



# OUTDOOR AIR QUALITY MONITORING



THE ENVIRONMENT AGENCY'S  
MONITORING CERTIFICATION SCHEME

Sira MC160316/XX  
Sira MC160317/XX  
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# DISCOVER TSI

TSI imagines, designs, and develops products that solve measurement problems. We collaborate with universities and colleges, research groups, and businesses around the world to set the standard for measurement expertise.

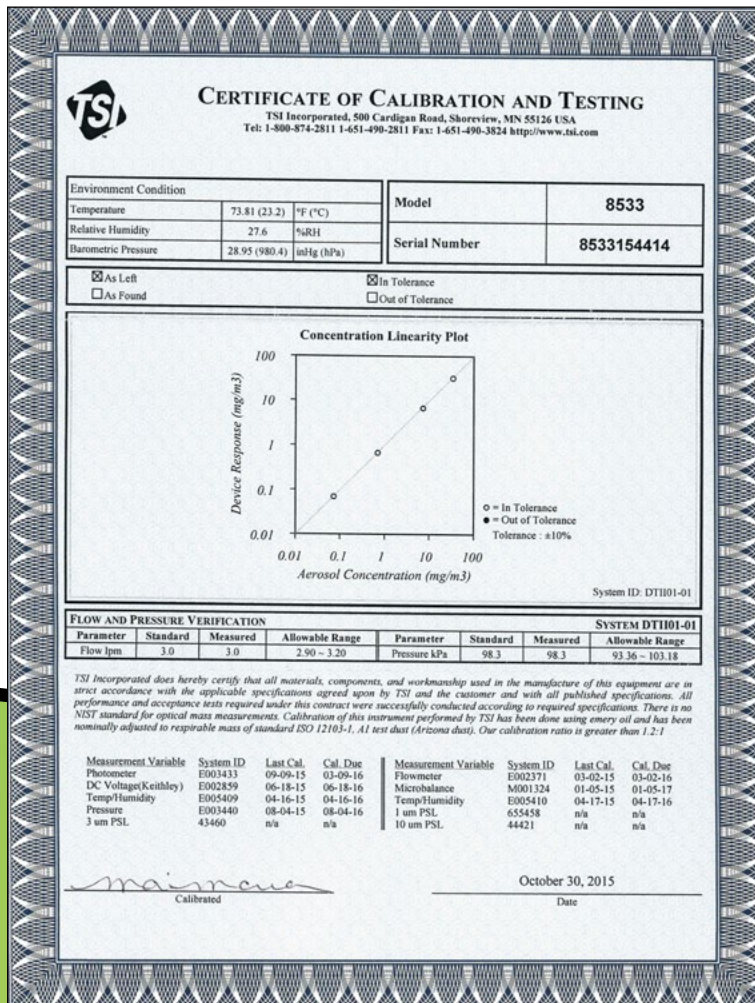
## TSI WORLDWIDE AND LOCAL OPERATION

At TSI, our global team strives to provide not only instruments, but also innovative solutions.

We operate at both a global scale and a human scale—instruments that measure everything from atmospheric aerosols to the fit of a personal respirator. Turning data into actionable information enables our customers to do their jobs more efficiently. TSI understands the science, the data, and the processes that support your work.

Headquartered in Minnesota, USA, TSI has a global network with sales, service, and support locations in the UK, Singapore, China, India, and Germany. Wherever you are, we are there to support you. Our European service department, based in the UK, ensures your instruments are calibrated and serviced by TSI in market leading turnaround time.

Since 1961, we've set the standards for precision instrumentation and software solutions. Every day our dedicated employees turn research into reality.



# DUSTTRAK™ ENVIRONMENTAL MONITOR

TSI's line of DustTrak Aerosol Monitors are used to measure dust particulates corresponding to

- + PM1
- + PM2.5
- + PM10
- + Total Suspended Particulate

These instruments are ideal for compliance monitoring whereby a site operator is required to demonstrate the efficacy of their dust management and mitigation controls. Our MCERTS certified monitors provide real-time accurate data that can be used to evidence the performance of control measures and demonstrate compliance.

## BUILT FOR THE OUTDOORS

Our DustTrak Environmental monitors have been designed and built to provide accurate and reliable dust monitoring data in the harshest of environments. Each model has been tested and proven to perform in the most challenging climate and dust conditions:

- + Weatherproof enclosure with added strengthening bars
- + Designed to handle extreme temperatures of -20°C to +50°C
- + Security lock
- + Integrated heated inlet for pre-sampling conditioning
- + Supplied pre-assembled for fast and simple setup
- + Plug and play sensors for multi parameter monitoring such as weather, gasses and noise
- + Cellular data connectivity for remote access via the cloud
- + Remote auto drift correction
- + Range of different power options
- + Long service intervals





## A RELIABLE PARTNER FOR MULTIPLE APPLICATIONS

DustTrak is the ideal solution for anybody who needs a real-time, accurate and reliable solution to measure dust particulate levels generated by site activities such as:

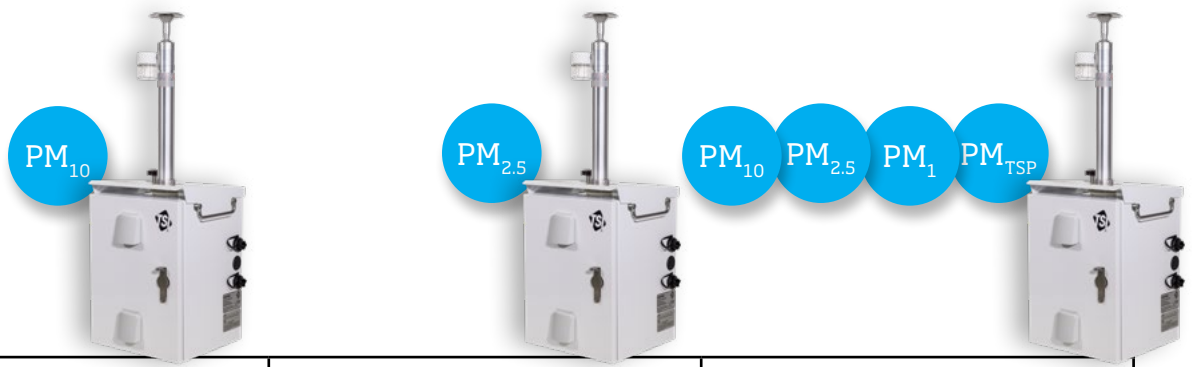
- + Demolition and ground works
- + Construction and remediation
- + Fenceline monitoring
- + Quarry and mine operations
- + Port and bulk handling terminals
- + Waste management and landfill sites
- + Brownfield developments

Construction activities including earthworks, demolition and the movement of vehicles on site can lead to the emission of dust. These emissions are primarily in the more coarse size fraction PM10 but can also be in the finer dust size of PM2.5. Emissions of this size fraction and below are normally attributed to combustion which produces black carbon or more commonly referred to as "soot". DustTrak™ is the only monitor that has been tested and certified to provide simultaneous real-time readings for these size fractions.

Monitoring dust concentration from a mining or bulk transfer operation can help ensure the protection of employees and the surrounding environment and communities. Air quality monitoring instruments can be deployed around the perimeter of the site, ensuring the particulate matter is not at dangerous levels when it leaves the boundary and makes its way into the environment.

DustTrak monitors deployed in traffic pollution hot spots enable local authorities to measure and view concentration levels of PM10 and PM2.5 in real-time. The captured data will give an indication of how effective an "Air Quality Management Area" is at reducing pollutants and achieving its target limits.





DustTrak Environmental PM10	DustTrak Environmental PM2.5	DustTrak Environmental DRX
A continuous real-time monitor that provides mass measurement data for PM10. Tested and certified by the UK Environment Agency	A continuous real-time monitor that provides mass measurement data for PM2.5. Tested and certified by the UK Environment Agency	A continuous real-time monitor that provides simultaneous mass measurement data for PM10, PM2.5, PM1 and TSP. Tested and certified by the UK Environment Agency

The compact, weather-proof enclosure houses the DustTrak Environmental Photometer, along with other key components including a long-life pump, built-in auto zeroing, and a heated inlet for sample conditioning.

#### Robust Design For Long Run Time

- + Built upon patented, proven DustTrak Aerosol Monitor technology
- + Long-life pump (life expectancy >10,000 hours)
- + Built-in auto zero module minimizes drift over long sample runs and temperature changes
- + Secure, weather-proof enclosure

#### Reduced Cost Of Operation:

- + Instant access to real-time data—anytime, anywhere—via the web
- + Manage multiple sites from a single location eliminate costly field trips
- + Generate reports quickly and easily
- + SMS text messaging and email alert capabilities directs workers to take action
- + Long-lasting parts minimize downtime
- + Easy maintenance with field-replaceable parts

DustTrak Environmental monitors are very versatile and can be easily integrated with a wide range of sensors to provide multi parameter monitoring through one single platform:

- + Gases (NOx, SOx, Ozone and more)
- + Wind speed and direction
- + Temperature and humidity
- + Barometric pressure
- + Precipitation
- + Noise
- + Vibration
- + VOCs (Volatile Organic Compounds)



# THE CLOUD DATA MANAGEMENT SYSTEM – ACCESS DATA ANYTIME, ANYWHERE

Our intuitive web-based monitoring platform allows you to access your data in real-time via any web-enabled smart device. Viewing your data is quick and simple to do and it can be easily configured through your own personalised dashboard for immediate access to key measurements. Having our cloud data management system puts you in control by allowing you to manage stakeholder permissions through different user access levels. A major benefit with our platform is the ability to set up “smart alerts” for scenarios such as the exceedance of a threshold limit. This information can be shared with people on the ground so that either mitigation measures can be deployed or work stopped.

## Key Features:

- + Intuitive web-based environment
- + Customizable dashboard
- + Real-time access to data
- + User access levels for stakeholder management
- + Smart alerts via SMS and email
- + Unlimited historical data
- + Map location GPS
- + Remote configuration of device
- + Device alarms
- + Compatible with other 3rd party sensors\*
- + On-line support service and FAQs page
- + API for adding new devices or data feeds

## TRAKPRO™ SOFTWARE MAKES MONITORING EASIER THAN EVER

TrakPro™ Data Analysis Software allows you to set up and program your DustTrak unit. It even features the ability for remote programming and data acquisition from your PC via wireless (922 MHz or 2.4 GHz) communications or over an ethernet network. As always, you can print graphs, raw data tables, and statistical and comprehensive reports. In addition to this you can also view and send logged data through our DustTrak mobile app.

## 24/7 MONITORING

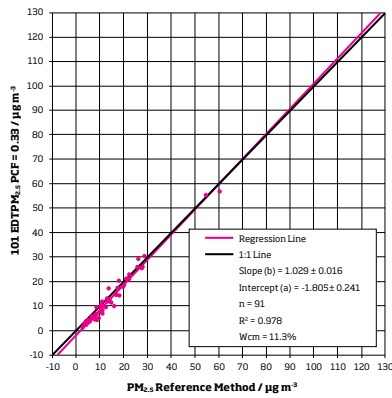


\*See [tsi.com](http://tsi.com) for full list of compatible 3rd party sensors

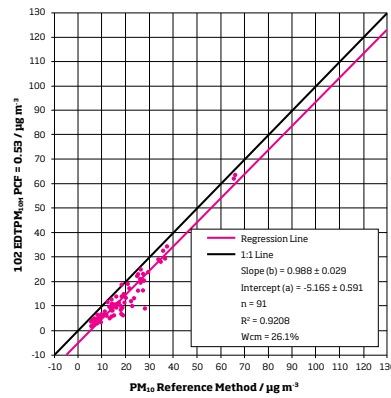


# PROVEN TO PERFORM

TSI DustTrak™ Environmental Monitors are certified compliant for use by the UK Environment Agency. The compliance testing has been carried by the MCERTS certification scheme which is administered by the international CSA Group. Conformity testing was undertaken by Bureau Veritas by co-locating the DustTraks with reference instruments SEQ 47/50 manufactured and supplied by Sven Leckel GmbH. These results show how accurate the DustTrak monitors are, almost 98% against the reference method.



**EDTPM2.5M**  
EDTPM2.5M (PCF = 0.33) versus the PM2.5 SEQ 47/50 Reference Method - Comparison of 24 hour averages



**EDTPM10M**  
EDTPM10M (PCF = 0.53) versus the PM10 SEQ 47/50 Reference Method - Comparison of 24 hour averages

TSI DustTrak is the only MCERTS certified dust monitor that is capable of simultaneously measuring both PM10 and PM2.5 within its category. It's also the only MCERTS monitor that can handle high dust concentrations of up to 10,000ug/m³ at an air sample rate of 3 L/PM\*.

\*MCERTS Certified Products: Indicative Ambient Particulate Monitors <https://www.csagroupuk.org>



# TSI SUPPORT

TSI offers a wide range of service products to suit your specific needs. There is a choice of optional extended warranties available with any purchase of a DustTrak™ Environmental product. The 'Bumper-to-Bumper' warranty includes an annual clean and calibration, plus replacement of consumable parts including filters. All repairs are included throughout the duration of the extended warranty for added peace of mind.

We also offer training and support on how to check your instrument and carry out a routine on-site service as well as troubleshooting.

With a dedicated telephone technical support team, any help or advice for our range of DustTrak Environmental products is just a call away.



UNDERSTANDING, ACCELERATED

**TSI Incorporated** - Visit our website [www.tsi.com](http://www.tsi.com) for more information.

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