

**LET'S GET
REAL**



**AIR XKS
SILICA MONITOR**

REAL-TIME RCS DETECTION. IT'S HERE.

For the first time in history, putting an end to silicosis caused by the inhalation of silica particulates in the workplace has become a realistic possibility.

The Air XS Silica Monitor, produced by Trolex with the support of the Centre for Work Health and Safety, delivers highly accurate, continuous, real-time silica detection, giving you all the data you need to protect your workforce, improve your processes, reduce costs and ensure that you not only comply with regulations – but that you can prove it as well.

It's time for everybody to step up and protect their best assets – their people – from harm. As of now silicosis is a fully preventable disease.

So, let's get real about ending silicosis forever.



WE BELIEVE IN KEEPING IT SIMPLE...

Which is why the Air XS starts monitoring for respirable crystalline silica (RCS) within a few seconds of powering up, and why it typically needs only a couple of minutes of maintenance time a month.

No complicated start-up routines, cleaning procedures or 12-step calibration programmes,

and no return-to-base servicing requirements or waiting on laboratory results.

Just real-time, accurate results when and where you need them.



➤ Real time, all the time

Air XS gives you 24-hours a day, real-time information about silica levels on-screen and in greater depth through the Breathe XS software, allowing you to respond instantly to changing levels of dangerous particulates.



➤ Data to make a real change

User-selectable rolling averages across 15 minute, 1, 4, 8, and 12-hour periods, as well as custom alarm levels. Instant visualisation of trends and incidents through Breathe XS software allowing you to clearly understand your RCS problem and how to mitigate it.



➤ Almost zero maintenance

All you need is the Compliance Pack S from Trolex and typically a minute every month to maintain your Air XS. That's it. Real time for the real world.

Go to www.trolex.com/product/air-xs to see the compliance routine in action.



➤ Held to a higher standard

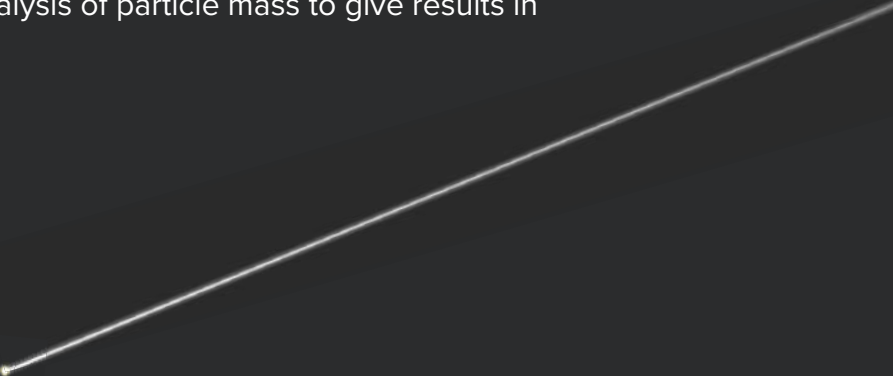
At Trolex, we like to hold ourselves and our products to a higher standard. Which is why all our tests are verified by independent authorities, and our accuracy figures are stated in comparison to laboratory-grade certified-accurate benchmark materials. For more information, go to www.trolex.com/product/air-xs.

PIONEERING TECHNOLOGY MADE SIMPLE.

Air XS examines multiple detection parameters for RCS in real time, including size, symmetry, and a series of optical markers unique to RCS particles.

It simultaneously deploys Optical Refraction Technology (ORT) with light-scatter photometry, analysing every particle sampled and classifying them by their identifiable optical properties. In this way, Air XS captures all forms of RCS whether alpha or beta quartz, cristobalite, or tridymite, and all relevant sizes of particulate within the respiratory fraction.

This information is then combined with analysis of particle mass to give results in mg/m^3 and particles per litre.



“The Trolex Air XS is simple to install and use. The mobility of the unit allows us to gather information from right across our site for a variety of products. Having the flexibility of viewing information in real time next to the plant has helped with both employee and management engagement regarding RCS exposure.

The information that the Trolex Air XS produces has been invaluable in managing our air extraction system across our site. It helps us make informed decisions to ensure that we continue to decrease our employees’ exposure to RCS. It also allows the business to make instant decisions based on the data to ensure everyone is protected and that we invest in the right areas.”

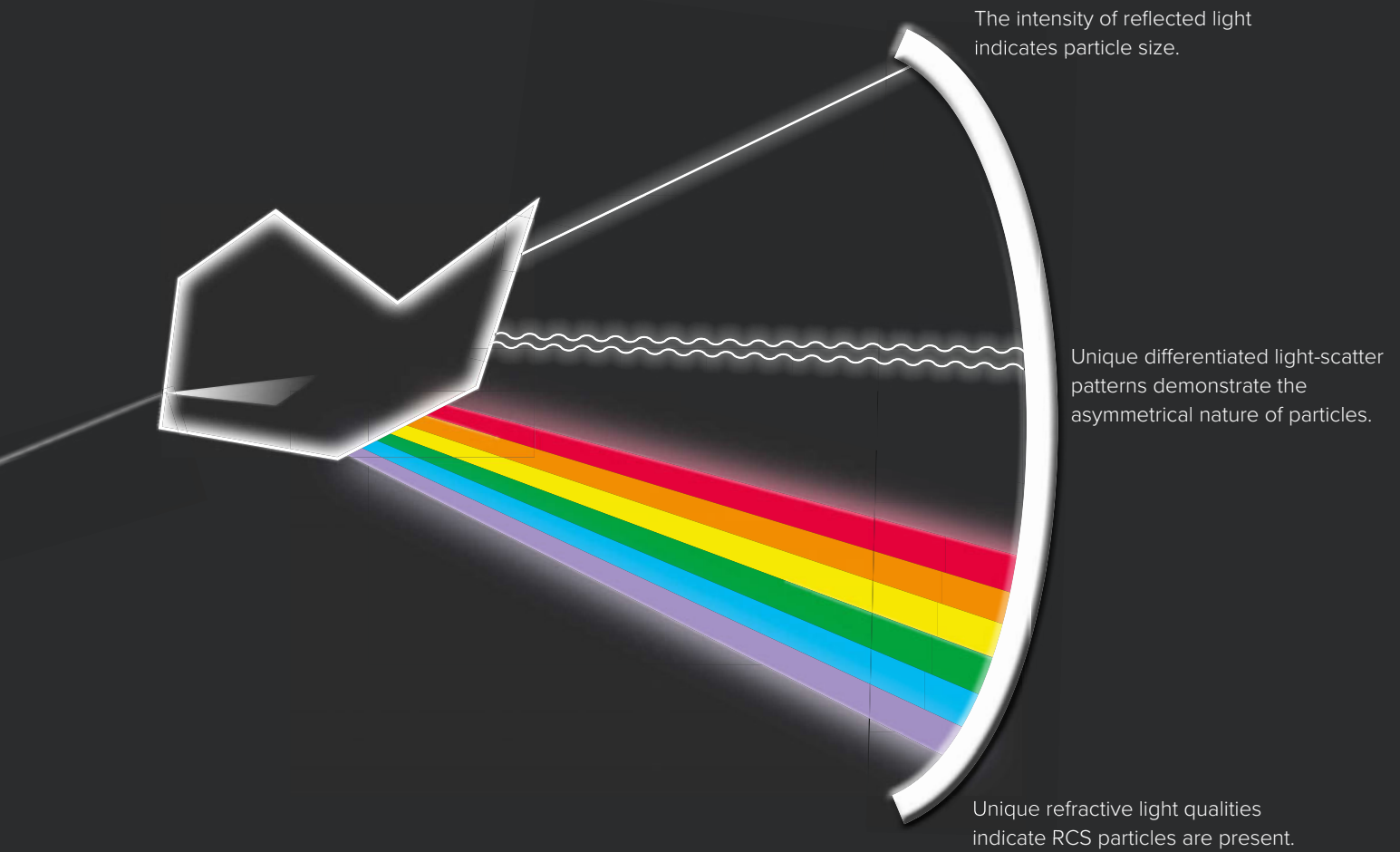
Mike Thompson | QHSE Supervisor | Pennine Aggregates Ltd.

Air XS Advocate.

“The benefit of real-time RCS monitoring for us is ensuring that all our controls are working at their highest level to ensure the safety of our workers and contractors [...] and when we make capital expenditure decisions, we can ensure we target the expenditure on the things that will have the biggest effect on RCS control.”

Aurelien Colas | Unit Manager | Hanson Heidelberg Cement Group.

Air XS Advocate.



Our Breathe⁺ high-speed scatter/sizing/crystallinity detection algorithm processes the results in real time and triggers a triple-voting system that positively identifies and distinguishes harmful silica content.

The result: accurate, robust, real-time reporting in an easy to use and easy to maintain product.

ACCESSORIES



Air XS Transportable Pack

For use in remote locations, or where power is not available, the lightweight Air XS Transportable Pack powers up your Air XS 24-hours a day without interruption. Featuring our unique twin-battery system with built-in prioritisation (the system automatically switches to the battery with power available), the Air XS Transportable Pack allows you to swap out and recharge batteries quickly and easily without interruption to your work, and without ever powering down.

Mounted on a high-quality tripod and powered by dual lithium-ion batteries, with a typical run cycle of 30 hours per battery. The standard Air XS can be converted into transportable mode in about 20 minutes.

Compliance Audit Pack S

A single, easy-to-use pack for all your service, audit, compliance, and QA needs and to verify your Air XS in-situ. All you need is a couple of minutes, typically every month to ensure your Air XS is compliant, fully functional, and ready for use. That's it.

No complicated set-up or calibration routines, no return-to-base servicing, and no fuss.

Just Compliance Pack S and a minute of your time.

Contains the Trolex-approved Compliance Audit dust samples, along with the particulate delivery system with hood, and swap-out filters for 12 compliance audits.



Breathe XS software

Our dedicated Breathe software for Air XS is a clear, easy-to-navigate, easy-to-use platform for storing, viewing, and accessing all of your RCS data.

It provides you with event logging, Approved Audit Certification, and QA verification when required as well as instant alert messaging.

Air XS units can be controlled either in-field using the on-device buttons or using the Breathe XS software, giving you maximum flexibility and accessibility.

12-month warranty

All Air XS products and accessories come with a 12-month warranty.

You must conduct your minimum monthly compliance check using the Compliance Pack S to maintain your warranty.

SPECIFICATION

Particulate sensing parameters

Sensing technology	Optical Refraction Technology (ORT) Light-Scatter Photometer (OPC)
Particulate measurement	Target RCS identification range 1µm – 10µm
Max. typical dust loading*	150mg/m ³
Continuous range	25mg/m ³
Displayed data	RCS mg/m ³ Total particles/litre
Resolution	1,000 th of a mg
Averaging period	15 minutes, 1, 4, 8 and 12 hours
Sampling interval	1 – 60 seconds
Particle count	>600 particles/second
Total airflow rate	~1.5L/m (nominal)
Typical RCS accuracy	+/- 25%

*The instrument can define particulate measurement peak trends up to the quantity specified.

Note: Sustained exposure to dust quantities above 25 mg/m³ will be logged; however, it may affect the operating life of the Air XS sensor.

As applications of use are outside our control, the information provided is given without legal responsibility. Customers should test under their own conditions to ensure that the unit is suitable for their requirements.

Technical specification

Operating temperature	-10°C to +45°C
Humidity	0 – 95% RH (non-condensing)
Housing material	PC/ABS – stainless steel
Ingress protection	Main enclosure: IP65 Particle flow path, cap open: IP42
Weight	8.2kg
Cable entries	3x M20 with removable blanks 1x M20 breather gland 1x M20 USB connector
Nominal power supply	100V to 240V AC 50/60Hz 9 to 18V DC
Power consumption	15W
Communications	RS485 data output with MODBUS RTU protocol Ethernet (MODBUS TCP/IP) - Not yet implemented
External power output	15V 1A for powering external devices (e.g., 4G modem) 3V3 1A
Connectivity	Troxel Breathe XS PC/Mac application
Data download	External USB interface
Instrument data storage	6GB
User interface	128x64 dot matrix display with RGB backlight Navigation keypad (Membrane)
Visual alarms	Custom alarm set points Latching/non-latching
Indicators	1x Green High Brightness LED – Sensor heartbeat 1x Blue High Brightness LED – Communications
Self-test routine	Sensor hardware, circuitry, and communications on ‘power on’ manual self-test during use
Certification	CE compliant

Go to www.troxel.com/product/air-xs to read the full Air XS Silica Monitor User Manual.

At Trolex, we save lives.

We believe that no person should risk their life to earn a living.

Our aim is to become the world's leading name in health and safety technology, through pioneering products that provide real-world benefits to our customers, whenever workers operate in hazardous environments.

For more information about Trolex, please contact us at:

Enquiries

Sales@accutroninstruments.com

Telephone

+1 705 682 0814

Website

www.accutroninstruments.com



Accutron Instruments

11 Mary Street
Sudbury, Ontario
P3C 1B4 Canada



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