



Prevention Engineering for Dust Related Industrial Diseases

Once you can measure, you can manage.



Real-time Personal Dust Monitoring

Dust is one of the biggest workplace health issues. In many industries workers can be exposed to high levels of dust causing breathing problems that could lead to life threatening respiratory diseases. Most serious occupational lung diseases are caused by repeated exposure to often invisible dust.

The good news is, recent advances in particulate monitoring technologies mean that it is now possible to cost effectively gather data regularly on the volume of dust your employees are exposed to. Armed with this data, you can intelligently assess if your risk assessments were valid and control measures are effective.

Reactec are collaborating with Trolex, a specialist in dust monitoring, to integrate their sensor technology into the Reactec eco-system to simplify dust monitoring and turn it into informed control of a serious workplace health risk.

Detecting real-life exposure is the first step towards prevention.

How it works

The Trolex **XKD1+** integrated into the Reactec Ecosystem using the Reactec RASOR as an IoT Gateway to Reactec's powerful Analytics software. There are two modes of working for the **XKD1+** with RASOR.

- 1** One to One – where the RASOR accompanies a worker wearing the **XKD1+**. Assign a RASOR device to a worker and pair their RASOR device with their **XKD1+** to personalize all data collected. The dust monitoring data will then be enriched with the RASOR's GPS location information and be provided live for you to view online. If the worker is also assigned a Reactec R-Link during monitoring there will be a precise overlay of noise and vibration and where it took place – live.
- 2** One to Many – The RASOR remains at a fixed location within a powered charger in "hub" mode. A single RASOR device can then be used to allocate an unlimited number of **XKD1+** devices to individual workers, again personalizing the collected data. The monitored dust data will be transmitted to the online Analytics at the end of the working day when the **XKD1+** is returned for de-allocation or whenever **XKD1+** comes within 30m of the RASOR.

Trolex **XKD1+**

If you have determined your hazard, the **XKD1+** gives you the data to be certain that your recognised hazard is under control.

- Accurate, flexible, reliable
- Real-time, particulate sampling made simple
- Instant alarms for fully customizable STEL and TWA measurements for PM1, PM2.5, PM4.25 and PM10
- Almost zero maintenance

An automatic self-test routine and a maintenance cycle of around 2 minutes every 3 months. That's it. No return to base servicing, or complicated set-up, cleaning or calibration routines.



XKD1+

**PERSONAL
DUST
MONITOR**

XXD1+



Automatically Collect

At the end of the working day, the RASOR seamlessly sends data securely to the Reactec Analytics.



Automatically Share

Flexible, scalable management of GDPR compliant personal data. Intuitive reports automatically distributed to appropriate duty holders.

Engineer Preventions

Identify from intuitive reports interventions and control measures to prevent future occurrence. Track effectiveness and evidence activities.

Live Data

Send live data from the field to the Reactec Analytics. Allow supervisors to make immediate interventions.



Inform & Protect

Assign to individuals daily. Personalised alerts received on exposure levels.

Personal dust monitoring to put you in control

With the XXD1+ and Reactec, dust monitoring can be integrated into a single analytics platform of multiple workplace risks - the Reactec Analytics.

This results in a more convenient and accessible way to monitor, measure and control occupational dust exposure, ensuring your workers aren't exposed to hazardous levels that could damage their health.

Gain an unprecedented perspective of workplace risk with Reactec's ability to overlay a range of workplace risk data.

Using a dust monitor with Reactec Analytics includes:

Effectiveness of Controls:

- Remove guesswork with real-time assessment of risk
- Identify the source of exposure and prioritise high risk areas
- Tailored risk reports. Review controls and assess effectiveness

Efficient Risk Management:

- Automatic and seamless data analysis
- Automatic stakeholder engagement
- GDPR compliant management of personal data
- Integrated records of controls and acknowledged interventions

We believe that risks can be better managed when they are measured. For over 20 years, we have seen our clients deliver best in class compliance through evidenced effective control and reduction of their workplace health risks.

Make a difference and become a prevention engineer.

