



AirChek²⁰⁰⁰

A NEW ERA IN AIR SAMPLING



Now with CalChek[®]
Automatic Calibration Feature
Direct Communication to a
Primary Flow Standard



AirChek²⁰⁰⁰

SETTING THE STANDARDS

Advanced Electronic Flow Control System

AirChek[®] 2000 sets new standards in air sampling with its patented* isothermal electronic flow control system. This unique technology allows the user to program a flow rate up to 3250 ml/min (flows from 5 to 500 ml/min with low flow adapter kit) with $\pm 3\%$ accuracy using the integral keypad or a PC and optional DataTrac[®] 2000 Software (see p. 4). The internal flow sensor measures flow directly and acts as a secondary standard, constantly maintaining the set flow rate. Flow can be calibrated by the user to an external primary standard. For the ultimate in automatic calibration, use the new CalChek feature (see p. 3). Sensors built into the pump automatically record the temperature and atmospheric pressure at calibration and compensate flow for changes to these parameters during sampling.



5 to 3250 ml/min

Advanced isothermal electronic flow control

Internal electronic flow sensor maintains flow setting immediately at start-up and throughout the sampling period. Built-in sensors automatically maintain flow calibration by compensating for differences in temperature and atmospheric pressure during sampling.

Long run times

AirChek 2000 provides over 8 hours run time and up to 24 hours depending on sample media used.

Wide flow range — 5 to 3250 ml/min

AirChek 2000 is the best choice for many sampling applications.

Low flow capability

With the easy-to-use low flow adapter kit, achieve flows from 5 to 500 ml/min (low flow does not include some electronic readout options).

Easy PC programmability

Combine your AirChek 2000 and PC with DataTrac 2000 Software to program multiple start/stop times and sequential sampling or download sampling data to a PC for storage and analysis.

Compact, lightweight, and ultra-quiet

For greater worker acceptance.

Intrinsically safe

Versatile for all industries and safe in explosive environments; UL and cUL Listed.

Continuous sample volume calculations

All sampling parameters are continuously updated and available at the touch of a button.

RFI/EMI-shielded, water-resistant case

Ensures accurate air volumes and data validity; covers protect battery charging jack and computer interface port; CE marked.

Security system protects data

A security code minimizes accidental changes and maintains sample validity.

Multi-tube sampling feature

Optional multiple adjustable low flow holders allow simultaneous sampling with 2, 3, or 4 tubes.

* U.S. Patent No. 5,892,160



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ADVANCED TECHNOLOGY

Advanced Automatic Calibration Feature! Direct Communication to a Primary Standard

New!
CalChek[®]
feature



The patented* CalChek[†] automatic calibration feature makes it easy to calibrate an AirChek 2000 pump to the desired flow rate using a DC-Lite Calibrator without manual adjustments. CalChek allows automatic field calibration, reduces the need for frequent factory calibration, and provides two calibration options:

- **Single-point Calibration** quickly calibrates flow before and verifies flow after sampling at a fixed rate.
- **Multiple-point Calibration** calibrates across a range of basic operating flows to ensure optimum pump performance following repair and maintenance.

* U.S. Patent Nos. 6,227,031 and 6,363,769

† Requires an AirChek 2000 pump (v. 2.59+), a DC-Lite Calibrator, and CalChek Communicator.

Fast, simple, and accurate calibration

No timers, soap film, or delicate equipment needed. The tough DC-Lite calibrator with DryCal[®] technology provides an automatic, accurate flow rate average that you can count on.

No manual adjustments

The CalChek feature provides direct communication between the AirChek 2000 Sample Pump and the DC-Lite Calibrator. No user intervention is needed. Simply set up the calibration train and push a button to start automatic calibration.

CalChek — two calibration options

With CalChek, quickly calibrate flow at a single point before and verify flow after sampling or calibrate the pump across a range of flows following repair and maintenance to ensure optimum pump performance.

Complete documentation of calibration for ISO 9000, TQM programs, and OHS management systems

CalChek, used with DataTrac Software, allows the user to download data to a PC and generate printed reports for complete documentation.



Document pump calibration with CalChek and DataTrac 2000 Software.



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EASY PC

PROGRAMMABILITY

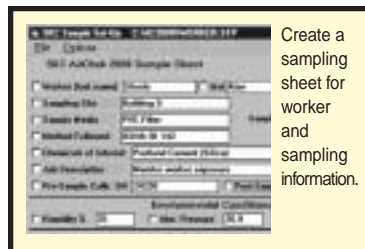
The SKC AirChek 2000 pump, Windows[®]-based DataTrac[®] 2000 Software, and your PC are an unbeatable combination for creating sampling schedules and complete documentation of sampling history.

With DataTrac 2000:

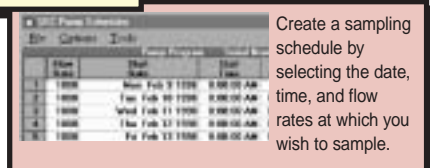
- Create a sample and analysis sheet for all critical information.
- Program a complete running sequence, delayed start, timed shut-down, or intermittent sampling even at different flow rates
- Program single or multiple sampling schedules
- Save an AirChek 2000 program
- Access complete documentation of calibration when used with CalChek feature
- Download sampling data to a PC and import into word processing software to create a complete report
- With CalChek, download calibration data for complete documentation for ISO, TQM programs, or occupational health and safety management systems.



Create a sampling schedule by selecting the date, time, and flow rates at which you wish to sample.



Create a sampling sheet for worker and sampling information.



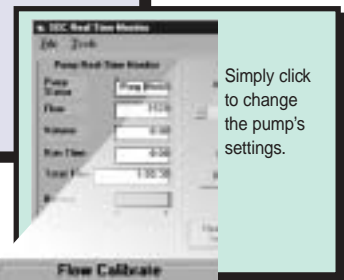
Create a sampling schedule by selecting the date, time, and flow rates at which you wish to sample.



Download the pump sampling history to a PC.



Create a sampling record with worker, sampling, and downloaded pump history information that can be printed or saved to a file.



Simply click to change the pump's settings.



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EASY OPERATION AND LONG RUN TIMES

Large easy-to-read LCD

Continuously updated sampling data displays on the AirChek 2000's large LCD. With the press of a single button, scroll through flow rate, air volume, run time, temperature, atmospheric pressure, battery status, time of day, and flow fault. A battery status icon constantly displays and a flow fault icon flashes during restricted or blocked flow. A flashing LED on top of the pump indicates the pump is running in low-light or loud environments.



Easy Manual Programming

It's right on the front of the pump. Set flow rate and run time without screwdrivers; simply use the 3-button keypad. A convenient timed shutdown feature allows you to program the AirChek 2000 to run for a set time from 1 to 999 minutes; a very useful feature for STELs or repetitive sample runs.



Flow Fault Features:

- **Auto shut-off** with low battery or drop in flow of 5% or more.
- **Adjustable flow fault** shutdown from 5 seconds to 4 minutes when used with a PC and DataTrac 2000 Software.
- **Auto-restart** from flow fault attempted every 5 minutes for a maximum of 10 times (can be changed with DataTrac 2000 Software).
- **Run time data** stored in memory.

Long Run Times

AirChek 2000 provides long run times for sampling flexibility. Tests* show the following run times at 2 L/min. All run times are listed in hours.

Mixed Cellulose (MCE) filter, 0.8 µm pore size

| Flow Rate (L/min) | Filter Diameter | |
|-------------------|-----------------|-------|
| | 37 mm | 25 mm |
| 2.0 | 24.2 | 15.2 |
| 2.5 | 20.4 | 12.4 |
| 3.0 | 17.7 | ** |

Polyvinyl Chloride (PVC) filter, 5.0 µm pore size

| Flow Rate (L/min) | Filter Diameter | |
|-------------------|-----------------|-------|
| | 37 mm | 25 mm |
| 2.0 | 28.2 | 21.8 |
| 2.5 | 27.0 | 22.0 |
| 3.0 | 22.6 | 18.2 |

* Results obtained using a new pump and new fully charged battery. Pump performance may vary.

** Filter back pressure exceeded pump capability during testing

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PERFORMANCE PROFILE

Operating flow range: 1000 to 3250 ml/min;
5 to 500 ml/min with low flow adapter kit

Operating 32 to 113 F (0 to 45 C)
Charging 32 to 113 F (0 to 45 C)
Storage -4 to 113 F (-20 to 45 C)

Constant flow compensation

(inches water back pressure): .. 3000 ml/min at 15 inches
2500 ml/min at 20 inches
2000 ml/min at 30 inches
1000 ml/min at 30 inches

Altitude: Do not use pump beyond 7500 ft

Battery pack: Removable battery pack with rechargeable NiCad battery, 4.8 V, 2.0 Ah capacity

Volumetric flow: Held within ± 2% of the set flow from 1 to 3 liters and ± 4% below 1 liter

Size: 5.6 x 3 x 2.3 in
(14.2 x 7.6 x 5.8 cm)

Run time: Approx. 10 hrs at 2000 ml/min up to 30 inches back pressure. Dependent on media used. See p. 5 for more information.

Weight: 22 oz (624 gm)

Intrinsically safe: UL and cUL Listed

Typical Back Pressure of Sampling Media (inches water):

| Flow Rate (L/min) | 1.0 | 1.5 | 2.0 | 2.5 | 3.0 |
|-----------------------|-----|-----|-----|-----|-----|
| Filter/Pore Size (µm) | | | | | |
| 25-mm MCE, 0.8 | 6 | 9 | 12 | 15 | 18 |
| 37-mm MCE, 0.8 | 2 | 3 | 4 | 5 | 6 |
| 37-mm PVC, 5.0 | 1 | 1 | 2 | 2 | 2.5 |

RFI/EMI Shielding: RFI/EMI-shielded case, CE marked

Accuracies:

Timing 1 min/month at 25 C
Atmospheric pressure .. ± 0.3 inches Hg
Flow rate: ± 3% of set-point after calibration to desired flow

Flow fault: If flow drops by 5% or more, pump stops and holds historical data. Auto-restart is attempted every 5 seconds up to 10 times.

Temperature range:



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ORDERING OPTIONS

| Description | Cat. No. | Accessories | Cat. No. |
|---|-------------|---|-----------|
| AirChek 2000 Pump with NiCad battery pack | 210-2002 | Chargers | |
| Single Pump Kits | | <i>(Purchase pump-specific cables separately.)</i> | |
| High Flow Sampling includes AirChek 2000 pump, single-station charger, filter cassette holder, and convenient carry case | | PowerFlex , 5-station (100-240 V) | 223-1000 |
| (115 V) | 210-2002K | PowerFlex , single (120 V) | 223-2000 |
| (230 V) | 210-2002KB | (100-240 V) | 223-2000B |
| CalChek Kit (High flow) includes the above items, CalChek Communicator, and DC-Lite Calibrator with charger | | PowerFlex Cable for AirChek 2000 | 223-1001 |
| (115 V) | 210-2CCK1 | Battery Eliminator for sampling using 115-volt line input .. | 223-320 |
| (230 V) | 210-2CCK1B | Replacement Battery Pack* | P20136 |
| 5-pack Pump Kits | | DataTrac 2000 Software includes software on CD, adapter, and cable | 877-91 |
| High Flow Sampling includes 5 AirChek 2000 pumps and filter cassette holders and one 5-station charger in a convenient carry case | | CalChek Communicator , required for CalChek feature | 210-501 |
| (100-240 V) | 210-2002K5 | Low Flow (5 to 500 ml/min) Adapter Kit , includes constant pressure controller (CPC), single adjustable low flow holder, and type A tube cover | 210-500 |
| High and Low Flow Sampling includes the above items, 5 adjustable low flow holders, 5 constant pressure controllers, and 5 type A protective tube covers | | Pump Pouches | |
| (100-240 V) | 210-2002K5D | High-profile Red , for easy observation | 224-96A |
| CalChek Kit (High flow) includes items in High Flow 5-pack Kit, a CalChek Communicator, and a DC-Lite Calibrator with charger | | Noise-reducing , black | 224-96C |
| (100-240 V) | 210-2CCK5 | | |

* Replacing batteries with non-approved battery packs voids the pump warranty and UL intrinsic safety approvals.

AirChek, DataTrac, and CalChek are registered trademarks of SKC Inc.



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