

TSI IAQ family brochure copy

BREATHE A LITTLE EASIER WITH TSI

Indoor air quality is a growing concern. With the increasing amount of time we spend indoors—over 90% according to a U.S. Environmental Protection Agency study—the problems associated with tighter building construction in the interest of conserving energy are exacerbated. In response, building owners, facility personnel, industrial hygienists and others are increasingly focused on IAQ for both comfort and health.

Comfort

Measures of comfort typically include temperature, humidity, ventilation and draft. TSI offers several instruments that help you quickly and accurately assess basic IAQ parameters. Maintaining comfort levels can significantly improve occupant satisfaction, as shown through increased concentration and productivity, and help reduce absenteeism.

Health Matters

Health and safety concerns are a growing part of air quality assessment. Airborne biological substances, gases, vapors and particles can cause adverse reactions in certain individuals, depending on their sensitivity to particular substances and concentrations. Some of these ever-present unwanted contaminants are potentially toxic, infectious, allergenic, irritating or otherwise harmful. Poor IAQ is listed as a top five health concern by most major associations and agencies worldwide. Recent studies claim that over one-third of the buildings in the United States have air quality problems. Now more than ever, it is increasingly important to be proactive, to identify and resolve potential problems before they get out of control. TSI Indoor Air Quality instruments are designed to help you identify and manage these tough problems.

Certified Accuracy with Reliable Results

Your TSI calibration certificate ensures that you are reading and obtaining the most accurate and reliable data for a range of indoor air quality needs.

TSI Meets Your Measurement Needs Indoor Air Quality Affects the Comfort, Safety and Health of Building Occupants and Directly Impacts Concentration and Productivity.

Maintaining a comfortable environment includes making measurements and taking corrective action for thermal comfort involving temperature, humidity, draft and ventilation. Providing a healthy and safe environment starts with locating and controlling sources of unwanted contamination from chemicals, biological

substances and airborne particles. Be proactive in assessing air quality so that you are prepared for occupant concerns.

General Comfort

Indoor air quality monitors provide accurate measurement and data logging of VOC, CO₂, temperature, humidity, and CO, as well as calculations of dew point, wet bulb and percentage of outside air. More than half of IAQ complaints can be attributed to comfort problems.

Ventilation

Air movement or draft has a significant effect on how people perceive comfort. Too much of it and people sense that it is “drafty,” too little and it is “stuffy.” To ensure that the proper volumes of air are being supplied to each individual occupied area, measurements should be taken at air diffusers.

Aerosols and Gases

Inhalation of aerosols (dust, particles) or gases can challenge the body’s natural defenses by causing reactions ranging from relatively mild to severe. Respirable substances that need to be monitored include emissions from certain industrial processes like welding, grinding and cutting, construction, and other situations where dust, smoke, fumes and mist are produced.

We Set the Standard For Fast, Accurate and Reliable IAQ Test Results

Pressure

Small airborne particles and gases are transported by air movement and also migrate from areas of relatively high to low pressure. Managing differential pressure between indoors and outdoors, and between different areas of the building by regulating supply and return air volumes is a key method of controlling the migration of unwanted contaminants. This is especially critical in healthcare facilities where infectious, contagious or toxic substances need to be contained and controlled.

Ultrafine Particles

Unless air is specially filtered, any given air sample contains many airborne particles. Many of these are classified as ultrafine or less than one-tenth of a micron in diameter. A Condensation Particle Counter (CPC) allows a user to follow pathways of particles directly to their source where they can be controlled by repair, removal or replacement of the source.

Indoor Air Quality Solutions from TSI

VELOCICALC® AIR VELOCITY METERS

Models 9535, 9545, 9565

- Accurate air velocity measurements

- Easy recording of multiple measuring points
- Calculates valuable statistics—average, maximum and minimum values, and records the number of samples
- Flow rate calculated automatically
- Durable telescoping probe with etched length marks
- Humidity measurement (Model 9545, 9565)
- Available with optional articulating probe

BALOMETER® AIR CAPTURE HOOD

Model EBT731

- Accurate direct air flow readings from a vent, diffuser or grille
- Balancing mode makes it easy to adjust dampers
- Light weight
- Variety of hood sizes available

MICROMANOMETER

Model EBT730

- Accurately measures differential and static pressure
- Wide measurement range of -15 to +15 in. H₂O (-3,735 - 3,735 Pa)
- Automatic conversion of actual and standard flows
- Flow rate automatically calculated
- Measures velocity with Pitot tube in high temperature and contaminated areas
- Auto-zeroing

DUSTTRAK™ AEROSOL MONITOR

Model 8530, 8532

- Measures aerosol mass concentrations in real-time
- PM₁₀, PM_{2.5}, PM_{1.0} and respirable size fractions
- Portable, battery operated
- Long-term unattended sampling
- Data logs and downloads to a PC for analysis and reporting

SIDEPAK™ PERSONAL AEROSOL MONITOR

Model AM510

- Measure aerosol mass concentrations in real-time
- Small, lightweight and quiet
- PM₁₀, PM_{2.5}, PM_{1.0} and respirable fractions
- Belt mounted
- Battery operated
- Data logs and downloads to a PC for analysis and reporting

Model EBT730

Model AM510

Model 9545

Model EBT731
Model 8530 Mod

P-TRAK™ ULTRAFINE PARTICLE COUNTERS (CPC)

Model 8525

- + Counts ultrafine particles less than 1 micron diameter in real-time
- + Tracks particles to the source
- + Portable, battery operated
- + Data logs to document results

AEROTRAK™ HANDHELD PARTICLE COUNTERS

Model 9303

- + Measures up to 3 size channels from 0.3 - 10 µm
- + 0.1 CFM (2.83 LPM) flow rate
- + 1,500 sample record storage
- + 999 location labels
- + USB serial output
- + Large 3.6-inch display for easy on-screen data review
- + Weighs only 1.3 lbs (0.58 kg)

AEROTRAK™ HANDHELD PARTICLE COUNTERS

Model 9306

- Measures up to 6 size channels from 0.3 -10 µm
- 0.1 CFM (2.83 LPM) flow rate
- 10,000 sample record storage
- 250 alphanumeric location labels
- USB output
- Easily configurable with Microsoft® Windows® CE interface
- 3.7-inch color touch screen for easy on-screen report viewing

Q-TRAK™ INDOOR AIR QUALITY MONITORS

Model 7575

- One instrument with multiple plug-in probe options including:
 - CO₂, temperature, humidity, and CO
 - Calculate % outdoor air
 - Calculate dew point and wet bulb temperature
 - Thermal anemometers
 - Rotating vanes
 - Thermocouples
 - Draft
 - Volatile Organic Compounds (VOC)
 - PID for ppm or ppb
- Displays up to five measurements simultaneously
- Data log and review statistics
- Downloads for analysis and reporting using TrakPro™ software

IAQ-CALC™ INDOOR AIR QUALITY METERS

Models 7515, 7525, 7545

- Fast, accurate measurements in a single probe
- Model 7515 measures carbon dioxide (CO₂) only
- Models 7525 and 7545 simultaneously measure and data log CO₂, temperature, and humidity and calculate % outside air
- Model 7545 also measures carbon monoxide (CO)
- LogDat2 downloading software included (except Model 7515)