

SIDEPAK™ Personal Sampling Pumps Setting a New Benchmark in Personal Exposure Assessment



HEALTH AND SAFETY

Exposure Monitoring



TRUST. SCIENCE. INNOVATION.

Smart Battery Management System

You've been there before. You grab a sample pump fresh off the charger, set it up, and at the end of the day, you find out that the battery didn't last the entire work shift! The whole day is wasted!

Never again, if you use the SIDEPAK™ Personal Sampling Pumps with the Smart Battery Management System™ technology. Know how many hours of run time you'll get before you start sampling. The built-in "gauge" in the SIDEPAK battery packs monitor battery condition and provide precise run time information in minutes.

Advanced Flow Control

Calibrating sample pumps is time consuming. You set up the external calibrator, attach your sample pumps and then adjust them. You make pre- and post-sample flow measurements to estimate an average flow rate and then calculate the volume sampled from total run time.

Why guess when you can measure? SIDEPAK Personal Sampling Pumps with built-in precision flowmeters measure and control flow rate. Just set the SIDEPAK flow display to the desired flow rate, verify calibration and start sampling! It's that easy!

What you don't know can ruin your sampling results. You've seen it before. Pinched sample tubes, clogged inlet conditioners and sample media, and even sabotage!

With the SIDEPAK pumps, unintended flow interruptions are measured and accounted for in total sample flow rate and volume measurement. The flowmeter simply adjusts the pump speed as needed to maintain the flow rate setpoint.

**Intrinsically
Safe!**



SIDEPAK SP730 weighs only 16 oz with 1650 mAh NiMH pack

Data Logging of Flow

With conventional pumps, it takes significant time to measure and estimate average flow (pump calibration) with an external calibrator. Then, using sample run time, you calculate an estimate of total volume sampled and give these estimated values to the laboratory.

The SIDEPAK pump's built-in data logging continuously records flow readings and accurately computes total sample volume even if interruptions occur. Your Industrial Hygiene Lab has never seen this level of sample reporting accuracy!

Document your results using TRAKPRO™ Data Analysis Software to download, display and print the recorded sample history. A sample report template accommodates your additional reporting requirements.

TRAKPRO™ Data Analysis Software

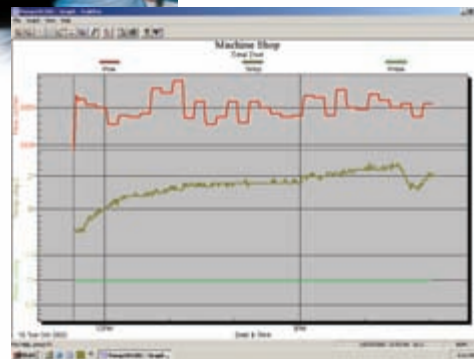
Exposure monitoring is a complex business. With TRAKPRO software, you can easily program the SIDEPAK Personal Sampling Pumps from your PC for multi-mode operation.

- Program the pump for time-based operation and let it measure sample volume
- Specify the sample duration with a delayed start, or program specific start/stop times using the internal real-time clock/calendar
- Use volume-based sampling and have the pump stop when the predetermined volume setpoint is achieved
- Manually start/stop (any number of times) and let the pump compute sample volume
- Program for intermittent sampling by specifying the amount of sample run time and the total duration of the sample period

Integrated Internal Low Flow Bypass

Unlike conventional pumps, the SIDEPAK SP730 Personal Sampling Pump permits precise low-flow control and measurement, without an awkward external bypass controller.

Sorbent tube heaven! There is no need to use an external calibrator to set low flow rates. Simply engage the integrated internal low-flow bypass, set the desired low flow rate and start sampling. That's it! The internal flowmeter takes over and precisely maintains the flow at the selected flow setpoint.



"...As shown on the attached graph, sampling was completed without any significant flow interruptions. Detailed report sent with sample to IH lab for analysis."





SidePAK SP330 and SP350 Pumps

The SidePAK SP330 and SP350 pumps are rugged, basic pumps. They offer a choice of battery packs that incorporate TSI's Smart Battery Management System technology. The SP330 is a 3-liter pump, and the SP350 is a 5-liter pump.

Smart Battery Management System technology

- Minutes of run time are displayed
- Real-time battery condition, not just an estimate of % battery remaining
- Integrated microchip technology

Multiple battery options

- Intrinsically safe, rechargeable 1650 mAh NiMH battery pack
- 2700 mAh NiMH battery pack
- 6-cell AA-size battery pack

User keypad programming

- Sample run time
- Flow setpoint
- Delayed start
- Keypad lock



SidePAK Personal Sampling Pumps display run time information in minutes.

SidePak Sampling Pumps

The chart below is a guide for selecting a SidePAK Sampling Pump model to best fit your measurement needs. Four models available to meet your needs.

Features	SidePAK Model SP330	SidePAK Model SP350	SidePAK Model SP530	SidePAK Model SP730
Flow Range (cc/min)	20 to 3,000	20 to 4,000	20 to 3,000	20 to 3,000
Smart Battery Management System technology	•	•	•	•
Choice of NiMH or AA-size Battery Packs	•	•	•	•
Internal Battery Charger	•	•	•	•
Keypad Programming	•	•	•	•
Flow Block Detection and Auto-restart	•	•	•	•
Intrinsically Safe Models Available	•	•	•	•
Keypad Lockout	•	•	•	•
Multiple Lightweight Configurations	•	•	•	•
Continuous Flow Mode	•	•	•	•
Constant Pressure Mode	•	•	•	
Internal Low Flow Bypass				•
Internal Precision Flowmeter			•	•
Continuous Data Logging of Flow Rate			•	•
Data Logging of Both High and Low Flow				•
Intermittent Sampling Capability			•	•
TRAKPRO Data Analysis Software			•	•

Applications

SIDEPAK SP530 Pump

The SIDEPAK Model SP530 pump offers all the features of the SP330 plus an additional precision flowmeter that acts as a secondary flow measurement standard. Unlike conventional pumps, this 3-liter pump continuously measures and data logs flow rate over a very wide range to provide precise control, accurate total sample volume and average flow rate information.

Advanced precision flowmeter control

- No assumptions of flow rate or total volume, because it is continuously measured

Multi-mode operation

- Run preset sampling programs, or start and stop manually

Data logging of flow

- Automatically data log flow rate, run time and total sample volume
- Unintended flow interruptions measured and accounted for in the total sample volume
- Increased confidence in your logged results

TRAKPRO software

- Program custom sample protocols from your computer
- Generate comprehensive reports

Unparalleled flow rate calibration

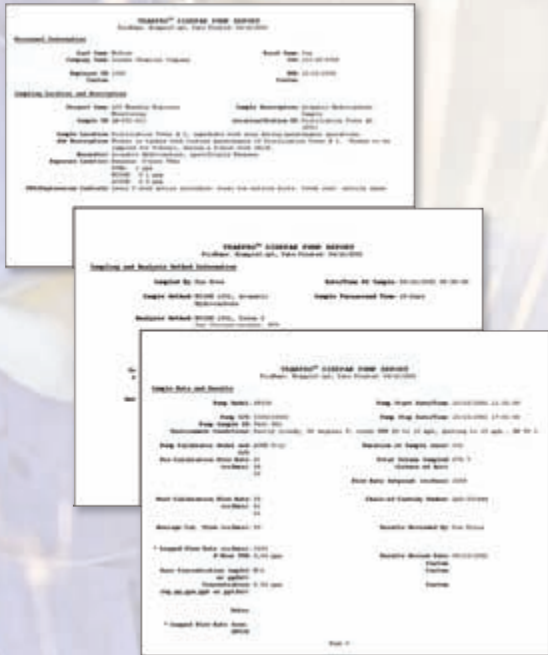
- Advanced internal precision flowmeter with unequaled performance
- Check and standardize periodically against a primary calibration standard to validate flow rate measurements

SIDEPAK SP730 Pump

The SIDEPAK Model SP730 pump offers the features of the SP530 plus an integrated internal low-flow bypass.

Unlike conventional pumps, this 3-liter pump permits precise low-flow control and measurement, without an awkward external bypass controller. The advanced internal flowmeter continuously integrates and controls flow rate over time to give you a precise sample flow rate and volume measurement.





Report Generation with TRAKPRO Data Analysis Software

TRAKPRO Software lets you program and retrieve sample history right from SIDEPAK SP530 and SP730 pumps.

Program from your PC for multi-mode operation

- Time- and volume-based, manual and intermittent options

Comprehensive Pump Information

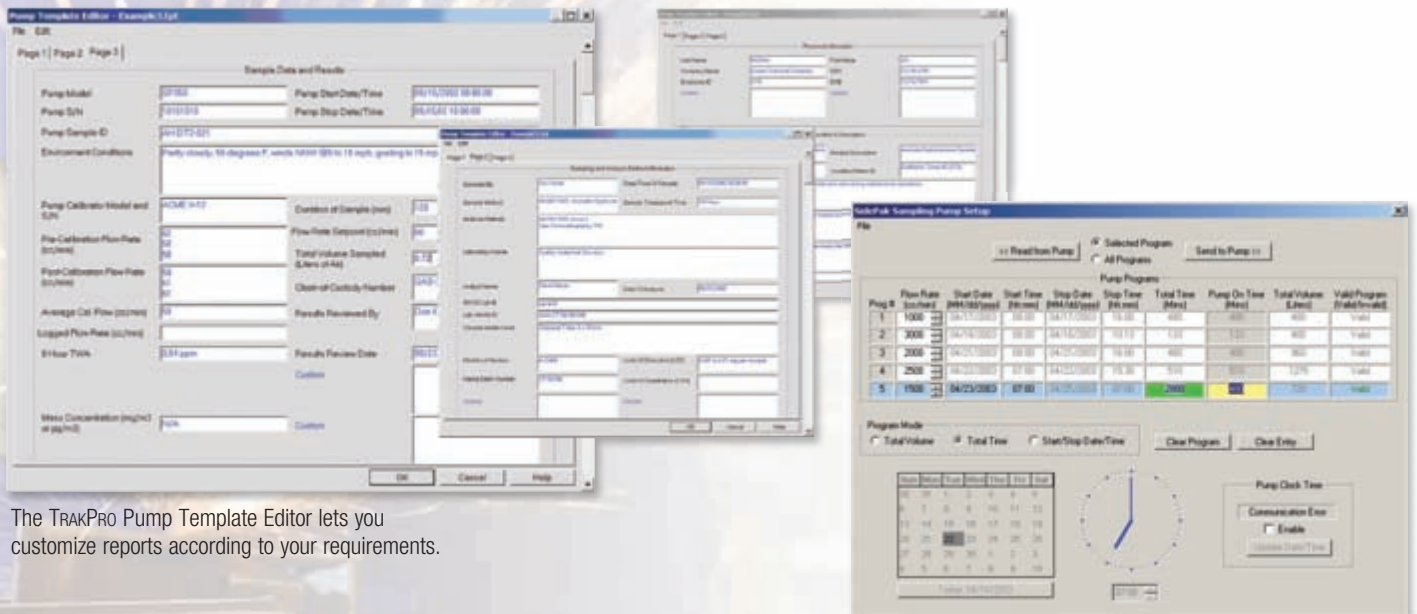
- Average flow rate and total sample volume
- Start and stop time/date and total sample time
- Pump model and serial number

Customize Report Format using Pump Template Editor

- Merge the sample pump history for a comprehensive occupational exposure monitoring report

It's as easy as that! No more tedious handwritten reports! Your Industrial Hygiene Lab is going to thank you for this!

Quick and Comprehensive Reports



The TRAKPRO Pump Template Editor lets you customize reports according to your requirements.

The TRAKPRO SIDEPAK Sampling Pump setup lets you custom program for multi-mode operation.

and Accessories



Accessories and Replacement Parts

SIDEPAK Personal Sampling Pump systems are designed to be worn by workers during a work shift to monitor exposure to ambient aerosols, gases or vapors. This system consists of three components: the personal sampling pump, sampling media holder and sample collection media.

In addition to the SIDEPAK pump family, TSI offers comprehensive choices for personal sampling accessories and replacement parts.

Accessories include:

- Single and multiple sorbent tube kits
- Filter cassette kits
- Cyclone kit
- Low flow adapter/constant pressure controller
- Primary and secondary calibration standards
- Pump service kits
- Carry cases



The specific components required for sampling tests are determined by the contaminant/chemical of concern and appropriate NIOSH methods. For more detailed information on NIOSH sampling methods, check the NIOSH website at www.cdc.gov/niosh.

Kits

SIDEPAK Personal Sampling Pumps are available in kits and single units with your choice of NiMH or AA battery packs. Kits include sample pumps, battery packs, power supplies, TRAKPRO software*, USB cable*, carry case, screwdriver, certificate of conformity and user guide. Choose from single, 3-pack and 5-pack kits.

*Included with Models SP530 and SP730.

Choose the SIDEPAK kit that's right for you

Start with one of TSI's four SIDEPAK models and then select the number of instruments, battery type, power supply and country code to configure the kit to match your requirements.



Example:

SP730-5E11

Model

SP330
SP350
SP530
SP730

Instruments

1 - One
3 - Three
5 - Five

Country Code/Line Cord

0 - Unspecified
1 - North America
2 - Continental Europe
3 - United Kingdom
4 - Australia

Battery Type

0 - No Battery
A - 6-Cell, AA-size Pack
C - 1650 mAH NiMH Pack
E - 2700 mAH NiMH Pack

Power Supply

0 - No Power Supply
1 - Single Unit Power Supply



Flow Calibrators

TSI offers two primary calibrator models for calibrating pumps or other air sampling instruments that draw an active air sample. The Model 4146 Primary Calibrator offers a range of 0.01 to 20 L/min, and the Model 4046, from 2.5 to 300 L/min.

These small, portable, battery-operated units are lightweight and easy to use. Volumetric flow rate is displayed continuously, making pump adjustment, calibration and periodic flow checks fast and easy in real-time. These primary calibrators are temperature-compensated and pressure-corrected to calculate volumetric flow rate at an accuracy within 2% of reading.

Primary calibrator kits are available complete with a soft-sided carrying case, battery pack, tubing, user guide and NIST-traceable calibration certificate.



Primary Calibrator Models 4146 and 4046 display volumetric flow rate in real time.



Model SP730 Personal Sampling Pump shown with Model 4146 Primary Calibrator

TSI Incorporated serves a global market by investigating, identifying and solving measurement problems. As an industry leader in the design and production of precision instruments, TSI partners with research institutions and customers around the world to set the standard for measurements relating to aerosol science, air flow, health and safety, indoor air quality, fluid dynamics and biohazard detection. With headquarters based in the U.S. and field offices throughout Europe and Asia, TSI has established a worldwide presence in the markets we serve. Every day, our dedicated employees turn research into reality.

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Contact your local TSI Distributor or visit our website www.tsi.com for more detailed specifications.