

**BREATHE  
EASIER**

The New DUSTTRAK™ II and DRX Aerosol Monitors



HEALTH AND SAFETY

Exposure Monitoring



TRUST. SCIENCE. INNOVATION.

# Real-Time Dust Monitoring Takes A Giant Leap Forward.



## The Revolution in Real-Time Dust Monitoring Has Arrived:

Forget everything you knew about aerosol monitors. The new DUSTTRAK II and DRX monitors are light years ahead of any other. The DUSTTRAK™ DRX monitor, for instance, is a new laser photometer that simultaneously measures both mass and size fraction – something no other monitor can do. When it comes to worker comfort and productivity, as well as risk management, don't you want the best? The new DUSTTRAK II and DRX aerosol monitors simply leave everyone else in the dust.

## Desktop or Handheld Units for Any Environment, Any Application

The new DUSTTRAK II and DRX Aerosol Monitors are battery-operated, data-logging, light-scattering laser photometers that give you real-time aerosol mass readings. They use a sheath air system that isolates the aerosol in the optics chamber to keep the optics clean for improved reliability and low maintenance. Suitable for clean office settings as well as harsh industrial workplaces, construction and environmental sites and other outdoor applications. DUSTTRAK II and DRX monitors measure aerosol contaminants such as dust, smoke, fumes and mists.

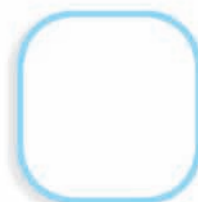


### Applications include:

- Industrial / occupational hygiene surveys
- Indoor air quality investigations
- Outdoor environmental monitoring
  - Fugitive emissions monitoring
  - Site perimeter monitoring
  - Fenceline monitoring
  - Dust control operations
  - Environmental research studies
- Baseline trending and screening
- Engineering control evaluations
  - Corrective action validation
- Point source monitoring
- Engineering studies
- Remote monitoring
- Process monitoring
- Emissions monitoring
- Aerosol research studies

## Easy to Program, Easy to Operate

The new graphical user interface with color touch-screen puts everything at your fingertips. The easy-to-read display shows real-time mass concentration and graphical data as well as other statistical information along with instrument pump, laser and flow status, and much more. Perform quick walk-through surveys or program the instrument's advanced logging modes for long-term sampling investigations. Program the start time, total sampling time, logging intervals, alarm setpoints and many other parameters. You can even set up the instrument for continuous unattended operation.



# Dust Monitoring – II Or DRX Aerosol Monitor.

## DUSTTRAK DRX Aerosol Monitor Advantages Over TEOM

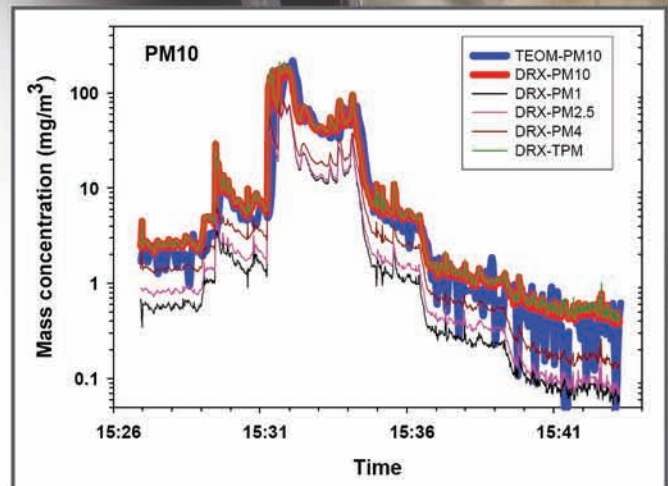
1. Faster response time
2. Continuous and faster data acquisition rate (once per second)
3. Simultaneous measurement of size segregated mass fraction concentrations
4. Size segregated mass fraction data is shown in real time
5. No need for multiple instruments for different size fraction measurements
6. No need for size-selective inlet conditioners
7. No consumables and low maintenance
8. Much lower cost of ownership – one instrument can do the work of five

## DUSTTRAK DRX Aerosol Monitor Advantages Over OPCs

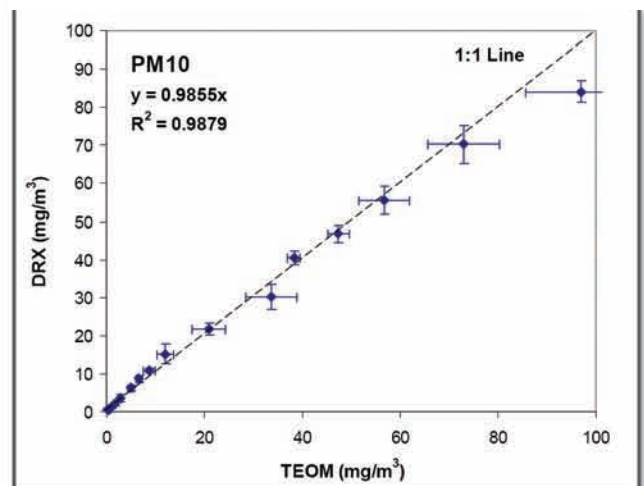
1. Simultaneous measurement of size-segregated mass fraction concentrations
2. Size-segregated mass fraction data is shown in real time
3. Can be used in high mass concentration environments
4. Ability to generate custom calibration factors with integrated gravimetric reference sampling capability based on aerosol of interest
5. Significantly reduces mass conversion errors using particle size and count data due to particle density, refractive index and shape
6. Lower particle detection range down to 0.1  $\mu\text{m}$  in particle size

## DUSTTRAK DRX Aerosol Monitor Advantages Over Single-Channel Photometers

1. Greater sensitivity to particles  $>1 \mu\text{m}$  in size
2. Simultaneous measurement of size-segregated mass fraction concentrations
3. Size-segregated mass fraction data is shown in real time
4. Ability to generate custom calibration factors with integrated gravimetric reference sampling capability based on aerosol of interest
5. No need for multiple instruments for different size fraction measurements
6. No need for size-selective inlet conditioners



Comparison of Arizona Road Dust (A1) mass concentration measured by the DUSTTRAK DRX and the TEOM with a PM10 impactor.



Linear correlation between DUSTTRAK DRX and TEOM for Arizona Road Dust (A1) mass concentration measurement. The TEOM ran with a PM10 impactor.



# Else in the Dust

## Desktop Models: Ideal for Long-Term Surveys and Remote Monitoring Applications

Manual and programmable data logging functions also make desktop DUSTTRAK aerosol monitors ideal for unattended applications. They come with USB (device and host), Ethernet, and analog and alarm outputs allowing remote access to real-time aerosol concentration data. User adjustable alarm setpoints for instantaneous or 15-minute short-term excursion limit (STEL) are available on desktop models. The alarm output with user-defined setpoint alerts you when upset or changing conditions occur.

## All DUSTTRAK Desktop Aerosol Monitors Have Three Special Features:

- Gravimetric sampling capability using a 37-mm filter cassette which can be inserted in-line with the aerosol stream allowing you to perform an integral gravimetric analysis for custom reference calibrations.
- They can be zeroed automatically using the external zeroing module. This optional accessory is used when sampling over extended periods of time. By zeroing the monitor during sampling, the effect of zero drift is minimized.
- STEL alarm feature for tracking 15-minute average mass concentrations when alarm setpoint has been reached for applications like monitoring fugitive emissions at hazardous waste sites.

