	64
	0.5 to 3 LPM	No	No	No	Up to 25" H <sub>2</sub> O at 2 LPM	UL	Escort LC	65
MEDIUM HIGH FLOW	0.5 to 5 LPM	No	No	No	Up to 50" H <sub>2</sub> O at 2 LPM	No	Libra Plus LP-5	63
	0.5 to 5 LPM	Yes	No	No	Up to 50" H <sub>2</sub> O at 2 LPM	No	Elite 5	62
	0.5 to 5 LPM	No	No	No	Up to 50" H <sub>2</sub> O at 2 LPM	UL	Allin 5	61
	0.5 to 5 LPM	Yes	Yes	Yes	Up to 50" H <sub>2</sub> O at 2 LPM	UL	Allin Plus 5	61
HIGH FLOW	3 to 12 LPM	No	No	No	Up to 12" H <sub>2</sub> O at 10 LPM	No	Libra Plus LP-12	63
	3 to 12 LPM	Yes	No	No	Up to 12" H <sub>2</sub> O at 10 LPM	No	Elite 12	62
	3 to 12 LPM	No	No	No	Up to 12" H <sub>2</sub> O at 10 LPM	UL	Allin 12	61
	3 to 12 LPM	Yes	Yes	Yes	Up to 12" H <sub>2</sub> O at 10 LPM	UL	Allin Plus 12	61



# 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" H<sub>2</sub>O at 200 cc/min
  - Allin-5: Up to 50" H<sub>2</sub>O at 2 LPM
  - Allin-12: Up to 12" H<sub>2</sub>O 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 Flow Faults
  - Programmable for multiple start/stop times duration.
  - Temperature and barometric pressure flow compensation
- One year warranty
- Intrinsically Safe (UL US & Canada)



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## Allin™ Pump Ordering Information

PRODUCT	DESCRIPTION
APB-905000	Buck Allin™ 1 - Includes pump, 120V Charger, tubing/clip assembly, non-adjustable tube holder (109032), 3' of tubing & manual.
APB-905020	Buck Allin™ 1 - Includes pump, 220V Charger, tubing/clip assembly, non-adjustable tube holder (109032), 3' of tubing & manual.
APB-905050	Buck Allin™ 1 - 5 Pack Kit - Includes 5 pumps, 120-240V Quick 5 charger, 5 tubing/clip assemblies, 5 tubing sets, 5 non-adjustable tube holders (109032), 5 manuals and carrying case.
APB-905200	Buck Allin™ 5 - Includes pump, 120V Charger, tubing/clip assembly, 3' of tubing & manual.
APB-905220	Buck Allin™ 5 - Includes pump, 220V Charger, tubing/clip assembly, 3' of tubing & manual.
APB-905250	Buck Allin™ 5 - 5 Pack Kit - Includes 5 pumps, 120-240V Quick 5 charger, 5 tubing/clip assemblies, 5 tubing sets, 5 manuals and carrying case.
APB-905400	Buck Allin™ 12 - Includes pump, 120V Charger, tubing/clip assembly, 3' of tubing & manual.
APB-905420	Buck Allin™ 12 - Includes pump, 220V Charger, tubing/clip assembly, 3' of tubing & manual.

## Allin™ Plus Ordering Information

PRODUCT	DESCRIPTION
APB-905100	Buck Allin™ Plus 1- Includes pump, 120V Charger, tubing/clip assembly, adjustable tube holder (109033), 3' of tubing & manual.
APB-905120	Buck Allin™ Plus 1- Includes pump, 220V Charger, tubing/clip assembly, adjustable tube holder (109033), 3' of tubing & manual.
APB-905150	Buck Allin™ Plus 1 - 5 Pack Kit - Includes 5 pumps, 120-240V Quick 5 charger, 5 tubing/clip assemblies, 5 tubing sets, 5 adjustable tube holders (109033), 5 manuals and carrying case.
APB-905300	Buck Allin™ Plus 5 - Includes pump, 120V Charger, tubing/clip assembly, adjustable tube hold (109030), 3' of tubing & manual.
APB-905320	Buck Allin™ Plus 5 - Includes pump, 220V Charger, tubing/clip assembly, adjustable tube hold (109030), 3' of tubing & manual.
APB-905340	Buck Allin™ Plus 5 - 5 Pack Kit - Includes 5 pumps, 120-240V Quick 5 charger, 5 tubing/clip assemblies, 5 tubing sets, 5 adjustable tube holders (109030), 5 manuals and carrying case.
APB-905500	Buck Allin™ Plus 12 - Includes pump, 120V Charger, tubing/clip assembly, adjustable tube hold (109030), 3' of tubing & manual.
APB-905520	Buck Allin™ Plus 12 - Includes pump, 220V Charger, tubing/clip assembly, adjustable tube hold (109030), 3' of tubing & manual.
APB-109101	Buck PC Link Software Package

# 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" H<sub>2</sub>O at 200 cc/min
  - Elite-5: Up to 50" H<sub>2</sub>O at 2 LPM
  - Elite-12: Up to 12" H<sub>2</sub>O 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
APB-908100	Buck Elite™-1 Includes pump, 120V Charger, tubing/clip assembly, non-adjustable tube holder (109032), 3' of tubing & manual.
APB-908120	Buck Elite™-1 Includes pump, 230V Charger, tubing/clip assembly, non-adjustable tube holder (109032), 3' of tubing & manual.
APB-947300	Buck Elite™-1 5 Pack Kit Includes 5 pumps, 120-240V Quick 5 charger, 5 tubing/clip assemblies, 5 tubing sets, 5 non-adjustable tube holders (109032), 5 manuals and carrying case.
APB-908000	Buck Elite™-5 Includes pump, 120V Charger, tubing/clip assembly, 3' of tubing & manual.
APB-908020	Buck Elite™-5 Includes pump, 230V Charger, tubing/clip assembly, 3' of tubing & manual.
APB-947200	Buck Elite™-5 5 Pack Kit Includes 5 pumps, 120-240V Quick 5 charger, 5 tubing/clip assemblies, 5 tubing sets, 5 manuals and carrying case.
APB-908300	Buck Elite™-12 Includes pump, 120V Charger, tubing/clip assembly, 3' of tubing & manual.
APB-908320	Buck Elite™-12 Includes pump, 230V Charger, tubing/clip assembly, 3' of tubing & manual.
APB-109101	Buck PC Link Software Package



# 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" H<sub>2</sub>O at 200 cc/min
  - LP-5: Up to 50" H<sub>2</sub>O at 2 LPM
  - LP-12: Up to 12" H<sub>2</sub>O 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
APB-906800	Buck Libra Plus™ LP-1 Includes pump, 120V Charger, tubing/clip assembly, non-adjustable tube holder (109032), 3' of tubing & manual.
APB-906820	Buck Libra Plus™ LP-1 Includes pump, 230V Charger, tubing/clip assembly, non-adjustable tube holder (109032), 3' of tubing & manual.
APB-946500	Buck Libra Plus™ LP-1 5 Pack Kit Includes 5 pumps, 120-240V Quick 5 charger, 5 tubing/clip assemblies, 5 tubing sets, 5 non-adjustable tube holders (109032), 5 manuals and carrying case.
APB-906200	Buck Libra Plus™ LP-5 Includes pump, 120V Charger, tubing/clip assembly, 3' of tubing & manual.
APB-906220	Buck Libra Plus™ LP-5 Includes pump, 230V Charger, tubing/clip assembly, 3' of tubing & manual.
APB-9462ZZ	Buck Libra Plus™ LP-5 5 Pack Kit Includes 5 pumps, 5 120V single chargers, 5 tubing/clip assemblies, 5 tubing sets, 5 manuals and toolbox style carrying case.
APB-946200	Buck Libra Plus™ LP-5 5 Pack Kit Includes 5 pumps, 120-240V Quick 5 charger, 5 tubing/clip assemblies, 5 tubing sets, 5 manuals and carrying case.
APB-906250	Buck Libra Plus™ LP-12 Includes pump, 120V Charger, tubing/clip assembly, 3' of tubing & manual.
APB-906260	Buck Libra Plus™ LP-12 Includes pump, 230V Charger, tubing/clip assembly, 3' of tubing & manual.

# 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
805558	Escort ELF® Pump with sampling line. No charger.
805560	Escort ELF® Pump with 120V charger and sampling line.
805559	Escort ELF® Pump with 120V charger, Gemini® Twin Port Sampler.
P2-ELF2-2-1-0-E	Escort ELF® Pump with 230V charger, and sampling line, ATEX

## 5-Pack Pump Kits

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

**The Professionals Choice for Air Sampling Equipment**



# 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
P1-ESLC-0-1-0-0	Escort® LC Pump with sampling line. No charger.
711400	Escort® LC Pump with 120V charger and sampling line.

## 5-Pack Pump Kits

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

## Escort ELF and LC Accessories

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

## 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
ZA0065	Sample Line, PVC, 1/4" ID x 3/8" OD x 36" Length
456226	Sample Line, PVC, 1/4" ID x 3/8" OD x 36" Length with Tube Clip
ZA0064	Sample Line, PVC, 1/4" ID x 3/8" OD x 50' Length

### Cassette Holders & Adapters

PRODUCT	DESCRIPTION
ZA0061	Universal Cassette/Cyclone Holder
ZA0005	Luer Adapter, Plastic, 10/pk (attaches cassette to 1/4" ID tubing)
459743	Luer Adapter, Metal, 3/pk (attaches cassette to 1/4" ID tubing)

### Sorbent Tube Holders

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



# Personal Pump Batteries & Chargers

PRODUCT	DESCRIPTION	OPTIONS
APB-109023	NiMH Battery	
APB-603400	Single Battery Charger - Overnight, 120V	Libra, Libra Plus & Elite
APB-601800	Single Battery Charger - 1 Hour, 120V	
APB-605800	5 Station Charger - 1 Hour	
10087242	NiMH Battery	
494716	Single Battery Charger, 120V	Escort ELF & LC
801759	5 Pump Charger	



Escort® ELF & LC NiMH Battery



Escort® ELF & LC Single Battery Charger



Escort® ELF & LC 5 Pump Charger

# 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
ZTHV01	<b>Zefon®</b> High Volume Diaphragm Pump, 120V
ZTHV01-220V	<b>Zefon®</b> High Volume Diaphragm Pump, 220V
ZTHV01-KIT	<b>Zefon®</b> High Volume Diaphragm 2 Pump Kit, 120V Includes 2 Pumps, 2 Stands, Tubing and Case
ZTHV01-KIT-220V	<b>Zefon®</b> High Volume Diaphragm 2 Pump Kit, 220V Includes 2 Pumps, 2 Stands, Tubing and Case
ZTHV00-KCASE	Carrying Case for ZTHV01 Pumps Holds 2 ZTHV01 Pumps, 2 Stands, and Tubing

## 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
ZHV00	Rotary Vane High Volume Pump, 120V
ZHV00-KIT	Rotary Vane High Volume 2 Pump Kit, 120V Includes 2 Pumps, 2 Stands, Tubing and Case
ZHV00-KCASE	Carrying Case for ZHV00 Pumps Holds 2 ZHV00 Pumps, 2 Stands, and Tubing



## Area Pump Replacement Parts



For **Zefon®** Diaphragm Pumps

PRODUCT	DESCRIPTION
03113	Air Flow Regulator Valve, 1/8"
03180	1/8" to 1/4" Conversion Fitting
03200	Hose Barb, 1/4"
03184	Rubber Foot for Diaphragm Pumps
03179	Muffler for Diaphragm Pump

For Rotary Vane Pumps

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

## Area Pump Accessories



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

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



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

**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
116116	Rotameter Flow Meter, 0-4 LPM, non adjustable
195380	Rotameter Flow Meter, 1-20 LPM, non adjustable
195505	Rotameter Flow Meter, 3-30 LPM, non adjustable

# 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

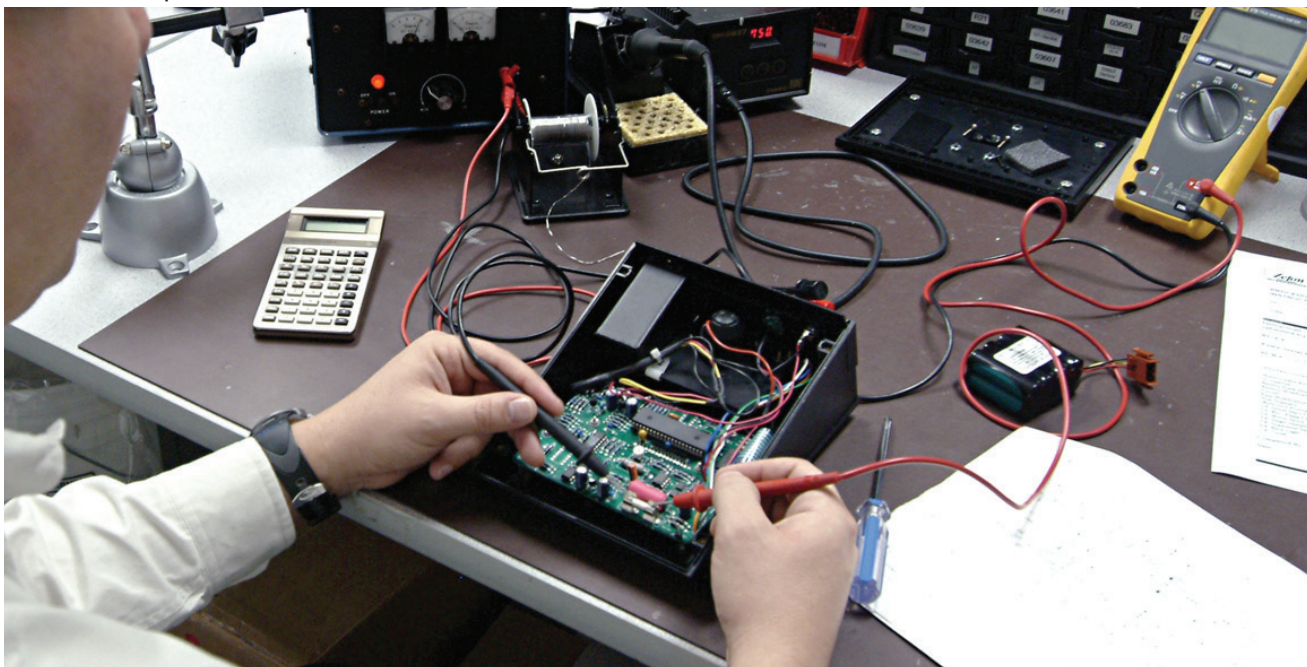


All Pelican cases shown above include Pick-N-Pluck foam. This foam can be easily “plucked” to provide a snug fit for your equipment or accessories.

PRODUCT	DESCRIPTION	INTERNAL SIZE
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"
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"
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"
ZA0123	Pelican™ 1450 Case, Black, with Pick-N-Pluck Foam	14.66" x 10.24" x 6.12"
ZA0134	Pelican™ 1430 Case, Black, with Pick-N-Pluck Foam	13.56" x 5.76" x 11.70"
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"
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"
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"
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"
ZA0131	Pelican™ 1620 Case, Black, On Wheels, with Pick-N-Pluck Foam Uses: Microscopes with accessories	21.48" x 16.42" x 12.54"
ZA0133	Pelican™ 1650 Case, Black, with Pick-N-Pluck Foam	28.57" x 17.52" x 10.65"

# 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

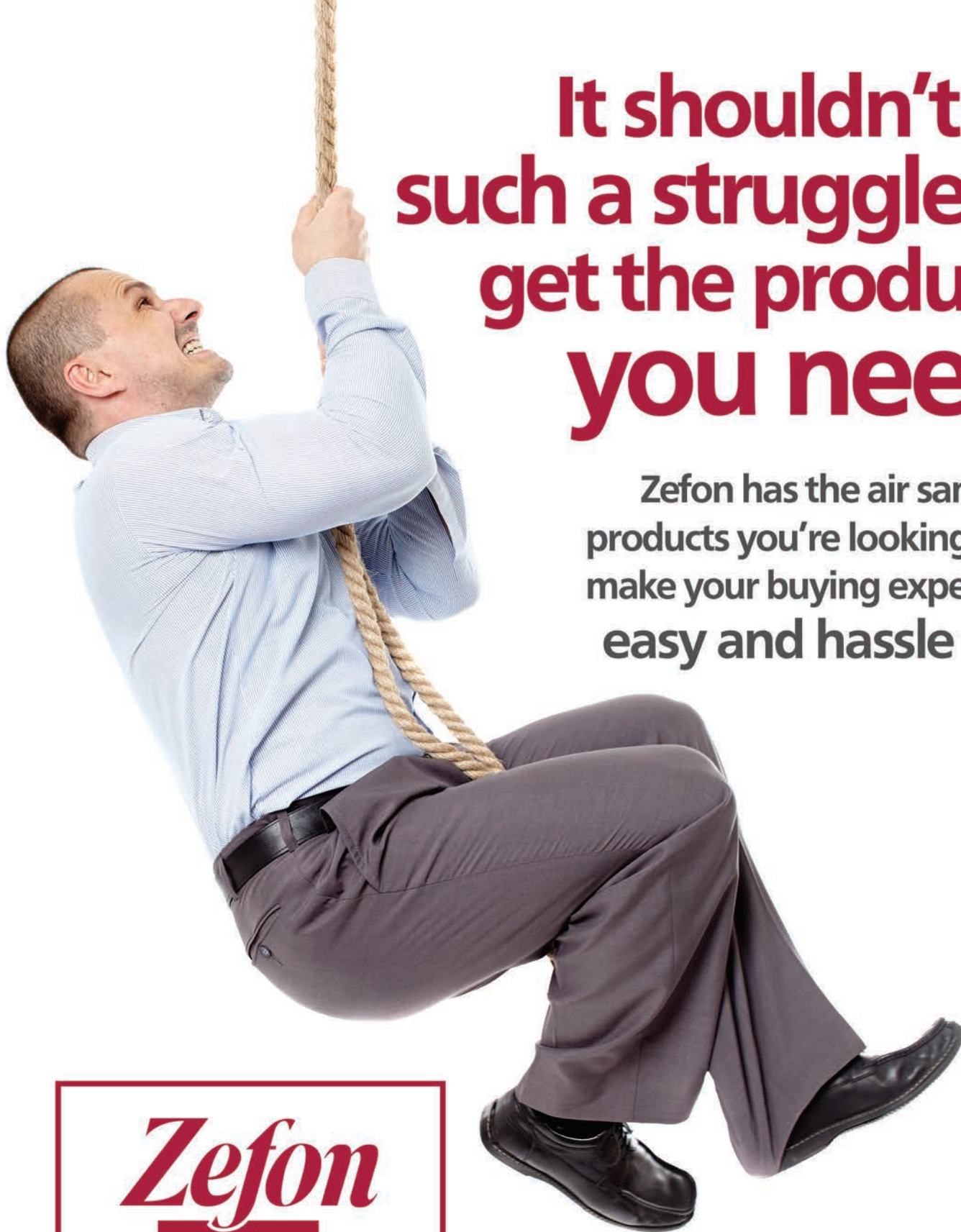


For repair of other brands of DC powered pumps or repair of AC powered pump, please contact us and we will provide manufacturer contact information or a qualified third party company to contact for repairs.

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**





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get the products  
you need.

Zefon has the air sampling  
products you're looking for to  
make your buying experience  
easy and hassle free.

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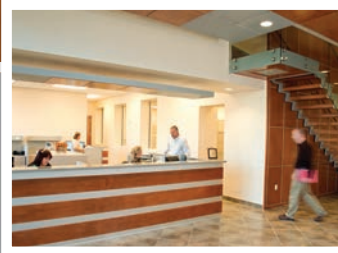
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