What is the Nephelometer?
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.

What is an Environmental Profile?
An environmental profile stored in the software library includes a name and k-factor. The name is often used to store a type of dust or location within a plant or facility. New instruments include preset profiles for Arizona Road Dust, Coal Fly Ash, and Limestone.

Environmental profiles increase accuracy of the instrument especially when monitoring in diverse or extreme environments. Environmental profiling is standard on the Sensidyne Nephelometer.

What is an Environmental Factor?
The Sensidyne Nephelometer measures particulate in the air using a laser engine. Laser light is scattered by the particles in the air flow and detected by a photo detector. This information is then multiplied by an environmental factor (k-factor) and displayed on the screen. Light will reflect differently on lighter colored dust than it does on darkly colored dust. The adjustment for a lighter or darker dust is the k-factor. The instrument is calibrated to Arizona Road Dust and is assigned a k-factor of 1. Lighter or darker colored dusts will have a higher or lower k-factor accordingly.

How can I Determine New Environmental Profiles?
The Nephelometer site monitoring software allows users to easily create new profiles. A customer can determine k-factors by conducting side-by-side 8 hour test with a Gilian air sampling pump and filter cassette and a Sensidyne Nephelometer set in continuous mode in the area that contains the environmental dust of concern.

For example if the lab reports an average reading of 1000 and the Sensidyne Nephelometer provides an average reading result of 2000, the K-Factor for the substance can be established as .5. (Lab reading divided by instrument reading) 1000/2000=.5. A user can use the unit in normal Arizona Dust mode and divide the reading by .5 or preset the unit to display using the appropriate K-Factor. The user can create as many K-Factors as they wish and load them in the software.

See the reverse for additional Nephelometer information.
Sensidyne Nephelometer

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.

Reliable
Temperature compensated, durable housing and minimal moving parts ensure reliability.

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

Target Industries
- Foundries
- Cement plants
- Steel Mills
- Chemical plants
- Pharmaceutical plants
- Hazardous waste sites
- Metals and nonmetals mining
- Smelters
- Saw mills
- Paper mills
- Fertilizer plants
- Construction sites

Shown with Optional Protective Boot