

**SENSIDYNE®**

**A SINGLE  
STROKE  
OF GENIUS**

**PRECISION GAS DETECTION SYSTEM**



**SENSIDYNE®**



*"Undoubtedly the most durable, user friendly and versatile gas detection pump on the market." That's something we hear all the time from customers and industry experts alike: The Sensidyne system is the simplest gas detection system to use. And we at Sensidyne are proud to be able to offer the health and safety industry this streamlined, easy-to-use and vitally accurate product.*

*Sensidyne's products are used around the world, which means that the health and safety of millions of people are in many ways dependent on us. We take this awesome responsibility seriously, and therefore are committed to providing the industry products and customer service that are unparalleled in quality and consistency. That is our promise. That is our guarantee.*

**– Carl Mazzuca,  
Sensidyne President**

## The Essentials

Safety, precision, ease, speed, and durability are the gas detection system essentials required by health and safety professionals. The streamlined Sensidyne pump provides these essentials and more. . .

- Single-stroke operation brings time-saving ease of use to gas detection.
- A slender ergonomically designed, sure-grip shape; lightweight, and corrosion-resistant.
- Piston-type volumetric pump assures accuracy every time.
- Fail-safe handle lock in two positions (50 ml or 100 ml) which virtually eliminates incomplete samples that can occur with squeeze-type pumps when they are not fully collapsed.
- Flow finish indicator.
- High precision direct reading detector tubes for nearly 300 substances.
- Clear indication of concentration level of the substance being measured is shown by the length of the stain on the glass tube. The measurement is precisely recorded for direct reading on a single calibration scale.

- No laboratory turnaround time, no power requirement, and no user calibration needed.
- Ease and simplicity of use saves training time (training video available), sampling time, and provides a more accurate analysis.
- A lifetime warranty, thus ensuring years of dependable, trouble-free operation.

No other system offers the Sensidyne pump's combination of superior features and benefits.

## Principles of Operation

Each detector tube contains a reagent that is specifically sensitive to a particular vapor or gas.

These reagents are on fine-grain silica gel, activated alumina or other absorbing media (depending upon application requirements), inside a constant inner diameter, hermetically sealed glass tube.

Most Sensidyne detector tubes are the "direct-reading" type, with calibration markings right on the tube, so measurements can be made as simply and precisely as reading a thermometer.

The actual operation is simple and accurate. Just snap off both "break away" ends of a tube in the convenient tube-tip breaker, insert the tube into the hand held pump, and pull out the pump handle. And that's it.

As the handle is pulled (just like a syringe), a precisely measured volume of ambient air is drawn inside the tube where it contacts the reagent.

Instantly, the reagent changes color. The reagent reacts quantitatively to provide a length-of-stain indication. The farther the color stain travels along the tube, the higher the concentration of gas. Note the scale mark on the tube where the stain stops and that's the measurement.

It's safe, precise and fast. A Single Stroke of Genius.



**Model AP-1S Gas Detection Pump Kit PN<sup>o</sup> 7013585**

## Features & Benefits

### Single Stroke Operation

The Sensidyne pump is the easiest pump to use. There are no repetitive operations to obtain an accurate sample every time. One stroke is all it takes.

### Flow Finish Indicator

Timing the stroke is not necessary. The Flow Finish Indicator tells you automatically when the stroke is complete. It operates from the pump's internal vacuum for total reliability.

### High Quality Detector Tubes

Sensidyne's detector tubes are machine made to the highest factory tolerances. This assures optimum repeatability from one production lot to the next at a level that is unmatched by hand made tubes. Both the factory site and the U.S. distribution site are ISO 9000 certified for total confidence in quality.

### Accuracy

Calibration scales for the detector tubes are printed on the basis of individual production lots. This eliminates troublesome variations in tube diameters, packing precision, and/or reagent quality or reactivity.

Calibration scales are in ppm, mg/l, or %, depending on the substance to be measured and the desired measuring range. Every tube box carries the quality control number and chemical symbol. The expiration date is prominently stamped on each box.

### Expandable Measuring Range

The calibration curve on most of the Sensidyne detector tubes is a straight line, and points on the scale are at equal intervals. This means you can measure concentrations above or below the printed scale by simply increasing or decreasing the number of pump strokes, as indicated on the instruction sheet.

### Sensitive and Stable Absorbing Media

Using our unique absorbing media, the tubes have extremely clear lines of demarcation of the color stain. No filter paper or cumbersome reagents are required. This enhances reliability, reduces measurement time and increases accuracy. These are stable compounds, providing a long shelf life for most tubes, thus reducing inventory costs.



**Deluxe Hazmat III Kit PN<sup>o</sup> 7013627**

### Precision Piston Pump

Two critical factors affecting the accuracy of detector tube measurements are the flow rate and the volume of air drawn through the tube by the pump. If the flow rate or volume varies, the sample will not be accurate.

With a precision piston pump, air flow is initiated by the pump vacuum, which stays constant after continued use.

The vacuum is not spring-assisted as with "squeeze-type" pumps. The suction of squeeze-type pumps is determined almost exclusively by the force of springs within the pump. Over time the springs can lose tension, resulting in slow strokes, thus jeopardizing accuracy and repeatability.

### Durable Construction

Our unique pump design offers the best of both worlds. It is simple to use and rugged enough for any industrial setting. The light weight aluminum alloy construction provides years of trouble free use.

### Standard Tube-Tip Breaker

A tube-tip breaker, which catches the glass ends of the detector tube, is standard in each pump for added safety. Flying glass and misplaced broken tube tips are not a problem with the Sensidyne pump.

### No Special Tools

Nontechnical personnel can perform normal sampling and maintenance rapidly and accurately. You do not have to purchase any special tools, and the spare items in the pump kit are normally all that are required for years of trouble-free operation.



## Kits & Accessories

### Hazardous Material Detection Kit

The Sensidyne Hazmat III Kit is a portable hazardous material detection kit that is lightweight, rugged, and capable of on-the-spot detection of numerous airborne contaminants. The kit utilizes a unique two-step approach for rapid identification of airborne contaminants. The short test uses two unique multi-stage qualitative tubes and a special color chart to determine no fewer than 70 compounds in as little as 2–3 minutes. The kit requires no electrical power or user calibration and comes with a hard-shell, corrosion-resistant polyethylene case.

PN° 7013627 Deluxe Hazmat Kit III

### Soil Sampling Kit

Field screening for contaminated soil is fast and easy using the Sensidyne Soil Sampling Kit. A hand operated boring tool is used to make a three foot deep hole in the soil just large enough to accept a special sampling probe with a detector tube inserted. A direct reading vapor zone sample is then made using the hand pump and any one of numerous detector tubes.

PN° 7013373 Soil Sampling Kit

### Ion Tubes

Sensidyne Ion Detector Tubes provide fast, inexpensive, quantitative field determination of contaminants in wastewater. The tubes operate on the principle of capillary action or by drawing water into the tube using a rubber bulb. Simply break off the tube ends and immerse the tube vertically into a beaker of sample water. A color stain forms for a quantitative measurement. Ion tubes are direct-reading with a printed scale on each tube.

### One-Hand Adapter

The new one-hand adapter for the Sensidyne Model AP-1S Pump is ideal for one hand sampling from a ladder or into hard-to-reach places. With the adapter installed and a tube inserted, the pump handle can be drawn and locked without actually taking a sample. The pump can then be extended into the sampling area and activated with one hand.

PN° 7013600 One-Hand Adapter

### Long Duration (TWA) Tubes

Direct reading TWA tubes are used in conjunction with Gilian pumps to provide a Time-Weighted Average reading over an eight hour work shift.

### Extension Hose

An extension hose of either 5 meters or 10 meters in length is available for use in confined space entry, as well as a rigid telescoping extension probe with up to 10 working feet of length. The design of the tube holder at the free end of the hose permits a gas-tight fitting. Since the detector tube is located at the sampling end of the hose, there is no need to allow for the volume of air in the hose line.

PN° 7013596 5 m Hose  
PN° 7013597 10 m Hose  
PN° 7013598 10' Telescoping Probe

### Hot Probe

The Hot Probe allows sampling of gases at elevated temperatures for applications such as auto exhaust or stack emissions testing. The Hot Probe rapidly cools the gas before it enters the detector tube.

PN° 7013602 Hot Probe

### Compressed Breathing Air Analysis Kit

The Sensidyne Compressed Breathing Air (CBA) Analysis Kit allows anyone to simply, quickly, and quantitatively measure the quality of their compressed breathing air. Easy to use, the CBA Kit is an accurate and precise method for detecting carbon monoxide, carbon dioxide, oil mist, oxygen, and water vapor (*specific tubes not included*). The CBA Kit measures all four of the common contaminants in breathing air, plus oxygen deficiency. With the CBA Kit, the measurement is quick and simple and doesn't require user calibration.

PN° 7015406 CBA Analysis Kit

### Tube Tip Breaker/Cutter

The Tube Tip Breaker/Cutter (PN° 7013601) is a convenient container for cutting and breaking detector tubes.

### Proudly distributed by:



# SENSIDYNE

**"The Standard for Professionals"**

*Sensidyne manufacturers, supplies, and services gas detection and air sampling pumps that are characterized by their ease of use, durability, accuracy, and economical cost.*

16333 Bay Vista Drive • Clearwater, Florida 33760 USA  
800-451-9444 • 727-530-3602 • 727-539-0550 [fax] • [www.sensidyne.com](http://www.sensidyne.com)